

## ANDERSON GREENWOOD SERIES HD7M/HD7MK PRIMARY ISOLATION VALVES

Integrally forged, one piece slimline Monoflange valves for primary isolation of pressure take-offs, where the valve is mounted directly to the vessel or process pipe

HD7M



HD7MK



### FEATURES

- One-piece ultra-slim forged body combines a compact design with strength and reduced potential leak paths compared to conventional designs.
- Flanged inlet connections available in a choice of sizes and ratings to suit each application.
- Outside screw and yoke (OS&Y) needle type globe valve with investment cast yoke and bolted bonnet provides high mechanical strength and reliability on primary isolation service.
- Heavy duty needle type globe valve ensuring bubble-tight shut-off on venting or isolation service.
- Gauge adaptors allow flexible positioning of gauges and instruments with a choice of designs available (optional).
- Firesafe design to meet API 607, BS6755 Part 2 (optional).

### GENERAL APPLICATION

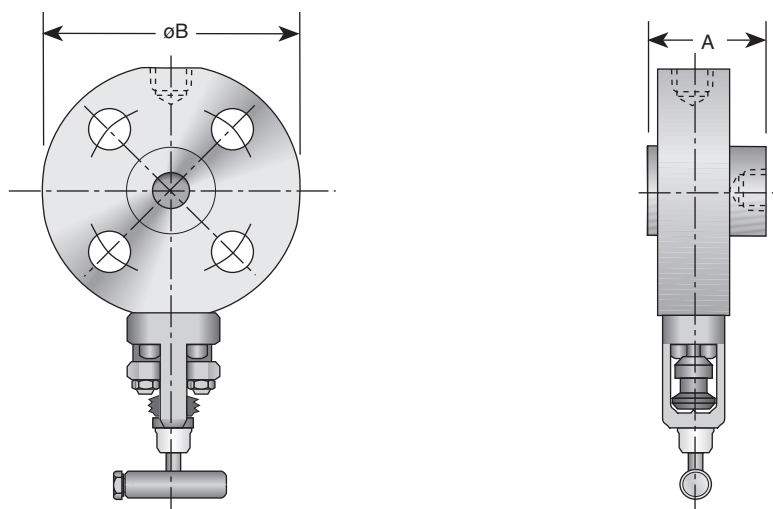
Suitable for applications including isolation, sampling, pressure and level measurement. Instruments may be mounted directly to the valve outlet or remotely with gauge lines/impulse pipe work.

### TECHNICAL DATA

Materials:	CS, SS, Duplex and other exotic materials
Seats:	Metal
Connections:	
Inlet:	ANSI flanged 1/2" to 2" API flanged to 2 1/16"
Outlet:	1/2" NPT
Pressure (max.):	10000 psig (690 barg)
Temperature (max.):	1000°F (538°C)

# ANDERSON GREENWOOD SERIES HD7M/HD7MK PRIMARY ISOLATION VALVES

## MONOFLANGE WEIGHTS AND DIMENSIONS



### PRODUCT OVERVIEW

#### Monoflange HD7M

The HD7M features a 0.2 inch (5 mm) bore 'HD' globe style needle valve for isolation service.

#### Monoflange HD7MK

The HD7MK features a 0.2 inch (5 mm) bore outside screw and yoke bolted bonnet (OS&Y) valve for isolation service.

#### Standard pressure testing

To BS EN 12266-1.

#### Standard material traceability

To EN 10204 3.1 (body only).

Material thickness to ANSI B16.34.

