

**General Description**

Series "C" check valves permit free flow in one direction, and dependable shut-off in the reverse direction.

**Operation**

When pressure going through the valve is increased to the cracking level the valve opens. When the pressure is reduced to below the cracking level the valve closes.

**Features**

- Stainless steel poppets standard.
- Soft seal poppets are available.
- Triangular retainers guide the poppets, and hold the spring firmly in place even under high velocity and shock.



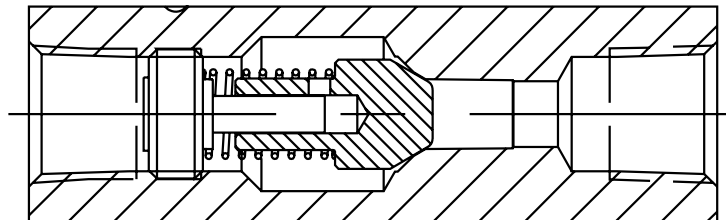
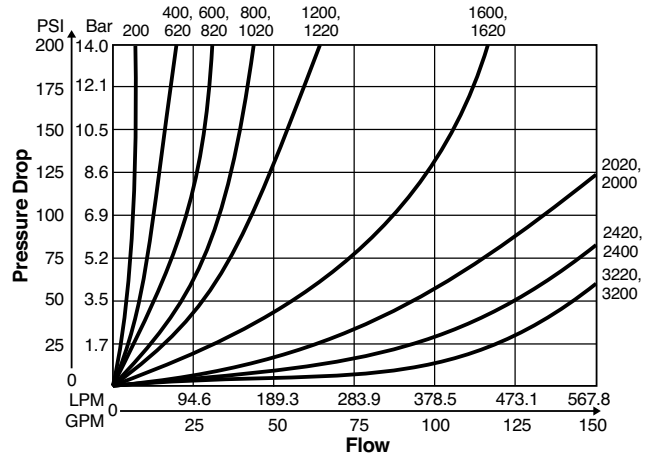
Flow Control / Check Valves

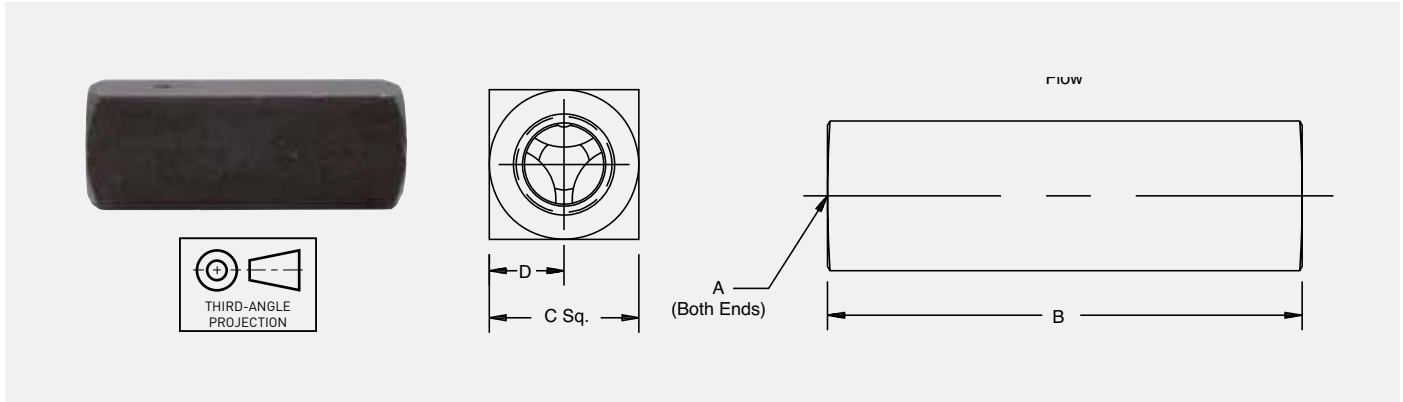
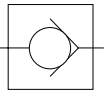
Specifications	
<b>Maximum Operating Pressure</b>	Brass: 140 Bar (2000 PSI); except for C1600 brass which is 35 Bar (500 psi) Steel & Stainless: 345 Bar (5000 psi) for 200 thru 820; 207 Bar (3000 psi) for all other sizes
<b>Maximum Flow</b>	C400: 19 LPM (5 GPM) C600: 30 LPM (8 GPM) C800: 57 LPM (15 GPM) C1200: 95 LPM (25 GPM)
<b>Poppets</b>	Soft seal poppet is standard for 200 through 800/1020 size. For cracking pressures > 15 PSI, solid metal poppets are standard

