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PIPE CLAMP SELECTION

Mounting / Hardware Configuration

Behringer offers an array of mounting configurations and arrangement styles for the Sanitary Smooth Bore Series supports. They can be mounted to the support structure by either welding, bolting, hanging, rail mount, strut mount or via stanchions. In addition, they can be stacked on top of each other to save on space. Please check the ordering code for available assemblies with the configuration you desire. Here are some examples of the mounting options.



Weld Mounting [STW]

Clamps are supplied with a weld plate (STW) for welding directly to the support structure. This is the most commonly used style and includes a cover plate (COP) and hex bolts (HEX).



Hang Mounting [HAP]

Clamps are supplied with a hang plate (HAP) that allows the support block to be installed at a distance from the structural member from which it is mounted. They are hung from threaded rod to the desired elevation.



Bolt Mounting [BAP]

Clamps are supplied with a Base Plate (BAP) for applications where the clamp cannot be welded into position. This is commonly used to mount to non-metallic surfaces, such as wood or drywall.



Rail Mounting [RCN, RAL]

Rail mounting makes installations of multiple lines of different group sizes an easy task. All clamps within one series can be mounted directly to a single channel using Rail Nuts (RCN) or Weld Plates (STW) in conjunction with Behringer's proprietary Mounting Rail (RAL-1).

Strut Mounting [UCN]

Clamps are supplied with Unistrut Clip Nuts (UCN) for mounting to standard Unistrut channel. The nuts adapt to any strut channel that is 1 5/8" wide. The depth of the channel is not important as the UCN clips attach with spring loaded tension to the top of the channel.



Stacking Kits [SKSB]

Stacking kits consist of a set of Clamp Halves (CLH), Stacking Bolts (STB) and a Safety Plate (SAF). A stacking kit is everything needed to take an existing clamp and add an additional level. Start by simply using the hardware from the existing clamp, remove the cover plate, clamp halves, and hex bolts and insert the stacking kit onto the bottom plate and then replace the original hardware on top. Multiple stacking kits can be added to increase the number of clamps stacked in a series.

HYGIENIC PIPE & TUBE SUPPORTS













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Figure 202

Base Plate Mount

Rail Mount

HEX

COP

BAP

CLH (pair)

FIG. 200 BLOCK STYLE

Size Range: 1/4" outside diameter through 8.625" outside diameter

Hardware: 304 Stainless Steel, 316 Stainless Steel, or Electro-Zinc Plated Carbon Steel

Plastic Inserts: Polypropylene (blue) Santoprene (beige) Polysulfone (black) HDPE (white) High Temp Nylon (black) *See page 28 for temperature ratings

Installations: Weld bottom plate to structure or supporting member, let cool before mounting plastic blocks.

Thermal Expansion Guide: (Optional) Provides for axial expansion of the tube or pipe due to thermal expansion. One set of two per clamp (See Fig. 207 in accessories)

Thermal Expansion Guide Material: Santoprene, 1/16" insert, Black for service identification

GRP NO.	TUBE OR PIPE SIZE	"D" INCHES	w	н	z	U	BOLT SIZE	LBS.
	1/4 T	0.250		1.38" (35 mm)			1/4-20	0.4 (0.18 kg)
	3/8 T	0.375	1		1.19" (30 mm)	0.81" (20 mm)		
2	1/2 T	0.500	1.88"					
3	3/4 T	0.750	(48 mm)					
	1/2 P	0.840		1891 - C				
	1 T	1.000	1					
	1/4 T	0.250				1.44° (37 mm)		
	3/8 T	0.375	1 1	2.63* (67 mm)	1.19" (30 mm)			
	1/2 T	0.500	1					
	5/8 T	0.625	1				1/4-20	
	3/4 T	0.750	1 1					
	1/2 P	0.840	1					
	7/8 T	0.875	3.34" (85 mm)					
6	1 T	1.000						0.6
	3/4 P	1.050						(0.27 kg)
	1-1/4 T	1.250						
	1 P	1.315						
	1-1/2 T	1.500						
	1-1/4 P	1.660						
	1-1/2 P	1.900	1					
	2 T	2.000	1					
	2 T	2.000	5.00" (127 mm)	4.38" (111 mm)	1.19" (30 mm)	2.31" (59 mm)	1/4-20	1.1 (0.50 kg)
	2 P	2.375						
720.0	2-1/2 T	2.500						
7	2-1/2 P	2.875						
	3 T	3.000						
	3-1/2 T -3 P	3.500						
7A	4 T	4.000	5.77" (147 mm)	4.8" (122 mm)	1.19" (33 mm)	2.54" (65 mm)	1/4-20	1.5 (0.68 kg)
8	6 T	6.000	8.88"	7.65"	1.50"	4.01"	2/0.40	4.4
8	6P	6.625	(226 mm)	(194 mm)	(38 mm)	(102 mm)	3/8-16	(1.99 kg)
	8T	8.000	12.5"	10"	1.75"	5.38"	EI0 44	12.5
9	8P	8.625	(318 mm)	(254 mm)		(137 mm)	5/8 - 11	(5.7 kg)





