



# FLOW CONTROL CATALOG

YOUR CHOICE FOR HYDRAULIC COMPONENTS



## FLOW CONTROLS

[www.DMIC.com](http://www.DMIC.com)

# Notes



# About Flow Controls

ISO 9001 CERTIFIED

## Reliability and value in an updated lineup of premium Flow Controls, Needle Valves, and Check Valves

Hydraulic power and fluid handling systems will perform at their best when top-quality DMIC flow controls are implemented into their designs to protect systems and personnel. Precision crafted through many years of high pressure hydraulic component design experience, DMIC equipment is the solid choice for quality and endurance. Three categories of support define the company's commitment to customers – stock products available for immediate delivery, standard products available with quick turnaround, and custom products to satisfy unique and demanding requirements.



### Flow Control Valves

Flow-regulating needle valves with a built-in 5 psi check valve. Provides metered flow in one direction and free flow in the opposite direction.

FC1M - Brass body, 2,000 PSI rating, 1/8" to 1" port size ..... 4-5  
 FC1H - Steel body, 5,000 PSI rating, 1/8" to 2" port size .....6-7  
 FCHH -Steel or S.S body, 10,000 PSI rating, 1/4" to 2" port size ... 8-9



### Needle Valves

Flow-regulating needle valves provide metered flow in both directions.

NV2M - Brass body, 2,000 psi rating, 1/8" to 1" port size ..... 10-11  
 NV2H – Steel body, 5,000 psi rating, 1/8" to 1 1/4" port size ..... 12-13  
 NVHH – Steel or S.S body, 10,000 psi rating, 1/4" to 2" port size 14-15



### Pressure Compensated Flow Control Valves

Flow-regulating needle valves with a built-in 5 psi check valve. Provides metered flow in one direction and free flow in the opposite direction. Flow rate is maintained within 5% in the event of upstream or downstream pressure fluctuations.

PC1H - Steel body, 3,000 psi rating, 1/4" to 1" port size ..... 16-17



### Pressure Compensated Needle Valves

Flow-regulating needle valves provide metered flow in both directions. Flow rate is maintained within 5% in the event of upstream or downstream pressure fluctuations.

PC2H - Steel body, 3,000 psi rating, 1/4" to 1" port size ..... 18-19



### Check Valves

Flow restricting check valves permit flow in one direction once the line pressure exceeds the cracking pressure of the poppet spring. Reverse flow is blocked, however an optional poppet orifice can permit some backflow.

CVH – Threaded ports, steel or S.S, 1/4" to 2" port size, to 10 ksi ...20-21  
 CVDM – Flanged ports, steel, S.S, or aluminum, 1/2" to 6" port size ..22-23



# FC1M Flow Control

Unidirectional flow with Built-In Check Valve ~ 1/8" to 1"  
Brass barstock body for working pressures to 2,000 PSI



Flow-regulating, brass body flow control valves with a built-in 5 psi check valve. Provides regulated flow in one direction and free flow in the opposite direction.

- 2,000 psi pressure rating (1" size rated to 500 psi).
- Brass body and trim, Buna-N O-ring.
- Port sizes from 1/8" to 1".
- Choice of threaded connection types.
- Dual taper needle for coarse adjustments at high flow and fine adjustments at low flow (optional fine needle profile available).
- Chromaflow feature provides color bands for visual setup validation.
- Set screw to secure knob for tamper prevention.
- Suitable for use with air, oil, or water.

## Ordering Codes

FC1M	Brass Flow Controls Physical Parameters
VALVE BODY	Brass Barstock
NEEDLE	416 Stainless Steel
POPPET	Brass, Soft Seat
SEALING (1/8"-1/2")	Soft Seat, Buna-N
SEALING (3/4"-1")	Hard Seat
WORKING PSI (1/8"-3/4")	2,000 PSI (138 Bar)
WORKING PSI (1")	500 PSI (34,5 Bar)
SAFETY FACTOR	Minimum 3:1
RETURN FLOW CHECK	Present
CHECK VALVE SETTING	5 PSI (0,35 Bar)
TEMP RANGE	-5°F/195°F (-20°C/90°C)

FC1M	0500	N
Size Codes		Port Thread
Code	Port Size	
0125*	1/8"	N NPT
0250	1/4"	S SAE ORB
0375	3/8"	B BSPP
0500	1/2"	
0625	5/8"	
0750	3/4"	
1000	1"	

\* = NPT only

## Using DMIC Flow Characteristic Curves

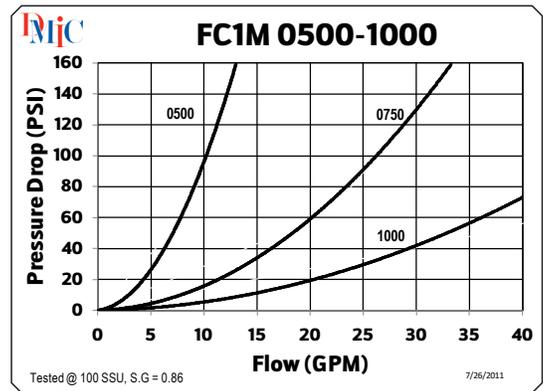
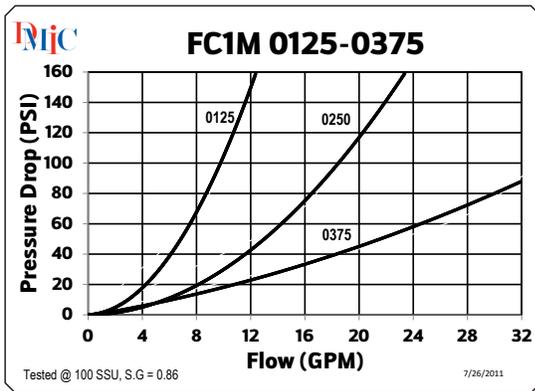
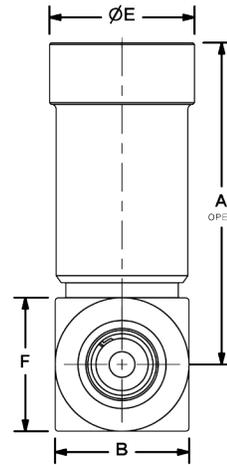
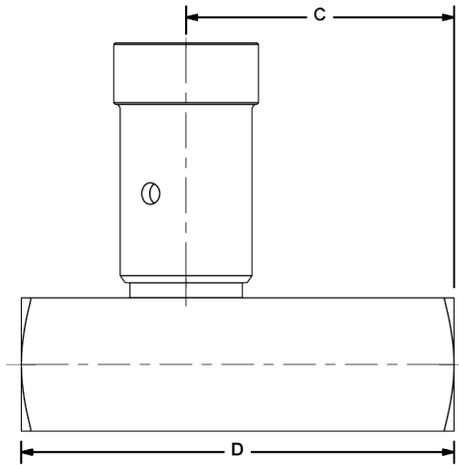
DMIC's Flow Curves (see opposite page) provide an indication of valve performance in your application, based on actual flow tests of the subject valves under controlled laboratory conditions (which may differ from your application's temperature and fluid viscosity). Due to the individually optimized design of DMIC Flow Controls, you may observe variations in flow capacity between port thread styles.



# FC1M Flow Control

FC1M	Nominal Size	Performance Data					Dimensions (inches)						
		Flow GPM <sup>1</sup>	Metered Direction		Free Flow		A	B	C	D	E	F	Lbs.
			Orifice Area	Effective C <sub>v</sub>	Orifice Area	Effective C <sub>v</sub>							
FC1M-0125N	1/8"	3 GPM	0.0102	0.230	0.023	0.53	1.54	0.63	1.28	2.00	0.75	0.63	0.3
FC1M-0250N	1/4"	5 GPM	0.0194	0.433	0.068	1.56	1.79	0.81	1.66	2.63	0.81	0.81	0.5
FC1M-0250B													
FC1M-0375N	3/8"	8 GPM	0.0344	0.787	0.099	2.27	2.18	1.00	1.75	2.75	1.00	1.00	0.7
FC1M-0375B													
FC1M-0500N	1/2"	15 GPM	0.0427	0.976	0.224	5.11	2.70	1.25	2.23	3.44	1.19	1.25	1.5
FC1M-0500B							2.24	1.12	2.12	3.50	1.00	1.12	1.01
FC1M-0500S													
FC1M-0625S	5/8"	15 GPM	0.0427	0.976	0.224	5.11	2.70	1.25	2.56	4.00	1.19	1.25	1.8
FC1M-0750N	3/4"	25 GPM	0.1080	2.470	0.348	7.95	3.38	1.50	2.58	3.88	1.38	1.50	2.6
FC1M-0750B							3.38	1.50	3.01	4.62	1.38	1.50	2.6
FC1M-0750S													
FC1M-1000N	1"	40 GPM	0.2300	5.250	0.453	10.35	4.87	1.75	3.22	5.00	1.88*	1.75	5.1
FC1M-1000B			0.3070	7.000									
FC1M-1000S													

(\*) Depicts HEX size  
 Note: [1] Typical flow rates in US GPM for 100 SSU petroleum based fluid



Note: [2] Flow characteristics shown are nominal values only. Actual results may differ depending on fluid viscosity, temperature, and port connection.

***This valve series is factory sealed and disassembly will destroy the valve and void the warranty. Due to our policy of continual product improvement, the specifications in this catalog may change without notice. When designing by spec, please request a certified print.***



# FC1H Flow Control

**Unidirectional flow with Built-In Check Valve ~ 1/8" to 2"  
Carbon Steel body for working pressures to 5,000 PSI**



Flow-regulating, steel body flow control valves with a built-in 5 psi check valve. Provides regulated flow in one direction and free flow in the opposite direction.

- 5,000 psi pressure rating (5/8" size and above rated to 3,000 psi).
- Carbon steel body, stainless steel trim, Buna-N O-ring.
- Port sizes from 1/8" to 2".
- Choice of threaded connection types.
- Dual taper needle for coarse adjustments at high flow and fine adjustments at low flow (optional fine needle profile available).
- Chromaflow feature provides color bands for visual setup validation.
- Set screw to secure knob for tamper prevention.
- Suitable for use with air or oil.

