210 Set-Stop Valve and 200 Series Valve Packages

Bulletin AB03003 Issue/Rev. 1.3 (10/15)

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SMITH METER® VALVES

Applies to: Model 210, 2" through 6" Hydraulic Set-Stop Valves and 200 Series Valve Packages

1. Valve Temperature and Pressure Limits

The ASME Class 150 flanged valve temperature range is -20°F to 100°F @ 285 PSI maximum working pressure for valve material ASTM A 216 WCB per ASME B16.5. The maximum working pressure is reduced at temperatures above 100°F per ASME B16.5. The temperature range of the valve elastomers are in the table below.

Valve Elastomer	Temperature Range
LS (Low Swell) Buna	-20°F to 200°F (-28°C to 93°C)
Buna-N	-20°F to 200°F (-28°C to 93°C)
Viton	-20°F to 350°F (-28°C to 177°C)

2. Low Temperature Applications

For colder climate applications use Elastomer Group 1 and replace LS (Low Swell) Buna diaphragm with Buna-N diaphragm for improved consistent response of the valve. The elastomers must be compatible with the liquid product in all cases.

3. LPG Applications

Use Elastomer Group 2.

4. 200 Series Valve Pilot Elastomers

The control pilots used with 200 series valves will have the base elastomer of the valve; i.e., LS Buna valve will have Buna-N pilot elastomers or Viton-A valve will have Viton-A pilot elastomers.

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ELASTOMER SELECTION BY PRODUCT

Product	Elastomer Group 1	Elastomer Group 2	Elastomer Group 3	Elastomer Group 4
Valve Diaphragm	LS Buna	LS Buna	LS Buna	Viton-A
Retainer O-Ring (Seat)	LS Buna	LS Buna	LS Buna	Viton-A
Static O-Rings	Buna-N	Buna-N	Buna-N	Viton-A
Solenoids	Viton-F	Buna-N	Chemraz	Viton-F

Product	Group 1	Group 2	Group 3	Group 4
Diesel Fuels				
– Low Sulfur Diesel[1]				●
– Ultra Low Sulfur Diesel[1]				●
– Biodiesel-Neat and Blends				●
– Sulfur Based Diesel	●		●	●
ETBE-Neat	●		●	●
Ethanol-Neat and Blends	●		●	●
Fuel Oils	●		●	●
Jet Fuels	●		●	●
Kerosene	●		●	●
Leaded Gasoline	●		●	●
LPG		●		
Lube Oils	●		●	●
Methanol-Neat	●		●	
MTBE-Neat			●	
Raffinate	●		●	●
Unleaded Gasoline Blends:				
– MTBE-All Blends	●		●	●
– MTBE-All Blends	●		●	●
– Methanol-All Blends	●		●	●
Unleaded Gasoline Straight	●		●	●

1 LSD and ULSD elastomers may incur increased wear if lubricity additive is not present before flowing through the valve.

Revisions included in AB03003 Issue/Rev. 1.3 (10/15): Changed Buna-LS to LS Buna throughout.

Key FOB removed throughout document.

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