PMH Fittings & XDT Tubing

Low Pressure Hydraulic Connectors

Excellent corrosion resistance, a compact envelope, fewer potential leak points and light weight make PMH fittings an ideal solution. The PMH push-to-connect hydraulic fitting is designed to speed up assembly, especially in difficult to reach areas such as hydraulic joystick ports. The push-to-connect ends reduce assembly time by 60 seconds per connection when compared to standard hose fittings.





Contact Information:

Parker Hannifin Corporation **Fluid System Connectors Division** 300 Parker Dr. Otsego, MI 49078

phone 269-692-6555 fax 269-694-4614

Product Features:

- Push-to-Connect Design
- Compact Envelope
- Lightweight
- All Brass Solution
- Multiple Configurations



ENGINEERING YOUR SUCCESS.

PMH Push to Connect Hydraulic Fittings:

From Parker Hannifin Corp. Fluid Connectors Division

Excellent corrosion resistance, a compact envelope, fewer potential leak points and light weight make PMH fittings an ideal solution. This push-to-connect hydraulic fitting is designed to speed up assembly, especially in difficult to reach areas such as hydraulic joystick ports.

Parker PMH push to connect fittings, partnered with XDT tubing from Parflex Division, are for use with low pressure hydraulics (<435 psi) in the Industrial and Mobile Hydraulic Markets. With unique all brass solutions we can eliminate corrosion, which extends the life of the equipment. These fittings have been engineered with fewer potential leak points which reduce future warranty costs. This solution offers a smaller envelope, allowing for tighter routings and reducing the complexity of the assembly process.

With the Parker push-to-connect system, an assembler simply needs to push the tubing into the pre-installed adapter. Each PMH fitting significantly reduces assembly time by 60 seconds per connection. Along with accelerating the assembly process, the PMH/XDT system is 60% lighter than traditional pilot line hose assemblies, reducing annual shipping costs and vehicle weight.

Challenge

Assemblers were struggling with connecting hydraulic hose assemblies to tightly grouped ports on joystick controllers. The additional time required to make these difficult connections resulted in increased manufacturing costs.

Solution

Parker Engineering created a push-to-connect fitting that could handle the pressure requirements of hydraulic pilot line applications.

The assembly process has been simplified by allowing the assemblers to simply push the tubing into the pre-installed adapters. With the smaller envelope of these systems, tightly grouped ports are more accessible. Reducing tools in the production process has streamlined the manufacturing process, reducing overall costs.



Applications/ Markets

Industrial & Mobile Hydraulic Markets:



- Hydraulic Joystick Applications
- Case Drain Applications (Compress-Align fittings)

Assembly Instructions

- 1. Check that port or mating part is clean and free of debris.
- 2. Insert tubing into fitting until it bottoms.
 - Push twice to verify that tubing is inserted past collet and O-Ring.
- 3. Pull on tubing to verify it is fully inserted.
- 4. To disassemble, simply press release button, hold against body and pull tubing out of the fitting. A fitting with considerable hours may not disassemble. If this happens, cut the tube close to the fitting; thread fitting out of port to remove.



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Thread Size	Min Torque ft-lbs	Max Torque Ft-lbs		
(-4) 7/16-20	6	10		
(-6) 9/16-18	12	16		
(-8) 3/4-16	18	22		









Depress button to remove tubing

PMH Fittings

SPECIFICATIONS							
PRESSURE RANGE:	UP TO 435 PSI						
TEMPERATURE RANGE:	-40° TO + 200° F						
APPLICABLE TUBE							
TUBE SIZE:	3/8, 1/2						
APRROVED:	PARFLEX XDT						
MATE	RIALS OF CONSTRUCTION						
FITTING BODIES:	BRASS						
COLLET	BRASS						
O-RING	NITRILE						

NOMENCLATURE									
EXAMPLE: 685PMH-6-4	ATTRIBUTE								
68	MALE CONNECTOR								
5	SAE STO								
PMH	PRESTOMATIC HYDRAULIC								
6	3/8 (6/16) TUBE SIZE								
4	(1/4) 7/16-20 STO								

Benefits

- Smaller envelop allowing for tighter routing
- Fewer potential leak paths
- Weighs 60% less than standard hydraulic fittings
- Corrosion resistant



Male Connector 685PMH

PART NO.	TUBE SIZE	STRAIGHT THREAD	L	C HEX	FLOW DIA. D
685PMH-6-4	3/8	7/16-20	1.32	3/4	.18
685PMH-6-6	3/8	9/16-18	1.35	3/4	.30
685PMH-6-8	3/8	3/4-16	1.41	7/8	.30
685PMH-8-6	1/2	9/16-18	1.49	7/8	.30
685PMH-8-8	1/2	3/4-16	1.54	7/8	.40



Male Connector 90° 1695PMH

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PART NO.	TUBE SIZE	STRAIGHT THREAD	L	N1	N2	BODY HEX	JAM NUT HEX	FLOW DIA. D
1695PMH-6-4	3/8	7/16-20	1.12	1.18	.39	3/4	9/16	.18
1695PMH-6-6	3/8	9/16-18	1.12	1.25	.45	3/4	11/16	.30
1695PMH-6-8	3/8	3/4-16	1.12	1.4	.50	3/4	7/8	.30
1695PMH-8-6	1/2	9/16-18	1.12	1.3	.42	3/4	11/16	.30
1695PMH-8-8	1/2	3/4-16	1.12	1.4	.50	3/4	7/8	.40

