

# ABV Series 2-way & 3-way Ball Valves

Superior Sealing • Extended Service Life • Reduced Fugitive Emissions



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abv series ball valves



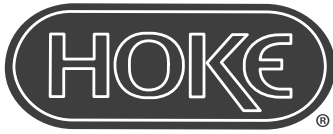
Crane Instrumentation & Sampling

## **FOR YOUR SAFETY**

It is solely the responsibility of the system designer and user to select products suitable for their specific application requirements and to ensure proper installation, operation, and maintenance of these products. When selecting products, the total system design must be considered to ensure safe, trouble-free performance. Material compatibility, product ratings and application details should be considered in the selection. Improper selection or use of products described herein can cause personal injury or property damage. Contact your authorized HOKE® sales and service representative for information about additional sizes and special alloys.

## **SAFETY WARNING**

HOKE® products are designed for installation only by professional suitably qualified licensed system installers experienced in the applications and environments for which the products are intended. These products are intended for integration into a system. Where these products are to be used with flammable or hazardous media, precautions must be taken by the system designer and installer to ensure the safety of persons and property. Flammable or hazardous media pose risks associated with fire or explosion, as well as burning, poisoning or other injury or death to persons and/or destruction of property. The system designer and installer must provide for the capture and control of such substances from any vents in the product(s). The system installer must not permit any leakage or uncontrolled escape of hazardous or flammable substances. The system operator must be trained to follow appropriate precautions and must inspect and maintain the system and its components including the product(s) and at regular intervals in accordance with timescales recommended by the supplier to prevent unacceptable wear or failure.



## HOKE® ABV SERIES BALL VALVE

For demanding process applications, that handle corrosive and hazardous media, the Hoke ABV series offers extended service life, reduced fugitive emissions, and superior sealing, in a compact body.



abv series ball valves

### DESIGN FEATURES

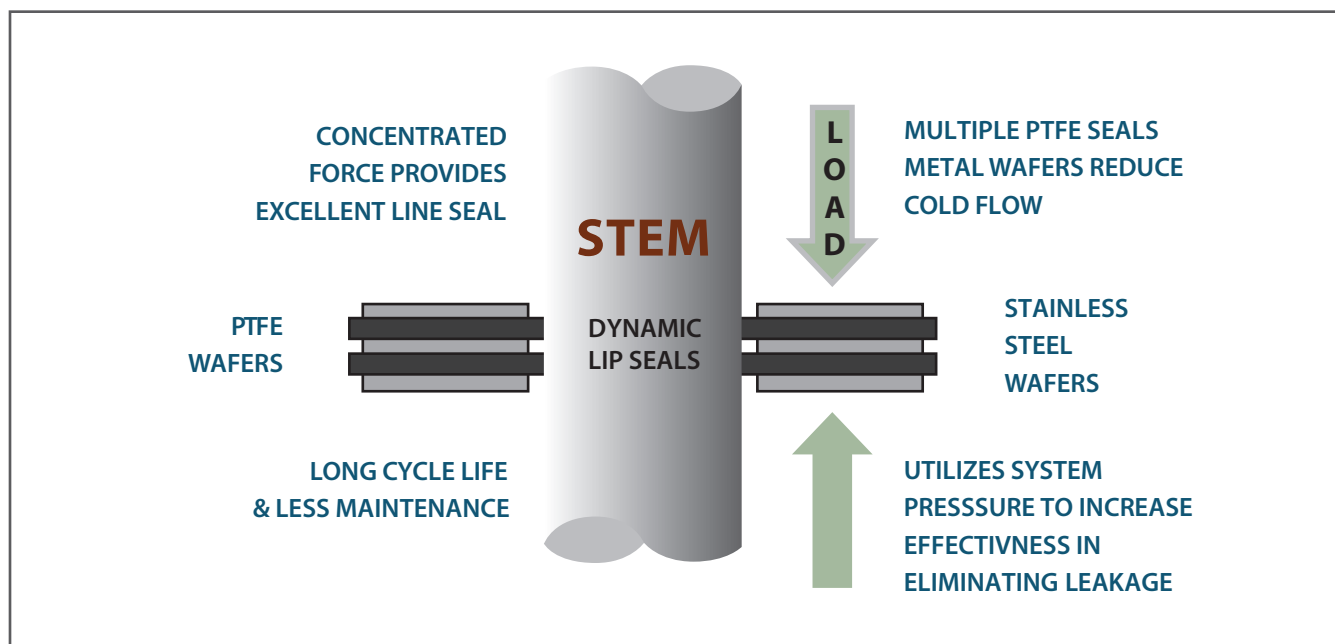
- Integral / GYROLOK® tube connections
- Female & Male NPT connections
- Sizes 1/8", 1/4", 3/8", 1/2", 6mm, 8mm, 10mm, 12mm
- Working pressures up to 3,000 psi
- Maximum operating temperature 302°F (150°C)
- Minimum operating temperature -65°F (-54°C)
- Dyna-Pak stem packing
- ISO 15848-1 Fugitive Emissions certified

