



CONTROLS SUPPLY CHAIN  
VALVES ACTUATORS INSTRUMENTATIONS

# AMERICAN METER COMPANY SERIES 3000



Installation Instructions

General Arrangements

Repair Parts Lists

Maintenance Instructions

For: 1-1/4", 1-1/2", 2", 3" & 4" Series 3000 Regulators

# Series 3000 Industrial Regulator

## General Information:

- Available Models – Standard regulator (Model 3000)  
– Monitor Regulator (Model 3010)
- Available Sizes – 1-1/4", 1-1/2" – screwed connections  
– 2" screwed, 2" ANSI 125 lb. flange  
– 3" and 4" ANSI 125 lb. flange
- Maximum Inlet Pressure – 30 PSIG
- Outlet Pressure Range – 2" W.C. to 56" W.C.

## Preparation

1. Install, operate, inspect, and maintain the regulator as outlined in these instructions and in accordance with your company's policies and applicable federal, state and local codes and laws. Installation and service to be performed by qualified personnel only.

Failure to follow these instructions may result in damage to the

### Warning:

Do not connect the inlet of the regulator to a normal pressure source higher than that recommended. Never connect the regulator outlet to the source of pressure. Observe the flow direction arrow on the valve head casting.

If inlet pressure can exceed the maximum regulator outlet pressure rating, some form of overpressure protection is required to prevent possible damage to the regulator and personnel injury.

2. Check installation location for suitability. It is possible that physical changes have been made to the building site since the regulator and location were originally selected.
3. Examine regulator for shipping damage.
4. Check regulator and piping for dirt or other foreign matter which may have accumulated during shipment or handling.
5. Check data plate to determine if regulator is suitable for intended service.
6. Suitable stop valve(s) should be installed and should be conveniently located.
7. The top vent of the regulator must be unobstructed and must not be submerged in water at any time.
8. Filters are available from the manufacturer for applications where pipeline contaminants are suspected to be present.
9. Regulators may be used at temperatures between -20°F and +150°F (-30°C and 65°C).

## Installation

1. Remove all shipping plugs.
2. Use good piping practice. Be sure piping and regulator are free of dirt, pipe dope and other debris. Apply pipe dope to male threads only.
3. The Series 3000 may be mounted in any position. Leave head room for removal of the diaphragm chamber to allow inspection of the valve seat. Make certain the regulator is piped up correctly with inlet pipe connection to the inlet connection and flow is in the direction as indicated by arrow located on body.
4. Turn gas on slowly. Outlet stop valves should be opened first. Do not overload the diaphragm with a sudden surge of inlet pressure.
5. Assure that there are no leaks and all connections are tight.
6. Pressure Adjustment:
  - (a) Turn gas off and depressurize the system.
  - (b) Install outlet pressure gauge. Remove seal plug, item (12), Fig. 1 for Models 1-1/4", 1-1/2", 2" and 3" only.
  - (c) Slowly turn gas on.
  - (d) Establish a low flow rate.
  - (e) Turn pressure-spring adjustment screw, on all models clockwise to increase outlet pressure or counterclockwise to decrease outlet pressure.

- (f) Establish a set pressure within the range limits of the pressure spring used.
- (g) To test for the regulator's ability to fully shut off (lock-up), shut off all flow downstream of the regulator. At lock-up, the outlet pressure will be somewhat higher than the set pressure. However, if the pressure continues to rise after three seconds, the regulator must be repaired. Observe for approximately 30 seconds.
- (h) When the set pressure has been properly adjusted and lockup tested, depressurize and remove gauges and lines.
- (i) Replace seal plug.
- (j) Pressurize – check all connections for leaks.

### Warning:

INSIDE INSTALLATION requires a vent line of sufficient diameter to carry gas vented by the relief valve to a safe outside location, away from any opening in the building. Vent-piping thread size is either 3/4-, 1- or 2-inch NPT depending on model. In accordance with the American National Standard for pipe threads ANSI B2.1. Keep vent lines as short and direct as possible.

