



Since 1966

Tubular Specialties Manufacturing, Inc.

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Series 300

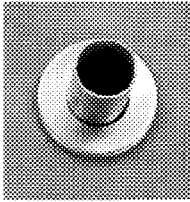
Technical Data

Revised April 2005

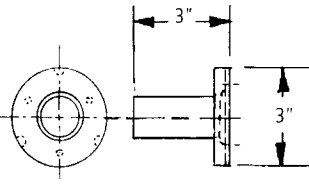
Stainless Steel Component Wall Railing System

End Wall Bracket

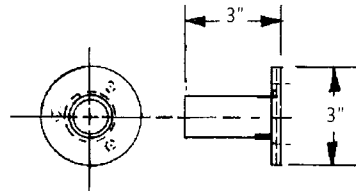
Terminates rail into side wall.



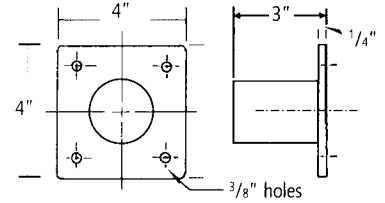
Shown with CS-1



- Model #** **O.D. Flange**
- H-301/CS-1 1 1/2" 14 ga. Concealed Screw



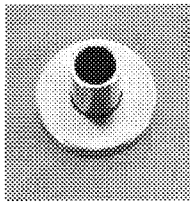
- Model #** **O.D. Flange**
- H-301/R-3 1 1/2" 8 ga. Exposed Screw



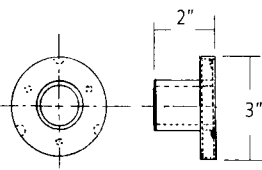
- Model #** **O.D. Flange**
- T-301/SF-6 1.9" 1/4" Thick 4" Sq. Exp. Screw

SLEV End Wall Bracket, Sleeved

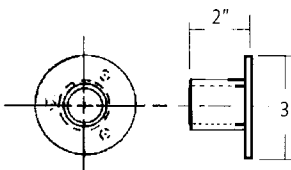
Terminates rail into side wall.



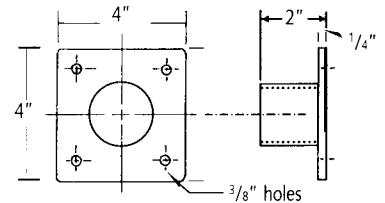
Shown with CS-1



- Model #** **O.D. Flange**
- H-301/SLEV/CS-1 1 1/2" 14 ga. Concealed Screw



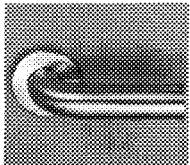
- Model #** **O.D. Flange**
- H-301/SLEV/R-3 1 1/2" 8 ga. Exposed Screw



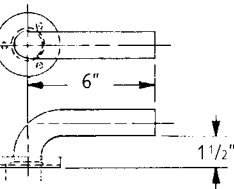
- Model #** **O.D. Flange**
- T-301/SLEV/SF-6 1.9" 1/4" Thick 4" Sq. Exp. Screw

Return Wall Bracket

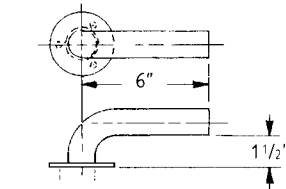
Terminates rail with a sidewall return. Complies with 1 1/2" wall clearance.



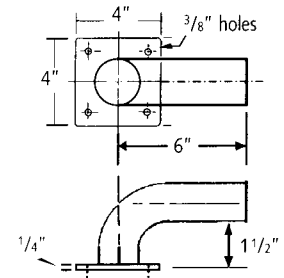
Shown with CS-1



- Model #** **O.D. Flange**
- H-302/CS-1 1 1/2" 14 ga. Concealed Screw



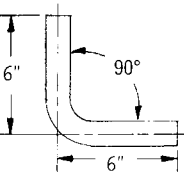
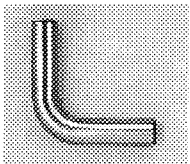
- Model #** **O.D. Flange**
- H-302/R-3 1 1/2" 8 ga. Exposed Screw



- Model #** **O.D. Flange**
- T-302/SF-6 1.9" 1/4" Thick 4" Sq. Exp. Screw

90° Elbow

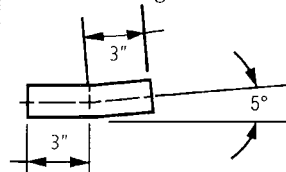
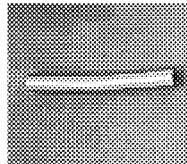
Forms inside or outside corner.



