Check Valves

GENERANT

The Generant line of
Check Valves
Adjustable Check Valves
Disc Check Valves
Inline Check Valves
One Piece Check Valves
and
Poppet Check Valves
are manufactured to meet the highest standards of Quality and Dependability

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Generant Check Valves

Check Valves

Disc Check Valves

Inline Check Valves

Poppet Check Valves

Adjustable Check Valves

One Piece Check Valves

SERIES CV

Check Valves

GENERANT

1/8" - 2" NPT
0 - 4500 Psig

Description of Check Valves

High flow, zero leak, low pressure drop check valve suitable for most fluid and gas applications. Fully guided poppet with free floating O'ring design is extremely tolerant of particulate contamination. A metal to metal positive stop in both the open and checked position protects the O'ring and spring from over-stress fatigue. Zero external leakage is achieved by utilization of a static O'ring seal with TFE backup ring. When specified with the proper seal material, these valves are ideally suited to cryogenic system applications.

Technical Data of Check Valves

- Nominal Crack Pressure: .15, 1, 3 & 8 Psig (0.01, 0.07,0.21 & 0.55 bar)
- Leakage: Zero to maximum operating pressure. TFE Seals may require back pressure to seal leak-tite
- Temperature Rating: -320°F - 450°F (-195°C to 232°C) based on seal material
- Maximum Operating Pressure to 300°F (149°C)

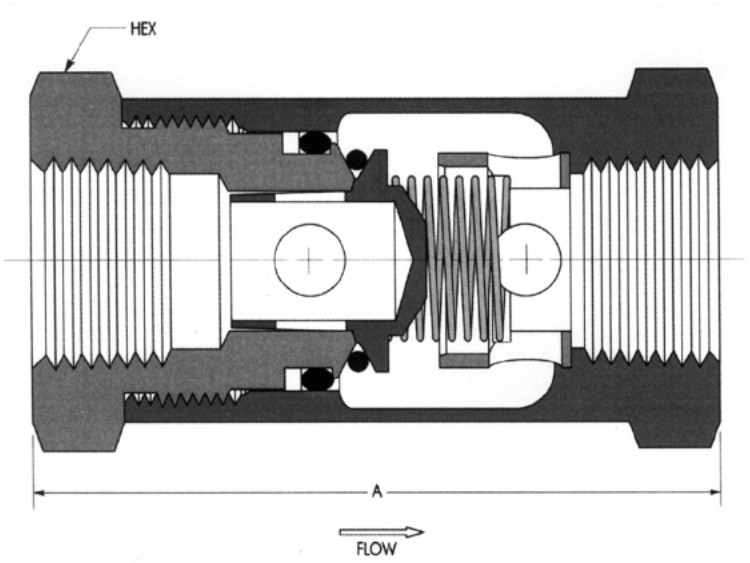
Pipe Size	Brass Psig(bar)	Carbon Steel Psig(bar)	303 Stainless Steel Psig(bar)	316 Stainless Steel Psig(bar)
1/8" - 1"	3000(206)	3000(206)	4500(310)	
1-1/4" & 1- 1/2"		Non standard, consult factory		
2"	1500(103)			

Materials of Construction

Component	Valve Body Material			
	Brass	Carbon	303 SS	316 SS
Inlet Cap, Outlet Body, Poppet, Spring Retainer	Brass ASTM B16	Carbon Steel, ASTM A108, Zinc & Black Plated per ASTM B633	303 SS, ASTM A582[2]	316 SS, ASTM A479[2]
Dynamic O'Ring[1]	Buna-N		Viton™	
Static O'Ring[1]				
Backup Ring	Virgin TFE			
Spring	302 SS, ASTM A313			

1 *Lubricated withKrytox™ GPL-202*
2 *PTFE Dry lubricant applied to threads*

SERIES CV CHECK VALVE



Dimensional/Flow Data

Pipe Size (NPT)	A (inches)	Hex	Cv	Flow at 5.0 Psid (SCFM)
1/8"	1.70	13/16"	1.7	35
1/4"	2.25	1"	3.0	60
3/8"	2.43	1 - 1/4"	3.9	80
1/2"	2.93	1 - 1/2"	7.4	150
3/4"	3.37	1 - 3/4"	11.4	280
1"	3.99	2"	14.2	380
1 - 1/4"	4.50	2 - 3/4"	26.8	700
1 - 1/2"	5.35			
2"	6.10	3 - 1/2" Round[1]	51.0	1200

[1] *Machined from 3-1/2" round stock with 2-3/4" wrench flats.*
Flow Tested in accordance with ISA S75.02 with air. Restrictions in the inlet or outlet piping may reduce flow.

