
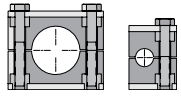





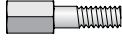
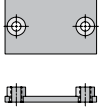
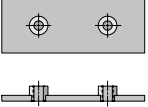


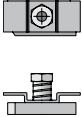

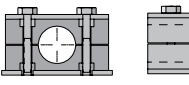



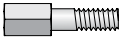
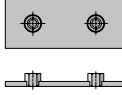

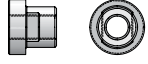
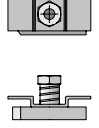

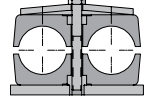

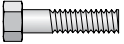

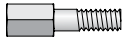
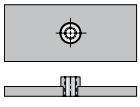

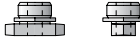
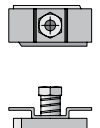
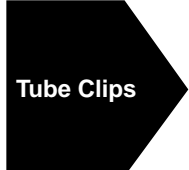
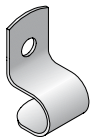

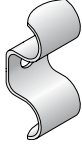




ParKlamp Inch Tube Clamps

0

 <p>Standard Series</p>	<p>Clamp Halves</p>  <p>O6</p>	<p>CP Cover Plate</p>  <p>O7</p>	<p>BCP Hexagon Head Bolt for Cover Plate</p>  <p>O7</p>	<p>IPS Insert</p>  <p>O7</p>	<p>BIP Hexagon Head Bolt for Insert</p>  <p>O7</p>
<p>LP Locking Plate</p>  <p>O7</p>	<p>SB Stacking Bolt</p>  <p>O7</p>	<p>WP Weld Plate</p>  <p>O8</p>	<p>WPE Weld Plate Elongated</p>  <p>O8</p>	<p>R Mounting Rail</p>  <p>O8</p>	<p>HRN Hexagon Rail Nut</p>  <p>O8</p>
<p>CRA Channel Rail Adapter</p>  <p>O8</p>	 <p>Heavy Series</p>	<p>Clamp Halves Heavy</p>  <p>O9</p>	<p>CPH Cover Plate Heavy</p>  <p>O10</p>	<p>BCPH Hexagon Head Bolt for Cover Plate</p>  <p>O10</p>	<p>LPH Locking Plate Heavy</p>  <p>O10</p>
<p>SBH Stacking Bolt Heavy</p>  <p>O10</p>	<p>WPH Weld Plate Heavy</p>  <p>O10</p>	<p>RH Mounting Rail Heavy</p>  <p>O11</p>	<p>RNH Mounting Rail Nut Heavy</p>  <p>O11</p>	<p>CRA Channel Rail Adapter</p>  <p>O11</p>	
 <p>Twin Series</p>	<p>Clamp Halves</p>  <p>O12</p>	<p>CPT Cover Plate</p>  <p>O13</p>	<p>BCPT Hexagon Head Bolt for Cover Plate</p>  <p>O13</p>	<p>LPT Locking Plate</p>  <p>O13</p>	<p>SBT Stacking Bolt</p>  <p>O13</p>
<p>WPT Weld Plate Twin</p>  <p>O14</p>	<p>R Mounting Rail</p>  <p>O14</p>	<p>RNT Mounting Rail Nut Twin</p>  <p>O14</p>	<p>CRA Channel Rail Adapter</p>  <p>O14</p>	 <p>Tube Clips</p>	<p>Tube Clip 3121-1</p>  <p>O15</p>
<p>Tube Clip 3121-3</p>  <p>O15</p>	<p>Tube Clip 3121-4</p>  <p>O15</p>				

Introduction

The ParKlump system is designed for restraining tube, pipe and hose assemblies against unwanted and potentially harmful effects of mechanical shock and vibration forces that are common in fluid power systems.

The clamping system is the most commonly overlooked aspect of fluid power system design. Failure to properly restrain the fluid conductors can result in leakage, downtime and system malfunction, as well as significantly reduce the life of tube, pipe and hose assemblies. With the ParKlump system, the risk of problems resulting from mechanical shock and vibration can be significantly reduced.

Design and Construction

Designed to meet the basic envelope dimensions of DIN 3015, Part 1, the ParKlump plastic clamp halves are interchangeable with the Parker metric clamp system. The primary difference between these two clamping systems is the utilization of inch, as opposed to metric, thread hardware in the ParKlump system. All plastic clamp halves in the ParKlump system are manufactured from Polypropylene material. The hardware portion of the ParKlump system is available in plated steel and stainless steel.

For convenience, the ParKlump system is divided into three different series: Standard, Heavy and Twin. Each series has corresponding components, physical dimensions and mechanical properties. Within each series, there are a number of groups, each with specific envelope dimensions. Components from different series and/or groups can not be intermixed. However, the standard and twin series can be mounting on the same mounting rail.

How It Works

The ParKlump system has two primary methods for mounting: weld plates and mounting rails.

Clamps should be mounted to a rigid structure for optimum performance. Clamping tube, pipe or hose assemblies together without mounting them to a rigid structure, often called “floating clamps,” does not provide adequate support.

Proper design of a clamping system requires that the clamps be positioned appropriately on the tube, pipe or hose assemblies. See the Assembly and Installation section of this catalog for more information on clamp location and spacing.

Weld Plate Mounting (Fig. O1)

The weld plate mounting system allows the user to attach a single clamp assembly to a structure of similar material (steel to steel, etc) by welding the components together. Once the weld plate is attached to a structure, one clamp half can be placed onto the weld plate, followed by the tube, pipe or hose assembly. Next, the second plastic clamp half can be placed on the tube, pipe or hose assembly, followed by the cover plate (or Insert). To complete the assembly, the Hex Head attachment bolts are inserted into the assembly and tightened to the torque shown in the Assembly section of this catalog.



