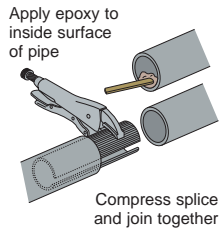


WAGNER RAIL SYSTEM

**Durable, maintenance-free pipe railing that is quick and easy to install without welding.**

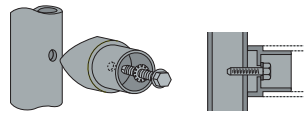


Apply epoxy to inside surface of pipe

**Railing Splices** are designed for a tight press fit and must be compressed with a pliers to permit them to slip into the pipe. The areas to be joined should be cleaned thoroughly. Mix **3M™ Scotch-Weld™ Epoxy** according to manufacturer's directions. Mix only enough that you can use within ½ hour. Apply **Epoxy** to inside surface of pipe. Compress **Splice Sleeve** with pliers then slip into the pipe. Wipe off excess **Epoxy** after components are properly joined. The areas connected

together should be left undisturbed for eight hours – longer in cold weather. See page 85 for **3M™ Scotch-Weld™ Epoxy**.

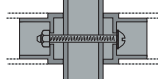
**Tee Fittings**



Attachment of tee fitting to a vertical post.

To attach the tee fitting to the post, a self-tapping, stainless steel, hexagon head screw with lockwasher is positioned through the fitting and threaded into the post. Use of a thread adhesive – i.e., **Lido-Weld** on page 97 – is strongly recommended.

A through bolt is used in combination with two 90° tees for a cross connection.



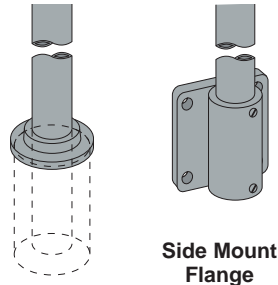
When two 90° tees are located directly opposite each other to form a cross, a stainless steel through bolt, lockwasher and locknut are used – **SA524 and SA525**.

**Mounting Options**

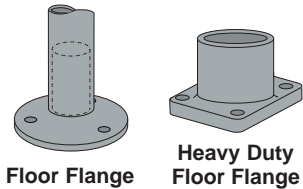
Pipe or picket railing can be embedded in concrete and grouted, or mounted on decks and platforms with base flanges, or side-mounted on fascia or stringer by means of fascia flanges.

**Embedded Post**

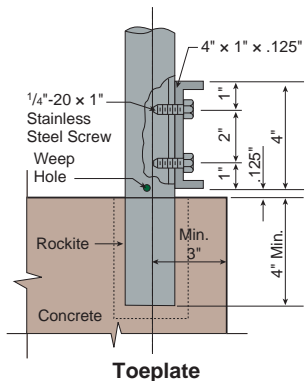
- Cover flange
- 30" reinforcing bar (6063-T5) required in all commercial applications
- ¼" weep hole at ½" above flange
- Minimum depth: 4" (5" to 6" preferred)
- 3½" minimum from center of post to edge of slab
- 1½" minimum from edge of hole to edge of slab
- 1" minimum grout pad
- Set into place with **Rockite®** or **Kwixset®** anchor cement



Side Mount Flange



Floor Flange Heavy Duty Floor Flange



**Series 500 railing meets federal safety requirements as determined by an independent testing laboratory. Test results are available upon request.**



**Consider the Advantages . . .**

- No rusting - No painting
- Unlimited designs
- Easy installation without welding
- Durable and functional design
- Strong and decorative
- Saves on installation and maintenance labor

**. . . and the Possibilities**

- ADA Ramps
- Condominiums
- Industrial Buildings
- Stores
- Waste Water Treatment Plants
- Nursing Homes
- Municipal Buildings
- Schools
- Office Buildings
- Motels
- Churches
- Hospitals
- Factories
- Amusement Parks
- Restaurants
- Swimming Pools
- Cafeterias
- Residential

**Expansion Joints**

For continuous spans in excess of 40 feet, expansion joints should be provided. To make an expansion joint, one end of a spliced joint should not have structural adhesive applied so that it is free to move in or out of the pipe. If a joint is provided every 30 feet, the width of the gap should allow ¼" expansion for each 40°F of expected temperature rise. All pipe railing splices should be made no more than 12" from the nearest post.

**Materials**

All rails and posts are produced from extruded, 6063-T6 aluminum pipe, 1½" Schedule 40 – 1.900" outside diameter with a .145" wall thickness. Where there are formed elbows, 6063-T4 alloy is used. All railing accessories are cast from ANSI 713 alloy. Fasteners used in the system should be aluminum or stainless steel.

**Workmanship**

All pipe cuts should be square and accurate for minimum joint-gap. Cuts should be clean and free of chamfer from deburring nicks and burrs. Holes should be drilled the proper size for a tight flush fit of rivets and screws. All posts grouted in concrete must have one ¼" diameter weep hole, ½" above post collar, in the plane of the rail.

**Rigidity**

Post spacing is not to exceed 6'-0", center-to-center. All posts will be single, unspliced pipe length. Lower rails should be single, unspliced lengths between posts. All top rails shall be continuous whenever possible. All fasteners should be tightened so that the completed railing is rigid and free of play at joints and component attachments.

GLASS RAILING

CABLE RAILING

SPIRAL STAIRS BALCONIES

ALUMINUM RAILINGS

BRASS / SS FITTINGS