### HD7M AND HD7MK SERIES FLANGED X THREADED

Size in	Rating lb	Dimensions, inches [mm]				Weight	
		A - RF		A - RTJ		B	
1/2	150	2.50	[63.50]	-	-	3.88	[98.55]
1/2	300	2.50	[63.50]	2.66	[67.56]	3.88	[98.55]
1/2	600	2.69	[68.35]	2.66	[67.56]	3.88	[98.55]
1/2	900/1500	2.69	[68.35]	2.69	[68.35]	5.25	[133.35]
1/2	2500	2.69	[68.35]	2.69	[68.35]	5.25	[133.35]
3/4	150	2.50	[63.50]	-	-	3.88	[98.55]
3/4	300	2.50	[63.50]	2.69	[68.35]	5.25	[133.35]
3/4	600	2.69	[68.35]	2.69	[68.35]	5.25	[133.35]
3/4	900/1500	2.69	[68.35]	2.69	[68.35]	5.25	[133.35]
3/4	2500	2.88	[73.35]	2.88	[73.35]	6.25	[158.75]
1	150	2.50	[63.50]	2.69	[68.35]	5.25	[133.35]
1	300	2.50	[63.50]	2.69	[68.35]	5.25	[133.35]
1	600	2.69	[68.35]	2.69	[68.35]	5.25	[133.35]
1	900/1500	2.88	[73.35]	2.88	[73.35]	6.25	[158.75]
1	2500	2.88	[73.35]	2.88	[73.35]	6.25	[158.75]
1 1/2	150	2.50	[63.50]	2.69	[68.35]	5.00	[127.00]
1 1/2	300	2.70	[68.52]	2.70	[68.52]	6.25	[158.75]
1 1/2	600	2.88	[73.35]	2.88	[73.35]	6.25	[158.75]
1 1/2	900/1500	2.88	[73.35]	2.88	[73.35]	7.00	[177.80]
1 1/2	2500	3.23	[82.15]	3.29	[83.72]	9.25	[235.00]
2	150	2.70	[68.52]	2.88	[73.35]	6.25	[158.75]
2	300	2.70	[68.52]	2.95	[74.92]	7.00	[177.80]
2	600	2.88	[73.35]	2.95	[74.92]	7.00	[177.80]
2	900/1500	3.23	[82.15]	3.29	[83.72]	9.25	[235.00]



### VALVE BODY - MATERIAL CODES

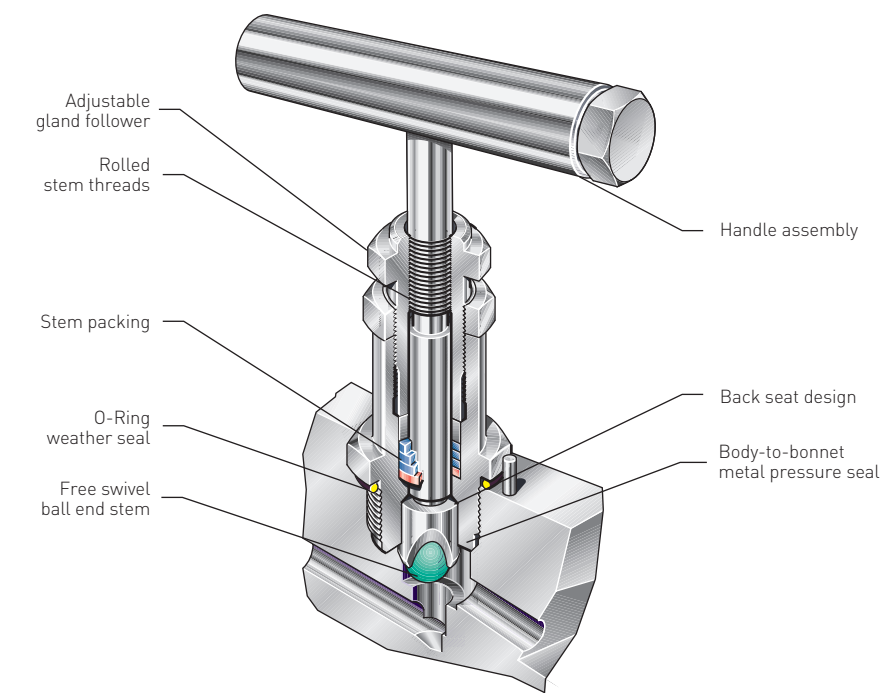
Description	Valve body
C	A105N
L	A350 LF2
S	A182 F316
D	A182 F51

### NOTE

Carbon steel valve bodies are zinc plated and passivated as standard.

