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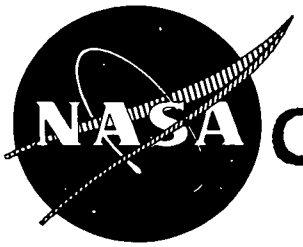

SINGLE-STAGE EXPERIMENTAL EVALUATION OF TANDEM-AIRFOIL ROTOR AND STATOR BLADING FOR COMPRESSORS

PART IV - DATA AND PERFORMANCE FOR STAGE B

by J. A. Brent and J. G. Cheatham

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16. Abstract

Stage B, composed of tandem-airfoil Rotor B and Stator B, was tested with uniform inlet flow and with hub radial, tip radial and 90 degree one-per-revolution circumferential distortion of the inlet flow as part of an overall program to evaluate the effectiveness of tandem airfoils for increasing the design point loading capability and stable operating range of rotor and stator blading. The results of this series of tests provide overall performance and blade element data for evaluating: (1) the potential of tandem blading for extending the loading limit and stable operating range of a stage representative of a middle stage of an advanced high pressure compressor, (2) the effect of loading split between the two airfoils in tandem on the performance of tandem blading, and (3) the effects of inlet flow distortion on the stage performance. The rotor had an inlet hub/tip ratio of 0.8 and a design tip velocity of 757 ft/sec. With uniform inlet flow, Rotor B achieved a maximum adiabatic efficiency of 88.4% at design equivalent rotor speed and a pressure ratio of 1.31. The stage maximum adiabatic efficiency at design equivalent rotor speed with uniform inlet flow was 82.5% at a pressure ratio of 1.28. Tip radial and circumferential distortion of the inlet flow caused substantial reductions in surge margin. Tip radial distortion also resulted in reductions in stage pressure ratio and efficiency; whereas, with the exception of the efficiencies at the lower flows, circumferential distortion of the inlet flow had only a small effect on these parameters. The stage performance was only slightly affected by the addition of hub radial distortion of the inlet flow.

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FOREWORD

This report was prepared by the Pratt & Whitney Aircraft Division of United Aircraft Corporation, West Palm Beach, Florida, to present the data and performance for Stage B, which was tested under Contract NAS3-11158, Single-Stage Experimental Evaluation of Tandem-Airfoil Rotor and Stator Blading for Compressors. Mr. Everett E. Bailey, NASA-Lewis Research Center, Fluid System Components Division, was Project Manager.

The requirements of NASA Policy Directive NPD 2220.4 (September 14, 1970) regarding the use of SI Units have been waived in accordance with the provisions of paragraph 5d of that Directive by the Director of Lewis Research Center.

CONTENTS

CONTENTS (Continued)

ILLUSTRATIONS

ILLUSTRATIONS (Continued)

ILLUSTRATIONS (Continued)

ILLUSTRATIONS (Continued)

ILLUSTRATIONS (Continued)

ILLUSTRATIONS (Continued)

ILLUSTRATIONS (Continued)

ILLUSTRATIONS (Continued)

ILLUSTRATIONS (Continued)

TABLES

SUMMARY

A single-stage axial flow compressor, having tandem-airfoil blading, was designed and tested with uniform inlet flow and with hub radial, tip radial, and 90-deg one-per-revolution circumferential distortion of the inlet flow. The test results provide performance data for: (1) evaluation of the effects of inlet flow distortion on the stage performance, (2) comparison with data obtained with a stage comprised of conventional single airfoil blading, and (3) comparison with data obtained with another tandem airfoil stage comprised of a tandem rotor with a different loading split between the two airfoils in tandem and the same tandem stator. The leading and trailing edge metal angles for the two tandem rotors and the tandem stator were the same as the corresponding metal angles selected for the conventional single airfoil rotor and stator blading.

The tandem-airfoil blading was composed of two circular arc airfoils positioned one behind the other such that there was an interblade passage whose width was approximately 10% of the individual airfoil chords. The rotor had an inlet hub/tip ratio of 0.8 and a design tip velocity of 757 ft/sec. The stage was designed with zero rotor prewhirl, constant rotor exit total pressure across the span, and axial discharge flow. The specific flow and rotor inlet Mach number were generally consistent with design practice for compressor middle stages; however, the blade loading was appreciably higher.

With uniform inlet flow, overall and blade element performance data were obtained at 50, 70, 90, 100 and 110% of design equivalent rotor speed. At design equivalent rotor speed and flow, the tandem rotor achieved an adiabatic efficiency of 84.0% at a pressure ratio of 1.25 compared with respective design values of 90.8% and 1.32. At the same flow and rotor speed, the tandem stage achieved an adiabatic efficiency of 77.0% at a pressure ratio of 1.24 compared with design values of 85.4% and 1.30. At design equivalent rotor speed, maximum rotor and stage adiabatic efficiencies of 88.4% and 82.5%, respectively, were reached at approximately 90% design equivalent flow.

For both hub radial and tip radial distortion of the inlet flow, overall performance, blade element performance and flow distribution data were obtained at 70, 90 and 100% of design equivalent rotor speed. For circumferential distortion of the inlet flow, overall performance data were obtained at 70, 90 and 100% of design equivalent rotor speed. Flow distribution data were also obtained with circumferential distortion of the inlet flow for two operating points (defined as a combination of flow and speed) at design equivalent rotor speed and one operating point at 90% design equivalent rotor speed.

Tip radial and circumferential distortion of the inlet flow caused substantial increases in the stage stall flow. For example, at design equivalent rotor speed, the stall flow increased from 86.6 to 94.5 lb/sec with the addition of tip radial distortion and to 90.0 lb/sec with the addition of circumferential distortion. Tip radial distortion of the inlet flow also resulted in a reduction of from 3 to 5 percentage points in the peak adiabatic efficiency over the range of rotor speeds and flows at which data were recorded and a reduction of the stage pressure ratio over the entire flow range at 90 and 100% design equivalent rotor speed. Whereas, with the exception of the lower flows, circumferential distortion of the inlet flow had only a small effect on stage efficiency and pressure ratio. The stage performance was only slightly affected by the addition of hub radial distortion of the inlet flow.

INTRODUCTION

Advanced aircraft turbine engine propulsion systems will require lightweight, highly loaded axial flow compressors capable of achieving high efficiency over a wide range of operating conditions. Axial flow blower experience has indicated that tandem blading can be successfully employed to extend the efficient operating range of compressors. In 1955, H. E. Sheets (Reference 1) reported excellent efficiencies for a highly loaded axial flow blower having a tandem-blade rotor. Favorable results were also reported by H. Linnemann (Reference 2) based on a series of axial flow blower tests involving both tandem-blade rotors and stators. The results for the tandem blading indicated a better efficiency at a higher pressure ratio than that achieved with equivalent conventional blading.

In principle, tandem blading offers improved performance over conventional blading by distributing the overall blade row aerodynamic loading between the airfoils in tandem. The front airfoil may also provide control of the inlet air angle to the rear airfoil at off-design conditions, which should reduce the overall total pressure loss and possibly delay wall stall.

The first objective of this program is to investigate the potential of tandem blading for extending the loading limit and stable operating range of a stage representative of a middle stage of an advanced high pressure compressor. The second objective is to determine the effect, if any, of loading split on the performance of tandem blading. A conventional rotor and stator, two dual-airfoil tandem rotors with differing loading splits, and a dual-airfoil tandem stator were designed and tested. This report presents the data and performance obtained with Stage B, which was composed of tandem Rotor B and tandem Stator B. Rotor B was designed to have a 20%-80% loading split between the two airfoils in tandem and Stator B was designed with decreased loading on the front airfoil and increased loading on the rear airfoil. A discussion of the aerodynamic and mechanical design of the conventional single airfoil stage and the tandem airfoil configurations is presented in Reference 3. The overall and blade element performance for the conventional single airfoil blading and the second tandem stage, comprised of tandem Rotor C and tandem Stator B, are given in References 4 and 5, respectively. Rotor C was designed to have an equal loading split between the two airfoils in tandem.

DESIGN SUMMARY

Blading Design

Stage B was designed with zero rotor prewhirl, constant rotor exit total pressure across the span, axial discharge flow, and high blade loadings. A rotor tip inlet Mach number of approximately 0.8 and a specific flow of 33 $lb/sec\text{-}ft^2$ were selected to be generally representative of current design practice for compressor middle stages.

To ensure a valid comparison between the conventional baseline Stage A and the tandem-blade stages, the design velocity diagrams selected for the conventional rotor and stator blading were used in the design of the tandem blading. The design velocity diagrams were calculated by means of a computer program that

solves the continuity, energy, and radial equilibrium equations for an axisymmetric flow field. Radial gradients of enthalpy and entropy were included in the calculation, and the influence of wall and streamline curvature on the radial distribution of static pressure were taken into account.

Circular arc airfoil sections were selected for the rotor and stator blading to be consistent with studies being conducted by NASA-Lewis Research Center (Reference 6). To ensure interchangeability with Stage A, radial distributions of overall axial chord for the tandem blading were maintained equal to the distributions selected for the Stage A blading. To minimize the number of variables to be investigated in the selection of Stage B metal geometry, the individual airfoil maximum thickness-to-chord ratio for each of the tandem-blade airfoils was maintained equal to the corresponding values selected for the Stage A blading. The individual airfoil chords for the tandem blades were arbitrarily set equal. The rotor camber angles were selected to provide a 20%-80% loading split between the front and rear airfoils. Loading was defined as the tangential lift produced by the airfoil. Therefore, a 20%-80% loading split means that 20% of the overall tangential lift would be produced by the front airfoil. The stator camber angles were selected to provide a maximum differential in lift between the front and rear airfoils without exceeding a maximum suction surface-to-exit velocity ratio of 1.8 on the rear airfoil. The individual airfoils for both the rotor and stator were positioned so that:

1. The leading edge metal angle of the front airfoil and the trailing edge metal angle for the rear airfoil were equal to the leading and trailing edge metal angles, respectively, selected for Stage A.

2. There was zero axial overlap of the front and rear airfoils.

3. The passage width between the airfoils was approximately 10% of the front airfoil chord.

4. The passage between the airfoils would be slightly convergent (inlet-to-exit area ratio slightly greater than one).

Details of the Stage B blading aerodynamic and mechanical design are presented in Reference 3.

Design velocity diagram data, blade element geometry data, and design performance are presented in table I and table II for the rotor and stator, respectively. Symbols and performance variables are defined in Appendix C.

TEST EQUIPMENT

Compressor Test Facility

A schematic of the compressor test facility is shown in figure 1. The compressor is driven by a single-stage turbine, powered by exhaust gases from a J75 slave engine, with compressor speed controlled by means of the engine throttle. Air enters the compressor through a 103-ft combined inlet duct, plenum, and bellmouth inlet, and is exhausted through an exit diffuser to the atmosphere.

Table I. Tandem Rotor B Blade Element Design

VELOCITY DIAGRAM DATA

Equivalent Rotor Speed = 4210 rpm Equivalent Weight Flow = 110 lb/sec

	Percent Span From Tip											
	Leading Edge	Trailing Edge	V'_{1e} (ft/sec)	V_{z1e} (ft/sec)	$V'_{\theta 1e}$ (ft/sec)	β'_{1e} (deg)	U_{1e} (ft/sec)	V'_{te} (ft/sec)	V_{zte} (ft/sec)	$V'_{\theta te}$ (ft/sec)	β'_{te} (deg)	U_{te} (ft/sec)
Hub	96.5	95.0	778.0	484.5	608.8	51.49	608.8	483.8	463.4	138.9	16.69	610.5
	91.5	90.0	784.0	484.4	616.5	51.84	616.5	492.2	467.0	155.5	18.42	617.6
	86.4	85.0	790.1	484.3	624.2	52.19	624.2	500.2	469.8	171.6	20.07	624.7
	70.9	70.0	808.5	483.8	647.8	53.24	647.8	523.3	476.7	215.9	24.36	645.9
	50.0	50.0	833.5	482.6	679.6	54.62	679.6	548.2	480.2	264.3	28.83	674.2
	29.1	30.0	858.7	480.8	711.5	55.95	711.5	562.1	474.0	302.2	32.53	702.6
	13.6	15.0	877.4	479.0	735.1	56.91	735.1	566.1	463.1	325.6	35.11	723.8
	8.5	10.0	883.5	478.4	742.8	57.22	742.8	566.0	458.6	331.8	35.88	730.9
Tip	3.5	5.0	889.6	477.7	750.5	57.52	750.5	565.0	453.8	336.6	36.56	738.0

DESIGN PERFORMANCE DATA

Rotor Pressure Ratio: 1.3188 Adiabatic Efficiency: 90.8%

	Percent Span From Tip									
	Leading Edge	Trailing Edge	M'_{1e} (ft/sec)	i_m (deg)	D	$\frac{-'}{\omega}$	Loss Parameter	δ° (deg)	P_{te} (psf)	T_{te} (°R)
Hub	96.5	95.0	0.7102	-0.354	0.5533	0.11341	0.03154	8.937	2789.1	566.63
	91.5	90.0	0.7152	-0.439	0.5447	0.10314	0.02876	9.121	2789.2	566.20
	86.4	85.0	0.7212	-0.499	0.5370	0.09446	0.02637	9.149	2788.7	565.81
	70.9	70.0	0.7380	-0.813	0.5171	0.07363	0.02067	8.665	2788.9	565.94
	50.0	50.0	0.7608	-1.430	0.5028	0.06131	0.01732	8.164	2792.9	564.71
	29.1	30.0	0.7836	-2.078	0.5057	0.07348	0.02085	7.709	2792.8	565.53
	13.6	15.0	0.8005	-2.485	0.5167	0.09534	0.02713	7.635	2788.8	566.69
	8.5	10.0	0.8061	-2.606	0.5224	0.10505	0.02988	7.831	2788.2	567.28
Tip	3.5	5.0	0.8116	-3.076	0.5296	0.11647	0.03318	7.778	2788.3	568.04

GEOMETRY DATA

Airfoils: Circular Arc Number of Blades: 70 Chord Lengths: 1.45 in.

	Percent Span From Tip		Front Airfoil				Rear Airfoil				Each Airfoil	
	Front Body Leading Edge	Rear Body Trailing Edge	κ'_{1e} (deg)	κ'_{te} (deg)	ϕ (deg)	γ° (deg)	κ'_{1e} (deg)	κ'_{te} (deg)	ϕ (deg)	γ° (deg)	σ	t/c
Hub	96.5	95.0	51.84	43.24	8.6	47.55	45.25	7.75	37.50	26.50	0.9721	0.0783
	91.5	90.0	52.28	44.53	7.75	48.36	47.25	9.30	37.95	28.30	0.9610	0.0763
	86.4	85.0	52.69	45.49	7.20	49.08	48.86	10.92	37.94	29.95	0.9495	0.0743
	70.9	70.0	54.06	47.50	6.56	50.88	52.00	15.70	36.30	33.70	0.9150	0.0682
	50.0	50.0	56.05	49.45	6.60	52.77	54.17	20.67	33.50	37.42	0.8751	0.0600
	29.1	30.0	58.03	50.95	7.08	54.47	55.03	24.82	30.21	40.45	0.8385	0.0518
	13.6	15.0	59.40	51.52	7.88	55.61	55.28	27.48	27.80	41.65	0.8125	0.0457
	8.5	10.0	59.83	51.60	8.23	55.98	55.29	28.05	27.24	41.90	0.8045	0.0437
Tip	3.5	5.0	60.60	52.00	8.60	56.29	55.28	28.78	26.50	42.03	0.7962	0.0417

Table II. Tandem Stator B Blade Element Design

VELOCITY DIAGRAM DATA

Equivalent Rotor Speed = 4210 rpm Equivalent Weight Flow = 110 lb/sec

	Percent Span From Tip									
	Leading Edge	Trailing Edge	V_{le} (ft/sec)	V_{zle} (ft/sec)	$V_{\theta le}$ (ft/sec)	β_{le} (deg)	V_{te} (ft/sec)	V_{zte} (ft/sec)	$V_{\theta te}$ (ft/sec)	β_{te} (deg)
Hub	95.0	95.0	667.2	471.9	471.7	44.99	480.0	480.0	0.0	0.0
	90.0	90.1	663.0	475.4	462.2	44.20	481.9	481.9	0.0	0.0
	85.0	85.2	658.9	478.2	453.3	43.47	483.6	483.6	0.0	0.0
	70.0	70.1	648.6	485.1	430.5	41.58	488.8	488.8	0.0	0.0
	50.0	50.0	638.6	489.2	410.5	40.00	494.4	494.4	0.0	0.0
	30.0	29.8	628.6	483.9	401.1	39.66	494.7	494.6	0.0	0.0
	15.0	14.8	619.8	474.1	399.2	40.09	492.2	492.0	0.0	0.0
	10.0	9.9	617.4	470.1	400.2	40.40	491.4	491.2	0.0	0.0
Tip	5.0	4.9	615.6	465.8	402.5	40.84	491.2	491.0	0.0	0.0

DESIGN PERFORMANCE DATA

Stage Pressure Ratio: 1.2982 Adiabatic Efficiency: 85.4%

	Percent Span From Tip								
	Leading Edge	Trailing Edge	M_{le}	i_m (deg)	D	$\bar{\omega}$	Loss Parameter	δ° (deg)	P_{te} (psf)
Hub	95.0	95.0	0.5915	-1.982	0.5183	0.09619	0.03242	13.031	2732.5
	90.0	90.1	0.5878	-2.003	0.5106	0.09171	0.03125	12.854	2735.8
	85.0	85.2	0.5840	-2.001	0.5035	0.08721	0.03004	12.734	2738.5
	70.0	70.1	0.5747	-2.086	0.4840	0.07636	0.02717	12.334	2746.1
	50.0	50.0	0.5655	-2.228	0.4672	0.07100	0.02634	12.120	2754.1
	30.0	29.8	0.5556	-2.697	0.4649	0.07570	0.02926	12.708	2752.7
	15.0	14.8	0.5468	-3.211	0.4695	0.08253	0.03276	13.510	2746.4
	10.0	9.9	0.5442	-3.450	0.4722	0.08632	0.03457	13.808	2744.2
Tip	5.0	4.9	0.5422	-3.619	0.4755	0.08920	0.03603	14.152	2743.2

GEOMETRY DATA

Airfoils: Circular Arc Number of Vanes: 66 Chord Lengths: 1.30 in.

	Percent Span From Tip		Front Airfoil				Chord Airfoil				Each Airfoil	
	Front Body Leading Edge	Rear Body Trailing Edge	κ_{le} (deg)	κ_{te} (deg)	ϕ (deg)	γ° (deg)	κ_{le} (deg)	κ_{te} (deg)	ϕ (deg)	γ° (deg)	σ	t/c
Hub	95.0	95.0	46.97	34.97	12.00	40.97	39.37	-13.03	53.00	13.22	0.822	0.09
	90.0	90.1	46.19	34.64	11.55	40.45	39.50	-12.85	52.35	13.00	0.813	0.09
	85.0	85.2	45.51	34.27	11.24	39.95	39.10	-12.55	51.65	13.00	0.804	0.09
	70.0	70.1	43.77	33.27	10.50	38.55	38.40	-12.10	50.50	13.00	0.778	0.09
	50.0	50.0	42.23	32.23	10.00	37.23	37.88	-12.12	50.00	12.88	0.747	0.09
	30.0	29.8	42.35	31.90	10.45	37.00	37.60	-12.60	50.20	12.50	0.718	0.09
	15.0	14.8	43.40	32.20	11.20	37.70	38.00	-13.50	51.50	12.05	0.698	0.09
	10.0	9.9	43.90	32.35	11.55	38.05	38.15	-13.90	52.05	12.05	0.692	0.09
Tip	5.0	4.9	44.45	32.45	12.00	38.50	38.90	-14.10	53.00	12.40	0.685	0.09

The inlet duct contains a flow measuring orifice designed and installed in accordance with ASME standards. The area contraction ratio from plenum to compressor inlet is approximately 10 to 1.

Compressor Test Rig

A schematic of the compressor test rig is shown in figure 2. The flowpath dimensions are shown in figure 3. The hub/tip ratio at the rotor inlet is 0.798. The test section has a constant hub diameter of 32.85 in. and the outer wall converges from a diameter of 41.15 in. at the rotor leading edge to 39.99 in. at the stator trailing edge. Rotor bearing loads are transmitted to the rig support through struts located in the inlet and exhaust case assemblies. The inlet struts are sufficiently far upstream so their wakes are dissipated ahead of the rotor. The stage design specifications of zero rotor prewhirl and axial discharge flow eliminated the need for inlet and exit guide vanes. Flowrate and/or backpressure were varied with a set of motor driven throttle vanes located in the exhaust case.

Distortion Screens

Twenty-mesh, 0.020-in. diameter wire was used for the distortion screens (i.e., tip radial, hub radial and circumferential). The tip and hub radial distortion screens covered 35 and 40% of the inlet annulus area respectively, and the circumferential screen covered a 90 deg sector of the inlet annulus area. The distortion screens were mounted on a 1.0-in. mesh 0.125-in. diameter wire support screen located approximately one rotor radius upstream of the rotor leading edge. The support screen, which spanned the entire annulus, was installed for all of the Stage B tests.

Instrumentation

Instrumentation was provided to obtain overall and blade element performance data for each blade or vane row. The locations of axial instrumentation stations are indicated in figure 3. Axial and circumferential locations of the instrumentation are shown in figure 4. Dual instrumentation was provided at each axial station (1) to provide a redundant set of measurements during the uniform and radially distorted inlet flow testing and (2) to provide measurements within and outside of the distorted region during the circumferential distortion testing.

Airflow was measured with an ASME standard thin-plate orifice located in the compressor facility inlet duct. Compressor rotor speed was measured with an electromagnetic sensor mounted adjacent to a 60-tooth gear on the rotor shaft. Gear tooth passing frequency was displayed as rpm on a digital counter. Rotor rpm was also recorded on magnetic tape. Inlet total temperature was measured in the inlet plenum by means of six half-shielded total temperature probes; inlet total pressure was measured in the plenum by means of five Kiel-type total pressure probes. Six equally spaced static pressure taps were located on both the inner and outer walls at instrumentation Station 0.

Radial distribution of static pressure at the rotor inlet and exit and at the stator exit were measured by means of 8-degree wedge probes (figure 5). Four inner wall and four outer wall static pressure taps, approximately equally spaced, were located at each of these stations. The rotor exit (i.e., stator inlet) and stator exit instrumentation stations also had four inner and four outer wall taps installed across a vane gap to measure the static pressure variation across

the gap. Eleven static pressure taps were located over the rotor blade tips on the outer wall, between -10% and 101% tandem rotor axial chord, to measure the rotor tip static pressures. Midspan stator surface static pressure distributions were measured with eight pressure taps located from approximately 15 to 85% chord on each surface of the front and rear airfoils. The eight pressure taps on each surface were installed on the same airfoil and a different stator vane was used for each group of eight pressure taps, i.e., a total of four stators. The four stators were positioned in the stator assembly such that at least one uninstrumented vane separated those with static taps. The circumferential location of each instrumented airfoil and the location of the pressure taps in terms of percent overall chord are shown in figure 6.

Twenty-degree wedge probes were used to measure the radial distributions of total pressure and flow angle at the rotor inlet and exit, and flow angle at the stator exit (figure 7). Stator exit total pressure and temperature across a stator gap were measured at each of two circumferential locations by means of circumferentially traversed radial rakes with elements at nine radial positions (figure 8). The elements of each radial rake were designed to measure both total pressure and temperature. A fixed radial rake with five Kiel-type total pressure sensors was also installed downstream of the stator for use with the wall static measurements to calculate the freestream Mach number. This Mach number was used to correct the total temperature and the 8-degree wedge static pressure measurements.

As previously stated, dual instrumentation was provided at each axial measuring station to provide measurements within and outside of the distorted regions during the circumferential distortion testing. The dual instrumentation also reduced the number of circumferential distortion screen locations required to obtain a uniform spacing of flow distribution data relative to a reference screen location. Six screen locations resulted in the circumferential distributions (relative to a reference screen location) of data shown in figures 9a, 9b, and 9c for Stations 1, 2, 2A, respectively.

Steady-state pressure data were measured with a multichannel pressure transducer scanning system that includes automatic data recording on computer cards. Steady-state temperature measurements were also automatically recorded on computer cards by a multichannel scanning system in conjunction with a temperature reference oven and a digital voltmeter. Traverse pressure and temperature data and transient pressure data were recorded on magnetic tape at up to 600 samples per minute per channel.

Two static pressure taps located in the plenum, two of the outer wall static pressure taps at Station 0, and a total pressure probe with sensors at 10, 50, and 90% spans at the rotor exit were close-coupled to transducers for transient recording during operation into and out of stall. High-response pressure transducers mounted as total pressure probes at 10, 50, and 90% span from the tip behind the rotor (figure 10) were used to measure high-frequency total pressure oscillations and to indicate the initiation of rotating stall. The high-response transducer output was recorded on magnetic tape and correlated in time with the transient recording of the Station 0 static and the stage exit total pressures.

Five rotor blades were instrumented with strain gages to provide vibratory stress data. The gage outputs were displayed on oscilloscopes and visually monitored during tests. Gage locations were determined by bench vibration tests with the aid of stress-coat and the selected locations were verified by a fatigue test.

PROCEDURES

Test Procedures

Shakedown Tests

A shakedown test was conducted to check out the rig and blade vibration levels, blade stress levels, instrumentation, and data reduction programs. Overall and blade element performance data were obtained for three operating points with uniform inlet flow at 100% design equivalent rotor speed. One stall transient was performed during this test. A second shakedown test was conducted at 100 and 110% design equivalent rotor speed to obtain X-Y plots of the magnitude and extent of the total pressure profile distortion created by 40 and 50% annulus area radial distortion screens mounted at both hub and tip and a 110 deg circumferential distortion screen. Based on the total pressure plots obtained, distortion screens which covered 40% of the hub annulus area, 35% of the tip annulus area, and a 90-deg circumferential segment of the inlet annulus were selected as the test configurations.

Performance Tests

Overall performance, blade element performance, flow distribution and stall transient data were obtained during the uniform inlet flow tests at 50, 70, 90, 100, and 110% of design equivalent rotor speed. Six data points (defined as a combination of flow and speed) were recorded at each speed to define stage performance between maximum obtainable flow and near stall. The near-stall point was determined on the basis of flow and rotor exit pressure. Overall performance, blade element performance and flow distribution data were obtained at 3 flow conditions, including maximum and near-stall flow, at 70, 90, and 100% of design equivalent rotor speed for the hub and tip radial inlet flow distortion tests. For circumferential distortion of the inlet flow, overall performance data were recorded for 3 data points at each of 70, 90, and 100% of design equivalent rotor speed. Flow distribution data were also obtained with circumferential distortion of the inlet flow for two data points at design equivalent rotor speed and one data point at 90% design equivalent rotor speed. To obtain approximately a uniform spacing of flow distribution data around the circumference of the compressor, data were recorded for six screen locations for each of the three data points. The resulting circumferential locations of the instrumentation relative to a reference screen location are shown in figure 9.

At each data point, traverse surveys were followed by the recording of fixed pressure and temperature instrumentation data. Blade stresses were monitored during steady-state and stall transient operation at all rotor speeds.

Transient measurements of bellmouth static pressure, rotor speed, and rotor exit total pressure were recorded ten times per second to define stall characteristics as the stage was operated into and out of stall. The output from a high-response total pressure probe (10, 50, and 90% spans) at the rotor exit was also recorded as the stage was operated into and out of stall and correlated in time with the other transient measurements.

Data Reduction Procedures

Data reduction was accomplished in two steps. The first step involved the use of two computer programs (1) to convert millivolt readings to appropriate engineering units, and (2) to provide a tabulated and plotted array of pressures, temperature, and air angle data at each station. Conversion of data to absolute values, appropriate Mach number corrections, and adjustment of pressures and temperature to equivalent NASA standard day conditions were performed in the second computer program.

The second step in the data reduction procedure involved a computer program to calculate overall and blade element performance variables for the rotor and stator. The array of data provided in step one above was analyzed for the selection of radial distributions of pressures, temperature, and air angle at each axial station for input into the computer program.

Overall Performance

Total pressure ratios and adiabatic efficiencies were calculated for the rotor and the rotor-stator (stage). The rotor and stator exit total pressures and total temperatures were weighted according to local mass flow to obtain average values. The mass-averaged stator exit total temperatures were used for both the rotor and stage efficiency calculations.

The stator wake total pressures and total temperatures at each radial measuring station were mass-averaged using the local total pressure in the wake, the local total temperature in the wake, and the 8-deg wedge probe static pressure. Mach number was determined from the local total and static pressure measurements. The local mass flow was then obtained from the relationship

$$\bar{m} = \frac{W\sqrt{T}}{PA} = \sqrt{\frac{\gamma g_c}{R}} \quad M \left[1 + \frac{\gamma - 1}{2} \quad M^2 \right]^{\frac{1+\gamma}{2(1-\gamma)}}$$

where A is the flow area associated with each radial measurement increment.

For the circumferential distortion data, the mass flow averaged values of total pressure and total temperature measured in and out of the undistorted flow region were weighted according to the circumferential extent of distorted and undistorted flow. It was assumed that the relative extents of distorted and undistorted flow remained the same through each blade row.

Blade Element Performance and Flow Distribution Data

Blade element performance and flow distribution data are presented for each blade row for uniform and radially distorted inlet flow. Performance calculations were made along design streamlines that pass through 5, 10, 15, 30, 50, 70, 85, 90, and 95% span at instrumentation Station 2. The calculations were performed at the instrumentation stations and at the rotor and stator leading and trailing edges. The pressures, temperatures, and air angles at the blade row leading and trailing edges were obtained by translating the measured values from the instrumentation stations assuming conservation of angular momentum, conservation of energy, continuity, and that the actual streamlines do

not deviate substantially from design streamlines for any test point. A description of the translation method is presented in Reference 5. For circumferentially distorted inlet flow, only flow distribution data are presented (i.e., total pressure, total temperature, flow angle, velocity, Mach number and turning) and all data are at the instrumentation stations and not translated to the blade row leading and trailing edges.

Stall Transient Data

Bellmouth static pressure at incipient stall was determined from plots similar to the one shown in figure 11 and the corresponding weight flow was determined from the correlation of bellmouth static pressure and orifice weight flow shown in figure 12. The steady-state pressure ratio data were extrapolated to the stall flow using the shape of the transient data curve as a guide line. Incipient stall points were determined in this manner for each rotor speed.

PRESENTATION OF DATA

Uniform Inlet Flow

Overall Performance

Overall performance data are presented in terms of total pressure ratio and adiabatic efficiency as functions of equivalent weight flow ($W\sqrt{\theta}/\delta$) and equivalent rotor speed ($N/\sqrt{\theta}$) for the rotor in figure 13 and the rotor-stator (stage) in figure 14. The design total pressure ratio and adiabatic efficiency for the rotor were 1.32 and 90.8%, respectively, at a design flow of 110.0 lb/sec. The corresponding design values for the stage were 1.30 and 85.4%. The design point is shown on each figure for comparison with the performance results. The solid symbol on the stall line in figures 13 and 14 is the stall point determined from the transient data. Pressure ratio, adiabatic efficiency and polytropic efficiency for the rotor and stage are also tabulated for the steady-state data points in table A-1 of Appendix A.

Based on a curve faired through the data points, the rotor achieved an adiabatic efficiency of 84% and a total pressure ratio of 1.25 at design equivalent rotor speed and flow. At the same flow and rotor speed the stage achieved an adiabatic efficiency of 77% and a total pressure ratio of 1.24. At design equivalent rotor speed, the rotor and stage achieved adiabatic efficiencies of 88.4 and 82.5%, respectively, at approximately 90% design equivalent flow. Peak efficiencies of 90% and 84% for the rotor and stage, respectively, were reached at 70% design equivalent rotor speed and 63% design equivalent flow.

Blade Element Performance and Flow Distribution Data

As discussed on page 9, the blade element performance and flow distribution data were calculated at the instrumentation stations and at the rotor and stator leading and trailing edges. Results of these calculations are tabulated in tables A-2 and A-3 of Appendix A for each of the nine design streamline locations. Table A-2 is presented to illustrate the small differences at the near design point between values calculated from the data at the instrumentation stations and the values calculated from the data that have been translated to the rotor and stator leading and trailing edges. Because of the small differences between translated

and untranslated values, only the translated values are given in table A-3 for the remaining compressor test points. The plotted results discussed for the rotor and stator in the following paragraphs are based on the translated data.

Rotor Blade Element Performance

Rotor diffusion factor, deviation angle, and loss coefficient are shown as functions of incidence angle in figures 15a through 15i. At the design incidence angle and rotor speed, total pressure losses were less than or equal to the design values from 10 to 70% span from the tip and greater than the design values at 5, 85, 90, and 95% span. Deviation angles were greater than the design values at all percent spans. The diffusion factor at design incidence angle and rotor speed is slightly less than the design value from 5 to 30% span from the tip and approximately equal to the design value for all other spanwise positions.

Loss parameter versus diffusion factor is presented in figures 16a through 16c for 10, 50, and 90% span, respectively. The design curve representing a correlation of the minimum loss data from References 7 through 13 is shown in each figure. The design point is also included in these figures for comparison with the performance data. Although the data from References 7 through 13 are for Series 65 blade sections, the data presented in Reference 14 indicate that a single correlation of loss parameter vs diffusion factor can be used for Series 65 and double-circular-arc blade sections. The range of data in the Reference 14 correlation and the two-dimensional cascade data from figure 149 or Reference 14 are also shown in figures 16a through 16c for comparison with the selected design loss curves. At design equivalent rotor speed, the loss parameter values that correspond to the minimum loss coefficient at 10 and 90% span (figures 15b and 15h, respectively) are above the design curve, with the larger difference occurring at the hub. For similar conditions at 50% span, the loss parameter value is approximately equal to the design curve as shown in figure 16b.

Axial gradients of rotor tip static pressure ratio (p_L/p at -10% axial chord) are shown in figure 17 for each flowrate at design equivalent rotor speed. This figure indicates that the rotor tip loading shifted toward the leading edge of the front body as the compressor was throttled toward stall flow.

Stator Blade Element Performance

Stator diffusion factor, deviation angle and loss coefficient are presented as functions of incidence angle in figures 18a through 18i. Loss coefficient vs incidence angle plots are not presented at 5 and 95% span from the tip because wake total pressure was not recorded at these locations. For design incidence angle, the stator losses are less than design from 15 to 50% span from the tip and equal to or slightly greater than design at 10, 70, 85 and 90% span from the tip. Deviation angles, at design incidence angle, are greater than the design values across the entire span of the vane. Diffusion factors, at design incidence angle, are less than the design value across the entire span of the vane.

Loss parameter vs diffusion factor is shown in figures 19a through 19c for 10, 50 and 90% span, respectively. The design curve representing a correlation of the minimum loss data from References 7 through 13 is shown on each figure. The design point, the range of stator data from Reference 14, and the two-dimensional cascade data from Reference 14 are included in the figures for comparison with the Stator B performance data. For design equivalent rotor speed,

the loss parameter values corresponding to the minimum measured loss coefficients at 10 and 50% span from the tip are considerably lower than the design curves. For similar conditions at 90% span, the loss parameter value corresponding to the minimum measured loss coefficient is above the design curve.

The midspan stator static pressure coefficient distributions, at design equivalent rotor speed, are shown in figures 20a through 20f. Static pressure coefficient distributions for all data points are tabulated in Appendix B. The rear airfoil loading, represented by the area between the rear suction and pressure surface static pressure coefficients, decreased while the front airfoil loading increased as the compressor was throttled toward stall flow. The ability of the tandem-airfoil configuration to control the stator rear-airfoil incidence is suggested by the variations in the shape of the static pressure coefficient distribution for each airfoil. Between the maximum and minimum flowrates at design equivalent rotor speed, the stator front airfoil experienced large variations in the shape of its static pressure coefficient distribution, while the shape of the corresponding distribution for the rear airfoil remained nearly constant.

The wall static pressure data were examined to determine if circumferential gradients with respect to the stator vanes were significant. In general, the variations of static pressure at different circumferential locations (solid symbols in figure 21), at approximately the same location relative to the stator vane, are as large as any variations that may be noted within one stator vane pitch. It was therefore concluded that no significant pitchwise variation was present in these data. Representative curves for two flow conditions at design equivalent rotor speed are presented as figures 21a and 21b.

Hub and Tip Radial Inlet Flow Distortion

Overall performance, blade element performance and flow distribution data were obtained with hub radial and tip radial distortion of the inlet flow. The screens used to produce the distortion are described on page 6. At approximately design equivalent flow, the hub and tip radial distortion screens produced 12.3 and 11.7% total pressure distortion, i.e., $(P_{1\,max} - P_{1\,min})/P_{1\,max}$, over the inner 49 and outer 36% of the compressor annulus area, respectively. Typical rotor inlet total pressure profiles at near design equivalent flow are presented in figure 22.

Overall Performance

Overall performance data obtained with hub radial distortion of the inlet flow are presented in terms of pressure ratio and adiabatic efficiency as functions of equivalent weight flow and equivalent rotor speed for the rotor in figure 23 and the stage in figure 24. Similarly presented in figures 25 and 26, is the overall performance obtained with a tip radial distortion of the inlet flow over the outer 36% of the compressor inlet annulus area. Uniform inlet flow data and the rotor and stage design point are presented in these figures for comparison with the radially distorted inlet flow data. The stall line shown is determined from stall transient data. Pressure ratio, adiabatic efficiency, and polytropic efficiency for the rotor and stage are also tabulated for the steady-state data points with radial distortion in table A-4 of Appendix A.

With hub radial distortion of the inlet flow, rotor pressure ratio and efficiency at 100% design equivalent rotor speed and 110 lb/sec flow were 1.25

and 83%, as compared with 1.25 and 84% for uniform inlet flow. Similarly, stage pressure ratio and efficiency were 1.22 and 74% as compared with 1.24 and 77% with uniform inlet flow. Stall at 70, 90, and 100% design equivalent rotor speed occurred at approximately the same equivalent weight flow as uniform inlet tests for both the rotor and stage. Consequently, the imposed hub radial distortion had only modest effects on rotor and stage performance.

With tip radial distortion of the inlet flow, rotor pressure ratio at 100% design equivalent rotor speed and 110 lb/sec equivalent weight flow, was 1.22, as compared with 1.25 for the uniform inlet flow. Rotor efficiency under the same conditions was 75%, as compared with 86% for uniform inlet flow. The corresponding stage pressure ratio and efficiency were 1.19 and 66%, as compared with 1.24 and 77% for the uniform inlet. Rotor and stage stall flows were approximately 8, 11 and 8 lb/sec higher with tip radially distorted inlet flow than with uniform inlet flow data at 70, 90 and 100% design equivalent rotor speeds, respectively. Consequently, both Rotor B and Stage B were substantially affected by tip radial distortion.

Blade Element Performance and Flow Distribution Data

Blade element performance and flow distribution data with radial distortion were calculated for each of the nine design streamline locations and the results, based on data translated to the blade row leading and trailing edges, were tabulated in tables A-5 and A-6 of Appendix A. Values of loss coefficient for the stator at 5 and 95% span from the tip are not presented because of insufficient instrumentation channels.

Rotor and Stator Blade Element Performance

Diffusion factor, deviation angle and loss coefficient with hub radial and tip radial distortion of the inlet flow are presented as functions of incidence angle in figures 27a through 27i for the rotor and in figures 28a through 28i for the stator. Comparison of the data shown in figures 27 and 28 with the uniform inlet flow data shown in figures 15 and 18 indicates that the rotor and stator deviation angle and loss coefficient distributions with radial distortion are generally equivalent to or are a normal extension of the values obtained with uniform inlet flow. However, comparison of diffusion factor distributions indicates a different level and rate of change of diffusion factor with incidence angle for each inlet flow condition. These variations in diffusion factor may be associated with the calculation technique. Diffusion factor is the only one of the three variables (i.e., $\bar{\omega}$, δ° or D) that would be strongly influenced by not properly accounting for flow shifts through the blade row and, as discussed on page 9, the blade element performance calculations were made along design and not actual streamlines. One might expect larger differences between the actual and design streamlines with radial distortion than with uniform inlet flow. Therefore, the changes in diffusion factor versus incidence curve may be due to the variations in radial flow shifts.

Flow Distribution Data

Radial distribution of total and static pressure, total temperature, air angle, and axial velocity for the rotor inlet, stator inlet and stator exit are presented for hub and tip radial distortion of the inlet flow in figures 29a through 31c and 32a through 34c, respectively. The values for the nine design streamline locations are also tabulated in tables A-5 and A-6 of Appendix A.

A comparison of the flow distribution data shown in figures 29a and 32a for hub and tip distortion, respectively, at design rotor speed and approximately design flow indicates that the tip radial distortion was attenuated to a greater extent than the hub radial distortion. In fact, at this speed and flow with tip radial distortion, the stage exit total pressure and axial velocity are greater at the tip than at the hub. Generally, these results are typical of the results obtained at other rotor speeds and flows.

Circumferential Inlet Flow Distortion

Rotor and stage overall performance were obtained with circumferential distortion of the inlet flow. The screen used to produce the distortion is described on page 6. At approximately design equivalent flow, the screen produced 11.2% total pressure distortion, i.e. $(P_{1\,max} - P_{1\,min})/P_{1\,max}$, over a 90-deg sector of the compressor flow annulus. A typical rotor inlet total pressure distribution is presented in figure 35. The profile at design equivalent flow is not shown because at that flow, pressure data were recorded at only two circumferential locations.

Overall Performance

The rotor and stage overall performance achieved with circumferential distortion of the inlet flow is compared with uniform inlet performance in figures 36 and 37, respectively. The darkened symbols of figures 36 and 37 indicate the data points for which both overall performance and flow distribution data were recorded. Pressure ratio, adiabatic efficiency, and polytropic efficiency for the rotor and stage are also tabulated for the steady-state data points with the circumferential distortion in table A-7 of Appendix A.

With circumferential distortion of the inlet flow, rotor pressure ratio and efficiency at design equivalent rotor speed and flow were 1.23 and 79.5%, as compared with 1.25 and 84% for uniform inlet flow. Similarly, stage pressure ratio and efficiency were 1.22 and 73%, as compared to 1.24 and 77% with a uniform inlet flow. Rotor and stage stall flows were approximately 3.5 and 6.5 lb/sec greater with circumferentially distorted inlet flow than with uniform inlet flow at 100 and 90% design equivalent rotor speed. However, at 70% rotor speed, the stall flow decreased 1.0 lb/sec with the addition of circumferential distortion.

With the exception of 70% design equivalent rotor speed, the peak rotor and stage efficiency with circumferential distortion were within 1.0 percentage point of the values achieved with uniform inlet flow. At 70% design equivalent rotor speed, the peak rotor and stage efficiency with circumferential distortion were approximately 3.0 and 1.5 percentage points lower, respectively, than the values reached with uniform inlet flow.

Flow Distribution Data

Table A-8 of Appendix A presents flow distribution data at the instrumentation stations for circumferential increments of 30 deg around the compressor annulus. Circumferential distributions of total pressure, static pressure, total temperature, air angle and axial velocity for each instrumentation station at the nine design streamline locations are shown in figures 38 through 40. Figures 38 and 39 present the values for the two data points at design equivalent rotor speed

and figure 40 presents the data for the one point at 90% design equivalent rotor speed. The measured variables (i.e., pressure, temperature and air angle) are plotted at the circumferential locations of the measuring instrument relative to the distortion screen, and the axial velocity is plotted at circumferential locations corresponding to the locations of the 20-deg wedge probes relative to the distortion screen. A comparison of the circumferential distributions of total pressure and axial velocity at the rotor inlet with the corresponding values at the stage exit indicates that the tip attenuated the inlet distortion to a larger extent than the hub. This result is consistent with the results obtained with radial distortion of the inlet flow.

SUMMARY REMARKS

Stage B, composed of tandem-airfoil Rotor B and tandem-airfoil Stator B, was tested with uniform inlet flow and with hub radial, tip radial, and 90-deg one-per-revolution circumferential distortion of the inlet flow. The results of these tests provide performance data for: (1) evaluation of the effects of inlet flow distortion on the stage performance, (2) comparison with data obtained with a stage composed of conventional single airfoil blading, and (3) comparison with data obtained with another tandem airfoil stage composed of a tandem rotor with a different loading split between the two airfoils in tandem and the same tandem stator.

With uniform inlet flow at design equivalent rotor speed and flow, the tandem rotor achieved an adiabatic efficiency of 84.0% at a pressure ratio of 1.25, as compared with respective design values of 90.8% and 1.32. At the same flow and rotor speed, the tandem stage achieved an adiabatic efficiency of 77.0% at a pressure ratio of 1.24, as compared with design values of 85.4% and 1.30. At design equivalent rotor speed, maximum rotor and stage adiabatic efficiencies of 88.4% and 82.5%, respectively, were reached at approximately 90% design equivalent flow.

With tip radial and circumferential distortion of the inlet flow, substantial increases in the stage stall flow occurred, i.e., at design equivalent rotor speed, the stall flow increased from 86.6 to 94.5 lb/sec with the addition of tip radial distortion and to 90 lb/sec with the addition of circumferential distortion. Tip radial distortion of the inlet flow also resulted in a reduction of from 3 to 5 percentage points in the peak adiabatic efficiency over the range of rotor speeds and flows at which data were recorded and a reduction of the stage pressure ratio over the entire flow range at 90 and 100% design equivalent rotor speed. With the exception of the lower flows, circumferential distortion of the inlet flow had only a small effect on stage efficiency and pressure ratio. The stage performance was only slightly affected by the addition of hub radial distortion of the inlet flow. For both radial and circumferential distortion of the inlet flow, the tip region attenuated the distortion to a larger extent than the hub. In fact, for the maximum flow condition tested at each speed, the tip radial distortion was over attenuated between the stage inlet and exit, i.e., higher total pressures and axial velocities in the tip region than in the hub region at the stage exit.

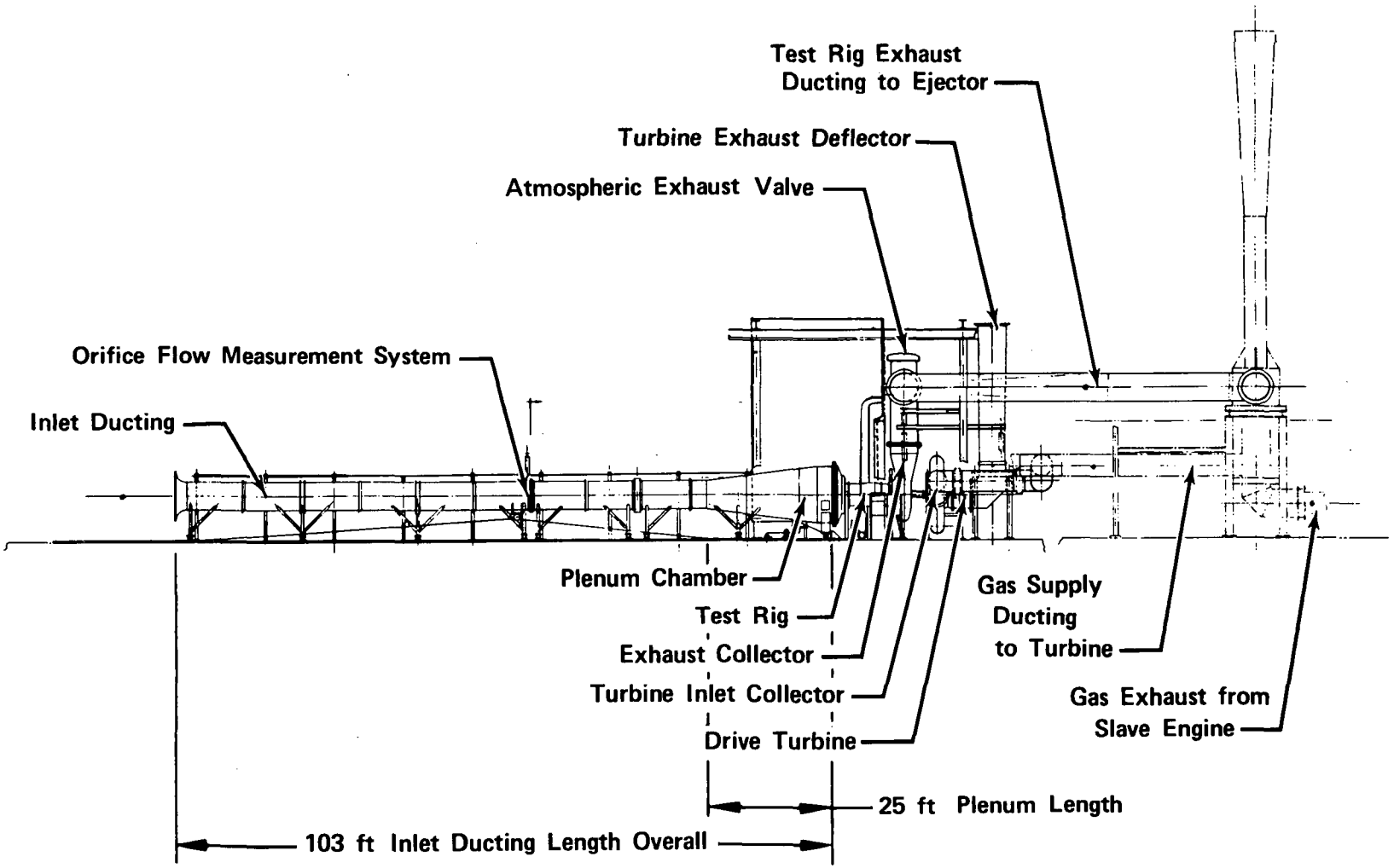


Figure 1. Compressor Research Facility

FD 10891B

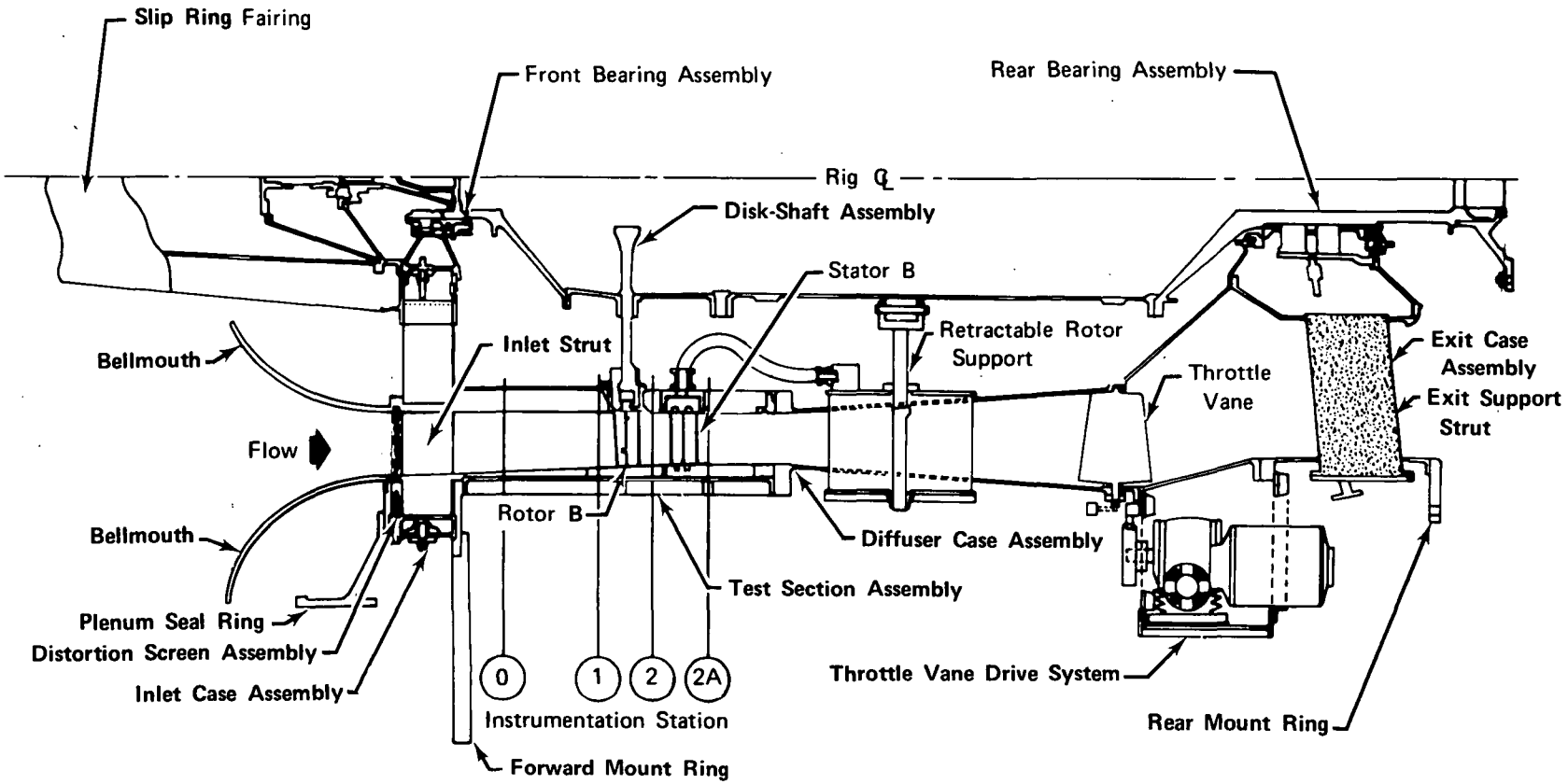
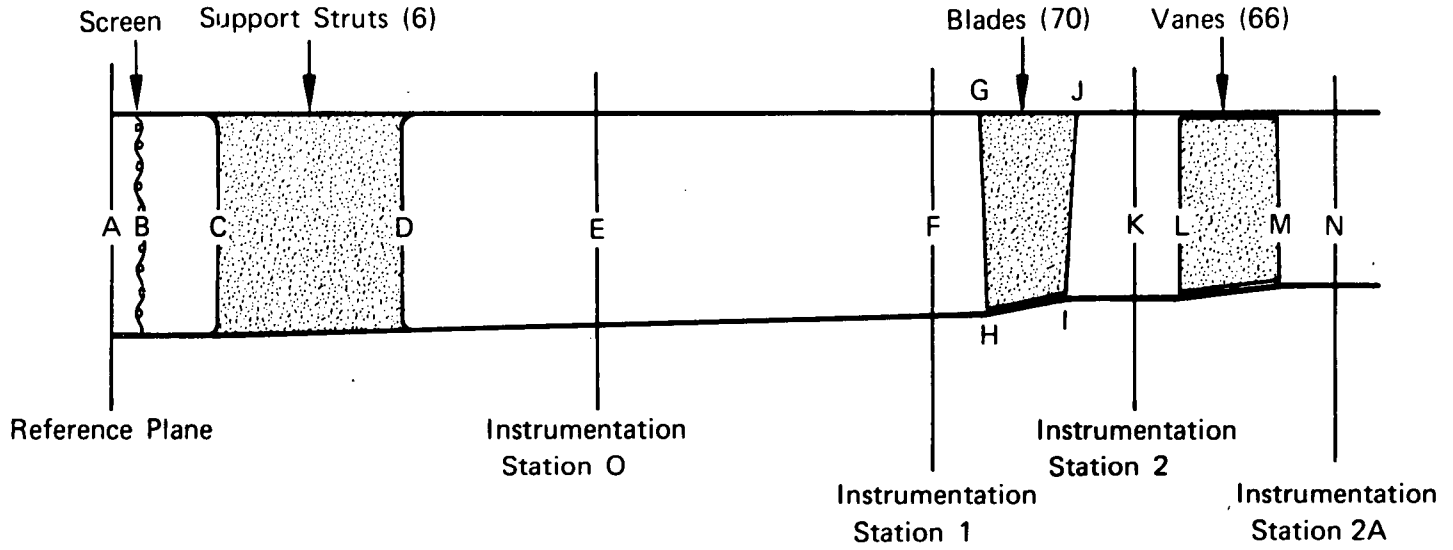


Figure 2. Single-Stage Compressor Rig

FD 47076C

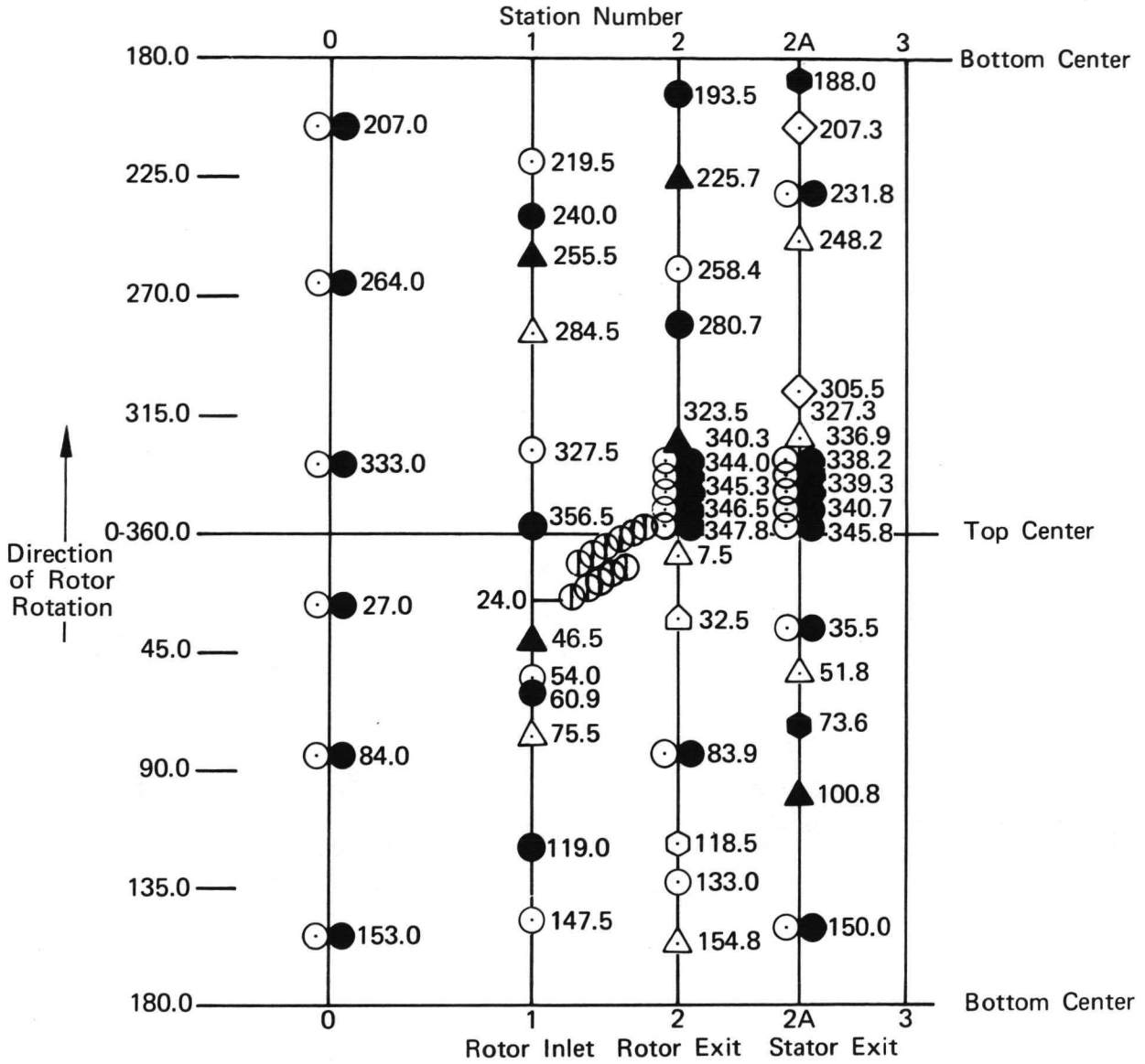


Flow Path Location	Inner Diameter	Outer Diameter	Axial Distance From Reference Plane
A	32.850	41.790	0.0
B	32.850	41.790	1.500
C	32.850	41.744	2.440
D	32.850	41.444	6.265
E	32.850	41.340	10.248
F	32.850	41.226	17.188
G	32.850	–	18.196
H	–	41.145	18.423
I	–	40.562	20.223
J	32.850	–	20.450
K	32.850	40.520	21.368
L	32.850	40.450	22.163
M	32.850	39.990	24.468
N	32.850	39.990	25.418

Note: All Dimensions Are in Inches

Figure 3. Flowpath Dimensions for Stage B

FD 58980A

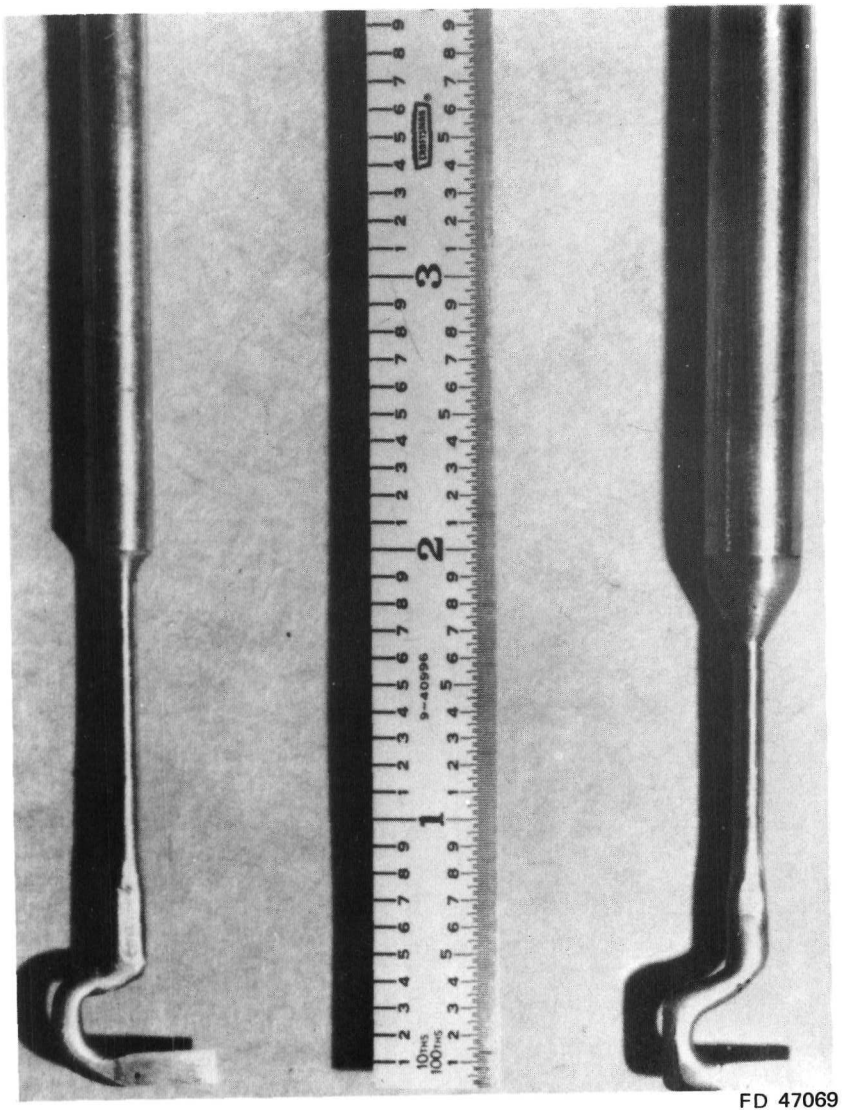


SYMBOLS

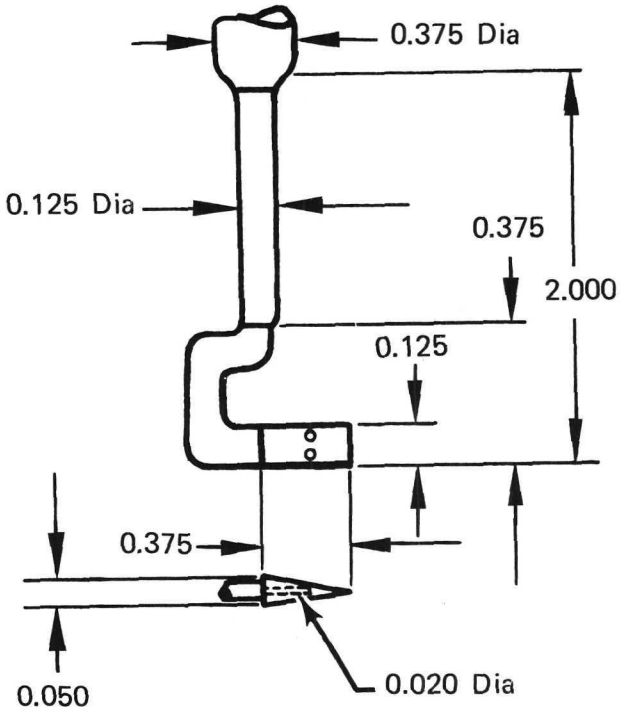
- OD Wall Static Pressure Orifice
- ID Wall Static Pressure Orifice
- 20 deg Wedge Traverse Probe
- 8 deg Wedge Traverse Probe
- Total Pressure Probe (10, 50 and 90 % Spans)
- High-Response Probe (10, 50 and 90 % Spans)
- Total Temperature/Pressure Probe, Circumferential Traverse (5, 10, 15, 30, 50, 70, 85, 90 and 95 % Spans)
- Total Pressure Probe (10, 30, 50, 70 and 90 % Spans)
- Rotor Tip Static Pressure Orifice (-10, 5.8, 19.2, 27.5, 35.8, 44.2, 52.5, 65.8, 79.2, 90.3 and 100.8 % Axial Chord) (Equally Spaced 3 deg Circumferentially)

Note: All Dimensions Are in Degrees

Figure 4. Instrumentation Layout FD 58981A



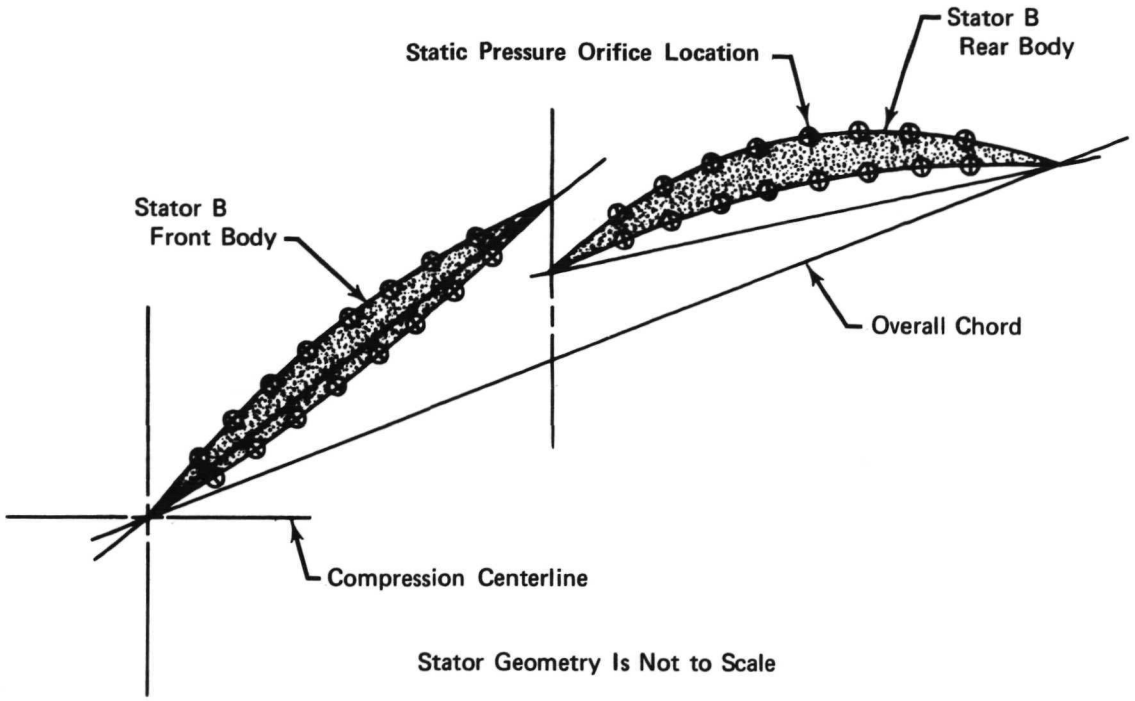
FD 47069



Note:
All dimensions are in inches.

FD 58983

Figure 5. Eight-Degree Wedge Traverse Probe

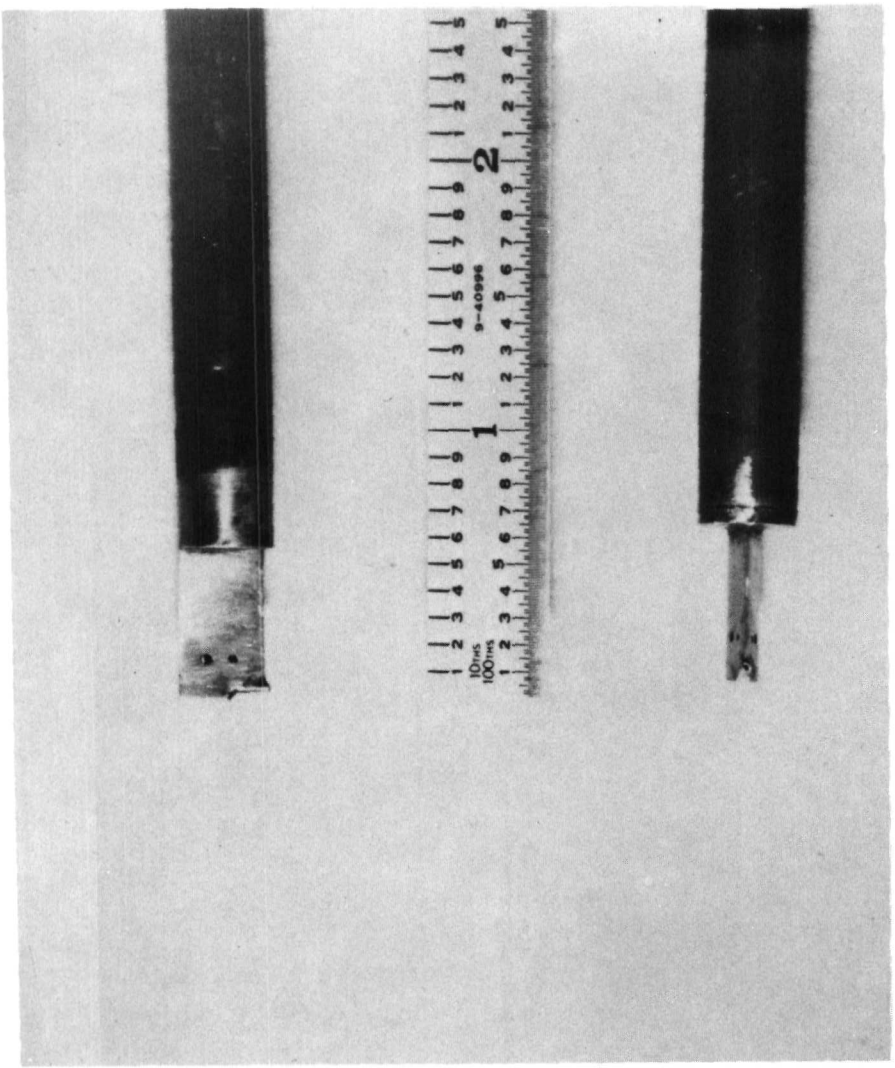


Percent Overall Chord Location

Front Body		Rear Body	
Suction Surface ($21^{o}41'$)	Pressure Surface ($343^{o}38'$)	Suction Surface ($5^{o}27'$)	Pressure Surface ($354^{o}33'$)
6.6	7.0	56.9	56.0
11.9	13.0	61.9	61.5
16.9	18.0	67.3	66.5
21.9	23.1	72.2	71.7
27.0	28.1	77.8	77.0
32.0	33.1	82.8	82.0
37.1	38.1	88.0	87.5
42.1	43.1	92.9	92.5

Note: Numbers in Parenthesis Indicate the Circumferential Position of the Instrumentated Airfoil in the Stator Assembly. Zero Degrees Is Top Center; the Angle Increases Clockwise Looking Aft.

Figure 6. Tandem Stator B Midspan Static Pressure Orifice Locations FD 62071



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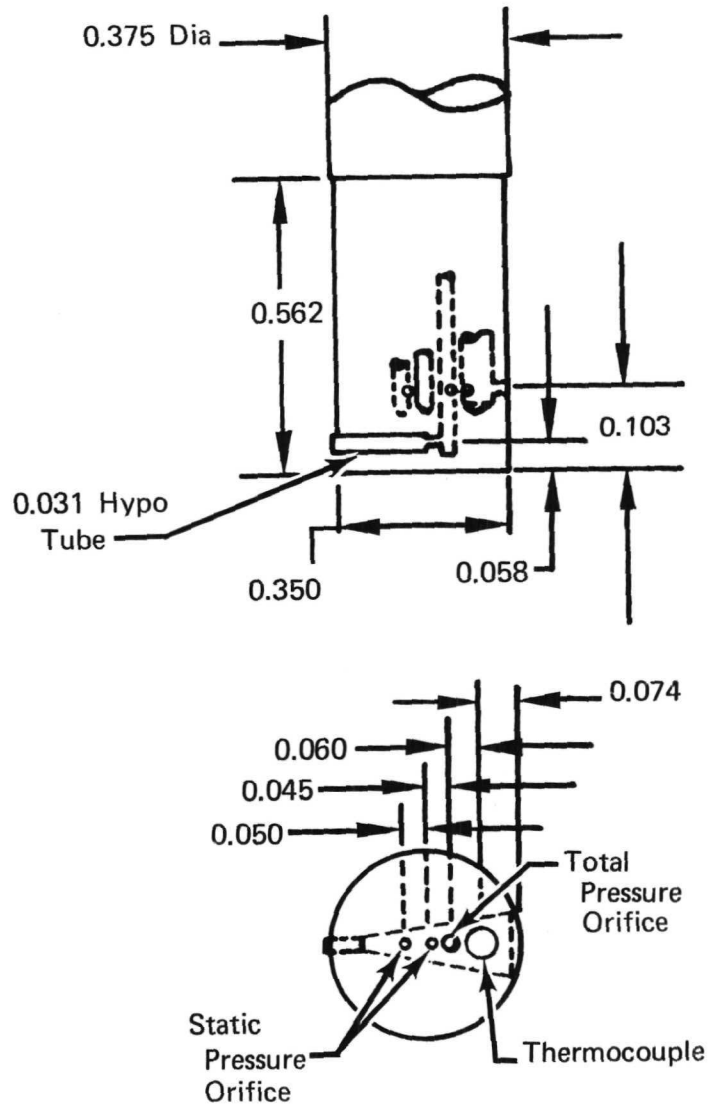
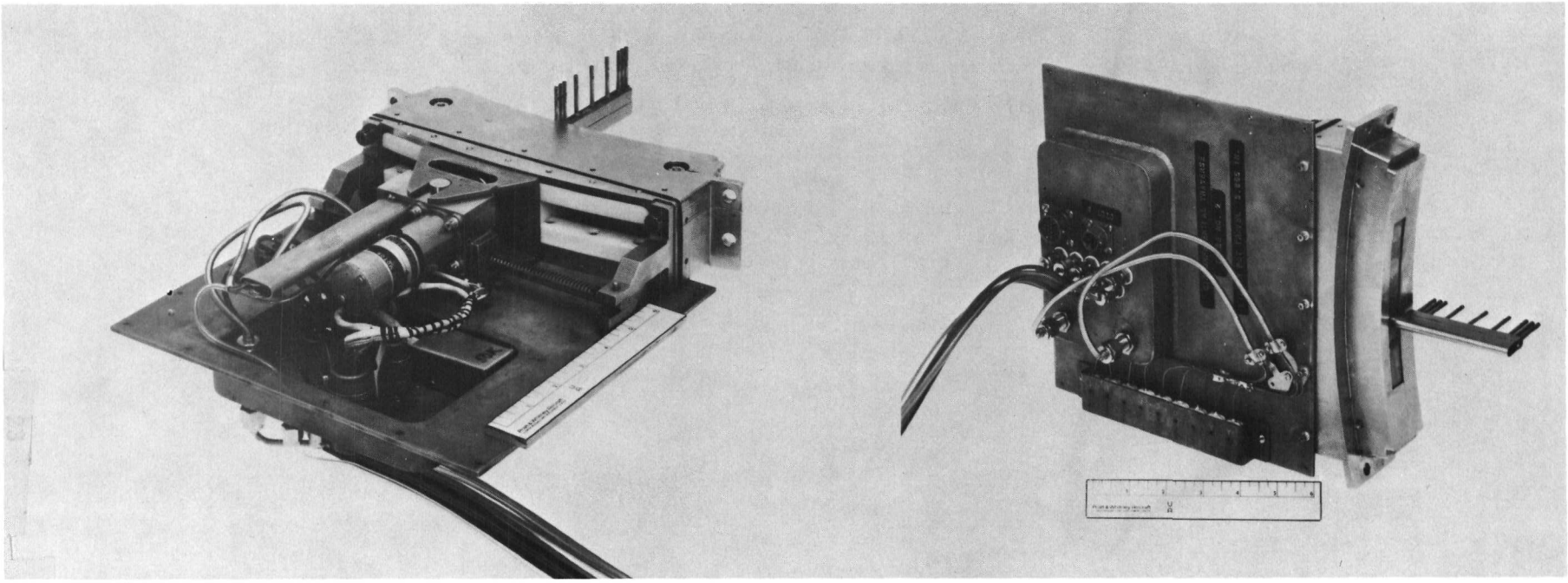


Note: All dimensions are in inches

Figure 7. Twenty-Degree Wedge Traverse Probe

FD 58982



FE 97405

Front View With Cover Removed

FE 97404

Rear View

Figure 8. Total Pressure/Total Temperature Circumferential Traverse Unit FD 47068

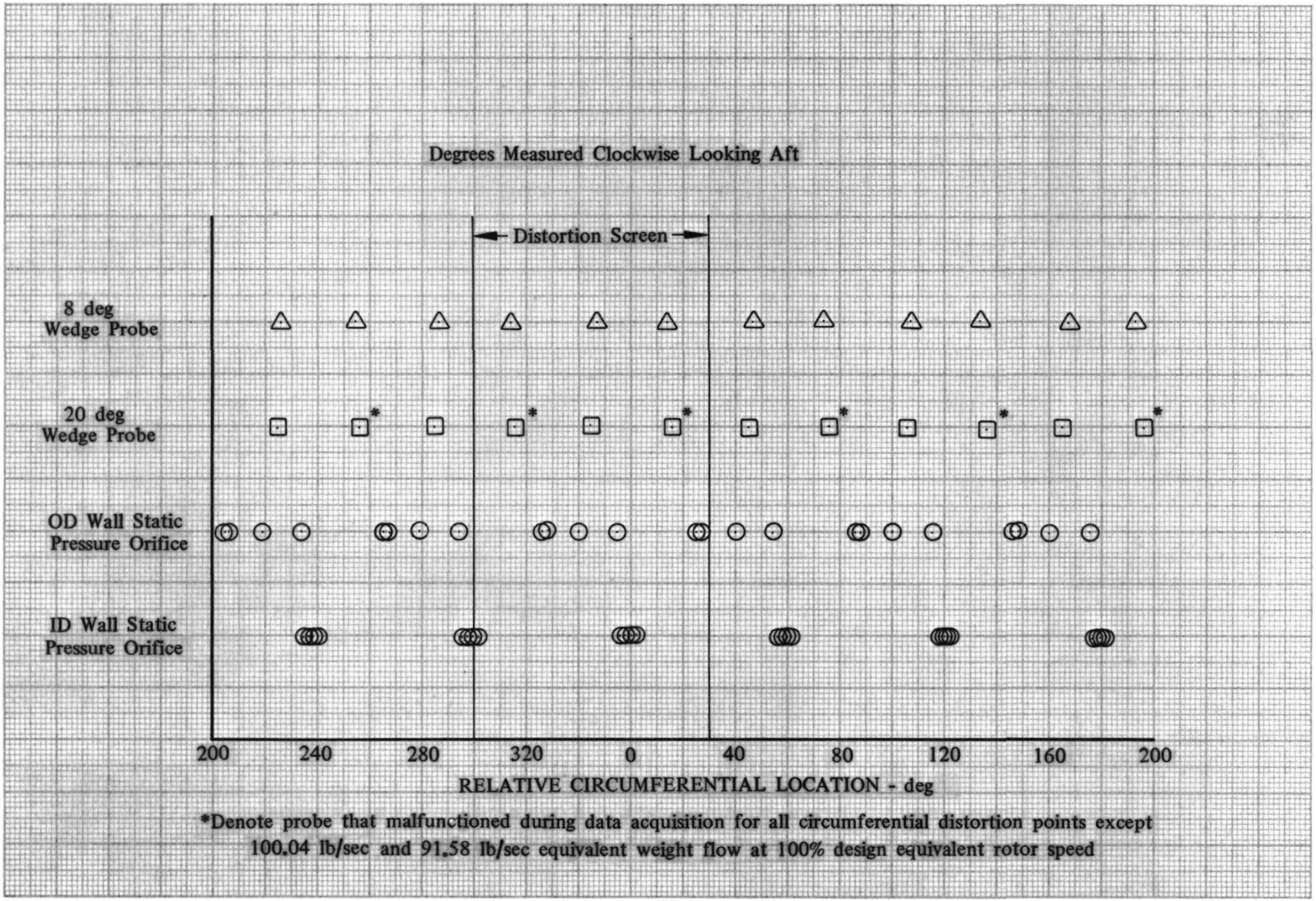


Figure 9a. Composition of Station 1 Instrumentation Relative to the Circumferential Distortion Screen for Six Screen Positions

DF 95671

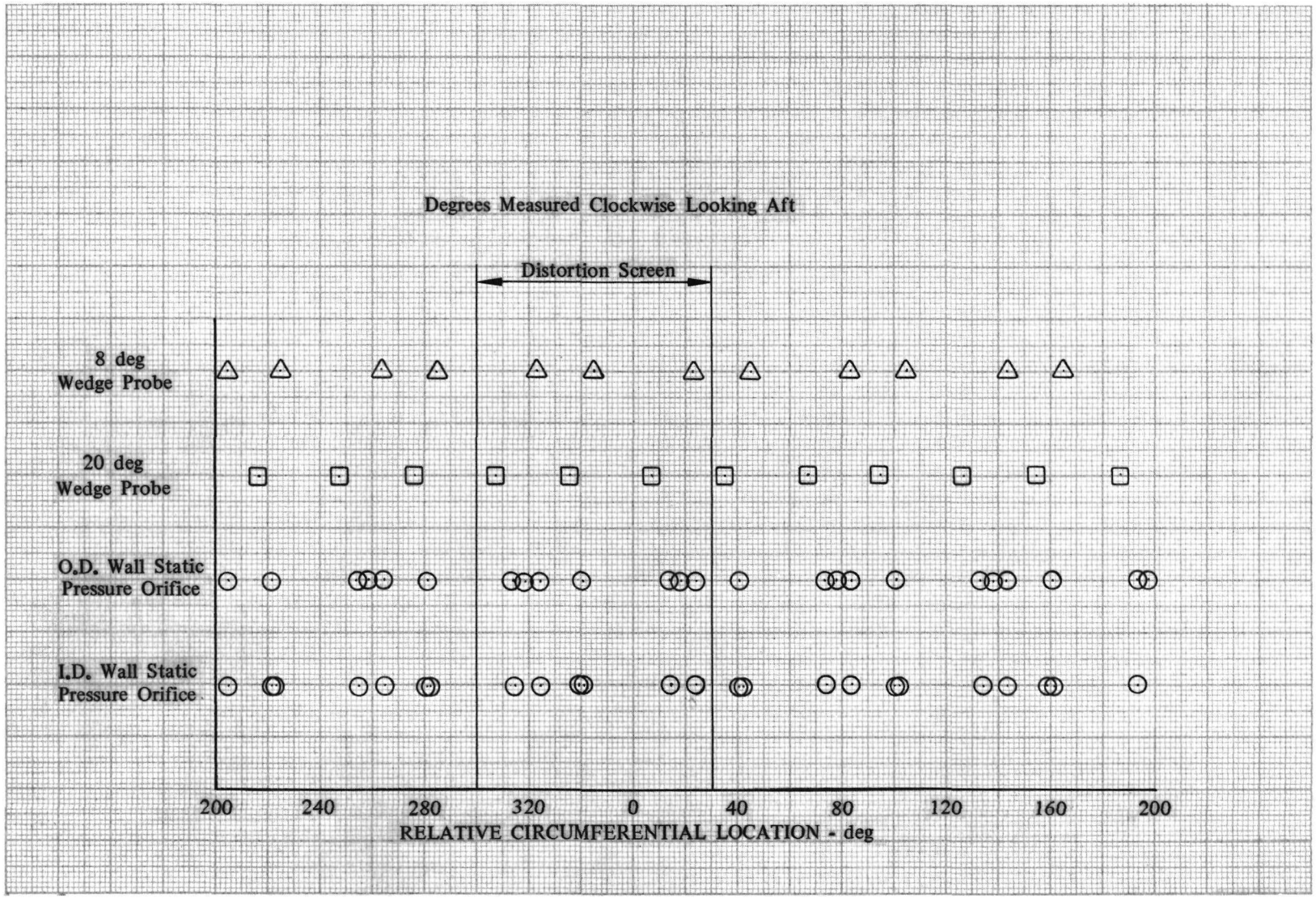


Figure 9b. Composition of Station 2 Instrumentation Relative to the Circumferential Distortion Screen for Six Screen Positions

DF 95672

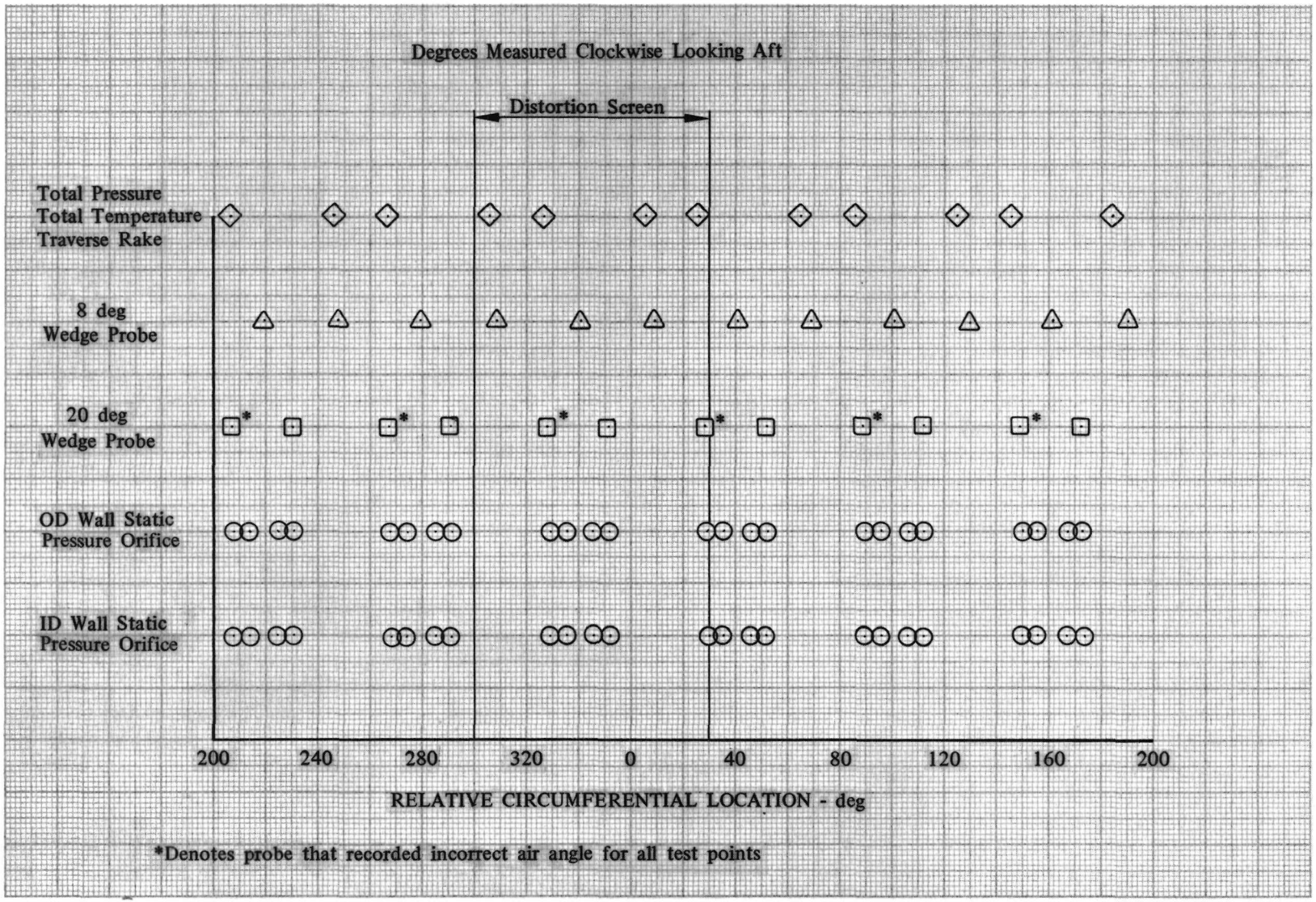
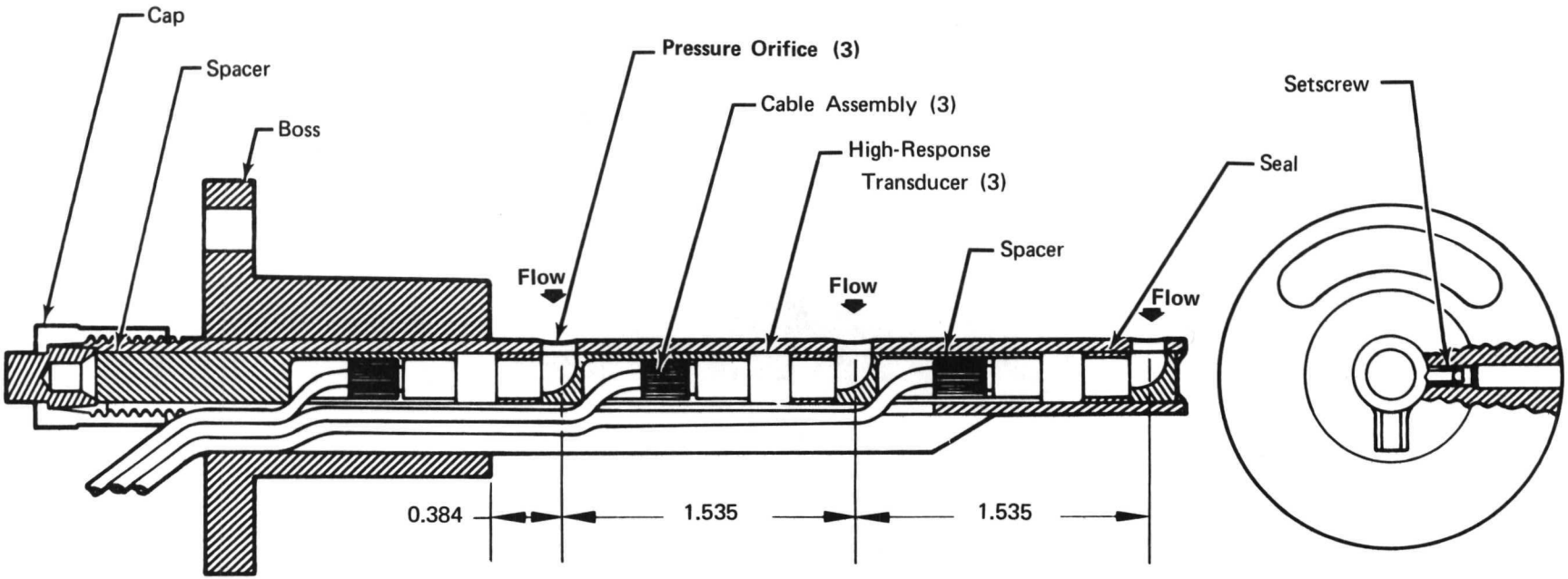


Figure 9c. Composition of Station 2A Instrumentation Relative to the Circumferential Distortion Screen for Six Screen Positions

DF 95673



Note: All dimension are in inches.

Figure 10. High-Response Probe

FD 58984B

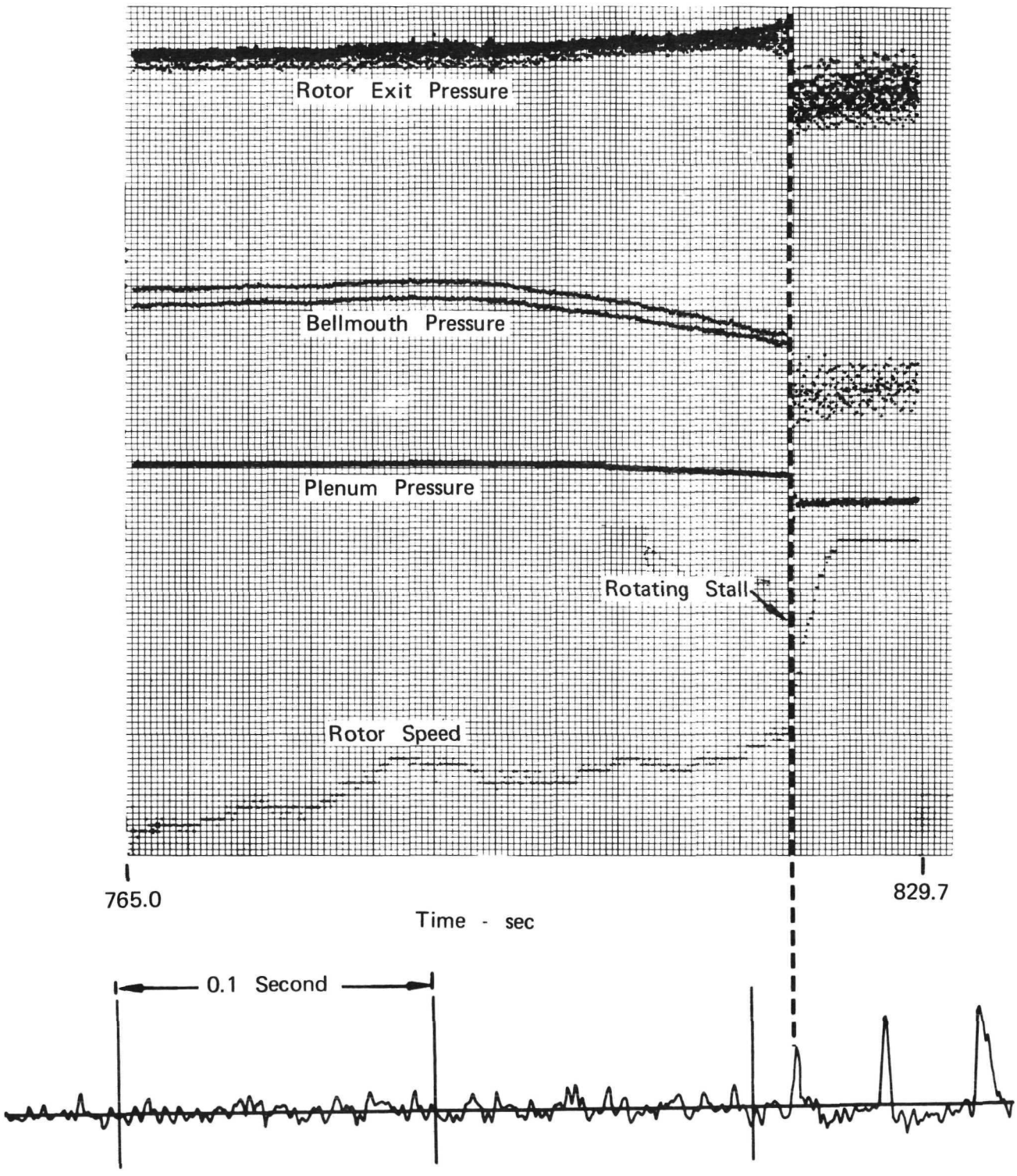


Figure 11. Typical Stall Transient Data FD 34394B

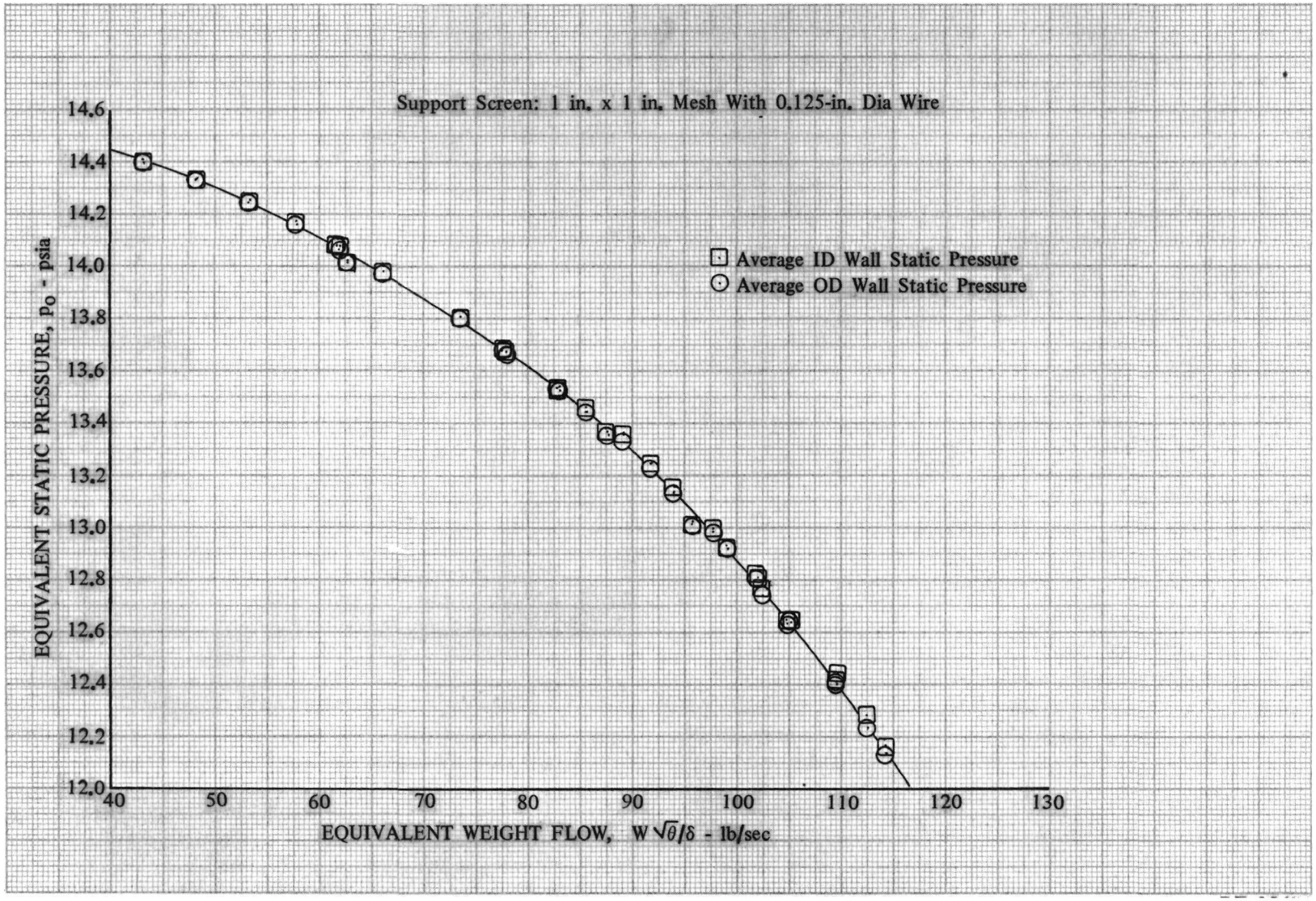


Figure 12. Station 0 Equivalent Static Pressure vs Equivalent Weight Flow for Stage B Flowpath With Support Screen

DF 95674

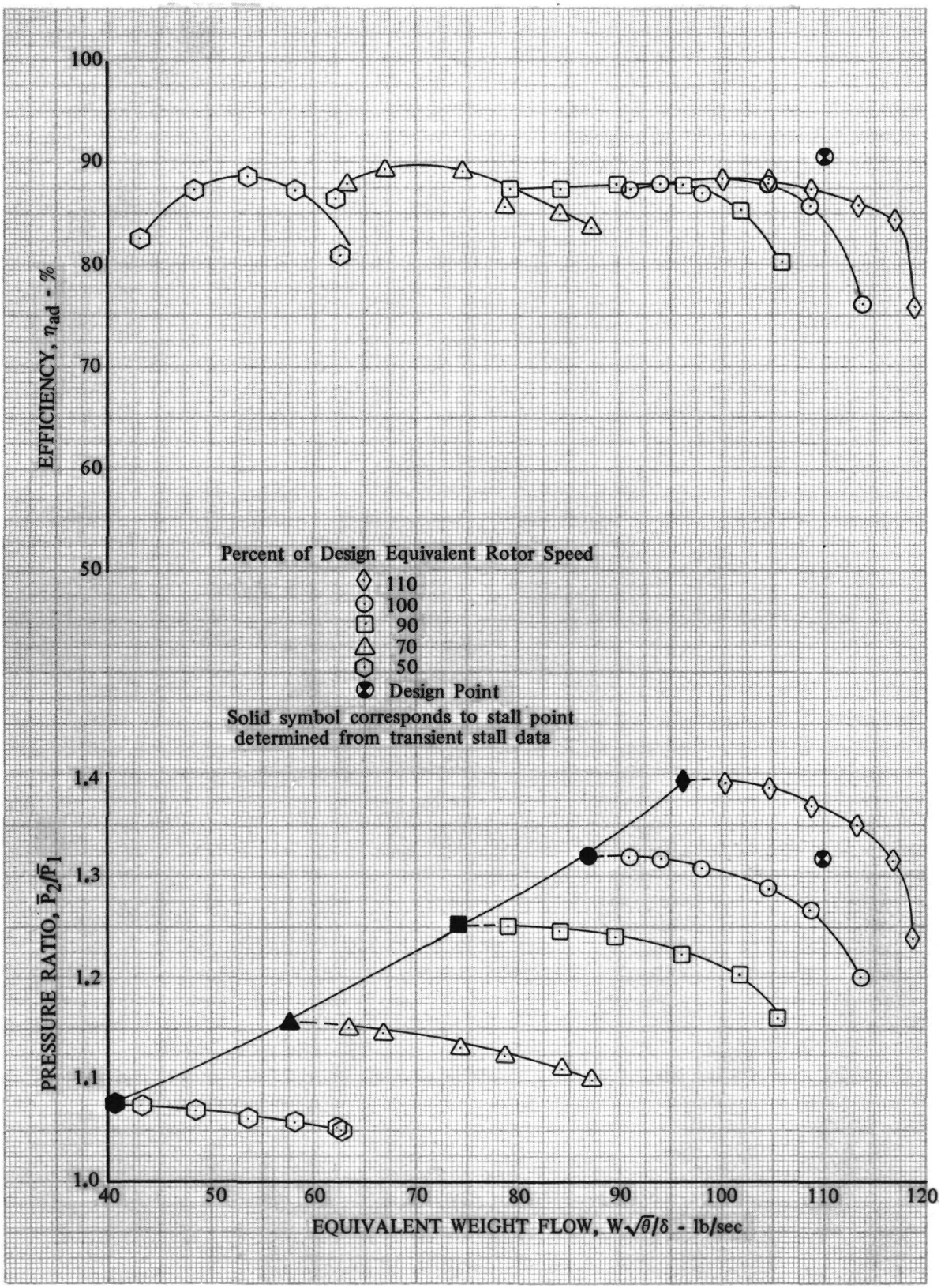


Figure 13. Overall Performance of Rotor B; Uniform Inlet Flow DF 95675

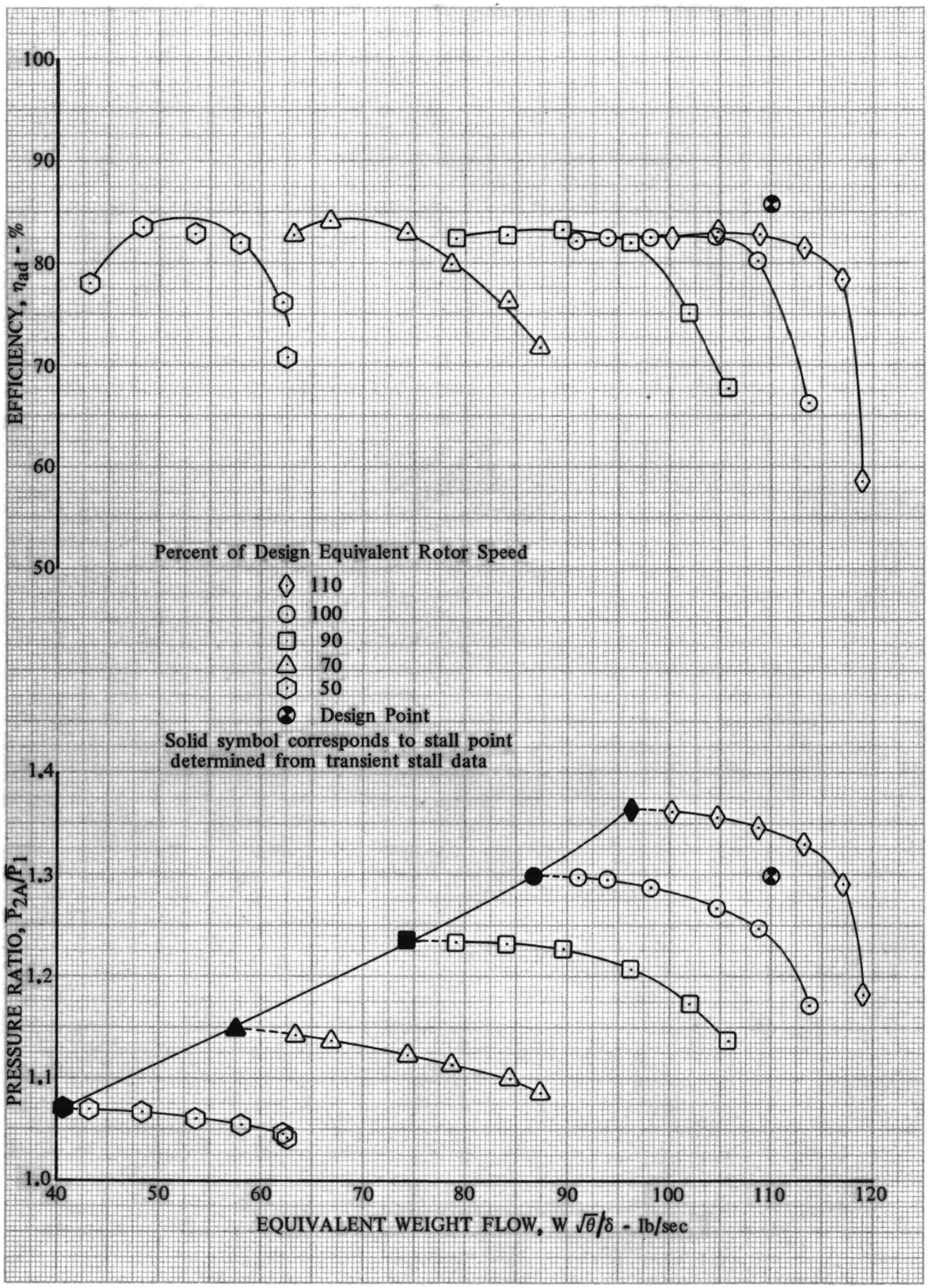


Figure 14. Overall Performance of Stage B; Uniform Inlet Flow DF 95676

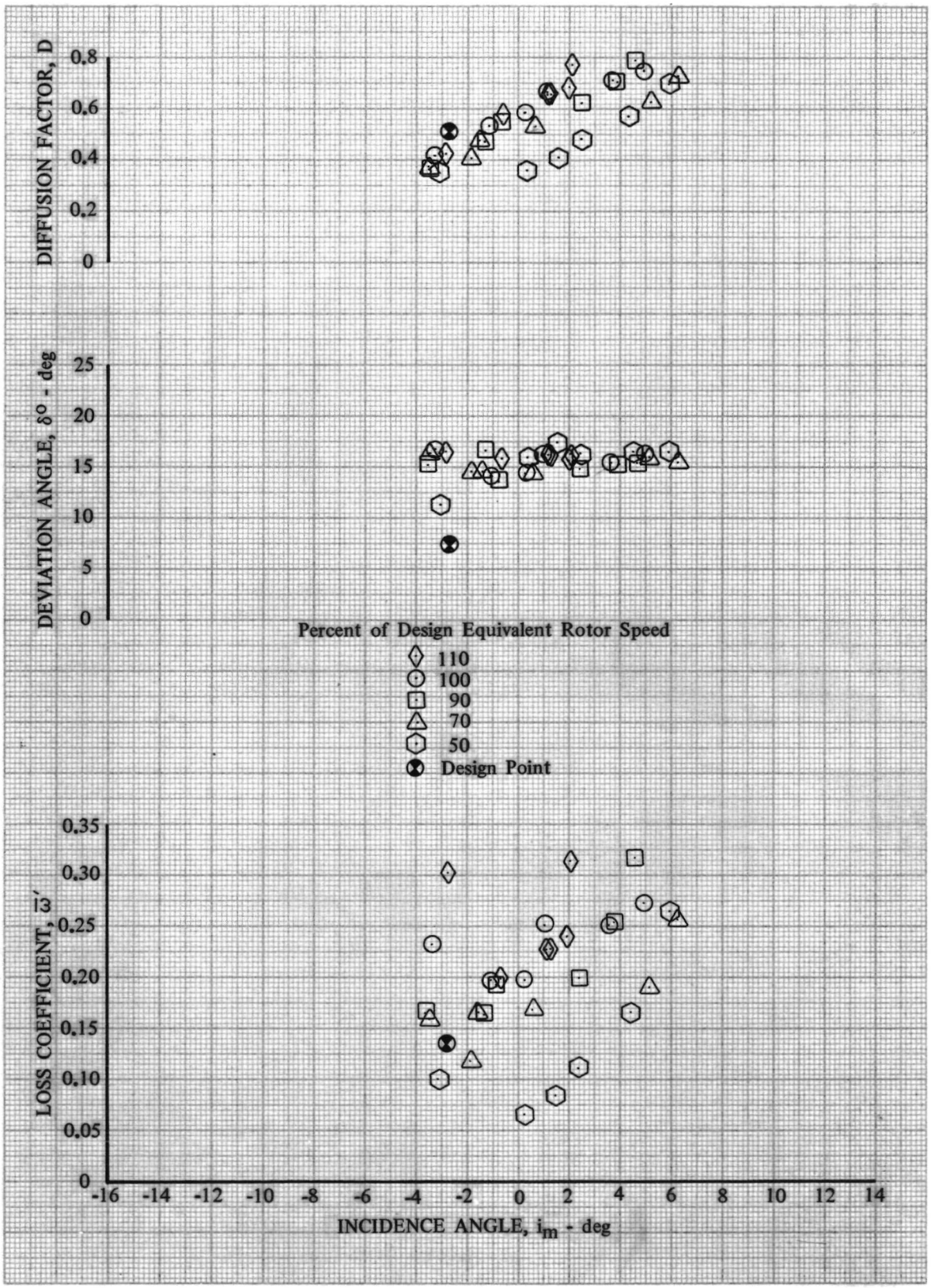


Figure 15a. Rotor B Blade Element Performance; 5% Span From Tip; Uniform Inlet Flow

DF 95677

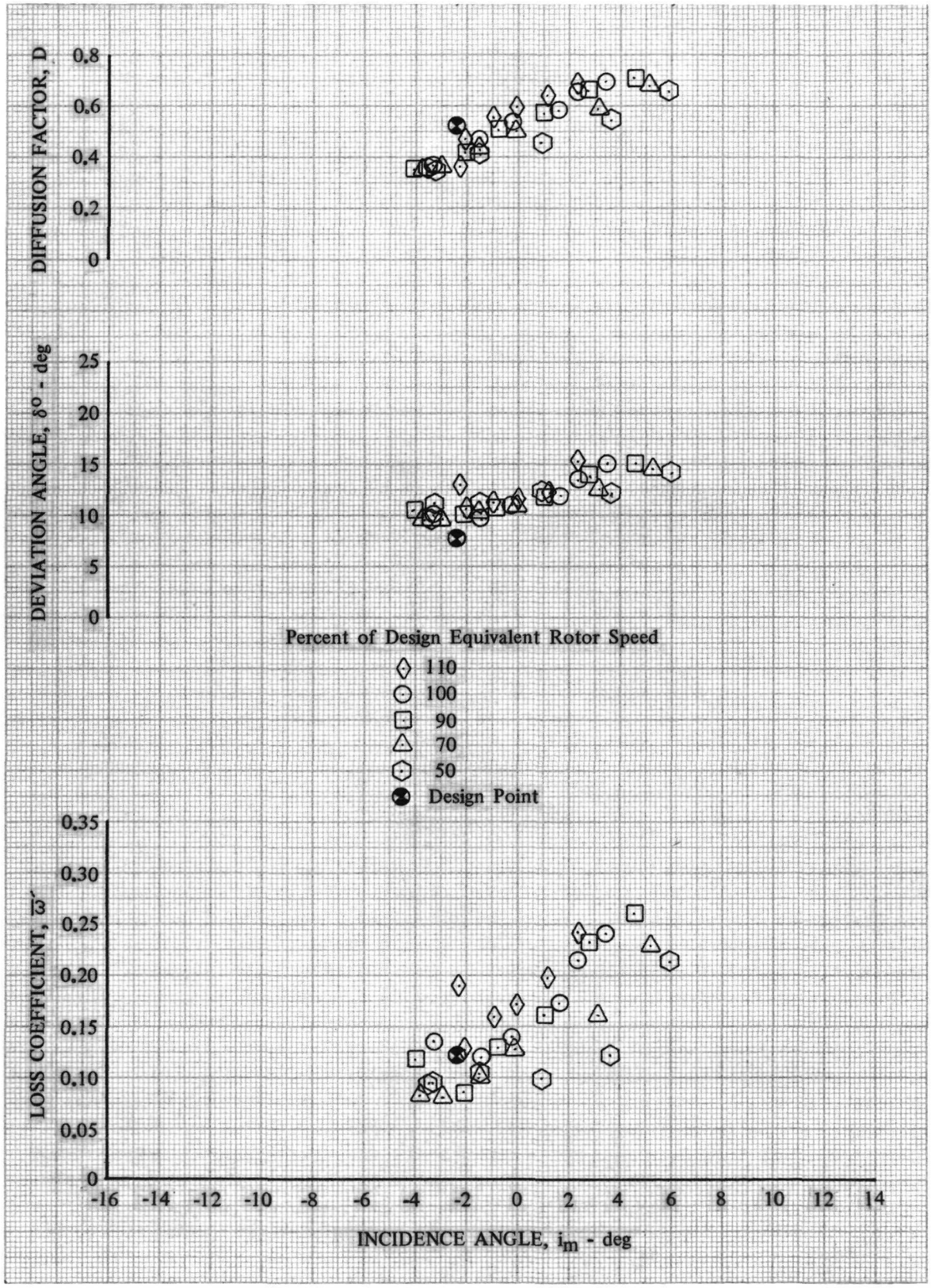


Figure 15b. Rotor B Blade Element Performance; 10% Span From Tip; Uniform Inlet Flow

DF 95678

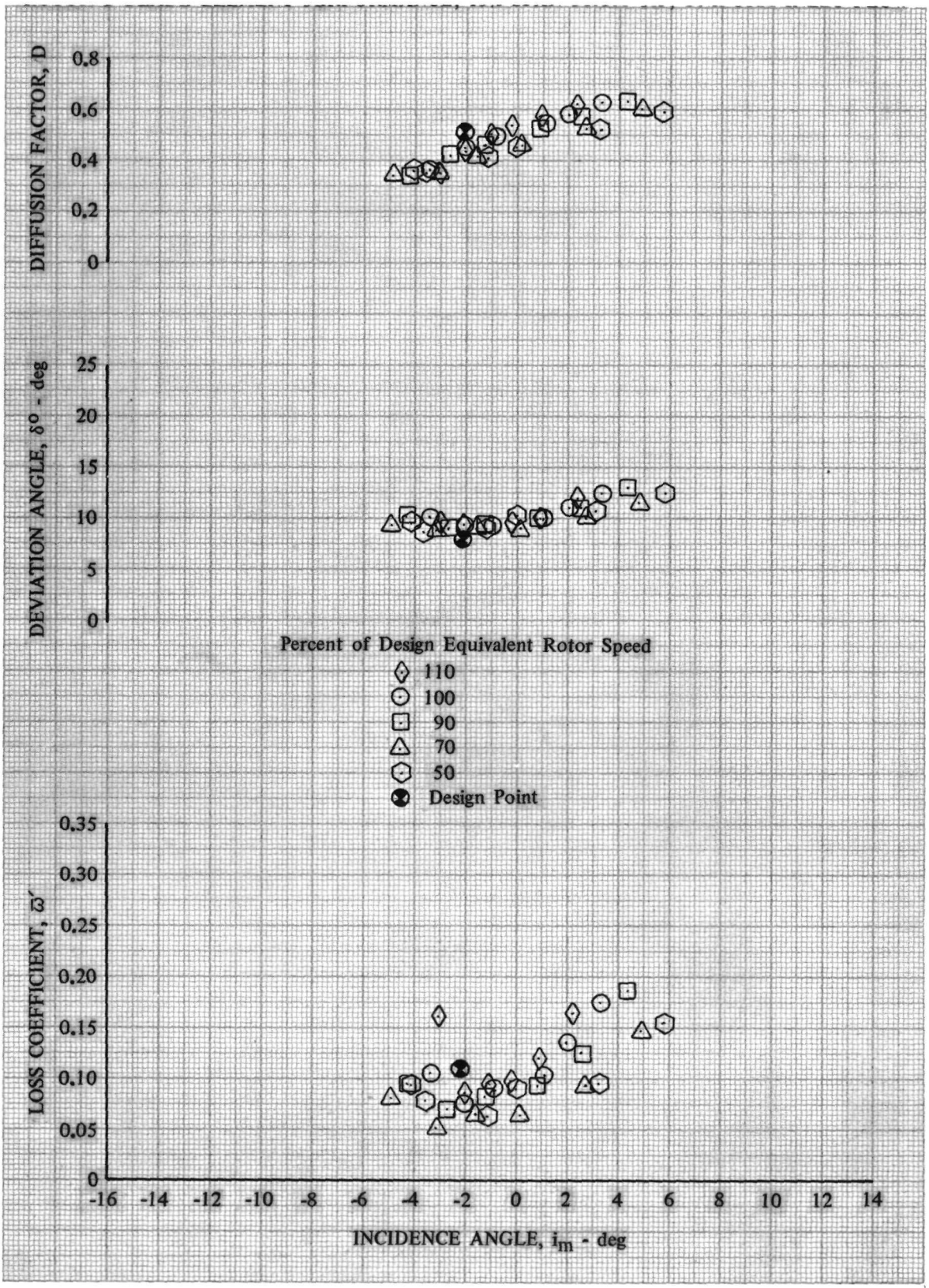


Figure 15c. Rotor B Blade Element Performance; 15% Span From Tip, Uniform Inlet Flow DF 95679

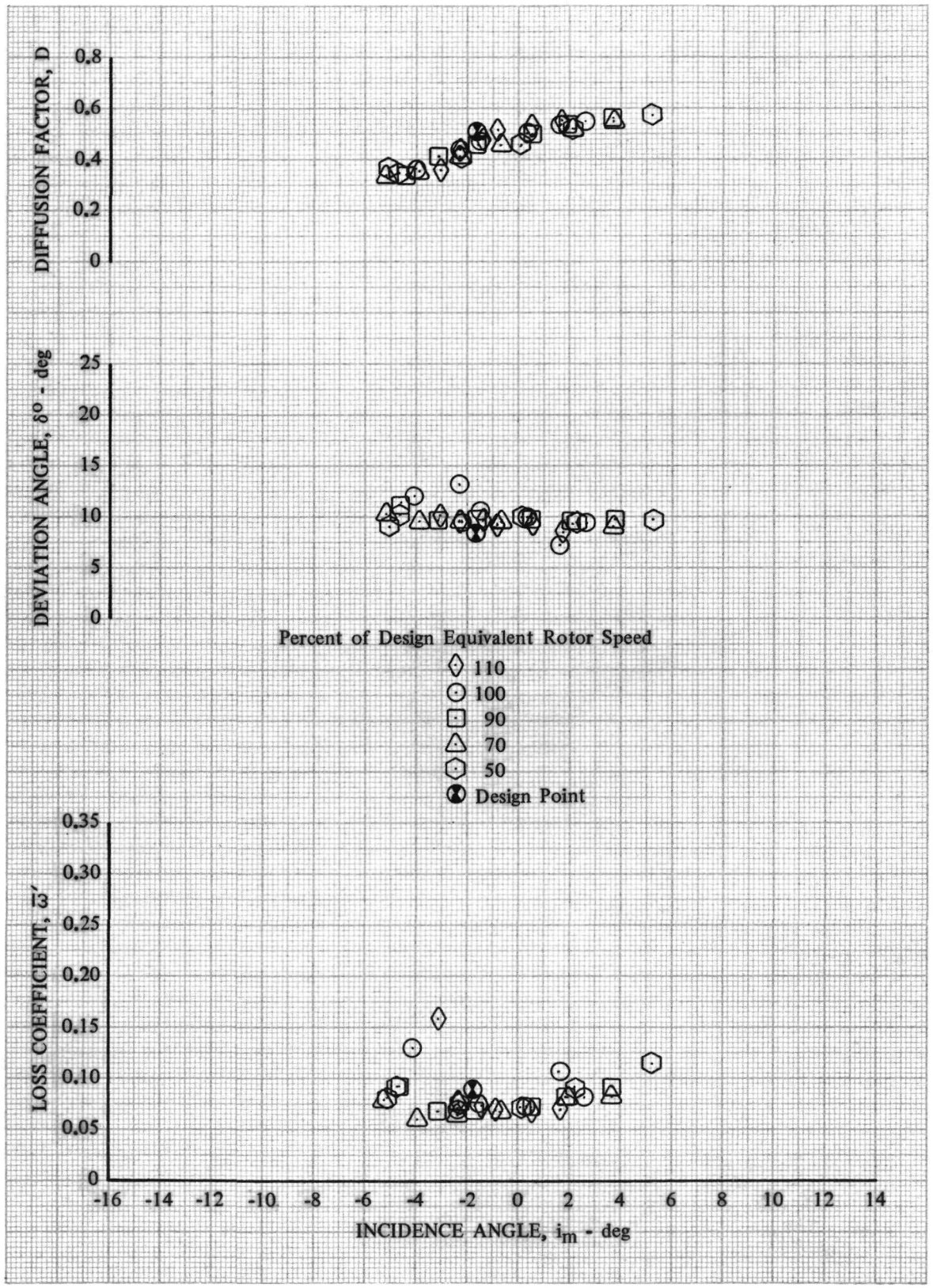


Figure 15d. Rotor B Blade Element Performance; 30% Span From Tip; Uniform Inlet Flow

DF 95680

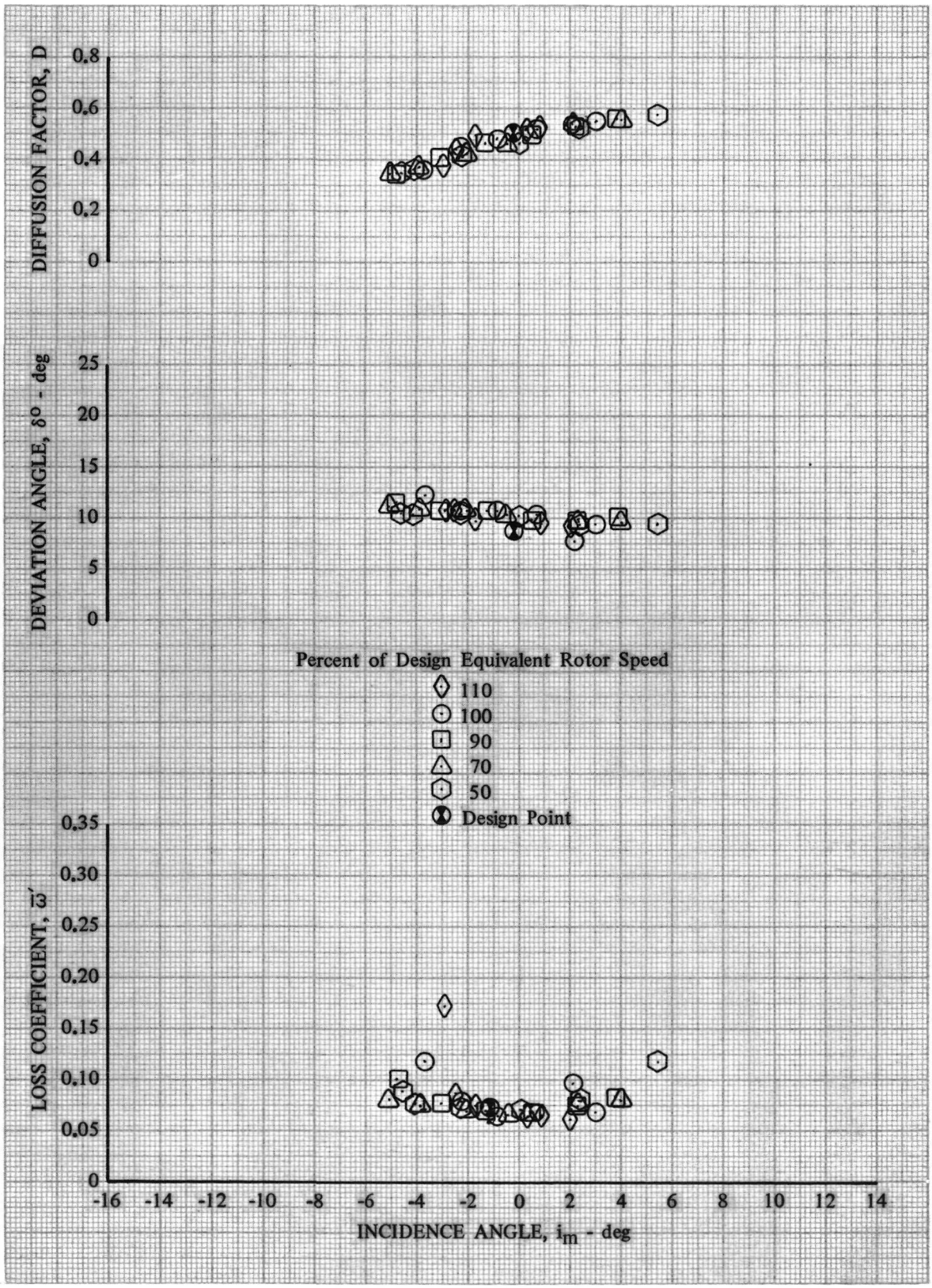


Figure 15e. Rotor B Blade Element Performance; 50% Span; Uniform Inlet Flow

DF 95681

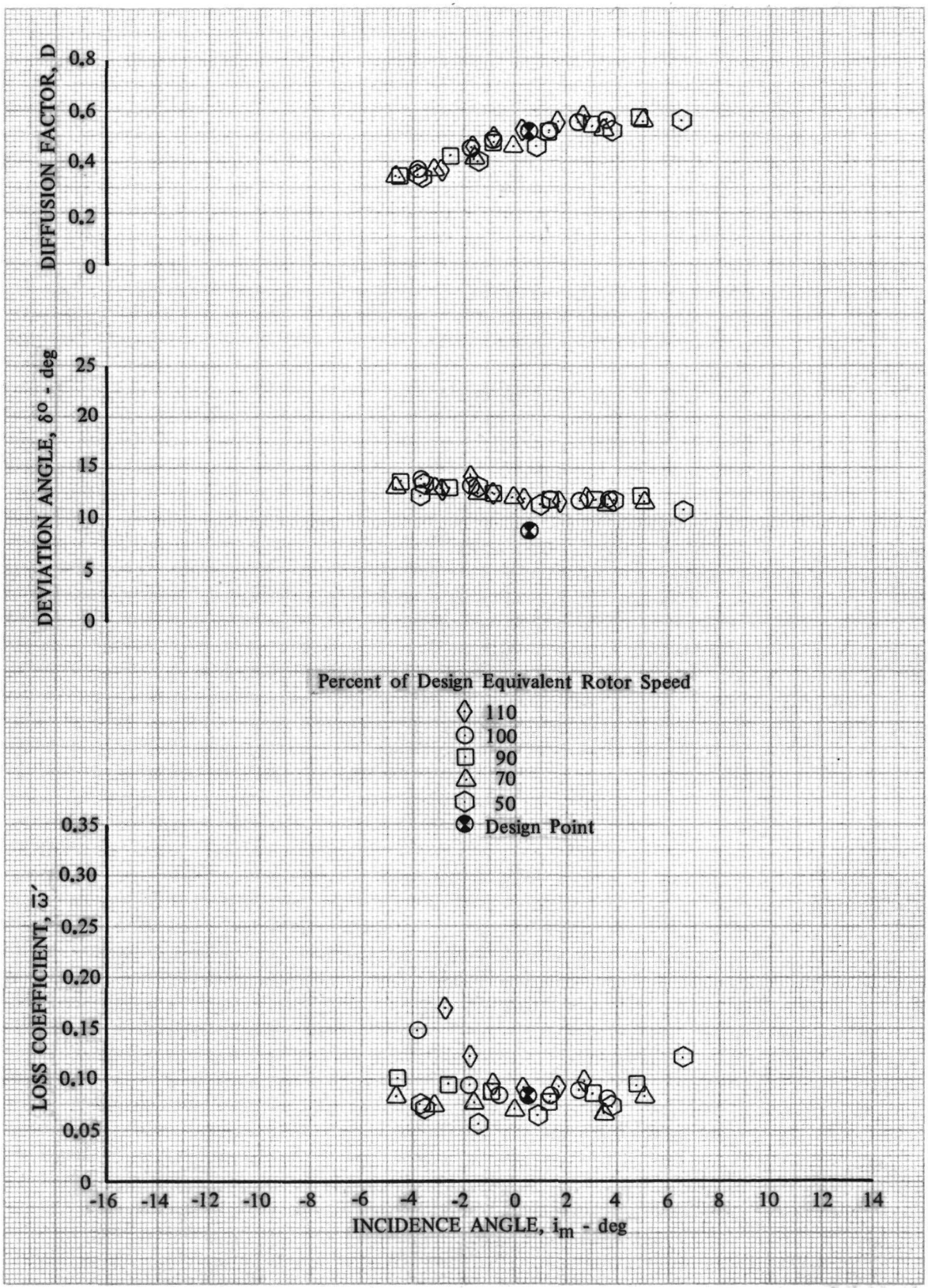


Figure 15f. Rotor B Blade Element Performance; 70% Span From Tip; Uniform Inlet Flow

DF 95682

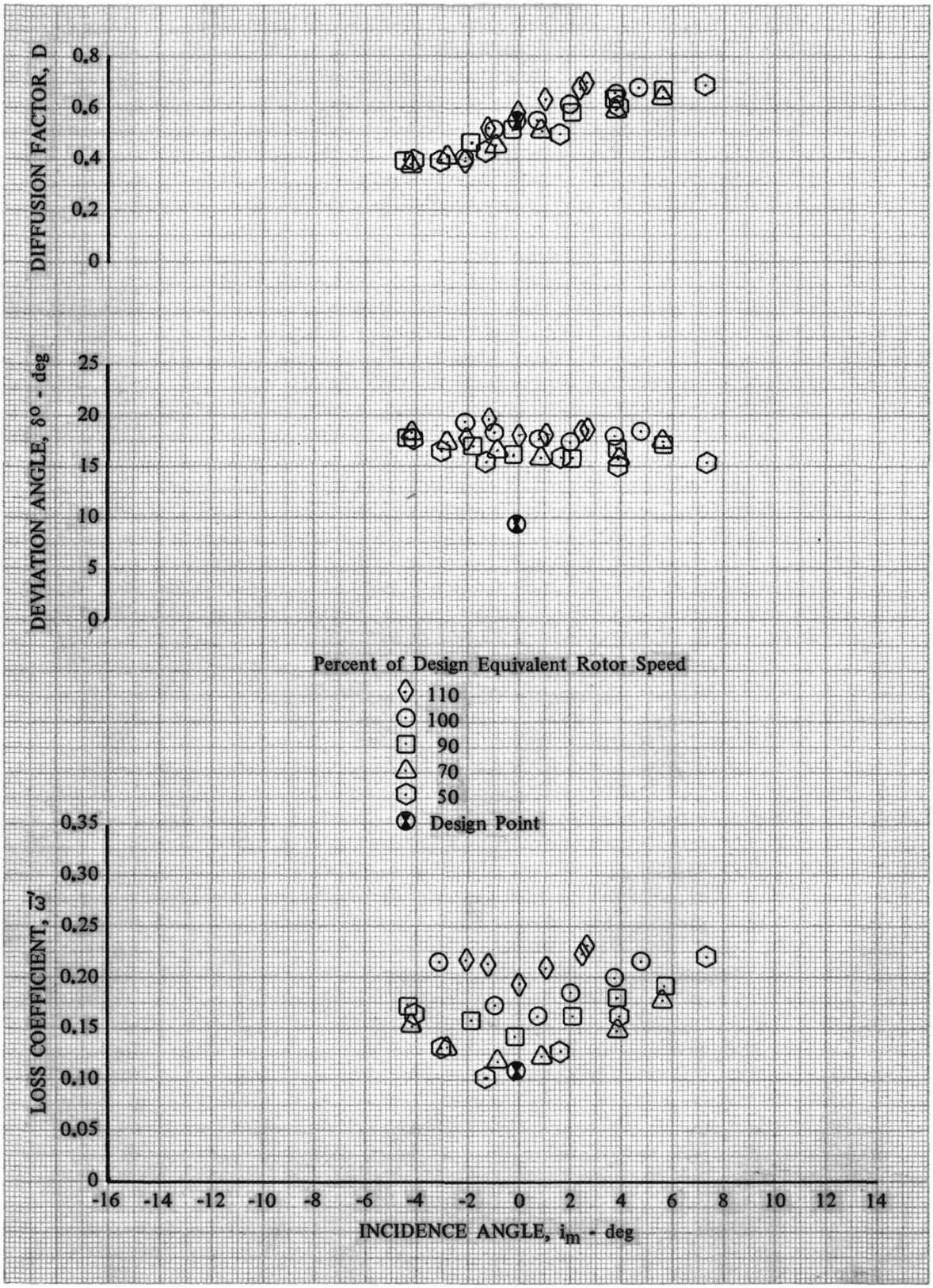


Figure 15g. Rotor B Blade Element Performance; 85% Span From Tip; Uniform Inlet Flow

DF 95683

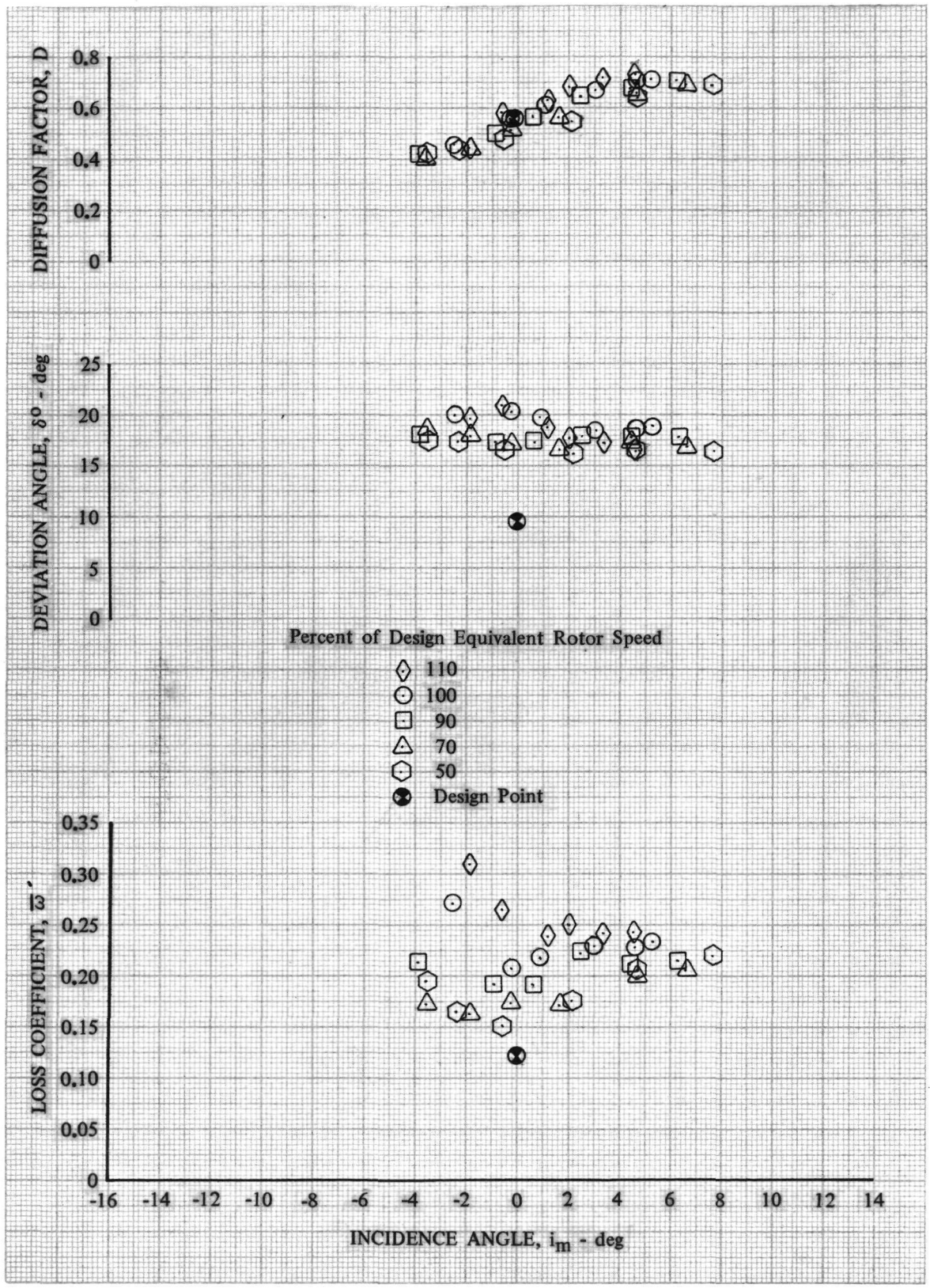


Figure 15h. Rotor B Blade Element Performance; 90% Span From Tip; Uniform Inlet Flow

DF 95684

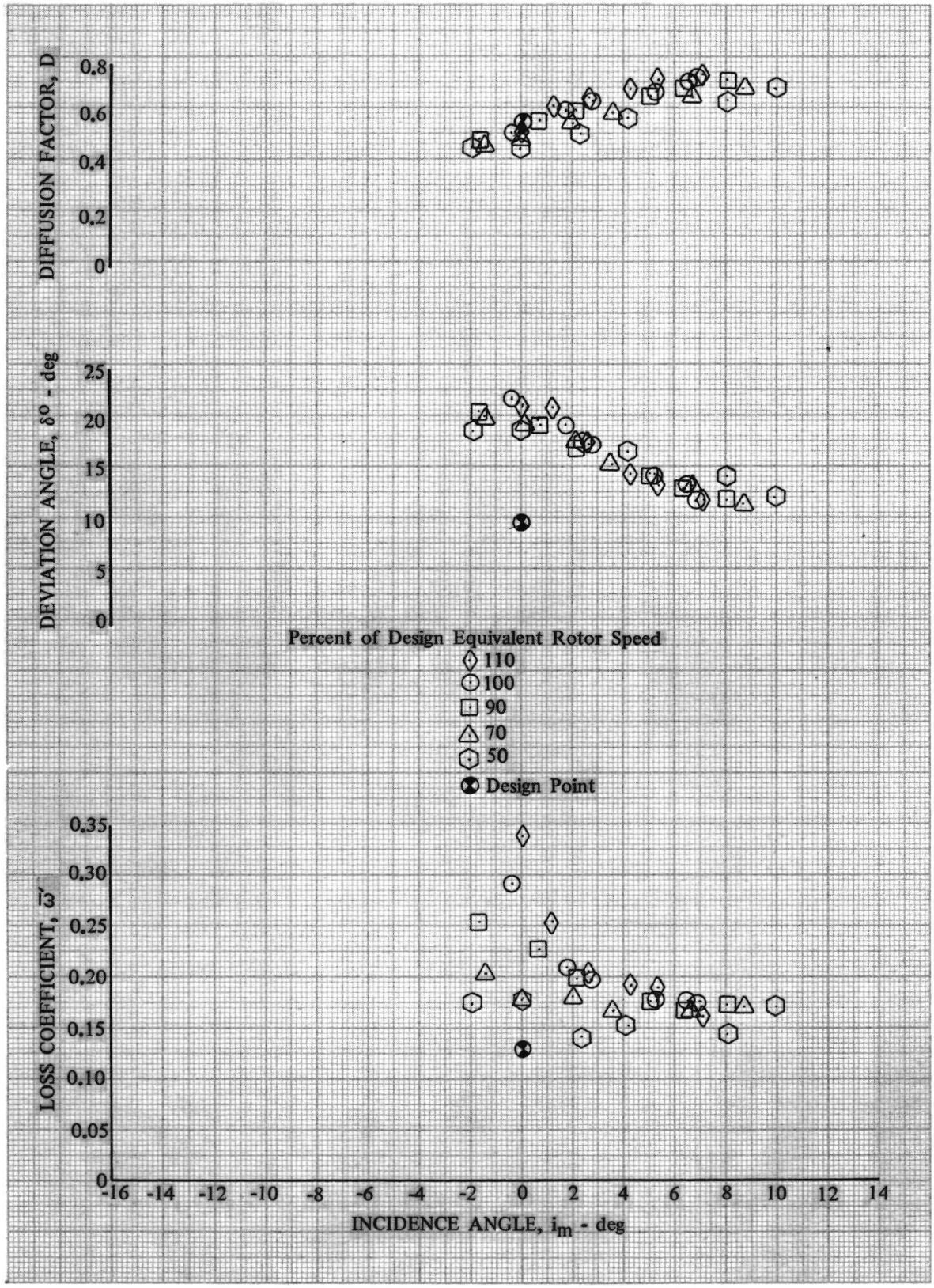


Figure 15i. Rotor B Blade Element Performance; 95% Span From Tip; Uniform Inlet Flow

