

## 304 Series Three-Way, Two Position Low Pressure Valve

### Application 2"- 4" Valve

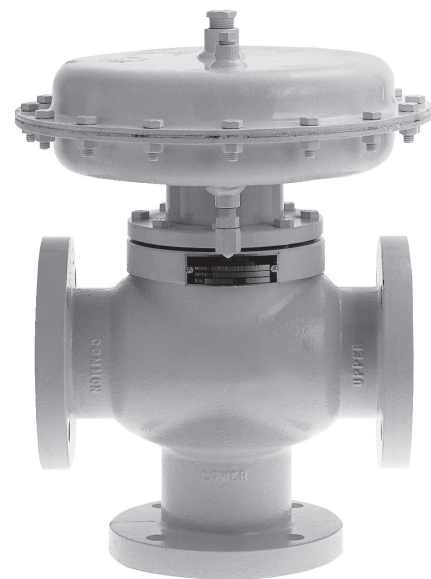
- Used for diverting or metering applications
- Designed for LACT units and other metering skids, low pressure well test manifolds and other applications requiring a diverting flow
- Flow passes through one common upper port to either the other upper side port or to the lower divert port
- Choice of actuation:
  - Pneumatic operated topworks
    - spring on top with air supply required to divert flow or
    - spring under with air supply required for straight through, side to side flow
  - Hydraulic electric actuator
- NACE material packages available

### Features and Benefits of the 304 Series Valve

- In-line serviceability of internal components
- Packing gland and seals material options
- Variety of trim plug and seat materials
- Heavy duty sealed visual indicator available
- Rebuild Kits available for all Pathway valves

### Benefits of ALL Pathway Control Products

- Personalized service and support expertise
- Responsive, on-time delivery
- Time-tested & proven design providing dependable, long-term service
- Valves and castings Made in USA



## 304 Series

### Three-Way, Two Position Low Pressure Valve

#### Specifications

Working Pressure:	2"	3"	4"	4H" High Flow
Threaded & Grooved	600 psig	300 psig	300 psig	-
150# RF Flange	275 psig	275 psig	275 psig	275 psig
300# RF Flange	600 psig	300 psig	300 psig	-

**Temperature:** -20° F to +180° F; Available to +240° F maximum temperature

Topworks:	
Pneumatic Actuated	Pressed steel diaphragm housing; Nitrile diaphragm (nylon reinforced) 50 psig maximum
Electric Actuated	Adaptor for Hydraulic Electric Actuator

Topworks Diameter:	13 <sup>3</sup> / <sub>16</sub> "	13 <sup>3</sup> / <sub>16</sub> "	13 <sup>3</sup> / <sub>16</sub> "	18"
Effective Area:	62 in <sup>2</sup>	62 in <sup>2</sup>	62 in <sup>2</sup>	123 in <sup>2</sup>

Cv Factor:				
Common to Upper Port	48	105	115	162
Common to Divert Port	64	150	160	224

#### Material Selections

**Body:** Ductile ASTM A395; nickel plating available for added corrosion resistance

**Stem:** 303 SST; K500 Monel stem available

**Seals & Packing:** Nitrile/molythane/brass packing gland, nitrile seals standard;  
Available in:  
 Fluorocarbon/brass packing gland, fluorocarbon seals  
 Nitrile/molythane/316 SST packing gland, nitrile seals, K500 Monel stem  
 Fluorocarbon/316 SST packing gland, fluorocarbon seals, K500 Monel stem  
 TFE V-Pak/brass packing gland, nitrile seals  
 TFE V-Pak/brass packing gland, fluorocarbon seals  
 TFE V-Pak/316 SST packing gland, fluorocarbon seals, K500 Monel stem

**Trim Seat:** Removable 303 SST standard  
Removable 316 SST, Hastelloy, 17-4 PH SST available

**Trim Plug:** Trim plug inserts available in Acetal, Polyurethane or Glass Filled TFE  
Hard trim available in 303 SST, 316 SST, Hastelloy, 17-4PH SST  
Throttling-assist attachment available

