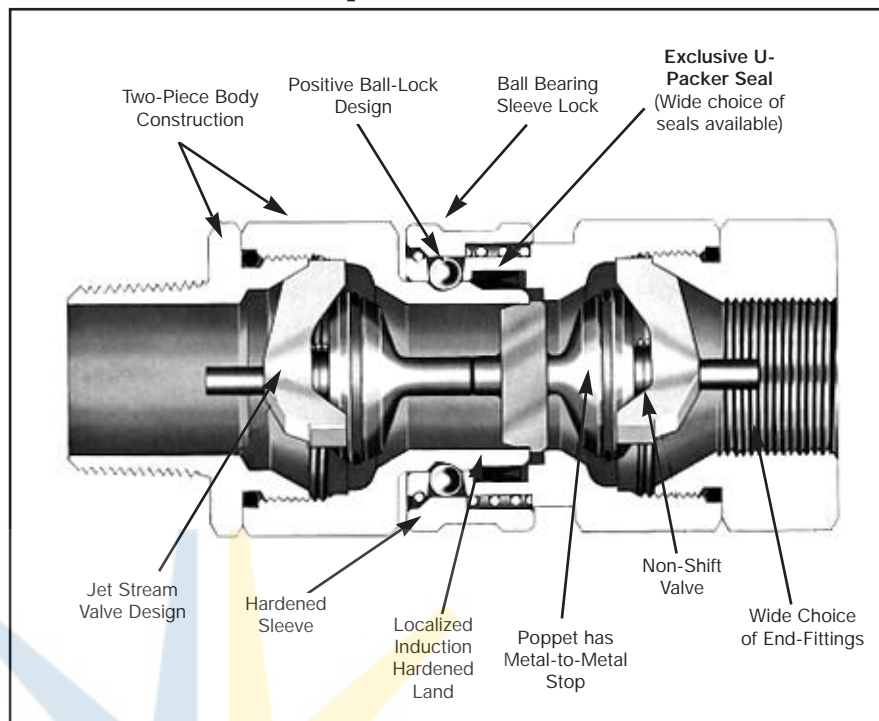
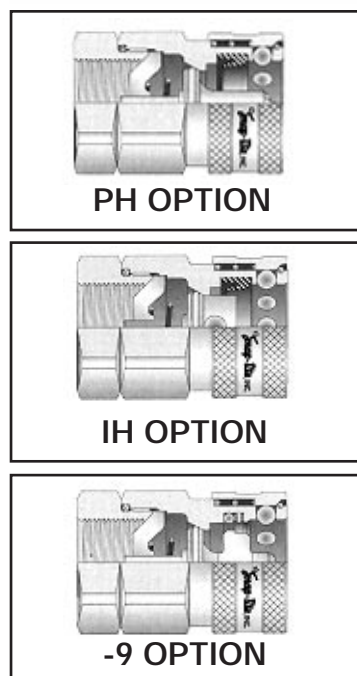


# H, IH & PH SERIES

## Quick Disconnect Couplings for Hydraulic, Pneumatic and General Purpose Use.



### Featuring built in reliability with greater flow.

H Series quick disconnects have been proven by years of use on hydraulic-pneumatic applications and in handling of many gases and fluids. The H Series fully engineered design meets or exceeds MIL-C-51234 and provides superior flow characteristics with built in reliability.

**PH Option-** Has the same advantages built into the H Series with the addition of an instant, automatic bleed-off valve built into the valve, for fast, easy connection of hydraulic lines, and for other applications that call for periodic connection against trapped static hydraulic pressure. The PH option can be placed in either the valve coupler or the valve nipple and are completely interchangeable with the H Series coupler or nipple. The PH option has successfully been field tested in connecting against static pressures up to 3000 psi (210 bar). Available in steel, zinc yellow dichromate plated, in sizes 3/8", 1/2", 3/4" and 1".

**IH Option-** The IH Series is identical to the H Series except for the valve which was designed specifically for durability when used in pneumatic systems using reciprocating, pulsating and rotary motion air tools. Cylindrical construction of the IH valve provides 360° contact with the plain H Series nipple. This permits repeated cycling while enabling efficient operation and long life. Available in steel, zinc yellow dichromate plated. Sizes 1/4", 3/8", 1/2" and 3/4".

