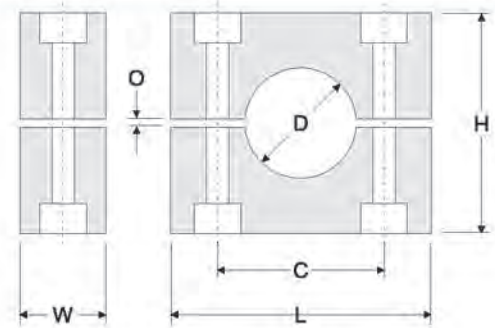


Heavy Series Pipe Clamps

Behringer's clamp pairs are available in different materials and incorporate a modular insert by group size. The robust Heavy Series design is larger and thicker than the Standard Series, and is designed for the toughest applications. Heavy Series pipe clamps are available in sizes from 1/4 in. (6.35mm) through 8.625 in. (219mm) outside diameter sizes, and various materials such as polypropylene, Santoprene, and aluminum. The clamp bore is offered in both the ribbed design for all sizes and now with a smooth bore design through group H6.



Ribbed Design



Smooth Bore



Clamp Pair Material Codes (*)

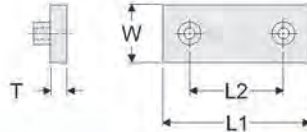
P	[PP] Polypropylene Black Color	S	[SP] Santoprene Beige Color	A	[AL] Aluminum Aluminum Color
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Clamp Pair Selection and Part Numbers

Behringer Group	Size	Metric OD (mm)	Imperial OD (Inch)	L	C	H	O	W	Weight Ea.	Ribbed Inside Clamp Pair (See material for *)	Smooth Bore Clamp Pair (See material for *)
H3	1/4 OD Tube	6.4	0.250	2.250 in. (57 mm)	1.300 in. (33 mm)	1.375 in. (35 mm)	0.063 in. (1.6 mm)	1.188 in. (30.2 mm)	0.07 lbs	HS-CLH-03- ^a -025	HS-CLH-03- ^a -025SB
	3/8 OD Tube	9.5	0.375							HS-CLH-03- ^a -038	HS-CLH-03- ^a -038SB
	1/8 Pipe	10.0	0.405							HS-CLH-03- ^a -041	HS-CLH-03- ^a -041SB
	1/2 OD Tube	12.7	0.500							HS-CLH-03- ^a -050	HS-CLH-03- ^a -050SB
	1/4 Pipe	13.7	0.540							HS-CLH-03- ^a -054	HS-CLH-03- ^a -054SB
	5/8 OD Tube	16.0	0.625							HS-CLH-03- ^a -062	HS-CLH-03- ^a -062SB
H4	3/8 Pipe	17.1	0.675	2.750 in. (70 mm)	1.770 in. (45 mm)	1.875 in. (48 mm)	0.063 in. (1.6 mm)	1.188 in. (30.2 mm)	0.09 lbs	HS-CLH-03- ^a -068	HS-CLH-03- ^a -068SB
	3/4 OD Tube	19.0	0.750							HS-CLH-04- ^a -075	HS-CLH-03- ^a -075SB
	20 mm	20.0	0.790							HS-CLH-04- ^a -079	HS-CLH-03- ^a -079SB
	1/2 Pipe	21.3	0.840							HS-CLH-04- ^a -084	HS-CLH-03- ^a -084SB
	7/8 OD Tube	22.2	0.875							HS-CLH-04- ^a -087	HS-CLH-03- ^a -087SB
	24 mm	24.0	0.944							HS-CLH-04- ^a -095	HS-CLH-03- ^a -095SB
	25 mm	25.0	0.984							HS-CLH-04- ^a -098	HS-CLH-03- ^a -098SB
	1 OD Tube	25.4	1.000							HS-CLH-04- ^a -100	HS-CLH-03- ^a -100SB
	3/4 Pipe	26.7	1.050							HS-CLH-04- ^a -105	HS-CLH-03- ^a -105SB
	28 mm	28.0	1.102							HS-CLH-04- ^a -110	HS-CLH-03- ^a -110SB
	30 mm	30.0	1.181							HS-CLH-04- ^a -118	HS-CLH-03- ^a -118SB
H5	1 1/4 OD Tube	32.0	1.250	3.344 in. (87 mm)	2.360 in. (60 mm)	2.375 in. (60 mm)	0.063 in. (1.6 mm)	1.188 in. (30.2 mm)	0.15 lbs	HS-CLH-05- ^a -125	HS-CLH-05- ^a -125SB
	1 Pipe	33.4	1.315							HS-CLH-05- ^a -132	HS-CLH-05- ^a -132SB
	1 1/2 OD Tube	38.1	1.500							HS-CLH-05- ^a -150	HS-CLH-05- ^a -150SB
	1 1/4 Pipe	42.2	1.660							HS-CLH-05- ^a -166	HS-CLH-05- ^a -166SB
H6	1 Pipe	33.4	1.315	4.500 in. (115 mm)	3.530 in. (90 mm)	3.500 in. (89 mm)	0.125 in. (3.2 mm)	1.688 in. (43 mm)	0.35 lbs	HS-CLH-06- ^a -132	HS-CLH-06- ^a -132SB
	1 1/4 Pipe	42.2	1.660							HS-CLH-06- ^a -166	HS-CLH-06- ^a -166SB
	1 3/4 OD Tube	44.5	1.750							HS-CLH-06- ^a -175	HS-CLH-06- ^a -175SB
	1 1/2 Pipe	48.3	1.900							HS-CLH-06- ^a -190	HS-CLH-06- ^a -190SB
	2 OD Tube	50.8	2.000							HS-CLH-06- ^a -200	HS-CLH-06- ^a -200SB
	2 1/8 OD Tube	54.0	2.125							HS-CLH-06- ^a -213	HS-CLH-06- ^a -213SB
	2 1/4 OD Tube	57.2	2.250							HS-CLH-06- ^a -225	HS-CLH-06- ^a -225SB
	2 Pipe	60.3	2.375							HS-CLH-06- ^a -238	HS-CLH-06- ^a -238SB
	2 1/2 OD Tube	63.5	2.500							HS-CLH-06- ^a -250	HS-CLH-06- ^a -250SB
	2 3/4 OD Tube	69.9	2.750							HS-CLH-06- ^a -275	HS-CLH-06- ^a -275SB
	2 3/4 OD Tube	69.9	2.750							HS-CLH-07- ^a -275	HS-CLH-07- ^a -275SB
H7	2 1/2 OD Pipe	73.0	2.875	6.000 in. (152 mm)	4.810 in. (122 mm)	4.750 in. (121 mm)	0.125 in. (3.2 mm)	2.188 in. (55.6 mm)	0.78 lbs	HS-CLH-07- ^a -288	HS-CLH-07- ^a -288SB
	3 OD Tube	76.2	3.000							HS-CLH-07- ^a -300	HS-CLH-07- ^a -300SB
	3 Pipe	88.9	3.500							HS-CLH-07- ^a -350	HS-CLH-07- ^a -350SB
H8	3 Pipe	88.9	3.500	8.063 in. (205 mm)	6.620 in. (168 mm)	6.625 in. (168 mm)	0.188 in. (4.8 mm)	2.938 in. (74.6 mm)	2.31 lbs	HS-CLH-08- ^a -350	HS-CLH-08- ^a -350SB
	4 OD Tube	102	4.000							HS-CLH-08- ^a -400	HS-CLH-08- ^a -400SB
	4 Pipe	114	4.500							HS-CLH-08- ^a -450	HS-CLH-08- ^a -450SB
	5 OD Tube	127	5.000							HS-CLH-08- ^a -500	HS-CLH-08- ^a -500SB
H9	5 OD Tube	127	5.000	9.750 in. (248 mm)	8.060 in. (205 mm)	7.875 in. (200 mm)	0.188 in. (4.8 mm)	3.438 in. (87.3 mm)	2.59 lbs	HS-CLH-09- ^a -500	HS-CLH-09- ^a -500SB
	5 1/4 OD Tube	133	5.250							HS-CLH-09- ^a -525	HS-CLH-09- ^a -525SB
	5 Pipe	141	5.563							HS-CLH-09- ^a -556	HS-CLH-09- ^a -556SB
	6 OD Tube	152	6.000							HS-CLH-09- ^a -600	HS-CLH-09- ^a -600SB
	6 Pipe	168	6.625							HS-CLH-09- ^a -663	HS-CLH-09- ^a -663SB
H10	6 Pipe	168	6.625	12.500 in. (318 mm)	10.430 in. (265 mm)	10.625 in. (270 mm)	0.188 in. (4.8 mm)	4.438 in. (113 mm)	7.73 lbs	HS-CLH-10- ^a -663	HS-CLH-10- ^a -663SB
	7 OD Tube	178	7.000							HS-CLH-10- ^a -700	HS-CLH-10- ^a -700SB
	8 OD Tube	203	8.000							HS-CLH-10- ^a -800	HS-CLH-10- ^a -800SB
	8 Pipe	219	8.625							HS-CLH-10- ^a -863	HS-CLH-10- ^a -863SB