DF 95685

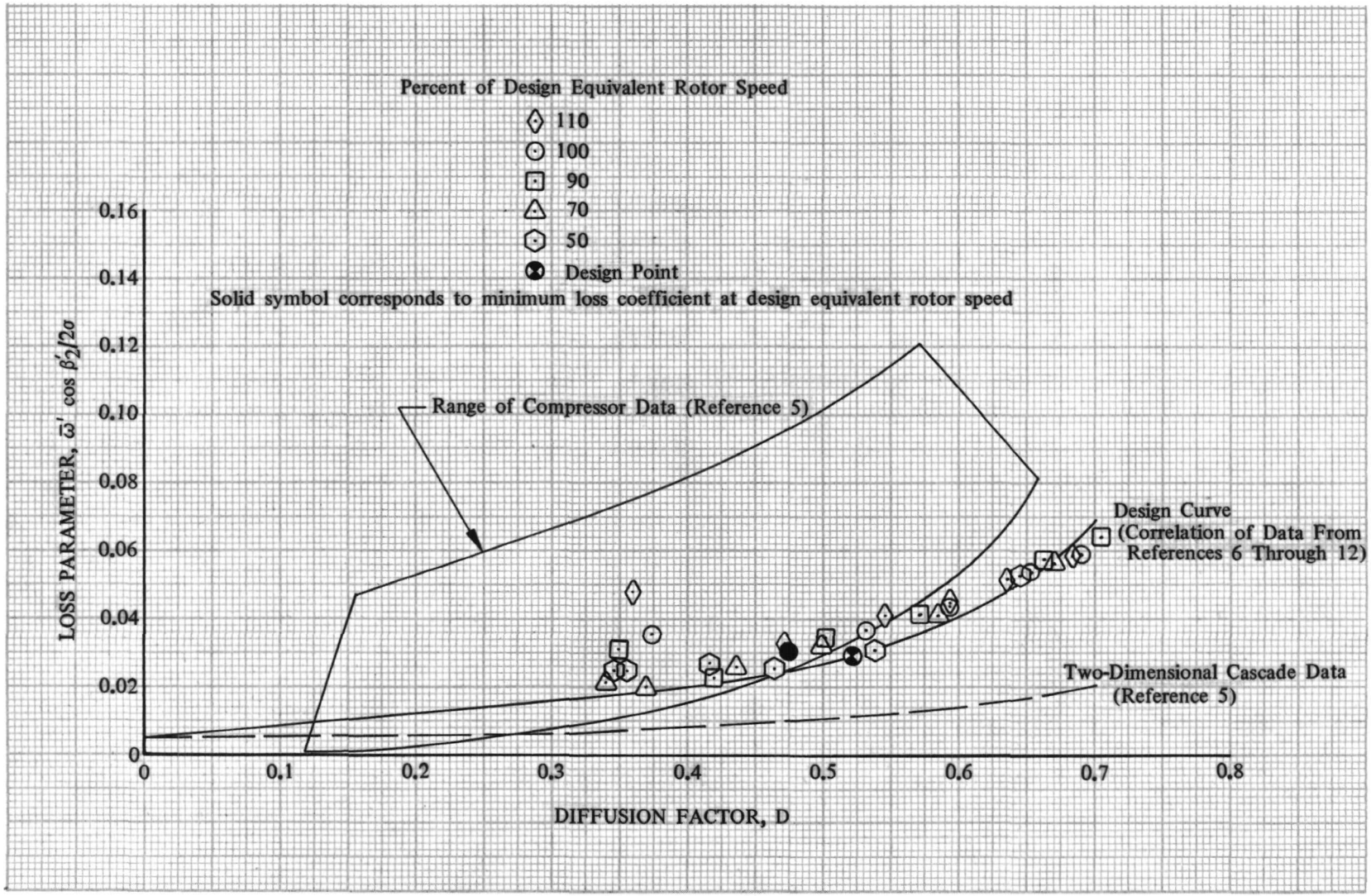


Figure 16a. Rotor B Loss Parameter vs Diffusion Factor, 10% Span From Tip; Uniform Inlet Flow DF 95686

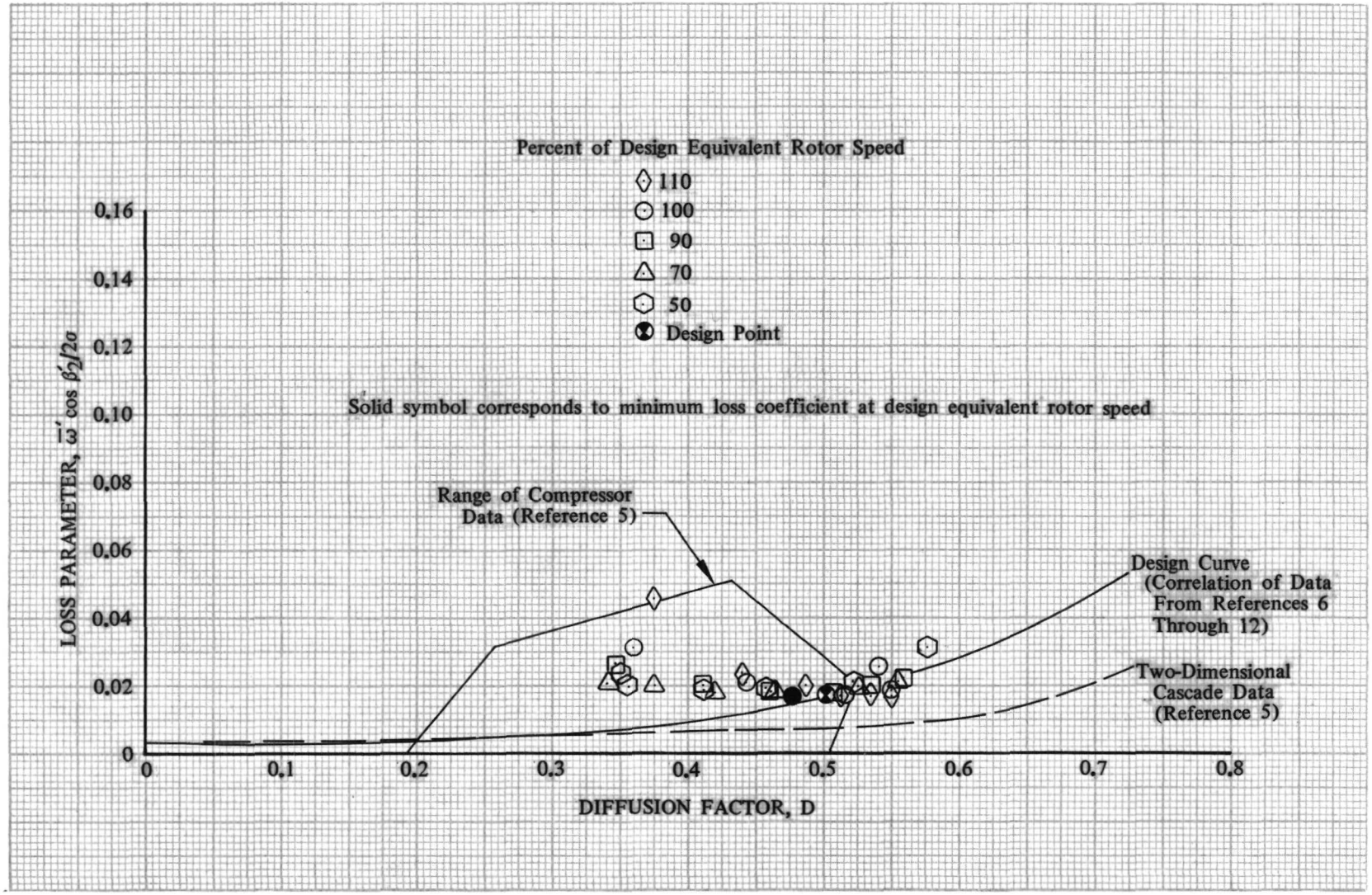


Figure 16b. Rotor B Loss Parameter vs Diffusion Factor, 50% Span; Uniform Inlet Flow DF 95687

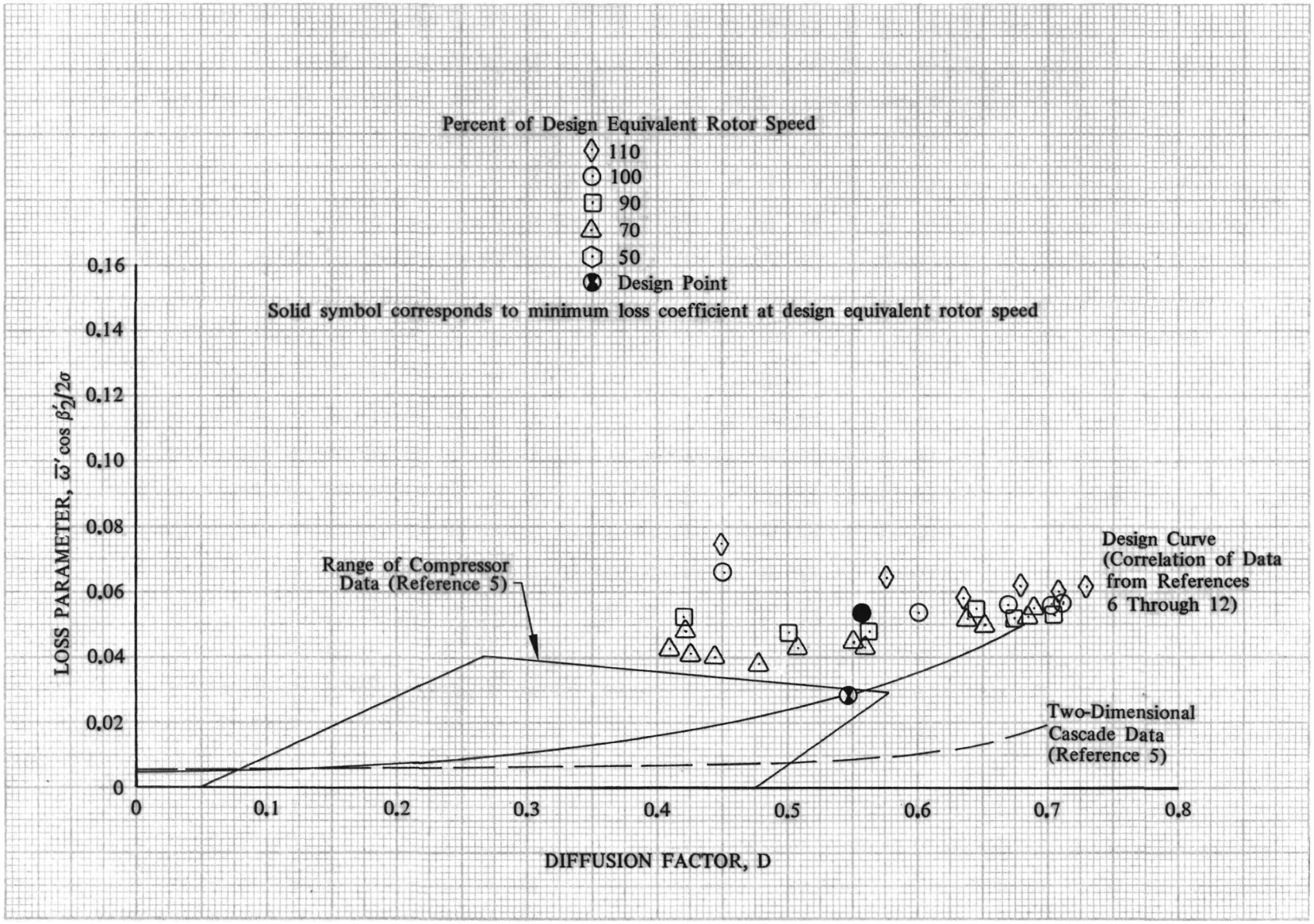


Figure 16c. Rotor B Loss Parameter vs Diffusion Factor, 90% Span From Tip; Uniform Inlet Flow DF 95688

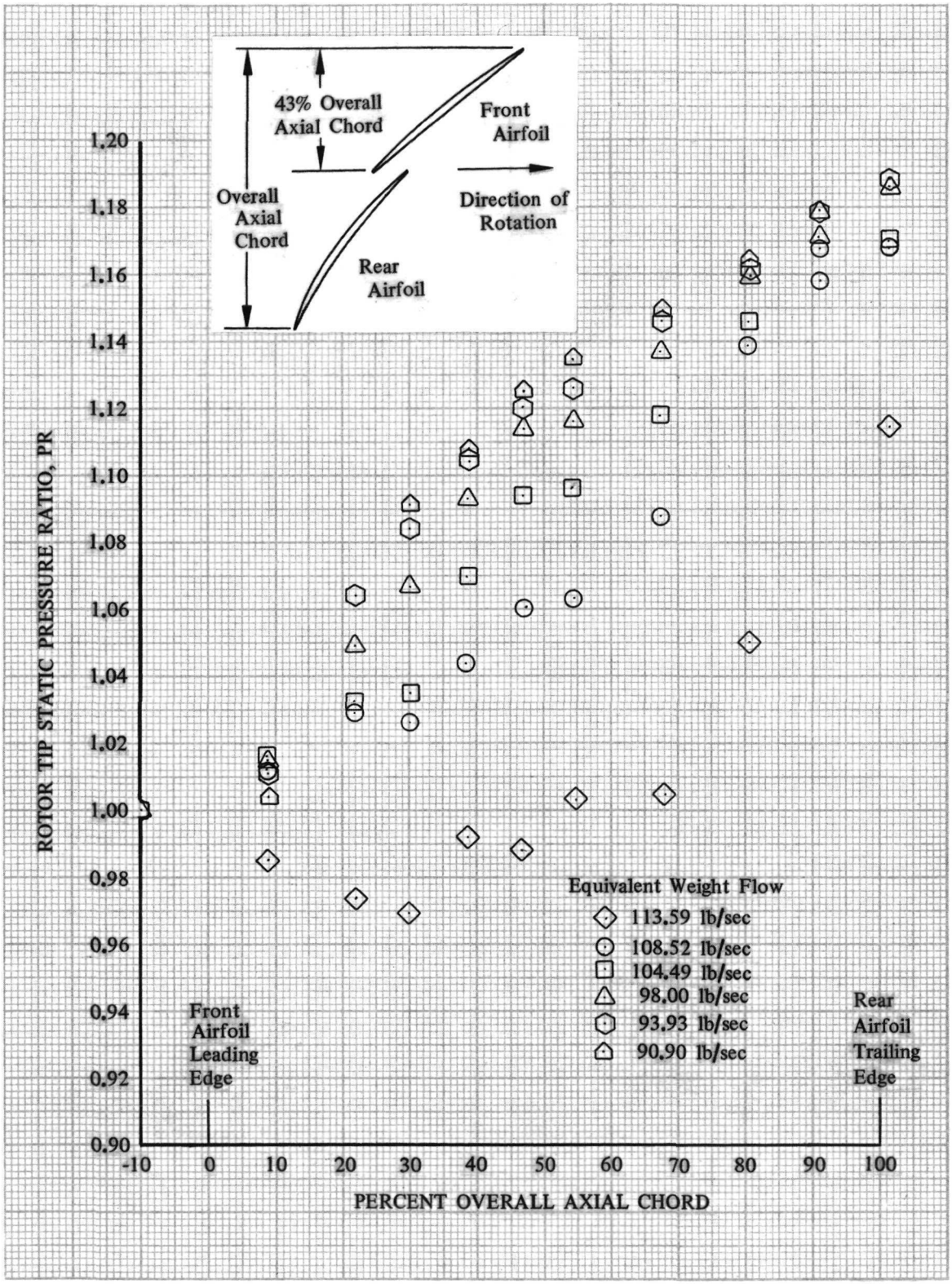


Figure 17. Rotor B Tip Static Pressure Ratio vs Overall Axial Chord; 100% Design Equivalent Rotor Speed; Uniform Inlet Flow

DF 95689

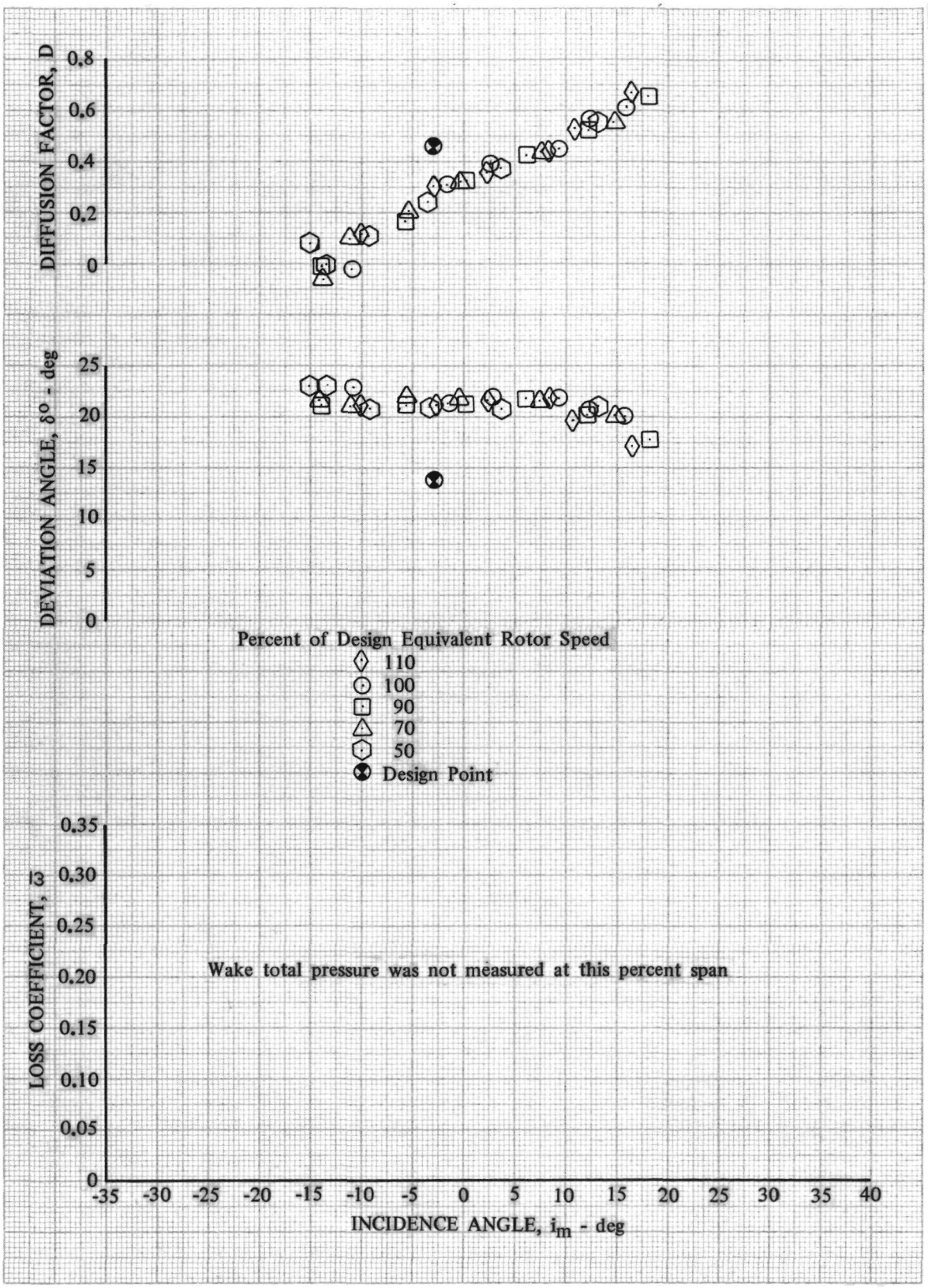


Figure 18a. Stator B Blade Element Performance, 5% Span From Tip; Uniform Inlet Flow

DF 95690

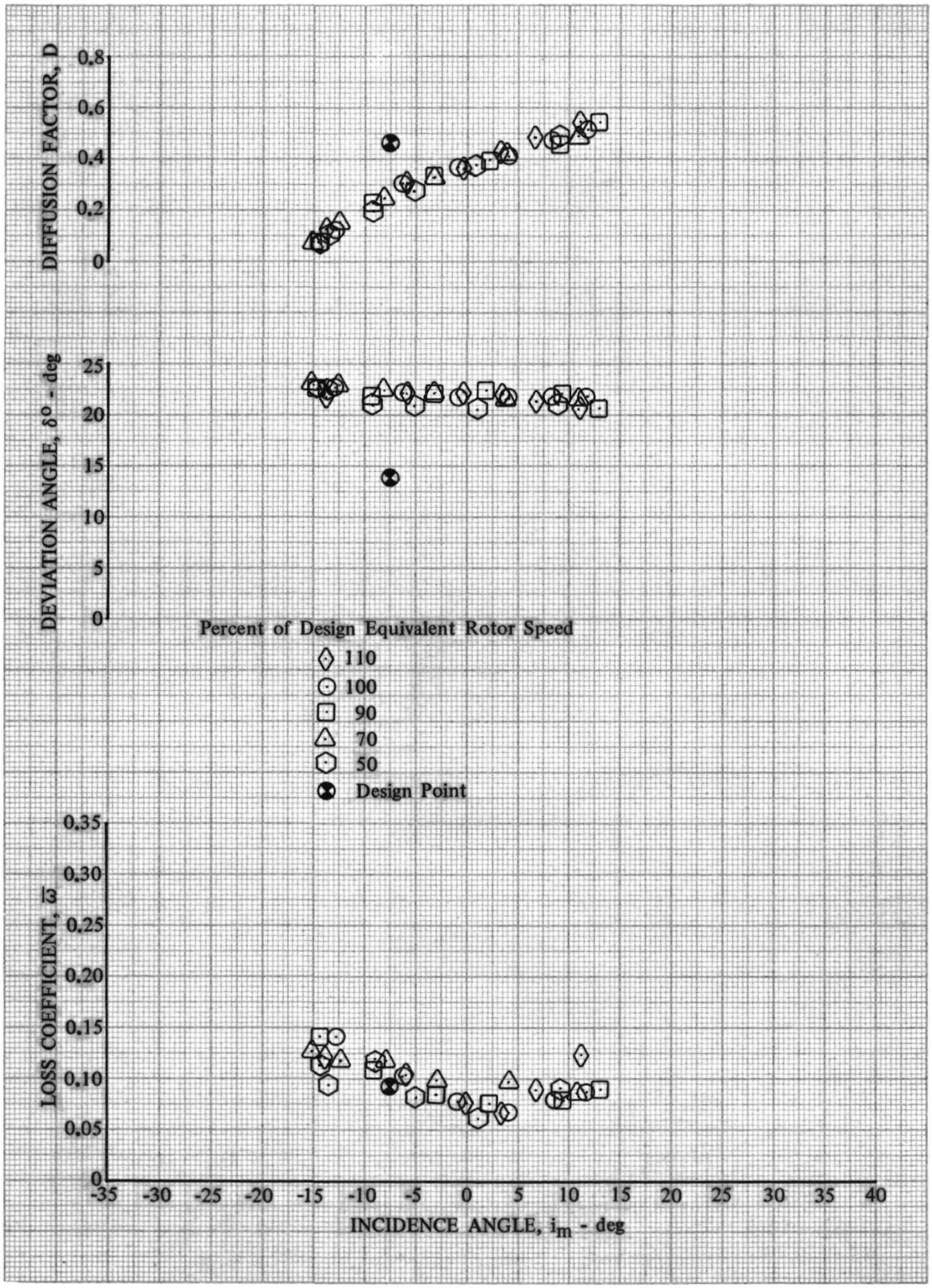


Figure 18b. Stator B Blade Element Performance, 10% Span From Tip; Uniform Inlet Flow

DF 95691

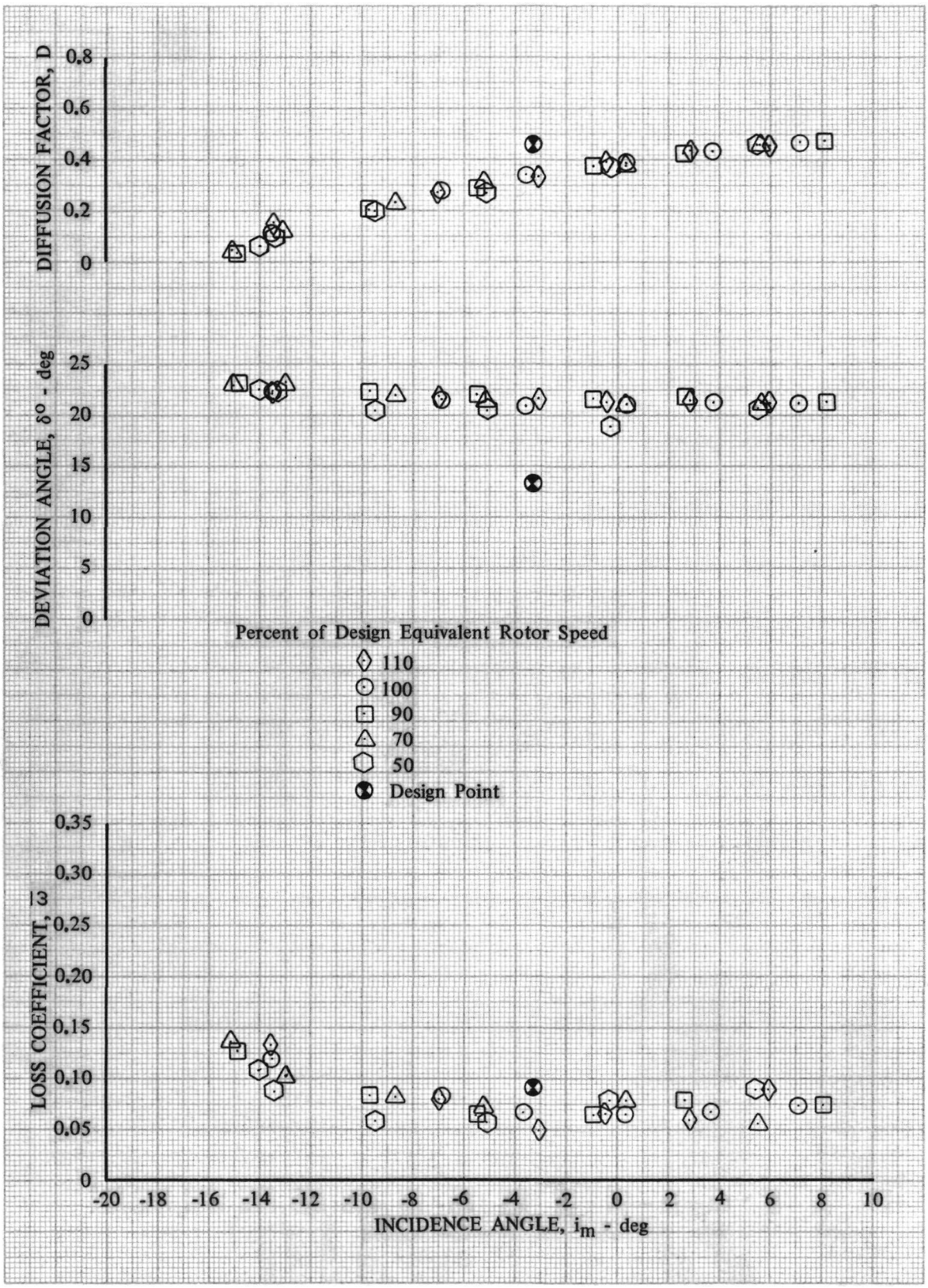


Figure 18c. Stator B Blade Element Performance, 15% Span From Tip; Uniform Inlet Flow

DF 95692

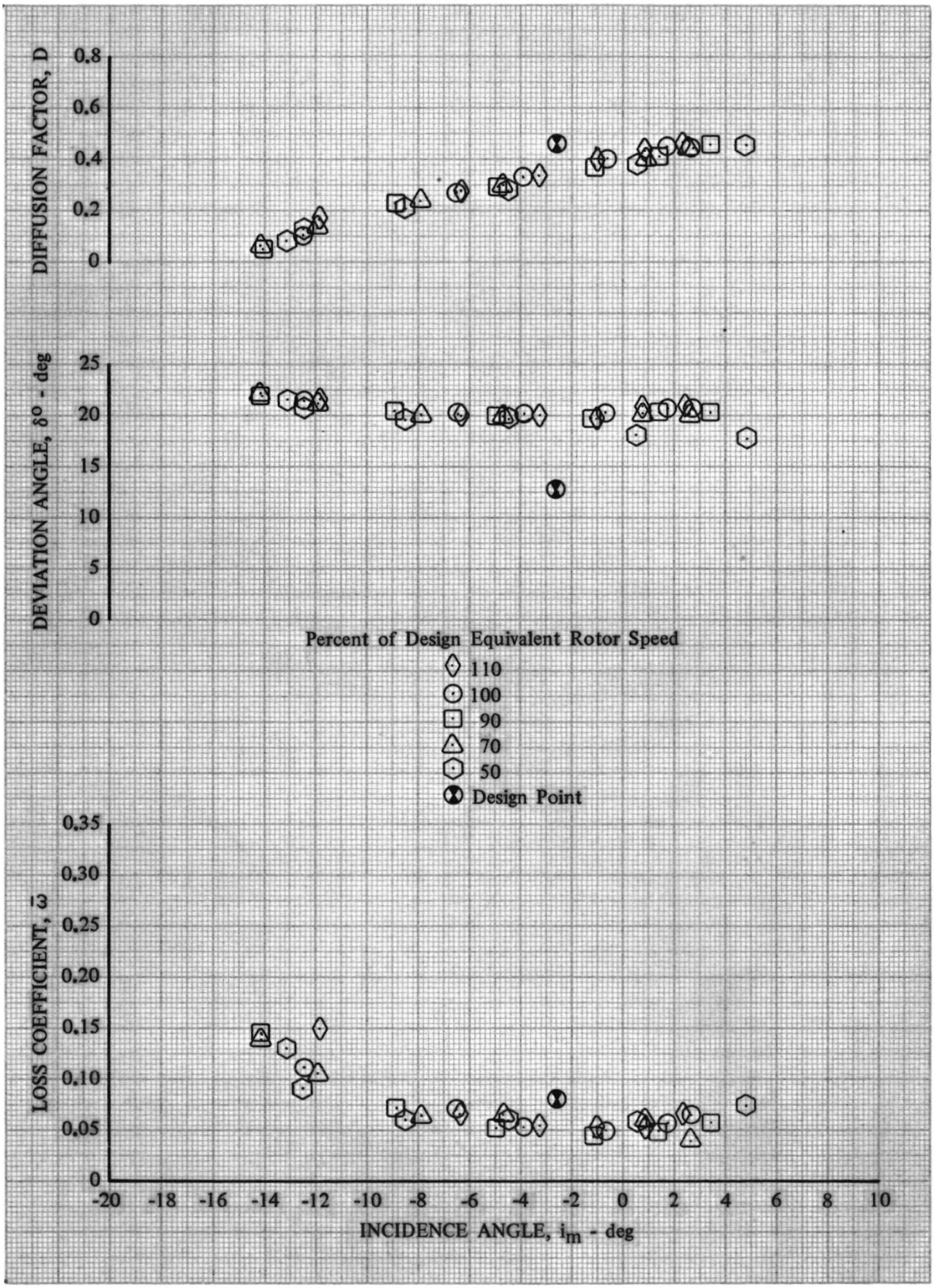


Figure 18d. Stator B Blade Element Performance, 30% Span From Tip; Uniform Inlet Flow DF 95693

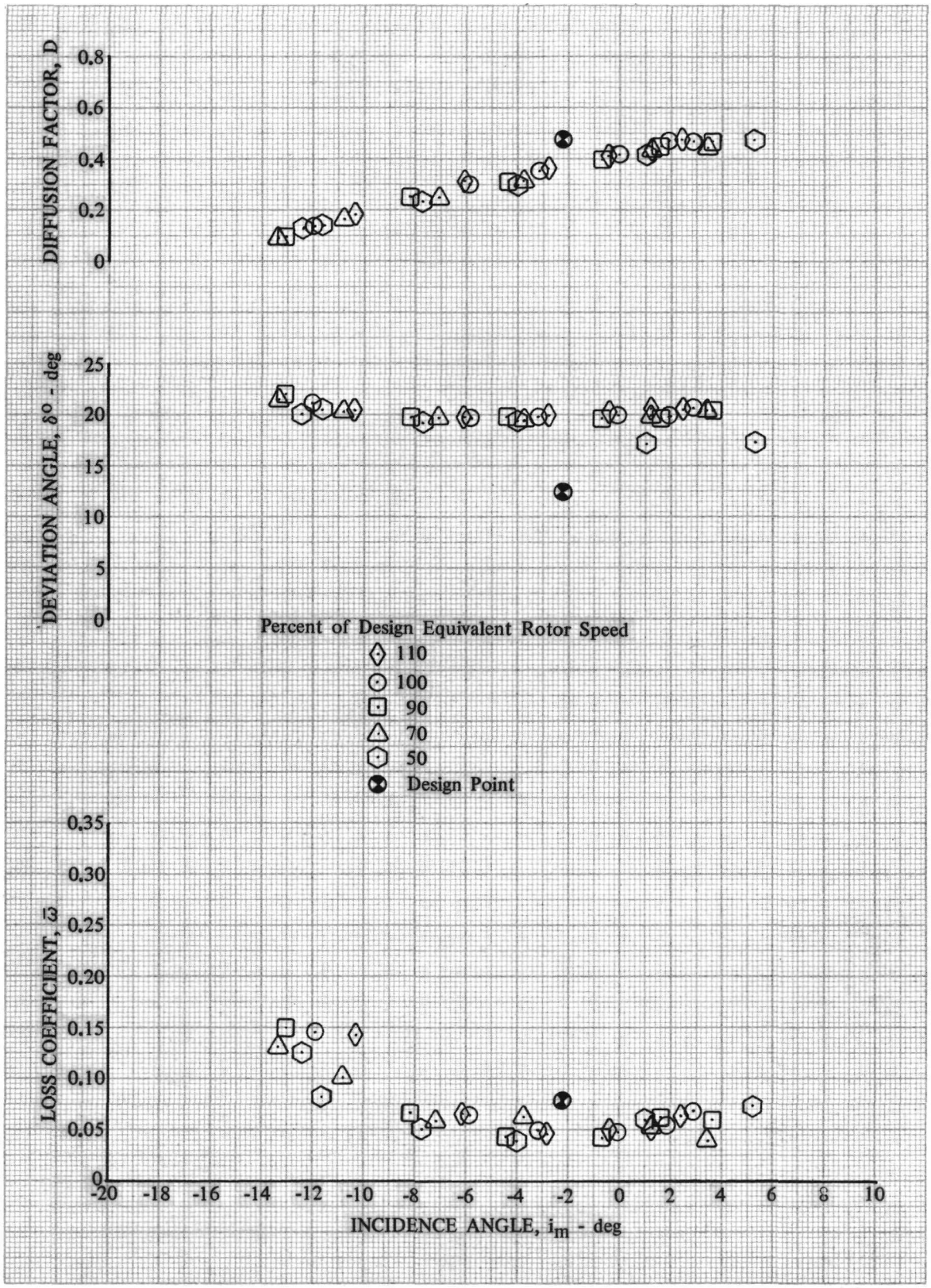


Figure 18e. Stator B Blade Element Performance, 50% Span; Uniform Inlet Flow DF 95694

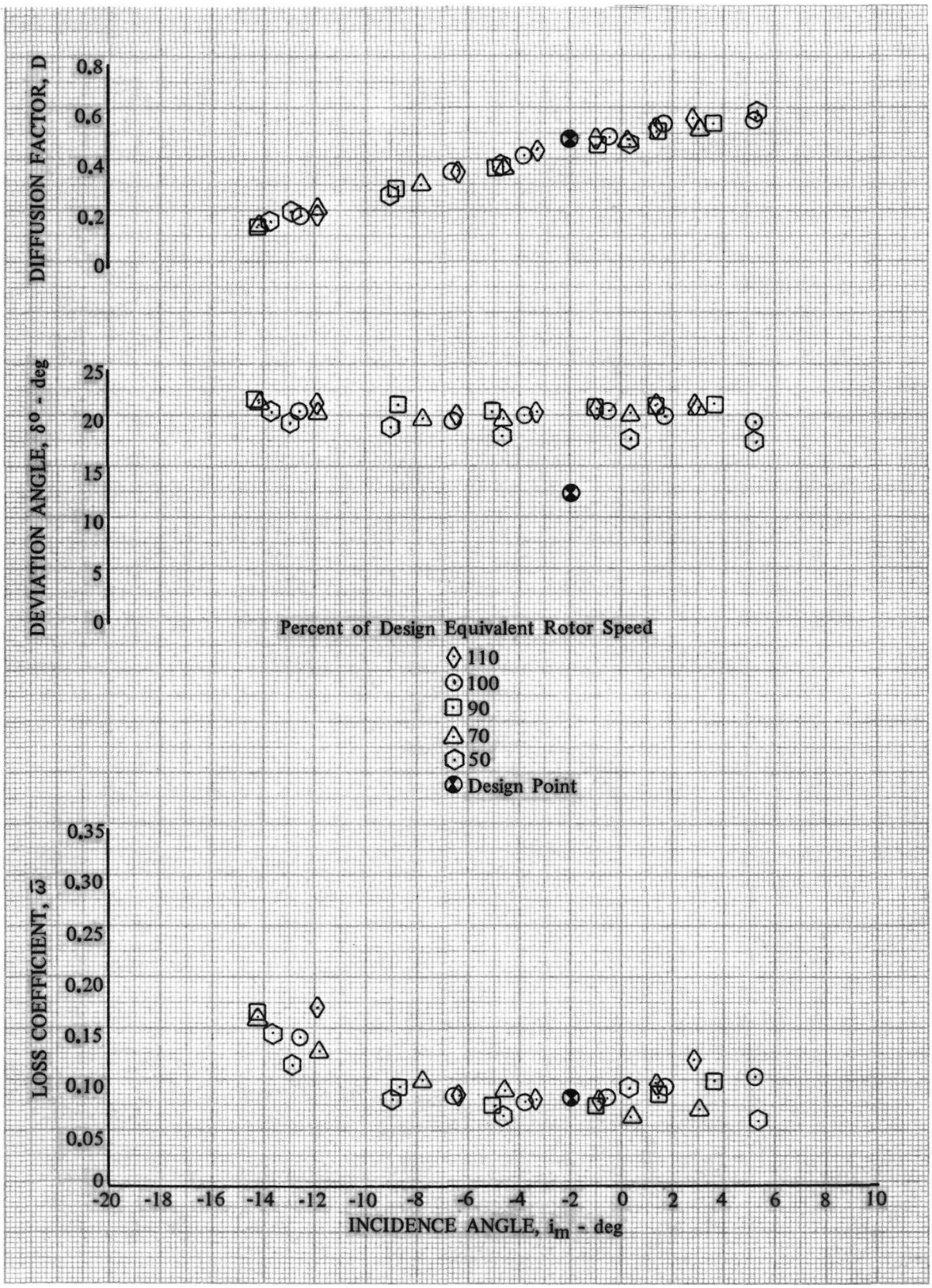


Figure 18f. Stator B Blade Element Performance, 70% Span From Tip; Uniform Inlet Flow

DF 95695

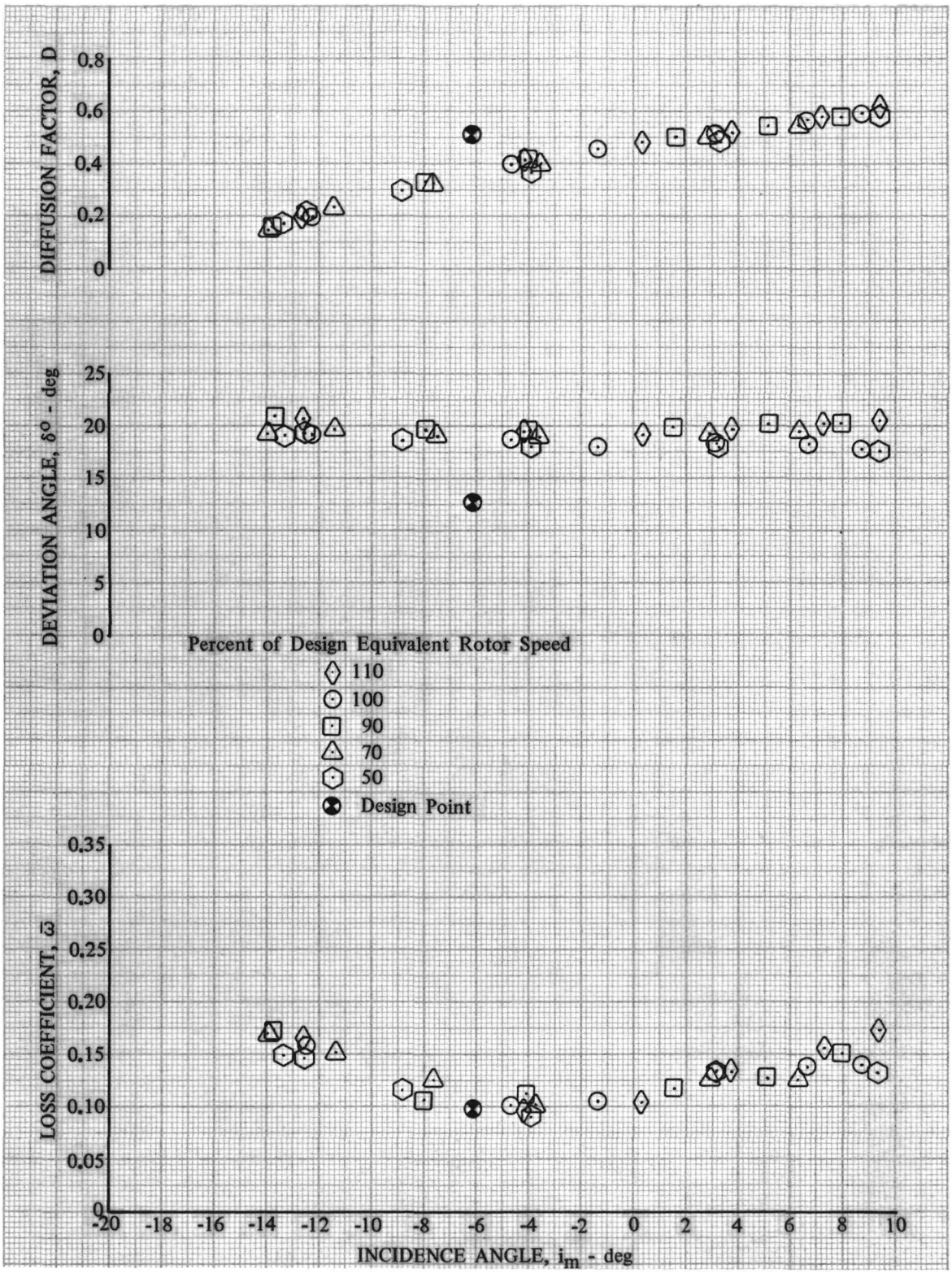


Figure 18g. Stator B Blade Element Performance, 85% Span from Tip; Uniform Inlet Flow

DF 95696

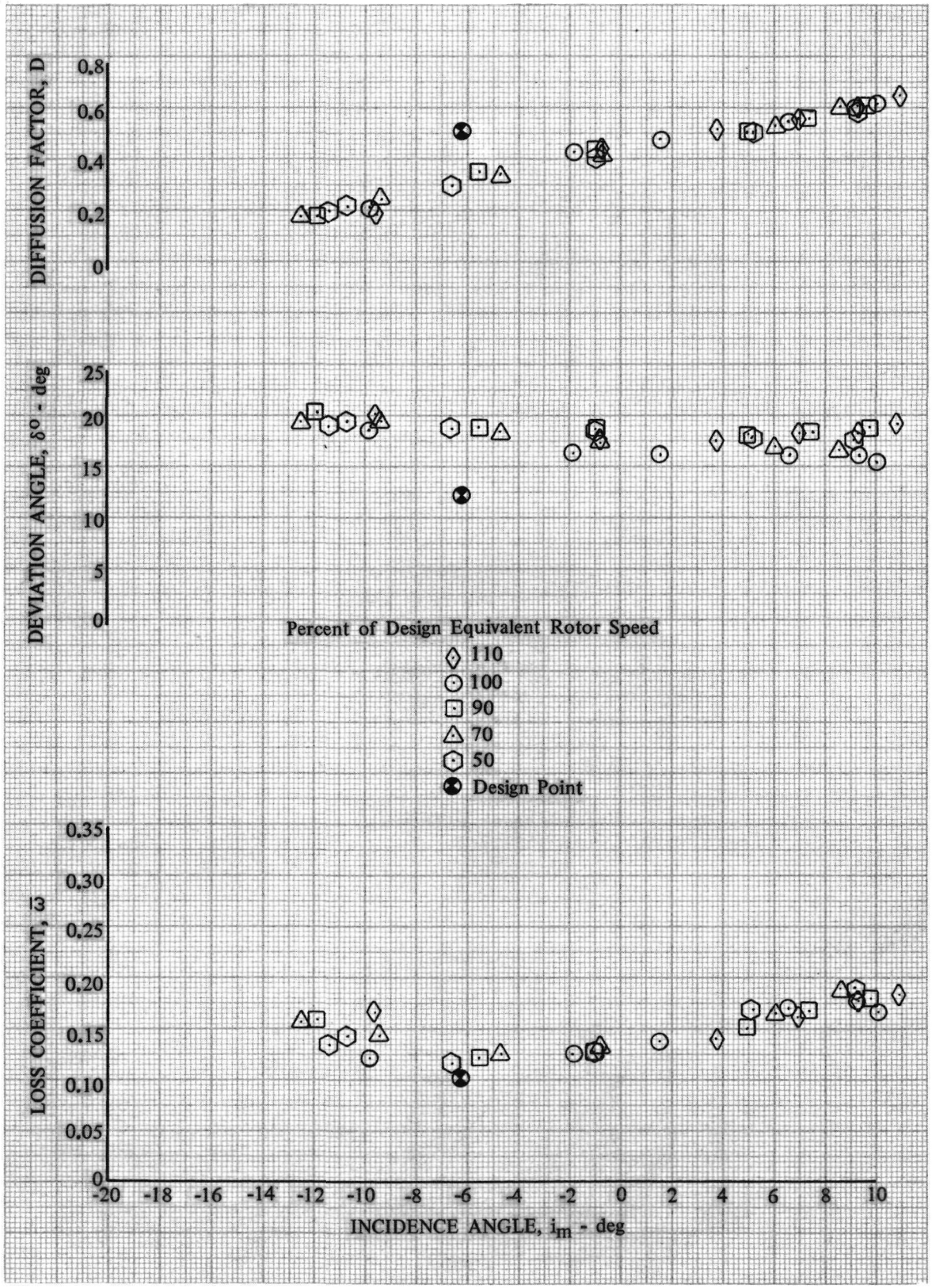


Figure 18h. Stator B Blade Element Performance, 90% Span from Tip; Uniform Inlet Flow

DF 95697

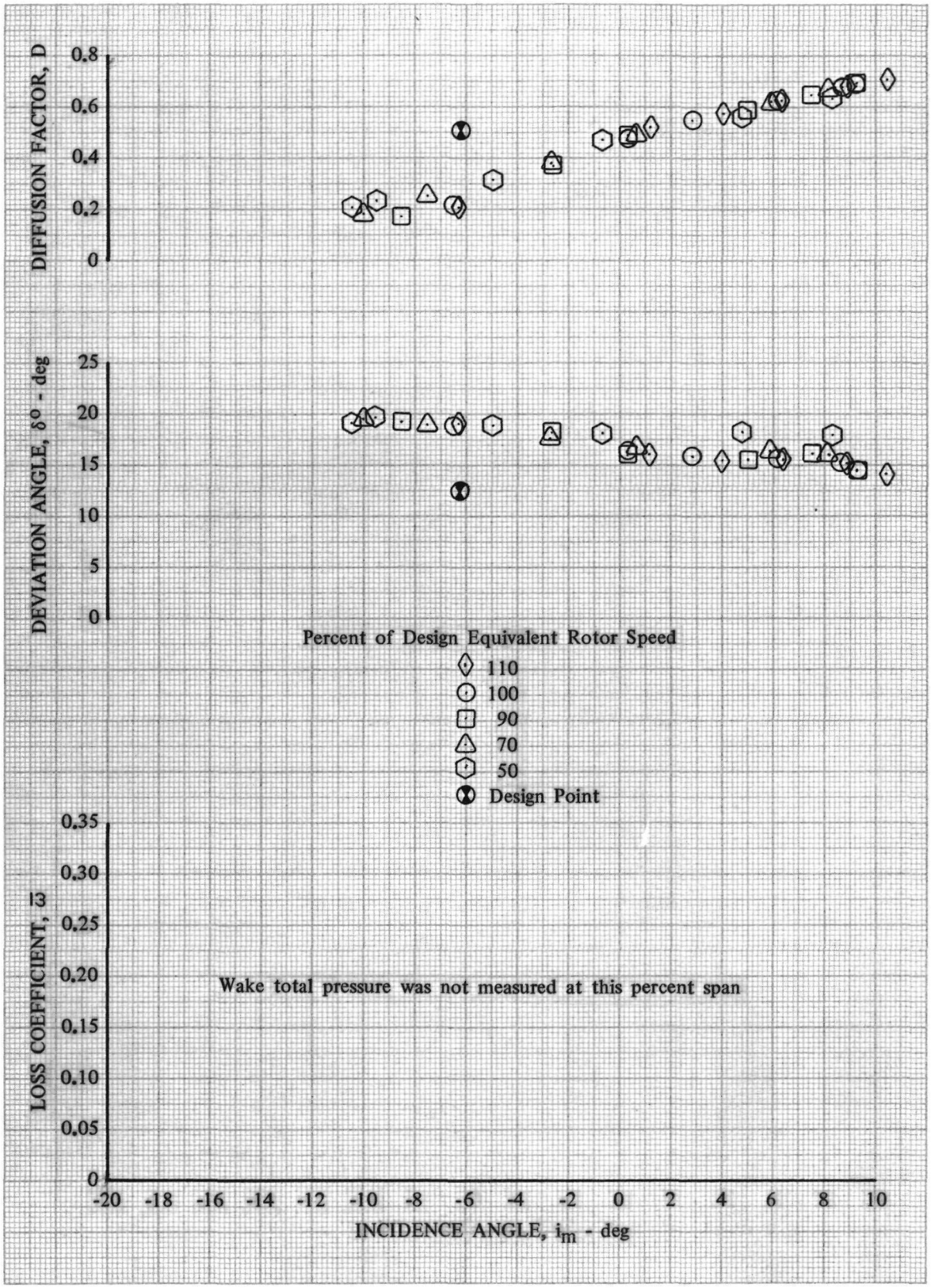


Figure 18i. Stator B Blade Element Performance, 95% Span from Tip; Uniform Inlet Flow

DF 95698

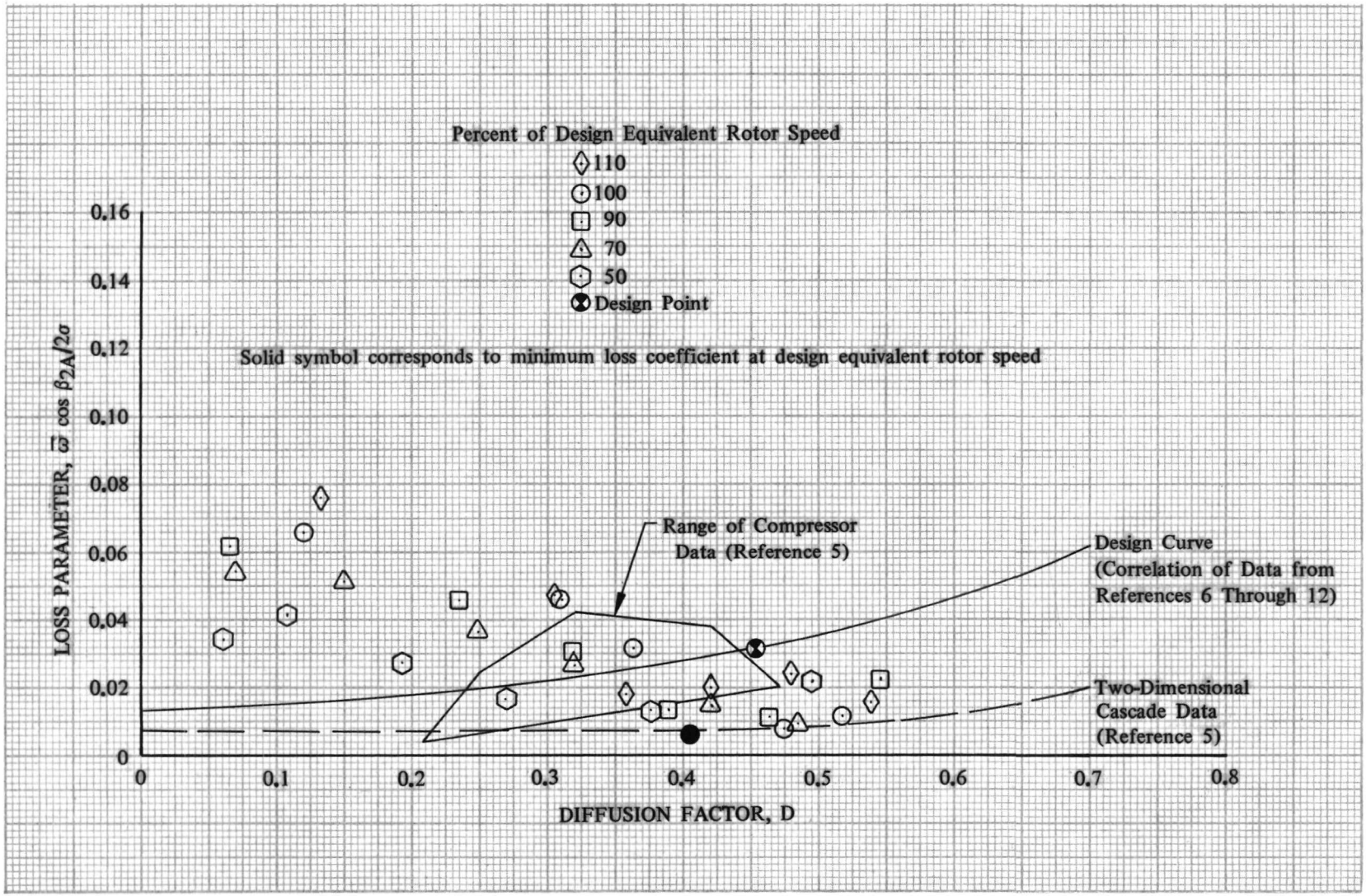


Figure 19a. Stator B Loss Parameter vs Diffusion Factor; 10% Span From Tip; Uniform Inlet Flow DF 95699

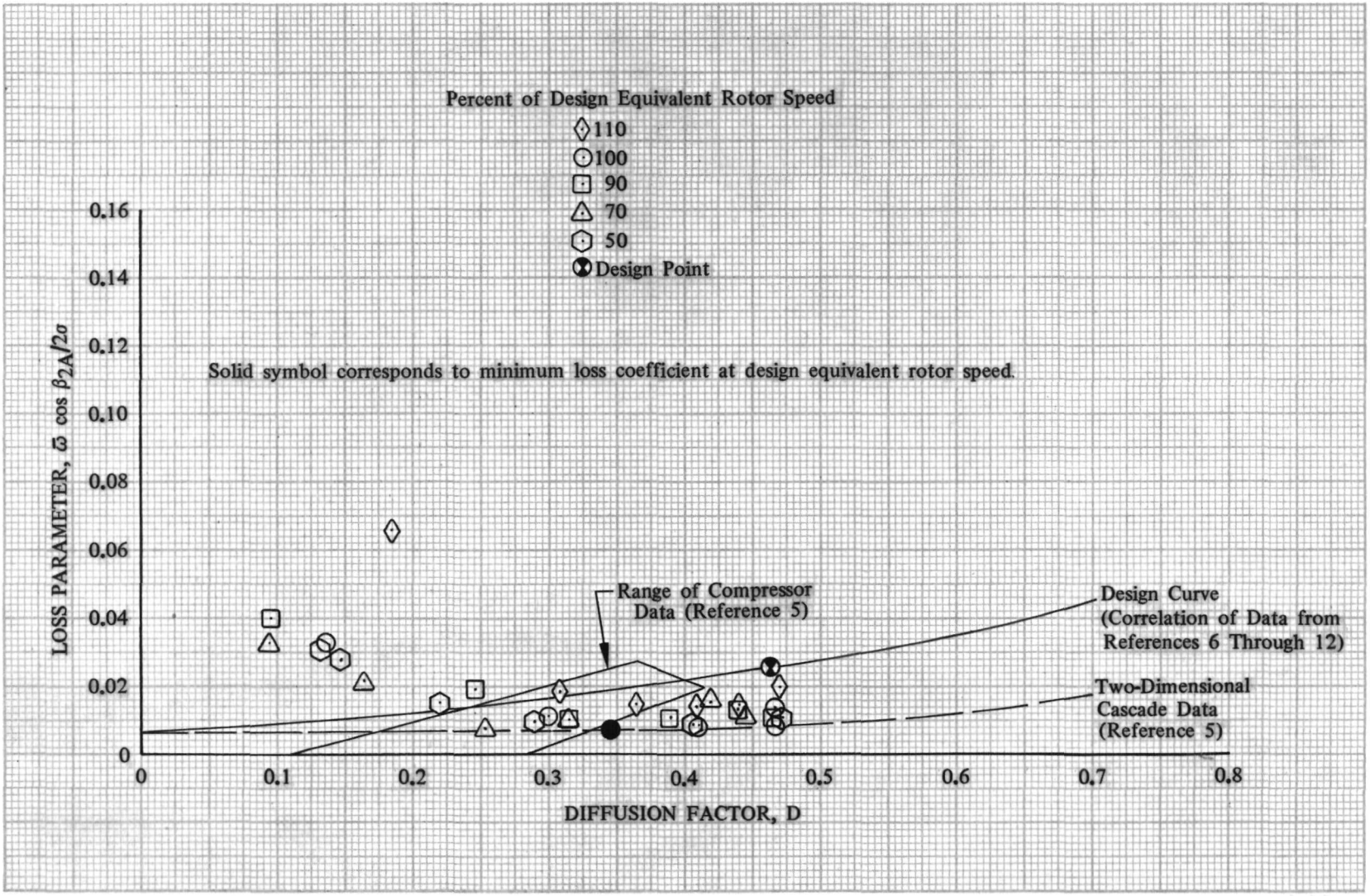


Figure 19b. Stator B Loss Parameter vs Diffusion Factor; 50% Span; Uniform Inlet Flow DF 95700

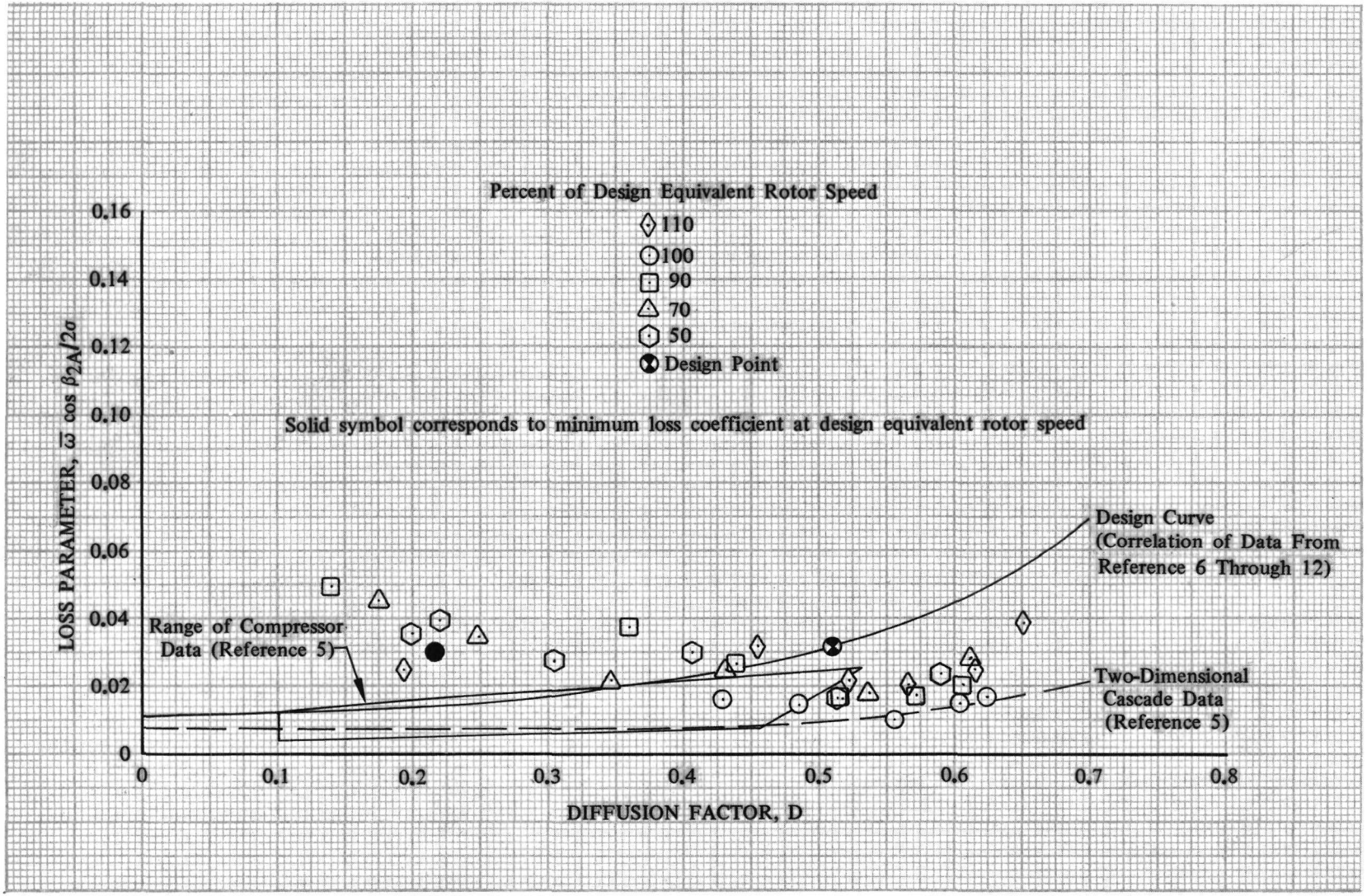


Figure 19c. Stator B Loss Parameter vs Diffusion Factor, 90% Span From Tip; Uniform Inlet Flow DF 95701

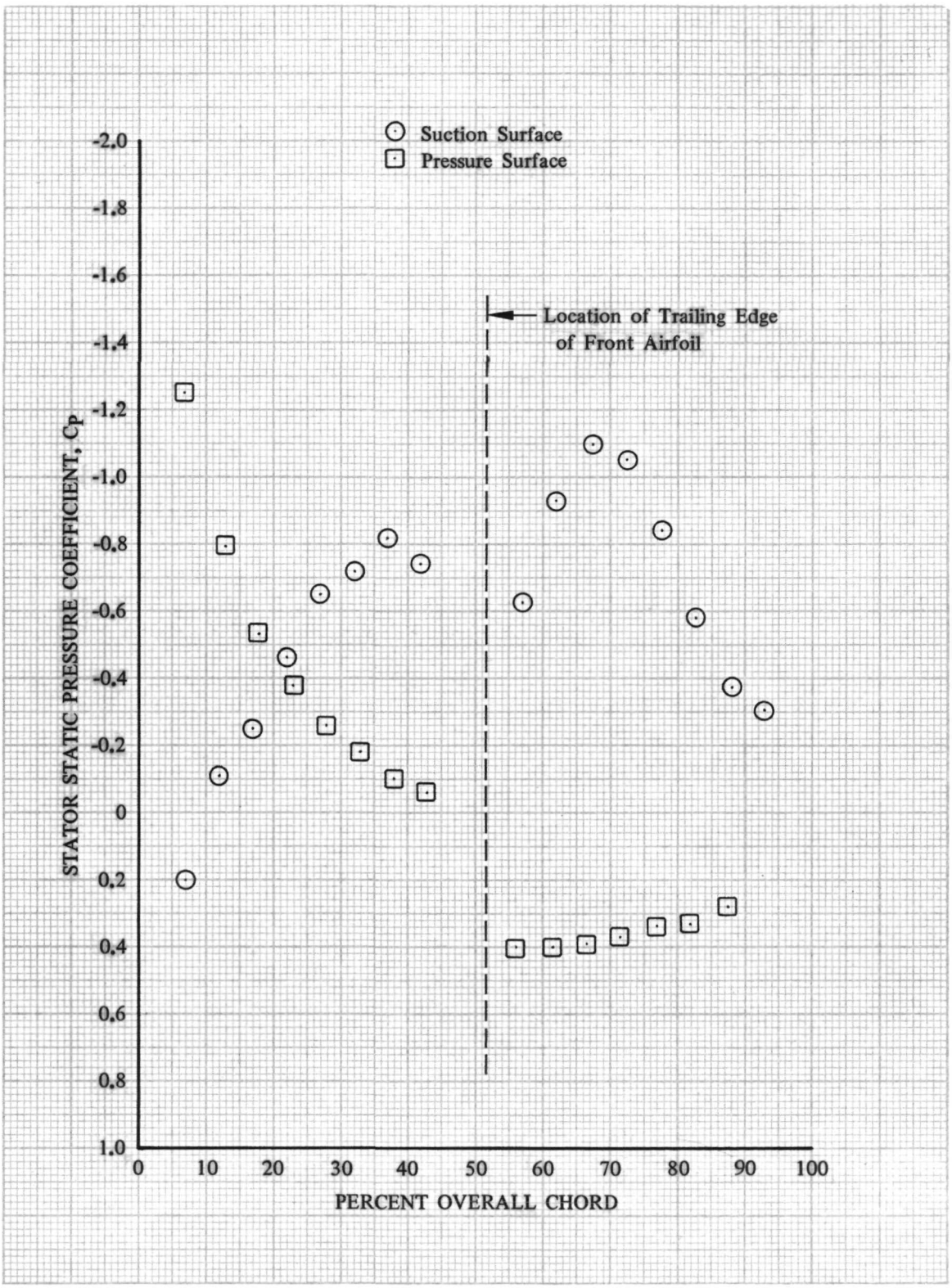


Figure 20a. Stator B Midspan Static Pressure Coefficient vs Overall Chord; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 113.59 lb/sec; Uniform Inlet Flow

DF 95702

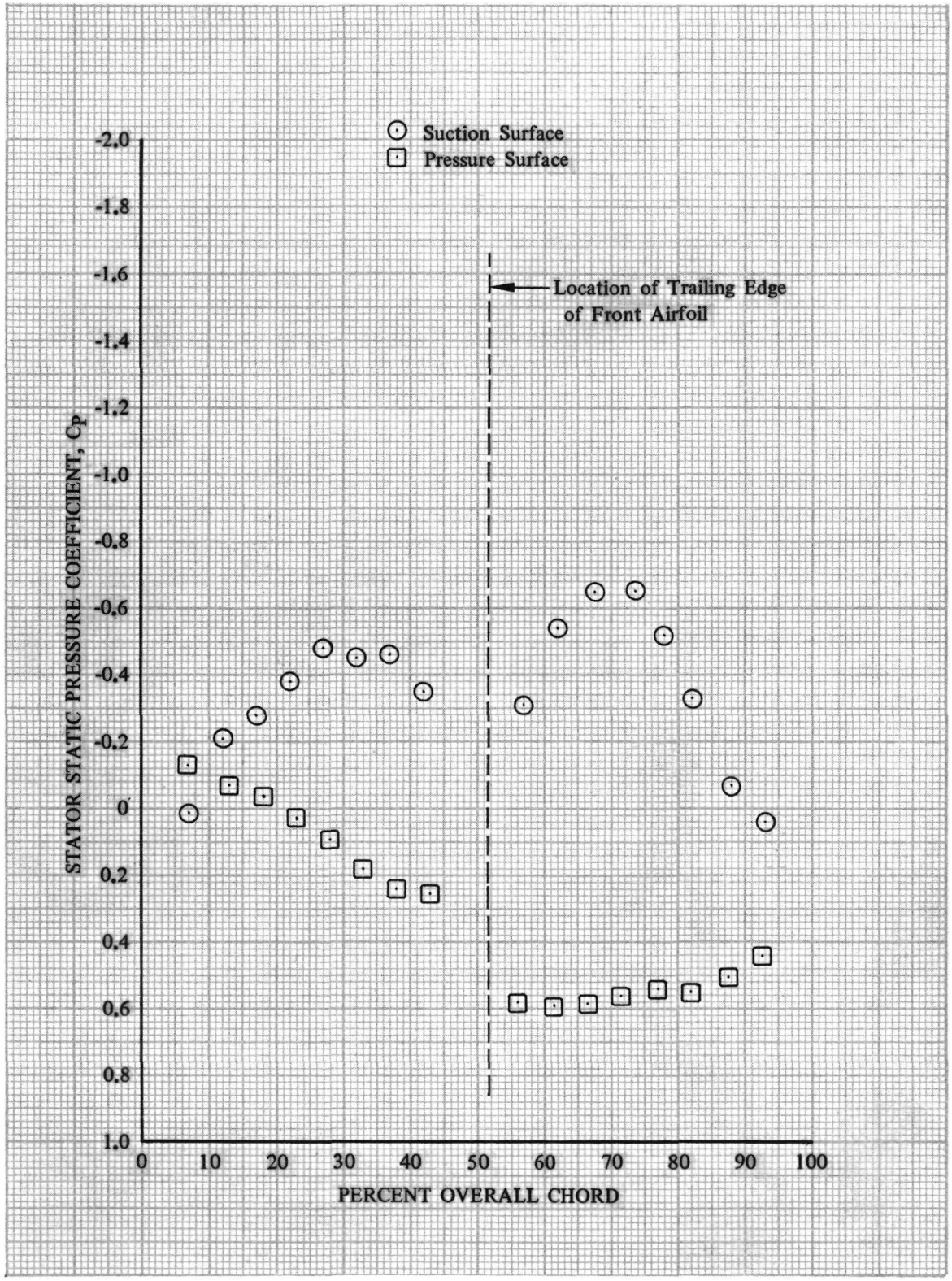


Figure 20b. Stator B Midspan Static Pressure Coefficient vs Overall Chord; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 108.52 lb/sec; Uniform Inlet Flow DF 95703

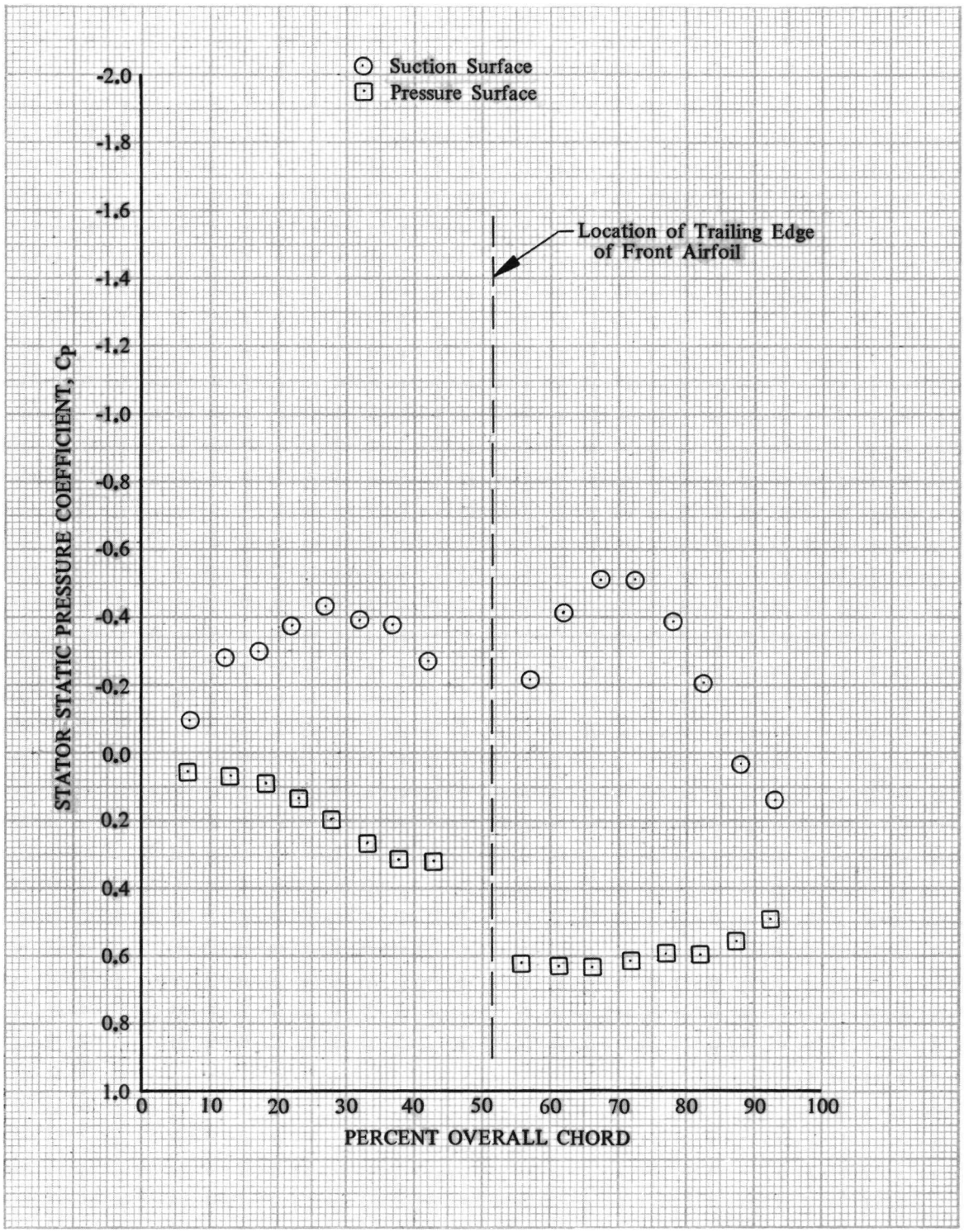


Figure 20c. Stator B Midspan Static Pressure Coefficient vs Overall Chord; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 104.49 lb/sec; Uniform Inlet Flow

DF 95704

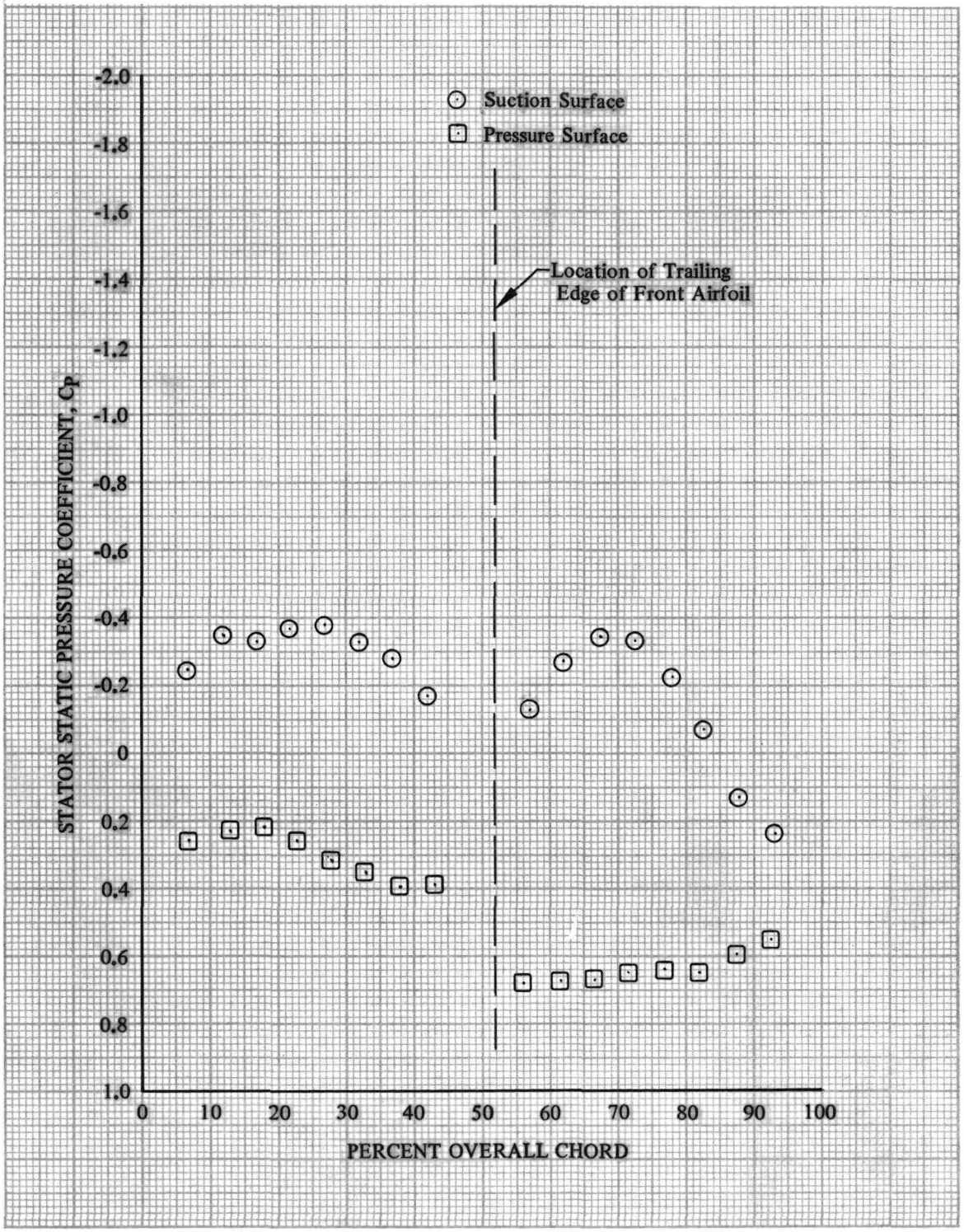


Figure 20d. Stator B Midspan Static Pressure Coefficient vs Overall Chord; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 98.00 lb/sec; Uniform Inlet Flow

DF 95705

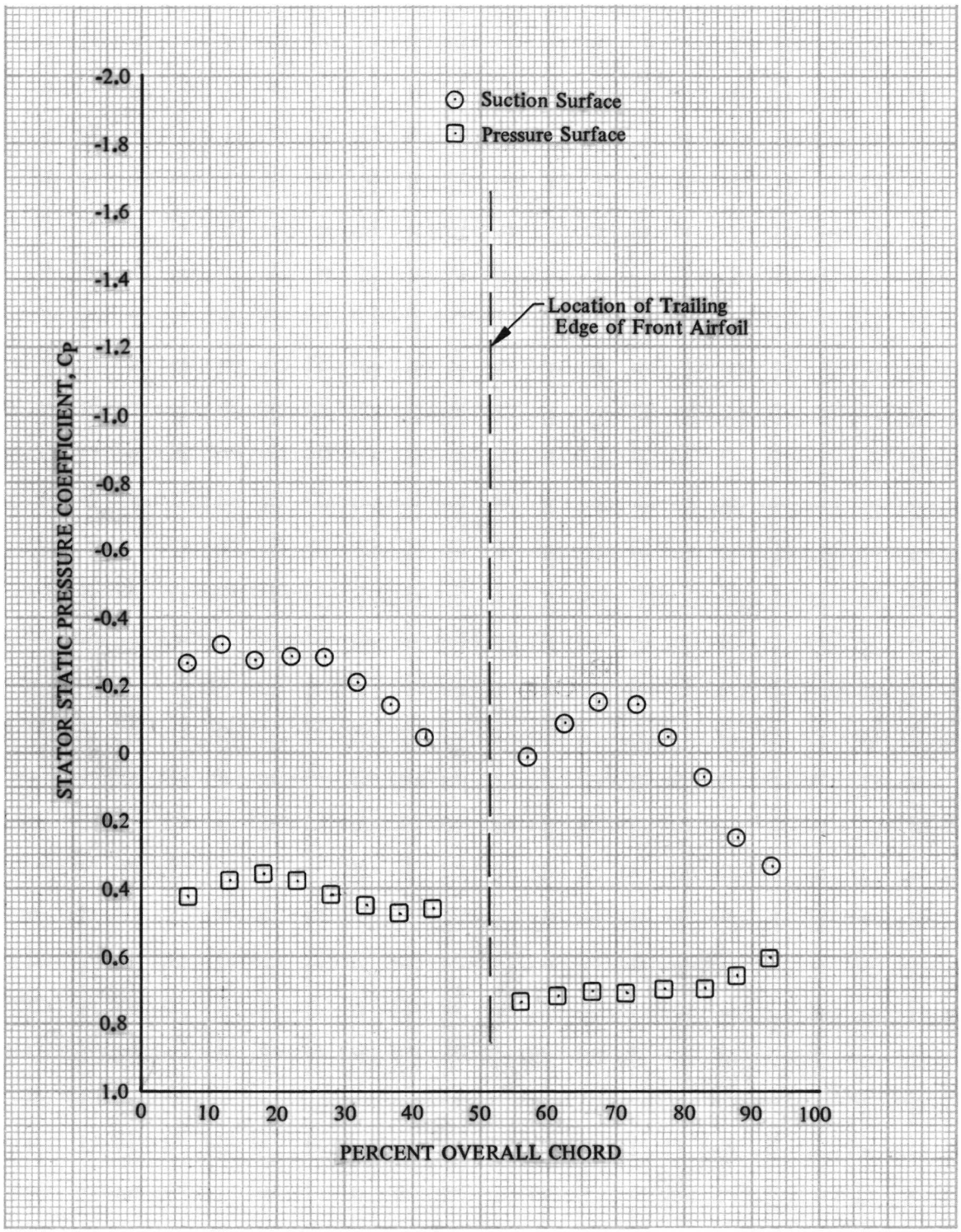


Figure 20e. Stator B Midspan Static Pressure Coefficient vs Overall Chord; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 93.93 lb/sec; Uniform Inlet Flow

DF 95706

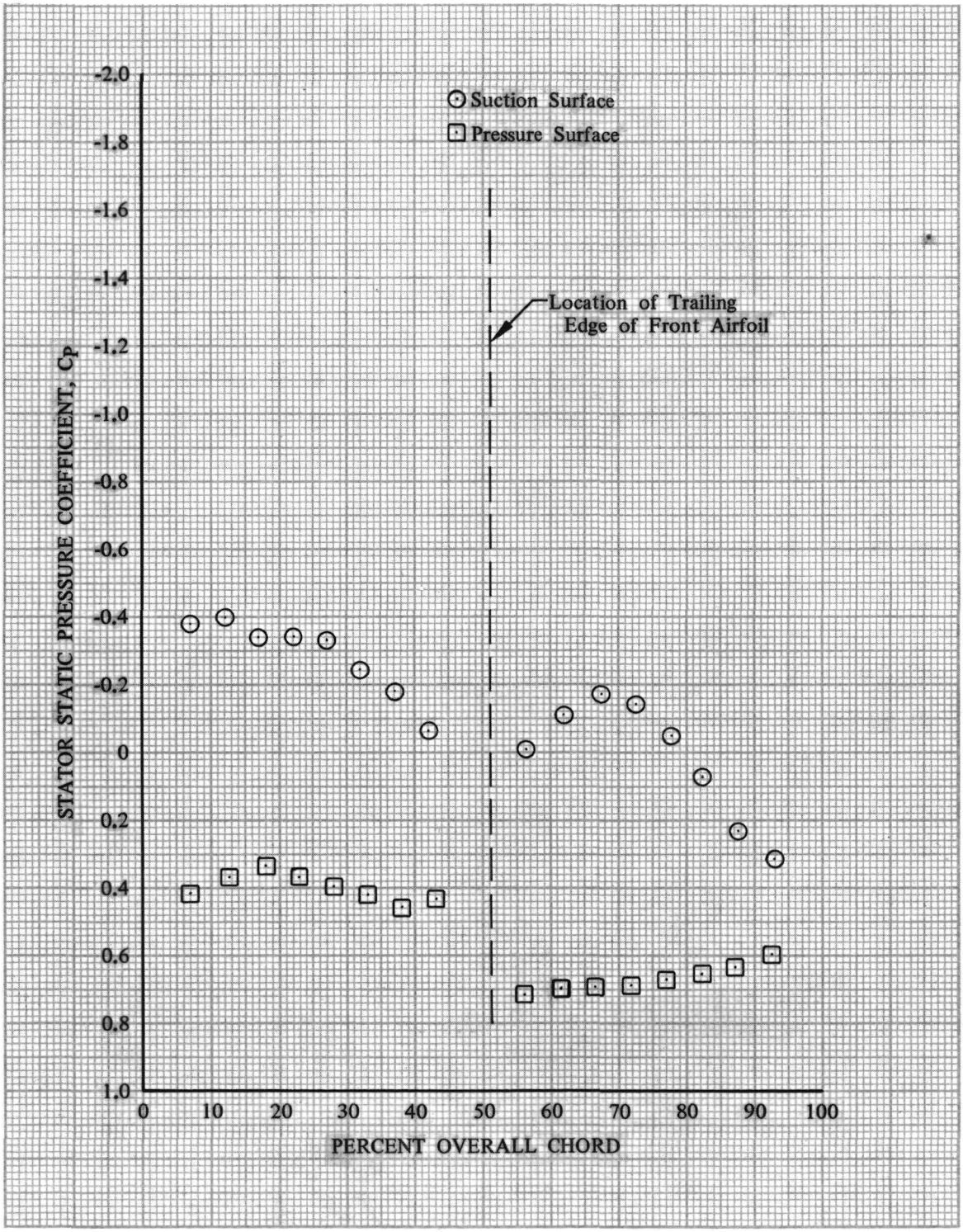


Figure 20f. Stator B Midspan Static Pressure Coefficient vs Overall Chord; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 90.90 lb/sec; Uniform Inlet Flow

DF 95707

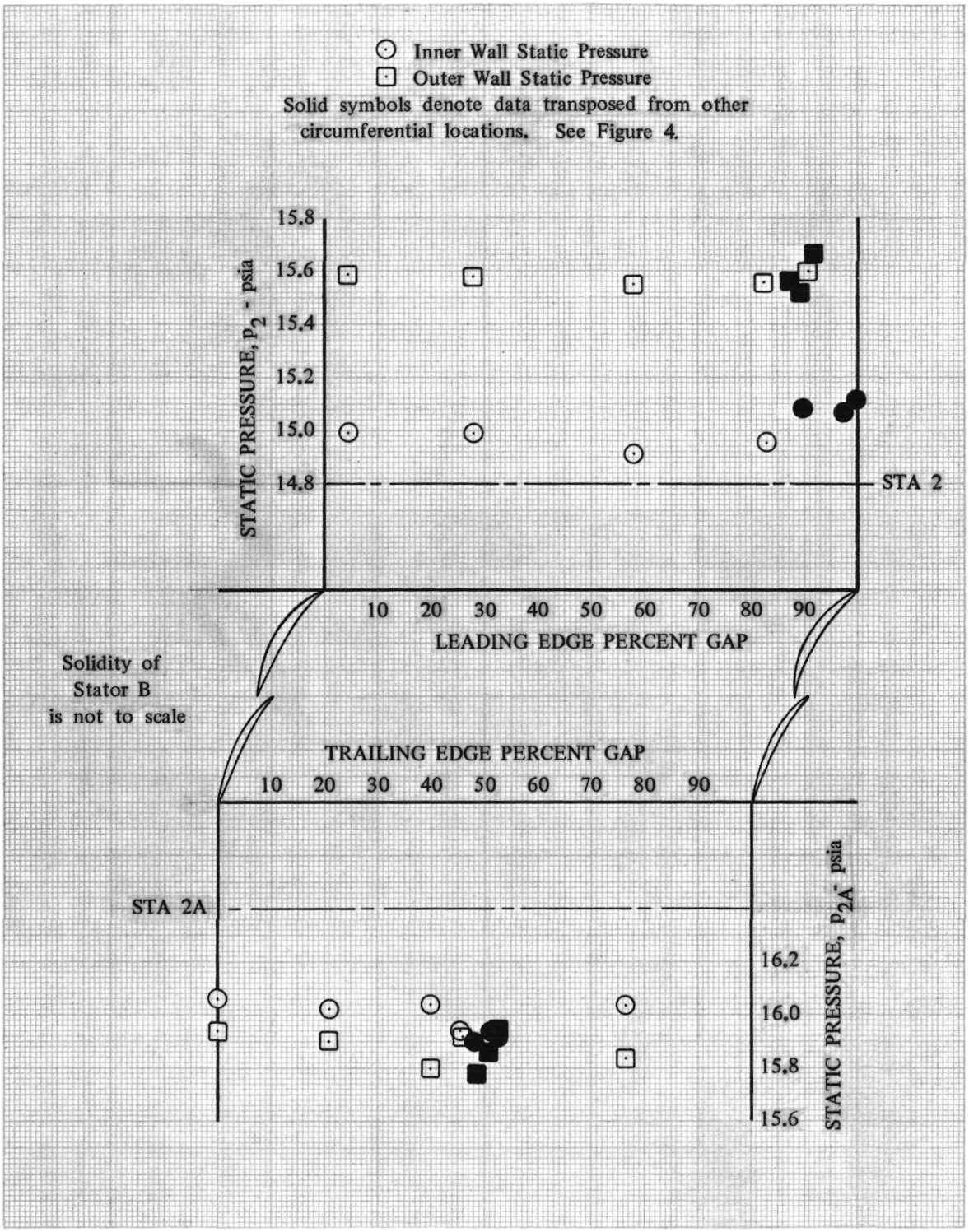


Figure 21a. Wall Static Pressure Distributions Upstream and Downstream of Stator B; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 108.52 lb/sec; Uniform Inlet Flow

DF 95708

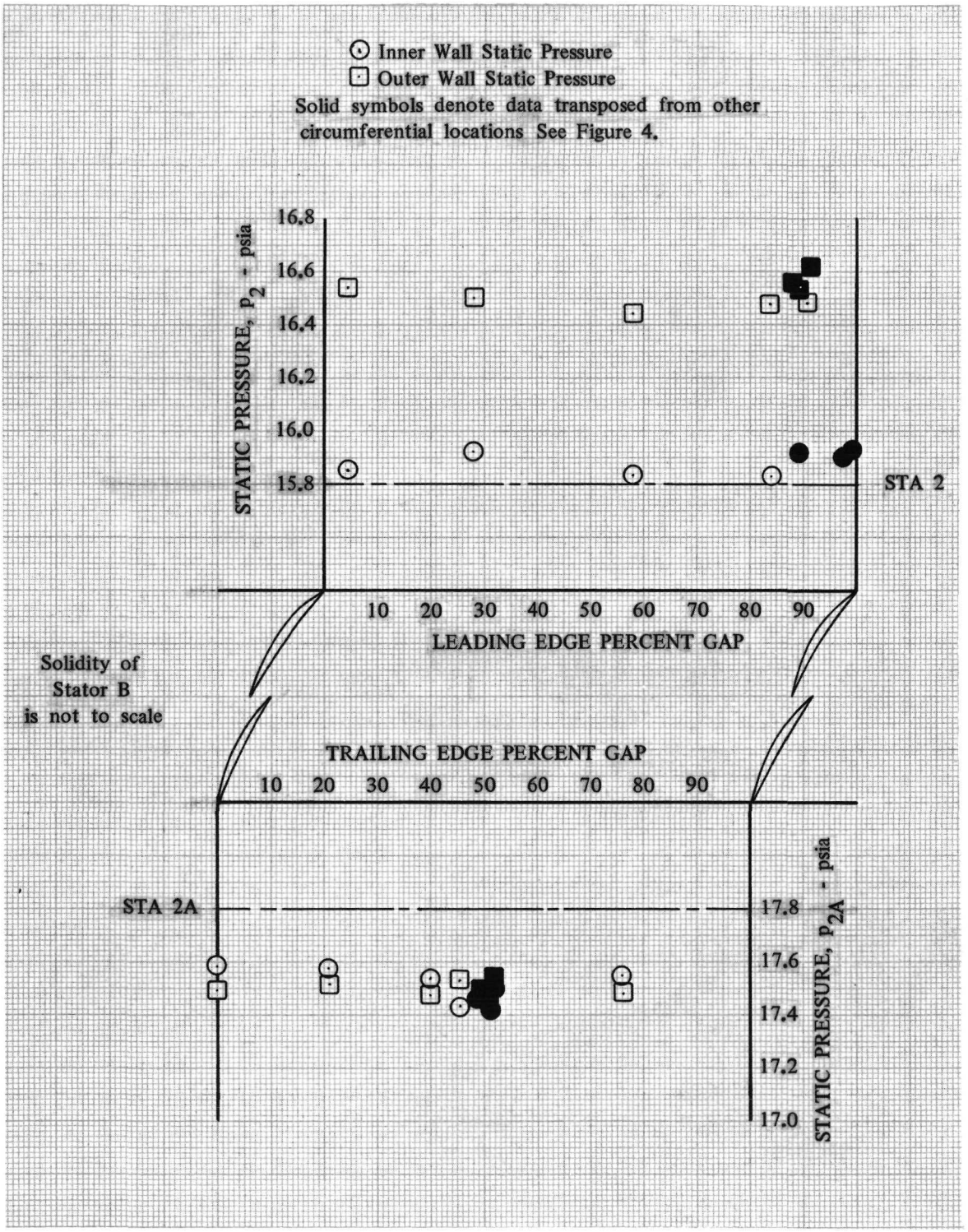


Figure 21b. Wall Static Pressure Distributions Upstream and Downstream of Stator B; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 90.90 lb/sec; Uniform Inlet Flow

DF 95709

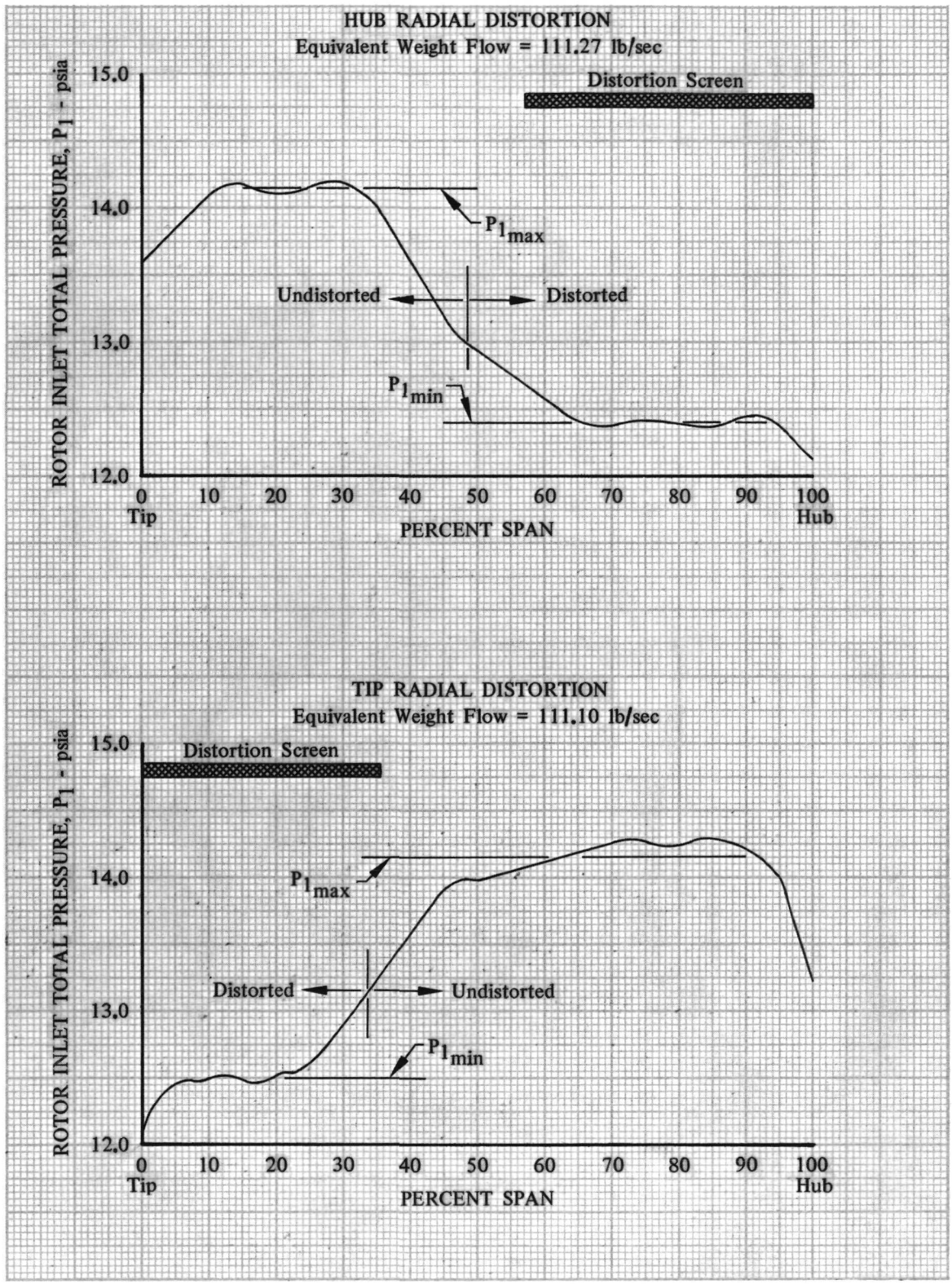


Figure 22. Typical Rotor Inlet Total Pressure Profiles With Hub and Tip Radial Distortion; 100% Design Equivalent Rotor Speed

DF 95710

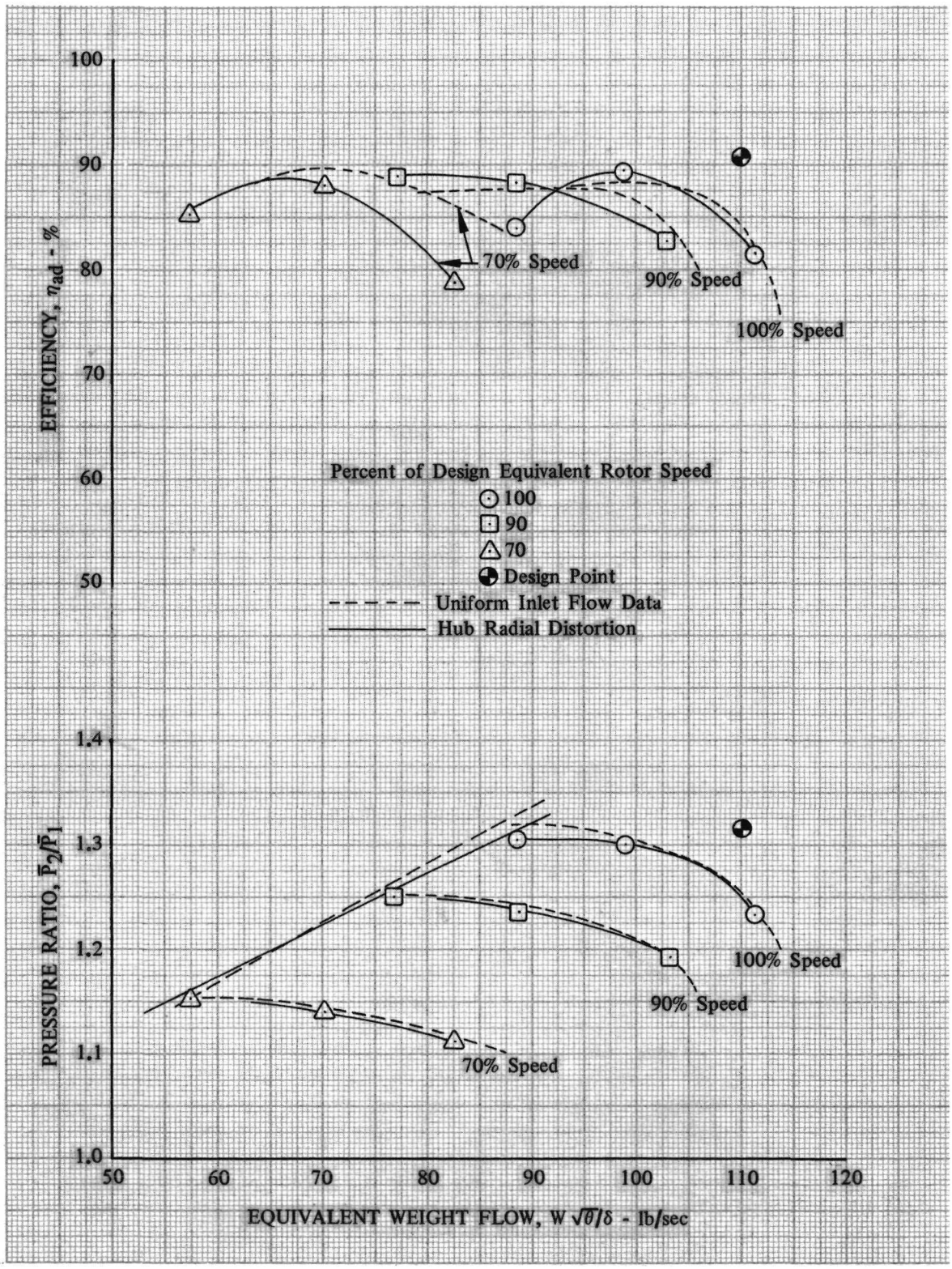


Figure 23. Overall Performance of Rotor B; Hub Radial Distortion vs Uniform Inlet Flow DF 95711

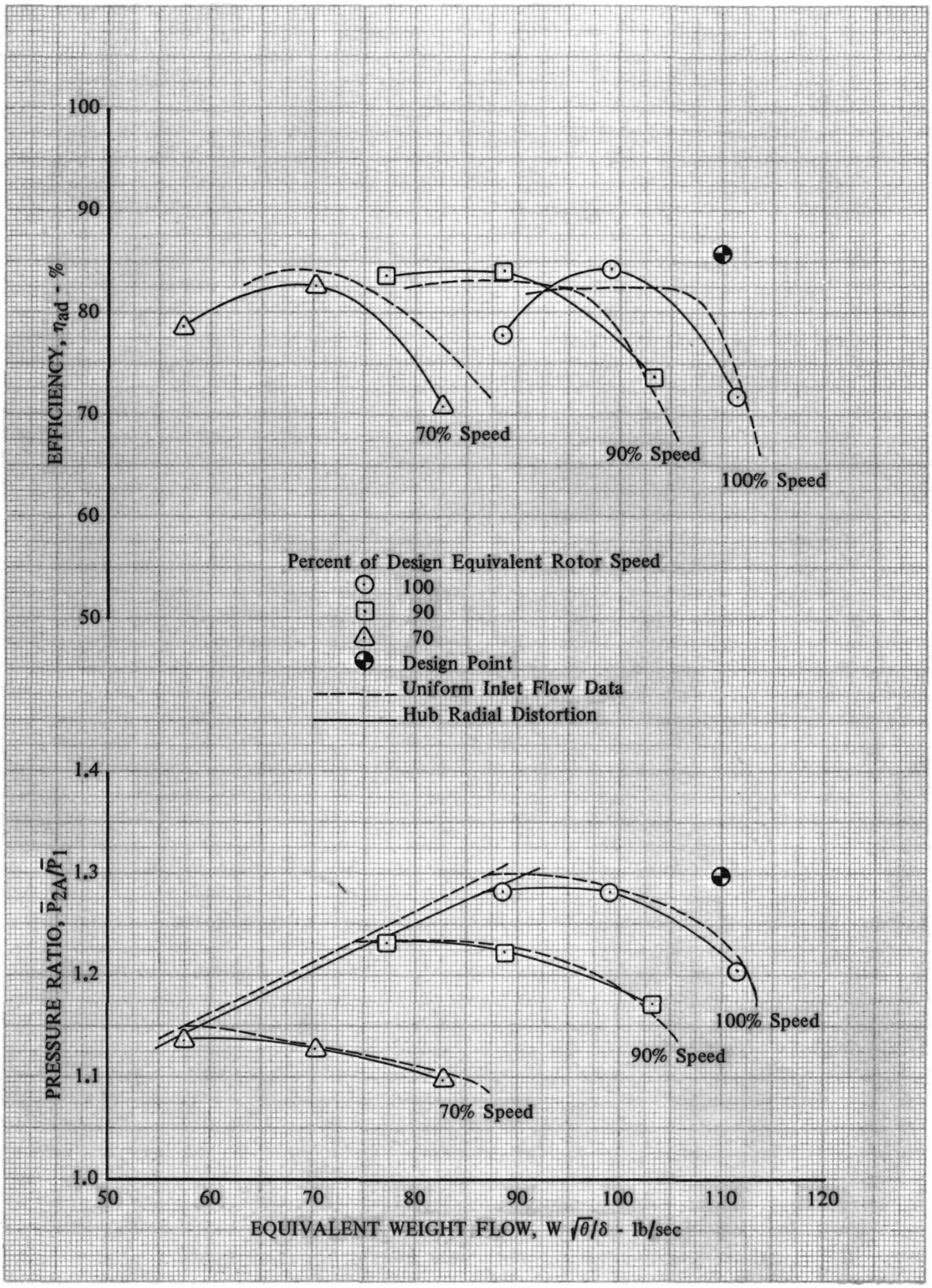


Figure 24. Overall Performance of Stage B; Hub Radial Distortion vs Uniform Inlet Flow

DF 95712

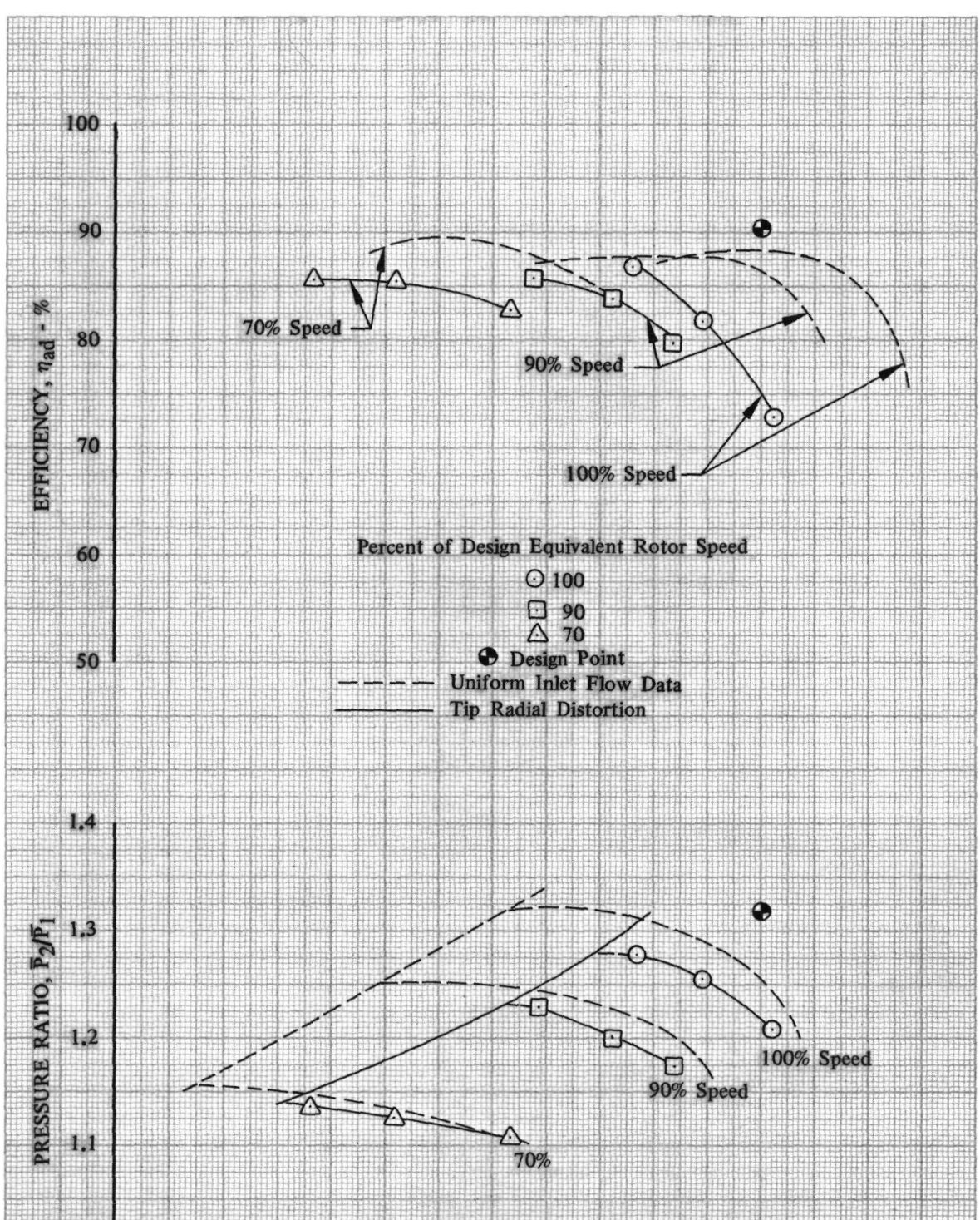


Figure 25. Overall Performance of Rotor B; Tip Radial Distortion vs Uniform Inlet Flow

DF 95713

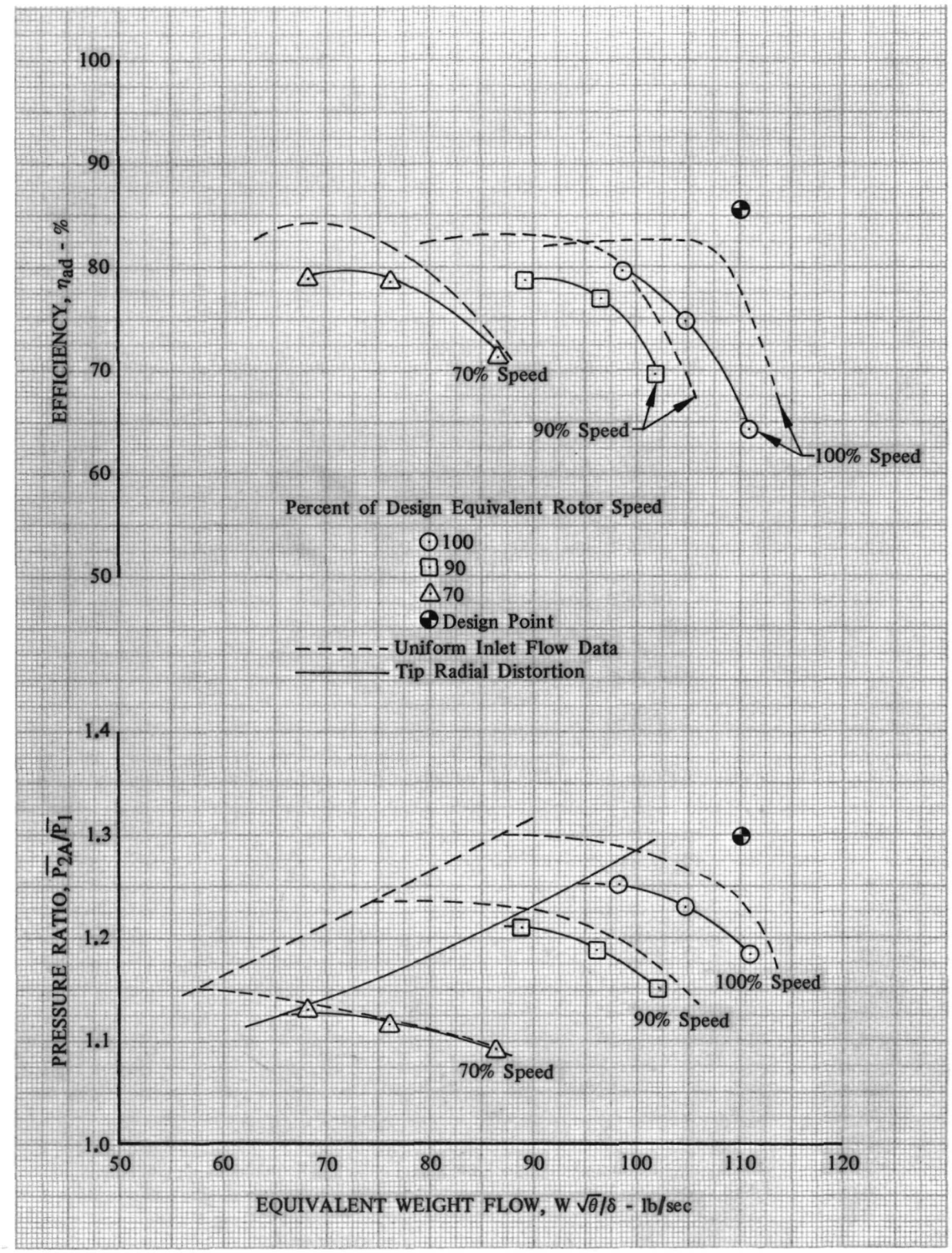


Figure 26. Overall Performance of Stage B; Tip Radial Distortion vs Uniform Inlet Flow

DF 95714

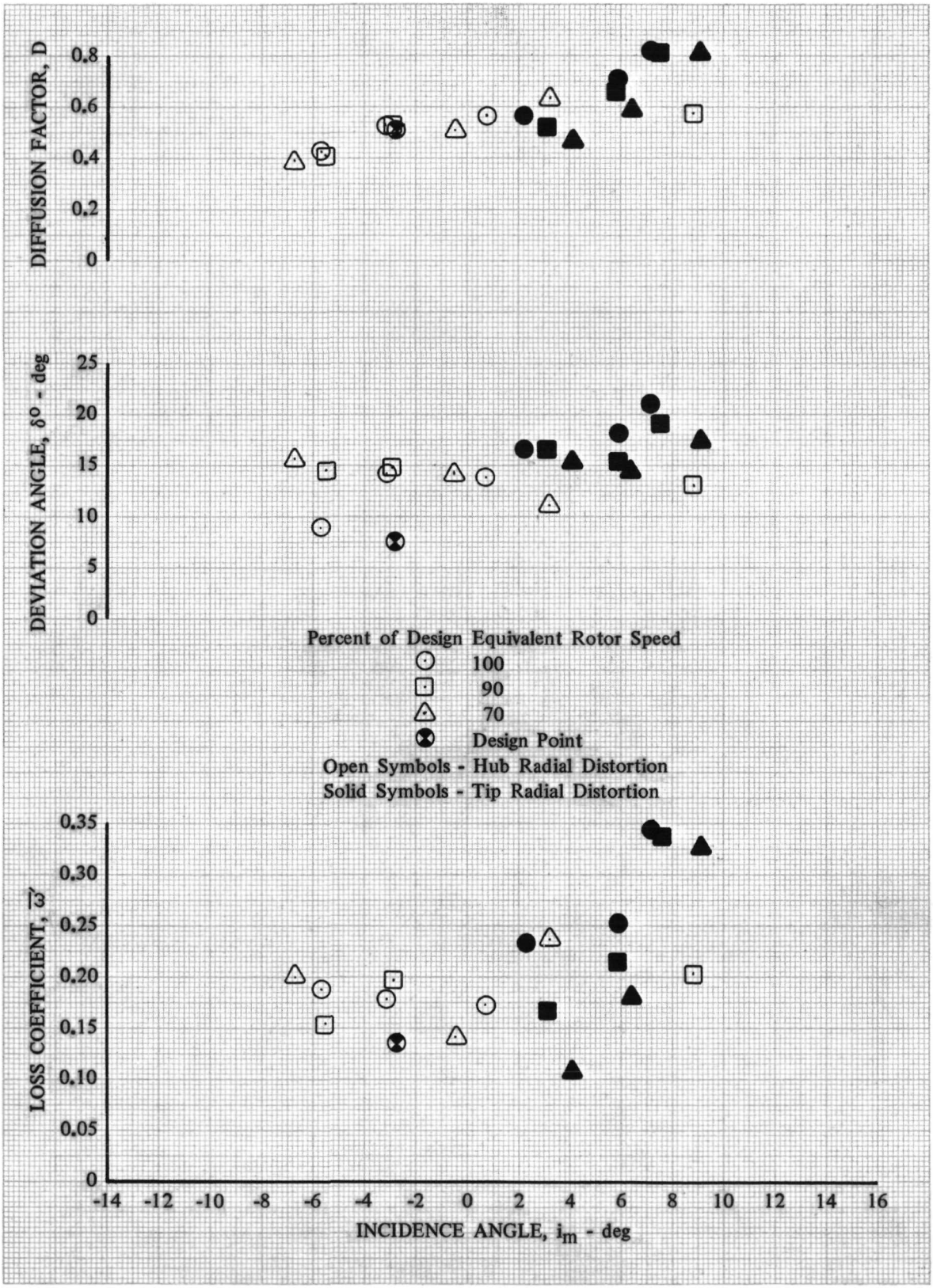


Figure 27a. Rotor B Blade Element Performance; 5% Span from Tip; Hub and Tip Radial Distortion

DF 95715

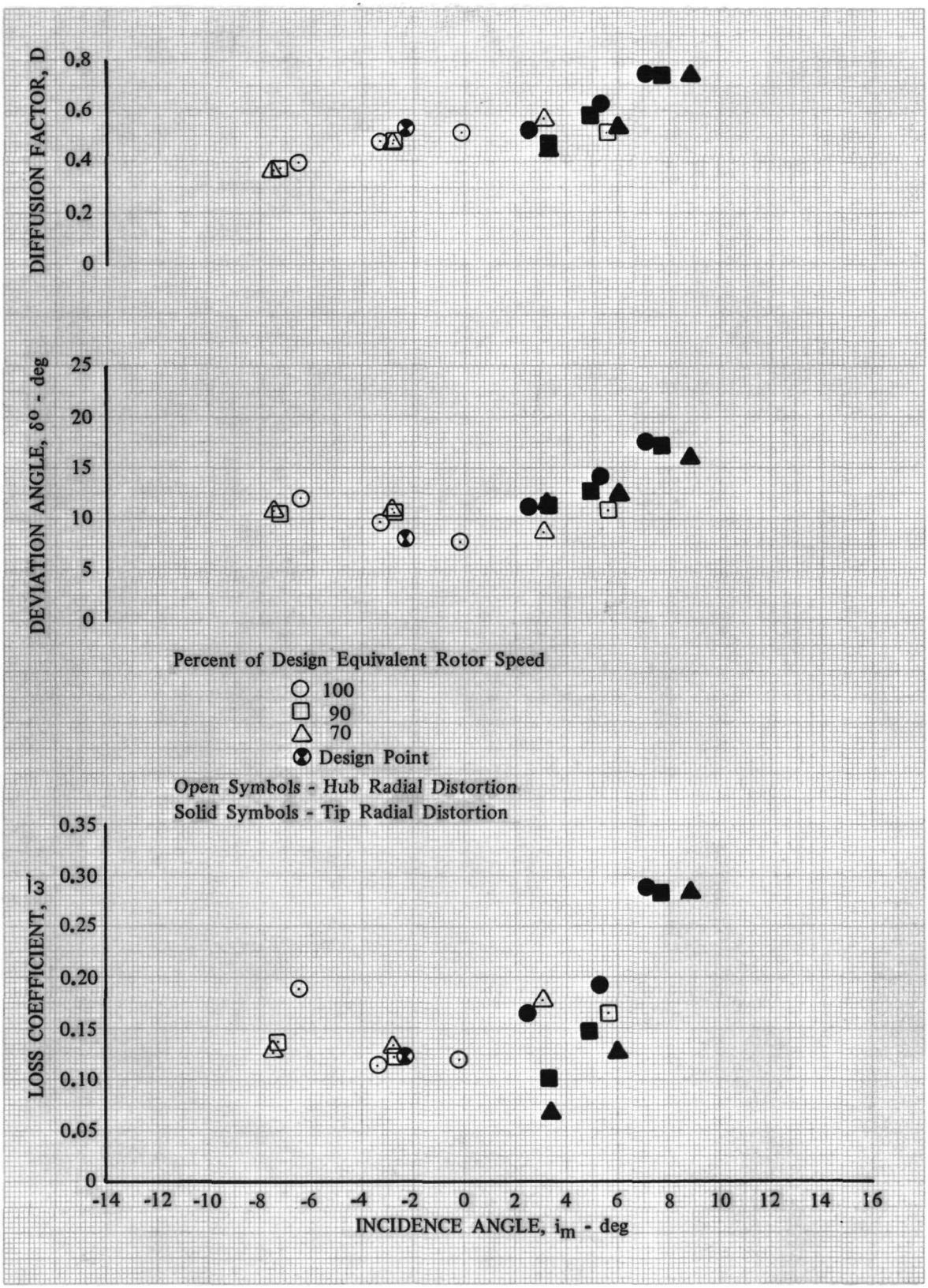


Figure 27b. Rotor B Blade Element Performance; 10% Span from Tip; Hub and Tip Radial Distortion

DF 95716

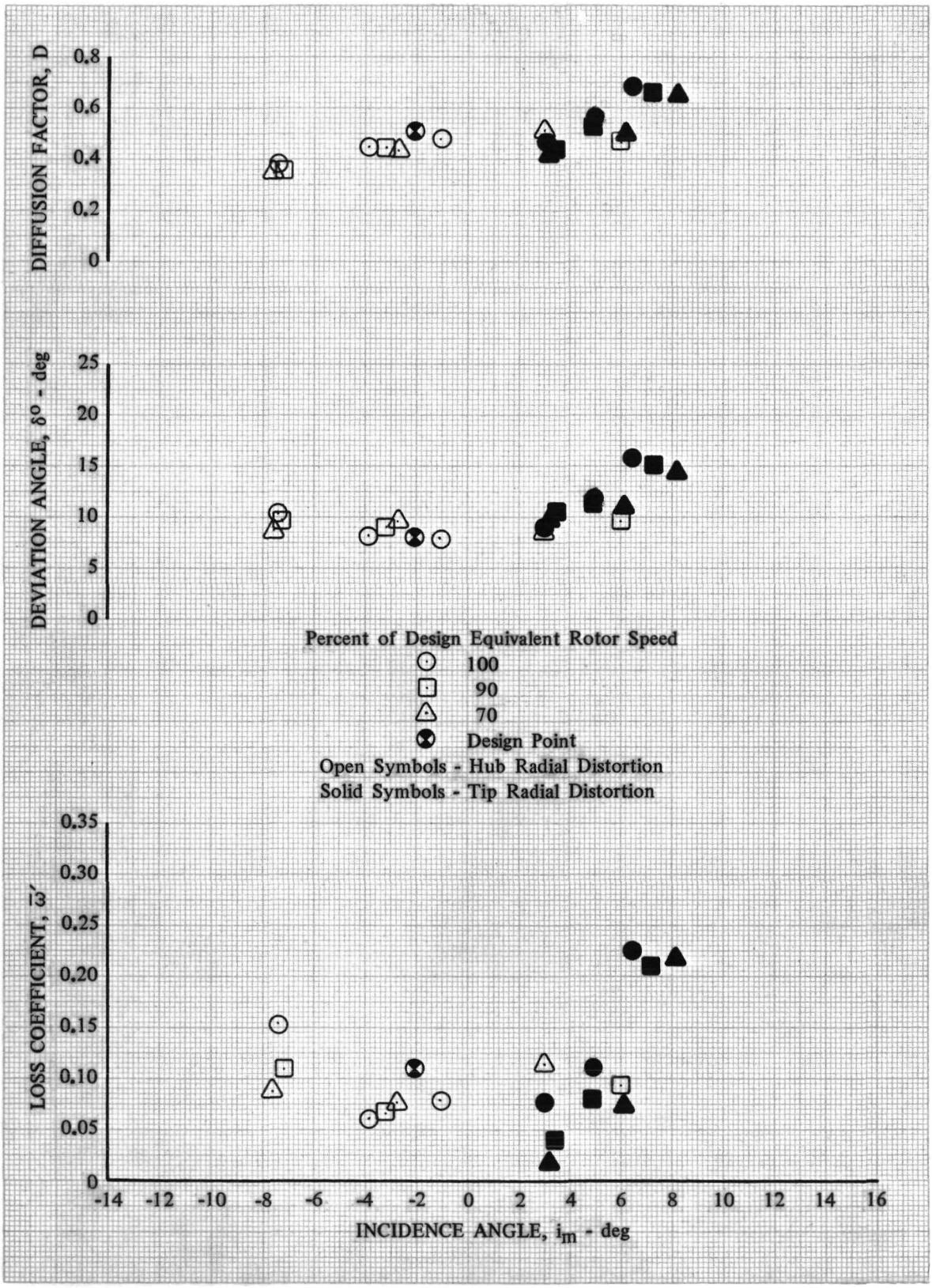


Figure 27c. Rotor B Blade Element Performance; 15% Span from Tip; Hub and Tip Radial Distortion

DF 95717

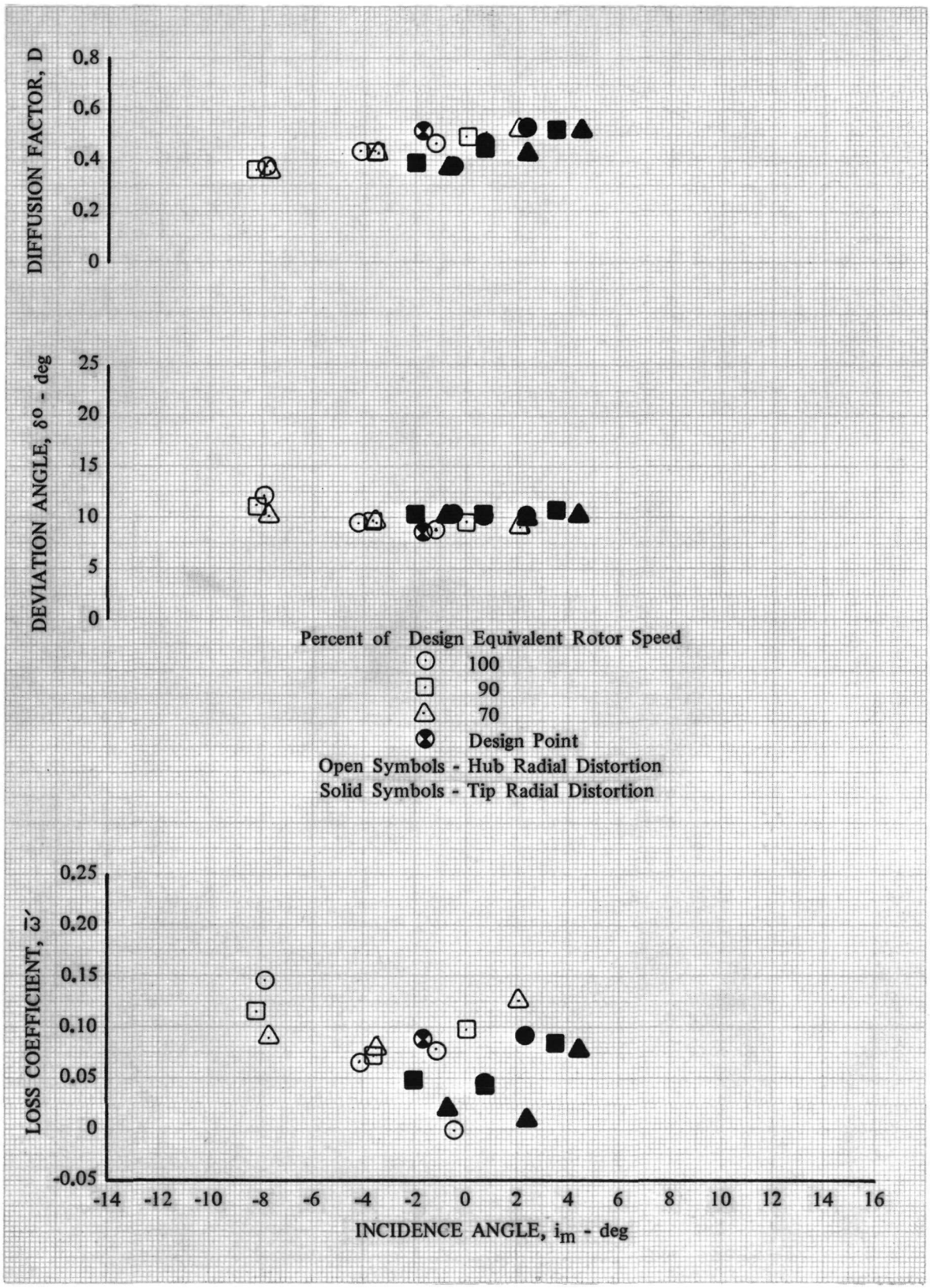


Figure 27d. Rotor B Blade Element Performance; 30% Span from Tip; Hub and Tip Radial Distortion

DF 95718

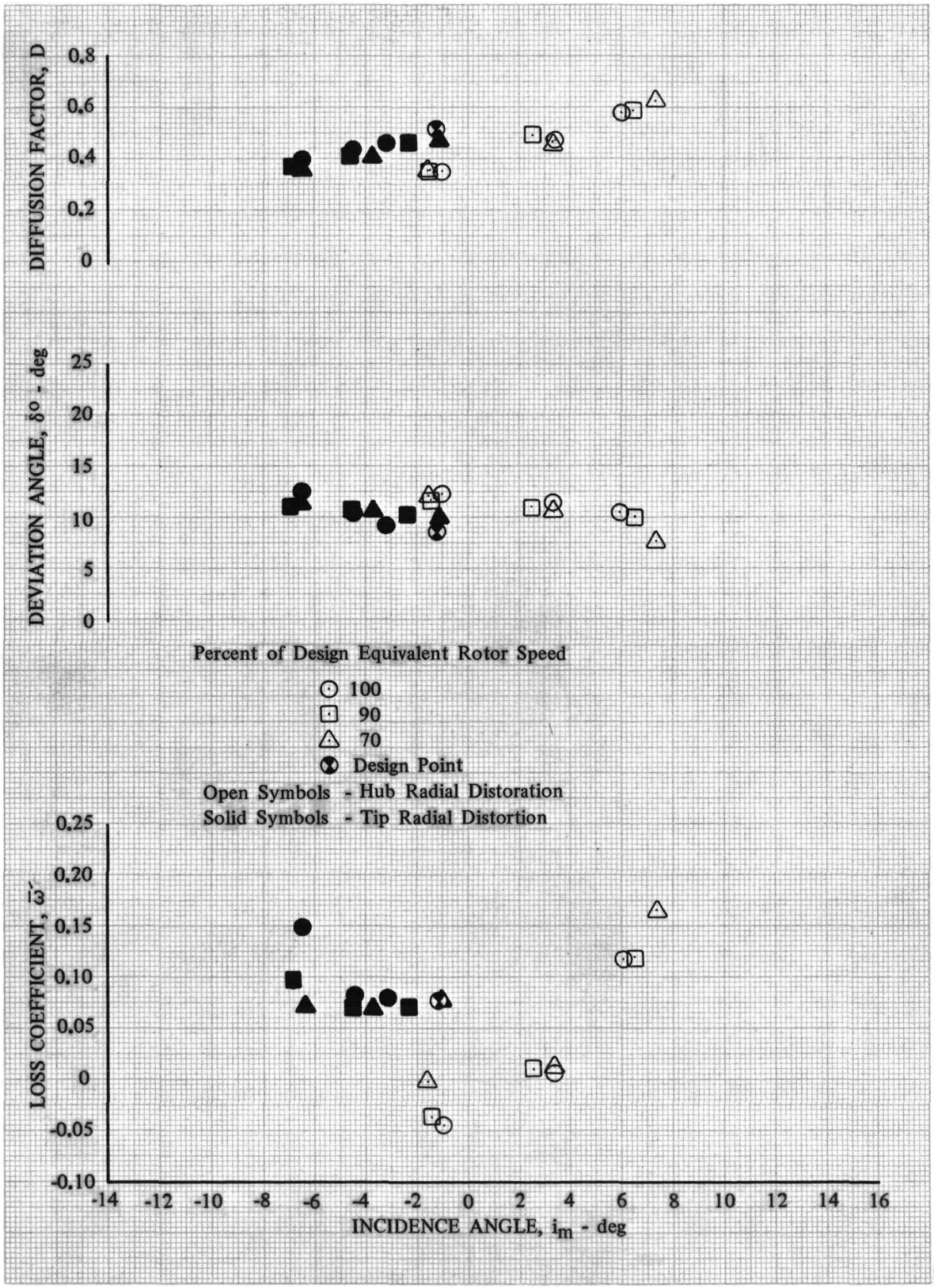


Figure 27e. Rotor B Blade Element Performance; 50% Span; Hub and Tip Radial Distortion

DF 95719

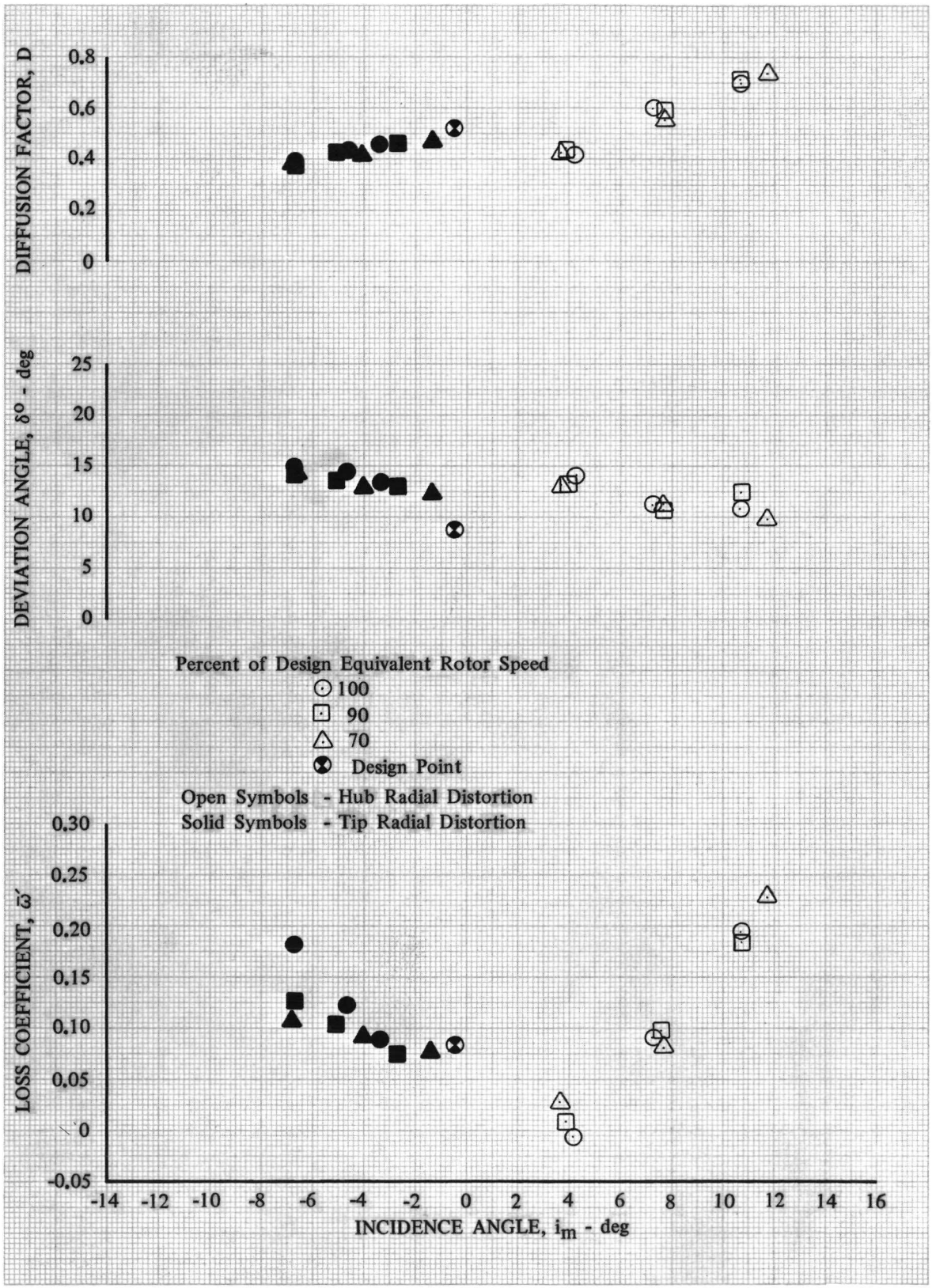


Figure 27f. Rotor B Blade Element Performance; 70% Span from Tip; Hub and Tip Radial Distortion

DF 95720

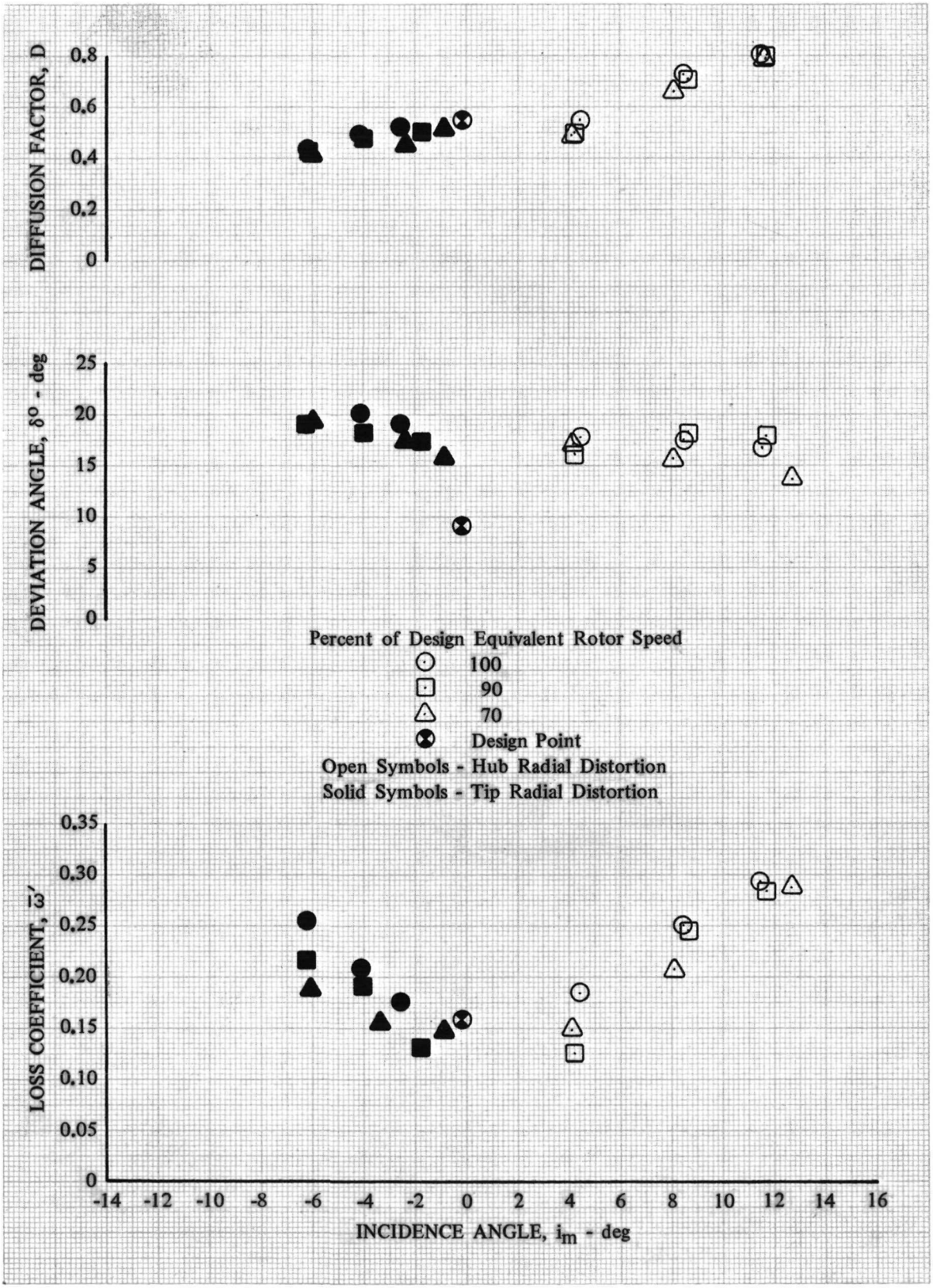


Figure 27g. Rotor B Blade Element Performance; 85% Span from Tip; Hub and Tip Radial Distortion

DF 95721

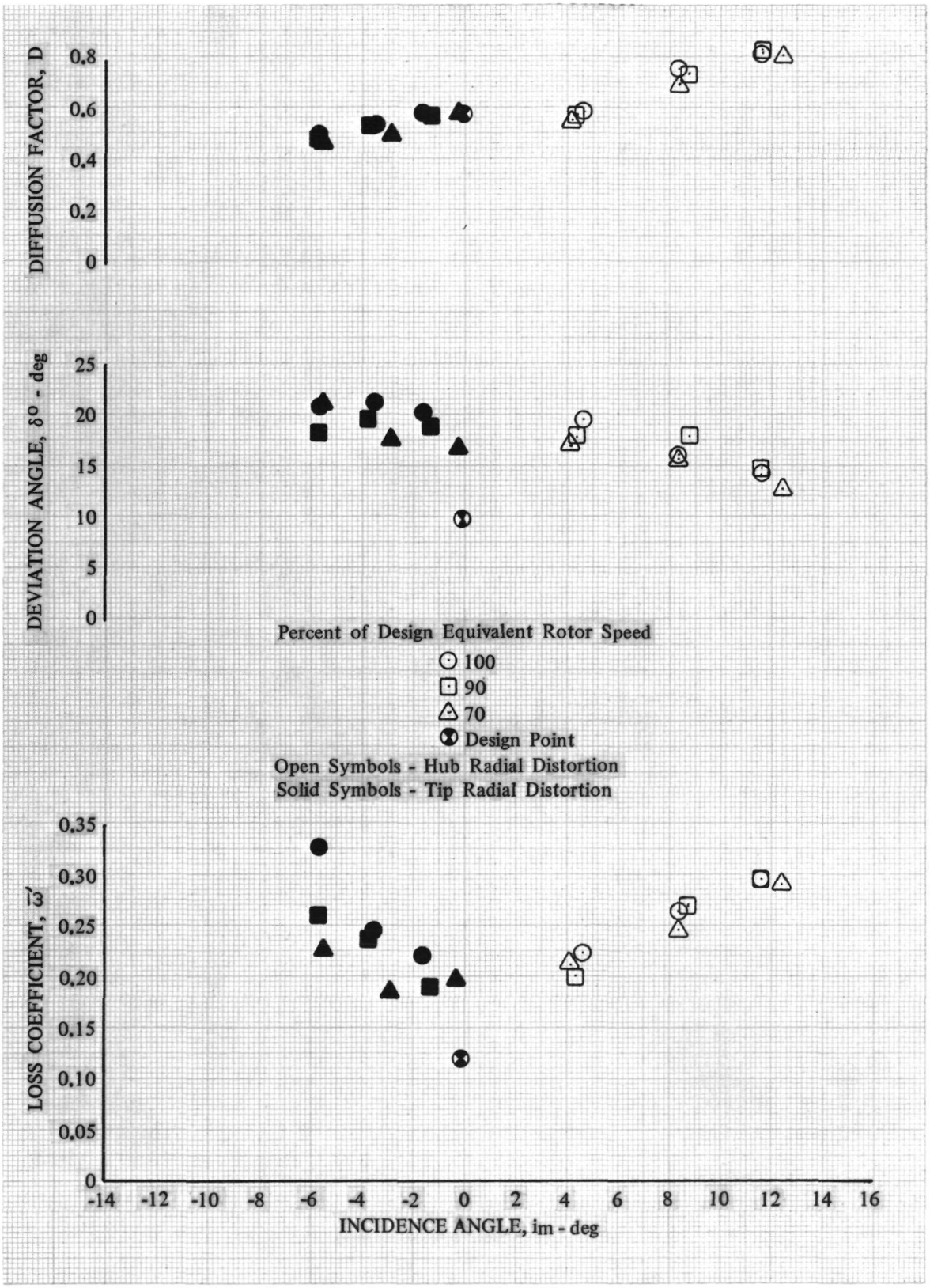


Figure 27h. Rotor B Blade Element Performance; 90% Span from Tip; Hub and Tip Radial Distortion