FC1H	Physical Parameters
VALVE BODY	Carbon Steel
POPPET	Stainless Steel, Hard Seat
SEALING	Buna-N Standard
WORKING PSI (1/8"-1/2")	5,000 PSI (345 Bar)
WORKING PSI (others)	3,000 PSI (207 Bar)
SAFETY FACTOR	Minimum 3:1
RETURN FLOW CHECK	Present
CHECK VALVE SETTING	5 PSI (0,35 Bar)
TEMP RANGE	-40°F/250°F (-40°C/121°C)

## Ordering Codes

**FC1H 0500 N**

Size Codes	
Code	Port Size
0125	1/8"
0250	1/4"
0375	3/8"
0500	1/2"
0625	5/8"
0750	3/4"
1000	1"
1250	1 1/4"
1500	1 1/2"
2000	2"

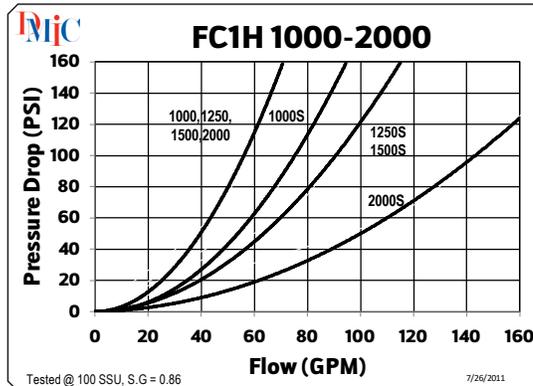
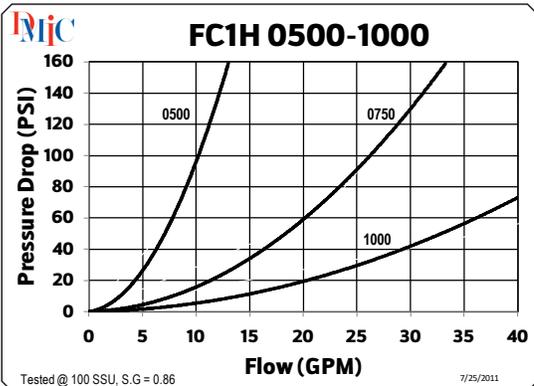
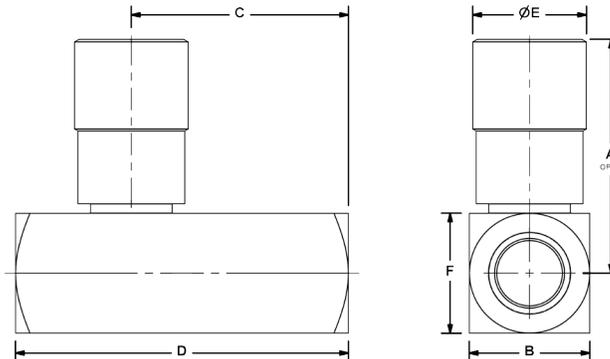
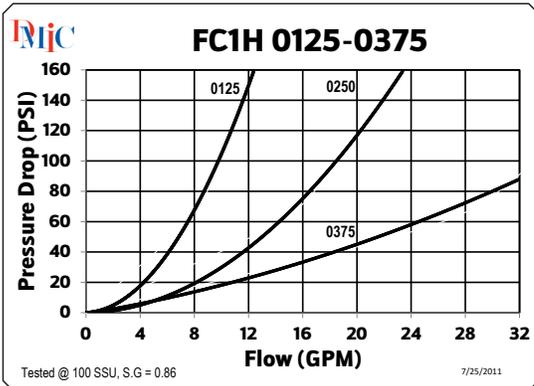
Port Thread	
N	NPT
S	SAE ORB
B	BSPP



# FC1H Flow Control

FC1H	Nominal Size	Performance Data				Dimensions (inches)							
		Flow GPM <sup>1</sup>	Metered Direction		Free Flow		A	B	C	D	E	E	Lbs.
			Orifice Area	Effective C <sub>v</sub>	Orifice Area	Effective C <sub>v</sub>							
FC1H-0125N	1/8"	3 GPM	0.0102	0.230	0.023	0.53	1.54	0.63	1.28	2.00	0.75	0.63	0.3
FC1H-0125B													
FC1H-0250N	1/4"	5 GPM	0.0194	0.433	0.068	1.56	1.79	0.81	1.66	2.63	0.81	0.81	0.5
FC1H-0250B													
FC1H-0375N	3/8"	8 GPM	0.0344	0.787	0.099	2.27	2.18	1.00	1.75	2.75	1.00	1.00	0.7
FC1H-0375B													
FC1H-0375S		5 GPM	1.88	1.00	1.92	3.12	0.81	1.00	0.7				
FC1H-0500N	1/2"	15 GPM	0.0427	0.976	0.224	5.11	2.70	1.25	2.23	3.44	1.19	1.25	1.5
FC1H-0500B													
FC1H-0500S							2.24	1.12	2.12	3.50	1.00	1.12	1.1
FC1H-0625S	5/8"	15 GPM	0.0427	0.976	0.224	5.11	2.70	1.25	2.56	4.00	1.19	1.25	1.8
FC1H-0750N	3/4"	25 GPM	0.1080	2.470	0.348	7.95	3.38	1.50	2.58	3.88	1.38	1.50	2.6
FC1H-0750B													
FC1H-0750S							3.38	1.50	3.01	4.62	1.38	1.50	2.6
FC1H-1000N	1"	40 GPM	0.2300	5.250	0.453	10.35	4.87	1.75	3.22	5.00	1.88*	1.75	5.1
FC1H-1000B													
FC1H-1000S			0.3070	7.000	5.15	2.25	3.50	5.62	1.88*	2.25	5.1		
FC1H-1250N	1 1/4"	70 GPM	0.2300	5.250	0.855	19.52	5.12	2.25	3.88	5.63	1.88*	2.25	8.2
FC1H-1250B													
FC1H-1250S			0.3710	8.470	5.52	2.75	4.25	6.50	1.88	2.75	8.2		
FC1H-1500N	1 1/2"	100 GPM	0.2300	5.250	0.955	21.82	5.37	2.75	4.47	5.63	1.88*	2.75	10.2
FC1H-1500B													
FC1H-1500S			0.3710	8.470	5.65	3.00	5.00	7.25	1.88*	3.00	10.2		
FC1H-2000N	2"	150 GPM	0.2300	5.250	1.046	23.90	5.75	3.50	5.31	6.50	1.88*	3.50	17.4
FC1H-2000B													
FC1H-2000S			0.6010	13.410	6.44	4.00	6.13	9.00	1.88*	4.00	17.4		

(\*) Depicts HEX size  
 Note: [1] Typical flow rates in US GPM for 100 SSU petroleum based fluid



Note: [2] Flow characteristics shown are nominal values only. Actual results may differ depending on fluid viscosity, temperature, and port connection.  
 This valve series is factory sealed and disassembly will destroy the valve and void the warranty. Due to our policy of continual product improvement, the specifications in this catalog may change without notice. When designing by spec, please request a certified print.



# FCHH Flow Control

Unidirectional flow with Built-In Check Valve ~ 1/4" to 2+" Carbon/Stainless Steel construction for working pressures up to 10,000 PSI

Flow-regulating, steel or stainless steel body flow control valves with a built-in 5 psi check valve. Provides regulated flow in one direction and free flow in the opposite direction.



- Choice of carbon steel or stainless steel for body and trim.
- Choice of O-ring materials for fluid compatibility.
- Port sizes from 1/4" to 2".
- Choice of threaded connection types.
- Standard panel mounting holes.
- Graduated scale on shaft for visual setup validation.
- Set screw to secure knob for tamper prevention.
- Suitable for use with hydraulic oil.

FCHH - 0500 S 1 1 4 1

Size Codes	
Code	Port Size
0250	1/4"
0375	3/8"
0500	1/2"
0750	3/4"
1000	1"
1250	1 1/4"
1500	1 1/2"
2000	2"

Port Thread	
Code	Description
N	NPT
S	SAE (J1926-1)
B	BSPP

Body & Top Cap Material	
Code	Description
1	Carbon Steel
2	Stainless Steel

Needle, Poppet, & Spring Material	
Code	Description
1	Carbon Steel
2	Stainless Steel

O-Ring Seals	
Code	Description
1	Buna-N
2	EPR
3	Fluoroelastomer
4	PTFE
5	Chemraz™

Knob Material	
Code	Description
4	Aluminum (standard)
2	Stainless Steel*

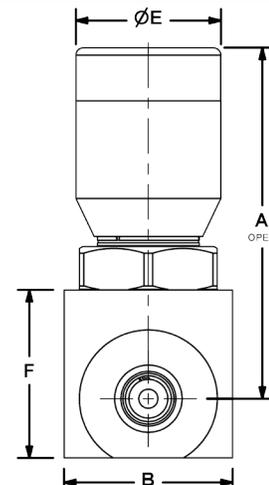
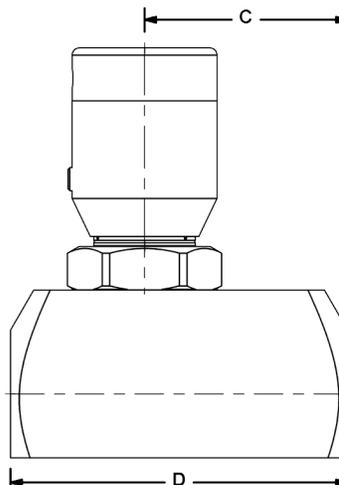
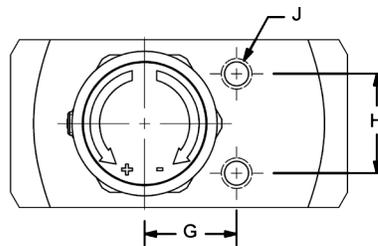
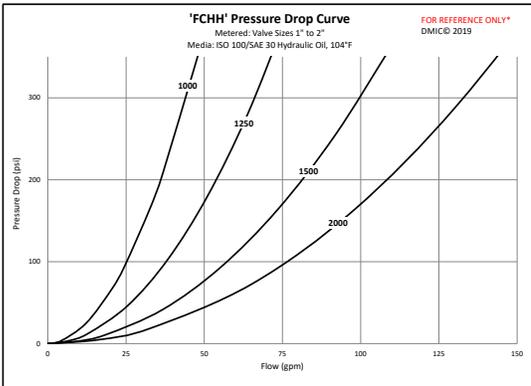
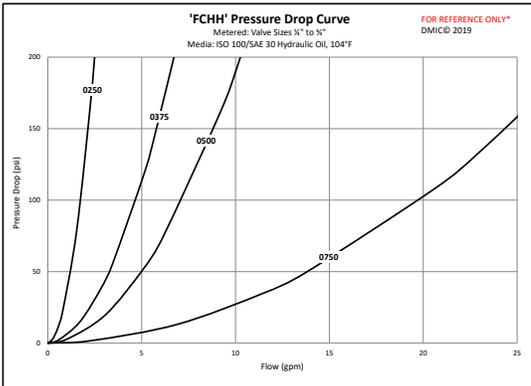
\* Stainless Steel knob not color coded



