

## Primary Isolation Valves

An integral one-piece double block and bleed root valve assembly for primary isolation of pressure take-offs, with either threaded or welded inlet connection

### General Application

Suitable for double block and bleed applications on pressure and flow measurement services where the valve is either screwed or welded directly into the process pipe or vessel without the need for a flanged connection. Instruments may be mounted directly to the valve outlet or remotely with gauge lines/impulse pipe work.

#### TECHNICAL DATA

**Materials**

CS, 316 SS, Duplex

**Seats:**

Metal

**Connections**

**Inlet:**

Threaded or welded  
1/2" to 2"

**Outlet:**

1/2" NPT

**Pressure (max):**

10000 psig (680 barg)

**Temperature (max):**

1000°F (538°C)



### Features

- One-piece body combines a compact design with strength and reduced potential leak path compared to conventional designs.
- Threaded or welded type connections.
- Heavy duty needle type globe valves ensuring bubble-tight shut-off on isolation and venting services.
- Firesafe design to meet API 607, BS6755 Part 2 (optional).

# HD29 SERIES

## Primary Isolation Valves

### Product Overview

The HD29 features two independently operable 0.2" (5 mm) bore 'HD' globe style needle valves for isolation service with an intermediate 'HD' globe style needle valve for venting service.

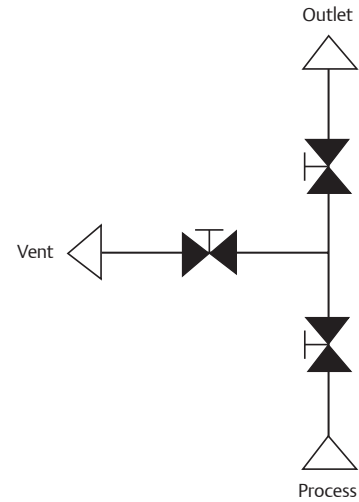
Standard pressure testing to BS EN 12266-1.  
 Standard material traceability to EN 10204 3.1 (body only).  
 Material thickness to ANSI B16.34.

### Valve Body - Material Codes

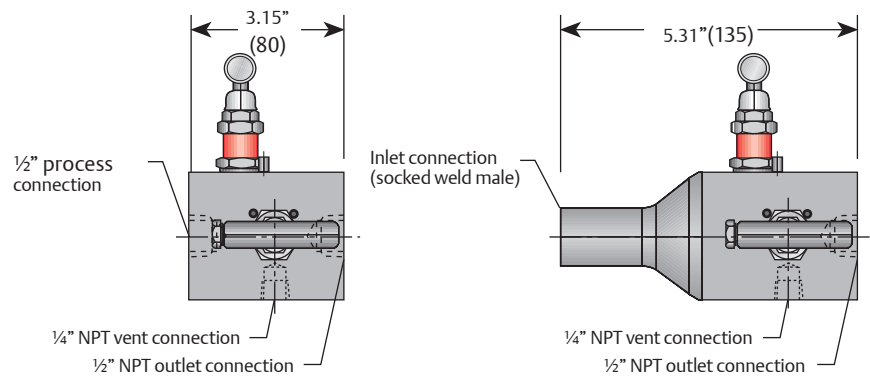
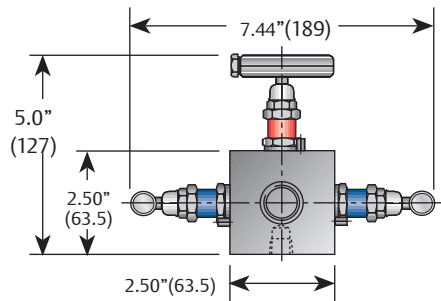
Description	C	S	D
Valve body	220M07	316 S11	UNS-31803

#### NOTE

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



### Dimensions, inches (mm)



#### NOTE

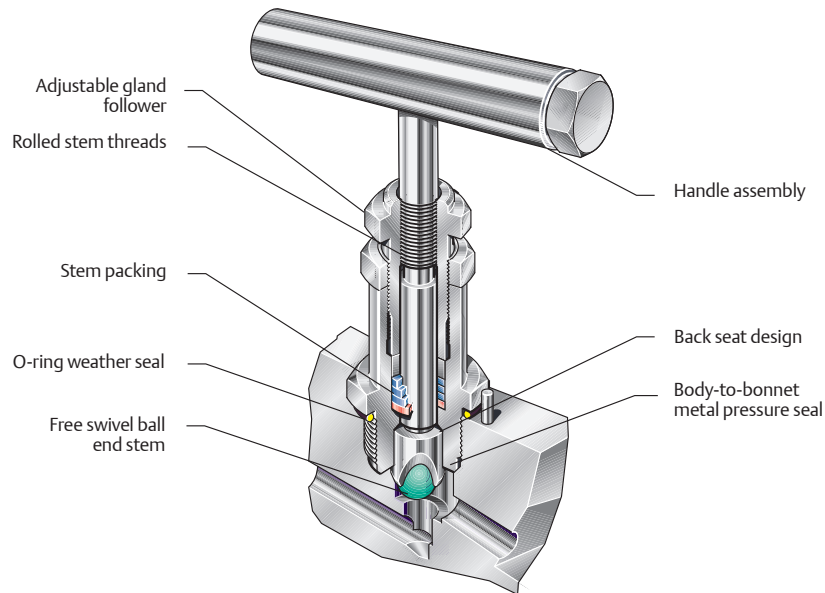
1. Valve weight 5.9 lb (2.7 kg).