### Advantages of H Series

#### (valve & valve) Quick Disconnect Low Pressure Drop

The two-piece body construction permits larger flow passages than the designated size of the coupling, permitting greater flow while maintaining low pressure drop, and provides end fitting versatility.

**Smooth Flow-** Snap-tite's "Jet Stream" valve design helps maintain a clean linear flow. Positive positioning of the valve aids in maintaining a steady, even flow under normal working conditions.

**Flow on Connection-** Valves are designed to automatically open in both the coupler and nipple halves when the unit is connected permitting maximum free flow.

**Shut-Off on Disconnection-** Valves are designed to automatically close under normal usage conditions in both the coupler and nipple halves when the unit is disconnected.

#### Fast Efficient Operation- Connect or disconnect in seconds.

To connect, pull back the sleeve, insert the nipple into the coupler, and release the sleeve. To disconnect, pull back the sleeve, remove the nipple; and the halves are disconnected.

**Dependable Operation-** Ball-lock mechanism provides positive connection. Hardened stainless steel ball along with a radiused and induction hardened (steel) ball race gives extended life to the H Series coupling.

**Positive Sealing Connected-** Two types of seals are available with H Series quick disconnects.

**Molded U-Packer Seal-** Standard for all sizes; provides contact over several times the normal O-ring sealing area. The unique U-packer seal design embodies a self-energizing feature that permits a positive seal at all pressures. The design also enables the coupling to seal under adverse conditions such as side load, scratches on the nipple from usage abuse or dirt on the nipple.

**Optional Seal (-9)-** Can be supplied as standard in place of the U-Packer seal in steel construction in sizes 1/4" thru 1". Designed for use with high pressure, multiple-cycle hydraulic or pneumatic applications, the seal set consists of a standard O-Ring and a Teflon back-up ring. This seal configuration prevents the seal from extruding under multiple-cycle high flow and pressure surge applications.

**Positive Sealing Disconnected-** The metal to metal contact of the valve with the coupler or nipple body is designed to control compression of the valve seal eliminating wear and increasing seal life.

**Seal Versatility-** Wide choice of standard and special seal materials enable the H, IH & PH Series to handle a great variety of fluids.

**Metals-** H Series Quick Disconnect Couplings are available in four metals - Steel, Brass, Aluminium and 316 Stainless Steel. A variety of protective finishes are available.

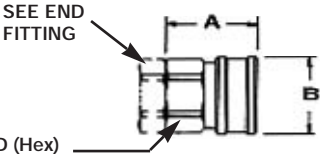
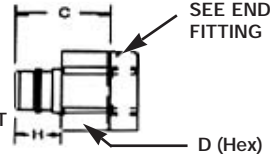
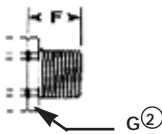
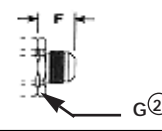

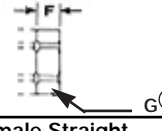
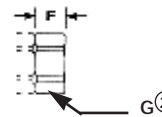
**Sleeve Lock-** Sleeve lock option aids in preventing accidental disconnection of the coupling. To disconnect, align the pin in the body with the slot in the sleeve and retract sleeve.

**BACK TO**

**CATALOGUE**

# Coupling Combinations & End Fittings

1. Double shut-off coupling: Valve coupler and valve nipple.
  2. Single shut-off coupling: Valve coupler and plain nipple.
  3. No shut-off or straight through: Plain coupler and plain nipple. Plain couplers cannot be used with valve nipples.
- All combinations of the same size are interchangeable regardless of material, finish or end fittings.