# FCHH Flow Control

FCHH	Nominal Size	Performance Data						Dimensions (inches)								
		Metered Direction			Free Flow			A	B	C	D	E	F	G	H	J (UNF UNC)
		Flow GPM	Orifice Area (in <sup>2</sup> )	Effective C <sub>v</sub>	Flow GPM	Orifice Area (in <sup>2</sup> )	Effective C <sub>v</sub>									
FCHH-0250N	1/4"	1.2 GPM	0.01	0.35	2.2 GPM	0.02	0.50	3.19	1.38	1.66	2.75	1.18	1.38	0.75	0.81	1/4"
FCHH-0250B																
FCHH-0250S																
FCHH-0375N	3/8"	2.6 GPM	0.03	0.43	5.8 GPM	0.06	0.89	3.25	1.50	1.98	3.13	1.63	1.50	0.88	0.88	1/4"
FCHH-0375B																
FCHH-0375S																
FCHH-0500N	1/2"	4.6 GPM	0.05	0.38	15.5 GPM	0.17	1.34	3.25	1.75	2.47	3.75	1.63	1.75	1.00	0.88	1/4"
FCHH-0500B																
FCHH-0500S																
FCHH-0750N	3/4"	10.3 GPM	0.11	1.81	31.0 GPM	0.33	4.90	4.02	2.00	3.04	4.73	1.63	2.25	1.00	1.25	1/4"
FCHH-0750B																
FCHH-0750S																
FCHH-1000N	1"	14.1 GPM	0.15	2.28	50.6 GPM	0.54	8.20	4.18	2.50	3.53	5.50	1.63	2.50	1.25	1.25	3/8"
FCHH-1000B																
FCHH-1000S																
FCHH-1250N	1 1/4"	28.7 GPM	0.31	3.51	84.9 GPM	0.91	13.91	4.83	2.75	4.25	6.25	1.63	3.25	1.50	1.50	3/8"
FCHH-1250B																
FCHH-1250S																
FCHH-1500N	1 1/2"	41.3 GPM	0.44	5.32	124.1 GPM	1.33	20.68	6.83	3.50	4.88	7.50	3.00	4.00	2.00	2.00	1/2"
FCHH-1500B																
FCHH-1500S																
FCHH-2000N	2"	73.4 GPM	0.79	7.13	241.4 GPM	2.58	41.06	7.58	4.00	6.13	9.00	3.00	4.88	2.25	2.00	1/2"
FCHH-2000B																
FCHH-2000S																

FCHH Size	Nominal Size	Material	MAWP (PSI)
0250	1/4"	Carbon Steel	10,000
		Stainless Steel	6,000
0375	3/8"	Carbon Steel	10,000
		Stainless Steel	6,000
0500	1/2"	Carbon Steel	10,000
		Stainless Steel	6,000
0750	3/4"	Carbon Steel	10,000
		Stainless Steel	6,000
1000	1"	Carbon Steel	10,000
		Stainless Steel	6,000
1250	1 1/4"	Carbon Steel	10,000
		Stainless Steel	6,000
1500	1 1/2"	Carbon Steel	10,000
		Stainless Steel	6,000
2000	2"	Carbon Steel	10,000
		Stainless Steel	6,000



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 DMIC Flow Control Catalog  
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# NV2M Needle Valves

**Bidirectional Metered Flow (no check) ~ 1/8" to 1"**  
**Brass barstock body for working pressures to 2,000 PSI**



Flow-regulating needle valves provide metered flow in both directions.

- 2,000 psi pressure rating (1" size rated to 500 psi).
- Brass body, stainless steel trim, Buna-N O-ring.
- Port sizes from 1/8" to 1".
- Choice of threaded connection types.
- Dual taper needle for coarse adjustments at high flow and fine adjustments at low flow (optional fine needle profile available).
- Chromaflow feature provides color bands for visual setup validation.
- Set screw to secure knob for tamper prevention.
- Suitable for use with air, oil, or water.

NV2M	Physical Parameters
VALVE BODY	Brass Barstock
NEEDLE	416 S/S
SEALING	Buna-N Standard
WORKING PSI (1/8"-1/2")	2,000 PSI (140 Bar)
WORKING PSI (1")	500 PSI (34,5 Bar)
SAFETY FACTOR	Minimum 3:1
RETURN FLOW CHECK	Not Present
TEMP RANGE	-40°F/250°F (-40°C/121°C)

## Ordering Codes

**NV2M**   **0500**   **N**

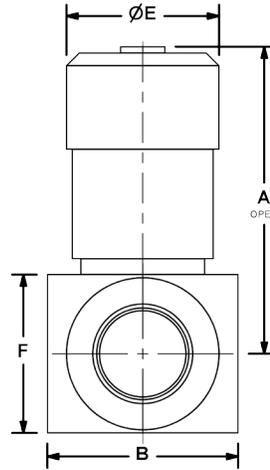
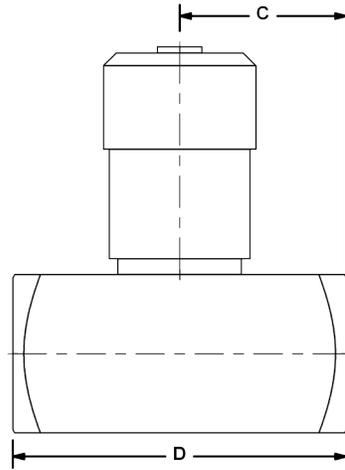
Size Codes	
Code	Port Size
0125	1/8"
0250	1/4"
0375	3/8"
0500	1/2"
0625	5/8"
0750	3/4"
1000	1"

Port Thread	
N	NPT
S	SAE ORB
B	BSPP

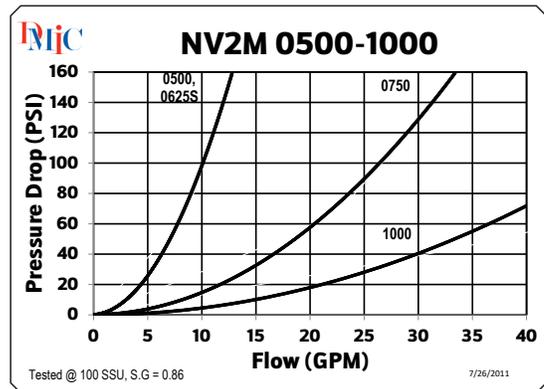
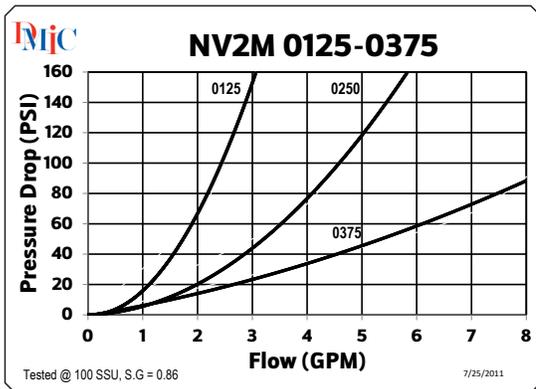


# NV2M Needle Valves

NV2M	Nominal Size	Performance Data				Dimensions (inches)						
		Flow GPM <sup>1</sup>	Orifice Area	Effective C <sub>v</sub>	Working Pressure	A	B	C	D	E	F	Lbs.
NV2M-0125N	1/8"	3 GPM	0.0102	0.230	2,000 PSI	1.54	0.62	0.75	1.50	0.75	0.62	0.3
NV2M-0125B												
NV2M-0250N	1/4"	5 GPM	0.0194	0.433	2,000 PSI	1.79	0.81	1.00	2.00	0.81	0.81	0.5
NV2M-0250B												
NV2M-0250S		3 GPM	0.0102	0.230		1.63	0.81	1.00	2.00	0.75	0.81	0.3
NV2M-0375N	3/8"	8 GPM	0.0344	0.787	2,000 PSI	2.18	1.00	1.25	2.50	1.00	1.00	0.9
NV2M-0375B												
NV2M-0500N	1/2"	15 GPM	0.0427	0.976	2,000 PSI	2.70	1.25	1.31	2.62	1.19	1.25	1.3
NV2M-0500B												
NV2M-0500S		8 GPM	0.0344	0.787		2.24	1.12	1.50	3.00	1.00	1.12	0.9
NV2M-0625S	5/8"	15 GPM	0.0427	0.976	2,000 PSI	2.70	1.25	1.75	3.50	1.19	1.25	1.3
NV2M-0750N	3/4"	25 GPM	0.1080	2.470	2,000 PSI	3.38	1.50	1.62	3.25	1.38	1.50	2.2
NV2M-0750B												
NV2M-0750S						3.38	1.50	2.00	4.00	1.38	1.50	2.2
NV2M-1000N	1"	40 GPM	0.2300	5.250	500 PSI	4.87	1.75	2.13	4.25	1.88*	1.75	4.6
NV2M-1000B												
NV2M-1000S			0.3070	7.000		5.15	2.25	2.13	4.25	1.88*	2.25	4.6



(\*) Depicts HEX size  
 Note: [1] Typical flow rates in US GPM for 100 SSU petroleum based fluid



Note: [2] Flow characteristics shown are nominal values only. Actual results may differ depending on fluid viscosity, temperature, and port connection.

**This valve series is factory sealed and disassembly will destroy the valve and void the warranty. Due to our policy of continual product improvement, the specifications in this catalog may change without notice. When designing by spec, please request a certified print.**



# NV2H Needle Valves

**Bidirectional Metered Flow (no check) ~ 1/8" to 1 1/4"**  
**Carbon Steel body for working pressures to 5,000 PSI**



Flow-regulating, steel body needle valves provide metered flow in both directions.

- 5,000 psi pressure rating (1" size and above rated to 3000 psi).
- Carbon steel body, stainless steel trim, Buna-N O-ring.
- Port sizes from 1/8" to 1 1/4".
- Choice of threaded connection types.
- Dual taper needle for coarse adjustments at high flow and fine adjustments at low flow (optional fine needle profile available).
- Chromaflow feature provides color bands for visual setup validation.
- Set screw to secure knob for tamper prevention.
- Suitable for use with air or oil.