- Model #** **O.D.**
- H-303 1 1/2"
- T-303 1.9"

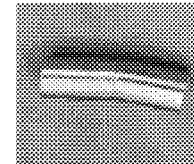
5° Elbow

Allows adjustment for a 1:12 slope. Custom angles available.

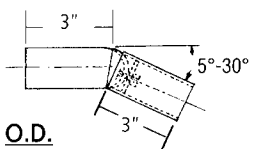


- Model #** **O.D.**
- H-322 1 1/2"
- T-322 1.9"

Adjustable Slope Elbow



Patent pending design allows adjustment at the jobsite from 5° to 30°.



- Patent Pending
- Model #** **O.D.**
- H-310 1 1/2"
- T-310 1.9"

Manufacturer reserves the right to alter design or dimensions without formal notice and without incurring obligation.

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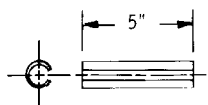
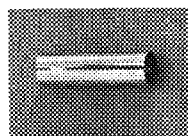


Guarantee

TSM Series 300 Stainless Steel Component Railing System is guaranteed against defects in workmanship and material for one year from shipping date.

Internal Dowel

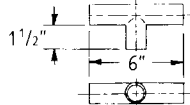
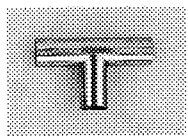
Used to connect component pieces together; one required for every hairline joint. Adhesive sealant supplied.



Model #	O.D.
<input type="checkbox"/> H-306	1 1/2"
<input type="checkbox"/> T-306	1.9"

Tee Connector

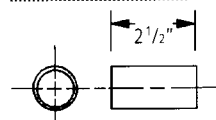
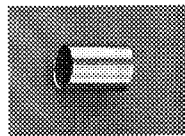
Connects three component pieces, one perpendicular, two horizontal.



Model #	O.D.
<input type="checkbox"/> H-307	1 1/2"
<input type="checkbox"/> T-307	1.9"

Outside Sleeve

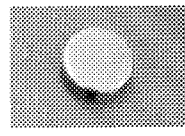
Provides attractive covering for connecting seams as well as supplying added strength to connection.



Model #	O.D.
<input type="checkbox"/> H-308	1 1/2"
<input type="checkbox"/> T-308	1.9"

End Cap, St. Steel

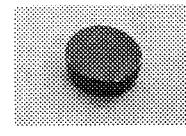
Spring action insert. Press fits into ends of tubing. T-309 fits only straight tubing; no curved ends.



Model #	O.D.
<input type="checkbox"/> H-309	1 1/2"
<input type="checkbox"/> T-309	1.9"

End Cap, Black Plastic

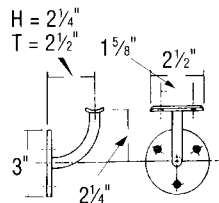
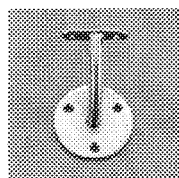
Heavy duty black Butyrate. Press fits into ends of tubing.



Model #	O.D.
<input type="checkbox"/> H-309P	1 1/2"
<input type="checkbox"/> T-309P	1.9"

Underslung Support with Saddle

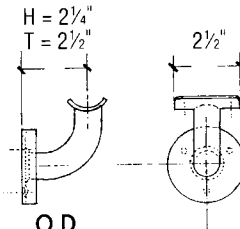
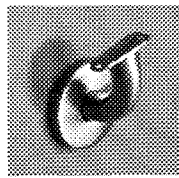
Complies with 1 1/2" wall clearance. Support is 1/2" rod. Attaches to tubing with set screws provided by manufacturer. Recommended spacing maximum 60" on center.



