

## ENDS AND TOPS

	1½" O.D.	A	B	2" O.D.	A	B
<b>406 End Scroll</b> Scroll end fits inside tubing.	BH-406	2¾" (70mm)	2¾" (70mm)	BT-406	3" (76mm)	3" (76mm)
<b>422 Flat End Cap</b> End cap fits inside tubing.	BH-422	1½" (38mm)		BT-422	2" (51mm)	
<b>422A Filigree End Cap</b> End cap slips over tubing.	BH-422A	2⅞" (73mm)		BT-422A	2⅞" (60mm)	
<b>422K Decorative End Cap</b> End cap slips over tubing.	BH-422K	1⅞" (38mm)	1⅞" (29mm)	BT-422K	2⅞" (60mm)	1½" (38mm)
<b>422L Ball End</b> Ball end slips over tubing.	BH-422L	2⅞" (73mm)	2⅞" (60mm)	BT-422L	3¼" (89mm)	2⅞" (73mm)
<b>422R Dome End Cap, Flush</b> End cap fits inside tubing.	BH-422R	1½" (38mm)	1½" (38mm)	BT-422R	1¾" (45mm)	2" (51mm)
<b>423 End Post</b> Tubing fits inside end post. Companion to 424 (see Brass Brackets page 16).	BH-423	1¾" (45mm)	3¼" (83mm)	BT-423	2¼" (57mm)	4⅞" (112mm)
<b>423A Rounded End Post</b> Companion to 424A (see Brass Brackets page 16).	BH-423A	3⅞" (92mm)	2⅞" (75mm)	BT-423A	4⅞" (111mm)	3⅞" (83mm)
<b>437 Ball Finial</b> Finial end fits inside tubing.	BH-437	3½" (89mm)	2¼" (57mm)	BT-437	4½" (114mm)	3" (76mm)

## BRASS FLANGES

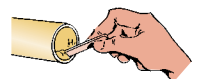
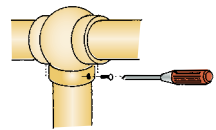
	1½" O.D.	A	B	2" O.D.	A	B
<b>428 Wall Flange</b> Tubing fits inside flange. To secure connection, apply adhesive to inside flange sleeve and insert tubing.	BH-428	1⅞" (29mm)	3" (76mm)	BT-428	1¼" (32mm)	4" (102mm)
<b>428A Adjustable Angle Flange</b> Tubing slips over mounting insert. To secure connection, apply adhesive to inside of tubing end and slip over insert.	BH-428A	3" (76mm)	2¼" (57mm)	BT-428A	4⅞" (128mm)	3" (76mm)
<b>429 Floor Flange</b> Tubing fits inside flange. To secure connection, apply adhesive to inside flange sleeve and insert tubing.	BH-429	4" (102mm)	1⅞" (29mm)	BT-429	5" (127mm)	1½" (38mm)
<b>429C Floor Cover Plate</b> Decorative flange. See page 6 for more information.	BH-429C	4" (102mm)		BT-429C	4⅞" (125mm)	
<b>429IF Iron Flange</b> Reinforcing post provides extra stability inside brass tubing. Use in conjunction with 429C. See page 6 for more information.	BH-429IF	3¾" (95mm)		BT-429IF	4½" (114mm)	
<b>429S Socket &amp; Cap for Uncarpeted Floor</b> Allows removal of rail from concrete floor. Requires concrete floor. Drill out a 3" (76mm) area and fill in the concrete around it. Lugs welded onto brass vertical prevent the entire socket from coming out of the concrete after it's set.	N/A			BT-429S	3" (76mm)	4½" (114mm)
<b>429SC Socket &amp; Cap for Carpeted Floor</b> Same as 429S.	N/A			BT-429SC	3" (76mm)	4½" (114mm)
<b>430 Heavy Duty Floor Flange</b> Same as 429.	BH-430	5¼" (133mm)	1" (25mm)	BT-430	7" (178mm)	1½" (38mm)

### INSTALLATION

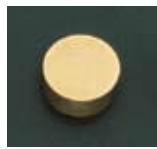
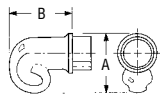
In-wall backing is required. TSM recommends supports every 48" for upright rails and every 36" for footrails (1219 and 914mm). It is important to comply with local codes in mounting railings, for the national codes vary widely in their recommendations (from 30"-38" (762-973mm) above floor level. Align brackets with tubing, then use flanges as a template to pinpoint mounting hole placement. Pre-drill pilot holes and lubricate screws provided by TSM with soap. Attach tubing to brackets using set screws or adhesive provided by TSM. While TSM provides 1½" brass wood screws with Series 400 components, it is the installer's responsibility to select fasteners that are appropriate for the wall condition and application. Mounting holes in flanges are countersunk.

For set screw connections: Drill through component and tubing with bit and thread tubing or component (whichever is closest) with tap.

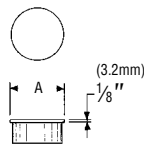
For adhesive connections: Apply bead inside female component openings and insert dowels to form a hairline joint. Adhesive can be used in conjunction with set screws for extra strength. The natural beauty of the brass finish is maintained by regular, frequent cleaning and polishing.



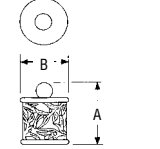
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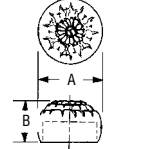
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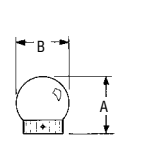
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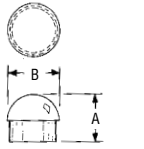
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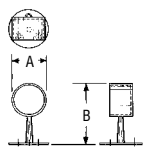
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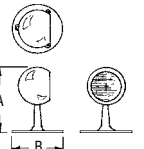
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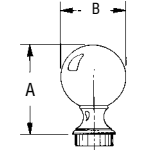
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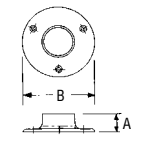
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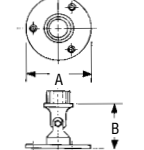
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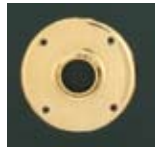
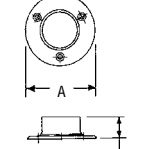
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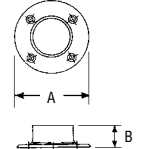
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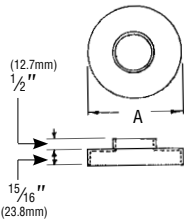
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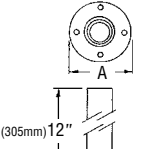
429C



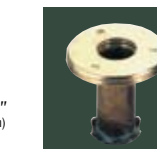
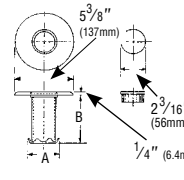
429IF



429S



429SC



430

