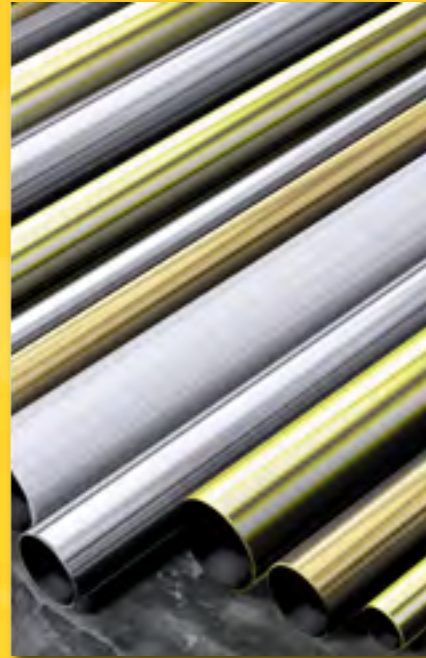


Railing Systems



Brass and Stainless Steel Fittings,
Tubing, and Extrusions

Railing Systems | Overview

Railing Components:

- ➡ Tubing
- ➡ Connectors
- ➡ Brackets
- ➡ Flanges
- ➡ End Treatments
- ➡ Glass Clips

The **Building Blocks** of Railing Systems

Railing Components | Materials & Finishes

➔ Solid Brass

➔ Polished Finish

➔ Stainless Steel (304 & 316 Alloy)

➔ Polished Finish

➔ Satin Finish



Railing Components | Tubing

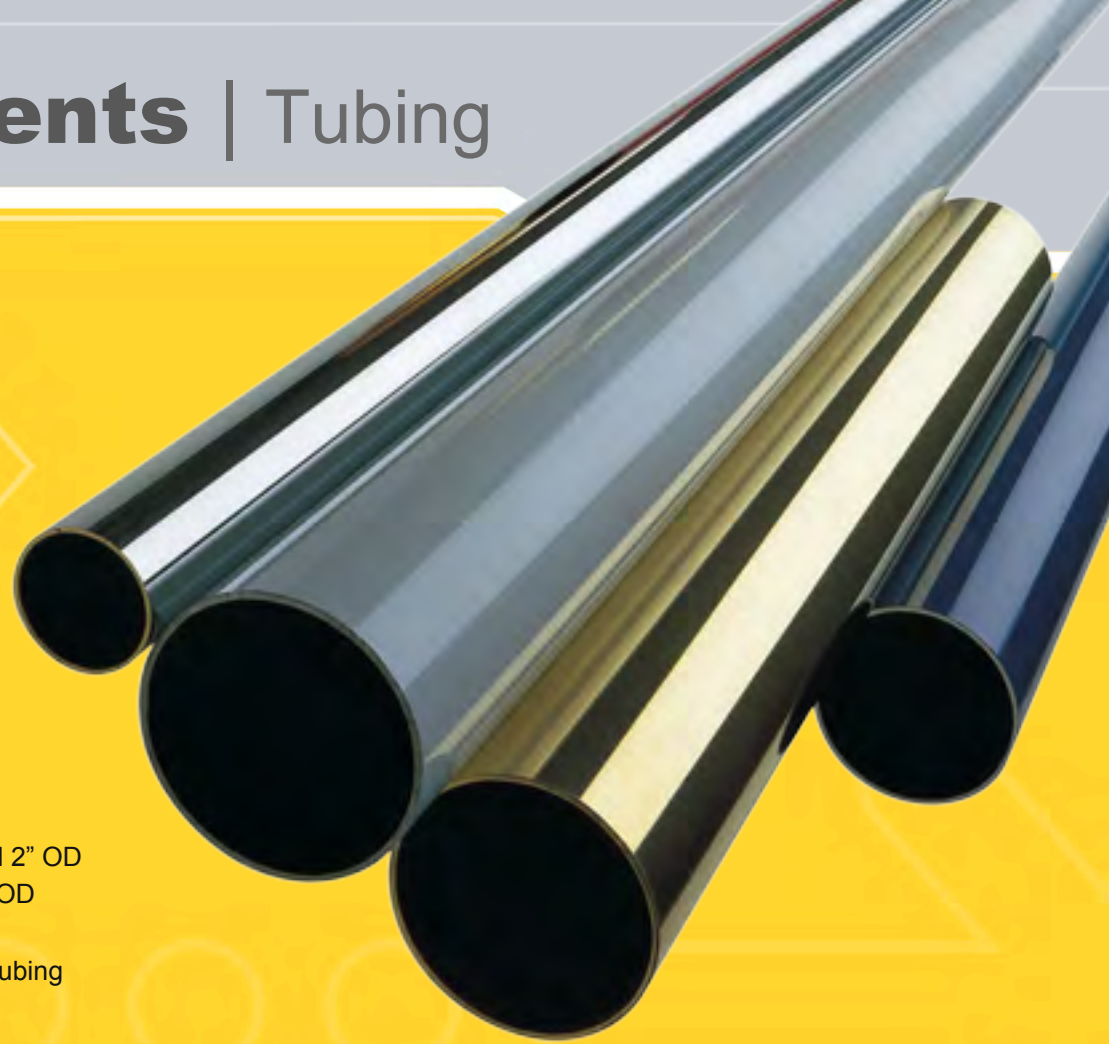
➤ Standard Sizes:

- 1" Round Tubing
- 1-1/2" Round Tubing
- 2" Round Tubing
- 2" Square Tubing

1" - 2"
Tubing
Diameter



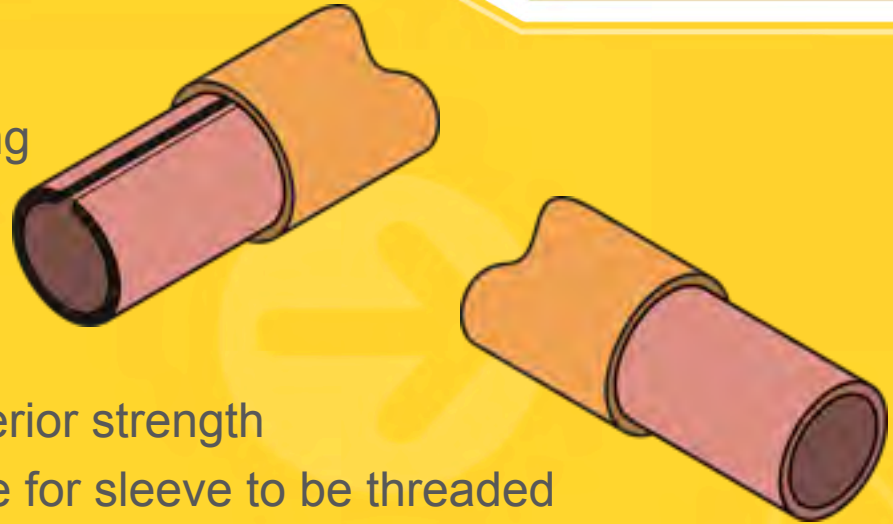
Wall thickness:
.050" – 1", 1.5", and 2" OD
.060" – 1.5" and 2" OD
.080" – 1.67" OD
.120" – 2" Square Tubing



Railing Components | Tubing

➔ **Tubing Splice**

- ➔ Available for 1" - 2" (.050") tubing
- ➔ Use with Lido Weld®

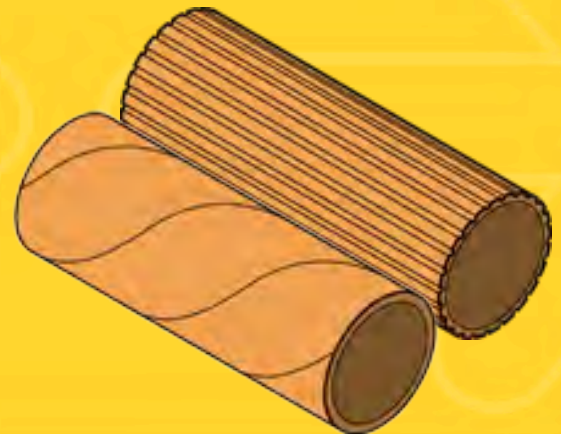


➔ **Steel Sleeve**

- ➔ Use for reinforcing tube for superior strength
- ➔ Wall thickness makes it possible for sleeve to be threaded