DF 95722

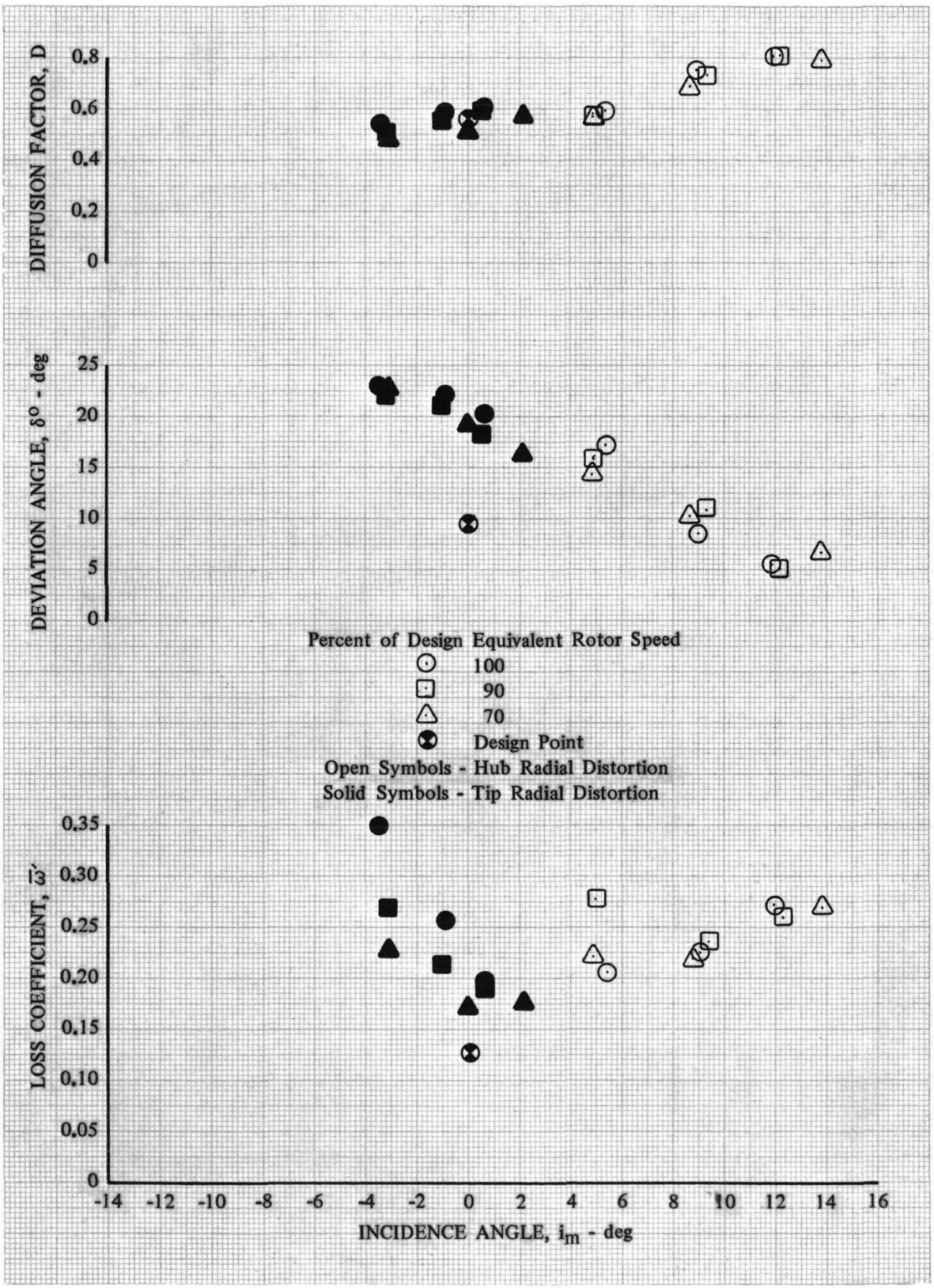


Figure 27i. Rotor B Blade Element Performance; 95% Span from Tip; Hub and Tip Radial Distortion

DF 95723

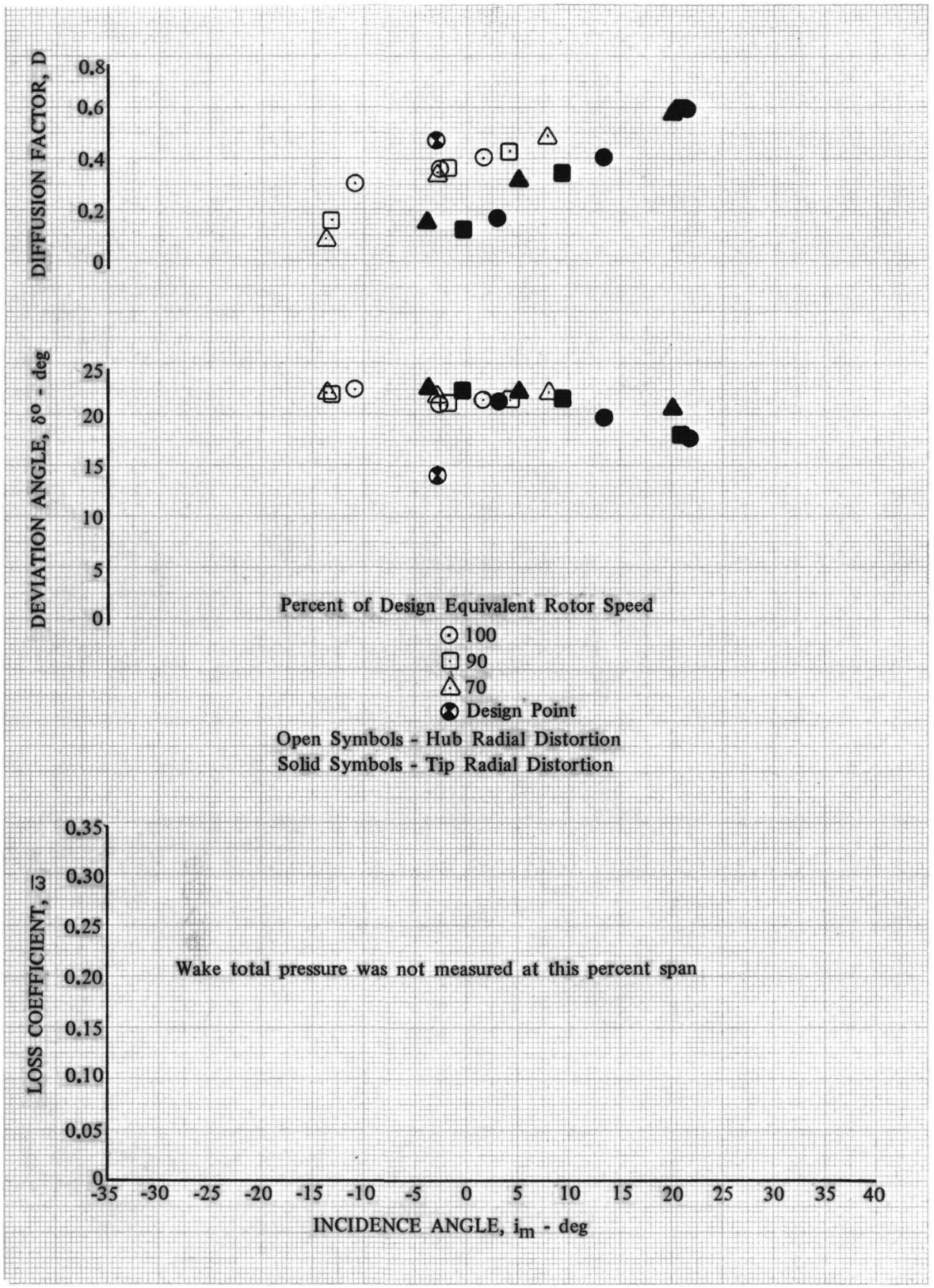


Figure 28a. Stator B Blade Element Performance; 5% Span from Tip; Hub and Tip Radial Distortion

DF 95724

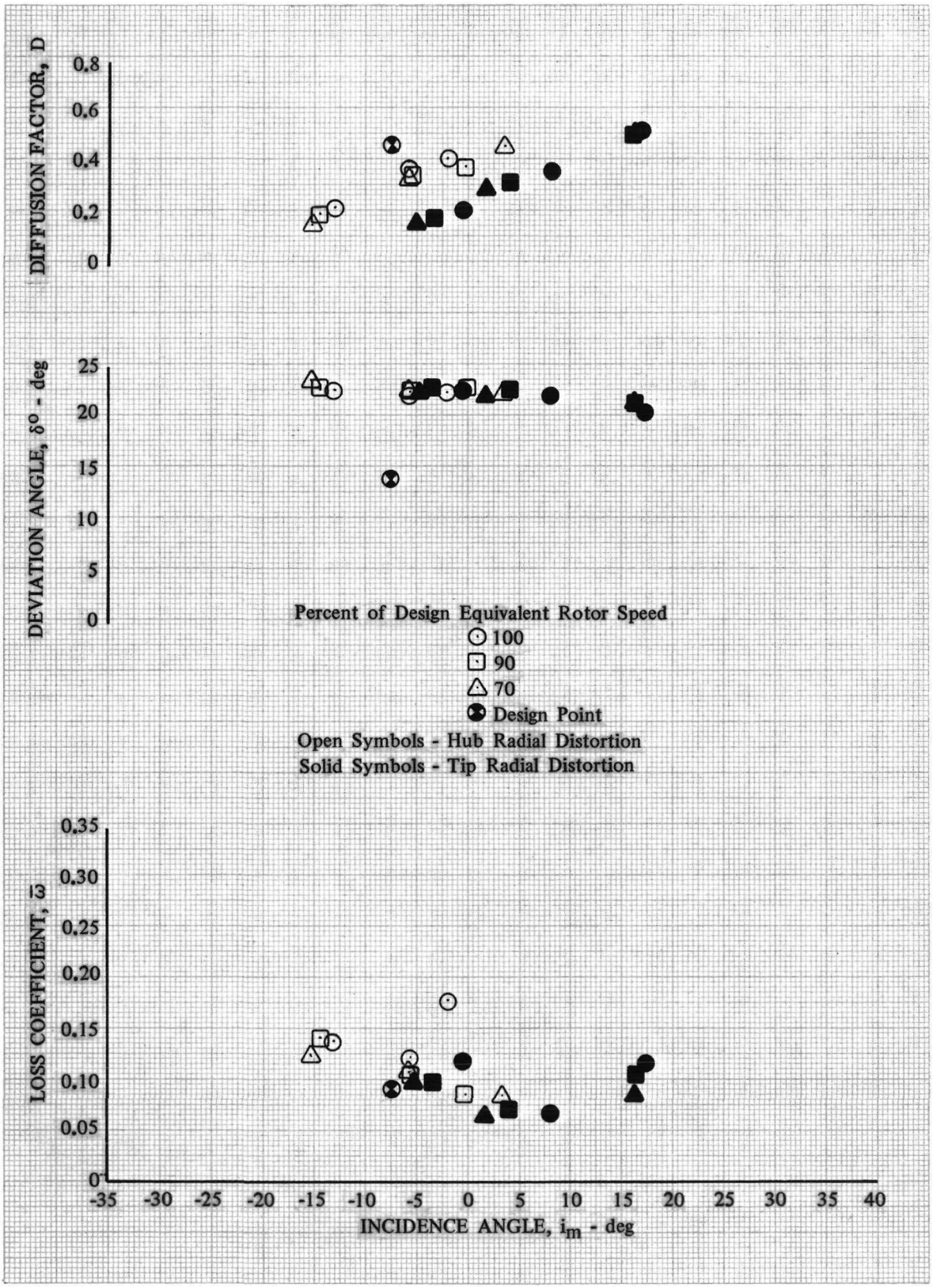


Figure 28b. Stator B Blade Element Performance; 10% Span from Tip; Hub and Tip Radial Distortion

DF 95725

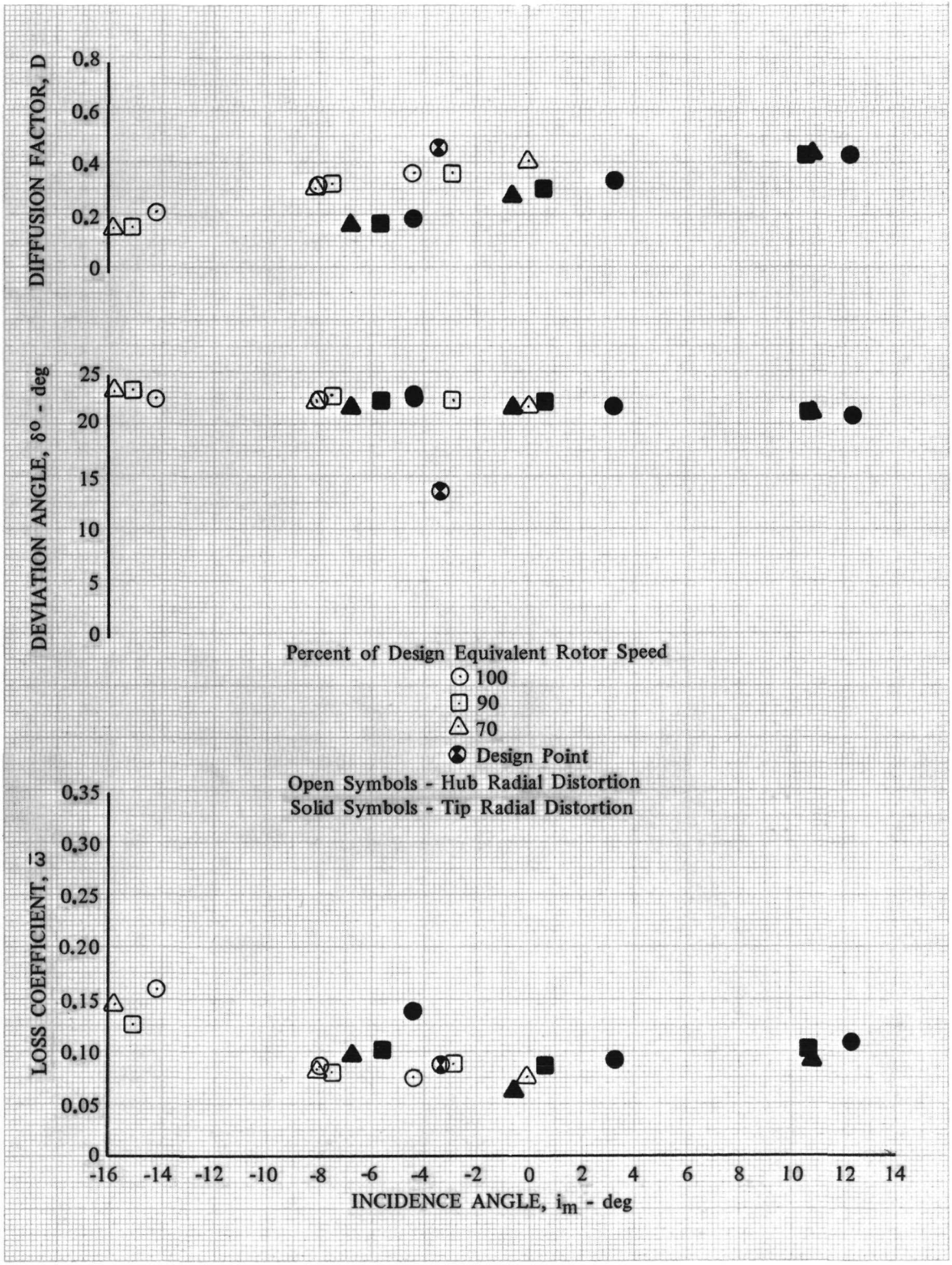


Figure 28c. Stator B Blade Element Performance; 15% Span from Tip; Hub and Tip Radial Distortion

DF 95726

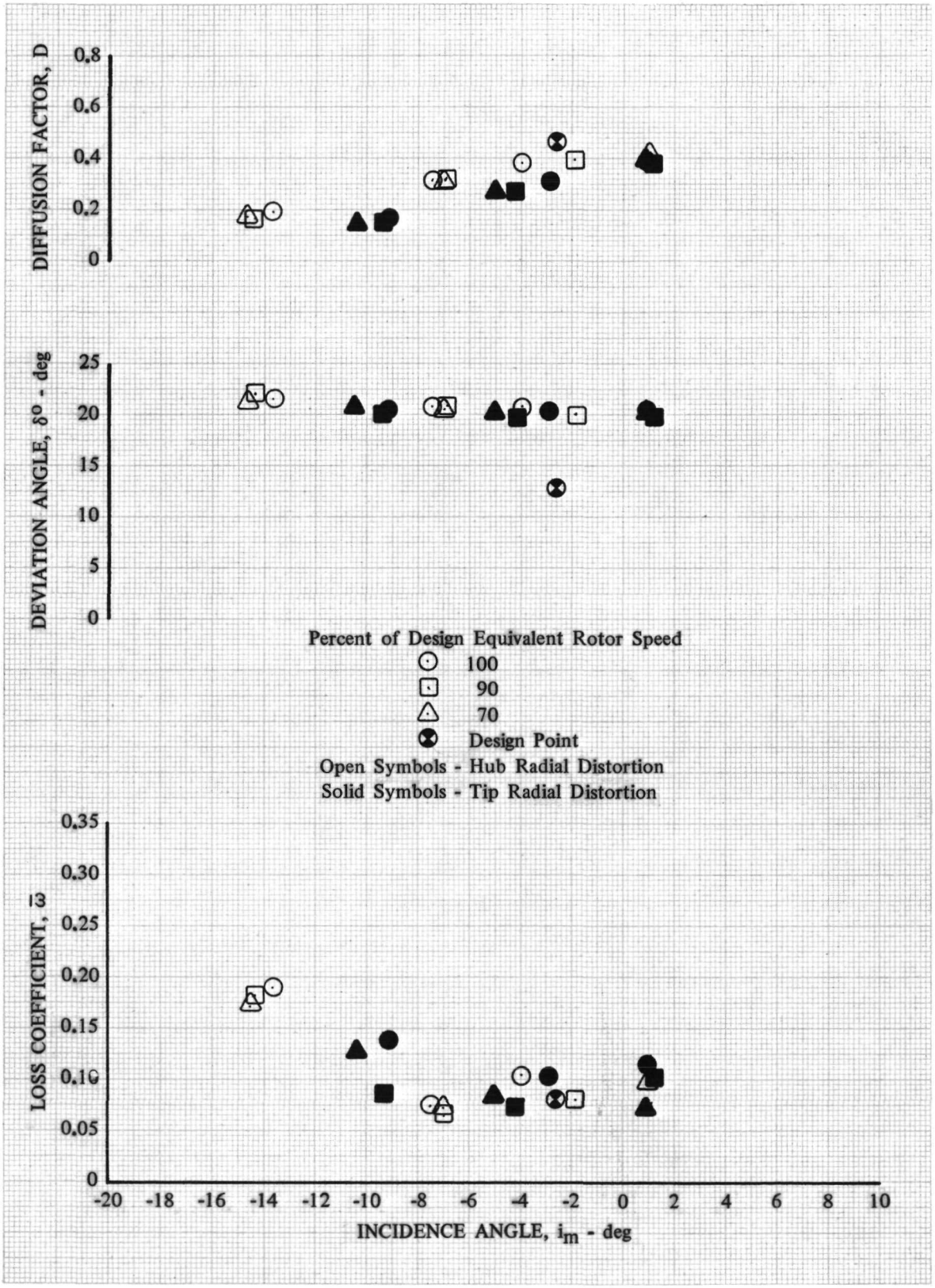


Figure 28d. Stator B Blade Element Performance; 30% Span from Tip; Hub and Tip Radial Distortion

DF 95727

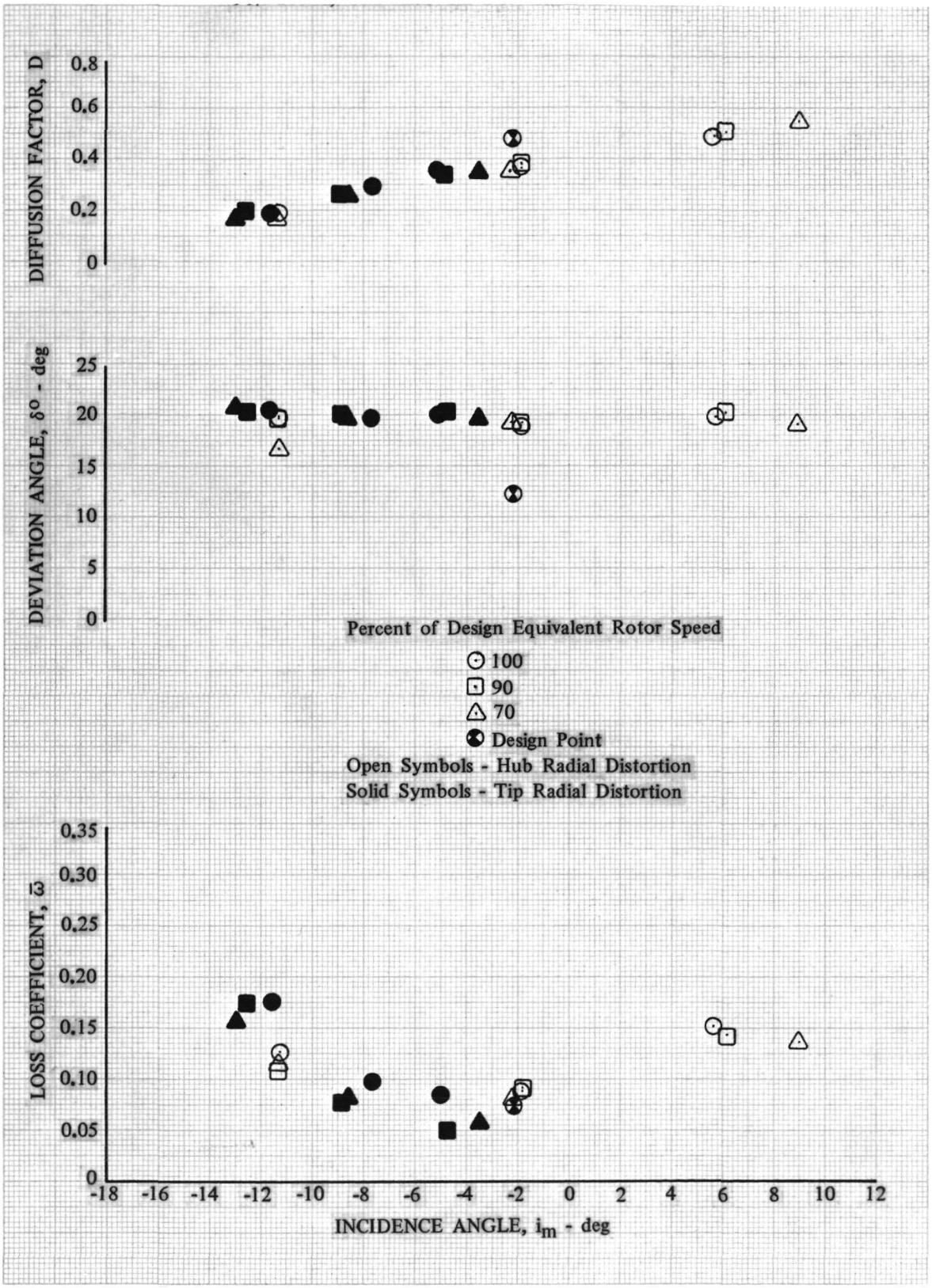


Figure 28e. Stator B Blade Element Performance; 50% Span; Hub and Tip Radial Distortion DF 95728

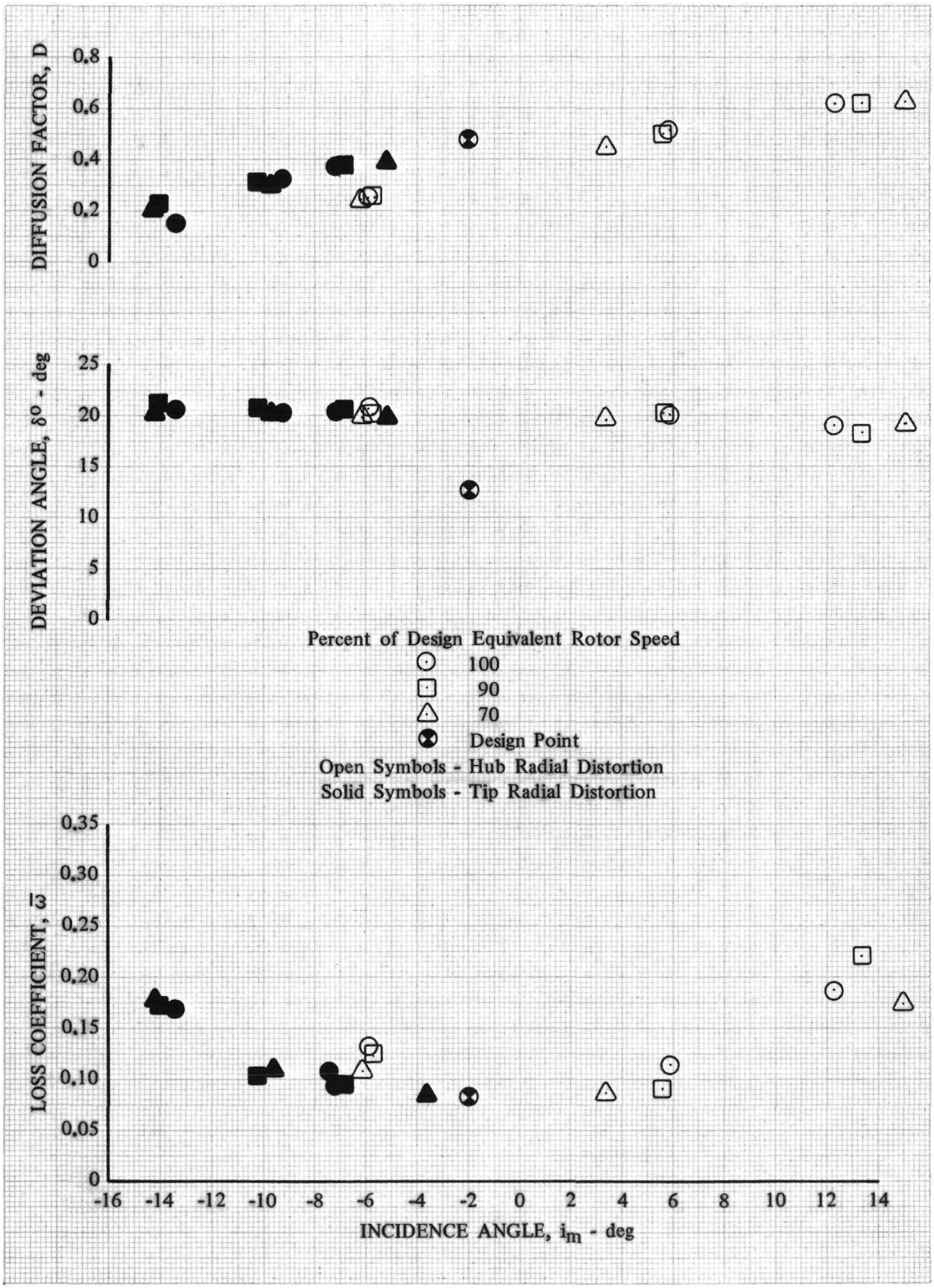


Figure 28f. Stator B Blade Element Performance; 70% Span from Tip; Hub and Tip Radial Distortion

DF 95729

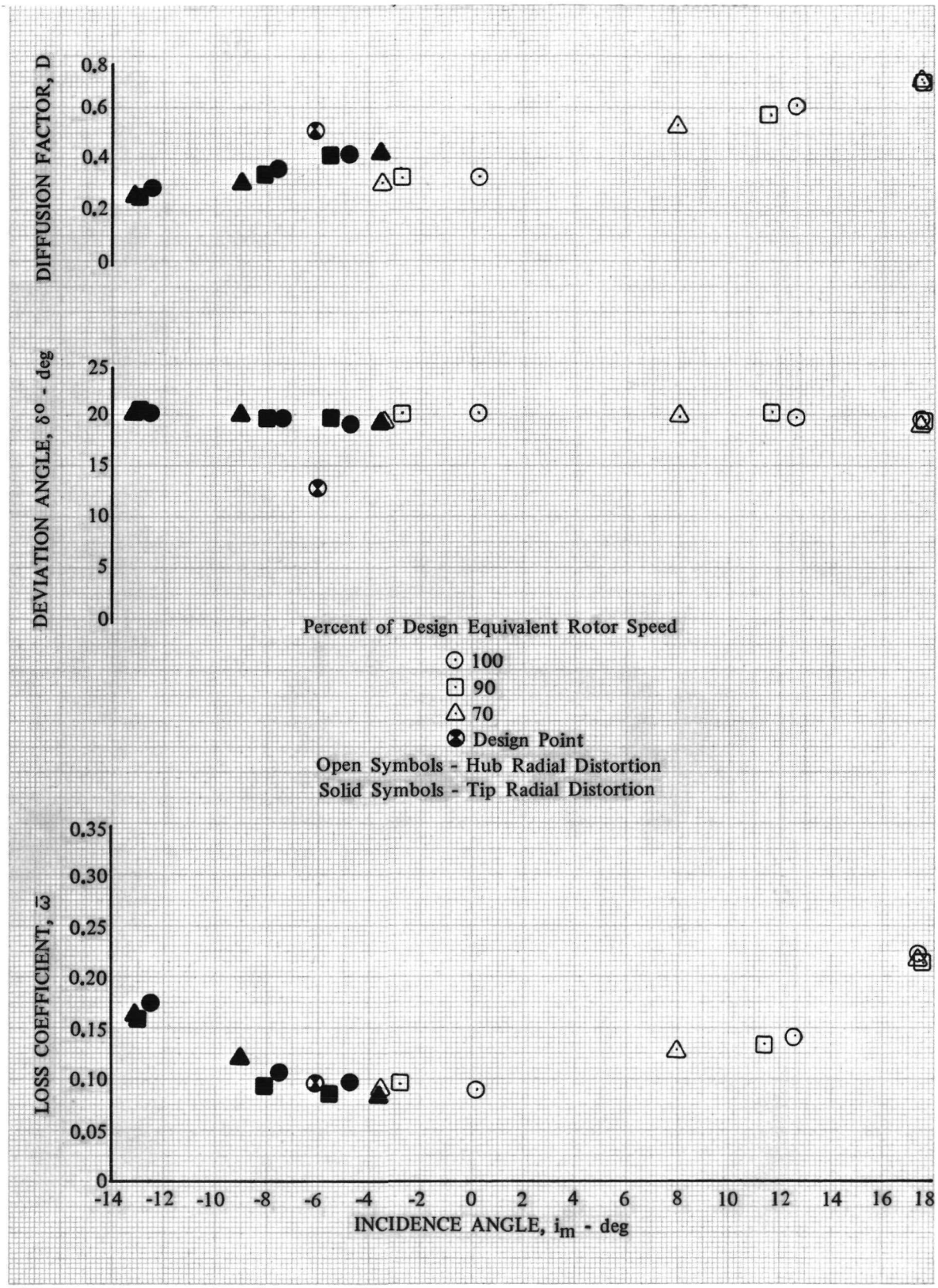


Figure 28g. Stator B Blade Element Performance; 85% Span from Tip; Hub and Tip Radial Distortion

DF 95730

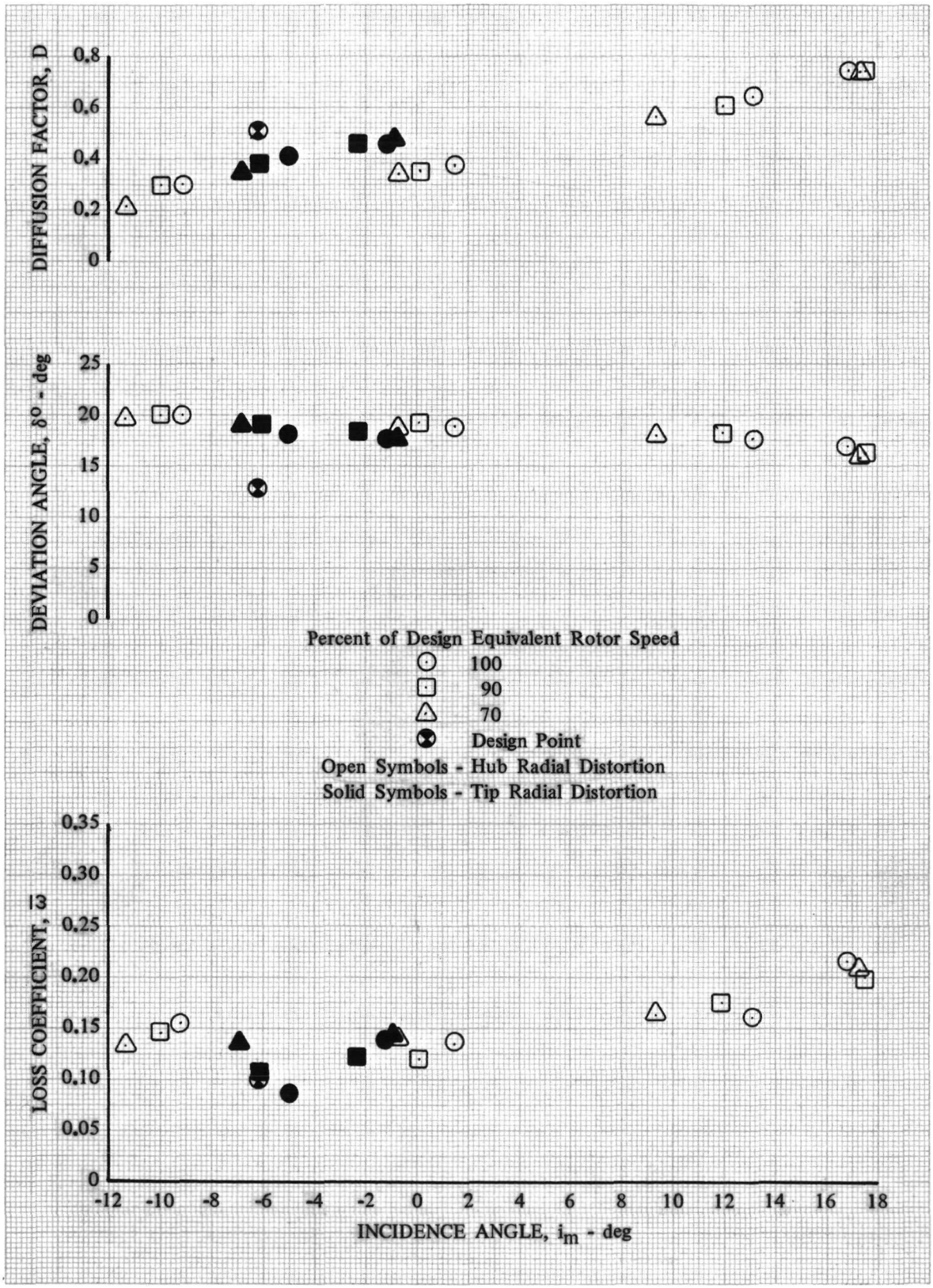


Figure 28h. Stator B Blade Element Performance; 90% Span from Tip; Hub and Tip Radial Distortion

DF 95731

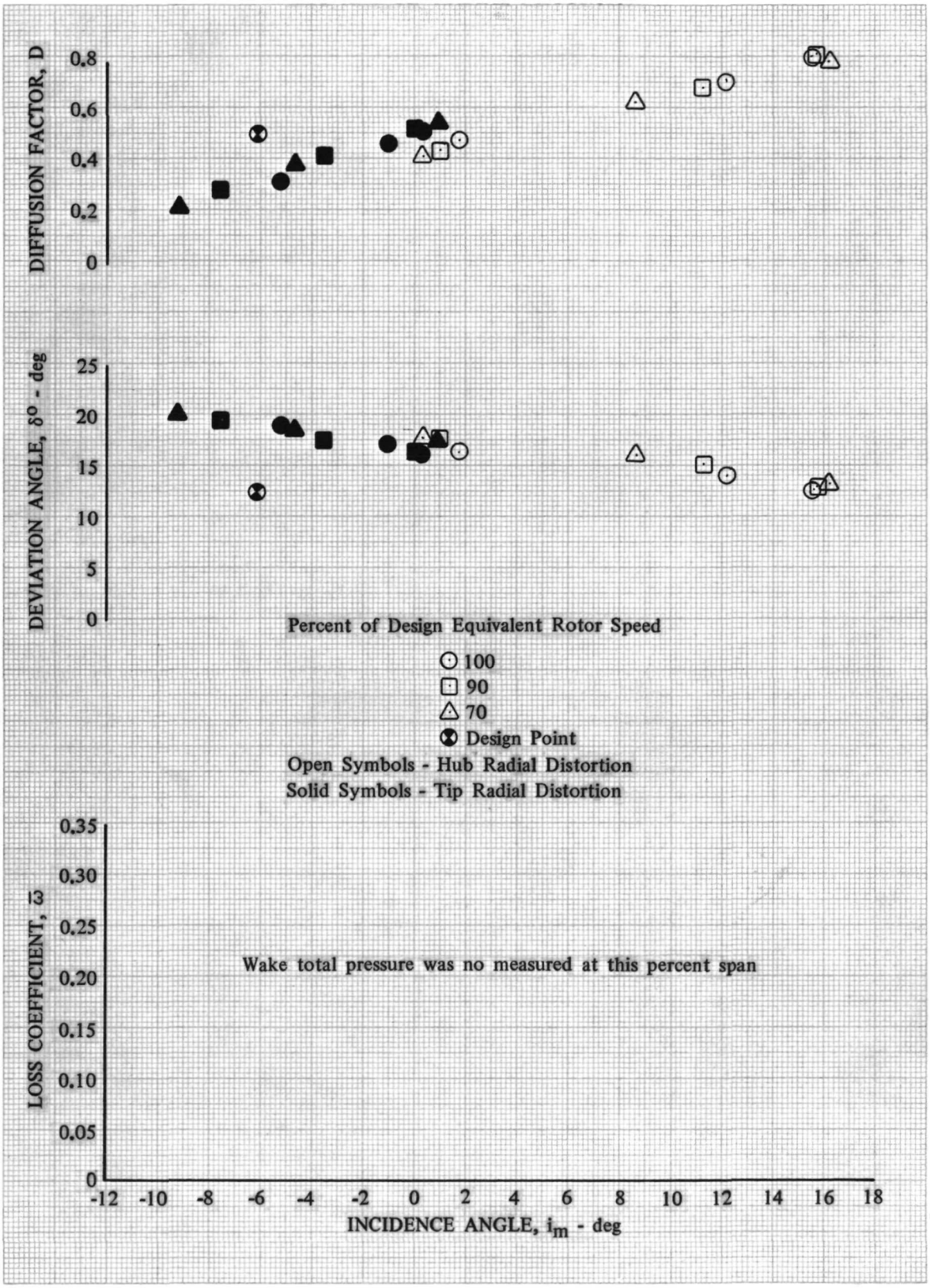


Figure 28i. Stator B Blade Element Performance; 95% Span from Tip; Hub and Tip Radial Distortion DF 95732

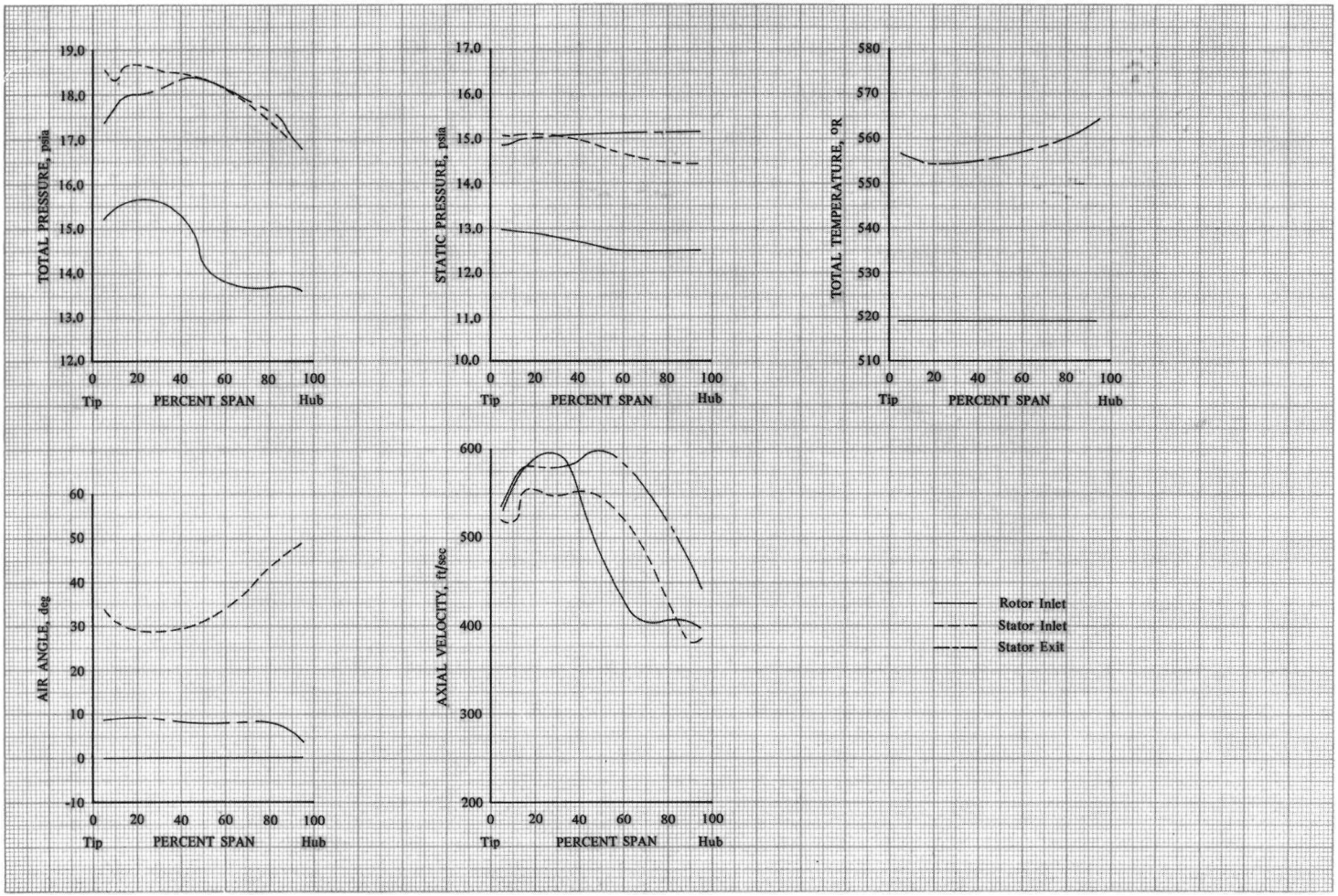


Figure 29a. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 111.27 lb/sec; Hub Radial Distortion

DF 95733

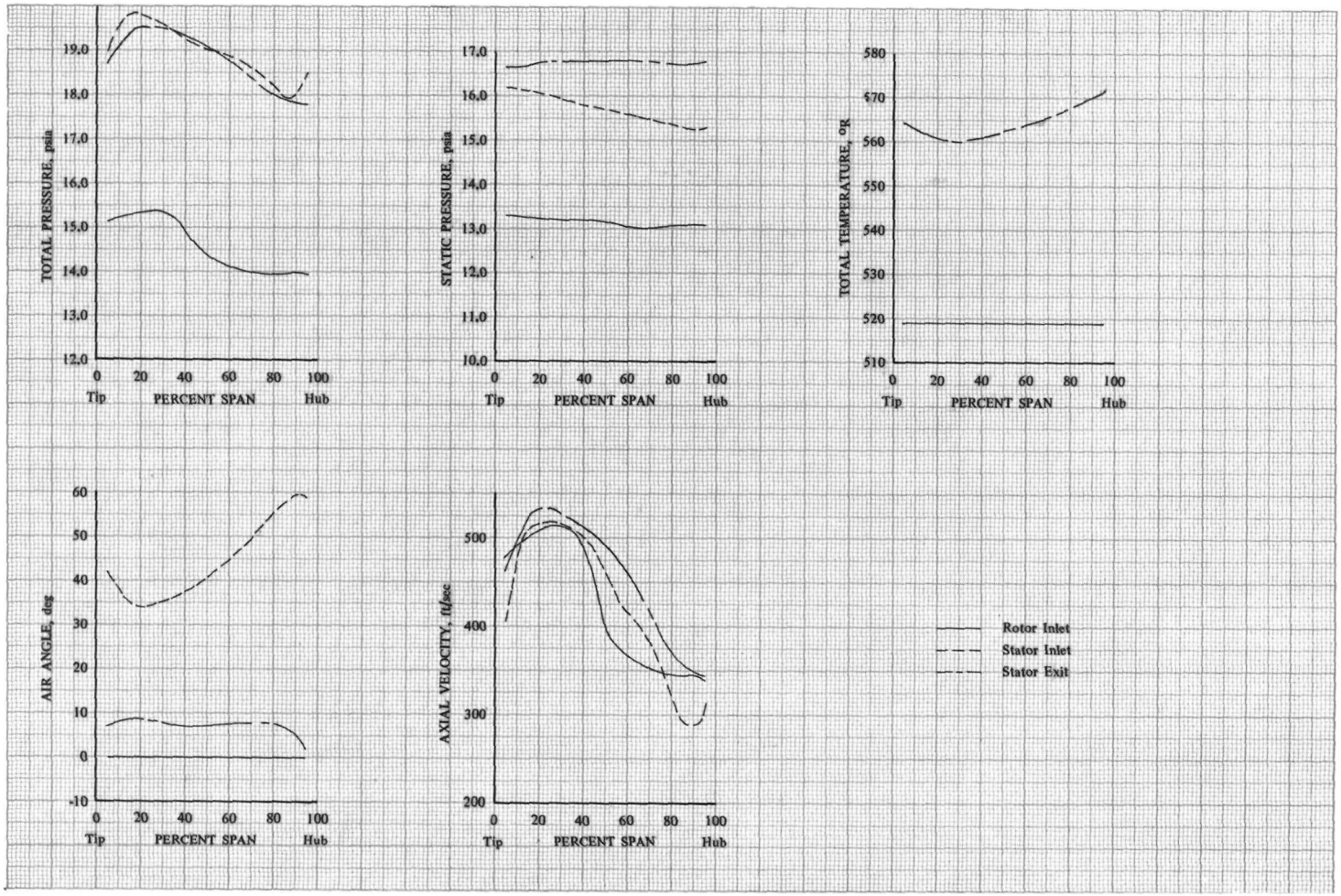


Figure 29b. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 98.87 lb/sec; Hub Radial Distortion

DF 95734

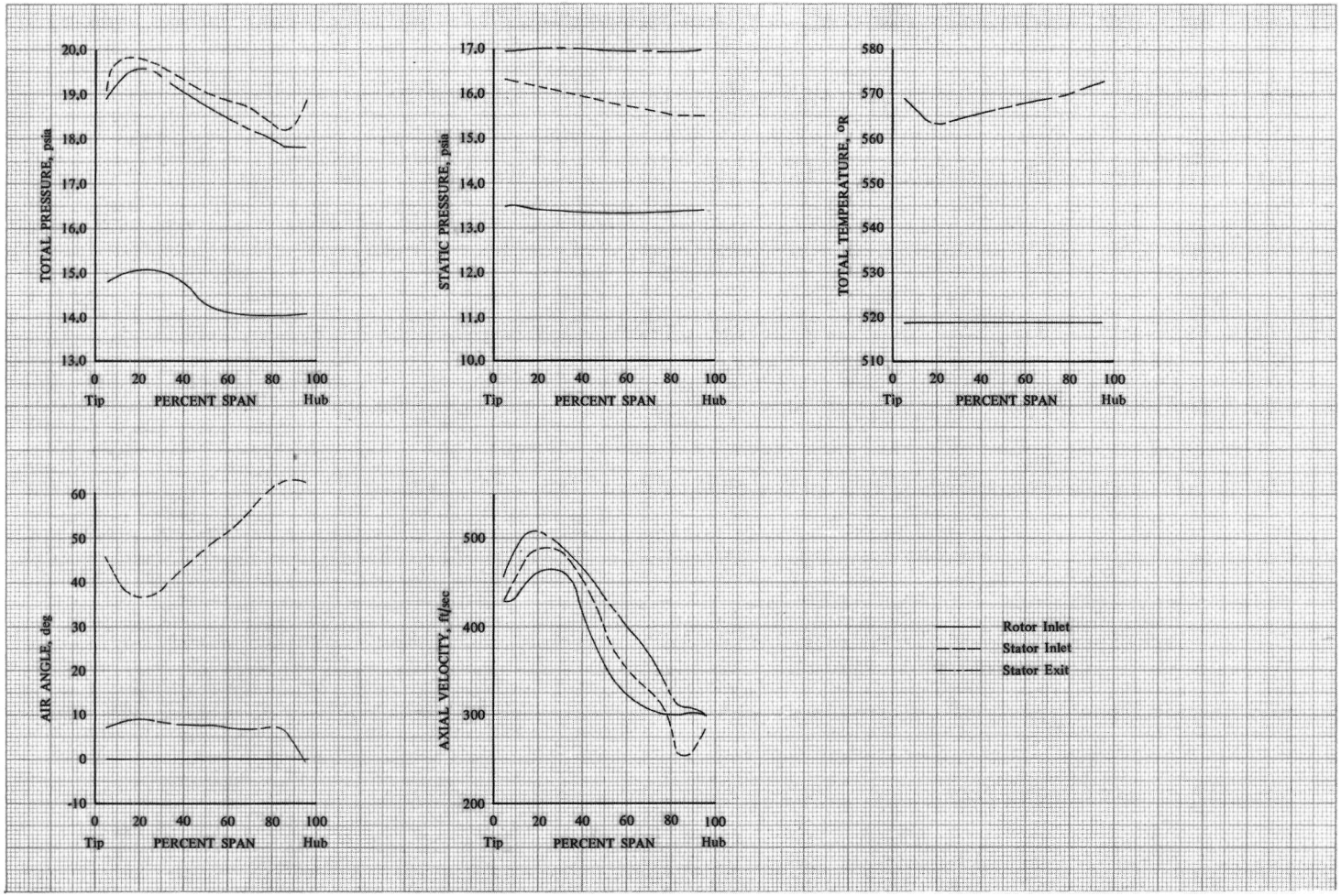


Figure 29c. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 88.49 lb/sec; Hub Radial Distortion

DF 95735

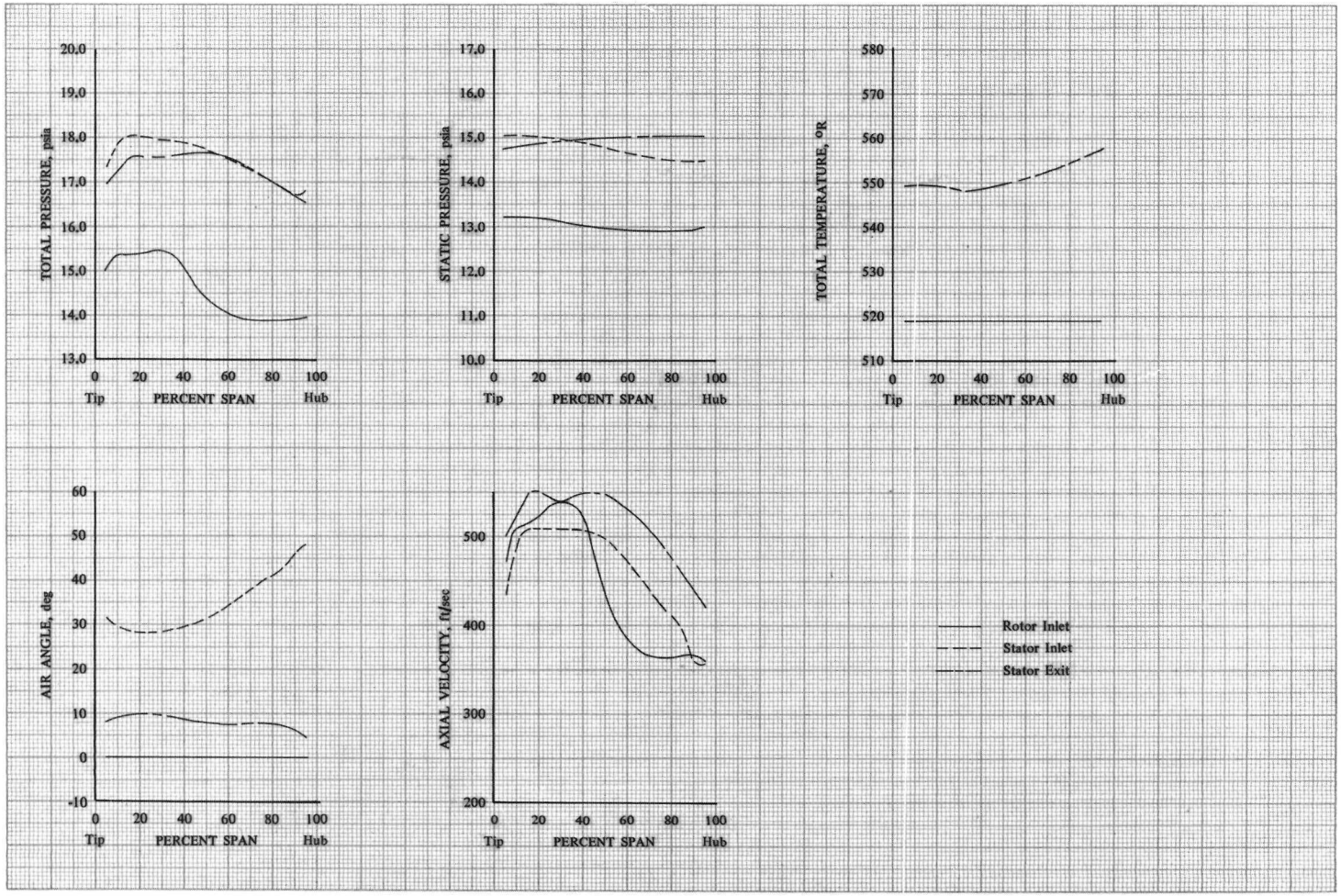


Figure 30a. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 103.12 lb/sec; Hub Radial Distortion

DF 95736

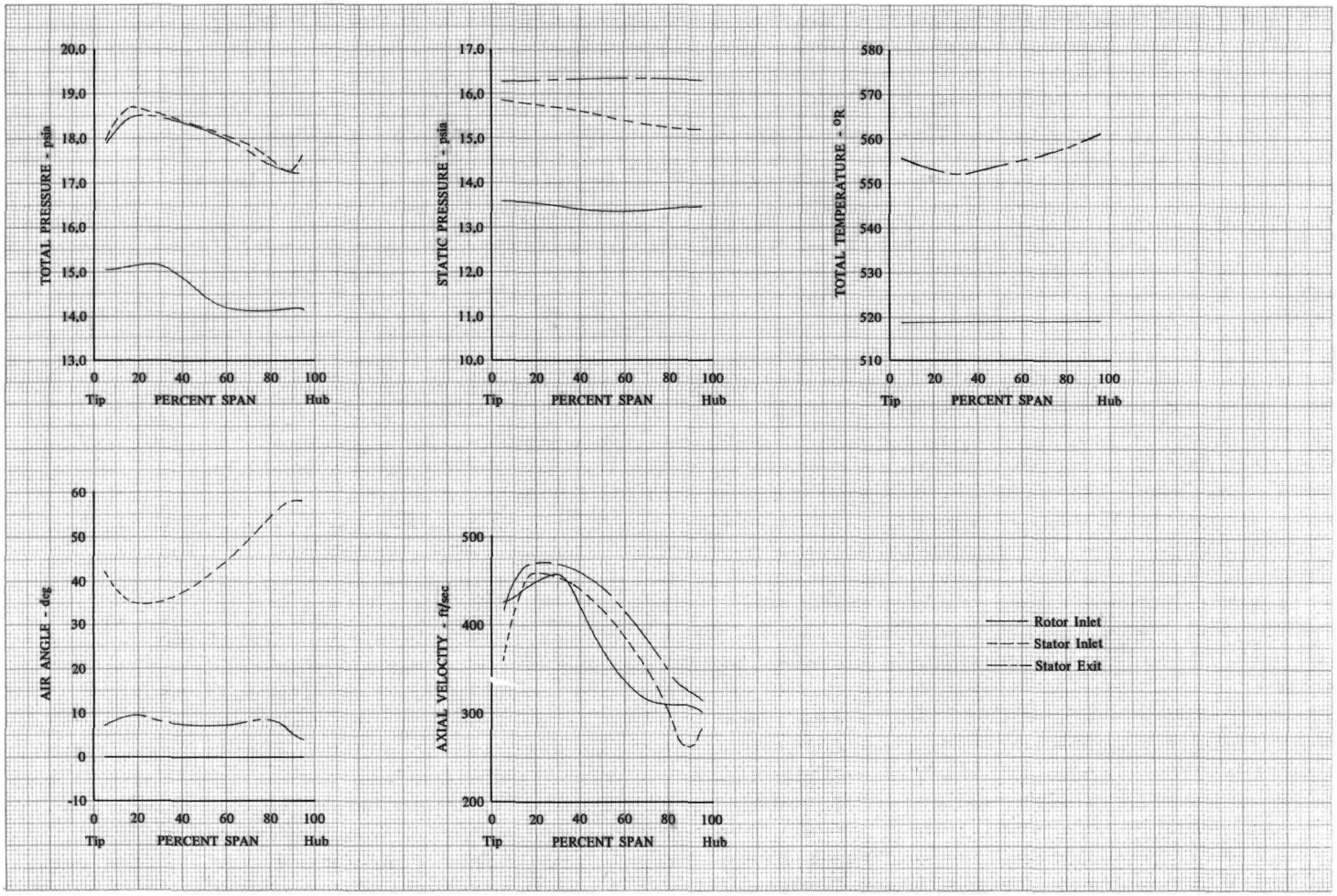


Figure 30b. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 88.50 lb/sec; Hub Radial Distortion

DF 95737

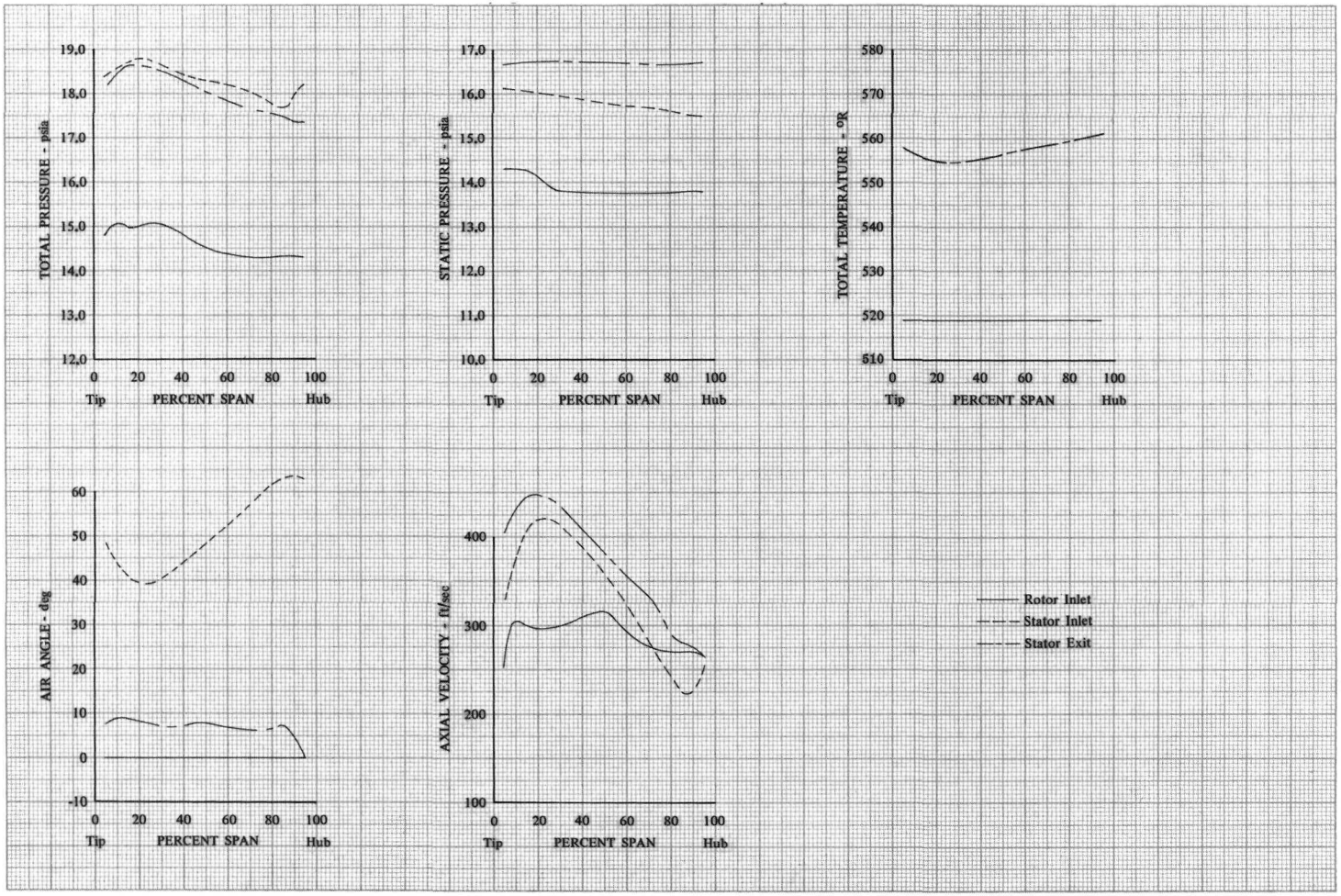


Figure 30c. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 77.11 lb/sec; Hub Radial Distortion

DF 95738

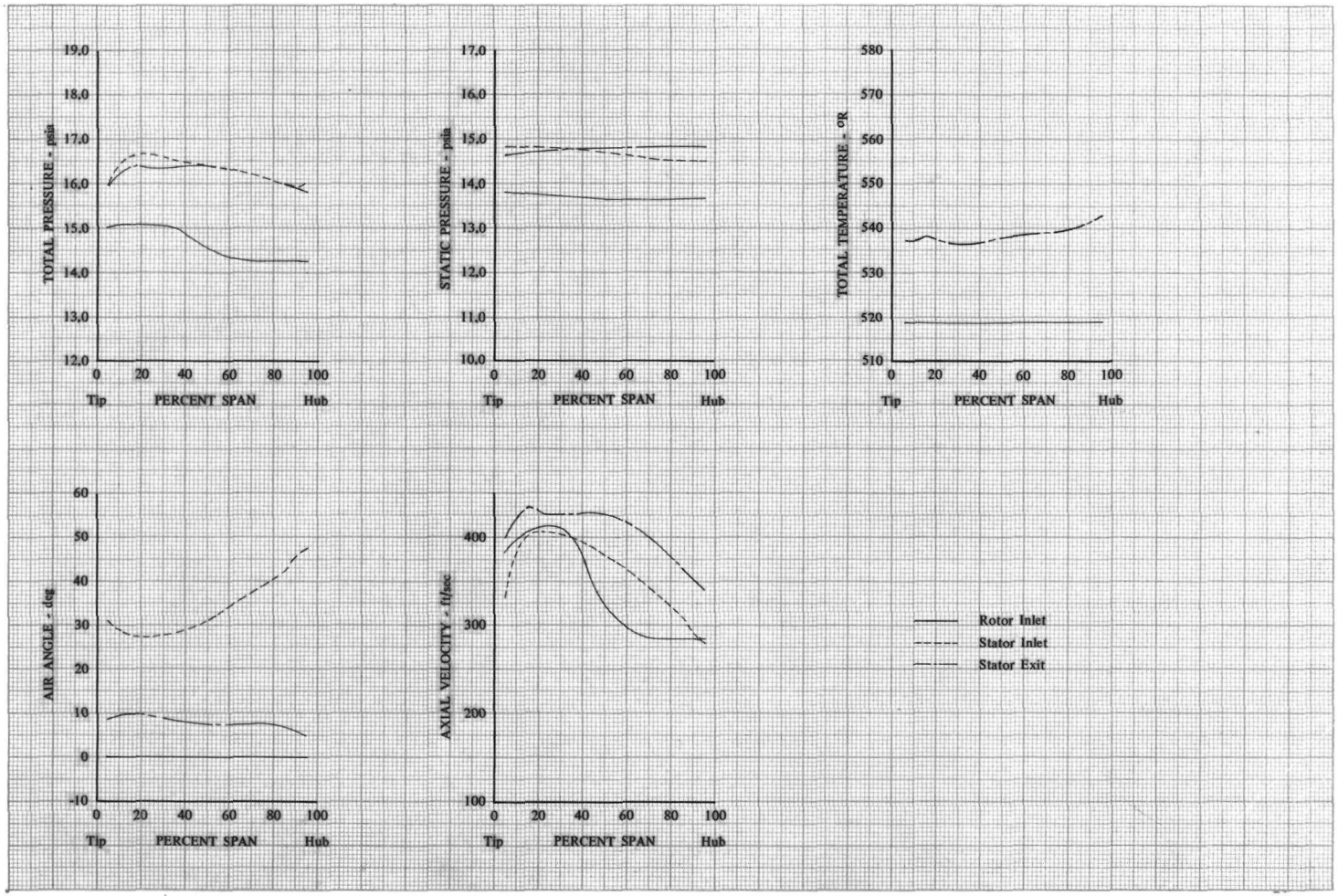


Figure 31a. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 70% Design Equivalent Rotor Speed; Equivalent Weight Flow = 82.58 lb/sec; Hub Radial Distortion

DF 95739

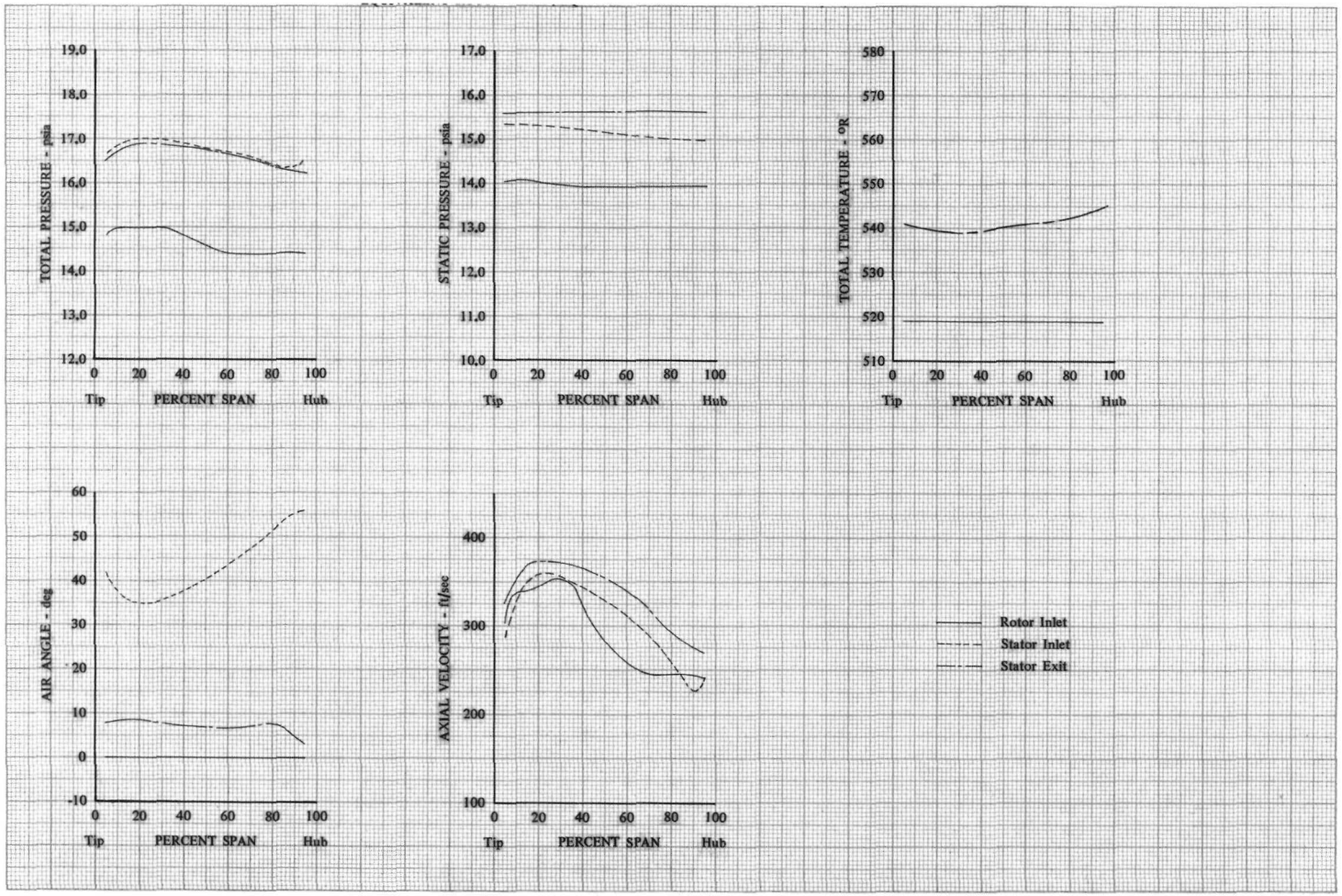
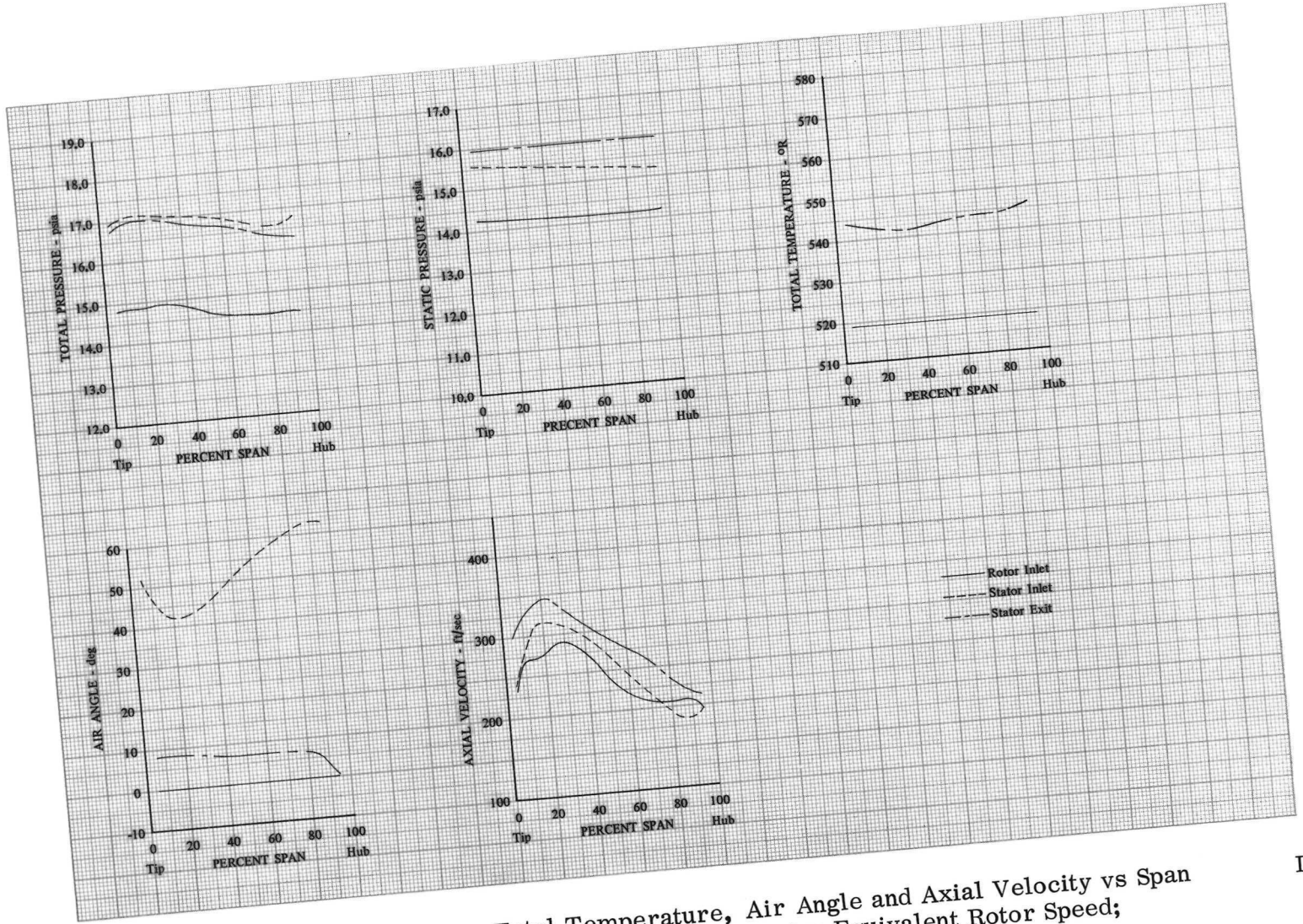


Figure 31b. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 70% Design Equivalent Rotor Speed; Equivalent Weight Flow = 70.16 lb/sec; Hub Radial Distortion

DF 95740



DF 95741

Figure 31c. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 70% Design Equivalent Rotor Speed; Equivalent Weight Flow = 57.39 lb/sec; Hub Radial Distortion

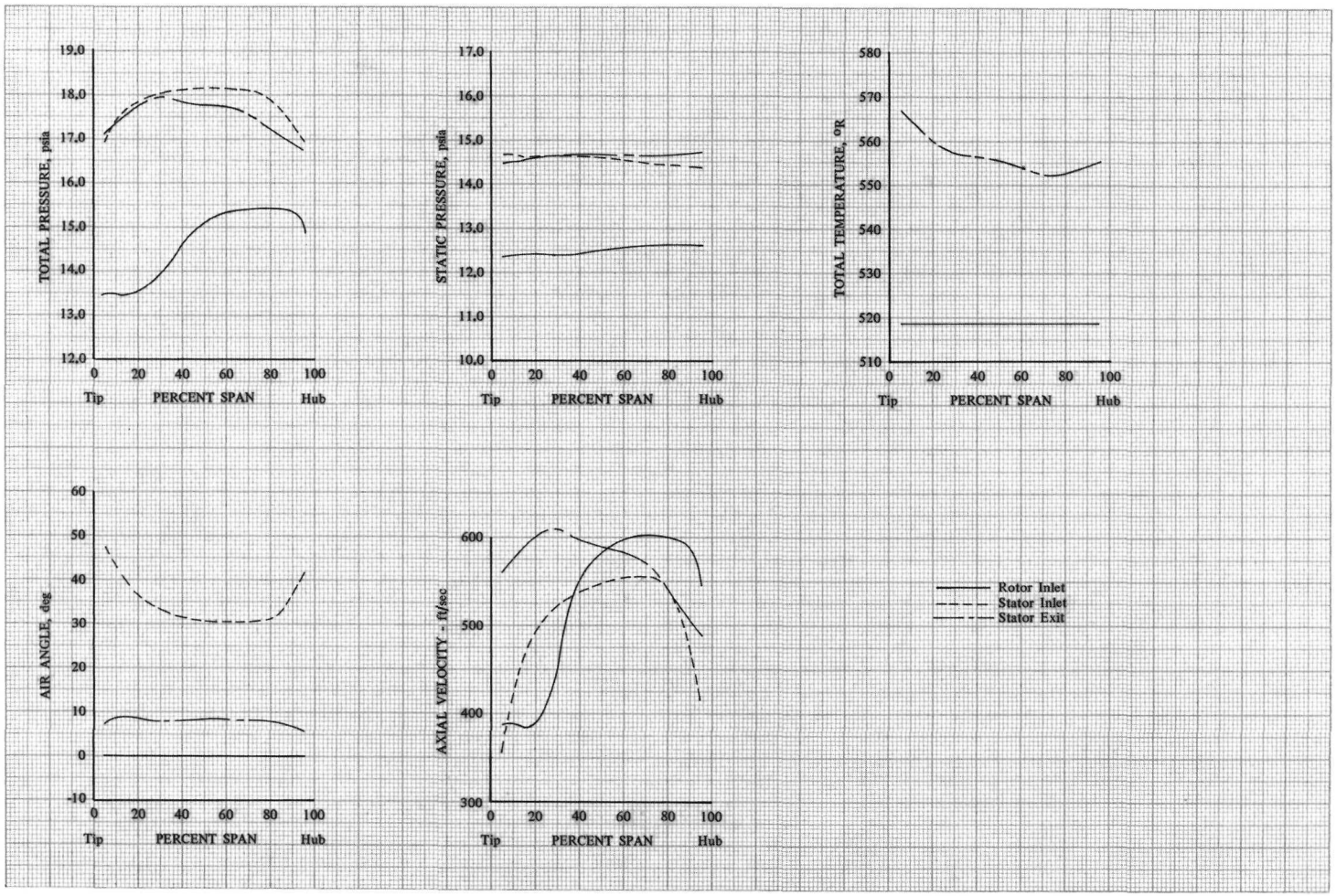


Figure 32a. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 110.10 lb/sec; Tip Radial Distortion

DF 95742

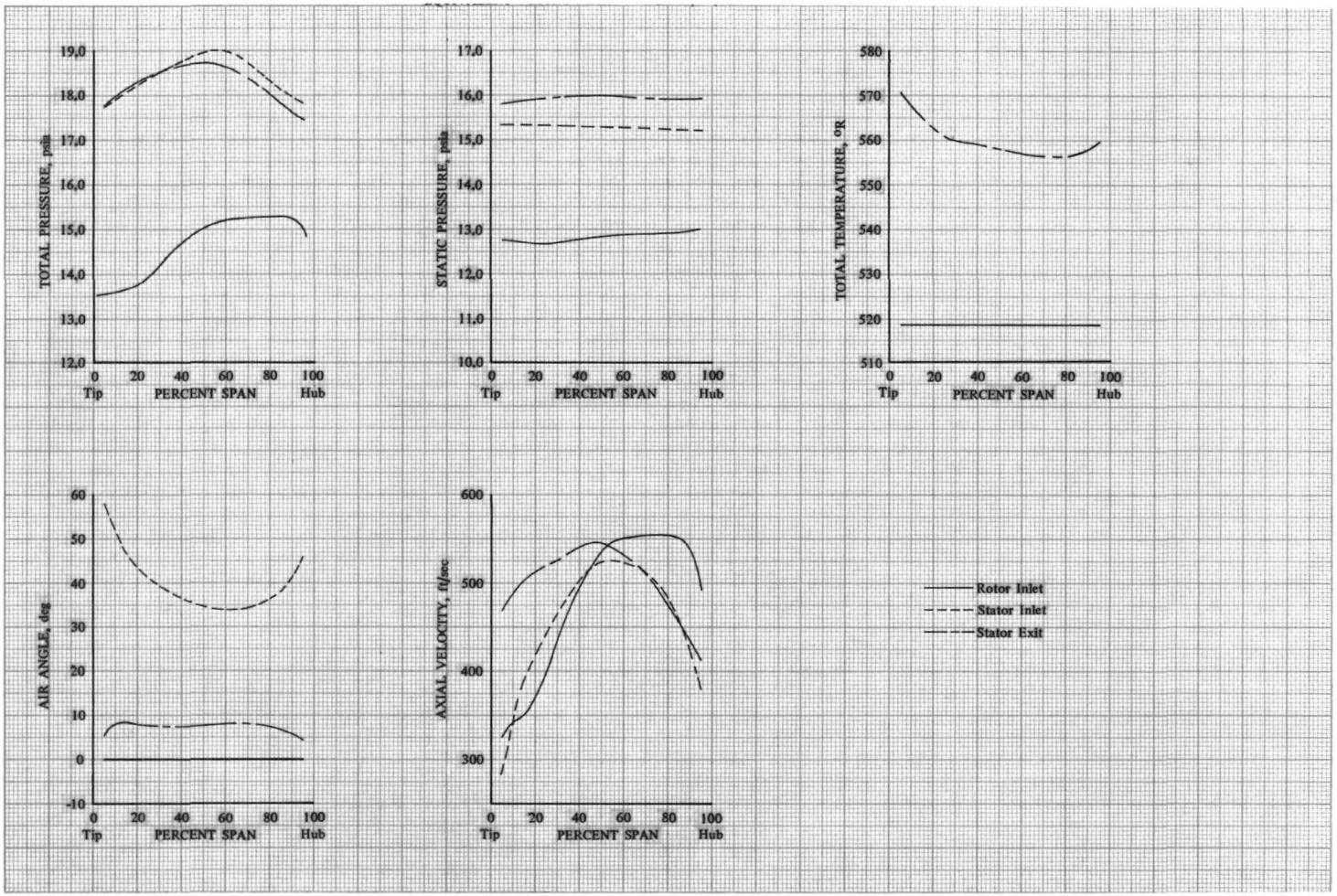


Figure 32b. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 104.69 lb/sec; Tip Radial Distortion

DF 95743

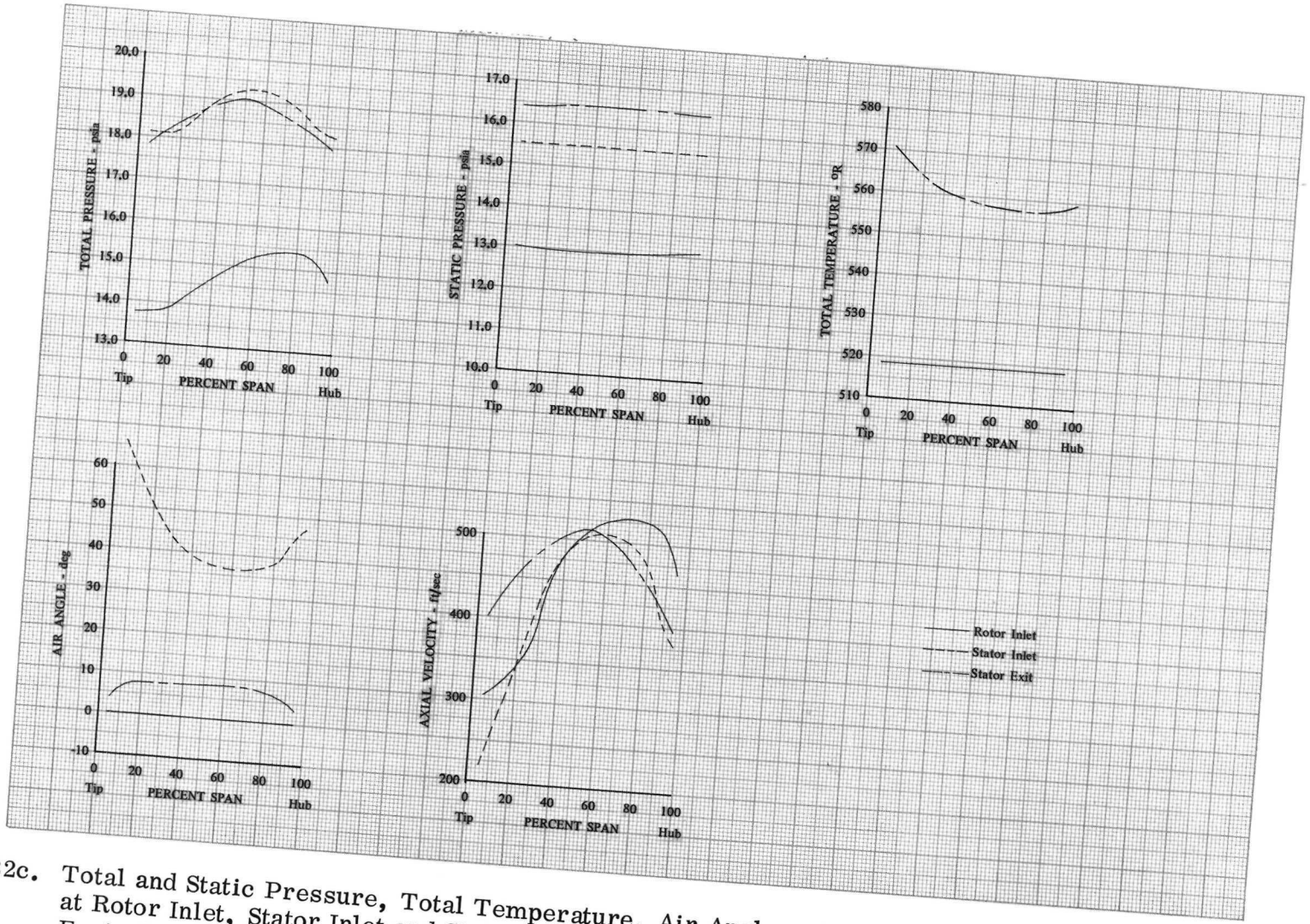


Figure 32c. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 98.41 lb/sec; Tip Radial Distortion

DF 95744

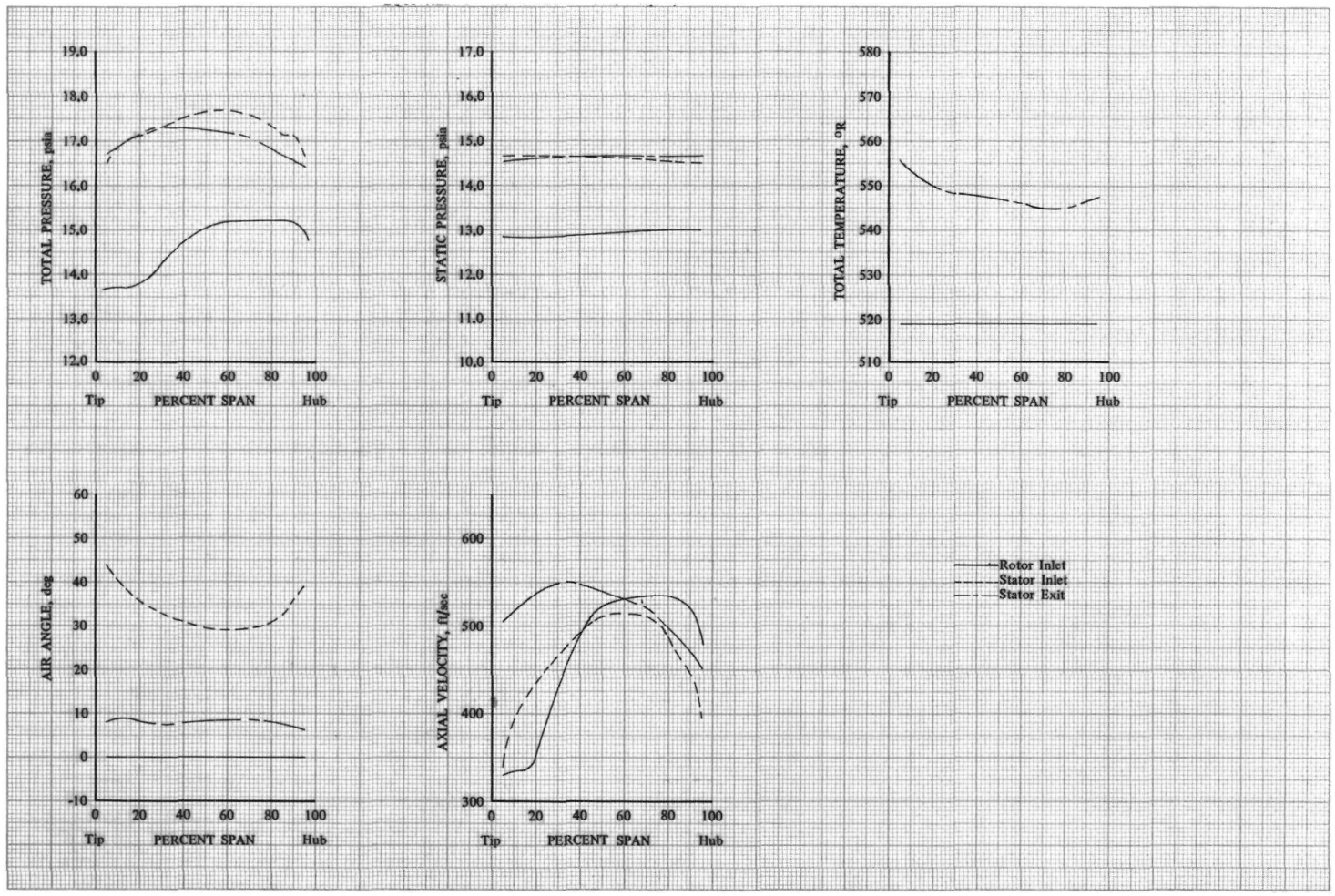


Figure 33a. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 101.85 lb/sec; Tip Radial Distortion

DF 95745

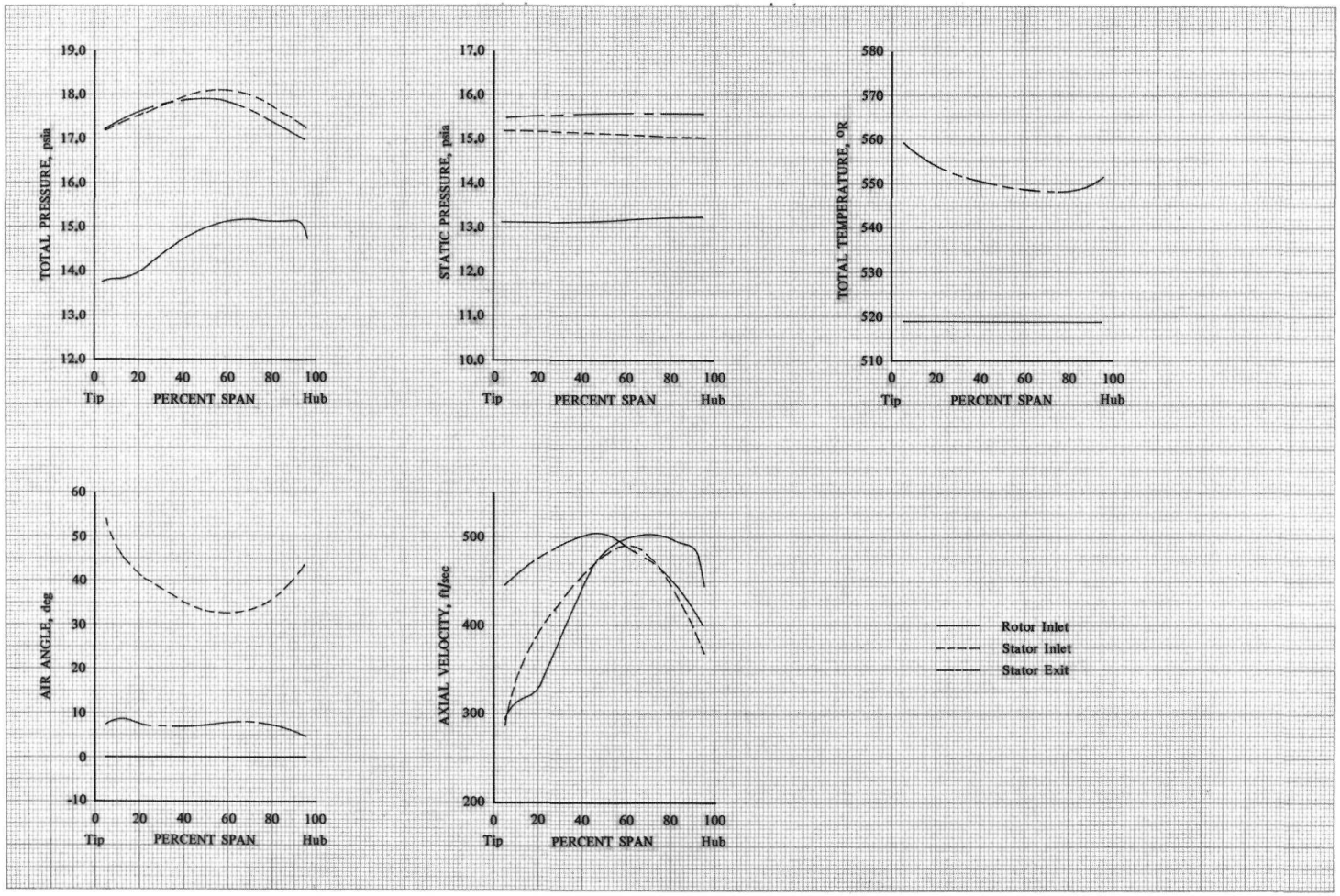


Figure 33b. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 96.39 lb/sec; Tip Radial Distortion

DF 95746

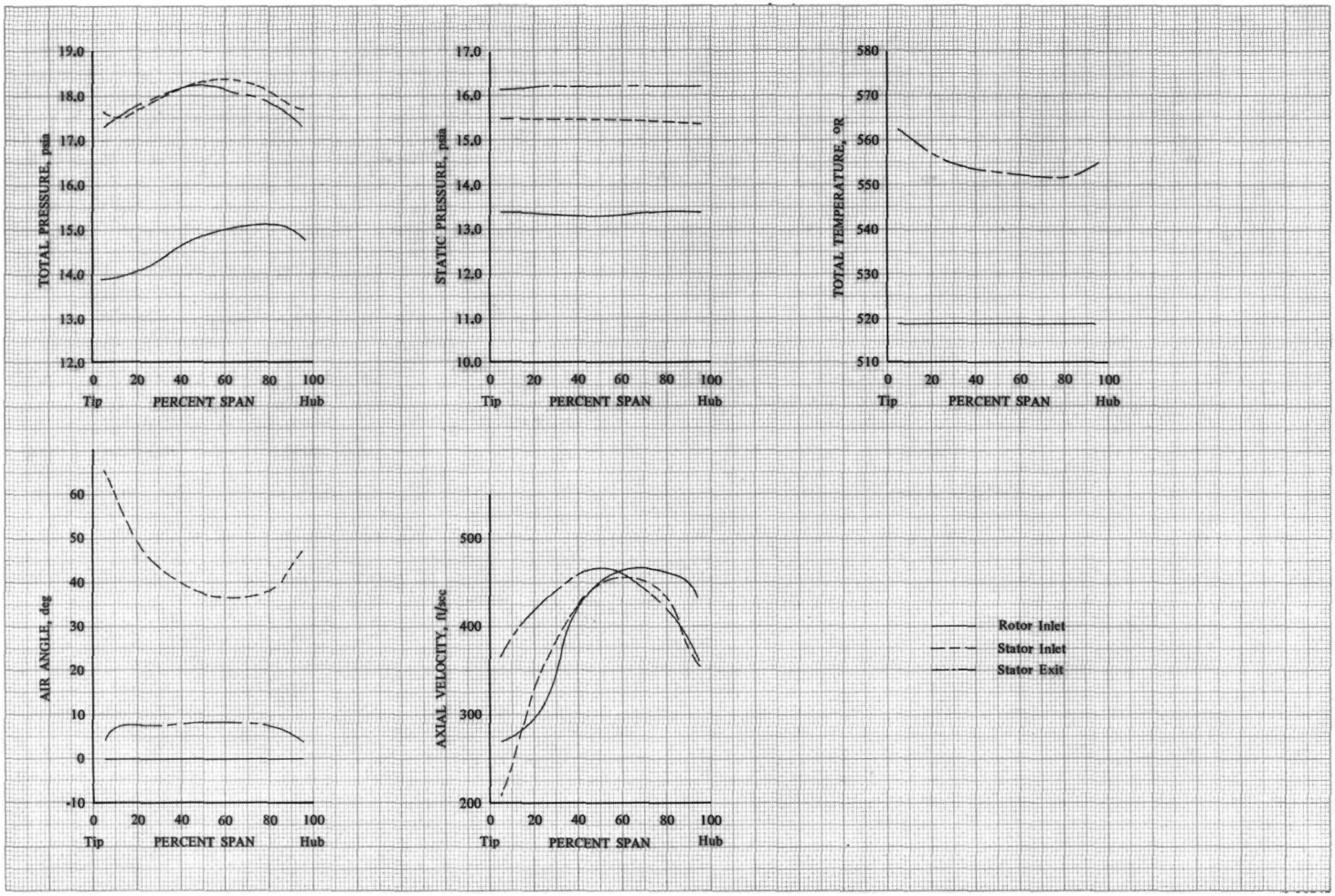


Figure 33c. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 88.92 lb/sec; Tip Radial Distortion

DF 95747

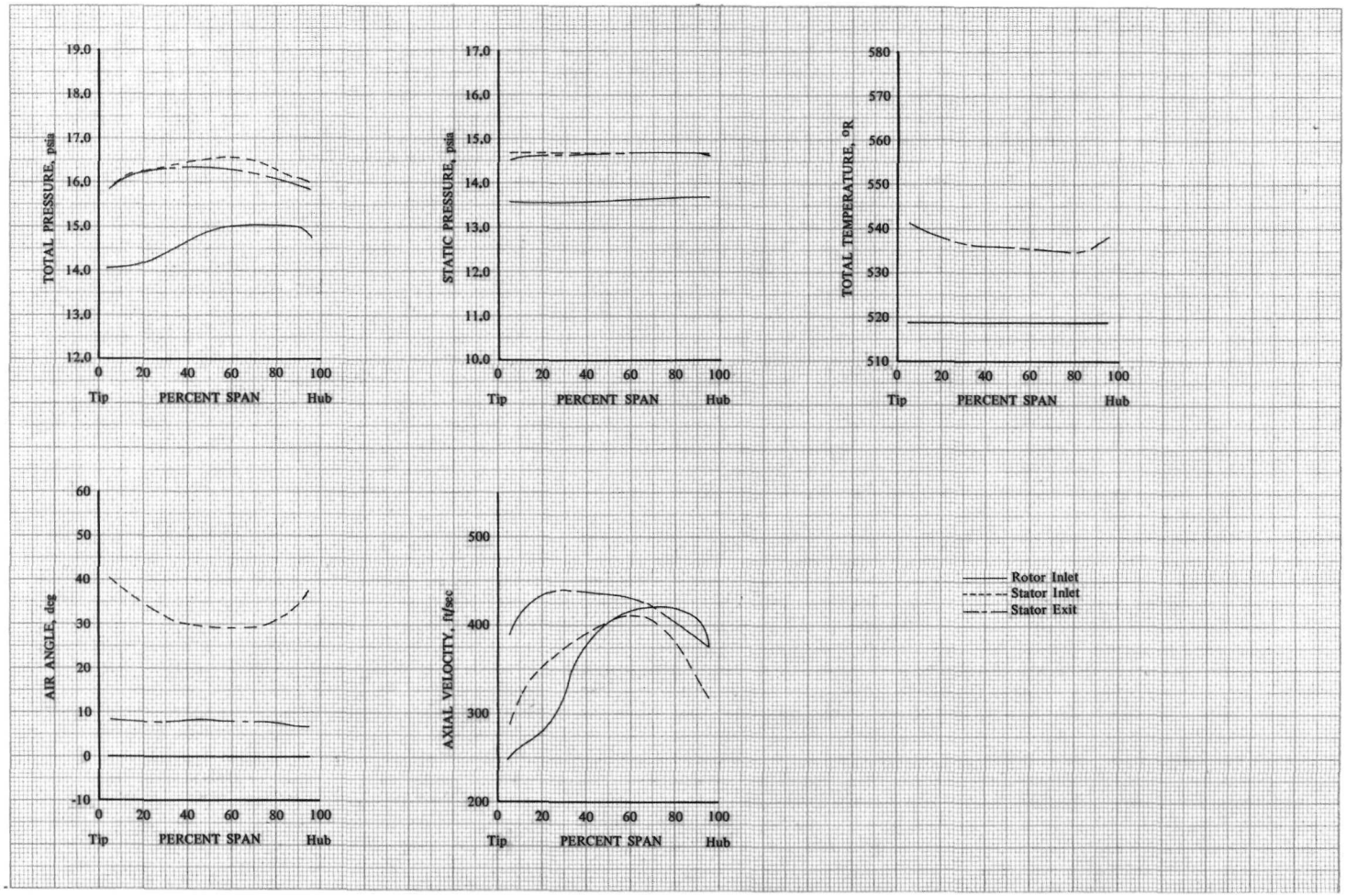


Figure 34a. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 70% Design Equivalent Rotor Speed; Equivalent Weight Flow = 82.67 lb/sec; Tip Radial Distortion

DF 95748

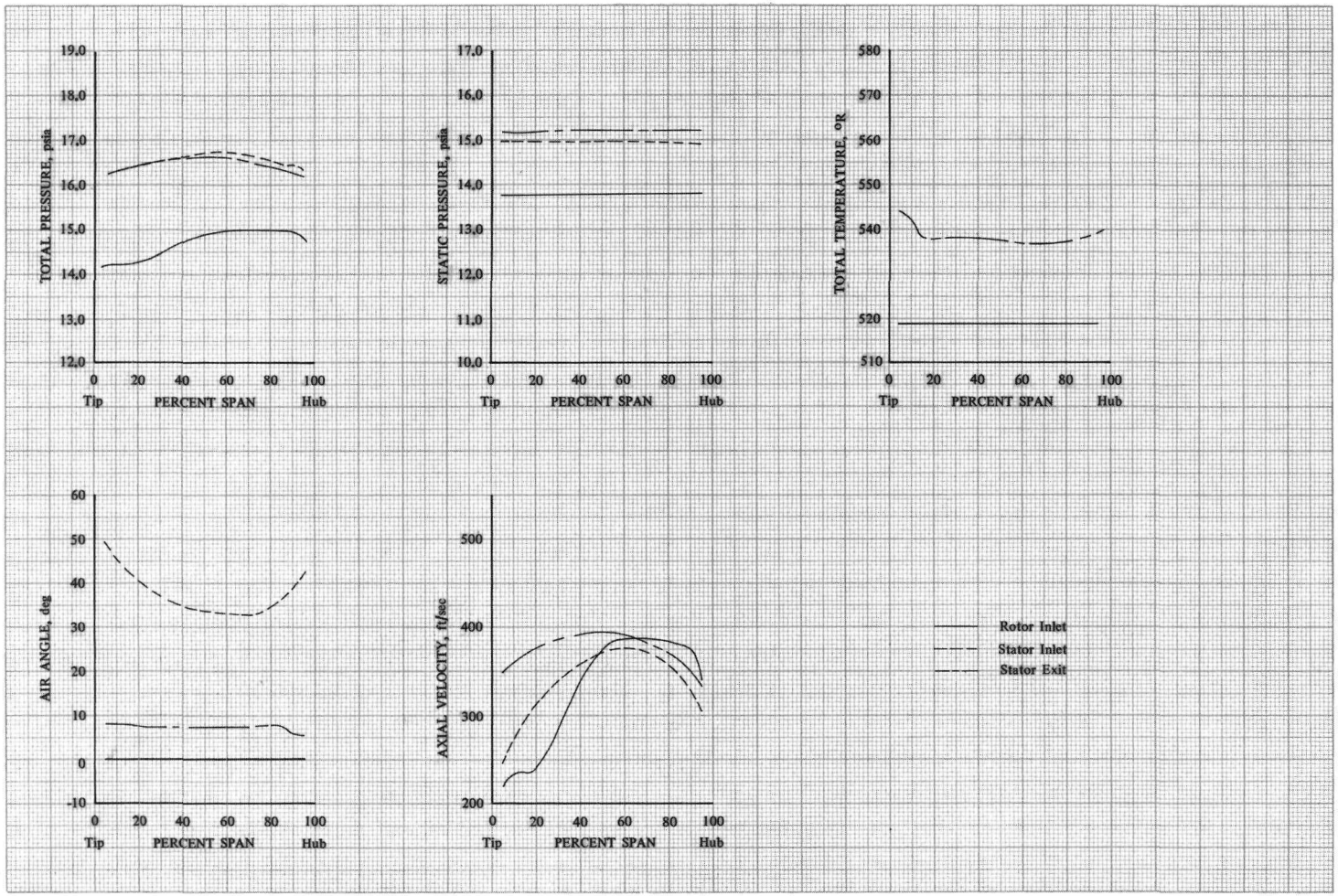


Figure 34b. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 70% Design Equivalent Rotor Speed; Equivalent Weight Flow = 76.07 lb/sec; Tip Radial Distortion

DF 95749

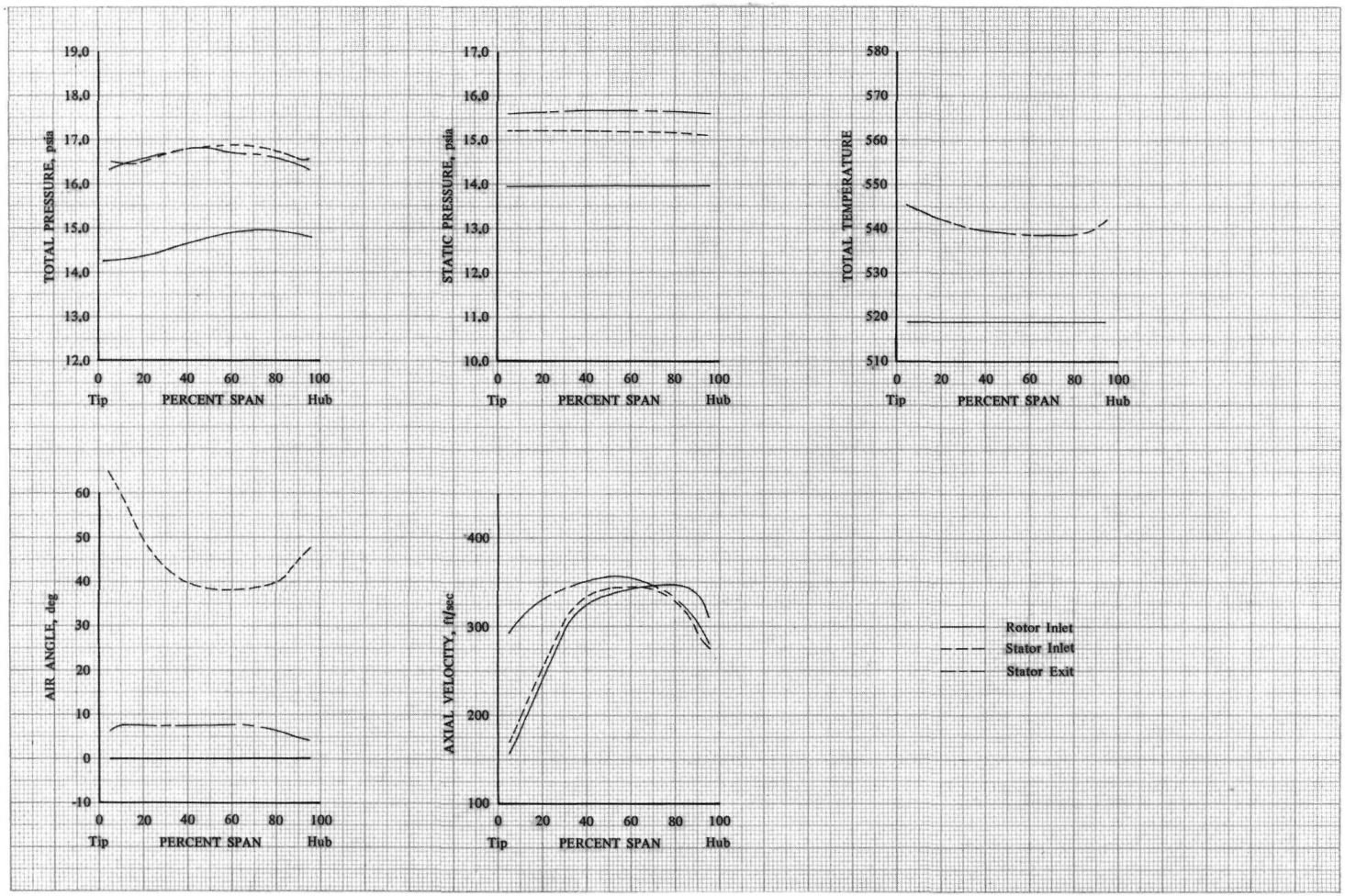


Figure 34c. Total and Static Pressure, Total Temperature, Air Angle and Axial Velocity vs Span at Rotor Inlet, Stator Inlet and Stator Exit; 70% Design Equivalent Rotor Speed; Equivalent Weight Flow = 68.17 lb/sec; Tip Radial Distortion

DF 95750

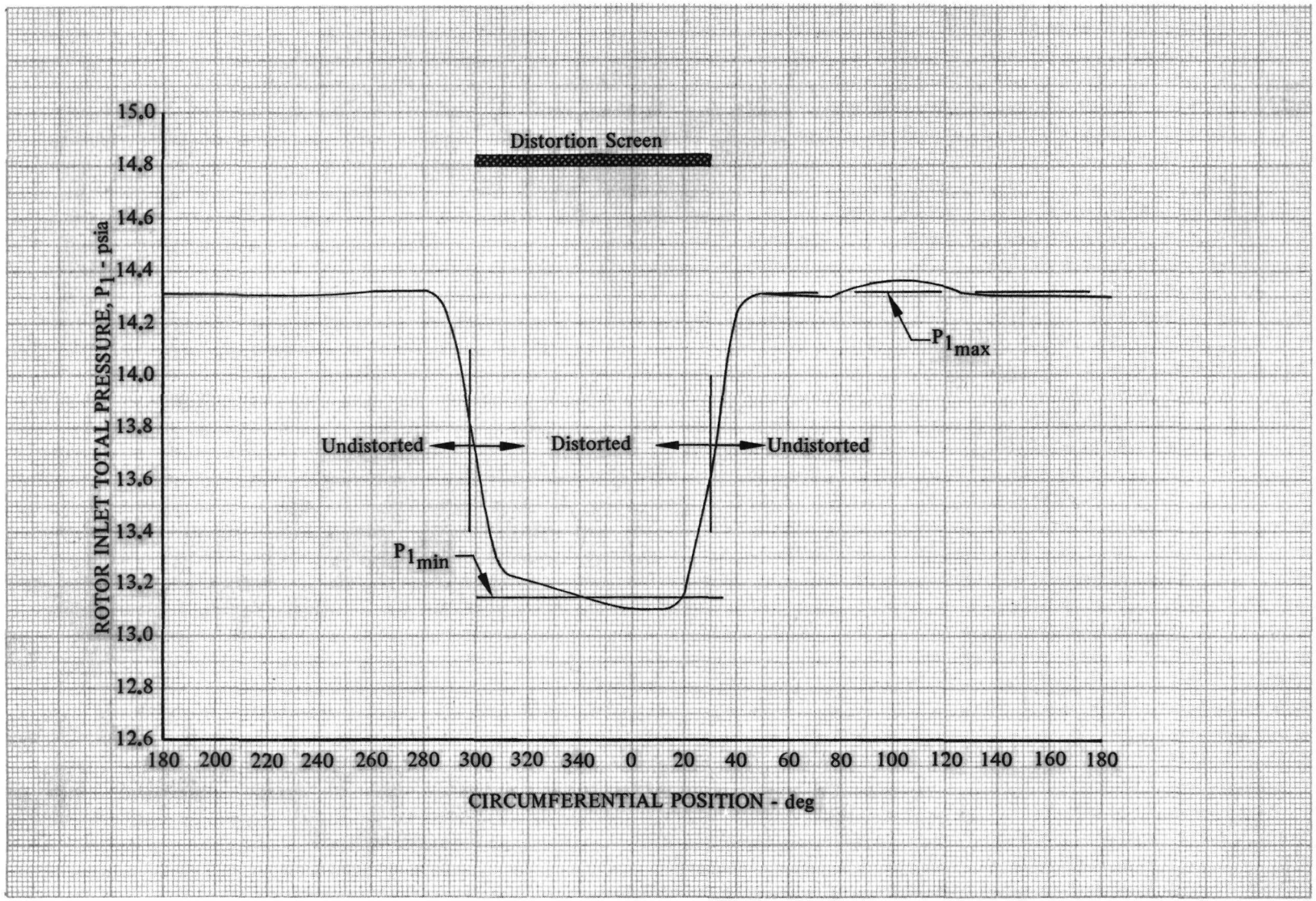


Figure 35. Typical Rotor Inlet Total Pressure Distribution With Circumferential Distortion; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; 50% Span

DF 95751

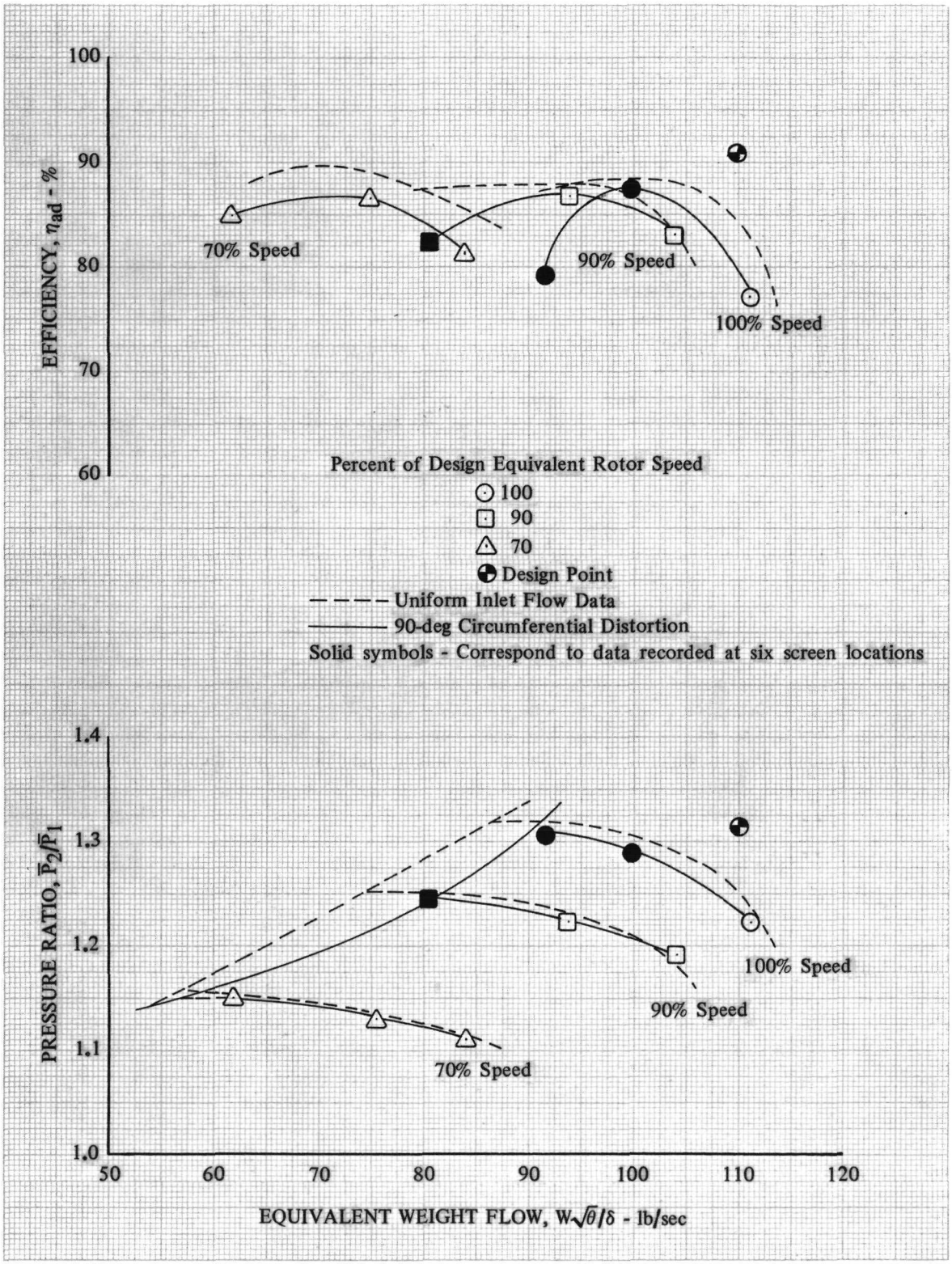


Figure 36. Overall Performance of Rotor B; Circumferential Distortion vs Uniform Inlet Flow

DF 95752

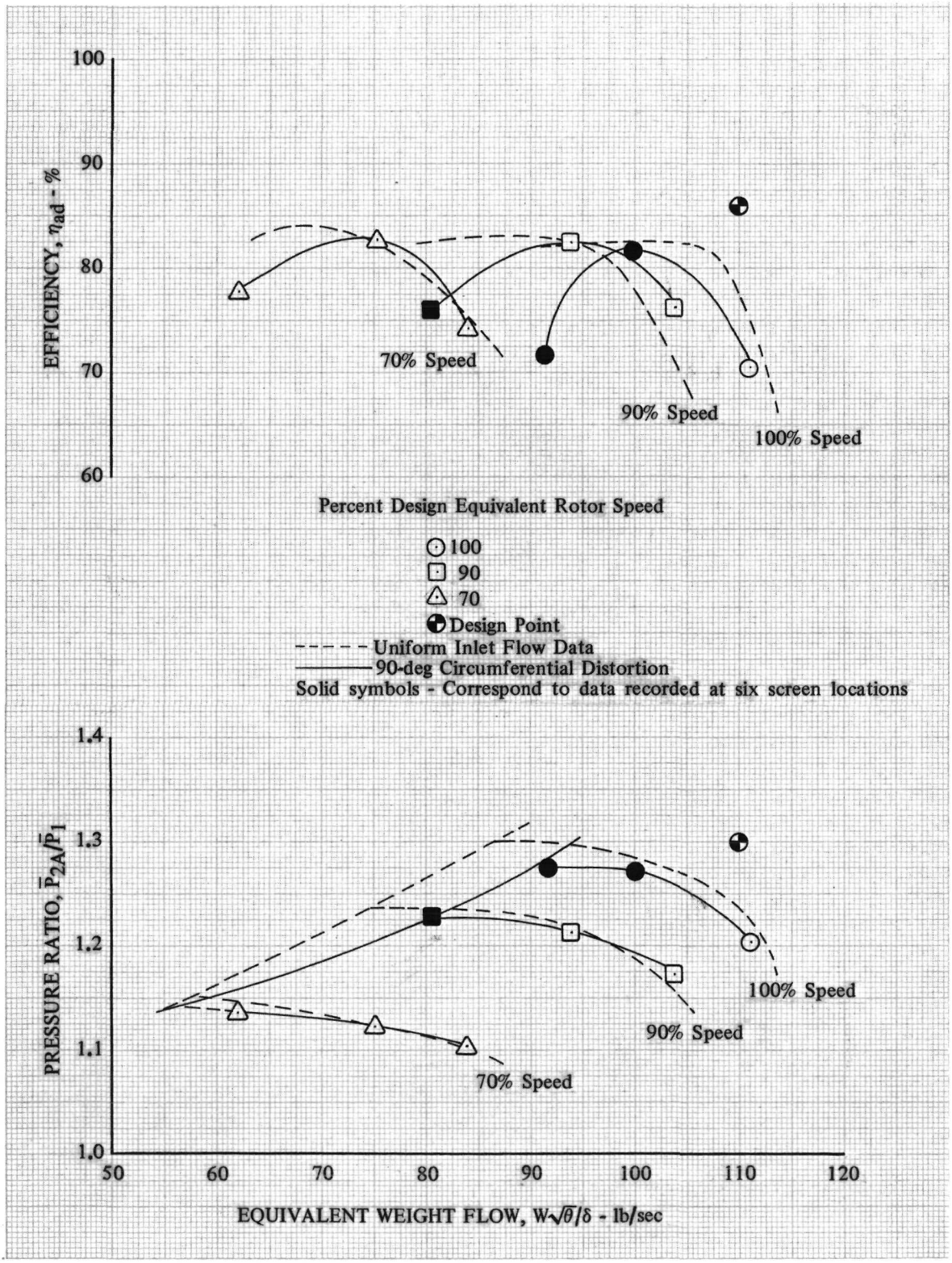


Figure 37. Overall Performance of Stage B; Circumferential Distortion vs Uniform Inlet Flow

DF 95753

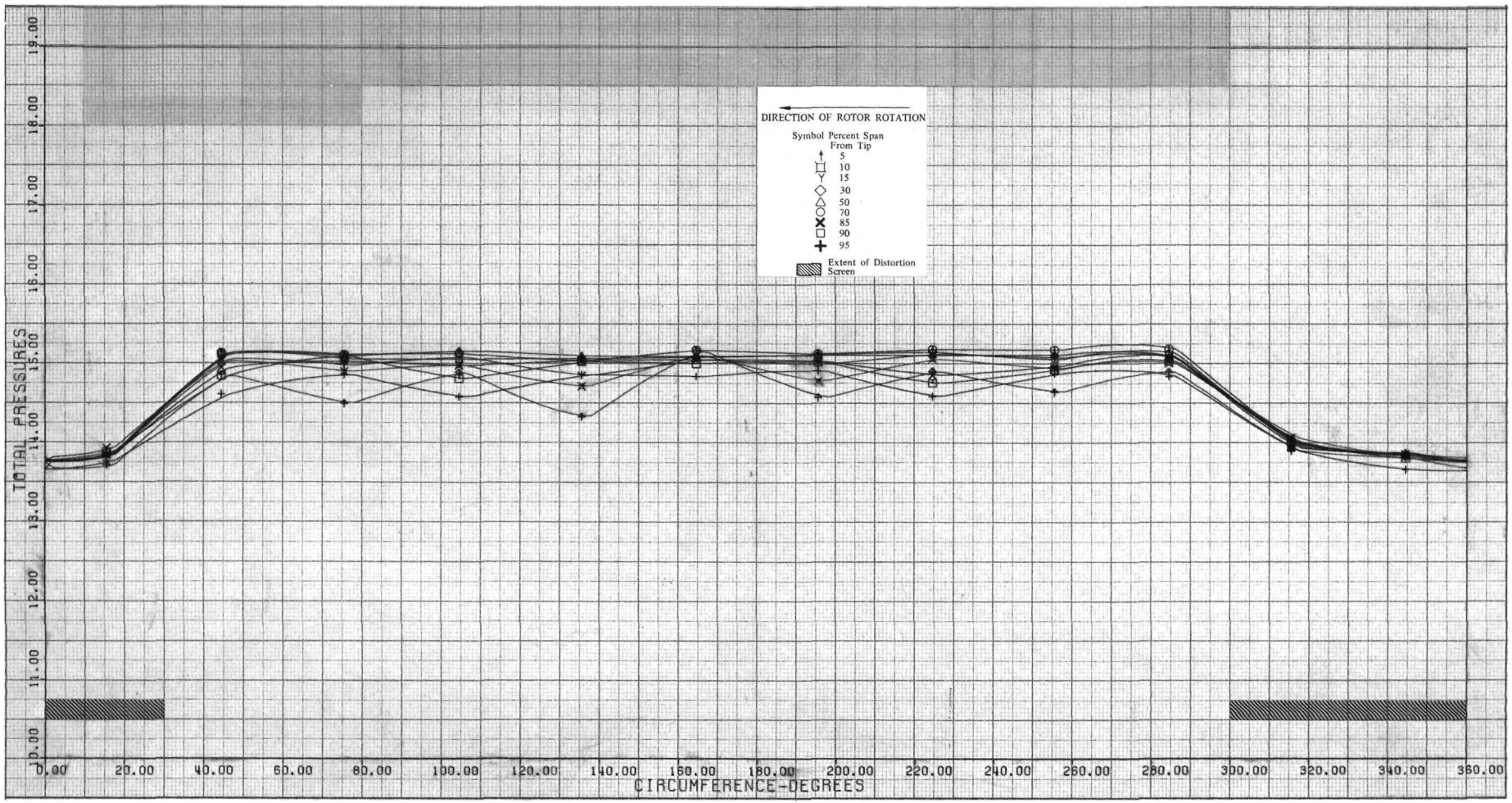


Figure 38a. Rotor Inlet Total Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95754

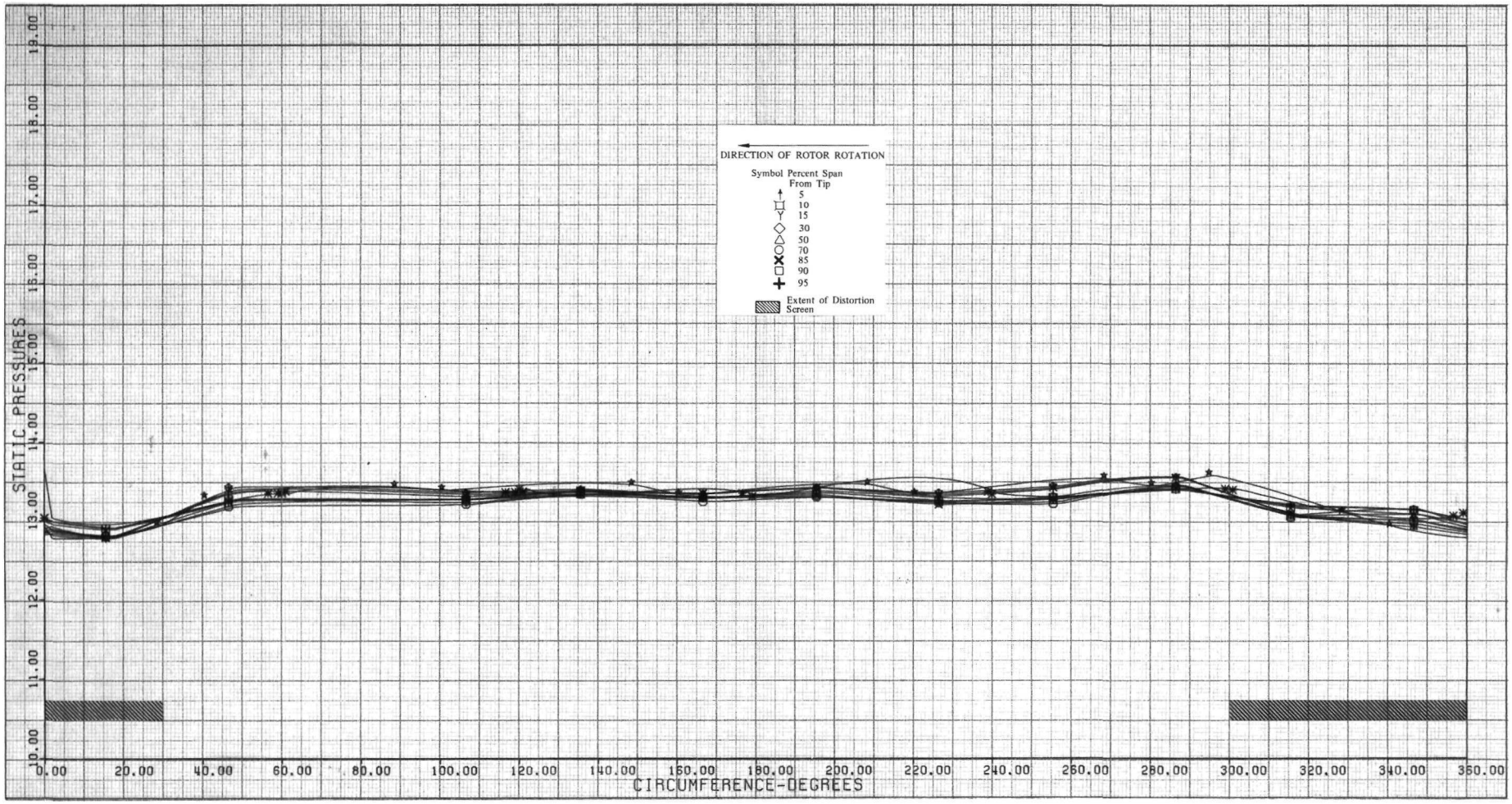


Figure 38b. Rotor Inlet Static Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95755

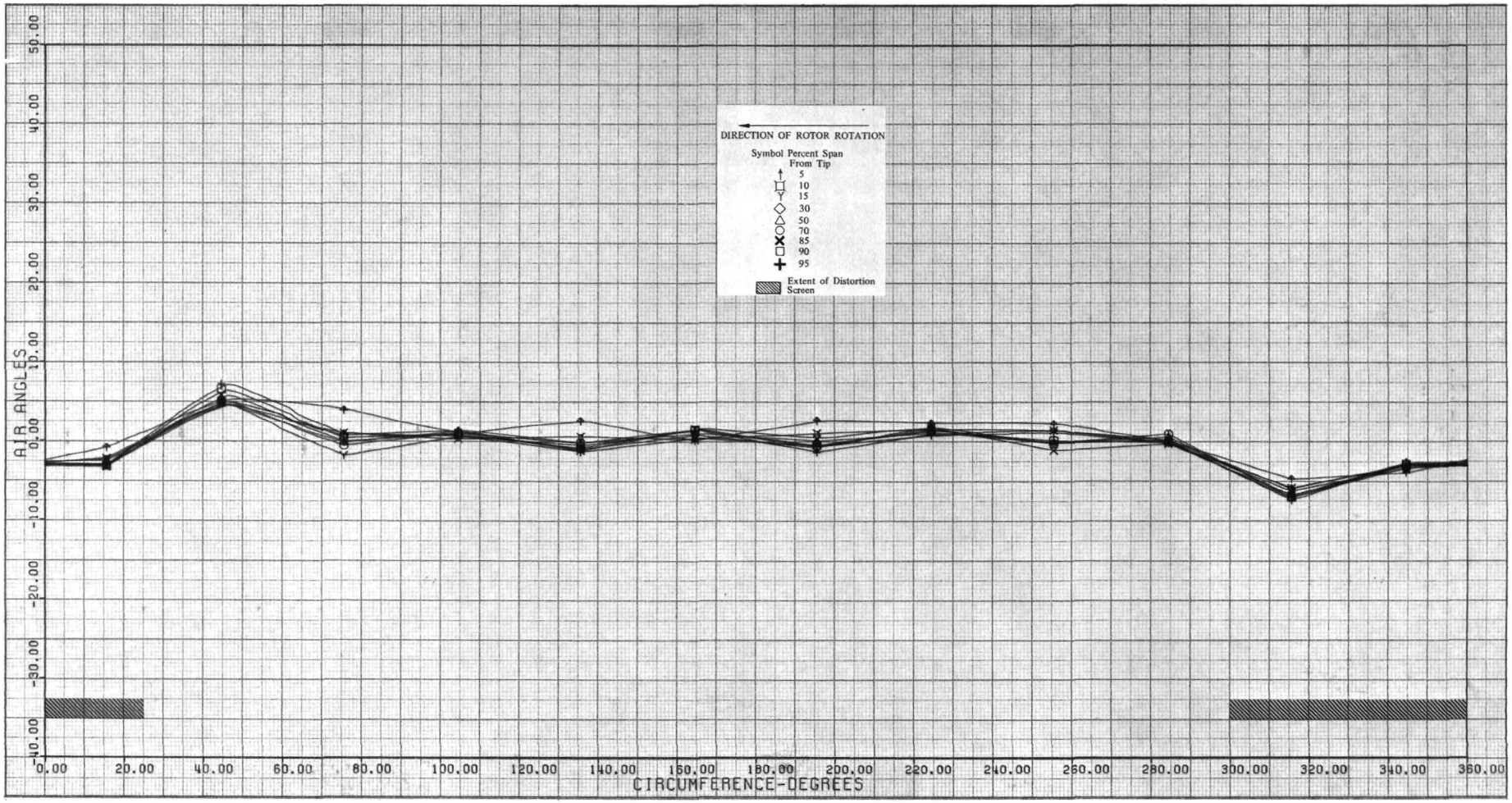


Figure 38c. Rotor Inlet Air Angle vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95756

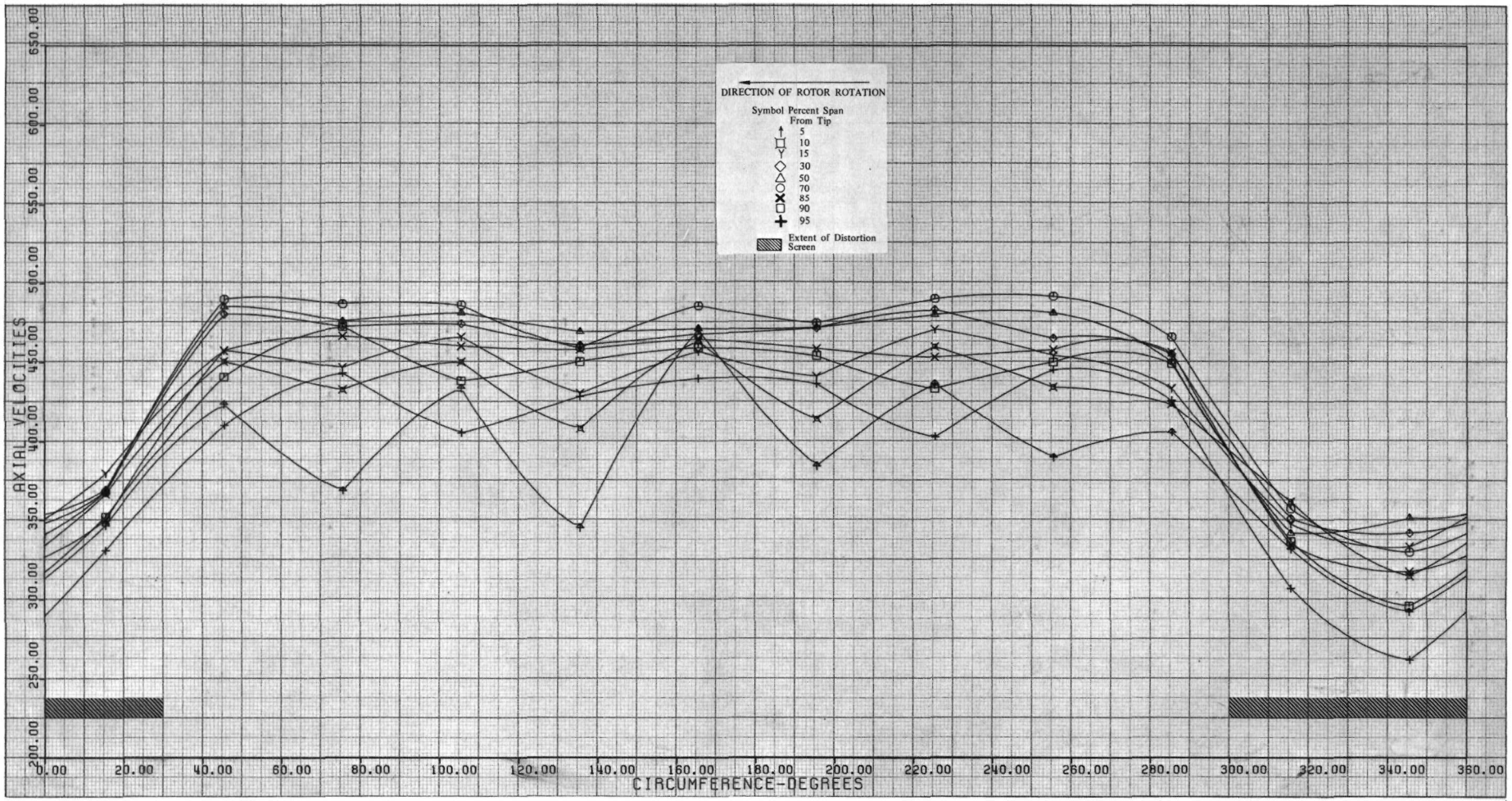


Figure 38d. Rotor Inlet Axial Velocity vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95757

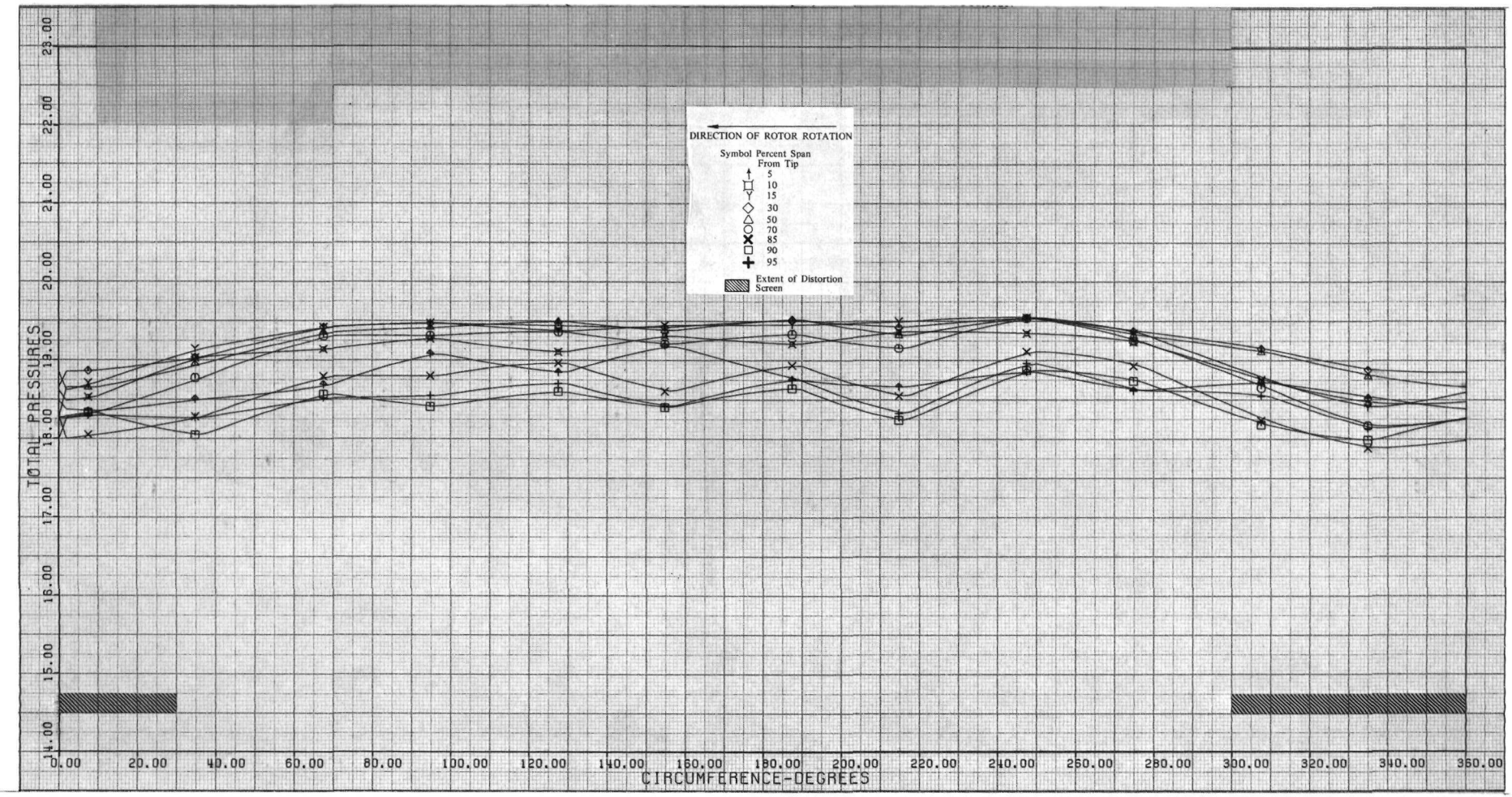


Figure 38e. Stator Inlet Total Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95758

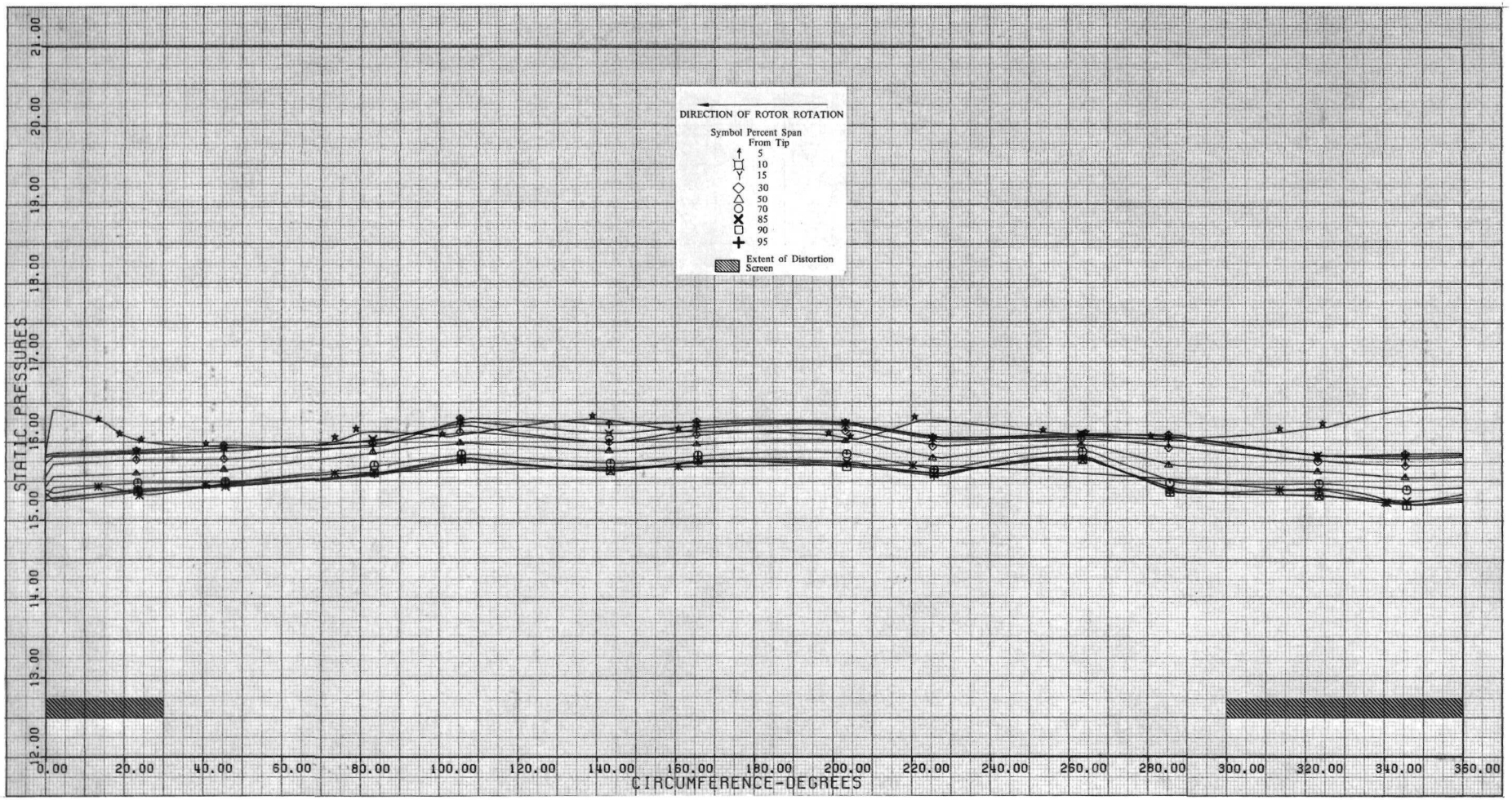


Figure 38f. Stator Inlet Static Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95759

