

# Diaphragm Operated Two-way Non-Freeze Valves Series 424, Steel Body

Bulletin SSIN048 Issue/Rev. 0.1 (12/18)

The **Series 424 Valve** is perfect for use as a liquid dump valve on high pressure separators. The trim and seat are total immersed in the fluid to prevent freeze-ups. The Series 424 Valve can be used in any other pressure vessel where freeze-ups could be a problem.

## Features

- **Non-Freeze Construction** – Prevents freeze-up at the plug and seat.
- **Hammer Union Construction** – Reduced downtime for repair.
- **Replaceable Trim (RNCE available)** – Reduces cost.



## Standard Specifications

### Body Material

Low carbon steel

### End Connections

- Vessel 2" MNPT
- Inlet tube 1" FNPT
- Outlet 1" FNPT

### Body Cover

Steel union

### Diaphragm Operator

- Steel, 65 sq. in.
- Nylon reinforced Buna N diaphragm,
- Maximum recommended operating pressure 70 psi
- Maximum containment pressure 100 psi

## Standard Specifications (continued)

### Packing

Non-lubricated Buna N

### Maximum Working Pressure

3000 psi

### Temperature Limits -20°F to 250°F

-20°F to 250°F

### Stem Material

303 stainless steel

### Plug and Seat

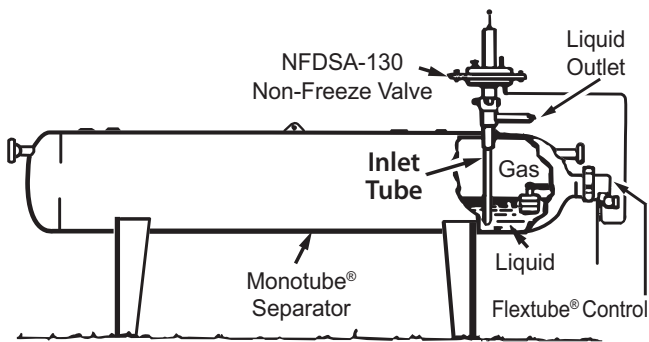
See schedule below

## Ordering Information

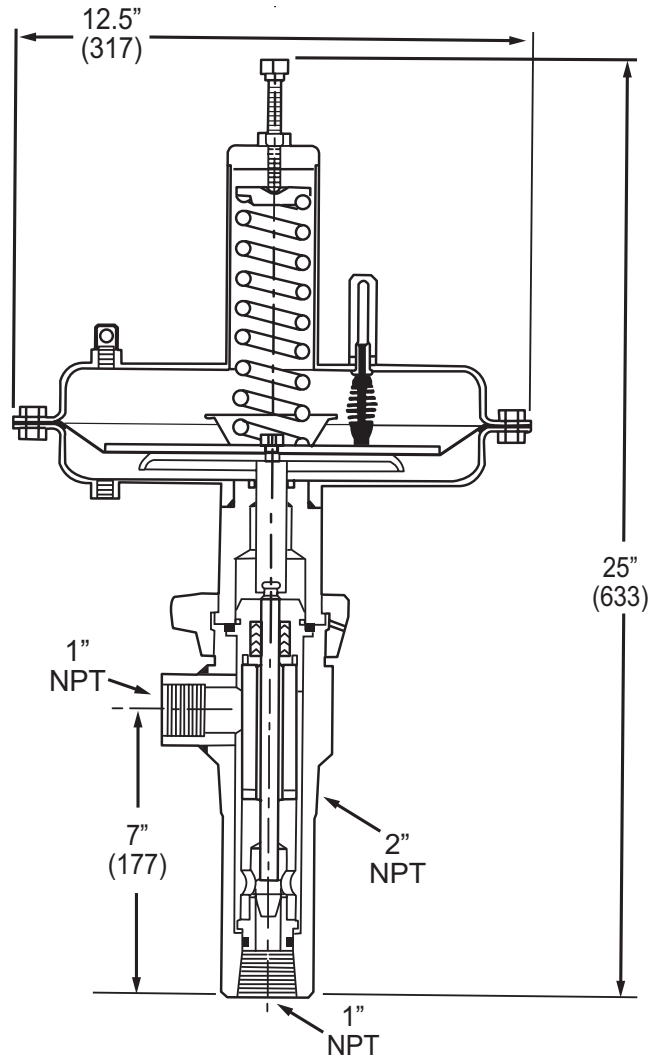
Size	Model Number	Max W.P.	Trim Size	Full Open Cv	Part Number			Weight (lbs)
					Taper			
					416 S.S.*	316 S.S.	Carbide	
2" x 1"	NFDSA-130-424	3000 psi	1/4"	1.7	80005708	--	80005703	45
			1/2"	6	--	80005704	80005702	

Notes: \* 416 Hardened Stainless Steel.