Ordering Information

CV – 500 B – V – 3

SERIES
CV - Check Valve

PIPE SIZE (NPT)
125 - 1/8"
250 - 1/4"
375 - 3/8"
500 - 1/2"
750 - 3/4"
1000 - 1"
1250 - 1-1/4" (brass only)
1500 - 1-1/2" (brass only)
2000 - 2" (brass only)
NPT threads per ANSI/ASME B1.20.1

MATERIAL CODE
B - Brass (1/8" - 2")
S - 303SS (1/4" - 1")
SS - 316SS (1/8" - 1")
C - Carbon Steel (1/4" - 1")

CRACK PRESSURES
.15 - (.1 - .4 Psig) (0.01 bar)
1 - (.5 - 1 Psig) (0.07 bar)
3 - (2 - 4 Psig) (0.21 bar)
8 - (6 - 10 Psig) (0.55 bar)

SEAL MATERIAL
V - Viton™, -20˚F to 375˚F (-29˚C to 190˚C)
B - Buna-N, -40˚F to 250˚F (-40˚C to 121˚C)
N - Neoprene, -40˚F to 300˚F (-40˚C to 148˚C)
EP - Ethylene Propylene, -65˚F to 300˚F (-54˚C to 148˚C)
FS - Fluorosilicone, -80˚F to 350˚F (-62˚C to 176˚C)
S - Silicone, -70˚F to 450˚F (-56˚C to 232˚C)
T - TFE, -320˚F to 350˚F (-195˚C to 177˚C)

OPTIONS
Oxygen cleaning, cryogenic service, Dual Ferrule Tube and other thread configurations, consult factory

Viton, Krytox - ™Dupont

PROPER COMPONENT SELECTION - When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.

SERIES DCV

Disc Check Valves

GENERANT

1/4" & 3/8" NPT
0 - 500 Psig

Description of Disc Check Valves

The Disc Check Valves Series' unique Floating Acetal Copolymer Disc design allows for a positive bubble tite seal with as low as one inch of water crack pressure. Rated for service up to 500Psig, the Disc Check Valves Series is available with many standard elastomer seal options, making it a versatile choice for many low pressure applications. Disc Check Valves can be ordered cleaned and packaged for oxygen service.

Features of Disc Check Valves

- Ideal for High Cycling Applications
- Quick Acting: less than 10 milliseconds to seal from reversing flow
- No Spring: valve is operated solely by the flow of the media
- Bubble tight closure from virtually zero to 500 Psig