Heavy Series Pipe Clamps

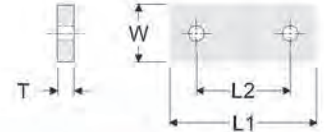
Securing Plate Selection and Dimensions



Single Weld Plate [SWP]						
Grp. Order Number	L1	L2	W	T	Thread	Weight Ea.
H3 HS-SWP-03-*	2.875 in. (73 mm)	1.30 in. (33 mm)	1.25 in. (32 mm)	0.313 in. (8 mm)	3/8 - 16 UNC (M10)	0.34 lbs
H4 HS-SWP-04-*	3.375 in. (86 mm)	1.77 in. (45 mm)	1.25 in. (32 mm)	0.313 in. (8 mm)	3/8 - 16 UNC (M10)	0.39 lbs
H5 HS-SWP-05-*	4.000 in. (102 mm)	2.36 in. (60 mm)	1.25 in. (32 mm)	0.313 in. (8 mm)	3/8 - 16 UNC (M10)	0.45 lbs
H6 HS-SWP-06-*	5.875 in. (149 mm)	3.53 in. (90 mm)	1.75 in. (45 mm)	0.375 in. (10 mm)	7/16 - 14 UNC (M12)	1.10 lbs
H7 HS-SWP-07-*	7.375 in. (187 mm)	4.81 in. (122 mm)	2.25 in. (57 mm)	0.375 in. (10 mm)	5/8 - 11 UNC (M16)	1.71 lbs
H8 HS-SWP-08-*	10.000 in. (254 mm)	6.62 in. (168 mm)	3.00 in. (76 mm)	0.500 in. (13 mm)	3/4 - 10 UNC (M20)	4.15 lbs
H9 HS-SWP-09-*	11.750 in. (298 mm)	8.06 in. (205 mm)	3.50 in. (89 mm)	0.500 in. (13 mm)	7/8 - 9 UNC (M24)	5.83 lbs
H10 HS-SWP-10-*	14.500 in. (368 mm)	10.43 in. (265 mm)	4.50 in. (114 mm)	0.750 in. (19 mm)	1-1/8 - 7 UNC (M30)	13.65 lbs

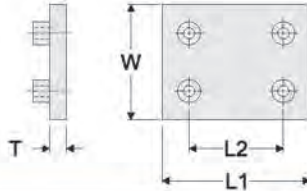
***Materials:** C Unplated Carbon Steel (Standard Material)
 T AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)
 X AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)
 Z Zinc Plated Steel (Special Order)

Threads: omit As ordered above, the weld plates have standard UNC thread
 -MET By adding the "-MET" designation after the material designation above, the threads will be metric