PMH Fittings

Male Branch Tee 1725PMH

PART NO.	TUBE SIZE	STRAIGHT THREAD	М
1725PMH-6-4	3/8	7/16-20	1.12
1725PMH-6-6	3/8	9/16-18	1.12
1725PMH-6-8	3/8	3/4-16	1.12
1725PMH-8-6	1/2	9/16-18	1.12
1725PMH-8-8	1/2	3/4-16	1.12





N1	N2	BODY HEX	JAM NUT HEX	FLOW DIA. D
1.18	.39	3/4	9/16	.18
1.25	.45	3/4	3/4	.30
1.4	.50	3/4	7/8	.30
1.3	.42	3/4	11/16	.30
1.4	.50	3/4	7/8	.40





Male Run Tee 1715PMH

PART NO.	TUBE SIZE	STRAIGHT THREAD	м	N1	N2	BODY HEX	JAM NUT HEX	FLOW DIA. D
1715PMH-6-4	3/8	7/16-20	1.12	1.18	.39	3/4	9/16	.18
1715PMH-6-6	3/8	9/16-18	1.12	1.25	.45	3/4	11/16	.30
1715PMH-6-8	3/8	3/4-16	1.12	1.4	.50	3/4	7/8	.30
1715PMH-8-6	1/2	9/16-18	1.12	1.3	.42	3/4	11/16	.30
1715PMH-8-8	1/2	3/4-16	1.12	1.4	.50	3/4	7/8	.40





Compress-Align Fittings

MATERIALS OF CONSTRUCTION						
FITTING BODIES:		BRASS				
COLLET:		BRASS				
O-RING:		NITRILE				
NOMENCLATURE						
TUBE SIZE:	3/8, 1/2					
APRROVED:	PARFLEX XDT					
AP	PLICAE	BLE TUBE				
TUBE SIZE:		3/8, 1/2				
APPROVED:		PARFLEX XDT				
SF	PECIFIC	CATIONS				
PRESSURE RANGE	:	UP TO 435 PSI				
TEMPERATURE RAI	NGE:	-40° TO +200° F				

NOMENCLATURE								
EXAMPLE: 685PMH-6-4	ATTRIBUTE							
68	MALE CONNECTOR							
5	SAE STO							
PMH	PRESTOMATIC HYDRAULIC							
6	3/8 (6/16) TUBE SIZE							
4	(1/4) 7/16-20 STO							

Benefits

- Captive Sleeve
- Visible inspection
- Sleeve is always oriented for correct installation
- No flaring or soldering necessary
- Smaller Envelop
- Fewer Potential Leak Paths
- Weighs 60% less than Standard Hydraulic Fittings
- Corrosion Resistant





Male Elbow 90° 1695 CA

PART NO.	TUBE SIZE	STRAIGHT THREAD	м	N1	N2	BODY HEX	JAM NUT HEX	FLOW DIA. D	TUBE NUT HEX	L	TUBE ST. THD.
1695CA-6-4	3/8	7/16-20	.75	1.10	.39	9/16	9/16	.18	5/8	1.03	9/16-24
1695CA-6-6	3/8	9/16-18	.94	1.17	.44	5/8	11/16	.30	5/8	1.23	9/16-24
1695CA-6-8	3/8	3/4-16	.89	1.44	.50	3/4	7/8	.31	5/8	1.18	9/16-24
1695CA-8-6	1/2	9/16-18	.94	1.17	.44	5/8	11/16	.30	13/16	1.23	11/16-20
1695CA-8-8	1/2	3/4-16	.95	1.44	.50	3/4	7/8	.40	13/16	1.38	11/16-20

Male Connector 685 CA





PART NO. **TUBE SIZE** STRAIGHT THREAD L **C HEX** Μ TUBE ST. THD. **TUBE NUT HEX** FLOW DIA. D 685CA-6-4 7/16-20 1.28 9/16 1.00 9/16-24 3/8 5/8 .18 685CA-6-6 3/8 9/16-18 1.29 11/16 1.00 9/16-24 5/8 .30 685CA-6-8 3/8 3/4-16 1.39 7/8 1.10 9/16-24 5/8 .31 685CA-8-6 1/2 9/16-18 1.35 11/16 1.06 13/16 .30 11/16-20 685CA-8-8 1/2 3/4-16 1.45 7/8 1.16 11/16-20 13/16 .30

Tubing Components XDT:

Part Number	Nomina	al O.D.	Nomin	al Wall	Maximum Working Pressure* up to 230°F (110°C)		Minir Bend F	num Radius	Minimum Burst Pressure 73°F (23°C)	Weights
#		\bigcirc		\mathbf{O}				Ð		
	inch	mm	inch	mm	psi	bar	inch	mm		lbs/ft.
XDT-6	3/8	9.5	0.075	1.91	435	30	1.25	32	1740 psi	0.04 lbs/ft.
XDT-8	1/2	12.7	0.062	1.58	300	21	2.00	51	1200 psi	0.05 lbs/ft.

* Maximum working pressure is derated by 30 psi for every 10°F above 230°F. (3.6 Bar for every 10°C)

Construction

Polymeric mono-wall

Operating Parameters

Temperature Range: -40° F to 302° F (-40° C to 150°C) Elongation at Working Pressure -2% to +4%

Features

- Fits easily in tight spaces
- Hydraulic fluid resistant
- Formable
- Lightweight
- Reduced assembly time
- Reduced shipping cost

Fittings

PMH Compress-Align

Notes

Custom labeled

Layline to indicate circuit

Hydraulic Joystick with PMH/XDT Solution