Fig. O1 – Weld Plate Assembly



Fig. O2 – Mounting Rail Assembly

Assembly and Installation

Please refer to Section S for the assembly and installation instructions for ParKlump Inch Tube Clamps.

Mounting Rail Mounting (Fig. O2)

Use of a mounting rail is another way to assemble the clamping system components onto a support structure. Using a mounting rail allows multiple clamps to be mounted side-by-side for restraining a group of tube, pipe, or hose assemblies. The mounting rail also provides the ability to move the location of the clamps in one direction for easier alignment. The rail can be attached to a support structure by welding or bolting. Once the mounting rail is in place, rail nuts can be slid into the rail. The first clamp half, followed by the tube, pipe or hose assembly, can then be installed over the corresponding rail nuts. After this, the second clamp half, the cover plate (or Insert) and the hex head attachment bolts can be installed to complete the assembly.

Stacking (Fig. O3)

A primary feature of the ParKlump system is its ability to accommodate stacking of a series of clamps to various heights, thus requiring a smaller footprint for mounting. To do this, simply use the stacking bolts to mount the first clamp assembly, then install a stacking plate over the first clamp and stacking bolts. The second clamp assembly can then be placed over the first clamp assembly. Complete the mounting by assembling a cover plate and using the hex head bolts to tighten the upper clamp assembly. **Note: When stacking, the clamps must be from the same series and group.**

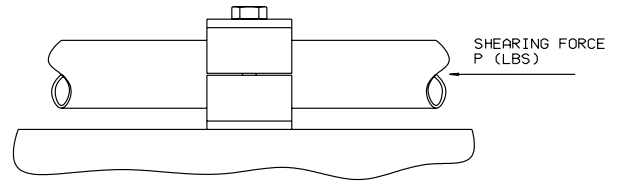


Fig. O3 – Stacked Assembly

Shearing Force Diagram

The forces shown in these diagrams represent the resistance to sliding provided by the clamps in the axial direction.

The sliding starts when the shown values are reached.



STANDARD SERIES					
Clamp Group	Hexagon Head Bolt	Polypropylene			
		Tightening torque [Nm] Ft/lb		Max. load in pipe direction F [kN] lbf	
1		8	6	0,6	135
1A		8	6	1,1	247
2	M6 / 1/4"-20	8	6	1,3	292
3	UNC	8	6	1,4	315
4		8	6	1,5	337
5		8	6	1,9	427
6		8	6	2,0	450

HEAVY SERIES					
Clamp Group	Hexagon Head Bolt	Polypropylene			
		Tightening torque [Nm] Ft/lb		Max. load in pipe direction F [kN] lbf	
3S	M10 / 3/8"-	12	9	1,6	360
4S	16 UNC	12	9	2,9	652
5S	M12 / 7/16" -	15	11	3,3	742
6S	14 UNC	30	12	8,2	1.843

Clamp Body Material Properties

	Polypropylene PP
MECHANICAL PROPERTIES	
Density	.901g/cc
Tensile Strength	25 MPa (4,000 psi)
Flexural Modulus	1073 MPa
Compressive Strength	90MPa (23,050 psi)
(Resistance)	
Notched IZOD Impact Strength	3.1 KJ/mm ²

	Polypropylene PP
THERMAL PROPERTIES	
Max. Temperature	-30° to +90° C
Resistance	-22° to +194°F
ELECTRICAL PROPERTIES	
Specific Volume	
Resistivity Ohm x Inch	3.9 x 10 ¹⁷
CHEMICAL PROPERTIES	
Light Acids, Solvents	Stable
Fuels, Mineral Oils	Stable
Alcohol, Paints, Saltwater	Stable

How to Order ParKlump Kits

Select a symbol from Box 1 and pair it with a symbol from Box 2 to create a part number for the kit.

Example: Weld Plate Kit – Twin Series for 3/4" tube.

Box 1	Box 2
WPT	3190

Box 1 : Mounting – Assembly Type	
Symbol	Description
WP	Weld Plate Kit – Standard Series
WPH	Weld Plate Kit – Heavy Series
WPE	Elongated Weld Plate Kit – Standard Series
WPT	Weld Plate Kit – Twin Series
RN	Rail Nut Kit – Standard Series
RNH	Rail Nut Kit – Heavy Series
RNT	Rail Nut Kit – Twin Series
SA	Stacked Assembly Kit – Standard Series
SAH	Stacked Assembly Kit – Heavy Series
SAT	Stacked Assembly Kit – Twin Series

Box 2: Clamp Half – Size/Type Designation			
Symbol	Size	Type	Series
1064	1/4"	Tube	Standard – Twin
1064A	1/4"	Tube	Standard
3134H	1/4"	100R1 Hose	Standard
4150H	1/4"	100R2 Hose	Heavy
1095	3/8"	Tube	Standard – Twin
3095	3/8"	Tube	Heavy
1095A	3/8"	Tube	Standard
3174H	3/8"	100R1 Hose	Standard
4198H	3/8"	100R2 Hose	Heavy
2127	1/2"	Tube	Standard
3127	1/2"	Tube	Heavy
3205H	1/2"	100R1 Hose	Standard
4221H	1/2"	100R2 Hose	Heavy
3213	1/2"	Pipe	Standard
4213	1/2"	Pipe	Heavy
2160	5/8"	Tube	Standard – Twin
3160	5/8"	Tube	Heavy
3239H	5/8"	100R1 Hose	Standard
4251H	5/8"	100R2 Hose	Heavy
3190	3/4"	Tube	Standard – Twin
4190	3/4"	Tube	Heavy
5278H	3/4"	100R1 Hose	Standard
4292H	3/4"	100R2 Hose	Heavy
4266	3/4"	Pipe	Standard – Twin
4267	3/4"	Pipe	Heavy
3254	1"	Tube	Standard – Twin
4254	1"	Tube	Heavy
5357H	1"	100R1 Hose	Standard
6378H	1"	100R2 Hose	Heavy
5334	1"	Pipe	Standard – Heavy – Twin
5320	1 1/4"	Tube	Standard – Heavy – Twin
5438H	1 1/4"	100R1 Hose	Standard
6484H	1 1/4"	100R2 Hose	Heavy
5422	1 1/4"	Pipe	Heavy
5381	1 1/2"	Tube	Standard – Heavy – Twin
6498H	1 1/2"	100R1 Hose	Standard
6544H	1 1/2"	100R2 Hose	Heavy
6483	1 1/2"	Pipe	Standard – Heavy
6508	2"	Tube	Standard – Heavy
6603	2"	Pipe	Heavy
6635	2 1/2"	Tube	Heavy
7762	3"	Tube	Heavy