Single Cover Plate [SCP]					
Grp. Order Number	L1	L2	W	T	Weight Ea.
H3 HS-SCP-03-*	2.250 in. (57 mm)	1.30 in. (33 mm)	1.25 in. (32 mm)	0.313 in. (8 mm)	0.21 lbs
H4 HS-SCP-04-*	2.750 in. (70 mm)	1.77 in. (45 mm)	1.25 in. (32 mm)	0.313 in. (8 mm)	0.26 lbs
H5 HS-SCP-05-*	3.344 in. (85 mm)	2.36 in. (60 mm)	1.25 in. (32 mm)	0.313 in. (8 mm)	0.32 lbs
H6 HS-SCP-06-*	4.500 in. (114 mm)	3.53 in. (90 mm)	1.75 in. (45 mm)	0.375 in. (10 mm)	0.77 lbs
H7 HS-SCP-07-*	6.000 in. (152 mm)	4.81 in. (122 mm)	2.25 in. (57 mm)	0.375 in. (10 mm)	1.28 lbs
H8 HS-SCP-08-*	8.063 in. (205 mm)	6.62 in. (168 mm)	3.00 in. (76 mm)	0.500 in. (13 mm)	3.19 lbs
H9 HS-SCP-09-*	9.813 in. (249 mm)	8.06 in. (205 mm)	3.50 in. (89 mm)	0.500 in. (13 mm)	4.58 lbs
H10 HS-SCP-10-*	12.500 in. (318 mm)	10.43 in. (265 mm)	4.50 in. (114 mm)	0.750 in. (19 mm)	11.31 lbs

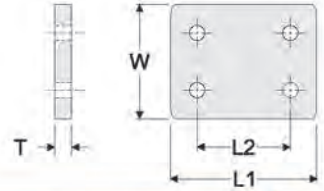
***Materials:** C Unplated Carbon Steel (Standard Material)
 T AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)
 X AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)
 Z Zinc Plated Steel (Special Order)



Double Weld Plate [DWP]						
Grp. Order Number	L1	L2	W	T	Thread	Weight Ea.
H3 HS-DWP-03-*	2.875 in. (73 mm)	1.30 in. (33 mm)	2.50 in. (64 mm)	0.313 in. (8 mm)	3/8 - 16 UNC (M10)	0.72 lbs
H4 HS-DWP-04-*	3.375 in. (86 mm)	1.77 in. (45 mm)	2.50 in. (64 mm)	0.313 in. (8 mm)	3/8 - 16 UNC (M10)	0.78 lbs
H5 HS-DWP-05-*	4.000 in. (102 mm)	2.36 in. (60 mm)	2.50 in. (64 mm)	0.313 in. (8 mm)	3/8 - 16 UNC (M10)	0.90 lbs
H6 HS-DWP-06-*	5.875 in. (149 mm)	3.53 in. (90 mm)	3.50 in. (89 mm)	0.375 in. (10 mm)	7/16 - 14 UNC (M12)	2.20 lbs
H7 HS-DWP-07-*	7.375 in. (187 mm)	4.81 in. (122 mm)	4.50 in. (114 mm)	0.375 in. (10 mm)	5/8 - 11 UNC (M16)	3.42 lbs
H8 HS-DWP-08-*	10.000 in. (254 mm)	6.62 in. (168 mm)	7.00 in. (178 mm)	0.500 in. (13 mm)	3/4 - 10 UNC (M20)	8.30 lbs
H9 HS-DWP-09-*	11.750 in. (298 mm)	8.06 in. (205 mm)	7.00 in. (178 mm)	0.500 in. (13 mm)	7/8 - 9 UNC (M24)	11.75 lbs
H10 HS-DWP-10-*	14.500 in. (368 mm)	10.43 in. (265 mm)	9.375 in. (238 mm)	0.750 in. (19 mm)	1-1/8 - 7 UNC (M30)	28.00 lbs

***Materials:** C Unplated Carbon Steel (Standard Material)
 T AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)
 X AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)
 Z Zinc Plated Steel (Special Order)

Threads: omit As ordered above, the weld plates have standard UNC thread
 -MET By adding the "-MET" designation after the material designation above, the threads will be metric



Double Cover Plate [DCP]					
Grp. Order Number	L1	L2	W	T	Weight Ea.
H3 HS-DCP-03-*	2.250 in. (57 mm)	1.30 in. (33 mm)	2.50 in. (64 mm)	0.313 in. (8 mm)	0.42 lbs
H4 HS-DCP-04-*	2.750 in. (70 mm)	1.77 in. (45 mm)	2.50 in. (64 mm)	0.313 in. (8 mm)	0.52 lbs
H5 HS-DCP-05-*	3.344 in. (85 mm)	2.36 in. (60 mm)	2.50 in. (64 mm)	0.313 in. (8 mm)	0.64 lbs
H6 HS-DCP-06-*	4.500 in. (114 mm)	3.53 in. (90 mm)	3.50 in. (89 mm)	0.375 in. (10 mm)	1.54 lbs
H7 HS-DCP-07-*	6.000 in. (152 mm)	4.81 in. (122 mm)	4.50 in. (114 mm)	0.375 in. (10 mm)	2.56 lbs
H8 HS-DCP-08-*	8.063 in. (205 mm)	6.62 in. (168 mm)	7.00 in. (178 mm)	0.500 in. (13 mm)	6.38 lbs
H9 HS-DCP-09-*	9.813 in. (249 mm)	8.06 in. (205 mm)	7.00 in. (178 mm)	0.500 in. (13 mm)	9.16 lbs
H10 HS-DCP-10-*	12.500 in. (318 mm)	10.43 in. (265 mm)	9.375 in. (238 mm)	0.750 in. (19 mm)	22.62 lbs

***Materials:** C Unplated Carbon Steel (Standard Material)
 T AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)
 X AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)
 Z Zinc Plated Steel (Special Order)