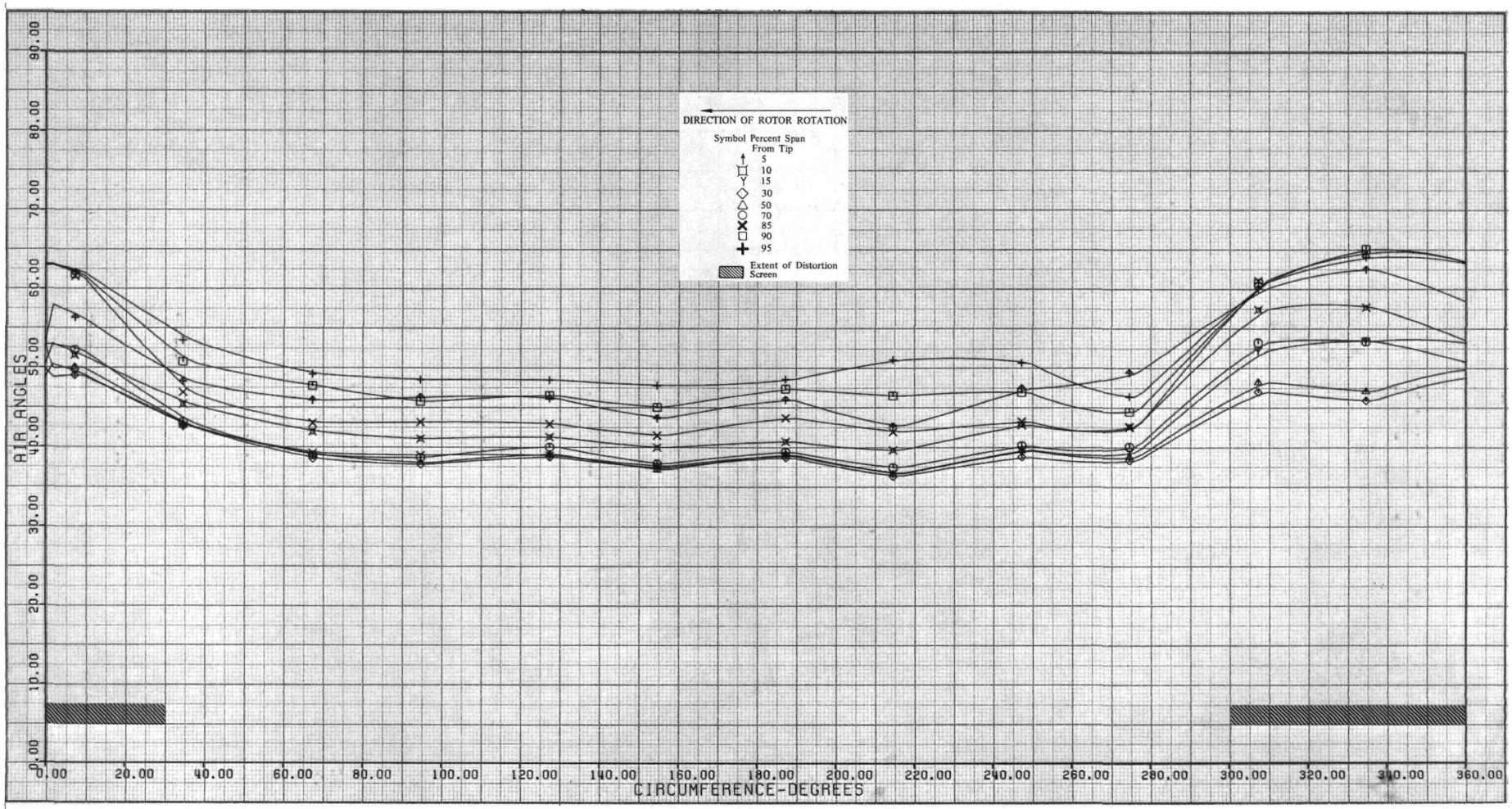


Figure 38g. Stator Inlet Air Angle vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95760

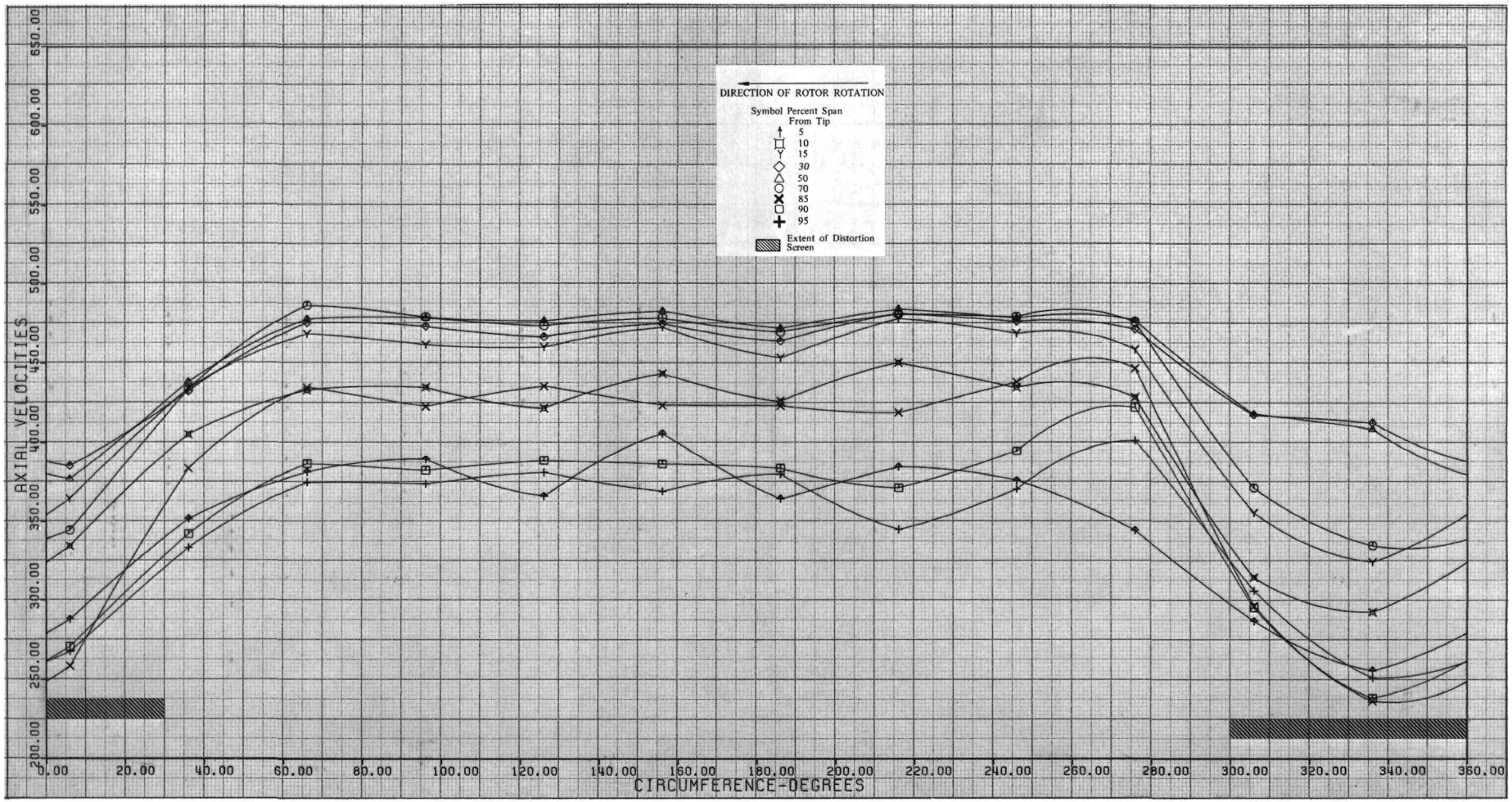


Figure 38h. Stator Inlet Axial Velocity vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95761

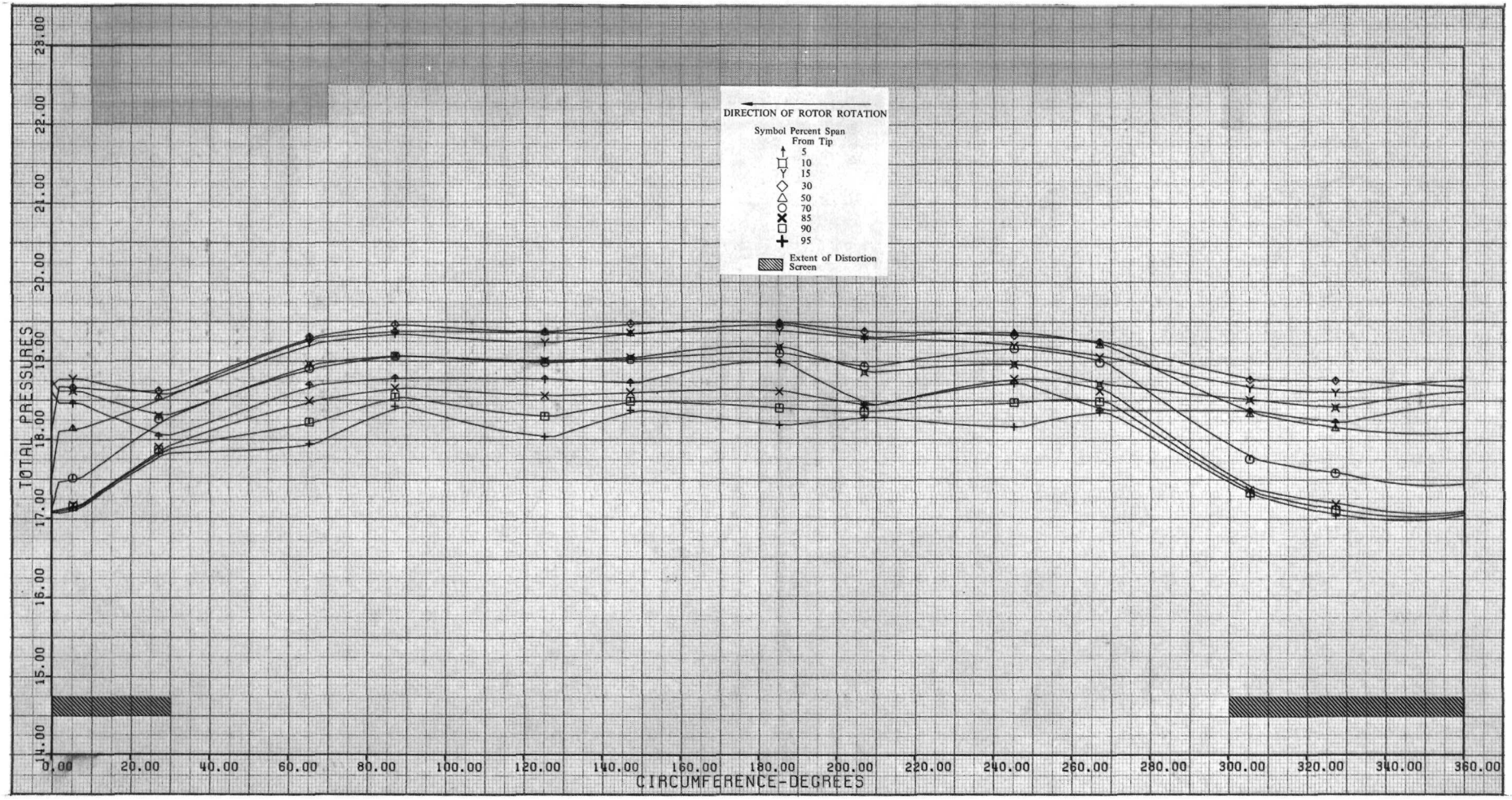


Figure 38i. Stator Exit Total Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95762

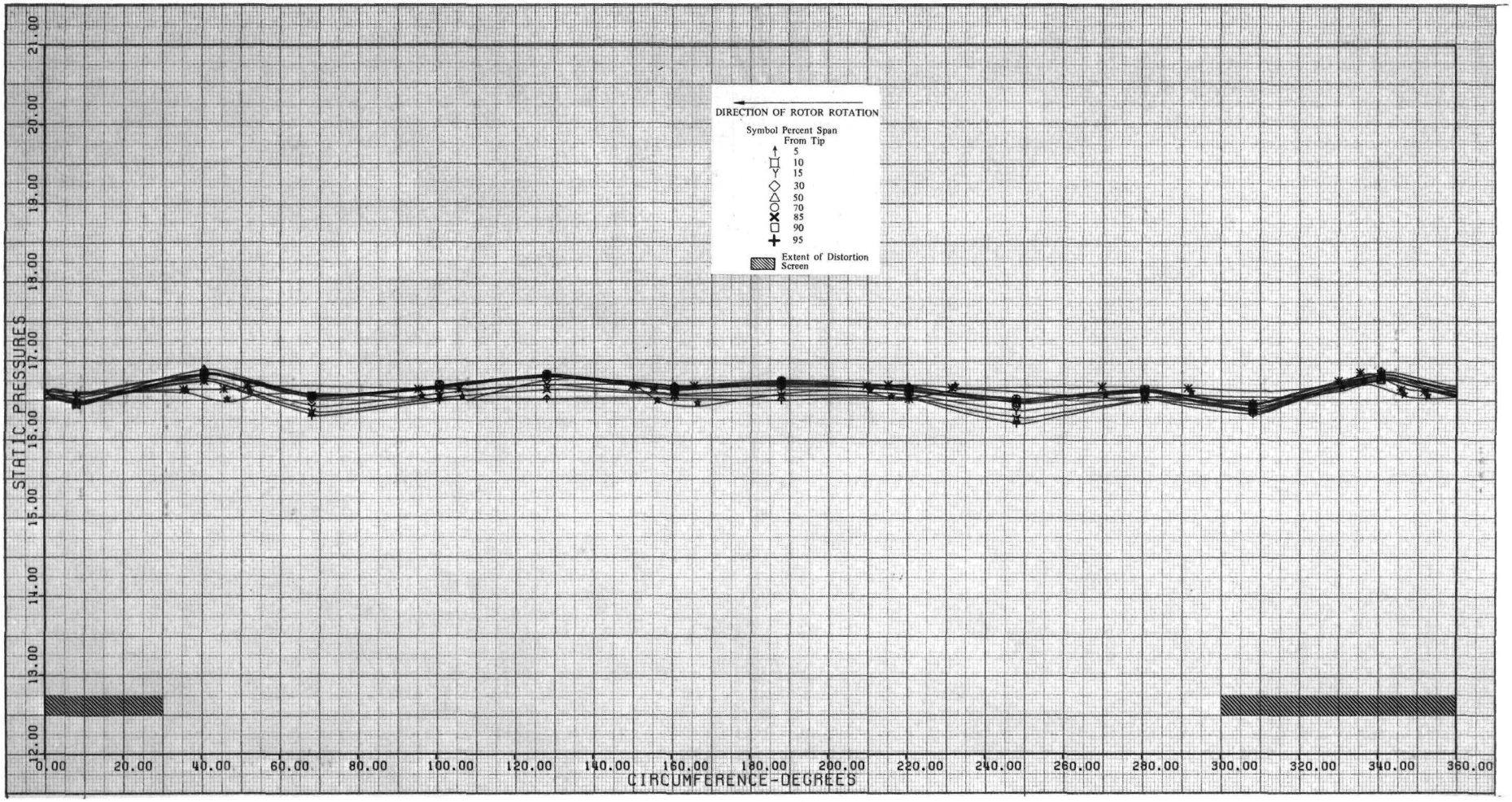


Figure 38j. *Stator Exit Static Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion*

DF 95763

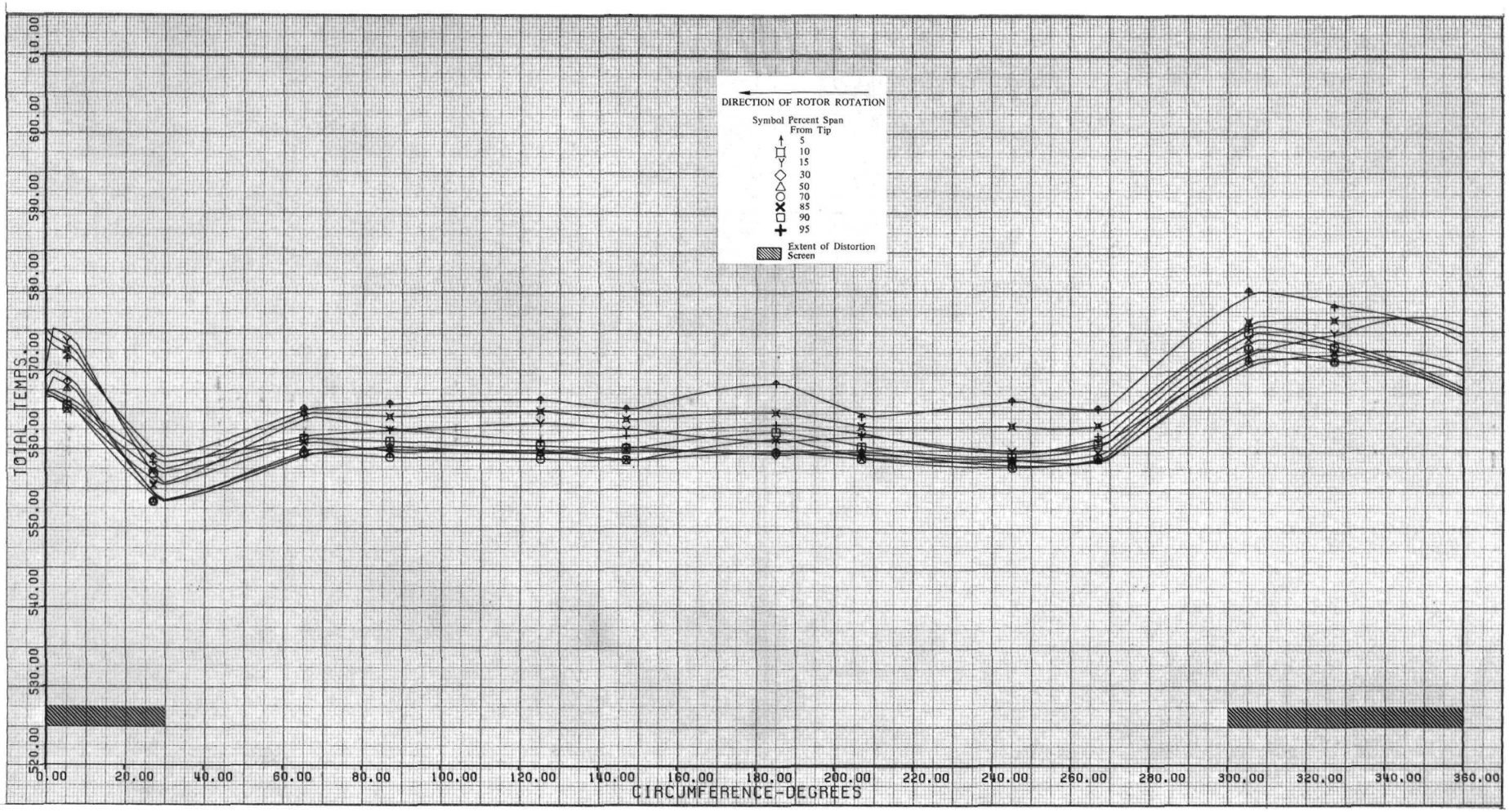


Figure 38k. Stator Exit Total Temperature vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95764

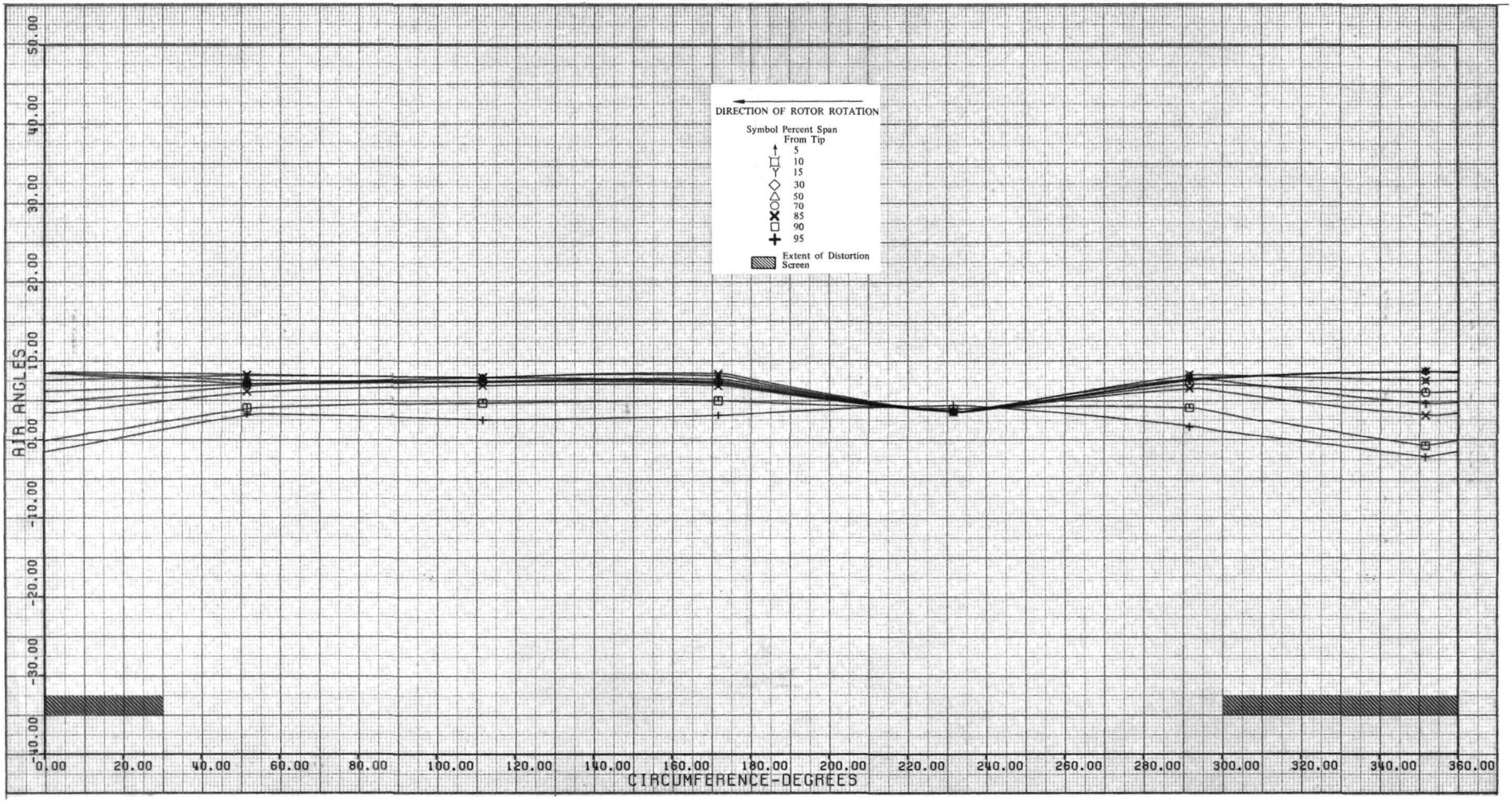


Figure 381. Stator Exit Air Angle vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95765

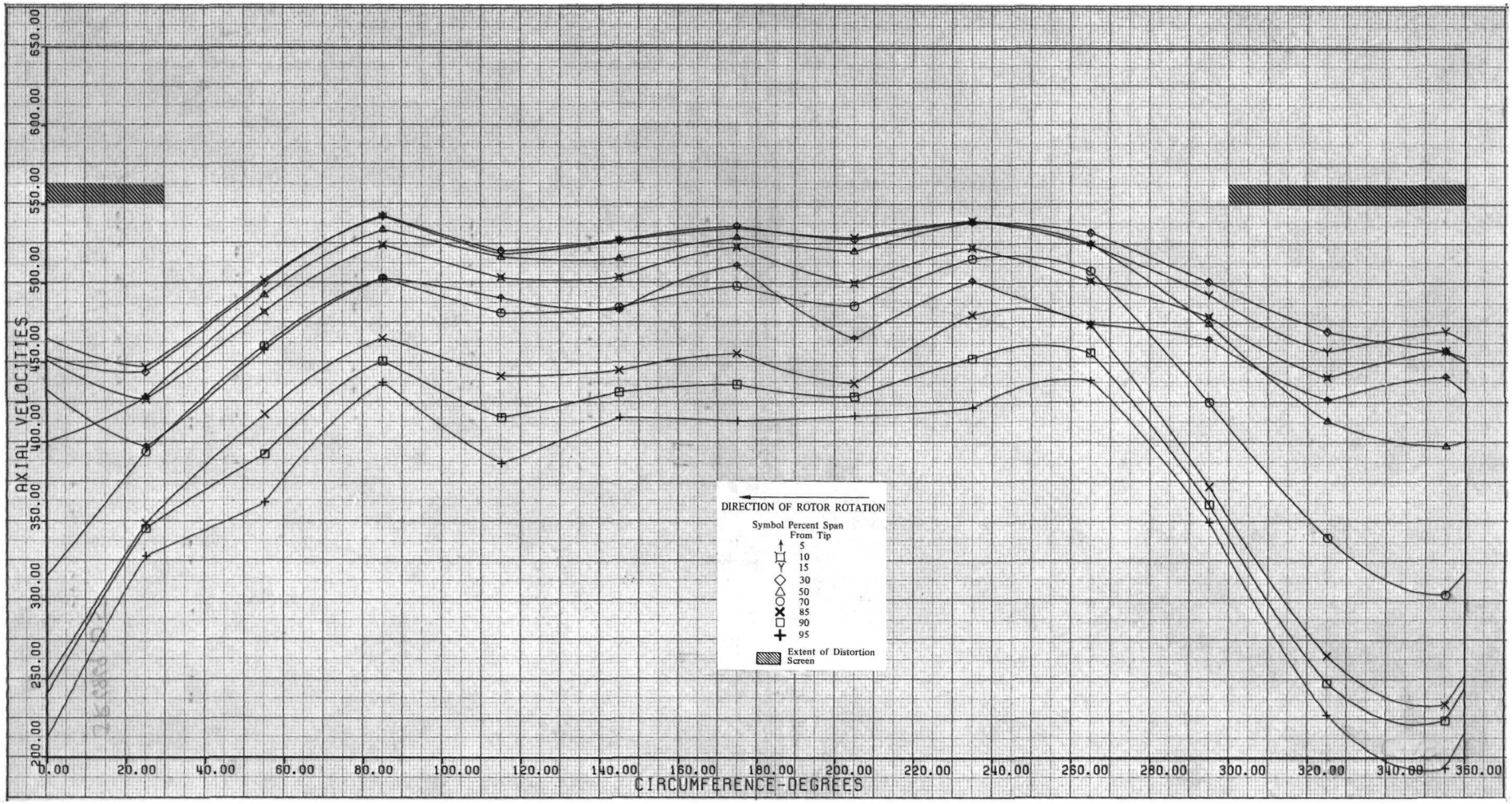


Figure 38m. Stator Exit Axial Velocity vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 100.04 lb/sec; Circumferential Distortion

DF 95766

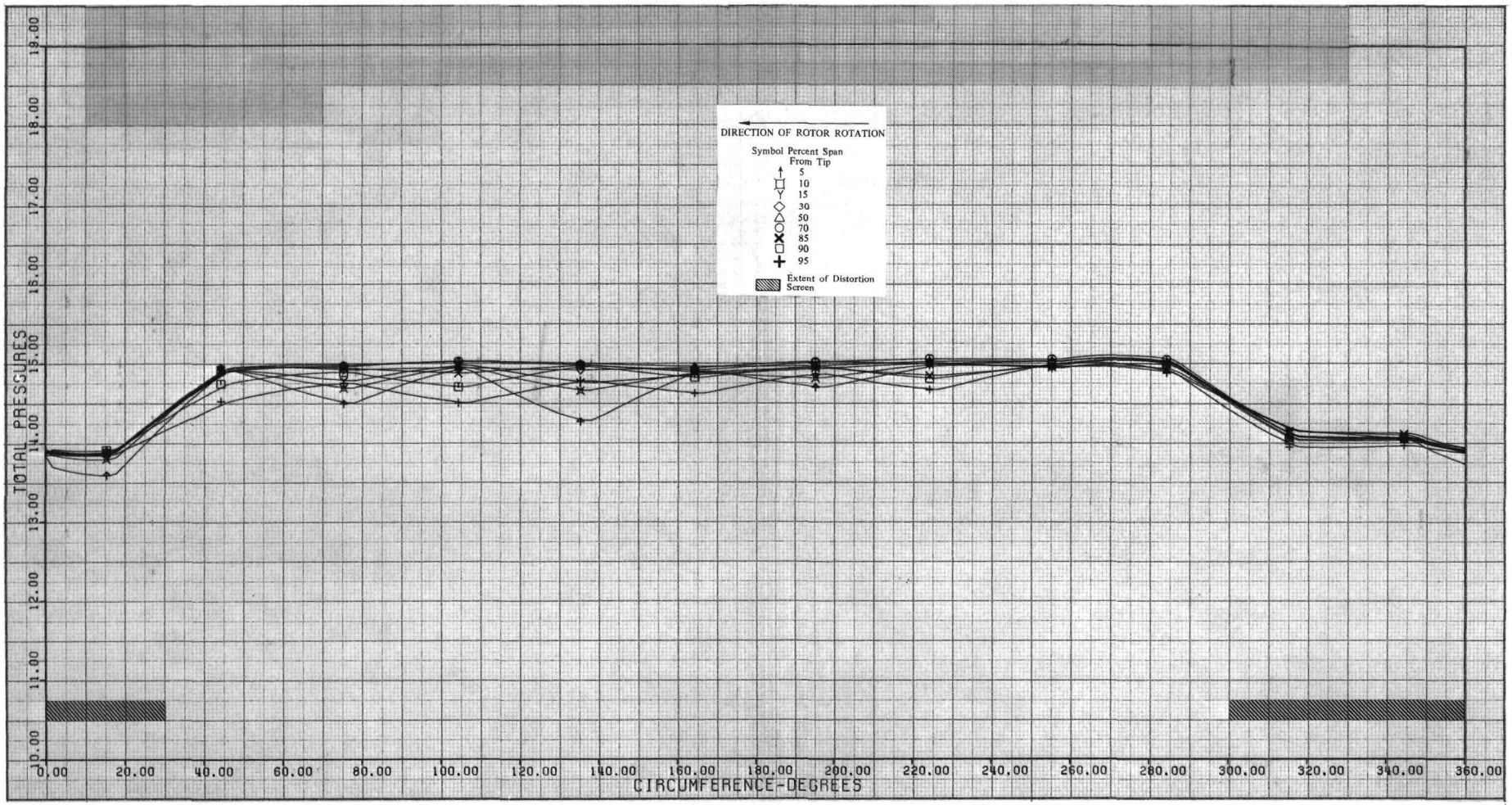


Figure 39a. Rotor Inlet Total Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95767

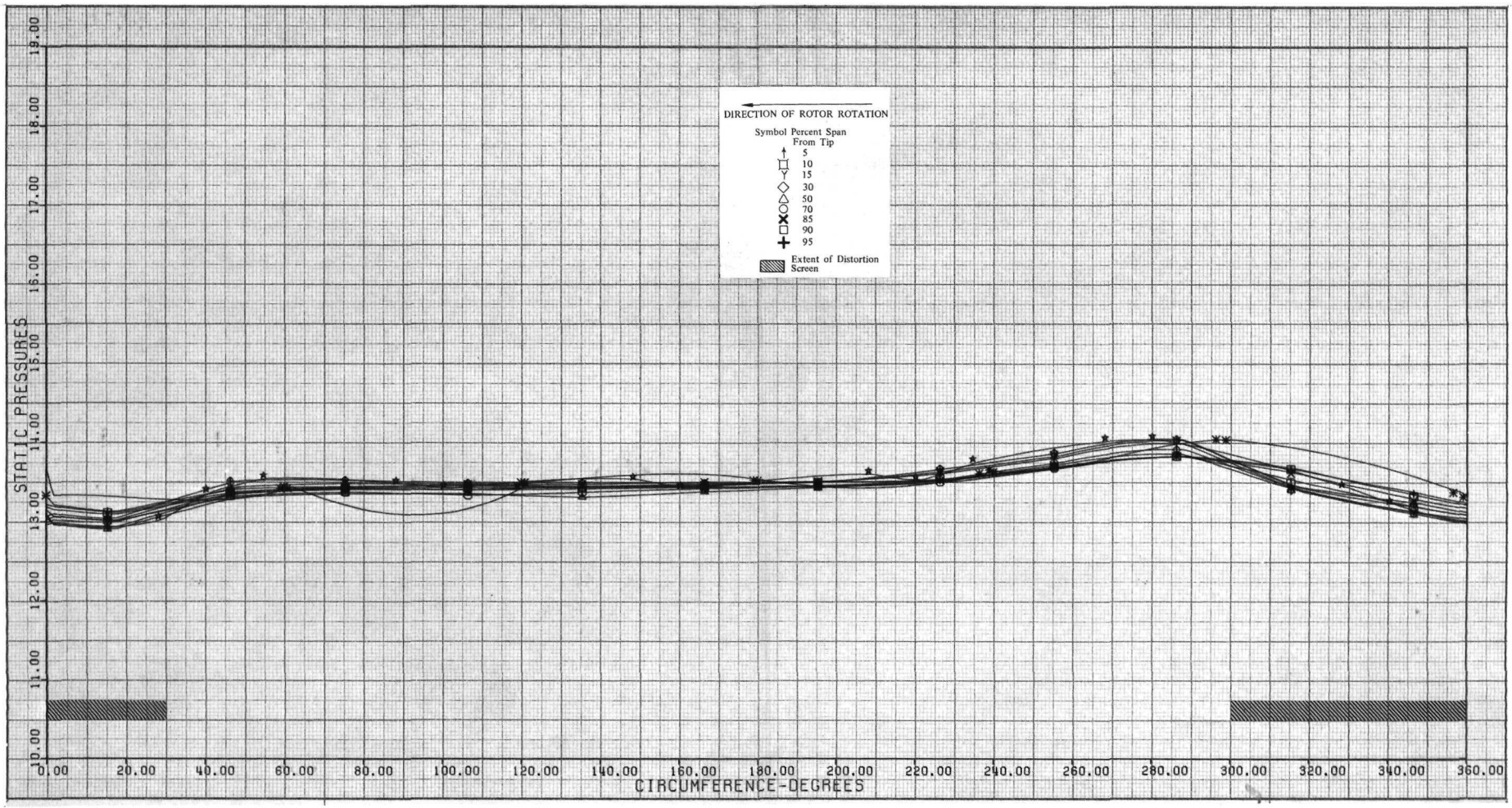


Figure 39b. Rotor Inlet Static Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95768

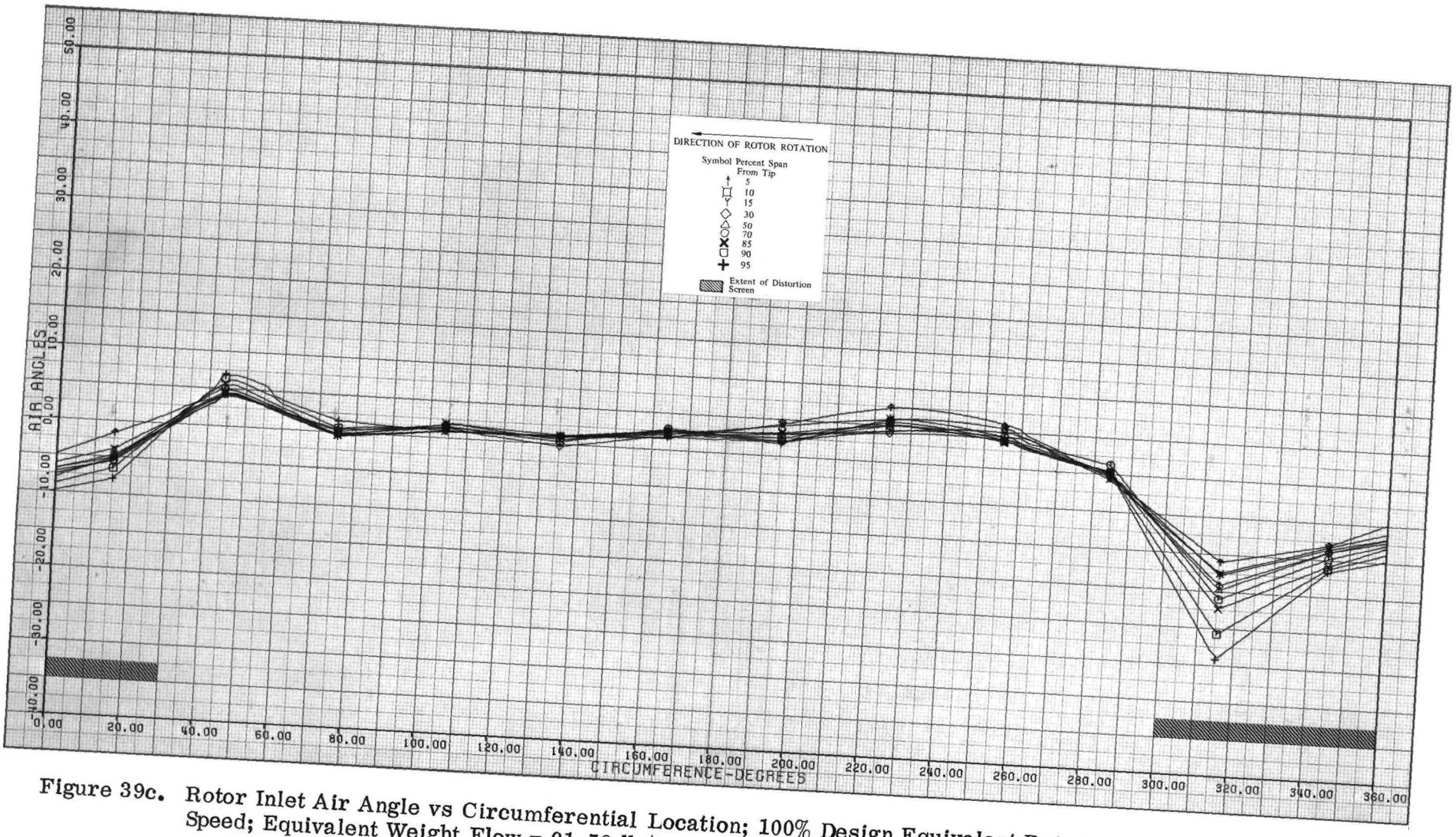


Figure 39c. Rotor Inlet Air Angle vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95769

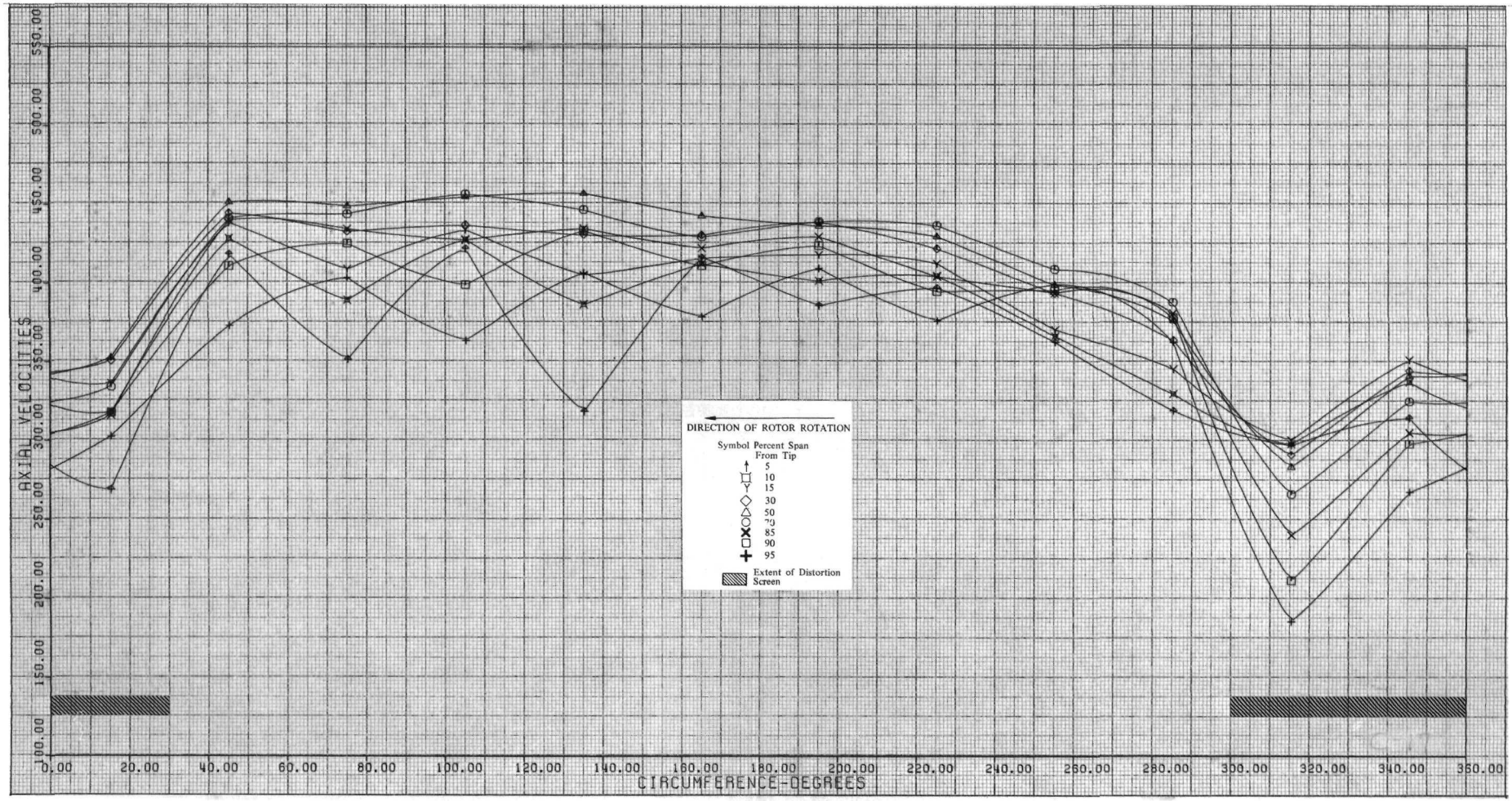


Figure 39d. Rotor Inlet Axial Velocity vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95770

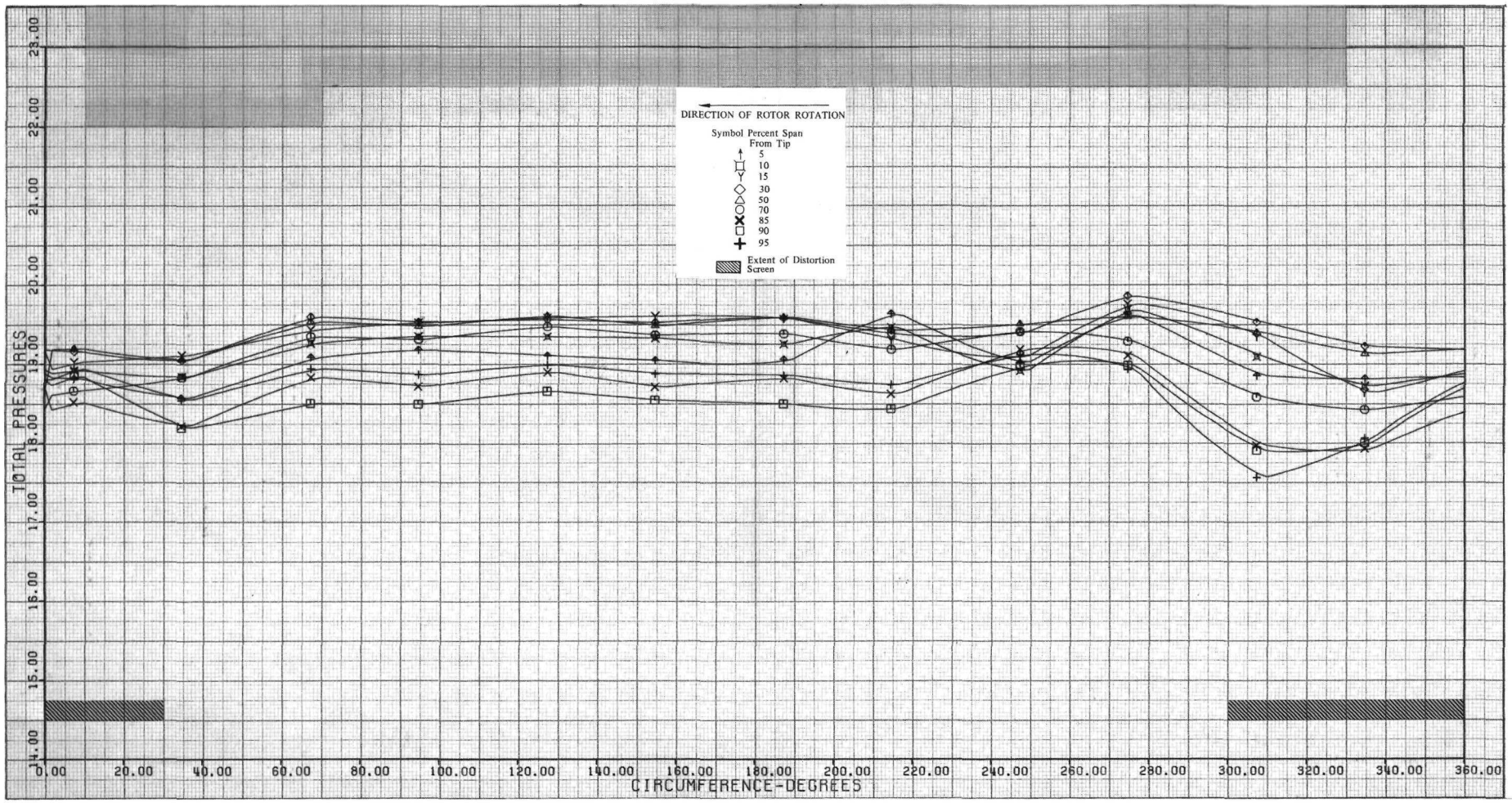


Figure 39e. Stator Inlet Total Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95771

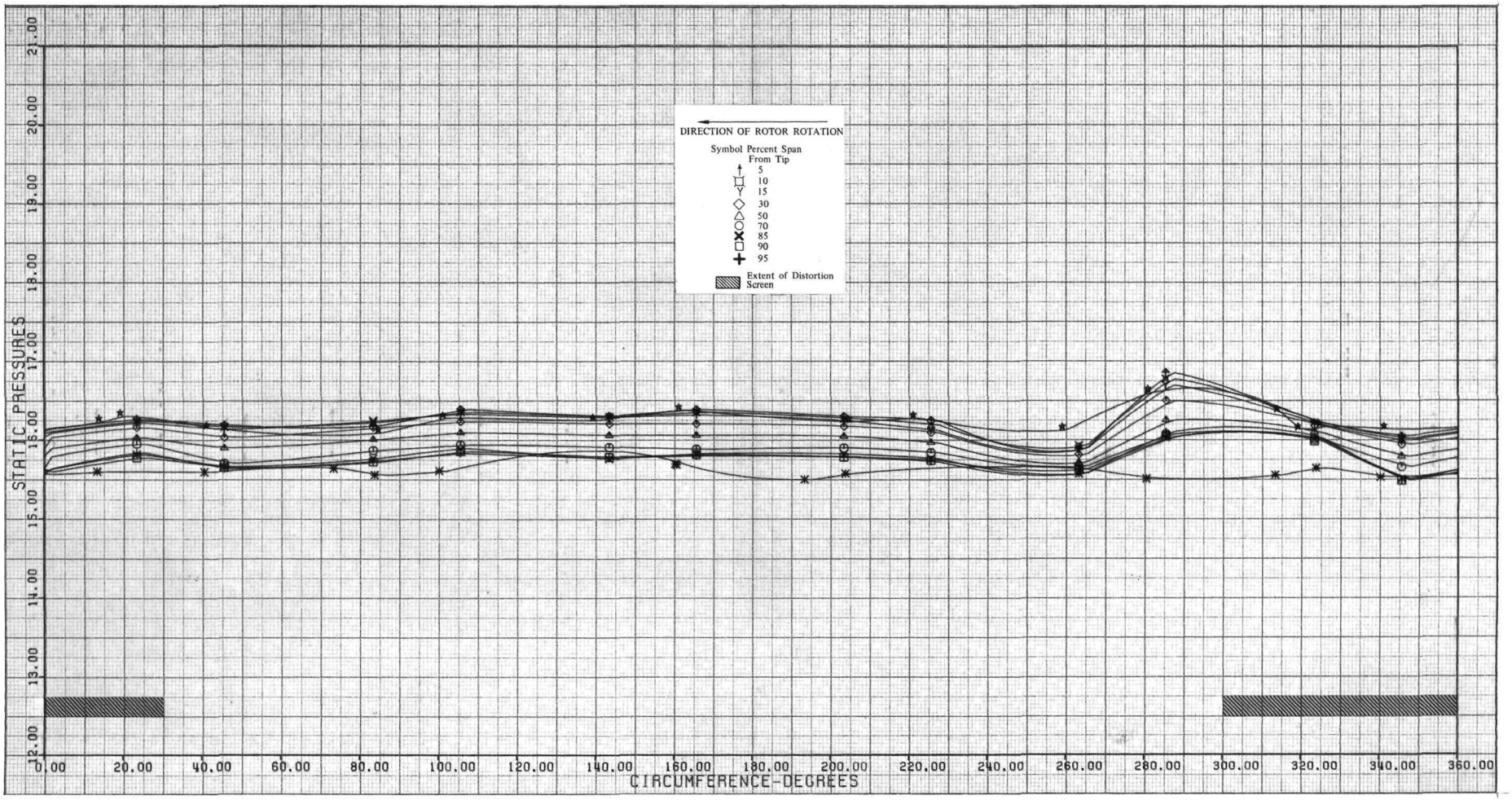


Figure 39f. Stator Inlet Static Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95772

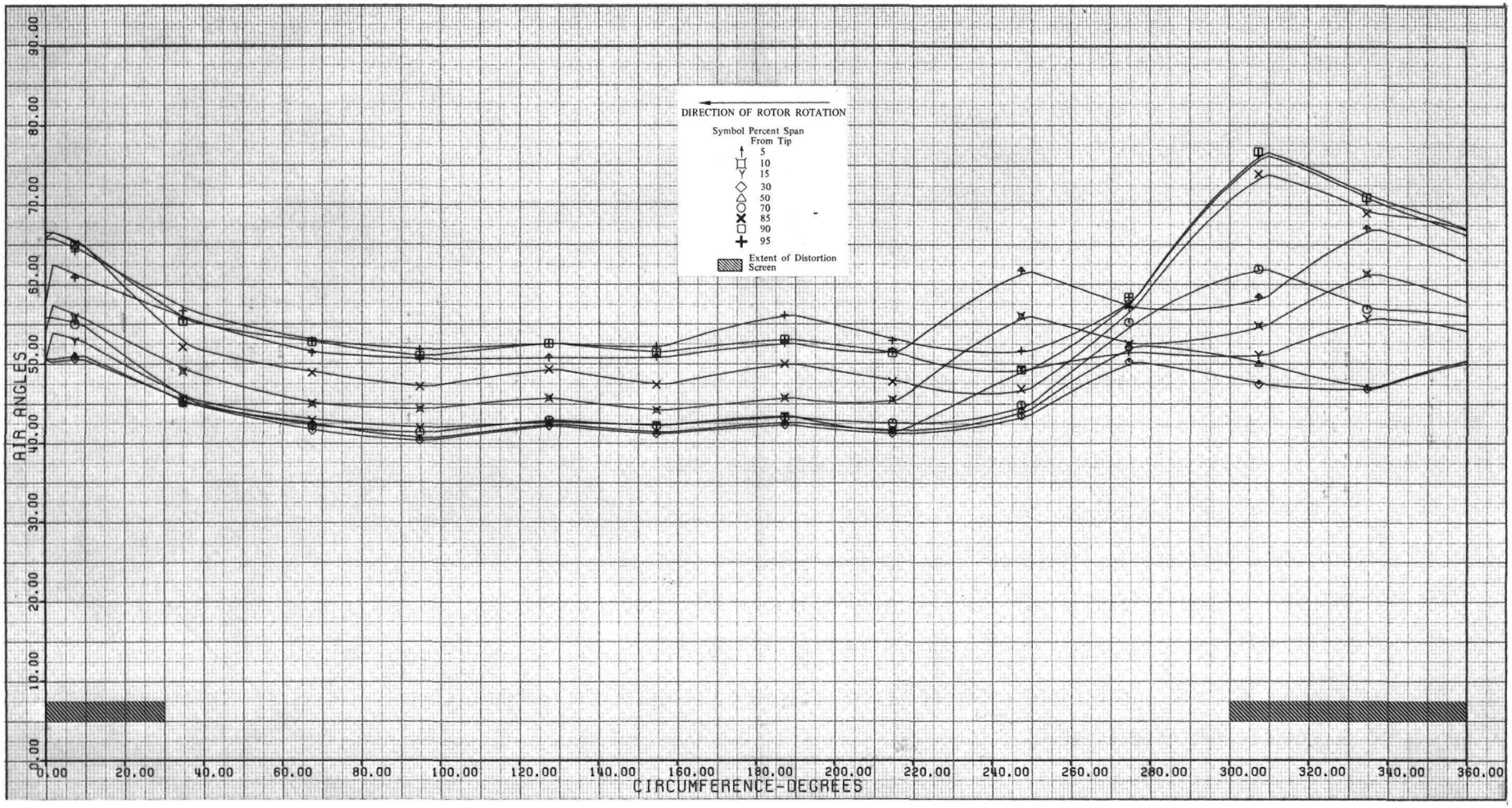


Figure 39g. Stator Inlet Air Angle vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95773

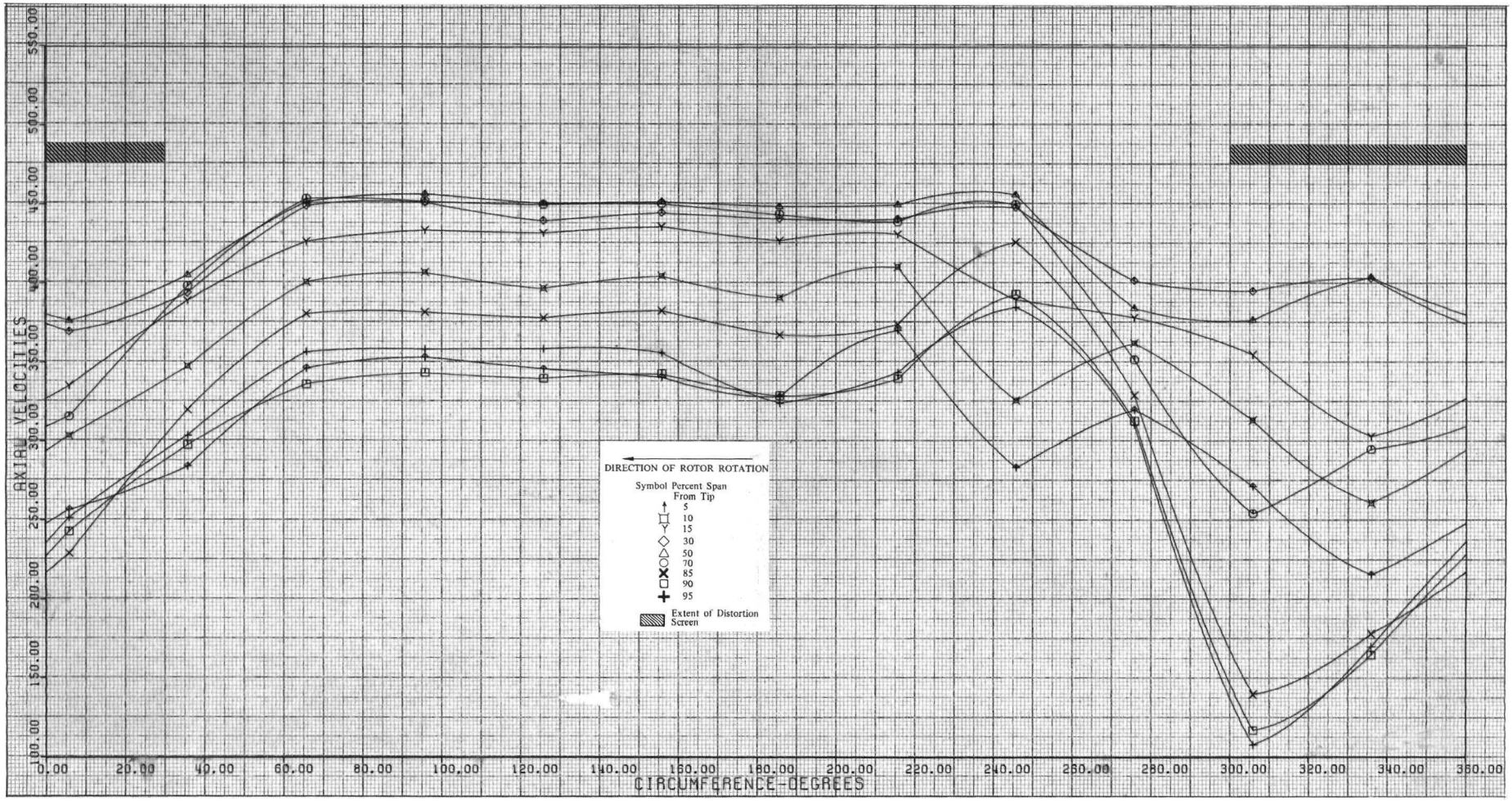


Figure 39h. Stator Inlet Axial Velocity vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95774

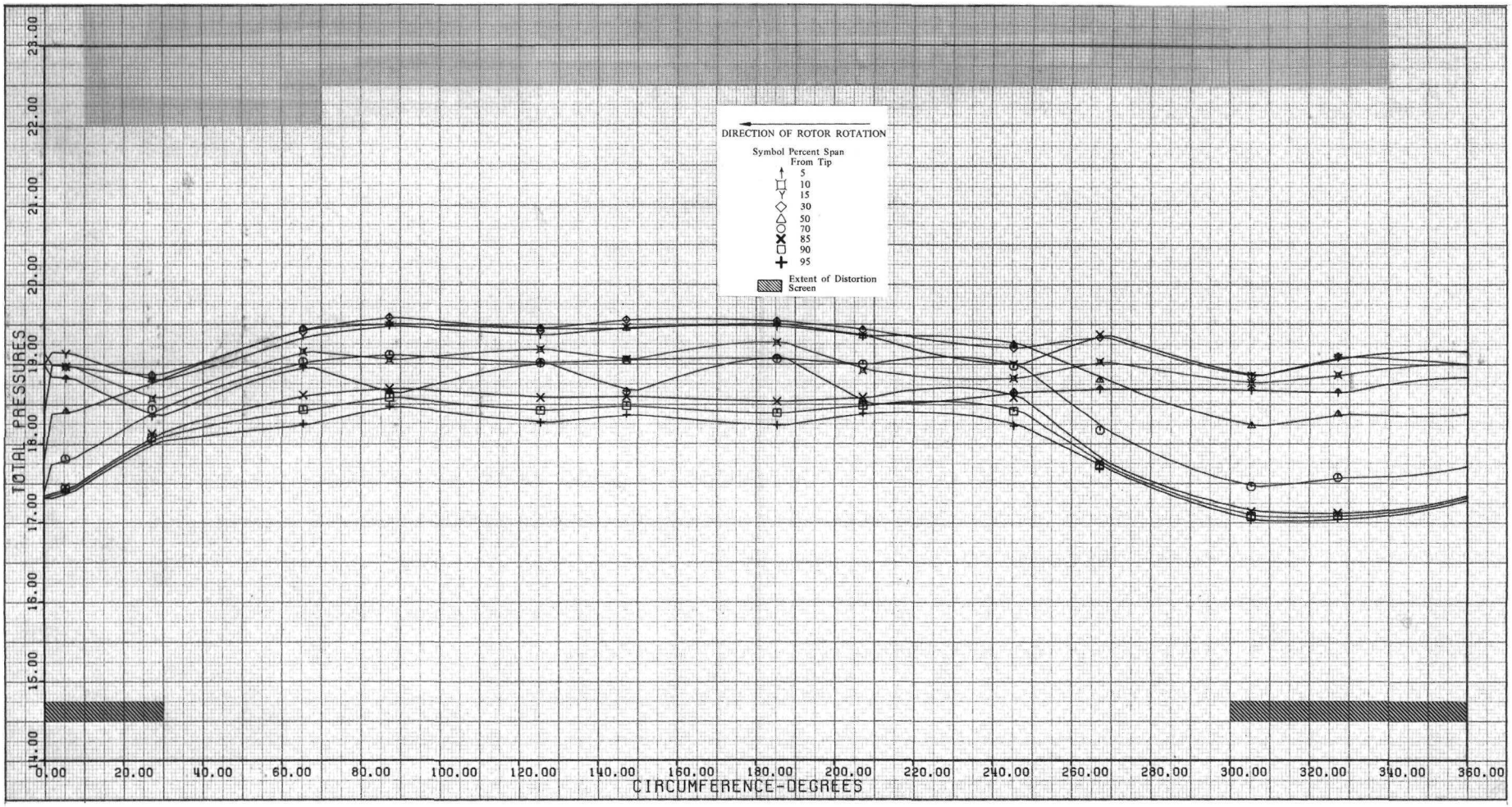


Figure 39i. Stator Exit Total Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95775

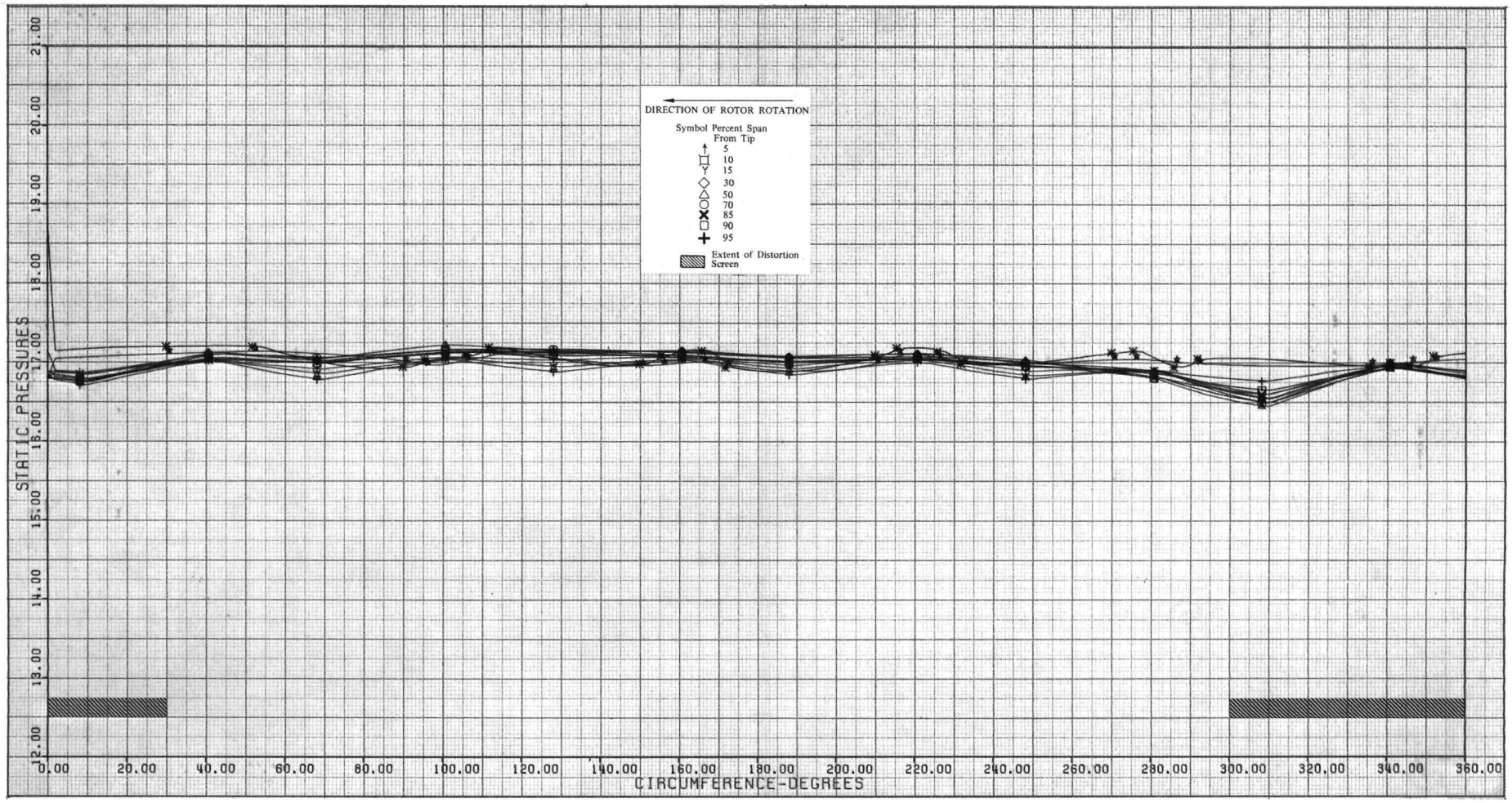


Figure 39j. Stator Exit Static Pressure vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95776

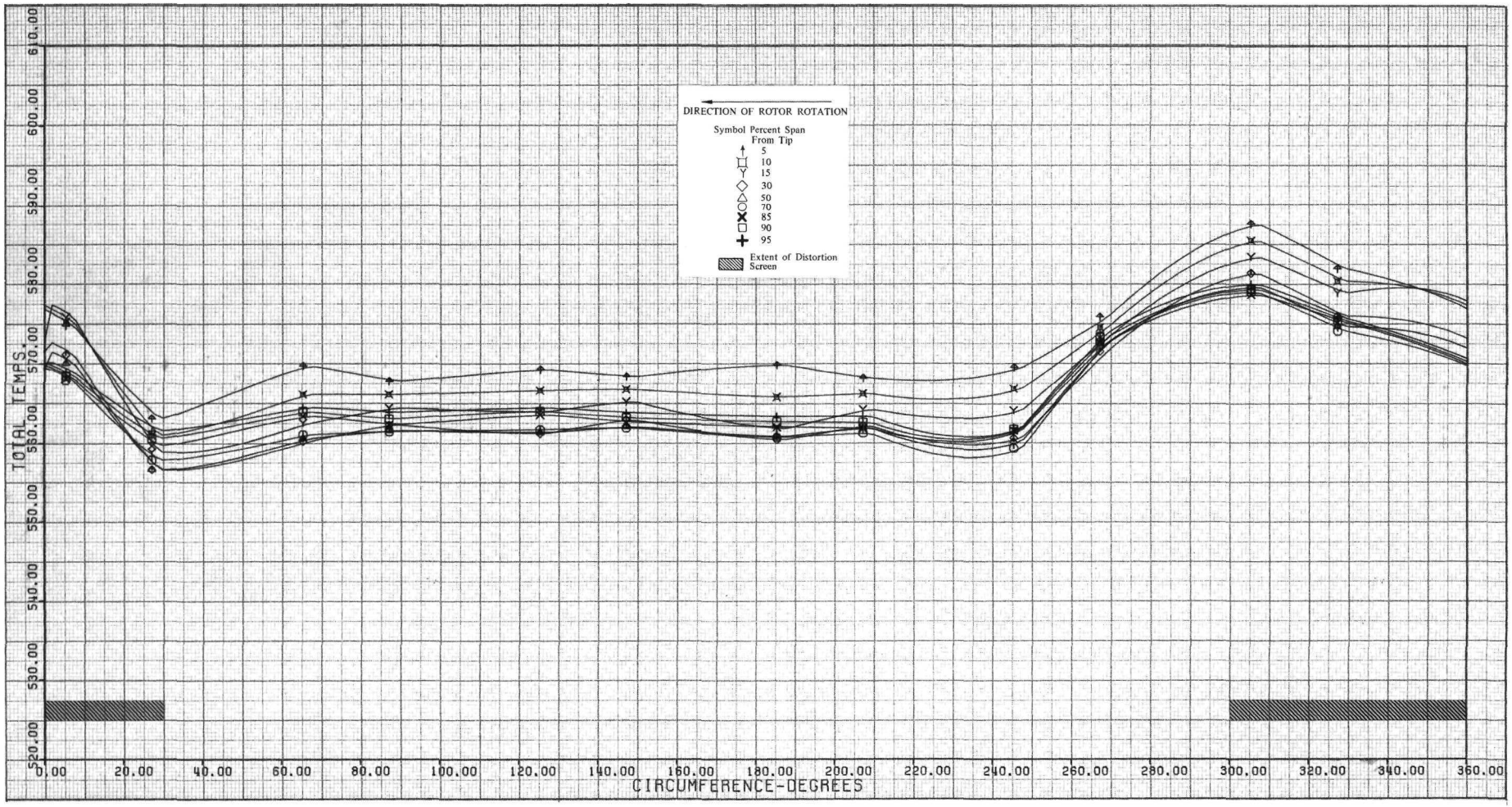


Figure 39k. Stator Exit Total Temperature vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95777

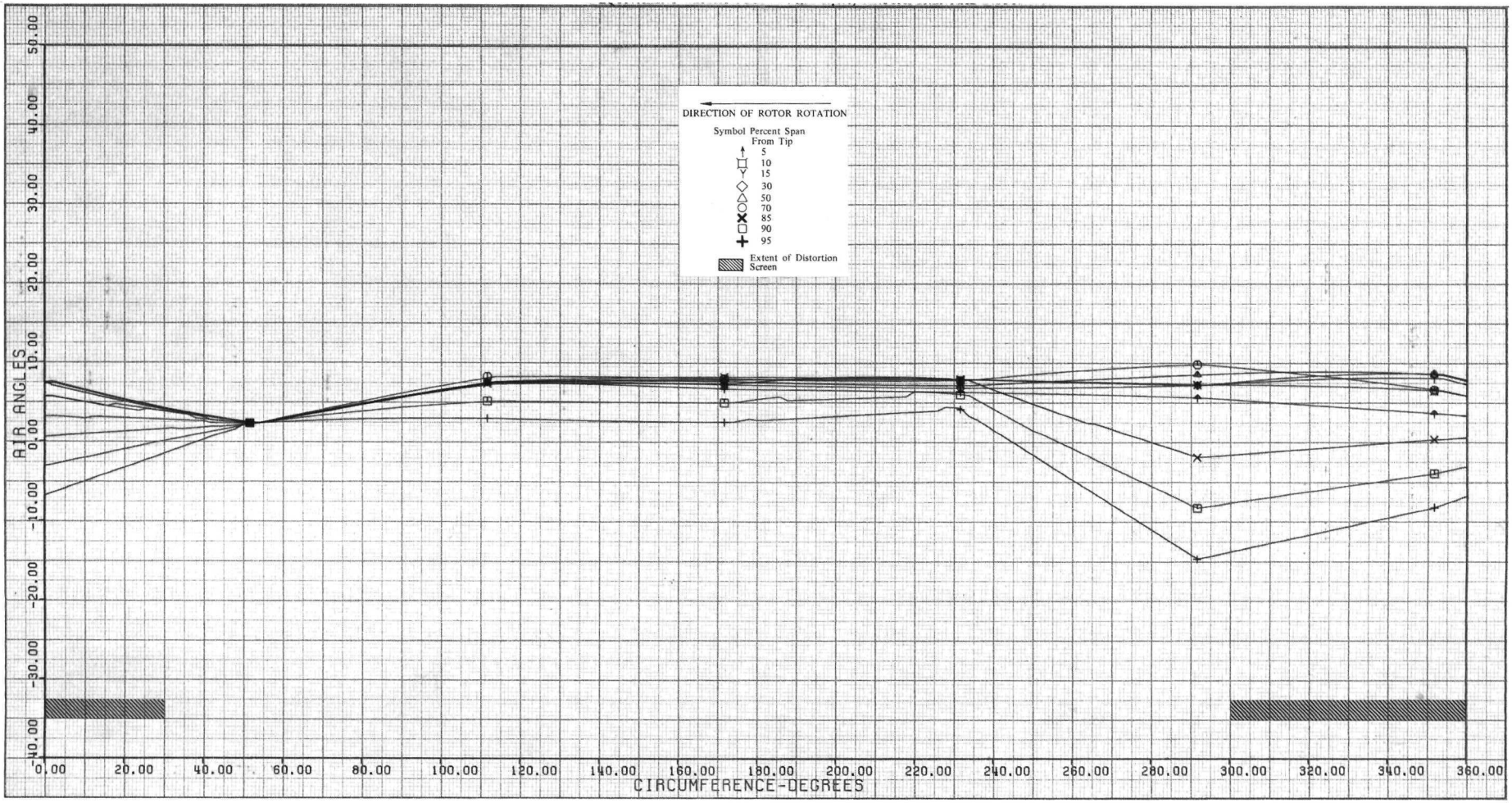


Figure 391. Stator Exit Air Angle vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95778

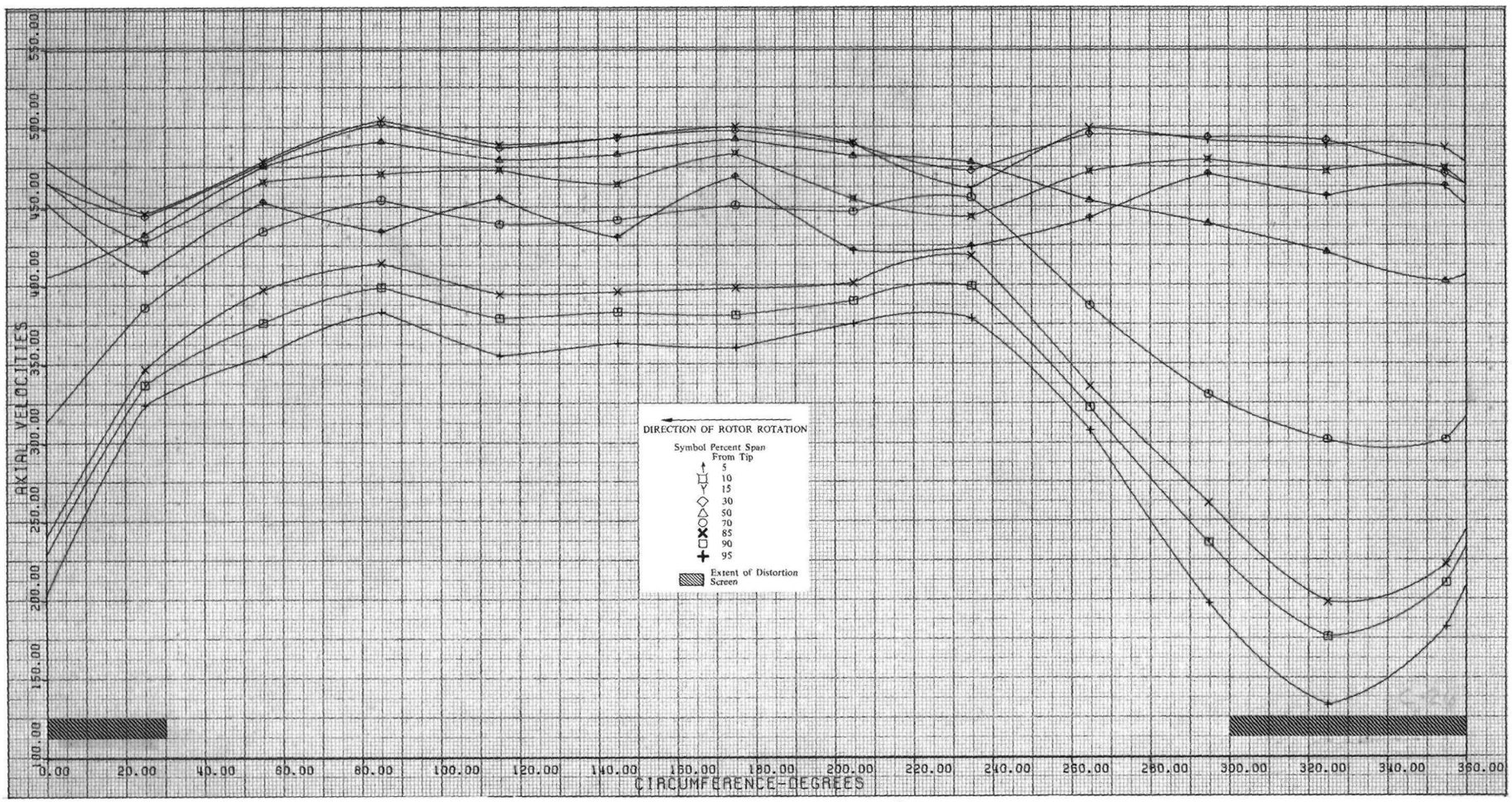


Figure 39m. Stator Exit Axial Velocity vs Circumferential Location; 100% Design Equivalent Rotor Speed; Equivalent Weight Flow = 91.58 lb/sec; Circumferential Distortion

DF 95779

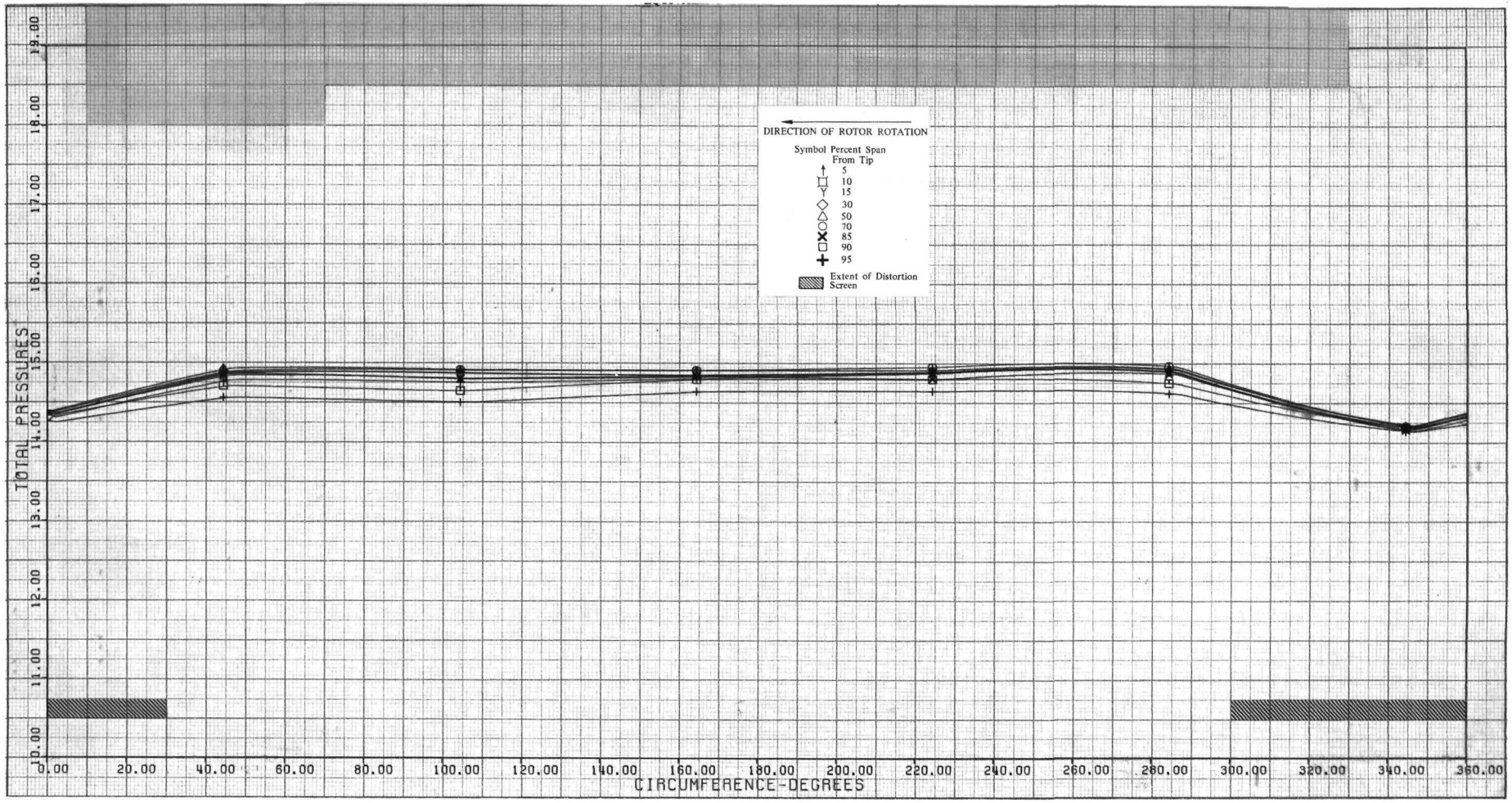


Figure 40a. Rotor Inlet Total Pressure vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95780

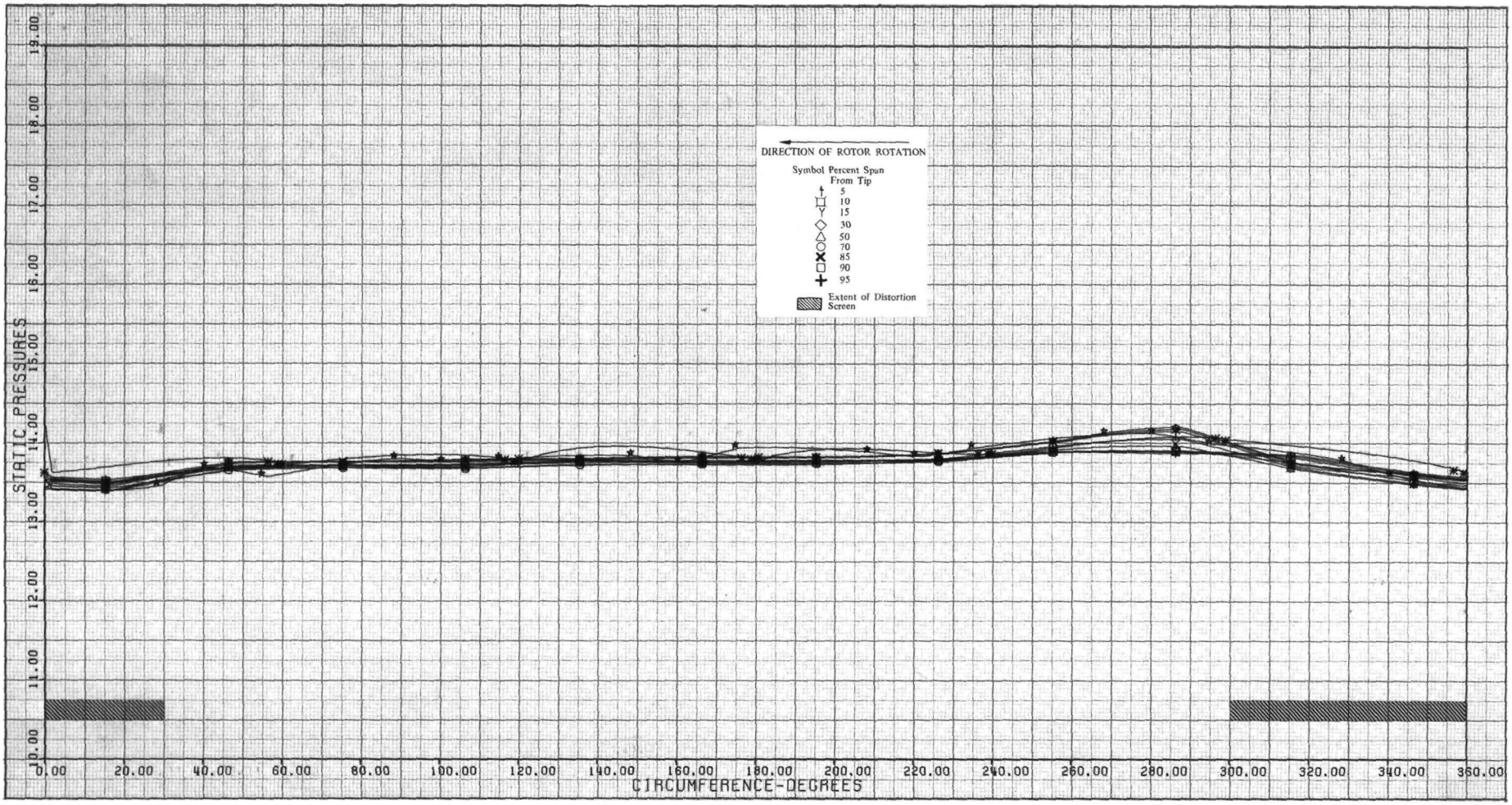


Figure 40b. Rotor Inlet Static Pressure vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95781

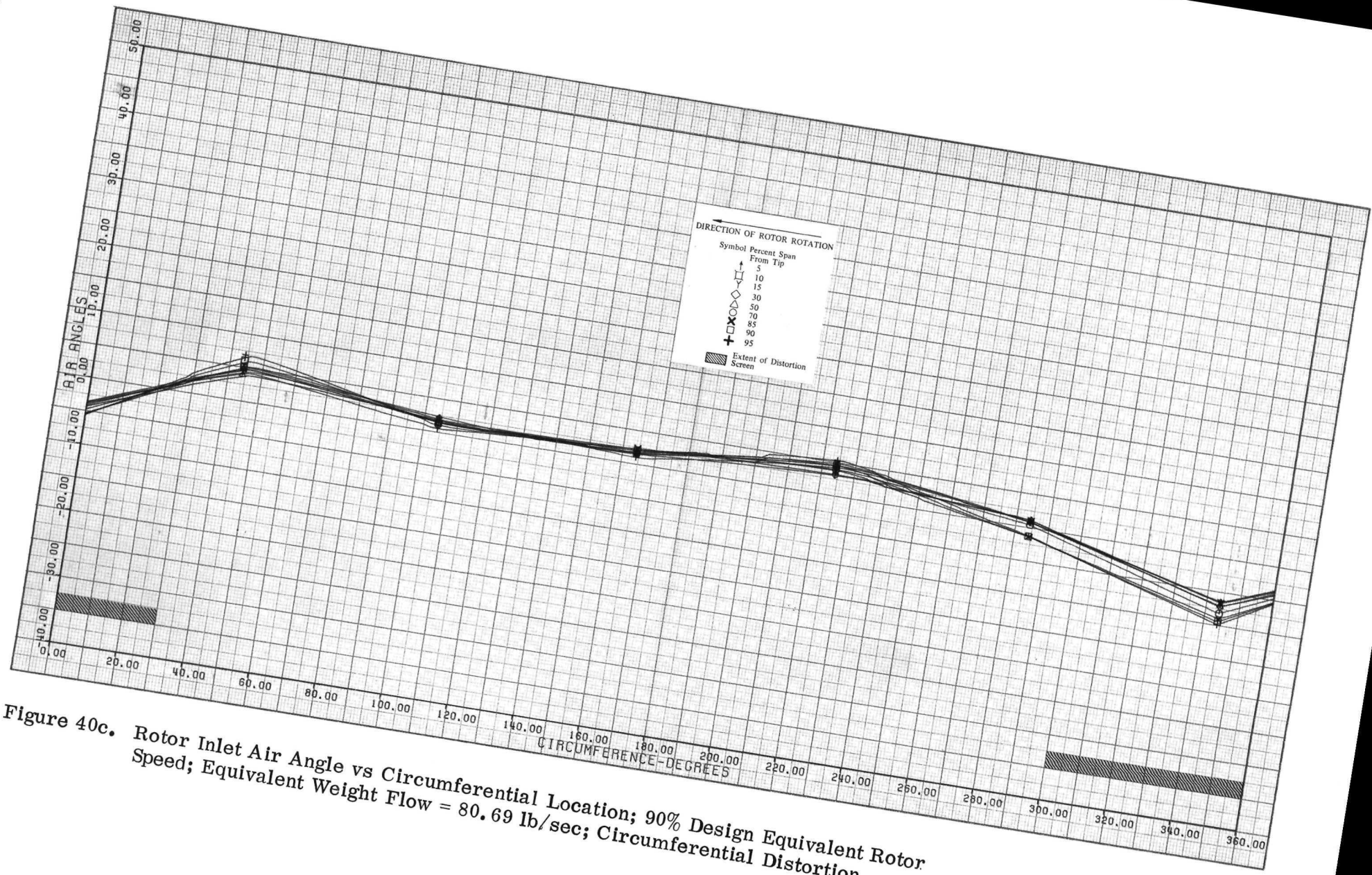


Figure 40c. Rotor Inlet Air Angle vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95782

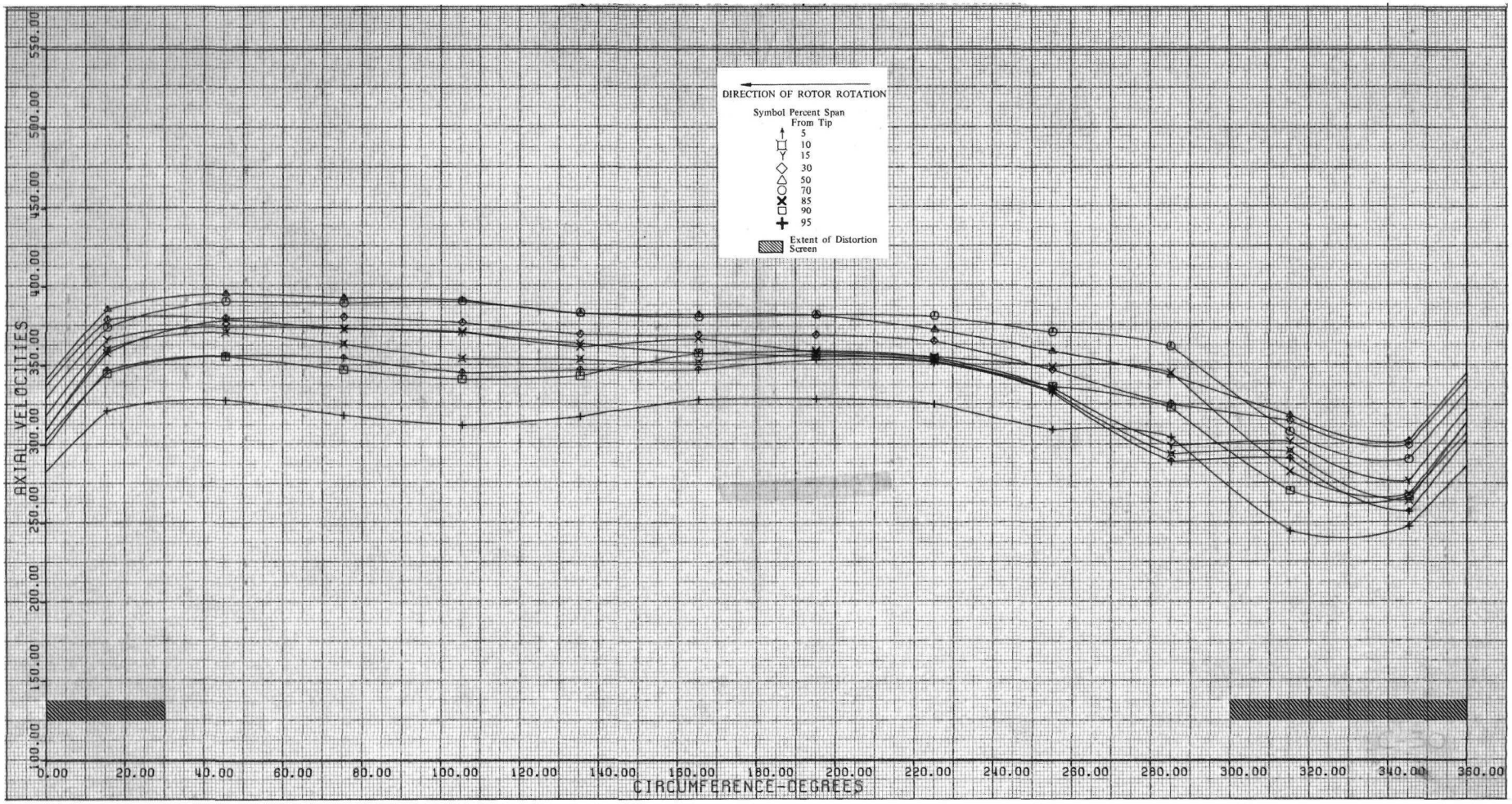


Figure 40d. Rotor Inlet Axial Velocity vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95783

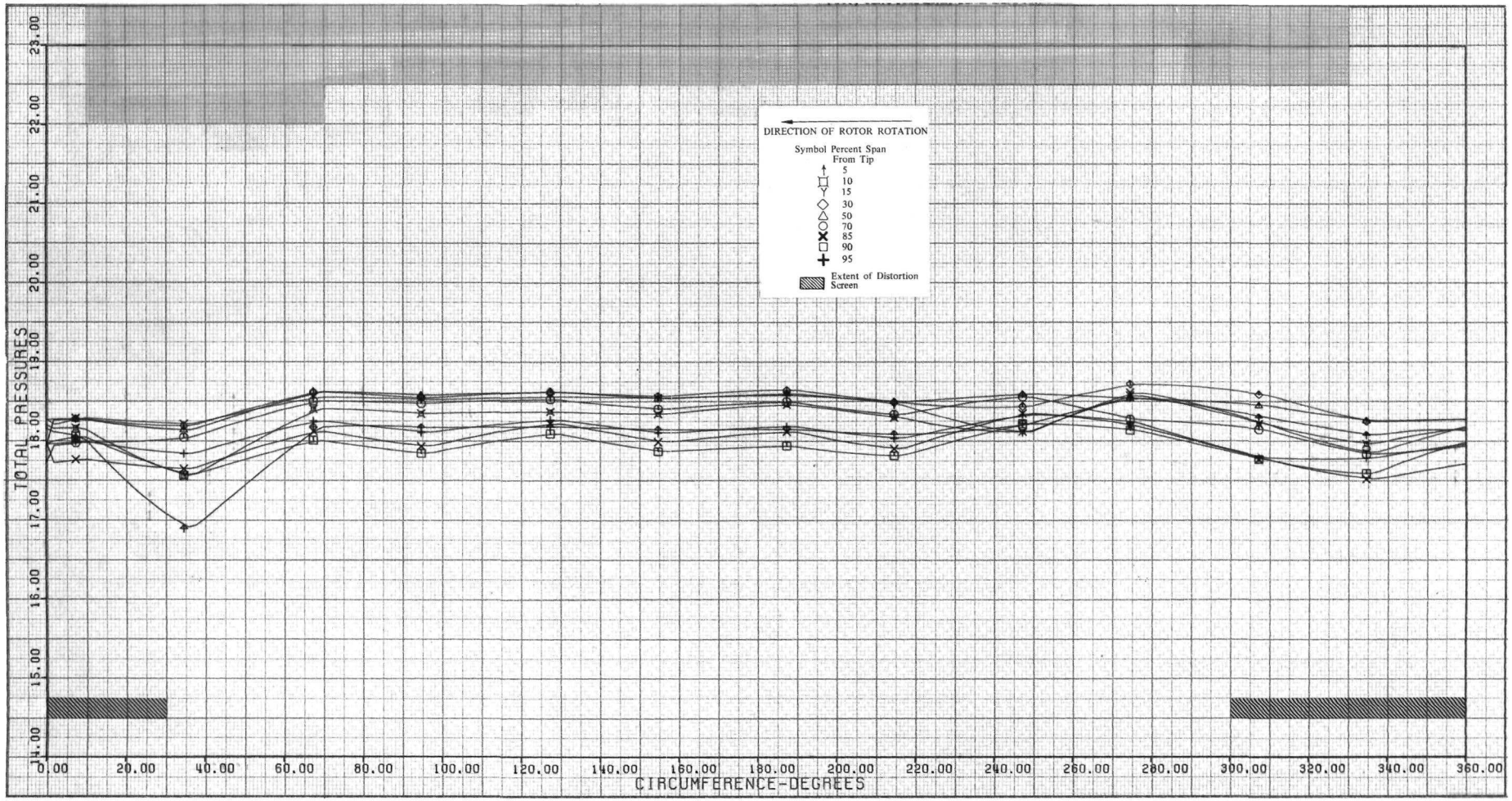


Figure 40e. Stator Inlet Total Pressure vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95784

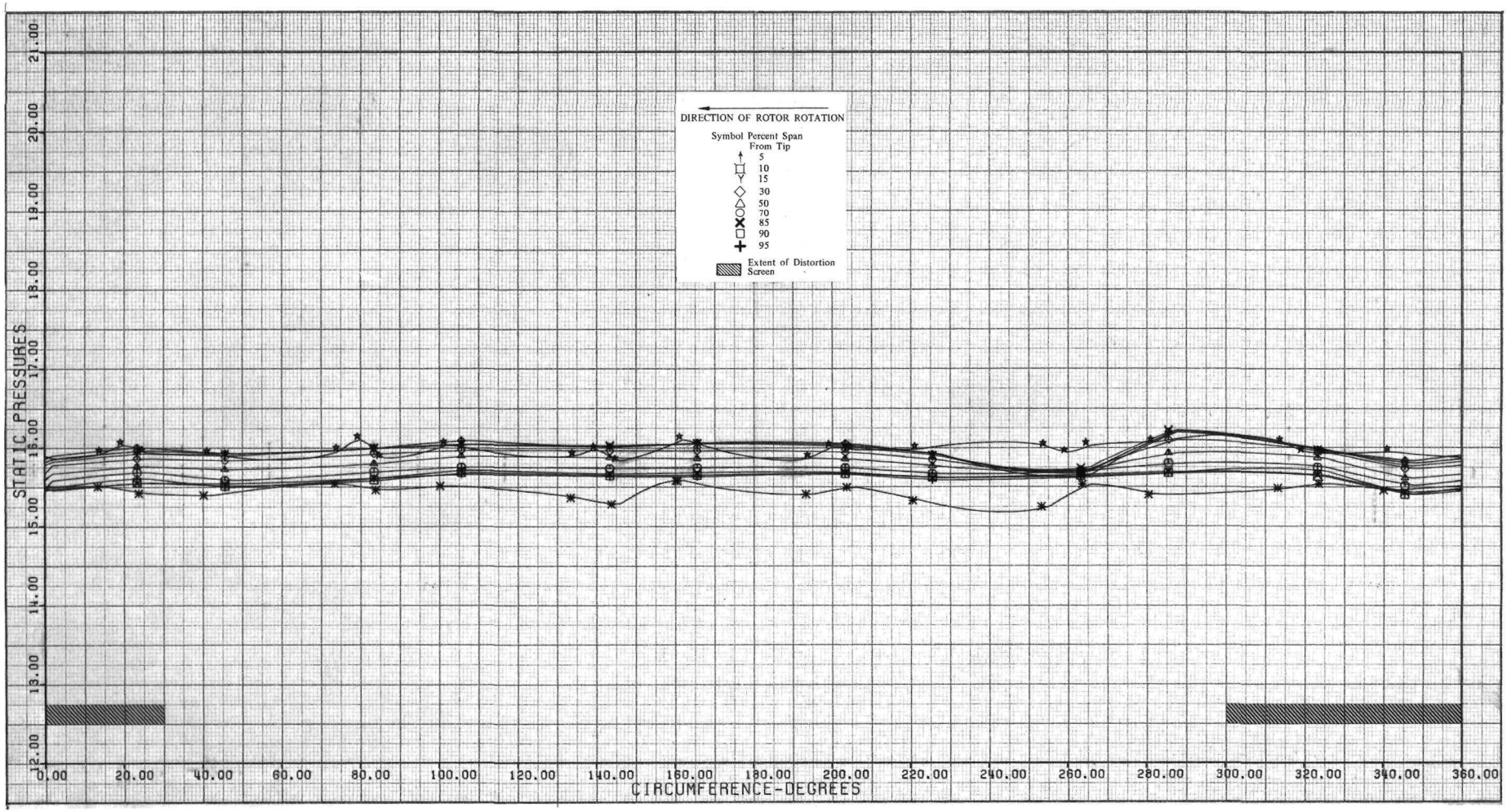


Figure 40f. Stator Inlet Static Pressure vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95785

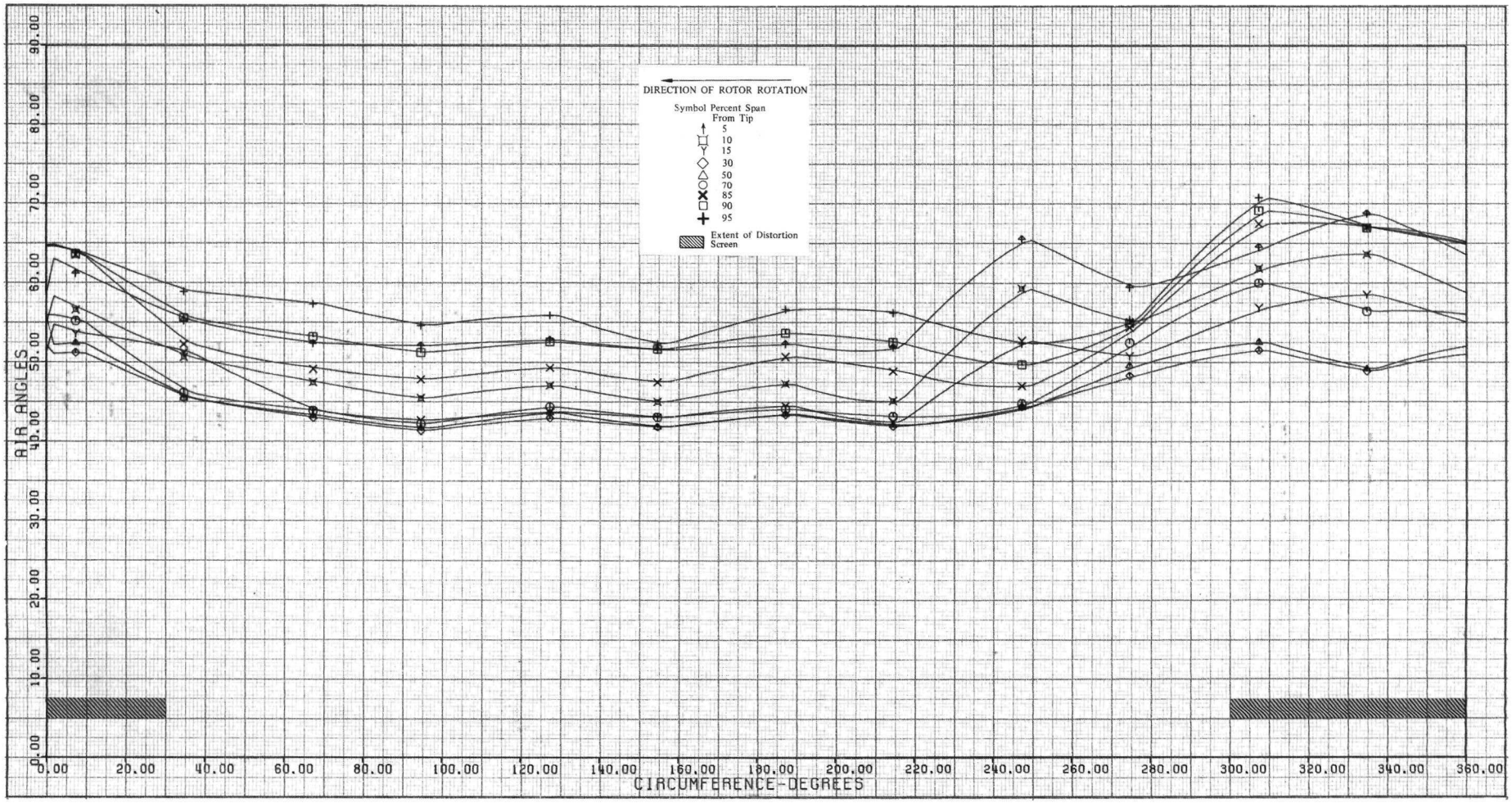


Figure 40g. Stator Inlet Air Angle vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95786

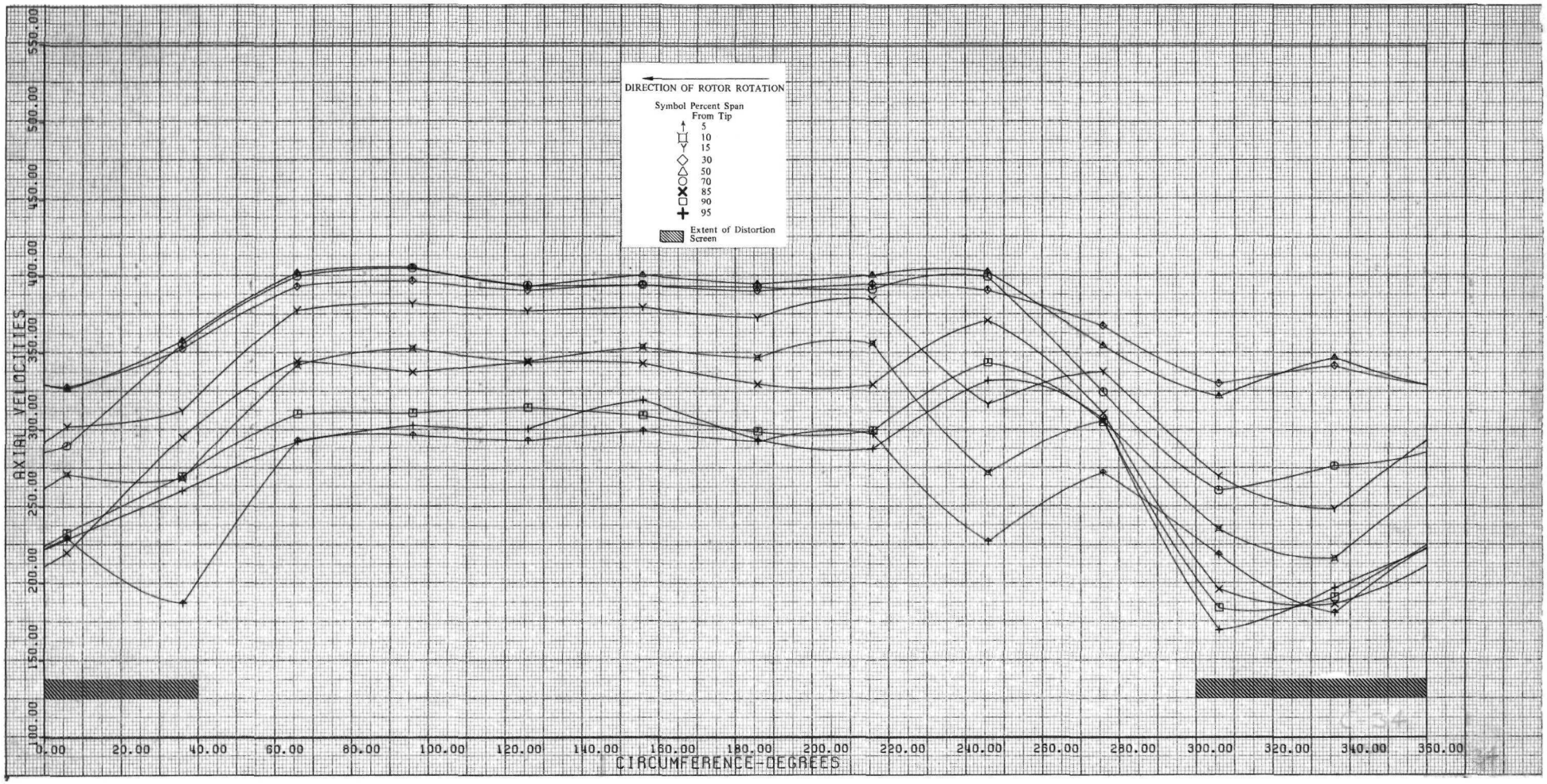


Figure 40h. Stator Inlet Axial Velocity vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95787

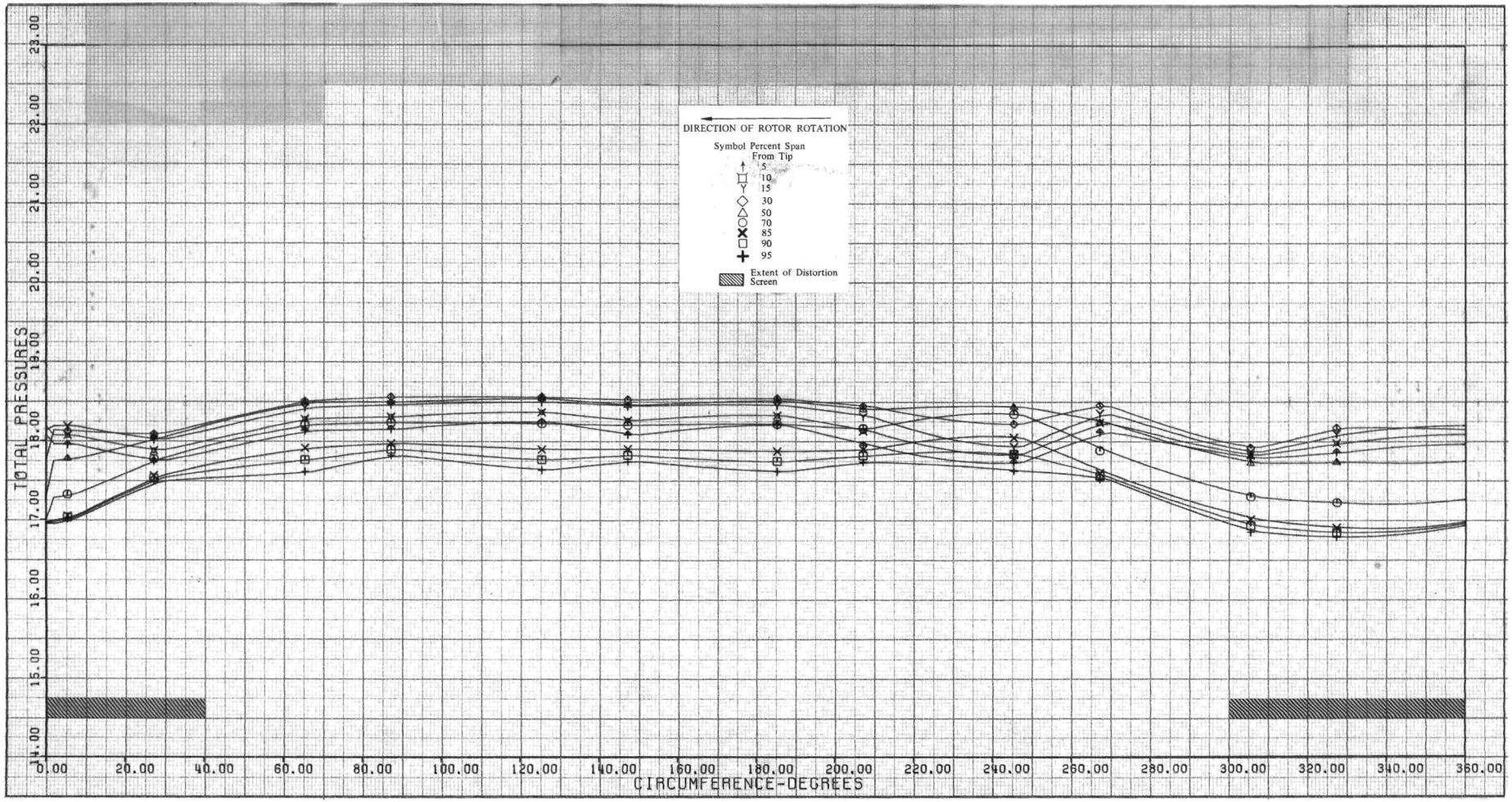


Figure 40i. Stator Exit Total Pressure vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95788

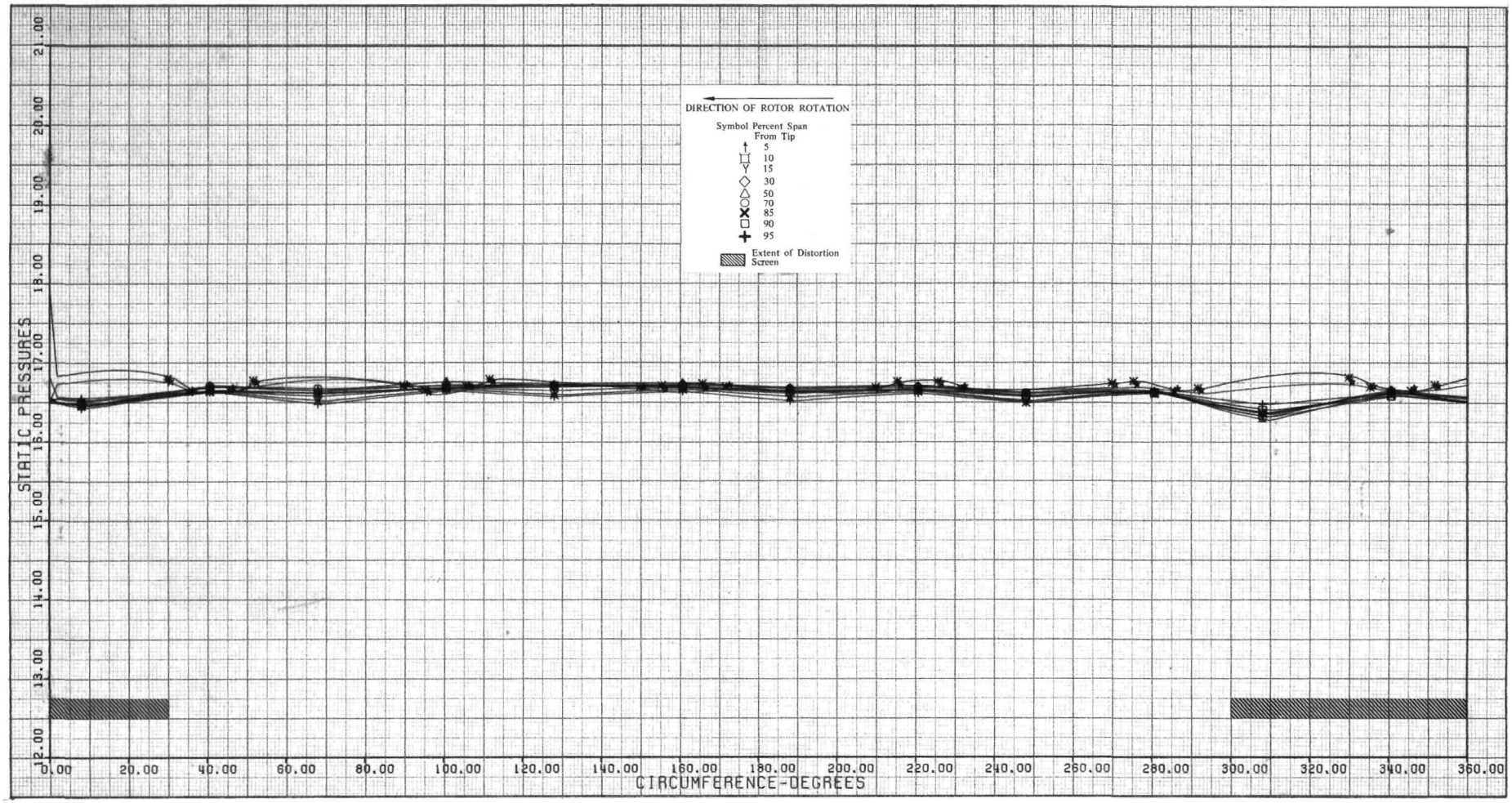


Figure 40j. Stator Exit Static Pressure vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95789

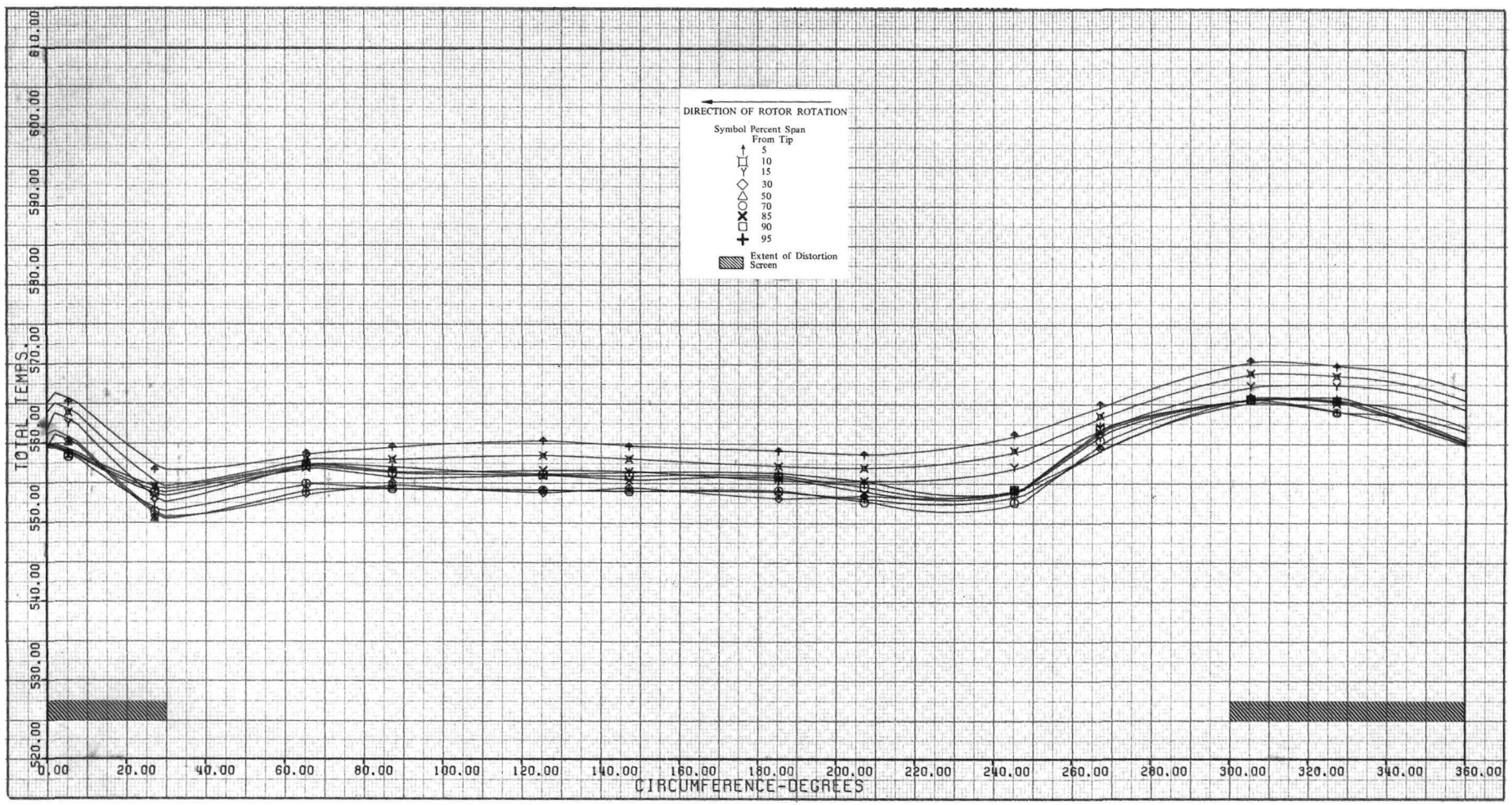


Figure 40k. Stator Exit Total Temperature vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95790

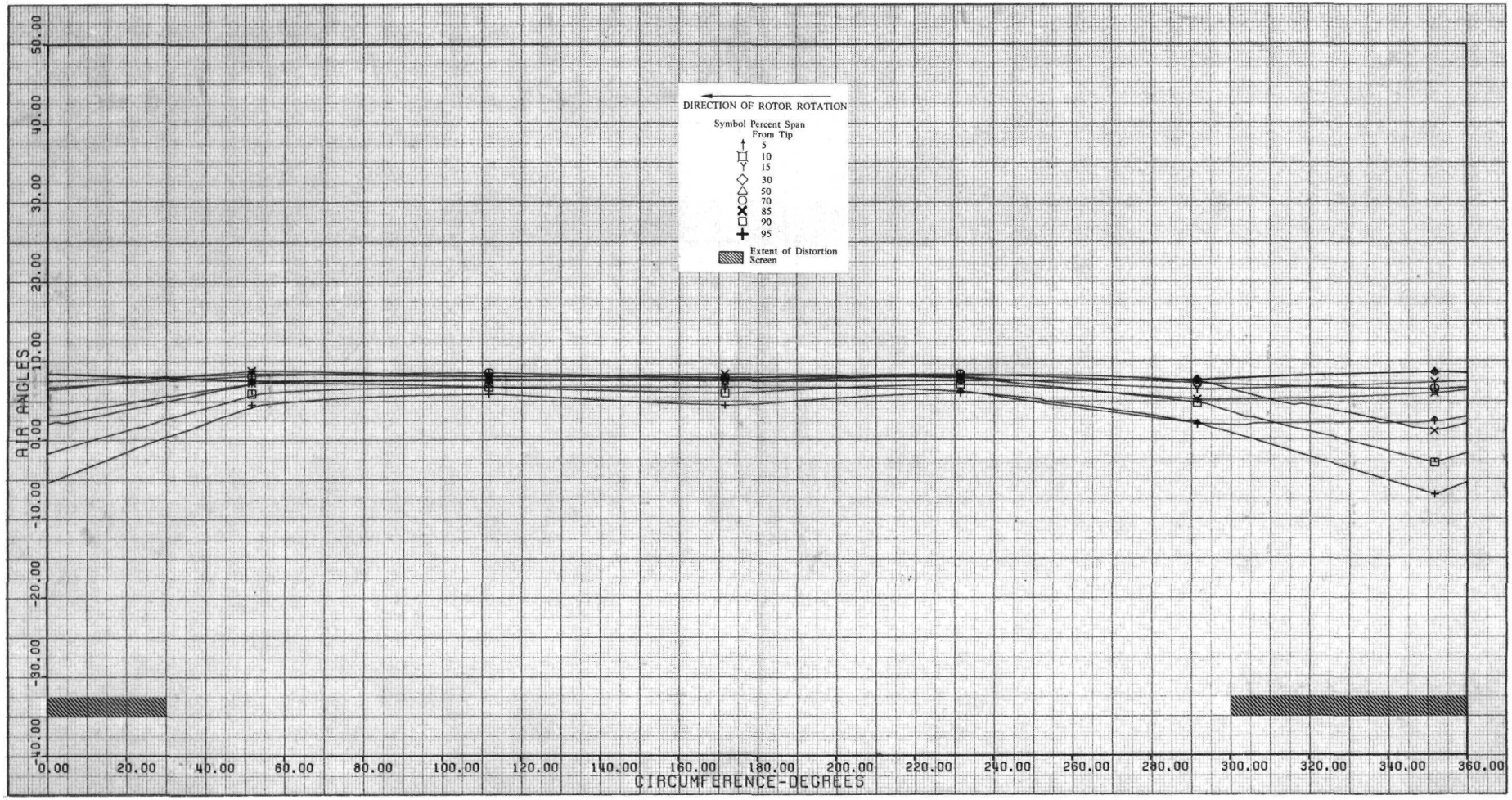


Figure 401. Stator Exit Air Angle vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95791

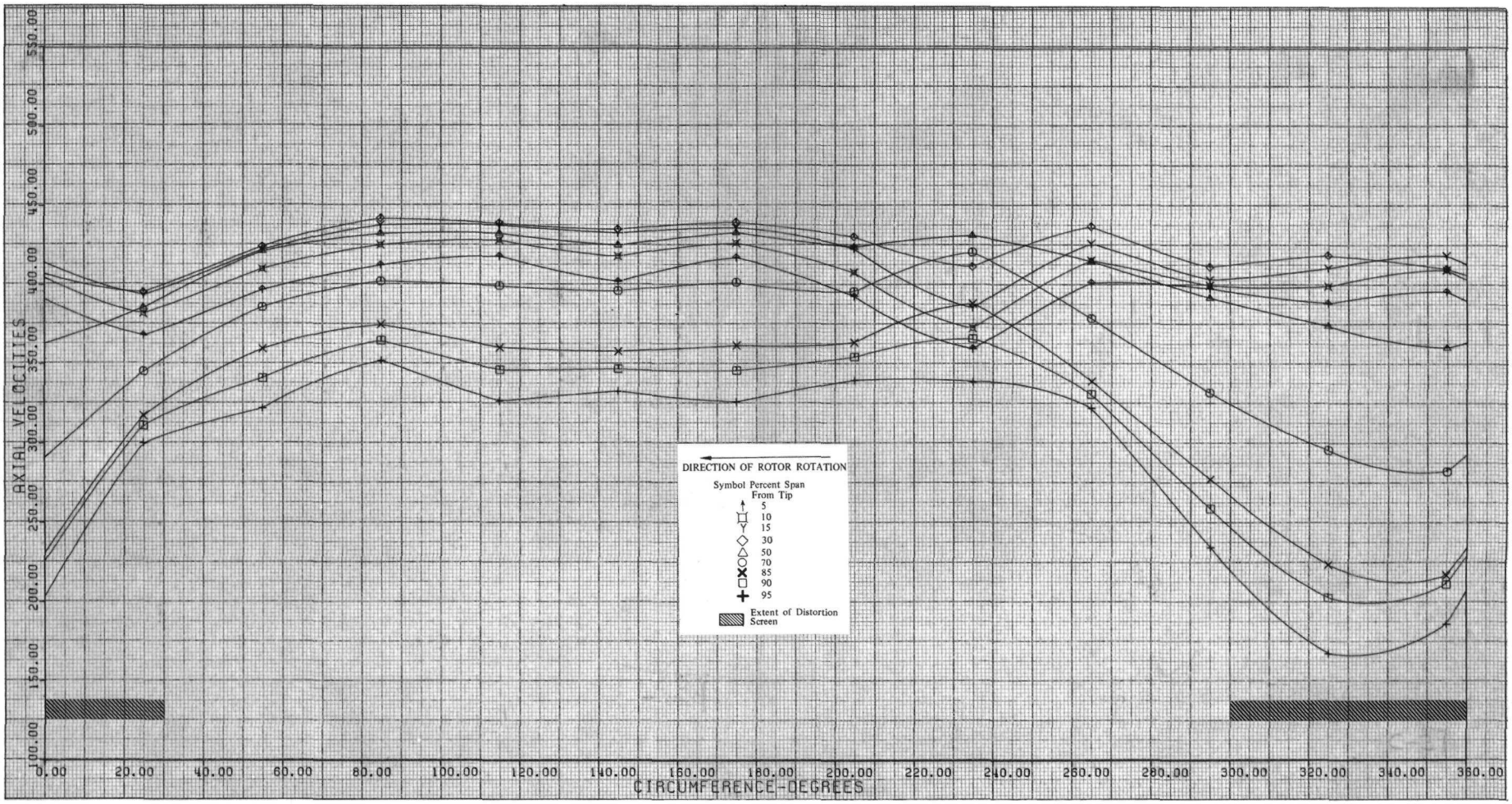


Figure 40m. Stator Exit Axial Velocity vs Circumferential Location; 90% Design Equivalent Rotor Speed; Equivalent Weight Flow = 80.69 lb/sec; Circumferential Distortion

DF 95792

APPENDIX A
TABULATED OVERALL AND BLADE ELEMENT PERFORMANCE AND FLOW DISTRIBUTION DATA

Rotor B and Stage B overall performance with a uniform inlet, hub radial distortion, tip radial distortion, and circumferential distortion of the inlet flow is tabulated in tables A-1, A-4, and A-7, respectively. Rotor B and Stator B blade element performance and flow distribution data for uniform inlet, hub radial distortion of the inlet flow, and tip radial distortion of the inlet flow are presented in tables A-3, A-5, and A-6, respectively. The flow distribution data with circumferential distortion of the inlet flow are given in table A-8 for circumferential increments of 30 deg around the compressor annulus. Table A-2 is presented to illustrate the small differences at the near design point between values calculated from the data at the instrumentation stations, and the values calculated from the data that have been translated to the blade row leading and trailing edges.

The blade element performance and flow distribution data with uniform inlet flow and radial distortion of the inlet flow are arranged in order of decreasing rotor speed and decreasing flow at each rotor speed. The flow distribution data with circumferential distortion of the inlet flow are given at the instrumentation station planes and are arranged for a given equivalent rotor speed and flow combination in order of increasing circumferential position. The circumferential positions of the data at each instrumentation station are noted at the top of each data sheet. These positions were selected so that they would correspond as close as possible to the locations of the 20 deg wedge probes relative to the distortion screen and provide data at increments of 30 deg around the compressor annulus.

NOMENCLATURE USED FOR OVERALL PERFORMANCE TABULATION

Mass-Averaged Rotor Inlet Total Pressure	$\overline{P}_1$
Mass-Averaged Stator Inlet Total Pressure	$\overline{P}_2$
Mass-Averaged Stator Exit Total Pressure	$\overline{P}_{2A}$
Adiabatic Efficiency*	η_{ad}
Polytropic Efficiency*	η_p

NOMENCLATURE USED FOR BLADE ELEMENT AND DISTORTION DATA TABULATION

Exit Percent Span From Tip	PCT SPAN
Exit Diameter	DIA
Absolute Flow Angle	BETA
Relative Flow Angle	BETA (PR)
Absolute Velocity	V
Axial Velocity	VZ
Absolute Tangential Velocity	V-THETA
Relative Tangential Velocity	V-THETA PR
Rotor Speed	U
Absolute Mach No.	M
Relative Mach No.	M (PR)
Relative Turning Angle	TURN (PR)
Loss Coefficient ($\bar{\omega}$)**	UUBAR
Loss Parameter**	LOSS PARA
Diffusion Factor **	DFAC
Polytropic Efficiency**	EFFP
Adiabatic Efficiency**	EFF
Incidence**	INCID
Deviation**	DEVM
Total Pressure	P
Total Temperature	T
Stator Exit Average Freestream Total Pressure from Wake Rakes	P2 FS
Loss Coefficient Based on P2FS ($\bar{\omega}_{fs}$)	UUBAR FS
Loss Parameter Based on UUBAR FS	LOSS PARA FS

*Efficiencies calculated from mass-averaged values of total pressure and total temperature.

**Variables excluded from circumferential distortion data.

Where applicable, the appropriate instrumentation station is noted.