ANDERSON GREENWOOD SERIES HD7M/HD7MK PRIMARY ISOLATION VALVES

'HD' NEEDLE-TYPE GLOBE VALVE



STANDARD TRIM COMBINATIONS

Body	Trim
C	S
L	S
S	S
D	S
D	D (optional)

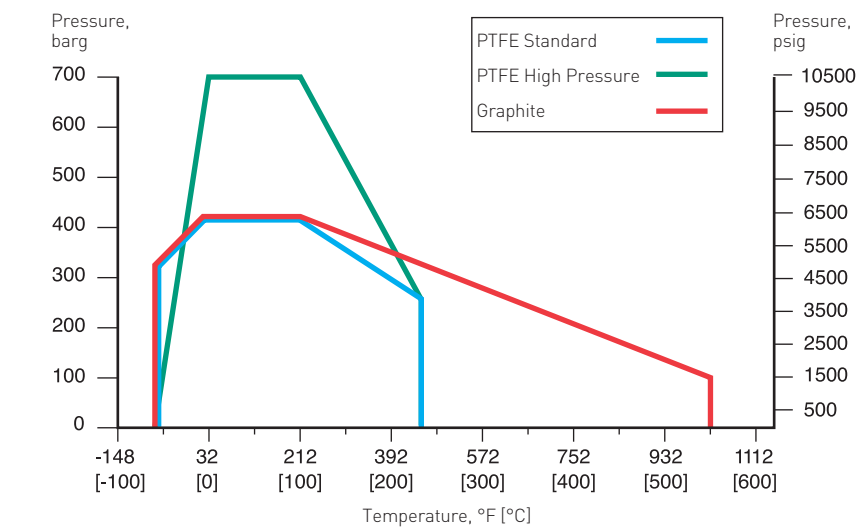
'HD' needle-type globe valve

The HD needle-type globe valve has a rotating stem with a free-swivel ball-end seat for repetitive bubble-tight shut-off and rolled threads for low operating torque, located above the spindle packing and isolated from the process. The stem seal is either graphite or PTFE rings and a backseat design provides secondary stem sealing and prevents stem blowout. A body-to-bonnet metal pressure seal below the threads prevents corrosion and ensures the bonnet threads are in loaded compression for additional strength and an O-ring weather seal protects bonnet retention threads from harsh environments. An adjustable gland follower allows easy access to adjust the packing gland and the valve features a T-bar handle with locking bolt to secure it firmly on the stem.

- Pressure rating: Up to 10000 psig (680 barg)
- Temperature rating: -71°F to 1000°F (-57°C to +538°C)