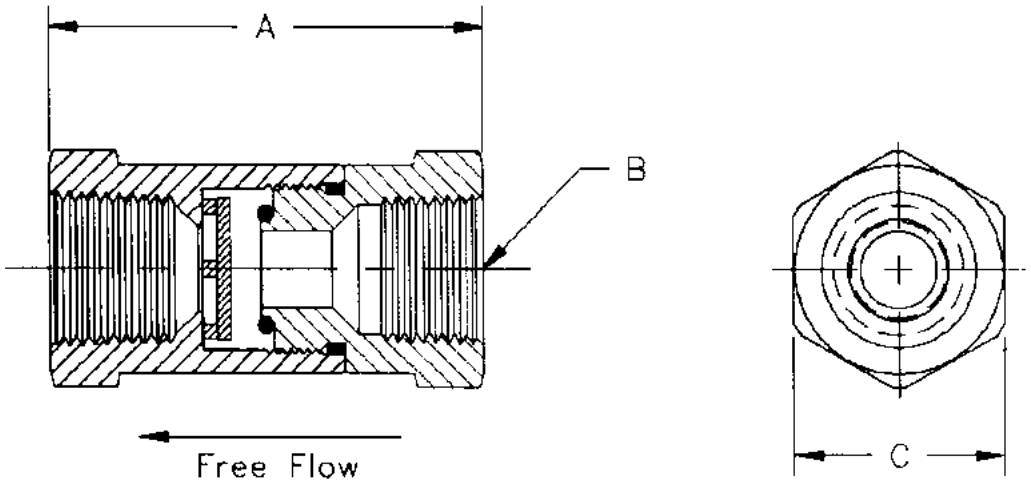
Technical Data of Disc Check Valves

Maximum Pressure: 500 Psig
Cracking Pressure: <1" H20
Flow Coefficient Cv:
1/4" - 0.80
3/8" - 1.35
Temperature Rating: -40°F to 210°F (-40°C to 100°C)
(based on seal selection, see ordering information)

Materials of Construction

Component	Valve Body Material
Body, End Cap	Brass, ASTM B16
Poppet Disc	Acetal Copolymer, Delrin
O'Ring Seal	Viton™

SERIES DCV DISC CHECK VALVES



Dimensions

Model Code	A	B	C
DCV-250B	1 - 15/16"	1/4" NPT"	3/4"
DCV-375B	1 - 15/16"	3/8" NPT	15/16"

Ordering Information

DCV – 250 – B – V

SERIES
DCV - Disc Check Valve

PIPE SIZE (NPT)
4P - 1/4" Male x Male
4FF - 1/4" Female x Female
8P - 1/2" Male NPT

SEAL MATERIAL
B - Buna-N
V - Viton™
S - Silicone
EP - EPDM

MATERIAL CODE
B - Brass

PROPER COMPONENT SELECTION - When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.

SERIES ICV

Inline Check Valves

GENERANT

1/8" - 3/4" NPT
Vacuum - 800 Psig

Description of Inline Check Valves

A compact, inline, direct acting poppet check valve suitable for pressure and vacuum applications. Bubble tight sealing is achieved by a line of contact between a precision machined seat and a standard elastomer O'ring with minimum differential pressure, regardless of mounting attitude. Floating poppet and fluted retainer design provides laminar flow. Metal to metal positive stop ensures long service life.

Technical Data of Inline Check Valves

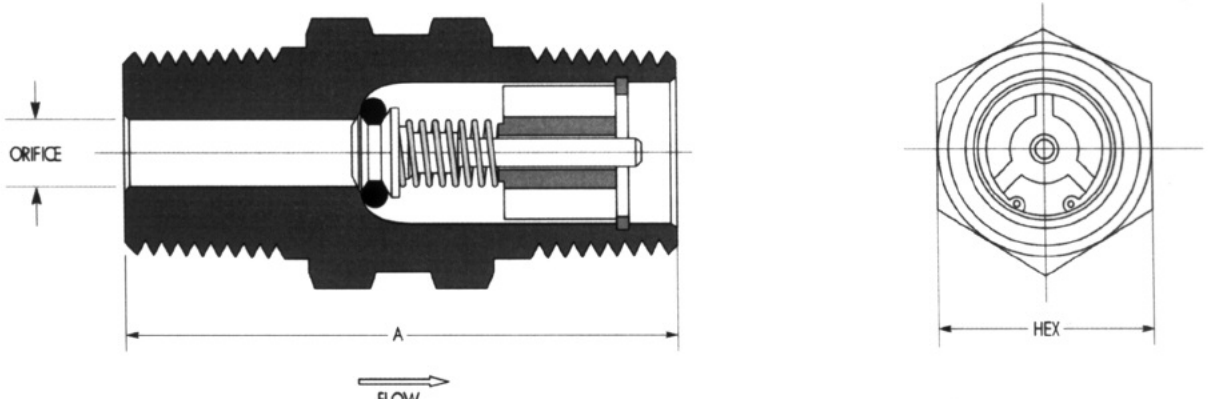
Nominal Crack Pressures: .15, 1 & 3 Psig (0.01, 0.07 & 0.21 bar)
Proof Pressure: 1200 Psig (83 bar)
Operating Pressure Range: Vacuum - 800 Psig (55 bar)
Leakage: Zero @ > 0.5 Psig Back
Pressure (0.03 bar)
Temperature Rating:
-80 F to 375 F (-62°C to 190°C)
based on seal material