OUTSIDE INSTALLATION requires that care be taken to prevent vent opening from freezing closed or becoming blocked or permitting water to enter from any cause. Particular consideration should be given to sites where flooding, snow or freezing rain may be experienced. The vent or vent-line port should point vertically downward, and overhead protection should be used where necessary. Periodically check vent to be certain it is not obstructed

## Inspection and Maintenance

### Warning:

If the regulator system develops a leak or vents gas, call a qualified gas serviceman promptly.

Inspection and maintenance of the 3000 regulator has been simplified for practical reasons. Access to the regulator is gained by removing the circular clamp ring, item (17), then lifting the entire regulator (less body) out of the line. A new working unit may be substituted while the one removed is being serviced. Repair parts are offered if maintenance of the regulator is required. Normal replacement parts are the seat disc, item (57), which can become pitted and worn and the Buna-N or felt ring (21) which may collect moisture or particles of foreign matter.

Lock-up tests should be conducted periodically to check the valve seat disc and valve cage sealing surface condition. Inspection of the valve seat disc and valve cage may be performed in the field. Follow the instructions below. Care should be exercised to prevent foreign matter from entering the regulator.

Procedure for inspection and replacement of the valve seat disc and/or valve cage:

1. Shut off gas supply and depressurize the regulator system.
2. Remove the clamp ring, item (17), by loosening the clamp tension nut just enough to slip the ring over the joint. Let the ring rest on the regulator body.
3. Lift the diaphragm chamber and valve assembly vertically from the body. Visually inspect the seating edge of the valve cage, item (19) and the valve seat disc, item (57). Replace if damaged.
4. To remove the seat disc and/or cage, grip the valve stem, item (18), with an open-end wrench and remove the retaining nut (26), valve stem flapper (25) and balancing piston (20). When reassembling the valve cage and valve seat, make certain the balancing piston is centered on the shoulder under the seat disc retainer (22). When tightening the retaining nut, be careful not to distort the valve stem flapper.
5. Apply silicone grease sparingly to the O-ring (56) at the bottom of the valve cage. Assemble the diaphragm chamber to the regulator body, keeping the chamber vertical and allowing its own weight to seat the assembly. Do not rotate the chamber as this may distort the secondary diaphragm (15). Center clamp ring over body joint and tighten clamp tension nut.

# Series 3000 Industrial Regulator

## Replacing the Pressure Spring

### 1-1/4" to 3" Models:

1. Shut off the gas supply and depressurize the regulator system. Remove the seal plug (2).
2. Unscrew pressure-adjusting screw (4) with a screwdriver and remove the pressure-adjusting screw completely.
3. Remove the pressure spring (52) and install a new pressure spring, centering the lower end of the spring in the spring guide (6).
4. Replace the pressure-adjusting screw and turn adjusting screw to about mid-position.
5. Adjust the outlet set pressure as described above and replace the seal plug.

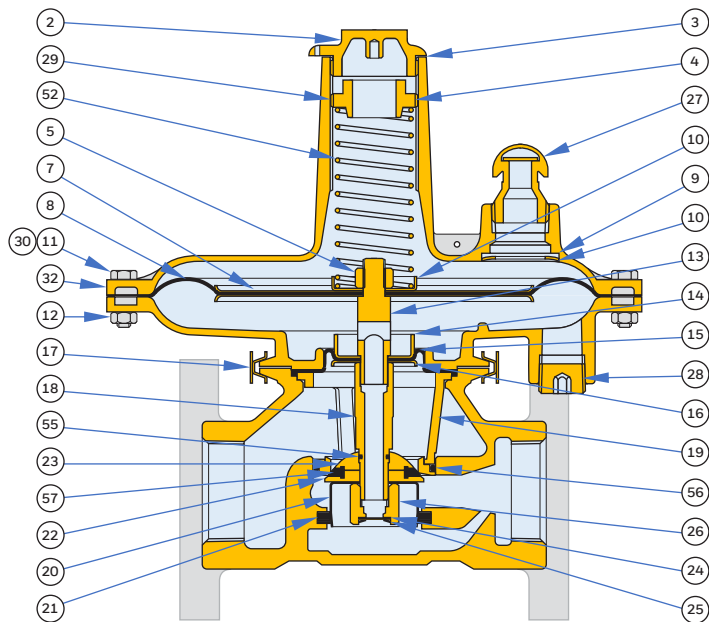
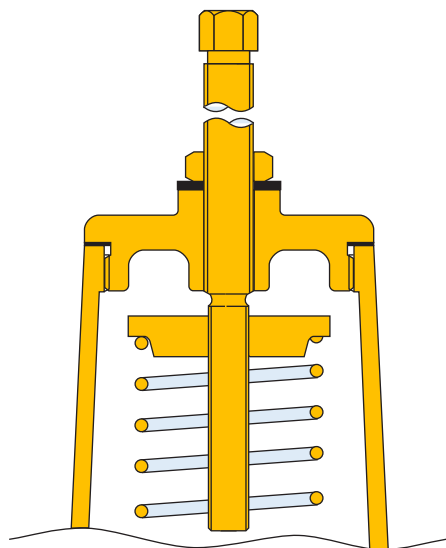