### TYPICAL APPLICATIONS

- Analyzer sample conditioning systems
- Control & instrumentation isolation and venting
- Measurement and regulating equipment
- Hydraulic applications



Crane Instrumentation & Sampling



Dyna-Pak® provides superior sealing performance while reducing maintenance costs. Consisting of alternate wafers of PTFE and metal spacers, stem leakage is virtually eliminated while the problems associated with PTFE cold flow are minimized.

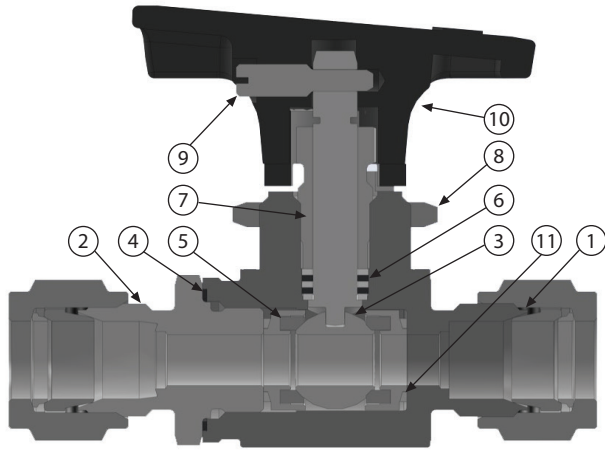
As the packing nut is tightened, metal spacers squeeze the PTFE wafers, driving the PTFE into the stem. At the stem, forces are concentrated and the PTFE wafers provide multiple line seals. In addition to squeezing the PTFE wafers, the metal spacers help contain the PTFE and drastically reduce its ability to creep.

#### **Dyna-Pak® packing has the ability to:**

- Utilize system pressure to increase effectiveness in eliminating leakage.
- Provide reduced operating torque.
- Help eliminate fugitive emissions.
- Reduce the need for frequent packing adjustments.
- Operate in temperatures from Min -65°F (-54°C) Max 302°F (150°C).

# MATERIAL OF CONSTRUCTION

2-Way Materials of Construction and Operating Specifications

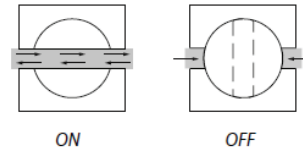


## MATERIALS OF CONSTRUCTION

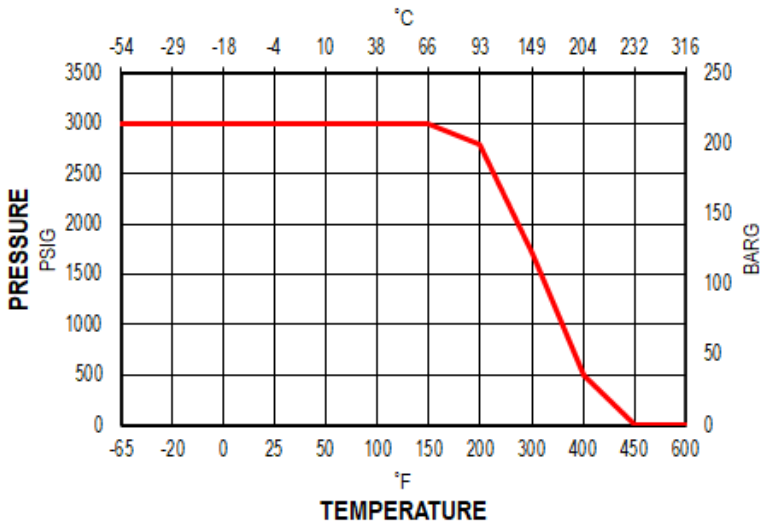
ITEM	DESCRIPTION	MATERIAL
1	Body	ASTM A 182 Type 316
2	End Fitting Assembly	ASTM A 479 Type 316
3	Ball	ASTM A 479/493 Type 316
4	Body Seal	FKM
5	Seat	PCTFE
6	Stem Packing	PTFE
7	Stem	ASTM A 479 Type 316
8	Panel Nut	ASTM A 479 Type 316
9	Handle Pin	ASTM A 479 Type 316
10	Oval Handle	Nylon ASTM D4066
11	Seat Washers	FKM