Materials of Construction

Component	Valve Body Material	
	Brass	Stainless Steel[1]
Body, Poppet	Brass, ASTM B16	316 SS, ASTM A479
Spring Retainer	Brass, ASTM B16[2]	316 SS, ASTM A479
Spring	302 SS, ASTM A313	
O'Ring Seal[3]	Buna-N	Viton™
Retaining Ring	Zinc Plated Carbon Steel	Stainless Steel

1 *Stainless available in 1/4", 3/8" & 1/2" Male x Male only*
2 *1/8" & 1/4" Brass valves have 316SS retainer*
3 *Lubricated with Krytox™ GPL-202*

SERIES ICV INLINE CHECK VALVES



Dimensional/Flow Data

Pipe Size (NPT)	Port Configuration		A (inches)	Hex	Orifice (inches)	Cv	Flow at Max Psid[1] (SCFM)
	Inlet	Outlet					
1/8"	Male	Male	1.312	1/2"	.140	0.4	7.2
	Female	Female	1.687				
	Female	Male	1.437				
1/4"	Male	Male	1.592	5/8"	.193	0.8	14.3
	Female	Female	1.937	3/4"			
	Female	Male	1.500				
3/8"	Male	Male	1.610	3/4"	.270	1.2	21.5
1/2"	Male	Male	2.140	7/8"	.327	2.0	35.5
3/4"	Male	Male	2.160	1 - 1/16"	.467	5.0	90.0

[1] Maximum allowable pressure drop 15Psid.
Flow tested in accordance with ISA S75.21 with air. Restrictions in the inlet or outlet piping may reduce flow.

Ordering Information

IVC – FF - 250 B – V – 1

SERIES
OPC - One Piece Check Valve

PORT CONFIGURATION
MM - Male x Male (Standard/Omit)
FF - Female x Female, 3/8" & 1/4" only
FM - Female x Male, 3/8" & 1/4" only

PIPE SIZE (NPT)
125 - 1/8"
250 - 1/4"
375 - 3/8"
500 - 1/2"
750 - 3/4" brass only

NPT threads per ANSI/ASME B1.20.1

Viton, Krytox - ™DuPont

CRACK PRESSURE
.15 - (.1 - .4 Psig) (0.01 bar)
1 - (.5 - 1 Psig) (0.07 bar)
3 - (2 - 4 Psig) (0.21 bar)

SEAL MATERIAL
V - Viton™, -20˚F to 375˚F (-29˚C to 190˚C)
B - Buna-N, -40˚F to 250˚F (-40˚C to 121˚C)
N - Neoprene, -40˚F to 300˚F (-40˚C to 148˚C)
EP - Ethylene Propylene, -65˚F to 300˚F (-54˚C to 148˚C)
FS - Fluorosilicone, -80˚F to 350˚F (-62˚C to 176˚C)
S - Silicone, -70˚F to 450˚F (-56˚C to 232˚C)

e

MATERIAL CODE
B - Brass
SS - 316 SS

OPTIONS
Oxygen cleaning, stainless steel retaining ring (on brass valves), thread coatings, alternative seals and other thread configurations, consult factory

PROPER COMPONENT SELECTION - When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.

SERIES PCV

Poppet Check Valves

GENERANT

1/8" - 1/2" Dual Ferrule Tube
Female NPT Male NPT
1/4" Face Seal 0 - 3000 Psig

Description

Poppet type, zero leak, inline check valve for liquid and gas applications to 3000 Psig. Fully retained O'ring seal design permits full rated pressure in the checked direction. Offered with fully interchangeable dual ferrule tube or metal to metal face seal connections. A variety of crack pressures and seal materials, combined with a metal to metal positive stop provides long trouble free service life in the most demanding applications.