VALVE													
													
SIZE:		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	
A	in.	1.34	1.50	1.62	1.92	2.07	2.28	2.57	3.14	3.63	3.88	4.58	
	mm	34.04	38.10	41.15	48.77	52.58	57.91	65.28	79.76	92.20	98.55	116.33	
B	in.	1.00	1.19	1.39	1.63	2.00	2.25	2.75	3.50	4.50	5.45	6.75	
	mm	25.40	30.23	35.31	41.40	50.80	57.15	69.85	88.90	114.30	138.13	171.45	
C	in.	1.28	1.44	1.51	1.79	1.95	2.15	2.41	2.94	3.42	3.79	4.47	
	mm	32.51	36.58	38.35	45.47	49.53	54.61	61.21	74.68	86.87	96.27	113.54	
D <sup>②</sup>	in.	.88	1.00	1.19	1.50	1.88	2.00	2.75	3.75	4.50	4.75	6.75	
	mm	22.35	25.40	30.23	38.10	47.75	50.80	69.85	95.25	114.30	120.65	171.45	
H	in.	.59	.72	.72	.89	.91	.92	1.09	1.35	1.45	1.59	1.96	
	mm	14.99	18.29	18.29	22.61	23.11	23.37	27.69	34.30	36.83	40.39	49.78	
END FITTINGS <sup>①</sup>													
SIZE:		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	
 Male Tapered Pipe	F	in.	.75	.69	.95	.96	1.14	1.31	1.44	1.40	1.83	1.88	2.04
		mm	19.05	17.53	24.13	24.38	28.96	33.27	36.58	35.56	46.48	47.75	51.82
	G <sup>②</sup>	in.	.88	1.00	1.19	1.50	1.88	2.00	2.50 <sup>③</sup>	3.50	4.00	4.75	6.00
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50 <sup>③</sup>	88.90	101.60	120.65	152.40
 EM Male SAE Flared and MS33656	F	in.	.74	.74	.84	1.13	1.16	1.27	1.46	1.71			
		mm	18.80	18.80	21.34	28.70	29.46	32.26	37.08	43.43			
	G <sup>②</sup>	in.	.88	1.00	1.19	1.50	1.88	2.00	2.50 <sup>③</sup>	3.50			
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50 <sup>③</sup>	88.90			
 EB Male SAE Bulkhead and MS33657	F <sup>⑤</sup>	in.	1.39	1.58	1.66	2.03	1.84	2.14					
		mm	35.31	40.13	42.16	51.56	46.74	54.36					
	G <sup>②</sup>	in.	.88	1.00	1.19	1.50	1.88	2.00					
		mm	22.35	25.40	30.23	38.10	47.75	50.80					
 Female Tapered Pipe and RP British Parallel	F	in.	.31	.40	.47	.50	.60	1.26	.70	.78	.90	.88	1.13
		mm	7.87	10.16	11.94	12.70	15.24	32.00	17.78	19.81	22.86	22.35	28.70
	G <sup>②</sup>	in.	.88	1.00	1.19	1.50	1.88	2.00	2.50 <sup>③</sup>	3.50	4.00	4.75	6.00
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50 <sup>③</sup>	88.90	101.60	120.65	152.40
 EF Female Straight and MS33649	F	in.	.46	.70	.57	1.00	.87	1.11	.85	1.01			
		mm	11.68	17.78	14.48	25.40	22.10	28.19	21.59	25.65			
	G <sup>②</sup>	in.	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.50			
		mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50	88.90			

① Other special end fitting upon request.

② Dimensions taken across the hex flats. Round stock with two milled flats may be substituted for hex stock. Dimensions across flats same as dimensions across hex flats. Max O.D. of round stock will not exceed the dimensions across the points of the hex stock. Valve coupler and nipple bodies may be supplied from round bar stock without wrench flats.

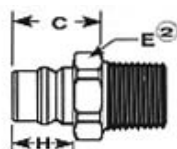
③ 3.5" (88.9mm) across hex flats - may substitute 3.75 (95.25mm) round with 3.38" (85.85mm) across wrench flats.

④ Notch on Hex indicates RP British parallel threads.