Catalog CHSAND412

Fig 200 Smooth Bore Weld Plate Mount - Part Number Configurator





WELD PLATE MOUNT

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HANG PLATE MOUNT



Size Range: 1/4" outside diameter through 6.625" diameter

Hardware: 304 Stainless Steel, 316 Stainless Steel, or Electro-Zinc Plated Carbon Steel

Plastic Inserts: Polypropylene (blue)

Santoprene (beige) Polysulfone (black) HDPE (white) High Temp Nylon (black) *See page 28 for temperature ratings

Installations: Hang from threaded rod to desired elevation

Thermal Expansion Guide: (Optional) Provides for axial expansion of the tube or pipe due to thermal expansion. One set of two per clamp (See Fig. 207 in accessories)

Thermal Expansion Guide Material: Santoprene, 1/16" insert, Black for service identification



Fig. 202

HRL

BASE PLATE MOUNT

Size Range: 1/4" outside diameter through 6.625" outside diameter

Hardware: 304 Stainless Steel, 316 Stainless Steel, or Electro-Zinc Plated Carbon Steel

Plastic Insert: Polypropylene (blue) Santoprene (beige) Polysulfone (black) HDPE (white) High Temp Nylon (black) *See page 28 for temperature ratings



Installation: Locate bolt holes in mounting structure and either tap into structure or use 1/4-20 bolt and nut to secure

Thermal Expansion Guide: (Optional) Provides for axial expansion of the tube or pipe due to thermal expansion. One set of two per clamp (See Fig. 207 in accessories)

Thermal Expansion Guide Santoprene, 1/16" insert, Black for service identification Material:



Group 8 Hardware Size Tube OD and Pipe sizes ranging from 6" to 6.625" = 8

4" Tube = 400



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Fig. 204

STACKING KIT

Size Range: Any double combination of sizes 1/4" outside diameter through 3.5" outside diameter

Hardware: 304 Stainless Steel, 316 Stainless Steel, or Electro-Zinc Plated Carbon Steel

Plastic Inserts: Polypropylene (blue) Santoprene (beige) Polysulfone (black) *See page 28 for temperature ratings



Thermal Expansion Guide: (Optional) Provides for axial expansion of the tube or pipe due to thermal expansion. One set of two per clamp (See Fig. 207 in accessories).

Thermal Expansion Guide Material: Santoprene, 1/16" insert, Black for service identification

***NOTE: This is sold as a modular component ONLY. Must order Fig. 200, 201 or 202 as a bottom assembly in addition to each stacking kit.



UNISTRUT MOUNT CLAMP



Size Range: 1/4" outside diameter through 4" outside diameter.

Hardware: 304 Stainless Steel, 316 Stainless Steel, or Electro-Zinc Plated Carbon Steel

Plastic Inserts:Polypropylene (blue) Santoprene (tan) Polysulfone (black) *See page 28 for temperature ratings

Installations: After unistrut rail position has been established, position 2 unistrut rail nuts in channel where desired to accept plastic inserts. Place pipe or tube in clamp perpendicular to unistrut channel. Torque down on clamp bolts to lock assembly in place.