## Flow Diagram 2-way Valve

Straight Pattern valve



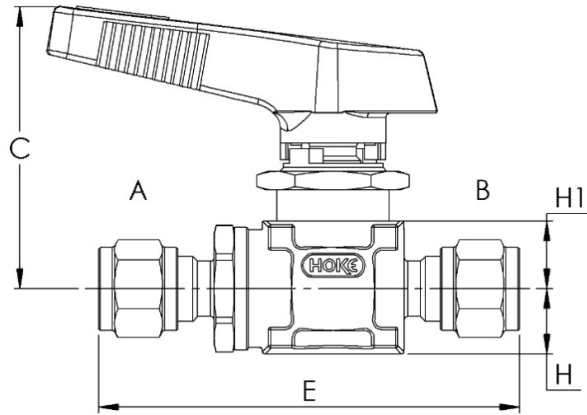
## Pressure vs Temperature Curve



## TECHNICAL DATA

Max. Operation Pressure	3000 PSI	207 BAR
Max. Operating Temp	302 °F	150 °C
Min. Operating Temp	-65 °F	-54 °C

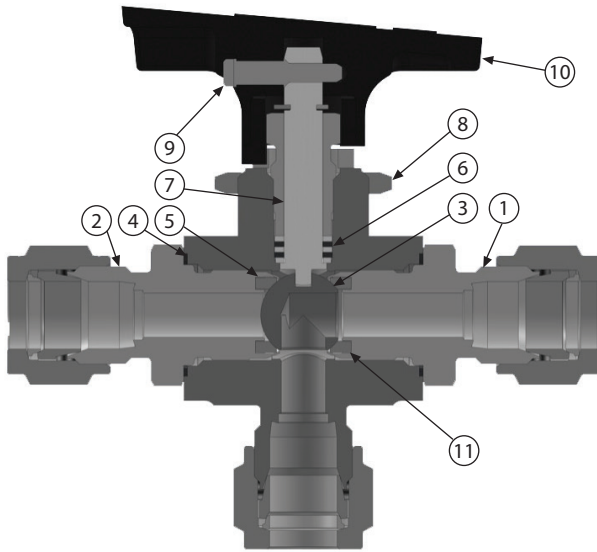
## SPECIFICATIONS & DIMENSIONS



Simplified Part Number	End Connection	Orifice Inches (mm)	CV	Dimensions Inches (mm)				Weights Pounds (kg)	
				C	E	H	H1		
ABV22G2	1/8" Gyrolok	0.093 (2.4)	0.23	1.45 (36.9)	2.32 (58.8)	0.41 (10.3)	0.37 (9.3)	0.22 (0.09)	
ABV22M4	1/4" MNPT	0.125 (3.2)	0.4		2.03 (51.5)			0.24 (0.11)	
ABV22F4	1/4" FNPT		0.4		1.90 (48.3)			0.23 (10.43)	
ABV22G6MM	6MM Gyrolok		0.4		2.42 (61.5)			0.25 (0.11)	
ABV22M2	1/8" MNPT		0.4		1.69 (42.8)			0.20 (0.09)	
ABV22F2	1/8" FNPT		0.4		1.72 (43.7)			0.24 (0.11)	
ABV22G4	1/4" Gyrolok		0.4		2.43 (61.7)			0.23 (0.10)	
ABV24G4	1/4 " Gyrolok		0.187 (4.7)		0.8			1.87 (47.5)	2.79 (70.8)
ABV24F4	1/4" FNPT		0.250 (6.4)	1.4	2.25 (57.2)	0.38 (0.17)			
ABV24F6	3/8" FNPT	1.4		2.38 (60.4)	0.36 (0.16)				
ABV24G10MM	10 MM Gyrolok	1.4		2.86 (72.7)	0.40 (0.18)				
ABV24G12MM	12 MM Gyrolok	1.4		3.14 (79.7)	0.49 (0.22)				
ABV24G6	3/8" Gyrolok	1.4		2.90 (73.5)	0.38 (0.17)				
ABV24G8	1/2" Gyrolok	1.4		3.20 (81.2)	0.49 (0.22)				
ABV24M4	1/4" MNPT	1.4		2.38 (60.4)	0.32 (0.15)				
ABV26G6	3/8" Gyrolok	0.282 (7.2)		1.4	2.19 (55.7)	3.92 (99.5)	0.77 (19.5)	0.77 (19.6)	1.34 (0.61)
ABV26F6	3/8" FNPT	0.375 (9.5)	3.4	3.21 (81.6)		1.54 (0.70)			
ABV26F8	1/2" FNPT		3.4	3.40 (86.3)		1.54 (0.70)			
ABV26G8	1/2" Gyrolok		3.4	4.11 (104.4)		1.42 (0.64)			
ABV26G10MM	10MM Gyrolok		2.45	3.88 (98.6)		1.36 (0.62)			
ABV26G12MM	12MM Gyrolok		3.4	4.06 (103.0)		1.43 (0.65)			

