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Quick Coupling Division
Minneapolis, MN
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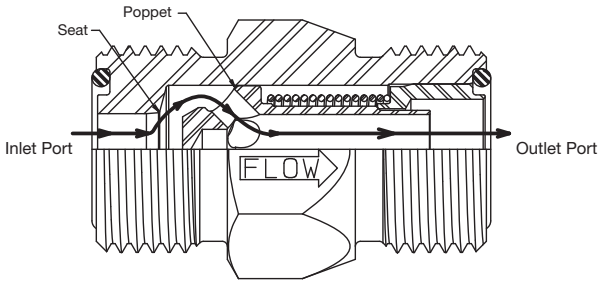
Parker's Check Valves have several unique features that insure years of trouble-free operation.

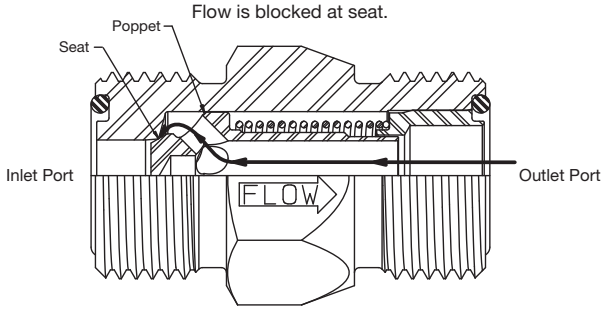
Selection Guide

Series	Body Size	Material	Type	Rated Pressure (psi)	Crack Pressure Range (psi)
CV Series	1/4 - 1"	Steel	Metal to Metal Seal	3000	5-130
DT Series	1/4 - 1 1/4"			2500-5000	5-200
DC Series	1/4 - 2"			3000	5-100
CPIFF Series	1/4 - 1"	Steel	Soft Seat	5000	5-65
3C Series	1 1/4 - 2"	Steel		3000	5-65
S6C Series	1/4 - 1"	316 Stainless Steel		6000	5-65

Pressure at inlet port.
Poppet is moved off seat.
Flow is allowed through valve.



Pressure at outlet port.
Poppet is against seat.
Flow is blocked at seat.



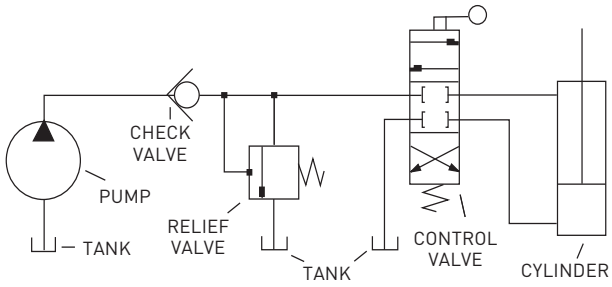
Crack Pressure

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.

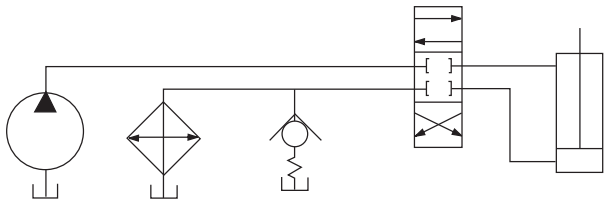
Check valves are not field repairable or adjustable. Crack pressure settings are made at the factory only.

Applications

Typical hydralic circuit, the check valve is used to protect the pump by preventing pressure from returning to the outlet port of the pump.



The graphic symbol for a check-valve is:



Oil cooler bypass circuit. If return line pressure becomes excessive due to resistance through oil cooler (such as startup in cold weather). Check valve opens and allows oil to bypass the cooler and flow to the tank.

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Specifications

The DT Series check valves have a Maximum Operating Pressure of 2500-5000 PSI. Standard crack pressures are 1, 5, and 65 PSI depending on the port size and configuration. Other crack pressures up to 200 PSI in 5 PSI increments are available upon request.

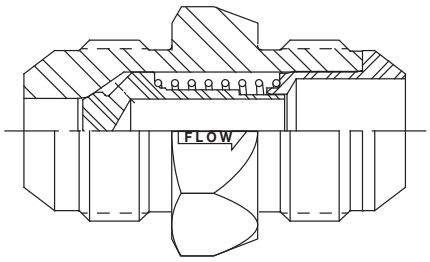
Parker DT Series Check Valves Offer the Features of a Compact Body Size, and up to 5000 psi Maximum Operating Pressure.

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.

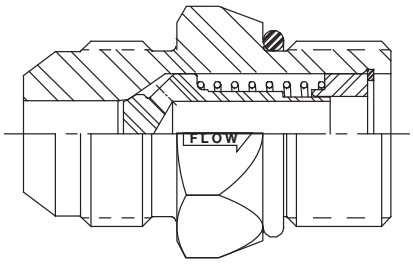
The DT Series expands Parker's high quality product line of versatile and efficient check valves.

Features

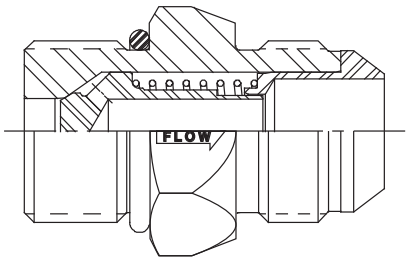
- Compact Design. Easy to plumb into tight circuits.
- All steel construction. No internal gaskets or seals to wear out.
- One-piece body eliminates threads and seals that may be potential leakage points.
- Smooth flow stream. Poppet spring is isolated from flow stream.
- Variety of end fittings.
- Optional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



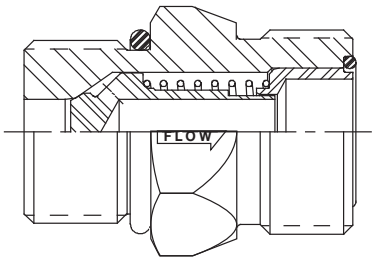
DT-MFMF
Male Flare 37° JIC Inlet to Male Flare 37° JIC Outlet



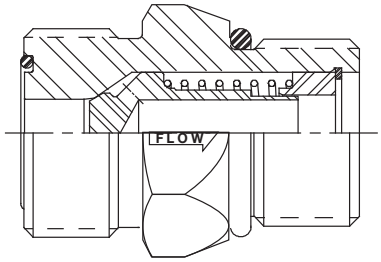
DT-MFMO
Male Flare 37° JIC Inlet to Male O-Ring Boss Outlet



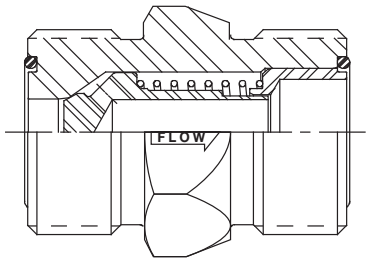
DT-MOMF
Male O-Ring Boss Inlet to Male Flare 37° JIC Outlet



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

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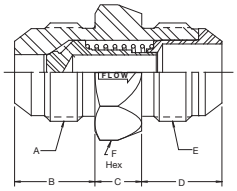
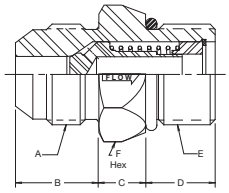
DT-MFMF Male Flare 37° JIC Inlet to Male Flare 37° JIC Outlet