Weld Plate Kit



Mounting Rail Kit

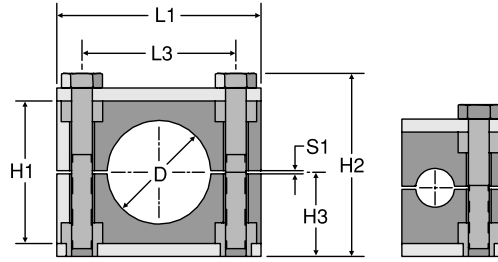


Stacked Assembly Kit

Dimensions and pressures for reference only, subject to change.

Clamp Halves

Standard Series



Groups 1A, 2, 3, 4, 5 and 6 Group 1

See note below

TUBE CLAMP HALVES											
PART #	TUBE SIZE	GROUP #	D		H1	H2	H3	L1	L3	S1	STANDARD FROM STOCK
			in.	mm	in.	in.	in.	in.	in.	in.	
1064-PP	1/4	1	0.25	6.4	1.06	1.45	0.65	1.02	NA	0.01	•
1095-PP	3/8	1	0.38	9.5	1.06	1.45	0.65	1.02	NA	0.01	•
1064A-PP	1/4	1A	0.25	6.4	1.06	1.45	0.65	1.45	0.78	0.01	•
1095A-PP	3/8	1A	0.38	9.5	1.06	1.45	0.65	1.45	0.78	0.01	•
2127-PP	1/2	2	0.50	12.7	1.29	1.69	0.77	1.65	1.02	0.01	•
2160-PP	5/8	2	0.63	16.0	1.29	1.69	0.77	1.65	1.02	0.01	•
3190-PP	3/4	3	0.75	19.0	1.41	1.77	0.80	1.96	1.29	0.01	•
3254-PP	1	3	1.00	25.4	1.41	1.77	0.80	1.96	1.29	0.01	•
5320-PP	1 1/4	5	1.25	32.0	2.28	2.72	1.28	2.79	2.04	0.03	•
5381-PP	1 1/2	5	1.50	38.1	2.28	2.72	1.28	2.79	2.04	0.03	•
6508-PP	2	6	2.00	50.8	2.59	3.00	1.42	3.38	2.59	0.03	•

PIPE CLAMP HALVES											
PART #	PIPE SIZE	GROUP #	D		H1	H2	H3	L1	L3	S1	STANDARD FROM STOCK
			in.	mm	in.	in.	in.	in.	in.	in.	
3213-PP	1/2	3	0.84	21.3	1.41	1.77	0.80	1.96	1.29	0.01	•
4266-PP	3/4	4	1.05	26.6	1.65	2.09	0.96	2.32	1.57	0.01	•
5334-PP	1	5	1.31	33.4	2.28	2.72	1.28	2.79	2.04	0.03	•
6483-PP	1 1/2	6	1.90	48.3	2.59	3.00	1.42	3.38	2.59	0.03	•

100R1 HOSE CLAMP HALVES											
PART #	HOSE SIZE	GROUP #	D		H1	H2	H3	L1	L3	S1	STANDARD FROM STOCK
			in.	mm	in.	in.	in.	in.	in.	in.	
H3134PP	1/4	3	0.53	13.4	1.41	1.77	0.80	1.96	1.29	0.01	•
H3174PP	3/8	3	0.69	17.4	1.41	1.77	0.80	1.96	1.29	0.01	•
H3205PP	1/2	3	0.81	20.5	1.41	1.77	0.80	1.96	1.29	0.01	•
H3239PP	5/8	3	0.94	23.9	1.41	1.77	0.80	1.96	1.29	0.01	•
H5278PP	3/4	5	1.09	27.8	2.28	2.72	1.28	2.79	2.04	0.03	•
H5357PP	1	5	1.41	35.7	2.28	2.72	1.28	2.79	2.04	0.03	•
H5438PP	1 1/4	5	1.72	43.8	2.28	2.72	1.28	2.79	2.04	0.03	•
H6498PP	1 1/2	6	1.96	49.8	2.59	3.00	1.42	3.38	2.59	0.03	•

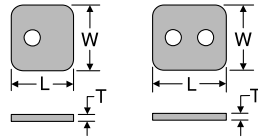
Note: One clamp set includes two identical halves of polypropylene. Tube and pipe clamp halves are black in color. Hose clamp halves are green in color. Hardware shown in the illustrations above is **not** included.

Other sizes available. Please contact TFD for a quote.

Dimensions and pressures for reference only, subject to change.