# MATERIAL OF CONSTRUCTION

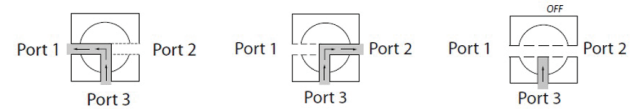
3-Way Materials of Construction and Operating Specifications



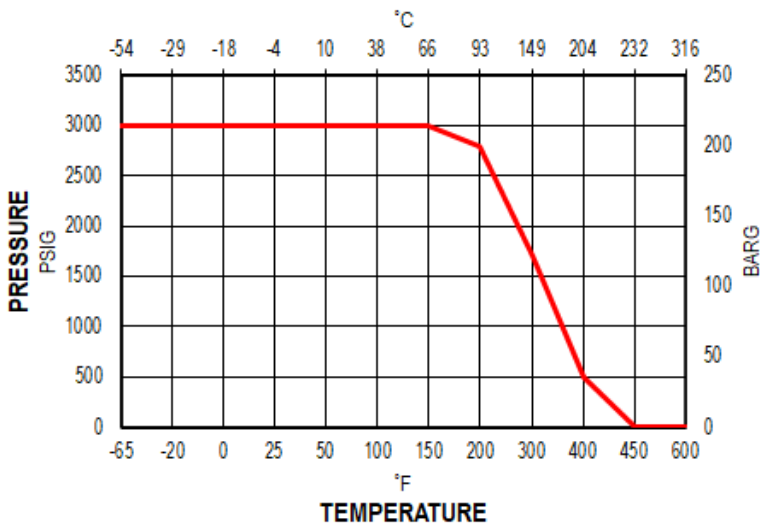
## MATERIALS OF CONSTRUCTION

ITEM	DESCRIPTION	MATERIAL
1	Body	ASTM A 182 Type 316
2	End Fitting Assembly	ASTM A 479 Type 316
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6	Stem Packing	PTFE
7	Stem	ASTM A 479 Type 316
8	Panel Nut	ASTM A 479 Type 316
9	Handle Pin	ASTM A 479 Type 316
10	Oval Handle	Nylon ASTM D4066
11	Seat Washers	FKM