Features and Benefits

- Working Pressures to 3000 Psig (206 bar)
- Full Back Pressure Rating
- Fully Retained O'Ring Seal
- Dual Ferrule Tube, Female NPT, Male NPT and Face Connections
- Cracking Pressures from 0.3 to 25 Psig (0.02 -1.7 bar)
- 100% Factory tested for crack, leakage and reseal performance

Technical Data

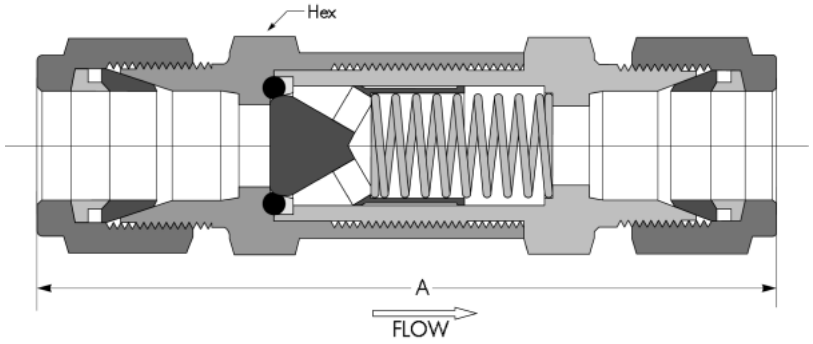
Nominal Crack Pressures:
0.3, 1, 10, & 25 Psig (0.02, 0.07, 0.7 & 1.7 bar)
Maximum Pressure: 3000 Psig @ 70°F (206 bar @ 21°C)
Temperature Rating: -80°F to 375°F (-62°C to 190°C)
(based on seal selection, see ordering information)

Materials of Construction

Component	Valve Body Material	
	Brass	Stainless Steel
Inlet Cap, Outlet Body, Poppet	Brass, ASTM B16	316 SS, ASTM A479[1]
O'Ring Retainer	316 SS, ASTM A479	
Spring	302 SS, ASTM A313	
O'Ring Seal[2]	Buna-N	Viton™

1 *PTFE dry lubricant applied to threads*
2 *Lubricated with Krytox™ GPL-202*

SERIES PCV POPPET CHECK VALVES



Dimensional/Flow Data

Model Code	Port Configuration		Dimensions/Flow		
	Inlet	Outlet	A[1] (inches)	Hex	Cv
PCV-2T	1/8" Tube	1/8" Tube	2.19	5/8"	0.10
PCV-2P	1/8" Male NPT	1/8" Male NPT	1.71		
PCV-2F	1/8" Female NPT	1/8" Female NPT	1.89		
PCV-4VS[2]	1/4" Face Seal	1/4" Face Seal	2.21		0.47
PCV-4T	1/4" Tube	1/4" Tube	2.35		
PCV-4P	1/4" Male" NPT	1/4" Male NPT	2.09		
PCV-4F	1/4" Female NPT	1/4" Female NPT	2.15	3/4"	
PCV-6T	3/8" Tube	3/8" Tube	3.17	7/8"	1.47
PCV-6P	3/8" Male NPT	3/8" Male NPT	2.78		
PCV-6F	3/8" Female NPT	3/8" Female NPT	2.98		
PCV-8T	1/2" Tube	1/2" Tube	3.42		1.68
PCV-8P	1/2" Male NPT	1/2" Male NPT	3.16		
PCV-8F	1/2" Female NPT	1/2" Female NPT	3.58	1-1/16"	

1 ***Dimensions are shown with nuts finger-tight.***
2 ***316 SS only***
Flow tested in accordance with ISA S75.21 with air. Restrictions in the inlet or outlet piping may reduce flow.