Heavy Series Pipe Clamps

Fastening Hardware Selection and Dimensions



Hexagon Head Bolt [HEX]						
Grp.	Order Number	L	Thread	Weight Ea.		
H3	HS-HEX-03-*	1.75 in. (44 mm)	3/8 - 16 UNC M10	0.06 lbs		
H4	HS-HEX-04-*	2.25 in. (57 mm)	3/8 - 16 UNC M10	0.06 lbs		
H5	HS-HEX-05-*	2.75 in. (70 mm)	3/8 - 16 UNC M10	0.09 lbs		
H6	HS-HEX-06-*	4.00 in. (102 mm)	7/16 - 14 UNC M12	0.18 lbs		
H7	HS-HEX-07-*	5.25 in. (133 mm)	5/8 - 11 UNC M16	0.50 lbs		
H8	HS-HEX-08-*	7.50 in. (191 mm)	3/4 - 10 UNC M20	0.97 lbs		
H9	HS-HEX-09-*	8.50 in. (216 mm)	7/8 - 9 UNC M24	1.56 lbs		
H10	HS-HEX-10-*	11.75 in. (298 mm)	1-1/8 - 7 UNC M30	3.53 lbs		

***Materials:** C Unplated Carbon Steel (Standard Material)
 T AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)
 X AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)
 Z Zinc Plated Steel (Standard Material)

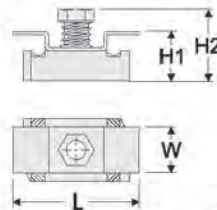
Threads: omit As ordered above, the weld plates have standard 1/4 - 20 UNC Thread
 -MET By adding the "-MET" designation after the material designation above, the threads are M6 Metric Thread



Stacking Bolt [STB]						
Grp.	Order Number	L1	L2	L3	Thread	Weight Ea.
H3	HS-STB-03-*	1.969 in. (50 mm)	0.906 in. (23 mm)	0.906 in. (23 mm)	3/8 - 16 UNC M10	0.10 lbs
H4	HS-STB-04-*	2.469 in. (63 mm)	1.406 in. (36 mm)	1.000 in. (25.4 mm)	3/8 - 16 UNC M10	0.11 lbs
H5	HS-STB-05-*	2.969 in. (75 mm)	1.906 in. (48 mm)	1.000 in. (25.4 mm)	3/8 - 16 UNC M10	0.13 lbs
H6	HS-STB-06-*	4.250 in. (108 mm)	2.875 in. (73 mm)	1.250 in. (32 mm)	7/16 - 14 UNC (M12)	0.24 lbs
H7	HS-STB-07-*	5.50 in. (140 mm)	3.875 in. (98 mm)	1.250 in. (32 mm)	5/8 - 11 UNC (M16)	0.49 lbs
H8	HS-STB-08-*	7.750 in. (197 mm)	5.750 in. (146 mm)	1.500 in. (38 mm)	3/4 - 10 UNC (M20)	1.15 lbs
H9	HS-STB-09-*	9.188 in. (233 mm)	7.000 in. (178 mm)	1.750 in. (44 mm)	7/8 - 9 UNC (M24)	1.65 lbs
H10	HS-STB-10-*	12.000 in. (305 mm)	9.500 in. (241 mm)	2.250 in. (57 mm)	1-1/8 - 7 UNC (M30)	2.50 lbs

***Materials:** C Unplated Carbon Steel (Standard Material)
 T AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)
 X AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)
 Z Zinc Plated Steel (Special Order)

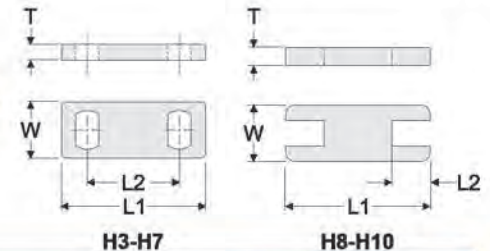
Threads: omit As ordered above, the weld plates have standard UNC thread
 -MET By adding the "-MET" designation after the material designation above, the threads will be metric



Strut Clip Nut [UCN]							
Grp.	Order Number	L	W	H1	H2	Thread	Weight Ea.
H3-H5	HS-UCN-345-*	1.500 in. (38 mm)	0.980 in. (25 mm)	0.728 in. (18.5 mm)	1.083 in. (27.5 mm)	3/8 - 16 UNC	0.2 lbs
H6	HS-UCN-06-*	1.790 in. (44 mm)	0.980 in. (25 mm)	0.610 in. (15.5 mm)	0.990 in. (25 mm)	7/16 - 14 UNC	0.3 lbs

***Materials:** Z Zinc Plated Steel (Standard Material)
 T AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)
 X AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)

Threads: omit As ordered above, the weld plates have standard UNC thread
 -MET By adding the "-MET" designation after the material designation above, the threads will be metric (Special for this item - call for info)

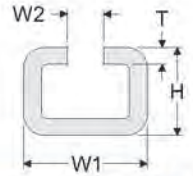
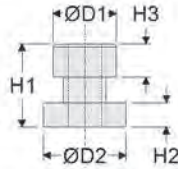


Safety Plate [SAF]						
Grp.	Order Number	L1	L2	W	T	Weight Ea.
H3	HS-SAF-03-*	2.281 in. (58 mm)	1.300 in. (33 mm)	1.219 in. (31 mm)	0.125 in. (3.2 mm)	0.06 lbs.
H4	HS-SAF-04-*	2.750 in. (70 mm)	1.770 in. (45 mm)	1.219 in. (31 mm)	0.125 in. (3.2 mm)	0.08 lbs.
H5	HS-SAF-05-*	3.344 in. (85 mm)	2.360 in. (60 mm)	1.219 in. (31 mm)	0.125 in. (3.2 mm)	0.11 lbs.
H6	HS-SAF-06-*	4.531 in. (115 mm)	3.530 in. (90 mm)	1.625 in. (41 mm)	0.188 in. (4.8 mm)	0.31 lbs.
H7	HS-SAF-07-*	5.938 in. (151 mm)	4.812 in. (122 mm)	2.125 in. (54 mm)	0.188 in. (4.8 mm)	0.58 lbs.
H8	HS-SAF-08-*	8.000 in. (203 mm)	1.313 in. (33 mm)	2.938 in. (75 mm)	0.375 in. (9.5 mm)	1.43 lbs.
H9	HS-SAF-09-*	9.750 in. (248 mm)	1.750 in. (44 mm)	3.438 in. (87 mm)	0.375 in. (9.5 mm)	2.17 lbs.
H10	HS-SAF-10-*	12.438 in. (316 mm)	1.906 in. (48 mm)	4.438 in. (113 mm)	0.250 in. (6.3 mm)	3.25 lbs.