Valve Size	Part Number	Inlet Port Thread	Dimensions (in.)			Outlet Port Thread	Wrench Flats	** Std Crack Pressure (psi)
		A	B	C	D	E	F	
3/8	DT-370-MFMF-**	9/16-18 UNF	.56	.44	.56	9/16-18 UNF	.75	1, 5, 65
1/2	DT-500-MFMF-**	3/4-16 UNF	.66	.50	.66	3/4-16 UNF	.88	5, 65
5/8	DT-620-MFMF-**	7/8-14 UNF	.76	.50	.76	7/8-14 UNF	1.06	5
3/4	DT-750-MFMF-**	1-1/16 - 12 UN	.86	.50	.86	1-1/16-12 UN	1.25	1, 5, 65
1	DT-1000-MFMF-**	1-5/16 - 12 UN	.91	.62	.91	1-5/16-12 UN	1.50	5, 65
1-1/4	DT-1250-MFMF-**	1-5/8 - 12 UN	.96	1.06	.96	1-5/8-12 UN	1.88	1, 5

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



Valve Size	Part Number	Inlet Port Thread	Dimensions (in.)			Outlet Port Thread	Wrench Flats	** Std Crack Pressure (psi)
		A	B	C	D	E	F	
3/8	DT-370-MFMO-**	9/16-18 UNF	.56	.44	.47	9/16-18 UNF	.75	1, 5, 65
1/2	DT-500-MFMO-**	3/4-16 UNF	.66	.50	.55	3/4-16 UNF	.88	5, 65
5/8	DT-620-MFMO-**	7/8-14 UNF	.76	.50	.63	7/8-14 UNF	1.06	5
3/4	DT-750-MFMO-**	1-1/16 - 12 UN	.86	.50	.73	1-1/16 - 12 UN	1.25	1, 5, 65
1	DT-1000-MFMO-**	1-5/16 - 12 UN	.91	.62	.73	1-5/16 - 12 UN	1.50	5, 65
1-1/4	DT-1250-MFMO-**	1-5/8 - 12 UN	.96	1.06	.73	1-5/8 - 12 UN	1.88	1, 5

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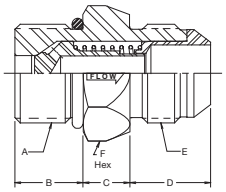
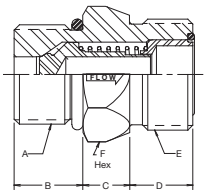
DT-MOMF Male O-Ring Boss Inlet to Male Flare 37° JIC Outlet



Valve Size	Part Number	Inlet Port Thread	Dimensions (in.)			Outlet Port Thread	Wrench Flats	** Std Crack Pressure (psi)
		A	B	C	D	E	F	
1/4	DT-250-MOMF-**	7/16-20 UNF	.43	.44	.55	7/16-20 UNF	.62	5
3/8	DT-370-MOMF-**	9/16-18 UNF	.47	.44	.56	9/16-18 UNF	.75	1, 5, 65
1/2	DT-500-MOMF-**	3/4-16 UNF	.55	.50	.66	3/4-16 UNF	.88	5, 65
5/8	DT-620-MOMF-**	7/8-14 UNF	.63	.50	.76	7/8-14 UNF	1.06	5
3/4	DT-750-MOMF-**	1-1/16 - 12 UN	.73	.50	.86	1-1/16 - 12 UN	1.25	1, 5, 65
1	DT-1000-MOMF-**	1-5/16 - 12 UN	.73	.62	.91	1-5/16 - 12 UN	1.50	5, 65
1-1/4	DT-1250-MOMF-**	1-5/8 - 12 UN	.73	1.06	.96	1-5/8 - 12 UN	1.88	1, 5

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



Valve Size	Part Number	Inlet Port Thread	Dimensions (in.)			Outlet Port Thread	Wrench Flats	** Std Crack Pressure (psi)
		A	B	C	D	E	F	
1/4	DT-250-MOMS-**	7/16-20 UNF	.43	.45	.39	9/16-18 UNF	.62	5
3/8	DT-370-MOMS-**	9/16-18 UNF	.47	.44	.44	11/16-16 UN	.75	1, 5, 65
1/2	DT-500-MOMS-**	3/4-16 UNF	.55	.50	.51	13/16-16 UN	.88	5, 65
5/8	DT-620-MOMS-**	7/8-14 UNF	.63	.50	.62	1-14 UNS	1.06	5
3/4	DT-750-MOMS-**	1-1/16 - 12 UN	.73	.50	.68	1-3/16 - 12 UN	1.25	1, 5, 65
1	DT-1000-MOMS-**	1-5/16 - 12 UN	.73	.62	.70	1-7/16 - 12 UN	1.50	5, 65
1-1/4	DT-1250-MOMS-**	1-5/8 - 12 UN	.73	1.06	.70	1-11/16 - 12 UN	1.88	1, 5

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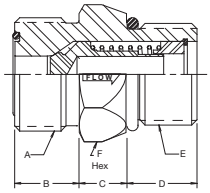
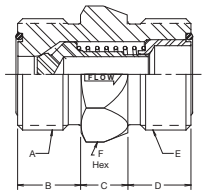
DT-MSMO Male Seal-Lok® Inlet to Male O-Ring Boss Outlet



Valve Size	Part Number	Inlet Port Thread	Dimensions (in.)			Outlet Port Thread	Wrench Flats	** Std Crack Pressure (psi)
		A	B	C	D	E	F	
3/8	DT-370-MSMO-**	11/16-16 UN	.44	.44	.47	9/16-18 UNF	.75	1, 5, 65
1/2	DT-500-MSMO-**	13/16-16 UN	.51	.50	.55	3/4-16 UNF	.88	5, 65
5/8	DT-620-MSMO-**	1-14 UNS	.62	.49	.63	7/8-14 UNF	1.06	5
3/4	DT-750-MSMO-**	1-3/16 - 12 UN	.68	.50	.73	1-1/16 - 12 UN	1.25	1, 5, 65
1	DT-1000-MSMO-**	1-7/16 - 12 UN	.70	.62	.73	1-5/16 - 12 UN	1.50	5, 65
1-1/4	DT-1250-MSMO-**	1-11/16 - 12 UN	.70	1.06	.73	1-5/8 - 12 UN	1.88	1, 5

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



Valve Size	Part Number	Inlet Port Thread	Dimensions (in.)			Outlet Port Thread	Wrench Flats	** Std Crack Pressure (psi)
		A	B	C	D	E	F	
3/8	DT-370-MSMS-**	11/16-16 UN	.44	.44	.44	11/16-16 UN	.75	1, 5, 65
1/2	DT-500-MSMS-**	13/16-16 UN	.51	.50	.51	13/16-16 UN	.88	5, 65
5/8	DT-620-MSMS-**	1-14 UNS	.62	.50	.62	1-14 UNS	1.06	5
3/4	DT-750-MSMS-**	1-3/16 -12 UN	.68	.50	.68	1-3/16 - 12 UN	1.25	1, 5, 65
1	DT-1000-MSMS-**	1-7/16 - 12 UN	.70	.62	.70	1-7/16 - 12 UN	1.50	5, 65
1-1/4	DT-1250-MSMS-**	1-11/16 - 12 UN	.70	1.06	.70	1-11/16 - 12 UN	1.88	1, 5

