

# Mechanical Set-Stop Valves

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Offset type mechanical valve



Straight-through type mechanical set-stop valve



3" meter with straight-through type mechanical set-stop valve

## Smith Meter® PD Meter Accessories

Smith Meter mechanical set-stop valves are used when automatic, predetermined shut-off of liquid is required. They mount directly on Smith Meter rotary vane positive displacement (PD) meters and work in conjunction with the Smith Meter 300C Mechanical Set-Stop Counter for two-stage batch control.

### Features

- Easy installation—No external power or air required
- Two-speed closure—Prior to final closure, the flow rate is reduced to prevent line shock and provide precise closure
- Closing speed control—Field adjustable to minimize hydraulic line shock

### Options

- Seals—Buna-N is standard and fluoroelastomer (FKM) is optional
- Tie rod extensions—For operation with a set-stop counter, mounted on a rigid extension of up to 10 feet

## Applications

- 300C Series set-stop counters: Valve linkage adaptor required to link set-stop valve to counter
- Meters: Smith Meter rotary vane PD meters as designated in the following Valve Selection Guide; see "Valve Selection Guide for Smith Meter PD Meters" on page 2

## Valve Selection Guide for Smith Meter PD Meters

Housing Material	Flange Type and Pressure Rating	Valve Size and Maximum Flow		
		2"	3"	4"
		150 gallons per minute (GPM) (570 liters per minute (l/min))	500 GPM (1,900 l/min)	800 GP (3,030 l/min)
Offset Type				
Ductile iron (DI)	Class 150 raised face (RF) 150 psi maximum at 100 °F	SC-13 DI	SD-30 DI SD3-S1	N/A
Straight-Through Type				
Steel	Class 150 RF 275 psi maximum at 100 °F	C2-S3	SD-3-S1 E3-S1 E3-S3	F4-S1 F4-S3

## Specifications

Type and Size	End Connections	Housing Material	Pressure psi (kilopascal (kPa))
Straight-Through			
2 to 4"	Class 150 ANSI B16.5 RF flanges	Steel	275 (1,896)
Offset			
2 to 3"	Class 150 ANSI B16.42 RF or flat-face (FF) flanges	Ductile iron	150 (1,034)

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacture that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.

Consult the factory for German Institute for Standardization (DIN) flanges end connections.

The maximum working pressures are for temperatures of -20 to 100 °F (-28 to 38 °C). Consult the factory for maximum working pressures at other temperatures.

### Internals

- 2" and 3": Iron, steel, Ni-resist, and stainless steel
- 4": Cast iron, Ni-resist, bronze, and stainless steel

All-iron trim models consist of cast iron.

### Seals and Temperature

Standard is Buna N for temperatures of -20 to 225 °F (-29 to 108 °C).

Optional is FKM for temperatures of 10 to 400 °F (-12 to 205 °C).

### Maximum Viscosity

Standard:

- Offset type: 200 seconds, Saybolt universal (SSU) (40 millipascal-second (mPa•s))
- Straight-through type: 2,000 SSU (400 mPa•s)

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