***Materials:** C Unplated Carbon Steel (Standard Material)
 T AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)
 X AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)
 Z Zinc Plated Steel (Special Order)

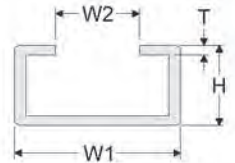
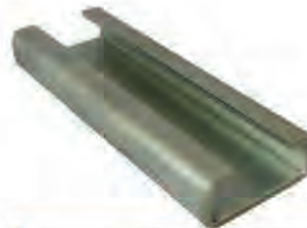
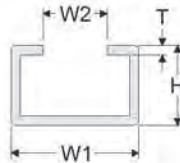
Heavy Series Pipe Clamps

Rail Mounting Selection and Dimensions



Rail Nut [RCN]							
Grp.	Order Number	ØD1	ØD2	H1	H2	H3	Thread
H3							
H4	HS-RCN-99- <i>A</i> -RN7	0.698 in. (17.8 mm)	0.750 in. (19 mm)	0.750 in. (19 mm)	0.219 in. (5.6 mm)	0.297 in. (7.6 mm)	3/8 - 16 UNC M10
H5							
H6	HS-RCN-99- <i>A</i> -RN8	0.778 in. (19.8 mm)	0.875 in. (22.2 mm)	0.813 in. (20.7 mm)	0.219 in. (5.6 mm)	0.359 in. (9.1 mm)	7/16 - 14 UNC M12
H7	HS-RCN-99- <i>A</i> -RN9	0.938 in. (23.8 mm)	1.125 in. (28.6 mm)	1.700 in. (43.2 mm)	0.375 in. (9.5 mm)	1.075 in. (27.3 mm)	5/8 - 11 UNC M16
H8							
H9	N/A	-	-	-	-	-	-
H10							
*Materials:	C	Unplated Carbon Steel (Standard Material)					
	T	AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)					
	X	AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)					
	Z	Zinc Plated Steel (Special Order)					
Threads:	omit	As ordered above, the weld plates have standard UNC thread					
	-MET	By adding the "-MET" designation after the material designation above, the threads will be metric					

Mounting Rail [RAL-4]							
Grp.	Order Number	W1	W2	T	H	Length	Weight
H3-H7	HS-RA4-99- <i>A</i> -XXX	1.563 in. (40 mm)	0.469 in. (12 mm)	0.188 in. (5 mm)	0.875 in. (22 mm)	2ME 1ME	16.8 lbs 8.4 lbs
*Materials:	C	Unplated Carbon Steel (Standard Material)					
	T	AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)					
	X	AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)					
	Z	Zinc Plated Steel (Special Order)					
XXX Length:	2ME	78 in. (2 mm) length (Standard Length)					
	1ME	36 in. (914 mm) length (special Length)					
		Custom sizes available on request					



Mounting Rail [RAL-2]							
Grp.	Order Number	W1	W2	T	H	Length	Weight
H3-H5	HS-RA2-99- <i>A</i> -XXX	1.750 in. (44.4 mm)	0.750 in. (19 mm)	0.125 in. (3 mm)	0.750 in. (19 mm)	6FT 3FT	8.7 lbs 4.4 lbs
*Materials:	C	Unplated Carbon Steel (Standard Material)					
	T	AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)					
	X	AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)					
	Z	Zinc Plated Steel (Special Order)					
XXX Length:	6FT	72 in. (1829 mm) length (Standard Length)					
	3FT	36 in. (914 mm) length (special Length)					
		Custom sizes available on request					

Mounting Rail [RAL-3]							
Grp.	Order Number	W1	W2	T	H	Length	Weight
H6	HS-RA3-06- <i>A</i> -XXX	2.125 in. (54 mm)	1.000 in. (25.4 mm)	0.125 in. (3 mm)	0.813 in. (20.7 mm)	6FT 3FT	8 lbs 4 lbs
*Materials:	C	Unplated Carbon Steel (Standard Material)					
	T	AISI 304 Grade Stainless Steel (A2 - 1.4301/1.4305)					
	X	AISI 316 Grade Stainless Steel (A4 - 1.4401/1.4571)					
	Z	Zinc Plated Steel (Special Order)					
XXX Length:	6FT	72 in. (1829 mm) length (Standard Length)					
	3FT	36 in. (914 mm) length (special Length)					
		Custom sizes available on request					

Heavy Series Pipe Clamps

Complete Assembly Ordering Code

chart 1 chart 2 chart 3 chart 4 chart 5 chart 6
SH T 41050-PPSB-MET

Clamp Configuration chart 1	
SH	Single Heavy Complete Clamp for Weld Mounting
DH	Double Heavy Complete Clamp for Weld Mounting
R7H	Complete Clamp for mounting to RAL-4 (H3-H5)
R8H	Complete Clamp for mounting to RAL-4 (H6)
R9H	Complete Clamp for mounting to RAL-4 (H7)
UH	Complete Clamp for mounting to Strut Channel (H3-H6)
HSK	Heavy Stacking Kit
OH	Single Heavy Clamp with no Bottom Plate
BSH	Single Heavy Complete Clamp for Bolt Mounting

Hardware Material chart 2	
Omit	Untreated Carbon Steel
T	AISI 304 Stainless Steel (A2 - 1.4301/1.4305)
X	AISI 316/316Ti Stainless Steel (A4 - 1.4401/1.4571)
Z	Electro-Zinc Dichromate Plating

Clamp Pair Material chart 4	
PP	Polypropylene
SP	Santoprene
AL	Aluminum

Clamp Pair Design chart 5	
Omit	Ribbed Inside
SB	Smooth Bore Inside (groups H3-H6 only)