Model #	O.D.
<input type="checkbox"/> H-304A/R-3	1 1/2"
<input type="checkbox"/> T-304A/R-3	1.9"

Underslung Support with Saddle

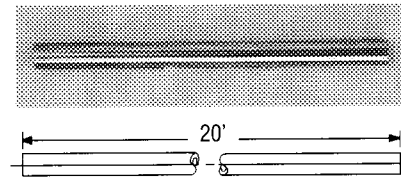
Complies with 1 1/2" wall clearance. Support is 1" tubing. Attaches to tubing with set screws provided by manufacturer. Recommended spacing maximum 60" on center.



Model #	O.D.
<input type="checkbox"/> H-304T/R-3	1 1/2"
<input type="checkbox"/> T-304T/R-3	1.9"

Straight Tubing

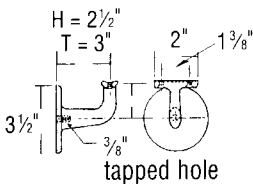
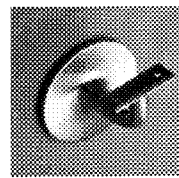
Standard length is 20'. Smaller sizes can be custom cut.



Model #	O.D.
<input type="checkbox"/> H-106(49)	1 1/2" x 18 ga.
<input type="checkbox"/> T-106(65)	1.9" X 16 ga.

Cast Wall Bracket

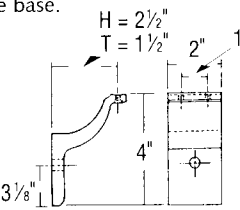
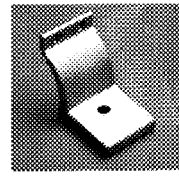
Universal bracket with 2 1/2" wall clearance. Installed with one 3/8" - 16 hanger bolt through the round wall flange.



Model #	O.D.
<input type="checkbox"/> H-304C	1 1/2"
<input type="checkbox"/> T-304C	1.9"

Extruded Wall Bracket

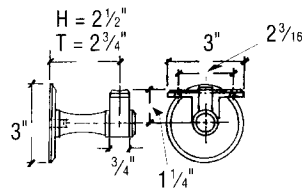
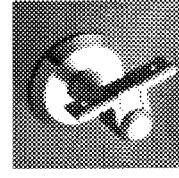
Universal bracket with 2 1/2" wall clearance. Installed with one 3/8" hex lag screw through the 2" wide base.



Model #	O.D.
<input type="checkbox"/> H-304E	1 1/2"
<input type="checkbox"/> T-304E	1.9"

Self-Aligning Bracket

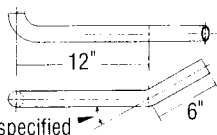
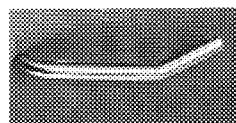
Universal bracket with 2 1/2" wall clearance. Installed with one 3/8" - 16 hanger bolt through the round wall flange.



Model #	O.D.
<input type="checkbox"/> H-304R	1 1/2"
<input type="checkbox"/> T-304R	1.9"

Wall Return Without Support, LH

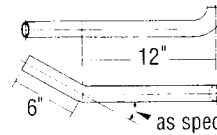
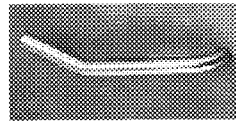
Returns terminate end of rail to within 1/4" (6.4mm) of side wall with 309P press fit into railing to enhance appearance.



Model #	O.D.
<input type="checkbox"/> H-305TL	1 1/2"
<input type="checkbox"/> T-305TL	1.9"

Wall Return Without Support, RH

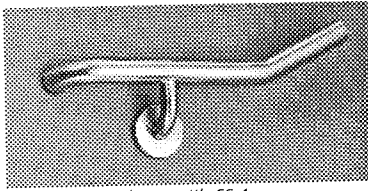
Returns terminate end of rail to within 1/4" (6.4mm) of side wall with 309P press fit into railing to enhance appearance.