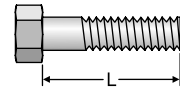
CP
Cover Plate



TUBE FITTING PART #	GROUP #	L LENGTH (in.)	W WIDTH (in.)	T THICKNESS (in.)	STANDARD FROM STOCK	
					-S	-SS
CP-1	1	1.10	1.18	0.11	•	•
CP-1A	1A	1.33	1.18	0.11	•	•
CP-2	2	1.59	1.18	0.11	•	•
CP-3	3	1.88	1.18	0.11	•	•
CP-4	4	2.24	1.18	0.11	•	•
CP-5	5	2.75	1.18	0.11	•	•
CP-6	6	3.38	1.18	0.11	•	•

Material: Steel: Zinc nickel plated
SS: 316 stainless steel

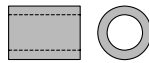
BCP
Hexagon Head Bolt for Cover Plate
(2 required for Groups 1A-6)



TUBE FITTING PART #	GROUP #	L LENGTH (in.)	STANDARD FROM STOCK	
			-S	-SS
BCP-1	1	1.25	•	•
BCP-1A	1A	1.25	•	•
BCP-2	2	1.38	•	•
BCP-3	3	1.50	•	•
BCP-4	4	1.88	•	•
BCP-5	5	2.38	•	•
BCP-6	6	2.75	•	•

Note: Bolt threads are 1/4 - 20 UNC, Grade 5, zinc clear chromate plated
Material: SS: 316 stainless steel

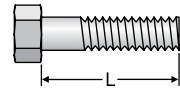
IPS
Insert



TUBE FITTING PART #	STANDARD FROM STOCK
IPS	•

Material: Plastic
One size fits all groups (2 required for Groups 1A - 6).
(Use when not using a cover plate.)

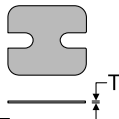
BIP
Hexagon Head Bolt for Insert



TUBE FITTING PART #	GROUP #	L LENGTH (in.)	STANDARD FROM STOCK
BIP-1	1	1.13	•
BIP-1A	1A	1.13	•
BIP-2	2	1.38	•
BIP-3	3	1.38	•
BIP-4	4	1.63	•
BIP-5	5	2.38	•
BIP-6	6	2.75	•

Note: Bolt threads are 1/4 - 20 UNC, Grade 5, zinc clear chromate plated

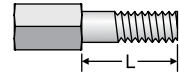
LP
Locking Plate



TUBE FITTING PART #	GROUP #	T THICKNESS (in.)	STANDARD FROM STOCK
LP-1	1	0.03	•
LP-1A	1A	0.03	•
LP-2	2	0.03	•
LP-3	3	0.03	•
LP-4	4	0.03	•
LP-5	5	0.03	•
LP-6	6	0.03	•

Material: Steel, zinc nickel plated

SB
Stacking Bolt
(2 required for Groups 1A-6)



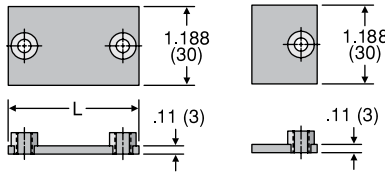
TUBE FITTING PART #	GROUP #	L LENGTH (in.)	STANDARD FROM STOCK
SB-1	1	0.78	•
SB-1A	1A	0.78	•
SB-2	2	1.00	•
SB-3	3	1.18	•
SB-4	4	1.38	•
SB-5	5	1.96	•
SB-6	6	2.36	•

Note: Bolt threads are 1/4 - 20 UNC, 1010 steel, zinc nickel plated

Dimensions and pressures for reference only, subject to change.

WP

Weld Plate

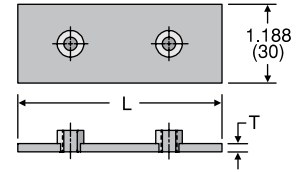


TUBE FITTING PART #	GROUP #	L LENGTH		STANDARD FROM STOCK	
		(in.)	(mm)	-S	-SS
WP-1	1	1.25	31.5	•	•
WP-1A	1A	1.41	36	•	•
WP-2	2	1.65	42	•	•
WP-3	3	1.96	50	•	•
WP-4	4	2.36	60	•	•
WP-5	5	2.79	71	•	•
WP-6	6	3.46	88	•	•

Material: Steel: 1020 steel, zinc-phosphate plated
SS: 316 stainless steel

WPE

Weld Plate Elongated

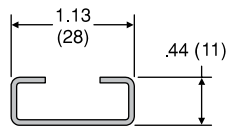


TUBE FITTING PART #	GROUP #	L LENGTH		T THICKNESS	STANDARD FROM STOCK
		(in.)	(mm)	(in.)	
WPE-1	1	2.28	58	0.11	•
WPE-1A	1A	2.51	64	0.11	•
WPE-2	2	2.75	70	0.11	•
WPE-3	3	3.07	78	0.11	•
WPE-4	4	3.42	87	0.11	•
WPE-5	5	3.93	100	0.11	•
WPE-6	6	4.52	115	0.11	•

Material: 1020 steel, zinc-phosphate plated

R

Mounting Rail

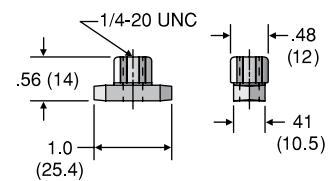


TUBE FITTING PART #	LENGTH	STANDARD FROM STOCK	
		-S	-SS
R-1	3.28 ft. (1 meter)	•	•
R-2	6.56 ft. (2 meters)	•	•

Material: Steel: Unplated
SS: 316 stainless steel

HRN

Hexagon Rail Nut



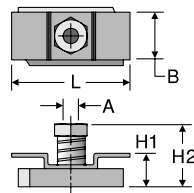
TUBE FITTING PART #	STANDARD FROM STOCK	
	-S	-SS
HRN	•	•

Material: Steel: Zinc nickel plated
SS: 316 stainless steel

Note: To be used with mounting rail (R)