Threads chart 6	
Omit	UNC Thread (Standard)
MET	Metric Thread

Clamp Group and Size chart 3					
Behringer Group	Pipe Size	Tube Size	Metric OD (mm)	Imperial OD (Inch)	Clamp Halves
H3		1/4	6.4	0.250	3025
		3/8	9.5	0.375	3038
	1/8		10.0	0.405	30405
		1/2	12.7	0.500	3050
	1/4		13.7	0.540	30540
		5/8	16.0	0.620	3062
	3/8		17.1	0.675	30675
H4		3/4	19.0	0.750	4075
			20.0	0.790	4079
	1/2		21.3	0.840	40840
		7/8	22.2	0.875	4087
			25.0	0.984	40984
		1	25.4	1.000	4100
	3/4		26.7	1.050	41050
			30.0	1.181	41181
		1 1/4	32.0	1.250	5125
	1		33.4	1.315	51315
H5		1 1/2	38.1	1.500	5150
	1 1/4		42.2	1.660	51660
	1		33.4	1.315	61315
	1 1/4		42.2	1.660	61660
		1 3/4	44.5	1.750	6175
	1 1/2		48.3	1.900	61900
		2	50.8	2.000	6200
		2 1/8	54.0	2.125	62125
		2 1/4	57.2	2.250	6225
	2		60.3	2.375	62375
H6		2 1/2	63.5	2.500	6250
		2 3/4	69.9	2.750	6275
		2 3/4	69.9	2.750	7275
	2 1/2		73.0	2.875	72875
		3	76.2	3.000	7300
	3	3 1/2	88.9	3.500	7350
	3	3 1/2	88.9	3.500	83500
H8		4	102	4.000	8400
	4	4 1/2	114	4.500	8450
		5	127	5.000	8500
H9		5	127	5.000	9500
		5 1/4	133	5.250	9525
	5		141	5.563	95563
		6	152	6.000	9600
	6		168	6.625	96625
H10	6		168	6.625	06625
		7	178	7.000	0700
		8	203	8.000	0800
	8		219.0	8.625	08625

Heavy Series Pipe Clamps

Ordering Examples

Single Clamp for Weld Mounting

SH



Consists of:
2 HEX bolts
1 SCP Cover Plate
1 CLH Clamp Set (2 halves)
1 SWP Weld Plate

Double Clamp for Weld Mounting

DH



Consists of:
4 HEX bolts
1 DCP Double Cover Plate
2 CLH Clamp Sets (4 halves)
1 DWP Double Weld Plate

Rail Mounting [groups H3-H6]

R7H
R8H



Consists of:
2 HEX bolts
1 SCP Cover Plate
1 CLH Clamp Set (2 halves)
2 RCN Rail Nuts
groups H3-H5 use RCN-7
group H6 uses RCN-8

Rail Mounting [group H7]

R9H



Consists of:
2 HEX bolts
1 SCP Cover Plate
1 CLH Clamp Set (2 halves)
1 SPL Spacer Plate
2 RCN-9 Rail Nuts

Stacking kit

HSK



Consists of:
2 STB Stacking bolts
1 SAF Safety Plate
1 CLH Clamp Set (2 halves)

Strut Mounting [groups H3-H6]

UH



Consists of:
2 HEX bolts
1 SCP Cover Plate
1 CLH Clamp Set (2 halves)
2 UCN Strut Clip Nuts

Material Properties Technical Data

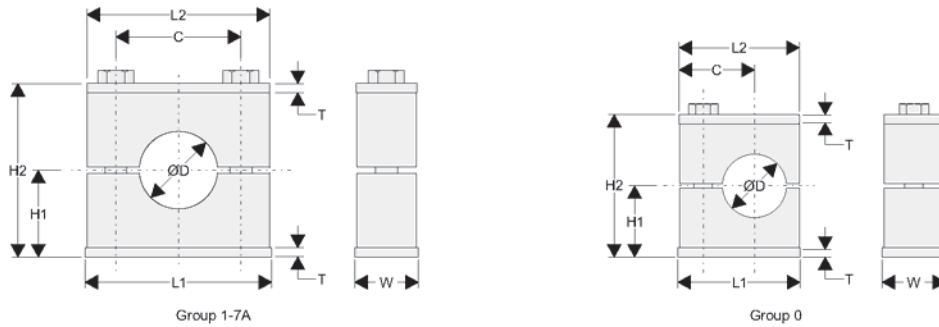
Clamp Pair Material Other materials have been used and are available upon request.	PP	SP	AL	NN
	Polypropylene	Santoprene	Aluminum	HDPE
Color	Black	Tan	Natural Aluminum	White
Description	Thermoplastic Copolymer	Thermoplastic Elastomer	AlSi12	High Density Polyethylene
Mechanical Properties				
Tensile Strength	3300 psi (at yield, 73 ° F) (ASTM D638)	1740 psi (at yield, 73 ° F) (ASTM D638)	19,000 psi (at yield, 73 ° F) (ASTM D638)	4500 psi (at yield, 73 ° F) (ASTM D638)
Tensile Elongation	6.6% (at yield, 73 ° F) (ASTM D638)	31% (at yield, 73 ° F) (ASTM D638)	3.5% (at yield, 73 ° F) (ASTM D638)	
Hardness		50 Shore D (ASTM D2240)		65 R (Rockwell "R" Scale)
Thermal Properties				
Temperature Range (Brief Exposure)	-22° F to + 215° F (-30° C to + 102° C)	-40° F to + 302° F (-40° C to + 150° C)	-65° F to + 750° F*1 (-54° C to + 399° C)	
Temperature Range (Continuous Exposure)	-22° F to + 194° F (-30° C to + 90° C)	-40° F to + 275° F (-40° C to + 135° C)	-65° F to + 500° F*1 (-54° C to + 260° C)	-58° F to + 175° F (-50° C to + 79° C)
Electrical Properties				
Dielectric Strength	475 V/mil (ASTM D149)	920 V/mil (ASTM D149)		510 V/mil (ASTM D149)
Dielectric Constant	2.26 - 2.36 (ASTM D150)	2.300 (ASTM D150)		2.35 (ASTM D150)
Volume Resistivity	> 2 x 10 ¹⁶ ohm-cm (ASTM D257)	>1 x 10 ¹⁴ ohm-cm (ASTM D257)	4.4 x 10 ⁶ ohm-cm (ASTM D257)	>6 x 10 ¹⁵ ohm-cm (ASTM D257)
Standards and Specifications				
	FDA Regulation Title 21 CFR 177.1520	UL Listed File# QMFZ2.E80017		FDA Regulation Title 21 CFR 177.1520
	Meets Multiple Automotive Industry Specifications	Meets Multiple Automotive Industry Specifications		ASTM D 1248-84 Type III, Class A
	EU Directive 2002/95/EC (RoHS) Compliant	EU Directive 2002/95/EC (RoHS) Compliant		Federal Specification LP-390 Type III, Class H, Grade I