**Performance Curves**

**Controlled Flow vs. Pressure Drop**

Free Flow 0.3 Bar (5 PSI) Cracking  
100 SSU, Hydraulic Oil





Needle Valves - Series C				
Model Number	A	B	C	D
C400	1/4-18 NPTF	66.8 (2.63)	20.6 (0.81)	10.4 (0.41)
C600	3/8-18 NPTF	69.9 (2.75)	25.4 (1.00)	12.7 (0.50)
C800	1/2-14 NPTF	87.4 (3.44)	31.8 (1.25)	16.0 (0.63)
C1200	3/4-14 NPTF	98.6 (3.88)	38.1 (1.50)	19.1 (0.75)

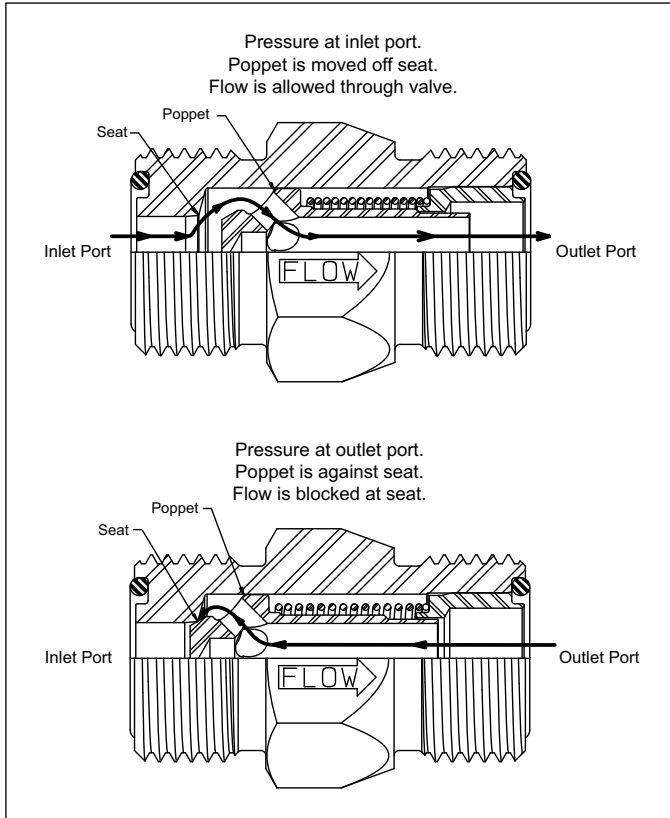
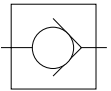
\*Inch equivalents for millimeter dimensions are shown in (\*\*)