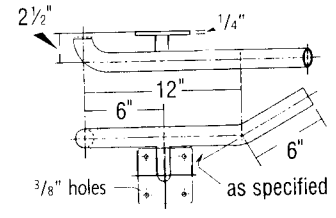
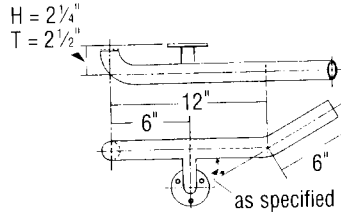
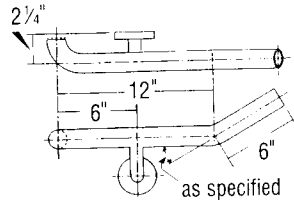
Model #	O.D.
<input type="checkbox"/> H-305TR	1 1/2"
<input type="checkbox"/> T-305TR	1.9"

Wall Return with Support, LH

Returns terminate end of rail to within 1/4" of side wall with 309P press fit into railing to enhance appearance. Complies with 1 1/2" wall clearance.



Shown with CS-1



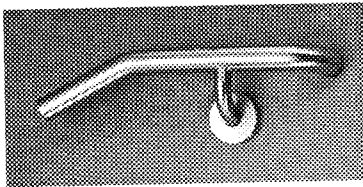
- Model # O.D. Flange**
- H-305T1L/CS-1** 1 1/2" 14 ga. Concealed Screw

- Model # O.D. Flange**
- H-305T1L/R-3** 1 1/2" 8 ga. Exp. Screw
 - T-305T1L/R-3** 1.9" 8 ga. Exp. Screw

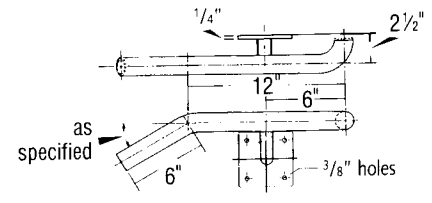
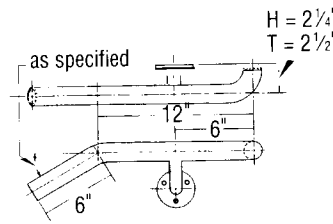
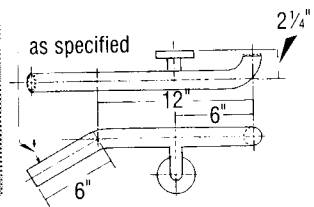
- Model # O.D. Flange**
- T-305T1L/SF-6** 1.9" 1/4" Thick 4" Sq. Exp. Screw

Wall Return with Support, LH

Returns terminate end of rail to within 1/4" of side wall with 309P press fit into railing to enhance appearance. Complies with 1 1/2" wall clearance.



Shown with CS-1



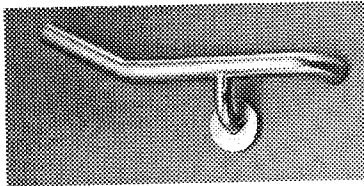
- Model # O.D. Flange**
- H-305T2L/CS-1** 1 1/2" 14 ga. Concealed Screw

- Model # O.D. Flange**
- H-305T2L/R-3** 1 1/2" 8 ga. Exp. Screw
 - T-305T2L/R-3** 1.9" 8 ga. Exp. Screw

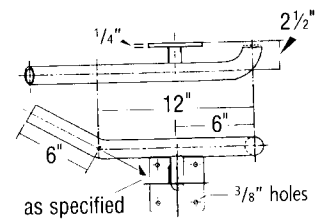
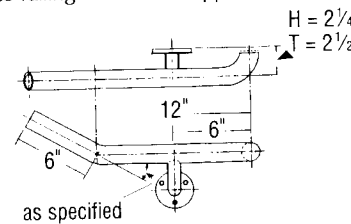
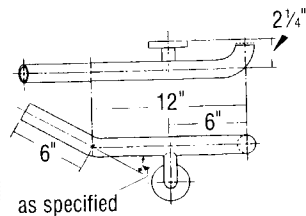
- Model # O.D. Flange**
- T-305T2L/SF-6** 1.9" 1/4" Thick 4" Sq. Exp. Screw

Wall Return with Support, RH

Returns terminate end of rail to within 1/4" of side wall with 309P press fit into railing to enhance appearance. Complies with 1 1/2" wall clearance.