Special Notes

Notes: *1: Tensile and fatigue strength rise as temperature decreases. The tensile elongation decreases as the temperature decreases.

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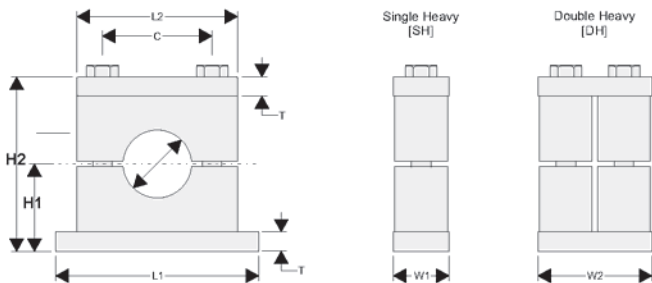
Standard Series Complete Assembly Dimensions



Clamp Assembly Dimensions

Behringer Group	OD	L1	L2	C	H1	H2	T	W
0	See ordering code on page 6 for available diameters.	1.188 (30.2)	1.094 (27.8)	0.420 (10.7)	0.675 (17.1)	1.350 (34.3)	0.120 (3)	1.223 (31)
1		1.510 (38.4)	1.362 (34.6)	0.790 (20.1)	0.660 (16.8)	1.320 (33.5)	0.120 (3)	1.223 (31)
2		1.740 (44.2)	1.592 (40.4)	1.020 (25.9)	0.760 (19.3)	1.520 (38.6)	0.120 (3)	1.223 (31)
3		2.020 (51.3)	1.872 (47.5)	1.300 (33)	0.810 (20.6)	1.620 (41.1)	0.120 (3)	1.223 (31)
4		2.300 (58.4)	2.152 (54.7)	1.580 (40.1)	0.938 (23.8)	1.875 (47.6)	0.120 (3)	1.223 (31)
5		2.770 (70.4)	2.790 (70.9)	2.050 (52.1)	1.313 (33.3)	2.625 (66.7)	0.120 (3)	1.223 (31)
6		3.320 (84.3)	3.340 (84.8)	2.600 (66)	1.438 (36.5)	2.875 (73)	0.120 (3)	1.223 (31)
7		5.020 (127.5)	5.020 (127.5)	4.250 (108)	2.313 (58.7)	4.625 (117.5)	0.120 (3)	1.223 (31)
7A		5.776 (146.7)	5.776 (146.7)	4.948 (125.7)	2.539 in(64.5)	5.078 (129)	0.120 (3)	1.223 (31)

Heavy Series Complete Assembly Dimensions

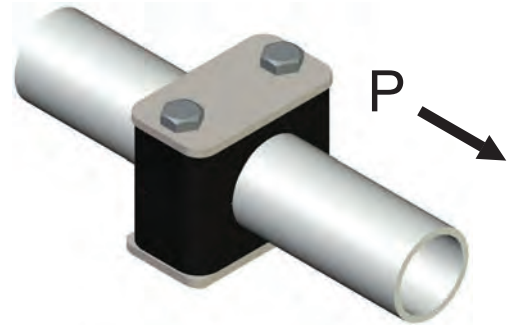


Clamp Assembly Dimensions

Behringer Group	OD	L1	L2	C	H1	H2	T	W1	W2
H3	See ordering code on page 12 for available diameters.	2.875 (73)	2.250 in(57)	1.300 (33)	1.000 (25.4)	2.000 (50.8)	0.313 (8)	1.250 (32)	2.500 (63.5)
H4		3.375 (86)	2.750 (70)	1.770 (45)	1.250 (32)	2.500 (63.5)	0.313 (8)	1.250 (32)	2.500 (63.5)
H5		4.000 (102)	3.344 (85)	2.360 (60)	1.500 (38)	3.000 (76.2)	0.313 (8)	1.250 (32)	2.500 (63.5)
H6		5.875 (149)	4.500 (114)	3.530 (90)	2.125 (54)	4.250 (108)	0.375 (10)	1.750 (44.5)	3.500 (88.9)
H7		7.375 (187)	6.000 (152)	4.810 (122)	2.750 (70)	5.500 (140)	0.375 (10)	2.250 (57.2)	4.500 (114)
H8		10.000 (254)	8.063 (205)	6.620 (168)	3.813 (97)	7.625 (194)	0.500 (13)	3.000 (76.2)	7.000 (178)
H9		11.750 (298)	9.750 (248)	8.060 (205)	4.438 (113)	8.875 (225)	0.500 (13)	3.500 (88.9)	7.000 (178)
H10		14.500 (368)	12.500 (318)	10.430 (265)	6.063 (154)	12.125 (308)	0.750 (19)	4.500 (114)	9.375 (238)

Tightening Torques and Maximum Loads

The charts below show the force in the direction of the pipe [P] required to move the pipe through the clamp. The values are for clamps with cover plates and hexagon head bolts using the recommended tightening torques below.