Ordering Information

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Options	Series	Size	Material	Cracking Pressure	Seal Compound	Design Series	NOTE: Not required when ordering.																																									
<table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Omit</td> <td>NPTF</td> </tr> <tr> <td>8</td> <td>BSPT</td> </tr> <tr> <td>9</td> <td>BSPP</td> </tr> </tbody> </table>	Code	Description	Omit	NPTF	8	BSPT	9	BSPP	<table border="1"> <thead> <tr> <th colspan="2">Sizes available in Brass</th> </tr> </thead> <tbody> <tr> <td>400</td> <td>800</td> </tr> <tr> <td>600</td> <td>1200</td> </tr> <tr> <th colspan="2">Sizes available in Stainless Steel</th> </tr> <tr> <td>400</td> <td>800</td> </tr> <tr> <td>600</td> <td>-</td> </tr> </tbody> </table>	Sizes available in Brass		400	800	600	1200	Sizes available in Stainless Steel		400	800	600	-	<table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Omit</td> <td>Standard 0.4 Bar (5 PSI)</td> </tr> <tr> <td>65</td> <td>4.5 Bar (65 PSI)</td> </tr> </tbody> </table>	Code	Description	Omit	Standard 0.4 Bar (5 PSI)	65	4.5 Bar (65 PSI)	<table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Omit</td> <td>Nitrile [Standard]</td> </tr> <tr> <td>V</td> <td>Fluorocarbon</td> </tr> </tbody> </table>	Code	Description	Omit	Nitrile [Standard]	V	Fluorocarbon	<table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>Omit</td> <td>Standard Knob</td> </tr> <tr> <td>B</td> <td>Brass</td> </tr> <tr> <td>S</td> <td>Steel</td> </tr> <tr> <td>*SS</td> <td>Stainless Steel</td> </tr> </tbody> </table>	Code	Description	Omit	Standard Knob	B	Brass	S	Steel	*SS	Stainless Steel	<p>Series C Brass Valves can be used for both air and oil service. * Available in 400, 600 and 800 sizes.</p>	
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Model Number	Weight Kg (lbs.)	Model Number	Weight Kg (lbs.)	Model Number	Weight Kg (lbs.)	Model Number	Weight Kg (lbs.)
C400	0.2 (0.4)	C800	0.6 (1.3)	C1620	1.5 (3.3)	C2420	3.8 (8.4)
C600	0.2 (0.5)	C1020	0.6 (1.3)	C2000	2.8 (6.2)	C3200	7.0 (15.4)





**Features**

Parker's Check Valves employ several unique features that insure years of trouble-free operation.

**Crack Pressure**

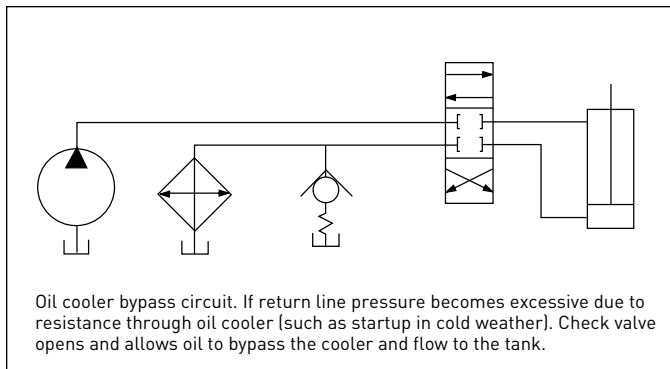
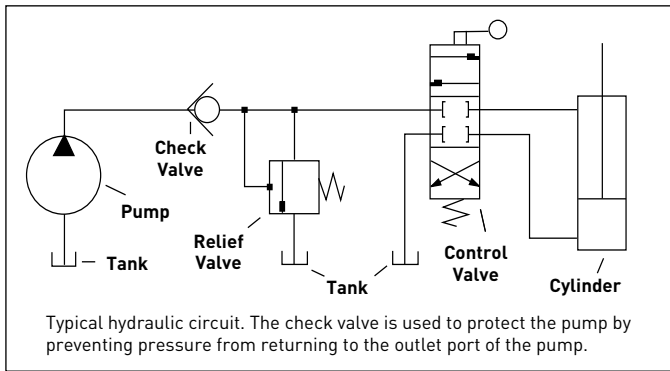
Crack pressure refers to the amount of fluid pressure in the free flow direction required to move the poppet off the seat. The normal crack pressure setting is 5 PSI; however, other crack pressures are available to allow the check valve to perform special circuit functions, or operate under unique conditions.