**NACE Package:** NACE materials including 316 SST internal wetted components, K500 Monel stem, fluorocarbon/316 SST packing gland, fluorocarbon seals, Glass filled TFE trim plug inserts; 316 SST or Hastelloy hard trim available

#### Maintenance

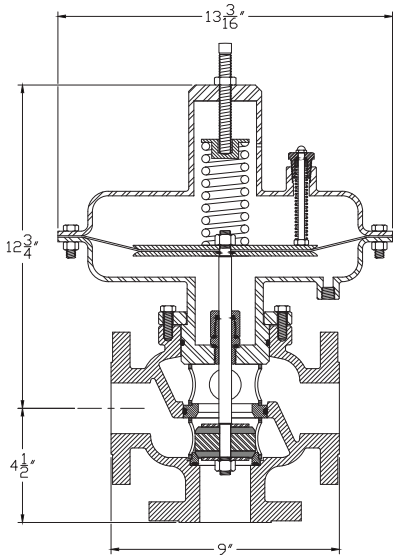
**Rebuild Kits:** Rebuild Kits available which include: valve packing gland, seals, trim plugs, valve stem, lock nuts and diaphragm (if applicable)

## 304 Series

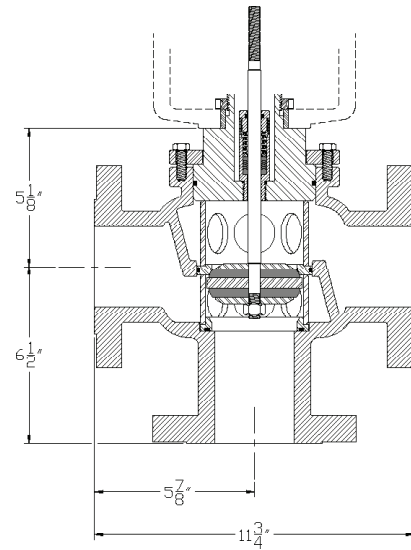
### Three-Way, Two Position Low Pressure Valve

#### Sample Models

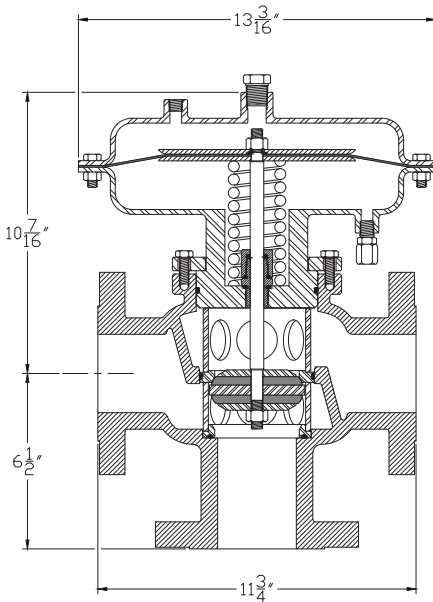
**304-231-12A2**



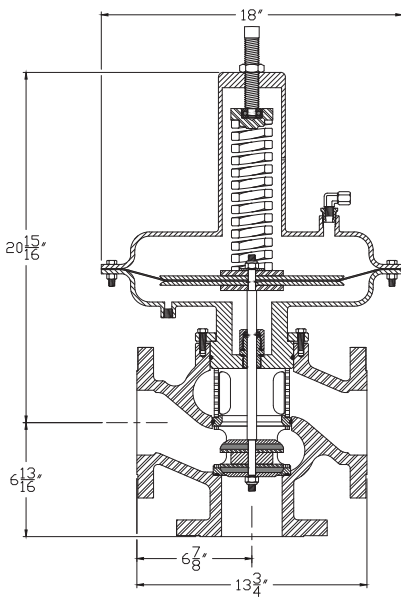
**304-337-12E1**



**304-332-12A1**



**304-4H31-12A1**



**Flanged Valve Dimensions**

	Face to Face	CL to Face
<b>2" 150# RF</b>	9"	4 1/2"
<b>3" 150# RF</b>	11 3/4"	6 1/2"
<b>4" 150# RF</b>	11"	6 1/8"
<b>4H" 150# RF</b>	13 3/4"	6 13/16"
<b>2" 300# RF</b>	9 1/4"	4 5/8"
<b>3" 300# RF</b>	12"	6 3/4"
<b>4" 300# RF</b>	14 3/4"	7 1/2"