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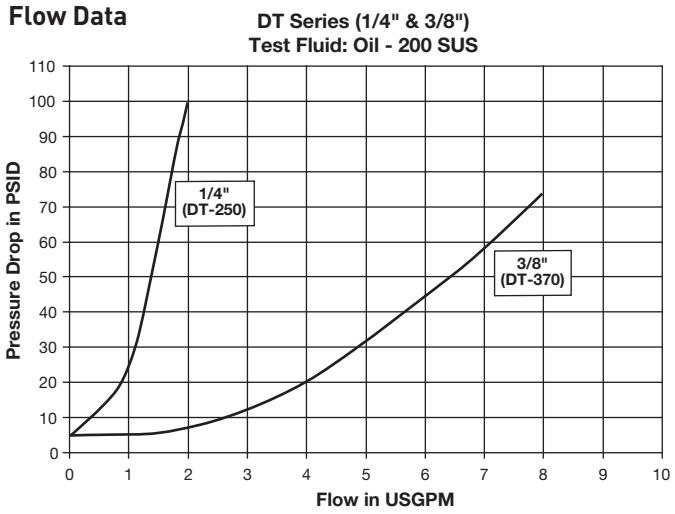
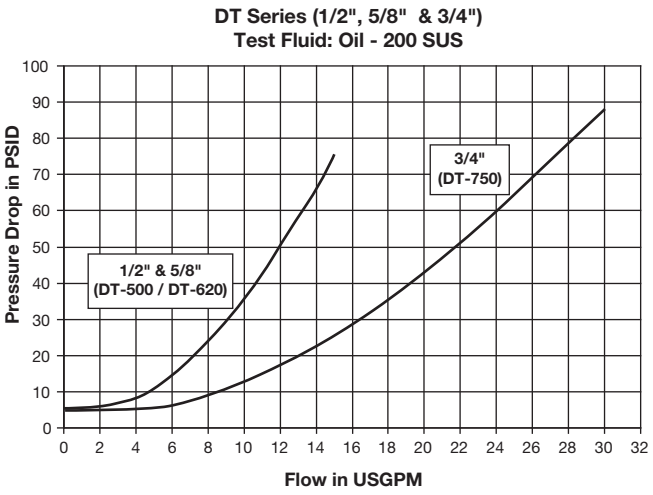
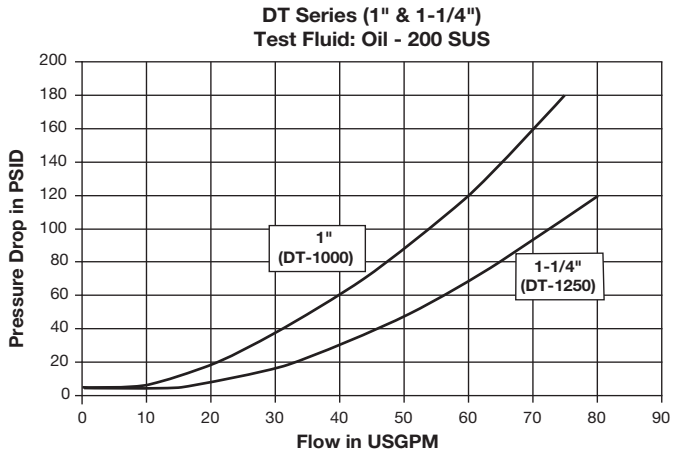
Flow Data







Specifications

Series	Body Size (in.)	Material	Rated Pressure (psi)	Crack Pressure Range (psi)
DT Series	1/4 - 1 1/4	Steel	2500-5000	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

Ordering Information

D T - * * * - * * * * - * *

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

SERIES

SIZE
250 - 1/4"
370 - 3/8"
500 - 1/2"
620 - 5/8"
750 - 3/4"
1000 - 1"
1250 - 1-1/4"

FITTING STYLE
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

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%	

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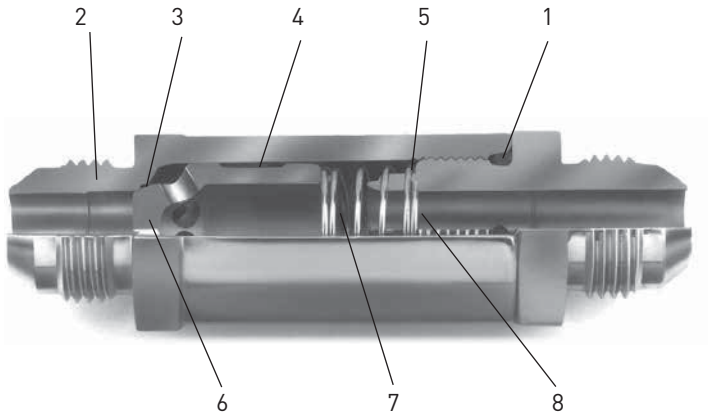
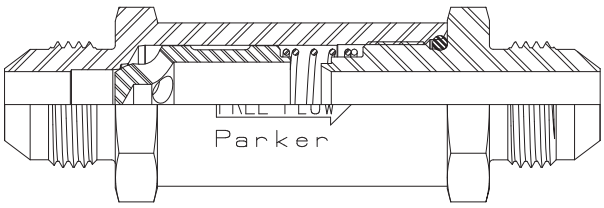


CV Series Check Valves Offer Low Pressure Drop and High Flow.

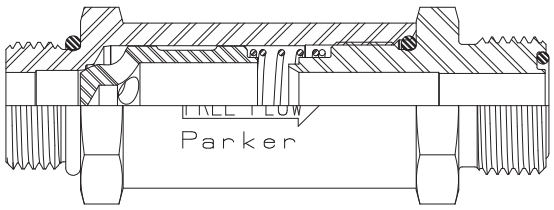
Parker's CV Series check valves are a rugged built and versatile product designed to protect hydraulic systems from fluid back pressure. The CV Series compliments the DT Series by adding the feature of modular design. The larger body results in less pressure drop and increased performance. The CV Series are in-line unidirectional valves, available in sizes 1/4" to 1", with a pressure rating of up to 3000 PSI, and flow capacities to 100 GPM. Standard spring crack pressures are 5 and 65 PSI. Other crack pressures available upon request.

Features

1. Nitrile O-ring is standard in the body assembly. Note port O-rings are included on the MO and MS ports.
2. All-steel construction
3. Valve seats resist damage from shocks, surges and contamination.
4. Poppet has an oil retention groove that lubricates the bore and eliminates galling.
5. Poppet spring is isolated from the liquid flow stream, minimizing turbulence.
6. Poppet is heat treated to help prevent damage from shocks, surges and galling.
7. Close tolerance fit between poppet and poppet retainer creates a cushion that protects valve from surge shock damage.
8. Optional crack pressures available upon request.



CV-MFMF
Male Flare 37° JIC Inlet to Male Flare 37° JIC Outlet



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

NOTE: Contact QCD for additional port end options.