➔ **Reeded & Spirated Solid Brass Tubing**

- ➔ Available in 1", 1-1/2", and 2" diameters
- ➔ Use where decorative tubing is desired



Railing Components | Extrusions

➤ Handrail Cap Rail and Extrusions

- Sold directly to professional installers
- Entire product line of handrail components



Railing Components | Brackets

- **Attaches railing to wall or floor**
- **Most brackets are female-type or Saddle-type**
- **Designed to fit many applications**
- **Includes all mounting screws**



Flush Center Post



Saddle Post



Handrail Bracket



Combination Bracket

Railing Components | Connectors

➤ Two basic types of connectors:



Ball fitting
(female-type connector)



Flush fitting
(male-type connector)

Railing Components | Connectors

➔ Ball Fitting

(female-type connector)

➔ Easy to build

- ➔ Can use tubing that has an uneven end cut
- ➔ No need for precise tubing measurement
- ➔ Can use tubing with any wall thickness
- ➔ Angle Collars allow tubing to be attached at any angle



Railing Components | Connectors

➔ Flush Fitting

(male-type connector)

➔ Contemporary Look

- ➔ Requires square end cut and precisely measured tube
- ➔ 1" connecting area vs. competitors 1/2" to 3/4"
- ➔ Perpendicular Collars allow tubing to be attached at any angle



Railing Components | Modular Handrails

- **Presents a consistent appearance throughout entire project**
- **Create a variety of handrail and short rail systems using a modular approach**



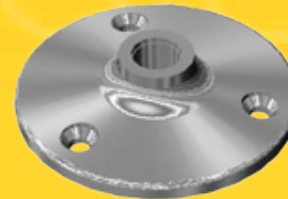
Bracket Stem



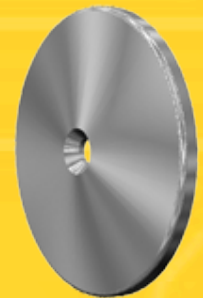
Handrail Saddle



Post Saddle



Bracket Mounting
Plate



Glass Mounting
Back Plate

Railing Components | Flanges

Flanges have 2 critical measurements:

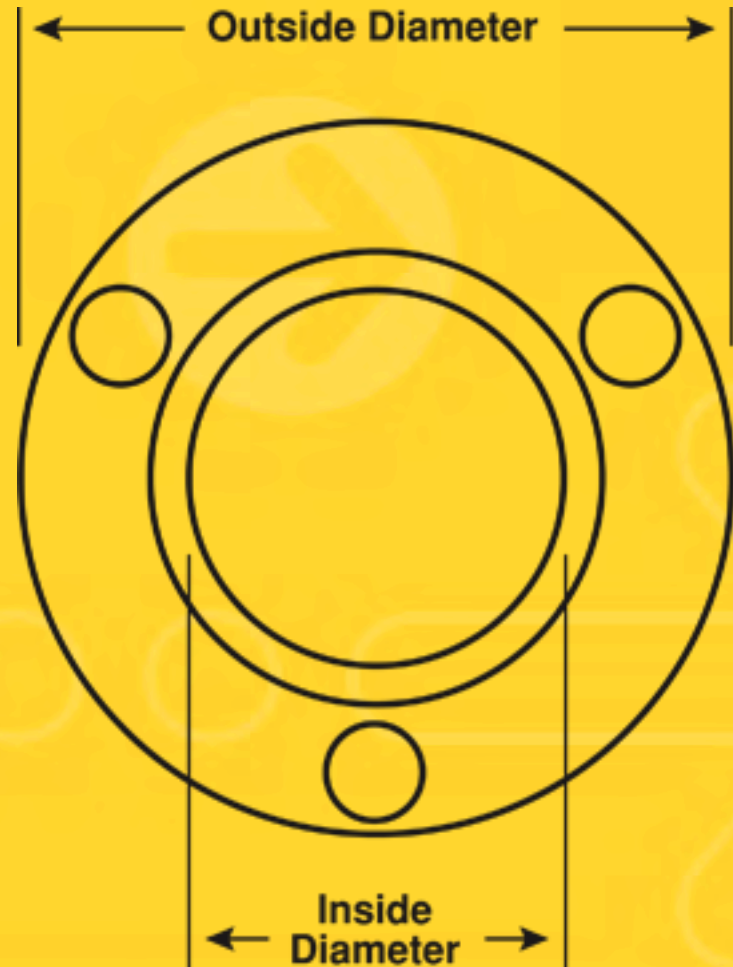
➡ **Outside Diameter**

- ➡ Determines how much "real estate" flange covers

➡ **Inside Diameter**

- ➡ Determines what size tubing must be used

Includes all mounting screws



Railing Components | Flanges

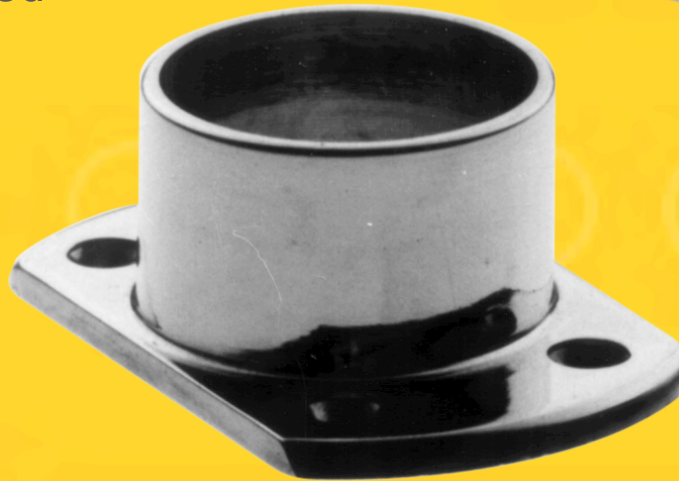
➔ Round Flange

- ➔ Larger outer diameter provides greater structural strength



➔ Cut Flange

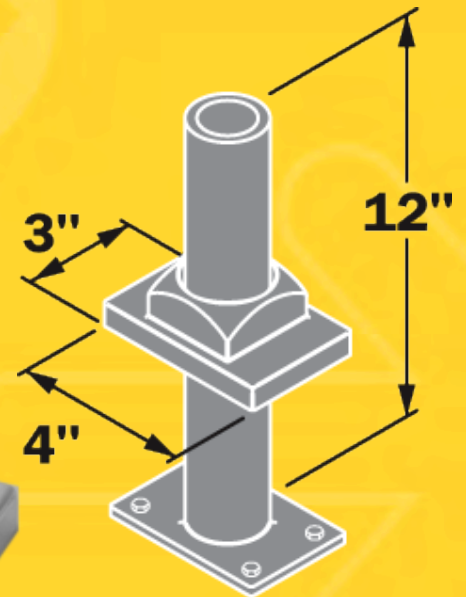
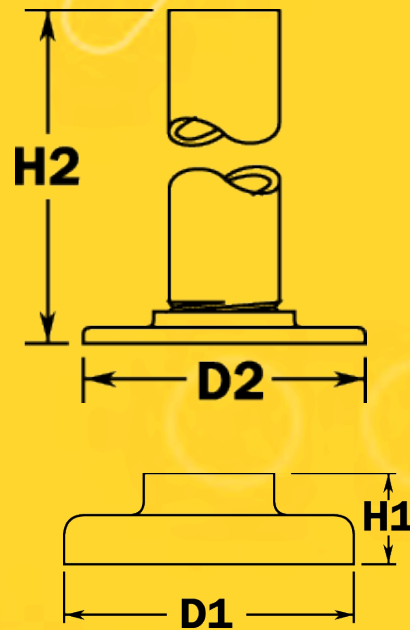
- ➔ Use in applications where surface space is limited such as Short Rail installations