**Threaded & Grooved Valve Dimensions**

	Face to Face	CL to Face
<b>2"</b>	9"	4 1/2"
<b>3"</b>	10 3/4"	5 3/8"
<b>4"</b>	11"	6 1/8"

**Other Dimensions**

The Centerline to topworks dimensions vary by the topworks selected and by valve size. Please Contact Pathway for dimensions of your particular valve model.

## 304 Series Three-Way, Two Position Low Pressure Valve

### Ordering Chart Example:

**304 - 3 3 1 - 1 2 A 2**

(#) Option #, see Special Materials & Features below

VALVE SIZE	
2	2" (Topworks 1,2,3,6 or 7)
3	3" (Topworks 1,2,3,6 or 7)
4	4" (Topworks 1,2,3,6 or 7)
4H	4" Higher flow body (Topworks 4,7,8 or 9)

CONNECTION	
1	Threaded (not available on 4H)
2	Grooved (not available on 4H)
3	Flanged - 150# RF
4	Flanged - 300# RF welded on 3" and 4" (not available on 4H)

TOPWORKS	
Diaphragm Operated	
1	Spring on top (62 in <sup>2</sup> ) - fail common port to upper
2	Spring under (62 in <sup>2</sup> ) - fail common port to lower
3	Pressure balanced (62 in <sup>2</sup> )
4	Spring on top (123 in <sup>2</sup> ) - fail common port to upper
8	Spring under (123 in <sup>2</sup> ) - fail common port to lower
9	Pressure Balanced (123 in <sup>2</sup> )
Adaptor for Hydraulic Electric Actuator	
6	Adaptor, actuator H10/11-B2
7	Adaptor, actuator H30/31-B10/21; H10/11-B8

TRIM SEATS	
1	303 SST standard
2	316 SST
H	Hastelloy
P	17-4 PH SST

TRIM PLUGS	
2	Acetal
3	Polyurethane
4	TFE glass-filled
8	303 SST hard trim
9	316 SST hard trim
H	Hastelloy hard trim
P	17-4 PH SST hard trim
T	Throttling-assist attachment (added to above)

Added Selections ( add as needed )	
1	No visual indicator
2	Heavy duty sealed visual indicator
N	NACE material - also choose: Trim Seat 2 or H Trim Plug 2, 3, 4, 9 or H Seals & Packing C, D or F
P	Nickel-plated non-stainless wetted parts
S	Stress relief for welded flanges

SEALS & PACKING	
A	Nitrile/molythane/brass packing gland, nitrile seals
B	Fluorocarbon/brass packing gland, fluorocarbon seals
C	Nitrile/molythane/316 SST packing gland, nitrile seals, K500 Monel stem
D	Fluorocarbon/316 SST packing gland, fluorocarbon seals, K500 Monel stem
E	TFE V-Pak/brass packing gland, nitrile seals
F	TFE V-Pak/316 SST packing gland, fluorocarbon seals, K500 Monel stem
G	TFE V-Pak/brass packing gland, fluorocarbon seals

SPECIAL MATERIAL & FEATURES	
5	Used by Pathway to indicate custom material and/or feature. Placed in model number in the position it relates to (eg. trim plug, trim seat, etc.). When used, an option number will be assigned by Pathway (see below)
(#)	Option # (in parentheses at end of model number) Pathway will assign option number unique to custom material and/or features