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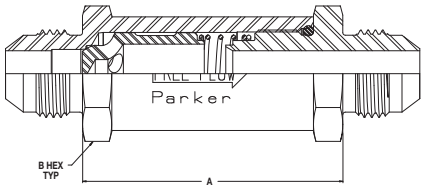
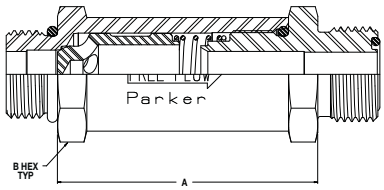
CV-MFMF Male Flare 37° JIC Inlet to Male Flare 37° JIC Outlet



Valve Size	Part Number	Inlet Port Thread	Dimensions (in.)		Outlet Port Thread	** Std Crack Pressure (psi)	Max Operating Pressure (psi)
			Length	Wrench Flats			
			A	B			
1/4	CV-250-MFMF-**	7/16-20 UNF	1.53	.68	7/16-20 UNF	5, 65	3000
3/8	CV-370-MFMF-**	9/16-18 UNF	1.75	.81	9/16-18 UNF	5, 65	3000
1/2	CV-500-MFMF-**	3/4-16 UNF	2.22	1.00	3/4-16 UNF	5, 65	3000
5/8	CV-620-MFMF-**	7/8-14 UNF	2.41	1.12	7/8-14 UNF	5, 65	3000
3/4	CV-750-MFMF-**	1-1/16-12 UN	2.75	1.38	1-1/16-12 UN	5, 65	3000
1	CV-1000-MFMF-**	1-5/16-12 UN	3.31	1.62	1-5/16-12 UN	5, 65	3000

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



Valve Size	Part Number	Inlet Port Thread	Dimensions (in.)		Outlet Port Thread	** Std Crack Pressure (psi)	Max Operating Pressure (psi)
			Length	Wrench Flats			
			A	B			
1/4	CV-250-MOMS-**	7/16-20 UNF	1.53	.68	9/16-18 UNF	5, 65	3000
3/8	CV-370-MOMS-**	9/16-18 UNF	1.75	.81	11/16-16 UN	5, 65	3000
1/2	CV-500-MOMS-**	3/4-16 UNF	2.22	1.00	13/16-16 UN	5, 65	3000
5/8	CV-620-MOMS-**	7/8-14 UNF	2.41	1.12	1-14 UNS	5, 65	3000
3/4	CV-750-MOMS-**	1-1/16-12 UN	2.75	1.38	1-3/16-12 UN	5, 65	3000
1	CV-1000-MOMS-**	1-5/16-12 UN	3.31	1.62	1-7/16-12 UN	5, 65	3000

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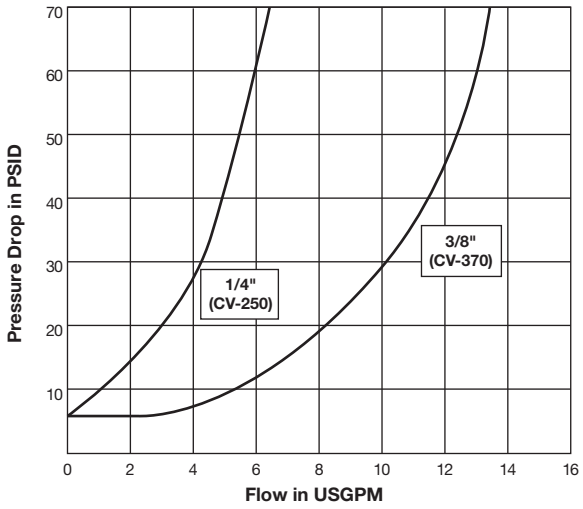
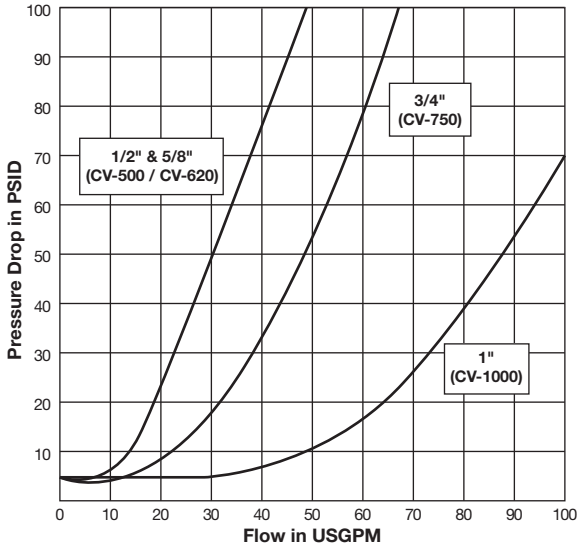
Flow Data

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



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



Ordering Information

C V - * * * - * * * * * - * *

CRACK PRESSURE
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

SERIES	SIZE	FITTING STYLE
	250 - 1/4"	**MFMF** - Male Flare Inlet to Male Flare Outlet
	370 - 3/8"	**MOMS** - Male O-Ring Boss Inlet to Male Seal-Lok® Outlet
	500 - 1/2"	
	620 - 5/8"	
	750 - 3/4"	
	1000 - 1"	

NOTE: Contact QCD for additional port end options.

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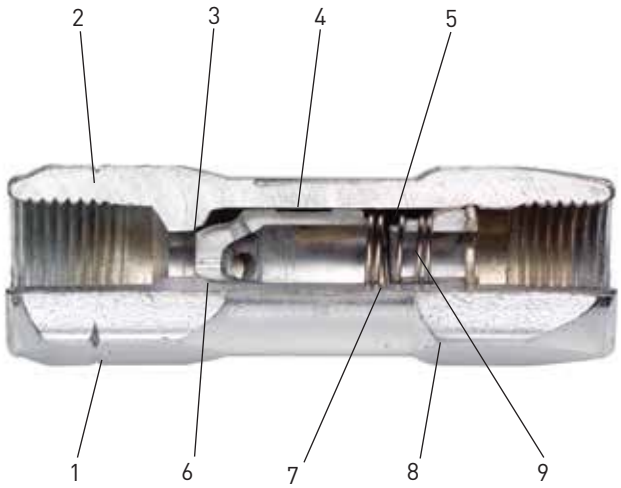

DC Series Check Valves are Rugged, Cost-competitive.

The DC Series offers basic, workhorse check valves – ruggedly built, readily available and reasonably priced. They are in-line valves, available in sizes 1/4" to 2", with a pressure rating range up to 3000 psi, and flow capacities to 300 GPM.

Features

1. All-steel construction–no internal seals or gaskets to wear out.
2. One-piece body eliminates threads and seals that may be potential failure or leakage points.
3. Valve seats resist damage from shocks, surges and contamination.
4. Poppet has an oil retention groove that lubricates the bore and eliminates galling.
5. Poppet spring is isolated from the liquid flow stream, minimizing turbulence.
6. Poppet is heat treated to help prevent damage from shocks, surges and galling.
7. Close tolerance fit between poppet and poppet retainer creates a cushion that protects valve from surge shock damage.
8. Check valve body is shaped like an arrow to indicate flow direction.
9. Available in a variety of standard and non-standard crack pressures.

