

Marine Jet The marine turbine pump pictured is the Jacuzzi 12YJ, a jet propulsion system for pleasure or commercial boating. Its development was aided by a NASA computer program made available by the Computer Software Management and Information Center (COSMIC) at the University of Georgia.

The manufacturer—Jacuzzi Brothers, Incorporated, Little Rock, Arkansas—used COSMIC's Computer Program for Predicting Turbopump Inducer Loading, which enabled substantial savings in development time and money through reduction of repetitive testing.

The 12YJ is a technical advance in that it offers very high propulsive thrust in relation to

power output. Powered by a conventional marine engine, the 12YJ operates in a manner similar to an airplane jet engine, except that it uses water rather than air as the propulsive medium. The turbine pump takes in water through an intake grill in the bottom of the boat and expels it at high velocity through a stern nozzle, creating a powerful propulsive thrust. The system offers exceptional control and maneuverability, whether at docking speed or wide-open throttle. The 12YJ is one of a number of Jacuzzi jets used to power a variety of marine craft from small pleasure boats to Navy combat vessels.

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