NV2H	Physical Parameters
VALVE BODY	Carbon Steel
Needle	416 S/S
SEALING	Buna-N Standard
WORKING PSI (1/8" - 3/4")	5,000 PSI (345 Bar)
WORKING PSI (1" - 2")	3,000 PSI (207 Bar)
SAFETY FACTOR	Minimum 3:1
RETURN FLOW CHECK	Not Present
TEMP RANGE	-40°F/250°F (-40°C/121°C)

## Ordering Codes

**NV2H**

**0500**

**N**

Size Codes	
Code	Port Size
0125	1/8"
0250	1/4"
0375	3/8"
0500	1/2"
0625	5/8"
0750	3/4"
1000	1"
1250	1 1/4"

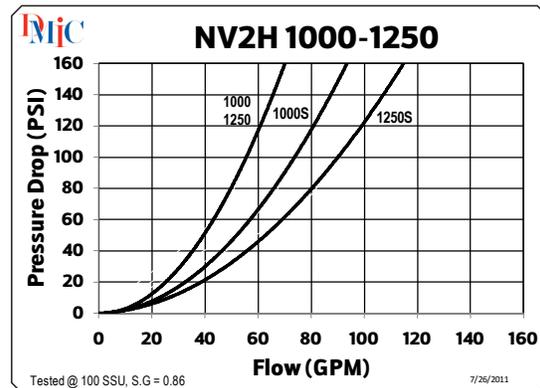
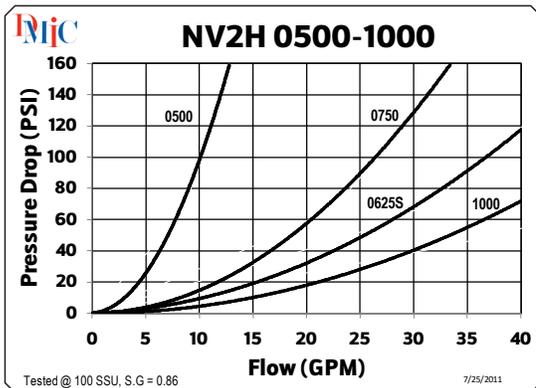
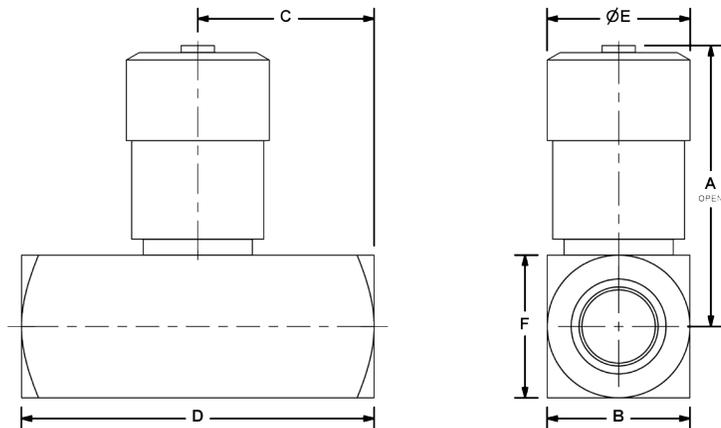
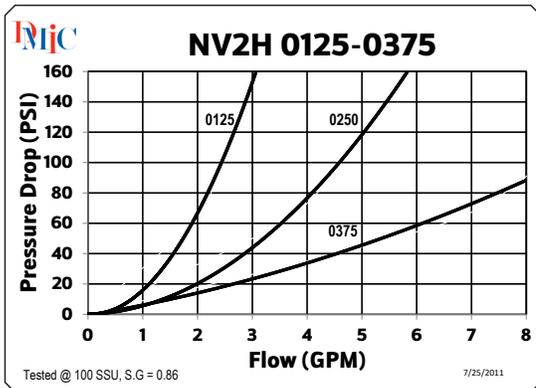
Port Thread	
N	NPT
S	SAE ORB
B	BSPP



# NV2H Needle Valves

NV2H	Nominal Size	Performance Data				Dimensions (inches)						
		Flow GPM <sup>1</sup>	Orifice Area	Effective C <sub>v</sub>	Working Pressure	A	B	C	D	E	F	Lbs.
NV2H-0125N	1/8"	3 GPM	0.0102	0.230	5,000 PSI	1.54	0.63	0.75	1.50	0.75	0.63	0.3
NV2H-0125B												
NV2H-0250N	1/4"	5 GPM	0.0194	0.433	5,000 PSI	1.79	0.81	1.00	2.00	0.81	0.81	0.5
NV2H-0250B												
NV2H-0250S		3 GPM	0.0102	0.230		1.63	0.81	1.00	2.00	0.75	0.81	0.3
NV2H-0375N	3/8"	8 GPM	0.0344	0.787	5,000 PSI	2.18	1.00	1.25	2.50	1.00	1.00	0.9
NV2H-0375B												
NV2H-0375S		5 GPM	0.0194	0.443		1.88	1.00	1.19	2.38	0.81	1.00	0.5
NV2H-0500N	1/2"	15 GPM	0.0427	0.976	5,000 PSI	2.70	1.25	1.31	2.62	1.19	1.25	1.3
NV2H-0500B												
NV2H-0500S		8 GPM	0.0344	0.787		2.24	1.12	1.50	3.00	1.00	1.12	0.9
NV2H-0625S	5/8"	15 GPM	0.0427	0.976	5,000 PSI	2.70	1.25	1.75	3.50	1.19	1.25	1.3
NV2H-0750N	3/4"	25 GPM	0.1080	2.470	5,000 PSI	3.38	1.50	1.63	3.25	1.38	1.50	2.2
NV2H-0750B												
NV2H-0750S						3.38	1.50	2.00	4.00	1.38	1.50	2.2
NV2H-1000N	1"	40 GPM	0.2300	5.250	3,000 PSI	4.87	1.75	2.13	4.25	1.88*	1.75	4.6
NV2H-1000B												
NV2H-1000S			0.3070	7.000		5.15	2.25	2.13	4.25	1.88*	2.25	4.6
NV2H-1250N	1 1/4"	70 GPM	0.2300	5.250	3,000 PSI	5.12	2.25	2.13	4.25	1.88*	2.25	6.4
NV2H-1250B												
NV2H-1250S			0.3710	8.470		5.52	2.75	2.25	4.50	1.88*	2.25	6.4

(\*) Depicts HEX size  
 Note: [1] Typical flow rates in US GPM for 100 SSU petroleum based fluid



Note: [2] Flow characteristics shown are nominal values only. Actual results may differ depending on fluid viscosity, temperature, and port connection.  
**This valve series is factory sealed and disassembly will destroy the valve and void the warranty. Due to our policy of continual product improvement, the specifications in this catalog may change without notice. When designing by spec, please request a certified print.**



# NVHH Needle Valves

**Carbon/Stainless Steel Bidirectional flow ~ 1/4" to 2+" for working pressures up to 10,000 PSI**



Flow-regulating, steel or stainless steel body needle valves provide metered flow in both directions.

- Choice of carbon steel or stainless steel for body and trim.
- Choice of O-ring materials for fluid compatibility
- Port sizes from 1/4" to 2".
- Choice of threaded connection types.
- Standard panel mounting holes.
- Graduated scale on shaft for visual setup validation.
- Set screw to secure knob for tamper prevention.
- Suitable for use with hydraulic oil.

**NVHH - 0500 S 1 1 4 1**

Size Codes	
Code	Port Size
0250	1/4"
0375	3/8"
0500	1/2"
0750	3/4"
1000	1"
1250	1 1/4"
1500	1 1/2"
2000	2"

Port Thread	
N	NPT
S	SAE (J1926-1)
B	BSPP

Body & Top Cap Material	
1	Carbon Steel
2	Stainless Steel

Needle Material	
Code	Description
1	Carbon Steel
2	Stainless Steel

O-Ring Seals	
Code	Description
1	Buna-N
2	EPR
3	Fluoroelastomer
4	PTFE
5	Chemraz™

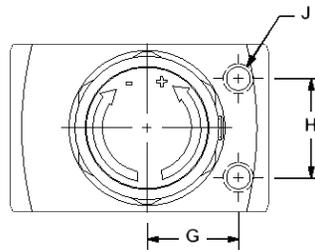
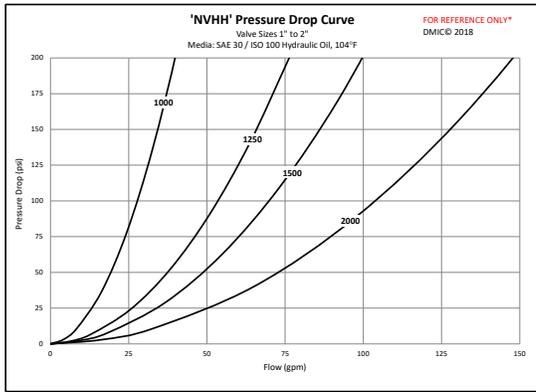
Knob Material	
Code	Description
4	Aluminum (standard)
2	Stainless Steel*

\* Stainless Steel knob not color coded

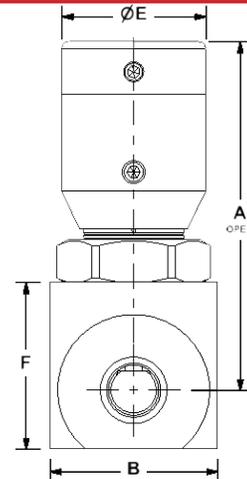
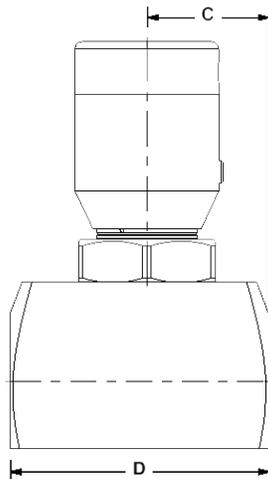
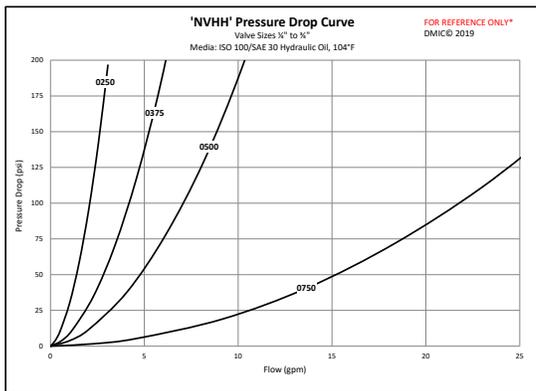


# NVHH Needle Valves

NVHH	Nominal Size	Performance Data			Dimensions (inches)								
		Flow GPM	Full Open		A	B	C	D	E	F	G	H	J (UNF UNC)
			Orifice Area (sq.in.)	Effective C <sub>v</sub>									
NVHH-0250N	¼"	1.20 GPM	0.012	0.280	3.19	1.38	1.00	2.13	1.18	1.38	0.75	0.81	¼
NVHH-0250B													
NVHH-0250S													
NVHH-0375N	⅜"	2.50 GPM	0.028	0.630	3.25	1.50	1.29	2.44	1.63	1.50	0.88	0.88	¼
NVHH-0375B													
NVHH-0375S													
NVHH-0500N	½"	4.50 GPM	0.049	1.120	3.25	1.75	1.41	2.69	1.63	1.75	1.00	0.88	¼
NVHH-0500B													
NVHH-0500S													
NVHH-0750N	¾"	10 GPM	0.110	2.520	4.02	2.00	1.81	3.50	1.63	2.25	1.00	1.25	¼
NVHH-0750B													
NVHH-0750S													
NVHH-1000N	1"	18 GPM	0.196	4.481	4.18	2.50	2.03	4.00	1.63	2.50	1.25	1.25	⅜
NVHH-1000B													
NVHH-1000S													
NVHH-1250N	1¼"	28 GPM	0.307	7.001	4.83	2.75	2.50	4.50	1.63	3.25	1.50	1.50	⅜
NVHH-1250B													
NVHH-1250S													
NVHH-1500N	1½"	40 GPM	0.442	10.082	6.83	3.50	2.75	5.25	3.00	4.00	2.00	2.00	½
NVHH-1500B													
NVHH-1500S													
NVHH-2000N	2"	70 GPM	0.785	17.92	7.58	4.00	3.25	5.69	3.00	4.75	2.25	2.00	½
NVHH-2000B													
NVHH-2000S													



NVHH Size	Nominal Size	Material	MAWP (PSI)
0250	¼"	Carbon Steel	10,000
		Stainless Steel	6,000
0375	⅜"	Carbon Steel	10,000
		Stainless Steel	6,000
0500	½"	Carbon Steel	10,000
		Stainless Steel	6,000
0750	¾"	Carbon Steel	10,000
		Stainless Steel	6,000
1000	1"	Carbon Steel	10,000
		Stainless Steel	6,000
1250	1¼"	Carbon Steel	10,000
		Stainless Steel	6,000
1500	1½"	Carbon Steel	10,000
		Stainless Steel	6,000
2000	2"	Carbon Steel	10,000
		Stainless Steel	6,000



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# PC1H Pressure Comp

**Bidirectional Metered Flow with Check Valve ~ 1/4" to 1"  
Carbon Steel body for working pressures to 3,000 PSI**



Flow-regulating needle valves with a built-in 5 psi check valve. Provides metered flow in one direction and free flow in the opposite direction. Flow rate is maintained within 5% in the event of upstream or downstream pressure fluctuations.