CRA

Channel Rail Adapter



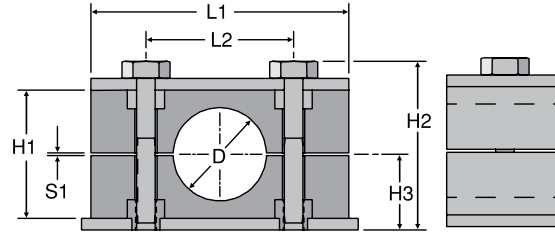
TUBE FITTING PART #	THREAD "A" UNC	L in. (mm)	B in. (mm)	H1 in. (mm)	H2 in. (mm)	STANDARD FROM STOCK
CRA 1-8	1/4-20	1.37 (35)	0.74 (19)	0.51 (13)	0.77 (19.5)	•

Material: Steel, zinc nickel plated

Dimensions and pressures for reference only, subject to change.

Clamp Halves

Heavy Series



See note below

TUBE CLAMP HALVES											
PART #	TUBE SIZE	GROUP #	D		H1 (in.)	H2 (in.)	H3 (in.)	L1 (in.)	L2 (in.)	S1 (in.)	STANDARD FROM STOCK
			(in.)	(mm)							
3095-HPP	3/8	H3	0.37	9.5	1.25	2.17	0.94	2.16	1.29	0.02	•
3127-HPP	1/2	H3	0.50	12.7	1.25	2.17	0.94	2.16	1.29	0.02	•
3160-HPP	5/8	H3	0.63	16.0	1.25	2.17	0.94	2.16	1.29	0.02	•
4190-HPP	3/4	H4	0.75	19.0	1.88	2.80	1.26	2.75	1.77	0.02	•
4254-HPP	1	H4	1.00	25.4	1.88	2.80	1.26	2.75	1.77	0.02	•
5320-HPP	1 1/4	H5	1.25	32.0	2.36	3.27	1.50	3.34	2.36	0.02	•
5381-HPP	1 1/2	H5	1.50	38.1	2.36	3.27	1.50	3.34	2.36	0.02	•
6508-HPP	2	H6	2.00	50.8	3.50	4.61	2.17	4.52	3.54	0.07	•
6635-HPP	2 1/2	H6	2.50	63.5	3.50	4.61	2.17	4.52	3.54	0.07	•
7762-HPP	3	H7	3.00	76.2	4.72	5.74	2.75	5.98	4.80	0.07	•

PIPE CLAMP HALVES											
PART #	PIPE SIZE	GROUP #	D		H1 (in.)	H2 (in.)	H3 (in.)	L1 (in.)	L2 (in.)	S1 (in.)	STANDARD FROM STOCK
			(in.)	(mm)							
4213-HPP	1/2	H4	0.84	21.3	1.88	2.80	1.26	2.75	1.77	0.02	•
4267-HPP	3/4	H4	1.05	26.7	1.88	2.80	1.26	2.75	1.77	0.02	•
5334-HPP	1	H5	1.31	33.4	2.36	3.27	1.50	3.34	2.36	0.02	•
5422-HPP	1 1/4	H5	1.66	42.2	2.36	3.27	1.50	3.34	2.36	0.02	•
6483-HPP	1 1/2	H6	1.90	48.3	3.50	4.61	2.17	4.52	3.54	0.07	•
6603-HPP	2	H6	2.37	60.3	3.50	4.61	2.17	4.52	3.54	0.07	•

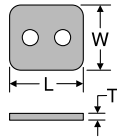
100R2 HOSE CLAMP HALVES											
PART #	HOSE SIZE	GROUP #	D		H1 (in.)	H2 (in.)	H3 (in.)	L1 (in.)	L2 (in.)	S1 (in.)	STANDARD FROM STOCK
			(in.)	(mm)							
H4150HPP	1/4	H4	0.59	15.0	1.83	2.80	1.26	2.75	1.77	0.02	•
H4198HPP	3/8	H4	0.78	19.8	1.83	2.80	1.26	2.75	1.77	0.02	•
H4221HPP	1/2	H4	0.87	22.1	1.83	2.80	1.26	2.75	1.77	0.02	•
H4251HPP	5/8	H4	0.99	25.1	1.83	2.80	1.26	2.75	1.77	0.02	•
H4292HPP	3/4	H4	1.15	29.2	1.83	2.80	1.26	2.75	1.77	0.02	•
H6378HPP	1	H6	1.49	37.8	3.42	4.61	2.17	4.52	3.54	0.07	•
H6484HPP	1 1/4	H6	1.91	48.4	3.42	4.61	2.17	4.52	3.54	0.07	•
H6544HPP	1 1/2	H6	2.14	54.4	3.42	4.61	2.17	4.52	3.54	0.07	•

Note: One clamp set includes two identical halves of polypropylene. Tube and pipe clamps are black in color. Hose clamp halves are green in color. Hardware shown in the illustration above is **not** included.

Dimensions and pressures for reference only, subject to change.