DC Series- Part Numbers

Valve Size	Part Number	Inlet Port Thread	Dimensions (In.)		Outlet Port Thread	** Std Crack Pressure (psi)	Max Operating Pressure (psi)
			Length	Wrench Flats			
1/4	DC-250-**	1/4 - 18 NPSF	2.44	0.81	1/4 - 18 NPSF	1, 5, 65	3000
1/4	DC-250-FOFO-**	.438 - 20 UNF	2.44	0.81	.438 - 20 UNF	1, 5	3000
3/8	DC-370-**	3/8 - 18 NPSF	2.75	0.88	3/8 - 18 NPSF	1, 5, 65	3000
3/8	DC-370-FOFO-**	.562 - 18 UNF	2.75	0.88	.562 - 18 UNF	5	3000
1/2	DC-500-**	1/2 - 14 NPSF	3.5	1.06	1/2 - 14 NPSF	1, 5, 65	3000
1/2	DC-500-FOFO-**	.750 - 16 UNF	3.5	1.06	.750 - 16 UNF	5, 65	3000
3/4	DC-750-**	3/4 - 14 NPSF	3.88	1.37	3/4 - 14 NPSF	1, 5, 65	3000
3/4	DC-750-FOFO-**	1.062 - 12 UN	3.88	1.37	1.062 - 12 UN	5, 65	3000
1	DC-1000-**	1 - 11.5 NPSF	4.88	1.62	1 - 11.5 NPSF	5, 65	3000
1	DC-1000-FOFO-**	1.312 - 12 UN	4.88	1.62	1.312 - 12 UN	5, 65	3000
1-1/4	DC-1250-**	1-1/4 - 11.5 NPTF	5.94	2.00	1-1/4 - 11.5 NPTF	5, 65	3000
1-1/4	DC-1250-FOFO-**	1.625 - 12 UN	5.94	2.00	1.625 - 12 UN	5, 65	3000
1-1/2	DC-1500-**	1-1/2 - 11.5 NPTF	6.37	2.38	1-1/2 - 11.5 NPTF	5, 65	3000
1-1/2	DC-1500-FOFO-**	1.875 - 12 UN	6.37	2.38	1.875 - 12 UN	5, 65	3000
2	DC-2000-**	2 - 11.5 NPTF	7.00	3.00	2 - 11.5 NPTF	5, 65	3000
2	DC-2000-FOFO-**	2.500 - 12 UN	7.00	3.00	2.500 - 12 UN	65	3000

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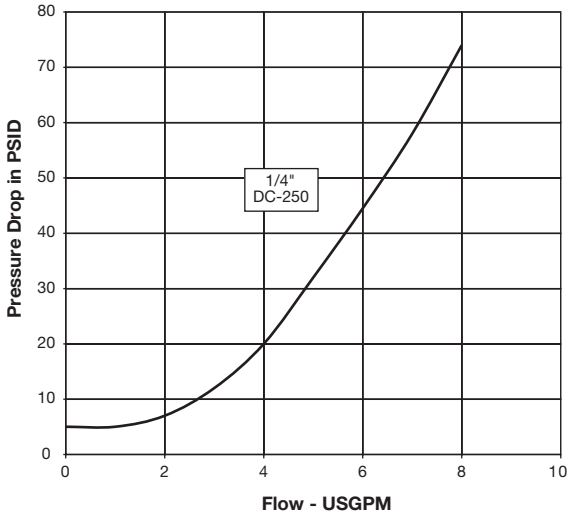
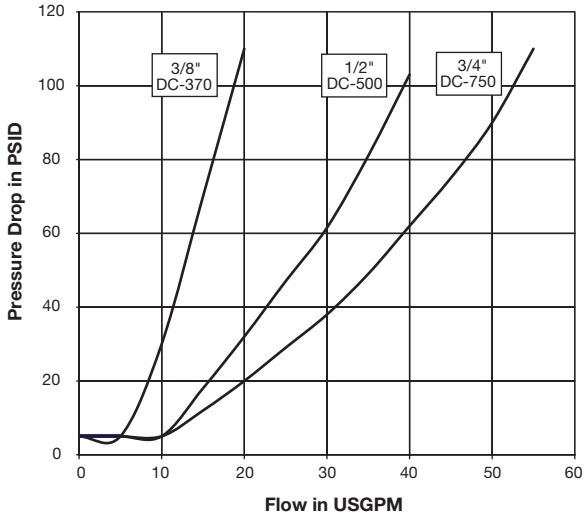
Flow Data

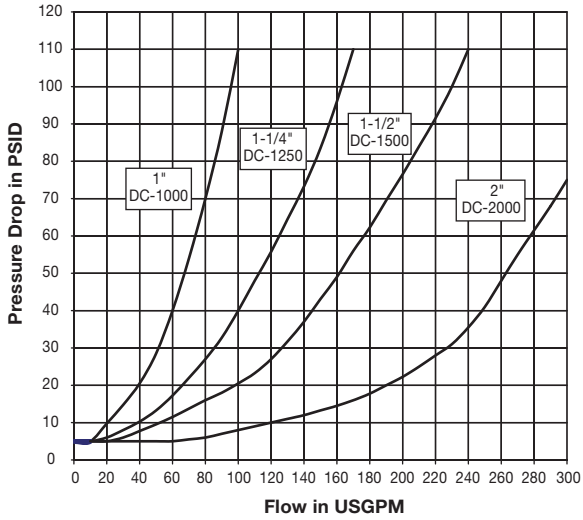
DC Series (1/4")
Test Fluid: Oil - 200 SUS



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



DC Series (1", 1-1/4", 1-1/2" & 2")
Test Fluid: Oil - 200 SUS



Ordering Information

D C - * * * - * * * * - * *

Crack Pressure:
1= 1 PSI
5= 5 PSI
65= 65 PSI
Other crack pressures up to 100 PSI (in 5 PSI increments) are available. Contact the Division for price and delivery on non-standard crack pressures.

Fitting Style:
Blank = Female pipe inlet to Female pipe outlet
FOFO = Female O-ring Boss inlet to Female O-ring Boss outlet

Size
250 = 1/4”
370 = 3/8”
500 = 1/2”
750 = 3/4”
1000 = 1”
1250 = 1-1/4”
1500 = 1-1/2”
2000 = 2”

Series

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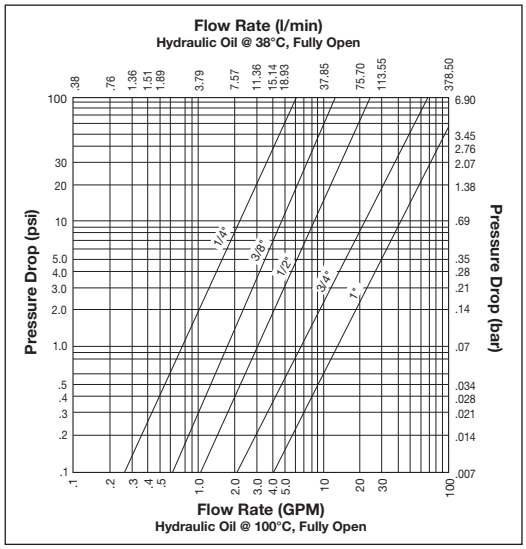
CPIFF Series
Soft Seat



CPIFF Series Soft Seat Check Valves provide a positive shut off to prevent reverse flow.