PRESSURE AND TEMPERATURE RATINGS

'HD' NEEDLE TYPE GLOBE VALVE

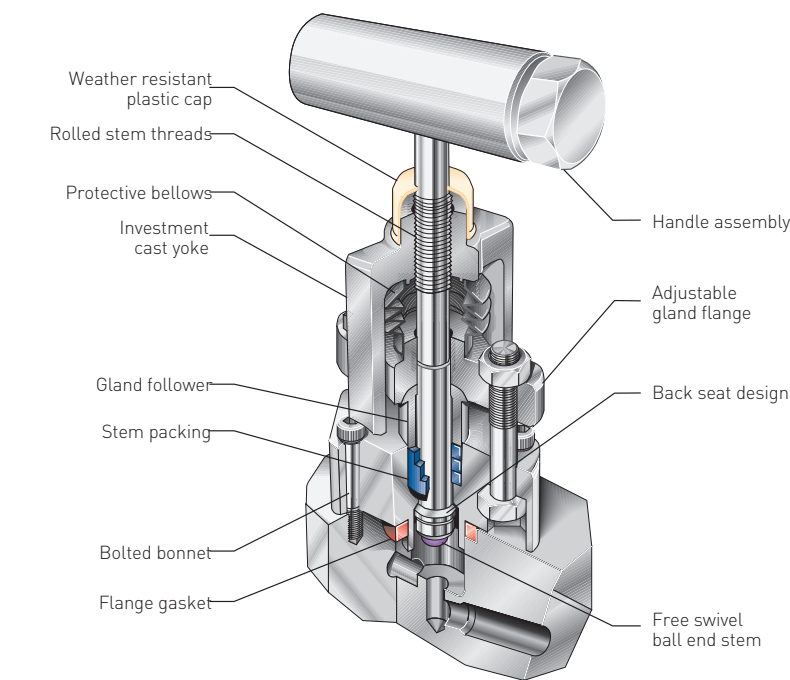


'HD' NEEDLE TYPE GLOBE VALVE COMPONENTS - TRIM CODES

Item	Description	S	D
1	Gland follower	Austenetic SS	A276-31803
2	Stem	A479-316	A47931803
3	Locknut	Austenitic SS	Austenitic SS
4	Stem packing	PTFE or graphite	PTFE or graphite
5	O-ring weather seal	Buna-N Nitrile	Buna-N Nitrile
6	Ball (stem tip)	316 SS	Ceramic
7	Bonnet locking pin	Austenitic SS	Austenitic SS
8	Handle assembly	Austenitic SS	Austenitic SS

ANDERSON GREENWOOD SERIES HD7M/HD7MK PRIMARY ISOLATION VALVES

OS&Y NEEDLE-TYPE GLOBE VALVE



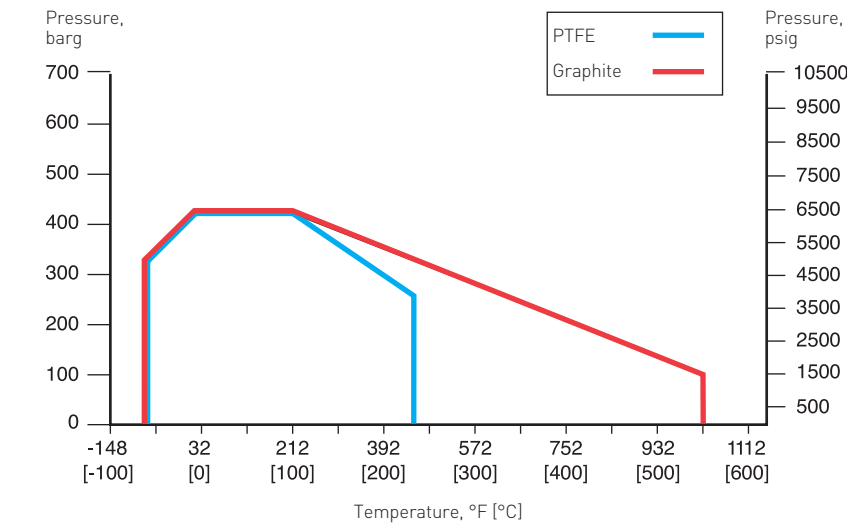
OS&Y needle-type globe valve

The OS&Y needle-type globe valve has a bolted bonnet for strength and reliability and a precision cast yoke which assures perfect stem alignment. The rotating stem has a free-swivel ball-end seat for repetitive bubble-tight shut-off and rolled threads to prevent galling that are completely isolated from the process with protective bellows that protect against atmospheric contamination. The stem seal is either graphite or PTFE rings and a backseat design provides secondary sealing and prevents blowout. A flange gasket ring ensures a bubble-tight body-to bonnet seal and an adjustable gland flange/follower allows easy access to the packing gland. A weather-resistant plastic bonnet cap prevents stem lubricant contamination and the valve features a T-bar handle.