**Check valves are not field repairable or adjustable. Crack pressure settings are made at the factory only.**

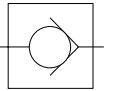
Specifications				
Series	Body Size (in.)	Material	Rated Pressure (psi)	Crack Pressure Range (psi)
DT Series	1/4 - 1 1/4	Steel	5000	5-200

DT Series Pressure Table (psi)				
Body Size	Max Rated Pressure	MF (Male JIC 37)	MO (SAE O-Ring Boss)	MS (Male Seal-Lok)
1/4	5000	5000	5000	5000
3/8	5000	5000	5000	5000
1/2	5000	4500	5000	5000
5/8	5000	3500	5000	5000
3/4	5000	3500	5000	5000
1	5000	3000	5000	5000
1 1/4	4000	2500	4000	4000

**Applications**



DT Series Installation Assembly Torque (ft-lbs)			
Body Size	MF (Male JIC 37)	MO (SAE O-Ring Boss)	MS (Male Seal-Lok)
1/4	Refer to Parker TFD Catalog 4300 for torque recommendation	13.3 +10% / -0%	Refer to Parker TFD Catalog 4300 for torque recommendation
3/8		22.1 +10% / -0%	
1/2		62.6 +10% / -0%	
5/8		84.8 +10% / -0%	
3/4		125.3 +10% / -0%	
1		199 +10% / -0%	
1 1/4		210 +10% / -0%	



**Parker DT Series Check Valves Offer the Features of a Compact Body Size, and 5000 PSI Maximum Operating Pressure**

The DT Series check valves utilize the dependable, internal design features found in Parker check valves, but with the added benefit and convenience of compact design. Sizes are available from 1/4" to 1-1/4" with six different Fitting Styles.

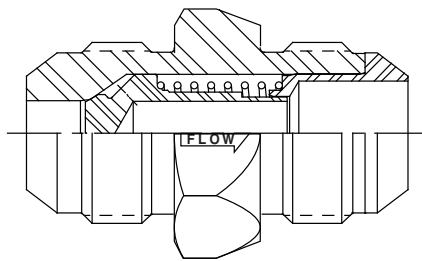
The DT Series expands Parker's high quality product line of versatile and efficient check valves.



**Features**

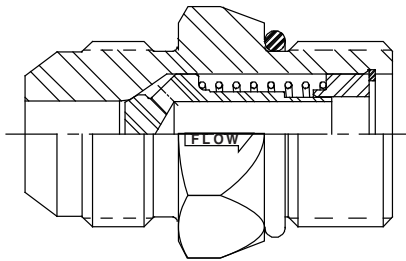
1. Compact Design. Easy to plumb into tight circuits.
2. All steel construction. No internal gaskets or seals to wear out.
3. One-piece body eliminates threads and seals that may be potential leakage points.
4. Smooth flow stream. Poppet spring is isolated from flow stream.
5. Variety of end fittings.
6. Optional crack pressures available from 1 to 200 PSI.
7. Chromium-6 Free plated exterior finish.
8. Nitrile O-Ring included on MO and MS fittings.
9. Captive O-Ring Groove is standard on MS end fittings.

Flow Control / Check Valves



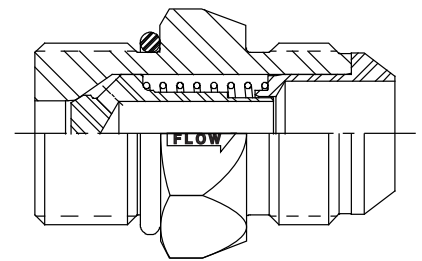
**DT-MFMF**

Male Flare 37° JIC Inlet to Male Flare 37° JIC Outlet



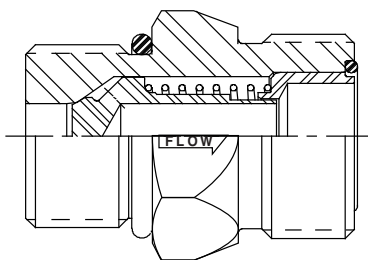
**DT-MFMO**

Male Flare 37° JIC Inlet to Male O-Ring Boss Outlet



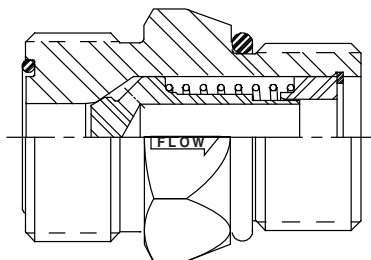
**DT-MOMF**

Male O-Ring Boss Inlet to Male Flare 37° JIC Outlet



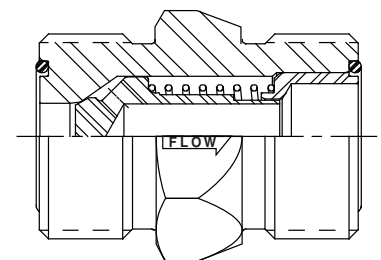
**DT-MOMS**

Male O-Ring Boss Inlet to Male Seal-Lok® Outlet



**DT-MSMO**

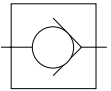
Male Seal-Lok® Inlet to Male O-Ring Boss Outlet