CPIFF Series check valves are designed to protect hydraulic systems from fluid back pressure. The poppet is streamlined with minimum restriction of flow in one direction. Flow is blocked in the reverse direction as the soft seat creates a leak free seal in the closed position.

These in-line unidirectional valves are available in sizes 1/4" to 1" with a pressure rating up to 5000 psi. Standard spring crack pressures are shown in the part number table. Other crack pressures available upon request.

Features

1. Fluorocarbon poppet seal is standard.
2. Steel construction
3. Optional crack pressures available on request

Specifications

Size (in)	Max Pressure (psi)	Rated Flow (gpm)
1/4	5000	3
3/8	5000	8
1/2	5000	12
3/4	5000	20
1	5000	30

Seal Options (add code to part number)

Code	Poppet Seal Material
suffix **A**	Nitrile
suffix **E**	Ethylene Propylene

CPIFF Series Part Numbers

Valve Size	Part Number	Inlet and Outlet Port Threads (Female)	Dimensions (In.)		Standard Seal Material	** Std Crack Pressure (psi)	Max Operating Pressure (psi)
			Length	Wrench Flats			
1/4	CPIFF-2P-**	1/4 - 18 NPSF	1.97	3/4	Fluorocarbon	5, 15, 25, 65	5000
3/8	CPIFF-3P-**	3/8 - 18 NPSF	2.60	1	Fluorocarbon	5, 15, 25, 65	5000
1/2	CPIFF-4P-**	1/2 - 14 NPSF	3.25	1-1/4	Fluorocarbon	5, 15, 25, 65	5000
1/2	CPIFF-8S-**	3/4 - 16 UNF	3.25	1-1/4	Fluorocarbon	5, 15, 25, 65	5000
3/4	CPIFF-6P-**	3/4 - 14 NPSF	4.33	1-3/8	Fluorocarbon	5, 15, 25, 65	5000
3/4	CPIFF-12S-**	1-1/16 - 12 UN	4.33	1-3/8	Fluorocarbon	5, 15, 25, 65	5000
1	CPIFF-8P-**	1 - 11-1/2 NPSF	4.78	1-3/4	Fluorocarbon	5, 15, 25, 65	5000
1	CPIFF-16S-**	1-5/16 - 12 UN	4.78	1-3/4	Fluorocarbon	5, 15, 25, 65	5000

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S6C & 3C Series
Soft Seat

S6C and 3C Soft Seat Check Valves span a wide variety of sizes and end configurations.

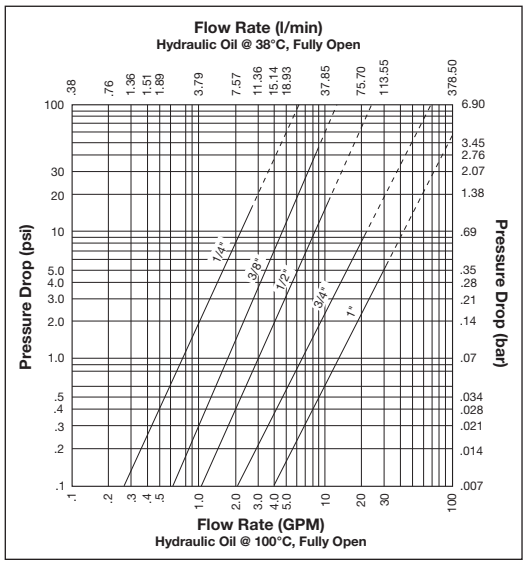
S6C and 3C check valves have a variety of options enabling them to meet the needs of most systems. The soft seated poppet creates a leak free seal to protect hydraulic systems from reverse flow.

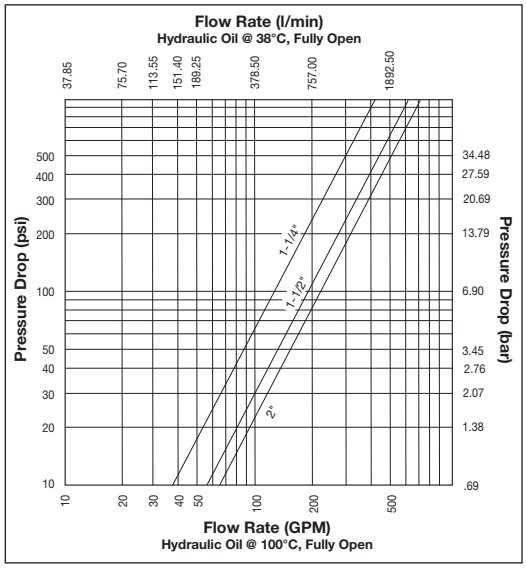
S6C check valves are stainless steel with a rated pressure of 6000 psi (sizes 1/4", 3/8", 1/2", 3/4" & 1"). 3C check valves are steel with a rated pressure of 3000 psi (sizes1-1/4", 1-1/2" & 2").

These in-line unidirectional valves are available in sizes 1/4" to 2". Standard spring crack pressures are shown in the part number table. Other crack pressures available upon request.

Features

1. Fluorocarbon poppet seal is standard.
2. Steel or stainless steel construction
3. Optional crack pressures available on request
4. Contact QCD for other materials or configurations





Specifications	
Size (in)	**Rated Flow (gpm)**
1/4	3
3/8	8
1/2	12
3/4	20
1	30
1-1/4	90
1-1/2	125
2	175

Seal Options (add code to part number)	
Code	**Poppet Seal Material**
suffix **A**	Nitrile
suffix **E**	Ethylene Propylene

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S6C Series Part Numbers

Valve Size	Part Number	Inlet Port Threads	Dimensions (In.)		Outlet Port Threads	Standard Seal Material	** Std Crack Pressure (psi)	Max Operating Pressure (psi)
			Length	Wrench Flats				
1/4	S6C4F-F*	1/4 - 18 NPTF (female)	2.82	3/4	1/4 - 18 NPTF (female)	Fluorocarbon	5, 25, 65	6000
1/4	S6C4F-M*	1/4 - 18 NPTF (female)	2.65	3/4	1/4 - 18 NPT (male)	Fluorocarbon	5, 25, 65	6000
1/4	S6C4M-M*	1/4 - 18 NPT (male)	2.70	3/4	1/4 - 18 NPT (male)	Fluorocarbon	5, 25, 65	6000
3/8	S6C6F-F**	3/8 - 18 NPTF (female)	3.38	1-1/8	3/8 - 18 NPTF (female)	Fluorocarbon	5, 25, 65	6000
3/8	S6C6F-M*	3/8 - 18 NPTF (female)	3.18	1-1/8	3/8 - 18 NPT (male)	Fluorocarbon	5, 25, 65	6000
1/2	S6C8F-F*	1/2 - 14 NPTF (female)	3.73	1-1/4	1/2 - 14 NPTF (female)	Fluorocarbon	5, 25, 65	6000
1/2	S6C8M-F*	1/2 - 14 NPT (male)	4.20	1-1/4	1/2 - 14 NPTF (female)	Fluorocarbon	5, 25, 65	6000
1/2	S6C8M-M*	1/2 - 14 NPT (male)	4.04	1-1/4	1/2 - 14 NPT (male)	Fluorocarbon	5, 25, 65	6000
3/4	S6C12F-F*	3/4 - 14 NPTF (female)	4.91	1-5/8	3/4 - 14 NPTF (female)	Fluorocarbon	5, 25, 65	5000
1	S6C16F-F*	1 - 14 NPTF (female)	6.06	1-7/8	1 - 14 NPTF (female)	Fluorocarbon	5, 25, 65	4000