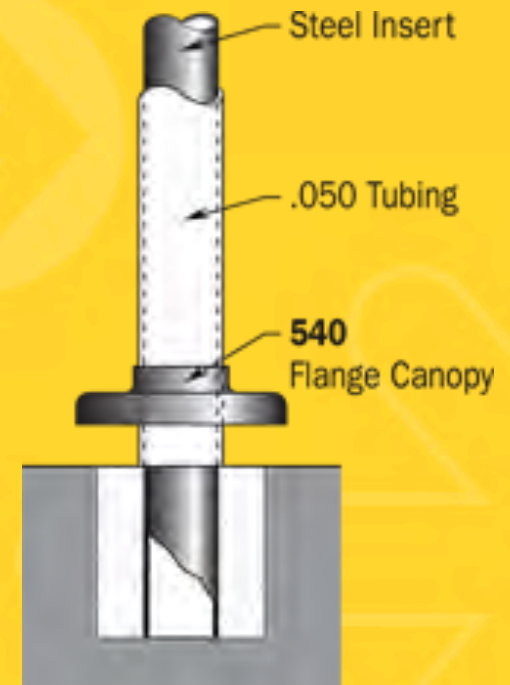
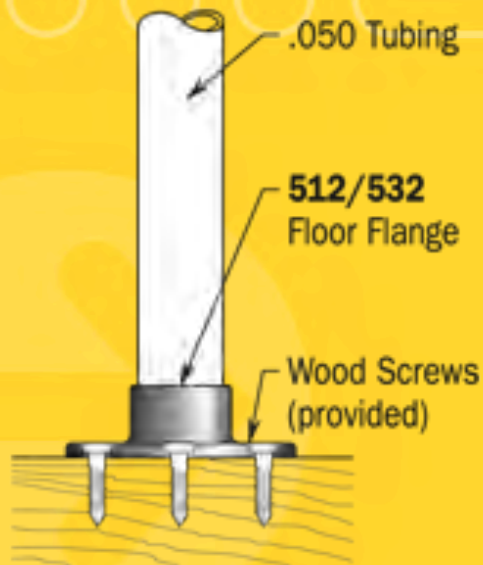
Railing Components | Flanges

➔ Flange and Canopy

- ➔ Used for heavy-duty applications
- ➔ Steel flange or plate is bolted to surface and then covered with outer canopy



Railing Components | Mounting Solutions



Railing Components | End Treatments

A decorative and functional finishing touch for any railing system
(male-type connector)

- ➞ **Flush End Caps**
- ➞ **Ball Finials**
- ➞ **Decorative Scrolls**
- ➞ **Wall Returns**



Railing Components | Glass Clips

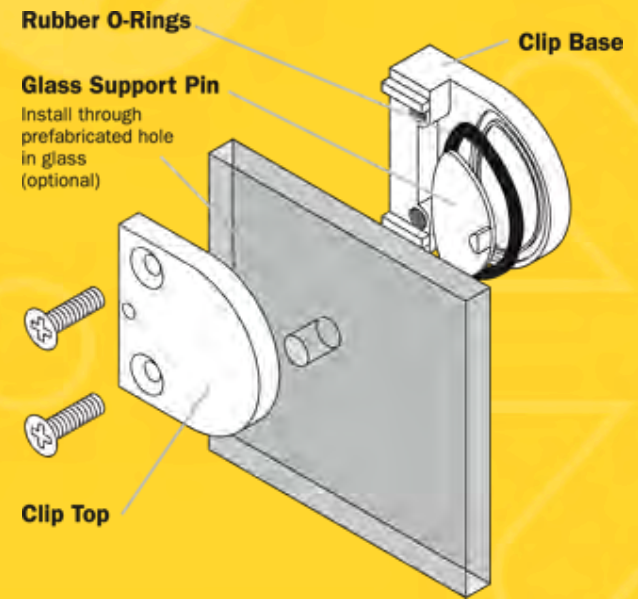
- ➞ Used to hold plates of glass, Plexi, etc. between posts
- ➞ Perfect for all Guard Rail and Booth Divider applications
- ➞ Two important considerations when choosing a glass clip:

- ➞ **Surface Attachment**

- ➞ **Curved back** allows clip to be attached to tubing
- ➞ **Flat back** allows clip to be attached to a wall

- ➞ **Panel Grip**

- ➞ Available in sizes to accommodate a panel thickness of 1/4", 3/8", 1/2", and adjustable



What can I build?