**DT-MSMS**

Male Seal-Lok® Inlet to Male Seal-Lok® Outlet





**DT-MFMF** Male Flare 37° JIC Inlet to Male Flare 37° JIC Outlet



Body Size	Part Number	Inlet Port End	Outlet Port End	Inlet Port Length	Hex	Outlet Port Length	Wrench Flats	Standard Crack Pressure (psi)
3/8	DT-370-MFMF-**	9/16-18 UNF	9/16-18 UNF	0.56	0.44	0.56	0.75	1, 5, 65
1/2	DT-500-MFMF-**	3/4-16 UNF	3/4-16 UNF	0.66	0.50	0.66	0.88	5, 65
5/8	DT-620-MFMF-**	7/8-14 UNF	7/8-14 UNF	0.76	0.50	0.76	1.06	5
3/4	DT-750-MFMF-**	1-1/16- 12 UN	1-1/16- 12 UN	0.86	0.50	0.86	1.25	1, 5, 65
1	DT-1000-MFMF-**	1-5/16- 12 UN	1-5/16- 12 UN	0.91	0.62	0.91	1.50	5, 65
1 1/4	DT-1250-MFMF-**	1-5/8 - 12 UN	1-5/8 - 12 UN	0.96	1.06	0.96	1.88	1, 5 psi

**DT-MFMO** Male Flare 37° JIC Inlet to Male O-Ring Boss Outlet



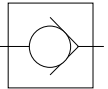
Body Size	Part Number	Inlet Port End	Outlet Port End	Inlet Port Length	Hex	Outlet Port Length	Wrench Flats	Standard Crack Pressure (psi)
1/4	DT-250-MFMO-**	7/16-20 UNF	0.55	0.44	0.43	7/16-20 UNF	0.62	5
3/8	DT-370-MFMO-**	9/16-18 UNF	0.56	0.44	0.47	9/16-18 UNF	0.75	1, 5, 65
1/2	DT-500-MFMO-**	3/4-16 UNF	0.66	0.50	0.55	3/4-16 UNF	0.88	5, 65
5/8	DT-620-MFMO-**	7/8-14 UNF	0.76	0.50	0.63	7/8-14 UNF	1.06	5
3/4	DT-750-MFMO-**	1-1/16 - 12 UN	0.86	0.50	0.73	1-1/16 - 12 UN	1.25	1, 5, 65
1	DT-1000-MFMO-**	1-5/16 - 12 UN	0.91	0.62	0.73	1-5/16 - 12 UN	1.50	5, 65
1 1/4	DT-1250-MFMO-**	1-5/8 - 12 UN	0.96	1.06	0.73	1-5/8 - 12 UN	1.88	1, 5

**DT-MOMF** Male O-Ring Boss Inlet to Male Flare 37° JIC Outlet



Body Size	Part Number	Inlet Port End	Outlet Port End	Inlet Port Length	Hex	Outlet Port Length	Wrench Flats	Standard Crack Pressure (psi)
1/4	DT-250-MOMF-**	7/16-20 UNF	0.43	0.44	0.55	7/16-20 UNF	0.62	5
3/8	DT-370-MOMF-**	9/16-18 UNF	0.47	0.44	0.56	9/16-18 UNF	0.75	1, 5, 65
1/2	DT-500-MOMF-**	3/4-16 UNF	0.55	0.5	0.66	3/4-16 UNF	0.88	5, 65
5/8	DT-620-MOMF-**	7/8-14 UNF	0.63	0.5	0.76	7/8-14 UNF	1.06	5
3/4	DT-750-MOMF-**	1-1/16 - 12 UN	0.73	0.5	0.86	1-1/16 - 12 UN	1.25	1, 5, 65
1	DT-1000-MOMF-**	1-5/16 - 12 UN	0.73	0.62	0.91	1-5/16 - 12 UN	1.5	5, 65
1 1/4	DT-1250-MOMF-**	1-5/8 - 12 UN	0.73	1.06	0.96	1-5/8 - 12 UN	1.88	1, 5