- 3,000 psi pressure rating.
- Carbon steel body, stainless steel trim, Buna-N O-ring.
- Port sizes from 1/4" to 1".
- Choice of threaded connection types.
- Dual taper needle for coarse adjustments at high flow and fine adjustments at low flow (optional fine needle profile available).
- Chromaflow feature provides color bands for visual setup validation.
- Set screw to secure knob for tamper prevention.
- Suitable for use with air or oil.

PC1H	Physical Parameters
VALVE BODY	Carbon Steel
POPPET	Stainless Steel
SEALING	Buna-N Standard
WORKING PSI (1/8"-3/4")	3,000 PSI (207 Bar)
SAFETY FACTOR	Minimum 3:1
RETURN FLOW CHECK	Present
CHECK VALVE SETTING	5 PSI (0,35 Bar)
TEMP RANGE	-40°F/250°F (-40°C/121°C)

## Ordering Codes

PC1H	0500	N	
Size Codes		Port Thread	
Code	Port Size	N	NPT
0250	1/4"	S	SAE ORB
0375	3/8"	B	BSPP
0500	1/2"		
0625	5/8"		
0750	3/4"		
1000	1"		

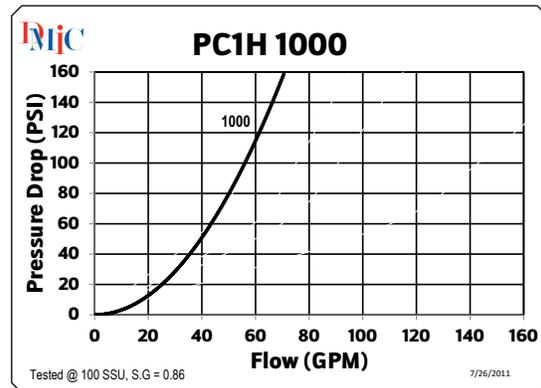
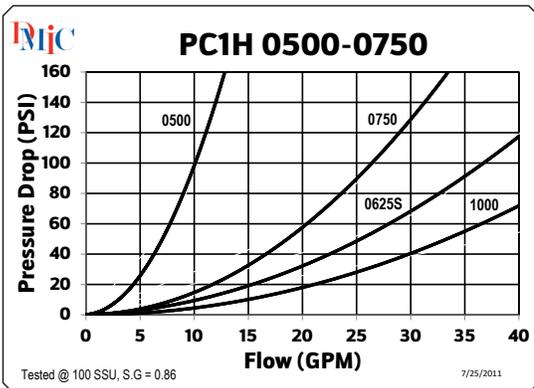
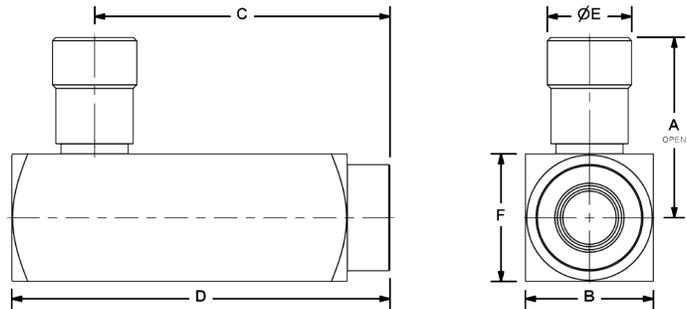
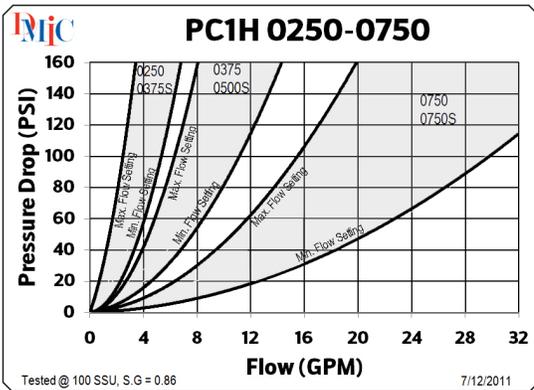
NOTES: (\*) This model incorporates a reverse flow check. For 2-way compensation select model **PC2H**, page 18  
 (\*) For production qty. orders, non-adjustable versions factory preset to Buyer's flow setting are available  
 (\*) **PC1H** and **PC2H** valves require a minimum pressure differential between the inlet and outlet ports for correct operation. For sizes below 1/2", 107.5 PSI (7 Bar) is required; larger sizes require 159.5 PSI (11 Bar)



# PC1H Pressure Comp

PC1H	Nominal Size	Performance Data				Dimensions (inches)						
		Metered Direction Flow Range		Reverse Flow Characteristics		A	B	C	D	E	F	Lbs.
		Minimum Flow GPM	Maximum Flow GPM	Maximum Reverse Flow GPM	$\Delta P$ at Maximum Reverse Flow							
PC1H-0250N	1/4"	0.3 GPM	3 GPM	5 GPM	40 PSI	2.73	1.38	2.97	3.63	0.81	1.38	1.8
PC1H-0250B												
PC1H-0375N	3/8"	0.6 GPM	6 GPM	8 GPM	40 PSI	3.15	1.50	3.47	4.16	1.00	1.50	2.2
PC1H-0375B												
PC1H-0375S												
PC1H-0500N	1/2"	1.5 GPM	15 GPM	20 GPM	116 PSI	4.04	1.75	4.06	4.94	1.19	1.75	3.7
PC1H-0500B												
PC1H-0500S												
PC1H-0625S	5/8"	1.5 GPM	15 GPM	20 GPM	40 PSI	4.04	1.75	4.06	4.94	1.19	1.75	3.7
PC1H-0750N	3/4"	2.5 GPM	25 GPM	35 GPM	116 PSI	5.06	2.25	4.79	5.88	1.38	2.25	8.0
PC1H-0750B												
PC1H-0750S												
PC1H-1000N	1"	5.0 GPM	50 GPM	60 GPM	140 PSI	6.90	2.75	5.63	6.94	1.88*	2.75	14.6
PC1H-1000B												
PC1H-1000S												

(\*) Depicts HEX size  
 Note: [1] Typical flow rates in US GPM for 100 SSU petroleum based fluid



Note: [2] Flow characteristics shown are nominal values only. Actual results may differ depending on fluid viscosity, temperature, and port connection.

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# PC2H Pressure Comp

## Unidirectional Metered Flow within $\pm 5\%$ ~ 1/4" to 1" Carbon Steel body for working pressures to 3,000 PSI



Flow-regulating needle valves provide metered flow in both directions. Flow rate is maintained within 5% in the event of upstream or downstream pressure fluctuations.

- 3,000 psi pressure rating.
- Carbon steel body, stainless steel trim, Buna-N O-ring.
- Port sizes from 1/4" to 1".
- Choice of threaded connection types.
- Dual taper needle for coarse adjustments at high flow and fine adjustments at low flow (optional fine needle profile available).
- Chromaflow feature provides color bands for visual setup validation.
- Set screw to secure knob for tamper prevention.
- Suitable for use with air or oil.

PC1H	Physical Parameters
VALVE BODY	Carbon Steel
POPPET	Stainless Steel
SEALING	Buna-N Standard
WORKING PSI (1/8"-3/4")	3,000 PSI (207 Bar)
SAFETY FACTOR	Minimum 3:1
RETURN FLOW CHECK	Absent in PC2H
CHECK VALVE SETTING	N/A
TEMP RANGE	-40°F/250°F (-40°C/121°C)

## Ordering Codes

PC2H	0500	N	
Size Codes		Port Thread	
Code	Port Size	N	NPT
0250	1/4"	S	SAE ORB
0375	3/8"	B	BSPP
0500	1/2"		
0625	5/8"		
0750	3/4"		
1000	1"		

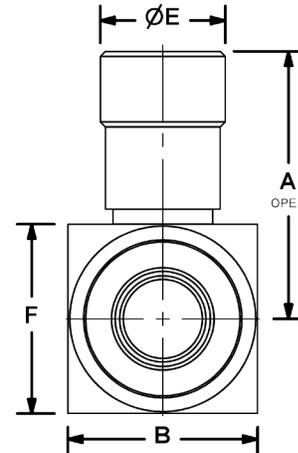
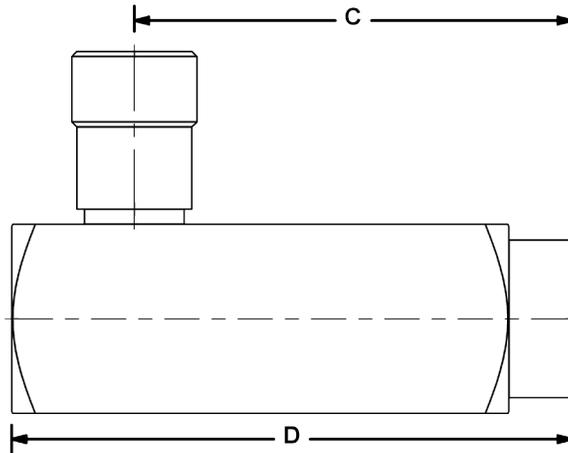
- NOTES: (\*) This model incorporates a reverse flow check. For 1-way select model **PC1H**, page 16  
 (\*) For production qty. orders, non-adjustable versions factory preset to Buyer's flow setting are available  
 (\*) **PC1H** and **PC2H** valves require a minimum pressure differential between the inlet and outlet ports for correct operation. For sizes below 1/2", 107.5 PSI (7 Bar) is required; larger sizes require 159.5 PSI (11 Bar)