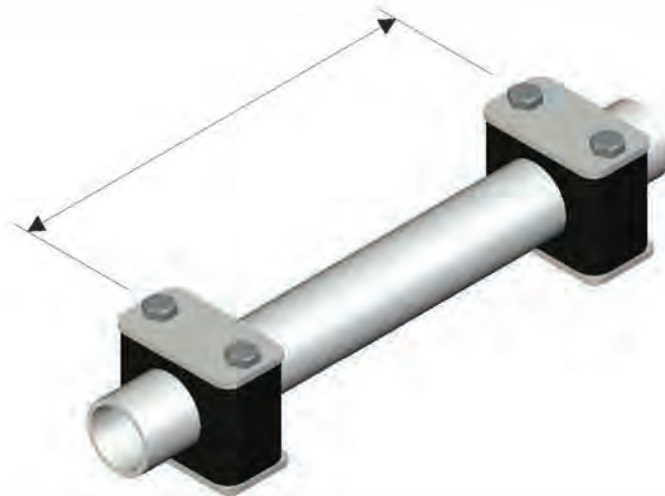
Standard Series							
Behringer Group	Hexagon Head Bolt	Polypropylene		Santoprene		Aluminum	
		Tightening Torque (Ft-lbs.)	Maximum load (lbs.) in pipe direction (P)	Tightening Torque (Ft-lbs.)	Maximum load (lbs.) in pipe direction (P)	Tightening Torque (Ft-lbs.)	Maximum load (lbs.) in pipe direction (P)
0	1/4 - 20 UNC	6	135	6	135	9	785
1		6	245	6	225	9	945
2		6	290	6	270	9	965
3		6	315	6	290	9	1100
4		6	335	6	315	9	1125
5		6	425	6	380	9	1600
6		6	450	6	405	9	2000
7		6	495	6	425	9	N/A
7A		6		6		9	N/A

Heavy Series							
Behringer Group	Hexagon Head Bolt	Polypropylene		Santoprene		Aluminum	
		Tightening Torque (Ft-lbs.)	Maximum load (lbs.) in pipe direction (P)	Tightening Torque (Ft-lbs.)	Maximum load (lbs.) in pipe direction (P)	Tightening Torque (Ft-lbs.)	Maximum load (lbs.) in pipe direction (P)
H3	3/8 - 16 UNC	9	360	9	335	22	2720
H4		9	650	9	600	22	3395
H5		11	740	11	675	25	3485
H6	7/16 - 14 UNC	22	1845	22	1755	40	6615
H7	5/8 - 11 UNC	33	2475	33	2025	90	7850
H8	3/4 - 10 UNC	60	3150	60	2700	160	15,885
H9	7/8 - 9 UNC	80	6300	80	5625	180	16,875
H10	1 1/8 - 7 UNC	130	9000	130	7650	370	19,000

Twin Series					
Behringer Group	Hexagon Head Bolt	Polypropylene		Santoprene	
		Tightening Torque (Ft-lbs.)	Maximum load (lbs.) in pipe direction (P)	Tightening Torque (Ft-lbs.)	Maximum load (lbs.) in pipe direction (P)
T1	1/4 - 20 UNC	4	100	4	100
T2	5/16 - 18 UNC	9	235	9	235
T3		9	235	9	235
T4		9	300	12	300
T5		6	300	6	300

Note: All tightening torques and static shearing forces apply to clamps with cover plates and hex bolts and are according to DIN3015-10. Pipe sliding starts when the load values "P" are reached.

Recommended Spacing



Recommended Spacing				
Pipe or Tube OD	Operating Pressure	Recommended Spacing	Operating Pressure	Recommended Spacing
0.250 in. to 0.675 in.	up to 3000 psi	5 - 7 Ft.	over 3000 psi	3 - 5 Ft.
0.750 in. to 1.050 in.	up to 3000 psi	6 - 8 Ft.	over 3000 psi	4 - 6 Ft.
1.125 in. to 1.500 in.	up to 3000 psi	7 - 9 Ft.	over 3000 psi	5 - 7 Ft.
1.750 in. to 2.500 in.	up to 3000 psi	8 - 10 Ft.	over 3000 psi	6 - 8 Ft.
2.750 in. to 3.500 in.	up to 3000 psi	9 - 11 Ft.	over 3000 psi	7 - 9 Ft.
4.000 in. to 4.500 in.	up to 3000 psi	10 - 12 Ft.	over 3000 psi	8 - 10 Ft.
5.563 in. to 6.625 in.	up to 3000 psi	11 - 13 Ft.	over 3000 psi	8 - 11 Ft.
6.625 in. to 8.625 in.	up to 3000 psi	12 - 14 Ft.	over 3000 psi	9 - 11 Ft.
10.750 in. to 12.750 in.	up to 3000 psi	13 - 15 Ft.	over 3000 psi	8 - 10 Ft.
13.750 in. to 19.750 in.	up to 3000 psi	14 - 16 Ft.	over 3000 psi	10 - 12 Ft.

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Recommended Mounting Practices

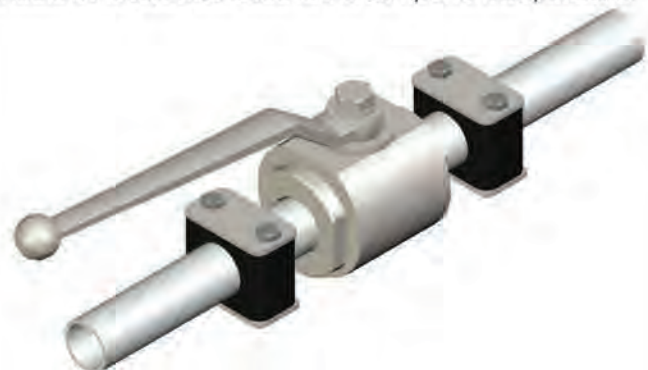
Bends

Behringer recommends that all pipe bends be supported by clamps placed as close to the bend as possible. The clamps should be directly after the connection (coupler, threaded connector, flange, or other).



Components

Behringer recommends that all system components be supported by clamps directly before and after the component in order to protect against vibrations and shock. The clamps should be located as close to the component as possible.



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