## Flow Diagram 3-way Valve



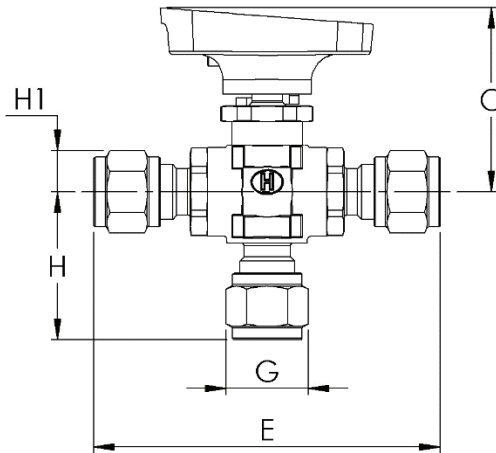
## Pressure vs Temperature Curve



## TECHNICAL DATA

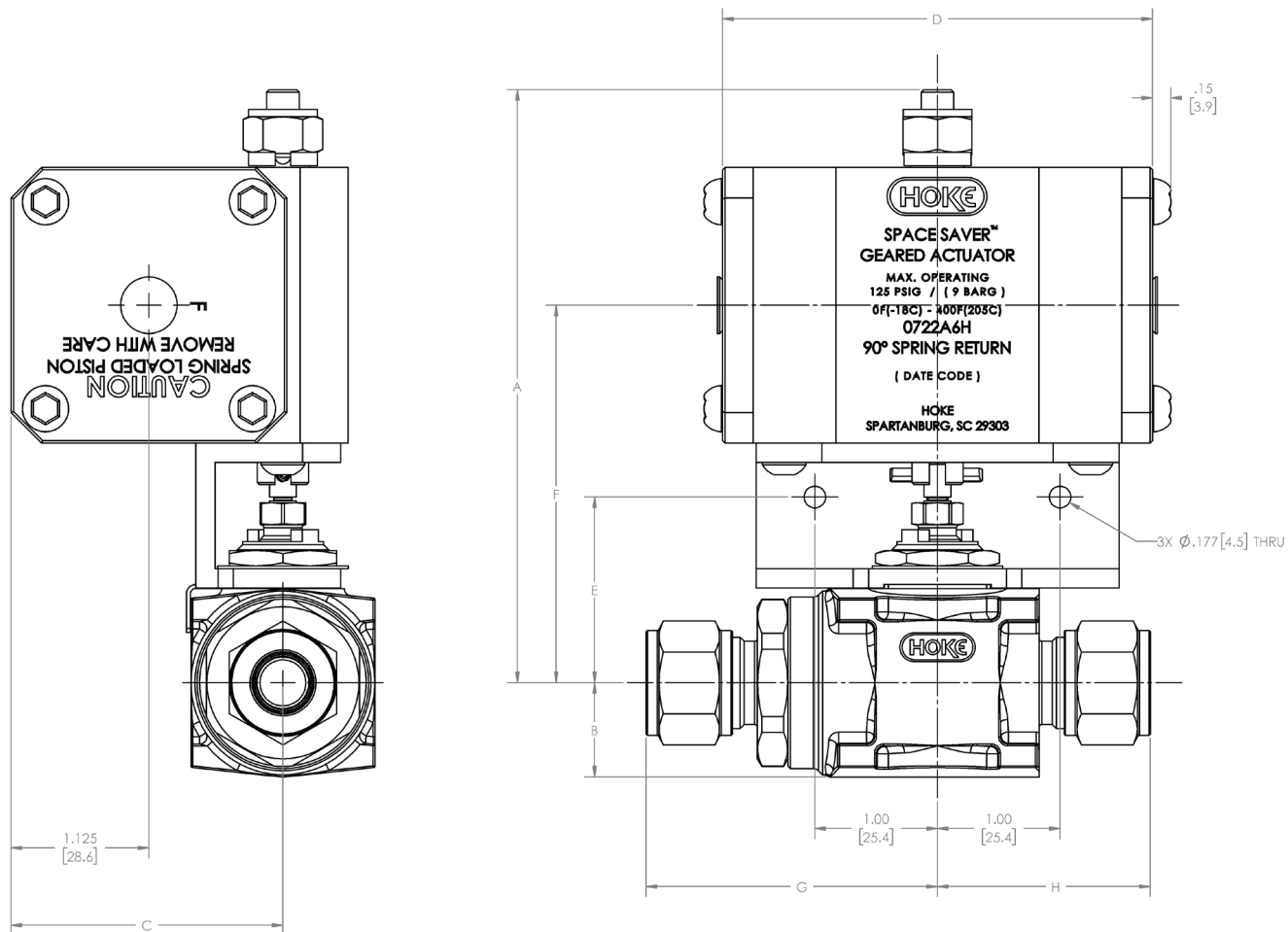
Max. Operation Pressure	3000 PSI	207 BAR
Max. Operating Temp	302 °F	150 °C
Min. Operating Temp	-65 °F	-54 °C