⑤ Dimensions shown are MS33657, for EB add .19 (4.8mm)

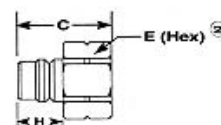
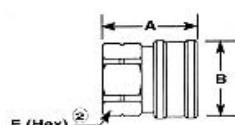
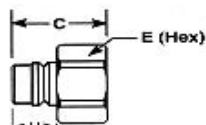
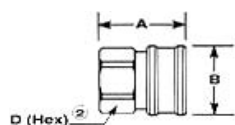
**BACK TO**

## PLAIN MALE PIPE



SIZE:		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
<b>C</b>	in.	.78	.98	.98	1.14	1.16	1.17	1.34	2.03	2.08	2.59	2.58
	mm	19.80	24.89	24.89	38.96	29.46	29.72	34.04	51.56	52.83	65.79	65.53
<b>E<sup>②</sup></b>	in.	.56	.69	.88	1.06	1.38	1.88	2.13	2.50	3.25	4.00	5.00
	mm	14.22	17.53	22.35	26.92	35.05	47.75	54.10	63.50	82.55	101.60	127.00
<b>H</b>	in.	.59	.72	.72	.89	.91	.92	1.09	1.35	1.45	1.59	1.96
	mm	14.99	18.29	18.29	22.61	23.11	23.37	27.69	34.30	36.83	40.39	49.78

## PLAIN FEMALE PIPE and FEMALE RP <sup>④</sup>

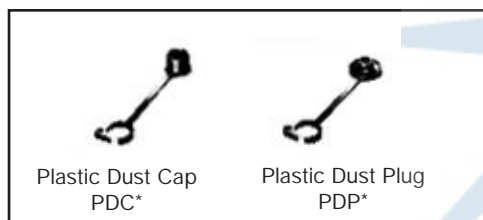


SIZE:		1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"
<b>A</b>	in.	1.34	1.50	1.62	1.91	2.07	2.28	2.57	2.48	3.11	3.35	3.88
	mm	34.04	38.10	41.15	48.51	52.58	57.91	65.28	62.99	78.99	85.09	98.55
<b>B</b>	in.	1.00	1.19	1.39	1.63	2.00	2.25	2.75	3.50	4.50	5.45	6.75
	mm	25.40	30.23	35.31	41.40	50.80	57.15	69.85	88.90	114.30	138.43	171.45
<b>C</b>	in.	1.32	1.52	1.72	1.92	2.10	2.22	2.44	2.60	2.95	3.40	3.73
	mm	33.53	38.61	43.69	48.77	53.34	56.39	61.98	66.04	74.93	86.36	94.74
<b>D<sup>②</sup></b>	in.	.88	1.00	1.19	1.50	1.88	2.00	2.50	3.25	3.75	4.75	5.50
	mm	22.35	25.40	30.23	38.10	47.75	50.80	63.50	82.55	95.25	120.65	139.70
<b>E<sup>②</sup></b>	in.	.63	.81	1.00	1.19	1.50	1.88	2.13	2.75	3.25	4.00	5.00
	mm	16.00	20.57	25.40	30.23	38.10	47.75	54.10	69.85	82.55	101.60	127.00
<b>H</b>	in.	.59	.72	.72	.89	.91	.92	1.09	1.35	1.45	1.59	1.96
	mm	14.99	18.29	18.29	22.61	23.11	23.37	27.69	34.30	36.83	40.39	49.78

## Accessories

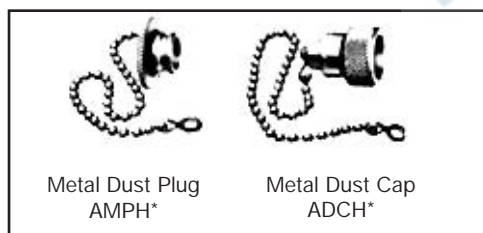
Dust caps, dust plugs and pressure caps protect disconnected coupler and nipple from damage, dirt and other contaminants. Dust caps and dust plugs are available in plastic and clear anodized aluminium.

P  
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### Plastic Caps and Plugs:

Inexpensive means to protect your investment against contamination and damage. Comes with a loop to fit over pipe fitting or affixing to equipment with sheet metal screw. Available in sizes 1/4" thru 1".