Ordering Information

PCV – 4T SS – V – 1

SERIES

PCV - Poppet Check Valve

PORT CONFIGURATION

2T - 1/8" Tube x 1/8" Tube
2P - 1/8" Male NPT x 1/8" Male NPT
2F - 1/8" Female NPT x 1/8" Female NPT
4VS - 1/4" Face Seal x 1/4" Face Seal (316 SS only)
4T - 1/4" Tube x 1/4" Tube
4P - 1/4" Male NPT x 1/4" Male NPT
4F - 1/4" Female NPT x 1/4" Female NPT
6T - 3/8" Tube x 3/8" Tube
6P - 3/8" Male NPT x 3/8" Male NPT
6F - 3/8" Female NPT x 3/8" Female NPT
8T - 1/2" Tube x 1/2" Tube
8P - 1/2" Male NPT x 1/2" Male NPT
8F - 1/2" Female NPT x 1/2 " Female NPT

MATERIAL CODE

B - Brass
SS - 316 SS

CRACK PRESSURE

.3 - (.1 - .4 Psig) (0.02 bar)
1 - (.5 - 1 Psig) (0.07 bar)
10 - (8 - 12 Psig) (0.7 bar)
25 - (22 - 27 Psig) (1.7 bar)

SEAL MATERIAL

V - Viton™, -10°F to 375°F (-23°C to 190°C)
B - Buna-N, -40°F to 250°F (-40°C to 121°C)
N - Neoprene, -40°F to 300°F (-40°C to 148°C)
EP - Ethylene Propylene, -65°F to 300°F (-54°C to 148°C)
FS - Fluorosilicone, -80°F to 350°F (-62°C to 176°C)
S - Silicone, -70°F to 450°F (-56°C to 232°C)
T - TFE, -50°F to 350°F (-46°C to 177°C)
TFE Seal may require back pressure to seal leak-tite

OPTIONS

Oxygen cleaning, alternative seals and other thread configurations, consult factory

Viton, Krytox - ™DuPont

PROPER COMPONENT SELECTION - When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.

SERIES OPC

One Piece Check Valves

GENERANT

1/4" & 1/2" NPT
0 - 3000 Psig

Description of One Piece Check Valves

Compact one piece body, fully retained O'ring seal, poppet type check valve. Available in 1/4" and 1/2" NPT in brass or 316 stainless steel. Suitable for working pressures to 3000 Psig. A wide selection of seal materials and crack pressures make the Series OPC a quality and cost effective solution. All valves are 100% factory tested and available cleaned and packaged for oxygen service.

Features and Benefits of One Piece Check Valves

- Compact One Piece Body Construction
- Working Pressures to 3000 Psig (206 bar)
- Full Back Pressure Rating
- Fully Retained O'Ring Seal
- Cracking Pressures from .3 to 25 Psig (0.02 -1.7 bar)
- 100% Factory tested for crack, leakage and reseal performance

Technical Data for One Piece Check Valves

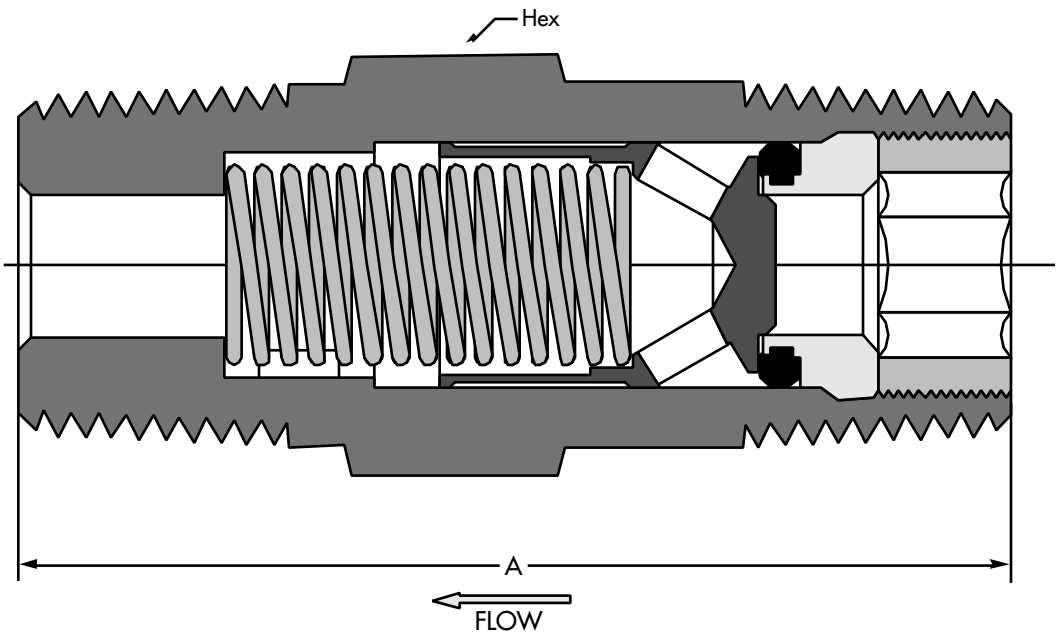
Nominal Crack Pressures: .3, 1, 10, & 25 Psig (0.02, 0.07, 0.7 & 1.7 bar)
Maximum Pressure: 3000 Psig @ 70°F (206 bar @ 21°C)
Temperature Rating:-80°F to 450°F (-62°C to 232°C)
(based on seal selection, see ordering information)