Shown with CS-1



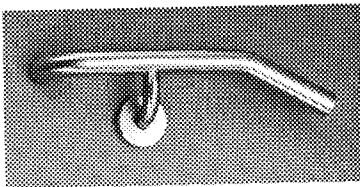
- Model # O.D. Flange**
- H-305T1R/CS-1** 1 1/2" 14 ga. Concealed Screw

- Model # O.D. Flange**
- H-305T1R/R-3** 1 1/2" 8 ga. Exp. Screw
 - T-305T1R/R-3** 1.9" 8 ga. Exp. Screw

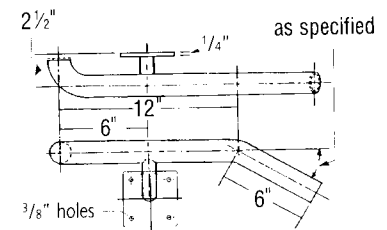
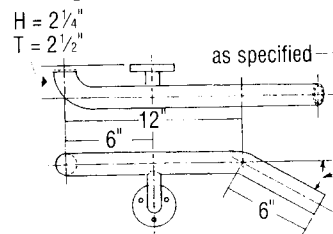
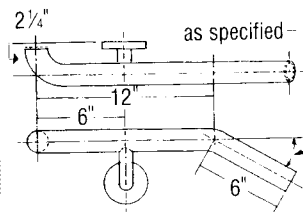
- Model # O.D. Flange**
- T-305T1R/SF-6** 1.9" 1/4" Thick 4" Sq. Exp. Screw

Wall Return with Support, RH

Returns terminate end of rail to within 1/4" of side wall with 309P press fit into railing to enhance appearance. Complies with 1 1/2" wall clearance.



Shown with CS-1



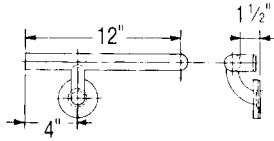
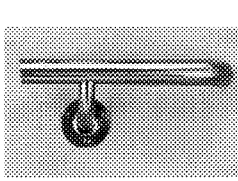
- Model # O.D. Flange**
- H-305T2R/CS-1** 1 1/2" 14 ga. Concealed Screw

- Model # O.D. Flange**
- H-305T2R/R-3** 1 1/2" 8 ga. Exp. Screw
 - T-305T2R/R-3** 1.9" 8 ga. Exp. Screw

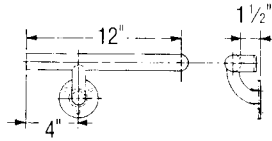
- Model # O.D. Flange**
- T-305T2R/SF-6** 1.9" 1/4" Thick 4" Sq. Exp. Screw

Underslung Support Return Wall Bracket, RH

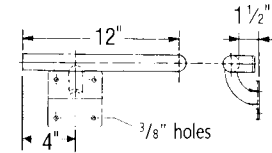
Returns terminate end of rail to within 1/4" of side wall with 309P press fit into railing to enhance appearance. Complies with 1 1/2" wall clearance.



Model # **O.D.**
 H-305U/CS-1,RH 1 1/2"



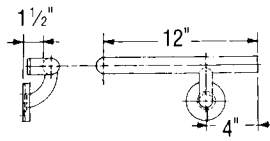
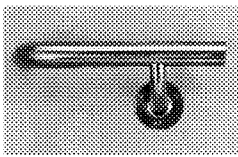
Model # **O.D.**
 H-305U/R-3,RH 1 1/2"
 T-305U/R-3,RH 1.9"



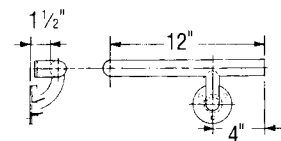
Model # **O.D. Flange**
 T-305U/SF-6,RH 1.9" 1/4" Thick 4" Sq. Exp. Screw

Underslung Support Return Wall Bracket, LH

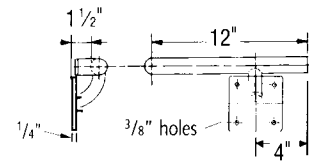
Returns terminate end of rail to within 1/4" of side wall with 309P press fit into railing to enhance appearance. Complies with 1 1/2" wall clearance.



