

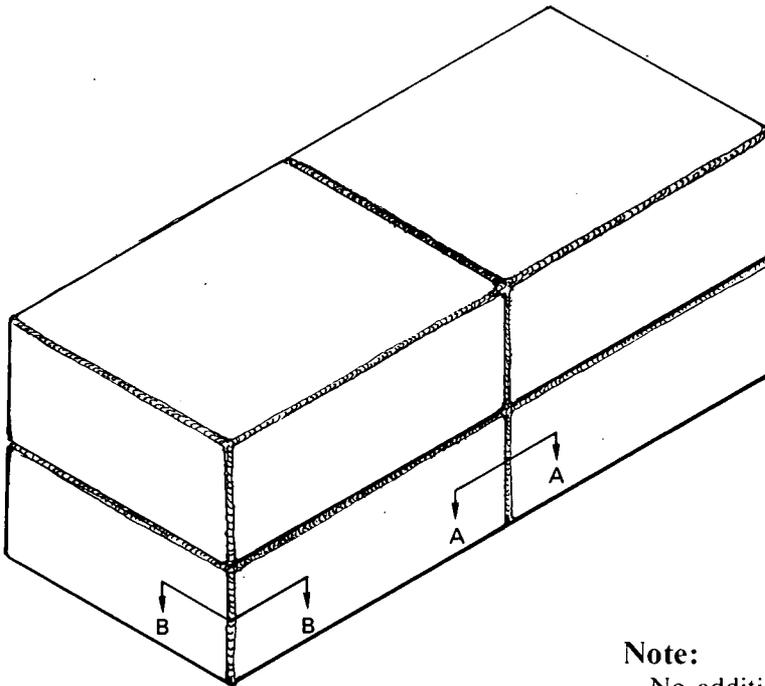
NASA TECH BRIEF

Marshall Space Flight Center

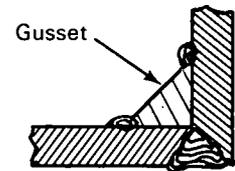


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Welded Polypropylene Liners for Large Descaling Tanks



Section A-A



Section B-B

Large descaling tanks for nitric and hydrofluoric acids can be lined successfully and inexpensively with welded polypropylene. Previously, subliners of polyvinyl chloride (PVC) over carbon-brick liners were used; such linings cost \$17,000, versus \$1500 for polypropylene. In addition, the PVC liners were subject to cracking and leaking if struck by sharp edges.

Each side of each edge of the polypropylene sheets is chamfered, and the sheets are welded from both sides with polypropylene filler rod and a special hot-air welding torch (see fig.). Properly prepared and welded, such joints are stronger and more durable than the parent material; after 18 mo. of continuous use, the liners showed no sign of deterioration.

Note:

No additional documentation is available. Specific questions, however, may be directed to:

Technology Utilization Officer
Marshall Space Flight Center
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Huntsville, Alabama 35812
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No patent action is contemplated by NASA.

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