3C Series Part Numbers

Valve Size	Part Number	Inlet and Outlet Port Threads (Female)	Dimensions (In.)		Standard Seal Material	** Std Crack Pressure (psi)	Max Operating Pressure (psi)
			Length	Wrench Flats			
1-1/4	3C20F-F**	1-1/4 - 11-1/2 NPTF	5.76	2	Fluorocarbon	5, 15, 25, 65	3000
1-1/4	3C20EF-EF**	1-5/8 - 12 UN	5.76	2	Fluorocarbon	5, 15, 25, 65	3000
1-1/4	3C20EM-EM**	1-5/8 - 12 UN (male 37° flare)	6.57	2	Fluorocarbon	5, 15, 25, 65	3000
1-1/2	3C24F-F**	1-1/2 - 11-1/2 NPTF	6.50	2-1/2	Fluorocarbon	5, 15, 25, 65	3000
1-1/2	3C24EF-EF**	1-7/8 - 12 UN	6.50	2-1/2	Fluorocarbon	5, 15, 25, 65	3000
2	3C32EF-EF**	2-1/2 - 12 UN	7.28	3-1/4	Fluorocarbon	5, 25, 65	3000

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2600 Series
Swing Type

Low Pressure and Lightweight

Constructed of lightweight aluminum, the 2600 Series Swing Check Valve has a spring-loaded, trapdoor style valve. The valve opens when system pressure approaches 1/2 psi to permit full flow with low pressure drop. As system pressure is relieved, the valve closes, retaining fluids upstream.

Parker's 2600 Series are in-line check valves designed especially for diesel and gasoline engine fuel lines. They are also used for externally mounted oil filters, and coolers, as well as transmission fluid lubrication lines. With a maximum of 1/2 psi cracking pressure, these Swing Check Valves are useful in most low pressure air, liquid, or gas systems.

Features

- Lightweight, corrosion-resistant aluminum construction.
- Available with 1/4" or 3/8" NPTF ports.
- Standard Nitrile or Fluorocarbon seals.
- 1/2 PSI maximum crack pressure.
- Trapdoor style valve permits full flow with low pressure drop.

2600 Series Specifications	
Rated Pressure	250 psi max
Crack Pressure	1/2 psi max
Weight	0.08 lbs
Temperature Range	Nitrile: -40° to 200°F (-40° C to 93° C) Fluorocarbon: -40° to 400°F (-40° C to 204° C)
Max Leakage	5 cc / 24 hours at 28" head
Rated Flow	6 gpm (based on 3/8" hose size)

2600 Series Part Numbers

Part Number	Thread	Seal Material	Dimensions	
			Length (mm)	Wrench Flats (in)
2600	1/4 - 18NPTF	Nitrile	2.06 (52)	1-1/16
2676	1/4 - 18NPTF	Fluorocarbon	2.06 (52)	1-1/16
2650	3/8 - 18NPTF	Nitrile	2.12 (54)	1-1/16
2625	3/8 - 18NPTF	Fluorocarbon	2.12 (54)	1-1/16

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H1 Series Pressure/Vacuum Relief Valves are used to maintain positive pressure in hydraulic reservoirs. The compact size, reusable bronze filter and high flow characteristics make this valve a popular choice.

The HM1 Series offers the same features and characteristics as the H1 series with the option of manual over ride. This feature allows the operator to relieve the reservoir pressure before opening the tank for refilling, inspection or servicing.

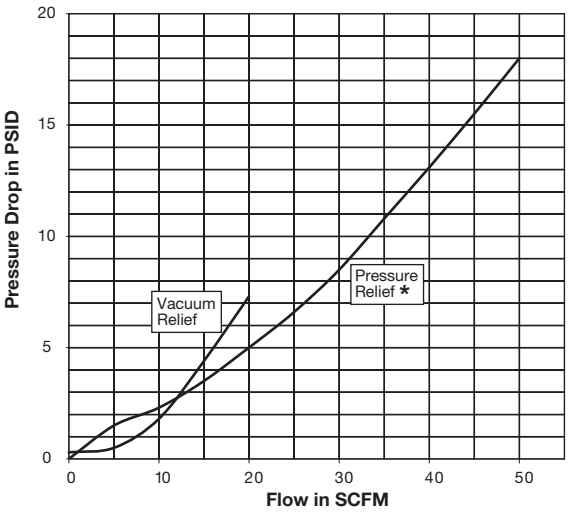
Features

- Easy to remove, cleanable bronze filter.
- High flow characteristics.
- Compact size.
- Available with male pipe or male ORB threads.
- Wide variety of pressure relief settings.
- HM1 series has a manual pressure relief button.

H1 and HM1 Series Specifications

	H1 Series	HM1 Series
Pressure Rating	60 psi max	
Filter Rating	10 micron, nominal	
Pressure Relief Setting	5 psi through 50 psi (in 5 psi increments)	
Vacuum Relief Setting	0.3 psi	
Weight	1.0 lbs	1.1 lbs

Flow Data H1 and HM1 Pressure-Vacuum Relief Valve



* Pressure drop is pressure relief valve crack pressure until pressure drop curve increases above pressure relief crack pressure.

Ordering Information

H ✱ - ✱ ✱ - ✱ ✱ ✱ ✱

FITTING STYLE:
MP = Male pipe thread
MO = Male O-ring Boss, SAE threads

FITTING SIZE:
6 = 3/8”
8 = 1/2”
12 = 3/4”
16 = 1”

CRACK PRESSURE (PSI):
5 to **50**
(in 5 PSI increments)

SERIES:
H1
HM1 (with manual pressure relief button)

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PV Series is an economical Pressure/Vacuum Relief Valve used to maintain positive pressure in hydraulic reservoirs. The large filter area makes this valve an ideal choice for use in heavily contaminated environments. The optional bayonet type mount allows the valve to be installed in the tank filler port, eliminating the need for an extra port. In this configuration, the valve also serves as a filler cap.

Features

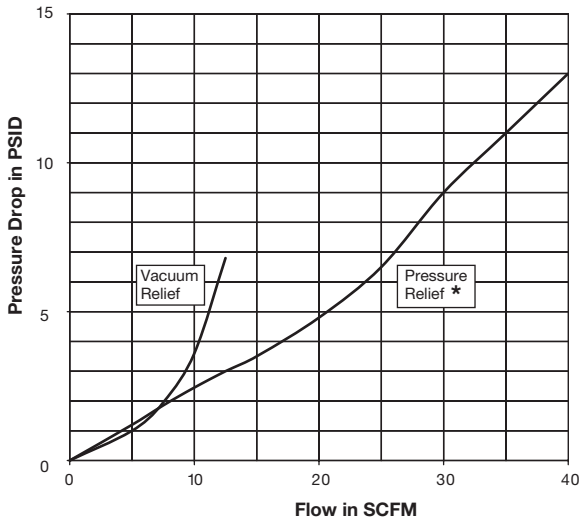
- Disposable spin-on automotive type, field replaceable filter (240 sq inches).
- Several pressure relief settings.
- Economic design.
- Optional bayonet style allows mounting in filler port with valve also functioning as filler cap.