Materials of Construction

Component	Valve Body Material	
	Brass	Stainless Steel
Body, Poppet, Seat Insert, Locking Screw[1]	Brass, ASTM B16	316 SS, ASTM A479[2]
Spring	302 SS, ASTM A313	
O'Ring Seal[3]	Buna-N	Viton™

1 *1/4" Brass valves have 316 SS locking screw*
2 *PTFEdry lubricant applied to threads*
3 *Lubricated with Krytox™ GPL-202*

SERIES OPC ONE PIECE CHECK VALVES



Dimensional/Flow Data

Model Code	Port Configuration		A (inches)	Hex	Cv
	Inlet	Outlet			
OPC-4P	1/4" Male NPT	1/4" Male NPT	1.62	9/16"	0.35
OPC-4MF	1/4" Male NPT	1/4" Female NPT	1.75	3/4"	
OPC-4FF	1/4" Female NPT	1/4" Female NPT	2.41		
OPC-8P	1/2" Male NPT	1/2" Male NPT	2.28	7/8"	1.20
OPC-8MF	1/2" Male NPT	1/2" Female NPT	2.83	1 - 1/16"	

Flow tested in accordance with ISA S75.21 with air. Restrictions in the inlet or outlet piping may reduce flow.

Ordering Information

OPC – 4P SS – V – 1

SERIES

OPC - One Piece Check Valve

PORT CONFIGURATION

4P - 1/4" Male x 1/4" Male
4MF - 1/4" Male x 1/4" Female
4FF - 1/4" Female x 1/4" Female
8P - 1/2" Male x 1/2" Male
8MF - 1/2" Male x 1/2" Female

NPTThreads per ANSI/ASME B1.20.1

MATERIAL CODE

B - Brass
SS - 316 SS

CRACK PRESSURE

.3 - (.1 - .4 Psig) (0.02 bar)
1 - (.5 - 1 Psig) (0.07 bar)
10 - (8 - 12 Psig) (0.7 bar)
25 - (22 - 27 Psig) (1.7 bar)

SEAL MATERIAL

V - Viton™, -10˚F to 375˚F (-23˚C to 190˚C)
B - Buna-N, -40˚F to 250˚F (-40˚C to 121˚C)
N - Neoprene, -40˚F to 300˚F (-40˚C to 148˚C)
EP - Ethylene Propylene, -65˚F to 300˚F (-54˚C to 148˚C)
FS - Fluorosilicone, -80˚F to 350˚F (-62˚C to 176˚C)
S - Silicone, -70˚F to 450˚F (-56˚C to 232˚C)
T - TFE, -50˚F to 350˚F (-46˚C to 177˚C)

TFESeal may require back pressure to seal leak-tite

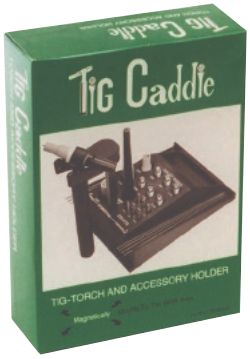
OPTIONS

Oxygen cleaning, alternative seals and other thread configurations, consult factory