# PC2H Pressure Comp

PC2H	Nominal Size	Performance Data		Dimensions (inches)						
		Metered Direction Flow Range		A	B	C	D	E	F	Lbs.
		Minimum Flow GPM	Maximum Flow GPM							
PC2H-0250N	¼"	0.3 GPM	3 GPM	2.73	1.38	2.97	3.63	0.81	1.38	1.8
PC2H-0250B										
PC2H-0375N	⅜"	0.6 GPM	6 GPM	3.15	1.50	3.47	4.16	1.00	1.50	2.2
PC2H-0375B										
PC2H-0375S		0.3 GPM	3 GPM	2.73	1.38	2.97	3.63	0.81	1.38	1.8
PC2H-0500N	½"	1.5 GPM	15 GPM	4.04	1.75	4.06	4.94	1.19	1.75	3.7
PC2H-0500B										
PC2H-0500S		0.6 GPM	6 GPM	3.15	1.50	3.47	4.16	1.00	1.50	2.2
PC2H-0625S	⅝"	1.5 GPM	15 GPM	4.04	1.75	4.06	4.94	1.19	1.75	3.7
PC2H-0750N	¾"	2.5 GPM	25 GPM	5.06	2.25	4.79	5.88	1.38	2.25	8.0
PC2H-0750B										
PC2H-0750S		2.5 GPM	25 GPM	5.06	2.25	4.79	5.88	1.38	2.25	8.0
PC2H-1000N	1"	5.0 GPM	50 GPM	6.90	2.75	5.63	6.94	1.88*	2.75	14.6
PC2H-1000B										
PC2H-1000S										

(\*) Depicts HEX size  
 Note: [1] Typical flow rates in US GPM for 100 SSU petroleum based fluid



Note: [2] Flow characteristics shown are nominal values only. Actual results may differ depending on fluid viscosity, temperature, and port connection.

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# CVH Check Valves

Guided poppet design for 10,000 PSI service,  
1/4" to 2" NPT/SAE/BSPP/BSPT/6149

Flow restricting check valves permit flow in one direction once the line pressure exceeds the cracking pressure of the poppet spring. Reverse flow is blocked, however an optional poppet orifice can permit some backflow.



- 10,000 psi pressure rating.
- Carbon steel and stainless steel versions.
- Port sizes from 1/4" to 2".
- Choice of threaded connection types.
- Choice of "cracking" pressures.
- One-piece body eliminates leak points.
- Guided poppet ensures positive sealing and longevity.
- Optional poppet orifice supports intentional backflow.
- Metal to metal seat is suitable for hydraulic applications.
- Optional soft seat versions available for gaseous and low viscosity liquid applications (Model CVHG).

## Ordering Codes

**CVH 65 - 2000 S 1 1 031**

Standard	
05	5 PSI (0.35 Bar)
65	65 PSI (4.5 Bar)
Optional	
15	15 PSI (1.03 Bar)
30	30 PSI (2.1 Bar)
75	75 PSI (5.2 Bar)
135	135 PSI (9.3 Bar)

Size Codes	
Code	Port Size
0250	1/4"
0375	3/8"
0500	1/2"
0625	5/8"
0750	3/4"
1000	1"
1250	1 1/4"
1500	1 1/2"
2000	2"

Port Thread	
N	NPT
S	SAE ORB
B	BSPP

Body	
1	Carbon Steel
2	Stainless Steel

Internal	
1	Carbon Steel
2	Stainless Steel

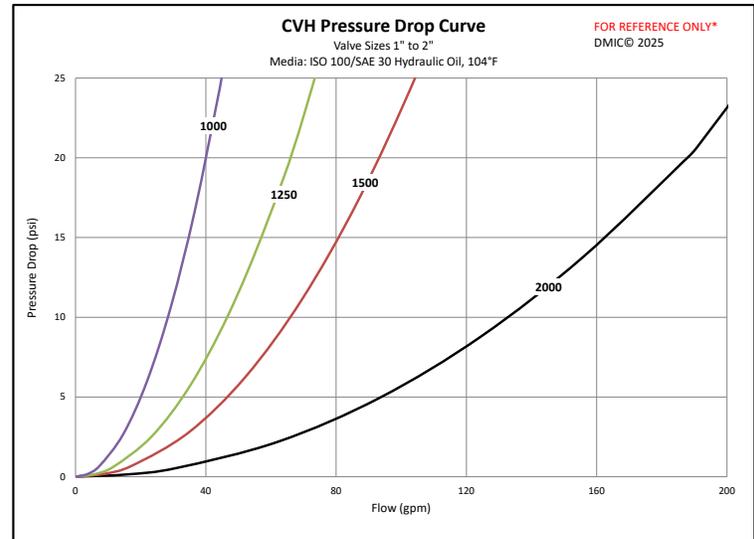
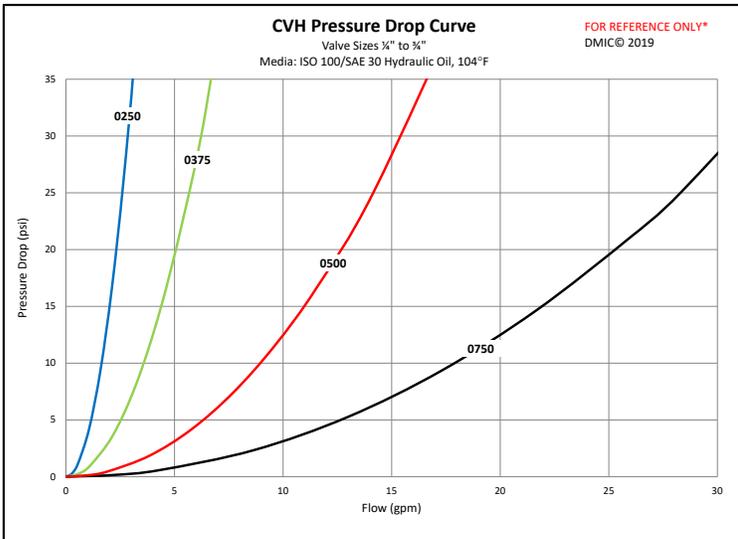
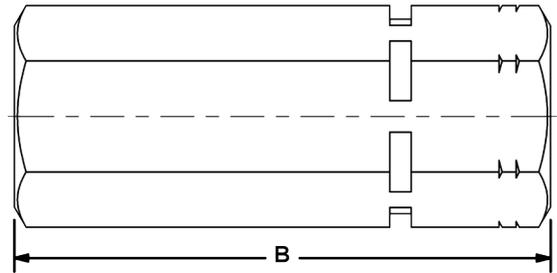
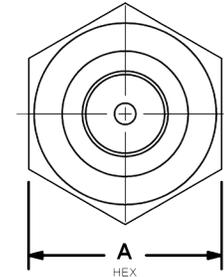
Orifice (optional)	
031	1/32"
062	1/16"
093	3/32"
125	1/8"
156	5/32"
188	3/16"

CVH	Physical Parameters
BODY	Carbon Steel (Opt. all Stainless Steel)
POPPET	Hardened Carbon Steel (Opt. all S/S)
SPRING	Helical, Spring Steel
POPPET LANDING ZONE	Carbon Steel, Oversize (Opt. All S/S)
RETAINER	Steel
SEALING	Metallic Hard Seat
TEMP RANGE	-20° F/400° F (-29° C/204° C)



# CVH Check Valves

CVH	Nominal Size	Performance Data			Dimensions (inches)		
		Flow GPM	Cv	Working Pressure	A Hex	B Length	Lbs.
CVH**-0250N	1/4"	5 GPM	0.55	10,000 PSI	0.75	2.14	0.24
CVH**-0250S							
CVH**-0250B							
CVH**-0375N	3/8"	8 GPM	1.2	10,000 PSI	0.88	2.50	0.48
CVH**-0375S							
CVH**-0375B							
CVH**-0500N	1/2"	15 GPM	3.0	10,000 PSI	1.13	3.13	0.64
CVH**-0500S							
CVH**-0500B							
CVH**-0750N	3/4"	25 GPM	6.0	10,000 PSI	1.50	3.81	1.03
CVH**-0750S							
CVH**-0750B							
CVH**-1000N	1"	40 GPM	9.5	10,000 PSI	1.75	4.31	2.18
CVH**-1000S							
CVH**-1000B							
CVH**-1000IU	1 1/4"	70 GPM	15.6	10,000 PSI	2.25	5.04	4.19
CVH**-1250N							
CVH**-1250S							
CVH**-1250B	1 1/2"	100 GPM	22.1	10,000 PSI	2.50	5.50	5.16
CVH**-1500N							
CVH**-1500S							
CVH**-1500B	2"	150 GPM	44.5	10,000 PSI	3.25 (3.50)** Round Body	6.75	11.00
CVH**-2000N							
CVH**-2000S							
CVH**-2000B							
CVH**-2000IU							



**\*NOTE: All flow curve values are for check valves that are cracked open, and flow velocity maintains them in the open position. Cracking pressure is not included and must be added to the pressure drop for any given flow curve valve.\***



# CVBL Check Valves

Guided poppet design for 3,000 PSI service,  
1/4" to 2" NPT/SAE/BSPP/BSPT/6149

Flow restricting check valves permit flow in one direction once the line pressure exceeds the cracking pressure of the poppet spring. Reverse flow is blocked, however an optional poppet orifice can permit some backflow.



- 3,000 psi pressure rating.
- Brass steel versions.
- Port sizes from 1/4" to 2".
- Choice of threaded connection types.
- Choice of "cracking" pressures.
- One-piece body eliminates leak points.
- Guided poppet ensures positive sealing and longevity.
- Optional poppet orifice supports intentional backflow.
- Metal to metal seat is suitable for hydraulic applications.
- Optional soft seat versions available for gaseous and low viscosity liquid applications (Model CVHG).