# SPECIFICATIONS & DIMENSIONS

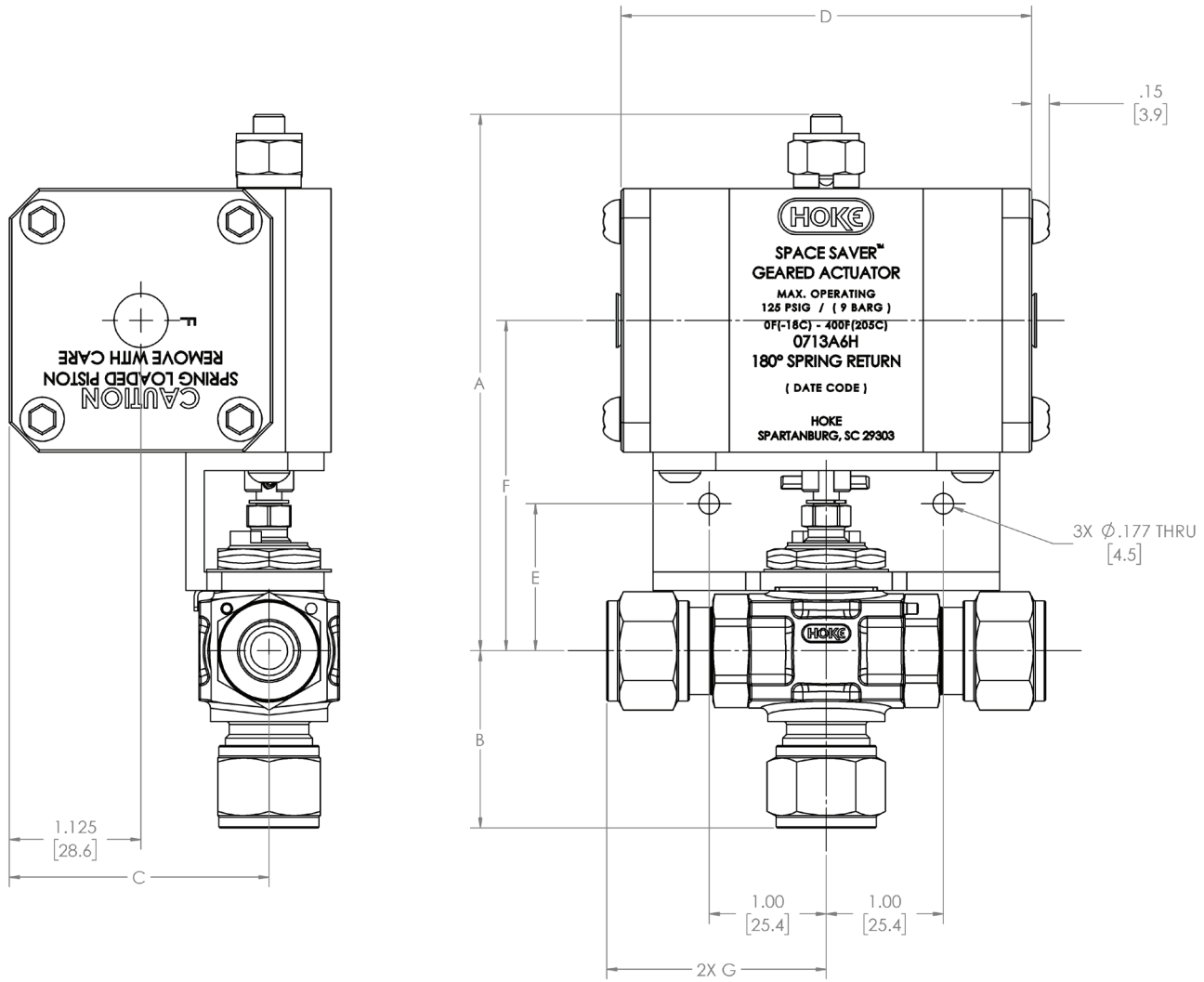


Simplified Part Number	End Connection	Orifice Inches (mm)	CV	Dimensions Inches (mm)					Weights Pounds (kg)	
				C	E	H	H1	G		
ABV42G2	1/8" GYROLOK	0.093 (2.4)	0.15	1.45 (36.9)	1.97 (50.1)	1.09 (27.7)	0.25 (6.4)	0.51 (12.8)	0.28 (0.13)	
ABV42G4	1/4" GYROLOK	0.125 (3.2)	0.3		2.74 (69.5)	1.17 (29.6)	0.33 (8.3)	0.62 (16.5)	0.28 (0.13)	
ABV42G6MM	6 MM GYROLOK		0.3		2.73 (69.3)	1.16 (29.5)		0.62 (16.5)	0.32 (0.15)	
ABV42F2	1/8" FNPT		0.3		1.97 (50.1)	0.77 (19.4)	0.34 (8.7)	0.28 (0-13)		
ABV42M2	1/8" MNPT		0.3		0.24 (0.11)					
ABV42M4	1/4" MNPT		0.3		2.33 (59.3)	0.95 (24.0)		0.30 (0.14)		
ABV44G4	1/4" GYROLOK		0.156 (3.9)	0.8	1.76 (44.6)	3.26 (82.8)	1.32 (33.4)	0.65 (16.5)	0.65 (16.6)	0.61 (0.28)
ABV44G6MM	6MM GYROLOK	0.53	3.25 (82.6)	1.31 (33.3)		0.33 (8.3)	0.66 (16.7)	0.66 (0.30)		
ABV44G6	3/8" GYROLOK	0.250 (6.4)	1.4	3.37 (85.5)		1.33 (33.8)	0.40 (10.1)	0.80 (20.2)	0.69 (0.31)	