Flow Control / Check Valves



**DT-MOMS** Male O-Ring Boss Inlet to Male Seal-Lok® Outlet



Body Size	Part Number	Inlet Port End	Outlet Port End	Inlet Port Length	Hex	Outlet Port Length	Wrench Flats	Standard Crack Pressure (psi)
1/4	DT-250-MOMS-**	7/16-20 UNF	0.43	0.45	0.39	9/16-18 UNF	0.62	5
3/8	DT-370-MOMS-**	9/16-18 UNF	0.47	0.44	0.44	11/16-16 UN	0.75	1, 5, 65
1/2	DT-500-MOMS-**	3/4-16 UNF	0.55	0.5	0.51	13/16-16 UN	0.88	5, 65
5/8	DT-620-MOMS-**	7/8-14 UNF	0.63	0.5	0.62	1-14 UNS	1.06	5
3/4	DT-750-MOMS-**	1-1/16 - 12 UN	0.73	0.5	0.68	1-3/16 - 12 UN	1.25	1, 5, 65
1	DT-1000-MOMS-**	1-5/16 - 12 UN	0.73	0.62	0.7	1-7/16 - 12 UN	1.5	5, 65
1 1/4	DT-1250-MOMS-**	1-5/8 - 12 UN	0.73	1.06	0.7	1-11/16 - 12 UN	1.88	1, 5

**DT-MSMO** Male Seal-Lok® Inlet to Male O-Ring Boss Outlet



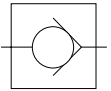
Body Size	Part Number	Inlet Port End	Outlet Port End	Inlet Port Length	Hex	Outlet Port Length	Wrench Flats	Standard Crack Pressure (psi)
3/8	DT-370-MSMO-**	11/16-16 UN	0.44	0.44	0.47	9/16-18 UNF	0.75	1, 5, 65
1/2	DT-500-MSMO-**	13/16-16 UN	0.51	0.5	0.55	3/4-16 UNF	0.88	5, 65
5/8	DT-620-MSMO-**	1-14 UNS	0.62	0.49	0.63	7/8-14 UNF	1.06	5
3/4	DT-750-MSMO-**	1-3/16 - 12 UN	0.68	0.5	0.73	1-1/16 - 12 UN	1.25	1, 5, 65
1	DT-1000-MSMO-**	1-7/16 - 12 UN	0.7	0.62	0.73	1-5/16 - 12 UN	1.5	5, 65
1 1/4	DT-1250-MSMO-**	1-11/16 - 12 UN	0.7	1.06	0.73	1-5/8 - 12 UN	1.88	1,

**DT-MSMS** Male Seal-Lok® Inlet to Male Seal-Lok® Outlet



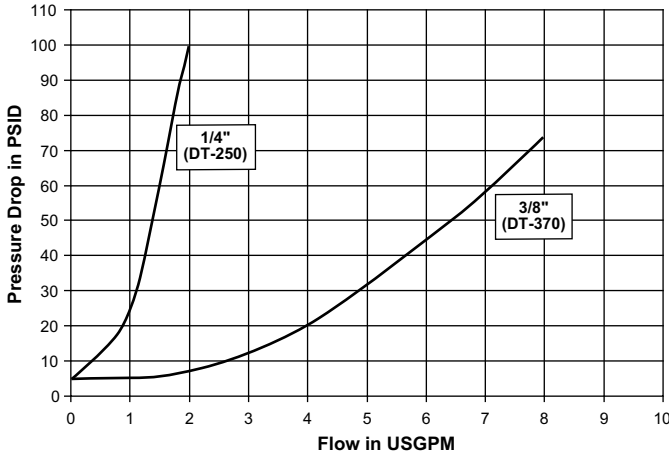
Body Size	Part Number	Inlet Port End	Outlet Port End	Inlet Port Length	Hex	Outlet Port Length	Wrench Flats	Standard Crack Pressure (psi)
3/8	DT-370-MSMS-**	11/16-16 UN	0.44	0.44	0.44	11/16-16 UN	0.75	1, 5, 65
1/2	DT-500-MSMS-**	13/16-16 UN	0.51	0.5	0.51	13/16-16 UN	0.88	5, 65
5/8	DT-620-MSMS-**	1-14 UNS	0.62	0.5	0.62	1-14 UNS	1.06	5
3/4	DT-750-MSMS-**	1-3/16 - 12 UN	0.68	0.5	0.68	1-3/16 - 12 UN	1.25	1, 5, 65
1	DT-1000-MSMS-**	1-7/16 - 12 UN	0.7	0.62	0.7	1-7/16 - 12 UN	1.5	5, 65
1 1/4	DT-1250-MSMS-**	1-11/16 - 12 UN	0.7	1.06	0.7	1-11/16 - 12 UN	1.88	1, 5