## Ordering Codes

**CVBL 65 - 2000 S 1 1 031**

Standard	
05	5 PSI (0.35 Bar)
65	65 PSI (4.5 Bar)
Optional	
15	15 PSI (1.03 Bar)
30	30 PSI (2.1 Bar)
75	75 PSI (5.2 Bar)
135	135 PSI (9.3 Bar)

Size Codes	
Code	Port Size
0250	1/4"
0375	3/8"
0500	1/2"
0625	5/8"
0750	3/4"
1000	1"
1250	1 1/4"
1500	1 1/2"
2000	2"

Port Thread	
N	NPT
S	SAE ORB
B	BSPP

Body	
3	Lead Free Brass

Internal	
3	Aluminum Bronze

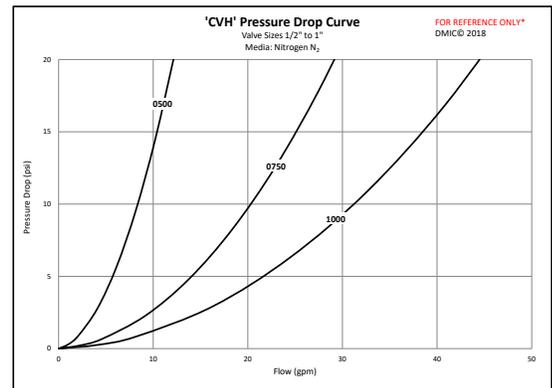
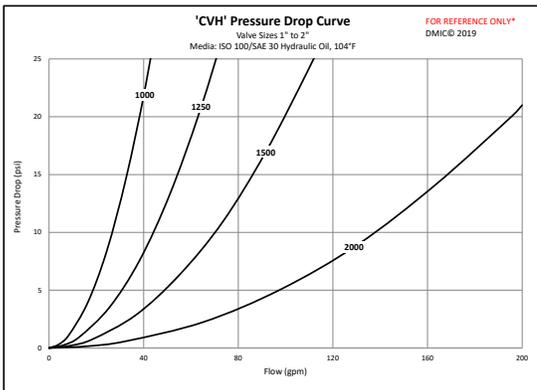
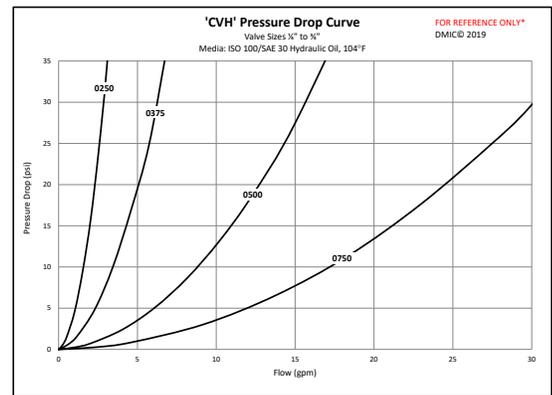
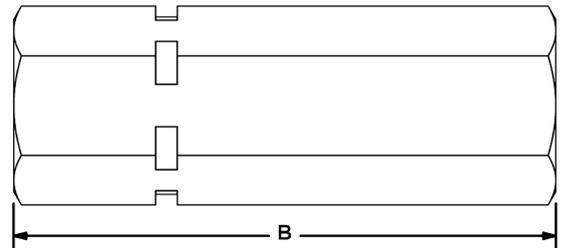
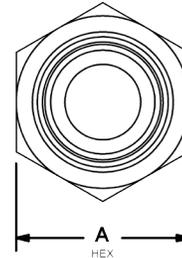
Orifice (optional)	
031	1/32"
062	1/16"
093	3/32"
125	1/8"
156	5/32"
188	3/16"

CVH	Physical Parameters
BODY	Lead Free Brass
POPPET	Lead Free Aluminum Brass
SPRING	Helical
POPPET LANDING ZONE	Lead Free Brass
RETAINER	Steel
SEALING	Metallic Hard Seat
TEMP RANGE	-20° F/400° F (-29° C/204° C)



# CVBL Check Valves

CVBL	Nominal Size	Performance Data		Dimensions (inches)		
		Flow GPM	Working Pressure	A Hex	B Length	Lbs.
CVBL**-0250N	1/4"	5 GPM	3,000 PSI	0.63	2.14	TBD
CVBL**-0250S						
CVBL**-0250B						
CVBL**-0375N	3/8"	8 GPM	3,000 PSI	0.75	2.50	TBD
CVBL**-0375S						
CVBL**-0375B						
CVBL**-0500N	1/2"	15 GPM	3,000 PSI	1.00	3.13	TBD
CVBL**-0500S						
CVBL**-0500B						
CVBL**-0750N	3/4"	25 GPM	3,000 PSI	1.38	3.81	TBD
CVBL**-0750S						
CVBL**-0750B						
CVBL**-1000N	1"	40 GPM	3,000 PSI	1.63	4.31	TBD
CVBL**-1000S						
CVBL**-1000B						
CVBL**-1000IU	1 1/4"	70 GPM	3,000 PSI	2.00	5.04	TBD
CVBL**-1250N						
CVBL**-1250S						
CVBL**-1250B	1 1/2"	100 GPM	3,000 PSI	2.38	5.50	TBD
CVBL**-1500N						
CVBL**-1500S						
CVBL**-1500B	2"	150 GPM	3,000 PSI	3.13	6.75	TBD
CVBL**-2000N						
CVBL**-2000S						
CVBL**-2000B						
CVBL**-2000IU						



*This valve series is factory sealed and disassembly will destroy the valve and void the warranty. Due to our policy of continual product improvement, the specifications in this catalog may change without notice. When designing by spec, please request a certified print.*



# CVDM Direct Mount Check Valve

SAE C.61/62, ANSI/DIN/DM-Flange: 3,000/6,000 PSI

Sandwiches inline with through bolt holes: One OR Groove, one Flat Face pad.  
Standard sizes from 1/2" to 6" with larger custom valves available

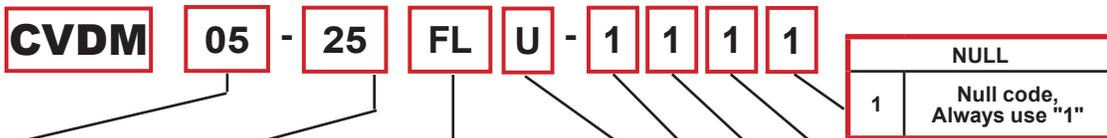
DMIC CVDM is the ideal companion to our BVSS and BVFF Ball Valves. CVDM allows a large bore, low ΔP check valve to be integrated into your circuit, eliminating an external threaded connection.



In addition to on-component mounting, the **CVDM** is well suited for mounting on a manifold. The exclusive DMIC ordering system allows buyers to specify any SAE 4-Bolt, ANSI, DIN, or DM connection, and receive compatible sealing, material spec, and working pressure.

- Developed from nearly two decades experience with our **CVH** threaded check valve for the reliability that has become synonymous with the DMIC name.
- Available in aluminum, carbon and stainless steel construction.
- Comes standard with 5 & 65 PSI; 15/30/75/135 PSI quick delivery options. Other pressures available upon request.
- Poppet orifice is available by special order.

## Ordering Codes Summary



Cracking Pressure	
Stock Options	
05	5 PSI (0.35 Bar)
65	65 PSI (4.5 Bar)
Rapid Delivery Options	
15	15 PSI (1.03 Bar)
30	30 PSI (2.1 Bar)
75	75 PSI (5.2 Bar)
135	135 PSI (9.3 Bar)

Size	
Code	Port Size
05	1/2"
07	3/4"
10	1"
12	1 1/4"
15	1 1/2"
20	2"
25	2 1/2"
30	3"
40	4"
50	5"
60	6"

Connection Type	
Code	Description
FL	SAE Code 61
FK	SAE Code 62
DM	DMIC Flange 3000 PSI
DH	DMIC Flange 6000 PSI
AA	ANSI Class 150 (290 PSI)
AB	ANSI Class 300 (750 PSI)
AC	ANSI Class 600 (1,500 PSI)
AD	ANSI Class 900 (2,250 PSI)
AE	ANSI Class 1500 (3,750 PSI)
AF	ANSI Class 2500 (6,250 PSI)
DA	DIN 3202-F1
DB	DIN 3203-F4

O-Ring Seals	
Code	Description
1	Buna-N
2	EPR
3	Viton
4	Teflon
5	Chemraz™

Poppet & Spring Material	
Code	Description
1	Carbon Steel
2	Stainless Steel

Body Material	
Code	Description
1	Carbon Steel
2	Stainless Steel
4	Aluminum

O-Ring Location	
Code	Description
U	At Inlet
C	At Outlet
N	No O-Ring Groove

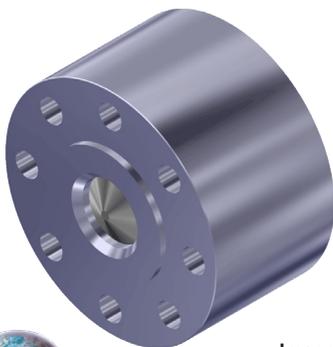
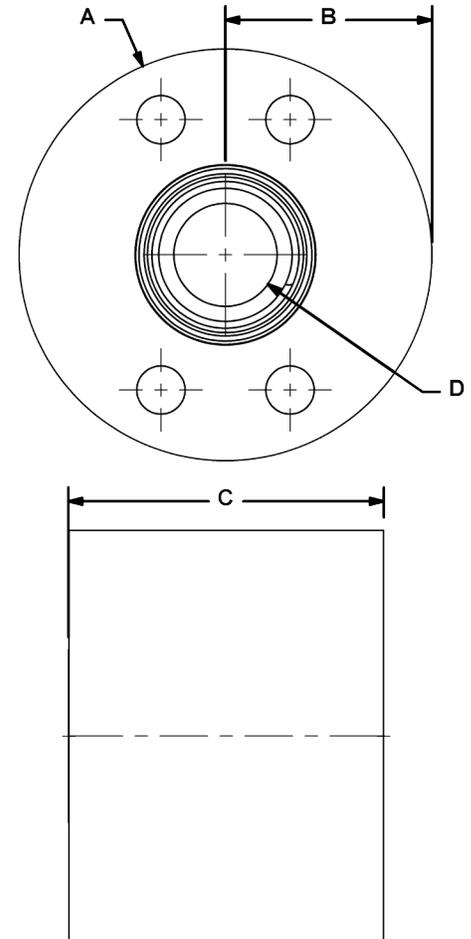


Image to left is a 3" ANSI 600# CVDM.