PV Series Specifications

	PV Series	PV Bayonet Style
Filter Rating	10 micron, nominal (240 sq inches)	
Pressure Relief Setting	5 PSI through 30 PSI (in 5 PSI increments)	5 and 10 PSI
Vacuum Relief Setting	0.3 PSI	
Weight	1.0 lb.	
Mounting	Male ORB, SAE threads Male pipe threads	Bayonet style with tank receptacle gaskets & screws (optional strainer basket)
Replacement Filter Part Number	7312-009	

Flow Data

PV Pressure-Vacuum Relief Valve



* Pressure drop is pressure relief valve crack pressure until pressure drop curve increases above pressure relief crack pressure.

Ordering Information

P V - ∗ ∗ - ∗ ∗ ∗ ∗ ∗ - ∗ ∗

BAYONET OPTION ONLY:
RO = With receptacle, gaskets and screws
RB = With receptacle, gaskets, screws and strainer basket

FITTING / MOUNTING STYLE:
BA = Bayonet mount
MP = Male pipe thread
MO = Male O-ring Boss, SAE threads

FITTING SIZE:
Blank = Bayonet style
8 = 1/2”
12 = 3/4”

CRACK PRESSURE (PSI):
05 (PV, PV-Bayonet)
10 (PV, PV-Bayonet)
15 (PV)
20 (PV)
25 (PV)
30 (PV)

PV SERIES

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Maintain Optimum Fluid Temperature

Parker's thermal bypass valve will modulate fluid temperature by shifting return line flow through the cooler, or bypassing it directly to the reservoir.

Additionally, an integral pressure relief function automatically releases excess pressure to the reservoir if the cooler becomes restricted, and the inlet pressure becomes excessive. Relief crack pressure settings range from 5 to 85 PSI.

These lightweight, aluminum valves are ideal for hydrostatic drive circuits requiring fast warm-up, controlled fluid temperatures, and low return line back pressure.

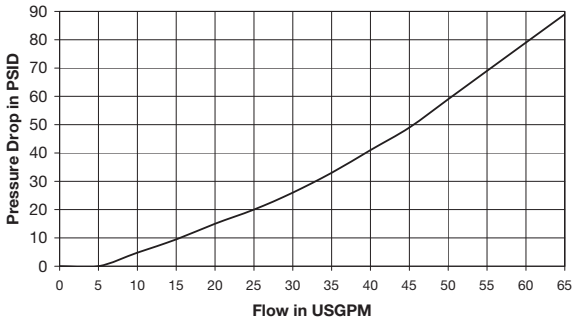
Features

- Lightweight, corrosion-resistant aluminum housing.
- Available in five shift temperatures.
- Integral relief valve to dump excessive inlet pressures to the reservoir.
- 250 PSI maximum operating pressure.
- Up to 60 GPM flow rates.

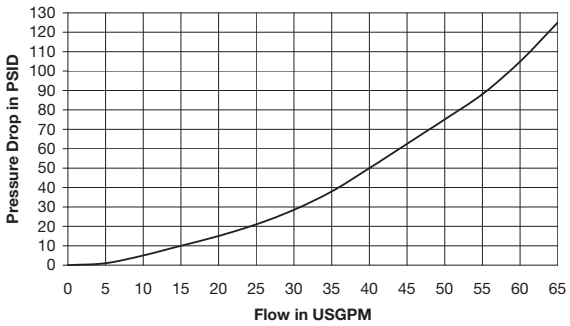
Flow Data

Pressure Drop (Mobil DTE 26 oil)

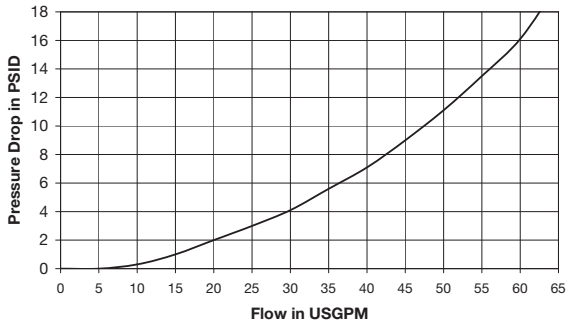
Inlet Port thru Tank Port @ 100°F (300 SUS)



Inlet Port over Integral Relief Valve @ 170°F (78 SUS Oil)



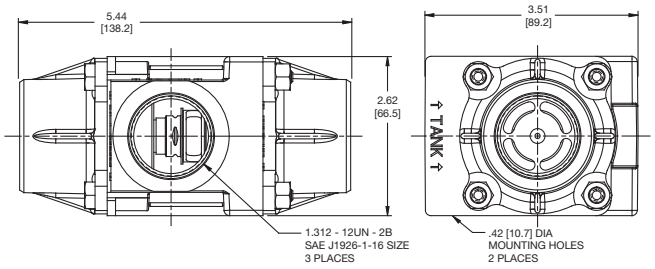
Inlet Port thru Cooler Port @ 145°F (110 SUS Oil)

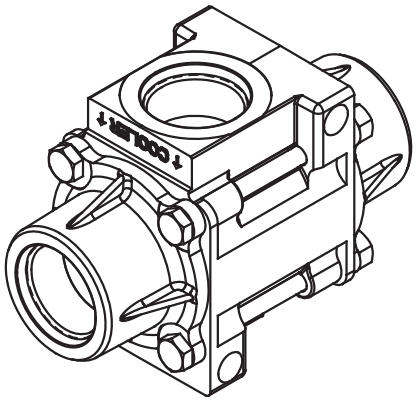


Parker Hannifin Corporation
Quick Coupling Division
Minneapolis, MN
www.parker.com/quickcouplings

TH Series Specifications	
Size	1 inch
Weight	2.00 lbs
Std Shift Temperatures	100° F (38° C), 120° F (49° C), 140° F (60° C), 160° F (71° C), 180° F (82° C)
Full Shift Temperature (cooler port open)	Shift Temperature plus 25° F (14° C)
Proof Pressure	300 PSI (21 bar)
Minimum Burst Pressure	Up to full shift temperature: 325 PSI (22 bar) Above full shift temperature: 600 PSI (41 bar)
Operating Temperature	Min: -30° F (-34° C) Max: Shift temperature plus 75° F (24° C)
Max Flow Rate	60 GPM (227 l/m)

Dimensions





Ordering Information

T H - 1 0 0 0 - 1 6 F O - * *

VALVE SERIES:
Thermal Bypass

VALVE SIZE:
1000 = 1 inch

PORT SIZE & STYLE:
16FO = 1 inch SAE O-Ring Boss (1.312 -12UN-2B thread)

CRACK PRESSURE/TEMPERATURE CODE:
(see table)

Shift Temperature	Crack Pressure PSI																
	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85
100° F (38° C)	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17
120° F (49° C)	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37
140° F (60° C)	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57
160° F (71° C)	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77
180° F (82° C)	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97

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