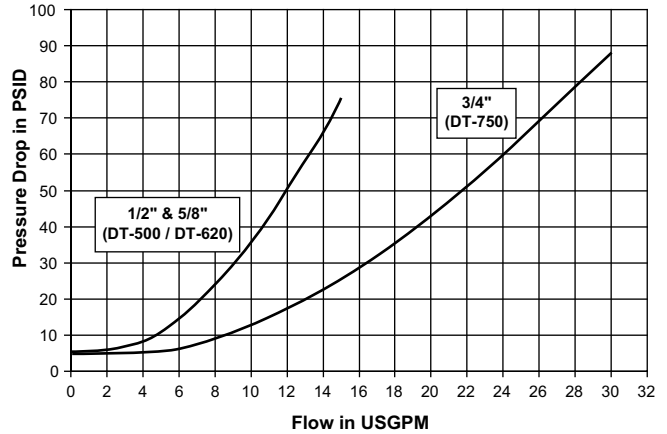


Flow Data

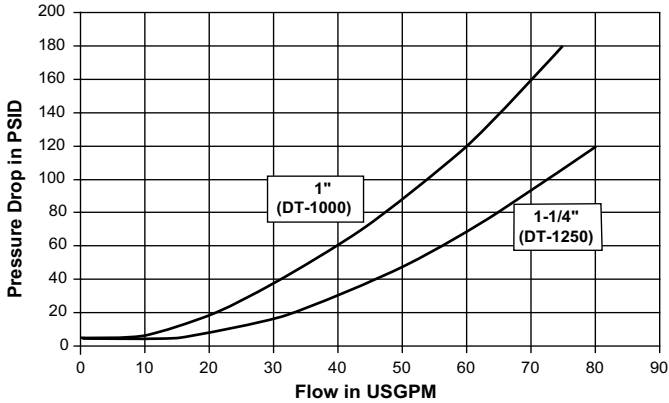
DT Series (1/4" & 3/8")  
Test Fluid: Oil - 200 SUS



DT Series (1/2", 5/8" & 3/4")  
Test Fluid: Oil - 200 SUS



DT Series (1" & 1-1/4")  
Test Fluid: Oil - 200 SUS



Flow Control / Check Valves

Ordering Information

DT - XXX - XXXX - XX

Series

Crack Pressure

1 = 1 psi

5 = 5 psi

65 = 65 psi

Other Crack Pressures up to 200 PSI in 5 PSI increments are available. Contact the Division for price and delivery on non-standard crack pressures.

Size	Crack Pressure
1/4	250
3/8	370
1/2	500
5/8	620
3/4	750
1	1000
1 1/4	1250

Fitting Style	Description
MFMF	Male Flare Inlet to Male Flare Outlet
MFMO	Male Flare Inlet to Male O-Ring Boss Outlet
MOMF	Male O-Ring Boss Inlet to Male Flare Outlet
MOMS	Male O-Ring Boss Inlet to Male Face Seal Outlet
MSMO	Male Face Seal Inlet to Male O-Ring Boss Outlet
MSMS	Male Face Seal Inlet to Male Face Seal Outlet