CPH

Cover Plate Heavy

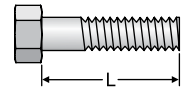


TUBE FITTING PART #	GROUP #	L LENGTH (in.)	W WIDTH (in.)	T THICKNESS		STANDARD FROM STOCK	
				(in.)	(mm)	-S	-SS
CPH-3	H3	2.16	1.18	0.31	8	•	•
CPH-4	H4	2.75	1.18	0.31	8	•	•
CPH-5	H5	3.34	1.18	0.31	8	•	•
CPH-6	H6	4.52	1.77	0.39	10	•	•
CPH-7	H7	5.98	2.36	0.39	10	•	•

Material: Steel: Zinc phosphate plated
SS: 316 stainless steel

BCPH

Hexagon Head Bolt for Cover Plate
(2 required per clamp set)

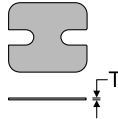


TUBE FITTING PART #	GROUP #	L LENGTH (in.)	UNC THREAD	STANDARD FROM STOCK	
				-S	-SS
BCPH-3	H3	1.75	3/8 - 16	•	•
BCPH-4	H4	2.25	3/8 - 16	•	•
BCPH-5	H5	2.75	3/8 - 16	•	•
BCPH-6	H6	4.00	7/16 - 14	•	•
BCPH-7	H7	5.25	5/8 - 11	•	•

Material: Steel: Zinc clear chromate plated, Grade 5 bolt
SS: 316 stainless steel

LPH

Locking Plate Heavy

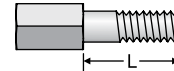


TUBE FITTING PART #	GROUP #	T THICKNESS (in.)	STANDARD FROM STOCK
LPH-3	H3	0.31	•
LPH-4	H4	0.31	•
LPH-5	H5	0.31	•
LPH-6	H6	0.39	•
LPH-7	H7	0.39	•

Material: Steel, zinc phosphate plated

SBH

Stacking Bolt Heavy
(2 required per clamp set)

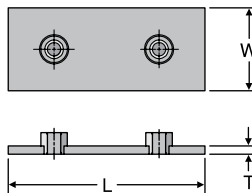


TUBE FITTING PART #	GROUP #	L LENGTH (in.)	STANDARD FROM STOCK
SBH-3	H3	1.02	•
SBH-4	H4	1.61	•
SBH-5	H5	2.01	•
SBH-6	H6	3.27	•
SBH-7	H7	4.33	•

Material: 1010 steel, zinc nickel plated

WPH

Weld Plate Heavy

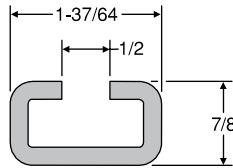


TUBE FITTING PART #	GROUP #	L LENGTH		W WIDTH		T THICKNESS		STANDARD FROM STOCK	
		(in.)	(mm)	(in.)	(mm)	(in.)	(mm)	-S	-SS
WPH-3	H3	2.88	73	1.18	30	0.31	8	•	•
WPH-4	H4	3.34	85	1.18	30	0.31	8	•	•
WPH-5	H5	3.94	100	1.18	30	0.31	8	•	•
WPH-6	H6	5.51	140	1.79	45	0.39	10	•	•
WPH-7	H7	7.09	180	2.36	60	0.39	10	•	•

Material: Steel: 1020 steel, zinc-phosphate plated
SS: 316 stainless steel

Dimensions and pressures for reference only, subject to change.

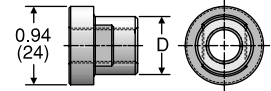
RH
Mounting Rail Heavy



TUBE FITTING PART #	LENGTH	STANDARD FROM STOCK	
		-S	-SS
R1H	3.28 ft. (1 meter)	•	•
R2H	6.56 ft. (2 meters)	•	•

Material: Steel: Unplated
SS: 316 stainless steel

RNH
Mounting Rail Nut Heavy

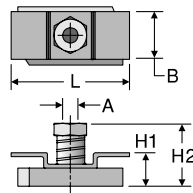


TUBE FITTING PART #	GROUP #	D DIAMETER		THREAD	STANDARD FROM STOCK	
		(in.)	(mm)		-S	-SS
RNH-10	H3, H4, H5	0.70	18	3/8 - 16 UNC	•	•
RNH-12	H6	0.78	20	7/16 - 14 UNC	•	•

Material: Steel: Zinc-phosphate plated
SS: 316 stainless steel

Note: To be used with mounting rail heavy (RH)

CRA
Channel Rail Adapter



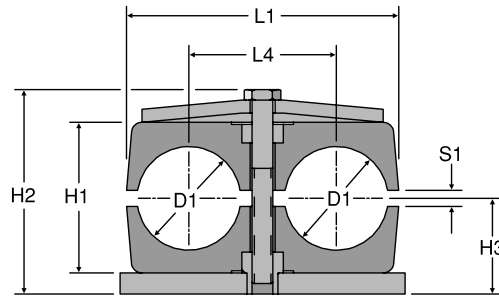
TUBE FITTING PART #	THREAD "A" UNC	L in. (mm)	B in. (mm)	H1 in. (mm)	H2 in. (mm)	STANDARD FROM STOCK
CRA 3-5	3/8-16	1.37 (35)	0.86 (22)	0.73 (18.5)	1.08 (27.5)	•
CRA 6	7/16-14	1.77 (45)	0.98 (25)	0.67 (17)	1.08 (27.5)	•

Material: Steel, zinc plated, blue chromate

Dimensions and pressures for reference only, subject to change.