ABV44G8	1/2" GYROLOK		1.4	3.55 (90.1)		1.44 (36.6)	0.50 (12.8)	1.01 (25.6)	0.81 (0.37)	
ABV44G10MM	10MM GYROLOK		1.4	3.34 (84.7)		1.32 (33.4)	0.44 (11.1)	0.87 (22.0)	0.73 (0.33)	
ABV44G12MM	12MM GYROLOK		1.4	3.50 (88.6)		1.41 (35.9)	0.50 (12.8)	1.01 (25.7)	0.83 (0.38)	
ABV44F4	1/4" FNPT		1.4	2.61 (66.2)		0.99 (25.1)	0.41 (10.3)	0.69 (0.31)		
ABV44M4	1/4" MNPT		1.4	2.86 (72.5)		1.09 (27.7)		0.61 (0.28)		
ABV45G6	3/8" GYROLOK	0.282 (7.2)	1.12	1.85 (21.5)		3.45 (87.5)	1.40 (35.6)	0.40 (10.1)	0.79 (20.2)	0.73 (0.33)
ABV45G8	1/2" GYROLOK	0.316 (8.0)	2.45			3.75 (95.2)	1.51 (38.4)	0.51 (12.8)	1.01 (25.7)	0.87 (0.39)
ABV45G10MM	10MM GYROLOK		2.45		3.36 (85.2)	1.35 (34.2)	0.44 (11.1)	0.87 (22.0)	0.76 (0.34)	
ABV45G12MM	12MM GYROLOK		2.45		3.63 (92.2)	1.48 (37.7)	0.51 (12.8)	1.01 (25.7)	0.87 (0.39)	
ABV45M8	1/2" MNPT		2.45		3.32 (84.4)	1.26 (32.0)	0.49 (12.3)	0.84 (0.38)		
ABV45F6	3/8" FNPT		2.45		2.78 (70.7)	1.06 (26.9)	0.49 (12.3)	0.73 (0.33)		