Table A-1. Overall Performance - Stage B, Uniform Inlet

Equivalent Weight Flow, lb/sec	ROTOR $\bar{P}_2/\bar{P}_1$	ROTOR η_{ad}	ROTOR η_p	STAGE $\bar{P}_{2A}/\bar{P}_1$	STAGE η_{ad}	STAGE η_p
			110% Design Equivalent Rotor Speed			
118.77	1.2393	0.7582	0.7655	1.1812	0.5839	0.5936
116.85	1.3166	0.8447	0.8506	1.2916	0.7828	0.7905
113.20	1.3512	0.8597	0.8656	1.3306	0.8133	0.8207
108.64	1.3686	0.8739	0.8793	1.3465	0.8258	0.8330
104.69	1.3856	0.8828	0.8881	1.3596	0.8283	0.8356
100.22	1.3940	0.8841	0.8894	1.3640	0.8227	0.8303
			100% Design Equivalent Rotor Speed			
113.59	1.2003	0.7610	0.7672	1.1724	0.6602	0.6678
108.52	1.2665	0.8595	0.8642	1.2470	0.8005	0.8066
104.49	1.2876	0.8796	0.8839	1.2685	0.8249	0.8307
98.00	1.3054	0.8700	0.8748	1.2878	0.8231	0.8294
93.93	1.3187	0.8783	0.8830	1.2968	0.8224	0.8288
90.90	1.3198	0.8739	0.8787	1.2984	0.8211	0.8276
			90% Design Equivalent Rotor Speed			
105.52	1.1629	0.8031	0.8073	1.1360	0.6756	0.6815
101.67	1.2027	0.8541	0.8579	1.1849	0.7828	0.7880
96.17	1.2228	0.8778	0.8812	1.2070	0.8185	0.8233
89.53	1.2408	0.8787	0.8823	1.2268	0.8303	0.8352
84.10	1.2480	0.8731	0.8771	1.2337	0.8255	0.8307
79.09	1.2503	0.8734	0.8773	1.2348	0.8224	0.8277
			70% Design Equivalent Rotor Speed			
87.19	1.1010	0.8383	0.8405	1.0859	0.7156	0.7189
84.36	1.1132	0.8512	0.8534	1.1008	0.7605	0.7638
78.60	1.1237	0.8562	0.8586	1.1146	0.7950	0.7981
74.45	1.1331	0.8913	0.8933	1.1235	0.8289	0.8317
66.85	1.1476	0.8946	0.8967	1.1385	0.8409	0.8438
63.37	1.1544	0.8799	0.8823	1.1445	0.8255	0.8288
			50% Design Equivalent Rotor Speed			
62.61	1.0490	0.8116	0.8128	1.0424	0.7039	0.7056
62.22	1.0545	0.8651	0.8661	1.0478	0.7600	0.7616
58.19	1.0598	0.8744	0.8755	1.0558	0.8171	0.8184
53.56	1.0651	0.8863	0.8873	1.0607	0.8293	0.8307
48.38	1.0713	0.8727	0.8739	1.0681	0.8336	0.8352
43.29	1.0754	0.8255	0.8273	1.0710	0.7781	0.7802

Table A-2. Blade Element Performance
Stage B Rotor B - Stator B
Calculations Using Untranslated Values
Percent Equivalent Rotor Speed = 100.03 Equivalent Rotor Speed = 4211.17 Equivalent Weight Flow = 108.52
Uniform Inlet

INLET											
	PCT SPAN	96.49	91.45	86.35	70.89	49.99	29.06	13.61	8.54	3.50	PCT SPAN
	DIA	33.144	33.566	33.993	35.288	37.039	38.792	40.086	40.511	40.933	DIA
STATION 0	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
STATION 1	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	432.45	432.45	432.45	432.45	432.45	432.45	432.45	432.45	432.45	V 0
	V 1	442.87	475.41	486.07	493.14	489.84	479.44	465.81	457.69	444.10	V 1
	VZ 0	432.45	432.45	432.45	432.44	432.42	432.38	432.34	432.32	432.31	VZ 0
	VZ 1	442.85	475.41	486.07	493.12	489.70	479.10	465.29	457.11	443.47	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3933	0.3933	0.3933	0.3933	0.3933	0.3933	0.3933	0.3933	0.3933	M 0
	M 1	0.4031	0.4338	0.4439	0.4506	0.4475	0.4376	0.4247	0.4170	0.4042	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4635	0.3122	0.2617	0.2382	0.2449	0.2684	0.3122	0.3424	0.4064	UUBAR
	DFAC	-0.024	-0.099	-0.124	-0.140	-0.133	-0.109	-0.077	-0.058	-0.027	DFAC
	EFFP	0.0990	0.4139	0.5162	0.5726	0.5510	0.4749	0.3515	0.2699	0.1235	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.143	15.143	15.143	15.143	15.143	15.143	15.143	15.143	15.143	P 0
	P 1	14.433	14.665	14.742	14.778	14.768	14.732	14.665	14.618	14.520	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
STATION 2	BETA 2	47.470	44.520	41.050	37.225	36.575	36.150	36.650	38.650	43.250	BETA 2
	BETA(PR) 1	53.977	52.374	52.110	52.747	54.264	56.093	57.719	58.447	59.476	BETA(PR) 1
	BETA(PR) 2	26.702	29.194	28.951	28.883	31.406	34.910	36.349	37.918	42.884	BETA(PR) 2
	V 1	442.87	475.41	496.07	493.14	489.84	479.44	465.81	457.69	444.10	V 1
	V 2	567.03	561.78	581.78	618.66	620.95	609.59	610.36	593.57	542.63	V 2
	VZ 1	442.85	475.41	486.07	493.12	489.70	479.10	465.29	457.11	443.47	VZ 1
	VZ 2	383.30	400.55	438.73	492.54	498.40	491.65	488.84	462.70	394.51	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	417.85	393.90	382.06	374.20	359.80	359.17	363.70	370.03	371.12	V-THETA 2
	V(PR) 1	753.0	778.7	791.5	814.6	838.5	859.0	871.5	873.8	873.5	V(PR) 1
	V(PR) 2	429.1	458.8	501.4	562.6	584.3	600.3	608.0	587.6	539.4	V(PR) 2
	VTHETA PR1	-609.0	-616.8	-624.6	-648.4	-680.6	-712.8	-736.6	-744.4	-752.1	VTHETA PR1
	VTHETA PR2	-192.8	-223.8	-242.7	-271.7	-304.3	-343.1	-359.7	-360.4	-366.4	VTHETA PR2
	U 1	609.01	616.76	624.61	648.41	680.58	712.79	736.57	744.38	752.13	U 1
	U 2	610.65	617.70	624.76	645.91	674.09	702.28	723.43	730.47	737.52	U 2
	M 1	0.4031	0.4338	0.4439	0.4506	0.4475	0.4376	0.4247	0.4170	0.4042	M 1
	M 2	0.4995	0.4958	0.5152	0.5498	0.5517	0.5412	0.5408	0.5244	0.4766	M 2
	M(PR) 1	0.6854	0.7105	0.7228	0.7444	0.7660	0.7841	0.7946	0.7962	0.7951	M(PR) 1
	M(PR) 2	0.3780	0.4049	0.4441	0.5000	0.5192	0.5330	0.5387	0.5192	0.4737	M(PR) 2
	TURN(PR)	27.274	23.180	23.160	23.868	22.872	21.213	21.416	20.581	16.654	TURN(PR)
	UUBAR	0.2260	0.2252	0.1749	0.0933	0.0801	0.0717	0.0768	0.1190	0.1962	UUBAR
	LOSS PARA	0.0556	0.0548	0.0431	0.0239	0.0210	0.0190	0.0206	0.0317	0.0490	LOSS PARA
	DFAC	0.5831	0.5519	0.5026	0.4435	0.4381	0.4351	0.4403	0.4690	0.5258	DFAC
	EFFP	0.7427	0.7223	0.7893	0.8924	0.9235	0.9503	0.9345	0.8777	0.7656	EFFP
	EFF	0.7348	0.7145	0.7830	0.8888	0.9208	0.9485	0.9321	0.8733	0.7580	EFF
	INCID	2.135	0.096	-0.580	-1.309	-1.794	-1.956	-1.704	-1.408	-1.156	INCID
	DEVM	18.953	19.896	18.031	13.179	10.718	10.045	8.795	9.783	14.003	DEVM
	P 1	14.433	14.665	14.742	14.778	14.768	14.732	14.665	14.618	14.520	P 1
	P 2	17.849	17.849	18.107	18.642	18.833	18.879	18.962	18.756	18.179	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	562.875	560.625	558.775	558.750	559.230	558.870	561.100	562.540	564.075	T 2
STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.992	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	47.470	44.520	41.050	37.225	36.575	36.150	36.650	38.650	43.250	BETA 2
STATION 2A	BETA 2A	3.400	3.775	5.950	7.275	7.500	7.475	8.100	8.275	7.300	BETA 2A
	V 2	567.03	561.78	581.78	618.66	620.95	609.59	610.36	593.57	542.63	V 2
	V 2A	423.69	441.34	459.57	510.36	542.70	552.48	554.12	527.10	495.77	V 2A
	VZ 2	383.30	400.55	438.73	492.54	498.40	491.65	488.84	462.70	394.51	VZ 2
	VZ 2A	422.95	440.39	457.09	506.22	537.91	547.47	548.13	521.12	491.23	VZ 2A
	V-THETA 2	417.85	393.90	382.06	374.20	369.80	359.17	363.70	370.03	371.12	V-THETA 2
	V-THETA 2A	25.13	29.06	47.64	64.62	70.82	71.83	78.01	75.79	62.93	V-THETA 2A
	M 2	0.4996	0.4958	0.5152	0.5498	0.5517	0.5412	0.5408	0.5244	0.4766	M 2
	M 2A	0.3693	0.3859	0.4030	0.4493	0.4788	0.4880	0.4885	0.4630	0.4338	M 2A
	TURN(PR)	44.070	40.745	35.099	29.944	29.054	28.630	28.482	30.297	35.860	TURN(PR)
	UUBAR	0.0884	0.0485	0.0908	0.0804	0.0337	0.0363	0.0843	0.1222	0.0473	UUBAR
	LOSS PARA	0.0286	0.0158	0.0264	0.0270	0.0118	0.0132	0.0316	0.0462	0.0181	LOSS PARA
	DFAC	0.4770	0.4266	0.3997	0.3451	0.2965	0.2677	0.2707	0.3031	0.3077	DFAC
	EFFP	0.8172	0.8845	0.8054	0.7754	0.8737	0.8197	0.5718	0.4785	0.7392	EFFP
	INCID	0.499	-1.681	-4.421	-6.451	-5.678	-6.252	-6.729	-5.289	-1.302	INCID
	DEVM	16.431	16.629	18.684	19.608	19.618	20.179	21.603	22.075	21.444	DEVM
	P 2	17.849	17.849	18.107	18.642	18.833	18.879	18.962	18.756	18.179	P 2
	P 2A	17.602	17.715	17.864	18.364	18.715	18.756	18.673	18.364	18.055	P 2A
	T 2	562.875	560.625	558.775	558.750	559.230	558.870	561.100	562.540	564.075	T 2
	T 2A	562.875	560.625	558.775	558.750	559.230	558.870	561.100	562.540	564.075	T 2A
	UUBAR FS		0.1245	0.1023	0.0858	0.0631	0.0726	0.0850	0.1012		UUBAR FS
	P2 FS		18.096	18.186	18.671	18.952	19.021	18.972	18.689		P2 FS
	LOSS PARA FS		0.0405	0.0334	0.0288	0.0221	0.0264	0.0318	0.0382		Loss Para FS

Table A-3. Blade Element Performance
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 109.75 Equivalent Rotor Speed = 4620.50 Equivalent Weight Flow = 118.77
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	477.94	477.94	477.94	477.94	477.94	477.94	477.94	477.94	477.94	V 0
	V 1	496.42	528.60	531.70	538.32	530.19	519.15	510.00	492.31	492.96	V 1
	VZ 0	477.94	477.94	477.94	477.93	477.90	477.85	477.81	477.79	477.77	VZ 0
	VZ 1	496.42	528.60	531.70	538.31	530.15	519.05	509.86	492.16	492.79	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.4362	0.4362	0.4362	0.4362	0.4362	0.4362	0.4362	0.4362	0.4362	M 0
	M 1	0.4537	0.4845	0.4875	0.4938	0.4860	0.4754	0.4667	0.4498	0.4504	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4927	0.3038	0.2927	0.2649	0.2816	0.2955	0.2938	0.3705	0.3577	UUBAR
	DFAC	-0.039	-0.106	-0.112	-0.126	-0.109	-0.086	-0.067	-0.030	-0.031	DFAC
	EFFP	0.1444	0.4403	0.4653	0.5214	0.4676	0.3946	0.3355	0.1490	0.1595	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.268	15.268	15.268	15.268	15.268	15.268	15.268	15.268	15.268	P 0
	P 1	14.347	14.700	14.721	14.773	14.742	14.716	14.719	14.575	14.599	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	41.050	36.976	33.266	32.079	32.300	31.021	30.397	30.696	34.958	BETA 2
	BETA(PR) 1	51.822	50.411	50.591	51.271	53.120	55.035	56.390	57.607	57.824	BETA(PR) 1
	BETA(PR) 2	28.965	28.855	28.499	28.580	31.369	35.043	37.416	41.146	45.211	BETA(PR) 2
	V 1	525.38	559.49	562.91	570.21	559.90	546.72	537.17	518.28	519.38	V 1
	V 2	623.80	650.71	683.90	714.26	705.42	691.64	682.85	637.24	580.54	V 2
	VZ 1	525.36	559.49	562.91	570.16	559.62	546.08	536.19	517.22	518.19	VZ 1
	VZ 2	470.43	519.84	571.82	605.11	595.90	591.92	587.76	546.68	474.66	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	409.66	391.39	375.14	379.27	376.70	355.96	344.79	324.54	331.84	V-THETA 2
	V(PR) 1	850.0	877.9	886.7	911.4	932.7	953.2	969.2	966.0	973.7	V(PR) 1
	V(PR) 2	537.7	593.5	650.7	689.2	698.3	723.9	741.3	727.3	674.9	V(PR) 2
	VTHETA PR1	-668.1	-676.6	-685.1	-710.9	-745.9	-780.9	-806.7	-815.2	-823.7	VTHETA PR1
	VTHETA PR2	-260.4	-286.4	-310.5	-329.6	-363.3	-415.1	-449.6	-477.7	-478.2	VTHETA PR2
	U 1	668.14	676.57	685.08	710.93	745.89	780.88	806.74	815.23	823.65	U 1
	U 2	670.05	677.82	685.60	708.91	739.99	771.08	794.43	802.21	810.01	U 2
	M 1	0.4814	0.5142	0.5176	0.5246	0.5146	0.5019	0.4927	0.4746	0.4756	M 1
	M 2	0.5514	0.5774	0.6097	0.6399	0.6312	0.6184	0.6097	0.5659	0.5125	M 2
	M(PR) 1	0.7788	0.8069	0.8152	0.8385	0.8573	0.8751	0.8890	0.8846	0.8917	M(PR) 1
	M(PR) 2	0.4753	0.5267	0.5801	0.6174	0.6248	0.6472	0.6619	0.6459	0.5958	M(PR) 2
	TURN(PR)	22.857	21.556	22.093	22.693	21.760	20.010	19.004	16.498	12.656	TURN(PR)
	UUBAR	0.3372	0.3080	0.2175	0.1689	0.1731	0.1590	0.1618	0.1876	0.3013	UUBAR
	LOSS PARA	0.0812	0.0751	0.0539	0.0434	0.0454	0.0420	0.0429	0.0476	0.0723	LOSS PARA
	DFAC	0.5002	0.4482	0.3855	0.3653	0.3749	0.3603	0.3529	0.3595	0.4220	DFAC
	EFFP	0.5924	0.5904	0.6951	0.8199	0.8379	0.8489	0.8284	0.7287	0.5628	EFFP
	EFF	0.5921	0.5803	0.6864	0.8140	0.8325	0.8439	0.8228	0.7209	0.5529	EFF
	INCID	-0.020	-1.867	-2.099	-2.786	-2.943	-3.027	-3.052	-2.268	-2.831	INCID
	DEVM	21.216	19.557	17.579	12.877	10.681	10.177	9.859	13.007	16.327	DEVM
	P 1	14.347	14.700	14.721	14.773	14.742	14.716	14.719	14.575	14.599	P 1
	P 2	17.135	17.467	17.935	18.506	18.579	18.527	18.465	17.841	17.104	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	565.080	563.850	562.560	561.070	561.280	560.510	560.890	561.490	562.110	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	40.647	36.562	32.886	31.814	31.961	30.593	29.879	30.183	34.366	BETA 2
STATOR-T.E.	BETA 2A	6.300	7.361	8.101	8.600	8.211	9.003	8.664	8.284	7.074	BETA 2A
	V 2	629.01	657.25	691.24	720.23	713.06	701.62	695.01	648.45	590.65	V 2
	V 2A	615.45	632.22	647.62	684.41	681.07	676.59	674.91	652.03	620.51	V 2A
	VZ 2	477.26	527.92	580.46	611.93	604.63	603.24	601.52	559.39	486.54	VZ 2
	VZ 2A	611.74	627.01	641.15	676.63	673.82	667.70	666.39	644.33	614.83	VZ 2A
	V-THETA 2	409.73	391.52	375.32	379.62	377.24	356.65	345.60	325.35	332.72	V-THETA 2
	V-THETA 2A	67.54	80.99	91.26	102.34	97.23	105.78	101.54	93.81	76.30	V-THETA 2A
	M 2	0.5563	0.5836	0.6167	0.6456	0.6386	0.6280	0.6214	0.5765	0.5219	M 2
	M 2A	0.5436	0.5599	0.5752	0.6111	0.6077	0.6039	0.6021	0.5799	0.5498	M 2A
	TURN(PR)	34.346	29.201	24.785	23.209	23.733	21.557	21.166	21.842	27.222	TURN(PR)
	UUBAR	0.0387	0.0760	0.1426	0.1521	0.1883	0.1993	0.2215	0.2004	0.1359	UUBAR
	LOSS PARA	0.0125	0.0246	0.0465	0.0509	0.0656	0.0721	0.0828	0.0758	0.0521	LOSS PARA
	DFAC	0.1977	0.1925	0.1987	0.1806	0.1839	0.1677	0.1629	0.1322	0.1186	DFAC
	EFFP	0.2016	0.1125	-0.0127	-0.3436	-0.8538	-1.4677	-2.3898	17.0226	2.1752	EFFP
	INCID	-6.325	-9.639	-12.584	-11.861	-10.289	-11.801	-13.485	-13.739	-10.169	INCID
	DEVM	19.331	20.215	20.935	20.933	20.328	21.703	22.163	22.080	21.215	DEVM
	P 2	17.135	17.467	17.935	18.506	18.579	18.527	18.465	17.841	17.104	P 2
	P 2A	17.009	17.194	17.356	17.818	17.739	17.666	17.527	17.120	16.710	P 2A
	T 2	565.080	563.850	562.560	561.070	561.280	560.510	560.890	561.490	562.110	T 2
	T 2A	565.080	563.850	562.560	561.070	561.280	560.510	560.890	561.490	562.110	T 2A
	UUBAR FS		0.1640	0.1648	0.1711	0.1403	0.1486	0.1310	0.1667		UUBAR FS
	P2 FS		17.846	18.039	18.608	18.327	18.268	18.026	17.694		P2 FS
	LOSS PARA FS		0.0531	0.0536	0.0572	0.0488	0.0537	0.0493	0.0630		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 109.52 Equivalent Rotor Speed = 4610.95 Equivalent Weight Flow = 116.85
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	468.99	468.99	468.99	468.99	468.99	468.99	468.99	468.99	468.99	V 0
	V 1	475.26	506.29	515.08	519.61	520.24	504.46	491.35	486.87	452.44	V 1
	VZ 0	468.99	468.99	468.99	468.98	468.95	468.90	468.86	468.84	468.83	VZ 0
	VZ 1	475.26	506.29	515.08	519.60	520.20	504.36	491.21	486.72	452.28	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.4277	0.4277	0.4277	0.4277	0.4277	0.4277	0.4277	0.4277	0.4277	M 0
	M 1	0.4336	0.4631	0.4715	0.4759	0.4765	0.4614	0.4489	0.4446	0.4121	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4682	0.2994	0.2603	0.2528	0.2603	0.3029	0.3300	0.3346	0.5056	UUBAR
	DFAC	-0.013	-0.080	-0.098	-0.108	-0.109	-0.076	-0.048	-0.038	0.035	DFAC
	EFFP	0.0571	0.3709	0.4590	0.4910	0.4968	0.3561	0.2394	0.1980	-0.1681	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.259	15.259	15.259	15.259	15.259	15.259	15.259	15.259	15.259	P 0
	P 1	14.415	14.719	14.790	14.803	14.790	14.713	14.664	14.656	14.347	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	48.635	45.921	41.818	37.511	36.496	36.503	37.023	38.727	42.937	BETA 2
	BETA(PR) 1	53.012	51.606	51.457	52.239	53.605	55.769	57.344	57.849	60.004	BETA(PR) 1
	BETA(PR) 2	28.524	30.232	30.566	29.842	31.350	34.806	37.092	38.443	43.708	BETA(PR) 2
	V 1	502.25	535.03	544.65	549.59	548.96	530.82	516.91	512.40	475.57	V 1
	V 2	602.58	601.92	618.10	665.01	681.30	667.80	658.67	644.30	586.44	V 2
	VZ 1	502.23	535.02	544.65	549.54	548.69	530.21	515.97	511.35	474.48	VZ 1
	VZ 2	398.22	418.72	460.64	527.44	547.39	536.15	524.94	501.68	428.52	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	452.24	432.40	412.12	404.87	404.99	396.78	395.90	402.31	398.72	V-THETA 2
	V(PR) 1	834.8	861.5	874.1	897.4	924.9	942.9	956.7	961.5	949.6	V(PR) 1
	V(PR) 2	453.2	484.6	535.0	608.2	641.4	653.8	659.3	641.8	593.9	V(PR) 2
	VTHETA PR1	-666.8	-675.2	-683.7	-709.5	-744.4	-779.3	-805.1	-813.5	-822.0	VTHETA PR1
	VTHETA PR2	-216.4	-244.0	-272.1	-302.6	-333.5	-372.7	-396.9	-398.2	-409.6	VTHETA PR2
	U 1	666.76	675.17	683.66	709.46	744.35	779.27	805.07	813.55	821.95	U 1
	U 2	668.66	676.42	694.18	707.45	738.46	769.49	792.79	800.56	808.34	U 2
	M 1	0.4593	0.4907	0.4999	0.5047	0.5041	0.4866	0.4733	0.4690	0.4339	M 1
	M 2	0.5297	0.5298	0.5455	0.5899	0.6046	0.5916	0.5815	0.5671	0.5125	M 2
	M(PR) 1	0.7633	0.7900	0.8023	0.8241	0.8493	0.8644	0.8760	0.8800	0.8665	M(PR) 1
	M(PR) 2	0.3984	0.4266	0.4723	0.5395	0.5692	0.5792	0.5821	0.5649	0.5191	M(PR) 2
	TURN(PR)	24.487	21.374	20.891	22.400	22.263	20.982	20.282	19.440	16.340	TURN(PR)
	UUBAR	0.2520	0.2650	0.2137	0.1224	0.0871	0.0800	0.0876	0.1265	0.1728	UUBAR
	LOSS PARA	0.0609	0.0637	0.0519	0.0311	0.0229	0.0212	0.0233	0.0334	0.0426	LOSS PARA
	DFAC	0.6063	0.5773	0.5209	0.4591	0.4406	0.4415	0.4479	0.4725	0.5165	DFAC
	EFFP	0.7432	0.7029	0.7439	0.8661	0.9214	0.9415	0.9104	0.8583	0.7813	EFFP
	EFF	0.7343	0.6935	0.7356	0.8610	0.9181	0.9390	0.9065	0.8524	0.7726	EFF
	INCID	1.170	-0.672	-1.233	-1.817	-2.459	-2.292	-2.097	-2.026	-0.649	INCID
	DEVM	20.774	20.934	19.647	14.138	10.662	9.940	9.536	10.306	14.824	DEVM
	P 1	14.415	14.719	14.790	14.803	14.790	14.713	14.664	14.656	14.347	P 1
	P 2	18.329	18.350	18.550	19.252	19.714	19.773	19.805	19.632	18.879	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	568.880	567.330	565.850	565.670	567.050	567.380	570.000	571.710	573.470	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	48.127	45.358	41.359	37.221	36.124	36.007	36.400	38.030	42.156	BETA 2
STATOR-T.E.	BETA 2A	2.970	5.080	6.700	7.660	7.521	7.262	8.484	8.184	7.093	BETA 2A
	V 2	607.44	607.51	624.00	670.04	688.29	676.94	669.77	655.76	596.65	V 2
	V 2A	432.28	459.84	484.33	547.92	593.13	606.03	607.99	579.75	547.39	V 2A
	VZ 2	405.46	426.58	468.36	533.48	555.68	547.02	538.25	515.66	441.57	VZ 2
	VZ 2A	431.69	458.03	491.01	542.97	587.80	600.67	600.60	573.05	542.36	VZ 2A
	V-THETA 2	452.31	432.55	412.32	405.24	405.56	397.54	396.82	403.31	399.77	V-THETA 2
	V-THETA 2A	22.40	40.72	56.51	73.03	77.60	76.54	89.58	82.41	67.49	V-THETA 2A
	M 2	0.5342	0.5350	0.5512	0.5947	0.6113	0.6003	0.5920	0.5779	0.5219	M 2
	M 2A	0.3749	0.4001	0.4227	0.4807	0.5218	0.5336	0.5341	0.5072	0.4768	M 2A
	TURN(PR)	45.157	40.318	34.659	29.555	28.585	28.707	27.860	29.781	34.987	TURN(PR)
	UUBAR	0.1624	0.0988	0.0852	0.0791	0.0551	0.0420	0.0683	0.1243	0.0422	UUBAR
	LOSS PARA	0.0525	0.0321	0.0279	0.0266	0.0192	0.0153	0.0255	0.0470	0.0162	LOSS PARA
	DFAC	0.5175	0.4538	0.4119	0.3507	0.3068	0.2796	0.2670	0.3044	0.2994	DFAC
	EFFP	0.7008	0.7913	0.8082	0.7906	0.8148	0.8164	0.6615	0.4968	0.7613	EFFP
	INCID	1.156	-0.803	-4.111	-6.454	-6.127	-6.390	-6.971	-5.900	-2.385	INCID
	DEVM	16.001	17.934	19.434	19.993	19.638	19.964	21.983	21.980	21.234	DEVM
	P 2	18.329	18.350	18.550	19.252	19.714	19.773	19.805	19.632	18.879	P 2
	P 2A	17.803	18.029	18.255	18.928	19.472	19.594	19.519	19.138	18.744	P 2A
	T 2	568.880	567.330	565.850	565.670	567.050	567.380	570.000	571.710	573.470	T 2
	T 2A	568.880	567.330	565.850	565.670	567.050	567.380	570.000	571.710	573.470	T 2A
	UUBAR FS		0.1367	0.0960	0.0846	0.0660	0.0667	0.0786	0.1093		UUBAR FS
	P2 FS		18.484	18.583	19.268	19.797	19.877	19.862	19.556		P2 FS
	LOSS PARA FS		0.0444	0.0314	0.0284	0.0230	0.0243	0.0293	0.0413		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 109.42 Equivalent Rotor Speed = 4606.54 Equivalent Weight Flow = 113.20
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	453.34	453.34	453.34	453.34	453.34	453.34	453.34	453.34	453.34	V 0
	V 1	451.00	475.62	492.88	502.25	505.94	488.85	472.77	467.22	452.12	V 1
	VZ 0	453.34	453.34	453.34	453.33	453.30	453.26	453.21	453.20	453.18	VZ 0
	VZ 1	451.00	475.62	492.88	502.24	505.90	488.76	472.63	467.07	451.96	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.4129	0.4129	0.4129	0.4129	0.4129	0.4129	0.4129	0.4129	0.4129	M 0
	M 1	0.4107	0.4340	0.4504	0.4593	0.4628	0.4465	0.4313	0.4260	0.4118	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4836	0.3521	0.2735	0.2556	0.2513	0.2741	0.3115	0.3288	0.4093	UUBAR
	DFAC	0.005	-0.049	-0.087	-0.108	-0.116	-0.078	-0.043	-0.031	0.003	DFAC
	EFFP	-0.0229	0.2323	0.4148	0.4868	0.5104	0.3873	0.2296	0.1667	-0.0141	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.196	15.196	15.196	15.196	15.196	15.196	15.196	15.196	15.196	P 0
	P 1	14.382	14.603	14.736	14.766	14.773	14.735	14.672	14.643	14.507	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	51.486	50.508	46.307	40.638	39.831	39.635	40.957	44.289	47.675	BETA 2
	BETA(PR) 1	54.455	53.364	52.692	53.182	54.361	56.600	58.343	58.910	59.998	BETA(PR) 1
	BETA(PR) 2	25.058	28.136	29.105	28.324	30.368	34.638	36.817	39.614	44.783	BETA(PR) 2
	V 1	475.95	501.61	520.46	530.62	533.42	513.95	496.82	491.10	475.22	V 1
	V 2	622.23	607.92	617.12	666.68	676.88	657.83	649.82	620.64	574.64	V 2
	VZ 1	475.94	501.61	520.46	530.57	533.15	513.35	495.92	490.09	474.13	VZ 1
	VZ 2	387.47	386.56	426.30	505.83	519.53	506.05	489.96	443.55	386.31	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	486.87	469.06	446.20	434.14	433.34	419.16	425.27	432.67	424.17	V-THETA 2
	V(PR) 1	818.7	840.6	858.7	885.4	915.2	932.9	945.4	949.6	948.8	V(PR) 1
	V(PR) 2	427.7	438.4	487.9	574.7	602.5	615.8	613.1	576.9	545.2	V(PR) 2
	VTHETA PR1	-666.1	-674.5	-683.0	-708.8	-743.6	-778.5	-804.3	-812.8	-821.2	VTHETA PR1
	VTHETA PR2	-181.2	-206.7	-237.3	-272.6	-304.4	-349.6	-366.8	-367.1	-383.4	VTHETA PR2
	U 1	666.13	674.53	683.01	708.78	743.64	778.52	804.30	812.77	821.17	U 1
	U 2	668.02	675.77	683.52	706.77	737.76	768.75	792.03	799.79	807.56	U 2
	M 1	0.4343	0.4587	0.4767	0.4864	0.4891	0.4704	0.4541	0.4487	0.4336	M 1
	M 2	0.5455	0.5329	0.5422	0.5893	0.5983	0.5803	0.5710	0.5430	0.5000	M 2
	M(PR) 1	0.7470	0.7686	0.7865	0.8116	0.8391	0.8539	0.8641	0.8676	0.8657	M(PR) 1
	M(PR) 2	0.3750	0.3843	0.4287	0.5080	0.5326	0.5432	0.5388	0.5047	0.4744	M(PR) 2
	TURN(PR)	29.396	25.228	23.588	24.861	24.001	21.981	21.556	19.333	15.260	TURN(PR)
	UUBAR	0.2026	0.2379	0.1963	0.0917	0.0743	0.0740	0.0967	0.1590	0.1985	UUBAR
	LOSS PARA	0.0505	0.0584	0.0484	0.0236	0.0197	0.0196	0.0258	0.0413	0.0480	LOSS PARA
	DFAC	0.6414	0.6341	0.5783	0.4941	0.4866	0.4839	0.5004	0.5449	0.5764	DFAC
	EFFP	0.8021	0.7543	0.7728	0.9019	0.9376	0.9409	0.9031	0.8343	0.7599	EFFP
	EFF	0.7940	0.7451	0.7643	0.8977	0.9347	0.9382	0.8985	0.8270	0.7500	EFF
	INCID	2.613	1.086	0.002	-0.874	-1.702	-1.461	-1.098	-0.964	-0.655	INCID
	DEVM	17.309	18.838	18.185	12.621	9.681	9.772	9.261	11.475	15.899	DEVM
	P 1	14.382	14.603	14.736	14.766	14.773	14.735	14.672	14.643	14.507	P 1
	P 2	19.080	18.920	19.085	19.851	20.223	20.207	20.223	19.851	19.277	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	573.650	572.160	570.750	569.680	570.790	570.910	574.130	575.670	577.210	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	50.911	49.891	45.773	40.315	39.418	39.094	40.251	43.489	46.776	BETA 2
STATOR-T.E.	BETA 2A	2.450	4.880	6.280	7.871	7.851	7.372	8.143	8.264	7.695	BETA 2A
	V 2	627.38	613.50	622.99	671.71	683.74	666.64	660.64	631.16	584.48	V 2
	V 2A	413.33	434.41	451.40	504.78	561.39	567.79	571.78	542.05	511.79	V 2A
	VZ 2	395.58	395.24	434.53	512.12	527.97	516.89	503.50	457.26	399.71	VZ 2
	VZ 2A	412.95	432.83	448.69	499.97	555.91	562.63	565.32	535.68	506.40	VZ 2A
	V-THETA 2	486.95	469.22	446.42	434.53	433.95	419.97	426.26	433.75	425.29	V-THETA 2
	V-THETA 2A	17.67	36.95	49.38	69.12	76.65	72.79	80.89	77.80	68.42	V-THETA 2A
	M 2	0.5503	0.5382	0.5477	0.5940	0.6048	0.5886	0.5812	0.5528	0.5090	M 2
	M 2A	0.3565	0.3757	0.3913	0.4397	0.4908	0.4966	0.4988	0.4710	0.4430	M 2A
	TURN(PR)	48.461	45.012	39.493	32.438	31.549	31.683	32.050	35.158	39.006	TURN(PR)
	UUBAR	0.1582	0.0663	0.0646	0.1055	0.0430	0.0206	0.0400	0.0489	-0.0199	UUBAR
	LOSS PARA	0.0512	0.0216	0.0212	0.0354	0.0150	0.0075	0.0150	0.0185	-0.0076	LOSS PARA
	DFAC	0.5834	0.5221	0.4856	0.4333	0.3638	0.3403	0.3336	0.3583	0.3621	DFAC
	EFFP	0.7468	0.8797	0.8775	0.7861	0.8854	0.9338	0.8595	0.8337	1.0749	EFFP
	INCID	3.940	3.690	0.303	-3.361	-2.834	-3.304	-3.122	-0.444	2.235	INCID
	DEVM	15.481	17.734	19.014	20.204	19.968	20.074	21.643	22.060	21.835	DEVM
	P 2	19.080	18.920	19.085	19.851	20.223	20.207	20.223	19.851	19.277	P 2
	P 2A	18.519	18.696	18.859	19.406	20.033	20.121	20.058	19.669	19.339	P 2A
	T 2	573.650	572.160	570.750	569.680	570.790	570.910	574.130	575.670	577.210	T 2
	T 2A	573.650	572.170	570.760	569.680	570.790	570.920	574.140	575.680	577.220	T 2A
	UUBAR FS		0.1398	0.1028	0.0818	0.0468	0.0561	0.0689	0.0771		UUBAR FS
	P2 FS		19.206	19.232	19.739	20.237	20.354	20.258	19.961		P2 FS
	LOSS PARA FS		0.0455	0.0337	0.0274	0.0163	0.0197	0.0183	0.0291		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 108.96 Equivalent Rotor Speed = 4587.17 Equivalent Weight Flow = 108.64
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	433.55	433.55	433.55	433.55	433.55	433.55	433.55	433.55	433.55	V 0
	V 1	423.59	458.31	473.07	480.08	473.28	475.59	455.00	449.18	419.28	V 1
	VZ 0	433.55	433.55	433.55	433.54	433.51	433.47	433.43	433.41	433.40	VZ 0
	VZ 1	423.59	458.31	473.07	480.07	473.24	475.51	454.87	449.04	419.13	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3943	0.3943	0.3943	0.3943	0.3943	0.3943	0.3943	0.3943	0.3943	M 0
	M 1	0.3850	0.4176	0.4316	0.4382	0.4318	0.4340	0.4145	0.4090	0.3810	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4740	0.3120	0.2484	0.2377	0.2772	0.2665	0.3107	0.3301	0.4559	UUBAR
	DFAC	0.023	-0.057	-0.091	-0.107	-0.092	-0.097	-0.049	-0.036	0.033	DFAC
	EFFP	-0.1111	0.2845	0.4487	0.5026	0.4227	0.4471	0.2562	0.1899	-0.1743	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.131	15.131	15.131	15.131	15.131	15.131	15.131	15.131	15.131	P 0
	P 1	14.402	14.651	14.749	14.766	14.705	14.721	14.653	14.623	14.430	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	53.906	53.776	49.728	43.053	42.169	41.981	43.666	48.035	53.809	BETA 2
	BETA(PR) 1	56.062	54.290	53.742	54.337	56.094	57.232	59.231	59.815	61.770	BETA(PR) 1
	BETA(PR) 2	22.127	26.887	29.083	27.667	30.539	34.097	37.237	39.686	45.375	BETA(PR) 2
	V 1	446.40	482.85	498.84	506.52	497.95	499.58	477.73	471.74	440.02	V 1
	V 2	635.00	608.25	606.36	660.46	663.01	653.78	636.85	614.25	572.94	V 2
	VZ 1	446.38	482.84	498.84	506.48	497.71	498.99	476.86	470.77	439.01	VZ 1
	VZ 2	374.09	359.44	391.96	482.57	491.17	485.50	460.01	410.15	337.89	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	513.11	490.68	462.64	450.80	444.88	436.85	439.07	456.08	461.82	V-THETA 2
	V(PR) 1	799.5	827.2	843.5	868.7	892.4	922.3	932.6	936.8	928.6	V(PR) 1
	V(PR) 2	403.8	403.0	448.5	545.0	570.6	587.0	578.8	534.0	481.8	V(PR) 2
	VTHETA PR1	-663.3	-671.7	-680.1	-705.8	-740.5	-775.2	-800.9	-809.3	-817.7	VTHETA PR1
	VTHETA PR2	-152.1	-182.2	-218.0	-253.0	-289.8	-328.7	-349.6	-340.3	-342.3	VTHETA PR2
	U 1	663.32	671.69	680.14	705.80	740.51	775.25	800.92	809.35	817.71	U 1
	U 2	665.21	672.93	680.65	703.80	734.66	765.52	788.70	796.43	804.17	U 2
	M 1	0.4064	0.4408	0.4560	0.4634	0.4552	0.4567	0.4360	0.4303	0.4004	M 1
	M 2	0.5562	0.5324	0.5311	0.5822	0.5846	0.5758	0.5585	0.5365	0.4975	M 2
	M(PR) 1	0.7279	0.7553	0.7711	0.7947	0.8157	0.8432	0.8511	0.8545	0.8450	M(PR) 1
	M(PR) 2	0.3537	0.3527	0.3928	0.4804	0.5032	0.5170	0.5076	0.4664	0.4184	M(PR) 2
	TURN(PR)	33.934	27.403	24.659	26.673	25.564	23.154	22.026	20.167	16.441	TURN(PR)
	UUBAR	0.1887	0.2482	0.2103	0.0885	0.0631	0.0692	0.0982	0.1721	0.2269	UUBAR
	LOSS PARA	0.0481	0.0617	0.0518	0.0229	0.0167	0.0185	0.0261	0.0446	0.0543	LOSS PARA
	DFAC	0.6717	0.6782	0.6229	0.5243	0.5132	0.5153	0.5352	0.5928	0.6492	DFAC
	EFFP	0.8351	0.7644	0.7613	0.9045	0.9570	0.9649	0.9192	0.8524	0.7892	EFFP
	EFF	0.8278	0.7552	0.7522	0.9002	0.9550	0.9632	0.9153	0.8456	0.7799	EFF
	INCID	4.220	2.012	1.052	0.281	0.031	-0.828	-0.209	-0.058	1.119	INCID
	DEVM	14.377	17.589	18.164	11.963	9.851	9.232	9.680	11.547	16.491	DEVM
	P 1	14.402	14.651	14.749	14.766	14.705	14.721	14.653	14.623	14.430	P 1
	P 2	19.560	19.215	19.241	20.106	20.384	20.492	20.399	20.096	19.570	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	575.970	574.030	573.120	571.830	571.820	572.070	574.880	577.020	579.200	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	53.269	53.084	49.138	42.703	41.734	41.393	42.919	47.138	52.713	BETA 2
STATOR-T.E.	BETA 2A	2.750	5.550	7.029	8.120	7.901	7.272	7.863	7.984	7.714	BETA 2A
	V 2	640.34	613.93	612.03	665.38	669.57	662.56	647.14	624.56	582.65	V 2
	V 2A	397.58	413.38	429.73	477.35	527.86	537.54	531.34	510.82	484.69	V 2A
	VZ 2	382.96	368.75	400.41	488.92	499.45	496.60	473.29	424.31	352.58	VZ 2
	VZ 2A	397.12	411.44	426.49	472.51	522.64	532.77	525.70	505.17	479.56	VZ 2A
	V-THETA 2	513.20	490.85	462.86	451.21	445.52	437.70	440.10	457.22	463.04	V-THETA 2
	V-THETA 2A	19.07	39.98	52.59	67.42	72.53	67.98	72.60	70.86	64.96	V-THETA 2A
	M 2	0.5612	0.5376	0.5363	0.5869	0.5908	0.5841	0.5681	0.5460	0.5064	M 2
	M 2A	0.3419	0.3564	0.3712	0.4142	0.4598	0.4684	0.4616	0.4422	0.4180	M 2A
	TURN(PR)	50.518	47.534	42.108	34.578	33.814	34.081	34.996	39.086	44.927	TURN(PR)
	UUBAR	0.1822	0.0633	0.0319	0.1130	0.0403	0.0446	0.0557	0.0528	-0.0131	UUBAR
	LOSS PARA	0.0589	0.0206	0.0104	0.0379	0.0141	0.0162	0.0209	0.0200	-0.0050	LOSS PARA
	DFAC	0.6290	0.5666	0.5189	0.4785	0.4087	0.3944	0.3951	0.4202	0.4340	DFAC
	EFFP	0.7315	0.8956	0.9435	0.7933	0.9066	0.8848	0.8481	0.8577	1.0383	EFFP
	INCID	6.298	6.883	3.667	-0.972	-0.518	-1.006	-0.455	3.205	8.175	INCID
	DEVM	15.781	18.404	19.763	20.453	20.018	19.974	21.364	21.781	21.854	DEVM
	P 2	19.560	19.215	19.241	20.106	20.384	20.492	20.399	20.096	19.570	P 2
	P 2A	18.874	18.998	19.132	19.633	20.211	20.304	20.176	19.901	19.612	P 2A
	T 2	575.970	574.030	573.120	571.830	571.820	572.070	574.880	577.020	579.200	T 2
	T 2A	575.970	574.030	573.120	571.830	571.820	572.080	574.890	577.020	579.200	T 2A
	UUBAR FS		0.1614	0.1324	0.0795	0.0489	0.0549	0.0659	0.0651		UUBAR FS
	P2 FS		19.621	19.642	19.958	20.427	20.543	20.448	20.149		P2 FS
	LOSS PARA FS		0.0525	0.0431	0.0266	0.0171	0.0199	0.0247	0.0246		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 108.97 Equivalent Rotor Speed = 4587.83 Equivalent Weight Flow = 104.69
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	416.43	416.43	416.43	416.43	416.43	416.43	416.43	416.43	416.43	V 0
	V 1	406.62	436.53	450.68	456.78	459.54	453.20	435.82	429.19	405.19	V 1
	VZ 0	416.42	416.43	416.43	416.42	416.39	416.35	416.31	416.30	416.28	VZ 0
	VZ 1	406.62	436.53	450.68	456.77	459.50	453.12	435.70	429.05	405.05	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3783	0.3783	0.3783	0.3783	0.3783	0.3783	0.3783	0.3783	0.3783	M 0
	M 1	0.3692	0.3971	0.4104	0.4162	0.4188	0.4128	0.3965	0.3903	0.3678	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4457	0.3032	0.2359	0.2323	0.2301	0.2554	0.3039	0.3082	0.4168	UUBAR
	DFAC	0.024	-0.048	-0.082	-0.097	-0.104	-0.088	-0.047	-0.031	0.027	DFAC
	EFFP	-0.1221	0.2553	0.4339	0.4803	0.5000	0.4324	0.2480	0.1750	-0.1537	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.091	15.091	15.091	15.091	15.091	15.091	15.091	15.091	15.091	P 0
	P 1	14.459	14.661	14.757	14.762	14.765	14.729	14.660	14.654	14.500	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	56.516	56.125	53.376	45.400	43.868	43.845	47.014	51.596	56.296	BETA 2
	BETA(PR) 1	57.163	55.633	55.093	55.722	56.896	58.509	60.330	60.962	62.595	BETA(PR) 1
	BETA(PR) 2	20.963	26.695	29.395	27.645	30.279	34.153	37.562	40.402	44.527	BETA(PR) 2
	V 1	428.17	459.43	474.67	481.18	483.11	475.53	457.18	450.32	424.98	V 1
	V 2	636.41	606.04	597.86	651.96	659.91	648.37	628.92	607.69	584.41	V 2
	VZ 1	428.15	459.42	474.67	481.14	482.87	474.97	456.35	449.39	424.00	VZ 1
	VZ 2	351.11	337.79	356.66	457.72	475.55	467.17	428.25	377.04	323.94	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	530.79	503.17	479.82	464.16	457.11	448.70	459.47	475.64	485.65	V-THETA 2
	V(PR) 1	789.6	813.9	829.5	854.3	884.3	909.6	922.3	926.3	921.7	V(PR) 1
	V(PR) 2	376.0	378.1	409.4	516.8	551.0	565.2	541.2	496.0	455.2	V(PR) 2
	VTHETA PR1	-663.4	-671.8	-680.2	-705.9	-740.6	-775.4	-801.0	-809.5	-817.8	VTHETA PR1
	VTHETA PR2	-134.5	-169.9	-209.9	-239.7	-277.7	-316.9	-329.3	-320.9	-318.6	VTHETA PR2
	U 1	663.42	671.79	680.24	705.90	740.62	775.36	801.04	809.47	817.83	U 1
	U 2	665.31	673.03	680.75	703.99	734.76	765.63	788.81	796.54	804.28	U 2
	M 1	0.3893	0.4187	0.4331	0.4393	0.4411	0.4339	0.4166	0.4101	0.3863	M 1
	M 2	0.5574	0.5297	0.5226	0.5733	0.5809	0.5700	0.5503	0.5294	0.5068	M 2
	M(PR) 1	0.7179	0.7417	0.7568	0.7799	0.8073	0.8299	0.8404	0.8436	0.8378	M(PR) 1
	M(PR) 2	0.3293	0.3305	0.3579	0.4545	0.4850	0.4969	0.4736	0.4321	0.3947	M(PR) 2
	TURN(PR)	36.199	28.938	25.698	28.080	26.626	24.375	22.801	20.600	18.116	TURN(PR)
	UUBAR	0.1874	0.2415	0.2220	0.0911	0.0664	0.0687	0.1211	0.1977	0.2400	UUBAR
	LOSS PARA	0.0481	0.0601	0.0545	0.0236	0.0176	0.0183	0.0320	0.0508	0.0583	LOSS PARA
	DFAC	0.7090	0.7078	0.6696	0.5538	0.5352	0.5367	0.5781	0.6363	0.6842	DFAC
	EFFP	0.8693	0.7838	0.7722	0.9051	0.9548	0.9704	0.9179	0.8410	0.7955	EFFP
	EFF	0.8633	0.7749	0.7631	0.9007	0.9526	0.9690	0.9139	0.8335	0.7861	EFF
	INCID	5.321	3.354	2.403	1.665	0.933	0.449	0.891	1.090	1.946	INCID
	DEVM	13.214	17.397	18.475	11.941	9.591	9.288	10.005	12.263	15.643	DEVM
	P 1	14.459	14.661	14.757	14.762	14.765	14.729	14.660	14.654	14.500	P 1
	P 2	19.914	19.483	19.447	20.294	20.638	20.710	20.577	20.274	19.966	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	576.250	575.350	574.470	573.530	573.380	573.450	576.430	579.180	581.850	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	55.813	55.375	52.713	45.023	43.410	43.227	46.189	50.595	55.071	BETA 2
STATOR-T.E.	BETA 2A	2.150	5.630	7.420	8.480	8.282	8.233	7.834	7.353	5.652	BETA 2A
	V 2	641.77	611.68	603.39	656.83	666.39	656.98	638.95	617.78	594.51	V 2
	V 2A	373.47	387.01	395.03	447.99	509.60	515.00	507.03	481.93	448.13	V 2A
	VZ 2	360.61	347.56	365.53	464.21	483.91	478.29	441.82	391.74	340.05	VZ 2
	VZ 2A	373.21	385.14	391.72	443.04	504.08	509.27	501.67	477.31	445.25	VZ 2A
	V-THETA 2	530.88	503.34	480.06	464.58	457.76	449.57	460.54	476.82	486.93	V-THETA 2
	V-THETA 2A	14.01	37.97	51.01	66.05	73.37	73.69	69.02	61.59	44.07	V-THETA 2A
	M 2	0.5624	0.5349	0.5277	0.5779	0.5870	0.5781	0.5597	0.5387	0.5160	M 2
	M 2A	0.3206	0.3328	0.3401	0.3873	0.4426	0.4474	0.4390	0.4155	0.3845	M 2A
	TURN(PR)	53.663	49.745	45.292	36.537	35.109	34.954	38.295	43.175	49.346	TURN(PR)
	UUBAR	0.1946	0.0769	0.0419	0.1219	0.0423	0.0404	0.0547	0.0642	0.0898	UUBAR
	LOSS PARA	0.0629	0.0250	0.0137	0.0408	0.0148	0.0147	0.0205	0.0243	0.0345	LOSS PARA
	DFAC	0.6788	0.6159	0.5798	0.5240	0.4393	0.4270	0.4397	0.4785	0.5359	DFAC
	EFFP	0.7329	0.8841	0.9338	0.7964	0.9104	0.9077	0.8681	0.8516	0.8081	EFFP
	INCID	8.842	9.174	7.242	1.347	1.157	0.827	2.815	6.664	10.535	INCID
	DEVM	15.181	18.484	20.154	20.813	20.399	20.934	21.334	21.151	19.796	DEVM
	P 2	19.914	19.483	19.447	20.294	20.638	20.710	20.577	20.274	19.966	P 2
	P 2A	19.166	19.218	19.306	19.793	20.457	20.541	20.361	20.041	19.668	P 2A
	T 2	576.250	575.350	574.470	573.530	573.380	573.450	576.430	579.180	581.850	T 2
	T 2A	576.250	575.350	574.470	573.530	573.380	573.450	576.440	579.200	581.900	T 2A
	UUBAR FS		0.1773	0.1565	0.0965	0.0510	0.0542	0.0608	0.0886		UUBAR FS
	P2 FS		19.903	19.903	20.177	20.677	20.771	20.601	20.370		P2 FS
	LOSS PARA FS		0.0576	0.0512	0.0323	0.0178	0.0196	0.0227	0.0335		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 109.07 Equivalent Rotor Speed = 4591.71 Equivalent Weight Flow = 100.22
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	C.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	C.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	396.71	396.71	396.71	396.71	396.71	396.71	396.71	396.71	396.71	V 0
	V 1	381.42	418.21	430.99	438.86	439.98	433.10	413.22	408.66	404.20	V 1
	VZ 0	396.71	396.71	396.71	396.70	396.68	396.64	396.60	396.58	396.57	VZ 0
	VZ 1	381.42	418.21	430.99	438.85	439.95	433.02	413.10	408.54	404.06	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3595	0.3599	0.3599	0.3599	0.3599	0.3599	0.3599	0.3599	0.3599	M 0
	M 1	0.3457	0.3800	0.3919	0.3993	0.4004	0.3939	0.3753	0.3711	0.3669	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4800	0.2901	0.2464	0.2321	0.2527	0.2742	0.2853	0.3012	0.3211	UUBAR
	DFAC	0.039	-0.054	-0.086	-0.106	-0.109	-0.092	-0.042	-0.030	-0.019	DFAC
	EFFP	-0.1949	0.2867	0.4345	0.5034	0.4888	0.4234	0.2377	0.1752	0.1103	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.059	15.059	15.059	15.059	15.059	15.059	15.059	15.059	15.059	P 0
	P 1	14.440	14.685	14.742	14.760	14.733	14.706	14.691	14.671	14.645	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	C.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	58.110	57.824	55.496	46.876	45.165	45.343	50.132	56.079	62.450	BETA 2
	BETA(PR) 1	58.857	56.813	56.333	56.824	58.070	59.699	61.668	62.179	62.673	BETA(PR) 1
	BETA(PR) 2	19.595	25.575	29.440	27.869	29.955	33.445	39.561	43.523	44.497	BETA(PR) 2
	V 1	401.23	439.77	453.48	461.93	462.15	454.01	433.04	428.40	423.93	V 1
	V 2	642.04	611.65	595.67	645.60	659.54	652.44	609.36	586.85	600.70	V 2
	VZ 1	401.22	439.76	453.48	461.89	461.92	453.48	432.25	427.52	422.96	VZ 1
	VZ 2	339.18	325.72	337.43	441.28	464.82	458.15	390.16	327.17	277.62	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	545.13	517.71	490.88	471.16	467.50	463.67	467.16	486.50	532.18	V-THETA 2
	V(PR) 1	775.8	803.4	818.0	844.1	873.5	899.1	911.2	916.4	921.8	V(PR) 1
	V(PR) 2	360.0	361.1	387.5	499.3	536.8	549.8	506.9	452.0	389.9	V(PR) 2
	VTHETA PR1	-664.0	-672.4	-680.8	-706.5	-741.2	-776.0	-801.7	-810.2	-818.5	VTHETA PR1
	VTHETA PR2	-120.7	-155.9	-190.4	-233.3	-267.9	-302.6	-322.3	-310.7	-272.8	VTHETA PR2
	U 1	663.98	672.36	680.81	706.50	741.24	776.02	801.71	810.15	818.52	U 1
	U 2	665.87	673.60	681.32	704.50	735.38	766.28	789.48	797.21	804.96	U 2
	M 1	0.3641	0.4002	0.4131	0.4210	0.4213	0.4136	0.3939	0.3895	0.3853	M 1
	M 2	0.5623	0.5345	0.5202	0.5668	0.5799	0.5730	0.5314	0.5096	0.5212	M 2
	M(PR) 1	0.7041	0.7311	0.7451	0.7694	0.7962	0.8190	0.8288	0.8333	0.8379	M(PR) 1
	M(PR) 2	0.3153	0.3156	0.3384	0.4383	0.4720	0.4828	0.4421	0.3925	0.3383	M(PR) 2
	TURN(PR)	39.262	31.238	26.893	28.958	28.123	26.274	22.143	18.698	18.224	TURN(PR)
	UUBAR	0.1832	0.2443	0.2312	0.0968	0.0619	0.0702	0.1636	0.2427	0.3131	UUBAR
	LOSS PARA	0.0475	0.0614	0.0568	0.0250	0.0165	0.0189	0.0421	0.0594	0.0761	LOSS PARA
	DFAC	0.7295	0.7302	0.6956	0.5716	0.5493	0.5538	0.6134	0.6844	0.7721	DFAC
	EFFP	0.8941	0.8047	0.7804	0.8994	0.9643	0.9780	0.8690	0.8037	0.8026	EFFP
	EFF	0.8890	0.7963	0.7715	0.8947	0.9625	0.9769	0.8627	0.7947	0.7933	EFF
	INCID	7.015	4.535	3.643	2.768	2.007	1.640	2.231	2.309	2.024	INCID
	DEVM	11.846	16.277	18.521	12.166	9.268	8.580	12.003	15.382	15.612	DEVM
	P 1	14.440	14.685	14.742	14.760	14.733	14.706	14.691	14.671	14.645	P 1
	P 2	20.153	19.737	19.559	20.373	20.805	20.926	20.435	20.143	20.332	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	577.000	576.110	575.280	574.620	574.540	575.000	578.140	580.570	582.960	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	57.358	57.018	54.782	46.493	44.687	44.688	49.245	54.945	60.869	BETA 2
STATOR-T.E.	BETA 2A	1.180	6.360	7.740	8.640	8.331	8.272	7.713	6.633	3.092	BETA 2A
	V 2	647.49	617.38	601.15	650.27	666.00	661.15	618.80	596.32	611.29	V 2
	V 2A	366.08	370.68	374.71	428.61	494.41	503.08	488.09	443.40	397.70	V 2A
	VZ 2	349.25	336.09	346.68	447.63	473.31	469.66	403.55	342.20	297.36	VZ 2
	VZ 2A	366.01	368.39	371.30	423.70	489.00	497.43	483.08	439.82	396.50	VZ 2A
	V-THETA 2	545.22	517.88	491.12	471.59	468.17	464.57	468.25	487.71	533.58	V-THETA 2
	V-THETA 2A	7.54	41.06	50.46	64.38	71.61	72.32	65.43	51.14	21.41	V-THETA 2A
	M 2	0.5673	0.5398	0.5252	0.5712	0.5860	0.5812	0.5401	0.5183	0.5309	M 2
	M 2A	0.3140	0.3182	0.3220	0.3697	0.4285	0.4361	0.4214	0.3808	0.3399	M 2A
	TURN(PR)	56.178	50.658	47.042	37.848	36.337	36.376	41.472	48.248	57.708	TURN(PR)
	UUBAR	0.2183	0.1198	0.0612	0.1333	0.0575	0.0635	0.0114	0.0429	0.2078	UUBAR
	LOSS PARA	0.0706	0.0389	0.0200	0.0446	0.0200	0.0230	0.0043	0.0163	0.0802	LOSS PARA
	DFAC	0.7035	0.6519	0.6184	0.5535	0.4682	0.4578	0.4590	0.5380	0.6750	DFAC
	EFFP	0.7083	0.8299	0.9093	0.7886	0.8872	0.8669	0.9731	0.9133	0.6698	EFFP
	INCID	10.387	10.817	9.312	2.817	2.435	2.288	5.872	11.017	16.341	INCID
	DEVM	14.211	19.214	20.474	20.973	20.448	20.973	21.213	20.431	17.239	DEVM
	P 2	20.153	19.737	19.559	20.373	20.805	20.926	20.435	20.143	20.332	P 2
	P 2A	19.290	19.311	19.354	19.834	20.557	20.654	20.393	19.998	19.594	P 2A
	T 2	577.000	576.110	575.280	574.620	574.540	575.000	578.140	580.570	582.960	T 2
	T 2A	577.000	576.110	575.280	574.620	574.540	575.000	578.140	580.570	582.960	T 2A
	UUBAR FS		0.1828	0.1796	0.1188	0.0619	0.0666	0.0879	0.1218		UUBAR FS
	P2 FS		20.013	20.018	20.310	20.827	20.943	20.745	20.448		P2 FS
	LOSS PARA FS		0.0593	0.0567	0.0397	0.0215	0.0241	0.0331	0.0463		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.81 Equivalent Rotor Speed = 4202.12 Equivalent Weight Flow = 113.59
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	454.70	454.70	454.70	454.70	454.70	454.70	454.70	454.70	454.70	V 0
	V 1	458.72	492.88	501.58	507.97	496.36	491.38	470.82	466.34	457.01	V 1
	VZ 0	454.70	454.70	454.70	454.69	454.66	454.62	454.57	454.56	454.54	VZ 0
	VZ 1	458.72	492.88	501.58	507.96	496.32	491.29	470.69	466.19	456.85	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.4142	0.4142	0.4142	0.4142	0.4142	0.4142	0.4142	0.4142	0.4142	M 0
	M 1	0.4180	0.4504	0.4586	0.4647	0.4537	0.4489	0.4294	0.4252	0.4164	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.5157	0.3110	0.2615	0.2358	0.2914	0.2743	0.3403	0.3629	0.3886	UUBAR
	DFAC	-0.009	-0.084	-0.103	-0.117	-0.092	-0.081	-0.035	-0.026	-0.005	DFAC
	EFFP	0.0348	0.3741	0.4693	0.5292	0.4117	0.3944	0.1833	0.1312	0.0269	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.212	15.212	15.212	15.212	15.212	15.212	15.212	15.212	15.212	P 0
	P 1	14.338	14.685	14.768	14.812	14.718	14.747	14.635	14.597	14.553	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	40.881	36.757	33.328	31.351	30.703	30.319	30.334	31.593	34.259	BETA 2
	BETA(PR) 1	51.448	49.774	49.619	50.298	52.382	53.998	56.057	56.585	57.385	BETA(PR) 1
	BETA(PR) 2	29.486	29.215	30.272	29.640	32.842	36.940	37.571	38.147	45.631	BETA(PR) 2
	V 1	484.27	520.46	529.90	536.87	523.01	516.62	494.72	490.15	480.42	V 1
	V 2	563.19	589.07	601.20	640.85	631.96	608.58	619.33	613.00	524.53	V 2
	VZ 1	484.25	520.45	529.90	536.82	522.75	516.02	493.82	489.14	479.32	VZ 1
	VZ 2	425.81	471.95	502.32	547.20	543.02	524.62	533.43	520.95	432.47	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	368.60	352.51	330.32	333.36	322.47	306.79	312.13	320.41	294.56	V-THETA 2
	V(PR) 1	777.0	805.9	817.9	840.4	856.6	878.2	884.9	888.8	889.9	V(PR) 1
	V(PR) 2	489.2	540.7	581.6	629.7	646.7	657.2	674.2	663.7	619.5	V(PR) 2
	VTHETA PR1	-607.6	-615.3	-623.0	-646.6	-678.4	-710.2	-733.7	-741.4	-749.1	VTHETA PR1
	VTHETA PR2	-240.8	-263.9	-293.2	-311.4	-350.5	-394.5	-410.4	-409.2	-442.1	VTHETA PR2
	U 1	607.64	615.31	623.05	646.55	678.35	710.17	733.69	741.41	749.07	U 1
	U 2	609.38	616.44	623.52	644.72	672.99	701.26	722.49	729.57	736.67	U 2
	M 1	0.4422	0.4767	0.4857	0.4924	0.4791	0.4730	0.4521	0.4478	0.4385	M 1
	M 2	0.4989	0.5239	0.5362	0.5743	0.5651	0.5432	0.5527	0.5456	0.4623	M 2
	M(PR) 1	0.7095	0.7381	0.7497	0.7708	0.7847	0.8041	0.8087	0.8119	0.8123	M(PR) 1
	M(PR) 2	0.4333	0.4809	0.5188	0.5643	0.5783	0.5865	0.6016	0.5908	0.5460	M(PR) 2
	TURN(PR)	21.961	20.559	19.348	20.661	19.548	17.077	18.515	18.472	11.796	TURN(PR)
	UUBAR	0.2890	0.2706	0.2148	0.1456	0.1185	0.1312	0.1072	0.1352	0.2325	UUBAR
	LOSS PARA	0.0692	0.0658	0.0523	0.0370	0.0306	0.0338	0.0283	0.0359	0.0554	LOSS PARA
	DFAC	0.5011	0.4510	0.4028	0.3666	0.3603	0.3637	0.3549	0.3738	0.4157	DFAC
	EFFP	0.6350	0.6339	0.6854	0.8383	0.8544	0.8263	0.8795	0.8269	0.5763	EFFP
	EFF	0.6268	0.6260	0.6785	0.8340	0.8503	0.8217	0.8759	0.8219	0.5672	EFF
	INCID	-0.394	-2.504	-3.071	-3.759	-3.682	-4.064	-3.385	-3.291	-3.270	INCID
	DEVM	21.737	19.917	19.352	13.937	12.154	12.073	10.014	10.009	16.747	DEVM
	P 1	14.338	14.685	14.768	14.812	14.718	14.747	14.635	14.597	14.553	P 1
	P 2	16.786	17.066	17.242	17.821	17.889	17.775	17.982	17.899	16.905	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	556.830	555.050	553.280	552.450	553.670	553.300	554.590	556.570	558.690	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	40.512	36.381	32.996	31.123	30.429	29.962	29.876	31.081	33.724	BETA 2
STATOR-T.E.	BETA 2A	5.770	5.880	6.390	7.921	8.762	8.883	8.894	8.905	8.905	BETA 2A
	V 2	567.51	594.50	606.87	645.65	637.97	616.23	629.24	623.44	533.08	V 2
	V 2A	552.46	562.01	573.71	616.88	632.45	630.39	644.85	634.49	619.88	V 2A
	VZ 2	431.46	478.63	508.98	552.63	549.78	533.22	544.62	532.87	442.44	VZ 2
	VZ 2A	549.66	559.05	570.14	610.92	624.82	622.32	636.32	625.98	611.46	VZ 2A
	V-THETA 2	368.66	352.63	330.48	333.67	322.93	307.39	312.86	321.20	295.34	V-THETA 2
	V-THETA 2A	55.54	57.57	63.85	85.00	96.30	97.26	99.57	98.08	95.80	V-THETA 2A
	M 2	0.5029	0.5290	0.5416	0.5789	0.5709	0.5504	0.5621	0.5555	0.4702	M 2
	M 2A	0.4889	0.4986	0.5103	0.5515	0.5656	0.5638	0.5769	0.5660	0.5510	M 2A
	TURN(PR)	34.742	30.501	26.605	23.197	21.651	21.046	20.933	22.119	24.753	TURN(PR)
	UUBAR	0.0412	0.0954	0.1056	0.1184	0.0960	0.0930	0.1411	0.1737	-0.0872	UUBAR
	LOSS PARA	0.0133	0.0310	0.0345	0.0397	0.0334	0.0337	0.0527	0.0656	-0.0333	LOSS PARA
	DFAC	0.2052	0.2168	0.1996	0.1755	0.1345	0.1030	0.1046	0.1204	-0.0167	DFAC
	EFFP	0.2913	0.1957	0.1120	-0.1943	-3.8913	2.7672	3.4811	5.3203	0.7783	EFFP
	INCID	-6.459	-9.820	-12.475	-12.552	-11.821	-12.431	-13.489	-12.842	-10.810	INCID
	DEVM	18.801	18.734	19.124	20.254	20.878	21.584	22.393	22.700	23.043	DEVM
	P 2	16.786	17.066	17.242	17.821	17.889	17.775	17.982	17.899	16.905	P 2
	P 2A	16.676	16.783	16.912	17.393	17.548	17.467	17.492	17.311	17.112	P 2A
	T 2	556.830	555.050	553.280	552.450	553.670	553.300	554.590	556.570	558.690	T 2
	T 2A	556.830	555.050	553.380	552.450	553.670	553.300	554.590	556.570	558.690	T 2A
	UUBAR FS		0.1185	0.1566	0.1611	0.1440	0.1130	0.1187	0.1388		UUBAR FS
	P2 FS		17.139	17.426	17.913	18.084	17.845	17.889	17.760		P2 FS
	LOSS PARA FS		0.0385	0.0511	0.0473	0.0501	0.0409	0.0443	0.0526		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 100.03 Equivalent Rotor Speed = 4211.17 Equivalent Weight Flow = 108.52
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	432.47	432.47	432.47	432.47	432.47	432.47	432.47	432.47	432.47	V 0
	V 1	427.00	457.87	467.94	475.67	473.49	463.41	448.91	440.48	426.78	V 1
	VZ 0	432.47	432.47	432.47	432.46	432.43	432.39	432.35	432.33	432.32	VZ 0
	VZ 1	427.00	457.87	467.94	475.66	473.45	463.32	448.79	440.34	426.63	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3933	0.3933	0.3933	0.3933	0.3933	0.3933	0.3933	0.3933	0.3933	M 0
	M 1	0.3882	0.4172	0.4267	0.4340	0.4320	0.4224	0.4088	0.4008	0.3880	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4635	0.3121	0.2617	0.2381	0.2449	0.2684	0.3121	0.3424	0.4063	UUBAR
	DFAC	0.013	-0.059	-0.082	-0.100	-0.095	-0.072	-0.038	-0.019	0.013	DFAC
	EFFP	-0.0600	0.2902	0.4087	0.4830	0.4625	0.3688	0.2075	0.1030	-0.0723	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVN	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVN
	P 0	15.143	15.143	15.143	15.143	15.143	15.143	15.143	15.143	15.143	P 0
	P 1	14.433	14.665	14.742	14.778	14.768	14.732	14.665	14.618	14.520	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	47.671	44.757	41.215	37.365	36.699	36.360	37.003	39.081	43.801	BETA 2
	BETA(PR) 1	53.533	51.966	51.691	52.254	53.779	55.679	57.393	58.157	59.227	BETA(PR) 1
	BETA(PR) 2	26.874	29.412	29.113	29.043	31.579	35.195	36.795	38.452	43.548	BETA(PR) 2
	V 1	450.07	482.36	493.28	501.66	498.19	486.44	471.20	462.40	448.05	V 1
	V 2	565.18	559.36	579.76	616.48	618.83	606.14	604.87	587.53	536.65	V 2
	VZ 1	450.05	482.36	493.28	501.61	497.94	485.87	470.34	461.45	447.02	VZ 1
	VZ 2	380.58	397.20	436.12	489.90	495.90	487.54	482.19	455.20	386.61	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	417.83	393.85	381.99	374.08	369.61	358.92	363.39	369.69	370.76	V-THETA 2
	V(PR) 1	757.2	782.9	795.7	819.5	842.8	862.1	873.3	875.1	874.2	V(PR) 1
	V(PR) 2	426.7	456.0	499.2	560.5	582.5	597.3	603.2	582.4	534.4	V(PR) 2
	VTHETA PR1	-609.0	-616.6	-624.4	-647.9	-679.8	-711.7	-735.3	-743.0	-750.7	VTHETA PR1
	VTHETA PR2	-192.9	-223.9	-242.9	-272.0	-304.8	-343.9	-360.7	-361.5	-367.5	VTHETA PR2
	U 1	608.95	616.63	624.39	647.95	679.81	711.70	735.27	743.01	750.69	U 1
	U 2	610.69	617.77	624.86	646.11	674.44	702.77	724.05	731.14	738.25	U 2
	M 1	0.4099	0.4404	0.4507	0.4587	0.4554	0.4442	0.4298	0.4215	0.4080	M 1
	M 2	0.4979	0.4935	0.5134	0.5478	0.5497	0.5380	0.5357	0.5188	0.4711	M 2
	M(PR) 1	0.6896	0.7147	0.7271	0.7493	0.7704	0.7873	0.7966	0.7977	0.7960	M(PR) 1
	M(PR) 2	0.3759	0.4023	0.4420	0.4980	0.5174	0.5302	0.5342	0.5142	0.4691	M(PR) 2
	TURN(PR)	26.659	22.553	22.578	23.214	22.208	20.504	20.628	19.741	15.722	TURN(PR)
	UUBAR	0.2238	0.2231	0.1733	0.0924	0.0795	0.0713	0.0766	0.1189	0.1962	UUBAR
	LOSS PARA	0.0549	0.0541	0.0427	0.0236	0.0208	0.0188	0.0205	0.0314	0.0484	LOSS PARA
	DFAC	0.5886	0.5578	0.5080	0.4494	0.4432	0.4406	0.4470	0.4758	0.5320	DFAC
	EFFP	0.7427	0.7223	0.7893	0.8924	0.9235	0.9503	0.9345	0.8777	0.7656	EFFP
	EFF	0.7348	0.7145	0.7830	0.8888	0.9208	0.9485	0.9321	0.8733	0.7580	EFF
	INCID	1.692	-0.312	-0.999	-1.802	-2.285	-2.382	-2.048	-1.717	-1.427	INCID
	DEVN	19.125	20.114	18.193	13.339	10.891	10.329	9.239	10.314	14.664	DEVN
	P 1	14.433	14.665	14.742	14.778	14.768	14.732	14.665	14.618	14.520	P 1
	P 2	17.849	17.849	18.107	18.642	18.833	18.879	18.962	18.756	18.179	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	562.875	560.625	558.775	558.750	559.230	558.870	561.100	562.540	564.075	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	47.214	44.276	40.787	37.099	36.364	35.916	36.433	38.439	43.045	BETA 2
STATOR-T.E.	BETA 2A	3.400	3.775	5.950	7.276	7.501	7.477	8.103	8.279	7.304	BETA 2A
	V 2	569.43	564.35	585.05	620.81	624.58	613.70	614.29	597.14	545.49	V 2
	V 2A	423.74	441.37	459.59	510.33	542.71	552.48	554.13	527.09	495.77	V 2A
	VZ 2	386.80	404.07	442.96	495.08	502.70	496.49	493.46	466.94	398.00	VZ 2
	VZ 2A	422.99	440.41	457.10	506.16	537.85	547.33	547.92	520.88	490.99	VZ 2A
	V-THETA 2	417.90	393.98	382.18	374.42	370.14	359.61	364.24	370.61	371.73	V-THETA 2
	V-THETA 2A	25.13	29.06	47.64	64.62	70.82	71.83	78.01	75.79	62.93	V-THETA 2A
	M 2	0.5018	0.4982	0.5183	0.5519	0.5552	0.5451	0.5445	0.5277	0.4792	M 2
	M 2A	0.3693	0.3859	0.4030	0.4492	0.4788	0.4880	0.4885	0.4630	0.4338	M 2A
	TURN(PR)	43.814	40.501	34.836	29.818	28.845	28.401	28.273	30.095	35.666	TURN(PR)
	UUBAR	0.0877	0.0481	0.0799	0.0798	0.0333	0.0358	0.0833	0.1208	0.0468	UUBAR
	LOSS PARA	0.0283	0.0157	0.0262	0.0268	0.0116	0.0130	0.0312	0.0457	0.0179	LOSS PARA
	DFAC	0.4792	0.4292	0.4030	0.3475	0.3006	0.2727	0.2755	0.3075	0.3115	DFAC
	EFFP	0.8206	0.8872	0.8111	0.7803	0.8797	0.8324	0.6012	0.5069	0.7550	EFFP
	INCID	0.242	-1.925	-4.684	-6.576	-5.887	-6.481	-6.938	-5.491	-1.496	INCID
	DEVN	16.431	16.629	18.684	19.609	19.618	20.179	21.603	22.075	21.444	DEVN
	P 2	17.849	17.849	18.107	18.642	18.833	18.879	18.962	18.756	18.179	P 2
	P 2A	17.602	17.715	17.864	18.364	18.715	18.756	18.673	18.364	18.055	P 2A
	T 2	562.875	560.625	558.775	558.750	559.230	558.870	561.100	562.540	564.075	T 2
	T 2A	562.875	560.625	558.775	558.750	559.230	558.870	561.100	562.540	564.075	T 2A
	UUBAR FS		0.1238	0.1013	0.0852	0.0625	0.0718	0.0840	0.1000		UUBAR FS
	P2 FS		18.096	18.186	18.671	18.952	19.021	18.972	18.689		P2 FS
	LOSS PARA FS		0.0403	0.0332	0.0286	0.0217	0.0260	0.0314	0.0378		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 100.06 Equivalent Rotor Speed = 4212.46 Equivalent Weight Flow = 104.49
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	415.00	415.00	415.00	415.00	415.00	415.00	415.00	415.00	415.00	V 0
	V 1	411.51	440.06	442.91	456.88	450.14	447.88	429.76	415.63	399.77	V 1
	VZ 0	414.99	414.99	414.99	414.99	414.96	414.92	414.88	414.87	414.85	VZ 0
	VZ 1	411.50	440.06	442.91	456.87	450.11	447.80	429.64	415.50	399.63	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3770	0.3770	0.3770	0.3770	0.3770	0.3770	0.3770	0.3770	0.3770	M 0
	M 1	0.3737	0.4005	0.4031	0.4163	0.4099	0.4078	0.3908	0.3776	0.3628	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4560	0.2855	0.2746	0.2447	0.2666	0.2418	0.3037	0.3613	0.4369	UUBAR
	DFAC	0.008	-0.060	-0.067	-0.101	-0.085	-0.079	-0.036	-0.002	0.037	DFAC
	EFFP	-0.0398	0.3143	0.3477	0.4777	0.4111	0.4182	0.2003	0.0087	-0.2086	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.110	15.110	15.110	15.110	15.110	15.110	15.110	15.110	15.110	P 0
	P 1	14.466	14.707	14.722	14.764	14.733	14.768	14.681	14.600	14.496	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	50.330	48.216	44.513	40.152	39.384	38.978	40.420	43.552	48.160	BETA 2
	BETA(PR) 1	54.569	53.094	53.256	53.406	55.189	56.609	58.547	59.665	60.881	BETA(PR) 1
	BETA(PR) 2	24.827	28.957	28.484	28.320	31.268	34.928	36.971	39.259	43.301	BETA(PR) 2
	V 1	433.41	463.23	466.29	481.30	473.06	469.82	450.69	435.82	419.25	V 1
	V 2	573.56	554.54	574.51	611.70	611.48	600.55	593.92	571.73	538.46	V 2
	VZ 1	433.40	463.22	466.29	481.25	472.82	469.27	449.88	434.93	418.29	VZ 1
	VZ 2	366.14	369.51	409.67	467.48	472.38	466.34	451.42	413.68	358.62	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	441.49	413.50	402.76	394.38	387.79	377.33	384.46	393.28	400.53	V-THETA 2
	V(PR) 1	747.6	771.4	779.4	807.3	828.4	853.0	862.6	861.6	860.0	V(PR) 1
	V(PR) 2	403.4	422.3	466.1	531.1	553.0	569.5	566.0	535.3	493.7	V(PR) 2
	VTHETA PR1	-609.1	-616.8	-624.6	-648.1	-680.0	-711.9	-735.5	-743.2	-750.9	VTHETA PR1
	VTHETA PR2	-169.4	-204.5	-222.3	-251.9	-286.9	-325.7	-339.8	-338.1	-338.0	VTHETA PR2
	U 1	609.14	616.82	624.58	648.14	680.02	711.92	735.50	743.24	750.92	U 1
	U 2	610.87	617.96	625.05	646.31	674.64	702.99	724.27	731.37	738.48	U 2
	M 1	0.3942	0.4223	0.4252	0.4394	0.4316	0.4285	0.4105	0.3965	0.3810	M 1
	M 2	0.5051	0.4881	0.5072	0.5423	0.5418	0.5318	0.5244	0.5030	0.4717	M 2
	M(PR) 1	0.6800	0.7032	0.7107	0.7370	0.7557	0.7780	0.7856	0.7838	0.7815	M(PR) 1
	M(PR) 2	0.3553	0.3717	0.4115	0.4709	0.4900	0.5043	0.4998	0.4710	0.4325	M(PR) 2
	TURN(PR)	29.741	24.137	24.772	25.089	23.929	21.700	21.607	20.443	17.625	TURN(PR)
	UUBAR	0.1939	0.2195	0.1619	0.0815	0.0650	0.0753	0.0916	0.1400	0.1995	UUBAR
	LOSS PARA	0.0484	0.0535	0.0401	0.0210	0.0171	0.0199	0.0244	0.0365	0.0495	LOSS PARA
	DFAC	0.6231	0.6020	0.5477	0.4848	0.4758	0.4742	0.4913	0.5314	0.5833	DFAC
	EFFP	0.8097	0.7440	0.8116	0.9190	0.9491	0.9535	0.9322	0.8745	0.8048	EFFP
	EFF	0.8032	0.7362	0.8056	0.9161	0.9472	0.9517	0.9296	0.8698	0.7978	EFF
	INCID	2.727	-0.816	0.566	-0.651	-0.874	-1.452	-0.893	-0.209	0.229	INCID
	DEVM	17.077	19.659	17.565	12.617	10.580	10.062	9.415	11.120	14.417	DEVM
	P 1	14.466	14.707	14.722	14.764	14.733	14.768	14.681	14.600	14.496	P 1
	P 2	18.345	18.180	18.427	18.962	19.136	19.167	19.198	18.951	18.581	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	564.050	562.700	561.350	560.660	561.180	560.850	563.150	564.850	566.500	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	49.809	47.682	44.038	39.862	39.021	38.496	39.790	42.822	47.284	BETA 2
STATOR-T.E.	BETA 2A	2.790	3.560	5.100	7.450	7.571	7.472	7.533	7.703	7.954	BETA 2A
	V 2	578.04	559.41	579.70	615.96	617.10	607.97	603.02	580.88	547.34	V 2
	V 2A	396.22	414.86	432.00	476.47	517.71	519.94	520.06	496.20	465.22	V 2A
	VZ 2	373.03	376.62	416.73	472.75	479.21	475.35	462.69	425.43	370.77	VZ 2
	VZ 2A	395.74	414.05	430.28	472.39	513.00	515.09	514.93	491.04	460.03	VZ 2A
	V-THETA 2	441.56	413.64	402.96	394.74	388.34	378.06	385.36	394.25	401.58	V-THETA 2
	V-THETA 2A	19.29	25.76	38.40	61.77	68.19	67.56	68.10	66.42	64.27	V-THETA 2A
	M 2	0.5092	0.4926	0.5121	0.5463	0.5471	0.5387	0.5329	0.5115	0.4798	M 2
	M 2A	0.3444	0.3614	0.3772	0.4176	0.4550	0.4571	0.4563	0.4338	0.4052	M 2A
	TURN(PR)	47.019	44.122	38.937	32.406	31.431	30.985	32.198	35.051	39.256	TURN(PR)
	UUBAR	0.1451	0.0462	0.0767	0.0915	0.0233	0.0269	0.0670	0.0846	0.0721	UUBAR
	LOSS PARA	0.0469	0.0151	0.0251	0.0307	0.0081	0.0098	0.0251	0.0321	0.0276	LOSS PARA
	DFAC	0.5511	0.4849	0.4622	0.4101	0.3446	0.3331	0.3379	0.3630	0.3899	DFAC
	EFFP	0.7491	0.9047	0.8415	0.7950	0.9318	0.9096	0.7610	0.7130	0.7591	EFFP
	INCID	2.838	1.481	-1.433	-3.813	-3.231	-3.902	-3.582	-1.110	2.743	INCID
	DEVM	15.821	16.414	17.834	19.783	19.688	20.174	21.034	21.501	22.093	DEVM
	P 2	18.345	18.180	18.427	18.962	19.136	19.167	19.198	18.951	18.581	P 2
	P 2A	17.913	18.052	18.196	18.643	19.054	19.075	18.972	18.689	18.386	P 2A
	T 2	564.050	562.700	561.350	560.660	561.180	560.850	563.150	564.850	566.500	T 2
	T 2A	564.050	562.720	561.380	560.670	561.160	560.860	563.200	564.890	566.530	T 2A
	UUBAR FS		0.1372	0.1055	0.0793	0.0483	0.0538	0.0663	0.0777		UUBAR FS
	P2 FS		18.463	18.519	18.910	19.223	19.259	19.190	18.922		P2 FS
	LOSS PARA FS		0.0448	0.0345	0.0266	0.0168	0.0196	0.0248	0.0294		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.73 Equivalent Rotor Speed = 4198.46 Equivalent Weight Flow = 98.00
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	387.04	387.04	387.04	387.04	387.04	387.04	387.04	387.04	387.04	V 0
	V 1	373.75	405.04	419.30	423.98	422.98	417.77	395.93	389.08	384.83	V 1
	VZ 0	387.03	387.03	387.03	387.03	387.00	386.96	386.93	386.91	386.90	VZ 0
	VZ 1	373.75	405.04	419.30	423.97	422.95	417.69	395.82	388.96	384.70	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3509	0.3509	0.3509	0.3509	0.3509	0.3509	0.3509	0.3509	0.3509	M 0
	M 1	0.3386	0.3677	0.3810	0.3854	0.3844	0.3796	0.3592	0.3528	0.3489	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4760	0.3193	0.2426	0.2351	0.2476	0.2451	0.3201	0.3401	0.3551	UUBAR
	DFAC	0.034	-0.047	-0.083	-0.095	-0.093	-0.079	-0.023	-0.005	0.006	DFAC
	EFFP	-0.1718	0.2372	0.4285	0.4714	0.4513	0.4137	0.1315	0.0313	-0.0345	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVN	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVN
	P 0	15.041	15.041	15.041	15.041	15.041	15.041	15.041	15.041	15.041	P 0
	P 1	14.456	14.649	14.743	14.752	14.737	14.740	14.648	14.623	14.605	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	53.721	53.407	49.201	43.428	42.526	42.251	44.438	48.599	54.952	BETA 2
	BETA(PR) 1	57.082	55.301	54.689	55.384	56.788	58.364	60.548	61.228	61.732	BETA(PR) 1
	BETA(PR) 2	22.219	27.876	28.296	27.535	31.020	34.762	37.494	40.764	45.134	BETA(PR) 2
	V 1	393.04	425.67	440.94	445.95	443.95	437.64	414.69	407.61	403.37	V 1
	V 2	581.04	550.80	561.86	604.32	601.13	591.32	579.30	552.90	527.99	V 2
	VZ 1	393.03	425.67	440.93	445.91	443.73	437.13	413.93	406.78	402.44	VZ 1
	VZ 2	343.81	328.35	367.12	438.83	442.81	437.25	413.04	365.14	302.85	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	468.40	442.23	425.33	415.38	406.12	397.19	405.01	414.15	431.75	V-THETA 2
	V(PR) 1	723.2	747.8	762.8	785.0	810.2	833.7	842.2	845.5	850.2	V(PR) 1
	V(PR) 2	371.4	371.4	416.9	495.0	517.0	532.9	521.5	483.0	430.1	V(PR) 2
	VTHETA PR1	-607.1	-614.8	-622.5	-646.0	-677.8	-709.6	-733.1	-740.8	-748.4	VTHETA PR1
	VTHETA PR2	-140.4	-173.7	-197.6	-228.8	-266.3	-303.5	-316.9	-314.8	-304.3	VTHETA PR2
	U 1	607.12	614.77	622.50	645.99	677.76	709.56	733.05	740.77	748.42	U 1
	U 2	608.84	615.91	622.97	644.16	672.40	700.65	721.87	728.94	736.02	U 2
	M 1	0.3565	0.3870	0.4013	0.4060	0.4041	0.3982	0.3767	0.3701	0.3661	M 1
	M 2	0.5104	0.4831	0.4938	0.5339	0.5310	0.5219	0.5092	0.4840	0.4605	M 2
	M(PR) 1	0.6560	0.6798	0.6942	0.7146	0.7375	0.7585	0.7650	0.7677	0.7717	M(PR) 1
	M(PR) 2	0.3263	0.3258	0.3665	0.4373	0.4567	0.4703	0.4584	0.4228	0.3751	M(PR) 2
	TURN(PR)	34.862	27.425	26.393	27.852	25.776	23.622	23.087	20.503	16.644	TURN(PR)
	UUBAR	0.1750	0.2280	0.1858	0.0838	0.0685	0.0724	0.1042	0.1717	0.2522	UUBAR
	LOSS PARA	0.0446	0.0561	0.0461	0.0217	0.0180	0.0192	0.0276	0.0439	0.0606	LOSS PARA
	DFAC	0.6649	0.6681	0.6107	0.5240	0.5154	0.5135	0.5400	0.5926	0.6658	DFAC
	EFFP	0.8327	0.7513	0.7784	0.9084	0.9421	0.9537	0.9047	0.8301	0.7638	EFFP
	EFF	0.8264	0.7431	0.7710	0.9049	0.9398	0.9518	0.9008	0.8235	0.7551	EFF
	INCID	5.240	3.023	1.999	1.327	0.725	0.305	1.109	1.356	1.081	INCID
	DEVN	14.470	18.578	17.377	11.831	10.332	9.896	9.937	12.625	16.250	DEVN
	P 1	14.456	14.649	14.743	14.752	14.737	14.740	14.648	14.623	14.605	P 1
	P 2	18.776	18.445	18.609	19.206	19.364	19.428	19.374	19.082	18.819	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	567.380	566.210	564.990	563.580	563.480	563.440	566.590	568.460	570.300	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	53.130	52.770	48.648	43.107	42.128	41.721	43.733	47.758	53.862	BETA 2
STATOR-T.E.	BETA 2A	2.630	3.390	5.380	7.720	7.571	7.552	7.683	7.803	7.813	BETA 2A
	V 2	585.61	555.60	566.88	608.48	606.56	598.52	587.98	561.52	536.59	V 2
	V 2A	369.64	383.86	397.72	439.98	480.02	488.35	486.65	469.21	439.65	V 2A
	VZ 2	351.36	336.15	374.53	444.18	449.66	446.33	424.32	377.02	316.11	VZ 2
	VZ 2A	369.25	383.18	395.96	435.94	475.64	483.72	481.68	464.22	434.89	VZ 2A
	V-THETA 2	468.48	442.38	425.53	415.76	406.70	397.95	405.95	415.18	432.89	V-THETA 2
	V-THETA 2A	16.96	22.70	37.29	59.09	63.22	64.13	64.98	63.62	59.68	V-THETA 2A
	M 2	0.5147	0.4875	0.4985	0.5378	0.5361	0.5286	0.5172	0.4919	0.4683	M 2
	M 2A	0.3198	0.3327	0.3454	0.3836	0.4197	0.4273	0.4245	0.4081	0.3810	M 2A
	TURN(PR)	50.500	49.380	43.267	35.382	34.538	34.129	35.990	39.887	45.978	TURN(PR)
	UUBAR	0.1682	0.0325	0.0493	0.1026	0.0268	0.0313	0.0494	0.0190	0.0203	UUBAR
	LOSS PARA	0.0544	0.0106	0.0162	0.0344	0.0093	0.0114	0.0165	0.0072	0.0078	LOSS PARA
	DFAC	0.6184	0.5559	0.5243	0.4760	0.4089	0.3897	0.3931	0.4054	0.4513	DFAC
	EFFP	0.7432	0.9437	0.9114	0.8058	0.9359	0.9160	0.8586	0.9428	0.9435	EFFP
	INCID	6.159	6.569	3.177	-0.568	-0.124	-0.678	0.359	3.826	9.325	INCID
	DEVN	15.661	16.244	18.114	20.053	19.688	20.254	21.183	21.600	21.953	DEVN
	P 2	18.776	18.445	18.609	19.206	19.364	19.428	19.374	19.082	18.819	P 2
	P 2A	18.254	18.355	18.466	18.854	19.271	19.323	19.214	19.027	18.766	P 2A
	T 2	567.380	566.210	564.990	563.580	563.480	563.440	566.590	568.460	570.300	T 2
	T 2A	567.380	566.200	564.990	563.580	563.480	563.440	566.590	568.460	570.300	T 2A
	UUBAR FS		0.1706	0.1318	0.0819	0.0460	0.0500	0.0651	0.0659		UUBAR FS
	P2 FS		18.913	18.892	19.135	19.440	19.502	19.435	19.235		P2 FS
	LOSS PARA FS		0.0556	0.0433	0.0274	0.0159	0.0182	0.0243	0.0250		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.51 Equivalent Rotor Speed = 4189.40 Equivalent Weight Flow = 93.93
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	369.67	369.67	369.67	369.67	369.67	369.67	369.67	369.67	369.67	V 0
	V 1	355.38	381.26	393.19	406.40	400.62	396.27	380.66	372.92	345.30	V 1
	VZ 0	369.67	369.67	369.66	369.64	369.60	369.57	369.55	369.54		VZ 0
	VZ 1	355.37	381.26	393.19	406.40	400.59	396.19	380.55	372.80	345.18	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3348	0.3348	0.3348	0.3348	0.3348	0.3348	0.3348	0.3348	0.3348	M 0
	M 1	0.3216	0.3456	0.3566	0.3690	0.3636	0.3595	0.3450	0.3378	0.3123	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4520	0.3035	0.2397	0.2014	0.2415	0.2388	0.2771	0.2953	0.4311	UUBAR
	DFAC	0.039	-0.031	-0.064	-0.099	-0.084	-0.072	-0.030	-0.009	0.066	DFAC
	EFFP	-0.2094	0.1791	0.3635	0.5198	0.4298	0.3944	0.1847	0.0585	-0.4396	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.014	15.014	15.014	15.014	15.014	15.014	15.014	15.014	15.014	P 0
	P 1	14.508	14.674	14.746	14.789	14.744	14.747	14.704	14.683	14.531	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	56.206	56.159	52.736	45.759	44.582	44.640	47.780	53.360	58.058	BETA 2
	BETA(PR) 1	58.348	56.873	56.377	56.473	58.164	59.664	61.467	62.206	64.227	BETA(PR) 1
	BETA(PR) 2	21.088	27.862	28.893	27.377	28.470	32.240	38.751	41.750	44.340	BETA(PR) 2
	V 1	373.47	400.31	413.06	427.12	420.12	414.81	398.43	390.42	361.41	V 1
	V 2	581.07	546.30	550.11	596.50	616.86	607.77	563.49	545.44	538.35	V 2
	VZ 1	373.45	400.31	413.06	427.08	419.92	414.33	397.71	389.62	360.58	VZ 1
	VZ 2	323.20	304.23	333.09	416.11	439.17	432.04	378.18	325.15	284.54	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	482.90	453.75	437.81	427.29	432.80	426.65	416.78	437.16	456.38	V-THETA 2
	V(PR) 1	711.7	732.5	746.0	773.3	796.2	820.6	832.9	835.9	829.7	V(PR) 1
	V(PR) 2	346.4	344.1	380.5	468.7	499.9	511.5	485.7	436.6	398.6	V(PR) 2
	VTHETA PR1	-605.8	-613.4	-621.2	-644.6	-676.3	-708.0	-731.5	-739.2	-746.8	VTHETA PR1
	VTHETA PR2	-124.6	-160.8	-183.8	-215.5	-238.2	-272.5	-303.5	-290.2	-278.1	VTHETA PR2
	U 1	605.81	613.45	621.16	644.60	676.30	708.03	731.47	739.17	746.81	U 1
	U 2	607.53	614.58	621.63	642.77	670.95	699.14	720.31	727.37	734.44	U 2
	M 1	0.3383	0.3633	0.3752	0.3883	0.3818	0.3768	0.3615	0.3541	0.3272	M 1
	M 2	0.5101	0.4786	0.4824	0.5258	0.5450	0.5364	0.4942	0.4766	0.4691	M 2
	M(PR) 1	0.6447	0.6647	0.6775	0.7030	0.7235	0.7454	0.7558	0.7581	0.7511	M(PR) 1
	M(PR) 2	0.3041	0.3015	0.3336	0.4132	0.4417	0.4514	0.4260	0.3815	0.3473	M(PR) 2
	TURN(PR)	37.259	29.011	27.484	29.100	29.702	27.443	22.750	20.497	19.937	TURN(PR)
	UUBAR	0.1755	0.2279	0.1987	0.0900	0.0974	0.1084	0.1362	0.2162	0.2497	UUBAR
	LOSS PARA	0.0451	0.0561	0.0491	0.0234	0.0263	0.0296	0.0354	0.0544	0.0609	LOSS PARA
	DFAC	0.7002	0.7029	0.6555	0.5553	0.5386	0.5434	0.5825	0.6527	0.7055	DFAC
	EFFP	0.8512	0.7670	0.7758	0.8991	0.9487	0.9552	0.8836	0.8167	0.8032	EFFP
	EFF	0.8454	0.7590	0.7681	0.8951	0.9466	0.9534	0.8789	0.8096	0.7953	EFF
	INCID	6.506	4.595	3.687	2.417	2.101	1.805	2.029	2.339	3.580	INCID
	DEVM	13.339	18.564	17.974	11.673	7.784	7.376	11.194	13.610	15.456	DEVM
	P 1	14.508	14.674	14.746	14.789	14.744	14.747	14.704	14.683	14.531	P 1
	P 2	19.026	18.645	18.721	19.371	19.566	19.631	19.412	19.210	19.149	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	568.120	567.100	566.370	565.160	564.840	565.040	567.450	569.830	572.200	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	55.559	55.459	52.123	45.416	44.144	44.050	47.015	52.385	56.815	BETA 2
STATOR-T.E.	BETA 2A	2.420	3.450	5.660	7.460	7.871	7.922	7.933	7.913	6.703	BETA 2A
	V 2	585.64	551.04	554.93	600.55	622.55	615.33	571.71	553.82	547.25	V 2
	V 2A	340.09	359.41	369.47	411.01	462.96	468.73	457.31	436.31	393.70	V 2A
	VZ 2	331.21	312.44	340.70	421.52	446.56	441.89	389.35	337.68	299.26	VZ 2
	VZ 2A	339.79	358.76	367.67	407.48	458.42	463.88	452.38	431.55	390.40	VZ 2A
	V-THETA 2	482.98	453.91	438.02	427.68	433.41	427.47	417.75	438.25	457.58	V-THETA 2
	V-THETA 2A	14.36	21.63	36.44	53.36	63.37	64.55	63.04	59.98	45.88	V-THETA 2A
	M 2	0.5143	0.4829	0.4868	0.5296	0.5503	0.5435	0.5018	0.4843	0.4772	M 2
	M 2A	0.2936	0.3109	0.3199	0.3572	0.4038	0.4090	0.3978	0.3782	0.3396	M 2A
	TURN(PR)	53.139	52.009	46.463	37.950	36.255	36.088	39.022	44.407	50.042	TURN(PR)
	UUBAR	0.1961	0.0476	0.0452	0.1153	0.0247	0.0306	0.0183	0.0219	0.1331	UUBAR
	LOSS PARA	0.0634	0.0155	0.0148	0.0387	0.0086	0.0111	0.0069	0.0083	0.0511	LOSS PARA
	DFAC	0.6783	0.6040	0.5728	0.5273	0.4666	0.4557	0.4363	0.4750	0.5732	DFAC
	EFFP	0.7271	0.9240	0.9255	0.8031	0.9507	0.9349	0.9539	0.9474	0.7451	EFFP
	INCID	8.588	9.258	6.653	1.741	1.892	1.651	3.641	8.455	12.281	INCID
	DEVM	15.451	16.304	18.394	19.793	19.988	20.623	21.433	21.710	20.845	DEVM
	P 2	19.026	18.645	18.721	19.371	19.566	19.631	19.412	19.210	19.149	P 2
	P 2A	18.410	18.514	18.595	18.983	19.476	19.522	19.356	19.148	18.781	P 2A
	T 2	568.120	567.100	566.370	565.160	564.840	565.040	567.450	569.830	572.200	T 2
	T 2A	568.120	567.100	566.370	565.160	564.840	565.040	567.450	569.830	572.200	T 2A
	UUBAR FS		0.1782	0.1388	0.0938	0.0518	0.0583	0.0671	0.0781		UUBAR FS
	P2 FS		19.085	19.029	19.295	19.673	19.739	19.576	19.387		P2 FS
	LOSS PARA FS		0.0980	0.0454	0.0314	0.0180	0.0211	0.0253	0.0296		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.34 Equivalent Rotor Speed = 4182.07 Equivalent Weight Flow = 90.90
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	357.50	357.50	357.50	357.50	357.50	357.50	357.50	357.50	357.50	V 0
	V 1	349.54	372.29	378.04	387.64	385.68	380.87	360.79	352.48	324.40	V 1
	VZ 0	357.50	357.50	357.50	357.49	357.47	357.43	357.40	357.39	357.37	VZ 0
	VZ 1	349.54	372.29	378.04	387.63	385.65	380.80	360.69	352.37	324.28	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3236	0.3236	0.3236	0.3236	0.3236	0.3236	0.3236	0.3236	0.3236	M 0
	M 1	0.3162	0.3373	0.3426	0.3515	0.3497	0.3452	0.3266	0.3189	0.2931	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4202	0.2578	0.2296	0.2374	0.2374	0.2461	0.3035	0.3210	0.4806	UUBAR
	DFAC	0.022	-0.041	-0.057	-0.084	-0.079	-0.065	-0.009	0.014	0.093	DFAC
	EFFP	-0.1212	0.2540	0.3488	0.4351	0.4181	0.3633	0.0594	-0.0987	-0.6071	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.982	14.982	14.982	14.982	14.982	14.982	14.982	14.982	14.982	P 0
	P 1	14.542	14.712	14.742	14.733	14.733	14.724	14.664	14.646	14.479	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	56.866	56.916	54.745	46.563	45.571	45.629	51.334	56.541	61.750	BETA 2
	BETA(PR) 1	58.731	57.458	57.379	57.679	59.101	60.617	62.712	63.492	65.577	BETA(PR) 1
	BETA(PR) 2	19.547	28.129	29.282	27.566	30.176	34.348	39.993	43.059	45.347	BETA(PR) 2
	V 1	367.26	390.77	396.88	407.15	404.24	398.44	377.38	368.77	339.32	V 1
	V 2	587.97	543.07	544.21	591.42	597.66	585.67	551.63	538.57	539.52	V 2
	VZ 1	367.24	390.76	396.88	407.11	404.04	397.98	376.69	368.02	338.54	VZ 1
	VZ 2	321.38	296.45	314.12	406.59	418.20	409.19	344.27	296.65	255.17	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	492.36	455.02	444.40	429.40	426.62	418.28	430.25	448.89	474.88	V-THETA 2
	V(PR) 1	707.5	726.4	736.2	761.5	786.9	811.4	821.9	824.9	819.1	V(PR) 1
	V(PR) 2	341.0	336.1	360.1	458.7	484.1	496.2	450.1	406.7	363.7	V(PR) 2
	VTHETA PR1	-604.7	-612.4	-620.1	-643.5	-675.1	-706.8	-730.2	-737.9	-745.5	VTHETA PR1
	VTHETA PR2	-114.1	-158.5	-176.1	-212.2	-243.2	-279.6	-288.8	-277.2	-258.3	VTHETA PR2
	U 1	604.75	612.37	620.07	643.47	675.12	706.79	730.19	737.88	745.50	U 1
	U 2	606.47	613.50	620.54	641.65	669.78	697.92	719.05	726.09	733.15	U 2
	M 1	0.3326	0.3544	0.3601	0.3697	0.3669	0.3615	0.3420	0.3340	0.3068	M 1
	M 2	0.5165	0.4755	0.4769	0.5209	0.5268	0.5154	0.4831	0.4705	0.4705	M 2
	M(PR) 1	0.6407	0.6588	0.6680	0.6913	0.7143	0.7362	0.7448	0.7471	0.7406	M(PR) 1
	M(PR) 2	0.2996	0.2943	0.3156	0.4040	0.4266	0.4367	0.3941	0.3553	0.3172	M(PR) 2
	TURN(PR)	39.183	29.328	28.098	30.117	28.934	26.289	22.755	20.477	20.281	TURN(PR)
	UUBAR	0.1726	0.2330	0.2145	0.0800	0.0697	0.0814	0.1752	0.2407	0.2725	UUBAR
	LOSS PARA	0.0448	0.0572	0.0527	0.0208	0.0185	0.0217	0.0448	0.0593	0.0653	LOSS PARA
	DFAC	0.7097	0.7119	0.6810	0.5623	0.5509	0.5536	0.6257	0.6890	0.7519	DFAC
	EFFP	0.8708	0.7626	0.7757	0.9040	0.9490	0.9445	0.8660	0.8274	0.8383	EFFP
	EFF	0.8656	0.7545	0.7680	0.9002	0.9469	0.9421	0.8606	0.8206	0.8317	EFF
	INCID	6.889	5.179	4.689	3.623	3.038	2.558	3.275	3.623	4.931	INCID
	DEVM	11.798	18.831	18.362	11.862	9.488	9.483	12.435	14.919	16.463	DEVM
	P 1	14.542	14.712	14.742	14.733	14.733	14.724	14.664	14.646	14.479	P 1
	P 2	19.199	18.690	18.730	19.383	19.628	19.648	19.317	19.194	19.230	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	568.210	567.350	566.530	565.670	565.480	566.000	568.070	569.480	571.380	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	56.197	56.201	54.099	46.213	45.133	45.040	50.478	55.453	60.326	BETA 2
STATOR-T.E.	BETA 2A	1.690	2.730	5.000	6.930	7.941	7.912	7.723	7.934	5.963	BETA 2A
	V 2	592.63	547.75	548.89	595.41	603.02	592.74	559.62	546.83	548.40	V 2
	V 2A	337.33	348.97	357.73	399.13	452.00	459.80	437.57	415.20	379.75	V 2A
	VZ 2	329.71	304.70	321.86	411.97	425.25	418.50	355.77	309.83	271.29	VZ 2
	VZ 2A	337.18	348.57	356.36	396.17	447.49	455.05	433.06	410.66	377.10	VZ 2A
	V-THETA 2	492.45	455.18	444.61	429.79	427.22	419.09	431.25	450.00	476.13	V-THETA 2
	V-THETA 2A	9.95	16.62	31.18	48.15	62.42	63.24	58.73	57.23	39.39	V-THETA 2A
	M 2	0.5208	0.4798	0.4812	0.5246	0.5318	0.5219	0.4904	0.4780	0.4786	M 2
	M 2A	0.2911	0.3016	0.3095	0.3464	0.3937	0.4006	0.3799	0.3595	0.3276	M 2A
	TURN(PR)	54.507	53.471	49.098	39.277	37.173	37.089	42.697	47.457	54.298	TURN(PR)
	UUBAR	0.2187	0.0535	0.0438	0.1175	0.0409	0.0309	0.0059	0.0323	0.1458	UUBAR
	LOSS PARA	0.0707	0.0174	0.0144	0.0395	0.0143	0.0112	0.0022	0.0122	0.0560	LOSS PARA
	DFAC	0.6944	0.6245	0.5966	0.5473	0.4644	0.4456	0.4714	0.5171	0.6172	DFAC
	EFFP	0.7016	0.9171	0.9300	0.8058	0.9160	0.9293	0.9843	0.9302	0.7403	EFFP
	INCID	9.225	10.000	8.628	2.537	2.880	2.641	7.106	11.526	15.797	INCID
	DEVM	14.721	15.584	17.734	19.263	20.058	20.613	21.223	21.730	20.106	DEVM
	P 2	19.199	18.690	18.730	19.383	19.628	19.648	19.317	19.194	19.230	P 2
	P 2A	18.491	18.544	18.610	18.993	19.487	19.545	19.299	19.105	18.823	P 2A
	T 2	568.210	567.350	566.530	565.670	565.480	566.000	568.070	569.480	571.380	T 2
	T 2A	568.210	567.350	566.530	565.670	565.480	566.010	568.090	569.480	571.390	T 2A
	UUBAR FS		0.1659	0.1404	0.1090	0.0665	0.0645	0.0736	0.0889		UUBAR FS
	P2 FS		19.045	19.027	19.317	19.710	19.755	19.518	19.345		P2 FS
	LOSS PARA FS		0.0539	0.0461	0.0346	0.0232	0.0234	0.0274	0.0324		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 89.49 Equivalent Rotor Speed = 3767.46 Equivalent Weight Flow = 105.52
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	419.35	419.35	419.35	419.35	419.35	419.35	419.35	419.35	419.35	V 0
	V 1	431.24	464.69	471.65	470.91	465.20	449.91	436.27	430.91	415.31	V 1
	VZ 0	419.35	419.35	419.35	419.34	419.32	419.28	419.24	419.22	419.21	VZ 0
	VZ 1	431.23	464.69	471.65	470.90	465.17	449.83	436.15	430.77	415.16	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3810	0.3810	0.3810	0.3810	0.3810	0.3810	0.3810	0.3810	0.3810	M 0
	M 1	0.3922	0.4236	0.4302	0.4295	0.4241	0.4097	0.3969	0.3919	0.3773	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.5168	0.3098	0.2720	0.2584	0.2491	0.2777	0.3070	0.3169	0.3976	UUBAR
	DFAC	-0.028	-0.108	-0.125	-0.123	-0.109	-0.073	-0.040	-0.028	0.010	DFAC
	EFFP	0.1037	0.4366	0.5071	0.5163	0.4945	0.3644	0.2199	0.1562	-0.0533	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.126	15.126	15.126	15.126	15.126	15.126	15.126	15.126	15.126	P 0
	P 1	14.381	14.679	14.734	14.753	14.767	14.726	14.683	14.669	14.553	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	38.771	34.616	32.115	29.700	29.448	28.622	28.969	29.742	30.805	BETA 2
	BETA(PR) 1	50.156	48.402	48.322	49.422	51.200	53.482	55.221	55.831	57.081	BETA(PR) 1
	BETA(PR) 2	28.246	27.431	29.009	29.258	32.316	36.389	37.772	38.688	44.100	BETA(PR) 2
	V 1	454.62	489.75	497.31	496.50	489.23	472.00	457.66	452.16	435.78	V 1
	V 2	522.79	555.33	558.31	588.68	579.18	559.20	558.52	550.33	492.53	V 2
	VZ 1	454.61	489.75	497.31	496.45	488.99	471.45	456.82	451.23	434.78	VZ 1
	VZ 2	407.59	457.02	472.88	511.26	504.02	490.17	487.59	476.70	421.94	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	327.37	315.47	296.80	291.62	284.55	267.49	269.93	272.37	251.57	V-THETA 2
	V(PR) 1	709.6	737.7	747.9	763.2	780.5	792.6	801.3	803.9	800.6	V(PR) 1
	V(PR) 2	462.7	514.9	540.7	586.1	596.8	609.6	617.9	611.9	588.6	V(PR) 2
	VTHETA PR1	-544.8	-551.7	-558.6	-579.7	-608.2	-636.7	-657.8	-664.7	-671.6	VTHETA PR1
	VTHETA PR2	-219.0	-237.2	-262.2	-286.4	-318.8	-361.2	-377.8	-381.7	-408.9	VTHETA PR2
	U 1	544.79	551.66	558.60	579.68	608.19	636.72	657.80	664.72	671.59	U 1
	U 2	546.34	552.68	559.02	578.03	603.38	628.73	647.76	654.11	660.47	U 2
	M 1	0.4142	0.4474	0.4546	0.4538	0.4469	0.4306	0.4170	0.4118	0.3964	M 1
	M 2	0.4647	0.4959	0.4995	0.5283	0.5189	0.5004	0.4993	0.4912	0.4372	M 2
	M(PR) 1	0.6464	0.6739	0.6836	0.6976	0.7130	0.7230	0.7302	0.7322	0.7283	M(PR) 1
	M(PR) 2	0.4113	0.4598	0.4838	0.5260	0.5347	0.5455	0.5524	0.5462	0.5225	M(PR) 2
	TURN(PR)	21.910	20.971	19.314	20.167	18.893	17.112	17.478	17.176	13.022	TURN(PR)
	UUBAR	0.2534	0.2130	0.1743	0.0991	0.1016	0.0933	0.0937	0.1168	0.1652	UUBAR
	LOSS PARA	0.0614	0.0527	0.0430	0.0253	0.0264	0.0242	0.0247	0.0307	0.0404	LOSS PARA
	DFAC	0.4750	0.4212	0.3889	0.3437	0.3471	0.3390	0.3404	0.3522	0.3709	DFAC
	EFFP	0.6513	0.8696	0.7472	0.8828	0.8691	0.8746	0.8816	0.8360	0.6725	EFFP
	EFF	0.6448	0.6938	0.7424	0.8801	0.8661	0.8717	0.8788	0.8323	0.6663	EFF
	INCID	-1.686	-3.876	-4.368	-4.634	-4.863	-4.580	-4.222	-4.046	-3.574	INCID
	DEVM	20.497	18.133	18.089	13.555	11.627	11.522	10.215	10.550	15.216	DEVM
	P 1	14.381	14.679	14.734	14.753	14.767	14.726	14.683	14.669	14.553	P 1
	P 2	16.398	16.769	16.841	17.253	17.294	17.212	17.273	17.191	16.594	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	549.450	547.675	545.900	545.650	546.350	545.820	546.740	547.600	548.450	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	38.441	34.293	31.815	29.508	29.207	28.311	28.573	29.305	30.354	BETA 2
STATOR-T.E.	BETA 2A	6.200	7.549	8.250	8.950	9.801	9.503	9.724	8.954	7.404	BETA 2A
	V 2	526.66	560.24	563.29	592.70	584.32	565.82	566.76	559.00	500.27	V 2
	V 2A	526.24	535.26	545.65	583.03	593.33	597.89	611.17	592.57	571.30	V 2A
	VZ 2	412.51	462.90	478.65	515.73	509.73	497.51	496.80	486.45	430.72	VZ 2
	VZ 2A	523.16	530.62	540.00	575.87	584.44	589.20	601.66	584.54	565.66	VZ 2A
	V-THETA 2	327.43	315.57	296.95	291.88	284.96	268.01	270.56	273.04	252.24	V-THETA 2
	V-THETA 2A	56.83	70.32	78.30	90.70	100.96	98.63	103.10	92.10	73.50	V-THETA 2A
	M 2	0.4683	0.5005	0.5042	0.5321	0.5238	0.5066	0.5070	0.4993	0.4443	M 2
	M 2A	0.4679	0.4771	0.4876	0.5229	0.5323	0.5369	0.5491	0.5310	0.5105	M 2A
	TURN(PR)	32.241	26.734	23.564	20.554	19.391	18.778	18.803	20.297	22.886	TURN(PR)
	UUBAR	0.0517	0.1542	0.1439	0.1436	0.1152	0.0893	0.0926	0.1644	0.0538	UUBAR
	LOSS PARA	0.0166	0.0499	0.0469	0.0480	0.0400	0.0323	0.0345	0.0621	0.0206	LOSS PARA
	DFAC	0.1672	0.1877	0.1594	0.1317	0.0962	0.0540	0.0346	0.0650	-0.0026	DFAC
	EFFP	-28.7253	-0.6094	-1.1172	-2.9823	4.3227	1.6881	1.5099	2.2047	1.1619	EFFP
	INCID	-8.530	-11.918	-13.656	-14.166	-13.042	-14.081	-14.789	-14.615	-14.176	INCID
	DEVM	19.231	20.403	20.984	21.283	21.918	22.203	23.222	22.750	21.544	DEVM
	P 2	16.398	16.769	16.841	17.253	17.294	17.212	17.273	17.191	16.594	P 2
	P 2A	16.280	16.362	16.455	16.818	16.954	16.964	17.016	16.748	16.481	P 2A
	T 2	549.450	547.675	545.900	545.650	546.350	545.820	546.740	547.600	548.450	T 2
	T 2A	549.450	547.675	545.900	545.650	546.350	545.820	546.740	547.600	548.450	T 2A
	UUBAR FS		0.1582	0.1724	0.1683	0.1493	0.1479	0.1273	0.1397		UUBAR FS
	P2 FS		16.775	16.927	17.336	17.405	17.395	17.377	17.107		P2 FS
	LOSS PARA FS		0.0512	0.0561	0.0562	0.0518	0.0535	0.0474	0.0527		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 90.33 Equivalent Rotor Speed = 3803.09 Equivalent Weight Flow = 101.67
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	402.90	402.90	402.90	402.90	402.90	402.90	402.90	402.90	402.90	V 0
	V 1	401.15	423.81	435.82	442.79	441.33	431.76	416.16	404.59	384.58	V 1
	VZ 0	402.90	402.90	402.90	402.90	402.87	402.83	402.79	402.78	402.76	VZ 0
	VZ 1	401.14	423.81	435.81	442.78	441.30	431.68	416.04	404.47	384.45	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3657	0.3657	0.3657	0.3657	0.3657	0.3657	0.3657	0.3657	0.3657	M 0
	M 1	0.3641	0.3852	0.3965	0.4030	0.4017	0.3927	0.3781	0.3673	0.3486	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4411	0.3131	0.2460	0.2321	0.2491	0.2638	0.3062	0.3563	0.4388	UUBAR
	DFAC	0.004	-0.052	-0.082	-0.099	-0.095	-0.072	-0.033	-0.004	0.045	DFAC
	EFFP	-0.0209	0.2626	0.4209	0.4852	0.4577	0.3714	0.1861	0.0240	-0.2664	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.072	15.072	15.072	15.072	15.072	15.072	15.072	15.072	15.072	P 0
	P 1	14.485	14.656	14.745	14.763	14.741	14.721	14.665	14.598	14.489	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	44.770	41.024	37.860	35.240	34.384	33.881	34.136	35.113	38.882	BETA 2
	BETA(PR) 1	52.477	51.324	50.875	51.460	52.956	54.881	56.749	57.761	59.322	BETA(PR) 1
	BETA(PR) 2	26.902	26.717	28.045	28.738	31.434	34.648	36.983	38.323	45.599	BETA(PR) 2
	V 1	422.35	445.77	458.66	466.17	463.60	452.57	436.17	424.06	403.10	V 1
	V 2	518.11	538.47	545.59	569.43	570.02	561.77	553.09	541.59	469.66	V 2
	VZ 1	422.33	445.76	458.66	466.12	463.37	452.04	435.37	423.19	402.18	VZ 1
	VZ 2	367.83	406.24	430.74	465.01	470.14	465.78	456.92	442.10	364.82	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	364.88	353.44	334.84	328.51	321.72	312.77	309.78	310.86	294.18	V-THETA 2
	V(PR) 1	693.4	713.3	726.9	748.1	769.3	786.1	794.5	793.8	788.7	V(PR) 1
	V(PR) 2	412.5	454.8	488.1	530.4	551.4	566.9	573.0	564.6	522.3	V(PR) 2
	VTHETA PR1	-549.9	-556.9	-563.9	-585.2	-613.9	-642.7	-664.0	-671.0	-677.9	VTHETA PR1
	VTHETA PR2	-186.6	-204.5	-229.5	-255.0	-287.4	-321.9	-344.1	-349.4	-372.5	VTHETA PR2
	U 1	549.94	556.88	563.88	585.16	613.94	642.74	664.02	671.01	677.94	U 1
	U 2	551.51	557.91	564.31	583.50	609.08	634.67	653.89	660.29	666.71	U 2
	M 1	0.3839	0.4058	0.4180	0.4250	0.4226	0.4122	0.3968	0.3855	0.3659	M 1
	M 2	0.4586	0.4782	0.4857	0.5080	0.5084	0.5008	0.4916	0.4806	0.4142	M 2
	M(PR) 1	0.6302	0.6494	0.6624	0.6821	0.7013	0.7160	0.7228	0.7215	0.7159	M(PR) 1
	M(PR) 2	0.3651	0.4039	0.4344	0.4732	0.4917	0.5053	0.5093	0.5010	0.4606	M(PR) 2
	TURN(PR)	25.574	24.607	22.831	22.725	21.530	20.251	19.794	19.473	13.767	TURN(PR)
	UUBAR	0.2252	0.1913	0.1576	0.0944	0.0763	0.0666	0.0708	0.0862	0.1640	UUBAR
	LOSS PARA	0.0552	0.0476	0.0392	0.0242	0.0200	0.0177	0.0189	0.0228	0.0391	LOSS PARA
	DFAC	0.5501	0.5005	0.4585	0.4193	0.4114	0.4064	0.4078	0.4197	0.4638	DFAC
	EFFP	0.7248	0.7700	0.8044	0.8984	0.9262	0.9572	0.9072	0.8831	0.7248	EFFP
	EFF	0.7183	0.7645	0.7998	0.8958	0.9242	0.9560	0.9045	0.8798	0.7182	EFF
	INCID	0.635	-0.954	-1.815	-2.597	-3.107	-3.181	-2.693	-2.114	-1.332	INCID
	DEVM	19.153	17.419	17.126	13.035	10.746	9.782	9.427	10.185	16.715	DEVM
	P 1	14.485	14.656	14.745	14.763	14.741	14.721	14.665	14.598	14.489	P 1
	P 2	17.078	17.309	17.391	17.735	17.858	17.920	17.899	17.786	17.084	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	553.490	551.740	550.020	549.850	550.320	550.050	552.300	552.930	553.510	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	44.366	40.614	37.495	35.010	34.098	33.499	33.656	34.588	38.290	BETA 2
STATOR-T.E.	BETA 2A	5.100	6.150	6.880	7.761	7.631	7.832	8.984	8.164	7.114	BETA 2A
	V 2	521.92	543.14	550.38	573.21	575.00	568.43	561.21	550.00	476.91	V 2
	V 2A	433.35	447.55	459.79	499.88	523.13	530.84	534.76	513.20	487.76	V 2A
	VZ 2	373.12	412.30	436.67	469.42	475.89	473.48	466.35	451.95	373.61	VZ 2
	VZ 2A	431.64	444.98	456.47	495.24	518.29	525.45	527.55	507.30	483.26	VZ 2A
	V-THETA 2	364.95	353.56	335.01	328.81	322.18	313.38	310.50	311.64	294.96	V-THETA 2
	V-THETA 2A	38.52	47.95	55.08	67.50	69.44	72.28	83.40	72.78	60.31	V-THETA 2A
	M 2	0.4621	0.4826	0.4901	0.5116	0.5130	0.5070	0.4992	0.4884	0.4208	M 2
	M 2A	0.3812	0.3947	0.4065	0.4434	0.4646	0.4719	0.4745	0.4543	0.4307	M 2A
	TURN(PR)	39.266	34.464	30.614	27.244	26.449	25.631	24.619	26.362	31.103	TURN(PR)
	UUBAR	0.0847	0.1195	0.1036	0.0877	0.0545	0.0587	0.0707	0.1207	-0.0702	UUBAR
	LOSS PARA	0.0273	0.0388	0.0339	0.0294	0.0190	0.0213	0.0264	0.0457	-0.0269	LOSS PARA
	DFAC	0.3722	0.3598	0.3324	0.2828	0.2458	0.2226	0.2014	0.2343	0.1689	DFAC
	EFFP	0.7486	0.6581	0.6823	0.6687	0.7152	0.5847	0.3056	0.1486	-0.3989	EFFP
	INCID	-2.605	-5.587	-7.976	-8.665	-8.152	-8.897	-9.712	-9.339	-6.248	INCID
	DEVM	18.131	19.004	19.614	20.094	19.748	20.534	22.483	21.961	21.254	DEVM
	P 2	17.078	17.309	17.391	17.735	17.858	17.920	17.899	17.786	17.084	P 2
	P 2A	16.882	17.005	17.118	17.481	17.698	17.750	17.701	17.463	17.221	P 2A
	T 2	553.490	551.740	550.020	549.850	550.320	550.050	552.300	552.930	553.510	T 2
	T 2A	553.490	551.740	550.070	549.850	550.320	550.060	552.300	552.920	553.500	T 2A
	UUBAR FS		0.1203	0.1053	0.0933	0.0651	0.0718	0.0840	0.1104		UUBAR FS
	P2 FS		17.316	17.400	17.757	17.895	17.965	17.944	17.760		P2 FS
	LOSS PARA FS		0.0390	0.0364	0.0312	0.0227	0.0260	0.0313	0.0418		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 89.93 Equivalent Rotor Speed = 3786.04 Equivalent Weight Flow = 96.17
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	379.66	379.66	379.66	379.66	379.66	379.66	379.66	379.66	379.66	V 0
	V 1	378.40	398.78	410.24	414.68	412.10	405.80	392.53	383.69	375.18	V 1
	VZ 0	379.66	379.66	379.66	379.65	379.63	379.59	379.56	379.54	379.53	VZ 0
	VZ 1	378.40	398.78	410.24	414.67	412.07	405.73	392.42	383.57	375.04	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3441	0.3441	0.3441	0.3441	0.3441	0.3441	0.3441	0.3441	0.3441	M 0
	M 1	0.3429	0.3619	0.3725	0.3767	0.3743	0.3684	0.3560	0.3478	0.3399	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4136	0.2968	0.2388	0.2224	0.2345	0.2544	0.2856	0.3219	0.3660	UUBAR
	DFAC	0.003	-0.050	-0.081	-0.092	-0.085	-0.069	-0.034	-0.011	0.012	DFAC
	EFFP	-0.0170	0.2662	0.4233	0.4760	0.4429	0.3692	0.2011	0.0644	-0.0713	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.012	15.012	15.012	15.012	15.012	15.012	15.012	15.012	15.012	P 0
	P 1	14.524	14.662	14.730	14.750	14.735	14.712	14.675	14.632	14.580	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	48.253	45.677	41.930	38.974	38.186	37.782	38.407	41.239	45.433	BETA 2
	BETA(PR) 1	53.985	52.917	52.469	53.191	54.740	56.445	58.171	59.022	59.840	BETA(PR) 1
	BETA(PR) 2	24.714	26.611	27.130	28.282	31.419	34.827	37.174	38.851	42.727	BETA(PR) 2
	V 1	398.00	419.02	431.23	435.98	432.32	424.90	411.07	401.85	393.07	V 1
	V 2	521.63	521.28	535.33	554.75	552.35	544.13	536.47	520.60	488.67	V 2
	VZ 1	397.99	419.02	431.23	435.94	432.11	424.40	410.33	401.02	392.17	VZ 1
	VZ 2	347.32	364.22	398.26	431.22	433.92	429.55	419.66	390.77	342.32	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	389.18	372.93	357.71	348.87	341.29	332.98	332.71	342.57	347.54	V-THETA 2
	V(PR) 1	676.9	694.9	707.9	727.6	748.6	768.1	778.4	779.6	781.0	V(PR) 1
	V(PR) 2	332.3	407.4	447.5	489.8	508.8	523.9	527.6	502.7	466.9	V(PR) 2
	VTHETA PR1	-547.5	-554.4	-561.4	-582.5	-611.2	-639.9	-661.0	-668.0	-674.9	VTHETA PR1
	VTHETA PR2	-159.9	-162.5	-204.1	-232.0	-265.1	-298.8	-318.2	-314.8	-316.2	VTHETA PR2
	U 1	547.48	554.38	561.35	582.53	611.18	639.86	661.04	668.00	674.90	U 1
	U 2	549.04	555.41	561.78	580.88	606.35	631.83	650.96	657.33	663.72	U 2
	M 1	0.3611	0.3807	0.3922	0.3966	0.3932	0.3862	0.3733	0.3647	0.3565	M 1
	M 2	0.4609	0.4612	0.4749	0.4932	0.4909	0.4833	0.4752	0.4603	0.4308	M 2
	M(PR) 1	0.6141	0.6314	0.6437	0.6619	0.6809	0.6982	0.7069	0.7075	0.7084	M(PR) 1
	M(PR) 2	0.3379	0.3605	0.3970	0.4354	0.4522	0.4654	0.4674	0.4445	0.4116	M(PR) 2
	TURN(PR)	29.270	26.305	25.339	24.912	23.330	21.636	21.027	20.207	17.157	TURN(PR)
	UUBAR	0.1964	0.1931	0.1423	0.0873	0.0689	0.0676	0.0831	0.1309	0.1950	UUBAR
	LOSS PARA	0.0491	0.0481	0.0357	0.0225	0.0181	0.0179	0.0221	0.0344	0.0488	LOSS PARA
	DFAC	0.5935	0.5634	0.5103	0.4670	0.4600	0.4568	0.4637	0.5021	0.5526	DFAC
	EFFP	0.7755	0.7712	0.8262	0.9041	0.9400	0.9586	0.9088	0.8736	0.8046	EFFP
	EFF	0.7695	0.7654	0.8217	0.9014	0.9382	0.9573	0.9061	0.8698	0.7992	EFF
	INCID	2.143	0.639	-0.221	-0.866	-1.324	-1.616	-1.270	-0.852	-0.813	INCID
	DEVM	16.965	17.313	16.211	12.578	10.731	9.961	9.618	10.713	13.843	DEVM
	P 1	14.524	14.662	14.730	14.750	14.735	14.712	14.675	14.632	14.580	P 1
	P 2	17.508	17.530	17.697	17.980	18.115	18.144	18.126	17.981	17.675	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	555.670	554.190	552.680	552.200	552.300	552.150	554.310	554.870	555.390	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	47.796	45.204	41.514	38.717	37.867	37.355	37.864	40.606	44.678	BETA 2
STATOR-T.E.	BETA 2A	3.330	5.970	6.870	7.860	7.481	7.172	8.533	8.234	7.393	BETA 2A
	V 2	525.48	525.71	539.97	558.36	557.07	550.41	544.15	528.49	496.35	V 2
	V 2A	386.41	403.25	412.33	454.41	480.48	487.64	487.89	466.84	443.24	V 2A
	VZ 2	353.00	370.41	404.32	435.59	439.56	437.07	428.94	400.60	352.39	VZ 2
	VZ 2A	385.75	401.06	409.36	450.08	476.17	483.43	481.89	461.39	438.88	VZ 2A
	V-THETA 2	389.25	373.05	357.89	349.19	341.78	333.62	333.49	343.42	348.45	V-THETA 2
	V-THETA 2A	22.44	41.94	49.32	62.13	62.53	60.83	72.31	66.76	56.95	V-THETA 2A
	M 2	0.4645	0.4653	0.4792	0.4965	0.4953	0.4892	0.4824	0.4676	0.4378	M 2
	M 2A	0.3382	0.3538	0.3625	0.4008	0.4245	0.4312	0.4305	0.4111	0.3895	M 2A
	TURN(PR)	44.466	39.234	34.644	30.852	30.367	30.144	29.273	32.306	37.209	TURN(PR)
	UUBAR	0.1304	0.0837	0.1111	0.0722	0.0303	0.0313	0.0517	0.0813	0.0473	UUBAR
	LOSS PARA	0.0421	0.0272	0.0363	0.0242	0.0106	0.0114	0.0193	0.0307	0.0181	LOSS PARA
	DFAC	0.4907	0.4387	0.4249	0.3608	0.3149	0.2968	0.2863	0.3183	0.3356	DFAC
	EFFP	0.7368	0.8123	0.7545	0.8052	0.8927	0.8677	0.7598	0.6602	0.7837	EFFP
	INCID	0.825	-0.997	-3.956	-4.958	-4.385	-5.043	-5.508	-3.326	0.137	INCID
	DEVM	16.361	18.824	19.604	20.193	19.598	19.874	22.033	22.030	21.534	DEVM
	P 2	17.508	17.530	17.697	17.980	18.115	18.144	18.126	17.981	17.675	P 2
	P 2A	17.195	17.327	17.411	17.779	18.030	18.058	17.988	17.778	17.572	P 2A
	T 2	555.670	554.190	552.680	552.200	552.300	552.150	554.310	554.870	555.390	T 2
	T 2A	555.670	554.190	552.680	552.200	552.300	552.150	554.310	554.870	555.390	T 2A
	UUBAR FS		0.1242	0.1122	0.0750	0.0422	0.0528	0.0670	0.0850		UUBAR FS
	P2 FS		17.647	17.706	17.994	18.155	18.212	18.176	17.997		P2 FS
	LOSS PARA FS		0.0403	0.0366	0.0251	0.0147	0.0192	0.0250	0.0321		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 89.64 Equivalent Rotor Speed = 3774.03 Equivalent Weight Flow = 89.53
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	351.46	351.46	351.46	351.46	351.46	351.46	351.46	351.46	351.46	V 0
	V 1	338.90	372.42	376.77	382.03	383.62	372.90	360.36	355.66	327.63	V 1
	VZ 0	351.46	351.46	351.46	351.46	351.43	351.40	351.36	351.35	351.34	VZ 0
	VZ 1	338.90	372.42	376.77	382.03	383.59	372.84	360.26	355.55	327.52	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3180	0.3180	0.3180	0.3180	0.3180	0.3180	0.3180	0.3180	0.3180	M 0
	M 1	0.3064	0.3374	0.3414	0.3463	0.3478	0.3378	0.3262	0.3219	0.2960	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4465	0.2514	0.2263	0.2283	0.2222	0.2514	0.2936	0.2997	0.4565	UUBAR
	DFAC	0.036	-0.060	-0.072	-0.087	-0.092	-0.061	-0.025	-0.012	0.068	DFAC
	EFFP	-0.1931	0.3365	0.4066	0.4525	0.4724	0.3417	0.1531	0.0765	-0.4185	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.968	14.968	14.968	14.968	14.968	14.968	14.968	14.968	14.968	P 0
	P 1	14.516	14.714	14.739	14.737	14.743	14.714	14.671	14.665	14.506	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	52.466	51.671	47.462	42.962	41.951	41.698	43.042	46.732	51.495	BETA 2
	BETA(PR) 1	56.887	54.726	54.746	55.366	56.594	58.586	60.274	60.851	63.057	BETA(PR) 1
	BETA(PR) 2	22.265	27.089	26.747	27.544	30.643	34.849	37.410	39.962	43.563	BETA(PR) 2
	V 1	355.95	390.90	395.53	401.13	402.01	390.00	376.93	372.14	342.74	V 1
	V 2	525.03	502.55	519.70	544.70	545.24	532.00	523.44	503.82	481.96	V 2
	VZ 1	355.94	390.90	395.53	401.10	401.81	389.55	376.25	371.37	341.95	VZ 1
	VZ 2	319.86	311.67	351.35	398.56	405.31	396.82	381.99	344.81	299.64	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	416.34	394.23	382.93	371.17	364.32	353.53	356.73	366.31	376.64	V-THETA 2
	V(PR) 1	651.6	676.9	685.3	705.8	729.9	747.6	759.1	762.8	755.0	V(PR) 1
	V(PR) 2	345.6	350.1	393.5	449.6	471.4	484.1	481.8	450.7	414.3	V(PR) 2
	VTHETA PR1	-545.7	-552.6	-559.6	-580.7	-609.2	-637.8	-658.9	-665.9	-672.8	VTHETA PR1
	VTHETA PR2	-131.0	-159.4	-177.1	-207.9	-240.1	-276.3	-292.2	-288.9	-285.0	VTHETA PR2
	U 1	545.74	552.62	559.57	580.69	609.25	637.83	658.95	665.88	672.76	U 1
	U 2	547.30	553.64	560.00	579.04	604.43	629.82	648.89	655.25	661.62	U 2
	M 1	0.3221	0.3545	0.3588	0.3640	0.3649	0.3537	0.3416	0.3371	0.3099	M 1
	M 2	0.4632	0.4430	0.4592	0.4828	0.4833	0.4711	0.4625	0.4437	0.4231	M 2
	M(PR) 1	0.5897	0.6139	0.6217	0.6405	0.6625	0.6780	0.6879	0.6910	0.6828	M(PR) 1
	M(PR) 2	0.3049	0.3086	0.3477	0.3985	0.4179	0.4287	0.4257	0.3969	0.3637	M(PR) 2
	TURN(PR)	34.622	27.637	27.999	27.825	25.959	23.757	22.897	20.928	19.542	TURN(PR)
	UUBAR	0.1741	0.2234	0.1617	0.0774	0.0684	0.0719	0.0937	0.1599	0.1979	UUBAR
	LOSS PARA	0.0443	0.0554	0.0407	0.0201	0.0181	0.0190	0.0248	0.0413	0.0489	LOSS PARA
	DFAC	0.6456	0.6452	0.5834	0.5166	0.5071	0.5040	0.5209	0.5698	0.6199	DFAC
	EFFP	0.8261	0.7503	0.8126	0.9200	0.9512	0.9569	0.9270	0.8471	0.8096	EFFP
	EFF	0.8209	0.7436	0.8073	0.9175	0.9496	0.9555	0.9246	0.8423	0.8037	EFF
	INCID	5.046	2.448	2.056	1.310	0.531	0.526	0.836	0.979	2.408	INCID
	DEVM	14.515	17.791	15.827	11.841	9.956	9.983	9.854	11.823	14.679	DEVM
	P 1	14.516	14.714	14.739	14.737	14.743	14.714	14.671	14.665	14.506	P 1
	P 2	17.903	17.710	17.913	18.265	18.397	18.377	18.372	18.178	17.975	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	557.720	556.630	555.520	554.450	554.370	554.300	555.940	557.670	559.470	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	51.934	51.100	46.969	42.671	41.591	41.214	42.415	45.984	50.577	BETA 2
STATOR-T.E.	BETA 2A	2.570	5.410	7.270	8.200	7.441	7.132	8.333	8.553	7.754	BETA 2A
	V 2	528.91	506.74	524.12	548.19	549.85	538.10	530.83	511.31	489.47	V 2
	V 2A	349.35	362.65	375.22	408.85	443.63	450.80	446.78	429.73	404.61	V 2A
	VZ 2	326.11	318.21	357.66	403.02	411.05	404.42	391.39	354.82	310.45	VZ 2
	VZ 2A	349.00	361.03	372.20	404.63	439.71	446.95	441.52	424.37	400.29	VZ 2A
	V-THETA 2	416.41	394.36	383.11	371.51	364.83	354.21	357.57	367.22	377.63	V-THETA 2
	V-THETA 2A	15.66	34.19	47.48	58.31	57.43	55.92	64.67	63.82	54.50	V-THETA 2A
	M 2	0.4667	0.4468	0.4633	0.4860	0.4876	0.4767	0.4693	0.4506	0.4299	M 2
	M 2A	0.3046	0.3167	0.3283	0.3588	0.3902	0.3967	0.3925	0.3765	0.3533	M 2A
	TURN(PR)	49.364	45.690	39.698	34.465	34.131	34.042	34.022	37.365	42.749	TURN(PR)
	UUBAR	0.1518	0.0359	0.0777	0.0923	0.0321	0.0162	0.0467	0.0358	0.0394	UUBAR
	LOSS PARA	0.0491	0.0117	0.0254	0.0309	0.0112	0.0059	0.0175	0.0135	0.0151	LOSS PARA
	DFAC	0.5848	0.5166	0.4953	0.4482	0.3909	0.3666	0.3685	0.3880	0.4303	DFAC
	EFFP	0.7495	0.9317	0.9525	0.8090	0.9162	0.9493	0.8519	0.8863	0.8843	EFFP
	INCID	4.963	4.899	1.497	-1.004	-0.661	-1.186	-0.959	2.052	6.037	INCID
	DEVM	15.601	18.264	20.004	20.533	19.558	19.834	21.833	22.349	21.894	DEVM
	P 2	17.903	17.710	17.913	18.265	18.397	18.377	18.372	18.178	17.975	P 2
	P 2A	17.526	17.628	17.723	18.013	18.309	18.334	18.252	18.094	17.890	P 2A
	T 2	557.720	556.630	555.520	554.450	554.370	554.300	555.940	557.670	559.470	T 2
	T 2A	557.720	556.630	555.520	554.450	554.370	554.310	555.950	557.680	559.470	T 2A
	UUBAR FS		0.1504	0.1196	0.0750	0.0400	0.0455	0.0661	0.0736		UUBAR FS
	P2 FS		18.021	18.018	18.219	18.426	18.464	18.431	18.280		P2 FS
	LOSS PARA FS		0.0490	0.0371	0.0251	0.0139	0.0165	0.0247	0.0277		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 89.47 Equivalent Rotor Speed = 3766.50 Equivalent Weight Flow = 84.10
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	329.10	329.10	329.10	329.10	329.10	329.10	329.10	329.10	329.10	V 0
	V 1	322.84	345.46	353.15	356.63	358.54	352.14	336.10	331.09	307.46	V 1
	VZ 0	329.10	329.10	329.10	329.09	329.07	329.04	329.01	329.00	328.98	VZ 0
	VZ 1	322.83	345.46	353.15	356.63	358.51	352.08	336.00	330.99	307.35	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2974	0.2974	0.2974	0.2974	0.2974	0.2974	0.2974	0.2974	0.2974	M 0
	M 1	0.2916	0.3125	0.3195	0.3246	0.3245	0.3186	0.3038	0.2992	0.2775	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4619	0.2939	0.2401	0.2287	0.2218	0.2413	0.2824	0.2824	0.4139	UUBAR
	DFAC	0.019	-0.050	-0.073	-0.090	-0.089	-0.070	-0.021	-0.006	0.066	DFAC
	EFFP	-0.0913	0.2635	0.3948	0.4590	0.4658	0.3831	0.1356	0.0424	-0.4604	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.934	14.934	14.934	14.934	14.934	14.934	14.934	14.934	14.934	P 0
	P 1	14.523	14.672	14.720	14.730	14.736	14.719	14.683	14.683	14.566	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.005	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	55.030	54.139	51.139	45.378	44.268	44.288	46.699	54.195	57.644	BETA 2
	BETA(PR) 1	58.109	56.701	56.444	57.010	58.322	59.994	61.934	62.533	64.465	BETA(PR) 1
	BETA(PR) 2	20.821	26.979	27.670	27.633	30.591	34.786	38.570	41.973	44.281	BETA(PR) 2
	V 1	338.90	362.27	370.42	376.25	375.39	368.04	351.29	346.17	321.49	V 1
	V 2	526.51	498.39	504.56	535.40	538.18	526.26	508.72	489.54	483.64	V 2
	VZ 1	338.89	362.26	370.42	376.21	375.21	367.61	350.65	345.46	320.76	VZ 1
	VZ 2	301.77	291.97	316.58	376.03	385.21	376.36	348.44	286.08	258.57	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	431.44	403.91	392.88	381.03	375.49	367.12	369.74	396.60	408.14	V-THETA 2
	V(PR) 1	641.5	659.9	670.1	691.0	714.6	735.3	745.6	749.3	744.4	V(PR) 1
	V(PR) 2	322.9	327.6	357.5	424.5	447.8	458.8	446.4	385.5	361.8	V(PR) 2
	VTHETA PR1	-544.7	-551.5	-558.5	-579.5	-608.0	-636.6	-657.6	-664.6	-671.4	VTHETA PR1
	VTHETA PR2	-114.8	-148.6	-166.0	-196.9	-227.7	-261.4	-277.9	-257.3	-252.2	VTHETA PR2
	U 1	544.65	551.52	558.46	579.53	608.03	636.55	657.63	664.55	671.42	U 1
	U 2	546.20	552.54	558.88	577.89	603.22	628.56	647.60	653.94	660.30	U 2
	M 1	0.3064	0.3280	0.3355	0.3409	0.3401	0.3333	0.3178	0.3131	0.2904	M 1
	M 2	0.4643	0.4388	0.4448	0.4736	0.4762	0.4652	0.4479	0.4299	0.4241	M 2
	M(PR) 1	0.5800	0.5974	0.6070	0.6261	0.6474	0.6659	0.6746	0.6777	0.6724	M(PR) 1
	M(PR) 2	0.2847	0.2885	0.3152	0.3755	0.3962	0.4056	0.3931	0.3385	0.3173	M(PR) 2
	TURN(PR)	37.287	29.722	28.775	29.380	27.740	25.228	23.398	20.602	20.234	TURN(PR)
	UUBAR	0.1645	0.2102	0.1802	0.0845	0.0740	0.0830	0.1263	0.2326	0.2537	UUBAR
	LOSS PARA	0.0423	0.0522	0.0450	0.0219	0.0196	0.0220	0.0330	0.0583	0.0619	LOSS PARA
	DFAC	0.6820	0.6741	0.6319	0.5467	0.5343	0.5360	0.5654	0.6626	0.6992	DFAC
	EFFP	0.8580	0.7762	0.8007	0.9082	0.9436	0.9479	0.8729	0.8144	0.8121	EFFP
	EFF	0.8535	0.7699	0.7951	0.9053	0.9418	0.9461	0.8688	0.8087	0.9061	EFF
	INCID	6.268	4.423	3.754	2.953	2.259	1.935	2.496	2.663	3.818	INCID
	DEVM	13.072	17.681	16.751	11.929	9.903	9.921	11.013	13.833	15.396	DEVM
	P 1	14.523	14.672	14.720	14.730	14.736	14.719	14.683	14.683	14.566	P 1
	P 2	18.116	17.846	17.923	18.339	18.497	18.497	18.390	18.222	18.177	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	558.320	557.470	556.610	555.720	555.650	555.680	558.370	559.530	560.730	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	54.445	53.518	50.586	45.056	43.885	43.767	46.002	53.249	56.500	BETA 2
STATOR-T.E.	BETA 2A	3.150	6.000	7.480	8.520	7.480	7.501	8.273	8.224	6.373	BETA 2A
	V 2	530.41	502.52	508.79	538.87	542.66	532.21	515.79	496.69	491.19	V 2
	V 2A	320.95	335.77	346.20	381.11	418.41	425.82	415.37	397.99	376.53	V 2A
	VZ 2	308.42	298.78	323.03	380.62	390.96	384.01	357.86	296.90	270.85	VZ 2
	VZ 2A	320.46	333.93	343.25	376.86	414.68	421.82	410.54	393.35	373.62	VZ 2A
	V-THETA 2	431.52	404.05	393.07	381.37	376.03	367.83	370.60	397.58	409.22	V-THETA 2
	V-THETA 2A	17.64	35.09	45.06	56.46	54.45	55.54	59.70	56.85	41.73	V-THETA 2A
	M 2	0.4679	0.4426	0.4487	0.4768	0.4804	0.4707	0.4544	0.4365	0.4310	M 2
	M 2A	0.2793	0.2926	0.3021	0.3335	0.3670	0.3736	0.3633	0.3474	0.3279	M 2A
	TURN(PR)	51.295	47.518	43.106	36.531	36.385	36.226	37.670	44.962	50.057	TURN(PR)
	UUBAR	0.1821	0.0538	0.0606	0.0984	0.0388	0.0207	0.0343	0.0318	0.0849	UUBAR
	LOSS PARA	0.0588	0.0175	0.0198	0.0330	0.0135	0.0075	0.0128	0.0120	0.0326	LOSS PARA
	DFAC	0.6475	0.5717	0.5451	0.4976	0.4385	0.4162	0.4242	0.4627	0.5244	DFAC
	EFFP	0.7319	0.9095	0.8944	0.8183	0.9125	0.9462	0.9089	0.9163	0.8078	EFFP
	INCID	7.474	7.317	5.115	1.381	1.633	1.368	2.629	9.320	11.966	INCID
	DEVM	16.181	18.854	20.214	20.853	19.597	20.203	21.773	22.020	20.515	DEVM
	P 2	18.116	17.846	17.938	18.339	18.497	18.497	18.390	18.222	18.177	P 2
	P 2A	17.656	17.725	17.798	18.079	18.392	18.443	18.307	18.151	17.992	P 2A
	T 2	558.320	557.470	556.610	555.720	555.650	555.680	558.370	559.530	560.730	T 2
	T 2A	558.320	557.470	556.620	555.720	555.650	555.690	558.380	559.540	560.730	T 2A
	UUBAR FS		0.1677	0.1258	0.0843	0.0616	0.0503	0.0786	0.0769		UUBAR FS
	P2 FS		18.148	18.105	18.293	18.557	18.572	18.501	18.326		P2 FS
	LOSS PARA FS		0.0545	0.0411	0.0282	0.0214	0.0182	0.0293	0.0290		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 88.96 Equivalent Rotor Speed = 3745.02 Equivalent Weight Flow = 79.09
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	308.44	308.44	308.44	308.44	308.44	308.44	308.44	308.44	308.44	V 0
	V 1	299.62	321.08	327.86	332.68	335.19	325.79	309.02	304.36	294.74	V 1
	VZ 0	308.44	308.44	308.44	308.43	308.41	308.38	308.35	308.34	308.33	VZ 0
	VZ 1	299.62	321.08	327.86	332.67	335.16	325.73	308.94	304.26	294.64	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2784	0.2784	0.2784	0.2784	0.2784	0.2784	0.2784	0.2784	0.2784	M 0
	M 1	0.2703	0.2900	0.2962	0.3007	0.3030	0.2943	0.2790	0.2747	0.2659	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4142	0.2804	0.2363	0.2376	0.2103	0.2519	0.3051	0.3142	0.3661	UUBAR
	DFAC	0.029	-0.041	-0.063	-0.079	-0.087	-0.056	-0.002	0.013	0.044	DFAC
	EFFP	-0.1617	0.2348	0.3615	0.4147	0.4701	0.3210	0.0127	-0.0938	-0.3208	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.901	14.901	14.901	14.901	14.901	14.901	14.901	14.901	14.901	P 0
	P 1	14.577	14.682	14.716	14.715	14.736	14.704	14.662	14.655	14.615	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	56.848	56.546	53.983	47.616	46.230	46.325	52.256	57.833	63.947	BETA 2
	BETA(PR) 1	59.866	58.470	58.250	58.821	59.895	61.767	63.768	64.344	65.278	BETA(PR) 1
	BETA(PR) 2	19.681	26.961	28.089	28.065	30.683	34.794	40.506	43.025	44.340	BETA(PR) 2
	V 1	314.37	336.44	343.62	348.72	350.69	340.24	322.79	318.03	308.07	V 1
	V 2	525.83	492.84	494.97	523.34	529.78	519.93	490.67	484.44	494.87	V 2
	VZ 1	314.36	336.44	343.62	348.69	350.52	339.84	322.20	317.38	307.37	VZ 1
	VZ 2	287.56	271.69	291.06	352.75	366.33	358.73	300.04	257.68	217.20	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	440.24	411.19	400.35	386.52	382.41	375.72	387.59	409.71	444.28	V-THETA 2
	V(PR) 1	626.2	643.4	653.0	673.5	698.9	718.6	729.2	733.3	735.2	V(PR) 1
	V(PR) 2	305.4	304.8	329.9	399.8	426.2	437.4	395.3	353.1	304.2	V(PR) 2
	VTHETA PR1	-541.5	-548.4	-555.3	-576.2	-604.6	-632.9	-653.9	-660.8	-667.6	VTHETA PR1
	VTHETA PR2	-102.9	-138.2	-155.3	-188.1	-217.4	-249.3	-256.3	-240.5	-212.3	VTHETA PR2
	U 1	541.55	548.38	555.27	576.22	604.56	632.92	653.88	660.76	667.59	U 1
	U 2	543.09	549.39	555.69	574.59	599.78	624.98	643.90	650.21	656.53	U 2
	M 1	0.2839	0.3041	0.3108	0.3155	0.3173	0.3076	0.2916	0.2872	0.2781	M 1
	M 2	0.4635	0.4337	0.4360	0.4623	0.4683	0.4592	0.4309	0.4250	0.4342	M 2
	M(PR) 1	0.5654	0.5816	0.5905	0.6093	0.6323	0.6497	0.6587	0.6623	0.6637	M(PR) 1
	M(PR) 2	0.2692	0.2682	0.2906	0.3532	0.3768	0.3863	0.3471	0.3098	0.2670	M(PR) 2
	TURN(PR)	40.184	31.509	30.161	30.759	29.221	26.995	23.301	21.363	20.989	TURN(PR)
	UUBAR	0.1709	0.2149	0.1923	0.0950	0.0850	0.0918	0.1870	0.2597	0.3167	UUBAR
	LOSS PARA	0.0443	0.0533	0.0478	0.0245	0.0225	0.0243	0.0474	0.0640	0.0772	LOSS PARA
	DFAC	0.7060	0.7044	0.6677	0.5740	0.5577	0.5589	0.6339	0.7054	0.7904	DFAC
	EFFP	0.8674	0.7878	0.8058	0.9013	0.9398	0.9503	0.8323	0.8095	0.8363	EFFP
	EFF	0.8631	0.7817	0.8002	0.8982	0.9378	0.9486	0.8270	0.8035	0.8309	EFF
	INCID	8.024	6.192	5.560	4.764	3.833	3.709	4.333	4.476	4.632	INCID
	DEVM	11.932	17.663	17.170	12.361	9.996	9.928	12.947	14.885	15.456	DEVM
	P 1	14.577	14.682	14.716	14.715	14.736	14.704	14.662	14.655	14.615	P 1
	P 2	18.253	17.929	17.974	18.329	18.517	18.532	18.289	18.233	18.375	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	558.580	557.680	556.820	556.100	555.990	556.070	559.580	560.270	560.900	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	56.223	55.873	53.388	47.283	45.821	45.771	51.434	56.761	62.479	BETA 2
STATOR-T.E.	BETA 2A	1.500	6.150	7.669	8.520	8.381	7.562	7.863	6.653	3.822	BETA 2A
	V 2	529.73	496.89	499.01	526.62	534.19	525.76	497.34	491.48	502.62	V 2
	V 2A	309.30	318.12	325.56	361.13	400.54	404.31	386.62	365.00	335.82	V 2A
	VZ 2	294.51	278.77	297.60	357.21	372.13	366.44	309.76	269.17	232.09	VZ 2
	VZ 2A	309.19	316.28	322.64	357.10	396.11	400.46	382.51	362.03	334.55	VZ 2A
	V-THETA 2	440.31	411.33	400.55	386.87	382.96	376.44	388.50	410.73	445.45	V-THETA 2
	V-THETA 2A	8.10	34.08	43.45	53.50	58.36	53.16	52.83	42.23	22.35	V-THETA 2A
	M 2	0.4671	0.4374	0.4397	0.4653	0.4724	0.4646	0.4370	0.4314	0.4413	M 2
	M 2A	0.2689	0.2769	0.2837	0.3155	0.3508	0.3541	0.3372	0.3177	0.2917	M 2A
	TURN(PR)	54.723	49.723	45.718	38.758	37.421	38.169	43.513	50.046	58.592	TURN(PR)
	UUBAR	0.1972	0.0634	0.0617	0.0899	0.0305	0.0227	0.0108	0.0611	0.1935	UUBAR
	LOSS PARA	0.0638	0.0206	0.0201	0.0301	0.0106	0.0082	0.0041	0.0232	0.0746	LOSS PARA
	DFAC	0.6803	0.6078	0.5836	0.5292	0.4651	0.4576	0.4795	0.5457	0.6591	DFAC
	EFFP	0.7202	0.8997	0.8991	0.8423	0.9360	0.9480	0.9747	0.8729	0.6715	EFFP
	INCID	9.252	9.672	7.917	3.608	3.569	3.372	8.062	12.835	17.953	INCID
	DEVM	14.531	19.004	20.403	20.853	20.498	20.264	21.363	20.451	17.968	DEVM
	P 2	18.253	17.929	17.974	18.329	18.517	18.532	18.289	18.233	18.375	P 2
	P 2A	17.753	17.789	17.836	18.102	18.437	18.474	18.264	18.099	17.930	P 2A
	T 2	558.580	557.680	556.820	556.100	555.990	556.070	559.580	560.270	560.900	T 2
	T 2A	558.580	557.680	556.830	556.110	555.990	556.080	559.580	560.270	560.900	T 2A
	UUBAR FS		0.1801	0.1503	0.0989	0.0587	0.0582	0.0754	0.0885		UUBAR FS
	P2 FS		18.241	18.206	18.353	18.594	18.627	18.444	18.297		P2 FS
	LOSS PARA FS		0.0585	0.0489	0.0331	0.0204	0.0210	0.0286	0.0336		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.01 Equivalent Rotor Speed = 2947.51 Equivalent Weight Flow = 87.19
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	341.68	341.68	341.68	341.68	341.68	341.68	341.68	341.68	341.68	V 0
	V 1	336.71	362.23	368.56	371.32	368.65	361.14	351.52	335.69	325.15	V 1
	VZ 0	341.68	341.68	341.68	341.67	341.65	341.61	341.58	341.57	341.56	VZ 0
	VZ 1	336.71	362.23	368.56	371.32	368.62	361.08	351.42	335.58	325.04	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3090	0.3090	0.3090	0.3090	0.3090	0.3090	0.3090	0.3090	0.3090	M 0
	M 1	0.3044	0.3279	0.3338	0.3364	0.3339	0.3269	0.3180	0.3034	0.2938	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4378	0.2794	0.2295	0.2348	0.2284	0.2391	0.2656	0.3528	0.4070	UUBAR
	DFAC	0.015	-0.060	-0.079	-0.087	-0.079	-0.057	-0.029	0.018	0.048	DFAC
	EFFP	-0.0728	0.3145	0.4249	0.4443	0.4269	0.3369	0.1853	-0.1132	-0.3136	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.952	14.952	14.952	14.952	14.952	14.952	14.952	14.952	14.952	P 0
	P 1	14.533	14.684	14.732	14.727	14.733	14.723	14.697	14.614	14.562	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	37.231	34.001	31.799	29.615	29.124	28.427	28.582	29.182	30.615	BETA 2
	BETA(PR) 1	50.319	48.633	48.489	49.328	50.956	52.873	54.513	56.036	57.144	BETA(PR) 1
	BETA(PR) 2	27.621	27.945	29.324	28.813	31.753	35.244	36.956	37.889	45.200	BETA(PR) 2
	V 1	353.63	380.07	386.79	389.73	386.11	377.56	367.58	351.03	340.12	V 1
	V 2	418.39	432.83	435.47	465.16	459.80	448.87	445.87	439.58	376.54	V 2
	VZ 1	353.61	380.06	386.79	389.70	385.92	377.11	366.91	350.30	339.34	VZ 1
	VZ 2	333.12	358.83	370.10	404.32	401.40	394.18	390.69	382.87	323.21	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	253.13	242.04	229.46	229.83	223.64	213.37	212.85	213.82	191.26	V-THETA 2
	V(PR) 1	553.8	575.1	583.6	598.0	612.8	625.1	632.4	627.4	625.9	V(PR) 1
	V(PR) 2	376.0	406.2	424.5	461.5	472.4	483.2	489.8	486.1	459.5	V(PR) 2
	VTHETA PR1	-426.2	-431.6	-437.0	-453.5	-475.8	-498.1	-514.6	-520.1	-525.4	VTHETA PR1
	VTHETA PR2	-174.3	-190.4	-207.9	-222.4	-248.4	-278.5	-293.9	-297.9	-325.5	VTHETA PR2
	U 1	426.22	431.60	437.03	453.51	475.82	498.14	514.64	520.05	525.43	U 1
	U 2	427.44	432.39	437.36	452.23	472.06	491.89	506.78	511.75	516.72	U 2
	M 1	0.3200	0.3445	0.3507	0.3534	0.3501	0.3421	0.3329	0.3176	0.3075	M 1
	M 2	0.3731	0.3868	0.3900	0.4174	0.4122	0.4023	0.3994	0.3933	0.3353	M 2
	M(PR) 1	0.5011	0.5212	0.5292	0.5423	0.5556	0.5664	0.5727	0.5677	0.5659	M(PR) 1
	M(PR) 2	0.3353	0.3630	0.3802	0.4141	0.4235	0.4331	0.4387	0.4349	0.4091	M(PR) 2
	TURN(PR)	22.698	20.688	19.166	20.518	19.211	17.646	17.585	18.180	11.986	TURN(PR)
	UUBAR	0.2015	0.1742	0.1524	0.0810	0.0810	0.0785	0.0823	0.0818	0.1581	UUBAR
	LOSS PARA	0.0491	0.0429	0.0374	0.0208	0.0212	0.0207	0.0220	0.0218	0.0380	LOSS PARA
	DFAC	0.4471	0.4110	0.3835	0.3404	0.3409	0.3363	0.3370	0.3393	0.3691	DFAC
	EFFP	0.6864	0.7182	0.7914	0.9239	0.9114	0.9276	0.9291	0.9074	0.6490	EFFP
	EFF	0.6824	0.7147	0.7889	0.9228	0.9101	0.9265	0.9280	0.9061	0.6451	EFF
	INCID	-1.522	-3.645	-4.201	-4.728	-5.108	-5.189	-4.930	-3.841	-3.512	INCID
	DEVM	19.872	18.647	18.404	13.110	11.065	10.378	9.400	9.751	16.315	DEVM
	P 1	14.533	14.684	14.732	14.727	14.733	14.723	14.697	14.614	14.562	P 1
	P 2	15.856	15.999	16.025	16.277	16.301	16.278	16.283	16.224	15.742	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	537.870	536.700	534.700	535.000	535.410	534.990	535.300	536.050	536.790	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	36.948	33.714	31.538	29.452	28.920	28.158	28.241	28.808	30.212	BETA 2
STATOR-T.E.	BETA 2A	6.579	6.540	6.570	8.680	9.476	9.472	9.504	9.244	7.604	BETA 2A
	V 2	421.20	436.23	438.91	467.93	463.38	453.59	451.74	445.76	381.95	V 2
	V 2A	412.62	422.73	430.53	458.64	471.42	473.36	480.56	468.96	451.90	V 2A
	VZ 2	336.61	362.86	374.07	407.39	405.36	399.41	397.21	389.78	329.32	VZ 2
	VZ 2A	409.90	419.97	427.70	453.34	464.80	466.52	473.38	462.24	447.23	VZ 2A
	V-THETA 2	253.18	242.13	229.57	230.04	223.95	213.78	213.35	214.35	191.76	V-THETA 2
	V-THETA 2A	47.28	48.14	49.26	69.21	77.58	77.84	79.25	75.23	59.70	V-THETA 2A
	M 2	0.3757	0.3899	0.3932	0.4199	0.4155	0.4066	0.4048	0.3990	0.3402	M 2
	M 2A	0.3678	0.3775	0.3854	0.4113	0.4230	0.4250	0.4316	0.4205	0.4044	M 2A
	TURN(PR)	30.369	27.174	24.968	20.768	19.429	18.655	18.690	19.510	22.544	TURN(PR)
	UUBAR	0.1009	0.1418	0.1150	0.1270	0.0958	0.0860	0.0855	0.1461	-0.0655	UUBAR
	LOSS PARA	0.0324	0.0460	0.0376	0.0425	0.0333	0.0311	0.0319	0.0551	-0.0251	LOSS PARA
	DFAC	0.1787	0.1763	0.1546	0.1367	0.0946	0.0673	0.0496	0.0685	-0.0482	DFAC
	EFFP	-1.3666	-1.1944	-1.8619	-2.0159	3.5532	1.9005	1.6054	2.2829	0.8454	EFFP
	INCID	-10.023	-12.487	-13.932	-14.222	-13.329	-14.234	-15.122	-15.112	-14.318	INCID
	DEVM	19.610	19.394	19.304	21.013	21.592	22.173	23.002	23.039	21.744	DEVM
	P 2	15.856	15.999	16.025	16.277	16.301	16.278	16.283	16.224	15.742	P 2
	P 2A	15.708	15.773	15.839	16.041	16.126	16.127	16.134	15.978	15.821	P 2A
	T 2	537.870	536.700	534.700	535.000	535.410	534.990	535.300	536.050	536.790	T 2
	T 2A	537.870	536.700	534.700	535.000	535.410	534.990	535.300	536.050	536.790	T 2A
	UUBAR FS		0.1537	0.1677	0.1609	0.1301	0.1387	0.1351	0.1268		UUBAR FS
	P2 FS		16.028	16.135	16.359	16.379	16.392	16.389	16.193		P2 FS
	LOSS PARA FS		0.0498	0.0548	0.0538	0.0452	0.0501	0.0504	0.0478		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.30 Equivalent Rotor Speed = 2959.57 Equivalent Weight Flow = 84.36
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	330.19	330.19	330.19	330.19	330.19	330.19	330.19	330.19	330.19	V 0
	V 1	320.24	342.44	352.36	353.77	354.16	345.80	330.41	327.25	307.20	V 1
	VZ 0	330.18	330.19	330.19	330.18	330.16	330.13	330.09	330.08	330.07	VZ 0
	VZ 1	320.24	342.44	352.36	353.76	354.13	345.73	330.32	327.15	307.09	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2984	0.2984	0.2984	0.2984	0.2984	0.2984	0.2984	0.2984	0.2984	M 0
	M 1	0.2892	0.3097	0.3188	0.3201	0.3205	0.3128	0.2986	0.2957	0.2773	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4431	0.3033	0.2295	0.2318	0.2238	0.2454	0.3056	0.3136	0.4453	UUBAR
	DFAC	0.030	-0.037	-0.067	-0.071	-0.073	-0.047	-0.001	0.009	0.070	DFAC
	EFFP	-0.1593	0.2043	0.3848	0.3978	0.4104	0.2897	0.0045	-0.0619	-0.4477	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.936	14.936	14.936	14.936	14.936	14.936	14.936	14.936	14.936	P 0
	P 1	14.540	14.665	14.731	14.729	14.736	14.717	14.663	14.656	14.538	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	39.792	37.158	34.308	32.073	31.711	30.759	30.770	31.899	33.786	BETA 2
	BETA(PR) 1	51.853	50.357	49.895	50.826	52.202	54.187	56.297	56.823	58.723	BETA(PR) 1
	BETA(PR) 2	27.076	26.957	28.308	28.730	31.582	34.639	36.594	37.884	43.280	BETA(PR) 2
	V 1	336.15	359.06	369.59	371.08	370.76	361.34	345.29	342.11	321.22	V 1
	V 2	415.56	430.15	435.42	456.22	452.29	447.55	443.56	433.16	388.50	V 2
	VZ 1	336.14	359.05	369.59	371.04	370.57	360.92	344.66	341.41	320.48	VZ 1
	VZ 2	319.31	342.81	359.66	386.52	384.53	384.06	380.33	366.91	322.10	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	265.96	259.81	245.42	242.21	237.59	228.57	226.45	228.37	215.52	V-THETA 2
	V(PR) 1	544.2	562.8	573.7	587.4	604.7	617.0	621.5	624.3	617.7	V(PR) 1
	V(PR) 2	358.6	384.6	408.5	440.9	451.7	467.4	474.6	465.8	443.3	V(PR) 2
	VTHETA PR1	-428.0	-433.4	-438.8	-455.4	-477.8	-500.2	-516.7	-522.2	-527.6	VTHETA PR1
	VTHETA PR2	-163.2	-174.4	-193.7	-211.9	-236.4	-265.3	-282.4	-285.5	-303.3	VTHETA PR2
	U 1	427.97	433.36	438.81	455.37	477.77	500.18	516.74	522.18	527.58	U 1
	U 2	429.19	434.16	439.14	454.08	473.99	493.90	508.86	513.84	518.84	U 2
	M 1	0.3039	0.3250	0.3347	0.3361	0.3358	0.3271	0.3123	0.3094	0.2901	M 1
	M 2	0.3699	0.3838	0.3892	0.4084	0.4047	0.4004	0.3963	0.3866	0.3457	M 2
	M(PR) 1	0.4919	0.5094	0.5196	0.5321	0.5478	0.5586	0.5621	0.5645	0.5579	M(PR) 1
	M(PR) 2	0.3192	0.3431	0.3651	0.3946	0.4041	0.4182	0.4240	0.4158	0.3944	M(PR) 2
	TURN(PR)	24.776	23.400	21.587	22.100	20.628	19.566	19.731	18.972	15.486	TURN(PR)
	UUBAR	0.1768	0.1629	0.1318	0.0734	0.0749	0.0597	0.0523	0.0813	0.1172	UUBAR
	LOSS PARA	0.0433	0.0404	0.0327	0.0188	0.0196	0.0158	0.0140	0.0204	0.0291	LOSS PARA
	DFAC	0.4757	0.4453	0.4086	0.3699	0.3735	0.3613	0.3570	0.3693	0.4003	DFAC
	EFFP	0.7096	0.7534	0.8052	0.9084	0.9126	0.9516	0.9276	0.8881	0.7788	EFFP
	EFF	0.7055	0.7500	0.8025	0.9070	0.9112	0.9508	0.9263	0.8862	0.7756	EFF
	INCID	0.011	-1.921	-2.795	-3.230	-3.862	-3.875	-3.145	-3.053	-1.931	INCID
	DEVM	19.327	17.659	17.389	13.026	10.894	9.773	9.039	9.747	14.396	DEVM
	P 1	14.540	14.665	14.731	14.729	14.736	14.717	14.663	14.656	14.538	P 1
	P 2	16.045	16.169	16.225	16.416	16.455	16.478	16.481	16.415	16.079	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	539.690	538.270	536.790	536.700	536.930	536.610	537.720	537.970	538.230	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	39.483	36.836	34.022	31.895	31.487	30.464	30.399	31.485	33.327	BETA 2
STATOR-T.E.	BETA 2A	5.750	6.710	7.080	7.920	8.221	8.592	9.524	9.154	7.203	BETA 2A
	V 2	418.35	433.51	438.86	458.90	455.79	452.25	449.38	439.22	394.13	V 2
	V 2A	387.46	395.90	403.77	428.12	442.75	448.76	452.44	435.13	414.74	V 2A
	VZ 2	322.89	346.96	363.73	389.56	388.46	389.34	386.90	373.81	328.62	VZ 2
	VZ 2A	385.51	393.18	400.69	423.99	438.03	443.36	445.66	429.00	410.83	VZ 2A
	V-THETA 2	266.00	259.90	245.54	242.43	237.93	229.01	226.98	228.94	216.08	V-THETA 2
	V-THETA 2A	38.82	46.26	49.77	58.98	63.28	66.99	74.77	69.13	51.92	V-THETA 2A
	M 2	0.3724	0.3869	0.3923	0.4109	0.4079	0.4048	0.4017	0.3922	0.3508	M 2
	M 2A	0.3443	0.3524	0.3601	0.3825	0.3959	0.4015	0.4045	0.3885	0.3697	M 2A
	TURN(PR)	33.732	30.126	26.941	23.970	23.250	21.839	20.827	22.275	26.055	TURN(PR)
	UUBAR	0.0756	0.1090	0.1027	0.0959	0.0628	0.0671	0.0827	0.1366	0.0356	UUBAR
	LOSS PARA	0.0243	0.0353	0.0336	0.0322	0.0219	0.0243	0.0308	0.0515	0.0137	LOSS PARA
	DFAC	0.2497	0.2478	0.2271	0.2029	0.1643	0.1400	0.1225	0.1497	0.1101	DFAC
	EFFP	0.4974	0.3806	0.3649	0.3078	-0.0388	-3.0758	6.6493	-5.9579	1.3147	EFFP
	INCID	-7.489	-9.365	-11.449	-11.780	-10.763	-11.929	-12.965	-12.438	-11.207	INCID
	DEVM	18.781	19.564	19.814	20.253	20.338	21.293	23.022	22.949	21.344	DEVM
	P 2	16.045	16.169	16.225	16.416	16.455	16.478	16.481	16.415	16.079	P 2
	P 2A	15.935	15.997	16.058	16.244	16.343	16.360	16.338	16.190	16.032	P 2A
	T 2	539.690	538.270	536.790	536.700	536.930	536.610	537.720	537.970	538.230	T 2
	T 2A	539.690	538.270	536.830	536.700	536.930	536.610	537.720	537.970	538.230	T 2A
	UUBAR FS		0.1422	0.1517	0.1279	0.0997	0.1065	0.1003	0.1167		UUBAR FS
	P2 FS		16.222	16.311	16.474	16.520	16.548	16.507	16.370		P2 FS
	LOSS PARA FS		0.0460	0.0496	0.0429	0.0347	0.0385	0.0373	0.0440		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.01 Equivalent Rotor Speed = 2947.35 Equivalent Weight Flow = 78.60
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	306.68	306.68	306.68	306.68	306.68	306.68	306.68	306.68	306.68	V 0
	V 1	297.38	322.31	328.35	333.08	330.46	325.76	311.02	307.74	302.19	V 1
	VZ 0	306.68	306.68	306.68	306.68	306.66	306.63	306.60	306.59	306.58	VZ 0
	VZ 1	297.38	322.31	328.34	333.07	330.43	325.70	310.94	307.65	302.08	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2768	0.2768	0.2768	0.2768	0.2768	0.2768	0.2768	0.2768	0.2768	M 0
	M 1	0.2683	0.2911	0.2967	0.3010	0.2986	0.2943	0.2808	0.2778	0.2727	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4385	0.2757	0.2324	0.2048	0.2285	0.2298	0.2902	0.3033	0.3322	UUBAR
	DFAC	0.030	-0.051	-0.071	-0.086	-0.078	-0.062	-0.014	-0.003	0.015	DFAC
	EFFP	-0.1619	0.2803	0.3931	0.4746	0.4206	0.3650	0.0916	0.0228	-0.0986	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.890	14.890	14.890	14.890	14.890	14.890	14.890	14.890	14.890	P 0
	P 1	14.552	14.677	14.711	14.732	14.714	14.713	14.666	14.656	14.634	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	44.671	41.812	38.233	36.085	35.421	34.788	35.096	36.442	39.590	BETA 2
	BETA(PR) 1	53.795	51.954	51.780	52.410	54.013	55.699	57.784	58.319	59.038	BETA(PR) 1
	BETA(PR) 2	25.343	26.439	27.375	28.313	31.378	34.580	36.740	38.440	43.524	BETA(PR) 2
	V 1	311.99	337.74	344.13	349.14	345.69	340.21	324.86	321.59	315.94	V 1
	V 2	411.04	416.82	426.43	441.52	438.71	433.26	428.19	416.03	378.16	V 2
	VZ 1	311.98	337.74	344.13	349.11	345.52	339.81	324.26	320.93	315.21	VZ 1
	VZ 2	292.31	310.67	334.95	356.75	357.31	355.38	349.69	333.99	290.81	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	288.97	277.89	263.90	260.01	254.12	246.89	245.73	246.62	240.49	V-THETA 2
	V(PR) 1	528.2	548.0	556.2	572.3	588.1	603.2	608.6	611.4	613.1	V(PR) 1
	V(PR) 2	323.4	347.0	377.2	405.3	418.8	432.2	437.2	427.2	401.8	V(PR) 2
	VTHETA PR1	-426.2	-431.6	-437.0	-453.5	-475.8	-498.1	-514.6	-520.0	-525.4	VTHETA PR1
	VTHETA PR2	-138.4	-154.5	-173.4	-192.2	-217.9	-245.0	-261.0	-265.1	-276.2	VTHETA PR2
	U 1	426.20	431.58	437.00	453.49	475.79	498.11	514.61	520.02	525.40	U 1
	U 2	427.41	432.37	437.33	452.21	472.03	491.86	506.75	511.72	516.69	U 2
	M 1	0.2817	0.3053	0.3112	0.3158	0.3127	0.3076	0.2935	0.2905	0.2853	M 1
	M 2	0.3651	0.3709	0.3802	0.3942	0.3916	0.3867	0.3815	0.3703	0.3358	M 2
	M(PR) 1	0.4769	0.4954	0.5030	0.5177	0.5319	0.5454	0.5498	0.5523	0.5536	M(PR) 1
	M(PR) 2	0.2873	0.3087	0.3363	0.3619	0.3738	0.3858	0.3895	0.3803	0.3568	M(PR) 2
	TURN(PR)	28.452	25.515	24.406	24.100	22.644	21.137	21.074	19.914	15.557	TURN(PR)
	UUBAR	0.1783	0.1727	0.1178	0.0771	0.0689	0.0652	0.0667	0.0996	0.1670	UUBAR
	LOSS PARA	0.0443	0.0431	0.0295	0.0199	0.0181	0.0173	0.0178	0.0263	0.0413	LOSS PARA
	DFAC	0.5384	0.5082	0.4557	0.4245	0.4203	0.4147	0.4153	0.4362	0.4771	DFAC
	EFFP	0.7277	0.7465	0.8247	0.9023	0.9156	0.9552	0.9023	0.8651	0.7532	EFFP
	EFF	0.7234	0.7427	0.8219	0.9007	0.9141	0.9544	0.9005	0.8628	0.7495	EFF
	INCID	1.953	-0.324	-0.910	-1.647	-2.050	-2.363	-1.657	-1.555	-1.616	INCID
	DEVM	17.594	17.141	16.455	12.610	10.690	9.715	9.184	10.302	14.640	DEVM
	P 1	14.552	14.677	14.711	14.732	14.714	14.713	14.666	14.656	14.634	P 1
	P 2	16.242	16.308	16.395	16.555	16.591	16.618	16.613	16.526	16.251	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	541.570	540.040	538.550	538.220	538.500	537.940	539.580	539.680	539.740	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	44.300	41.438	37.905	35.882	35.167	34.451	34.667	35.963	39.032	BETA 2
STATOR-T.E.	BETA 2A	4.910	5.690	6.600	7.120	7.381	7.482	8.473	8.534	7.754	BETA 2A
	V 2	413.83	420.04	429.76	444.08	442.06	437.76	433.73	421.75	383.60	V 2
	V 2A	341.30	353.78	364.77	384.90	401.89	405.48	404.54	389.62	372.46	V 2A
	VZ 2	296.17	314.90	339.09	359.76	361.19	360.58	356.14	340.75	297.43	VZ 2
	VZ 2A	340.05	352.04	362.34	381.89	398.40	401.69	399.63	384.77	368.48	VZ 2A
	V-THETA 2	289.02	277.99	264.02	260.24	254.48	247.36	246.30	247.23	241.13	V-THETA 2
	V-THETA 2A	29.21	35.07	41.92	47.70	51.61	52.75	59.53	57.74	50.17	V-THETA 2A
	M 2	0.3676	0.3739	0.3833	0.3966	0.3946	0.3909	0.3866	0.3756	0.3407	M 2
	M 2A	0.3019	0.3136	0.3240	0.3424	0.3578	0.3613	0.3599	0.3462	0.3306	M 2A
	TURN(PR)	39.390	35.748	31.305	28.756	27.769	26.932	26.139	27.366	31.205	TURN(PR)
	UUBAR	0.0791	0.0669	0.0712	0.0685	0.0246	0.0372	0.0685	0.0972	0.0	UUBAR
	LOSS PARA	0.0255	0.0217	0.0233	0.0230	0.0086	0.0135	0.0256	0.0367	0.0	LOSS PARA
	DFAC	0.3785	0.3467	0.3217	0.2959	0.2533	0.2377	0.2314	0.2493	0.2230	DFAC
	EFFP	0.7651	0.7803	0.7562	0.7411	0.8672	0.7511	0.5043	0.3733	1.0003	EFFP
	INCID	-2.671	-4.764	-7.565	-7.793	-7.083	-7.946	-8.702	-7.966	-5.508	INCID
	DEVM	17.941	18.544	19.334	19.453	19.498	20.184	21.973	22.330	21.894	DEVM
	P 2	16.242	16.308	16.395	16.555	16.591	16.618	16.613	16.526	16.251	P 2
	P 2A	16.128	16.208	16.283	16.439	16.549	16.556	16.501	16.377	16.251	P 2A
	T 2	541.570	540.040	538.550	538.220	538.500	537.940	539.580	539.680	539.740	T 2
	T 2A	541.570	540.050	538.570	538.220	538.500	537.950	539.580	539.680	539.740	T 2A
	UUBAR FS		0.1242	0.1250	0.1009	0.0574	0.0662	0.0833	0.1172		UUBAR FS
	P2 FS		16.400	16.486	16.610	16.643	16.663	16.633	16.556		P2 FS
	LOSS PARA FS		0.0402	0.0409	0.0338	0.0200	0.0240	0.0311	0.0442		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 69.71 Equivalent Rotor Speed = 2934.65 Equivalent Weight Flow = 74.45
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	289.63	289.63	289.63	289.63	289.63	289.63	289.63	289.63	289.63	V 0
	V 1	280.26	299.02	306.09	313.19	310.95	304.67	289.11	290.00	275.58	V 1
	VZ 0	289.63	289.63	289.63	289.63	289.61	289.58	289.55	289.54	289.53	VZ 0
	VZ 1	280.26	299.02	306.09	313.18	310.92	304.62	289.03	289.91	275.49	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2612	0.2612	0.2612	0.2612	0.2612	0.2612	0.2612	0.2612	0.2612	M 0
	M 1	0.2526	0.2698	0.2763	0.2828	0.2807	0.2750	0.2607	0.2615	0.2484	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4084	0.2733	0.2204	0.1866	0.1998	0.2072	0.2850	0.2703	0.3731	UUBAR
	DFAC	0.032	-0.032	-0.057	-0.081	-0.074	-0.052	0.002	-0.001	0.049	DFAC
	EFFP	-0.1891	0.1980	0.3527	0.4823	0.4396	0.3456	-0.0131	0.0094	-0.3497	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.865	14.865	14.865	14.865	14.865	14.865	14.865	14.865	14.865	P 0
	P 1	14.583	14.676	14.713	14.736	14.727	14.722	14.668	14.679	14.608	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	48.015	45.813	42.139	39.316	38.700	38.086	38.598	41.282	44.790	BETA 2
	BETA(PR) 1	55.298	53.915	53.613	53.999	55.551	57.360	59.546	59.725	61.229	BETA(PR) 1
	BETA(PR) 2	23.002	25.944	26.773	27.863	31.026	34.448	36.574	39.198	43.271	BETA(PR) 2
	V 1	293.88	313.18	320.64	328.10	325.14	318.05	301.81	302.89	287.91	V 1
	V 2	414.27	407.61	416.68	431.92	429.58	423.87	419.89	401.09	375.48	V 2
	VZ 1	293.87	313.18	320.64	328.07	324.98	317.68	301.26	302.27	287.26	VZ 1
	VZ 2	277.12	284.11	308.97	334.11	335.08	333.24	327.60	300.87	266.00	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	307.93	292.29	279.56	273.63	268.45	261.16	261.50	264.15	264.05	V-THETA 2
	V(PR) 1	516.2	531.7	540.5	558.2	574.6	589.2	594.7	599.9	597.1	V(PR) 1
	V(PR) 2	301.1	315.9	346.1	378.0	391.3	404.6	408.7	389.0	366.0	V(PR) 2
	VTHETA PR1	-424.4	-429.7	-435.1	-451.5	-473.7	-496.0	-512.4	-517.8	-523.1	VTHETA PR1
	VTHETA PR2	-117.6	-138.2	-155.9	-176.6	-201.5	-228.6	-243.1	-245.4	-250.4	VTHETA PR2
	U 1	424.36	429.72	435.12	451.54	473.74	495.97	512.39	517.78	523.13	U 1
	U 2	425.57	430.51	435.45	450.26	470.00	489.74	504.57	509.52	514.47	U 2
	M 1	0.2651	0.2828	0.2896	0.2965	0.2937	0.2872	0.2723	0.2733	0.2596	M 1
	M 2	0.3679	0.3623	0.3711	0.3852	0.3830	0.3779	0.3737	0.3565	0.3331	M 2
	M(PR) 1	0.4656	0.4801	0.4882	0.5043	0.5191	0.5321	0.5366	0.5413	0.5385	M(PR) 1
	M(PR) 2	0.2674	0.2808	0.3082	0.3371	0.3488	0.3607	0.3637	0.3457	0.3247	M(PR) 2
	TURN(PR)	32.295	27.971	26.840	26.139	24.534	22.930	23.003	20.564	18.003	TURN(PR)
	UUBAR	0.1654	0.1721	0.1226	0.0695	0.0669	0.0692	0.0659	0.1276	0.1679	UUBAR
	LOSS PARA	0.0419	0.0431	0.0309	0.0180	0.0176	0.0184	0.0177	0.0334	0.0416	LOSS PARA
	DFAC	0.5811	0.5590	0.5056	0.4660	0.4621	0.4554	0.4584	0.4989	0.5365	DFAC
	EFFP	0.7867	0.7827	0.8523	0.9364	0.9477	0.9730	0.9465	0.8724	0.8209	EFFP
	EFF	0.7830	0.7792	0.8499	0.9353	0.9467	0.9725	0.9455	0.8701	0.8178	EFF
	INCID	3.456	1.637	0.923	-0.057	-0.512	-0.701	-0.107	-0.148	0.577	INCID
	DEVM	15.253	16.645	15.854	12.160	10.338	9.583	9.019	11.059	14.387	DEVM
	P 1	14.583	14.676	14.713	14.736	14.727	14.722	14.668	14.679	14.608	P 1
	P 2	16.459	16.434	16.515	16.692	16.732	16.742	16.760	16.626	16.449	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	542.000	540.560	539.180	538.800	539.050	538.660	540.000	540.300	540.580	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	47.604	45.385	41.766	39.090	38.418	37.710	38.116	40.721	44.125	BETA 2
STATOR-T.E.	BETA 2A	4.060	4.580	6.270	7.250	7.301	7.242	8.083	8.203	7.753	BETA 2A
	V 2	417.04	410.74	419.91	434.41	432.84	428.23	425.28	406.55	380.86	V 2
	V 2A	303.76	320.23	333.75	356.45	375.21	376.51	372.22	358.64	341.70	V 2A
	VZ 2	281.19	288.48	313.19	337.12	338.97	338.44	334.09	307.64	272.96	VZ 2
	VZ 2A	303.00	319.20	331.75	353.56	372.02	373.20	368.06	354.48	338.05	VZ 2A
	V-THETA 2	307.98	292.38	279.69	273.88	268.84	261.66	262.11	264.81	264.75	V-THETA 2
	V-THETA 2A	21.51	25.57	36.45	44.98	47.66	47.42	52.27	51.10	46.03	V-THETA 2A
	M 2	0.3704	0.3652	0.3740	0.3875	0.3859	0.3819	0.3787	0.3614	0.3380	M 2
	M 2A	0.2681	0.2832	0.2958	0.3164	0.3333	0.3346	0.3303	0.3179	0.3026	M 2A
	TURN(PR)	43.544	40.805	35.496	31.835	31.099	30.429	29.976	32.452	36.296	TURN(PR)
	UUBAR	0.1496	0.0769	0.0719	0.0820	0.0297	0.0379	0.0846	0.0705	0.0299	UUBAR
	LOSS PARA	0.0483	0.0250	0.0235	0.0275	0.0104	0.0138	0.0317	0.0267	0.0115	LOSS PARA
	DFAC	0.4940	0.4326	0.3962	0.3584	0.3139	0.3053	0.3127	0.3203	0.3264	DFAC
	EFFP	0.6961	0.8077	0.8049	0.7631	0.8874	0.8428	0.6566	0.7005	0.8608	EFFP
	INCID	0.633	-0.816	-3.705	-4.585	-3.833	-4.688	-5.255	-3.210	-0.416	INCID
	DEVM	17.091	17.434	19.004	19.583	19.418	19.944	21.583	22.000	21.893	DEVM
	P 2	16.459	16.434	16.515	16.692	16.732	16.742	16.760	16.626	16.449	P 2
	P 2A	16.236	16.322	16.405	16.557	16.684	16.681	16.627	16.525	16.411	P 2A
	T 2	542.000	540.560	539.180	538.800	539.050	538.660	540.000	540.300	540.580	T 2
	T 2A	542.000	540.600	539.250	538.800	539.050	538.660	540.010	540.290	540.560	T 2A
	UUBAR FS		0.1344	0.1003	0.0889	0.0616	0.0658	0.0738	0.0858		UUBAR FS
	P2 FS		16.536	16.968	16.710	16.796	16.796	16.748	16.672		P2 FS
	LOSS PARA FS		0.0437	0.0327	0.0298	0.0216	0.0239	0.0276	0.0363		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.26 Equivalent Rotor Speed = 2957.76 Equivalent Weight Flow = 66.85
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	258.88	258.88	258.88	258.88	258.88	258.88	258.88	258.88	258.88	V 0
	V 1	250.76	270.32	277.22	276.75	281.38	274.96	262.14	255.28	228.09	V 1
	VZ 0	258.88	258.88	258.88	258.88	258.86	258.84	258.81	258.80	258.79	VZ 0
	VZ 1	250.76	270.32	277.21	276.74	281.35	274.91	262.06	255.20	228.01	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2332	0.2332	0.2332	0.2332	0.2332	0.2332	0.2332	0.2332	0.2332	M 0
	M 1	0.2258	0.2436	0.2499	0.2494	0.2537	0.2478	0.2361	0.2299	0.2052	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4142	0.2547	0.2162	0.2291	0.2089	0.2254	0.2822	0.3042	0.5003	UUBAR
	DFAC	0.031	-0.044	-0.071	-0.069	-0.087	-0.062	-0.013	0.014	0.119	DFAC
	EFFP	-0.1785	0.2660	0.4093	0.3889	0.4699	0.3671	0.0836	-0.1017	-0.8289	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.836	14.836	14.836	14.836	14.836	14.836	14.836	14.836	14.836	P 0
	P 1	14.608	14.696	14.717	14.710	14.721	14.712	14.681	14.669	14.561	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	53.362	52.698	48.769	44.256	43.758	43.621	44.293	48.545	52.957	BETA 2
	BETA(PR) 1	58.436	56.848	56.510	57.526	58.392	60.183	62.138	63.002	65.748	BETA(PR) 1
	BETA(PR) 2	20.976	26.549	26.672	27.339	30.346	34.279	37.756	40.707	44.798	BETA(PR) 2
	V 1	262.76	282.90	290.16	289.66	293.98	286.81	273.49	266.42	238.08	V 1
	V 2	415.95	395.08	405.19	424.89	425.24	417.54	406.55	389.85	371.81	V 2
	VZ 1	262.76	282.90	290.16	289.64	293.84	286.47	273.00	265.88	237.53	VZ 1
	VZ 2	248.22	239.43	267.06	304.28	307.00	301.97	290.58	257.74	223.70	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	333.76	314.27	304.72	296.49	293.97	287.77	283.50	291.78	296.40	V-THETA 2
	V(PR) 1	502.0	517.3	525.8	539.5	560.7	576.3	584.4	585.9	578.5	V(PR) 1
	V(PR) 2	265.8	267.6	298.9	342.6	356.0	365.9	368.2	340.6	315.8	V(PR) 2
	VTHETA PR1	-427.7	-433.1	-438.5	-455.1	-477.5	-499.9	-516.4	-521.9	-527.3	VTHETA PR1
	VTHETA PR2	-95.2	-119.6	-134.2	-157.3	-179.7	-205.8	-225.0	-221.7	-222.1	VTHETA PR2
	U 1	427.71	433.10	438.55	455.09	477.47	499.87	516.43	521.86	527.25	U 1
	U 2	428.92	433.90	438.88	453.80	473.70	493.60	508.54	513.53	518.52	U 2
	M 1	0.2367	0.2550	0.2617	0.2612	0.2652	0.2586	0.2465	0.2400	0.2142	M 1
	M 2	0.3690	0.3503	0.3599	0.3782	0.3784	0.3714	0.3610	0.3454	0.3286	M 2
	M(PR) 1	0.4522	0.4664	0.4742	0.4865	0.5058	0.5197	0.5266	0.5279	0.5206	M(PR) 1
	M(PR) 2	0.2358	0.2373	0.2654	0.3049	0.3168	0.3255	0.3270	0.3018	0.2791	M(PR) 2
	TURN(PR)	37.460	30.299	29.838	30.189	28.055	25.925	24.416	22.337	21.002	TURN(PR)
	UUBAR	0.1654	0.2021	0.1478	0.0642	0.0748	0.0834	0.0953	0.1618	0.1877	UUBAR
	LOSS PARA	0.0425	0.0503	0.0372	0.0167	0.0199	0.0222	0.0251	0.0414	0.0454	LOSS PARA
	DFAC	0.6536	0.6520	0.5951	0.5254	0.5257	0.5252	0.5306	0.5852	0.6272	DFAC
	EFFP	0.8392	0.7801	0.8424	0.9642	0.9743	0.9806	0.9430	0.8502	0.8034	EFFP
	EFF	0.8361	0.7762	0.8395	0.9635	0.9738	0.9802	0.9418	0.8473	0.7996	EFF
	INCID	6.594	4.570	3.820	3.469	2.329	2.124	2.701	3.133	5.103	INCID
	DEVM	13.227	17.251	15.753	11.636	9.659	9.414	10.200	12.568	15.914	DEVM
	P 1	14.608	14.696	14.717	14.710	14.721	14.712	14.681	14.669	14.561	P 1
	P 2	16.725	16.594	16.689	16.893	16.951	16.956	16.916	16.804	16.685	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	543.150	542.300	541.300	540.410	540.600	540.600	541.460	542.940	544.440	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	52.865	52.159	48.304	43.990	43.424	43.169	43.709	47.836	52.083	BETA 2
STATOR-T.E.	BETA 2A	3.350	4.330	6.540	7.740	7.580	7.642	7.543	7.703	7.694	BETA 2A
	V 2	418.73	398.09	408.30	427.33	428.45	421.81	411.76	395.11	377.13	V 2
	V 2A	264.66	280.07	290.55	314.37	337.58	342.01	343.51	324.62	311.48	V 2A
	VZ 2	252.79	244.21	271.59	307.41	311.05	307.38	297.27	264.90	231.49	VZ 2
	VZ 2A	264.21	279.27	288.66	311.47	334.50	338.69	340.12	321.25	308.20	VZ 2A
	V-THETA 2	333.82	314.38	304.87	296.76	294.39	288.33	284.16	292.51	297.18	V-THETA 2
	V-THETA 2A	15.47	21.15	33.09	42.33	44.52	45.44	45.03	43.45	41.64	V-THETA 2A
	M 2	0.3716	0.3531	0.3627	0.3804	0.3814	0.3753	0.3658	0.3501	0.3334	M 2
	M 2A	0.2329	0.2468	0.2564	0.2780	0.2988	0.3028	0.3039	0.2865	0.2744	M 2A
	TURN(PR)	49.515	47.829	41.763	36.244	35.824	35.487	36.106	40.066	44.316	TURN(PR)
	UUBAR	0.1793	0.0560	0.0759	0.1032	0.0462	0.0399	0.0615	0.0406	0.0180	UUBAR
	LOSS PARA	0.0579	0.0182	0.0248	0.0346	0.0161	0.0145	0.0231	0.0154	0.0069	LOSS PARA
	DFAC	0.6141	0.5371	0.5079	0.4666	0.4183	0.4015	0.3868	0.4210	0.4378	DFAC
	EFFP	0.7145	0.8941	0.8535	0.7867	0.8849	0.8900	0.8080	0.8808	0.9460	EFFP
	INCID	5.894	5.958	2.833	0.314	1.172	0.769	0.335	3.904	7.544	INCID
	DEVM	16.381	17.184	19.274	20.073	19.697	20.343	21.043	21.500	21.834	DEVM
	P 2	16.725	16.594	16.689	16.893	16.951	16.956	16.916	16.804	16.685	P 2
	P 2A	16.452	16.518	16.579	16.728	16.876	16.893	16.825	16.749	16.663	P 2A
	T 2	543.150	542.300	541.300	540.410	540.600	540.600	541.460	542.940	544.440	T 2
	T 2A	543.150	542.300	541.300	540.410	540.600	540.600	541.460	542.940	544.440	T 2A
	UUBAR FS		0.1691	0.1252	0.0627	0.0488	0.0650	0.0777	0.0939		UUBAR FS
	P2 FS		16.778	16.776	16.829	16.960	17.003	16.947	16.889		P2 FS
	LOSS PARA FS		0.0536	0.0409	0.0210	0.0170	0.0236	0.0291	0.0356		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.61 Equivalent Rotor Speed = 2972.62 Equivalent Weight Flow = 63.37
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	244.97	244.97	244.97	244.97	244.97	244.97	244.97	244.97	244.97	V 0
	V 1	232.96	251.71	260.45	262.52	264.28	259.53	240.13	235.58	217.75	V 1
	VZ 0	244.97	244.97	244.97	244.97	244.95	244.93	244.90	244.89	244.89	VZ 0
	VZ 1	232.96	251.71	260.45	262.51	264.26	259.48	240.06	235.51	217.68	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2205	0.2205	0.2205	0.2205	0.2205	0.2205	0.2205	0.2205	0.2205	M 0
	M 1	0.2096	0.2266	0.2346	0.2365	0.2381	0.2337	0.2161	0.2120	0.1958	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.3965	0.2473	0.2044	0.2044	0.1962	0.2146	0.3107	0.3086	0.4619	UUBAR
	DFAC	0.049	-0.028	-0.063	-0.072	-0.079	-0.059	0.020	0.038	0.111	DFAC
	EFFP	-0.3242	0.1867	0.3940	0.4254	0.4600	0.3677	-0.1465	-0.3288	-0.8528	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.819	14.819	14.819	14.819	14.819	14.819	14.819	14.819	14.819	P 0
	P 1	14.623	14.697	14.718	14.718	14.722	14.713	14.666	14.667	14.591	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	55.582	55.315	52.230	46.988	46.037	45.495	49.602	55.496	60.248	BETA 2
	BETA(PR) 1	60.418	58.829	58.273	59.015	60.105	61.718	64.284	64.937	66.836	BETA(PR) 1
	BETA(PR) 2	19.235	26.126	28.376	27.441	30.333	33.949	39.059	42.782	44.370	BETA(PR) 2
	V 1	244.02	263.32	272.50	274.68	276.02	270.62	250.43	245.78	227.24	V 1
	V 2	421.73	395.93	393.36	420.23	422.99	418.98	397.45	383.17	385.32	V 2
	VZ 1	244.01	263.31	272.50	274.66	275.88	270.31	249.97	245.27	226.72	VZ 1
	VZ 2	238.37	225.31	240.93	286.63	293.51	293.43	257.28	216.83	191.05	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	347.90	325.57	310.94	307.25	304.34	298.54	302.32	315.45	334.23	V-THETA 2
	V(PR) 1	494.3	508.7	518.2	533.5	553.6	570.6	576.3	579.2	576.6	V(PR) 1
	V(PR) 2	252.5	250.9	273.8	323.0	340.3	354.2	331.9	295.9	267.7	V(PR) 2
	VTHETA PR1	-429.9	-435.3	-440.7	-457.4	-479.9	-502.4	-519.0	-524.5	-529.9	VTHETA PR1
	VTHETA PR2	-83.2	-110.5	-130.1	-148.8	-171.7	-197.5	-208.8	-200.7	-186.9	VTHETA PR2
	U 1	429.85	435.28	440.75	457.38	479.87	502.39	519.02	524.48	529.90	U 1
	U 2	431.08	436.08	441.08	456.08	476.08	496.08	511.10	516.11	521.12	U 2
	M 1	0.2196	0.2372	0.2456	0.2475	0.2488	0.2438	0.2255	0.2212	0.2044	M 1
	M 2	0.3739	0.3507	0.3487	0.3733	0.3758	0.3721	0.3517	0.3387	0.3407	M 2
	M(PR) 1	0.4449	0.4582	0.4670	0.4808	0.4989	0.5142	0.5188	0.5214	0.5186	M(PR) 1
	M(PR) 2	0.2238	0.2223	0.2427	0.2869	0.3023	0.3145	0.2937	0.2616	0.2367	M(PR) 2
	TURN(PR)	41.182	32.703	29.898	31.577	29.782	27.790	25.263	22.200	22.519	TURN(PR)
	UUBAR	0.1685	0.2062	0.1781	0.0819	0.0802	0.0829	0.1477	0.2302	0.2568	UUBAR
	LOSS PARA	0.0438	0.0515	0.0442	0.0213	0.0213	0.0222	0.0383	0.0570	0.0626	LOSS PARA
	DFAC	0.6831	0.6851	0.6408	0.5628	0.5537	0.5471	0.5977	0.6712	0.7315	DFAC
	EFFP	0.8428	0.7815	0.7966	0.9183	0.9465	0.9535	0.8478	0.8068	0.8514	EFFP
	EFF	0.8396	0.7775	0.7930	0.9166	0.9453	0.9525	0.8447	0.8030	0.8483	EFF
	INCID	8.576	6.551	5.583	4.959	4.043	3.660	4.849	5.070	6.192	INCID
	DEVM	11.486	16.828	17.456	11.738	9.646	9.084	11.501	14.642	15.486	DEVM
	P 1	14.623	14.697	14.718	14.718	14.722	14.713	14.666	14.667	14.591	P 1
	P 2	16.868	16.701	16.689	16.962	17.045	17.073	16.941	16.844	16.891	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	544.430	543.514	542.611	542.114	542.152	542.345	544.532	544.759	544.820	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	55.041	54.722	51.710	46.697	45.677	45.013	48.916	54.599	59.095	BETA 2
STATOR-T.E.	BETA 2A	3.140	3.940	6.650	8.260	8.340	7.551	7.683	7.924	6.233	BETA 2A
	V 2	424.57	398.95	396.36	422.62	426.17	423.27	402.46	388.31	390.88	V 2
	V 2A	247.89	255.27	270.56	298.06	327.31	328.53	317.45	305.64	291.38	V 2A
	VZ 2	243.28	230.41	245.60	289.83	297.66	298.99	264.21	224.74	200.60	VZ 2
	VZ 2A	247.52	254.67	268.74	294.93	323.72	325.41	314.21	302.31	289.21	VZ 2A
	V-THETA 2	347.96	325.68	311.09	307.53	304.77	299.12	303.03	316.23	335.11	V-THETA 2
	V-THETA 2A	13.58	17.54	31.33	42.82	47.46	43.14	42.39	42.08	31.59	V-THETA 2A
	M 2	0.3764	0.3534	0.3514	0.3755	0.3787	0.3760	0.3563	0.3434	0.3457	M 2
	M 2A	0.2178	0.2245	0.2383	0.2630	0.2892	0.2902	0.2797	0.2691	0.2563	M 2A
	TURN(PR)	51.901	50.782	45.059	38.431	37.317	37.421	41.173	46.612	52.795	TURN(PR)
	UUBAR	0.2092	0.0898	0.0251	0.1007	0.0326	0.0470	0.0319	0.0252	0.1204	UUBAR
	LOSS PARA	0.0676	0.0292	0.0082	0.0337	0.0114	0.0171	0.0120	0.0095	0.0462	LOSS PARA
	DFAC	0.6711	0.6125	0.5501	0.5075	0.4455	0.4467	0.4577	0.4845	0.5565	DFAC
	EFFP	0.6961	0.8545	0.9552	0.8096	0.9248	0.8881	0.9197	0.9367	0.7404	EFFP
	INCID	8.070	8.521	6.239	3.021	3.424	2.613	5.543	10.671	14.564	INCID
	DEVM	16.171	16.794	19.384	20.593	20.457	20.253	21.184	21.721	20.375	DEVM
	P 2	16.868	16.701	16.689	16.962	17.045	17.073	16.941	16.844	16.891	P 2
	P 2A	16.539	16.577	16.654	16.804	16.992	16.998	16.895	16.811	16.730	P 2A
	T 2	544.430	543.514	542.611	542.114	542.152	542.345	544.532	544.759	544.820	T 2
	T 2A	544.430	543.514	542.611	542.114	542.152	542.345	544.532	544.759	544.820	T 2A
	UUBAR FS		0.1902	0.1234	0.0714	0.0365	0.0384	0.0569	0.0833		UUBAR FS
	P2 FS		16.880	16.850	16.920	17.059	17.067	16.983	16.936		P2 FS
	LOSS PARA FS		0.0618	0.0403	0.0239	0.0127	0.0139	0.0206	0.0314		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 48.72 Equivalent Rotor Speed = 2051.27 Equivalent Weight Flow = 62.61
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	242.16	242.16	242.16	242.16	242.16	242.16	242.16	242.16	242.16	V 0
	V 1	238.62	252.11	256.43	249.40	252.81	247.44	238.35	229.71	223.42	V 1
	VZ 0	242.16	242.16	242.16	242.15	242.14	242.11	242.09	242.08	242.07	VZ 0
	VZ 1	238.62	252.11	256.43	249.40	252.79	247.40	238.29	229.64	223.34	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2179	0.2179	0.2179	0.2179	0.2179	0.2179	0.2179	0.2179	0.2179	M 0
	M 1	0.2147	0.2270	0.2309	0.2245	0.2276	0.2227	0.2145	0.2066	0.2009	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4495	0.2362	0.1715	0.2028	0.1861	0.2216	0.2404	0.2927	0.3596	UUBAR
	DFAC	0.015	-0.041	-0.059	-0.030	-0.044	-0.022	0.016	0.051	0.077	DFAC
	EFFP	-0.0700	0.2654	0.4188	0.2336	0.3295	0.1683	-0.1522	-0.5329	-0.7245	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.807	14.807	14.807	14.807	14.807	14.807	14.807	14.807	14.807	P 0
	P 1	14.590	14.693	14.724	14.709	14.717	14.700	14.691	14.666	14.634	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	36.784	35.067	32.384	30.094	30.065	29.539	29.659	29.703	29.902	BETA 2
	BETA(PR) 1	49.879	48.716	48.585	50.426	51.453	53.379	55.287	56.545	57.534	BETA(PR) 1
	BETA(PR) 2	26.120	26.842	28.633	29.127	31.164	35.133	37.292	39.433	40.212	BETA(PR) 2
	V 1	249.98	263.73	268.28	260.89	263.97	257.96	248.57	239.63	233.18	V 1
	V 2	300.02	304.35	305.40	320.05	320.91	310.16	305.57	295.08	292.81	V 2
	VZ 1	249.97	263.73	268.28	260.86	263.84	257.66	248.12	239.14	232.64	VZ 1
	VZ 2	240.28	249.10	257.90	276.86	277.55	269.47	264.97	255.70	253.15	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	179.65	174.86	163.57	160.45	160.67	152.70	150.89	145.86	145.58	V-THETA 2
	V(PR) 1	387.9	399.7	405.6	409.5	423.5	432.1	436.0	434.1	433.7	V(PR) 1
	V(PR) 2	267.6	279.2	293.8	317.0	324.6	329.9	333.7	331.7	332.2	V(PR) 2
	VTHETA PR1	-296.6	-300.4	-304.1	-315.6	-331.1	-346.7	-358.2	-361.9	-365.7	VTHETA PR1
	VTHETA PR2	-117.8	-126.1	-140.8	-154.3	-167.9	-189.6	-201.8	-210.3	-214.0	VTHETA PR2
	U 1	296.62	300.36	304.14	315.62	331.14	346.67	358.15	361.92	365.66	U 1
	U 2	297.47	300.92	304.37	314.72	328.52	342.32	352.69	356.14	359.60	U 2
	M 1	0.2250	0.2376	0.2417	0.2350	0.2378	0.2323	0.2238	0.2156	0.2098	M 1
	M 2	0.2677	0.2720	0.2733	0.2868	0.2876	0.2779	0.2736	0.2640	0.2619	M 2
	M(PR) 1	0.3492	0.3601	0.3654	0.3688	0.3815	0.3892	0.3925	0.3906	0.3902	M(PR) 1
	M(PR) 2	0.2388	0.2495	0.2629	0.2841	0.2909	0.2956	0.2987	0.2968	0.2972	M(PR) 2
	TURN(PR)	23.758	21.873	19.952	21.301	20.297	18.263	18.024	17.147	17.363	TURN(PR)
	UUBAR	0.1731	0.1946	0.1643	0.0722	0.0908	0.0915	0.0936	0.0940	0.0995	UUBAR
	LOSS PARA	0.0428	0.0484	0.0407	0.0184	0.0239	0.0241	0.0248	0.0245	0.0259	LOSS PARA
	DFAC	0.4377	0.4235	0.3892	0.3403	0.3498	0.3498	0.3492	0.3483	0.3475	DFAC
	EFFP	0.5856	0.6147	0.6954	0.9235	0.9211	0.9326	0.8873	0.8571	0.8514	EFFP
	EFF	0.5829	0.6124	0.6936	0.9229	0.9206	0.9321	0.8865	0.8561	0.8504	EFF
	INCID	-1.963	-3.563	-4.105	-3.631	-4.611	-4.683	-4.156	-3.331	-3.121	INCID
	DEVM	18.371	17.544	17.714	13.424	10.477	10.267	9.736	11.294	11.329	DEVM
	P 1	14.590	14.693	14.724	14.709	14.717	14.700	14.691	14.666	14.634	P 1
	P 2	15.267	15.320	15.339	15.460	15.473	15.440	15.441	15.393	15.358	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	530.310	528.870	527.490	526.750	526.820	526.560	527.080	527.140	527.180	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	36.526	34.793	32.141	29.948	29.878	29.286	29.342	29.362	29.532	BETA 2
STATOR-T.E.	BETA 2A	6.095	6.170	6.335	7.825	7.815	9.027	9.018	8.958	8.849	BETA 2A
	V 2	301.89	306.54	307.61	321.76	323.17	313.16	309.22	298.84	296.81	V 2
	V 2A	288.75	292.80	296.78	312.62	321.79	323.88	327.09	318.39	309.54	V 2A
	VZ 2	242.60	251.73	260.46	278.75	280.05	272.80	269.05	259.91	257.66	VZ 2
	VZ 2A	287.11	291.10	294.97	309.68	318.68	319.60	322.66	314.07	305.39	VZ 2A
	V-THETA 2	179.68	174.91	163.64	160.60	160.89	153.00	151.24	146.22	145.97	V-THETA 2
	V-THETA 2A	30.66	31.47	32.75	42.56	43.74	50.77	51.21	49.51	47.55	V-THETA 2A
	M 2	0.2694	0.2740	0.2753	0.2884	0.2896	0.2806	0.2769	0.2674	0.2656	M 2
	M 2A	0.2575	0.2615	0.2655	0.2801	0.2884	0.2904	0.2931	0.2852	0.2771	M 2A
	TURN(PR)	30.431	28.623	25.805	22.118	22.047	20.227	20.276	20.349	20.622	TURN(PR)
	UUBAR	0.0792	0.1100	0.0986	0.1185	0.0886	0.0601	0.0654	0.0905	0.1289	UUBAR
	LOSS PARA	0.0255	0.0357	0.0323	0.0398	0.0309	0.0218	0.0244	0.0341	0.0492	LOSS PARA
	DFAC	0.2034	0.1977	0.1756	0.1531	0.1326	0.0864	0.0657	0.0596	0.0866	DFAC
	EFFP	0.0981	-0.2179	-0.3698	-1.0478	-9.1734	1.8662	1.5484	1.6493	2.4301	EFFP
	INCID	-10.445	-11.408	-13.330	-13.726	-12.371	-13.107	-14.022	-14.559	-14.996	INCID
	DEVM	19.126	19.024	19.069	20.158	19.932	21.727	22.517	22.754	22.988	DEVM
	P 2	15.267	15.320	15.339	15.460	15.473	15.440	15.441	15.393	15.358	P 2
	P 2A	15.208	15.234	15.261	15.357	15.395	15.390	15.388	15.326	15.263	P 2A
	T 2	530.310	528.870	527.490	526.750	526.820	526.560	527.080	527.140	527.180	T 2
	T 2A	530.310	528.870	527.510	526.750	526.820	526.570	527.090	527.140	527.180	T 2A
	UUBAR FS		0.1319	0.1682	0.1462	0.1239	0.1324	0.1096	0.1132		UUBAR FS
	P2 FS		15.364	15.389	15.492	15.513	15.513	15.485	15.417		P2 FS
	LOSS PARA PS		0.0428	0.0485	0.0491	0.0432	0.0480	0.0409	0.0426		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 49.86 Equivalent Rotor Speed = 2099.15 Equivalent Weight Flow = 62.22
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	240.60	240.60	240.60	240.60	240.60	240.60	240.60	240.60	240.60	V 0
	V 1	228.64	247.46	252.94	256.37	254.10	256.93	239.42	236.64	199.93	V 1
	VZ 0	240.60	240.60	240.60	240.59	240.58	240.56	240.53	240.52	240.52	VZ 0
	VZ 1	228.64	247.46	252.94	256.37	254.08	256.88	239.36	236.57	199.86	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2165	0.2165	0.2165	0.2165	0.2165	0.2165	0.2165	0.2165	0.2165	M 0
	M 1	0.2057	0.2228	0.2277	0.2309	0.2288	0.2314	0.2155	0.2129	0.1797	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4129	0.2499	0.2160	0.2075	0.2181	0.2012	0.2668	0.2732	0.5866	UUBAR
	DFAC	0.050	-0.029	-0.051	-0.066	-0.056	-0.068	0.005	0.016	0.169	DFAC
	EFFP	-0.3124	0.1903	0.3314	0.3990	0.3499	0.4150	-0.0387	-0.1384	-1.1414	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.818	14.818	14.818	14.818	14.818	14.818	14.818	14.818	14.818	P 0
	P 1	14.622	14.699	14.716	14.720	14.715	14.723	14.691	14.688	14.539	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	37.718	35.811	33.254	30.959	30.818	30.190	30.323	30.512	31.324	BETA 2
	BETA(PR) 1	51.729	49.899	49.630	50.295	51.953	52.974	55.784	56.367	60.919	BETA(PR) 1
	BETA(PR) 2	26.339	26.914	27.463	27.863	30.931	34.011	36.155	37.744	44.902	BETA(PR) 2
	V 1	239.48	258.84	264.60	268.22	265.33	267.90	249.69	246.89	208.59	V 1
	V 2	303.38	308.93	316.87	332.86	327.58	322.98	318.49	311.00	269.07	V 2
	VZ 1	239.47	258.84	264.60	268.19	265.20	267.58	249.24	246.38	208.11	VZ 1
	VZ 2	239.98	250.53	264.98	285.39	281.15	278.78	274.34	267.30	229.26	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	185.60	180.76	173.75	171.20	167.72	162.19	160.46	157.53	139.52	V-THETA 2
	V(PR) 1	386.6	401.8	408.5	419.8	430.4	444.6	443.5	445.1	428.4	V(PR) 1
	V(PR) 2	267.8	281.0	298.6	322.9	328.0	336.7	340.4	338.7	324.2	V(PR) 2
	VTHETA PR1	-303.5	-307.4	-311.2	-323.0	-338.9	-354.8	-366.5	-370.4	-374.2	VTHETA PR1
	VTHETA PR2	-118.8	-127.2	-137.7	-150.9	-168.5	-188.1	-200.5	-206.9	-228.5	VTHETA PR2
	U 1	303.55	307.38	311.24	322.98	338.87	354.76	366.51	370.37	374.20	U 1
	U 2	304.41	307.94	311.47	322.07	336.19	350.31	360.92	364.46	368.00	U 2
	M 1	0.2155	0.2331	0.2384	0.2417	0.2390	0.2414	0.2248	0.2222	0.1875	M 1
	M 2	0.2709	0.2763	0.2839	0.2984	0.2935	0.2894	0.2852	0.2783	0.2402	M 2
	M(PR) 1	0.3479	0.3619	0.3680	0.3783	0.3877	0.4005	0.3992	0.4007	0.3851	M(PR) 1
	M(PR) 2	0.2391	0.2513	0.2675	0.2894	0.2938	0.3017	0.3049	0.3031	0.2894	M(PR) 2
	TURN(PR)	25.390	22.985	22.168	22.435	21.030	18.980	19.657	18.656	16.063	TURN(PR)
	UUBAR	0.1773	0.1660	0.1298	0.0749	0.0772	0.0822	0.0789	0.0945	0.0627	UUBAR
	LOSS PARA	0.0437	0.0412	0.0325	0.0194	0.0204	0.0220	0.0212	0.0252	0.0151	LOSS PARA
	DFAC	0.4397	0.4262	0.3889	0.3501	0.3573	0.3595	0.3522	0.3574	0.3532	DFAC
	EFFP	0.6729	0.7431	0.8772	0.9641	0.9374	0.9628	0.9763	0.8869	0.7955	EFFP
	EFF	0.6706	0.7413	0.8763	0.9638	0.9369	0.9626	0.9761	0.8860	0.7940	EFF
	INCID	-0.113	-2.379	-3.060	-3.762	-4.111	-5.088	-3.659	-3.509	0.268	INCID
	DEVM	18.589	17.616	16.543	12.159	10.243	9.146	8.599	9.606	16.018	DEVM
	P 1	14.622	14.699	14.716	14.720	14.715	14.723	14.691	14.688	14.539	P 1
	P 2	15.349	15.415	15.449	15.542	15.549	15.549	15.541	15.502	15.302	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	529.500	528.260	526.980	527.120	527.490	527.170	527.300	527.790	528.310	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	37.451	35.529	33.001	30.806	30.624	29.932	29.995	30.153	30.939	BETA 2
STATOR-T.E.	BETA 2A	6.668	6.775	6.808	6.795	8.280	8.280	8.937	8.961	8.895	BETA 2A
	V 2	305.28	311.16	319.18	334.65	329.90	326.08	322.31	315.03	272.71	V 2
	V 2A	284.23	290.69	296.57	315.79	325.27	326.65	331.46	322.83	308.12	V 2A
	VZ 2	242.35	253.23	267.68	287.39	283.72	282.25	278.64	271.85	233.38	VZ 2
	VZ 2A	282.31	288.66	294.47	313.54	321.75	322.97	327.04	318.46	303.95	VZ 2A
	V-THETA 2	185.63	180.82	173.84	171.36	167.96	162.51	160.84	157.92	139.89	V-THETA 2
	V-THETA 2A	33.00	34.29	35.16	37.36	46.83	47.00	51.43	50.22	47.57	V-THETA 2A
	M 2	0.2727	0.2783	0.2860	0.3000	0.2956	0.2922	0.2887	0.2820	0.2435	M 2
	M 2A	0.2536	0.2598	0.2654	0.2828	0.2914	0.2927	0.2971	0.2891	0.2755	M 2A
	TURN(PR)	30.782	28.754	26.192	24.006	22.328	21.619	21.009	21.137	21.980	TURN(PR)
	UUBAR	0.0848	0.1236	0.1242	0.1115	0.0794	0.0778	0.0820	0.1114	-0.0440	UUBAR
	LOSS PARA	0.0273	0.0401	0.0406	0.0375	0.0277	0.0282	0.0306	0.0421	-0.0168	LOSS PARA
	DFAC	0.2308	0.2197	0.2142	0.1924	0.1441	0.1291	0.1012	0.1072	0.0024	DFAC
	EFFP	0.3819	0.0575	0.1199	0.0180	-1.7446	22.7640	2.3739	3.1492	0.8452	EFFP
	INCID	-9.520	-10.672	-12.470	-12.869	-11.625	-12.461	-13.370	-13.768	-13.592	INCID
	DEVM	19.699	19.629	19.542	19.128	20.397	20.981	22.436	22.757	23.034	DEVM
	P 2	15.349	15.415	15.449	15.542	15.549	15.549	15.541	15.502	15.302	P 2
	P 2A	15.283	15.315	15.343	15.437	15.476	15.479	15.469	15.409	15.329	P 2A
	T 2	529.500	528.260	526.980	527.120	527.490	527.170	527.300	527.790	528.310	T 2
	T 2A	529.500	528.260	526.980	527.120	527.490	527.170	527.300	527.790	528.310	T 2A
	UUBAR FS		0.1424	0.1453	0.1152	0.0788	0.0926	0.0872	0.0927		UUBAR FS
	P2 FS		15.424	15.462	15.538	15.540	15.555	15.538	15.477		P2 FS
	LOSS PARA FS		0.0462	0.0475	0.0387	0.0275	0.0335	0.0325	0.0350		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 49.76 Equivalent Rotor Speed = 2094.85 Equivalent Weight Flow = 58.19
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	224.61	224.61	224.61	224.61	224.61	224.61	224.61	224.61	224.61	V 0
	V 1	209.05	232.21	237.31	236.07	237.38	231.06	217.67	218.87	189.62	V 1
	VZ 0	224.61	224.61	224.61	224.60	224.59	224.57	224.54	224.54	224.53	VZ 0
	VZ 1	209.05	232.21	237.31	236.07	237.36	231.02	217.61	218.80	189.55	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2020	0.2020	0.2020	0.2020	0.2020	0.2020	0.2020	0.2020	0.2020	M 0
	M 1	0.1879	0.2089	0.2135	0.2124	0.2136	0.2079	0.1957	0.1968	0.1703	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4562	0.2451	0.2111	0.2257	0.1990	0.2063	0.3033	0.2766	0.5144	UUBAR
	DFAC	0.069	-0.034	-0.057	-0.051	-0.057	-0.029	0.031	0.026	0.156	DFAC
	EFFP	-0.4212	0.2221	0.3591	0.3203	0.3742	0.2229	-0.2549	-0.2262	-1.2927	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.799	14.799	14.799	14.799	14.799	14.799	14.799	14.799	14.799	P 0
	P 1	14.610	14.698	14.712	14.706	14.717	14.714	14.674	14.685	14.586	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	42.339	39.923	36.941	34.859	34.737	34.213	34.288	35.095	35.723	BETA 2
	BETA(PR) 1	54.151	51.635	51.374	52.553	53.782	55.808	58.231	58.352	62.145	BETA(PR) 1
	BETA(PR) 2	25.027	25.764	26.419	28.655	31.198	34.471	36.557	39.433	46.374	BETA(PR) 2
	V 1	218.88	242.82	248.18	246.88	247.79	240.81	226.92	228.28	197.80	V 1
	V 2	298.23	303.70	311.44	315.17	314.48	309.77	306.86	292.10	256.41	V 2
	VZ 1	218.87	242.82	248.18	246.86	247.67	240.53	226.51	227.81	197.34	VZ 1
	VZ 2	220.45	232.91	248.91	258.57	258.28	255.84	253.05	238.49	207.68	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	200.86	194.90	187.17	180.11	179.09	173.95	172.54	167.58	149.36	V-THETA 2
	V(PR) 1	373.7	391.2	397.6	406.0	419.2	428.2	430.4	434.4	422.6	V(PR) 1
	V(PR) 2	243.3	258.6	277.9	294.7	302.1	310.7	315.6	309.4	301.5	V(PR) 2
	VTHETA PR1	-302.9	-306.7	-310.6	-322.3	-338.2	-354.0	-365.8	-369.6	-373.4	VTHETA PR1
	VTHETA PR2	-102.9	-112.4	-123.7	-141.3	-156.4	-175.6	-187.6	-196.1	-217.9	VTHETA PR2
	U 1	302.92	306.75	310.60	322.32	338.17	354.04	365.76	369.61	373.43	U 1
	U 2	303.79	307.31	310.84	321.41	335.50	349.59	360.18	363.71	367.24	U 2
	M 1	0.1968	0.2185	0.2234	0.2222	0.2231	0.2167	0.2041	0.2053	0.1777	M 1
	M 2	0.2661	0.2714	0.2787	0.2820	0.2814	0.2772	0.2745	0.2609	0.2285	M 2
	M(PR) 1	0.3361	0.3521	0.3579	0.3655	0.3774	0.3853	0.3872	0.3908	0.3797	M(PR) 1
	M(PR) 2	0.2171	0.2311	0.2487	0.2637	0.2703	0.2780	0.2823	0.2763	0.2686	M(PR) 2
	TURN(PR)	29.123	25.871	24.955	23.900	22.592	21.355	21.703	18.956	15.818	TURN(PR)
	UUBAR	0.1391	0.1511	0.1018	0.0552	0.0739	0.0778	0.0642	0.1029	0.0834	UUBAR
	LOSS PARA	0.0347	0.0379	0.0257	0.0142	0.0194	0.0207	0.0172	0.0268	0.0196	LOSS PARA
	DFAC	0.4971	0.4778	0.4337	0.4037	0.4101	0.4046	0.3995	0.4169	0.4059	DFAC
	EFFP	0.7601	0.8005	0.9308	0.9556	0.9498	0.9767	1.0108	0.8467	0.7228	EFFP
	EFF	0.7581	0.7989	0.9302	0.9553	0.9493	0.9765	1.0109	0.8454	0.7207	EFF
	INCID	2.309	-0.643	-1.316	-1.504	-2.282	-2.253	-1.210	-1.522	1.495	INCID
	DEVM	17.278	16.466	15.500	12.952	10.510	9.606	9.002	11.294	17.490	DEVM
	P 1	14.610	14.698	14.712	14.706	14.717	14.714	14.674	14.685	14.586	P 1
	P 2	15.472	15.516	15.561	15.608	15.625	15.624	15.624	15.553	15.383	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	530.000	528.823	527.711	528.019	528.132	527.891	527.988	528.852	529.720	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	42.025	39.597	36.648	34.683	34.515	33.914	33.909	34.678	35.273	BETA 2
STATOR-T.E.	BETA 2A	5.905	5.920	5.932	6.400	7.022	6.934	6.983	7.101	6.804	BETA 2A
	V 2	300.09	305.89	313.73	316.85	316.69	312.73	310.53	295.82	259.85	V 2
	V 2A	261.99	267.47	272.82	287.23	297.39	299.77	300.58	289.74	276.61	V 2A
	VZ 2	222.93	235.70	251.71	260.51	260.81	259.24	257.28	242.82	211.72	VZ 2
	VZ 2A	260.60	266.04	271.36	285.41	295.05	297.33	297.98	287.12	274.23	VZ 2A
	V-THETA 2	200.90	194.97	187.26	180.27	179.35	174.29	172.95	168.00	149.75	V-THETA 2
	V-THETA 2A	26.95	27.59	28.20	32.01	36.34	36.16	36.50	35.77	32.72	V-THETA 2A
	M 2	0.2678	0.2734	0.2808	0.2836	0.2834	0.2798	0.2778	0.2642	0.2316	M 2
	M 2A	0.2334	0.2386	0.2437	0.2567	0.2659	0.2681	0.2688	0.2587	0.2467	M 2A
	TURN(PR)	36.119	33.677	30.715	28.278	27.475	26.942	26.871	27.514	28.397	TURN(PR)
	UUBAR	0.0669	0.0872	0.1081	0.0796	0.0440	0.0451	0.0679	0.0724	-0.0840	UUBAR
	LOSS PARA	0.0215	0.0283	0.0354	0.0268	0.0154	0.0164	0.0255	0.0275	-0.0322	LOSS PARA
	DFAC	0.3146	0.3044	0.2976	0.2524	0.2207	0.2044	0.1994	0.1928	0.1110	DFAC
	EFFP	0.7265	0.6400	0.5698	0.5674	0.6398	0.4631	-0.0434	-0.7330	0.3850	EFFP
	INCID	-4.946	-6.604	-8.823	-8.992	-7.736	-8.482	-9.459	-9.249	-9.263	INCID
	DEVM	18.936	18.774	18.666	18.734	19.139	19.636	20.484	20.899	20.946	DEVM
	P 2	15.472	15.516	15.561	15.608	15.625	15.624	15.624	15.553	15.383	P 2
	P 2A	15.422	15.447	15.471	15.541	15.588	15.587	15.569	15.499	15.430	P 2A
	T 2	530.000	528.823	527.711	528.019	528.132	527.891	527.988	528.852	529.720	T 2
	T 2A	530.000	528.823	527.711	528.019	528.132	527.891	527.988	528.852	529.720	T 2A
	UUBAR FS		0.1155	0.1146	0.0813	0.0507	0.0616	0.0586	0.1182		UUBAR FS
	P2 FS		15.538	15.563	15.605	15.628	15.636	15.619	15.588		P2 FS
	LOSS PARA FS		0.0375	0.0375	0.0273	0.0177	0.0224	0.0220	0.0449		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 49.73 Equivalent Rotor Speed = 2093.68 Equivalent Weight Flow = 53.56
Uniform Inlet