- ➞ **Handrails**
- ➞ **Footrails**
- ➞ **Guard Rails**
- ➞ **Booth Dividers**
- ➞ **Almost Anything!**

Railing Systems | Handrail Application

Components:

➔ **Tubing**

➔ **Brackets**

- ➔ Curved (for metal tubing)
- ➔ Flat (for wood rods)

➔ **Connector**

- ➔ Has to be flush fitting

➔ **End Treatments**

- ➔ Scroll Finial (606)
- ➔ Wall Return (608)



Railing Systems | Handrail Application



Railing Systems | Handrail Application

Building Code Requirements



Railing Systems | Short Rail Application

Designed to project a short distance from the mounting surface

Typical installations include:

- ➞ **Handrails**
- ➞ **Door Pulls**
- ➞ **Café Curtain Rods**
- ➞ **Chair Guard Rails**



Railing Systems | Short Rail Application



Railing Systems | Arm Rail & Footrail Application

Components:

➔ **Tubing**

- ➔ 1" - 3" diameter

➔ **Brackets**

- ➔ Numerous designs

➔ **Connector**

- ➔ Flush fitting
- ➔ Ball fitting
- ➔ Angles (90°, 135°)

➔ **Flanges**

- ➔ To connect to wall or floor

➔ **End Treatments**

- ➔ Ball Finials
- ➔ End Caps



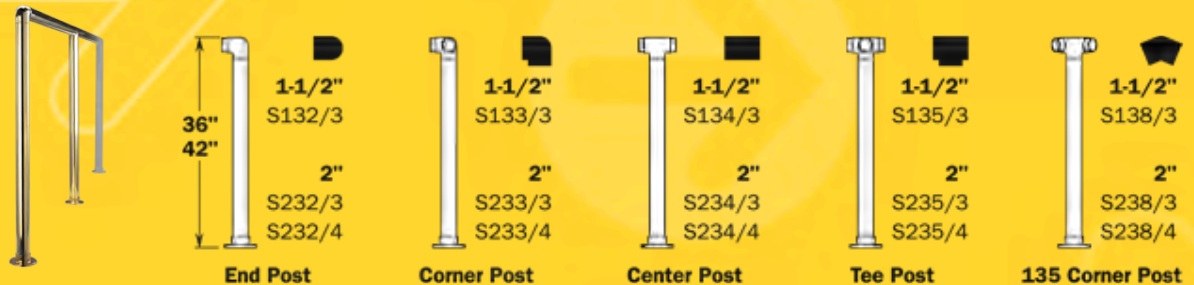
Railing Systems | Arm Rail & Footrail Application



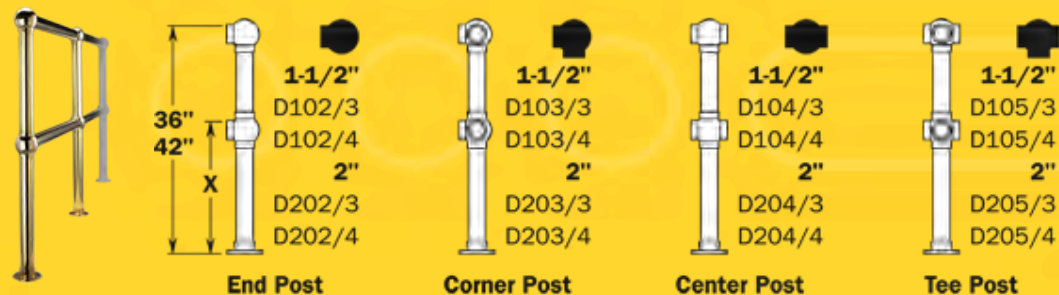
Railing Systems | Pre-Fabricated Rail

- ➔ Pre-fabricated for easier installation
- ➔ Factory welded to provide greater strength

Single Line Flush Post



Double Line Ball Post



Railing Systems | Guard Rail & Stair Rail

Components:

➔ **Tubing**

- ➔ 1-1/2" and 2" diameter

Use pre-fabricated posts or . . .

➔ **Connector**

- ➔ Flush fitting
- ➔ Ball fitting
- ➔ Glass Clips

➔ **Flanges**

- ➔ To connect to wall or floor

➔ **End Treatments**

- ➔ Ball Finials
- ➔ End Caps



Railing Systems | Booth Divider Posts

Factory assembled to save time and labor

Designed to hold 1/4" thick panels of glass or other material

Two types of panel attachment:

- ➔ **Glass Clips**
 - ➔ **Curved back** for panel to post connection
 - ➔ **Flat back** for panel to wall connection
- ➔ **Channels**
 - ➔ **Curved back** for panel to post connection
 - ➔ **Flat back** for panel to wall connection



Railing Systems | Booth Divider Posts



Railing Systems | Thank You

The End