### Aluminium Dust Caps and Plugs:

Alternative method to protect your equipment - aluminium dust caps and plugs are available in sizes 1/4" thru 3".

1/4" thru 3/4" sizes come with 10" chrome plated brass bead chain. 1" and above come with steel zinc plated sash chain.



### Pressure Caps:

Pressure-tight pressure caps for nipples are standard in steel, zinc yellow dichromate plated. Other materials such as; brass, aluminium and stainless steel available on special order. Sizes available 1/4" thru 3".

Sizes 1/4" thru 3/4" come with 10" length of corrosion resistant steel cable. Sizes 1" thru 3" come with 12" of cable-all with adjustable loop at end of cable. Consult factory for special lengths and part number.

## How to Order

(plastic plug)  
(plastic cap)  
(aluminium plug)  
(aluminium cap)  
(pressure cap)

**BASIC PART NO.**  
PDP  
PDC  
AMPH  
ADCH  
MCH

**FOR COUPLER\* OR NIPPLE SIZE**  
-4 -1/4"  
-6 -3/8"  
-8 -1/2"  
-12 -3/4"  
-16 -1"  
-20 -1-1/4"  
-24 -1-1/2"  
-32 -2"  
-48 -3"

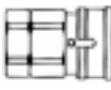
**PART NUMBER EXAMPLES:**  
PDP-6  
AMPH-8  
MCH-16

**BACK TO**

**CATALOGUE**

# How to Order

Using the following simple steps, you can generate ordering numbers for H, PH and IH Quick Disconnect Couplings.

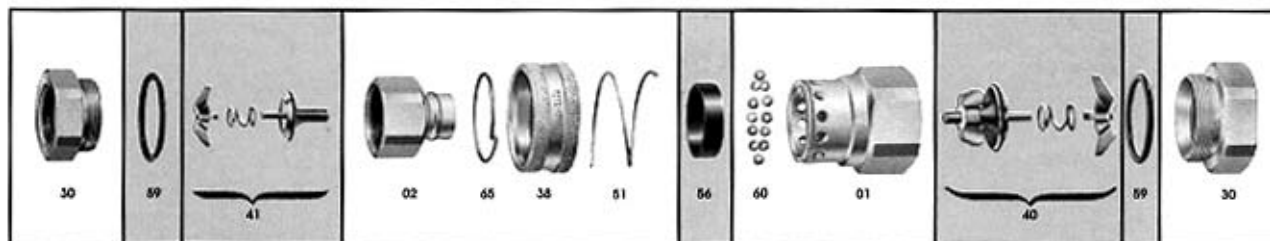
PART NO. S V H C 4-4 F									
OPTIONS									
MATERIAL	BODY TYPE	SERIES	COUPLING HALF	COUPLING SIZE	END FITTING SIZE	TYPE OF END FITTING	OPTIONAL SEAL	SEAL MATERIAL	SLEEVE LOCK
No letter Steel, plated <b>A</b> Aluminium clear anodized <b>B</b> Brass <b>S</b> Stainless steel 316	<b>V</b> Valve <b>P</b> Plain (without valve)	<b>H</b> <b>PH</b> <sup>①</sup> <b>IH</b> <sup>②</sup>	<b>C</b> Coupler <b>N</b> Nipple	4 = 1/4" 6 = 3/8" 8 = 1/2" 12 = 3/4" 16 = 1" 20 = 1-1/4" 24 = 1-1/2" 32 = 2" 40 = 2-1/2" 48 = 3" 64 = 4"	2 = 1/8" 4 = 1/4" 6 = 3/8" 8 = 1/2" 10 = 5/8" 12 = 3/4" 16 = 1" 20 = 1-1/4" 24 = 1-1/2" 32 = 2" 40 = 2-1/2" 48 = 3" 64 = 4"	(see page 2) <b>M</b> Male NPT <b>F</b> Female NPTF <b>EF</b> Female SAE <b>EM</b> Male SAE 37° Flare <b>EB</b> Bulkhead SAE <b>RP</b> Female British Parallel BS21 <b>49</b> MS33649 Female <b>56</b> MS33656 37° Male Flare <b>57</b> MS33657 Bulkhead <b>14</b> MS33514 Male <b>15</b> MS33515 Bulkhead	<b>-9</b> O-ring and Teflon back for steel units only for others consult factory	No letter for Buna N (Code A) 40° to 200°F -40° to 93°C <b>JF</b> Military variation of Buna N for hydrocarbon fuels -65° to 160°F -54° to 71°C <b>MHO</b> Military variation of Buna N for MIL-H-5606 fluids -65° to 275°F -54° to 135°C <b>V</b> Viton® (Du Pont) -20° to 375°F -29° to 190°C <b>EPR</b> Ethylene pro- pylene rubber -65° to 300°F -54° to 149°C	<b>S/L</b> Aids in preventing accidental dis- connection. To disconnect, align the pin in the body with the slot in the sleeve
<sup>①</sup> PH Valve option recommended on one side not both. Available in Steel only.  <sup>②</sup> IH available in Steel only.									