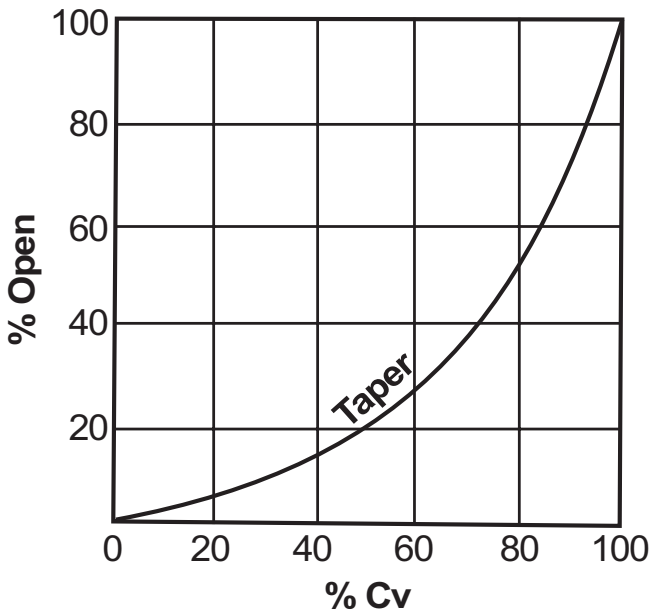
### Typical Hook-up



### Dimensions – Inches (mm)



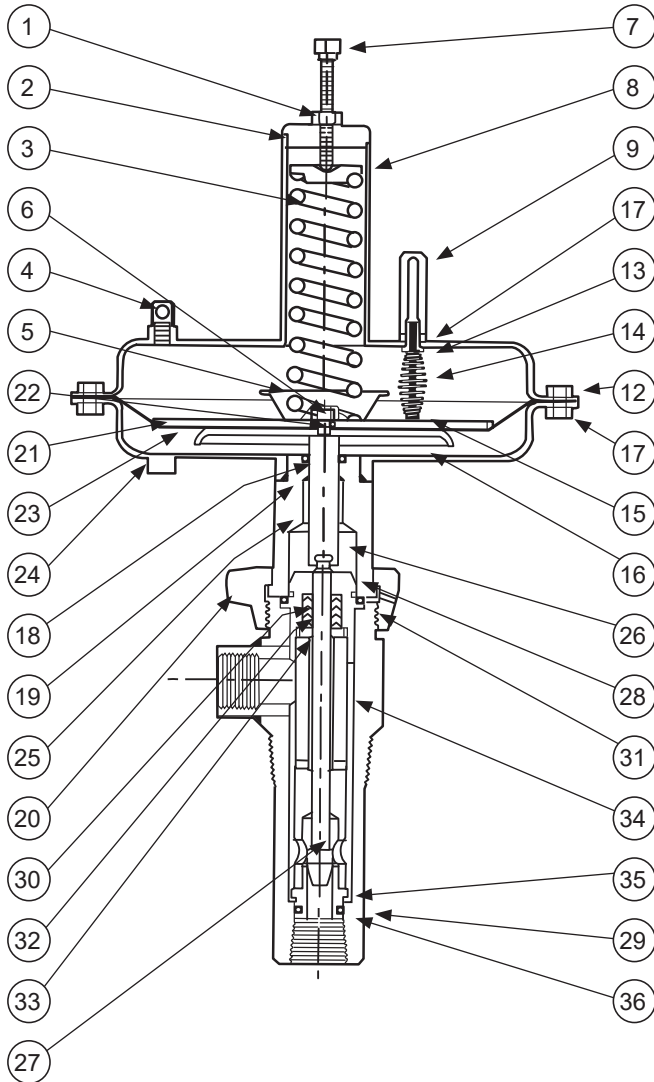
### Trim Characteristics



#### Notes:

- Standard topworks is direct action (normally closed) with 65 sq. in. effective area.
- Cv and Cg values are for fully open inner valve.
- Part numbers applicable only when valve desired is exactly as described above.
- To order specify Model Number, Part Number, Trim Description.
- See attached side for parts list.

Dimensions – Inches to the nearest tenth (millimeters to the nearest whole mm), each independently dimensioned from engineering drawings.



### Parts Key

\*Recommended spare parts. See trim set group in process.

\*\* See trim sets.

@ Included with trim sets.

Parts				
Item	N	Description	Qty.	Part No.
				1" Valve
1		Nut 1/2-13 Hex Jam	1	65008551
2		Upper Diaphragm Case	1	48004020
3	*	Spring	1	45008406
4		1/4" Bleeder Filter	1	45008406
5		Travel Stop	1	45002343
6		Nut 3/8-24 Flexloc	1	65001401
7		Screw 1/2-13 x 3" SQHSS	1	65000525
8		Upper Spring Rest	1	45001858
9	*	Sight Glass	1	45004223
12		Screw 3/8-16 x 7/8" HHCS	16	65003440
13		Bushing	1	45003129
14		Spring	1	45004315
15		Travel Indicator	1	45003502
16		Lower Diaphragm Plate	1	45001789
17		Nut 3/8-16 Hex	17	65001966
18	*	O-Ring BUN-210-90	1	67101263
19	*	O-Ring BUN-225-90	1	67101299
20		Hammer Nut	1	45001862
21		Upper Diaphragm Plate	1	45002776
22	*	O-Ring BUN-012-90	1	67102312
23	*	Diaphragm	1	45003460
24		Lower Diaphragm Case	1	48003459
25		Yoke	1	48001860
26		Upper Stem	1	45001861
27	@	Plug and Stem	1	**
28		Stuffing Box	1	45001952
29		Body	1	48001959
30	*	Packing Ring Flat 3/8 x 7/8	1	45002060
31	@	O-Ring BUN-224-90	1	67101870
32	*	Packing Ring Regular 3/8 x 7/8	5	45002061
33		Packing Follower	1	45001953
34		Seat Cage	1	45001960
35	@	Seat	1	**
36	@	O-Ring BUN-212-90	1	67102151

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer 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.

**TechnipFMC.com**

© TechnipFMC 2018. All rights reserved. Bulletin SSIN048 Issue/Rev. 0.1 (12/18)

TechnipFMC  
FMC Technologies, Inc.  
13460 Lockwood Road  
Building S01  
Houston, Texas 77044 USA  
P:+1 281.591.4000

USA Operation  
1602 Wagner Avenue  
Erie, Pennsylvania 16510 USA  
P:+1 814.898.5000

Germany Operation  
Smith Meter GmbH  
Regentstrasse 1  
25474 Ellerbek, Germany  
P:+49 4101.304.0