Primary Isolation Valves

**‘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 firmly on the stem.

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

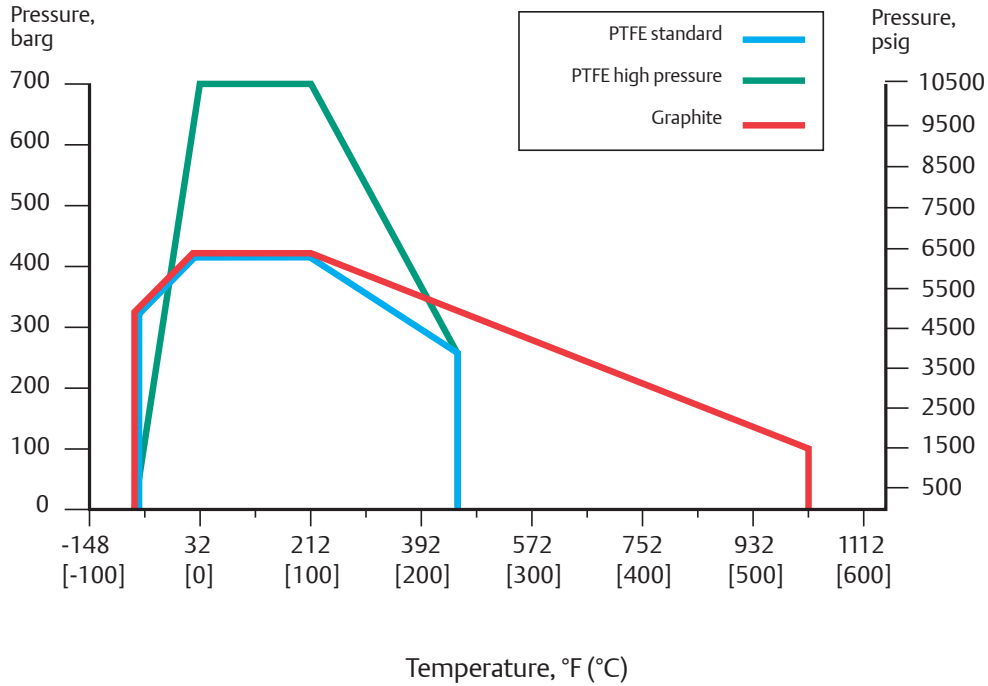


# HD29 SERIES

## Primary Isolation Valves

### Pressure and Temperature Ratings

'HD' Needle Type Globe Valve



### 'HD' Needle Type Globe Valve Components - Trim Codes

Item	Description	S	D
1	Gland follower	Austenitic SS	A276-31803
2	Stem	A479-316	A479-31803
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

### Standard Trim Combinations

Body	Trim
C	S
S	S
D	D

Primary Isolation Valves

Selection Guide

HD29		V	C	S	-047B			
BASIC SERIES		NEEDLE VALVE PACKING	BODY MATERIAL	TRIM MATERIAL	INLET CONNECTION			
<b>Globe needle valve type</b>								
<b>HD29</b>	threaded x threaded double block and bleed	<b>V</b> PTFE	<b>C</b> CS 220 M07	<b>S</b> 316 SS	<b>04</b> 1/2" NPS	<b>2</b> Male	<b>B</b> NPT	
<b>HD291</b>	threaded x threaded double block and bleed - 10000 psi (PTFE packing only)	<b>H</b> Graphite	<b>S</b> SS 31611	<b>D</b> Duplex	<b>06</b> 3/4" NPS	<b>7</b> Female	<b>C</b> Butt weld (XXS)	
			<b>D</b> Duplex UNS S31803		<b>08</b> 1" NPS		<b>D</b> Socket weld (XXS)	
				<b>Standard trim combinations</b> C and S body = S trim, D body = duplex trim				

-047B			PV		
OUTLET CONNECTION			OPTIONS		
<b>04</b> 1/2" NPS	<b>2</b> Male	<b>B</b> NPT	<b>SG</b>	NACE MR0175 latest revision	
<b>06</b> 3/4" NPS	<b>7</b> Female	<b>C</b> Butt weld (XXS)	<b>PO</b>	Plugged outlet	
<b>08</b> 1" NPS		<b>D</b> Socket weld (XXS)	<b>SS</b>	Full 316 SS trim	
			<b>PV</b>	Plugged vent	
			<b>CB</b>	Ceramic ball tip	
			<b>AT</b>	Anti-tamper bonnet	
			<b>ST</b>	Stellite ball tip	