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## Spare Parts

Snap-tite Quick Disconnect Couplings are designed for long, trouble-free life. Upon occasion certain parts may get damaged and need to be ordered.

The shaded area below denotes those spare parts which may be ordered from the factory.



### Part Number

- 56 - Nipple Seal (U-Packer)
- 40 - Coupler Valve Kit<sup>①</sup>
- 41 - Nipple Valve Kit<sup>①</sup>
- 42 - PH Option Valve Kit<sup>②</sup>
- 59 - End Fitting Seal
- 55 - Valve Seal

### Ordering

#### TYPICAL EXAMPLE:

H	16 -	56
Series	Size of Coupling	Nipple Seal

- <sup>①</sup> 1/4" Valve seal is staked in the steel and stainless steel coupler and nipple bodies and therefore not considered field repairable.
- <sup>②</sup> PH Option Valve Kit consists of PH valve with valve seal permanently staked, valve spring and valve guide.
- <sup>③</sup> IH Option Valve Kit is used in steel valve H series coupler only, with valve seal permanently staked on valve head, on the 3/8", 1/2" and 3/4" sizes.

**BACK TO**

**CATALOGUE**

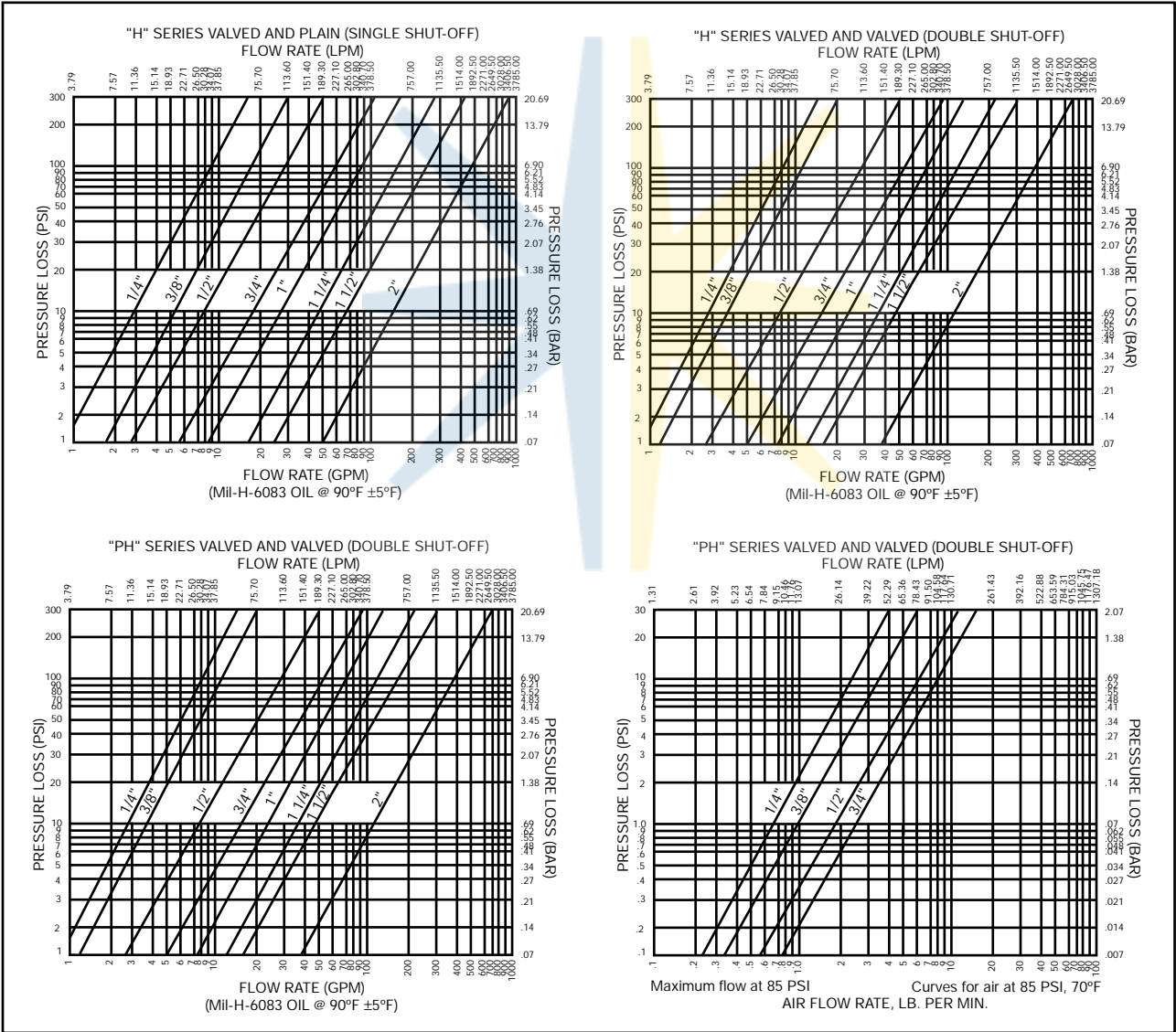


WORKING PRESSURES																
Quick Dis-connect Size	Valve & Valve (Double Shut-Off) Valve & Plain (Single Shut-Off)								Plain & Plain (No Shut-Off)							
	Steel		Aluminium		Brass		Stainless Steel		Steel		Aluminium		Brass		Stainless Steel	
	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR	PSI	BAR
1/4"	6500	450	2250	155	2250	155	5000	345	11000	760	4000	280	4000	280	10000	690