- Pressure rating: Up to 6000 psig (414 barg)
- Temperature rating: -71°F to 1000°F (-57°C to +538°C)

PRESSURE AND TEMPERATURE RATINGS

OS&Y NEEDLE TYPE GLOBE VALVE



'OS&Y' NEEDLE TYPE GLOBE VALVE COMPONENTS - TRIM CODES

Item	Description	S	D
1	Cap	Plastic	Plastic
2	Stem	A479-316	A479-31803
3	Protective bellows	Polyurethane	Polyurethane
4	Yoke	A351-CF8M	A890-4A
5	Gland follower	B783-SS-316-N2-33	A276-31803
6	Stem packing	PTFE or graphite	PTFE or graphite
7	Body/bonnet - bolts	ASTM A453	ASTM A453
8	Flange gasket	Graphite	Graphite
9	Ball (stem tip)	316 SS	Ceramic
10	Gland flange - bolts	Austenitic SS	Austenitic SS
11	Handle assembly	Austenitic SS	Austenitic SS
12	Gland flange	A351 CF8M	A351 CF8M

## ANDERSON GREENWOOD SERIES HD7M/HD7MK PRIMARY ISOLATION VALVES

### SELECTION GUIDE

Example:	HD7M	V	S	S	061L	047B	SG
<b>Monoflange isolation valve</b>							
<b>HD7M</b> Monoflange with HD type needle valve							
<b>HD7MK</b> Monoflange with OS&Y bolted bonnet needle valve							
<b>Needle valve packing</b>							
<b>V</b> PTFE							
<b>H</b> Graphite							
<b>Body material</b>							
<b>C</b> A105N							
<b>L</b> A350 LF2							
<b>S</b> A182 F316							
<b>D</b> A182 F51							
<b>Trim material</b>							
<b>S</b> SS 316							
<b>D</b> Duplex UNS S31803							
<b>Standard trim combinations</b>							
C, L and S Body = S Trim, D Body = S Trim (option: D Trim)							
<b>Inlet connection</b>							
<b>04</b> 1/2"	<b>1</b> RF	<b>A</b> 150 lb (ANSI B16.5)					
<b>06</b> 3/4"	<b>3</b> RTJ	<b>J</b> 300 lb (ANSI B16.5)					
<b>08</b> 1"	<b>4</b> BX	<b>K</b> 600 lb (ANSI B16.5)					
<b>12</b> 1 1/2"	<b>5</b> RX	<b>T</b> 900 lb (ANSI B16.5)					
<b>16</b> 2"	<b>9</b> FF	<b>L</b> 1500 lb (ANSI B16.5)					
<b>17</b> 1 13/16"		<b>M</b> 2500 lb (ANSI B16.5)					
<b>18</b> 2 1/16"		<b>N</b> 5000 lb (API 6A)					
<b>24</b> 3"		<b>P</b> 10000 lb (API 6A)					
		<b>V</b> 3000 lb (API 6A)					
<b>Outlet connection<sup>11</sup></b>							
<b>04</b> 1/2"	<b>2</b> Male	<b>B</b> NPT					
	<b>7</b> Female	<b>D</b> Socket weld (XXS)					
		<b>E</b> BSPP (G 1/2")					
<b>Options</b>							
<b>ICV</b> Integral check valve (injection)	<b>PD</b> Padlock for - LAT						
<b>IQ(- - -)</b> Integral quill (required length)	<b>PO</b> Plugged outlet						
<b>AT</b> Anti-tamper (HD type only)	<b>SS</b> Full 316 SS trim						
<b>SG</b> NACE MR0175 latest revision	<b>CB</b> Ceramic ball tip						
<b>LAT</b> Lockable tamper-proof bonnet (HD type)	<b>ST</b> Stellite ball tip						

### NOTE

1. For other connection sizes, consult factory.

Neither Emerson, Emerson Automation Solutions, nor any of their affiliated entities assumes responsibility for the selection, use or maintenance of any product. Responsibility for proper selection, use, and maintenance of any product remains solely with the purchaser and end user.

Anderson Greenwood is a mark owned by one of the companies in the Emerson Automation Solutions business unit of Emerson Electric Co. Emerson Automation Solutions, Emerson and the Emerson logo are trademarks and service marks of Emerson Electric Co. All other marks are the property of their respective owners.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs or specifications of such products at any time without notice.

[Emerson.com/FinalControl](https://emerson.com/FinalControl)

---