METAL FABRICATION REQUIREMENTS
FOR RUBBER LINING

1. All metal fabrications intended for rubber or synthetic rubber lining will be continuously welded on all seams in areas to be lined with full, smooth, continuous weld beads free from sharp edges, porosity, pinholes, undercutting, slag pockets and other imperfections. Rough welds must be ground smooth, but not necessarily flush. All protrusions, sharp edges, and weld spatter must be removed by grinding.

2. All seams are to be butt-welded with full penetration. Corners are to be fillet welded. Misalignment of plates and seams must not exceed 25% of the plate thickness, and in no case, may exceed \( \frac{1}{8}'' \). Lap welded construction is never acceptable.

3. Partitions, braces, supports, or other attachments to be rubber lined will be continuously welded on all sides. For vacuum service, see item 5 below for welding and fitting requirements.

4. Nozzles and manholes must be fully seal welded on the inside surface. Nozzles and manholes must not protrude on the interior of any vessel. (See item D on sheet 2).

5. If any vessel is to be used in vacuum service, the fabricator must eliminate all undercutting, voids or pits in welds and steel.

6. All closed vessels must have at least one access manhole of not less than 20” diameter.

7. Voids in porous cast metal must be welded and ground smooth. Sharp projections, basting fins, or burrs on the casting must be completely removed. Surfacing cements for porous metal or rough castings are not permitted. Cast Iron should not be used for vacuum service.

8. All internal corners to be rubber lined must have a minimum radius of \( \frac{1}{4}'' \). All external corners to be rubber lined must be ground to a \( \frac{1}{8}'' \) minimum radius.

9. The condition of the interior must meet or exceed the above requirements and be acceptable to Protective Coatings, Inc. Examples of acceptable and unacceptable workmanship are shown on sheet 2 of this specification.

Sheet 1 of 2
Unacceptable Workmanship

A
Rough
Undercutting

B
Spatter
High Porosity
Sharp

C
Lap Construction (Never Acceptable)

D
Sharp Corners

Acceptable Workmanship

A
Smooth Blended Profile

B
1/4" Min R

C
1/4" Min R

Typical Joints of Flat Bottom to Tank Shell

D
1/8" Min R
1/4" Nozzle to Tank Shell