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	206.31	206.31	206.31	206.31	206.31	206.31	206.31	206.31	206.31	V 0
	V 1	195.47	210.04	213.49	216.62	217.75	211.44	207.20	198.50	182.13	V 1
	VZ 0	206.30	206.31	206.31	206.30	206.29	206.27	206.25	206.24	206.23	VZ 0
	VZ 1	195.47	210.04	213.49	216.61	217.73	211.40	207.15	198.44	182.07	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.1854	0.1854	0.1854	0.1854	0.1854	0.1854	0.1854	0.1854	0.1854	M 0
	M 1	0.1756	0.1888	0.1919	0.1948	0.1958	0.1901	0.1862	0.1784	0.1636	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4221	0.2756	0.2297	0.2355	0.2154	0.2383	0.2355	0.3015	0.4709	UUBAR
	DFAC	0.053	-0.018	-0.035	-0.050	-0.055	-0.025	-0.004	0.038	0.117	DFAC
	EFFP	-0.3243	0.1176	0.2376	0.3054	0.3489	0.1761	0.0356	-0.3321	-0.8975	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.785	14.785	14.785	14.785	14.785	14.785	14.785	14.785	14.785	P 0
	P 1	14.637	14.688	14.705	14.702	14.710	14.701	14.702	14.679	14.620	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	46.640	45.547	41.932	39.138	38.513	38.244	38.707	39.269	41.641	BETA 2
	BETA(PR) 1	55.948	54.392	54.287	54.897	56.101	58.124	59.471	60.790	63.077	BETA(PR) 1
	BETA(PR) 2	24.338	25.353	26.723	27.017	31.029	35.205	37.746	40.485	45.271	BETA(PR) 2
	V 1	204.62	219.55	223.17	226.45	227.22	220.30	215.97	206.96	189.96	V 1
	V 2	292.62	293.73	297.92	312.92	306.84	298.18	293.29	281.49	259.19	V 2
	VZ 1	204.61	219.55	223.17	226.43	227.11	220.04	215.58	206.54	189.53	VZ 1
	VZ 2	200.90	205.71	221.63	242.68	239.96	233.91	228.48	217.51	193.32	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	212.75	209.67	199.08	197.49	190.96	184.36	183.10	177.83	171.88	V-THETA 2
	V(PR) 1	365.4	377.1	382.3	393.8	407.3	416.8	424.6	423.4	418.8	V(PR) 1
	V(PR) 2	220.5	227.6	248.1	272.5	280.2	286.6	289.5	286.5	275.2	V(PR) 2
	VTHETA PR1	-302.8	-306.6	-310.4	-322.1	-338.0	-353.8	-365.6	-369.4	-373.2	VTHETA PR1
	VTHETA PR2	-90.9	-97.5	-111.6	-123.7	-144.3	-165.0	-176.9	-185.7	-195.2	VTHETA PR2
	U 1	302.76	306.57	310.43	322.14	337.99	353.84	365.56	369.40	373.22	U 1
	U 2	303.62	307.14	310.66	321.23	335.31	349.40	359.98	363.51	367.04	U 2
	M 1	0.1839	0.1974	0.2007	0.2037	0.2044	0.1981	0.1942	0.1860	0.1707	M 1
	M 2	0.2610	0.2622	0.2662	0.2798	0.2742	0.2664	0.2620	0.2511	0.2309	M 2
	M(PR) 1	0.3284	0.3391	0.3438	0.3542	0.3663	0.3748	0.3818	0.3806	0.3762	M(PR) 1
	M(PR) 2	0.1967	0.2032	0.2217	0.2436	0.2504	0.2561	0.2585	0.2556	0.2451	M(PR) 2
	TURN(PR)	31.610	29.039	27.564	27.882	25.081	22.939	21.757	20.344	17.855	TURN(PR)
	UUBAR	0.1500	0.1764	0.1268	0.0632	0.0711	0.0729	0.0921	0.0985	0.1122	UUBAR
	LOSS PARA	0.0376	0.0444	0.0319	0.0165	0.0187	0.0192	0.0243	0.0253	0.0269	LOSS PARA
	DFAC	0.5570	0.5513	0.4978	0.4546	0.4556	0.4541	0.4610	0.4639	0.4816	DFAC
	EFFP	0.7885	0.8044	0.8868	0.9858	0.9483	0.9772	0.9523	0.8657	0.7771	EFFP
	EFF	0.7867	0.8028	0.8858	0.9857	0.9478	0.9770	0.9519	0.8646	0.7752	EFF
	INCID	4.106	2.114	1.597	0.840	0.038	0.064	0.031	0.918	2.428	INCID
	DEVM	16.588	16.055	15.804	11.314	10.341	10.339	10.189	12.346	16.387	DEVM
	P 1	14.637	14.688	14.705	14.702	14.710	14.701	14.702	14.679	14.620	P 1
	P 2	15.557	15.566	15.595	15.695	15.696	15.687	15.681	15.625	15.519	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	530.280	529.500	528.620	528.610	528.940	528.630	528.820	529.500	530.200	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	46.277	45.153	41.590	38.929	38.259	37.901	38.268	38.789	41.087	BETA 2
STATOR-T.E.	BETA 2A	5.158	5.900	5.201	5.460	7.045	7.004	7.062	6.981	6.915	BETA 2A
	V 2	294.44	295.83	300.06	314.62	308.98	301.00	296.77	285.05	262.68	V 2
	V 2A	218.82	236.04	247.40	261.00	275.17	271.95	272.98	264.64	253.40	V 2A
	VZ 2	203.51	208.63	224.42	244.72	242.50	237.28	232.65	221.82	197.64	VZ 2
	VZ 2A	217.94	234.79	246.38	259.79	272.98	269.70	270.57	262.32	251.17	VZ 2A
	V-THETA 2	212.79	209.74	199.18	197.67	191.24	184.72	183.52	178.28	172.34	V-THETA 2
	V-THETA 2A	19.67	24.26	22.43	24.83	33.74	33.13	33.52	32.12	30.46	V-THETA 2A
	M 2	0.2626	0.2641	0.2682	0.2814	0.2762	0.2690	0.2651	0.2543	0.2340	M 2
	M 2A	0.1946	0.2102	0.2206	0.2328	0.2456	0.2427	0.2436	0.2359	0.2256	M 2A
	TURN(PR)	41.119	39.253	36.388	33.463	31.195	30.858	31.147	31.741	34.096	TURN(PR)
	UUBAR	0.1547	0.0929	0.0609	0.0911	0.0273	0.0405	0.0471	0.0456	-0.0329	UUBAR
	LOSS PARA	0.0499	0.0302	0.0200	0.0307	0.0095	0.0147	0.0177	0.0172	-0.0126	LOSS PARA
	DFAC	0.4692	0.4070	0.3698	0.3570	0.2897	0.2822	0.2726	0.2690	0.2456	DFAC
	EFFP	0.6625	0.7512	0.8153	0.7167	0.8722	0.7857	0.7031	0.6801	1.4647	EFFP
	INCID	-0.694	-1.048	-3.881	-4.746	-3.993	-4.497	-5.104	-5.141	-3.453	INCID
	DEVM	18.189	18.754	17.935	17.794	19.162	19.706	20.563	20.779	21.057	DEVM
	P 2	15.557	15.566	15.595	15.695	15.696	15.687	15.681	15.625	15.519	P 2
	P 2A	15.444	15.497	15.549	15.618	15.673	15.655	15.645	15.594	15.538	P 2A
	T 2	530.280	529.500	528.620	528.610	528.940	528.630	528.820	529.500	530.200	T 2
	T 2A	530.280	529.500	528.620	528.610	528.940	528.630	528.820	529.500	530.200	T 2A
	UUBAR FS		0.1285	0.0891	0.0652	0.0374	0.0620	0.0547	0.0803		UUBAR FS
	P2 FS		15.592	15.615	15.668	15.701	15.701	15.683	15.648		P2 FS
	LOSS PARA FS		0.0417	0.0292	0.0220	0.0131	0.0226	0.0205	0.0304		LOSS PARA FS

Table A-3. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 49.84 Equivalent Rotor Speed = 2098.31 Equivalent Weight Flow = 48.38
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	185.95	185.95	185.95	185.95	185.95	185.95	185.95	185.95	185.95	V 0
	V 1	168.59	191.61	196.02	193.77	199.39	194.62	182.44	177.44	166.92	V 1
	VZ 0	185.95	185.95	185.95	185.95	185.94	185.92	185.90	185.90	185.89	VZ 0
	VZ 1	168.59	191.61	196.02	193.76	199.38	194.59	182.39	177.39	166.86	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.1670	0.1670	0.1670	0.1670	0.1670	0.1670	0.1670	0.1670	0.1670	M 0
	M 1	0.1514	0.1721	0.1761	0.1741	0.1792	0.1749	0.1639	0.1593	0.1499	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.4869	0.2223	0.1870	0.2188	0.2011	0.2188	0.2576	0.2999	0.3846	UUBAR
	DFAC	0.093	-0.030	-0.054	-0.042	-0.072	-0.047	0.019	0.046	0.102	DFAC
	EFFP	-0.5835	0.2184	0.3750	0.2834	0.4293	0.3053	-0.1729	-0.4321	-1.0388	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.766	14.766	14.766	14.766	14.766	14.766	14.766	14.766	14.766	P 0
	P 1	14.627	14.702	14.712	14.703	14.708	14.703	14.692	14.680	14.656	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	52.256	51.804	49.098	44.208	43.560	43.326	43.597	45.325	48.949	BETA 2
	BETA(PR) 1	59.827	56.908	56.637	57.907	58.459	60.274	62.619	63.501	65.095	BETA(PR) 1
	BETA(PR) 2	21.946	25.765	26.034	27.564	30.094	34.447	38.232	40.308	45.158	BETA(PR) 2
	V 1	176.41	200.23	204.85	202.49	208.01	202.72	190.09	184.96	174.07	V 1
	V 2	293.32	283.87	289.45	300.51	303.14	295.76	286.72	279.06	260.46	V 2
	VZ 1	176.40	200.23	204.85	202.47	207.91	202.49	189.75	184.58	173.67	VZ 1
	VZ 2	179.55	175.53	189.52	215.38	219.57	214.95	207.34	195.89	170.79	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	231.94	223.09	218.78	209.51	208.80	202.74	197.43	198.13	196.12	V-THETA 2
	V(PR) 1	351.0	366.7	372.5	381.1	397.5	408.5	412.7	413.9	412.6	V(PR) 1
	V(PR) 2	193.6	194.9	210.9	243.0	253.9	261.0	264.4	257.4	242.6	V(PR) 2
	VTHETA PR1	-303.4	-307.3	-311.1	-322.9	-338.7	-354.6	-366.4	-370.2	-374.0	VTHETA PR1
	VTHETA PR2	-72.3	-84.7	-92.6	-112.4	-127.2	-147.4	-163.3	-166.2	-171.7	VTHETA PR2
	U 1	303.42	307.25	311.12	322.85	338.73	354.62	366.37	370.22	374.05	U 1
	U 2	304.29	307.82	311.35	321.94	336.05	350.17	360.77	364.31	367.85	U 2
	M 1	0.1584	0.1799	0.1841	0.1820	0.1870	0.1822	0.1708	0.1661	0.1563	M 1
	M 2	0.2613	0.2530	0.2583	0.2683	0.2707	0.2640	0.2557	0.2486	0.2316	M 2
	M(PR) 1	0.3152	0.3296	0.3348	0.3425	0.3573	0.3671	0.3708	0.3717	0.3705	M(PR) 1
	M(PR) 2	0.1725	0.1737	0.1882	0.2169	0.2267	0.2330	0.2358	0.2293	0.2158	M(PR) 2
	TURN(PR)	37.880	31.143	30.604	30.346	28.374	25.848	24.422	23.235	19.988	TURN(PR)
	UUBAR	0.1415	0.2070	0.1598	0.0749	0.0799	0.0921	0.0945	0.1220	0.1650	UUBAR
	LOSS PARA	0.0361	0.0519	0.0405	0.0194	0.0213	0.0245	0.0248	0.0314	0.0396	LOSS PARA
	DFAC	0.6305	0.6381	0.5994	0.5229	0.5220	0.5202	0.5177	0.5383	0.5725	DFAC
	EFFP	0.8086	0.7700	0.8619	0.9401	0.9693	0.9670	0.9306	0.8427	0.7383	EFFP
	EFF	0.8067	0.7679	0.8606	0.9395	0.9689	0.9667	0.9299	0.8412	0.7358	EFF
	INCID	7.985	4.630	3.947	3.851	2.397	2.215	3.183	3.632	4.449	INCID
	DEVM	14.197	16.467	15.114	11.861	9.406	9.581	10.675	12.169	16.274	DEVM
	P 1	14.627	14.702	14.712	14.703	14.708	14.703	14.692	14.680	14.656	P 1
	P 2	15.670	15.630	15.680	15.755	15.794	15.779	15.765	15.728	15.641	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	531.480	530.610	529.770	529.710	529.700	529.640	530.050	530.970	531.920	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	51.813	51.316	48.662	43.966	43.259	42.917	43.080	44.736	48.239	BETA 2
STATOR-T.E.	BETA 2A	5.220	5.220	5.220	5.220	5.221	5.361	5.292	6.573	6.788	BETA 2A
	V 2	295.14	285.89	291.53	302.10	305.25	298.57	290.10	282.59	263.96	V 2
	V 2A	197.99	205.84	213.67	231.08	247.15	250.68	248.67	242.14	232.86	V 2A
	VZ 2	182.47	178.69	192.55	217.41	222.22	218.46	211.62	200.46	175.57	VZ 2
	VZ 2A	197.17	204.98	212.78	230.10	246.02	249.38	247.30	240.21	230.87	VZ 2A
	V-THETA 2	231.98	223.17	218.88	209.70	209.10	203.13	197.89	198.62	196.63	V-THETA 2
	V-THETA 2A	18.01	18.73	19.44	21.02	22.48	23.40	22.91	27.68	27.48	V-THETA 2A
	M 2	0.2630	0.2548	0.2601	0.2697	0.2726	0.2665	0.2588	0.2518	0.2348	M 2
	M 2A	0.1757	0.1829	0.1901	0.2057	0.2201	0.2233	0.2214	0.2154	0.2068	M 2A
	TURN(PR)	46.593	46.096	43.441	38.740	38.018	37.514	37.725	38.094	41.375	TURN(PR)
	UUBAR	0.1598	0.0524	0.0711	0.0737	0.0253	0.0053	0.0322	0.0355	-0.0393	UUBAR
	LOSS PARA	0.0515	0.0170	0.0233	0.0249	0.0089	0.0019	0.0121	0.0135	-0.0151	LOSS PARA
	DFAC	0.5639	0.5136	0.4927	0.4472	0.4065	0.3822	0.3723	0.3759	0.3672	DFAC
	EFFP	0.7161	0.8937	0.8477	0.8271	0.9287	0.9826	0.8772	0.8650	1.1642	EFFP
	INCID	4.842	5.115	3.191	0.291	1.006	0.518	-0.294	0.804	3.699	INCID
	DEVM	18.251	18.074	17.954	17.554	17.339	18.065	18.796	20.372	20.930	DEVM
	P 2	15.670	15.630	15.680	15.755	15.794	15.779	15.765	15.728	15.641	P 2
	P 2A	15.552	15.594	15.629	15.698	15.773	15.775	15.742	15.704	15.664	P 2A
	T 2	531.480	530.610	529.770	529.710	529.700	529.640	530.050	530.970	531.920	T 2
	T 2A	531.480	530.610	529.780	529.710	529.700	529.640	530.060	530.980	531.930	T 2A
	UUBAR FS		0.1686	0.1328	0.0925	0.0586	0.0576	0.0786	0.0605		UUBAR FS
	P2 FS		15.728	15.733	15.773	15.823	15.823	15.803	15.748		P2 FS
	LOSS PARA FS		0.0547	0.0435	0.0312	0.0206	0.0206	0.0295	0.0230		LOSS PARA FS

Table A-3. Blade Element Performance (Concluded)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 50.48 Equivalent Rotor Speed = 2125.23 Equivalent Weight Flow = 43.29
Uniform Inlet

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	166.24	166.24	166.24	166.24	166.24	166.24	166.24	166.24	166.24	V 0
	V 1	158.01	172.79	174.44	176.40	178.93	174.01	164.99	162.33	157.82	V 1
	VZ 0	166.24	166.24	166.24	166.24	166.23	166.21	166.20	166.19	166.18	VZ 0
	VZ 1	158.01	172.79	174.44	176.40	178.91	173.97	164.95	162.28	157.77	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.1492	0.1492	0.1492	0.1492	0.1492	0.1492	0.1492	0.1492	0.1492	M 0
	M 1	0.1418	0.1551	0.1566	0.1584	0.1607	0.1562	0.1481	0.1457	0.1417	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.3747	0.2028	0.1896	0.1896	0.1499	0.2028	0.2160	0.2381	0.2954	UUBAR
	DFAC	0.050	-0.039	-0.049	-0.061	-0.076	-0.047	0.008	0.024	0.051	DFAC
	EFFP	-0.3516	0.2852	0.3489	0.4009	0.5154	0.3212	-0.0763	-0.2466	-0.5078	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.741	14.741	14.741	14.741	14.741	14.741	14.741	14.741	14.741	P 0
	P 1	14.656	14.695	14.698	14.698	14.707	14.695	14.692	14.687	14.674	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	55.783	55.833	55.341	49.203	47.848	47.697	49.368	53.640	58.601	BETA 2
	BETA(PR) 1	61.724	59.883	59.957	60.597	61.470	63.256	65.186	65.761	66.569	BETA(PR) 1
	BETA(PR) 2	19.916	25.536	26.175	26.629	30.204	34.643	39.985	42.201	45.364	BETA(PR) 2
	V 1	165.31	180.52	182.24	184.30	186.60	181.20	171.88	169.18	164.56	V 1
	V 2	299.03	284.53	286.14	300.66	300.79	294.66	280.33	275.07	270.00	V 2
	VZ 1	165.31	180.51	182.24	184.28	186.51	180.99	171.57	168.83	164.19	VZ 1
	VZ 2	168.15	159.80	162.73	196.43	201.78	198.15	182.33	162.90	140.53	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	247.27	235.42	235.36	227.58	222.91	217.75	212.49	221.27	230.24	V-THETA 2
	V(PR) 1	349.0	359.8	364.0	375.4	390.5	402.3	408.9	411.4	413.0	V(PR) 1
	V(PR) 2	178.8	177.1	181.3	219.8	233.6	241.2	238.4	220.3	200.4	V(PR) 2
	VTHETA PR1	-307.3	-311.2	-315.1	-327.0	-343.1	-359.2	-371.1	-375.0	-378.8	VTHETA PR1
	VTHETA PR2	-60.9	-76.3	-80.0	-98.5	-117.5	-136.9	-152.9	-147.7	-142.3	VTHETA PR2
	U 1	307.32	311.19	315.11	327.00	343.08	359.17	371.07	374.97	378.85	U 1
	U 2	308.19	311.77	315.34	326.07	340.36	354.67	365.40	368.98	372.57	U 2
	M 1	0.1484	0.1621	0.1637	0.1655	0.1676	0.1627	0.1543	0.1519	0.1477	M 1
	M 2	0.2663	0.2534	0.2550	0.2681	0.2682	0.2626	0.2493	0.2446	0.2400	M 2
	M(PR) 1	0.3133	0.3231	0.3269	0.3371	0.3508	0.3613	0.3672	0.3693	0.3708	M(PR) 1
	M(PR) 2	0.1593	0.1577	0.1616	0.1960	0.2083	0.2149	0.2119	0.1959	0.1781	M(PR) 2
	TURN(PR)	41.807	34.347	33.782	33.971	31.276	28.636	25.241	23.605	21.257	TURN(PR)
	UUBAR	0.1687	0.2193	0.2205	0.1222	0.1175	0.1137	0.1541	0.2133	0.2654	UUBAR
	LOSS PARA	0.0436	0.0551	0.0558	0.0320	0.0312	0.0302	0.0394	0.0533	0.0636	LOSS PARA
	DFAC	0.6827	0.6901	0.6842	0.5916	0.5766	0.5741	0.5891	0.6444	0.7033	DFAC
	EFFP	0.8057	0.7669	0.8151	0.8947	0.9062	0.9077	0.7632	0.7645	0.7496	EFFP
	EFF	0.8037	0.7647	0.8134	0.8936	0.9052	0.9067	0.7608	0.7621	0.7471	EFF
	INCID	9.882	7.605	7.267	6.540	5.408	5.199	5.752	5.894	5.925	INCID
	DEVM	12.167	16.238	15.255	10.926	9.516	9.778	12.427	14.062	16.480	DEVM
	P 1	14.656	14.695	14.698	14.698	14.707	14.695	14.692	14.687	14.674	P 1
	P 2	15.772	15.698	15.709	15.813	15.846	15.853	15.794	15.770	15.748	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	532.370	531.620	530.940	530.950	531.040	531.230	532.930	532.670	532.860	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	55.279	55.268	54.796	48.914	47.499	47.224	48.741	52.859	57.599	BETA 2
STATOR-T.E.	BETA 2A	5.000	5.000	5.000	5.000	5.001	5.001	6.993	7.013	6.954	BETA 2A
	V 2	300.89	286.56	288.19	302.25	302.88	297.45	283.63	278.54	273.65	V 2
	V 2A	184.41	189.56	193.04	211.33	231.81	233.58	224.03	216.42	201.71	V 2A
	VZ 2	171.38	163.26	166.14	198.61	204.56	201.86	186.84	168.01	146.50	VZ 2
	VZ 2A	183.71	188.84	192.31	210.50	230.84	232.49	222.09	214.50	199.92	VZ 2A
	V-THETA 2	247.31	235.50	235.48	227.79	223.23	218.17	212.99	221.82	230.85	V-THETA 2
	V-THETA 2A	16.07	16.52	16.82	18.42	20.20	20.35	27.24	26.39	24.38	V-THETA 2A
	M 2	0.2679	0.2552	0.2568	0.2695	0.2701	0.2651	0.2522	0.2477	0.2433	M 2
	M 2A	0.1635	0.1682	0.1714	0.1878	0.2061	0.2076	0.1988	0.1920	0.1788	M 2A
	TURN(PR)	50.278	50.268	49.795	43.909	42.478	42.180	41.688	45.781	50.578	TURN(PR)
	UUBAR	0.1842	0.0736	0.0612	0.0992	0.0333	0.0345	0.0381	0.0594	0.1011	UUBAR
	LOSS PARA	0.0594	0.0239	0.0201	0.0335	0.0117	0.0126	0.0143	0.0225	0.0388	LOSS PARA
	DFAC	0.6360	0.5881	0.5803	0.5360	0.4716	0.4597	0.4593	0.4929	0.5564	DFAC
	EFFP	0.7117	0.8722	0.8917	0.8109	0.9219	0.9092	0.9011	0.8537	0.7834	EFFP
	INCID	8.307	9.067	9.325	5.239	5.247	4.824	5.368	8.930	13.066	INCID
	DEVM	18.031	17.854	17.734	17.334	17.119	17.705	20.494	20.811	21.095	DEVM
	P 2	15.772	15.698	15.709	15.813	15.846	15.853	15.794	15.770	15.748	P 2
	P 2A	15.630	15.647	15.666	15.735	15.820	15.827	15.767	15.730	15.684	P 2A
	T 2	532.370	531.620	530.940	530.950	531.040	531.230	532.930	532.670	532.860	T 2
	T 2A	532.370	531.620	530.940	530.950	531.040	531.240	532.930	532.670	532.860	T 2A
	UUBAR FS		0.1899	0.1306	0.0596	0.0719	0.0750	0.0877	0.0885		UUBAR FS
	P2 FS		15.794	15.762	15.782	15.874	15.882	15.827	15.787		P2 FS
	LOSS PARA FS		0.0616	0.0428	0.0201	0.0252	0.0273	0.0329	0.0335		LOSS PARA FS

Table A-4. Overall Performance - Stage B, Radial Distortion

Corrected Weight Flow, lb/sec	ROTOR $\bar{P}_2/\bar{P}_1$	ROTOR η_{ad}	ROTOR η_p	STAGE $\bar{P}_{2A}/\bar{P}_1$	STAGE η_{ad}	STAGE η_p
			Hub Radial Distortion			
			100% Design Equivalent Rotor Speed			
111.27	1.2339	0.8125	0.8180	1.2047	0.7167	0.7241
98.87	1.3002	0.8930	0.8969	1.2823	0.8433	0.8487
88.49	1.3062	0.8408	0.8467	1.2820	0.7791	0.7867
			90% Design Equivalent Rotor Speed			
103.12	1.1925	0.8254	0.8297	1.1708	0.7368	0.7426
88.50	1.2363	0.8837	0.8872	1.2241	0.8404	0.8449
77.11	1.2501	0.8897	0.8931	1.2338	0.8348	0.8396
			70% Design Equivalent Rotor Speed			
82.58	1.1107	0.7887	0.7918	1.0991	0.7084	0.7123
70.16	1.1389	0.8814	0.8836	1.1301	0.8272	0.8302
57.39	1.1515	0.8546	0.8575	1.1393	0.7879	0.7918
			Tip Radial Distortion			
			100% Design Equivalent Rotor Speed			
111.10	1.2104	0.7314	0.7386	1.1840	0.6444	0.6528
104.69	1.2563	0.8188	0.8246	1.2329	0.7486	0.7560
98.41	1.2768	0.8684	0.8729	1.2519	0.7954	0.8018
			90% Design Equivalent Rotor Speed			
101.85	1.1748	0.7998	0.8043	1.1511	0.6959	0.7020
96.39	1.2057	0.8393	0.8435	1.1880	0.7707	0.7763
88.92	1.2284	0.8566	0.8607	1.2088	0.7872	0.7928
			70% Design Equivalent Rotor Speed			
82.67	1.1098	0.8295	0.8320	1.0943	0.7154	0.7190
76.07	1.1246	0.8545	0.8569	1.1145	0.7870	0.7902
68.17	1.1372	0.8597	0.8623	1.1259	0.7911	0.7946

Table A-5. Blade Element Performance
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 100.36 Equivalent Rotor Speed = 4225.04 Equivalent Weight Flow = 111.27
Hub Radial Distortion

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	412.23	412.23	412.23	412.23	412.23	412.23	412.23	412.23	412.23	V 0
	V 1	374.36	384.01	385.48	383.18	454.62	563.89	546.69	526.91	502.20	V 1
	VZ 0	412.23	412.23	412.23	412.22	412.20	412.16	412.12	412.10	412.09	VZ 0
	VZ 1	374.36	384.01	385.48	383.17	454.58	563.79	546.54	526.74	502.02	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3744	0.3744	0.3744	0.3744	0.3744	0.3744	0.3744	0.3744	0.3744	M 0
	M 1	0.3392	0.3481	0.3495	0.3473	0.4141	0.5185	0.5019	0.4829	0.4592	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	1.7428	1.6793	1.6882	1.7074	1.2979	0.3874	0.4161	0.5032	0.6692	UUBAR
	DFAC	0.092	0.068	0.065	0.070	-0.103	-0.368	-0.326	-0.278	-0.218	DFAC
	EFFP	-0.1085	-0.0834	-0.0784	-0.0843	0.1430	0.7040	0.6578	0.5690	0.4287	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	16.185	16.185	16.185	16.185	16.185	16.185	16.185	16.185	16.185	P 0
	P 1	13.583	13.678	13.665	13.636	14.247	15.607	15.564	15.434	15.186	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	49.161	48.176	46.193	38.071	31.225	29.083	29.567	31.198	34.089	BETA 2
	BETA(PR) 1	57.204	56.902	57.127	58.248	54.997	50.187	52.001	53.343	54.959	BETA(PR) 1
	BETA(PR) 2	24.976	28.782	28.607	29.663	32.997	37.014	37.833	40.140	38.011	BETA(PR) 2
	V 1	393.69	403.28	404.85	402.35	477.87	595.89	577.37	555.93	529.39	V 1
	V 2	577.39	557.62	570.35	608.76	630.64	616.69	622.79	593.27	614.76	V 2
	VZ 1	393.68	403.28	404.85	402.31	477.63	595.19	576.32	554.78	528.18	VZ 1
	VZ 2	377.57	371.94	394.81	479.18	538.94	538.19	540.54	506.31	507.89	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	436.83	415.54	411.60	375.33	326.71	299.34	306.66	306.60	343.73	V-THETA 2
	V(PR) 1	726.8	738.5	745.9	764.5	832.8	930.0	936.8	929.9	920.6	V(PR) 1
	V(PR) 2	416.5	424.3	449.7	551.5	643.0	674.8	685.6	663.5	646.0	V(PR) 2
	VTHETA PR1	-611.0	-618.7	-626.4	-650.1	-682.1	-714.0	-737.7	-745.5	-753.2	VTHETA PR1
	VTHETA PR2	-175.9	-204.3	-215.3	-272.9	-349.9	-405.8	-419.8	-427.0	-397.0	VTHETA PR2
	U 1	610.96	618.67	626.44	650.08	682.05	714.05	737.69	745.46	753.16	U 1
	U 2	612.70	619.81	626.92	648.24	676.66	705.09	726.44	733.55	740.68	U 2
	M 1	0.3571	0.3660	0.3675	0.3652	0.4361	0.5497	0.5316	0.5108	0.4852	M 1
	M 2	0.5085	0.4910	0.5034	0.5407	0.5628	0.5502	0.5559	0.5276	0.5472	M 2
	M(PR) 1	0.6593	0.6703	0.6771	0.6939	0.7600	0.8579	0.8625	0.8544	0.8438	M(PR) 1
	M(PR) 2	0.3669	0.3735	0.3969	0.4899	0.5738	0.6021	0.6120	0.5901	0.5750	M(PR) 2
	TURN(PR)	32.227	28.119	28.520	28.588	22.010	13.191	14.196	13.235	16.984	TURN(PR)
	UUBAR	0.2055	0.2239	0.1839	-0.0046	-0.0457	0.1441	0.1550	0.1899	0.1878	UUBAR
	LOSS PARA	0.0512	0.0546	0.0455	-0.0012	-0.0118	0.0371	0.0408	0.0490	0.0504	LOSS PARA
	DFAC	0.5925	0.5824	0.5527	0.4220	0.3481	0.3776	0.3765	0.3968	0.4244	DFAC
	EFFP	0.7972	0.7637	0.8286	1.0258	1.0552	0.7390	0.7670	0.7007	0.8125	EFFP
	EFF	0.7903	0.7563	0.8230	1.0268	1.0572	0.7325	0.7610	0.6935	0.8071	EFF
	INCID	5.362	4.623	4.437	4.192	-1.066	-7.876	-7.443	-6.536	-5.699	INCID
	DEVM	17.227	19.484	17.687	13.960	12.308	12.147	10.276	12.001	9.130	DEVM
	P 1	13.583	13.678	13.665	13.636	14.247	15.607	15.564	15.434	15.186	P 1
	P 2	17.181	17.008	17.176	17.764	18.375	18.545	18.626	18.264	18.576	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	564.270	562.750	561.260	558.350	555.690	554.480	554.590	555.570	556.790	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	48.660	47.641	45.692	37.802	30.945	28.739	29.120	30.708	33.482	BETA 2
STATOR-T.E.	BETA 2A	3.230	5.950	7.500	8.140	7.641	9.032	8.754	8.744	8.504	BETA 2A
	V 2	581.92	562.53	575.47	612.99	636.62	624.53	632.80	603.10	626.04	V 2
	V 2A	443.07	471.21	499.18	561.05	602.48	584.60	584.89	563.44	538.34	V 2A
	VZ 2	384.37	379.01	401.97	484.28	545.69	546.92	551.79	517.49	521.05	VZ 2
	VZ 2A	442.37	468.67	494.90	555.33	596.89	576.87	577.37	556.13	531.60	VZ 2A
	V-THETA 2	436.90	415.68	411.80	375.67	327.18	299.92	307.37	307.36	344.63	V-THETA 2
	V-THETA 2A	24.96	48.85	65.16	79.43	80.08	91.70	88.90	85.53	79.48	V-THETA 2A
	M 2	0.5127	0.4955	0.5082	0.5447	0.5685	0.5576	0.5654	0.5368	0.5578	M 2
	M 2A	0.3861	0.4120	0.4380	0.4962	0.5362	0.5200	0.5202	0.4997	0.4759	M 2A
	TURN(PR)	45.430	41.691	38.191	29.657	23.288	19.675	20.318	21.908	24.911	TURN(PR)
	UUBAR	0.1414	0.0004	-0.0242	-0.0370	0.0064	0.1211	0.1850	0.1903	0.3505	UUBAR
	LOSS PARA	0.0457	0.0001	-0.0079	-0.0124	0.0022	0.0438	0.0691	0.0719	0.1339	LOSS PARA
	DFAC	0.4678	0.3754	0.3313	0.2489	0.1910	0.1871	0.2074	0.2076	0.3051	DFAC
	EFFP	0.6930	0.9951	1.0878	1.2009	0.9465	0.1315	-0.1319	-0.3486	-0.2274	EFFP
	INCID	1.688	1.440	0.221	-5.873	-11.304	-13.653	-14.243	-13.214	-11.053	INCID
	DEVM	16.261	18.804	20.234	20.473	19.758	21.733	22.253	22.540	22.643	DEVM
	P 2	17.181	17.008	17.176	17.764	18.375	18.545	18.626	18.264	18.576	P 2
	P 2A	16.782	17.007	17.243	17.884	18.352	18.118	17.954	17.645	17.336	P 2A
	T 2	564.270	562.750	561.260	558.350	555.690	554.480	554.590	555.570	556.790	T 2
	T 2A	564.270	562.780	561.260	558.350	555.690	554.480	554.590	555.570	556.790	T 2A
	UUBAR FS		0.1354	0.0887	0.1336	0.1261	0.1914	0.1601	0.1396		UUBAR FS
	P2 FS		17.410	17.513	18.396	18.862	18.844	18.510	18.064		P2 FS
	LOSS PARA FS		0.0338	0.0289	0.0447	0.0433	0.0692	0.0598	0.0526		LOSS PARA FS

Table A-5. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.86 Equivalent Rotor Speed = 4204.27 Equivalent Weight Flow = 98.87
Hub Radial Distortion

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	370.71	370.71	370.71	370.71	370.71	370.71	370.71	370.71	370.71	V 0
	V 1	323.91	331.52	327.75	337.63	381.76	493.71	479.69	469.07	456.14	V 1
	VZ 0	370.71	370.71	370.71	370.71	370.68	370.64	370.61	370.60	370.58	VZ 0
	VZ 1	323.91	331.52	327.75	337.62	381.73	493.62	479.56	468.92	455.98	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3358	0.3358	0.3358	0.3358	0.3358	0.3358	0.3358	0.3358	0.3358	M 0
	M 1	0.2926	0.2996	0.2961	0.3052	0.3460	0.4512	0.4378	0.4278	0.4156	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	1.5536	1.5173	1.5355	1.5355	1.1910	0.3617	0.3934	0.4478	0.5294	UUBAR
	DFAC	0.126	0.106	0.116	0.089	-0.030	-0.332	-0.294	-0.265	-0.230	DFAC
	EFFP	-0.1767	-0.1500	-0.1633	-0.1232	0.0485	0.6911	0.6414	0.5827	0.5015	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.763	15.763	15.763	15.763	15.763	15.763	15.763	15.763	15.763	P 0
	P 1	13.924	13.967	13.946	13.946	14.353	15.335	15.297	15.233	15.137	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	59.839	60.112	58.795	49.956	40.756	35.287	35.927	38.831	42.686	BETA 2
	BETA(PR) 1	60.781	60.557	61.144	61.316	59.497	53.876	55.560	56.441	57.446	BETA(PR) 1
	BETA(PR) 2	16.339	25.130	28.374	26.892	31.989	34.377	35.895	37.839	43.233	BETA(PR) 2
	V 1	340.05	347.50	343.50	353.96	400.03	519.21	504.30	493.10	479.55	V 1
	V 2	602.52	560.31	549.56	590.85	598.30	618.33	617.48	593.57	539.39	V 2
	VZ 1	340.04	347.49	343.50	353.93	399.83	518.60	503.39	492.08	478.45	VZ 1
	VZ 2	302.73	279.20	284.73	380.10	452.98	504.11	499.10	461.50	395.74	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	520.94	485.79	470.05	452.28	390.40	356.75	361.64	371.47	364.99	V-THETA 2
	V(PR) 1	696.6	706.9	711.7	737.4	787.8	880.0	890.6	890.7	889.7	V(PR) 1
	V(PR) 2	315.5	308.4	323.6	426.3	534.4	611.4	617.2	585.5	544.2	V(PR) 2
	VTHETA PR1	-608.0	-615.6	-623.4	-646.9	-678.7	-710.5	-734.1	-741.8	-749.5	VTHETA PR1
	VTHETA PR2	-88.7	-131.0	-153.8	-192.8	-282.9	-344.9	-361.2	-358.5	-372.1	VTHETA PR2
	U 1	607.96	615.62	623.37	646.88	678.70	710.54	734.07	741.79	749.46	U 1
	U 2	609.69	616.76	623.83	645.05	673.33	701.62	722.86	729.95	737.04	U 2
	M 1	0.3075	0.3143	0.3106	0.3203	0.3630	0.4755	0.4612	0.4506	0.4377	M 1
	M 2	0.5283	0.4901	0.4808	0.5203	0.5289	0.5489	0.5473	0.5242	0.4734	M 2
	M(PR) 1	0.6298	0.6395	0.6437	0.6673	0.7149	0.8059	0.8146	0.8139	0.8121	M(PR) 1
	M(PR) 2	0.2766	0.2698	0.2831	0.3754	0.4725	0.5428	0.5470	0.5171	0.4776	M(PR) 2
	TURN(PR)	44.442	35.427	32.770	34.427	27.518	19.516	19.692	18.635	14.254	TURN(PR)
	UUBAR	0.2252	0.2663	0.2509	0.0929	0.0069	0.0662	0.0616	0.1147	0.1798	UUBAR
	LOSS PARA	0.0595	0.0671	0.0622	0.0242	0.0018	0.0176	0.0167	0.0305	0.0446	LOSS PARA
	DFAC	0.7532	0.7553	0.7316	0.6011	0.4734	0.4350	0.4414	0.4821	0.5270	DFAC
	EFFP	0.9417	0.7709	0.7798	0.9517	0.9965	0.9201	0.9344	0.8729	0.7570	EFFP
	EFF	0.8351	0.7623	0.7718	0.9497	0.9964	0.9172	0.9320	0.8683	0.7492	EFF
	INCID	8.940	8.279	8.454	7.260	3.435	-4.186	-3.883	-3.435	-3.210	INCID
	DEVM	8.589	15.832	17.455	11.189	11.301	9.512	8.340	9.701	14.349	DEVM
	P 1	13.924	13.967	13.946	13.946	14.353	15.335	15.297	15.233	15.137	P 1
	P 2	18.526	18.022	17.936	18.623	19.020	19.631	19.835	19.567	18.934	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	571.500	570.100	568.800	565.750	562.300	560.050	561.580	563.000	564.430	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	59.075	59.287	58.031	49.562	40.384	34.852	35.367	38.189	41.952	BETA 2
STATOR-T.E.	BETA 2A	0.950	4.800	7.100	7.740	6.961	8.102	8.934	8.135	6.953	BETA 2A
	V 2	607.38	565.24	554.36	594.83	603.68	626.17	627.28	603.35	548.34	V 2
	V 2A	344.81	349.00	357.30	423.16	496.31	532.36	531.86	501.58	466.59	V 2A
	VZ 2	312.14	288.69	293.51	385.79	459.63	513.30	510.69	473.42	407.12	VZ 2
	VZ 2A	344.76	347.77	354.55	419.26	492.46	526.61	524.76	495.85	462.45	VZ 2A
	V-THETA 2	521.03	485.96	470.28	452.69	390.96	357.44	362.49	372.39	365.95	V-THETA 2
	V-THETA 2A	5.72	29.20	44.16	56.98	60.12	74.97	82.49	70.87	56.40	V-THETA 2A
	M 2	0.5328	0.4946	0.4852	0.5240	0.5340	0.5562	0.5565	0.5333	0.4817	M 2
	M 2A	0.2968	0.3009	0.3085	0.3678	0.4350	0.4689	0.4677	0.4395	0.4072	M 2A
	TURN(PR)	58.125	54.487	50.931	41.817	33.404	26.713	26.378	29.989	34.923	TURN(PR)
	UUBAR	0.2174	0.0677	0.0181	0.0692	-0.0224	0.0389	0.1226	0.1542	0.0888	UUBAR
	LOSS PARA	0.0704	0.0220	0.0059	0.0232	-0.0078	0.0141	0.0458	0.0583	0.0340	LOSS PARA
	DFAC	0.7070	0.6466	0.6090	0.5145	0.3717	0.3162	0.3222	0.3611	0.3688	DFAC
	EFFP	0.7052	0.9040	0.9716	0.8703	1.0615	0.8756	0.6062	0.5460	0.7016	EFFP
	INCID	12.104	13.086	12.560	5.887	-1.868	-7.545	-8.003	-5.741	-2.589	INCID
	DEVM	13.981	17.654	19.834	20.073	19.078	20.804	22.433	21.931	21.095	DEVM
	P 2	18.526	18.022	17.936	18.623	19.020	19.631	19.835	19.567	18.934	P 2
	P 2A	17.818	17.835	17.888	18.403	19.095	19.487	19.374	19.036	18.687	P 2A
	T 2	571.500	570.100	568.800	565.750	562.300	560.050	561.580	563.000	564.430	T 2
	T 2A	571.500	570.020	568.800	565.800	562.300	560.050	561.650	563.050	564.470	T 2A
	UUBAR FS		0.1601	0.1490	0.1140	0.0890	0.0742	0.0867	0.1227		UUBAR FS
	P2 FS		18.332	18.329	18.788	19.436	19.778	19.692	19.448		P2 FS
	LOSS PARA FS		0.0820	0.0466	0.0382	0.0309	0.0269	0.0324	0.0464		LOSS PARA FS

Table A-5. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.81 Equivalent Rotor Speed = 4201.93 Equivalent Weight Flow = 88.49
Hub Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	336.00	336.00	336.00	336.00	336.00	336.00	336.00	336.00	336.00	V 0
	V 1	286.00	288.19	287.55	291.49	344.50	442.80	431.87	415.08	391.56	V 1
	VZ 0	336.00	336.00	336.00	335.99	335.97	335.94	335.91	335.90	335.88	VZ 0
	VZ 1	285.99	288.19	287.55	291.49	344.47	442.72	431.75	414.95	391.43	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3037	0.3037	0.3037	0.3037	0.3037	0.3037	0.3037	0.3037	0.3037	M 0
	M 1	0.2579	0.2599	0.2593	0.2629	0.3116	0.4030	0.3928	0.3771	0.3551	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	1.4043	1.4229	1.4482	1.4317	1.1572	0.3524	0.3535	0.4501	0.6247	UUBAR
	DFAC	0.149	0.142	0.144	0.132	-0.025	-0.318	-0.285	-0.235	-0.165	DFAC
	EFFP	-0.2420	-0.2262	-0.2244	-0.2070	0.0426	0.6844	0.6566	0.5468	0.3700	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.409	15.409	15.409	15.409	15.409	15.409	15.409	15.409	15.409	P 0
	P 1	14.068	14.050	14.026	14.042	14.304	15.073	15.072	14.979	14.813	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	63.396	64.009	63.874	56.446	48.374	38.901	39.569	42.606	46.868	BETA 2
	BETA(PR) 1	63.729	63.878	64.210	64.731	62.021	56.849	58.356	59.635	61.330	BETA(PR) 1
	BETA(PR) 2	13.165	23.391	27.731	26.610	30.952	33.696	35.420	36.253	42.736	BETA(PR) 2
	V 1	299.93	301.72	301.05	305.21	360.54	464.39	452.95	435.25	410.52	V 1
	V 2	610.04	566.34	552.10	580.70	587.51	612.09	610.57	600.64	541.96	V 2
	VZ 1	299.92	301.72	301.05	305.18	360.36	463.84	452.13	434.35	409.58	VZ 1
	VZ 2	273.18	248.19	243.11	320.94	390.12	475.81	469.88	441.34	369.92	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	545.45	509.06	495.69	483.90	439.00	383.95	388.29	405.91	394.86	V-THETA 2
	V(PR) 1	677.6	685.3	691.9	714.9	768.2	848.5	862.2	859.7	854.2	V(PR) 1
	V(PR) 2	280.6	270.4	274.7	359.0	455.2	572.6	577.7	548.4	504.6	V(PR) 2
	VTHETA PR1	-607.6	-615.3	-623.0	-646.5	-678.3	-710.1	-733.7	-741.4	-749.0	VTHETA PR1
	VTHETA PR2	-63.9	-107.4	-127.8	-160.8	-234.0	-317.3	-334.2	-323.6	-341.8	VTHETA PR2
	U 1	607.62	615.28	623.02	646.52	678.32	710.14	733.66	741.38	749.04	U 1
	U 2	509.35	616.42	623.49	644.69	672.96	701.23	722.46	729.54	736.63	U 2
	M 1	0.2706	0.2723	0.2716	0.2755	0.3264	0.4234	0.4126	0.3959	0.3728	M 1
	M 2	0.5347	0.4949	0.4823	0.5094	0.5167	0.5408	0.5392	0.5289	0.4737	M 2
	M(PR) 1	0.6114	0.6184	0.6244	0.6453	0.6954	0.7735	0.7854	0.7821	0.7757	M(PR) 1
	M(PR) 2	0.2459	0.2363	0.2399	0.3149	0.4003	0.5060	0.5102	0.4829	0.4411	M(PR) 2
	TURN(PR)	50.563	40.487	36.479	38.124	31.079	23.171	22.965	23.417	18.640	TURN(PR)
	UUBAR	0.2731	0.2964	0.2921	0.1937	0.1174	0.0783	0.0795	0.1198	0.1725	UUBAR
	LOSS PARA	0.0732	0.0758	0.0729	0.0506	0.0310	0.0210	0.0216	0.0326	0.0432	LOSS PARA
	DFAC	0.8077	0.8125	0.8051	0.6955	0.5825	0.4702	0.4791	0.5200	0.5655	DFAC
	EFFP	0.8428	0.7804	0.7804	0.8835	0.9163	0.8960	0.9254	0.8912	0.7807	EFFP
	EFF	0.8361	0.7722	0.7722	0.8787	0.9129	0.8921	0.9224	0.8869	0.7727	EFF
	INCID	11.887	11.600	11.520	10.675	5.959	-1.212	-1.085	-0.238	0.678	INCID
	DEVM	5.416	14.093	16.811	10.907	10.264	8.831	7.865	8.116	13.852	DEVM
	P 1	14.068	14.050	14.026	14.042	14.304	15.073	15.072	14.979	14.813	P 1
	P 2	18.845	18.331	18.209	18.688	19.004	19.626	19.834	19.757	19.086	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	572.740	571.730	570.710	568.930	566.750	564.250	564.590	566.840	569.120	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.959	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	62.506	63.031	62.934	55.957	47.899	38.414	38.941	41.868	46.023	BETA 2
STATOR-T.E.	BETA 2A	-0.310	4.000	6.960	6.710	7.650	8.212	8.954	8.484	7.504	BETA 2A
	V 2	615.00	571.37	556.92	584.56	592.71	619.76	620.14	610.61	550.96	V 2
	V 2A	300.45	307.64	311.74	372.12	435.58	499.32	514.26	494.61	460.32	V 2A
	VZ 2	283.92	259.12	253.41	327.22	397.24	485.13	481.63	454.02	382.01	VZ 2
	VZ 2A	300.44	306.89	309.44	369.53	431.53	493.79	507.37	488.52	455.67	VZ 2A
	V-THETA 2	545.54	509.23	495.93	484.35	439.62	384.69	389.20	406.92	395.90	V-THETA 2
	V-THETA 2A	-1.63	21.46	37.78	43.47	57.97	71.26	79.94	72.87	60.02	V-THETA 2A
	M 2	0.5393	0.4995	0.4867	0.5130	0.5216	0.5480	0.5482	0.5382	0.4820	M 2
	M 2A	0.2578	0.2643	0.2681	0.3215	0.3786	0.4369	0.4504	0.4316	0.3999	M 2A
	TURN(PR)	62.816	59.031	55.973	49.242	40.230	30.163	29.930	33.319	38.444	TURN(PR)
	UUBAR	0.3134	0.1991	0.1440	0.1571	0.0916	0.0645	0.0944	0.1490	0.0598	UUBAR
	LOSS PARA	0.1014	0.0616	0.0471	0.0528	0.0320	0.0234	0.0353	0.0563	0.0229	LOSS PARA
	DFAC	0.7995	0.7405	0.7115	0.6195	0.4928	0.3808	0.3607	0.4006	0.4018	DFAC
	EFFP	0.6182	0.7532	0.8057	0.7576	0.8193	0.8358	0.7296	0.6088	0.8189	EFFP
	INCID	15.535	16.830	17.463	12.282	5.647	-3.985	-4.431	-2.063	1.482	INCID
	DEVM	12.721	16.854	19.694	19.043	19.767	20.913	22.453	22.280	21.644	DEVM
	P 2	18.845	18.331	18.209	18.688	19.004	19.626	19.834	19.757	19.086	P 2
	P 2A	17.785	17.788	17.817	18.205	18.710	19.392	19.488	19.231	18.918	P 2A
	T 2	572.740	571.730	570.710	568.930	566.750	564.250	564.590	566.840	569.120	T 2
	T 2A	572.740	571.730	570.710	568.930	566.750	564.250	564.590	566.840	569.120	T 2A
	UUBAR FS		0.2162	0.2248	0.1862	0.1512	0.1046	0.0757	0.1775		UUBAR FS
	P2 FS		18.436	18.499	18.803	19.236	19.794	19.765	19.506		P2 FS
	LOSS PARA FS		0.0704	0.0735	0.0625	0.0528	0.0379	0.0283	0.0670		LOSS PARA FS

Table A-5. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 90.24 Equivalent Rotor Speed = 3799.08 Equivalent Weight Flow = 103.12
Hub Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	385.60	385.60	385.60	385.60	385.60	385.60	385.60	385.60	385.60	V 0
	V 1	343.29	349.76	350.26	348.70	415.38	515.00	489.66	486.43	449.74	V 1
	VZ 0	385.60	385.60	385.59	385.57	385.53	385.49	385.48	385.47	VZ 0	
	VZ 1	343.29	349.76	350.25	348.70	415.35	514.91	489.52	486.27	449.58	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3496	0.3496	0.3496	0.3496	0.3496	0.3496	0.3496	0.3496	0.3496	M 0
	M 1	0.3105	0.3164	0.3169	0.3154	0.3773	0.4715	0.4473	0.4442	0.4096	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	1.5106	1.5375	1.5560	1.5610	1.1722	0.3510	0.4081	0.4240	0.6802	UUBAR
	DFAC	0.110	0.093	0.092	0.096	-0.077	-0.336	-0.270	-0.261	-0.166	DFAC
	EFFP	-0.1568	-0.1283	-0.1246	-0.1299	0.1211	0.7011	0.6109	0.5930	0.3532	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVN	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVN
	P 0	15.889	15.889	15.889	15.889	15.889	15.889	15.889	15.889	15.889	P 0
	P 1	13.944	13.909	13.885	13.879	14.380	15.437	15.364	15.343	15.013	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	48.415	46.766	43.116	38.211	31.163	28.256	28.676	29.764	31.799	BETA 2
	BETA(PR) 1	56.719	56.599	56.890	57.971	54.615	49.846	52.218	52.687	55.149	BETA(PR) 1
	BETA(PR) 2	23.602	27.061	27.192	28.792	32.285	36.092	37.313	38.691	43.415	BETA(PR) 2
	V 1	360.62	366.82	367.35	365.70	435.82	542.33	515.13	511.92	472.67	V 1
	V 2	530.77	516.76	532.56	555.01	575.39	569.16	569.95	554.82	501.64	V 2
	VZ 1	360.60	366.82	367.35	365.67	435.61	541.69	514.19	510.87	471.59	VZ 1
	VZ 2	352.29	353.97	388.75	436.03	492.05	500.62	498.97	480.49	425.25	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	397.00	376.49	363.99	343.25	297.56	269.06	272.90	274.77	263.66	V-THETA 2
	V(PR) 1	657.1	666.3	672.5	689.5	752.4	840.5	839.9	843.4	825.9	V(PR) 1
	V(PR) 2	384.4	397.5	437.1	497.6	582.4	620.3	628.5	616.8	586.5	V(PR) 2
	VTHETA PR1	-549.4	-556.3	-563.3	-584.5	-613.3	-642.1	-663.3	-670.3	-677.2	VTHETA PR1
	VTHETA PR2	-153.9	-180.8	-199.7	-239.6	-310.9	-364.9	-380.3	-384.8	-402.3	VTHETA PR2
	U 1	549.36	556.29	563.29	584.54	613.29	642.06	663.32	670.30	677.23	U 1
	U 2	550.93	557.32	563.71	582.88	608.44	634.00	653.20	659.60	666.01	U 2
	M 1	0.3264	0.3322	0.3327	0.3312	0.3965	0.4977	0.4716	0.4685	0.4312	M 1
	M 2	0.4685	0.4561	0.4712	0.4933	0.5136	0.5086	0.5087	0.4947	0.4453	M 2
	M(PR) 1	0.5949	0.6034	0.6090	0.6244	0.6844	0.7713	0.7688	0.7719	0.7534	M(PR) 1
	M(PR) 2	0.3393	0.3508	0.3867	0.4423	0.5199	0.5542	0.5609	0.5499	0.5206	M(PR) 2
	TURN(PR)	33.116	29.538	29.698	29.183	22.339	13.772	14.931	14.027	11.773	TURN(PR)
	UUBAR	0.2275	0.2013	0.1249	0.0022	-0.0412	0.1138	0.1099	0.1373	0.1538	UUBAR
	LOSS PARA	0.0573	0.0499	0.0313	0.0006	-0.0107	0.0297	0.0292	0.0361	0.0381	LOSS PARA
	DFAC	0.5814	0.5610	0.5027	0.4237	0.3471	0.3646	0.3592	0.3777	0.3977	DFAC
	EFFP	0.7404	0.7440	0.8174	0.9848	1.0240	0.7676	0.7846	0.7598	0.7116	EFFP
	EFF	0.7334	0.7372	0.8122	0.9843	1.0247	0.7627	0.7797	0.7546	0.7057	EFF
	INCID	4.877	4.321	4.280	3.915	1.449	-0.217	-1.227	-1.192	-3.509	INCID
	DEVN	15.853	17.763	16.273	13.088	11.597	11.225	9.757	10.553	14.531	DEVN
	P 1	13.944	13.909	13.885	13.879	14.380	15.437	15.364	15.343	15.013	P 1
	P 2	16.820	16.701	16.874	17.247	17.718	17.912	17.999	17.858	17.307	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	557.630	556.450	555.280	552.450	549.810	548.220	549.480	549.170	549.170	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	47.951	46.277	42.684	37.960	30.908	27.947	28.278	29.325	31.322	BETA 2
STATOR-T.E.	BETA 2A	4.630	6.300	7.470	7.801	7.581	9.252	9.803	8.974	8.055	BETA 2A
	V 2	534.72	521.12	537.16	558.62	580.46	575.96	578.49	563.59	509.66	V 2
	V 2A	423.22	443.23	462.06	512.90	552.63	548.57	559.12	533.47	504.89	V 2A
	VZ 2	358.14	360.18	394.87	440.37	497.75	508.15	508.50	490.35	434.42	VZ 2
	VZ 2A	421.84	440.55	458.13	508.10	547.58	540.98	550.28	526.21	499.14	VZ 2A
	V-THETA 2	397.07	376.61	364.17	343.57	297.98	269.58	273.54	275.46	264.36	V-THETA 2
	V-THETA 2A	34.16	48.64	60.07	69.61	72.88	88.13	95.08	83.10	70.63	V-THETA 2A
	M 2	0.4721	0.4601	0.4754	0.4967	0.5184	0.5150	0.5167	0.5029	0.4527	M 2
	M 2A	0.3706	0.3891	0.4066	0.4543	0.4923	0.4893	0.4985	0.4748	0.4483	M 2A
	TURN(PR)	43.321	39.978	35.213	30.154	23.310	18.663	18.428	20.297	23.202	TURN(RR)
	UUBAR	0.1271	0.0091	0.0165	-0.0113	0.0208	0.1211	0.1527	0.2157	0.1558	UUBAR
	LOSS PARA	0.0410	0.0090	0.0054	-0.0038	0.0073	0.0438	0.0569	0.0814	0.0596	LOSS PARA
	DFAC	0.4283	0.3551	0.3265	0.2485	0.1852	0.1640	0.1513	0.1852	0.1576	DFAC
	EFFP	0.6858	0.9683	0.9377	1.0575	0.8018	-0.1775	-1.0952	-0.8949	-6.7322	EFFP
	INCID	0.980	0.076	-2.787	-5.715	-11.342	-14.445	-15.084	-14.595	-13.210	INCID
	DEVN	17.661	19.154	20.204	20.134	19.698	21.953	23.301	22.770	22.194	DEVN
	P 2	16.820	16.701	16.874	17.247	17.718	17.912	17.999	17.858	17.307	P 2
	P 2A	16.517	16.681	16.834	17.277	17.656	17.553	17.541	17.247	16.953	P 2A
	T 2	557.630	556.450	555.280	552.450	549.810	548.220	549.480	549.170	549.170	T 2
	T 2A	557.630	556.460	555.310	552.480	549.810	548.220	549.480	549.170	549.170	T 2A
	UUBAR FS		0.1217	0.0963	0.1217	0.1092	0.1822	0.1266	0.1610		UUBAR FS
	P2 FS		16.985	17.082	17.647	18.006	18.128	17.904	17.606		P2 FS
	LOSS PARA FS		0.0401	0.0315	0.0409	0.0383	0.0659	0.0471	0.0532		LOSS PARA FS

Table A-5. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 90.04 Equivalent Rotor Speed = 3790.62 Equivalent Weight Flow = 88.50
Hub Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	334.99	334.99	334.99	334.99	334.99	334.99	334.99	334.99	334.99	V 0
	V 1	288.20	293.73	293.82	300.77	356.83	437.51	423.14	413.17	407.87	V 1
	VZ 0	334.99	334.99	334.99	334.99	334.97	334.93	334.90	334.89	334.88	VZ 0
	VZ 1	288.20	293.73	293.82	300.77	356.80	437.43	423.03	413.04	407.73	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3028	0.3028	0.3028	0.3028	0.3028	0.3028	0.3028	0.3028	0.3028	M 0
	M 1	0.2599	0.2649	0.2650	0.2714	0.3229	0.3981	0.3846	0.3753	0.3703	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	1.3639	1.3253	1.3772	1.4103	1.0635	0.3092	0.3589	0.3987	0.4164	UUBAR
	DFAC	0.140	0.123	0.123	0.102	-0.065	-0.306	-0.263	-0.233	-0.218	DFAC
	EFFP	-0.2339	-0.2104	-0.1999	-0.1583	0.1132	0.7032	0.6321	0.5747	0.5447	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.464	15.464	15.464	15.464	15.464	15.464	15.464	15.464	15.464	P 0
	P 1	14.164	14.201	14.152	14.120	14.451	15.170	15.122	15.084	15.067	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	58.800	58.868	57.767	49.694	40.726	35.861	36.318	39.150	43.311	BETA 2
	BETA(PR) 1	61.127	61.009	61.303	61.627	58.608	54.427	56.215	57.122	57.719	BETA(PR) 1
	BETA(PR) 2	18.525	27.139	29.126	26.452	31.568	34.586	36.664	39.061	43.659	BETA(PR) 2
	V 1	302.26	307.56	307.66	315.03	373.59	458.72	443.63	433.20	427.83	V 1
	V 2	534.24	496.06	492.06	536.36	543.24	553.34	547.73	523.03	482.34	V 2
	VZ 1	302.25	307.56	307.66	315.00	373.40	458.18	442.82	432.31	426.86	VZ 1
	VZ 2	276.75	256.47	262.45	346.92	411.48	447.91	440.53	404.83	350.31	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	456.97	424.61	416.23	408.98	354.25	323.76	323.81	329.59	330.24	V-THETA 2
	V(PR) 1	626.0	634.6	640.7	662.9	717.0	787.9	796.8	796.9	799.8	V(PR) 1
	V(PR) 2	291.9	288.2	300.4	387.6	483.3	544.7	550.2	522.4	485.1	V(PR) 2
	VTHETA PR1	-548.1	-555.1	-562.0	-583.2	-611.9	-640.6	-661.8	-668.8	-675.7	VTHETA PR1
	VTHETA PR2	-92.7	-131.5	-146.2	-172.6	-252.8	-308.8	-327.9	-328.5	-334.3	VTHETA PR2
	U 1	548.14	555.05	562.03	583.24	611.92	640.63	661.84	668.81	675.72	U 1
	U 2	549.70	556.08	562.46	581.59	607.08	632.59	651.74	658.13	664.53	U 2
	M 1	0.2728	0.2776	0.2777	0.2845	0.3385	0.4180	0.4038	0.3940	0.3890	M 1
	M 2	0.4701	0.4356	0.4324	0.4741	0.4816	0.4919	0.4859	0.4626	0.4249	M 2
	M(PR) 1	0.5649	0.5728	0.5783	0.5986	0.6495	0.7180	0.7252	0.7248	0.7272	M(PR) 1
	M(PR) 2	0.2568	0.2531	0.2640	0.3426	0.4284	0.4843	0.4881	0.4621	0.4274	M(PR) 2
	TURN(PR)	42.602	33.869	32.178	35.178	27.049	19.859	19.579	18.095	14.102	TURN(PR)
	UUBAR	0.2366	0.2705	0.2462	0.0966	0.0081	0.0725	0.0658	0.1205	0.1967	UUBAR
	LOSS PARA	0.0617	0.0670	0.0606	0.0253	0.0021	0.0193	0.0176	0.0316	0.0485	LOSS PARA
	DFAC	0.7349	0.7323	0.7143	0.5956	0.4773	0.4404	0.4440	0.4828	0.5330	DFAC
	EFFP	0.8109	0.7427	0.7720	0.9602	1.0024	0.9235	0.9159	0.8476	0.7375	EFFP
	EFF	0.8048	0.7354	0.7654	0.9588	1.0025	0.9212	0.9134	0.8432	0.7308	EFF
	INCID	9.286	8.730	8.613	7.571	2.546	-3.634	-3.227	-2.754	-2.936	INCID
	DEVM	10.775	17.841	18.206	10.749	10.880	9.721	9.108	10.923	14.775	DEVM
	P 1	14.164	14.201	14.152	14.120	14.451	15.170	15.122	15.084	15.067	P 1
	P 2	17.723	17.344	17.323	17.891	18.217	18.554	18.649	18.407	17.996	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	561.320	560.160	559.000	556.550	554.100	552.050	553.750	554.700	555.650	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	58.129	58.143	57.075	49.320	40.381	35.453	35.805	38.558	42.613	BETA 2
STATOR-T.E.	BETA 2A	2.000	5.420	7.539	7.840	7.041	8.232	9.314	8.453	6.953	BETA 2A
	V 2	538.19	500.09	496.12	539.84	547.82	559.85	555.69	530.97	489.86	V 2
	V 2A	315.65	325.40	334.04	389.74	445.86	475.66	474.12	449.37	421.21	V 2A
	VZ 2	284.17	263.95	269.66	351.85	417.12	455.56	449.95	414.51	359.92	VZ 2
	VZ 2A	315.46	323.94	331.15	386.05	442.32	470.37	467.30	443.88	417.47	VZ 2A
	V-THETA 2	457.05	424.76	416.43	409.36	354.76	324.39	324.57	330.40	331.11	V-THETA 2
	V-THETA 2A	11.02	30.73	43.83	53.16	54.63	68.05	76.64	65.97	50.91	V-THETA 2A
	M 2	0.4737	0.4393	0.4361	0.4773	0.4859	0.4980	0.4933	0.4700	0.4318	M 2
	M 2A	0.2738	0.2827	0.2906	0.3409	0.3923	0.4202	0.4181	0.3953	0.3695	M 2A
	TURN(PR)	56.128	52.723	49.535	41.475	33.321	27.184	26.437	30.040	35.584	TURN(PR)
	UUBAR	0.2043	0.0416	0.0025	0.0668	0.0097	0.0342	0.0924	0.1018	0.0438	UUBAR
	LOSS PARA	0.0661	0.0135	0.0008	0.0224	0.0034	0.0124	0.0345	0.0385	0.0168	LOSS PARA
	DFAC	0.6818	0.6067	0.5744	0.5021	0.3799	0.3193	0.3168	0.3455	0.3628	DFAC
	EFFP	0.7097	0.9299	0.9906	0.8710	0.9739	0.8885	0.6873	0.6669	0.8364	EFFP
	INCID	11.158	11.942	11.604	5.645	-1.871	-6.943	-7.565	-5.372	-1.928	INCID
	DEVM	15.031	18.273	20.273	20.173	19.158	20.933	22.812	22.250	21.094	DEVM
	P 2	17.723	17.344	17.323	17.891	18.217	18.554	18.649	18.407	17.996	P 2
	P 2A	17.207	17.254	17.317	17.718	18.191	18.455	18.385	18.144	17.902	P 2A
	T 2	561.320	560.160	559.000	556.550	554.100	552.050	553.750	554.700	555.650	T 2
	T 2A	561.310	560.200	559.060	556.560	554.100	552.050	553.780	554.730	555.700	T 2A
	UUBAR FS		0.1764	0.1354	0.0854	0.0915	0.0456	0.0805	0.1043		UUBAR FS
	P2 FS		17.689	17.642	17.936	18.452	18.644	18.604	18.412		P2 FS
	LOSS PARA FS		0.0572	0.0433	0.0286	0.0120	0.0238	0.0300	0.0402		LOSS PARA FS

Table A-5. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 89.59 Equivalent Rotor Speed = 3771.79 Equivalent Weight Flow = 77.11
Hub Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	292.04	292.04	292.04	292.04	292.04	292.04	292.04	292.04	292.04	V 0
	V 1	253.42	258.55	256.23	261.46	303.00	380.15	288.54	291.21	242.47	V 1
	VZ 0	292.04	292.04	292.04	292.03	292.01	291.98	291.96	291.95	291.94	VZ 0
	VZ 1	253.42	258.55	256.23	261.46	302.97	380.08	288.46	291.12	242.38	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2634	0.2634	0.2634	0.2634	0.2634	0.2634	0.2634	0.2634	0.2634	M 0
	M 1	0.2282	0.2328	0.2307	0.2355	0.2734	0.3445	0.2602	0.2626	0.2182	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	1.3298	1.2994	1.3139	1.3399	1.0349	0.3064	0.3758	0.3238	0.6259	UUBAR
	DFAC	0.132	0.115	0.123	0.105	-0.038	-0.302	0.012	0.003	0.170	DFAC
	EFFP	-0.2273	-0.1991	-0.2118	-0.1732	0.0692	0.6999	-0.0692	-0.0182	-1.0134	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVN	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVN
	P 0	15.276	15.276	15.276	15.276	15.276	15.276	15.276	15.276	15.276	P 0
	P 1	14.320	14.341	14.331	14.312	14.532	15.056	15.006	15.043	14.826	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	63.519	64.602	63.943	57.552	48.754	40.942	41.088	44.283	49.487	BETA 2
	BETA(PR) 1	64.039	63.906	64.390	64.763	62.526	58.071	65.461	65.481	69.412	BETA(PR) 1
	BETA(PR) 2	12.904	23.948	28.891	28.059	30.655	34.430	37.044	39.063	42.171	BETA(PR) 2
	V 1	265.57	270.50	268.07	273.57	316.77	397.68	301.21	304.17	253.14	V 1
	V 2	548.49	505.85	490.61	512.22	528.86	537.14	529.77	512.75	491.00	V 2
	VZ 1	265.56	270.50	268.07	273.54	316.61	397.22	300.67	303.54	252.56	VZ 1
	VZ 2	244.57	216.96	215.51	274.81	348.54	405.32	398.65	366.48	318.49	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	490.94	456.96	440.76	432.22	397.49	351.61	347.62	357.42	372.73	V-THETA 2
	V(PR) 1	606.6	615.0	620.2	641.6	686.4	751.3	724.2	731.7	718.4	V(PR) 1
	V(PR) 2	250.9	237.4	246.1	311.5	405.4	492.0	500.3	472.9	430.6	V(PR) 2
	VTHETA PR1	-545.4	-552.3	-559.2	-580.3	-608.9	-637.4	-658.6	-665.5	-672.4	VTHETA PR1
	VTHETA PR2	-56.0	-96.4	-118.9	-146.5	-206.6	-277.8	-300.9	-297.4	-288.5	VTHETA PR2
	U 1	545.42	552.30	559.24	580.34	608.88	637.45	658.56	665.49	672.36	U 1
	U 2	546.97	553.32	559.66	578.70	604.07	629.45	648.51	654.86	661.23	U 2
	M 1	0.2392	0.2437	0.2415	0.2465	0.2861	0.3608	0.2718	0.2745	0.2279	M 1
	M 2	0.4832	0.4444	0.4308	0.4511	0.4673	0.4758	0.4686	0.4524	0.4320	M 2
	M(PR) 1	0.5465	0.5541	0.5587	0.5782	0.6198	0.6817	0.6535	0.6603	0.6469	M(PR) 1
	M(PR) 2	0.2210	0.2086	0.2161	0.2743	0.3582	0.4358	0.4426	0.4172	0.3788	M(PR) 2
	TURN(PR)	51.135	39.958	35.499	36.708	31.882	23.661	28.455	26.462	27.299	TURN(PR)
	UUBAR	0.2588	0.2954	0.2859	0.1829	0.1180	0.0969	0.0924	0.1650	0.2026	UUBAR
	LOSS PARA	0.0694	0.0752	0.0706	0.0472	0.0312	0.0258	0.0246	0.0432	0.0512	LOSS PARA
	DFAC	0.8094	0.8211	0.8035	0.7113	0.5867	0.4952	0.4680	0.5171	0.5760	DFAC
	EFFP	0.8725	0.7955	0.7893	0.9026	0.9468	0.9157	0.9251	0.8550	0.8470	EFFP
	EFF	0.8680	0.7892	0.7829	0.8993	0.9450	0.9131	0.9227	0.8506	0.8423	EFF
	INCID	12.197	11.627	11.700	10.707	6.465	0.011	6.027	5.615	8.773	INCID
	DEVN	5.155	14.650	17.972	12.355	9.967	9.564	9.487	10.925	13.287	DEVN
	P 1	14.320	14.341	14.331	14.312	14.532	15.056	15.006	15.043	14.826	P 1
	P 2	18.224	17.798	17.689	18.063	18.339	18.645	18.718	18.568	18.386	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	561.320	560.530	559.770	558.360	556.430	554.490	555.350	556.500	557.750	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	62.686	63.660	63.057	57.083	48.308	40.472	40.496	43.588	48.627	BETA 2
STATOR-T.E.	BETA 2A	-0.170	3.430	6.820	6.090	8.221	7.342	8.783	9.123	7.594	BETA 2A
	V 2	552.64	510.07	494.64	515.38	533.25	543.27	537.32	520.44	498.67	V 2
	V 2A	265.61	276.19	282.33	331.31	384.50	438.01	450.46	436.01	409.07	V 2A
	VZ 2	253.59	226.31	224.12	280.06	354.55	412.89	408.03	376.43	329.16	VZ 2
	VZ 2A	265.61	275.70	280.32	329.40	380.40	434.06	444.63	429.90	404.85	VZ 2A
	V-THETA 2	491.02	457.11	440.95	432.61	398.06	352.29	348.44	358.31	373.71	V-THETA 2
	V-THETA 2A	-0.79	16.52	33.53	35.14	54.96	55.92	68.70	69.04	53.97	V-THETA 2A
	M 2	0.4870	0.4483	0.4345	0.4540	0.4713	0.4815	0.4756	0.4595	0.4390	M 2
	M 2A	0.2299	0.2393	0.2449	0.2884	0.3363	0.3851	0.3960	0.3825	0.3579	M 2A
	TURN(PR)	62.856	60.230	56.237	50.988	40.069	33.091	31.654	34.399	40.959	TURN(PR)
	UUBAR	0.3219	0.1882	0.1348	0.1611	0.1069	0.0449	0.0403	0.0515	0.0812	UUBAR
	LOSS PARA	0.1042	0.0613	0.0441	0.0542	0.0372	0.0163	0.0150	0.0194	0.0311	LOSS PARA
	DFAC	0.8075	0.7407	0.7008	0.6190	0.5065	0.3949	0.3599	0.3763	0.4292	DFAC
	EFFP	0.6060	0.7497	0.8115	0.7434	0.7943	0.8828	0.8748	0.8409	0.7693	EFFP
	INCID	15.715	17.459	17.587	13.408	6.056	-1.927	-2.877	-0.344	4.087	INCID
	DEVN	12.861	16.284	19.554	18.423	20.338	20.043	22.282	22.919	21.734	DEVN
	P 2	18.224	17.798	17.689	18.063	18.339	18.645	18.718	18.568	18.386	P 2
	P 2A	17.346	17.367	17.399	17.680	18.062	18.523	18.610	18.439	18.201	P 2A
	T 2	561.320	560.530	559.770	558.360	556.430	554.490	555.350	556.500	557.750	T 2
	T 2A	561.320	560.530	559.780	558.360	556.430	554.490	555.360	556.500	557.750	T 2A
	UUBAR FS		0.2068	0.2144	0.2221	0.1421	0.0806	0.0887	0.0857		UUBAR FS
	P2 FS		17.841	17.914	18.257	18.452	18.758	18.868	18.667		P2 FS
	LOSS PARA FS		0.0654	0.0701	0.0747	0.0494	0.0292	0.0330	0.0322		LOSS PARA FS