Clamp Halves

Twin Series



See note below

TUBE CLAMP HALVES											
PART #	TUBE SIZE	GROUP #	D1		H1	H2	H3	L1	L4	S1	STANDARD FROM STOCK
			in.	mm	in.	in.	in.	in.	in.	in.	
1064/64-PP	1/4	T1	0.25	6.4	0.79	1.18	0.59	1.41	0.78	0.02	•
1095/95-PP	3/8	T1	0.38	9.5	0.79	1.18	0.59	1.41	0.78	0.02	•
2127/127-PP	1/2	T2	0.50	12.7	1.06	1.73	0.71	2.08	1.14	0.03	•
2160/160-PP	5/8	T2	0.63	16.0	1.06	1.73	0.71	2.08	1.14	0.03	•
3190/190-PP	3/4	T3	0.75	19.0	1.45	2.17	0.93	2.63	1.41	0.03	•
3254/254-PP	1	T3	1.00	25.4	1.45	2.17	0.93	2.63	1.41	0.03	•
5320/320-PP	1 1/4	T5	1.25	32.0	2.09	2.83	1.26	4.17	2.20	0.03	•
5381/381-PP	1 1/2	T5	1.50	38.1	2.09	2.83	1.26	4.17	2.20	0.03	•

PIPE CLAMP HALVES											
PART #	PIPE SIZE	GROUP #	D1		H1	H2	H3	L1	L4	S1	STANDARD FROM STOCK
			in.	mm	in.	in.	in.	in.	in.	in.	
4266/266-PP	3/4	T4	1.05	26.6	1.77	2.36	1.02	3.14	1.77	0.03	•
5334/334-PP	1	T5	1.31	33.4	2.08	2.83	1.26	4.17	2.20	0.03	•

FOR USE WITH 100R1 HOSE											
PART #	HOSE SIZE	GROUP #	D1		H1	H2	H3	L1	L2	S1	STANDARD FROM STOCK
			in.	mm	in.	in.	in.	in.	in.	in.	
H3206/206-PP	1/2	T3	0.81	20.6	1.45	2.17	0.93	2.63	1.41	0.03	•
H5205/205-PP	1/2	T5	0.81	20.5	2.09	2.83	1.26	4.17	2.20	0.03	•
H5230/230-PP	5/8	T5	0.91	23.0	2.09	2.83	1.26	4.17	2.20	0.03	•
H5280/280-PP	3/4	T5	1.10	28.0	2.09	2.83	1.26	4.17	2.20	0.03	•

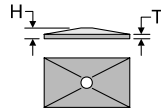
FOR USE WITH 100R2 HOSE											
PART #	HOSE SIZE	GROUP #	D1		H1	H2	H3	L1	L2	S1	STANDARD FROM STOCK
			in.	mm	in.	in.	in.	in.	in.	in.	
H3190/190-PP	3/8	T3	0.75	19.0	1.45	2.17	0.93	2.63	1.41	0.03	•
H3222/222-PP	1/2	T3	0.87	22.2	1.45	2.17	0.93	2.63	1.41	0.03	•
H3250/250-PP	5/8	T3	0.98	25.0	1.45	2.17	0.93	2.63	1.41	0.03	•
H5295/295-PP	3/4	T5	1.16	29.5	2.09	2.83	1.26	4.17	2.20	0.03	•
H5372/372-PP	1	T5	1.46	37.2	2.09	2.83	1.26	4.17	2.20	0.03	•

Note: One clamp set includes two identical halves of polypropylene. Tube and pipe clamp halves are black in color. Hose clamp halves are green. Hardware shown in the illustration above is **not** included.

Dimensions and pressures for reference only, subject to change.

CPT

Cover Plate

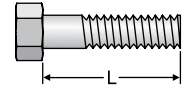


TUBE FITTING PART #	GROUP #	T THICKNESS		H HEIGHT		STANDARD FROM STOCK	
		(in.)	(mm)	(in.)	(mm)	-S	-SS
CPT-1	T1	0.06	1.5	—	—	•	•
CPT-2	T2	0.13	3.0	0.28	7.0	•	•
CPT-3	T3	0.13	3.0	0.28	7.0	•	•
CPT-4	T4	0.13	3.0	0.31	8.0	•	•
CPT-5	T5	0.13	3.0	0.31	8.0	•	•

Material: Steel: Zinc nickel plated
SS: 316 stainless steel

BCPT

Hexagon Head Bolt for Cover Plate

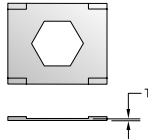


TUBE FITTING PART #	GROUP #	L LENGTH (in.)	UNC THREAD	STANDARD FROM STOCK	
				-S	-SS
BCPT-1	T1	1.38	1/4 - 20	•	•
BCPT-2	T2	1.38	5/16 - 18	•	•
BCPT-3	T3	1.75	5/16 - 18	•	•
BCPT-4	T4	2.00	5/16 - 18	•	•
BCPT-5	T5	2.50	5/16 - 18	•	•

Material: Steel: Zinc clear chromate plated, Grade 10 material
SS: 316 stainless steel

LPT

Locking Plate

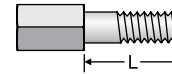


TUBE FITTING PART #	GROUP #	T THICKNESS (in.)	STANDARD FROM STOCK
LPT-1	T1	0.02	•
LPT-2	T2	0.02	•
LPT-3	T3	0.02	•
LPT-4	T4	0.02	•
LPT-5	T5	0.02	•

Material: Steel, zinc nickel plated

SBT

Stacking Bolt

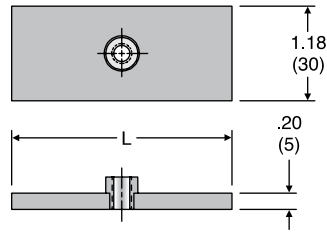


TUBE FITTING PART #	GROUP #	L LENGTH (in.)	UNC THREAD	STANDARD FROM STOCK
SBT-1	T1	0.59	1/4 - 20	•
SBT-2	T2	0.78	5/16 - 18	•
SBT-3	T3	1.13	5/16 - 18	•
SBT-4	T4	1.69	5/16 - 18	•
SBT-5	T5	1.78	5/16 - 18	•

Material: Zinc nickel plated, 1010 steel

Dimensions and pressures for reference only, subject to change.