Viton, Krytox - ™DuPont

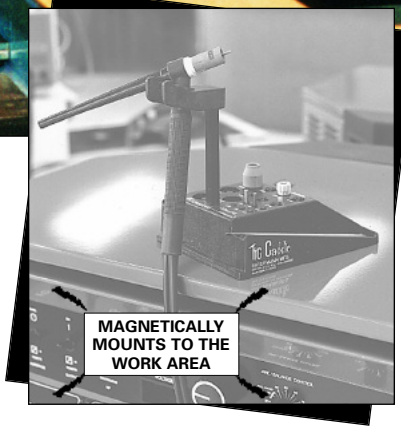
PROPER COMPONENT SELECTION - When specifying a component, the total system design must be considered to ensure safe and trouble-free performance. Intended component function, materials compatibility, pressure ratings, installation, environment and maintenance are the responsibility of the system designer.

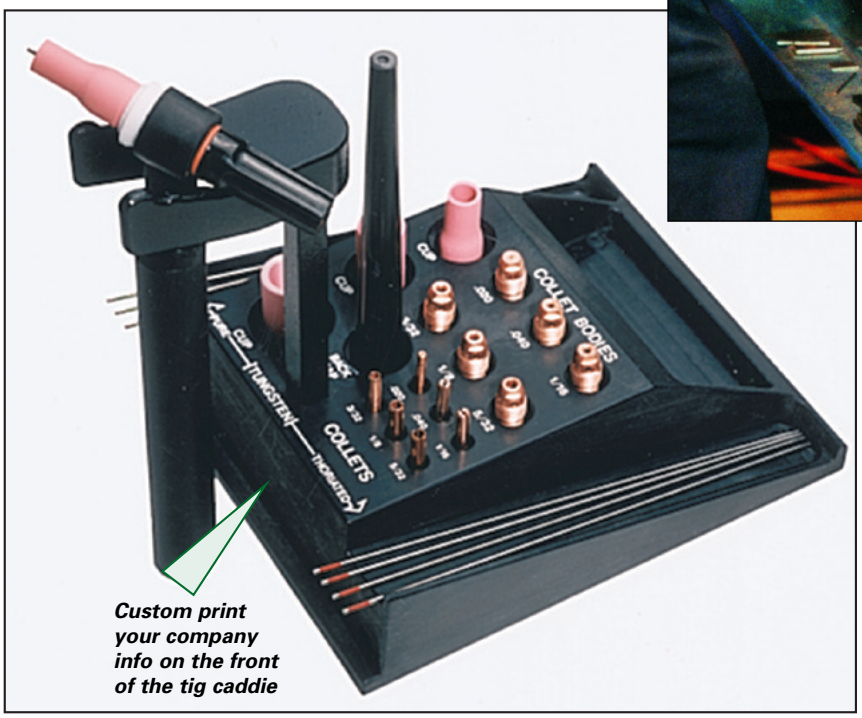
TIG-TORCH & ACCESSORY HOLDER



Tig Caddie

Tig Caddie holds major brand air cooled and water cooled tig torches and accessories. Designed for models WP9, WP17, WP18, WP20 Weldcraft, ESAB, Tweco, C/K System, Miller, etc.





Custom print your company info on the front of the tig caddie

Part #	Description	Standard Carton	Suggested Retail	Distributor Net Each 48-144	12-47	6-11
TIG-1	TIG Caddie *color black*	6 each	$30.99	17.76	19.15	20.53

FRONT VIEW OF TIG CADDIE

KEEP YOUR NAME IN FRONT OF THE CUSTOMER!

CUSTOM IMPRINTING AVAILABLE

Part #	Description	Distributor Net Each 100+	50+	25+
C1-TIG	TIG Caddie Custom Imprinted	$18.20	18.83	20.20

ONE TIME SCREEN CHARGE OF $45.00

FEATURES

- Tig-Torch Holder
- 6 Compartments for collets
  .020 3/32
  .040 1/8
  1/16 5/32
- 6 Compartments for standard collet bodies or gas lens
  .020 3/32
  .040 1/8
  1/16 5/32
- 3 Compartments for standard or gas lens torch cups
- 1 tray for pure tungsten
- 1 tray for thoriated tungsten
- 1 Compartment for back caps medium or long, and a tray for your business cards or small parts.
- Overall size - 7" high, 6-3/4" long, 5-3/4" wide