Table A-5. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 69.88 Equivalent Rotor Speed = 2942.04 Equivalent Weight Flow = 82.58
Hub Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	313.83	313.83	313.83	313.83	313.83	313.83	313.83	313.83	313.83	V 0
	V 1	266.47	273.17	272.80	272.84	324.30	393.98	386.24	382.39	365.11	V 1
	VZ 0	313.83	313.83	313.83	313.82	313.80	313.77	313.74	313.73	313.72	VZ 0
	VZ 1	266.47	273.17	272.80	272.84	324.28	393.91	386.13	382.27	364.99	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2834	0.2834	0.2834	0.2834	0.2834	0.2834	0.2834	0.2834	0.2834	M 0
	M 1	0.2401	0.2462	0.2458	0.2459	0.2930	0.3574	0.3502	0.3466	0.3306	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	1.2938	1.2599	1.2712	1.2988	0.9437	0.3050	0.3112	0.3326	0.3978	UUBAR
	DFAC	0.151	0.130	0.131	0.131	-0.033	-0.255	-0.231	-0.218	-0.163	DFAC
	EFFP	-0.2741	-0.2377	-0.2375	-0.2308	0.0677	0.6610	0.6305	0.6003	0.4774	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.317	15.317	15.317	15.317	15.317	15.317	15.317	15.317	15.317	P 0
	P 1	14.242	14.270	14.261	14.238	14.533	15.064	15.059	15.041	14.987	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	47.695	45.833	42.268	37.740	31.077	28.005	27.816	28.816	31.132	BETA 2
	BETA(PR) 1	56.714	56.431	56.795	57.758	54.480	50.361	51.839	52.408	53.966	BETA(PR) 1
	BETA(PR) 2	22.184	26.172	27.597	28.659	32.782	35.043	36.389	38.904	44.650	BETA(PR) 2
	V 1	279.32	285.89	285.51	285.55	339.19	412.38	404.40	400.47	382.39	V 1
	V 2	420.74	407.26	412.07	432.31	441.55	451.61	453.27	430.62	379.50	V 2
	VZ 1	279.31	285.89	285.51	285.52	339.03	411.90	403.66	399.64	381.52	VZ 1
	VZ 2	283.19	283.76	304.93	341.82	377.94	398.16	400.01	376.38	324.01	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	311.17	292.13	277.15	264.57	227.78	211.75	211.05	207.05	195.70	V-THETA 2
	V(PR) 1	508.9	517.0	521.3	535.2	583.6	646.0	653.8	655.6	649.1	V(PR) 1
	V(PR) 2	305.8	316.2	344.1	389.6	449.8	486.9	497.8	484.6	456.3	V(PR) 2
	VTHETA PR1	-425.4	-430.8	-436.2	-452.7	-474.9	-497.2	-513.7	-519.1	-524.5	VTHETA PR1
	VTHETA PR2	-115.5	-139.5	-159.4	-186.8	-243.4	-279.2	-294.8	-303.7	-320.1	VTHETA PR2
	U 1	425.43	430.80	436.22	452.67	474.94	497.22	513.68	519.09	524.45	U 1
	U 2	426.64	431.59	436.54	451.39	471.18	490.98	505.84	510.80	515.76	U 2
	M 1	0.2518	0.2578	0.2574	0.2575	0.3067	0.3745	0.3671	0.3634	0.3466	M 1
	M 2	0.3734	0.3616	0.3665	0.3854	0.3944	0.4042	0.4051	0.3845	0.3377	M 2
	M(PR) 1	0.4588	0.4662	0.4701	0.4826	0.5277	0.5867	0.5934	0.5950	0.5883	M(PR) 1
	M(PR) 2	0.2714	0.2807	0.3060	0.3473	0.4018	0.4358	0.4450	0.4327	0.4060	M(PR) 2
	TURN(PR)	34.529	30.258	29.198	29.103	21.707	15.335	15.476	13.535	9.355	TURN(PR)
	UUBAR	0.2229	0.2142	0.1499	0.0294	-0.0079	0.0897	0.0890	0.1268	0.2002	UUBAR
	LOSS PARA	0.0568	0.0535	0.0374	0.0075	-0.0020	0.0237	0.0239	0.0333	0.0485	LOSS PARA
	DFAC	0.5675	0.5460	0.4899	0.4164	0.3488	0.3513	0.3454	0.3665	0.3989	DFAC
	EFFP	0.7147	0.7142	0.7813	0.9378	0.9488	0.8170	0.7723	0.7245	0.5481	EFFP
	EFF	0.7100	0.7097	0.7778	0.9366	0.9479	0.8144	0.7691	0.7209	0.5437	EFF
	INCID	4.872	4.152	4.105	3.702	-1.584	-7.702	-7.605	-7.471	-6.693	INCID
	DEVM	14.435	16.874	16.678	12.955	12.094	10.177	8.833	10.766	15.766	DEVM
	P 1	14.242	14.270	14.261	14.238	14.533	15.064	15.059	15.041	14.987	P 1
	P 2	15.985	15.908	15.951	16.171	16.384	16.581	16.623	16.447	16.054	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	543.200	541.740	540.380	539.210	537.770	536.410	538.020	537.310	537.640	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	47.286	45.405	41.895	37.526	30.862	27.740	27.484	28.450	30.719	BETA 2
STATOR-T.E.	BETA 2A	4.770	5.750	6.730	7.520	7.581	8.772	9.723	9.644	8.264	BETA 2A
	V 2	423.57	410.39	415.25	434.80	444.94	456.38	459.26	436.62	384.97	V 2
	V 2A	343.24	354.02	366.78	403.59	431.93	430.87	441.01	424.77	402.44	V 2A
	VZ 2	287.32	288.13	309.09	344.78	381.72	403.41	406.65	383.08	330.20	VZ 2
	VZ 2A	342.05	352.23	364.25	400.07	427.99	425.48	434.14	418.19	397.65	VZ 2A
	V-THETA 2	311.22	292.23	277.29	264.81	228.11	212.15	211.54	207.56	196.21	V-THETA 2
	V-THETA 2A	28.54	35.47	42.98	52.81	56.96	65.65	74.39	71.06	57.76	V-THETA 2A
	M 2	0.3760	0.3644	0.3694	0.3877	0.3976	0.4086	0.4107	0.3901	0.3427	M 2
	M 2A	0.3032	0.3133	0.3253	0.3591	0.3856	0.3851	0.3938	0.3792	0.3586	M 2A
	TURN(PR)	42.516	39.655	35.165	30.001	23.265	18.937	17.715	18.754	22.392	TURN(PR)
	UUBAR	0.1157	0.0217	0.0029	-0.0092	-0.0006	0.1239	0.1470	0.1559	0.0366	UUBAR
	LOSS PARA	0.0373	0.0070	0.0009	-0.0031	-0.0002	0.0449	0.0548	0.0587	0.0140	LOSS PARA
	DFAC	0.4057	0.3418	0.3028	0.2374	0.1654	0.1745	0.1538	0.1479	0.0950	DFAC
	EFFP	0.6801	0.9197	0.9876	1.0621	1.0100	-0.0683	-0.7683	-1.7465	1.3746	EFFP
	INCID	0.315	-0.796	-3.575	-6.149	-11.388	-14.651	-15.877	-15.469	-13.811	INCID
	DEVM	17.801	18.604	19.464	19.853	19.698	21.473	23.221	23.438	22.403	DEVM
	P 2	15.985	15.908	15.951	16.171	16.384	16.581	16.623	16.447	16.054	P 2
	P 2A	15.813	15.878	15.947	16.185	16.385	16.358	16.355	16.192	16.008	P 2A
	T 2	543.200	541.740	540.380	539.210	537.770	536.410	538.020	537.310	537.640	T 2
	T 2A	543.200	541.740	540.380	539.210	537.770	536.410	538.020	537.310	537.640	T 2A
	UUBAR FS		0.1399	0.0907	0.1074	0.1162	0.1720	0.1472	0.1235		UUBAR FS
	P2 FS		16.093	16.083	16.372	16.601	16.679	16.617	16.380		P2 FS
	LOSS PARA FS		0.0491	0.0281	0.0361	0.0387	0.0623	0.0548	0.0465		LOSS PARA FS

Table A-5. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.24 Equivalent Rotor Speed = 2956.90 Equivalent Weight Flow = 70.16
Hub Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	266.57	266.57	266.57	266.57	266.57	266.57	266.57	266.57	266.57	V 0
	V 1	230.66	232.92	234.65	233.89	271.08	340.66	325.49	324.29	290.87	V 1
	VZ 0	266.57	266.57	266.57	266.57	266.55	266.52	266.50	266.49	266.48	VZ 0
	VZ 1	230.66	232.92	234.65	233.88	271.06	340.60	325.40	324.19	290.27	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2402	0.2402	0.2402	0.2402	0.2402	0.2402	0.2402	0.2402	0.2402	M 0
	M 1	0.2075	0.2096	0.2111	0.2104	0.2443	0.3080	0.2941	0.2930	0.2619	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	1.2662	1.2420	1.2749	1.2974	1.0016	0.2664	0.3010	0.3062	0.6400	UUBAR
	DFAC	0.135	0.126	0.120	0.123	-0.017	-0.278	-0.221	-0.217	-0.089	DFAC
	EFFP	-0.2472	-0.2350	-0.2142	-0.2152	0.0331	0.7089	0.6252	0.6158	0.2281	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVN	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVN
	P 0	15.148	15.148	15.148	15.148	15.148	15.148	15.148	15.148	15.148	P 0
	P 1	14.393	14.407	14.388	14.374	14.551	14.989	14.968	14.965	14.766	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	56.138	56.155	54.034	47.351	40.255	35.724	35.680	38.630	42.383	BETA 2
	BETA(PR) 1	60.532	60.640	60.764	61.740	59.336	54.572	56.673	57.039	60.127	BETA(PR) 1
	BETA(PR) 2	18.111	24.755	26.530	26.908	31.186	34.375	37.148	39.137	43.117	BETA(PR) 2
	V 1	241.61	243.57	245.38	244.58	283.16	355.92	340.09	338.99	303.46	V 1
	V 2	423.46	398.92	397.94	420.36	427.57	433.68	424.92	408.23	380.29	V 2
	VZ 1	241.60	243.57	245.38	244.56	283.02	355.50	339.48	338.29	302.77	VZ 1
	VZ 2	235.95	222.18	233.71	284.77	326.14	351.65	344.52	318.30	280.36	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	351.63	331.33	322.07	309.15	276.15	252.91	247.38	254.37	255.85	V-THETA 2
	V(PR) 1	491.1	496.8	502.4	516.5	555.0	613.5	618.2	622.2	600.2	V(PR) 1
	V(PR) 2	248.3	244.7	261.2	319.4	381.5	426.6	433.0	411.1	384.8	V(PR) 2
	VTHETA PR1	-427.6	-433.0	-438.4	-455.0	-477.3	-499.7	-516.3	-521.7	-527.1	VTHETA PR1
	VTHETA PR2	-77.2	-102.4	-116.7	-144.5	-197.4	-240.6	-261.0	-259.0	-262.5	VTHETA PR2
	U 1	427.58	432.97	438.42	454.96	477.34	499.73	516.28	521.71	527.10	U 1
	U 2	428.80	433.77	438.75	453.67	473.56	493.46	508.40	513.38	518.37	U 2
	M 1	0.2174	0.2192	0.2209	0.2201	0.2553	0.3221	0.3075	0.3065	0.2739	M 1
	M 2	0.3751	0.3532	0.3527	0.3736	0.3807	0.3868	0.3783	0.3629	0.3374	M 2
	M(PR) 1	0.4420	0.4471	0.4522	0.4649	0.5004	0.5552	0.5590	0.5625	0.5489	M(PR) 1
	M(PR) 2	0.2199	0.2166	0.2315	0.2839	0.3396	0.3805	0.3855	0.3655	0.3414	M(PR) 2
	TURN(RR)	42.420	35.885	34.235	34.835	28.159	20.215	19.554	17.937	17.054	TURN(RR)
	UUBAR	0.2189	0.2460	0.2075	0.0798	0.0127	0.0780	0.0768	0.1338	0.1414	UUBAR
	LOSS PARA	0.0572	0.0622	0.0523	0.0208	0.0034	0.0208	0.0204	0.0350	0.0352	LOSS PARA
	DFAC	0.6918	0.6934	0.6609	0.5565	0.4651	0.4368	0.4321	0.4759	0.5095	DFAC
	EFFP	0.7854	0.7486	0.7939	0.9471	0.9960	0.9184	0.8782	0.8186	0.8176	EFFP
	EFF	0.7812	0.7440	0.7901	0.9460	0.9959	0.9170	0.8761	0.8156	0.8145	EFF
	INCID	8.690	8.362	8.074	7.684	3.273	-3.489	-2.769	-2.837	-0.526	INCID
	DEVN	10.362	15.457	15.610	11.205	10.498	9.509	9.592	10.999	14.233	DEVN
	P 1	14.393	14.407	14.388	14.374	14.551	14.989	14.968	14.965	14.766	P 1
	P 2	16.512	16.336	16.346	16.586	16.769	16.943	16.938	16.829	16.636	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	545.280	544.180	543.080	541.580	540.250	538.860	539.990	540.390	540.770	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	55.585	55.543	53.477	47.055	39.958	35.375	35.244	38.111	41.767	BETA 2
STATOR-T.E.	BETA 2A	2.960	5.000	7.040	7.120	7.171	7.832	8.763	8.593	7.753	BETA 2A
	V 2	426.31	401.96	400.98	422.76	430.80	438.18	430.40	413.86	385.77	V 2
	V 2A	268.95	274.85	284.39	322.65	359.27	375.70	375.04	356.83	333.39	V 2A
	VZ 2	240.95	227.43	238.64	288.00	330.06	356.90	350.94	325.08	287.24	VZ 2
	VZ 2A	268.59	273.80	282.24	320.13	356.32	371.88	370.20	352.34	329.83	VZ 2A
	V-THETA 2	351.69	331.44	322.23	309.43	276.55	253.40	247.96	255.00	256.53	V-THETA 2
	V-THETA 2A	13.89	23.95	34.85	39.99	44.83	51.15	57.07	53.24	44.91	V-THETA 2A
	M 2	0.3777	0.3560	0.3554	0.3758	0.3836	0.3909	0.3834	0.3681	0.3424	M 2
	M 2A	0.2363	0.2418	0.2505	0.2851	0.3185	0.3338	0.3329	0.3163	0.2950	M 2A
	TURN(PR)	52.624	50.543	46.436	39.930	32.769	27.505	26.426	29.453	33.939	TURN(RR)
	UUBAR	0.1837	0.0512	0.0234	0.0361	0.0121	0.0523	0.0795	0.1056	0.0907	UUBAR
	LOSS PARA	0.0594	0.0166	0.0076	0.0121	0.0042	0.0190	0.0297	0.0399	0.0347	LOSS PARA
	DFAC	0.6257	0.5661	0.5271	0.4532	0.3563	0.3128	0.2977	0.3256	0.3494	DFAC
	EFFP	0.7084	0.9096	0.9496	0.9181	0.9626	0.8122	0.6862	0.6092	0.6557	EFFP
	INCID	8.613	9.342	8.007	3.380	-2.294	-7.022	-8.126	-5.819	-2.773	INCID
	DEVN	15.991	17.854	19.774	19.453	19.288	20.533	22.262	22.390	21.893	DEVN
	P 2	16.512	16.336	16.346	16.586	16.769	16.943	16.938	16.829	16.636	P 2
	P 2A	16.228	16.266	16.315	16.530	16.750	16.855	16.808	16.670	16.519	P 2A
	T 2	545.280	544.180	543.080	541.580	540.250	538.860	539.990	540.390	540.770	T 2
	T 2A	545.280	544.170	543.120	541.580	540.250	538.870	540.000	540.390	540.780	T 2A
	UUBAR FS		0.1632	0.1302	0.0871	0.0811	0.0715	0.0833	0.1116		UUBAR FS
	P2 FS		16.521	16.516	16.673	16.892	16.980	16.947	16.841		P2 FS
	LOSS PARA FS		0.0529	0.0423	0.0292	0.0281	0.0259	0.0311	0.0421		LOSS PARA FS

Table A-5. Blade Element Performance (Concluded)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.34 Equivalent Rotor Speed = 2961.51 Equivalent Weight Flow = 57.39
Hub Radial Distortion

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	218.68	218.68	218.68	218.68	218.68	218.68	218.68	218.68	218.68	V 0
	V 1	187.48	198.47	195.26	198.59	232.64	279.26	262.07	258.20	250.94	V 1
	VZ 0	218.68	218.68	218.68	218.68	218.66	218.64	218.62	218.61	218.61	VZ 0
	VZ 1	187.48	198.47	195.26	198.58	232.62	279.20	262.00	258.12	250.85	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.1966	0.1966	0.1966	0.1966	0.1966	0.1966	0.1966	0.1966	0.1966	M 0
	M 1	0.1684	0.1783	0.1754	0.1784	0.2093	0.2517	0.2361	0.2325	0.2259	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	1.1973	1.1563	1.1998	1.1742	0.8544	0.2072	0.3147	0.3505	0.4323	UUBAR
	DFAC	0.143	0.092	0.107	0.092	-0.064	-0.277	-0.198	-0.181	-0.148	DFAC
	EFFP	-0.2845	-0.1802	-0.2034	-0.1757	0.1342	0.7557	0.5844	0.5328	0.4259	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	14.967	14.967	14.967	14.967	14.967	14.967	14.967	14.967	14.967	P 0
	P 1	14.491	14.507	14.490	14.500	14.627	14.885	14.842	14.828	14.795	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	63.459	63.928	63.298	58.945	51.384	43.621	43.705	47.831	53.049	BETA 2
	BETA(PR) 1	65.383	64.438	65.075	65.514	63.085	59.828	62.173	62.765	63.655	BETA(PR) 1
	BETA(PR) 2	14.789	22.427	24.858	25.802	28.564	34.186	36.108	37.643	41.812	BETA(PR) 2
	V 1	196.23	207.42	204.06	207.54	242.82	291.32	273.43	269.49	262.03	V 1
	V 2	424.13	402.40	398.93	410.83	423.21	418.68	418.58	409.00	388.86	V 2
	VZ 1	196.22	207.42	204.06	207.52	242.70	290.97	272.93	268.94	261.43	VZ 1
	VZ 2	189.52	176.85	179.26	211.92	264.03	302.79	302.15	274.18	233.46	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	379.43	361.46	356.39	351.92	330.56	288.56	288.79	302.70	310.36	V-THETA 2
	V(PR) 1	471.1	480.7	484.2	500.7	536.2	579.1	584.9	587.9	589.4	V(PR) 1
	V(PR) 2	196.0	191.3	197.6	235.4	300.8	366.5	374.7	346.9	313.8	V(PR) 2
	VTHETA PR1	-428.2	-433.6	-439.1	-455.7	-478.1	-500.5	-517.1	-522.5	-527.9	VTHETA PR1
	VTHETA PR2	-50.0	-73.0	-83.0	-102.5	-143.7	-205.7	-220.4	-211.5	-208.8	VTHETA PR2
	U 1	428.25	433.65	439.10	455.67	478.08	500.51	517.08	522.52	527.92	U 1
	U 2	429.47	434.45	439.43	454.38	474.30	494.23	509.19	514.18	519.18	U 2
	M 1	0.1763	0.1864	0.1834	0.1866	0.2185	0.2627	0.2464	0.2428	0.2360	M 1
	M 2	0.3753	0.3559	0.3530	0.3640	0.3757	0.3720	0.3715	0.3626	0.3440	M 2
	M(PR) 1	0.4233	0.4321	0.4352	0.4501	0.4826	0.5223	0.5271	0.5297	0.5309	M(PR) 1
	M(PR) 2	0.1735	0.1692	0.1748	0.2086	0.2671	0.3257	0.3325	0.3076	0.2777	M(PR) 2
	TURN(PR)	50.594	42.011	40.218	39.715	34.530	25.663	26.099	25.161	21.892	TURN(PR)
	UUBAR	0.2697	0.2890	0.2824	0.2286	0.1644	0.1249	0.1124	0.1776	0.2363	UUBAR
	LOSS PARA	0.0718	0.0744	0.0722	0.0602	0.0444	0.0333	0.0303	0.0474	0.0600	LOSS PARA
	DFAC	0.8058	0.8116	0.7995	0.7351	0.6278	0.5269	0.5229	0.5821	0.6455	DFAC
	EFFP	0.8056	0.7771	0.7991	0.8689	0.9215	0.8886	0.8857	0.8511	0.7974	EFFP
	EFF	0.8015	0.7728	0.7952	0.8662	0.9198	0.8865	0.8834	0.8482	0.7935	EFF
	INCID	13.541	12.160	12.385	11.458	7.024	1.769	2.736	2.895	3.007	INCID
	DEVM	7.040	13.129	13.938	10.099	7.878	9.320	8.553	9.506	12.928	DEVM
	P 1	14.491	14.507	14.490	14.500	14.627	14.885	14.842	14.828	14.795	P 1
	P 2	16.778	16.631	16.610	16.765	16.951	17.039	17.102	17.041	16.920	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	546.380	545.420	544.660	544.060	542.960	541.740	542.970	543.500	544.250	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	62.720	63.092	62.500	58.489	50.949	43.168	43.132	47.121	52.159	BETA 2
STATOR-T.E.	BETA 2A	0.330	2.850	6.120	6.870	7.001	7.491	8.223	8.333	8.214	BETA 2A
	V 2	426.99	405.48	401.98	413.20	426.39	422.96	423.94	414.64	394.49	V 2
	V 2A	211.96	216.12	224.40	262.87	294.33	334.08	340.69	324.04	303.10	V 2A
	VZ 2	195.71	183.50	185.61	215.95	268.55	308.22	308.98	281.79	241.73	VZ 2
	VZ 2A	211.95	215.85	223.12	260.95	292.02	330.95	336.77	320.17	299.53	VZ 2A
	V-THETA 2	379.50	361.58	356.56	352.24	331.03	289.12	289.47	303.46	311.17	V-THETA 2
	V-THETA 2A	1.22	10.75	23.92	31.44	35.86	43.52	48.67	46.90	43.24	V-THETA 2A
	M 2	0.3779	0.3587	0.3558	0.3662	0.3786	0.3759	0.3764	0.3677	0.3491	M 2
	M 2A	0.1856	0.1895	0.1969	0.2311	0.2594	0.2954	0.3010	0.2859	0.2669	M 2A
	TURN(PR)	62.389	60.242	56.379	51.614	43.929	35.637	34.850	38.721	43.873	TURN(PR)
	UUBAR	0.2787	0.1958	0.1654	0.1319	0.1359	0.0495	0.0780	0.1052	0.1176	UUBAR
	LOSS PARA	0.0902	0.0638	0.0542	0.0443	0.0475	0.0180	0.0292	0.0398	0.0450	LOSS PARA
	DFAC	0.7904	0.7497	0.7146	0.6274	0.5545	0.4242	0.4126	0.4567	0.4960	DFAC
	EFFP	0.6444	0.7371	0.7692	0.7884	0.7530	0.8754	0.7914	0.7428	0.7252	EFFP
	INCID	15.748	16.891	17.029	14.814	8.698	0.769	-0.241	3.189	7.620	INCID
	DEVM	13.361	15.704	18.854	19.204	19.118	20.193	21.723	22.129	22.353	DEVM
	P 2	16.778	16.631	16.610	16.765	16.951	17.039	17.102	17.041	16.920	P 2
	P 2A	16.339	16.354	16.380	16.570	16.734	16.961	16.978	16.881	16.759	P 2A
	T 2	546.380	545.420	544.660	544.060	542.960	541.740	542.970	543.500	544.250	T 2
	T 2A	546.380	545.420	544.660	544.060	542.960	541.740	542.970	543.500	544.250	T 2A
	UUBAR FS		0.2088	0.2185	0.1749	0.1353	0.0999	0.0765	0.0853		UUBAR FS
	P2 FS		16.660	16.711	16.849	16.956	17.134	17.106	17.014		P2 FS
	LOSS PARA FS		0.0680	0.0716	0.0587	0.0473	0.0363	0.0286	0.0322		LOSS PARA FS

Table A-6. Blade Element Performance
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 100.67 Equivalent Rotor Speed = 4238.18 Equivalent Weight Flow = 111.10
Tip Radial Distortion

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	421.81	421.81	421.81	421.81	421.81	421.81	421.81	421.81	421.81	V 0
	V 1	514.24	553.65	562.43	566.64	551.41	434.30	369.71	374.44	371.12	V 1
	VZ 0	421.80	421.80	421.80	421.80	421.77	421.73	421.69	421.67	421.66	VZ 0
	VZ 1	514.24	553.65	562.43	566.62	551.37	434.22	369.60	374.32	370.99	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3833	0.3833	0.3833	0.3833	0.3833	0.3833	0.3833	0.3833	0.3833	M 0
	M 1	0.4707	0.5086	0.5171	0.5212	0.5064	0.3950	0.3349	0.3392	0.3362	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.6452	0.3487	0.2922	0.2958	0.4793	1.2981	1.5522	1.5381	1.5805	UUBAR
	DFAC	-0.219	-0.313	-0.333	-0.343	-0.307	-0.030	0.124	0.112	0.120	DFAC
	EFFP	0.4397	0.6873	0.7391	0.7433	0.6090	0.0442	-0.1717	-0.1566	-0.1629	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.834	15.834	15.834	15.834	15.834	15.834	15.834	15.834	15.834	P 0
	P 1	14.849	15.302	15.388	15.383	15.102	13.852	13.464	13.486	13.421	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	42.169	37.360	33.331	30.476	30.874	33.565	39.600	44.051	48.436	BETA 2
	BETA(PR) 1	48.361	46.584	46.469	47.307	49.566	57.589	62.445	62.382	62.824	BETA(PR) 1
	BETA(PR) 2	30.624	29.939	29.923	30.559	33.198	35.250	37.449	39.433	45.463	BETA(PR) 2
	V 1	544.89	587.20	596.97	601.66	583.27	455.29	386.83	392.04	388.77	V 1
	V 2	553.67	584.01	610.35	640.10	631.95	620.25	594.59	572.96	523.13	V 2
	VZ 1	544.88	587.20	596.97	601.60	582.98	454.76	386.12	391.23	387.88	VZ 1
	VZ 2	410.36	464.20	509.95	551.57	542.06	516.16	457.38	411.13	346.53	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	371.69	354.39	335.36	324.59	324.08	342.49	378.38	397.73	390.81	V-THETA 2
	V(PR) 1	820.1	854.4	866.7	887.3	899.1	848.7	835.0	844.3	849.7	V(PR) 1
	V(PR) 2	476.9	535.7	588.4	640.6	648.2	632.8	577.1	533.3	494.9	V(PR) 2
	VTHETA PR1	-612.9	-620.6	-628.4	-652.1	-684.2	-716.3	-740.0	-747.8	-755.5	VTHETA PR1
	VTHETA PR2	-242.9	-267.3	-293.5	-325.7	-354.7	-364.8	-350.3	-338.1	-352.2	VTHETA PR2
	U 1	612.86	620.59	628.39	652.10	684.17	716.27	739.99	747.78	755.50	U 1
	U 2	614.60	621.73	628.87	650.25	678.76	707.28	728.69	735.83	742.99	U 2
	M 1	0.5001	0.5412	0.5507	0.5553	0.5373	0.4148	0.3507	0.3556	0.3525	M 1
	M 2	0.4906	0.5194	0.5447	0.5735	0.5642	0.5522	0.5256	0.5044	0.4576	M 2
	M(PR) 1	0.7527	0.7874	0.7996	0.8189	0.8282	0.7732	0.7571	0.7658	0.7705	M(PR) 1
	M(PR) 2	0.4225	0.4764	0.5251	0.5740	0.5787	0.5634	0.5102	0.4695	0.4330	M(PR) 2
	TURN(PR)	17.736	16.645	16.547	16.751	16.377	22.358	25.030	22.989	17.409	TURN(PR)
	UUBAR	0.3501	0.3284	0.2559	0.1820	0.1498	-0.0017	0.0752	0.1658	0.2318	UUBAR
	LOSS PARA	0.0829	0.0792	0.0625	0.0458	0.0385	-0.0004	0.0199	0.0432	0.0554	LOSS PARA
	DFAC	0.5434	0.4886	0.4303	0.3848	0.3894	0.3837	0.4588	0.5259	0.5729	DFAC
	EFFP	0.5472	0.5230	0.6022	0.7321	0.7631	1.0502	0.9717	0.8786	0.7525	EFFP
	EFF	0.5387	0.5146	0.5943	0.7259	0.7569	1.0521	0.9706	0.8741	0.7442	EFF
	INCID	-3.481	-5.695	-6.221	-6.750	-6.498	-0.472	3.008	2.511	2.175	INCID
	DEVM	22.874	20.641	19.003	14.855	12.509	10.384	9.893	11.295	16.579	DEVM
	P 1	14.849	15.302	15.388	15.383	15.102	13.852	13.464	13.486	13.421	P 1
	P 2	16.940	17.295	17.651	18.093	18.130	18.012	17.683	17.473	16.940	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	555.630	554.590	553.590	552.610	555.430	557.110	561.980	564.280	566.640	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.558	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	41.785	36.978	32.993	30.257	30.598	33.155	38.986	43.307	47.569	BETA 2
STATOR-T.E.	BETA 2A	5.820	6.981	7.730	8.240	8.411	7.922	9.074	8.934	7.473	BETA 2A
	V 2	557.91	589.36	616.18	644.88	637.96	628.16	603.72	582.14	531.62	V 2
	V 2A	491.74	509.89	526.85	576.78	596.66	616.54	599.04	585.00	566.51	V 2A
	VZ 2	416.00	470.82	516.80	556.95	548.82	525.29	468.58	423.00	358.19	VZ 2
	VZ 2A	489.21	506.11	522.06	570.76	590.00	610.15	590.82	577.11	560.83	VZ 2A
	V-THETA 2	371.75	354.51	335.53	324.89	324.54	343.15	379.26	398.72	391.84	V-THETA 2
	V-THETA 2A	49.86	61.97	70.86	82.66	87.24	84.91	94.35	90.72	73.56	V-THETA 2A
	M 2	0.4945	0.5244	0.5502	0.5780	0.5699	0.5597	0.5342	0.5129	0.4654	M 2
	M 2A	0.4335	0.4506	0.4666	0.5136	0.5308	0.5487	0.5298	0.5156	0.4974	M 2A
	TURN(PR)	35.965	29.998	25.263	22.012	22.171	25.196	29.856	34.307	40.021	TURN(PR)
	UUBAR	0.0835	0.1415	0.1881	0.1496	0.1046	0.0194	0.0321	0.0379	-0.0770	UUBAR
	LOSS PARA	0.0269	0.0458	0.0614	0.0502	0.0364	0.0070	0.0120	0.0143	-0.0295	LOSS PARA
	DFAC	0.3054	0.2970	0.2867	0.2333	0.1964	0.1702	0.1877	0.1990	0.1675	DFAC
	EFFP	0.6596	0.4910	0.3689	0.3377	0.2633	0.5333	-0.8056	4.4407	0.4874	EFFP
	INCID	-5.186	-9.223	-12.477	-13.418	-11.652	-9.241	-4.386	-0.625	3.028	INCID
	DEVM	18.851	19.835	20.464	20.573	20.528	20.624	22.573	22.730	21.613	DEVM
	P 2	16.940	17.295	17.651	18.093	18.130	18.012	17.683	17.473	16.940	P 2
	P 2A	16.722	16.877	17.033	17.544	17.755	17.945	17.583	17.364	17.120	P 2A
	T 2	555.630	554.590	553.590	552.610	555.430	557.110	561.980	564.280	566.640	T 2
	T 2A	555.630	554.590	553.620	552.610	555.430	557.120	562.000	564.280	566.640	T 2A
	UUBAR FS		0.1553	0.1771	0.1703	0.1781	0.1378	0.1344	0.1189		UUBAR FS
	P2 FS		17.350	17.614	18.191	18.458	18.493	18.059	17.743		P2 FS
	LOSS PARA FS		0.0502	0.0578	0.0571	0.0619	0.0497	0.0502	0.0448		LOSS PARA FS

Table A-6. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.63 Equivalent Rotor Speed = 4194.36 Equivalent Weight Flow = 104.69
Tip Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	398.31	398.31	398.31	398.31	398.31	398.31	398.31	398.31	398.31	V 0
	V 1	466.05	508.50	519.75	522.52	509.12	411.27	335.92	328.65	311.12	V 1
	VZ 0	398.30	398.31	398.31	398.30	398.27	398.23	398.20	398.18	398.17	VZ 0
	VZ 1	466.05	508.50	519.75	522.51	509.08	411.19	335.82	328.55	311.01	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3614	0.3614	0.3614	0.3614	0.3614	0.3614	0.3614	0.3614	0.3614	M 0
	M 1	0.4249	0.4652	0.4760	0.4787	0.4658	0.3735	0.3037	0.2970	0.2809	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.6261	0.3501	0.2949	0.3107	0.4842	1.1781	1.5172	1.5408	1.6039	UUBAR
	DFAC	-0.170	-0.277	-0.305	-0.312	-0.278	-0.033	0.157	0.175	0.219	DFAC
	EFFP	0.3790	0.6543	0.7155	0.7100	0.5779	0.0534	-0.2306	-0.2558	-0.3124	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.674	15.674	15.674	15.674	15.674	15.674	15.674	15.674	15.674	P 0
	P 1	14.827	15.201	15.275	15.254	15.019	14.081	13.622	13.590	13.505	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	46.343	41.562	38.397	34.677	34.870	39.934	47.371	52.906	59.132	BETA 2
	BETA(PR) 1	50.939	48.812	48.524	49.420	51.603	58.746	64.427	65.140	66.535	BETA(PR) 1
	BETA(PR) 2	29.862	30.435	31.019	30.062	31.010	34.986	39.340	42.322	47.083	BETA(PR) 2
	V 1	492.23	537.45	549.74	552.81	536.87	430.72	351.10	343.60	325.31	V 1
	V 2	543.16	557.83	569.74	615.96	631.18	594.58	559.38	541.30	521.93	V 2
	VZ 1	492.22	537.45	549.74	552.75	536.61	430.21	350.46	342.89	324.56	VZ 1
	VZ 2	374.96	417.39	446.52	506.47	517.55	455.42	378.35	326.09	267.53	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	392.96	370.08	353.87	350.39	360.65	381.25	411.04	431.27	447.58	V-THETA 2
	V(PR) 1	781.1	816.1	830.0	849.8	864.1	829.5	812.1	815.9	815.4	V(PR) 1
	V(PR) 2	432.4	484.1	521.0	585.3	604.2	556.6	490.0	441.8	393.5	V(PR) 2
	VTHETA PR1	-606.5	-614.2	-621.9	-645.4	-677.1	-708.9	-732.3	-740.0	-747.7	VTHETA PR1
	VTHETA PR2	-215.3	-245.2	-268.5	-293.1	-311.1	-318.7	-310.1	-297.0	-287.7	VTHETA PR2
	U 1	606.52	614.17	621.90	645.36	677.10	708.86	732.34	740.04	747.69	U 1
	U 2	608.25	615.31	622.36	643.53	671.75	699.97	721.16	728.23	735.31	U 2
	M 1	0.4497	0.4930	0.5048	0.5078	0.4924	0.3917	0.3176	0.3107	0.2939	M 1
	M 2	0.4793	0.4935	0.5051	0.5486	0.5622	0.5268	0.4917	0.4739	0.4551	M 2
	M(PR) 1	0.7137	0.7486	0.7622	0.7805	0.7926	0.7543	0.7348	0.7379	0.7367	M(PR) 1
	M(PR) 2	0.3815	0.4282	0.4619	0.5213	0.5382	0.4931	0.4307	0.3868	0.3431	M(PR) 2
	TURN(PR)	21.076	18.377	17.506	19.361	20.601	23.781	25.124	22.863	19.505	TURN(PR)
	UUBAR	0.2574	0.2472	0.2094	0.1208	0.0834	0.0461	0.1116	0.1932	0.2541	UUBAR
	LOSS PARA	0.0614	0.0593	0.0506	0.0306	0.0220	0.0122	0.0288	0.0482	0.0590	LOSS PARA
	DFAC	0.5851	0.5332	0.4925	0.4317	0.4286	0.4764	0.5642	0.6353	0.7029	DFAC
	EFFP	0.6918	0.6574	0.6879	0.8347	0.9167	1.0268	0.9532	0.8774	0.8184	EFFP
	EFF	0.6838	0.6491	0.6803	0.8298	0.9139	1.0279	0.9512	0.8725	0.8113	EFF
	INCID	-0.902	-3.467	-4.166	-4.637	-4.461	0.687	4.992	5.273	5.891	INCID
	DEVM	22.113	21.137	20.100	14.358	10.322	10.120	11.783	14.182	18.199	DEVM
	P 1	14.827	15.201	15.275	15.254	15.019	14.081	13.622	13.590	13.505	P 1
	P 2	17.782	17.963	18.102	18.699	18.966	18.502	18.091	17.899	17.707	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	559.125	557.750	556.600	556.150	557.825	559.650	564.750	567.375	570.160	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	45.905	41.131	38.015	34.436	34.550	39.440	46.612	51.941	57.871	BETA 2
STATOR-T.E.	BETA 2A	4.200	5.200	6.900	7.901	7.501	7.502	8.329	8.204	5.603	BETA 2A
	V 2	547.26	562.81	574.88	620.29	637.16	601.88	567.58	549.66	530.37	V 2
	V 2A	412.95	436.66	458.06	513.92	548.93	529.65	507.87	494.75	470.18	V 2A
	VZ 2	380.81	423.91	452.91	511.51	524.51	464.37	389.45	338.50	281.82	VZ 2
	VZ 2A	411.84	434.86	454.74	508.99	544.01	524.68	501.89	489.01	467.21	VZ 2A
	V-THETA 2	393.03	370.21	354.04	350.71	361.16	381.98	412.00	432.34	448.76	V-THETA 2
	V-THETA 2A	30.24	39.57	55.03	70.63	71.63	69.09	73.48	70.50	45.83	V-THETA 2A
	M 2	0.4830	0.4981	0.5099	0.5527	0.5678	0.5336	0.4992	0.4816	0.4627	M 2
	M 2A	0.3609	0.3827	0.4025	0.4536	0.4852	0.4666	0.4445	0.4316	0.4084	M 2A
	TURN(PR)	41.705	35.931	31.114	26.530	27.031	31.898	38.224	43.673	52.199	TURN(PR)
	UUBAR	0.1403	0.1314	0.1087	0.1065	0.0659	-0.0033	-0.0245	-0.0305	-0.0177	UUBAR
	LOSS PARA	0.0453	0.0427	0.0356	0.0357	0.0230	-0.0012	-0.0092	-0.0115	-0.0068	LOSS PARA
	DFAC	0.4601	0.4161	0.3747	0.3249	0.2993	0.3117	0.3323	0.3533	0.4090	DFAC
	EFFP	0.6997	0.6976	0.7290	0.6964	0.7743	1.0129	1.1105	1.1453	1.0754	EFFP
	INCID	-1.066	-5.070	-7.456	-9.239	-7.701	-2.959	3.238	8.011	13.339	INCID
	DEVM	17.231	18.054	19.634	20.234	19.618	20.204	21.829	22.000	19.746	DEVM
	P 2	17.782	17.963	18.102	18.699	18.966	18.502	18.091	17.899	17.707	P 2
	P 2A	17.414	17.595	17.782	18.326	18.721	18.513	18.161	17.979	17.750	P 2A
	T 2	559.125	557.750	556.600	556.150	557.825	559.650	564.750	567.375	570.160	T 2
	T 2A	559.125	557.750	556.600	556.150	557.825	559.650	564.750	567.375	570.160	T 2A
	UUBAR FS		0.1371	0.1071	0.1085	0.0999	0.1046	0.0948	0.0686		UUBAR FS
	P2 FS		17.986	18.101	18.712	19.112	18.899	18.469	18.187		P2 FS
	LOSS PARA FS		0.0445	0.0350	0.0363	0.0348	0.0379	0.0356	0.0262		LOSS PARA FS

Table A-6. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 99.34 Equivalent Rotor Speed = 4182.31 Equivalent Weight Flow = 98.41
Tip Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	375.49	375.49	375.49	375.49	375.49	375.49	375.49	375.49	375.49	V 0
	V 1	441.17	476.83	491.15	499.64	485.70	384.76	314.24	300.39	292.72	V 1
	VZ 0	375.49	375.49	375.49	375.49	375.46	375.42	375.39	375.38	375.36	VZ 0
	VZ 1	441.17	476.83	491.15	499.63	485.66	384.69	314.16	300.30	292.62	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3402	0.3402	0.3402	0.3402	0.3402	0.3402	0.3402	0.3402	0.3402	M 0
	M 1	0.4015	0.4351	0.4487	0.4568	0.4435	0.3488	0.2837	0.2710	0.2640	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.6357	0.3793	0.2820	0.2776	0.4412	1.1131	1.4579	1.4888	1.5021	UUBAR
	DFAC	-0.175	-0.270	-0.308	-0.331	-0.293	-0.025	0.163	0.200	0.220	DFAC
	EFFP	0.3816	0.6278	0.7257	0.7447	0.6140	0.0432	-0.2551	-0.3134	-0.3468	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.523	15.523	15.523	15.523	15.523	15.523	15.523	15.523	15.523	P 0
	P 1	14.764	15.070	15.186	15.192	14.996	14.193	13.781	13.744	13.729	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	47.694	45.462	41.122	36.697	37.481	43.811	56.633	62.448	67.968	BETA 2
	BETA(PR) 1	52.425	50.607	50.098	50.645	52.868	60.366	65.835	67.001	67.735	BETA(PR) 1
	BETA(PR) 2	28.024	29.257	29.912	28.934	30.031	35.213	43.335	45.730	49.926	BETA(PR) 2
	V 1	465.34	502.92	518.53	527.78	511.46	402.56	328.25	313.86	305.94	V 1
	V 2	552.47	554.90	568.80	616.61	627.96	581.42	531.50	533.86	534.33	V 2
	VZ 1	465.32	502.92	518.53	527.73	511.20	402.09	327.65	313.21	305.24	VZ 1
	VZ 2	371.86	389.19	428.48	494.33	498.05	419.16	292.07	246.77	200.34	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	408.58	395.52	374.07	368.42	381.90	402.12	443.51	472.99	495.06	V-THETA 2
	V(PR) 1	763.1	792.4	808.3	832.3	847.0	813.4	800.6	801.9	805.9	V(PR) 1
	V(PR) 2	421.3	446.1	494.3	564.9	575.7	513.7	402.2	354.1	311.7	V(PR) 2
	VTHETA PR1	-604.8	-612.4	-620.1	-643.5	-675.2	-706.8	-730.2	-737.9	-745.5	VTHETA PR1
	VTHETA PR2	-197.9	-218.0	-246.5	-273.3	-287.9	-295.8	-275.6	-253.1	-238.1	VTHETA PR2
	U 1	604.78	612.41	620.11	643.51	675.15	706.83	730.23	737.92	745.54	U 1
	U 2	606.50	613.54	620.58	641.68	669.82	697.96	719.09	726.13	733.19	U 2
	M 1	0.4243	0.4599	0.4748	0.4837	0.4681	0.3654	0.2966	0.2834	0.2761	M 1
	M 2	0.4877	0.4903	0.5036	0.5487	0.5588	0.5138	0.4656	0.4667	0.4660	M 2
	M(PR) 1	0.6957	0.7247	0.7402	0.7627	0.7751	0.7383	0.7234	0.7240	0.7273	M(PR) 1
	M(PR) 2	0.3719	0.3942	0.4377	0.5028	0.5123	0.4539	0.3523	0.3095	0.2718	M(PR) 2
	TURN(PR)	24.400	21.350	20.186	21.715	22.845	25.174	22.540	21.319	17.862	TURN(PR)
	UUBAR	0.1980	0.2218	0.1756	0.0884	0.0785	0.0908	0.2239	0.2903	0.3432	UUBAR
	LOSS PARA	0.0481	0.0539	0.0429	0.0226	0.0209	0.0239	0.0543	0.0683	0.0753	LOSS PARA
	DFAC	0.5955	0.5762	0.5190	0.4505	0.4585	0.5270	0.6811	0.7558	0.8209	DFAC
	EFFP	0.8002	0.7511	0.7722	0.9084	0.9709	0.9970	0.8955	0.8642	0.8295	EFFP
	EFF	0.7941	0.7442	0.7658	0.9054	0.9698	0.9969	0.8913	0.8588	0.8227	EFF
	INCID	0.583	-1.672	-2.592	-3.411	-3.195	2.307	6.402	7.137	7.093	INCID
	DEVM	20.275	19.959	18.993	13.230	9.344	10.347	15.776	17.589	21.043	DEVM
	P 1	14.764	15.070	15.186	15.192	14.996	14.193	13.781	13.744	13.729	P 1
	P 2	18.245	18.314	18.483	19.069	19.259	18.667	18.108	18.129	18.139	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	559.430	558.620	557.800	557.140	558.330	561.070	565.910	568.420	570.940	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	47.231	44.976	40.701	36.437	37.131	43.260	55.626	61.097	66.133	BETA 2
STATOR-T.E.	BETA 2A	3.170	4.850	6.430	7.970	8.061	7.452	7.473	6.472	3.432	BETA 2A
	V 2	556.68	559.78	573.91	620.95	633.88	588.42	539.03	541.98	543.05	V 2
	V 2A	396.57	419.08	439.60	486.27	518.90	490.45	450.93	429.39	403.17	V 2A
	VZ 2	378.01	395.99	435.09	499.49	505.12	428.15	304.10	261.78	219.62	VZ 2
	VZ 2A	395.96	417.58	436.83	481.52	513.57	485.90	446.54	426.06	401.82	VZ 2A
	V-THETA 2	408.65	395.65	374.25	368.75	382.45	402.90	444.55	474.17	496.36	V-THETA 2
	V-THETA 2A	21.93	35.43	49.23	67.42	72.74	63.56	58.57	48.33	24.10	V-THETA 2A
	M 2	0.4916	0.4949	0.5084	0.5528	0.5644	0.5203	0.4725	0.4741	0.4739	M 2
	M 2A	0.3461	0.3666	0.3853	0.4279	0.4573	0.4301	0.3926	0.3725	0.3484	M 2A
	TURN(PR)	44.060	40.126	34.271	28.462	29.051	35.767	48.097	54.568	62.642	TURN(PR)
	UUBAR	0.1312	0.0895	0.0827	0.1072	0.0581	-0.0107	-0.0535	0.0327	0.1136	UUBAR
	LOSS PARA	0.0424	0.0291	0.0271	0.0360	0.0203	-0.0039	-0.0201	0.0124	0.0438	LOSS PARA
	DFAC	0.5125	0.4616	0.4208	0.3818	0.3542	0.3791	0.4359	0.5099	0.5956	DFAC
	EFFP	0.7550	0.8138	0.8173	0.7516	0.8439	1.0304	1.1591	0.9196	0.7664	EFFP
	INCID	0.259	-1.225	-4.769	-7.238	-5.120	0.860	12.257	17.177	21.614	INCID
	DEVM	16.201	17.704	19.164	20.303	20.178	20.154	20.973	20.271	17.578	DEVM
	P 2	18.245	18.314	18.483	19.069	19.259	18.667	18.108	18.129	18.139	P 2
	P 2A	17.880	18.061	18.235	18.685	19.041	18.701	18.245	18.044	17.846	P 2A
	T 2	559.430	558.620	557.800	557.140	558.330	561.070	565.910	568.420	570.940	T 2
	T 2A	559.430	558.620	557.810	557.140	558.330	561.080	565.930	568.420	570.940	T 2A
	UUBAR FS		0.1393	0.0978	0.0952	0.0846	0.1135	0.1085	0.1157		UUBAR FS
	P2 FS		18.469	18.524	19.013	19.359	19.100	18.569	18.363		P2 FS
	LOSS PARA FS		0.0453	0.0320	0.0319	0.0295	0.0413	0.0411	0.0438		LOSS PARA FS

Table A-6. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 89.45 Equivalent Rotor Speed = 3765.79 Equivalent Weight Flow = 101.85
Tip Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	388.38	388.38	388.38	388.38	388.38	388.38	388.38	388.38	388.38	V 0
	V 1	453.86	494.77	502.46	505.09	498.04	409.49	322.88	322.33	316.99	V 1
	VZ 0	388.38	388.38	388.38	388.37	388.35	398.31	388.27	388.26	388.24	VZ 0
	VZ 1	453.86	494.77	502.46	505.08	498.00	409.41	322.79	322.23	316.88	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3522	0.3522	0.3522	0.3522	0.3522	0.3522	0.3522	0.3522	0.3522	M 0
	M 1	0.4134	0.4522	0.4595	0.4620	0.4553	0.3718	0.2917	0.2912	0.2863	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.6534	0.3552	0.2973	0.3138	0.4422	1.0591	1.4814	1.4773	1.5063	UUBAR
	DFAC	-0.169	-0.274	-0.294	-0.301	-0.282	-0.054	0.169	0.170	0.184	DFAC
	EFFP	0.3662	0.6478	0.7045	0.6985	0.6037	0.0963	-0.2590	-0.2625	-0.2795	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.585	15.585	15.585	15.585	15.585	15.585	15.585	15.585	15.585	P 0
	P 1	14.748	15.130	15.204	15.183	15.019	14.228	13.687	13.693	13.656	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	39.661	36.546	32.766	29.820	29.880	33.404	38.334	41.043	44.837	BETA 2
	BETA(PR) 1	48.662	46.544	46.446	47.353	49.209	56.059	62.881	63.158	63.771	BETA(PR) 1
	BETA(PR) 2	29.878	27.379	29.934	29.607	31.680	35.403	38.029	39.600	45.460	BETA(PR) 2
	V 1	479.05	522.47	530.85	533.73	524.83	428.82	337.35	336.93	331.50	V 1
	V 2	505.41	546.14	544.93	583.55	584.06	550.11	525.72	511.49	463.88	V 2
	VZ 1	479.03	522.47	530.85	533.68	524.57	428.32	336.74	336.24	330.74	VZ 1
	VZ 2	389.08	438.76	458.22	506.19	506.09	458.65	411.67	385.08	328.36	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	322.57	325.21	294.92	290.13	290.78	302.46	325.51	335.25	326.50	V-THETA 2
	V(PR) 1	725.3	759.6	770.4	787.8	803.1	767.4	739.0	745.0	748.7	V(PR) 1
	V(PR) 2	448.7	494.1	528.8	592.3	595.1	563.4	523.5	500.7	469.0	V(PR) 2
	VTHETA PR1	-544.5	-551.4	-558.4	-579.4	-607.9	-636.4	-657.5	-664.4	-671.3	VTHETA PR1
	VTHETA PR2	-223.5	-227.2	-263.9	-287.6	-312.3	-326.0	-322.0	-318.6	-333.7	VTHETA PR2
	U 1	544.55	551.42	558.35	579.42	607.92	636.43	657.51	664.43	671.29	U 1
	U 2	546.10	552.43	558.77	577.78	603.11	628.45	647.47	653.82	660.17	U 2
	M 1	0.4372	0.4786	0.4866	0.4894	0.4809	0.3899	0.3050	0.3046	0.2996	M 1
	M 2	0.4495	0.4878	0.4872	0.5237	0.5233	0.4908	0.4665	0.4525	0.4082	M 2
	M(PR) 1	0.6620	0.6958	0.7063	0.7224	0.7358	0.6978	0.6681	0.6735	0.6766	M(PR) 1
	M(PR) 2	0.3991	0.4414	0.4727	0.5226	0.5332	0.5026	0.4646	0.4430	0.4126	M(PR) 2
	TURN(PR)	18.784	19.165	16.512	17.749	17.537	20.675	24.888	23.599	18.360	TURN(PR)
	UUBAR	0.2697	0.2595	0.2138	0.1241	0.0983	0.0465	0.0396	0.1014	0.1666	UUBAR
	LOSS PARA	0.0643	0.0642	0.0522	0.0316	0.0257	0.0122	0.0104	0.0264	0.0398	LOSS PARA
	DFAC	0.5039	0.4689	0.4216	0.3684	0.3699	0.3922	0.4374	0.4784	0.5210	DFAC
	EFFP	0.6422	0.6687	0.6708	0.8444	0.8719	1.0066	1.0192	0.9282	0.7875	EFFP
	EFF	0.6359	0.6629	0.6653	0.8412	0.8689	1.0068	1.0198	0.9260	0.7817	EFF
	INCID	-3.179	-5.734	-6.244	-6.703	-6.855	-2.002	3.445	3.288	3.123	INCID
	DEVM	22.128	18.081	19.015	13.904	10.992	10.537	10.472	11.461	16.576	DEVM
	P 1	14.748	15.130	15.204	15.183	15.019	14.228	13.687	13.693	13.656	P 1
	P 2	16.652	17.092	17.108	17.575	17.649	17.278	17.034	16.906	16.493	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	547.490	546.440	545.430	545.020	546.870	548.090	551.500	553.480	555.470	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	39.326	36.192	32.463	29.628	29.633	33.036	37.801	40.420	44.118	BETA 2
STATOR-T.E.	BETA 2A	6.480	7.110	7.750	8.705	8.301	7.627	8.940	9.049	8.185	BETA 2A
	V 2	509.09	550.93	549.72	587.50	599.28	556.52	533.13	519.17	470.99	V 2
	V 2A	454.37	471.98	487.56	528.32	545.75	556.47	534.88	523.44	510.72	V 2A
	VZ 2	393.81	444.63	463.81	510.60	511.91	466.02	420.61	394.62	337.60	VZ 2
	VZ 2A	451.47	468.35	483.10	522.17	539.82	551.09	527.73	516.21	504.74	VZ 2A
	V-THETA 2	322.63	325.32	295.06	290.40	291.20	303.05	326.27	336.09	327.36	V-THETA 2
	V-THETA 2A	51.28	58.42	65.75	79.95	78.76	73.80	83.01	82.21	72.60	V-THETA 2A
	M 2	0.4529	0.4923	0.4917	0.5275	0.5282	0.4968	0.4734	0.4596	0.4146	M 2
	M 2A	0.4025	0.4191	0.4338	0.4718	0.4873	0.4967	0.4750	0.4635	0.4510	M 2A
	TURN(PR)	32.846	29.082	24.713	20.919	21.317	25.372	28.805	31.306	35.858	TURN(PR)
	UUBAR	0.1106	0.2073	0.1636	0.1688	0.1389	-0.0123	0.0162	0.0270	-0.1078	UUBAR
	LOSS PARA	0.0356	0.0671	0.0534	0.0565	0.0484	-0.0045	0.0061	0.0102	-0.0412	LOSS PARA
	DFAC	0.2801	0.3016	0.2507	0.2225	0.2015	0.1521	0.1707	0.1803	0.1264	DFAC
	EFFP	0.4970	0.2831	0.2969	0.2020	0.1209	11.6404	4.3565	2.4918	0.4369	EFFP
	INCID	-7.645	-10.009	-13.007	-14.046	-12.616	-9.360	-5.570	-3.511	-0.424	INCID
	DEVM	19.511	19.964	20.484	21.038	20.418	20.329	22.439	22.845	22.324	DEVM
	P 2	16.652	17.092	17.108	17.575	17.649	17.278	17.034	16.906	16.493	P 2
	P 2A	16.410	16.551	16.682	17.062	17.225	17.311	16.994	16.845	16.691	P 2A
	T 2	547.490	546.440	545.430	545.020	546.870	548.090	551.500	553.480	555.470	T 2
	T 2A	547.490	546.440	545.440	545.020	546.870	548.110	551.540	553.480	555.470	T 2A
	UUBAR FS		0.1456	0.1618	0.1717	0.1747	0.0862	0.1034	0.0992		UUBAR FS
	P2 FS		16.909	17.108	17.591	17.787	17.572	17.275	17.095		P2 FS
	LOSS PARA FS		0.0471	0.0528	0.0574	0.0608	0.0315	0.0389	0.0375		LOSS PARA FS

Table A-6. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 89.74 Equivalent Rotor Speed = 3777.95 Equivalent Weight Flow = 96.39
Tip Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	367.58	367.58	367.58	367.58	367.58	367.58	367.58	367.58	367.58	V 0
	V 1	423.22	465.01	467.82	479.01	461.73	371.19	304.72	300.64	281.76	V 1
	VZ 0	367.58	367.58	367.58	367.57	367.55	367.51	367.48	367.46	367.45	VZ 0
	VZ 1	423.22	465.00	467.82	479.00	461.69	371.12	304.64	300.55	281.66	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3329	0.3329	0.3329	0.3329	0.3329	0.3329	0.3329	0.3329	0.3329	M 0
	M 1	0.3847	0.4239	0.4266	0.4372	0.4209	0.3362	0.2750	0.2713	0.2540	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.6395	0.3216	0.3078	0.2801	0.4598	1.1003	1.4458	1.4504	1.5288	UUBAR
	DFAC	-0.151	-0.265	-0.273	-0.303	-0.256	-0.010	0.171	0.182	0.233	DFAC
	EFFP	0.3438	0.6610	0.6780	0.7230	0.5663	0.0177	-0.2724	-0.2917	-0.3621	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.491	15.491	15.491	15.491	15.491	15.491	15.491	15.491	15.491	P 0
	P 1	14.759	15.123	15.138	15.170	14.965	14.232	13.837	13.831	13.742	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	43.794	40.498	37.741	33.663	33.602	38.621	44.629	48.564	54.880	BETA 2
	BETA(PR) 1	50.773	48.461	48.640	49.004	51.493	58.731	64.284	64.813	66.435	BETA(PR) 1
	BETA(PR) 2	28.646	28.644	29.190	29.032	31.379	35.125	38.927	40.934	44.432	BETA(PR) 2
	V 1	446.00	490.10	493.15	505.29	485.48	388.19	318.26	314.12	294.41	V 1
	V 2	504.31	520.50	531.93	570.45	570.39	537.74	509.27	496.24	479.82	V 2
	VZ 1	445.99	490.09	493.15	505.24	485.24	387.73	317.69	313.48	293.74	VZ 1
	VZ 2	364.02	395.80	420.64	474.72	474.80	419.66	361.91	327.95	275.72	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	349.01	338.02	325.59	316.16	315.47	335.26	357.26	371.51	392.01	V-THETA 2
	V(PR) 1	705.2	739.1	746.3	770.2	779.5	747.2	732.4	736.9	735.0	V(PR) 1
	V(PR) 2	414.8	451.0	481.8	543.0	556.5	513.7	466.0	434.9	386.8	V(PR) 2
	VTHETA PR1	-546.3	-553.2	-560.2	-581.3	-609.9	-638.5	-659.6	-666.6	-673.5	VTHETA PR1
	VTHETA PR2	-198.9	-216.2	-235.0	-263.5	-289.6	-295.2	-292.3	-284.4	-270.3	VTHETA PR2
	U 1	546.31	553.20	560.16	581.29	609.88	638.49	659.63	666.57	673.46	U 1
	U 2	547.86	554.22	560.58	579.64	605.06	630.48	649.56	655.93	662.31	U 2
	M 1	0.4060	0.4477	0.4506	0.4622	0.4433	0.3520	0.2874	0.2836	0.2656	M 1
	M 2	0.4468	0.4623	0.4735	0.5097	0.5090	0.4776	0.4498	0.4370	0.4212	M 2
	M(PR) 1	0.6421	0.6752	0.6819	0.7045	0.7118	0.6776	0.6614	0.6653	0.6630	M(PR) 1
	M(PR) 2	0.3675	0.4006	0.4289	0.4852	0.4966	0.4563	0.4116	0.3829	0.3395	M(PR) 2
	TURN(PR)	22.127	19.817	19.450	19.975	20.122	23.627	25.395	23.923	22.057	TURN(PR)
	UUBAR	0.2166	0.2349	0.1902	0.1032	0.0694	0.0415	0.0795	0.1478	0.2145	UUBAR
	LOSS PARA	0.0523	0.0574	0.0468	0.0264	0.0182	0.0109	0.0206	0.0377	0.0522	LOSS PARA
	DFAC	0.5482	0.5173	0.4774	0.4149	0.4101	0.4563	0.5252	0.5785	0.6540	DFAC
	EFFP	0.7208	0.6844	0.7475	0.8769	0.9259	1.0130	0.9745	0.8959	0.8459	EFFP
	EFF	0.7146	0.6780	0.7422	0.8739	0.9239	1.0134	0.9737	0.8925	0.8409	EFF
	INCID	-1.069	-3.817	-4.050	-5.053	-4.570	0.671	4.849	4.946	5.791	INCID
	DEVM	20.897	19.346	18.271	13.328	10.691	10.259	11.369	12.795	15.547	DEVM
	P 1	14.759	15.123	15.138	15.170	14.965	14.232	13.837	13.831	13.742	P 1
	P 2	17.226	17.405	17.537	17.990	18.059	17.711	17.431	17.315	17.184	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	551.470	550.050	548.690	548.330	549.670	551.700	555.040	557.230	559.380	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	43.408	40.102	37.374	33.446	33.323	38.190	43.978	47.784	53.849	BETA 2
STATOR-T.E.	BETA 2A	4.720	6.200	7.090	8.170	7.561	7.053	8.663	8.654	7.603	BETA 2A
	V 2	507.97	524.93	536.64	574.24	575.38	543.85	516.35	503.49	487.28	V 2
	V 2A	401.79	420.73	438.53	480.67	510.04	496.46	472.99	463.39	448.35	V 2A
	VZ 2	369.03	401.51	426.45	479.08	480.52	427.02	371.10	337.89	287.15	VZ 2
	VZ 2A	400.43	418.27	435.18	475.73	505.40	492.30	467.02	457.48	443.72	VZ 2A
	V-THETA 2	349.07	338.14	325.74	316.45	315.92	335.91	358.10	372.44	393.04	V-THETA 2
	V-THETA 2A	33.06	45.43	54.12	68.30	67.09	60.91	71.16	69.62	59.23	V-THETA 2A
	M 2	0.4501	0.4664	0.4779	0.5133	0.5137	0.4833	0.4563	0.4436	0.4279	M 2
	M 2A	0.3534	0.3710	0.3876	0.4263	0.4528	0.4397	0.4166	0.4071	0.3926	M 2A
	TURN(PR)	38.688	33.903	30.284	25.271	25.744	31.098	35.256	39.065	46.174	TURN(PR)
	UUBAR	0.1231	0.1277	0.1155	0.1229	0.0514	-0.0189	-0.0186	-0.0130	-0.0078	UUBAR
	LOSS PARA	0.0397	0.0414	0.0377	0.0412	0.0179	-0.0069	-0.0070	-0.0049	-0.0030	LOSS PARA
	DFAC	0.4105	0.3807	0.3498	0.3098	0.2666	0.2736	0.2956	0.3112	0.3465	DFAC
	EFFP	0.6945	0.6698	0.6803	0.6271	0.7841	1.2569	1.0941	1.0783	1.0470	EFFP
	INCID	-3.563	-6.099	-8.096	-10.229	-8.927	-4.208	0.605	3.852	9.311	INCID
	DEVM	17.751	19.053	19.824	20.503	19.678	19.755	22.163	22.450	21.744	DEVM
	P 2	17.226	17.405	17.537	17.990	18.059	17.711	17.431	17.315	17.184	P 2
	P 2A	16.951	17.097	17.244	17.626	17.906	17.760	17.475	17.344	17.199	P 2A
	T 2	551.470	550.050	548.690	548.330	549.670	551.700	555.040	557.230	559.380	T 2
	T 2A	551.470	550.050	548.690	548.330	549.670	551.180	555.080	557.230	559.380	T 2A
	UUBAR FS		0.1082	0.0947	0.1029	0.0775	0.0736	0.0871	0.0708		UUBAR FS
	P2 FS		17.348	17.475	17.920	18.139	17.968	17.696	17.509		P2 FS
	LOSS PARA FS		0.0350	0.0309	0.0345	0.0270	0.0268	0.0328	0.0267		LOSS PARA FS

Table A-6. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 90.09 Equivalent Rotor Speed = 3792.70 Equivalent Weight Flow = 88.92
Tip Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	339.56	339.56	339.56	339.56	339.56	339.56	339.56	339.56	339.56	V 0
	V 1	402.12	427.81	434.68	443.44	428.64	332.60	274.97	265.41	260.47	V 1
	VZ 0	339.56	339.56	339.56	339.55	339.53	339.50	339.47	339.45	339.44	VZ 0
	VZ 1	402.12	427.81	434.68	443.43	428.60	332.54	274.90	265.33	260.38	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.3070	0.3070	0.3070	0.3070	0.3070	0.3070	0.3070	0.3070	0.3070	M 0
	M 1	0.3650	0.3890	0.3954	0.4036	0.3897	0.3006	0.2478	0.2391	0.2346	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.5733	0.3614	0.3130	0.2732	0.4507	1.0971	1.3832	1.4154	1.4273	UUBAR
	DFAC	-0.184	-0.260	-0.280	-0.306	-0.262	0.020	0.190	0.218	0.233	DFAC
	EFFP	0.4190	0.6275	0.6794	0.7288	0.5765	-0.0387	-0.3283	-0.3748	-0.4002	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.342	15.342	15.342	15.342	15.342	15.342	15.342	15.342	15.342	P 0
	P 1	14.785	14.991	15.038	15.076	14.904	14.277	13.999	13.968	13.956	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	47.458	44.396	40.311	37.146	37.743	44.167	54.945	61.495	67.009	BETA 2
	BETA(PR) 1	52.333	50.979	50.873	51.342	53.699	61.570	66.609	67.550	68.127	BETA(PR) 1
	BETA(PR) 2	26.088	27.999	28.335	28.509	30.857	35.454	42.568	45.383	48.148	BETA(PR) 2
	V 1	423.40	450.06	457.44	466.87	450.00	347.42	286.97	277.06	272.04	V 1
	V 2	515.07	515.40	531.86	561.33	560.35	524.65	484.86	483.67	490.38	V 2
	VZ 1	423.38	450.06	457.44	466.82	449.77	347.01	286.45	276.49	271.42	VZ 1
	VZ 2	348.26	368.27	405.57	447.37	442.87	375.98	278.23	230.66	191.43	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	379.49	360.58	344.08	338.91	342.82	365.20	396.54	424.73	451.18	V-THETA 2
	V(PR) 1	692.9	714.8	724.9	747.3	759.8	729.1	721.7	724.3	728.8	V(PR) 1
	V(PR) 2	387.8	417.1	460.9	509.2	516.2	462.1	378.4	328.9	287.4	V(PR) 2
	VTHETA PR1	-548.4	-555.4	-562.3	-583.6	-612.3	-641.0	-662.2	-669.2	-676.1	VTHETA PR1
	VTHETA PR2	-170.5	-195.8	-218.7	-243.0	-264.6	-267.7	-255.6	-233.8	-213.7	VTHETA PR2
	U 1	548.44	555.36	562.34	583.56	612.26	640.98	662.21	669.18	676.09	U 1
	U 2	550.00	556.38	562.77	581.91	607.42	632.94	652.10	658.49	664.89	U 2
	M 1	0.3848	0.4099	0.4168	0.4257	0.4098	0.3143	0.2588	0.2497	0.2451	M 1
	M 2	0.4553	0.4563	0.4721	0.4997	0.4983	0.4642	0.4260	0.4242	0.4296	M 2
	M(PR) 1	0.6297	0.6510	0.6605	0.6814	0.6920	0.6595	0.6508	0.6528	0.6567	M(PR) 1
	M(PR) 2	0.3428	0.3692	0.4090	0.4533	0.4591	0.4088	0.3324	0.2885	0.2518	M(PR) 2
	TURN(PR)	26.245	22.980	22.539	22.835	22.850	26.138	24.082	22.216	20.035	TURN(PR)
	UUBAR	0.1901	0.1890	0.1298	0.0742	0.0698	0.0858	0.2111	0.2832	0.3362	UUBAR
	LOSS PARA	0.0470	0.0465	0.0322	0.0191	0.0184	0.0226	0.0519	0.0671	0.0764	LOSS PARA
	DFAC	0.5912	0.5571	0.4982	0.4511	0.4588	0.5267	0.6576	0.7420	0.8149	DFAC
	EFFP	0.7734	0.7557	0.8204	0.9094	0.9412	0.9739	0.8658	0.8406	0.8289	EFFP
	EFF	0.7675	0.7498	0.8158	0.9069	0.9394	0.9730	0.8615	0.8354	0.8231	EFF
	INCID	0.491	-1.299	-1.817	-2.715	-2.365	3.512	7.177	7.687	7.486	INCID
	DEVM	18.338	18.701	17.415	12.806	10.169	10.588	15.009	17.243	19.264	DEVM
	P 1	14.785	14.991	15.038	15.076	14.904	14.277	13.999	13.968	13.956	P 1
	P 2	17.723	17.775	17.958	18.318	18.334	17.942	17.535	17.540	17.629	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	554.620	553.210	551.770	551.430	552.360	554.670	558.720	560.450	562.200	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	47.015	43.947	39.916	36.904	37.428	43.649	54.047	60.263	65.330	BETA 2
STATOR-T.E.	BETA 2A	3.480	5.740	7.120	8.140	8.171	7.322	7.673	7.353	3.742	BETA 2A
	V 2	518.85	519.76	536.49	565.00	565.14	530.57	491.42	490.69	498.07	V 2
	V 2A	361.61	386.83	408.57	444.45	472.26	444.72	412.17	392.24	366.99	V 2A
	VZ 2	353.75	374.22	411.47	451.74	448.57	383.59	288.28	243.23	207.78	VZ 2
	VZ 2A	360.94	384.89	405.42	439.92	467.28	440.73	407.98	388.47	365.64	VZ 2A
	V-THETA 2	379.55	360.70	344.24	339.22	343.31	365.91	397.47	425.78	452.37	V-THETA 2
	V-THETA 2A	21.95	38.69	50.64	62.92	67.09	56.63	54.96	50.13	23.91	V-THETA 2A
	M 2	0.4588	0.4603	0.4764	0.5031	0.5028	0.4696	0.4320	0.4306	0.4366	M 2
	M 2A	0.3164	0.3394	0.3594	0.3920	0.4170	0.3911	0.3603	0.3419	0.3190	M 2A
	TURN(PR)	43.535	38.207	32.796	28.759	29.239	36.287	46.317	52.853	61.528	TURN(PR)
	UUBAR	0.1538	0.0978	0.0992	0.1059	0.0198	-0.0178	-0.0564	0.0229	0.1438	UUBAR
	LOSS PARA	0.0497	0.0318	0.0321	0.0355	0.0069	-0.0065	-0.0211	0.0087	0.0554	LOSS PARA
	DFAC	0.5262	0.4582	0.4189	0.3795	0.3373	0.3767	0.4265	0.4951	0.5975	DFAC
	EFFP	0.7213	0.7970	0.7832	0.7466	0.9408	1.0533	1.1738	0.9412	0.7055	EFFP
	INCID	0.044	-2.255	-5.554	-6.771	-4.823	1.249	10.676	16.341	20.809	INCID
	DEVM	16.511	18.594	19.854	20.473	20.288	20.024	21.173	21.151	17.888	DEVM
	P 2	17.723	17.775	17.958	18.318	18.334	17.942	17.535	17.540	17.629	P 2
	P 2A	17.357	17.540	17.704	18.010	18.276	17.987	17.654	17.492	17.318	P 2A
	T 2	554.620	553.210	551.770	551.430	552.360	554.670	558.720	560.450	562.200	T 2
	T 2A	554.620	553.210	551.790	551.430	552.360	554.680	558.730	560.450	562.200	T 2A
	UUBAR FS		0.1229	0.0871	0.0961	0.0512	0.1006	0.1032	0.1062		UUBAR FS
	P2 FS		17.841	17.925	18.285	18.429	18.272	17.909	17.734		P2 FS
	LOSS PARA FS		0.0398	0.0284	0.0322	0.0178	0.0367	0.0386	0.0403		LOSS PARA FS

Table A-6. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.34 Equivalent Rotor Speed = 2961.33 Equivalent Weight Flow = 82.67
Tip Radial Distortion

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	315.86	315.86	315.86	315.86	315.86	315.86	315.86	315.86	315.86	V 0
	V 1	357.48	388.31	394.17	401.17	388.14	307.71	256.88	252.90	238.88	V 1
	VZ 0	315.86	315.86	315.86	315.85	315.83	315.80	315.77	315.76	315.75	VZ 0
	VZ 1	357.48	388.31	394.17	401.16	388.10	307.65	256.81	252.82	238.80	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2852	0.2852	0.2852	0.2852	0.2852	0.2852	0.2852	0.2852	0.2852	M 0
	M 1	0.3235	0.3521	0.3576	0.3641	0.3520	0.2777	0.2313	0.2277	0.2150	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.5688	0.3209	0.2900	0.2553	0.4238	1.0830	1.3619	1.3742	1.4300	UUBAR
	DFAC	-0.132	-0.229	-0.248	-0.270	-0.229	0.026	0.187	0.199	0.244	DFAC
	EFFP	0.3356	0.6218	0.6650	0.7131	0.5532	-0.0496	-0.3286	-0.3508	-0.4225	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.239	15.239	15.239	15.239	15.239	15.239	15.239	15.239	15.239	P 0
	P 1	14.763	14.970	14.996	15.025	14.884	14.333	14.099	14.089	14.042	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	38.026	35.042	32.600	29.685	29.455	32.245	37.033	39.105	41.131	BETA 2
	BETA(PR) 1	48.739	46.754	46.676	47.227	49.615	57.335	62.645	63.247	64.764	BETA(PR) 1
	BETA(PR) 2	30.054	30.363	30.273	29.406	31.771	35.022	37.314	39.707	44.196	BETA(PR) 2
	V 1	375.70	407.86	414.11	421.57	406.84	321.24	267.98	263.93	249.38	V 1
	V 2	400.67	412.24	426.39	461.41	460.31	439.38	421.30	403.98	374.20	V 2
	VZ 1	375.69	407.86	414.11	421.53	406.64	320.87	267.50	263.39	248.81	VZ 1
	VZ 2	315.62	337.51	359.21	400.78	400.55	371.12	335.72	312.89	281.28	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	246.82	236.70	229.73	228.46	226.20	234.12	253.28	254.32	245.65	V-THETA 2
	V(PR) 1	569.7	595.3	603.5	620.7	627.7	594.7	582.4	585.4	583.8	V(PR) 1
	V(PR) 2	364.6	391.2	415.9	460.1	471.4	453.7	422.9	407.5	393.0	V(PR) 2
	VTHETA PR1	-428.2	-433.6	-439.1	-455.6	-478.1	-500.5	-517.0	-522.5	-527.9	VTHETA PR1
	VTHETA PR2	-182.6	-197.7	-209.7	-225.9	-248.1	-260.1	-255.9	-259.8	-273.5	VTHETA PR2
	U 1	428.22	433.62	439.08	455.64	478.05	500.48	517.05	522.49	527.89	U 1
	U 2	429.44	434.42	439.41	454.35	474.27	494.20	509.16	514.15	519.15	U 2
	M 1	0.3404	0.3703	0.3761	0.3831	0.3694	0.2902	0.2414	0.2377	0.2245	M 1
	M 2	0.3569	0.3680	0.3815	0.4140	0.4125	0.3930	0.3756	0.3593	0.3317	M 2
	M(PR) 1	0.5162	0.5405	0.5482	0.5641	0.5699	0.5372	0.5247	0.5273	0.5256	M(PR) 1
	M(PR) 2	0.3248	0.3492	0.3722	0.4128	0.4225	0.4058	0.3770	0.3624	0.3484	M(PR) 2
	TURN(PR)	18.684	16.391	16.404	17.824	17.852	22.332	25.366	23.581	20.618	TURN(PR)
	UUBAR	0.2267	0.2272	0.1865	0.1073	0.0725	-0.0175	0.0180	0.0689	0.1084	UUBAR
	LOSS PARA	0.0540	0.0546	0.0454	0.0273	0.0190	-0.0046	0.0048	0.0179	0.0265	LOSS PARA
	DFAC	0.4793	0.4537	0.4182	0.3662	0.3593	0.3632	0.4179	0.4492	0.4690	DFAC
	EFFP	0.6152	0.6133	0.7066	0.8751	0.9161	1.1131	1.0590	0.9472	0.8179	EFFP
	EFF	0.6109	0.6093	0.7034	0.8735	0.9149	1.1152	1.0602	0.9462	0.8147	EFF
	INCID	-3.103	-5.525	-6.014	-6.830	-6.449	-0.725	3.209	3.378	4.117	INCID
	DEVM	22.305	21.065	19.354	13.703	11.083	10.157	9.758	11.568	15.312	DEVM
	P 1	14.763	14.970	14.996	15.025	14.884	14.333	14.099	14.089	14.042	P 1
	P 2	15.971	16.085	16.189	16.500	16.516	16.334	16.199	16.075	15.857	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	538.000	536.350	535.000	534.800	535.800	536.400	538.500	539.750	541.200	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	37.739	34.749	32.334	29.522	29.248	31.936	36.576	38.583	40.545	BETA 2
STATOR-T.E.	BETA 2A	7.000	6.900	7.500	7.800	8.601	7.902	8.003	8.503	8.554	BETA 2A
	V 2	403.33	415.42	429.73	464.14	463.90	443.96	426.71	409.49	379.56	V 2
	V 2A	380.29	388.04	396.40	425.45	441.45	444.62	432.08	421.58	393.94	V 2A
	VZ 2	318.96	341.33	363.09	403.81	404.52	376.32	342.14	319.56	287.92	VZ 2
	VZ 2A	377.46	385.23	393.01	421.47	436.31	440.03	427.35	416.37	388.96	VZ 2A
	V-THETA 2	246.86	236.78	229.84	228.67	226.52	234.57	253.87	254.95	246.30	V-THETA 2
	V-THETA 2A	46.34	46.62	51.74	57.73	65.99	61.07	60.08	62.25	58.51	V-THETA 2A
	M 2	0.3593	0.3709	0.3846	0.4165	0.4159	0.3972	0.3805	0.3643	0.3366	M 2
	M 2A	0.3383	0.3459	0.3540	0.3807	0.3951	0.3978	0.3855	0.3754	0.3497	M 2A
	TURN(PR)	30.739	27.849	24.833	21.718	20.632	23.999	28.516	30.016	31.918	TURN(PR)
	UUBAR	0.0761	0.1067	0.1222	0.1592	0.1063	0.0123	0.0236	0.0110	0.0173	UUBAR
	LOSS PARA	0.0244	0.0346	0.0399	0.0534	0.0370	0.0045	0.0088	0.0042	0.0066	LOSS PARA
	DFAC	0.2181	0.2155	0.2143	0.2085	0.1710	0.1428	0.1605	0.1519	0.1550	DFAC
	EFFP	0.3495	0.2071	0.2260	0.0656	-0.0516	4.9084	1.8738	1.1737	1.2138	EFFP
	INCID	-9.232	-11.452	-13.137	-14.152	-13.001	-10.459	-6.795	-5.347	-3.996	INCID
	DEVM	20.031	19.754	20.234	20.133	20.717	20.603	21.503	22.299	22.693	DEVM
	P 2	15.971	16.085	16.189	16.500	16.516	16.334	16.199	16.075	15.857	P 2
	P 2A	15.867	15.930	15.997	16.204	16.319	16.313	16.163	16.059	15.836	P 2A
	T 2	538.000	536.350	535.000	534.800	535.800	536.400	538.500	539.750	541.200	T 2
	T 2A	538.000	536.350	535.000	534.800	535.800	536.400	538.500	539.750	541.200	T 2A
	UUBAR FS		0.1329	0.1495	0.1786	0.1570	0.1278	0.0979	0.0944		UUBAR FS
	P2 FS		16.127	16.265	16.542	16.625	16.555	16.324	16.203		P2 FS
	LOSS PARA FS		0.0431	0.0534	0.0599	0.0546	0.0667	0.0365	0.0360		LOSS PARA FS

Table A-6. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.04 Equivalent Rotor Speed = 2948.88 Equivalent Weight Flow = 76.07
Tip Radial Distortion

INLET	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	290.82	290.82	290.82	290.82	290.82	290.82	290.82	290.82	290.82	V 0
	V 1	324.44	357.57	363.02	368.56	357.35	274.99	228.10	226.18	213.58	V 1
	VZ 0	290.82	290.82	290.82	290.81	290.79	290.76	290.74	290.73	290.72	VZ 0
	VZ 1	324.44	357.57	363.02	368.55	357.32	274.94	228.03	226.11	213.51	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2623	0.2623	0.2623	0.2623	0.2623	0.2623	0.2623	0.2623	0.2623	M 0
	M 1	0.2931	0.3236	0.3287	0.3338	0.3234	0.2478	0.2052	0.2034	0.1920	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.6019	0.3090	0.2652	0.2507	0.3804	1.0711	1.3072	1.3145	1.3787	UUBAR
	DFAC	-0.116	-0.230	-0.248	-0.267	-0.229	0.054	0.216	0.222	0.266	DFAC
	EFFP	0.2927	0.6298	0.6840	0.7133	0.5789	-0.1102	-0.4153	-0.4276	-0.4976	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.137	15.137	15.137	15.137	15.137	15.137	15.137	15.137	15.137	P 0
	P 1	14.712	14.919	14.950	14.960	14.868	14.380	14.213	14.208	14.162	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	42.640	39.680	36.816	34.129	33.897	37.703	43.309	46.247	50.476	BETA 2
	BETA(PR) 1	51.385	49.019	48.938	49.556	51.849	60.106	65.247	65.652	67.071	BETA(PR) 1
	BETA(PR) 2	26.920	26.965	28.686	28.722	31.391	35.070	38.813	40.958	43.331	BETA(PR) 2
	V 1	340.60	375.11	380.90	386.79	374.14	286.84	237.83	235.93	222.87	V 1
	V 2	406.92	419.98	421.83	445.98	444.06	422.18	399.42	387.69	377.41	V 2
	VZ 1	340.59	375.11	380.90	386.75	373.95	286.51	237.40	235.45	222.36	VZ 1
	VZ 2	299.34	323.22	337.70	369.11	368.37	333.64	290.22	267.70	239.84	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	275.64	268.16	252.78	250.18	247.50	257.89	273.57	279.62	290.70	V-THETA 2
	V(PR) 1	545.8	572.0	579.9	596.2	605.5	575.0	567.2	571.3	571.0	V(PR) 1
	V(PR) 2	335.7	362.6	385.0	421.0	431.8	408.2	373.1	355.1	330.3	V(PR) 2
	VTHETA PR1	-426.4	-431.8	-437.2	-453.7	-476.0	-498.4	-514.9	-520.3	-525.7	VTHETA PR1
	VTHETA PR2	-152.0	-164.4	-184.8	-202.3	-224.8	-234.2	-233.4	-232.4	-226.3	VTHETA PR2
	U 1	426.42	431.80	437.23	453.73	476.04	498.37	514.88	520.29	525.67	U 1
	U 2	427.64	432.60	437.56	452.44	472.28	492.12	507.02	511.99	516.96	U 2
	M 1	0.3080	0.3399	0.3452	0.3507	0.3390	0.2587	0.2140	0.2123	0.2004	M 1
	M 2	0.3620	0.3744	0.3765	0.3989	0.3969	0.3765	0.3549	0.3437	0.3338	M 2
	M(PR) 1	0.4935	0.5182	0.5256	0.5406	0.5485	0.5185	0.5103	0.5140	0.5135	M(PR) 1
	M(PR) 2	0.2987	0.3233	0.3436	0.3766	0.3860	0.3640	0.3315	0.3149	0.2922	M(PR) 2
	TURN(PR)	24.465	22.054	20.253	20.837	20.466	25.057	26.472	24.739	23.794	TURN(PR)
	UUBAR	0.1705	0.1835	0.1519	0.0920	0.0683	0.0096	0.0725	0.1258	0.1794	UUBAR
	LOSS PARA	0.0418	0.0456	0.0376	0.0236	0.0179	0.0025	0.0188	0.0320	0.0445	LOSS PARA
	DFAC	0.5240	0.4967	0.4591	0.4165	0.4120	0.4340	0.5018	0.5421	0.5935	DFAC
	EFFP	0.7487	0.7423	0.7800	0.9065	0.9426	1.0680	0.9754	0.8873	0.8118	EFFP
	EFF	0.7450	0.7387	0.7770	0.9051	0.9417	1.0693	0.9749	0.8851	0.8082	EFF-
	INCID	-0.457	-3.259	-3.752	-4.501	-4.215	2.047	5.813	5.786	6.428	INCID
	DEVM	19.170	17.667	17.767	13.018	10.703	10.205	11.256	12.819	14.447	DEVM
	P 1	14.712	14.919	14.950	14.960	14.868	14.380	14.213	14.208	14.162	P 1
	P 2	16.314	16.434	16.450	16.669	16.700	16.510	16.358	16.280	16.205	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	539.580	538.380	537.200	536.690	537.290	538.230	540.500	541.950	543.890	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	42.300	39.331	36.506	33.938	33.656	37.332	42.753	45.592	49.670	BETA 2
STATOR-T.E.	BETA 2A	5.430	6.050	7.350	7.600	7.621	7.652	8.283	8.243	8.224	BETA 2A
	V 2	409.64	423.23	425.12	448.58	447.47	426.52	404.47	392.92	382.83	V 2
	V 2A	333.24	348.43	361.71	384.16	400.12	389.71	374.24	366.22	353.34	V 2A
	VZ 2	302.98	327.37	341.71	372.10	372.27	338.79	296.61	274.58	247.45	VZ 2
	VZ 2A	331.74	346.49	358.73	380.74	396.42	385.92	369.88	361.93	349.17	VZ 2A
	V-THETA 2	275.69	268.24	252.90	250.40	247.86	258.39	274.21	280.31	291.47	V-THETA 2
	V-THETA 2A	31.53	36.72	46.27	50.80	53.04	51.85	53.85	52.44	50.46	V-THETA 2A
	M 2	0.3645	0.3774	0.3795	0.4013	0.4001	0.3804	0.3595	0.3485	0.3387	M 2
	M 2A	0.2952	0.3093	0.3216	0.3422	0.3566	0.3468	0.3320	0.3243	0.3121	M 2A
	TURN(PR)	36.870	33.281	29.156	26.333	26.017	29.642	34.410	37.282	41.373	TURN(PR)
	UUBAR	0.1015	0.1205	0.0814	0.1024	0.0496	-0.0066	-0.0133	-0.0079	0.0	UUBAR
	LOSS PARA	0.0327	0.0391	0.0266	0.0344	0.0173	-0.0024	-0.0050	-0.0030	0.0	LOSS PARA
	DFAC	0.3795	0.3555	0.3095	0.2948	0.2599	0.2649	0.2822	0.2913	0.3222	DFAC
	EFFP	0.7145	0.6452	0.7161	0.6388	0.7680	1.0294	1.0871	1.0570	1.0001	EFFP
	INCID	-4.671	-6.870	-8.965	-9.736	-8.595	-5.065	-0.621	1.660	5.130	INCID
	DEVM	18.461	18.904	20.084	19.933	19.738	20.354	21.783	22.040	22.363	DEVM
	P 2	16.314	16.434	16.450	16.669	16.700	16.510	16.358	16.280	16.205	P 2
	P 2A	16.169	16.249	16.324	16.490	16.613	16.520	16.376	16.291	16.205	P 2A
	T 2	539.580	538.380	537.200	536.690	537.290	538.230	540.500	541.950	543.890	T 2
	T 2A	539.580	538.380	537.230	536.690	537.290	538.250	540.500	541.950	543.890	T 2A
	UUBAR FS		0.1361	0.1213	0.1123	0.0816	0.0839	0.0649	0.0662		UUBAR FS
	P2 FS		16.459	16.518	16.685	16.758	16.662	16.472	16.382		P2 FS
	LOSS PARA FS		0.0441	0.0396	0.0377	0.0284	0.0305	0.0244	0.0251		LOSS PARA FS

Table A-6. Blade Element Performance (Concluded)
Stage B Rotor B - Stator B

Calculations Using Translated Values
Percent Equivalent Rotor Speed = 70.09 Equivalent Rotor Speed = 2950.70 Equivalent Weight Flow = 68.17
Tip Radial Distortion

INLET											
	PCT SPAN	96.61	91.52	86.39	70.81	49.79	28.83	13.41	8.35	3.34	PCT SPAN
	DIA	33.138	33.570	34.006	35.328	37.113	38.892	40.202	40.631	41.056	DIA
	BETA 0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 0
	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
	V 0	260.74	260.74	260.74	260.74	260.74	260.74	260.74	260.74	260.74	V 0
	V 1	295.34	321.85	328.28	330.49	319.46	249.59	203.84	195.26	186.58	V 1
	VZ 0	260.74	260.74	260.74	260.74	260.72	260.69	260.67	260.66	260.65	VZ 0
	VZ 1	295.34	321.85	328.28	330.48	319.43	249.54	203.79	195.20	186.52	VZ 1
	V-THETA 0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 0
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	M 0	0.2348	0.2348	0.2348	0.2348	0.2348	0.2348	0.2348	0.2348	0.2348	M 0
	M 1	0.2664	0.2907	0.2966	0.2987	0.2885	0.2247	0.1832	0.1754	0.1676	M 1
	TURN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	TURN
	UUBAR	0.5312	0.2783	0.2240	0.2421	0.3596	0.9830	1.2540	1.3046	1.3534	UUBAR
	DFAC	-0.133	-0.234	-0.259	-0.267	-0.225	0.043	0.218	0.251	0.284	DFAC
	EFFP	0.3512	0.6580	0.7278	0.7194	0.5872	-0.0936	-0.4484	-0.5054	-0.5603	EFFP
	INCID	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	INCID
	DEVM	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000	DEVM
	P 0	15.027	15.027	15.027	15.027	15.027	15.027	15.027	15.027	15.027	P 0
	P 1	14.726	14.869	14.900	14.890	14.923	14.470	14.317	14.288	14.261	P 1
	T 0	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 0
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
ROTOR B	PCT SPAN	95.00	90.01	85.00	70.01	50.02	30.02	15.01	10.00	4.98	PCT SPAN
	DIA	33.235	33.621	34.006	35.163	36.705	38.247	39.405	39.791	40.178	DIA
ROTOR -L.E.	BETA 1	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	BETA 1
ROTOR -T.E.	BETA 2	48.282	45.813	42.240	38.664	38.952	43.760	55.067	61.267	65.991	BETA 2
	BETA(PR) 1	54.018	52.025	51.817	52.660	54.969	62.472	67.626	68.683	69.738	BETA(PR) 1
	BETA(PR) 2	23.966	26.009	26.893	28.112	30.617	34.968	41.869	44.159	46.313	BETA(PR) 2
	V 1	309.81	337.26	344.05	346.40	334.08	260.21	212.46	203.58	194.62	V 1
	V 2	410.56	409.46	417.86	434.58	434.21	411.86	380.93	381.54	386.42	V 2
	VZ 1	309.80	337.26	344.06	346.36	333.92	259.91	212.07	203.16	194.17	VZ 1
	VZ 2	273.21	285.39	309.36	339.28	337.50	297.18	217.93	183.29	157.13	VZ 2
	V-THETA 1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	V-THETA 1
	V-THETA 2	306.45	293.61	280.90	271.47	272.83	284.59	312.01	334.32	352.78	V-THETA 2
	V(PR) 1	527.3	548.1	556.6	571.1	581.8	562.5	557.3	559.0	560.8	V(PR) 1
	V(PR) 2	299.0	317.6	346.9	384.7	392.4	363.1	293.1	255.9	227.9	V(PR) 2
	VTHETA PR1	-426.7	-432.1	-437.5	-454.0	-476.3	-498.7	-515.2	-520.6	-526.0	VTHETA PR1
	VTHETA PR2	-121.4	-139.3	-156.9	-191.3	-199.7	-207.8	-195.3	-178.0	-164.5	VTHETA PR2
	U 1	426.68	432.07	437.50	454.01	476.33	498.68	515.19	520.62	525.99	U 1
	U 2	427.90	432.86	437.83	452.72	472.57	492.42	507.33	512.30	517.28	U 2
	M 1	0.2797	0.3049	0.3112	0.3133	0.3020	0.2344	0.1910	0.1830	0.1749	M 1
	M 2	0.3645	0.3642	0.3722	0.3877	0.3873	0.3662	0.3373	0.3375	0.3415	M 2
	M(PR) 1	0.4760	0.4955	0.5034	0.5165	0.5259	0.5066	0.5010	0.5024	0.5039	M(PR) 1
	M(PR) 2	0.2655	0.2824	0.3090	0.3433	0.3500	0.3229	0.2595	0.2264	0.2014	M(PR) 2
	TURN(PR)	30.051	26.016	24.920	24.550	24.360	27.527	25.800	24.574	23.484	TURN(PR)
	UUBAR	0.1772	0.1969	0.1469	0.0762	0.0786	0.0776	0.2177	0.2851	0.3250	UUBAR
	LOSS PARA	0.0445	0.0493	0.0369	0.0197	0.0208	0.0205	0.0541	0.0690	0.0765	LOSS PARA
	DFAC	0.5921	0.5700	0.5191	0.4651	0.4691	0.5167	0.6594	0.7423	0.8062	DFAC
	EFFP	0.7731	0.7706	0.8328	0.9332	0.9598	0.9817	0.8697	0.8484	0.8336	EFFP
	EFF	0.7693	0.7670	0.8301	0.9320	0.9591	0.9813	0.8671	0.8453	0.8301	EFF
	INCID	2.176	-0.253	-0.873	-1.397	-1.094	4.415	8.195	8.821	9.099	INCID
	DEVM	16.217	16.711	15.978	12.409	9.929	10.102	14.311	16.019	17.429	DEVM
	P 1	14.726	14.869	14.900	14.890	14.923	14.470	14.317	14.288	14.261	P 1
	P 2	16.577	16.582	16.664	16.833	16.853	16.669	16.444	16.454	16.505	P 2
	T 1	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	518.700	T 1
	T 2	541.900	540.100	539.000	538.550	538.900	540.500	542.850	543.950	545.350	T 2
STATOR B	PCT SPAN	95.05	90.12	85.15	70.15	50.00	29.85	14.84	9.88	4.94	PCT SPAN
	DIA	33.203	33.556	33.910	34.981	36.420	37.859	38.930	39.285	39.637	DIA
STATOR-L.E.	BETA 2	47.962	45.379	41.865	38.443	39.566	43.308	54.248	60.154	64.532	BETA 2
STATOR-T.E.	BETA 2A	4.350	4.700	6.449	7.450	7.501	7.602	7.502	7.453	6.503	BETA 2A
	V 2	413.34	412.65	421.11	437.09	437.52	416.06	385.68	386.66	392.00	V 2
	V 2A	291.67	303.67	321.38	343.95	361.23	345.38	323.92	311.80	293.04	V 2A
	VZ 2	277.32	289.85	313.60	342.29	341.45	302.50	225.16	192.29	168.47	VZ 2
	VZ 2A	280.86	302.65	319.34	341.00	358.00	342.06	320.75	308.74	290.70	VZ 2A
	V-THETA 2	306.50	293.71	281.04	271.71	273.22	285.14	312.74	335.15	353.71	V-THETA 2
	V-THETA 2A	21.36	24.88	36.10	44.59	47.14	45.65	42.24	40.39	33.14	V-THETA 2A
	M 2	0.3671	0.3671	0.3752	0.3900	0.3903	0.3701	0.3416	0.3421	0.3465	M 2
	M 2A	0.2484	0.2685	0.2847	0.3052	0.3207	0.3059	0.2859	0.2748	0.2577	M 2A
	TURN(PR)	43.511	40.579	35.415	30.997	31.147	35.666	46.689	52.644	57.971	TURN(PR)
	UUBAR	0.1805	0.1041	0.0795	0.0915	0.0304	-0.0102	-0.0401	0.0359	0.1438	UUBAR
	LOSS PARA	0.0582	0.0339	0.0260	0.0307	0.0106	-0.0037	-0.0150	0.0136	0.0552	LOSS PARA
	DFAC	0.5419	0.4769	0.4286	0.3896	0.3571	0.3821	0.4270	0.4869	0.5705	DFAC
	EFFP	0.6777	0.7837	0.8193	0.7729	0.9101	1.0311	1.1296	0.9019	0.6875	EFFP
	INCID	0.891	-0.822	-3.605	-5.232	-3.585	0.908	10.878	16.233	20.010	INCID
	DEVM	17.381	17.554	19.183	19.783	19.618	20.303	21.003	21.251	20.645	DEVM
	P 2	16.577	16.582	16.664	16.833	16.853	16.669	16.444	16.454	16.505	P 2
	P 2A	16.311	16.429	16.541	16.679	16.802	16.684	16.495	16.408	16.316	P 2A
	T 2	541.900	540.100	539.000	538.550	538.900	540.500	542.850	543.950	545.350	T 2
	T 2A	541.900	540.100	539.000	538.550	538.900	540.500	542.850	543.950	545.350	T 2A
	UUBAR FS		0.1418	0.0810	0.0802	0.0562	0.0718	0.0910	0.0852		UUBAR FS
	P2 FS		16.651	16.672	16.818	16.905	16.807	16.633	16.529		P2 FS
	LOSS PARA FS		0.0460	0.0265	0.0269	0.0196	0.0260	0.0340	0.0323		LOSS PARA FS

Table A-7. Overall Performance - Stage B, Circumferential Distortion

Corrected Weight Flow, lb/sec	ROTOR $\bar{P}_2/\bar{P}_1$	ROTOR η_{ad}	ROTOR η_p	STAGE P_{2A}/P_1	STAGE η_{ad}	STAGE η_p
			100% Design Equivalent Rotor Speed			
111.22	1.2228	0.7721	0.7783	1.2029	0.7045	0.7118
*100.04	1.2912	0.8755	0.8800	1.2705	0.8169	0.8230
* 91.58	1.3074	0.7923	0.8000	1.2756	0.7157	0.7252
			90% Design Equivalent Rotor Speed			
103.98	1.1882	0.8346	0.8386	1.1709	0.7603	0.7655
93.90	1.2236	0.8685	0.8721	1.2115	0.8233	0.8280
*80.69	1.2467	0.8259	0.8313	1.2255	0.7596	0.7665
			70% Design Equivalent Rotor Speed			
83.92	1.1120	0.8144	0.8172	1.1020	0.7427	0.7461
75.20	1.1303	0.8677	0.8700	1.1242	0.8272	0.8300
61.87	1.1493	0.8517	0.8546	1.1357	0.7771	0.7811

*Data taken at multiple screen positions.

Table A-8. Blade Element Performance
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station 1 (16°) - Station 2 (6°) - Station 2A (355°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.234	33.617	34.001	35.152	36.666	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-3.196	-3.328	-3.460	-3.215	-2.653	-3.288	-2.498	-2.403	-1.117	BETA 1
STATION 2	BETA 2	62.637	62.543	62.354	52.700	50.041	48.998	49.807	52.337	57.133	BETA 2
	BETA(PR) 1	62.274	61.159	61.620	61.278	62.177	63.457	63.343	64.332	65.533	BETA(PR) 1
	BETA(PR) 2	19.719	20.946	27.355	29.677	31.040	34.185	38.960	41.902	45.673	BETA(PR) 2
	V 1	331.63	352.89	350.89	368.67	370.17	368.92	380.36	367.36	347.26	V 1
	V 2	582.33	587.53	557.14	568.52	587.20	587.90	565.57	548.00	531.16	V 2
	VZ 1	331.10	352.29	350.25	368.07	369.67	368.05	379.57	366.57	346.70	VZ 1
	VZ 2	267.65	270.90	258.52	344.48	376.99	385.41	364.58	334.45	287.96	VZ 2
	V-THETA 1	-18.49	-20.49	-21.18	-20.67	-17.13	-21.14	-16.56	-15.38	-6.76	V-THETA 1
	V-THETA 2	517.17	521.35	493.53	452.20	449.93	443.33	431.53	433.31	445.68	V-THETA 2
	V(PR) 1	711.7	730.3	736.9	765.9	792.1	823.7	846.2	846.5	837.3	V(PR) 1
	V(PR) 2	284.3	288.4	291.1	396.6	440.3	466.5	469.6	450.1	412.8	V(PR) 2
	VTHETA PR1	-630.3	-639.7	-648.3	-671.7	-700.4	-736.8	-756.1	-762.8	-761.9	VTHETA PR1
	VTHETA PR2	-95.9	-98.8	-133.7	-196.3	-226.9	-261.8	-294.8	-300.1	-294.8	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	683.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.10	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.2997	0.3193	0.3175	0.3339	0.3353	0.3341	0.3447	0.3327	0.3141	M 1
	M 2	0.5121	0.5171	0.4893	0.4997	0.5158	0.5160	0.4931	0.4775	0.4627	M 2
	M(PR) 1	0.6432	0.6608	0.6667	0.6937	0.7174	0.7461	0.7669	0.7666	0.7574	M(PR) 1
	M(PR) 2	0.2500	0.2538	0.2556	0.3486	0.3868	0.4094	0.4094	0.3922	0.3596	M(PR) 2
	TURN(PR)	42.554	41.113	34.255	31.606	31.151	29.304	24.433	22.489	19.927	TURN(PR)
	P 1	13.742	13.857	13.825	13.834	13.809	13.815	13.902	13.815	13.693	P 1
	P 2	18.234	18.315	18.025	18.297	18.652	18.856	18.668	18.506	18.358	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	566.453	565.928	565.403	565.528	568.038	568.999	574.224	573.076	571.928	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.96	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	62.637	62.543	62.354	52.700	50.041	48.998	49.807	52.337	57.133	BETA 2
STATION 2A	BETA 2A	-2.190	-0.723	3.125	6.041	8.626	8.633	8.644	7.495	4.629	BETA 2A
	V 2	582.33	587.53	557.14	568.52	587.20	587.90	565.57	548.00	531.16	V 2
	V 2A	193.20	223.87	234.07	305.33	402.22	463.69	476.22	462.43	443.19	V 2A
	VZ 2	267.65	270.90	258.52	344.48	376.99	385.41	364.58	334.45	287.96	VZ 2
	VZ 2A	193.06	223.86	233.72	303.61	397.56	458.18	470.42	458.05	441.28	VZ 2A
	V-THETA 2	517.17	521.35	493.53	452.20	449.93	443.33	431.53	433.31	445.68	V-THETA 2
	V-THETA 2A	-7.38	-2.82	12.76	32.13	60.31	69.56	71.51	60.26	35.73	V-THETA 2A
	M 2	0.5121	0.5171	0.4893	0.4997	0.5158	0.5160	0.4931	0.4775	0.4627	M 2
	M 2A	0.1657	0.1922	0.2011	0.2631	0.3477	0.4020	0.4114	0.3994	0.3826	M 2A
	TURN(PR)	64.827	63.266	59.228	46.653	41.393	40.319	41.093	44.764	52.419	TURN(PR)
	P 2	18.284	18.315	18.025	18.297	18.652	18.856	18.668	18.506	18.358	P 2
	P 2A	17.009	17.040	17.072	17.423	18.083	18.691	18.750	18.595	18.440	P 2A
	T 2	566.453	565.928	565.403	565.528	568.038	568.999	574.224	573.076	571.928	T 2
	T 2A	569.028	568.621	568.213	568.232	570.398	571.511	576.458	575.642	574.827	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station 1 (46°) - Station 2 (36°) - Station 2A (25°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.733	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	7.059	6.356	5.655	4.873	4.441	4.540	4.607	4.864	5.154	BETA 1
STATION 2	BETA 2	53.739	51.039	47.232	43.371	42.813	42.804	42.674	45.537	48.451	BETA 2
	BETA(PR) 1	53.795	52.282	51.818	51.190	53.054	54.642	56.924	57.558	59.409	BETA(PR) 1
	BETA(PR) 2	25.420	29.946	28.982	28.833	31.682	35.148	36.880	38.294	44.331	BETA(PR) 2
	V 1	413.56	443.67	459.79	491.82	487.15	482.57	459.64	452.89	426.16	V 1
	V 2	563.81	544.11	565.01	596.74	597.98	590.10	591.66	579.83	531.11	V 2
	VZ 1	410.41	449.93	457.56	490.02	485.55	480.72	457.64	450.69	423.84	VZ 1
	VZ 2	333.47	342.13	383.65	433.73	438.46	432.53	434.36	405.53	351.74	VZ 2
	V-THETA 1	50.81	49.12	43.31	41.78	37.71	38.17	36.88	38.35	38.23	V-THETA 1
	V-THETA 2	454.62	423.09	414.77	409.74	406.20	400.58	400.45	413.21	396.88	V-THETA 2
	V(PR) 1	694.8	720.7	740.2	781.9	807.9	830.9	838.8	840.4	833.2	V(PR) 1
	V(PR) 2	369.2	394.8	438.6	495.2	515.6	529.6	544.0	517.7	492.6	V(PR) 2
	VTHETA PR1	-560.6	-570.1	-581.8	-609.2	-645.6	-677.5	-702.7	-709.0	-716.9	VTHETA PR1
	VTHETA PR2	-158.5	-197.1	-212.5	-238.8	-270.6	-304.5	-325.9	-320.2	-343.6	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	683.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.19	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.3756	0.4038	0.4190	0.4494	0.4449	0.4406	0.4189	0.4125	0.3874	M 1
	M 2	0.4986	0.4809	0.5008	0.5316	0.5327	0.5254	0.5255	0.5137	0.4679	M 2
	M(PR) 1	0.6311	0.6561	0.6746	0.7144	0.7379	0.7586	0.7644	0.7655	0.7574	M(PR) 1
	M(PR) 2	0.3265	0.3490	0.3888	0.4411	0.4593	0.4716	0.4831	0.4586	0.4339	M(PR) 2
	TURN(PR)	28.374	22.336	22.936	22.362	21.386	19.524	20.089	19.316	15.141	TURN(PR)
	P 1	14.584	14.813	14.918	15.100	15.086	15.107	15.030	15.003	14.826	P 1
	P 2	18.266	18.050	18.273	18.758	18.941	19.029	19.138	19.021	18.497	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	559.703	557.477	556.251	554.142	554.256	553.905	556.767	558.249	559.730	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	53.739	51.039	47.232	43.371	42.813	42.804	42.674	45.537	48.451	BETA 2
STATION 2A	BETA 2A	0.831	1.814	4.660	6.590	8.048	7.799	8.466	7.874	5.758	BETA 2A
	V 2	563.81	544.11	565.01	596.74	597.98	590.10	591.66	579.83	531.11	V 2
	V 2A	328.11	345.81	350.22	396.72	433.05	448.72	452.87	431.54	399.71	V 2A
	VZ 2	333.47	342.13	383.65	433.73	438.46	432.53	434.36	405.53	351.74	VZ 2
	VZ 2A	328.07	345.63	349.06	394.07	428.67	444.32	447.56	427.07	397.27	VZ 2A
	V-THETA 2	454.62	423.09	414.77	409.74	406.20	400.58	400.45	413.21	396.88	V-THETA 2
	V-THETA 2A	4.76	10.95	28.45	45.53	60.61	60.86	66.62	59.06	40.06	V-THETA 2A
	M 2	0.4986	0.4809	0.5008	0.5316	0.5327	0.5254	0.5255	0.5137	0.4679	M 2
	M 2A	0.2852	0.3013	0.3056	0.3476	0.3801	0.3943	0.3970	0.3773	0.3484	M 2A
	TURN(PR)	52.908	49.225	42.571	36.775	34.743	34.958	34.138	37.583	42.602	TURN(PR)
	P 2	18.266	18.050	18.273	18.758	18.941	19.029	19.138	19.021	18.497	P 2
	P 2A	17.707	17.738	17.768	18.120	18.455	18.617	18.593	18.350	18.105	P 2A
	T 2	558.703	557.477	556.251	554.142	554.256	553.905	556.767	558.249	559.730	T 2
	T 2A	559.501	558.274	556.948	555.230	555.811	555.867	558.650	559.848	561.045	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station 1 (76°) - Station 2 (66°) - Station 2A (55°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	1.248	0.725	0.203	-0.332	-0.009	0.915	-1.568	1.217	3.978	BETA 1
STATION 2	BETA 2	49.504	47.958	43.247	39.251	39.256	38.820	39.456	42.225	46.006	BETA 2
	BETA(PR) 1	53.627	52.383	53.278	53.312	55.125	56.276	59.274	59.622	63.191	BETA(PR) 1
	BETA(PR) 2	24.903	26.323	26.620	27.244	30.859	34.104	35.989	38.139	42.146	BETA(PR) 2
	V 1	443.37	472.61	466.60	487.17	476.44	473.08	447.50	433.35	370.07	V 1
	V 2	577.35	577.48	597.28	628.82	618.15	611.44	608.18	586.08	550.23	V 2
	VZ 1	443.25	472.56	466.59	487.14	476.30	472.69	446.83	432.71	368.66	VZ 1
	VZ 2	374.93	386.72	435.06	486.88	478.40	475.86	468.82	433.27	381.55	VZ 2
	V-THETA 1	9.66	5.98	1.65	-2.82	-0.07	7.55	-12.23	9.19	25.64	V-THETA 1
	V-THETA 2	439.04	428.86	409.22	397.81	390.96	382.68	385.86	393.21	395.19	V-THETA 2
	V(PR) 1	747.4	774.2	780.3	815.4	833.1	851.6	874.8	855.9	817.6	V(PR) 1
	V(PR) 2	413.4	431.5	486.7	547.7	557.7	575.4	580.4	551.9	515.6	V(PR) 2
	VTHETA PR1	-601.8	-613.3	-625.5	-653.8	-683.4	-708.1	-751.8	-738.2	-729.5	VTHETA PR1
	VTHETA PR2	-174.1	-191.3	-218.1	-250.7	-285.9	-322.2	-340.5	-340.2	-345.3	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	683.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.10	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.4036	0.4311	0.4254	0.4449	0.4348	0.4316	0.4074	0.3942	0.3352	M 1
	M 2	0.5097	0.5101	0.5287	0.5591	0.5488	0.5428	0.5374	0.5165	0.4832	M 2
	M(PR) 1	0.6803	0.7063	0.7115	0.7447	0.7602	0.7769	0.7965	0.7785	0.7406	M(PR) 1
	M(PR) 2	0.3657	0.3811	0.4308	0.4870	0.4951	0.5109	0.5129	0.4864	0.4527	M(PR) 2
	TURN(PR)	23.723	26.060	26.658	26.072	24.280	22.201	23.331	21.537	21.110	TURN(PR)
	P 1	14.852	15.086	15.027	15.118	15.098	15.066	14.981	14.906	14.507	P 1
	P 2	18.498	18.529	18.753	19.267	19.323	19.390	19.399	19.132	18.661	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	561.657	561.218	560.780	559.292	559.771	559.125	563.820	564.376	564.932	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.234	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	49.504	47.958	43.247	39.251	39.256	38.820	39.456	42.225	46.006	BETA 2
STATION 2A	BETA 2A	3.319	4.131	5.137	7.119	7.515	7.111	8.239	8.178	6.926	BETA 2A
	V 2	577.35	577.48	597.28	628.82	618.15	611.44	608.18	586.08	550.23	V 2
	V 2A	362.85	393.50	420.03	464.67	497.59	504.84	507.88	487.80	462.12	V 2A
	VZ 2	374.93	386.72	435.06	486.88	478.40	475.86	468.82	433.27	381.55	VZ 2
	VZ 2A	362.25	392.48	417.62	461.05	493.18	500.68	502.21	482.39	458.26	VZ 2A
	V-THETA 2	439.04	428.86	409.22	397.81	390.96	382.88	385.86	393.21	395.19	V-THETA 2
	V-THETA 2A	21.01	28.35	44.90	57.58	65.06	62.46	72.72	69.32	55.67	V-THETA 2A
	M 2	0.5097	0.5101	0.5287	0.5591	0.5488	0.5428	0.5374	0.5165	0.4832	M 2
	M 2A	0.3158	0.3432	0.3672	0.4081	0.4380	0.4449	0.4459	0.4273	0.4038	M 2A
	TURN(PR)	46.185	43.827	37.109	32.126	31.719	31.662	31.147	33.968	38.989	TURN(PR)
	P 2	18.498	18.529	18.753	19.267	19.323	19.390	19.399	19.132	18.661	P 2
	P 2A	17.884	18.113	18.341	18.741	19.089	19.105	19.027	18.761	18.494	P 2A
	T 2	561.657	561.218	560.780	559.292	559.771	559.125	563.820	564.376	564.932	T 2
	T 2A	560.507	559.889	559.272	557.466	557.741	557.071	561.362	562.168	562.974	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station 1 (106°) - Station 2 (96°) - Station 2A (85°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.234	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	0.578	0.776	0.975	0.952	1.238	1.234	0.491	0.215	0.974	BETA 1
STATION 2	BETA 2	43.483	45.756	43.120	38.640	37.962	37.756	38.951	41.073	46.263	BETA 2
	BETA(PR) 1	56.261	54.444	53.379	52.883	54.416	56.077	57.630	58.860	59.888	BETA(PR) 1
	BETA(PR) 2	27.018	30.748	28.611	28.919	32.321	35.523	37.366	39.141	40.542	BETA(PR) 2
	V 1	465.69	438.42	460.35	486.63	481.72	474.89	466.78	451.12	434.37	V 1
	V 2	564.16	548.14	579.92	614.24	607.89	599.89	595.12	578.23	564.53	V 2
	VZ 1	405.56	438.38	460.28	486.54	481.47	474.45	466.24	450.54	433.69	VZ 1
	VZ 2	373.95	382.45	423.29	479.70	479.02	473.75	462.05	435.16	389.65	VZ 2
	V-THETA 1	4.09	5.94	7.83	8.09	10.41	10.22	4.00	1.69	7.37	V-THETA 1
	V-THETA 2	422.42	392.68	396.39	383.49	373.74	366.90	373.51	379.25	407.21	V-THETA 2
	V(PR) 1	730.4	753.9	771.6	806.3	827.5	850.3	871.1	871.5	864.8	V(PR) 1
	V(PR) 2	419.8	445.0	482.2	548.1	567.2	582.8	582.4	562.1	513.8	V(PR) 2
	VTHETA PR1	-607.4	-613.3	-619.3	-642.9	-672.9	-705.4	-735.5	-745.7	-747.8	VTHETA PR1
	VTHETA PR2	-190.7	-227.5	-230.9	-265.6	-303.1	-338.2	-352.8	-354.2	-333.3	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	693.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.19	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.3683	0.3999	0.4196	0.4444	0.4398	0.4333	0.4256	0.4109	0.3951	M 1
	M 2	0.4973	0.4830	0.5131	0.5456	0.5391	0.5315	0.5258	0.5093	0.4958	M 2
	M(PR) 1	0.6831	0.6859	0.7032	0.7364	0.7554	0.7759	0.7943	0.7937	0.7866	M(PR) 1
	M(PR) 2	0.3700	0.3922	0.4266	0.4869	0.5030	0.5163	0.5145	0.4951	0.4512	M(PR) 2
	TURN(PR)	20.242	23.696	24.769	23.969	22.110	20.584	20.310	19.772	19.408	TURN(PR)
	P 1	14.581	14.810	14.976	15.126	15.157	15.053	15.079	14.982	14.881	P 1
	P 2	18.542	18.412	18.798	19.313	19.413	19.470	19.474	19.276	19.074	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	562.164	560.922	559.680	558.960	559.862	560.219	562.665	564.340	566.014	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.06	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.234	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	48.483	45.756	43.120	38.640	37.962	37.756	38.951	41.073	46.263	BETA 2
STATION 2A	BETA 2A	2.928	4.519	6.622	7.318	7.364	7.206	7.993	8.049	7.545	BETA 2A
	V 2	564.16	548.14	579.92	614.24	607.89	599.89	595.12	578.23	564.53	V 2
	V 2A	438.35	452.74	469.14	507.65	539.03	548.05	548.54	530.74	508.74	V 2A
	VZ 2	373.95	382.45	423.29	479.70	479.02	473.75	462.05	435.16	389.65	VZ 2
	VZ 2A	437.78	451.34	466.01	503.48	534.44	543.41	542.76	525.02	503.80	VZ 2A
	V-THETA 2	422.42	392.68	396.39	383.49	373.74	366.90	373.51	379.25	407.21	V-THETA 2
	V-THETA 2A	22.39	35.67	54.10	64.66	69.07	68.71	76.21	74.24	66.73	V-THETA 2A
	M 2	0.4973	0.4830	0.5131	0.5456	0.5391	0.5315	0.5258	0.5093	0.4958	M 2
	M 2A	0.3826	0.3960	0.4113	0.4466	0.4751	0.4833	0.4826	0.4656	0.4449	M 2A
	TURN(PR)	45.555	41.237	36.497	31.316	30.576	30.504	30.889	32.945	38.628	TURN(PR)
	P 2	18.548	18.412	18.798	19.313	19.413	19.470	19.474	19.276	19.074	P 2
	P 2A	18.353	18.496	18.639	19.045	19.373	19.448	19.333	19.053	18.774	P 2A
	T 2	562.164	560.922	559.680	558.960	559.862	560.219	562.665	564.340	566.014	T 2
	T 2A	562.364	561.111	559.857	559.128	560.015	560.263	562.795	564.256	565.716	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station 1 (136°) - Station 2 (126°) - Station 2A (115°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.091	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-0.519	-0.903	-1.188	-0.246	-0.206	-1.018	-1.334	0.522	2.435	BETA 1
STATION 2	BETA 2	48.458	46.482	42.939	39.967	39.019	38.673	38.939	41.291	46.208	BETA 2
	BETA(PR) 1	55.168	54.271	54.265	54.885	55.581	57.520	60.130	61.233	65.008	BETA(PR) 1
	BETA(PR) 2	25.612	28.434	26.956	27.912	31.297	35.339	37.558	40.669	44.406	BETA(PR) 2
	V 1	428.75	450.62	458.15	459.21	469.51	461.19	431.10	408.80	345.98	V 1
	V 2	574.94	564.83	595.41	618.69	614.54	598.99	593.15	562.78	529.91	V 2
	VZ 1	428.71	450.56	458.05	459.18	469.37	460.79	430.50	408.27	345.17	VZ 1
	VZ 2	381.28	388.93	435.89	474.11	477.21	467.13	460.60	422.12	366.12	VZ 2
	V-THETA 1	-4.63	-7.10	-9.50	-1.97	-1.69	-8.19	-10.02	3.72	14.68	V-THETA 1
	V-THETA 2	430.32	409.59	405.60	397.36	386.70	373.88	372.17	370.73	381.89	V-THETA 2
	V(PR) 1	750.6	771.6	784.3	798.3	830.5	858.2	864.6	848.6	817.2	V(PR) 1
	V(PR) 2	422.8	442.3	489.0	536.6	558.8	573.3	582.0	557.5	513.4	V(PR) 2
	VTHETA PR1	-616.1	-626.3	-636.6	-653.0	-685.0	-723.8	-749.6	-743.7	-740.5	VTHETA PR1
	VTHETA PR2	-187.8	-210.6	-221.7	-251.2	-290.1	-331.2	-354.2	-362.7	-358.6	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	683.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.10	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.3898	0.4104	0.4175	0.4185	0.4282	0.4203	0.3920	0.3712	0.3129	M 1
	M 2	0.5077	0.4987	0.5275	0.5498	0.5456	0.5309	0.5236	0.4948	0.4639	M 2
	M(PR) 1	0.6825	0.7027	0.7147	0.7275	0.7574	0.7822	0.7863	0.7705	0.7391	M(PR) 1
	M(PR) 2	0.3734	0.3905	0.4332	0.4769	0.4961	0.5082	0.5138	0.4901	0.4495	M(PR) 2
	TURN(PR)	29.555	25.337	27.310	26.978	24.298	22.212	22.619	20.620	20.669	TURN(PR)
	P 1	14.845	15.014	15.039	15.038	15.099	15.062	14.858	14.716	14.338	P 1
	P 2	18.701	18.590	18.961	19.363	19.492	19.444	19.376	19.114	18.854	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	561.182	560.509	559.836	558.815	559.526	559.597	563.349	564.842	566.334	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	48.458	46.482	42.939	39.967	39.019	38.673	38.939	41.291	46.208	BETA 2
STATION 2A	BETA 2A	2.491	4.703	6.914	7.451	7.340	7.328	7.892	7.960	7.881	BETA 2A
	V 2	574.94	564.83	595.41	618.69	614.54	598.99	593.15	562.78	529.91	V 2
	V 2A	387.02	417.03	445.02	486.04	521.57	525.87	524.48	509.62	496.46	V 2A
	VZ 2	381.28	388.93	435.89	474.11	477.21	467.13	460.60	422.12	366.12	VZ 2
	VZ 2A	386.66	415.63	441.78	481.89	517.16	521.27	519.07	504.23	491.25	VZ 2A
	V-THETA 2	430.32	409.59	405.60	397.36	386.70	373.88	372.17	370.73	381.89	V-THETA 2
	V-THETA 2A	16.82	34.19	53.57	63.02	66.62	67.04	71.95	70.51	68.00	V-THETA 2A
	M 2	0.5077	0.4987	0.5275	0.5498	0.5456	0.5309	0.5236	0.4948	0.4639	M 2
	M 2A	0.3370	0.3640	0.3895	0.4270	0.4592	0.4631	0.4603	0.4461	0.4335	M 2A
	TURN(PR)	45.967	41.779	36.024	32.510	31.657	31.299	30.978	33.252	38.237	TURN(PR)
	P 2	18.701	18.590	18.961	19.363	19.492	19.444	19.376	19.114	18.854	P 2
	P 2A	18.116	18.353	18.589	19.009	19.375	19.397	19.257	19.021	18.784	P 2A
	T 2	561.182	560.509	559.836	558.815	559.526	559.597	563.349	564.842	566.334	T 2
	T 2A	561.448	560.657	559.864	558.960	559.609	559.744	563.174	564.762	566.350	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station 1 (166°) - Station 2 (156°) - Station 2A (145°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	1.408	1.406	1.503	1.351	0.870	0.682	0.293	0.170	0.045	BETA 1
STATION 2	BETA 2	47.797	45.055	41.488	37.878	37.094	37.308	37.530	39.974	43.655	BETA 2
	BETA(PR) 1	53.819	52.918	52.918	52.768	55.113	56.614	58.207	58.146	58.072	BETA(PR) 1
	BETA(PR) 2	29.161	31.069	30.773	29.932	32.780	35.782	37.510	39.159	41.015	BETA(PR) 2
	V 1	440.00	459.65	464.92	486.18	471.65	468.33	457.47	464.10	471.00	V 1
	V 2	549.57	547.19	565.87	607.06	606.36	598.55	597.40	580.12	562.17	V 2
	VZ 1	439.87	459.51	464.76	486.02	471.46	467.97	456.96	463.51	470.33	VZ 1
	VZ 2	369.18	386.55	423.88	479.09	483.40	475.54	472.95	443.76	406.01	VZ 2
	V-THETA 1	10.04	11.28	12.19	11.46	7.16	5.57	2.34	1.38	0.37	V-THETA 1
	V-THETA 2	407.11	387.29	374.86	372.67	365.51	362.37	363.30	372.02	387.38	V-THETA 2
	V(PR) 1	745.1	762.1	770.8	803.3	824.4	850.6	867.6	878.6	889.7	V(PR) 1
	V(PR) 2	422.8	451.3	493.4	552.9	575.3	586.9	597.2	573.4	539.1	V(PR) 2
	VTHETA PR1	-601.4	-608.0	-614.9	-639.6	-676.2	-710.1	-737.2	-746.0	-754.8	VTHETA PR1
	VTHETA PR2	-206.0	-232.9	-252.4	-275.8	-311.3	-342.7	-363.0	-361.4	-353.1	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	683.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.16	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.4004	0.4189	0.4239	0.4440	0.4302	0.4271	0.4168	0.4231	0.4296	M 1
	M 2	0.4838	0.4822	0.5002	0.5388	0.5377	0.5302	0.5282	0.5111	0.4936	M 2
	M(PR) 1	0.6781	0.6945	0.7027	0.7336	0.7520	0.7757	0.7905	0.8010	0.8115	M(PR) 1
	M(PR) 2	0.3722	0.3977	0.4361	0.4908	0.5102	0.5199	0.5280	0.5052	0.4734	M(PR) 2
	TURN(PR)	24.657	21.849	22.146	22.841	22.348	20.863	20.743	19.041	17.118	TURN(PR)
	P 1	14.840	15.001	15.050	15.169	15.092	15.082	15.044	15.100	15.150	P 1
	P 2	18.417	18.402	18.610	19.216	19.379	19.423	19.447	19.313	19.179	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	562.176	560.748	559.320	558.958	559.828	560.169	562.149	564.110	566.072	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	47.797	45.055	41.488	37.878	37.094	37.308	37.530	39.974	43.655	BETA 2
STATION 2A	BETA 2A	2.753	4.931	7.084	7.649	7.742	7.433	8.434	8.314	7.688	BETA 2A
	V 2	549.57	547.19	565.87	607.06	606.36	598.55	597.40	580.12	562.17	V 2
	V 2A	416.24	433.37	448.95	489.69	521.24	532.93	533.87	510.09	488.84	V 2A
	VZ 2	369.18	386.55	423.88	479.09	483.40	475.54	472.95	443.76	406.01	VZ 2
	VZ 2A	415.76	431.77	445.52	485.30	516.35	528.15	527.66	504.25	483.93	VZ 2A
	V-THETA 2	407.11	387.29	374.86	372.67	365.51	362.37	363.30	372.02	387.38	V-THETA 2
	V-THETA 2A	19.99	37.25	55.37	65.18	70.20	68.90	78.24	73.69	65.33	V-THETA 2A
	M 2	0.4838	0.4822	0.5002	0.5388	0.5377	0.5302	0.5282	0.5111	0.4936	M 2
	M 2A	0.3638	0.3789	0.3934	0.4304	0.4588	0.4693	0.4691	0.4468	0.4270	M 2A
	TURN(PR)	45.044	40.124	34.403	30.223	29.331	29.829	29.628	31.582	35.877	TURN(PR)
	P 2	18.417	18.402	18.610	19.216	19.379	19.423	19.447	19.313	19.179	P 2
	P 2A	18.319	18.458	18.599	19.016	19.355	19.464	19.343	19.037	18.731	P 2A
	T 2	562.176	560.748	559.320	558.958	559.828	560.169	562.149	564.110	566.072	T 2
	T 2A	561.649	560.229	558.809	558.709	559.713	560.246	562.705	564.011	565.318	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station 1 (196°) - Station 2 (186°) - Station 2A (175°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-1.348	-0.497	0.347	-0.654	-0.032	-0.834	-0.640	0.894	2.428	BETA 1
STATION 2	BETA 2	48.333	47.162	43.504	39.278	38.896	38.557	38.792	40.659	45.837	BETA 2
	BETA(PR) 1	54.922	53.906	53.695	54.110	55.370	56.857	59.346	60.784	62.522	BETA(PR) 1
	BETA(PR) 2	26.973	28.238	27.979	29.313	32.033	35.803	38.550	40.725	45.066	BETA(PR) 2
	V 1	436.73	454.36	458.71	475.06	472.24	472.17	441.75	414.93	385.16	V 1
	V 2	572.39	564.61	584.21	607.46	607.39	594.51	583.16	563.15	523.94	V 2
	VZ 1	436.57	454.34	458.71	475.01	472.11	471.79	441.23	414.35	384.27	VZ 1
	VZ 2	380.15	383.89	423.74	470.16	472.48	464.39	453.78	426.46	366.42	VZ 2
	V-THETA 1	-15.21	-3.94	2.78	-5.42	-0.26	-6.87	-4.93	6.47	16.29	V-THETA 1
	V-THETA 2	427.91	414.02	402.17	384.52	381.19	370.15	364.75	366.28	375.23	V-THETA 2
	V(PR) 1	759.7	771.2	774.7	810.3	830.8	863.1	865.6	849.2	833.1	V(PR) 1
	V(PR) 2	422.9	435.8	479.8	539.3	557.7	573.3	581.2	563.7	516.9	V(PR) 2
	VTHETA PR1	-621.7	-623.2	-624.3	-656.4	-683.6	-722.5	-744.5	-740.9	-738.9	VTHETA PR1
	VTHETA PR2	-185.2	-206.2	-225.1	-264.3	-295.6	-335.9	-361.6	-367.1	-365.3	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	683.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.10	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.3973	0.4139	0.4180	0.4335	0.4308	0.4307	0.4020	0.3769	0.3492	M 1
	M 2	0.5044	0.4976	0.5163	0.5388	0.5387	0.5268	0.5154	0.4952	0.4576	M 2
	M(PR) 1	0.6911	0.7026	0.7060	0.7393	0.7579	0.7873	0.7878	0.7714	0.7553	M(PR) 1
	M(PR) 2	0.3726	0.3841	0.4249	0.4784	0.4946	0.5080	0.5137	0.4956	0.4514	M(PR) 2
	TURN(PR)	28.948	25.567	25.717	24.801	23.351	21.084	20.844	20.115	17.521	TURN(PR)
	P 1	14.912	15.024	15.032	15.130	15.109	15.113	14.997	14.796	14.598	P 1
	P 2	18.736	18.631	18.915	19.327	19.514	19.509	19.453	19.217	18.786	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	563.173	562.256	561.339	559.672	559.889	559.390	561.031	564.723	568.416	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.96	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	48.383	47.162	43.504	39.278	38.896	38.557	38.792	40.659	45.837	BETA 2
STATION 2A	BETA 2A	3.190	4.961	6.742	7.283	7.524	7.625	8.226	7.982	7.012	BETA 2A
	V 2	572.39	564.61	584.21	607.46	607.39	594.51	583.16	563.15	523.94	V 2
	V 2A	414.39	438.18	459.46	502.04	534.51	541.19	541.44	529.39	516.31	V 2A
	VZ 2	380.15	383.89	423.74	470.16	472.48	464.39	453.78	426.46	366.42	VZ 2
	VZ 2A	413.45	436.54	456.28	498.94	529.77	536.82	535.42	523.77	511.91	VZ 2A
	V-THETA 2	427.91	414.02	402.17	384.52	381.19	370.15	364.75	366.28	375.23	V-THETA 2
	V-THETA 2A	22.97	37.89	53.94	63.77	69.97	66.15	77.40	73.44	62.96	V-THETA 2A
	M 2	0.5044	0.4976	0.5163	0.5388	0.5387	0.5268	0.5154	0.4952	0.4576	M 2
	M 2A	0.3606	0.3826	0.4021	0.4423	0.4709	0.4772	0.4767	0.4642	0.4508	M 2A
	TURN(PR)	45.203	42.201	36.761	31.989	31.350	31.485	30.497	32.598	38.734	TURN(PR)
	P 2	18.736	18.631	18.915	19.327	19.514	19.509	19.453	19.217	18.786	P 2
	P 2A	19.239	18.441	18.644	19.106	19.456	19.507	19.398	19.189	18.980	P 2A
	T 2	563.173	562.256	561.339	559.672	559.889	559.390	561.031	564.723	568.416	T 2
	T 2A	562.984	561.941	560.897	559.520	559.921	559.613	561.302	564.666	568.029	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station 1(226°) - Station 2 (216°) - Station 2A (205°)

ROTOR B	PCT SPAN	95.21	90.00	84.79	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	0.765	1.224	1.685	1.366	0.960	1.673	0.626	1.428	2.224	BETA 1
STATION 2	BETA 2	50.998	46.508	41.957	37.404	36.604	36.329	36.654	39.622	42.665	BETA 2
	BETA(PR) 1	56.378	54.591	53.551	52.522	54.584	55.434	57.330	57.999	59.406	BETA(PR) 1
	BETA(PR) 2	28.461	31.635	30.812	30.210	33.173	36.045	37.739	38.633	45.106	BETA(PR) 2
	V 1	403.07	433.74	453.54	490.35	480.39	483.90	471.48	460.58	437.43	V 1
	V 2	548.26	539.55	564.06	606.20	604.06	598.90	597.43	586.22	524.01	V 2
	VZ 1	403.02	433.64	453.34	490.18	480.18	483.35	470.92	459.86	436.48	VZ 1
	VZ 2	345.05	371.34	419.46	481.48	484.65	481.93	478.46	450.73	384.60	VZ 2
	V-THETA 1	5.38	9.27	13.34	11.69	8.05	14.12	5.15	11.46	16.95	V-THETA 1
	V-THETA 2	426.07	391.43	377.11	368.17	359.99	354.39	356.03	373.17	354.47	V-THETA 2
	V(PR) 1	727.9	748.4	763.1	805.6	828.7	852.1	872.7	868.1	857.9	V(PR) 1
	V(PR) 2	392.5	436.2	488.4	557.2	579.4	596.7	606.1	578.1	545.9	V(PR) 2
	VTHETA PR1	-606.1	-610.1	-613.8	-639.3	-675.3	-701.5	-734.4	-735.9	-738.2	VTHETA PR1
	VTHETA PR2	-187.0	-228.8	-255.2	-280.3	-316.8	-350.7	-370.3	-360.2	-386.0	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	683.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.10	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.3658	0.3945	0.4131	0.4480	0.4385	0.4418	0.4301	0.4198	0.3980	M 1
	M 2	0.4830	0.4755	0.4988	0.5382	0.5359	0.5309	0.5286	0.5174	0.4593	M 2
	M(PR) 1	0.6606	0.6807	0.6951	0.7360	0.7564	0.7780	0.7960	0.7912	0.7805	M(PR) 1
	M(PR) 2	0.3458	0.3844	0.4319	0.4948	0.5140	0.5290	0.5363	0.5102	0.4785	M(PR) 2
	TURN(PR)	27.917	22.956	22.739	22.317	21.426	19.419	19.638	19.419	14.362	TURN(PR)
	P 1	14.536	14.756	14.858	15.178	15.101	15.146	15.120	15.054	14.896	P 1
	P 2	18.328	18.241	18.548	19.158	19.319	19.425	19.496	19.361	18.660	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	561.256	559.977	558.698	558.509	559.219	559.399	561.290	562.909	564.528	T 2
STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	50.998	46.508	41.957	37.404	36.604	36.329	36.654	39.622	42.665	BETA 2
STATION 2A	BETA 2A	4.254	4.413	4.771	5.034	5.107	4.880	5.354	5.228	4.856	BETA 2A
	V 2	548.26	539.55	564.06	606.20	604.06	598.90	597.43	586.22	524.01	V 2
	V 2A	417.75	429.97	438.50	488.19	523.09	530.68	532.24	503.11	467.83	V 2A
	VZ 2	345.05	371.34	419.46	481.48	484.65	481.93	478.46	450.73	384.60	VZ 2
	VZ 2A	416.71	428.70	436.97	486.27	520.88	528.45	529.46	500.54	465.65	VZ 2A
	V-THETA 2	426.07	391.43	377.11	368.17	359.99	354.39	356.03	373.17	354.47	V-THETA 2
	V-THETA 2A	29.53	33.08	36.47	42.83	46.55	45.12	49.62	45.80	39.56	V-THETA 2A
	M 2	0.4830	0.4755	0.4988	0.5382	0.5359	0.5309	0.5286	0.5174	0.4593	M 2
	M 2A	0.3642	0.3756	0.3838	0.4289	0.4606	0.4675	0.4681	0.4408	0.4082	M 2A
	TURN(PR)	46.944	42.095	37.185	32.364	31.475	31.402	31.230	34.313	37.716	TURN(PR)
	P 2	18.328	18.241	18.548	19.158	19.319	19.425	19.496	19.361	18.660	P 2
	P 2A	18.279	18.372	18.465	18.960	19.334	19.407	19.308	18.919	18.532	P 2A
	T 2	561.256	559.977	558.698	558.509	559.219	559.399	561.290	562.909	564.528	T 2
	T 2A	562.187	560.767	559.343	559.010	559.471	559.750	561.629	563.278	564.927	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station 1 (256°) - Station 2 (246°) - Station 2A (235°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	1.294	0.101	-1.092	-0.272	-0.195	-0.207	1.026	1.352	2.151	BETA 1
STATION 2	BETA 2	50.842	46.958	43.096	39.948	39.305	38.537	39.397	42.513	46.909	BETA 2
	BETA(PR) 1	53.478	53.947	54.237	53.023	54.911	57.035	58.152	59.475	62.248	BETA(PR) 1
	BETA(PR) 2	23.079	26.557	26.329	27.202	30.727	34.313	36.001	37.574	42.003	BETA(PR) 2
	V 1	445.50	450.21	458.05	491.95	481.34	465.56	454.91	435.30	390.48	V 1
	V 2	587.00	578.53	600.52	625.99	619.33	610.18	608.21	591.07	551.25	V 2
	VZ 1	445.37	450.20	457.97	491.92	481.21	465.23	454.33	434.63	389.65	VZ 1
	VZ 2	370.67	394.87	438.50	479.83	478.98	476.75	469.24	434.97	375.99	VZ 2
	V-THETA 1	10.06	0.79	-8.73	-2.34	-1.64	-1.68	8.14	10.26	14.63	V-THETA 1
	V-THETA 2	455.16	422.82	410.28	401.89	392.11	379.73	385.40	398.76	401.91	V-THETA 2
	V(PR) 1	748.4	765.0	783.6	817.9	837.2	855.2	861.3	856.0	837.0	V(PR) 1
	V(PR) 2	402.9	441.4	489.3	539.6	557.6	577.9	581.1	549.9	506.9	V(PR) 2
	VTHETA PR1	-601.4	-618.5	-635.9	-653.4	-685.0	-717.3	-731.4	-737.1	-740.5	VTHETA PR1
	VTHETA PR2	-157.9	-197.4	-217.0	-246.6	-284.7	-325.4	-340.9	-334.7	-338.6	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	683.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.10	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.4056	0.4100	0.4174	0.4495	0.4394	0.4245	0.4144	0.3960	0.3541	M 1
	M 2	0.5197	0.5121	0.5328	0.5573	0.5505	0.5422	0.5395	0.5219	0.4836	M 2
	M(PR) 1	0.6813	0.6966	0.7140	0.7472	0.7642	0.7797	0.7846	0.7787	0.7591	M(PR) 1
	M(PR) 2	0.3567	0.3907	0.4341	0.4804	0.4956	0.5136	0.5154	0.4855	0.4447	M(PR) 2
	TURN(PR)	30.398	27.390	27.909	25.825	24.198	22.751	22.196	21.954	20.308	TURN(PR)
	P 1	14.864	14.915	14.961	15.174	15.112	15.055	15.075	14.943	14.647	P 1
	P 2	18.918	18.819	19.069	19.513	19.532	19.533	19.551	19.349	18.841	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	559.578	559.110	558.643	557.766	558.689	558.013	559.819	562.990	566.161	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.96	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	50.842	46.958	43.096	39.948	39.305	38.537	39.397	42.513	46.909	BETA 2
STATION 2A	BETA 2A	4.388	3.991	3.583	3.674	3.664	3.668	3.570	3.610	3.697	BETA 2A
	V 2	587.00	578.53	600.52	625.99	619.33	610.18	608.21	591.07	551.25	V 2
	V 2A	423.28	454.25	481.68	517.49	540.64	541.12	541.74	524.89	503.40	V 2A
	VZ 2	370.67	394.87	438.50	479.83	478.98	476.75	469.24	434.97	375.99	VZ 2
	VZ 2A	422.04	453.15	480.74	516.38	539.38	539.70	540.23	523.35	501.82	VZ 2A
	V-THETA 2	455.16	422.82	410.28	401.89	392.11	379.73	385.40	398.76	401.91	V-THETA 2
	V-THETA 2A	32.39	31.62	30.10	33.16	34.54	34.60	33.70	33.02	32.42	V-THETA 2A
	M 2	0.5197	0.5121	0.5328	0.5573	0.5505	0.5422	0.5395	0.5219	0.4836	M 2
	M 2A	0.3699	0.3980	0.4232	0.4562	0.4771	0.4777	0.4775	0.4608	0.4401	M 2A
	TURN(PR)	45.454	42.967	39.512	36.268	35.618	34.821	35.754	38.819	43.118	TURN(PR)
	P 2	18.918	18.819	19.069	19.513	19.532	19.533	19.551	19.349	18.841	P 2
	P 2A	18.183	18.441	18.700	19.117	19.366	19.354	19.240	18.955	18.669	P 2A
	T 2	559.578	559.110	558.643	557.766	558.689	558.013	559.819	562.990	566.161	T 2
	T 2A	559.886	559.204	558.522	557.870	558.852	558.388	560.194	562.922	565.650	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station 1 (286°) - Station 2 (276°) - Station 2A (265°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	0.161	-0.078	-0.317	0.938	0.539	0.145	-0.221	-0.062	0.087	BETA 1
STATION 2	BETA 2	46.379	44.448	42.417	39.981	38.694	38.231	39.327	42.532	49.278	BETA 2
	BETA(PR) 1	55.765	54.064	54.068	54.094	56.450	57.488	59.661	60.461	61.716	BETA(PR) 1
	BETA(PR) 2	25.540	25.925	26.081	27.589	31.688	35.237	37.363	38.418	44.684	BETA(PR) 2
	V 1	426.29	449.30	456.34	465.92	450.47	455.73	434.30	424.31	406.58	V 1
	V 2	581.93	592.19	605.55	621.90	611.72	601.42	594.20	582.84	528.52	V 2
	VZ 1	426.28	449.30	456.34	465.83	450.32	455.40	433.81	423.77	406.00	VZ 1
	VZ 2	401.47	422.76	447.04	476.47	477.20	471.90	458.89	428.78	344.30	VZ 2
	V-THETA 1	1.20	-0.61	-2.52	7.63	4.24	1.15	-1.67	-0.46	0.62	V-THETA 1
	V-THETA 2	421.27	414.69	408.45	399.53	382.22	371.77	375.96	393.34	399.97	V-THETA 2
	V(PR) 1	744.4	765.6	777.6	794.3	814.9	847.5	859.1	859.8	857.1	V(PR) 1
	V(PR) 2	444.9	470.1	497.7	537.7	561.1	578.5	578.4	548.3	485.1	V(PR) 2
	VTHETA PR1	-610.3	-619.9	-629.7	-643.4	-679.1	-714.5	-741.2	-747.8	-754.5	VTHETA PR1
	VTHETA PR2	-191.8	-205.5	-218.8	-249.0	-294.6	-333.3	-350.4	-340.1	-340.5	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	683.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.19	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.3875	0.4091	0.4158	0.4248	0.4102	0.4152	0.3950	0.3857	0.3691	M 1
	M 2	0.5125	0.5226	0.5355	0.5512	0.5421	0.5324	0.5247	0.5129	0.4619	M 2
	M(PR) 1	0.6767	0.6971	0.7085	0.7243	0.7421	0.7721	0.7814	0.7816	0.7781	M(PR) 1
	M(PR) 2	0.3919	0.4148	0.4402	0.4766	0.4972	0.5121	0.5107	0.4825	0.4239	M(PR) 2
	TURN(PR)	29.525	28.139	27.987	26.510	24.777	22.282	22.345	22.097	17.096	TURN(PR)
	P 1	14.849	15.040	15.097	15.205	15.091	15.146	15.082	15.016	14.896	P 1
	P 2	18.622	18.743	18.935	19.260	19.323	19.377	19.353	19.245	18.621	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	564.735	563.680	562.624	561.909	561.184	561.137	563.094	565.670	568.246	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	46.379	44.448	42.417	39.981	38.694	38.231	39.327	42.532	49.278	BETA 2
STATION 2A	BETA 2A	3.120	4.313	5.356	5.563	5.745	5.721	5.786	6.143	6.088	BETA 2A
	V 2	581.93	592.19	605.55	621.90	611.72	601.42	594.20	582.84	528.52	V 2
	V 2A	439.92	458.19	476.50	511.05	528.72	535.86	528.19	505.61	477.84	V 2A
	VZ 2	401.47	422.76	447.04	476.47	477.20	471.90	458.89	428.78	344.30	VZ 2
	VZ 2A	439.27	456.89	474.41	508.60	525.92	532.89	525.05	502.23	474.64	VZ 2A
	V-THETA 2	421.27	414.69	408.45	399.53	382.22	371.77	375.96	393.34	399.97	V-THETA 2
	V-THETA 2A	23.94	34.46	44.48	49.54	52.91	53.39	53.20	54.05	50.62	V-THETA 2A
	M 2	0.5125	0.5226	0.5355	0.5512	0.5421	0.5324	0.5247	0.5129	0.4619	M 2
	M 2A	0.3844	0.4012	0.4182	0.4500	0.4663	0.4728	0.4649	0.4432	0.4171	M 2A
	TURN(PR)	43.259	40.135	37.060	34.412	32.927	32.463	33.470	36.308	43.099	TURN(RR)
	P 2	18.622	18.743	18.935	19.260	19.323	19.377	19.353	19.245	18.621	P 2
	P 2A	18.343	18.509	18.677	19.038	19.246	19.270	19.085	18.761	18.437	P 2A
	T 2	564.735	563.680	562.624	561.909	561.184	561.137	563.094	565.670	568.246	T 2
	T 2A	561.105	560.164	559.221	558.557	558.385	558.411	560.530	562.830	565.129	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station (316°) - Station 2 (306°) - Station 2A (295°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	35.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-7.213	-6.915	-6.617	-6.825	-6.675	-5.767	-5.766	-6.101	-4.634	BETA 1
STATION 2	BETA 2	59.483	59.250	59.390	52.109	47.414	46.288	51.096	56.157	59.097	BETA 2
	BETA(PR) 1	64.734	62.977	63.342	62.765	64.707	64.945	65.841	65.286	67.024	BETA(PR) 1
	BETA(PR) 2	17.031	22.698	22.978	24.749	27.884	32.654	38.808	40.063	42.307	BETA(PR) 2
	V 1	309.38	339.13	336.55	359.64	344.24	353.17	349.62	364.29	333.13	V 1
	V 2	602.64	577.85	582.67	604.84	618.72	605.41	566.61	565.17	559.16	V 2
	VZ 1	306.92	336.66	334.31	357.07	341.81	351.13	347.47	361.77	331.57	VZ 1
	VZ 2	306.12	295.45	296.69	371.43	418.52	418.00	355.46	314.45	286.92	VZ 2
	V-THETA 1	-38.84	-40.83	-38.78	-42.74	-40.00	-35.46	-35.09	-38.67	-26.88	V-THETA 1
	V-THETA 2	519.33	496.61	501.47	477.28	455.36	437.23	440.46	468.97	479.35	V-THETA 2
	V(PR) 1	719.1	741.0	745.1	780.3	800.1	829.2	849.1	865.5	849.6	V(PR) 1
	V(PR) 2	320.2	329.3	322.3	409.1	473.8	497.1	456.9	411.6	388.7	V(PR) 2
	VTHETA PR1	-650.3	-660.1	-665.9	-693.8	-723.3	-751.1	-774.6	-786.0	-782.0	VTHETA PR1
	VTHETA PR2	-93.8	-123.6	-125.8	-171.2	-221.4	-267.9	-285.9	-264.4	-261.1	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	683.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.18	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.2793	0.3066	0.3042	0.3255	0.3113	0.3196	0.3163	0.3298	0.3011	M 1
	M 2	0.5267	0.5041	0.5090	0.5300	0.5435	0.5314	0.4949	0.4919	0.4848	M 2
	M(PR) 1	0.6491	0.6699	0.6736	0.7063	0.7236	0.7503	0.7682	0.7836	0.7679	M(PR) 1
	M(PR) 2	0.2797	0.2794	0.2815	0.3584	0.4162	0.4363	0.3991	0.3583	0.3370	M(PR) 2
	TURN(PR)	47.703	46.279	46.364	38.020	36.837	32.322	27.084	25.282	24.785	TURN(PR)
	P 1	13.944	14.074	14.047	14.056	13.994	14.022	14.033	14.116	13.950	P 1
	P 2	18.562	18.230	18.301	18.713	19.129	19.178	18.814	18.787	18.714	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	575.431	574.566	573.699	572.538	571.247	570.686	572.147	575.957	579.767	T 2