Thermal Expansion Guide: (Optional) Provides for axial expansion of the tube or pipe due to thermal expansion. One set of two per clamp (See Fig. 207 in accessories).

Thermal Expansion Guide Material:Santoprene, 1/16" insert, Black for service identification

GROUP	TUBE OR	"D"	INCHES				
NO.	PIPE SIZE	INCHES	w	н	Z	U	LBS.
	1/4 T	0.250		1.38 (35 mm)	1.19 (30 mm)	.75 (19 mm)	0.4 (0.18 kg)
	3/8 T	0.375	1				
3	1/2 T	0.500	1.88				
3	3/4 T	0.750	(48 mm)				
	1/2 P	0.840	1				
	1 T	1.000	1		_		
-	1/4 T	0.250		2.63 (67 mm)	1.19 (30 mm)		0.6 (0.27 kg)
	3/8 T	0.375	1				
	1/2 T	0.500	1			1.38 (35 mm)	
	5/8 T	0.625	1				
	3/4 T	0.750	1				
	1/2 P	0.840	3.34 (85 mm)				
	7/8 T	0.875					
6	1 T	1.000					
	3/4 P	1.050					
	1-1/4 T	1.250					
	1 P	1.315					
	1-1/2 T	1.500					
	1-1/4 P	1.660					
	1-1/2 P	1.900					
	2 T	2.000	1				
	2 T	2.000		4.38 (111 mm)	1.19 (30 mm)	2.25 (57 mm)	1.1 (0.50 kg)
	2 P	2.375					
7	2-1/2 T	2.500	5.00				
/	2-1/2 P	2.875	(127 mm)				
	3 T	3.000	1				
	3-1/2 T - 3 P	3.500	1				
7A	4 T	4.000	5.77 (147 mm)	4.8 (122 mm)	1.19 (30 mm)	2.48 (62 mm)	1.5 (0.68 kg





1/4-20 BOLT





T T ==

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Fig. 221

ROD MOUNT

Size Range: 1/4" outside diameter through 6.625" outside diameter

Hardware: 304 Stainless Steel, 316 Stainless Steel, or Electro-Zinc Plated Carbon Steel

Plastic Inserts: Polypropylene (blue) Santoprene (beige) Polysulfone (black) HDPE (white) High Temp Nylon (black) *See page 28 for temperature ratings

Installations: Cut bar in field to proper length. Field weld hang or floor mount bar to support structure. Fig 221 can also be used in combination with the figure 225 or 226 stanchions. This combination will allow the support to be adjusted telescopically to the tube or pipe elevation. Call customer service for the price and availability of special rod lengths.



Thermal Expansion Guide Santoprene, 1/16" insert, Black for service identification

GRP NO.	TUBE OR PIPE SIZE	"D" INCHES	w	z	U	BOLT SIZE	"A" ROD DIA
	1/4 T	0.250		1,19" (30 mm)	0.81" (20 mm)	1/4-20	0.5" (12.7 mm)
	3/8 T	0.375	in the second second				
3	1/2 T	0.500	1.88"				
3	3/4 T	0.750	(48 mm)				
	1/2 P	0.840					
	1 T	1.000					
	1/4 T	0.250		1.19" (30 mm)	1.44" (37 mm)	1/4-20	0.5" (12.7 mm)
	3/8 T	0.375	3.34" (85 mm)				
	1/2 T	0.500					
	5/8 T	0.625					
6	3/4 T	0.750					
	1/2 P	0.840					
	7/8 T	0.875					
	1 T	1.000					
	3/4 P	1.050					
	1-1/4 T	1.250					
	1 P	1.315					
	1-1/2 T	1.500					
	1-1/4 P	1.660					
	1-1/2 P	1.900					
	2 T	2.000					
7	2 T	2.000		1.19" (30 mm)	2.31" (59 mm)	1/4-20	0.75" (19 mm)
	2 P	2.375					
	2-1/2 T	2.500	5.00"				
	2-1/2 P	2.875	(127 mm)				
	3 T	3.000	C				
	3-1/2 T -3 P	3.500					
7A	4 T	4.000	5.77" (147 mm)	1.19" (33 mm)	2.54" (65 mm)	1/4-20	0.75" (19 mm)
0	6 T	6.000	8.88"	1.50"	4.01"	2/0.40	1.00"
8	6 P	6.625	(226 mm)	(38 mm)	(102 mm)	3/8-16	