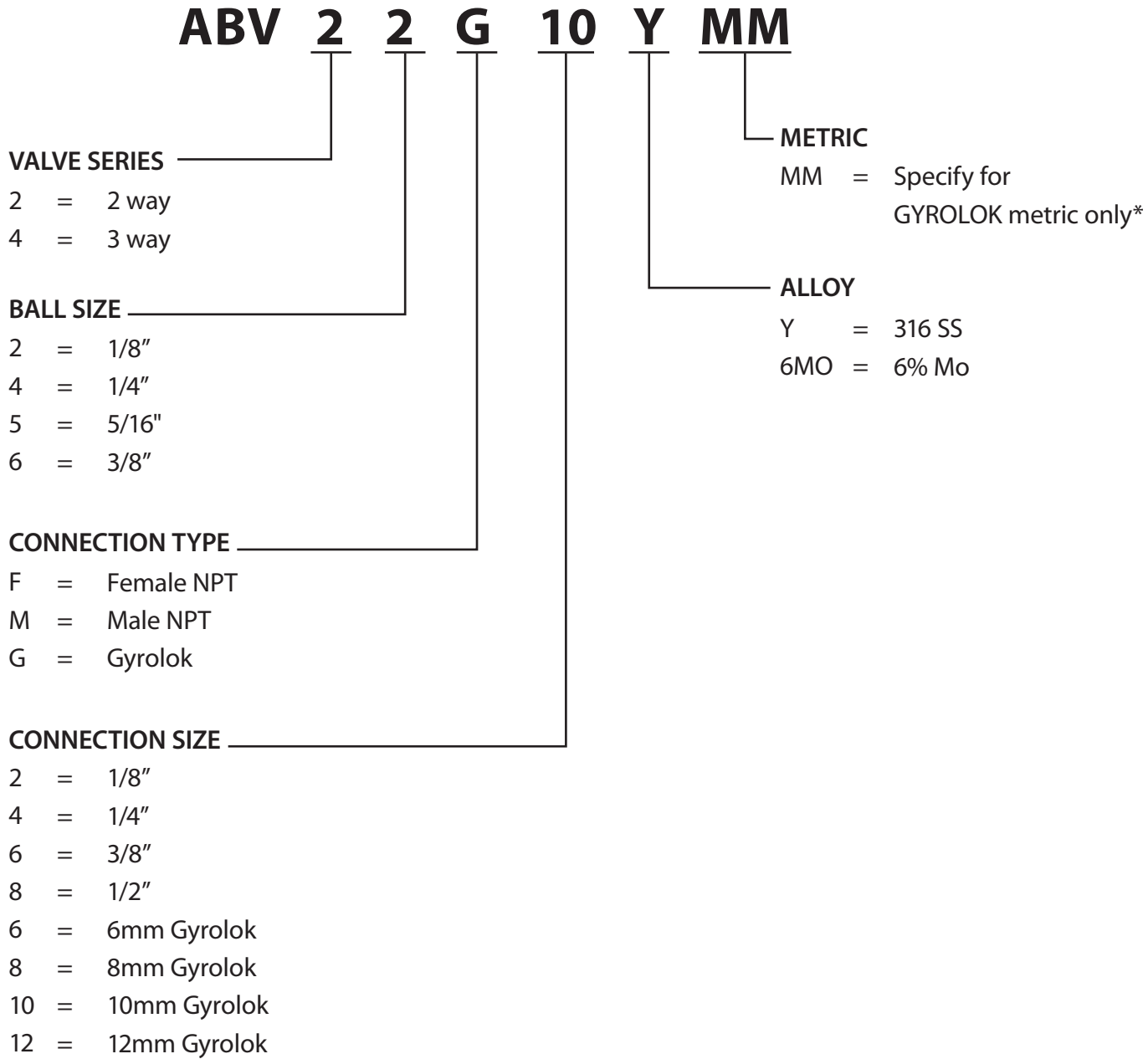
Air Actuators								
	BALL ORIFICE Inches (mm)	Mounting Kit	Handle	Mounting Nut	Space Saver 90° Spring Return	Space Saver 90° Double Acting	Space Saver 180° Spring Return	Space Saver 180° Double Acting
2-Way	0.125 (3.2)	0700K21	97346-030	99551-103	0722A6L/H	0760A6L/H	-	-
	0.25 (6.4)	0700K22	95683-030	Y492-8	0722A6L/H	0760A6L/H	-	-
	0.375 (9.5)	0700K23	95683-030	Y492-8	-	0760A6L/H	-	-



**Air Actuators**

	<b>BALL ORIFICE Inches (mm)</b>	<b>Mounting Kit</b>	<b>Handle</b>	<b>Mounting Nut</b>	<b>Space Saver 90° Spring Return</b>	<b>Space Saver 90° Double Acting</b>	<b>Space Saver 180° Spring Return</b>	<b>Space Saver 180° Double Acting</b>
3-Way	0.125 (3.2)	0700K21	97346-030	99551-103	-	-	0713A6L/H	0750A6L/H
	0.25 (6.4)	0700K24	121171-030	Y492-8	-	-	-	0750A6L/H
	0.316 (8.0)	0700K24	121171-030	Y492-8	-	-	-	0750A6L/H

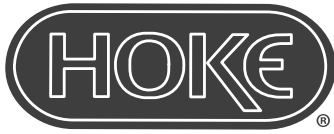
## HOW TO ORDER CUSTOM OPTIONS



## COLOR-CODE HANDLES

Color-coded handles are available for ABV Series valves. Order by the part numbers listed below.

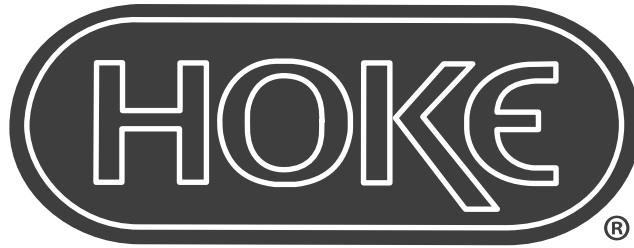
Handle Color	Part Number
Black	Standard
Red	-RED
Blue	-BLU



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We specialize in small bore instrumentation products up to 2" that deliver benchmark performance quality & safety; provide the broadest array of superior alloy offerings in the market; decades of proven success in a wide range of industries; a roster of "who's who" customers & projects globally; original "Best Solution" engineering & designs; and are focused on continuous improvement in all aspects of our business.

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