STATOR B	PCT SPAN	95.24	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	59.483	59.250	59.390	52.109	47.414	46.288	51.096	56.157	59.097	BETA 2
STATION 2A	BETA 2A	1.496	3.942	6.446	7.088	7.717	7.665	7.873	8.262	7.727	BETA 2A
	V 2	602.84	577.85	582.67	604.84	618.72	605.41	566.61	565.17	559.16	V 2
	V 2A	349.34	361.56	374.46	428.78	479.41	506.57	498.65	485.20	469.85	V 2A
	VZ 2	306.12	295.45	296.69	371.43	418.52	418.00	355.46	314.45	286.92	VZ 2
	VZ 2A	349.78	360.70	372.09	425.47	474.94	501.76	493.53	479.71	465.09	VZ 2A
	V-THETA 2	519.33	496.61	501.47	477.28	455.36	437.23	440.46	468.97	479.35	V-THETA 2
	V-THETA 2A	9.13	24.86	42.04	52.90	64.36	67.53	68.25	69.66	63.11	V-THETA 2A
	M 2	0.5267	0.5041	0.5090	0.5300	0.5435	0.5314	0.4949	0.4919	0.4848	M 2
	M 2A	0.3019	0.3116	0.3232	0.3716	0.4174	0.4422	0.4344	0.4209	0.4058	M 2A
	TURN(PR)	57.987	55.308	52.943	45.015	39.675	38.576	43.153	47.822	51.292	TURN(PR)
	P 2	18.562	18.230	18.301	18.713	19.129	19.178	18.814	18.787	18.714	P 2
	P 2A	17.609	17.668	17.727	18.106	18.582	18.894	18.765	18.567	18.370	P 2A
	T 2	575.431	574.566	573.699	572.538	571.247	570.686	572.147	575.957	579.767	T 2
	T 2A	573.294	571.326	570.357	569.350	568.100	567.587	569.104	572.693	576.281	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.43 Equivalent Rotor Speed = 4228.13 Equivalent Weight Flow = 100.04
Circumferential Distortion
Station 1 (346°) - Station 2 (336°) - Station 2A (325°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-2.924	-3.052	-3.181	-3.478	-2.839	-3.222	-3.078	-3.584	-4.058	BETA 1
STATION 2	BETA 2	64.024	65.011	64.609	53.400	47.048	45.885	53.392	57.755	62.473	BETA 2
	BETA(PR) 1	67.267	65.034	63.784	63.824	63.358	65.050	66.254	67.690	69.373	BETA(PR) 1
	BETA(PR) 2	21.193	24.553	28.662	30.570	30.216	34.072	41.787	42.655	44.378	BETA(PR) 2
	V 1	262.15	296.08	317.98	330.48	352.08	342.70	334.07	315.78	293.20	V 1
	V 2	573.64	564.13	551.31	561.53	599.84	593.68	544.33	548.89	553.41	V 2
	VZ 1	261.30	295.65	317.49	329.86	351.55	341.91	333.22	314.76	292.05	VZ 1
	VZ 2	251.25	238.31	236.40	334.77	408.56	412.90	324.29	292.60	255.58	VZ 2
	V-THETA 1	-13.37	-15.76	-17.64	-20.05	-17.43	-19.25	-17.92	-19.72	-20.72	V-THETA 1
	V-THETA 2	515.69	511.32	498.05	450.77	438.87	425.85	436.53	463.83	490.40	V-THETA 2
	V(PR) 1	677.5	700.5	718.7	747.8	784.0	810.7	827.7	829.3	829.2	V(PR) 1
	V(PR) 2	259.5	262.0	269.4	388.9	473.1	499.1	435.6	398.5	358.2	V(PR) 2
	VTHETA PR1	-624.8	-635.0	-644.8	-671.1	-700.8	-734.9	-757.5	-767.1	-775.9	VTHETA PR1
	VTHETA PR2	-97.4	-108.9	-129.2	-197.7	-237.9	-279.3	-289.8	-269.6	-250.1	VTHETA PR2
	U 1	611.46	619.25	627.13	651.02	683.32	715.66	739.53	747.37	755.16	U 1
	U 2	613.10	620.19	627.27	648.51	676.81	705.11	726.34	733.41	740.49	U 2
	M 1	0.2361	0.2671	0.2872	0.2987	0.3186	0.3099	0.3020	0.2851	0.2645	M 1
	M 2	0.5012	0.4927	0.4812	0.4909	0.5258	0.5197	0.4729	0.4767	0.4805	M 2
	M(PR) 1	0.6182	0.6319	0.6491	0.6758	0.7094	0.7331	0.7481	0.7489	0.7479	M(PR) 1
	M(PR) 2	0.2355	0.2288	0.2351	0.3400	0.4147	0.4369	0.3785	0.3461	0.3110	M(PR) 2
	TURN(PR)	46.073	40.481	35.123	33.259	33.157	31.011	24.521	25.097	25.066	TURN(PR)
	P 1	13.662	13.805	13.860	13.835	13.873	13.854	13.856	13.837	13.805	P 1
	P 2	18.141	17.989	17.886	18.178	18.800	18.886	18.409	18.468	18.527	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	572.543	572.104	571.665	570.833	571.503	572.545	575.979	576.830	577.681	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	64.024	65.011	64.609	53.400	47.048	45.885	53.392	57.755	62.473	BETA 2
STATION 2A	BETA 2A	-1.004	1.015	4.455	6.501	8.380	8.391	8.411	7.880	5.936	BETA 2A
	V 2	573.64	564.13	551.31	561.53	599.84	593.68	544.33	548.89	553.41	V 2
	V 2A	227.77	247.78	265.73	342.09	418.01	475.60	462.90	445.75	429.51	V 2A
	VZ 2	251.25	238.31	236.40	334.77	408.56	412.90	324.29	292.60	255.58	VZ 2
	VZ 2A	227.74	247.74	264.93	339.87	413.43	470.24	457.54	441.12	426.75	VZ 2A
	V-THETA 2	515.69	511.32	498.05	450.77	438.87	425.85	436.53	463.83	490.40	V-THETA 2
	V-THETA 2A	-3.99	4.39	20.64	38.73	60.90	69.36	67.65	61.05	44.37	V-THETA 2A
	M 2	0.5012	0.4927	0.4812	0.4909	0.5258	0.5197	0.4729	0.4767	0.4805	M 2
	M 2A	0.1947	0.2120	0.2276	0.2944	0.3614	0.4125	0.4003	0.3843	0.3692	M 2A
	TURN(PR)	65.028	63.996	60.153	46.893	38.646	37.447	44.913	49.803	56.463	TURN(PR)
	P 2	18.141	17.989	17.886	18.178	18.800	18.886	18.409	18.468	18.527	P 2
	P 2A	17.071	17.138	17.204	17.603	18.168	18.755	18.604	18.421	18.239	P 2A
	T 2	572.543	572.104	571.665	570.833	571.503	572.545	575.979	576.830	577.681	T 2
	T 2A	574.114	573.547	572.979	571.707	571.393	572.042	574.464	576.582	578.701	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (16°) - Station 2 (6°) - Station 2A (355°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-8.384	-6.985	-5.585	-5.861	-5.096	-5.928	-5.430	-4.306	-2.114	BETA 1
STATION 2	BETA 2	64.971	65.770	65.841	55.448	50.875	50.482	53.375	56.621	61.667	BETA 2
	BETA(PR) 1	65.158	64.135	64.250	63.931	63.652	64.924	66.369	67.519	70.569	BETA(PR) 1
	BETA(PR) 2	15.856	17.686	26.333	30.649	29.330	34.548	39.104	41.596	45.497	BETA(PR) 2
	V 1	306.10	320.53	317.94	336.02	354.42	352.96	338.41	319.49	269.60	V 1
	V 2	595.48	592.82	560.76	557.44	597.04	581.49	562.89	552.88	541.90	V 2
	VZ 1	302.82	318.15	316.43	334.25	352.92	350.83	336.52	318.19	269.04	VZ 1
	VZ 2	251.93	243.30	229.50	316.13	376.61	369.75	335.48	303.90	256.98	VZ 2
	V-THETA 1	-44.63	-38.98	-30.94	-34.31	-31.47	-36.43	-31.99	-23.96	-9.93	V-THETA 1
	V-THETA 2	539.56	540.60	511.65	459.08	463.01	448.25	451.31	461.26	476.61	V-THETA 2
	V(PR) 1	720.8	729.3	728.4	760.6	795.2	827.9	839.7	832.3	808.8	V(PR) 1
	V(PR) 2	261.9	255.4	256.1	367.5	432.3	449.5	433.0	407.1	367.2	V(PR) 2
	VTHETA PR1	-654.1	-656.2	-656.0	-683.2	-712.6	-749.8	-769.1	-768.9	-762.6	VTHETA PR1
	VTHETA PR2	-71.6	-77.6	-113.6	-187.3	-211.6	-254.6	-272.7	-269.8	-261.5	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.2763	0.2895	0.2871	0.3038	0.3207	0.3194	0.3060	0.2886	0.2429	M 1
	M 2	0.5229	0.5206	0.4913	0.4883	0.5238	0.5089	0.4896	0.4808	0.4710	M 2
	M(PR) 1	0.6506	0.6587	0.6578	0.6876	0.7196	0.7491	0.7591	0.7517	0.7288	M(PR) 1
	M(PR) 2	0.2300	0.2243	0.2243	0.3219	0.3792	0.3933	0.3767	0.3540	0.3192	M(PR) 2
	TURN(PR)	49.302	46.449	37.917	33.286	34.337	30.409	27.318	25.985	25.144	TURN(PR)
	P 1	13.848	13.905	13.865	13.870	13.862	13.882	13.862	13.789	13.584	P 1
	P 2	18.890	18.808	18.481	18.635	19.195	19.170	18.989	18.906	18.821	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	569.279	568.877	568.474	568.295	570.471	571.614	576.375	575.816	575.257	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	64.971	65.770	65.841	55.448	50.875	50.482	53.375	56.621	61.667	BETA 2
STATION 2A	BETA 2A	-7.993	-3.797	0.401	6.464	8.353	8.540	7.898	6.398	3.512	BETA 2A
	V 2	595.48	592.82	560.76	557.44	597.04	581.49	562.89	552.88	541.90	V 2
	V 2A	184.43	211.24	222.65	304.19	407.23	477.10	493.00	478.69	465.17	V 2A
	VZ 2	251.93	243.30	229.50	316.13	376.61	369.75	335.48	303.90	256.98	VZ 2
	VZ 2A	182.64	210.78	222.64	302.23	402.80	471.55	487.91	475.26	463.80	VZ 2A
	V-THETA 2	539.56	540.60	511.65	459.08	463.01	448.25	451.31	461.26	476.61	V-THETA 2
	V-THETA 2A	-25.65	-13.99	1.56	34.24	59.14	79.81	67.69	53.29	28.46	V-THETA 2A
	M 2	0.5229	0.5206	0.4913	0.4883	0.5238	0.5089	0.4896	0.4808	0.4710	M 2
	M 2A	0.1579	0.1809	0.1909	0.2615	0.3514	0.4131	0.4256	0.4129	0.4010	M 2A
	TURN(PR)	72.964	65.567	65.433	48.978	42.500	41.896	45.409	50.148	58.077	TURN(PR)
	P 2	18.890	18.808	18.481	18.635	19.195	19.170	18.989	18.906	18.821	P 2
	P 2A	17.219	17.248	17.277	17.664	18.358	19.024	19.159	18.999	18.831	P 2A
	T 2	569.279	568.877	568.474	568.295	570.471	571.614	576.375	575.816	575.257	T 2
	T 2A	571.396	571.290	570.983	570.725	572.862	574.178	579.761	573.414	578.066	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (46°) - Station 2 (36°) - Station 2A (25°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	6.718	6.115	5.512	4.833	3.956	4.119	4.449	4.364	4.308	BETA 1
STATION 2	BETA 2	56.901	55.609	52.450	45.628	45.117	45.250	45.792	49.228	55.741	BETA 2
	BETA(PR) 1	56.570	54.354	52.934	54.193	55.220	56.878	58.053	58.967	59.885	BETA(PR) 1
	BETA(PR) 2	25.483	31.575	33.078	30.968	33.430	37.739	39.760	43.284	48.412	BETA(PR) 2
	V 1	375.90	413.43	442.13	442.82	452.55	445.99	440.21	430.31	420.09	V 1
	V 2	556.58	527.30	525.51	569.85	574.68	560.49	558.98	533.38	505.81	V 2
	VZ 1	373.31	411.07	440.09	441.22	451.35	444.52	438.39	428.52	418.31	VZ 1
	VZ 2	303.94	297.84	320.27	398.46	405.36	394.24	389.24	347.87	284.43	VZ 2
	V-THETA 1	43.97	44.04	42.47	37.31	31.21	32.01	34.11	32.70	31.51	V-THETA 1
	V-THETA 2	466.26	435.13	416.63	407.29	407.02	397.70	400.15	403.41	417.60	V-THETA 2
	V(PR) 1	677.6	705.4	730.2	754.2	791.3	813.7	828.8	831.5	834.0	V(PR) 1
	V(PR) 2	336.7	349.6	382.2	464.8	486.0	499.1	507.2	478.6	429.2	V(PR) 2
	VTHETA PR1	-565.5	-573.2	-582.6	-611.6	-649.9	-681.3	-703.0	-712.2	-721.2	VTHETA PR1
	VTHETA PR2	-144.9	-183.1	-208.6	-239.1	-267.6	-305.1	-323.8	-327.6	-320.5	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.3406	0.3755	0.4024	0.4030	0.4122	0.4060	0.4006	0.3913	0.3817	M 1
	M 2	0.4904	0.4638	0.4625	0.5045	0.5096	0.4965	0.4940	0.4692	0.4429	M 2
	M(PR) 1	0.6140	0.6407	0.6645	0.6864	0.7208	0.7408	0.7542	0.7561	0.7579	M(PR) 1
	M(PR) 2	0.2967	0.3075	0.3364	0.4115	0.4309	0.4421	0.4482	0.4211	0.3758	M(PR) 2
	TURN(PR)	31.087	22.779	19.857	23.229	21.805	19.171	18.341	15.739	11.535	TURN(PR)
	P 1	14.507	14.725	14.902	14.877	14.920	14.927	14.898	14.899	14.898	P 1
	P 2	18.553	18.210	18.226	18.829	19.059	19.048	19.115	18.843	18.571	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	561.890	561.052	560.215	558.060	556.834	556.633	558.824	561.473	564.120	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	56.901	55.609	52.450	45.628	45.117	45.250	45.792	49.228	55.741	BETA 2
STATION 2A	BETA 2A	-2.173	-0.480	1.213	3.771	4.717	4.830	4.533	3.828	2.515	BETA 2A
	V 2	556.58	527.30	525.51	569.85	574.68	560.49	558.98	533.38	505.81	V 2
	V 2A	325.35	337.72	347.92	387.96	434.67	447.33	448.78	429.53	409.76	V 2A
	VZ 2	303.94	297.84	320.27	398.46	405.36	394.24	389.24	347.87	284.43	VZ 2
	VZ 2A	325.12	337.71	347.84	387.09	433.08	445.49	447.00	428.16	408.92	VZ 2A
	V-THETA 2	466.26	435.13	416.63	407.29	407.02	397.70	400.15	403.41	417.60	V-THETA 2
	V-THETA 2A	-12.34	-2.83	7.37	25.51	35.74	37.64	35.44	28.65	17.96	V-THETA 2A
	M 2	0.4904	0.4638	0.4625	0.5045	0.5096	0.4965	0.4940	0.4692	0.4429	M 2
	M 2A	0.2820	0.2931	0.3024	0.3384	0.3805	0.3918	0.3922	0.3743	0.3561	M 2A
	TURN(PR)	59.074	56.689	51.230	41.850	40.377	40.371	41.185	45.317	53.137	TURN(PR)
	P 2	18.553	18.210	18.226	18.829	19.059	19.048	19.115	18.843	18.571	P 2
	P 2A	17.920	17.962	18.006	18.318	18.722	18.871	18.841	18.630	18.418	P 2A
	T 2	561.890	561.052	560.215	558.060	556.834	556.633	558.824	561.473	564.120	T 2
	T 2A	562.736	561.896	561.057	559.486	558.850	559.042	561.747	563.372	564.996	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed - 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (76°) - Station 2 (66°) - Station 2A (55°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	1.830	0.852	-0.125	-0.012	0.337	0.585	-0.338	-0.225	-0.117	BETA 1
STATION 2	BETA 2	53.184	52.966	49.145	42.469	42.604	41.926	43.131	45.374	51.714	BETA 2
	BETA(PR) 1	55.918	55.149	55.241	55.631	56.510	58.584	61.056	62.464	64.991	BETA(PR) 1
	BETA(PR) 2	20.635	27.120	25.895	26.991	29.855	33.681	37.257	39.002	40.819	BETA(PR) 2
	V 1	403.86	425.45	434.44	443.88	449.04	433.32	409.45	389.69	351.97	V 1
	V 2	595.50	558.55	582.20	615.18	613.90	604.40	585.30	571.71	559.86	V 2
	VZ 1	403.64	425.40	434.44	443.86	448.90	432.99	408.99	389.19	351.47	VZ 1
	VZ 2	356.85	336.41	380.84	453.73	451.65	449.23	426.53	401.01	346.42	VZ 2
	V-THETA 1	12.90	6.33	-0.95	-0.09	2.64	4.42	-2.41	-1.53	-0.72	V-THETA 1
	V-THETA 2	476.74	445.88	440.35	415.31	415.37	403.44	399.57	406.28	438.87	V-THETA 2
	V(PR) 1	720.3	744.4	762.0	786.3	813.6	830.9	845.3	842.1	831.6	V(PR) 1
	V(PR) 2	381.3	378.0	423.4	509.3	521.1	540.5	536.8	517.0	458.7	V(PR) 2
	VTHETA PR1	-596.6	-610.9	-626.0	-649.0	-678.5	-708.9	-739.5	-746.5	-753.4	VTHETA PR1
	VTHETA PR2	-134.4	-172.3	-184.9	-231.1	-259.2	-299.4	-324.4	-324.8	-299.2	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.3666	0.3868	0.3952	0.4040	0.4089	0.3941	0.3718	0.3534	0.3185	M 1
	M 2	0.5253	0.4913	0.5134	0.5454	0.5445	0.5358	0.5168	0.5025	0.4899	M 2
	M(PR) 1	0.6538	0.6767	0.6932	0.7157	0.7409	0.7557	0.7676	0.7636	0.7524	M(PR) 1
	M(PR) 2	0.3364	0.3325	0.3734	0.4515	0.4622	0.4792	0.4740	0.4544	0.4014	M(PR) 2
	TURN(PR)	35.282	28.029	29.347	28.645	26.668	24.933	23.847	23.518	24.238	TURN(PR)
	P 1	14.749	14.888	14.944	14.965	14.982	14.926	14.785	14.698	14.510	P 1
	P 2	18.908	18.477	18.785	19.308	19.499	19.555	19.411	19.224	19.037	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	564.402	563.875	563.350	560.919	560.431	560.030	562.323	565.919	569.516	T 2
STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	53.184	52.966	49.145	42.469	42.604	41.926	43.131	45.374	51.714	BETA 2
STATION 2A	BETA 2A	2.417	2.438	2.458	2.472	2.452	2.454	2.451	2.454	2.466	BETA 2A
	V 2	595.50	558.55	582.20	615.18	613.90	604.40	585.30	571.71	559.86	V 2
	V 2A	356.20	377.45	398.34	435.52	477.18	478.85	480.70	467.92	455.16	V 2A
	VZ 2	356.85	336.41	380.84	453.73	451.65	449.23	426.53	401.01	346.42	VZ 2
	VZ 2A	355.88	377.11	397.97	435.08	476.61	478.14	479.85	467.04	454.25	VZ 2A
	V-THETA 2	476.74	445.88	440.35	415.31	415.37	403.44	399.57	406.28	438.87	V-THETA 2
	V-THETA 2A	15.02	16.06	17.08	18.78	20.41	20.49	20.54	20.02	19.56	V-THETA 2A
	M 2	0.5253	0.4913	0.5134	0.5454	0.5445	0.5358	0.5168	0.5025	0.4899	M 2
	M 2A	0.3090	0.3280	0.3468	0.3809	0.4189	0.4206	0.4214	0.4085	0.3958	M 2A
	TURN(PR)	50.767	50.528	46.686	39.990	40.128	39.422	40.604	42.835	49.155	TURN(PR)
	P 2	18.908	18.477	18.785	19.308	19.499	19.555	19.411	19.224	19.037	P 2
	P 2A	18.181	18.337	18.492	18.879	19.275	19.268	19.172	18.996	18.820	P 2A
	T 2	564.402	563.875	563.350	560.919	560.431	560.030	562.323	565.919	569.516	T 2
	T 2A	563.510	562.902	562.293	559.774	558.933	558.474	560.696	564.221	567.745	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (106°) - Station 2 (96°) - Station 2A (85°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	0.966	1.422	1.880	1.508	1.813	1.313	0.862	0.863	0.865	BETA 1
STATION 2	BETA 2	51.847	51.029	47.152	41.422	40.652	40.353	42.009	44.390	50.615	BETA 2
	BETA(PR) 1	58.923	56.696	55.035	54.361	55.713	58.137	59.292	59.911	60.518	BETA(PR) 1
	BETA(PR) 2	23.348	29.339	29.201	28.674	31.721	35.241	37.531	39.199	41.018	BETA(PR) 2
	V 1	363.69	399.14	427.55	456.80	454.93	437.58	434.48	428.51	422.60	V 1
	V 2	580.34	546.59	561.64	603.24	602.41	593.28	584.72	570.98	557.89	V 2
	VZ 1	363.63	399.01	427.32	456.62	454.58	437.15	433.94	427.91	421.95	VZ 1
	VZ 2	358.51	343.77	381.95	452.28	456.81	451.64	433.82	407.38	353.51	VZ 2
	V-THETA 1	6.13	9.90	14.03	12.02	14.39	10.02	6.53	6.45	6.37	V-THETA 1
	V-THETA 2	456.36	424.96	411.77	399.05	392.25	383.74	390.73	398.80	430.60	V-THETA 2
	V(PR) 1	704.5	726.7	745.7	783.7	807.0	828.3	850.0	853.8	857.7	V(PR) 1
	V(PR) 2	390.5	394.3	437.6	515.6	537.4	553.7	548.0	526.6	469.4	V(PR) 2
	VTHETA PR1	-603.3	-607.3	-611.1	-636.9	-666.7	-703.3	-730.6	-738.5	-746.3	VTHETA PR1
	VTHETA PR2	-154.8	-193.2	-213.5	-247.4	-282.4	-319.1	-333.3	-332.2	-307.5	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.3293	0.3622	0.3887	0.4162	0.4144	0.3981	0.3952	0.3896	0.3841	M 1
	M 2	0.5114	0.4806	0.4948	0.5340	0.5332	0.5244	0.5153	0.5017	0.4888	M 2
	M(PR) 1	0.6378	0.6594	0.6779	0.7140	0.7352	0.7536	0.7732	0.7763	0.7795	M(PR) 1
	M(PR) 2	0.3441	0.3467	0.3855	0.4564	0.4756	0.4894	0.4829	0.4628	0.4113	M(PR) 2
	TURN(PR)	35.575	27.356	25.835	25.691	24.007	22.927	21.808	20.766	19.562	TURN(PR)
	P 1	14.505	14.704	14.875	15.026	15.032	14.950	14.982	14.957	14.932	P 1
	P 2	18.868	18.494	18.718	19.313	19.481	19.537	19.525	19.351	19.178	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	564.027	563.287	562.547	561.476	561.496	562.008	564.324	566.177	568.030	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	51.847	51.029	47.152	41.422	40.652	40.353	42.009	44.390	50.615	BETA 2
STATION 2A	BETA 2A	2.942	4.072	5.202	5.589	5.175	5.209	5.141	5.182	5.300	BETA 2A
	V 2	580.34	546.59	561.64	603.24	602.41	593.28	584.72	570.98	557.89	V 2
	V 2A	384.51	400.67	416.59	457.82	494.36	506.07	508.26	474.22	436.80	V 2A
	VZ 2	358.51	343.77	381.95	452.28	456.81	451.64	433.82	407.38	353.51	VZ 2
	VZ 2A	384.00	399.66	414.87	455.61	492.21	503.69	505.78	471.83	434.47	VZ 2A
	V-THETA 2	456.36	424.96	411.77	399.05	392.25	383.74	390.73	398.80	430.60	V-THETA 2
	V-THETA 2A	19.74	28.45	37.77	44.58	44.58	45.92	45.50	42.79	40.30	V-THETA 2A
	M 2	0.5114	0.4806	0.4948	0.5340	0.5332	0.5244	0.5153	0.5017	0.4888	M 2
	M 2A	0.3340	0.3486	0.3630	0.4005	0.4336	0.4440	0.4451	0.4135	0.3792	M 2A
	TURN(PR)	48.905	46.957	41.949	35.827	35.454	35.096	36.795	39.125	45.224	TURN(PR)
	P 2	18.868	18.494	18.718	19.313	19.481	19.537	19.525	19.351	19.178	P 2
	P 2A	18.436	18.559	18.682	19.105	19.501	19.571	19.466	19.071	18.678	P 2A
	T 2	564.027	563.287	562.547	561.476	561.496	562.008	564.324	566.177	568.030	T 2
	T 2A	564.000	563.237	562.474	561.375	561.417	561.949	564.122	566.110	568.098	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (136°) - Station 2 (126°) - Station 2A (115°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	1.161	0.895	0.637	0.353	1.182	-0.317	1.114	1.120	1.128	BETA 1
STATION 2	BETA 2	52.481	52.478	49.163	42.802	42.280	42.066	42.660	45.651	50.732	BETA 2
	BETA(PR) 1	55.912	54.605	54.968	55.337	55.765	58.948	60.931	62.334	66.878	BETA(PR) 1
	BETA(PR) 2	21.869	27.305	26.369	27.028	30.453	34.818	37.040	39.299	42.339	BETA(PR) 2
	V 1	406.98	433.79	434.85	446.84	457.29	431.25	405.92	387.14	319.23	V 1
	V 2	588.98	558.15	578.54	613.51	609.28	593.04	588.23	568.77	547.11	V 2
	VZ 1	406.89	433.74	434.82	446.81	457.06	430.94	405.39	386.57	318.72	VZ 1
	VZ 2	358.70	339.95	378.31	450.08	450.57	439.82	431.94	396.99	345.82	VZ 2
	V-THETA 1	8.25	6.81	4.83	2.75	9.43	-2.38	7.88	7.56	6.28	V-THETA 1
	V-THETA 2	467.15	442.68	437.70	416.80	409.70	396.93	398.02	406.11	422.99	V-THETA 2
	V(PR) 1	726.0	748.8	757.5	785.6	812.5	835.6	834.6	832.8	811.8	V(PR) 1
	V(PR) 2	386.5	382.6	422.2	505.4	523.0	536.4	542.1	513.9	468.7	V(PR) 2
	VTHETA PR1	-601.2	-610.4	-620.3	-646.2	-671.7	-715.7	-729.3	-737.4	-746.4	VTHETA PR1
	VTHETA PR2	-144.0	-175.5	-187.5	-229.6	-264.9	-305.9	-326.0	-324.9	-315.1	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.3695	0.3946	0.3956	0.4068	0.4167	0.3922	0.3685	0.3510	0.2883	M 1
	M 2	0.5192	0.4909	0.5100	0.5435	0.5397	0.5246	0.5187	0.4995	0.4784	M 2
	M(PR) 1	0.6591	0.6811	0.6891	0.7153	0.7403	0.7599	0.7577	0.7551	0.7332	M(PR) 1
	M(PR) 2	0.3407	0.3365	0.3722	0.4477	0.4633	0.4745	0.4780	0.4513	0.4099	M(PR) 2
	TURN(PR)	34.042	27.299	28.600	28.313	25.326	24.160	23.938	23.092	24.607	TURN(PR)
	P 1	14.774	14.956	14.978	14.988	15.004	14.920	14.768	14.670	14.294	P 1
	P 2	18.987	18.649	18.892	19.471	19.607	19.569	19.588	19.353	19.117	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	564.457	563.990	563.522	561.669	561.323	561.206	563.990	566.581	569.172	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	52.481	52.478	49.163	42.802	42.280	42.066	42.660	45.651	50.732	BETA 2
STATION 2A	BETA 2A	2.926	5.149	7.372	8.248	7.622	7.636	7.581	7.637	7.540	BETA 2A
	V 2	588.98	558.15	578.54	613.51	609.28	593.04	588.23	568.77	547.11	V 2
	V 2A	355.27	381.29	398.21	444.16	484.90	492.59	494.78	479.18	460.98	V 2A
	VZ 2	358.70	339.95	378.31	450.08	450.57	439.82	431.94	396.99	345.82	VZ 2
	VZ 2A	355.80	379.75	394.92	439.53	480.48	487.94	490.04	474.48	456.52	VZ 2A
	V-THETA 2	467.15	442.68	437.70	416.80	409.70	396.93	398.02	406.11	422.99	V-THETA 2
	V-THETA 2A	18.19	34.22	51.10	63.71	64.30	65.42	65.22	63.62	60.43	V-THETA 2A
	M 2	0.5192	0.4909	0.5100	0.5435	0.5397	0.5246	0.5187	0.4995	0.4784	M 2
	M 2A	0.3068	0.3312	0.3464	0.3881	0.4250	0.4320	0.4329	0.4179	0.4006	M 2A
	TURN(PR)	49.555	47.329	41.790	34.548	34.636	34.383	35.008	37.934	43.104	TURN(PR)
	P 2	18.987	18.649	18.892	19.471	19.607	19.569	19.588	19.353	19.117	P 2
	P 2A	18.314	18.464	18.613	19.046	19.465	19.485	19.392	19.165	18.937	P 2A
	T 2	564.457	563.990	563.522	561.669	561.323	561.206	563.990	566.581	569.172	T 2
	T 2A	564.366	563.821	563.275	561.595	561.332	561.347	564.026	566.438	568.850	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (166°) - Station 2 (156°) - Station 2A (145°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	2.482	2.466	2.452	2.803	1.785	1.844	2.594	2.143	1.703	BETA 1
STATION 2	BETA 2	52.204	51.480	47.388	42.240	41.392	41.188	42.283	44.194	50.813	BETA 2
	BETA(PR) 1	57.417	55.555	55.163	55.622	56.439	58.370	59.936	60.525	60.648	BETA(PR) 1
	BETA(PR) 2	23.074	28.626	28.645	27.745	31.455	35.142	36.897	39.760	43.243	BETA(PR) 2
	V 1	379.39	411.58	422.85	430.10	443.05	431.35	416.67	413.14	417.11	V 1
	V 2	581.32	550.81	565.44	608.94	602.56	592.08	590.35	566.00	539.76	V 2
	VZ 1	379.02	411.20	422.46	429.56	442.71	430.82	415.78	412.32	416.33	VZ 1
	VZ 2	356.26	343.04	382.82	450.76	451.82	445.12	436.11	405.17	340.58	VZ 2
	V-THETA 1	16.43	17.71	18.09	21.03	13.80	13.87	18.84	15.43	12.38	V-THETA 1
	V-THETA 2	459.35	430.95	416.13	409.30	398.22	389.51	396.59	393.93	417.79	V-THETA 2
	V(PR) 1	703.8	727.0	739.5	760.8	800.9	821.7	830.2	838.2	849.7	V(PR) 1
	V(PR) 2	387.2	390.8	436.2	509.4	530.0	545.0	546.3	528.0	468.4	V(PR) 2
	VTHETA PR1	-593.1	-599.5	-607.0	-627.9	-667.3	-699.5	-718.3	-729.5	-740.3	VTHETA PR1
	VTHETA PR2	-151.8	-187.2	-209.1	-237.1	-276.4	-313.3	-327.4	-337.1	-320.3	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.3438	0.3738	0.3843	0.3911	0.4033	0.3923	0.3785	0.3752	0.3790	M 1
	M 2	0.5124	0.4845	0.4983	0.5392	0.5332	0.5231	0.5205	0.4969	0.4719	M 2
	M(PR) 1	0.6379	0.6602	0.6722	0.6918	0.7290	0.7472	0.7542	0.7614	0.7719	M(PR) 1
	M(PR) 2	0.3414	0.3438	0.3844	0.4511	0.4690	0.4815	0.4816	0.4636	0.4095	M(PR) 2
	TURN(PR)	34.343	26.929	26.519	27.882	24.998	23.259	23.086	20.820	17.468	TURN(PR)
	P 1	14.621	14.819	14.883	14.913	14.960	14.944	14.858	14.880	14.895	P 1
	P 2	18.882	18.552	18.713	19.371	19.493	19.531	19.612	19.329	19.045	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	563.709	563.081	562.451	561.643	561.762	562.361	564.396	566.548	568.699	T 2
STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	52.204	51.480	47.388	42.240	41.392	41.188	42.283	44.194	50.813	BETA 2
STATION 2A	BETA 2A	2.601	5.030	7.459	8.236	7.777	7.570	7.857	8.088	7.192	BETA 2A
	V 2	581.32	550.81	565.44	608.94	602.56	592.08	590.35	566.00	539.76	V 2
	V 2A	364.27	385.40	399.98	446.82	488.64	499.22	499.77	470.22	434.90	V 2A
	VZ 2	356.26	343.04	382.82	450.76	451.82	445.12	436.11	405.17	340.58	VZ 2
	VZ 2A	363.90	383.92	396.59	442.17	484.01	494.59	494.66	465.10	431.03	VZ 2A
	V-THETA 2	459.35	430.95	416.13	409.30	398.22	389.51	396.59	393.93	417.79	V-THETA 2
	V-THETA 2A	16.53	33.79	51.92	64.00	66.10	65.73	68.26	66.09	54.39	V-THETA 2A
	M 2	0.5124	0.4845	0.4983	0.5392	0.5332	0.5231	0.5205	0.4969	0.4719	M 2
	M 2A	0.3160	0.3350	0.3481	0.3904	0.4282	0.4375	0.4370	0.4097	0.3774	M 2A
	TURN(PR)	49.603	46.450	39.928	33.996	33.593	33.571	34.355	36.026	43.532	TURN(PR)
	P 2	18.882	18.552	18.713	19.371	19.493	19.531	19.612	19.329	19.045	P 2
	P 2A	18.350	18.471	18.593	19.047	19.447	19.544	19.447	19.080	18.713	P 2A
	T 2	563.709	563.081	562.451	561.643	561.762	562.361	564.396	566.548	568.699	T 2
	T 2A	562.941	563.353	562.763	561.882	561.933	562.657	565.045	566.750	568.454	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (196°) - Station 2 (186°) - Station 2A (175°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	1.761	2.480	3.199	2.093	2.093	2.949	3.089	4.135	4.427	BETA 1
STATION 2	BETA 2	55.903	52.962	49.806	43.223	42.565	42.241	43.343	45.611	52.458	BETA 2
	BETA(PR) 1	55.529	54.679	54.431	55.228	56.734	57.549	59.658	60.692	61.906	BETA(PR) 1
	BETA(PR) 2	22.159	28.957	27.341	27.281	30.314	34.392	36.914	40.283	43.445	BETA(PR) 2
	V 1	409.99	424.75	430.50	439.69	436.78	440.09	419.34	403.43	387.56	V 1
	V 2	578.49	546.32	569.67	609.53	609.66	596.70	588.18	559.95	539.43	V 2
	VZ 1	409.79	424.35	429.83	439.38	436.37	439.20	418.26	401.87	385.86	VZ 1
	VZ 2	324.30	329.08	367.65	444.10	448.81	441.32	427.14	391.11	328.28	VZ 2
	V-THETA 1	12.60	18.38	24.02	16.06	15.95	22.63	22.57	29.05	29.87	V-THETA 1
	V-THETA 2	479.04	436.10	435.15	417.37	412.20	400.74	403.12	399.54	427.17	V-THETA 2
	V(PR) 1	724.0	734.0	738.9	770.4	795.6	818.7	828.2	821.2	819.6	V(PR) 1
	V(PR) 2	350.2	376.1	413.9	499.8	520.2	535.5	535.2	513.6	453.0	V(PR) 2
	VTHETA PR1	-596.9	-598.9	-601.1	-632.8	-665.2	-690.7	-714.6	-715.9	-722.8	VTHETA PR1
	VTHETA PR2	-132.1	-182.1	-190.1	-229.0	-262.4	-302.1	-320.9	-331.5	-310.9	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.3723	0.3861	0.3915	0.4001	0.3974	0.4005	0.3810	0.3662	0.3514	M 1
	M 2	0.5100	0.4806	0.5024	0.5402	0.5403	0.5284	0.5197	0.4917	0.4711	M 2
	M(PR) 1	0.6575	0.6672	0.6720	0.7011	0.7238	0.7450	0.7526	0.7454	0.7432	M(PR) 1
	M(PR) 2	0.3087	0.3308	0.3650	0.4429	0.4610	0.4741	0.4729	0.4510	0.3956	M(PR) 2
	TURN(PR)	33.369	25.722	27.090	27.951	26.433	23.187	22.791	20.464	18.526	TURN(PR)
	P 1	14.861	14.957	14.938	15.011	14.972	15.025	14.928	14.814	14.702	P 1
	P 2	18.865	18.508	18.815	19.390	19.594	19.592	19.591	19.256	19.036	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	563.379	562.713	562.045	560.770	560.899	560.463	561.858	565.827	569.794	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	55.903	52.962	49.806	43.223	42.565	42.241	43.343	45.611	52.458	BETA 2
STATION 2A	BETA 2A	2.619	5.036	7.454	7.985	7.648	7.271	7.905	8.235	6.677	BETA 2A
	V 2	579.49	546.32	569.67	609.53	609.66	596.70	588.18	559.95	539.43	V 2
	V 2A	361.12	383.14	402.29	456.57	498.02	503.55	506.78	490.13	473.57	V 2A
	VZ 2	324.30	329.08	367.65	444.10	448.81	441.32	427.14	391.11	328.28	VZ 2
	VZ 2A	360.74	381.66	398.89	452.11	493.46	499.22	501.54	484.62	469.86	VZ 2A
	V-THETA 2	479.04	436.10	435.15	417.37	412.20	400.74	403.12	399.54	427.17	V-THETA 2
	V-THETA 2A	16.50	33.63	52.19	63.42	66.26	63.69	69.64	70.14	55.00	V-THETA 2A
	M 2	0.5100	0.4806	0.5024	0.5402	0.5403	0.5284	0.5197	0.4917	0.4711	M 2
	M 2A	0.3134	0.3331	0.3504	0.3995	0.4370	0.4421	0.4445	0.4279	0.4116	M 2A
	TURN(PR)	53.284	47.926	42.351	35.232	34.895	34.923	35.367	37.296	45.693	TURN(PR)
	P 2	18.865	18.508	18.815	19.390	19.594	19.592	19.591	19.256	19.036	P 2
	P 2A	18.252	18.400	18.546	19.074	19.505	19.567	19.486	19.256	19.026	P 2A
	T 2	563.379	562.713	562.045	560.770	560.899	560.463	561.858	565.827	569.794	T 2
	T 2A	563.473	562.822	562.171	561.003	561.093	560.938	562.462	566.021	569.579	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (226°) - Station 2 (216°) - Station 2A (205°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	5.877	5.453	5.028	4.318	5.072	3.913	4.270	5.817	7.345	BETA 1
STATION 2	BETA 2	52.975	51.350	47.757	42.525	41.585	41.183	41.501	45.443	51.459	BETA 2
	BETA(PR) 1	56.580	55.719	55.537	54.643	56.234	58.327	59.714	60.076	60.482	BETA(PR) 1
	BETA(PR) 2	24.286	29.650	29.650	29.018	31.473	35.732	38.444	37.392	36.379	BETA(PR) 2
	V 1	378.60	396.85	406.16	438.27	431.68	423.58	414.12	407.63	401.04	V 1
	V 2	571.10	543.93	556.77	595.99	601.76	586.33	576.77	586.26	595.46	V 2
	VZ 1	376.60	395.05	404.60	437.01	429.87	422.29	412.51	405.02	397.19	VZ 1
	VZ 2	343.89	339.72	374.30	439.18	449.89	440.83	431.31	410.71	370.52	VZ 2
	V-THETA 1	38.77	37.71	35.60	33.00	38.15	28.89	30.80	41.26	51.20	V-THETA 1
	V-THETA 2	455.95	424.80	412.17	402.78	399.22	385.68	381.60	417.11	465.13	V-THETA 2
	V(PR) 1	683.8	701.4	715.0	755.2	773.5	804.4	818.2	812.2	806.4	V(PR) 1
	V(PR) 2	377.3	390.9	430.7	502.3	527.8	543.7	551.6	517.9	461.2	V(PR) 2
	VTHETA PR1	-570.7	-579.5	-589.5	-615.9	-643.0	-684.5	-706.3	-703.7	-701.5	VTHETA PR1
	VTHETA PR2	-155.2	-193.4	-213.1	-243.6	-275.4	-317.1	-342.4	-313.9	-273.0	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.3431	0.3601	0.3687	0.3988	0.3926	0.3850	0.3762	0.3701	0.3640	M 1
	M 2	0.5037	0.4789	0.4910	0.5280	0.5330	0.5183	0.5082	0.5160	0.5235	M 2
	M(PR) 1	0.6197	0.6363	0.6491	0.6871	0.7034	0.7311	0.7432	0.7374	0.7319	M(PR) 1
	M(PR) 2	0.3327	0.3441	0.3798	0.4450	0.4675	0.4806	0.4861	0.4559	0.4055	M(PR) 2
	TURN(PR)	32.294	26.069	25.887	25.629	24.776	22.626	21.319	22.738	24.161	TURN(PR)
	P 1	14.667	14.808	14.844	15.055	15.025	14.995	15.002	14.982	14.962	P 1
	P 2	18.738	18.440	18.629	19.191	19.430	19.384	19.309	19.470	19.630	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	562.195	561.589	560.982	559.925	560.730	561.162	563.704	565.794	567.885	T 2
STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	52.975	51.350	47.757	42.525	41.585	41.183	41.501	45.443	51.459	BETA 2
STATION 2A	BETA 2A	4.604	6.434	8.264	7.771	7.311	7.019	7.971	8.139	6.498	BETA 2A
	V 2	571.10	543.93	556.77	595.99	601.76	586.33	576.77	586.26	595.46	V 2
	V 2A	377.40	393.20	406.27	451.83	486.81	494.50	496.03	461.14	425.51	V 2A
	VZ 2	343.89	339.72	374.30	439.18	449.89	440.83	431.31	410.71	370.52	VZ 2
	VZ 2A	376.18	390.72	402.05	447.64	482.73	490.52	490.82	456.07	422.33	VZ 2A
	V-THETA 2	455.95	424.80	412.17	402.78	399.22	385.68	381.60	417.11	465.13	V-THETA 2
	V-THETA 2A	30.29	44.06	58.39	61.09	61.93	60.39	68.73	65.23	48.10	V-THETA 2A
	M 2	0.5037	0.4789	0.4910	0.5280	0.5330	0.5183	0.5082	0.5160	0.5235	M 2
	M 2A	0.3278	0.3421	0.3540	0.3951	0.4266	0.4335	0.4341	0.4017	0.3690	M 2A
	TURN(PR)	48.371	44.916	39.492	34.748	34.252	34.117	33.459	37.224	44.872	TURN(PR)
	P 2	18.738	18.440	18.629	19.191	19.430	19.384	19.309	19.470	19.630	P 2
	P 2A	18.357	18.466	18.576	19.009	19.377	19.454	19.370	18.986	18.602	P 2A
	T 2	562.195	561.589	560.982	559.925	560.730	561.162	563.704	565.794	567.885	T 2
	T 2A	563.365	562.620	561.874	561.207	561.771	561.904	563.850	566.132	568.414	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (256°) - Station 2 (246°) - Station 2A (235°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	4.291	3.961	3.632	4.354	3.580	3.937	4.920	5.451	5.965	BETA 1
STATION 2	BETA 2	51.472	49.067	46.514	44.259	43.656	43.022	48.563	55.270	60.977	BETA 2
	BETA(PR) 1	55.401	56.128	56.704	56.478	58.687	60.126	62.252	62.664	63.079	BETA(PR) 1
	BETA(PR) 2	18.316	22.696	22.425	24.775	27.673	32.389	35.978	38.659	38.745	BETA(PR) 2
	V 1	400.89	396.88	394.91	410.43	400.04	395.38	372.78	369.12	365.45	V 1
	V 2	618.23	600.48	619.34	628.60	630.92	613.85	589.26	572.76	584.53	V 2
	VZ 1	399.75	395.93	394.12	409.22	399.15	394.17	371.00	366.99	362.96	VZ 1
	VZ 2	385.09	393.42	426.21	450.14	456.26	448.35	389.50	325.98	283.36	VZ 2
	V-THETA 1	29.99	27.42	25.02	31.16	24.97	27.13	31.94	35.02	37.92	V-THETA 1
	V-THETA 2	483.64	453.64	449.35	438.65	435.34	418.41	441.23	470.26	510.71	V-THETA 2
	V(PR) 1	704.0	710.4	717.9	741.0	768.1	791.5	797.0	799.4	801.9	V(PR) 1
	V(PR) 2	405.6	426.4	461.1	495.9	515.5	531.6	482.2	418.2	364.1	V(PR) 2
	VTHETA PR1	-579.5	-589.8	-600.1	-617.7	-656.1	-686.2	-705.2	-709.9	-714.8	VTHETA PR1
	VTHETA PR2	-127.5	-164.5	-175.9	-207.8	-239.3	-284.4	-282.8	-260.8	-227.4	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.3638	0.3601	0.3583	0.3727	0.3630	0.3587	0.3377	0.3343	0.3309	M 1
	M 2	0.5479	0.5314	0.5491	0.5591	0.5608	0.5444	0.5197	0.5031	0.5128	M 2
	M(PR) 1	0.6389	0.6445	0.6513	0.6729	0.6970	0.7181	0.7220	0.7240	0.7261	M(PR) 1
	M(PR) 2	0.3595	0.3773	0.4088	0.4410	0.4582	0.4715	0.4252	0.3674	0.3194	M(PR) 2
	TURN(PR)	37.084	33.432	34.279	31.707	31.026	27.767	26.322	24.061	24.397	TURN(PR)
	P 1	14.985	14.976	14.961	15.048	15.023	15.025	14.936	14.946	14.954	P 1
	P 2	19.095	18.933	19.144	19.397	19.501	19.388	19.091	18.938	19.051	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	561.699	561.524	561.348	559.024	559.964	560.427	563.974	566.638	569.301	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	51.472	49.067	46.514	44.259	43.656	43.022	48.563	55.270	60.977	BETA 2
STATION 2A	BETA 2A	3.711	5.665	7.619	7.883	7.218	6.866	7.918	7.952	6.295	BETA 2A
	V 2	618.23	600.48	619.34	628.60	630.92	613.85	589.26	572.76	584.53	V 2
	V 2A	380.31	401.99	423.10	461.32	482.68	477.23	467.02	448.91	428.00	V 2A
	VZ 2	385.09	393.42	426.21	450.14	456.26	448.35	389.50	325.98	283.36	VZ 2
	VZ 2A	379.51	400.03	419.37	456.93	478.73	473.53	462.18	444.17	424.97	VZ 2A
	V-THETA 2	483.64	453.64	449.35	438.65	435.34	418.41	441.23	470.26	510.71	V-THETA 2
	V-THETA 2A	24.61	39.68	56.10	63.27	60.63	57.02	64.28	62.04	46.88	V-THETA 2A
	M 2	0.5479	0.5314	0.5491	0.5591	0.5608	0.5444	0.5197	0.5031	0.5128	M 2
	M 2A	0.3312	0.3506	0.3696	0.4048	0.4239	0.4187	0.4081	0.3909	0.3713	M 2A
	TURN(PR)	47.761	43.402	38.894	36.370	36.416	36.108	40.574	47.243	54.605	TURN(PR)
	P 2	19.095	18.933	19.144	19.397	19.501	19.388	19.091	18.938	19.051	P 2
	P 2A	18.346	18.520	18.695	19.084	19.328	19.243	19.040	18.812	18.583	P 2A
	T 2	561.699	561.524	561.348	559.024	559.964	560.427	563.974	566.638	569.301	T 2
	T 2A	560.776	560.503	560.229	558.112	559.112	559.711	563.122	565.682	568.243	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (286°) - Station 2 (276°) - Station 2A (265°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	0.649	0.658	0.667	1.654	0.285	0.266	0.405	-0.360	-0.186	BETA 1
STATION 2	BETA 2	58.101	58.063	57.024	54.930	52.093	50.122	51.452	52.575	57.157	BETA 2
	BETA(PR) 1	59.047	58.285	58.436	58.669	61.001	62.889	64.797	66.157	67.047	BETA(PR) 1
	BETA(PR) 2	19.916	20.370	19.712	22.455	25.269	28.867	33.392	35.421	37.164	BETA(PR) 2
	V 1	363.10	378.78	381.32	388.38	376.60	364.61	346.17	330.57	319.68	V 1
	V 2	587.37	591.53	604.74	612.22	625.41	627.50	607.57	596.77	590.47	V 2
	VZ 1	363.06	378.75	381.29	388.20	376.49	364.35	345.77	330.14	319.22	VZ 1
	VZ 2	310.38	312.91	329.15	351.74	384.12	402.03	378.22	362.26	319.91	VZ 2
	V-THETA 1	4.11	4.35	4.44	11.21	1.87	1.69	2.44	-2.07	-1.04	V-THETA 1
	V-THETA 2	498.66	501.99	507.31	501.03	493.29	481.19	474.67	473.39	495.59	V-THETA 2
	V(PR) 1	705.9	720.5	728.4	746.6	776.6	799.6	812.2	816.9	818.7	V(PR) 1
	V(PR) 2	330.1	333.8	349.6	380.7	425.1	459.7	453.9	445.4	402.3	V(PR) 2
	VTHETA PR1	-605.4	-612.9	-620.7	-637.7	-679.2	-711.6	-734.7	-747.0	-753.7	VTHETA PR1
	VTHETA PR2	-112.5	-116.2	-117.9	-145.4	-181.3	-221.6	-249.3	-257.6	-242.5	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.3287	0.3433	0.3456	0.3522	0.3412	0.3301	0.3131	0.2987	0.2887	M 1
	M 2	0.5123	0.5164	0.5289	0.5357	0.5479	0.5501	0.5308	0.5202	0.5137	M 2
	M(PR) 1	0.6391	0.6529	0.6602	0.6770	0.7037	0.7240	0.7346	0.7382	0.7395	M(PR) 1
	M(PR) 2	0.2879	0.2914	0.3058	0.3331	0.3724	0.4030	0.3965	0.3883	0.3500	M(PR) 2
	TURN(PR)	39.131	37.915	38.724	36.217	35.744	34.049	31.451	30.792	29.948	TURN(PR)
	P 1	14.898	14.999	15.015	15.060	15.020	15.007	14.973	14.928	14.884	P 1
	P 2	18.943	18.993	19.118	19.296	19.601	19.856	19.752	19.682	19.619	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	575.858	575.194	574.529	574.761	574.777	574.278	575.920	577.377	578.834	T 2
STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	58.101	58.063	57.024	54.930	52.093	50.122	51.452	52.575	57.157	BETA 2
STATION 2A	BETA 2A	-6.825	-2.304	2.217	9.143	7.965	6.963	7.495	7.625	6.012	BETA 2A
	V 2	587.37	591.53	604.74	612.22	625.41	627.50	607.57	596.77	590.47	V 2
	V 2A	310.35	323.16	336.46	392.64	459.30	500.58	505.26	477.75	445.82	V 2A
	VZ 2	310.38	312.91	329.15	351.74	384.12	402.03	378.22	362.26	319.91	VZ 2
	VZ 2A	308.15	322.89	336.20	387.62	454.75	496.60	500.52	473.07	442.90	VZ 2A
	V-THETA 2	498.66	501.99	507.31	501.03	493.29	481.19	474.67	473.39	495.59	V-THETA 2
	V-THETA 2A	-36.88	-12.99	13.02	62.38	63.63	60.65	65.85	63.33	46.64	V-THETA 2A
	M 2	0.5123	0.5164	0.5289	0.5357	0.5479	0.5501	0.5308	0.5202	0.5137	M 2
	M 2A	0.2667	0.2780	0.2897	0.3393	0.3986	0.4360	0.4394	0.4141	0.3850	M 2A
	TURN(PR)	64.926	60.367	54.806	45.781	44.106	43.112	43.887	44.873	51.062	TURN(PR)
	P 2	18.943	18.993	19.118	19.296	19.601	19.856	19.752	19.682	19.619	P 2
	P 2A	17.787	17.849	17.911	18.326	18.886	19.319	19.311	18.995	18.678	P 2A
	T 2	575.858	575.194	574.529	574.761	574.777	574.278	575.920	577.377	578.834	T 2
	T 2A	571.715	571.187	570.658	570.229	570.288	569.475	571.490	573.036	574.582	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (316°) - Station 2 (306°) - Station 2A (295°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-23.289	-19.966	-16.644	-15.362	-14.234	-13.629	-12.300	-12.112	-10.599	BETA 1
STATION 2	BETA 2	75.100	75.501	72.867	61.609	50.302	47.723	51.007	54.362	57.930	BETA 2
	BETA(PR) 1	74.924	73.046	70.964	69.762	69.362	69.613	69.460	69.760	69.803	BETA(PR) 1
	BETA(PR) 2	62.600	54.727	50.931	34.695	30.359	34.139	38.843	43.165	48.339	BETA(PR) 2
	V 1	202.18	225.14	251.00	276.08	292.69	300.01	308.15	305.44	302.95	V 1
	V 2	417.88	467.57	474.20	534.73	590.13	588.11	564.50	538.40	511.58	V 2
	VZ 1	185.71	211.61	240.48	266.20	283.63	291.37	300.75	298.28	297.37	VZ 1
	VZ 2	107.45	117.06	139.70	254.24	376.81	395.31	354.82	313.38	271.36	VZ 2
	V-THETA 1	-79.94	-76.88	-71.89	-73.13	-71.95	-70.65	-65.57	-64.01	-55.65	V-THETA 1
	V-THETA 2	403.83	452.68	453.16	470.39	453.90	434.79	438.27	437.11	433.10	V-THETA 2
	V(PR) 1	714.0	725.7	737.3	769.6	804.7	836.5	857.3	862.3	861.5	V(PR) 1
	V(PR) 2	233.5	202.7	221.6	309.3	437.0	478.2	456.3	430.3	408.9	V(PR) 2
	VTHETA PR1	-689.4	-694.1	-697.0	-722.0	-753.1	-784.0	-802.7	-809.0	-808.4	VTHETA PR1
	VTHETA PR2	-207.3	-165.5	-172.1	-176.0	-220.7	-268.0	-285.7	-293.9	-305.0	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.1817	0.2025	0.2260	0.2488	0.2640	0.2707	0.2781	0.2757	0.2734	M 1
	M 2	0.3585	0.4027	0.4088	0.4630	0.5131	0.5104	0.4880	0.4636	0.4388	M 2
	M(PR) 1	0.6417	0.6527	0.6638	0.6936	0.7258	0.7547	0.7739	0.7783	0.7774	M(PR) 1
	M(PR) 2	0.2003	0.1746	0.1911	0.2678	0.3799	0.4150	0.3945	0.3706	0.3507	M(PR) 2
	TURN(PR)	12.324	18.319	20.034	35.073	39.019	35.509	30.673	26.659	21.535	TURN(PR)
	P 1	13.988	14.074	14.122	14.124	14.087	14.133	14.186	14.190	14.194	P 1
	P 2	17.661	17.995	18.070	18.651	19.424	19.577	19.406	19.166	18.922	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	580.001	579.322	578.643	578.976	579.623	581.300	583.333	585.379	587.425	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	75.100	75.501	72.867	61.609	50.302	47.723	51.007	54.362	57.930	BETA 2
STATION 2A	BETA 2A	-14.659	-8.282	-1.904	9.767	8.609	7.282	7.281	7.285	5.534	BETA 2A
	V 2	417.88	467.57	474.20	534.73	590.13	588.11	564.50	538.40	511.58	V 2
	V 2A	204.36	238.97	261.94	335.91	444.54	498.86	496.69	485.05	474.06	V 2A
	VZ 2	107.45	117.06	139.70	254.24	376.81	395.31	354.82	313.38	271.36	VZ 2
	VZ 2A	197.71	236.48	261.79	331.01	439.41	494.56	492.27	480.68	471.34	VZ 2A
	V-THETA 2	403.83	452.68	453.16	470.39	453.90	434.79	438.27	437.11	433.10	V-THETA 2
	V-THETA 2A	-51.72	-34.42	-8.70	56.98	66.53	63.20	62.90	61.45	45.67	V-THETA 2A
	M 2	0.3585	0.4027	0.4088	0.4630	0.5131	0.5104	0.4880	0.4636	0.4388	M 2
	M 2A	0.1737	0.2035	0.2234	0.2873	0.3824	0.4304	0.4278	0.4167	0.4063	M 2A
	TURN(PR)	89.759	83.783	74.771	51.837	41.671	40.393	43.656	47.001	52.313	TURN(PR)
	P 2	17.661	17.995	18.070	18.651	19.424	19.577	19.406	19.166	18.922	P 2
	P 2A	17.181	17.229	17.277	17.607	18.351	18.954	18.976	18.827	18.679	P 2A
	T 2	580.001	579.322	578.643	578.976	579.623	581.300	583.333	585.379	587.425	T 2
	T 2A	579.323	578.605	577.887	578.359	578.797	579.789	581.589	583.470	585.350	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 100.10 Equivalent Rotor Speed = 4214.42 Equivalent Weight Flow = 91.58
Circumferential Distortion
Station 1 (346°) - Station 2 (336°) - Station 2A (325°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-12.060	-11.579	-11.097	-10.070	-9.158	-9.133	-8.689	-8.448	-8.190	BETA 1
STATION 2	BETA 2	70.686	71.181	69.144	57.038	47.019	46.832	55.616	61.249	66.863	BETA 2
	BETA(PR) 1	68.123	66.259	65.957	65.284	65.122	65.848	66.025	66.999	68.477	BETA(PR) 1
	BETA(PR) 2	36.489	39.252	41.484	33.010	30.793	34.029	42.859	44.393	47.315	BETA(PR) 2
	V 1	273.75	304.57	311.43	330.37	345.86	349.39	356.18	341.63	318.40	V 1
	V 2	514.25	510.84	500.48	542.10	593.10	590.46	537.03	542.84	548.81	V 2
	VZ 1	267.70	298.37	305.61	325.27	341.36	344.72	351.71	337.51	314.71	VZ 1
	VZ 2	170.09	164.79	178.18	294.93	404.19	403.61	303.02	260.92	215.53	VZ 2
	V-THETA 1	-57.19	-61.13	-59.94	-57.76	-55.03	-55.42	-53.75	-50.13	-45.29	V-THETA 1
	V-THETA 2	485.31	483.53	467.69	454.81	433.73	430.29	442.81	475.58	504.40	V-THETA 2
	V(PR) 1	718.4	741.1	750.1	777.9	811.5	842.6	865.7	863.9	858.0	V(PR) 1
	V(PR) 2	211.6	212.8	237.9	351.8	470.8	487.6	414.0	365.7	318.4	V(PR) 2
	VTHETA PR1	-666.7	-678.4	-685.0	-706.7	-736.1	-768.8	-790.9	-795.1	-798.0	VTHETA PR1
	VTHETA PR2	-125.8	-134.6	-157.6	-191.6	-240.9	-272.5	-281.2	-255.5	-233.7	VTHETA PR2
	U 1	609.48	617.24	625.09	648.91	681.10	713.34	737.14	744.95	752.71	U 1
	U 2	611.12	618.18	625.24	646.41	674.61	702.82	723.99	731.03	738.09	U 2
	M 1	0.2467	0.2749	0.2812	0.2986	0.3128	0.3161	0.3223	0.3089	0.2876	M 1
	M 2	0.4462	0.4433	0.4340	0.4720	0.5182	0.5151	0.4649	0.4698	0.4748	M 2
	M(PR) 1	0.6474	0.6688	0.6772	0.7030	0.7340	0.7623	0.7835	0.7812	0.7749	M(PR) 1
	M(PR) 2	0.1836	0.1846	0.2063	0.3063	0.4113	0.4254	0.3584	0.3165	0.2755	M(PR) 2
	TURN(PR)	31.633	27.007	24.474	32.280	34.344	31.852	23.220	22.667	21.232	TURN(PR)
	P 1	13.961	14.066	14.049	14.043	14.031	14.067	14.118	14.095	14.032	P 1
	P 2	18.050	17.992	17.920	18.428	19.134	19.231	18.647	18.729	18.809	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	574.777	574.512	574.246	573.424	574.527	575.921	579.362	580.270	581.177	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	70.686	71.181	69.144	57.038	47.019	46.832	55.616	61.249	66.863	BETA 2
STATION 2A	BETA 2A	-12.129	-6.543	-0.957	8.310	8.957	8.458	8.036	7.099	4.507	BETA 2A
	V 2	514.25	510.84	500.48	542.10	593.10	590.46	537.03	542.84	548.81	V 2
	V 2A	135.83	177.58	198.39	305.63	426.55	498.41	494.73	477.26	459.29	V 2A
	VZ 2	170.09	164.79	178.18	294.93	404.19	403.61	303.02	260.92	215.53	VZ 2
	VZ 2A	132.80	176.42	198.36	302.39	421.24	492.71	489.46	473.16	457.38	VZ 2A
	V-THETA 2	485.31	483.53	467.69	454.81	433.73	430.29	442.81	475.58	504.40	V-THETA 2
	V-THETA 2A	-28.54	-20.23	-3.31	44.17	66.39	73.27	69.10	58.93	36.05	V-THETA 2A
	M 2	0.4462	0.4433	0.4340	0.4720	0.5182	0.5151	0.4649	0.4698	0.4748	M 2
	M 2A	0.1155	0.1513	0.1691	0.2618	0.3676	0.4311	0.4267	0.4105	0.3940	M 2A
	TURN(PR)	82.815	77.724	70.101	48.722	38.040	38.327	47.514	54.083	62.290	TURN(PR)
	P 2	18.050	17.992	17.920	18.428	19.134	19.231	18.647	18.729	18.809	P 2
	P 2A	17.031	17.072	17.113	17.542	18.343	19.050	19.037	18.843	18.648	P 2A
	T 2	574.777	574.512	574.246	573.424	574.527	575.921	579.362	580.270	581.177	T 2
	T 2A	576.627	576.273	575.918	575.075	575.622	577.085	579.775	581.438	583.099	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (16°) - Station 2 (6°) - Station 2A (355°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-0.962	-1.244	-1.525	-1.211	-1.392	-0.903	-0.861	-0.548	-0.770	BETA 1
STATION 2	BETA 2	64.214	64.214	64.214	55.585	52.364	51.204	54.127	57.410	62.084	BETA 2
	BETA(PR) 1	59.774	58.405	57.866	57.593	58.112	59.565	61.187	61.770	62.950	BETA(PR) 1
	BETA(PR) 2	17.988	17.109	25.424	28.322	28.981	34.080	37.316	40.381	44.764	BETA(PR) 2
	V 1	321.88	345.41	358.49	374.80	386.36	379.95	367.35	361.25	347.85	V 1
	V 2	526.50	536.36	506.78	513.60	535.88	524.56	517.38	504.85	491.77	V 2
	VZ 1	321.82	345.33	358.36	374.69	386.13	379.63	366.90	360.78	347.32	VZ 1
	VZ 2	229.03	233.32	220.45	290.26	327.13	328.43	302.90	271.68	230.06	VZ 2
	V-THETA 1	-5.40	-7.50	-9.54	-7.92	-9.38	-5.98	-5.51	-3.45	-4.67	V-THETA 1
	V-THETA 2	474.07	482.95	456.32	423.67	424.23	408.54	418.85	424.98	434.22	V-THETA 2
	V(PR) 1	639.3	659.1	673.7	699.2	731.0	749.6	761.5	762.9	763.9	V(PR) 1
	V(PR) 2	240.8	244.1	244.1	329.8	374.2	397.0	381.5	357.3	324.6	V(PR) 2
	VTHETA PR1	-552.4	-561.4	-570.5	-590.3	-620.6	-646.2	-667.0	-672.0	-680.2	VTHETA PR1
	VTHETA PR2	-74.4	-71.8	-104.8	-156.4	-181.2	-222.2	-230.9	-231.1	-228.2	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2907	0.3124	0.3245	0.3396	0.3503	0.3443	0.3327	0.3270	0.3147	M 1
	M 2	0.4639	0.4731	0.4460	0.4523	0.4720	0.4614	0.4540	0.4420	0.4296	M 2
	M(PR) 1	0.5775	0.5962	0.6098	0.6335	0.6628	0.6793	0.6896	0.6907	0.6910	M(PR) 1
	M(PR) 2	0.2122	0.2153	0.2148	0.2904	0.3296	0.3493	0.3348	0.3128	0.2835	M(PR) 2
	TURN(PR)	41.785	41.296	32.442	29.276	29.144	25.515	23.919	21.445	18.251	TURN(PR)
	P 1	14.350	14.453	14.512	14.544	14.571	14.543	14.522	14.513	14.458	P 1
	P 2	17.981	18.035	17.746	17.957	18.268	18.277	18.252	18.165	18.078	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	559.124	558.924	558.725	558.586	560.301	560.716	562.864	564.191	565.517	T 2
STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	64.214	64.214	64.214	55.585	52.364	51.204	54.127	57.410	62.084	BETA 2
STATION 2A	BETA 2A	-6.795	-2.806	1.184	6.488	8.532	8.505	7.339	6.030	2.494	BETA 2A
	V 2	526.50	536.36	506.78	513.60	535.88	524.56	517.38	504.85	491.77	V 2
	V 2A	187.43	211.43	217.05	284.26	364.63	415.49	422.83	412.55	396.97	V 2A
	VZ 2	229.03	233.32	220.45	290.26	327.13	328.43	302.90	271.68	230.06	VZ 2
	VZ 2A	186.11	211.17	217.00	282.41	360.50	410.68	419.01	409.87	396.17	VZ 2A
	V-THETA 2	474.07	482.95	456.32	423.67	424.23	408.54	418.85	424.98	434.22	V-THETA 2
	V-THETA 2A	-22.18	-10.35	4.48	32.12	54.08	61.41	53.97	43.30	17.26	V-THETA 2A
	M 2	0.4639	0.4731	0.4460	0.4523	0.4720	0.4614	0.4540	0.4420	0.4296	M 2
	M 2A	0.1618	0.1827	0.1876	0.2464	0.3169	0.3619	0.3677	0.3582	0.3440	M 2A
	TURN(PR)	71.009	67.020	63.029	49.091	43.811	42.653	46.720	51.306	59.511	TURN(PR)
	P 2	17.981	18.035	17.746	17.957	18.268	18.277	18.252	18.165	18.078	P 2
	P 2A	16.887	16.914	16.940	17.232	17.729	18.154	18.192	18.074	17.956	P 2A
	T 2	559.124	558.924	558.725	558.586	560.301	560.716	562.864	564.191	565.517	T 2
	T 2A	541.305	541.088	540.871	540.644	542.208	542.920	545.096	546.299	547.502	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (46°) - Station 2 (36°) - Station 2A (25°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	6.701	5.898	5.095	4.978	3.792	4.673	4.182	4.728	4.355	BETA 1
STATION 2	BETA 2	59.008	55.784	52.560	46.322	45.593	45.573	51.277	50.790	55.342	BETA 2
	BETA(PR) 1	57.121	55.425	54.255	54.482	55.896	58.008	59.399	59.770	61.173	BETA(PR) 1
	BETA(PR) 2	23.708	30.226	30.594	30.190	33.759	37.480	39.613	50.558	64.433	BETA(PR) 2
	V 1	330.87	358.30	380.93	392.83	397.12	382.01	376.44	373.40	358.37	V 1
	V 2	506.24	480.51	486.47	515.70	512.37	504.68	501.13	425.62	329.71	V 2
	VZ 1	328.60	356.40	379.42	391.33	396.13	380.47	375.02	371.66	356.83	VZ 1
	VZ 2	260.67	270.20	295.74	356.10	358.38	352.96	313.15	268.73	187.29	VZ 2
	V-THETA 1	38.61	36.82	33.83	34.09	26.26	31.10	27.42	30.74	27.17	V-THETA 1
	V-THETA 2	433.97	397.35	386.25	372.93	365.88	360.09	390.55	329.38	270.90	V-THETA 2
	V(PR) 1	605.3	628.0	649.5	673.6	706.6	718.3	736.9	738.4	740.3	V(PR) 1
	V(PR) 2	284.7	312.7	343.6	412.1	431.3	445.3	407.1	423.5	434.3	V(PR) 2
	VTHETA PR1	-508.4	-517.1	-527.1	-548.3	-585.0	-609.1	-634.1	-637.8	-648.3	VTHETA PR1
	VTHETA PR2	-114.5	-157.4	-174.9	-207.2	-239.5	-270.6	-259.2	-326.7	-391.5	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2990	0.3243	0.3453	0.3563	0.3603	0.3463	0.3411	0.3383	0.3244	M 1
	M 2	0.4472	0.4238	0.4294	0.4571	0.4545	0.4474	0.4431	0.3737	0.2874	M 2
	M(PR) 1	0.5470	0.5684	0.5887	0.6110	0.6411	0.6511	0.6677	0.6690	0.6701	M(PR) 1
	M(PR) 2	0.2515	0.2758	0.3033	0.3652	0.3826	0.3947	0.3600	0.3719	0.3786	M(PR) 2
	TURN(PR)	33.413	25.199	23.662	24.297	22.152	20.560	19.835	9.266	-3.219	TURN(PR)
	P 1	14.555	14.702	14.834	14.882	14.921	14.869	14.860	14.853	14.770	P 1
	P 2	17.836	17.571	17.643	18.038	18.135	18.185	18.210	17.559	16.907	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	554.676	554.289	553.902	551.847	550.789	550.852	553.154	554.921	556.688	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	59.008	55.784	52.560	46.322	45.593	45.573	51.277	50.790	55.342	BETA 2
STATION 2A	BETA 2A	-0.768	1.836	4.441	7.379	7.963	7.940	7.976	7.614	5.179	BETA 2A
	V 2	506.24	480.51	486.47	515.70	512.37	504.68	501.13	425.62	329.71	V 2
	V 2A	300.35	311.77	318.77	348.51	389.80	399.83	398.06	385.91	370.30	V 2A
	VZ 2	260.67	270.20	295.74	356.10	358.38	352.96	313.15	268.73	187.29	VZ 2
	VZ 2A	300.32	311.61	317.81	345.60	385.94	395.77	393.87	382.15	368.39	VZ 2A
	V-THETA 2	433.97	397.35	386.25	372.93	365.88	360.09	390.55	329.38	270.90	V-THETA 2
	V-THETA 2A	-4.03	9.99	24.68	44.76	53.99	55.20	55.19	51.08	33.39	V-THETA 2A
	M 2	0.4472	0.4238	0.4294	0.4571	0.4545	0.4474	0.4431	0.3737	0.2874	M 2
	M 2A	0.2619	0.2721	0.2784	0.3053	0.3424	0.3513	0.3492	0.3376	0.3231	M 2A
	TURN(PR)	59.776	53.948	48.118	38.937	37.608	37.586	43.232	43.097	50.077	TURN(PR)
	P 2	17.836	17.571	17.643	18.038	18.135	18.185	18.210	17.559	16.907	P 2
	P 2A	17.408	17.439	17.469	17.688	17.990	18.091	18.038	17.907	17.775	P 2A
	T 2	554.676	554.289	553.902	551.847	550.789	550.852	553.154	554.921	556.688	T 2
	T 2A	554.897	554.488	554.080	552.477	551.987	552.328	554.121	556.106	558.090	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (76°) - Station 2 (66°) - Station 2A (55°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	4.071	3.886	3.700	3.474	2.970	3.264	2.401	3.256	3.575	BETA 1
STATION 2	BETA 2	57.523	53.434	49.344	44.026	43.373	43.164	44.382	47.728	52.565	BETA 2
	BETA(PR) 1	58.696	56.745	55.167	55.074	56.340	58.338	59.929	60.656	61.474	BETA(PR) 1
	BETA(PR) 2	16.821	23.493	24.728	25.730	29.177	33.556	36.446	39.174	43.539	BETA(PR) 2
	V 1	319.64	348.55	374.34	390.84	394.07	382.27	374.69	365.25	356.30	V 1
	V 2	545.20	522.33	530.01	557.06	554.36	540.58	530.16	510.04	483.52	V 2
	VZ 1	318.82	347.75	373.56	390.10	393.43	381.38	373.94	364.20	355.10	VZ 1
	VZ 2	292.75	311.18	345.31	400.49	402.78	393.92	378.37	342.60	293.54	VZ 2
	V-THETA 1	22.69	23.62	24.16	23.68	20.41	21.75	15.68	20.72	22.19	V-THETA 1
	V-THETA 2	459.93	419.52	402.08	387.10	380.53	369.45	370.30	376.89	383.45	V-THETA 2
	V(PR) 1	613.6	634.2	654.0	681.4	709.9	726.7	746.5	743.4	743.8	V(PR) 1
	V(PR) 2	305.8	339.3	380.2	444.7	461.6	473.3	471.2	442.8	405.7	V(PR) 2
	VTHETA PR1	-524.3	-530.3	-536.8	-558.7	-590.8	-618.4	-645.8	-647.8	-653.3	VTHETA PR1
	VTHETA PR2	-88.5	-135.3	-159.0	-193.0	-224.9	-261.3	-279.4	-279.2	-278.9	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2987	0.3153	0.3391	0.3545	0.3575	0.3465	0.3395	0.3307	0.3225	M 1
	M 2	0.4820	0.4610	0.4682	0.4941	0.4920	0.4794	0.4681	0.4493	0.4248	M 2
	M(PR) 1	0.5542	0.5737	0.5925	0.6180	0.6440	0.6587	0.6763	0.6731	0.6732	M(PR) 1
	M(PR) 2	0.2704	0.2994	0.3358	0.3944	0.4097	0.4198	0.4161	0.3901	0.3564	M(PR) 2
	TURN(PR)	41.874	33.252	30.439	29.348	27.177	24.812	23.530	21.537	17.999	TURN(PR)
	P 1	14.529	14.680	14.834	14.917	14.937	14.889	14.888	14.840	14.774	P 1
	P 2	18.217	17.969	18.085	18.463	18.575	18.581	18.523	18.326	18.055	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	557.292	557.047	556.802	554.760	554.005	553.424	557.199	557.888	558.577	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	57.523	53.434	49.344	44.026	43.373	43.164	44.382	47.728	52.565	BETA 2
STATION 2A	BETA 2A	4.639	5.994	7.349	8.182	7.477	7.478	8.400	8.784	7.276	BETA 2A
	V 2	545.20	522.33	530.01	557.06	554.36	540.58	530.16	510.04	483.52	V 2
	V 2A	323.37	343.18	362.98	390.25	425.36	428.50	427.53	415.77	400.88	V 2A
	VZ 2	292.75	311.18	345.31	400.49	402.78	393.92	378.37	342.60	293.54	VZ 2
	VZ 2A	322.32	341.30	360.00	386.25	421.63	424.62	422.58	410.51	397.23	VZ 2A
	V-THETA 2	459.93	419.52	402.08	387.10	380.53	369.45	370.30	376.89	383.45	V-THETA 2
	V-THETA 2A	26.15	35.84	46.43	55.54	55.34	55.74	62.40	63.43	50.72	V-THETA 2A
	M 2	0.4820	0.4610	0.4682	0.4941	0.4920	0.4794	0.4681	0.4493	0.4248	M 2
	M 2A	0.2819	0.2995	0.3172	0.3423	0.3742	0.3772	0.3751	0.3642	0.3505	M 2A
	TURN(PR)	52.884	47.440	41.994	35.838	35.874	35.638	35.911	38.865	45.202	TURN(PR)
	P 2	18.217	17.969	18.085	18.463	18.575	18.581	18.523	18.326	18.055	P 2
	P 2A	17.573	17.701	17.828	18.098	18.375	18.388	18.303	18.161	18.019	P 2A
	T 2	557.292	557.047	556.802	554.760	554.005	553.424	557.199	557.888	558.577	T 2
	T 2A	556.413	556.159	555.904	553.756	552.786	552.310	555.808	556.768	557.727	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (106°) - Station 2 (96°) - Station 2A (85°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	1.045	1.438	1.831	1.558	1.698	1.449	0.512	1.438	2.222	BETA 1
STATION 2	BETA 2	54.666	51.248	47.830	42.200	41.613	41.332	42.649	45.451	52.081	BETA 2
	BETA(PR) 1	59.975	57.924	55.902	55.627	56.841	59.074	60.597	61.730	62.435	BETA(PR) 1
	BETA(PR) 2	21.719	28.131	29.117	27.622	31.088	35.289	37.864	40.051	43.450	BETA(PR) 2
	V 1	312.88	341.89	371.92	391.23	392.05	378.19	371.35	355.29	346.37	V 1
	V 2	524.23	497.77	503.21	547.67	543.29	529.74	520.82	504.50	483.75	V 2
	VZ 1	312.81	341.78	371.73	391.07	391.77	377.81	370.93	354.73	345.62	VZ 1
	VZ 2	303.19	311.58	337.82	405.66	406.00	397.37	382.51	353.38	296.90	VZ 2
	V-THETA 1	5.71	8.58	11.88	10.64	11.61	9.56	3.31	8.90	13.41	V-THETA 1
	V-THETA 2	427.67	388.19	372.95	367.83	360.62	349.49	352.34	358.99	381.13	V-THETA 2
	V(PR) 1	625.2	643.6	663.1	692.7	716.3	735.3	755.7	749.2	747.1	V(PR) 1
	V(PR) 2	326.4	353.3	386.7	457.9	474.4	487.4	485.3	462.5	409.7	V(PR) 2
	VTHETA PR1	-541.3	-545.4	-549.1	-571.7	-599.6	-630.6	-658.2	-659.6	-662.1	VTHETA PR1
	VTHETA PR2	-120.8	-166.6	-188.2	-212.3	-244.8	-281.2	-297.4	-297.1	-281.3	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2825	0.3092	0.3369	0.3548	0.3556	0.3427	0.3364	0.3215	0.3133	M 1
	M 2	0.4629	0.4388	0.4440	0.4857	0.4816	0.4689	0.4599	0.4442	0.4246	M 2
	M(PR) 1	0.5644	0.5820	0.6007	0.6282	0.6497	0.6663	0.6846	0.6780	0.6758	M(PR) 1
	M(PR) 2	0.2882	0.3115	0.3412	0.4061	0.4205	0.4315	0.4286	0.4072	0.3596	M(PR) 2
	TURN(PR)	38.255	29.793	26.786	28.009	25.768	23.816	22.781	21.735	19.049	TURN(PR)
	P 1	14.501	14.649	14.804	14.913	14.914	14.871	14.875	14.797	14.751	P 1
	P 2	18.106	17.842	17.931	18.471	18.571	18.540	18.519	18.342	18.164	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	556.701	556.137	555.572	554.169	554.194	554.503	556.340	558.061	559.780	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	54.666	51.248	47.830	42.200	41.613	41.332	42.649	45.451	52.081	BETA 2
STATION 2A	BETA 2A	5.619	0.614	7.610	8.447	7.505	7.591	8.160	8.477	7.059	BETA 2A
	V 2	524.23	497.77	503.21	547.67	543.29	529.74	520.82	504.50	483.75	V 2
	V 2A	354.23	367.72	378.66	407.21	436.76	446.73	443.21	430.90	416.61	V 2A
	VZ 2	303.19	311.58	337.82	405.66	406.00	397.37	382.51	353.38	296.90	VZ 2
	VZ 2A	352.52	365.28	375.32	402.76	432.90	442.57	438.36	425.79	413.01	VZ 2A
	V-THETA 2	427.67	388.19	372.95	367.83	360.62	349.49	352.34	358.99	381.13	V-THETA 2
	V-THETA 2A	44.68	42.35	50.14	59.61	57.03	58.98	62.86	63.46	51.14	V-THETA 2A
	M 2	0.4629	0.4388	0.4440	0.4857	0.4816	0.4689	0.4599	0.4442	0.4246	M 2
	M 2A	0.3091	0.3213	0.3313	0.3573	0.3840	0.3929	0.3890	0.3774	0.3641	M 2A
	TURN(PR)	49.047	44.634	40.219	33.747	34.086	33.694	34.418	36.894	44.934	TURN(PR)
	P 2	18.106	17.842	17.931	18.471	18.571	18.540	18.519	18.342	18.164	P 2
	P 2A	17.787	17.876	17.963	18.230	18.495	18.554	18.457	18.303	18.150	P 2A
	T 2	556.701	556.137	555.572	554.169	554.194	554.503	556.340	558.061	559.780	T 2
	T 2A	557.013	556.384	555.753	554.344	554.219	554.540	556.510	557.952	559.394	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed - 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (136°) - Station 2 (126°) - Station 2A (115°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.235	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	1.092	1.478	1.864	1.578	1.386	1.269	1.322	1.261	1.293	BETA 1
STATION 2	BETA 2	55.892	52.483	49.194	44.175	43.470	42.822	43.629	46.953	52.776	BETA 2
	BETA(PR) 1	59.544	57.776	56.619	56.134	57.537	59.640	60.867	61.800	62.513	BETA(PR) 1
	BETA(PR) 2	19.046	24.555	25.192	26.518	30.539	34.421	37.483	39.716	43.284	BETA(PR) 2
	V 1	318.12	343.69	362.06	383.89	383.18	370.53	364.53	354.82	347.96	V 1
	V 2	536.86	517.79	527.20	550.07	542.67	533.99	522.59	506.22	485.52	V 2
	VZ 1	318.05	343.57	361.87	383.73	382.96	370.18	364.03	354.28	347.38	VZ 1
	VZ 2	301.05	315.33	344.52	394.47	393.66	391.28	377.72	345.05	293.34	VZ 2
	V-THETA 1	6.06	8.86	11.78	10.57	9.27	8.20	8.40	7.80	7.84	V-THETA 1
	V-THETA 2	444.51	410.70	399.05	383.27	373.18	362.61	360.07	369.42	386.12	V-THETA 2
	V(PR) 1	627.5	644.3	657.7	688.6	713.5	732.5	747.9	749.9	752.9	V(PR) 1
	V(PR) 2	318.5	346.7	380.7	440.9	457.4	474.9	476.8	449.4	403.7	V(PR) 2
	VTHETA PR1	-540.9	-545.1	-549.2	-571.8	-602.0	-632.0	-653.1	-660.7	-667.7	VTHETA PR1
	VTHETA PR2	-103.9	-144.1	-162.1	-196.8	-232.2	-268.1	-289.7	-286.6	-276.3	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2873	0.3108	0.3278	0.3480	0.3474	0.3356	0.3301	0.3211	0.3148	M 1
	M 2	0.4748	0.4573	0.4660	0.4880	0.4811	0.4732	0.4614	0.4456	0.4260	M 2
	M(PR) 1	0.5667	0.5827	0.5954	0.6243	0.6468	0.6635	0.6772	0.6787	0.6810	M(PR) 1
	M(PR) 2	0.2817	0.3062	0.3365	0.3911	0.4054	0.4209	0.4210	0.3956	0.3542	M(PR) 2
	TURN(PR)	40.498	33.220	31.427	29.620	27.012	25.250	23.431	22.140	19.293	TURN(PR)
	P 1	14.572	14.722	14.823	14.907	14.909	14.857	14.855	14.805	14.774	P 1
	P 2	18.256	18.074	18.202	18.521	18.614	18.614	18.552	18.365	18.177	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	556.094	555.996	555.897	554.065	554.068	553.725	556.582	558.445	560.308	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	55.892	52.483	49.194	44.175	43.470	42.822	43.629	46.953	52.776	BETA 2
STATION 2A	BETA 2A	5.812	6.700	7.589	8.516	7.581	7.689	7.973	8.097	6.707	BETA 2A
	V 2	536.86	517.79	527.20	550.07	542.67	533.99	522.59	506.22	485.52	V 2
	V 2A	328.40	349.06	369.96	404.32	436.84	443.79	442.79	433.53	421.84	V 2A
	VZ 2	301.05	315.33	344.52	394.47	393.66	391.28	377.72	345.05	293.34	VZ 2
	VZ 2A	326.72	346.68	360.77	399.83	432.90	439.55	438.14	428.80	418.50	VZ 2A
	V-THETA 2	444.51	410.70	399.05	383.27	373.18	362.61	360.07	369.42	386.12	V-THETA 2
	V-THETA 2A	33.26	40.73	48.07	59.87	57.62	59.34	61.37	61.00	49.21	V-THETA 2A
	M 2	0.4748	0.4573	0.4660	0.4880	0.4811	0.4732	0.4614	0.4456	0.4260	M 2
	M 2A	0.2864	0.3048	0.3181	0.3548	0.3841	0.3905	0.3887	0.3796	0.3685	M 2A
	TURN(PR)	50.080	45.783	41.604	35.653	35.867	35.086	35.585	38.776	45.982	TURN(PR)
	P 2	18.256	18.074	18.202	18.521	18.614	18.614	18.552	18.365	18.177	P 2
	P 2A	17.677	17.795	17.915	18.228	18.539	18.566	18.491	18.364	18.237	P 2A
	T 2	556.094	555.996	555.897	554.065	554.068	553.725	556.582	558.445	560.308	T 2
	T 2A	556.252	556.035	555.817	554.099	554.123	553.933	556.499	558.361	560.222	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (166°) - Station 2 (156°) - Station 2A (145°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	1.809	2.021	2.233	1.991	1.556	1.460	2.314	1.631	0.963	BETA 1
STATION 2	BETA 2	52.381	51.638	47.470	43.051	41.791	41.804	42.983	45.010	51.553	BETA 2
	BETA(PR) 1	58.506	56.515	56.115	56.191	57.510	59.635	61.055	61.862	62.579	BETA(PR) 1
	BETA(PR) 2	22.584	27.759	28.518	28.182	31.634	35.117	37.871	40.427	43.567	BETA(PR) 2
	V 1	328.92	358.30	367.41	381.36	382.89	369.93	358.56	352.77	347.99	V 1
	V 2	524.33	499.45	508.15	540.11	538.07	530.20	520.26	501.76	482.51	V 2
	VZ 1	328.74	358.08	367.14	381.11	382.64	369.55	357.87	352.18	347.44	VZ 1
	VZ 2	320.06	309.97	343.50	394.64	400.98	394.83	380.04	354.20	299.62	VZ 2
	V-THETA 1	10.38	12.64	14.32	13.25	10.39	9.42	14.46	10.03	5.84	V-THETA 1
	V-THETA 2	415.32	391.62	374.47	368.66	358.41	353.07	354.18	354.32	377.39	V-THETA 2
	V(PR) 1	629.3	649.0	658.5	684.9	712.4	731.2	739.6	747.0	754.7	V(PR) 1
	V(PR) 2	346.6	350.3	390.9	447.8	471.3	483.3	482.3	466.1	414.3	V(PR) 2
	VTHETA PR1	-536.6	-541.3	-546.7	-569.1	-600.9	-630.8	-647.1	-658.5	-669.7	VTHETA PR1
	VTHETA PR2	-133.1	-163.1	-186.6	-211.4	-247.0	-277.7	-295.5	-301.7	-285.0	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2972	0.3243	0.3327	0.3457	0.3471	0.3351	0.3245	0.3192	0.3148	M 1
	M 2	0.4631	0.4404	0.4486	0.4787	0.4769	0.4695	0.4594	0.4418	0.4236	M 2
	M(PR) 1	0.5686	0.5874	0.5963	0.6208	0.6458	0.6623	0.6695	0.6759	0.6827	M(PR) 1
	M(PR) 2	0.3062	0.3089	0.3451	0.3969	0.4177	0.4280	0.4259	0.4104	0.3636	M(PR) 2
	TURN(PR)	35.921	28.755	27.597	28.013	25.891	24.549	23.232	21.491	19.076	TURN(PR)
	P 1	14.638	14.790	14.838	14.905	14.906	14.850	14.842	14.823	14.803	P 1
	P 2	18.098	17.869	17.989	18.403	18.533	18.563	18.537	18.337	18.138	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	556.388	555.934	555.479	554.006	553.930	554.108	556.175	557.833	559.490	T 2
STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	52.381	51.638	47.470	43.051	41.791	41.804	42.983	45.010	51.553	BETA 2
STATION 2A	BETA 2A	4.981	6.251	7.522	8.153	7.652	7.566	8.180	7.963	6.713	BETA 2A
	V 2	524.33	499.45	508.15	540.11	538.07	530.20	520.26	501.76	482.51	V 2
	V 2A	334.27	349.35	361.48	400.72	429.26	439.70	437.81	423.01	405.64	V 2A
	VZ 2	320.06	309.97	343.50	394.64	400.98	394.83	380.04	354.20	299.62	VZ 2
	VZ 2A	333.01	347.27	358.37	396.64	425.32	435.63	433.00	418.54	402.43	VZ 2A
	V-THETA 2	415.32	391.62	374.47	368.66	358.41	353.07	354.18	354.32	377.39	V-THETA 2
	V-THETA 2A	29.02	38.04	47.32	56.82	57.14	57.86	62.24	58.55	47.37	V-THETA 2A
	M 2	0.4631	0.4404	0.4486	0.4787	0.4769	0.4695	0.4594	0.4418	0.4236	M 2
	M 2A	0.2916	0.3051	0.3160	0.3516	0.3773	0.3867	0.3842	0.3703	0.3541	M 2A
	TURN(PR)	47.400	45.387	39.947	34.892	34.117	34.191	34.732	36.967	44.751	TURN(PR)
	P 2	18.098	17.869	17.989	18.403	18.533	18.563	18.537	18.337	18.138	P 2
	P 2A	17.723	17.810	17.896	18.202	18.465	18.533	18.449	18.278	18.106	P 2A
	T 2	556.388	555.934	555.479	554.006	553.930	554.108	556.175	557.833	559.490	T 2
	T 2A	556.292	555.856	555.419	553.917	553.929	554.289	556.471	558.104	559.737	T 2A

Table A-8. *Blade Element Performance (Continued)*
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (196°) - Station 2 (186°) - Station 2A (175°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	4.094	3.728	3.362	3.257	3.370	2.434	2.958	3.578	2.896	BETA 1
STATION 2	BETA 2	56.289	53.528	50.448	43.976	43.301	43.245	44.393	47.111	52.238	BETA 2
	BETA(PR) 1	57.851	56.151	56.418	55.695	57.028	59.377	60.797	61.050	61.720	BETA(PR) 1
	BETA(PR) 2	20.252	26.572	26.078	27.018	30.553	33.973	37.333	39.111	44.248	BETA(PR) 2
	V 1	329.81	356.72	359.09	383.11	382.70	370.24	360.26	358.61	354.75	V 1
	V 2	529.06	503.67	518.25	546.66	543.02	536.88	522.78	510.88	478.16	V 2
	VZ 1	328.96	355.96	358.47	382.47	381.93	369.65	359.38	357.46	353.79	VZ 1
	VZ 2	293.63	299.40	330.01	393.35	395.01	390.70	373.04	347.20	292.44	VZ 2
	V-THETA 1	23.55	23.19	21.06	21.77	22.49	15.71	18.57	22.35	17.90	V-THETA 1
	V-THETA 2	440.10	405.03	399.59	379.53	372.25	367.47	365.22	373.78	377.53	V-THETA 2
	V(PR) 1	618.2	639.1	648.1	678.6	701.8	725.8	736.8	738.7	747.0	V(PR) 1
	V(PR) 2	313.0	334.8	367.4	441.6	459.0	471.7	470.0	448.3	409.0	V(PR) 2
	VTHETA PR1	-523.4	-530.7	-539.9	-560.6	-588.8	-624.5	-643.0	-646.2	-657.6	VTHETA PR1
	VTHETA PR2	-108.3	-149.7	-161.5	-200.6	-233.2	-263.3	-284.5	-282.3	-284.9	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2980	0.3228	0.3250	0.3473	0.3469	0.3354	0.3261	0.3246	0.3210	M 1
	M 2	0.4676	0.4443	0.4579	0.4848	0.4815	0.4762	0.4622	0.4504	0.4198	M 2
	M(PR) 1	0.5587	0.5784	0.5866	0.6152	0.6362	0.6574	0.6669	0.6686	0.6760	M(PR) 1
	M(PR) 2	0.2766	0.2953	0.3246	0.3917	0.4070	0.4184	0.4155	0.3952	0.3590	M(PR) 2
	TURN(PR)	37.599	29.579	30.340	28.682	26.489	25.434	23.512	21.994	17.536	TURN(PR)
	P 1	14.647	14.800	14.814	14.928	14.907	14.866	14.866	14.854	14.841	P 1
	P 2	18.178	17.933	18.108	18.488	18.589	18.639	18.573	18.451	18.143	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	556.182	555.883	555.585	554.011	553.775	553.012	555.242	557.138	559.034	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	56.289	53.528	50.448	43.976	43.301	43.245	44.393	47.111	52.238	BETA 2
STATION 2A	BETA 2A	4.479	6.008	7.538	7.905	7.679	7.457	8.310	7.883	6.678	BETA 2A
	V 2	529.06	503.67	518.25	546.66	543.02	536.88	522.78	510.88	478.16	V 2
	V 2A	327.23	348.12	365.30	406.01	437.39	444.28	441.73	431.45	421.00	V 2A
	VZ 2	293.63	299.40	330.01	393.35	395.01	390.70	373.04	347.20	292.44	VZ 2
	VZ 2A	326.23	346.21	362.14	402.12	433.35	440.27	436.72	426.97	417.71	VZ 2A
	V-THETA 2	440.10	405.03	399.59	379.53	372.25	367.47	365.22	373.78	377.53	V-THETA 2
	V-THETA 2A	25.55	36.44	47.92	55.84	58.43	57.63	63.79	59.12	48.91	V-THETA 2A
	M 2	0.4676	0.4443	0.4579	0.4848	0.4815	0.4762	0.4622	0.4504	0.4198	M 2
	M 2A	0.2853	0.3040	0.3193	0.3563	0.3847	0.3912	0.3880	0.3781	0.3681	M 2A
	TURN(PR)	51.810	47.520	42.909	36.065	35.600	35.741	36.012	39.148	45.472	TURN(PR)
	P 2	18.178	17.933	18.108	18.488	18.589	18.639	18.573	18.451	18.143	P 2
	P 2A	17.636	17.755	17.875	18.218	18.508	18.548	18.462	18.328	18.194	P 2A
	T 2	556.182	555.883	555.585	554.011	553.775	553.012	555.242	557.138	559.034	T 2
	T 2A	556.348	556.027	555.706	554.135	553.903	553.338	555.532	557.368	559.204	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (226°) - Station 2 (216°) - Station 2A (205°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	5.306	4.525	3.745	3.936	4.528	3.055	3.178	4.817	4.242	BETA 1
STATION 2	BETA 2	56.233	52.548	48.869	43.105	42.015	41.884	42.407	45.053	51.791	BETA 2
	BETA(PR) 1	57.778	56.024	56.536	55.543	57.360	59.505	61.073	61.092	61.554	BETA(PR) 1
	BETA(PR) 2	22.361	28.540	29.061	28.585	31.355	34.971	37.750	39.965	43.712	BETA(PR) 2
	V 1	327.08	355.50	356.18	382.50	373.89	366.31	355.65	354.46	353.27	V 1
	V 2	517.75	493.32	501.56	536.63	539.83	531.29	522.19	505.50	481.64	V 2
	VZ 1	325.67	354.39	355.42	381.58	372.61	365.53	354.71	352.77	351.80	VZ 1
	VZ 2	287.77	299.98	329.92	391.74	400.89	395.15	385.00	356.57	297.52	VZ 2
	V-THETA 1	30.25	28.05	23.26	26.25	29.51	19.51	19.69	29.73	26.09	V-THETA 1
	V-THETA 2	430.41	391.63	377.78	366.65	361.15	354.35	351.64	357.23	377.96	V-THETA 2
	V(PR) 1	610.8	634.2	644.6	674.4	690.9	720.4	733.5	730.0	738.8	V(PR) 1
	V(PR) 2	311.0	341.5	377.4	446.2	469.7	482.8	487.7	466.1	412.3	V(PR) 2
	VTHETA PR1	-516.7	-525.9	-537.7	-556.1	-581.7	-620.7	-641.8	-638.8	-649.4	VTHETA PR1
	VTHETA PR2	-118.0	-163.1	-183.3	-213.5	-244.3	-276.4	-298.1	-298.8	-284.4	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2955	0.3217	0.3223	0.3467	0.3387	0.3317	0.3219	0.3208	0.3197	M 1
	M 2	0.4579	0.4357	0.4435	0.4765	0.4792	0.4710	0.4616	0.4455	0.4230	M 2
	M(PR) 1	0.5519	0.5739	0.5833	0.6113	0.6259	0.6524	0.6638	0.6606	0.6685	M(PR) 1
	M(PR) 2	0.2751	0.3016	0.3338	0.3962	0.4170	0.4280	0.4312	0.4108	0.3622	M(PR) 2
	TURN(PR)	35.477	27.485	27.475	26.962	26.019	24.565	23.371	21.182	17.907	TURN(PR)
	P 1	14.642	14.795	14.799	14.948	14.909	14.883	14.887	14.879	14.872	P 1
	P 2	18.032	17.814	17.903	18.334	18.494	18.490	18.461	18.297	18.081	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	554.290	553.730	553.169	551.907	552.474	553.140	555.218	556.995	558.771	T 2
STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	56.233	52.548	48.869	43.105	42.015	41.884	42.407	45.053	51.791	BETA 2
STATION 2A	BETA 2A	5.513	6.704	7.896	8.182	7.567	7.444	8.157	8.008	6.594	BETA 2A
	V 2	517.75	493.32	501.56	536.63	539.83	531.29	522.19	505.50	481.64	V 2
	V 2A	341.59	357.41	367.45	400.32	428.14	434.94	427.92	412.80	396.19	V 2A
	VZ 2	287.77	299.98	329.92	391.74	400.89	395.15	385.00	356.57	297.52	VZ 2
	VZ 2A	340.01	354.96	363.96	396.21	424.29	431.03	423.24	408.39	393.15	VZ 2A
	V-THETA 2	430.41	391.63	377.78	366.65	361.15	354.35	351.64	357.23	377.96	V-THETA 2
	V-THETA 2A	32.82	41.72	50.48	56.97	56.36	56.32	60.67	57.45	45.45	V-THETA 2A
	M 2	0.4579	0.4357	0.4435	0.4765	0.4792	0.4710	0.4616	0.4455	0.4230	M 2
	M 2A	0.2983	0.3126	0.3218	0.3516	0.3767	0.3827	0.3757	0.3615	0.3460	M 2A
	TURN(PR)	50.720	45.844	40.972	34.917	34.426	34.393	34.179	36.965	45.109	TURN(PR)
	P 2	18.032	17.814	17.903	18.334	18.494	18.490	18.461	18.297	18.081	P 2
	P 2A	17.714	17.800	17.987	18.164	18.417	18.464	18.339	18.168	17.996	P 2A
	T 2	554.290	553.730	553.169	551.907	552.474	553.140	555.218	556.995	558.771	T 2
	T 2A	555.290	554.650	554.019	552.793	552.988	553.272	555.180	556.886	558.590	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (256°) - Station 2 (246°) - Station 2A (235°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	2.435	1.972	1.510	2.637	3.072	2.581	2.513	3.256	2.894	BETA 1
STATION 2	BETA 2	52.571	49.719	46.867	44.319	43.843	44.004	51.874	58.236	64.559	BETA 2
	BETA(PR) 1	59.900	58.144	57.664	56.693	58.765	60.904	62.549	62.773	63.199	BETA(PR) 1
	BETA(PR) 2	18.969	23.392	23.916	25.383	28.452	32.898	37.796	38.488	39.074	BETA(PR) 2
	V 1	309.73	337.20	349.42	371.81	359.62	348.14	336.70	335.16	333.64	V 1
	V 2	546.79	532.13	543.21	558.87	559.01	544.24	513.96	517.51	529.48	V 2
	VZ 1	309.44	336.99	349.30	371.39	359.00	347.54	336.00	334.20	332.74	VZ 1
	VZ 2	332.33	344.04	371.38	399.80	403.00	391.10	316.98	272.20	227.31	VZ 2
	V-THETA 1	13.16	11.60	9.21	17.11	19.27	15.67	14.75	19.01	16.82	V-THETA 1
	V-THETA 2	434.21	405.95	396.41	390.41	387.05	377.73	403.89	439.63	477.83	V-THETA 2
	V(PR) 1	617.0	638.5	653.0	676.3	692.4	714.8	729.0	730.7	738.2	V(PR) 1
	V(PR) 2	351.4	374.8	406.3	442.6	458.7	466.4	401.8	348.4	293.4	V(PR) 2
	VTHETA PR1	-533.8	-542.3	-551.8	-565.2	-592.0	-624.5	-646.8	-649.5	-658.7	VTHETA PR1
	VTHETA PR2	-114.2	-148.8	-164.7	-189.7	-218.4	-253.0	-245.8	-216.4	-184.6	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2796	0.3048	0.3161	0.3368	0.3255	0.3149	0.3044	0.3030	0.3016	M 1
	M 2	0.4849	0.4714	0.4817	0.4970	0.4967	0.4826	0.4534	0.4558	0.4659	M 2
	M(PR) 1	0.5570	0.5772	0.5908	0.6127	0.6267	0.6466	0.6590	0.6605	0.6672	M(PR) 1
	M(PR) 2	0.3116	0.3321	0.3603	0.3936	0.4075	0.4136	0.3544	0.3068	0.2581	M(PR) 2
	TURN(PR)	40.930	34.752	33.749	31.314	30.327	28.035	24.802	24.341	24.189	TURN(PR)
	P 1	14.655	14.802	14.870	15.004	14.961	14.945	14.928	14.928	14.927	P 1
	P 2	18.308	18.183	18.313	18.545	18.580	18.427	18.117	18.114	18.195	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	554.045	553.955	553.864	552.295	553.251	553.991	556.887	558.921	560.955	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	52.571	49.719	46.867	44.319	43.843	44.004	51.874	58.236	64.559	BETA 2
STATION 2A	BETA 2A	5.923	7.012	8.102	8.285	7.478	7.456	7.816	7.756	5.979	BETA 2A
	V 2	546.79	532.13	543.21	558.87	559.01	544.24	513.96	517.51	529.48	V 2
	V 2A	340.96	369.44	392.73	425.87	435.54	415.88	389.91	377.08	362.44	V 2A
	VZ 2	332.33	344.04	371.38	399.80	403.00	391.10	316.98	272.20	227.31	VZ 2
	VZ 2A	339.14	366.68	388.81	421.39	431.72	412.13	385.96	373.28	360.09	VZ 2A
	V-THETA 2	434.21	405.95	396.41	390.41	387.05	377.73	403.89	439.63	477.83	V-THETA 2
	V-THETA 2A	35.18	45.10	55.35	61.36	56.67	53.94	52.96	50.84	37.71	V-THETA 2A
	M 2	0.4849	0.4714	0.4817	0.4970	0.4967	0.4826	0.4534	0.4558	0.4659	M 2
	M 2A	0.2983	0.3238	0.3447	0.3751	0.3836	0.3655	0.3413	0.3292	0.3156	M 2A
	TURN(PR)	46.648	42.707	38.764	36.028	36.342	36.500	43.939	50.409	58.510	TURN(PR)
	P 2	18.308	18.183	18.313	18.545	18.580	18.427	18.117	18.114	18.195	P 2
	P 2A	17.667	17.863	18.060	18.345	18.441	18.239	17.971	17.850	17.728	P 2A
	T 2	554.045	553.955	553.864	552.295	553.251	553.991	556.887	558.921	560.955	T 2
	T 2A	553.379	553.159	552.939	551.432	552.431	553.250	555.908	557.910	559.913	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (286°) - Station 2 (276°) - Station 2A (265°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-1.188	-1.270	-1.352	0.462	0.791	1.171	1.050	0.922	0.765	BETA 1
STATION 2	BETA 2	55.217	54.656	54.096	52.213	49.418	48.174	50.773	55.160	59.546	BETA 2
	BETA(PR) 1	61.149	60.011	58.737	57.977	60.456	62.768	65.475	66.119	66.731	BETA(PR) 1
	BETA(PR) 2	19.111	22.116	22.876	26.313	28.296	30.820	34.834	35.241	36.201	BETA(PR) 2
	V 1	304.88	323.90	345.63	362.42	343.89	326.32	299.70	294.30	289.26	V 1
	V 2	538.22	527.96	530.64	530.65	545.77	552.26	535.46	536.37	537.69	V 2
	VZ 1	304.81	323.81	345.53	362.39	343.76	326.03	299.32	293.89	288.82	VZ 1
	VZ 2	307.04	305.42	311.18	325.12	354.91	367.99	338.25	306.11	272.28	VZ 2
	V-THETA 1	-6.32	-7.18	-8.15	2.92	4.75	6.66	5.49	4.73	3.86	V-THETA 1
	V-THETA 2	442.05	430.65	429.81	419.33	414.35	411.20	414.34	439.78	463.10	V-THETA 2
	V(PR) 1	631.7	647.8	665.8	683.4	697.2	712.6	721.2	726.1	731.3	V(PR) 1
	V(PR) 2	324.9	329.7	337.8	362.8	403.3	429.1	412.9	375.6	338.2	V(PR) 2
	VTHETA PR1	-553.3	-561.1	-569.1	-579.4	-606.5	-633.5	-656.0	-663.8	-671.7	VTHETA PR1
	VTHETA PR2	-106.4	-124.1	-131.3	-160.8	-191.1	-219.5	-235.4	-216.3	-199.3	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2752	0.2926	0.3126	0.3281	0.3110	0.2948	0.2704	0.2655	0.2609	M 1
	M 2	0.4729	0.4636	0.4662	0.4666	0.4808	0.4868	0.4703	0.4705	0.4711	M 2
	M(PR) 1	0.5701	0.5853	0.6022	0.6187	0.6305	0.6438	0.6508	0.6550	0.6595	M(PR) 1
	M(PR) 2	0.2855	0.2895	0.2967	0.3190	0.3553	0.3782	0.3626	0.3295	0.2963	M(PR) 2
	TURN(PR)	42.038	37.895	35.861	31.668	32.173	31.977	30.690	30.934	30.594	TURN(PR)
	P 1	14.614	14.747	14.860	14.966	14.928	14.920	14.885	14.887	14.889	P 1
	P 2	18.227	18.135	18.185	18.278	18.528	18.709	18.600	18.564	18.530	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	563.153	562.872	562.590	561.801	561.024	560.946	563.281	564.738	566.195	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	55.217	54.656	54.096	52.213	49.418	48.174	50.773	55.160	59.546	BETA 2
STATION 2A	BETA 2A	4.350	6.178	8.006	7.728	7.456	7.479	6.939	6.242	3.713	BETA 2A
	V 2	538.22	527.96	530.64	530.65	545.77	552.26	535.46	536.37	537.69	V 2
	V 2A	323.28	333.24	342.69	382.70	418.81	441.57	430.11	418.90	403.14	V 2A
	VZ 2	307.04	305.42	311.18	325.12	354.91	367.99	338.25	306.11	272.28	VZ 2
	VZ 2A	322.35	331.31	339.34	379.19	415.16	437.56	426.60	416.02	401.86	VZ 2A
	V-THETA 2	442.05	430.65	429.81	419.33	414.35	411.20	414.34	439.78	463.10	V-THETA 2
	V-THETA 2A	24.52	35.86	47.73	51.46	54.33	57.44	51.92	45.50	26.08	V-THETA 2A
	M 2	0.4729	0.4636	0.4662	0.4666	0.4808	0.4868	0.4703	0.4705	0.4711	M 2
	M 2A	0.2807	0.2896	0.2980	0.3339	0.3664	0.3869	0.3756	0.3650	0.3505	M 2A
	TURN(PR)	50.867	48.478	46.089	44.479	41.940	40.648	43.763	48.842	55.751	TURN(PR)
	P 2	18.227	18.135	18.185	18.278	18.528	18.709	18.600	18.564	18.530	P 2
	P 2A	17.544	17.613	17.683	17.970	18.272	18.419	18.280	18.164	18.048	P 2A
	T 2	563.153	562.872	562.590	561.801	561.024	560.946	563.281	564.738	566.195	T 2
	T 2A	560.771	560.431	560.090	558.905	558.412	558.420	561.118	562.644	564.170	T 2A

Table A-8. Blade Element Performance (Continued)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (316°) - Station 2 (306°) - Station 2A (295°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-7.056	-6.767	-6.477	-5.081	-4.214	-4.085	-3.784	-3.879	-3.869	BETA 1
STATION 2	BETA 2	69.640	68.039	66.438	59.550	52.407	51.365	56.258	61.197	63.875	BETA 2
	BETA(PR) 1	67.014	65.218	64.511	63.178	63.332	64.548	66.084	66.744	67.298	BETA(PR) 1
	BETA(PR) 2	28.248	28.084	29.534	27.616	30.120	33.326	42.364	44.052	44.734	BETA(PR) 2
	V 1	246.75	272.46	284.56	309.54	319.74	316.43	303.23	296.98	291.91	V 1
	V 2	487.73	492.26	490.87	514.68	528.33	529.66	485.97	489.07	496.84	V 2
	VZ 1	244.87	270.56	282.75	308.31	318.79	315.41	302.24	295.93	290.83	VZ 1
	VZ 2	169.69	184.09	196.22	260.81	322.20	330.46	269.71	235.46	218.63	VZ 2
	V-THETA 1	-30.31	-32.10	-32.10	-27.41	-23.49	-22.53	-19.99	-20.07	-19.67	V-THETA 1
	V-THETA 2	457.26	456.54	449.94	443.66	418.49	413.45	403.77	428.25	445.78	V-THETA 2
	V(PR) 1	627.1	645.5	657.0	683.3	710.3	734.0	745.7	749.7	753.7	V(PR) 1
	V(PR) 2	192.6	208.7	225.5	294.4	372.7	396.0	365.6	328.1	308.3	V(PR) 2
	VTHETA PR1	-577.3	-586.0	-593.1	-609.8	-634.7	-662.7	-681.5	-688.6	-695.2	VTHETA PR1
	VTHETA PR2	-91.2	-98.2	-111.2	-136.4	-186.9	-217.3	-246.0	-227.8	-216.6	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2221	0.2455	0.2566	0.2794	0.2888	0.2858	0.2736	0.2679	0.2633	M 1
	M 2	0.4260	0.4300	0.4287	0.4504	0.4630	0.4640	0.4237	0.4259	0.4323	M 2
	M(PR) 1	0.5645	0.5817	0.5924	0.6168	0.6416	0.6629	0.6729	0.6763	0.6798	M(PR) 1
	M(PR) 2	0.1682	0.1823	0.1970	0.2576	0.3266	0.3469	0.3187	0.2857	0.2682	M(PR) 2
	TURN(PR)	38.765	37.134	34.977	35.566	33.227	31.254	23.774	22.754	22.633	TURN(PR)
	P 1	14.331	14.418	14.456	14.517	14.501	14.501	14.465	14.455	14.450	P 1
	P 2	17.818	17.801	17.805	18.160	18.452	18.607	18.260	18.255	18.324	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	565.456	565.521	565.587	565.507	565.151	565.707	567.165	568.747	570.329	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	69.640	68.039	66.438	59.550	52.407	51.365	56.258	61.197	63.875	BETA 2
STATION 2A	BETA 2A	1.765	4.414	7.064	7.155	7.582	7.626	6.363	5.111	1.924	BETA 2A
	V 2	487.73	492.26	490.87	514.68	528.33	529.66	485.97	489.07	496.84	V 2
	V 2A	234.69	259.87	279.76	334.88	395.66	415.83	406.56	402.26	398.78	V 2A
	VZ 2	169.69	184.09	196.22	260.81	322.20	330.46	269.71	235.46	218.63	VZ 2
	VZ 2A	234.58	259.10	277.64	332.24	392.09	411.91	403.71	400.28	398.13	VZ 2A
	V-THETA 2	457.26	456.54	449.94	443.66	418.49	413.45	403.77	428.25	445.78	V-THETA 2
	V-THETA 2A	7.23	20.00	34.40	41.71	52.19	55.15	45.02	35.80	13.37	V-THETA 2A
	M 2	0.4260	0.4300	0.4287	0.4504	0.4630	0.4640	0.4237	0.4259	0.4323	M 2
	M 2A	0.2023	0.2242	0.2415	0.2899	0.3438	0.3617	0.3529	0.3486	0.3450	M 2A
	TURN(PR)	67.875	63.625	59.373	52.390	44.803	43.693	49.828	56.017	61.875	TURN(PR)
	P 2	17.818	17.801	17.805	18.160	18.452	18.607	18.260	18.255	18.324	P 2
	P 2A	17.033	17.098	17.163	17.447	17.849	18.038	17.975	17.925	17.875	P 2A
	T 2	565.456	565.521	565.587	565.507	565.151	565.707	567.165	568.747	570.329	T 2
	T 2A	564.876	564.862	564.847	564.648	564.103	564.363	566.039	567.603	569.166	T 2A

Table A-8. Blade Element Performance (Concluded)
Stage B Rotor B - Stator B
Percent Equivalent Rotor Speed = 89.84 Equivalent Rotor Speed = 3782.15 Equivalent Weight Flow = 80.69
Circumferential Distortion
Station 1 (346°) - Station 2 (336°) - Station 2A (325°)

ROTOR B	PCT SPAN	95.01	90.00	84.99	69.99	49.99	29.99	14.98	9.99	4.98	PCT SPAN
	DIA	33.233	33.617	34.001	35.152	36.686	38.220	39.371	39.754	40.138	DIA
STATION 1	BETA 1	-10.000	-9.558	-9.117	-8.271	-7.172	-7.249	-6.689	-6.611	-6.526	BETA 1
STATION 2	BETA 2	67.049	67.045	67.041	56.497	49.183	48.916	58.522	63.643	68.695	BETA 2
	BETA(PR) 1	67.238	65.989	66.056	65.055	65.024	66.181	68.279	69.294	69.958	BETA(PR) 1
	BETA(PR) 2	22.694	28.463	32.766	30.328	30.382	34.900	44.462	45.331	47.828	BETA(PR) 2
	V 1	251.67	270.52	271.65	293.59	304.91	302.04	278.66	266.37	259.20	V 1
	V 2	505.98	489.98	478.83	501.52	531.26	520.73	476.24	488.00	497.23	V 2
	VZ 1	247.84	266.76	268.22	290.52	302.44	299.42	276.46	264.27	257.16	VZ 1
	VZ 2	197.30	191.10	186.78	276.81	347.13	341.94	248.50	216.52	180.58	VZ 2
	V-THETA 1	-43.70	-44.92	-43.04	-42.23	-38.06	-38.09	-32.42	-30.63	-29.42	V-THETA 1
	V-THETA 2	465.93	451.18	440.90	418.17	401.91	392.19	405.86	437.01	463.04	V-THETA 2
	V(PR) 1	640.6	655.6	660.9	688.8	716.3	741.5	747.1	747.6	750.5	V(PR) 1
	V(PR) 2	213.9	217.4	222.1	320.8	402.6	417.4	348.7	308.5	269.4	V(PR) 2
	VTHETA PR1	-590.7	-598.8	-604.0	-624.6	-649.3	-678.3	-694.0	-699.2	-704.9	VTHETA PR1
	VTHETA PR2	-82.5	-103.6	-120.2	-161.9	-203.5	-238.5	-243.9	-219.0	-199.3	VTHETA PR2
	U 1	546.97	553.93	560.98	582.35	611.24	640.17	661.53	668.54	675.51	U 1
	U 2	548.44	554.77	561.11	580.10	605.42	630.73	649.73	656.05	662.39	U 2
	M 1	0.2266	0.2437	0.2448	0.2648	0.2752	0.2726	0.2512	0.2400	0.2334	M 1
	M 2	0.4428	0.4284	0.4184	0.4394	0.4663	0.4561	0.4150	0.4251	0.4330	M 2
	M(PR) 1	0.5767	0.5907	0.5955	0.6213	0.6465	0.6691	0.6734	0.6735	0.6759	M(PR) 1
	M(PR) 2	0.1872	0.1901	0.1941	0.2810	0.3534	0.3656	0.3038	0.2687	0.2346	M(PR) 2
	TURN(PR)	44.544	37.526	33.291	34.732	34.657	31.314	23.872	24.027	22.201	TURN(PR)
	P 1	14.135	14.190	14.175	14.201	14.209	14.209	14.177	14.157	14.138	P 1
	P 2	17.784	17.587	17.516	17.834	18.253	18.248	17.853	17.962	18.072	P 2
	T 1	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	518.699	T 1
	T 2	564.689	564.389	564.088	563.234	563.698	564.980	567.072	568.242	569.413	T 2

STATOR B	PCT SPAN	95.04	90.11	85.15	70.14	50.00	29.85	14.85	9.87	4.94	PCT SPAN
	DIA	33.204	33.556	33.910	34.982	36.420	37.859	38.930	39.285	39.637	DIA
STATION 2	BETA 2	67.049	67.045	67.041	56.497	49.183	48.916	58.522	63.643	68.695	BETA 2
STATION 2A	BETA 2A	-3.873	-0.262	3.350	6.641	8.186	8.190	6.791	5.356	1.799	BETA 2A
	V 2	505.98	489.98	478.83	501.52	531.26	520.73	476.24	488.00	497.23	V 2
	V 2A	167.79	202.82	224.09	297.94	378.22	423.85	414.20	401.57	389.28	V 2A
	VZ 2	197.30	191.10	186.78	276.81	347.13	341.94	248.50	216.52	180.58	VZ 2
	VZ 2A	167.41	202.81	223.70	295.92	374.26	419.29	410.95	399.44	388.67	VZ 2A
	V-THETA 2	465.93	451.18	440.90	418.17	401.91	392.19	405.86	437.01	463.04	V-THETA 2
	V-THETA 2A	-11.33	-0.93	13.09	34.45	53.84	60.35	48.94	37.45	12.21	V-THETA 2A
	M 2	0.4428	0.4284	0.4184	0.4394	0.4663	0.4561	0.4150	0.4251	0.4330	M 2
	M 2A	0.1442	0.1745	0.1930	0.2576	0.3283	0.3685	0.3593	0.3477	0.3364	M 2A
	TURN(PR)	70.922	67.307	63.691	49.850	40.975	40.679	51.667	58.222	66.831	TURN(PR)
	P 2	17.784	17.587	17.516	17.834	18.253	18.248	17.853	17.962	18.072	P 2
	P 2A	16.786	16.849	16.913	17.226	17.724	18.119	18.041	17.941	17.841	P 2A
	T 2	564.689	564.389	564.088	563.234	563.698	564.980	567.072	568.242	569.413	T 2
	T 2A	565.802	565.541	565.281	564.315	564.154	565.486	567.396	568.669	569.943	T 2A

APPENDIX B
STATOR B STATIC PRESSURE COEFFICIENTS

$$C_p = \frac{p_{surface} - p_{2_{fs}}}{(\rho V^2/2)_{2_{fs}}}$$

110% Design Equivalent Rotor Speed

Front Airfoil Suction Surface								
Percent Overall Chord	6.6	11.9	16.9	21.9	27.0	32.0	37.1	42.1
Flow*	Static Pressure Coefficient							
118.77	-0.16	-0.11	-0.24	-0.42	-0.61	-0.69	-0.78	-0.71
116.85	0.02	-0.21	-0.27	-0.39	-0.48	-0.47	-0.47	-0.35
113.20	-0.11	-0.29	-0.30	-0.38	-0.43	-0.39	-0.36	-0.24
108.64	-0.22	-0.35	-0.33	-0.38	-0.41	-0.35	-0.30	-0.18
104.69	-0.33	-0.41	-0.36	-0.38	-0.38	-0.30	-0.24	-0.12
100.22	-0.38	-0.41	-0.35	-0.34	-0.33	-0.24	-0.16	-0.05

Front Airfoil Pressure Surface								
Percent Overall Chord	7.0	13.0	18.0	23.1	28.1	33.1	38.1	43.1
Flow*	Static Pressure Coefficient							
118.77	-1.05	-0.70	-0.52	-0.38	-0.28	-0.21	-0.14	-0.09
116.85	-0.12	-0.07	-0.04	0.03	0.10	0.17	0.24	0.26
113.20	0.09	0.10	0.11	0.17	0.23	0.28	0.34	0.34
108.64	0.23	0.22	0.21	0.25	0.30	0.35	0.41	0.39
104.69	0.35	0.31	0.29	0.32	0.36	0.40	0.45	0.42
100.22	0.42	0.37	0.34	0.37	0.40	0.43	0.46	0.43

Rear Airfoil Suction Surface								
Percent Overall Chord	56.9	61.9	67.3	72.2	77.8	82.8	88.0	92.9
Flow*	Static Pressure Coefficient							
118.77	-0.58	-0.90	-1.13	-1.06	-0.79	-0.55	-0.38	-0.32
116.85	-0.29	-0.51	-0.65	-0.64	-0.50	-0.30	-0.06	0.05
113.20	-0.18	-0.36	-0.47	-0.45	-0.32	-0.15	0.07	0.16
108.64	-0.11	-0.26	-0.35	-0.33	-0.22	-0.06	0.14	0.22
104.69	-0.05	-0.17	-0.24	-0.23	-0.13	0.01	0.19	0.27
100.22	-0.01	-0.12	-0.17	-0.16	-0.07	0.06	0.21	0.30

*Equivalent Weight Flow (lb/sec)

110% Design Equivalent Rotor Speed

Rear Airfoil Pressure Surface								
Percent Overall Chord	56.0	61.5	66.5	71.7	77.0	82.0	87.5	92.5
Flow*	Static Pressure Coefficient							
118.77	0.33	0.34	0.33	0.32	0.29	0.30	0.25	0.16
116.85	0.58	0.58	0.57	0.56	0.54	0.54	0.51	0.44
113.20	0.62	0.64	0.64	0.62	0.60	0.60	0.57	0.50
108.64	0.67	0.67	0.67	0.66	0.64	0.64	0.61	0.55
104.69	0.69	0.70	0.70	0.68	0.65	0.65	0.63	0.58
100.22	0.70	0.70	0.69	0.68	0.66	0.66	0.64	0.59

100% Design Equivalent Rotor Speed

Front Airfoil Suction Surface								
Percent Overall Chord	6.6	11.9	16.9	21.9	27.0	32.0	37.1	42.1
Flow*	Static Pressure Coefficient							
113.59	0.20	-0.11	-0.25	-0.46	-0.65	-0.72	-0.82	-0.74
108.52	0.01	-0.21	-0.28	-0.39	-0.48	-0.45	-0.46	-0.35
104.49	-0.10	-0.28	-0.30	-0.38	-0.43	-0.39	-0.38	-0.27
98.00	-0.24	-0.35	-0.32	-0.37	-0.38	-0.33	-0.28	-0.17
93.93	-0.26	-0.32	-0.27	-0.28	-0.28	-0.21	-0.15	-0.04
90.90	-0.38	-0.40	-0.34	-0.34	-0.33	-0.25	-0.18	-0.07

Front Airfoil Pressure Surface								
Percent Overall Chord	7.0	13.0	18.0	23.1	28.1	33.1	38.1	43.1
Flow*	Static Pressure Coefficient							
113.59	-1.25	-0.79	-0.54	-0.38	-0.26	-0.18	-0.10	-0.06
108.52	-0.12	-0.07	-0.04	0.03	0.10	0.17	0.24	0.25
104.49	0.06	0.07	0.09	0.14	0.20	0.26	0.32	0.32
98.00	0.26	0.23	0.22	0.26	0.31	0.35	0.40	0.39
93.93	0.42	0.37	0.35	0.38	0.42	0.45	0.48	0.46
90.90	0.42	0.37	0.34	0.37	0.40	0.43	0.46	0.44

*Equivalent Weight Flow (lb/sec)

100% Design Equivalent Rotor Speed

Rear Airfoil Suction Surface								
Percent Overall Chord	56.9	61.9	67.3	72.2	77.8	82.8	88.0	92.9
Flow*	Static Pressure Coefficient							
113.59	-0.62	-0.93	-1.10	-1.05	-0.84	-0.58	-0.37	-0.30
108.52	-0.31	-0.54	-0.66	-0.66	-0.52	-0.33	-0.07	0.04
104.49	-0.22	-0.41	-0.51	-0.51	-0.39	-0.21	0.03	0.13
98.00	-0.13	-0.27	-0.34	-0.33	-0.22	-0.07	0.14	0.23
93.93	0.01	-0.09	-0.15	-0.14	-0.04	0.08	0.25	0.33
90.90	-0.01	-0.11	-0.17	-0.14	-0.05	0.07	0.23	0.31

Rear Airfoil Pressure Surface								
Percent Overall Chord	56.0	61.5	66.5	71.7	77.0	82.0	87.5	92.5
Flow*	Static Pressure Coefficient							
113.59	0.40	0.40	0.39	0.37	0.34	0.34	0.28	0.19
108.52	0.58	0.59	0.59	0.57	0.55	0.55	0.51	0.44
104.49	0.62	0.63	0.63	0.61	0.59	0.59	0.55	0.49
98.00	0.68	0.68	0.67	0.65	0.64	0.65	0.60	0.55
93.93	0.73	0.72	0.71	0.71	0.69	0.70	0.66	0.61
90.90	0.72	0.70	0.70	0.69	0.67	0.66	0.64	0.60

90% Design Equivalent Rotor Speed

Front Airfoil Suction Surface								
Percent Overall Chord	6.6	11.9	16.9	21.9	27.0	32.0	37.1	42.1
Flow*	Static Pressure Coefficient							
105.52	0.22	-0.10	-0.25	-0.46	-0.64	-0.73	-1.07	-0.77
101.67	0.09	-0.17	-0.25	-0.39	-0.49	-0.51	-0.53	-0.43
96.17	-0.05	-0.24	-0.28	-0.38	-0.44	-0.43	-0.42	-0.31
89.53	-0.20	-0.31	-0.31	-0.35	-0.38	-0.34	-0.30	-0.19
84.10	-0.30	-0.37	-0.32	-0.35	-0.36	-0.29	-0.24	-0.13
76.09	-0.37	-0.40	-0.33	-0.33	-0.32	-0.24	-0.17	-0.06

*Equivalent Weight Flow (lb/sec)

APPENDIX B (Continued)

90% Design Equivalent Rotor Speed

Front Airfoil Pressure Surface								
Percent Overall Chord	7.0	13.0	18.0	23.1	28.1	33.1	38.1	43.1
Flow*	Static Pressure Coefficient							
105.52	-1.35	-0.97	-0.66	-0.46	-0.33	-0.25	-0.18	-0.14
101.67	-0.29	-0.20	-0.15	-0.08	0.00	0.07	0.14	0.15
96.17	-0.03	0.00	0.02	0.08	0.14	0.20	0.26	0.27
89.53	0.22	0.19	0.19	0.23	0.28	0.32	0.37	0.36
84.10	0.34	0.30	0.28	0.31	0.34	0.37	0.42	0.39
76.09	0.45	0.39	0.36	0.39	0.41	0.44	0.47	0.44

Rear Airfoil Suction Surface								
Percent Overall Chord	56.9	61.9	67.3	72.2	77.8	82.8	88.0	92.9
Flow*	Static Pressure Coefficient							
105.52	-0.69	-0.96	-1.11	-1.08	-0.88	-0.63	-0.45	-0.39
101.67	-0.42	-0.65	-0.78	-0.78	-0.65	-0.44	-0.17	-0.04
96.17	-0.30	-0.49	-0.60	-0.59	-0.48	-0.29	-0.04	0.09
89.53	-0.16	-0.31	-0.39	-0.39	-0.28	-0.12	0.09	0.19
84.10	-0.09	-0.21	-0.27	-0.26	-0.16	-0.03	0.17	0.26
76.09	-0.01	-0.11	-0.16	-0.14	-0.05	0.08	0.26	0.34

Rear Airfoil Pressure Surface								
Percent Overall Chord	56.0	61.5	66.5	71.7	77.0	82.0	87.5	92.5
Flow*	Static Pressure Coefficient							
105.52	0.31	0.31	0.30	0.28	0.25	0.25	0.20	0.10
101.67	0.52	0.53	0.52	0.51	0.48	0.49	0.44	0.37
96.17	0.60	0.60	0.59	0.58	0.56	0.56	0.52	0.45
89.53	0.65	0.65	0.65	0.63	0.62	0.62	0.58	0.53
84.10	0.67	0.68	0.67	0.66	0.64	0.64	0.61	0.56
76.09	0.73	0.71	0.70	0.70	0.68	0.69	0.66	0.60

*Equivalent Weight Flow (lb/sec)

70% Design Equivalent Rotor Speed

Front Airfoil Suction Surface								
Percent Overall Chord	6.6	11.9	16.9	21.9	27.0	32.0	37.1	42.1
Flow*	Static Pressure Coefficient							
87.19	0.22	-0.09	-0.24	-0.44	-0.60	-0.68	-0.77	-0.70
84.36	0.15	-0.14	-0.26	-0.42	-0.55	-0.60	-0.65	-0.57
78.60	0.06	-0.18	-0.26	-0.38	-0.47	-0.48	-0.50	-0.41
74.45	-0.06	-0.24	-0.29	-0.37	-0.42	-0.41	-0.40	-0.31
66.85	-0.24	-0.33	-0.31	-0.34	-0.35	-0.30	-0.26	-0.16
63.37	-0.34	-0.38	-0.33	-0.33	-0.33	-0.26	-0.20	-0.10

Front Airfoil Pressure Surface								
Percent Overall Chord	7.0	13.0	18.0	23.1	28.1	33.1	38.1	43.1
Flow*	Static Pressure Coefficient							
87.19	-1.40	-0.91	-0.60	-0.41	-0.30	-0.23	-0.16	-0.13
84.36	-0.82	-0.42	-0.32	-0.23	-0.16	-0.10	-0.03	0.00
78.60	-0.19	-0.14	-0.10	-0.04	0.03	0.09	0.16	0.16
74.45	0.00	0.02	0.04	0.09	0.15	0.20	0.26	0.26
66.85	0.29	0.25	0.24	0.27	0.31	0.34	0.38	0.35
63.37	0.41	0.35	0.33	0.35	0.38	0.41	0.44	0.41

Rear Airfoil Suction Surface								
Percent Overall Chord	56.9	61.9	67.3	72.2	77.8	82.8	88.0	92.9
Flow*	Static Pressure Coefficient							
87.19	-0.69	-0.93	-1.08	-1.07	-0.91	-0.68	-0.46	-0.35
84.36	-0.58	-0.82	-0.95	-0.97	-0.84	-0.64	-0.37	-0.19
78.60	-0.43	-0.64	-0.75	-0.76	-0.64	-0.45	-0.19	-0.01
74.45	-0.31	-0.49	-0.59	-0.60	-0.49	-0.32	-0.08	-0.09
66.85	-0.14	-0.27	-0.33	-0.33	-0.23	-0.09	0.09	0.22
63.37	-0.06	-0.16	-0.21	-0.20	-0.11	0.01	0.17	0.29

Rear Airfoil Pressure Surface								
Percent Overall Chord	56.0	61.5	66.5	71.7	77.0	82.0	87.5	92.5
Flow*	Static Pressure Coefficient							
87.19	0.35	0.35	0.33	0.31	0.29	0.28	0.22	0.13
84.36	0.44	0.43	0.42	0.40	0.38	0.38	0.32	0.24
78.60	0.54	0.54	0.53	0.52	0.50	0.50	0.45	0.38
74.45	0.59	0.59	0.58	0.57	0.55	0.55	0.51	0.44
66.85	0.65	0.65	0.64	0.63	0.62	0.62	0.58	0.53
63.37	0.70	0.69	0.68	0.67	0.66	0.65	0.62	0.57

*Equivalent Weight Flow (lb/sec)

50% Design Equivalent Rotor Speed

Front Airfoil Suction Surface								
Percent Overall Chord	6.6	11.9	16.9	21.9	27.0	32.0	37.1	42.1
Flow*	Static Pressure Coefficient							
62.61	0.20	-0.12	-0.26	-0.45	-0.60	-0.68	-0.75	-0.69
62.22	0.17	-0.11	-0.25	-0.42	-0.55	-0.61	-0.66	-0.60
58.19	0.08	-0.17	-0.27	-0.39	-0.49	-0.52	-0.53	-0.46
53.56	-0.04	-0.23	-0.28	-0.37	-0.42	-0.43	-0.40	-0.33
48.38	-0.20	-0.30	-0.30	-0.34	-0.35	-0.33	-0.28	-0.19
43.29	-0.36	-0.38	-0.33	-0.33	-0.31	-0.26	-0.19	-0.09

Front Airfoil Pressure Surface								
Percent Overall Chord	7.0	13.0	18.0	23.1	28.1	33.1	38.1	43.1
Flow*	Static Pressure Coefficient							
62.61	-1.37	-0.83	-0.52	-0.39	-0.30	-0.23	-0.17	-0.15
62.22	-1.08	-0.56	-0.38	-0.29	-0.21	-0.15	-0.10	-0.08
58.19	-0.28	-0.22	-0.18	-0.11	-0.04	0.02	0.08	0.08
53.56	-0.04	-0.01	0.01	0.06	0.12	0.18	0.23	0.22
48.38	0.25	0.22	0.21	0.23	0.27	0.30	0.35	0.33
43.29	0.45	0.38	0.35	0.37	0.39	0.42	0.44	0.40

Rear Airfoil Suction Surface								
Percent Overall Chord	56.9	61.9	67.3	72.2	77.8	82.8	88.0	92.9
Flow*	Static Pressure Coefficient							
62.61	-0.74	-0.96	-1.09	-1.11	-0.98	-0.77	-0.50	-0.34
62.22	-0.65	-0.87	-1.00	-1.02	-0.90	-0.71	-0.44	-0.23
58.19	-0.52	-0.71	-0.83	-0.85	-0.74	-0.56	-0.30	-0.10
53.56	-0.36	-0.53	-0.63	-0.65	-0.55	-0.39	-0.15	0.05
48.38	-0.18	-0.32	-0.38	-0.39	-0.31	-0.17	0.02	0.16
43.29	-0.05	-0.14	-0.18	-0.17	-0.09	0.02	0.17	0.22

Rear Airfoil Pressure Surface								
Percent Overall Chord	56.0	61.5	66.5	71.7	77.0	82.0	87.5	92.5
Flow*	Static Pressure Coefficient							
62.61	0.35	0.34	0.33	0.31	0.28	0.27	0.22	0.12
62.22	0.39	0.38	0.37	0.35	0.33	0.32	0.27	0.19
58.19	0.49	0.49	0.48	0.47	0.45	0.44	0.40	0.32
53.56	0.58	0.57	0.56	0.55	0.53	0.53	0.49	0.42
48.38	0.64	0.63	0.63	0.61	0.60	0.59	0.57	0.52
43.29	0.70	0.69	0.67	0.67	0.65	0.65	0.62	0.57

*Equivalent Weight Flow (lb/sec)

APPENDIX C
DEFINITIONS

Definitions of Symbols

a_o	Inlet relative stagnation velocity of sound, ft/sec
c	Chord length, inches
C_p	Static pressure coefficient
d	Diameter, inches
D	Diffusion factor
g_c	Gravitational acceleration, 32.174 lb_m - ft/lb_f-sec^2
i_m	Incidence angle, degree from axial direction
M	Mach number
N	Rotor speed, rpm
P	Total pressure, psia
PR	Rotor tip static pressure ratio (ratio of local static pressure to static pressure at -10% axial chord)
p	Static pressure, psia
R	Gas constant for air, 53.34 $ft\text{-}lb_f/lb_m$ - °R
S	Blade passage gap (leading edge), inches
t	Blade maximum thickness, inches
T	Total temperature, °R
T_s	Static temperature, °R
U	Rotor speed, ft/sec
V	Velocity, ft/sec
W	Actual flowrate, lb_m/sec
β	Air angle, degree from axial direction

Definitions of Symbols (Continued)

γ	Ratio of specific heats
$\gamma°$	Blade-chord angle, degree from axial direction
δ	Ratio of total pressure to NASA standard sea level pressure of 14.694 psia
$\delta°$	Deviation angle, degree
η	Efficiency
θ	Ratio of total temperature to NASA standard sea level temperature of 518.7°R
κ	Blade metal angle, degree from axial direction
ρ	Density, $lb_f/sec^2/ft^4$
σ	Solidity, chord divided by blade spacing (c/S)
ϕ	Blade camber angle, $\kappa_1 - \kappa_2$, degree
$\bar{\omega}$	Loss coefficient
$\bar{\omega} \cos \beta/2\sigma$	Loss parameter

Subscripts

0	Compressor inlet (bellmouth)
1	Rotor inlet
2	Rotor exit/stator inlet
2A	Stator exit
ad	Adiabatic
f	Force
fs	Freestream value
id	Isentropic condition
L	Local
m	Mean or mass
max	Maximum
min	Minimum

Definitions of Symbols (Continued)

Subscripts (Continued)

le	Leading edge
p	Polytropic
te	Trailing edge
s	Static condition
z	Axial component
θ	Tangential component

Superscripts:

'	Related to rotor blade
-	Mass average value

Definitions of Overall Performance Variables

Pressure ratio:

Rotor: $\frac{\bar{P}_2}{\bar{P}_1}$ Stage: $\frac{\bar{P}_{2A}}{\bar{P}_1}$

Equivalent flow:

$$\frac{W\sqrt{\theta}}{\delta}$$

Equivalent rotor speed:

$$N/\sqrt{\theta}$$

Adiabatic efficiency:

$$\text{Rotor: } \eta_{ad} = \frac{\left(\bar{P}_2/\bar{P}_1\right)^{\frac{\gamma-1}{\gamma}} - 1}{\bar{T}_{2A}/518.7 - 1} \qquad \text{Stage: } \eta_{ad} = \frac{\left(\bar{P}_{2A}/\bar{P}_1\right)^{\frac{\gamma-1}{\gamma}} - 1}{\bar{T}_{2A}/518.7 - 1}$$

Definitions of Overall Performance Variables (Concluded)

Polytropic efficiency:

$$\text{Rotor: } \eta_p = \frac{\frac{\gamma - 1}{\gamma} \ln (\bar{P}_2/\bar{P}_1)}{\ln (\bar{T}_2/518.7)} \qquad \text{Stator: } \eta_p = \frac{\frac{\gamma - 1}{\gamma} \ln (\bar{p}_{2A}/\bar{p}_2)}{\ln (\bar{T}_{s_{2A}}/\bar{T}_{s_2})}$$

Average pressures and temperatures for circumferential distortion tests:

$$\bar{P}_1 = \frac{(3)\ (\bar{P}_1 \text{ Undistorted}) + (1)\ (\bar{P}_1 \text{ Distorted})}{4}$$

$$\bar{P}_2 = \frac{(3)\ (\bar{P}_2 \text{ Undistorted}) + (1)\ (\bar{P}_2 \text{ Distorted})}{4}$$

$$\bar{P}_{2A} = \frac{(3)\ (\bar{P}_{2A} \text{ Undistorted}) + (1)\ (\bar{P}_{2A} \text{ Distorted})}{4}$$

T_1 = Plenum Conditions (corrected to standard day)

$\bar{T}_2$ = Set equal to $\bar{T}_{2A}$

$$\bar{T}_{2A} = \frac{(3)\ (\bar{T}_{2A} \text{ Undistorted}) + (1)\ (\bar{T}_{2A} \text{ Distorted})}{4}$$

Definitions of Blade Element Performance Variables

Incidence angle:

$$\text{Rotor: } i_m = \beta'_1 - \kappa_{le} \qquad \text{Stator: } i_m = \beta_2 - \kappa_{le}$$

Diffusion factor:

$$\text{Rotor: } D = 1 - \frac{V'_2}{V'_1} + \frac{d_2 V_{\theta 2} - d_1 V_{\theta 1}}{(d_1 + d_2)\, V'_1 \sigma}$$

$$\text{Stator: } D = 1 - \frac{V_{2A}}{V_2} - \frac{d_2 V_{\theta 2} - d_{2A} V_{\theta 2A}}{(d_2 + d_{2A})\, V_2 \sigma}$$

Deviation angle:

$$\text{Rotor: } \delta^\circ = \beta'_2 - \kappa_{te} \qquad \text{Stator: } \delta^\circ = \beta_{2A} - \kappa_{te}$$

Definitions of Blade Element Performance Variables (Concluded)

Loss coefficient:

$$\text{Rotor: } \bar{\omega}' = \frac{(\bar{P}'_2)_{id} - P'_2}{\bar{P}'_1 - p_1}$$

where:

$$(P'_2)_{id} = P'_1 \left\{ 1 + \frac{\gamma - 1}{2} \left(\frac{U_2^2}{a_{o_1}^2} \right) \left[1 - \left(\frac{d_1}{d_2} \right)^2 \right] \right\}^{\frac{\gamma}{\gamma - 1}}$$

$$P' \text{ is found from } p/P' = \left[1 + \frac{\gamma - 1}{2} M'^2 \right]^{\frac{\gamma}{1 - \gamma}}$$

and M' is calculated using trigonometric functions and the measurements of U, β, P, and p.

$$\text{Stator: } \bar{\omega} = \frac{P_2 - \bar{P}_{2A}}{P_2 - p_2} \qquad \bar{\omega}_{fs} = \frac{P_{2A_{fs}} - \bar{P}_{2A}}{P_{2A_{fs}} - p_2}$$

where:

$P_{2A_{fs}}$ = stator exit average freestream total pressure from wake rakes

P_2 = stator inlet total pressure from 20-deg wedge probes

Rotor tip static pressure ratio:

$$PR = \frac{p_L}{p \text{ @ } -10\% \text{ axial chord}}$$

Stator static pressure coefficient:

$$Cp = \frac{p_{surface} - p_{2fs}}{(\rho V^2/2)_{2fs}}$$

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