Model # **O.D.**
 H-305U/CS-1,LH 1 1/2"



Model # **O.D.**
 H-305U/R-3,LH 1 1/2"
 T-305U/R-3,LH 1.9"



Model # **O.D. Flange**
 T-305U/SF-6,LH 1.9" 1/4" Thick 4" Sq. Exp. Screw



Architectural Specification

Railing Components _____ [fill in model names and numbers] shall be type 304 satin finish stainless steel with ends turned 90° by mandrel bending. Flanges shall be heliarc welded to tubing to form a single structural unit. Tubing shall be _____ [1 1/2" O.D. x 18 gauge (38x1.2mm) or 1.9" O.D. x 16 gauge (48x1.7mm)] type 304 satin finish stainless steel.

Stainless Steel Components shall be Series 300 Models _____ as manufactured by Tubular Specialties Manufacturing, 13011 South Spring Street, Los Angeles, California 90061, tel (800)Grab Bar.



Materials/Workmanship

Tubing	Stainless steel satin finish type 304 (18-8). 1 1/2" O.D. x 18 gauge (38 x 1.2mm) and 1.9" O.D. x 16 gauge (48 x 1.7mm). Ends turned 90° by mandrel bending and heliarc welded to flanges to form a single structural unit.
Support Components	Stainless steel satin finish type 304 (18-8). Fit 1 1/2" and 1.9" (38 & 48mm) O.D. tubing.
CS-1 Concealed Screw Flanges	Stainless steel satin finish type 304 (18-8), 3" x 14 gauge (76 x 9mm) base and 20 gauge cover (0.9mm), snap-lock design. Three 1/4" (6mm) mounting holes per flange. Fit 1 1/2" O.D. tubing (38mm). Wall clearance is 1 1/2" to meet building codes.
R-3 Exposed Screw Flanges	Stainless steel satin finish type 304 (18-8), 3" x 8 gauge (76 x 4.2mm). Three 1/4" (6mm) mounting holes per flange. Fit 1 1/2" and 1.9" (38 & 48mm) O.D. tubing. Wall clearance is 1 1/2" to meet building codes.
SF-6 Exposed Screw Flanges	Stainless steel satin finish type 304 (18-8), 4" square x 1/4" thick (102 x 6mm). Four 3/8" (9.5mm) mounting holes per flange. Fit 1.9" O.D. tubing. Wall clearance is 1 1/2" to meet building codes.
304C Cast Wall Bracket	Stainless steel satin finish type 304 (18-8). Installed with one 3/8" hex lag screw through the 2" wide base (51mm). Universal bracket with 2 1/2" wall clearance.
304E Extruded Wall Bracket	Stainless steel satin finish type 304 (18-8). Installed with one 3/8" - 16 hanger bolt through the 3" round wall flange. Universal bracket with 2 1/2" wall clearance.
304R Self-Aligning Bracket	Stainless steel satin finish type 304 (18-8). Installed with one 3/8" - 16 hanger bolt through the 3" round wall flange. Universal bracket with 2 1/2" wall clearance.



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 2" stainless steel wood screws with Series 300, 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 R-3 and SF-6 flanges.
- Assembly of components at jobsite is with internal dowels (available from TSM; order one model H-306 or T-306 for each connection) and adhesive (provided by TSM) or welding. For adhesive connections, apply bead inside female component openings and insert dowels to form a hairline joint.
- All railing systems should be inspected periodically to make sure their attachment to the wall is not loosening.

Manufacturer reserves the right to alter design or dimensions without formal notice and without incurring obligation.

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Guarantee

TSM Series 300 Stainless Steel Component Railing System is guaranteed against defects in workmanship and material for one year from shipping date.