CVDM	Port Size	Cv	PSI Rating	Dimensions (inches)							
				ØA	B	C	ØD				
				Overall Diam	Ctr line Dim	Overall Length	Thru Bore				
Replace * in part number with the desired cracking pressure from 05/15/30/65/75/135 PSI. The w position refers to position of O-ring face. U=OR-Face @ Inlet, C=OR Face @ Outlet											
<b>CVDM-41: ANSI 150, ALUMINUM BODY</b>											
CVDM*-05AA-4111	½"	3.0	290 PSI	Please contact Factory for latest specifications. If SAE code 61 pattern is desired, replace AA with FL.							
CVDM*-07AA-4111	¾"	6.0									
CVDM*-10AA-4111	1"	9.5									
CVDM*-12AA-4111	1¼"	15.6									
CVDM*-15AA-4111	1½"	22.1									
CVDM*-20AA-4111	2"	44.5									
CVDM*-25AA-4111	2½"	78.1									
CVDM*-30AA-4111	3"	103.9									
CVDM*-40AA-4111	4"	187.0									
CVDM*-50AA-4111	5"	-									
CVDM*-60AA-4111	6"	-	Please call Factory for latest specifications on large ANSI and DIN flange check valves.								
<b>CVDM FL/DM: SAE C.61 &amp; DM-FLANGE, STEEL BODY, TO 3,000 PSI</b>											
NOTE: SAE Code 61 large sizes above 2" are derated to SAE C.61 working pressure by spec.											
CVDM*-05FLU-1111	½"	3.0	5,000 PSI	2.38	1.19	1.86	0.46				
CVDM*-07FLU-1111	¾"	6.0	5,000 PSI	2.88	1.44	2.10	0.65				
CVDM*-10FLU-1111	1"	9.5	5,000 PSI	3.00	1.50	2.54	0.83				
CVDM*-12FLU-1111	1¼"	15.6	4,000 PSI	3.50	1.75	3.05	1.08				
CVDM*-15FLU-1111	1½"	22.1	3,000 PSI	4.00	2.00	3.54	1.30				
CVDM*-20FLU-1111	2"	44.5	3,000 PSI	4.50	2.25	4.47	1.81				
CVDM*-25FLU-1111	2½"	78.1	2,500 PSI	Please call Factory for latest specifications.							
CVDM*-25DM-1111			3,000 PSI								
CVDM*-30FLU-1111	3"	103.9	2,000 PSI								
CVDM*-30DM-1111			3,000 PSI								
CVDM*-40FLU-1111	4"	187.0	500 PSI								
CVDM*-40DM-1111			3,000 PSI								
CVDM*-50DM-1111	5"	-	3,000 PSI								
CVDM*-60DM-1111	6"	-	3,000 PSI								
<b>CVDM FK/DH: SAE C.62 &amp; DM-FLANGE, STEEL BODY, 6000 PSI</b>											
CVDM*-05FKU-1111	½"	3.0	6,000 PSI					2.50	1.25	1.86	0.46
CVDM*-07FKU-1111	¾"	6.0		3.00	1.50	2.10	0.65				
CVDM*-10FKU-1111	1"	9.5		3.50	1.75	2.54	0.83				
CVDM*-12FKU-1111	1¼"	15.6		4.00	2.00	3.05	1.08				
CVDM*-15FKU-1111	1½"	22.1		4.75	2.38	3.54	1.30				
CVDM*-20FKU-1111	2"	44.5		5.50	2.75	4.47	1.81				
CVDM*-25DH-1111	2½"	78.1		Please contact Factory for latest specifications.							
CVDM*-30DH-1111	3"	103.9									
CVDM*-40DH-1111	4"	187.0									
CVDM*-50DH-1111	5"	-									
CVDM*-60DH-1111	6"	-									



Available Flanges and Bolt Kits	
Flange	Description
FDM-25**-11	DMIC Custom Medium Pressure Pattern for Weld Flanges (3,000 PSI rating)
FDM-30**-11	
FDM-40**-11	
FDM-50**-11	
FDM-60**-11	

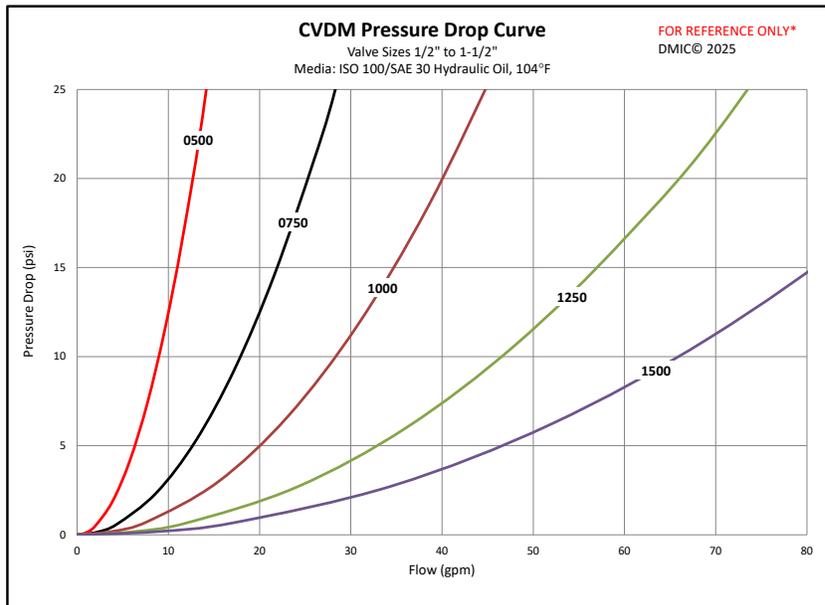
\*\*NOTE: Please replace \*\* in flange part number with W4=Sch.40, W8=Sch. 80, WF=Sch. 160, WG=XXStrong for socket weld flanges. Butt Weld flanges are as follows: WB4 = Sch. 40, WB8= Sch. 80, WBF = Sch 160, WBG = XXStrong.

Available Flanges and Bolt Kits	
Flange	Description
FDH-25**-11	DMIC Custom High Pressure Pattern for Weld Flanges (6,000 PSI rating)
FDH-30**-11	
FDH-40**-11	
FDH-50**-11	
FDH-60**-11	

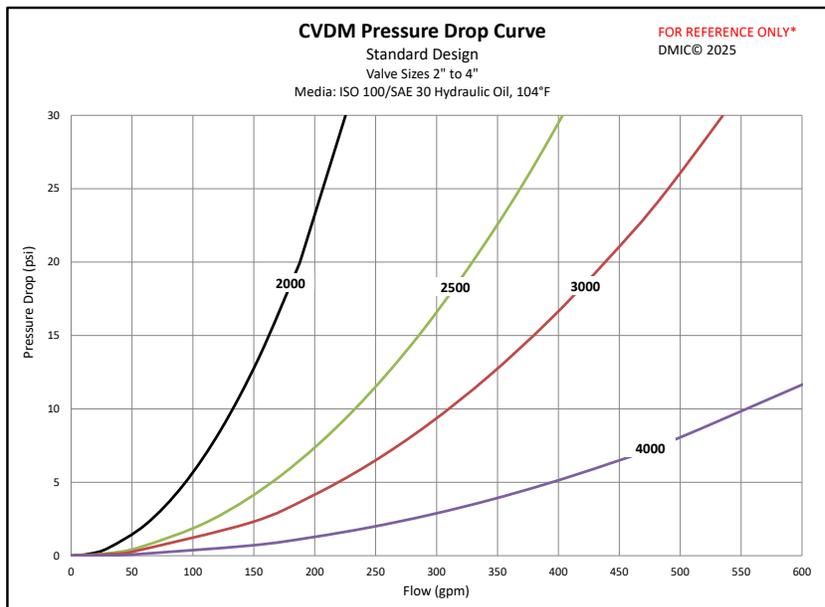
Note: For sizes 2-1/2" and larger with cracking pressures higher than 65 psi, Cv values decrease from listed. See Curve for Pressure Balanced Design



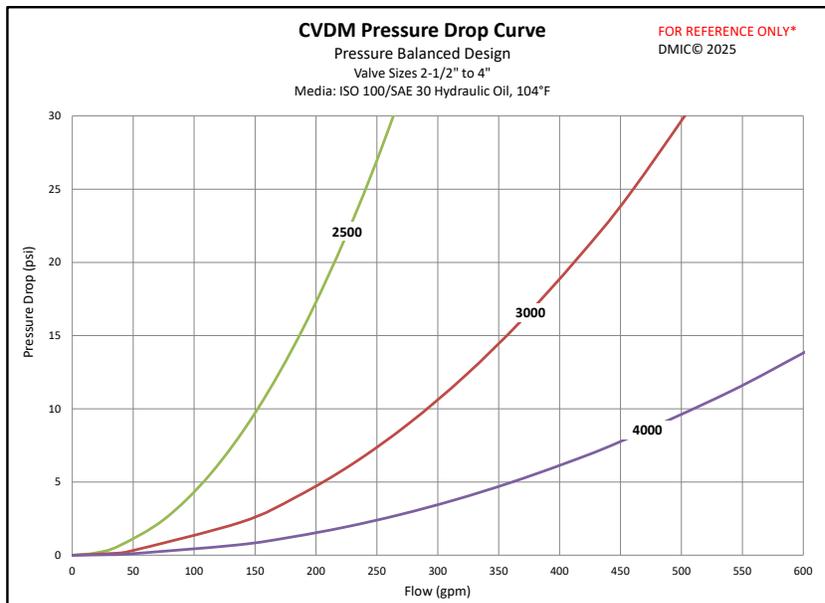
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**\*NOTE: All flow curve values are for check valves that are cracked open, and flow velocity maintains them in the open position. Cracking pressure is not included and must be added to the pressure drop for any given flow curve valve.\***



**\*NOTE: All flow curve values are for check valves that are cracked open, and flow velocity maintains them in the open position. Cracking pressure is not included and must be added to the pressure drop for any given flow curve valve.\***



## Poppet Orifice Option

# Notes

*For metered reverse flow, rapid-stock and custom sizes*



With the poppet orifice option, the designer can achieve metered flow in the opposite direction. This is useful for safety bleed and other specific applications. Select from rapid delivery standard sizes or specify a custom-order orifice diameter.

**CVH XXX - 1000 S 062**

## Orifice Size Selection

The orifice size is specified in 1/1000" units.

Select an available orifice from the table at the very end after the internal material code

Rapid delivery sizes are denoted with crossed out x's

Please call for custom-order orifice sizes.

CVH Valve Size	Orifice Diameter, Rapid Availability by Valve Model					
	1/32" 0,79mm	1/16" 1,58mm	3/32" 2,38mm	1/8" 3,18mm	5/32" 3,96mm	3/16" 4,76mm
Orifice Code→	031	062	093	125	156	188
CVH**-0250	☒					
CVH**-0375	☒	☒				
CVH**-0500	☒	☒	☒			
CVH**-0750		☒	☒	☒		
CVH**-1000			☒	☒	☒	
CVH**-1250				☒	☒	☒
CVH**-1500					☒	☒
CVH**-2000						☒

## Check Valve Construction

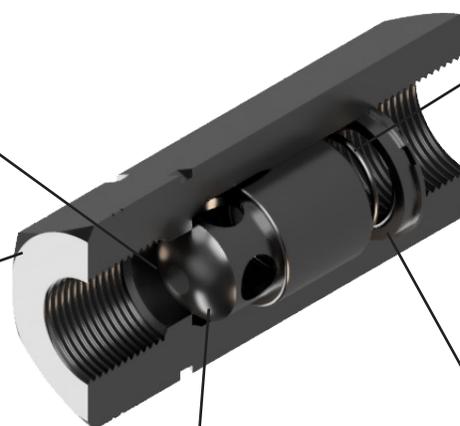
*Chances are you will never have to replace a DMIC check valve*

### Optional

Poppet orifice option for designer flexibility & safety.

### Black oxide finishing

One piece steel body eliminates leakage from joints, especially at elevated pressures up to 10,000 PSI (680 Bar). Also comes in all Stainless Steel. Made in standard and metric threads for rapid delivery worldwide.



### Spring never fully packs, extending high cycle life expectancy

Oversize spring seating surface and poppet landing zone features high precision to minimize wear. Spiral retainer secures the internals to eliminate possibility of reverse collapse.

### Hardened parts for durability

Spiral retainer secures the internals to eliminate the possibility of reverse collapse.

### Refined poppet contour aids laminar flow

Guided poppet design rides on oil film, eliminating possibility of stuck valve.





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