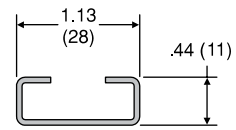
WPT
Weld Plate Twin



TUBE FITTING PART #	GROUP #	L LENGTH		STANDARD FROM STOCK	
		(in.)	(mm)	-S	-SS
WPT-1	T1	1.47	37	•	•
WPT-2	T2	2.31	55	•	•
WPT-3	T3	2.75	70	•	•
WPT-4	T4	3.34	85	•	•
WPT-5	T5	4.34	110	•	•

Material: Steel: Zinc-phosphate plated
SS: 316 stainless steel

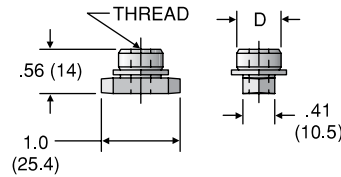
R
Mounting Rail



TUBE FITTING PART #	LENGTH	STANDARD FROM STOCK	
		-S	-SS
R-1	3.28 ft. (1 meter)	•	•
R-2	6.56 ft. (2 meters)	•	•

Material: Steel: Unplated
SS: 316 stainless steel

RNT
Mounting Rail Nut Twin

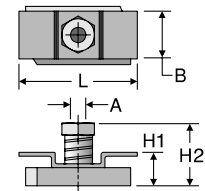


TUBE FITTING PART #	GROUP #	D DIAMETER		THREAD	STANDARD FROM STOCK	
		(in.)	(mm)		-S	-SS
RNT-1	T1	0.39	10	1/4 - 20 UNC	•	•
RNT-2-5	T2-T5	0.56	14	5/16 - 18 UNC	•	•

Material: Steel: Zinc nickel plated
SS: 316 stainless steel

Note: to be used with mounting rail (R)

CRA
Channel Rail Adapter



TUBE FITTING PART #	THREAD "A" UNC	L in. (mm)	B in. (mm)	H1 in. (mm)	H2 in. (mm)	STANDARD FROM STOCK
CRA 2-3D	5/16-18	1.49 (38)	2.55 (65)	0.73 (18.5)	1.08 (27.5)	•

Material: Steel, zinc plated, blue chromate

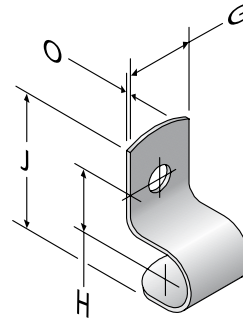
Dimensions and pressures for reference only, subject to change.

3121-1

Tube Clip

PART # BRASS	END SIZE (in.)	G (in.)	H (in.)	J (in.)	O (in.)	HOLE DIA. (in.)	STANDARD FROM STOCK
3121-1-3	3/16	5/16	9/32	17/32	1/32	5/32	•
3121-1-4	1/4	3/8	11/32	21/32	1/32	3/16	•
3121-1-5	5/16	7/16	13/32	13/16	1/32	3/16	•
3121-1-6	3/8	1/2	15/32	15/16	1/32	3/16	•
3121-1-8	1/2	1/2	35/64	1 1/16	3/64	7/32	•
3121-1-10	5/8	5/8	11/16	1 5/16	1/16	1/4	•
3121-1-12	3/4	3/4	13/16	1 9/16	1/16	9/32	•

Material: Brass

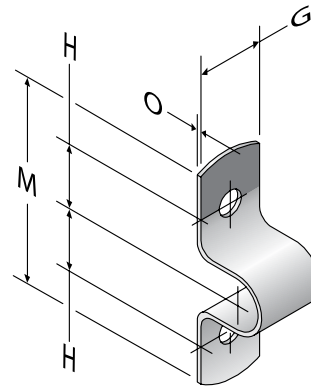


3121-3

Tube Clip

PART # BRASS	END SIZE (in.)	G (in.)	H (in.)	M (in.)	O (in.)	HOLE DIA. (in.)	STANDARD FROM STOCK
3121-3-3	3/16	5/16	9/32	7/8	1/32	5/32	•
3121-3-4	1/4	3/8	11/32	1 1/16	1/32	3/16	•
3121-3-5	5/16	7/16	13/32	1 1/4	1/32	3/16	•
3121-3-6	3/8	1/2	15/32	1 7/16	1/32	3/16	•
3121-3-8	1/2	1/2	35/64	1 19/32	3/64	7/32	•
3121-3-10	5/8	5/8	11/16	2	1/16	1/4	•
3121-3-12	3/4	3/4	13/16	2 3/8	1/16	9/32	•

Material: Brass

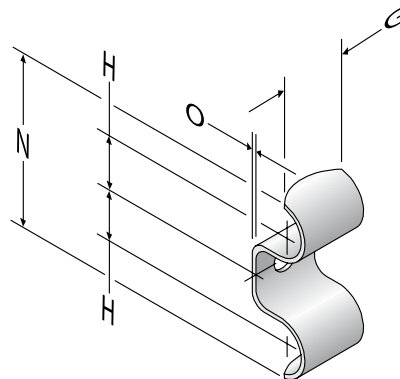


3121-4

Tube Clip

PART # BRASS	END SIZE (in.)	G (in.)	H (in.)	N (in.)	O (in.)	HOLE DIA. (in.)	STANDARD FROM STOCK
3121-4-3	3/16	5/16	9/32	13/16	1/32	5/32	•
3121-4-4	1/4	3/8	11/32	1	1/32	3/16	•
3121-4-5	5/16	7/16	13/32	1 3/16	1/32	3/16	•
3121-4-6	3/8	1/2	15/32	1 3/8	1/32	3/16	•
3121-4-8	1/2	1/2	35/64	1 11/16	3/64	7/32	•
3121-4-10	5/8	5/8	11/16	2 1/8	1/16	1/4	•
3121-4-12	3/4	3/4	13/16	2 1/2	1/16	9/32	•

Material: Brass



Dimensions and pressures for reference only, subject to change.