3/8"	4500	310	2250	255	2250	155	4000	280	11000	760	4000	280	4000	280	8000	555
1/2"	4000	280	1750	125	2000	140	3750	260	11000	760	4000	280	4000	280	8000	555
3/4"	3500	245	1750	125	2000	140	2000	140	9000	625	3500	245	3500	245	7000	485
1"	2000	140	1500	105	1750	125	2000	140	6000	415	3000	210	3000	210	4000	280
1-1/4"	1750	125	375	30	350	25	1500	105	5000	345	1000	70	1000	70	3000	210
1-1/2"	1500	105	375	30	350	25	1500	105	5000	345	1000	70	1000	70	3000	210
2"	1500	105	300	25	400	30	500	35	4000	280	750	55	750	55	1000	70
2"-1/2"	1000	70	300	25	400	30	400	30	1000	70	300	25	400	30	400	30
3"	750	55	200	15	200	15	400	30	750	55	200	15	200	15	400	30
4"	500	35	150	10	150	10	300	25	500	35	150	10	150	10	300	25

**NOTE:** Pressure ratings were established under static pressure conditions. Therefore, pressure ratings for any given flow, pressure surge, and/or vibration may vary from these ratings.

**PRESSURE AND FLOW DATA**

Pressure ratings of standard quick disconnects can be increased for some applications by slight design modifications or if specific operating conditions are met. On applications requiring higher ratings than those listed or pressure surges, please consult the factory. Burst pressures listed were taken at the point at which failure rendered the quick disconnect inoperative. (Proof pressure equals 1-1/2 times the working pressure; burst pressure equals 2 times working pressure.)



**BACK TO**



**ISO-9001  
Certified**

**CATALOGUE**