Catalog CHSAND412

MATERIAL PROPERTIES, TECHNICAL DATA

Smooth Bore Inserts

General In	formation	Thermal Properties			
Plastic Insert Material	Part # Code	Color	Intermittent Exposure	Continuous Exposure	
Polypropylene	PP	Blue	-22° to + 212°F (-30° to + 102°C)	-22° to + 194°F (-30° to + 90° C)	
Santoprene	SP	Beige	-40° to + 302°F (-40° to + 150° C)	-40° to + 275°F (-40° to + 135°C)	
Polysulfone	PS	Black	-50° to + 320°F (-45° to + 160°C)	-50° to + 320°F (-45° to + 160°C)	
Zeotherm ZT		Black	-40° to + 350°F (-40° to + 175°C)	-40° to + 300°F (-40° to + 150°C)	
High Density Polyethylene*	NN	White	-58° to + 180°F (-50° to + 82°C)	-58° to + 175°F (-50° to + 79°C)	
High Temp Nylon*	нт	Black	-40° to + 350°F (-40° to + 177°C)	-40° to + 260°F (-40° to + 127°C)	

* NN & HT inserts available in group 8 & 9 sizes only

CH Series Inserts

General I	nformation	Thermal Properties		
Plastic Insert Material	Part # Code	Color	Intermittent Exposure	Continuous Exposure
Polysulfone	PS	Black	-50° to + 320°F (-45° to + 160°C)	-50° to + 320°F (-45° to + 160°C)
Polysulfone	PG	Grey	-50° to + 320°F (-45° to + 160°C)	-50° to + 320°F (-45° to + 160°C)

Chemical Properties	Resistant to a wide range of chemicals.
Mechanical Properties	Please contact Behringer for Product Data Sheets.

Metal Parts

- Surface finishing

In addition to the standard surface finish, alternative finishes are available on request



Mill Finish



Brushed



Blended Weld

MATERIALS, MATERIAL PROPERTIES, TECHNICAL DATA

SPACING OF HANGERS

Hangers and/or supports shall be spaced as far apart as economically possible, with due consideration to assure that the sag of the pipe between supports is within limits that will permit drainage and also avoid excessive bending stresses from concentrated loads such as valves and in-line equipment. Contractor shall use the maximum recommended spacing between pipe support specified below. Spacing indicated below may differ from that listed in MSS SP- 69. Additional hangers may be necessary to adequately support concentrated loads such as valves, flanges, or instruments.

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STEEL PIPE HANGER SPACING: PIPE SIZE (IN) MAXIMUM SPACING (FT) 1/2" & 3/4" 6 |" & |_|/4" 8 1-1/2" & 2" 10 3" 12 4" -16" 16 COPPERTUBING HANGER SPACING (includes schedule 10 pipe): MAXIMUM SPACING (FT) TUBING SIZE (IN) 3/8" - 3/4" 6 $1^{"} - 1 - 1/4^{"}$ 8 1-1/2"-3" 10 4" - 8" 12 STAINLESS STEEL SANITARY TUBING HANGER SPACING: TUBING SIZE (IN) MAXIMUM SPACING (FT) 1/2" - 3/4" 6 1'' - 1 - 1/2''8 2" - 3" 10 4" - 6" 12 PLASTIC PIPING: Support in accordance with manufacturer's recommendations.



Also available from Behringer Corporation Industrial Pipe Clamps

Standard Series Pipe Clamps



Range: Pressure: 1/4" OD to 4" OD 2,000 psi max.

Heavy Series Pipe Clamps



Twin Series Pipe Clamps

Range:	1⁄4" OD to 8" Pipe
Pressure:	5,000 psi max. (Single plate)
	10,000 psi max. (Double plate)

Range: ½ Pressure: 1

¼" OD to 1.66" OD 1,500 psi max.

Heavy 4 Series Pipe Clamps



Range: Pressure: 8" Pipe to 30" Pipe 5,000 psi max. (Single plate) 10,000 psi max. (Double plate)

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