Figure 1



4" Model Only  
Pressure Spring Replacement

## Replacing the Pressure Spring 4" Model Only

1. To remove seal plug, first loosen adjusting-screw lock nut, completely back off adjusting screw and then turn down approximately 1/8" (two turns).  
Remove seal plug. Hold adjusting screw to prevent rotation while unscrewing seal plug. Replace pressure spring with lower end centered in spring guide.
2. To install seal plug assembly, position spring follower approximately 1/8" (two turns) from shoulder on adjusting screw. Engage slot of spring follower with inner rib in regulator top and hold spring follower up against underside of threads in top while engaging seal plug. Hold adjusting screw to prevent rotation while screwing seal plug into position.

### CAUTION

Regulators that have a pressure spring removed or replaced must have their set pressure established. If the pressure spring is different from that shown on the data plate, mark spring range on the regulator or on its tag and cross out the old value.

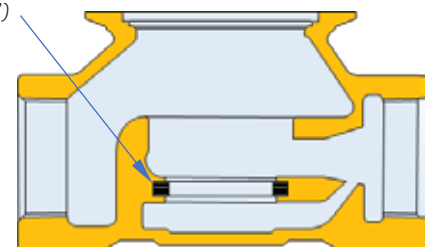
## Replacing the Diaphragm

1. To replace the diaphragm assembly, first remove the spring then the complete diaphragm chamber and valve assembly. Then remove the flange bolts (11) and lift off the upper diaphragm chamber (32). Remove the pressure spring. Grip the valve stem (13) with an open-end wrench and remove the diaphragm stem nut (5), spring guide, upper diaphragm plate (7) and the diaphragm (8). Do not remove the lower diaphragm plate (7).
2. Install the new diaphragm, the top diaphragm plate, spring guide and stem nut, being careful to align the diaphragm bolt holes with those in the body.
3. Place the upper diaphragm chamber over the diaphragm, with the vent in the proper position and install the bolts. Take care to prevent folds in the diaphragm between flanges. Install the range spring and adjusting screw.
4. Apply silicone grease sparingly to the O-ring at the bottom of valve cage and assemble the diaphragm chamber to the regulator body as previously described.
5. Adjust the outlet set pressure as described above and replace seal plug.

## Replacing the Felt Ring (2", 3", 4" sizes)

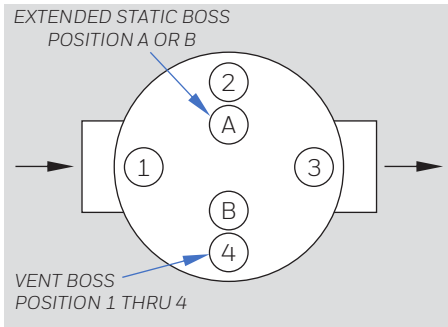
1. Remove the diaphragm chamber and valve-cage assembly.
2. Remove and install a new balancing-piston felt ring (21). The felt strip must be installed so that when placed in the groove, the side with the black identification stripes is facing toward the coupling-ring flange, and the joining ends should face the inlet port. Care should be taken to insure that even contact is made between the felt ring and the balancing piston throughout their circumference, including the point where the ends of the felt ring meet.

Black identification stripes (or letter "T")



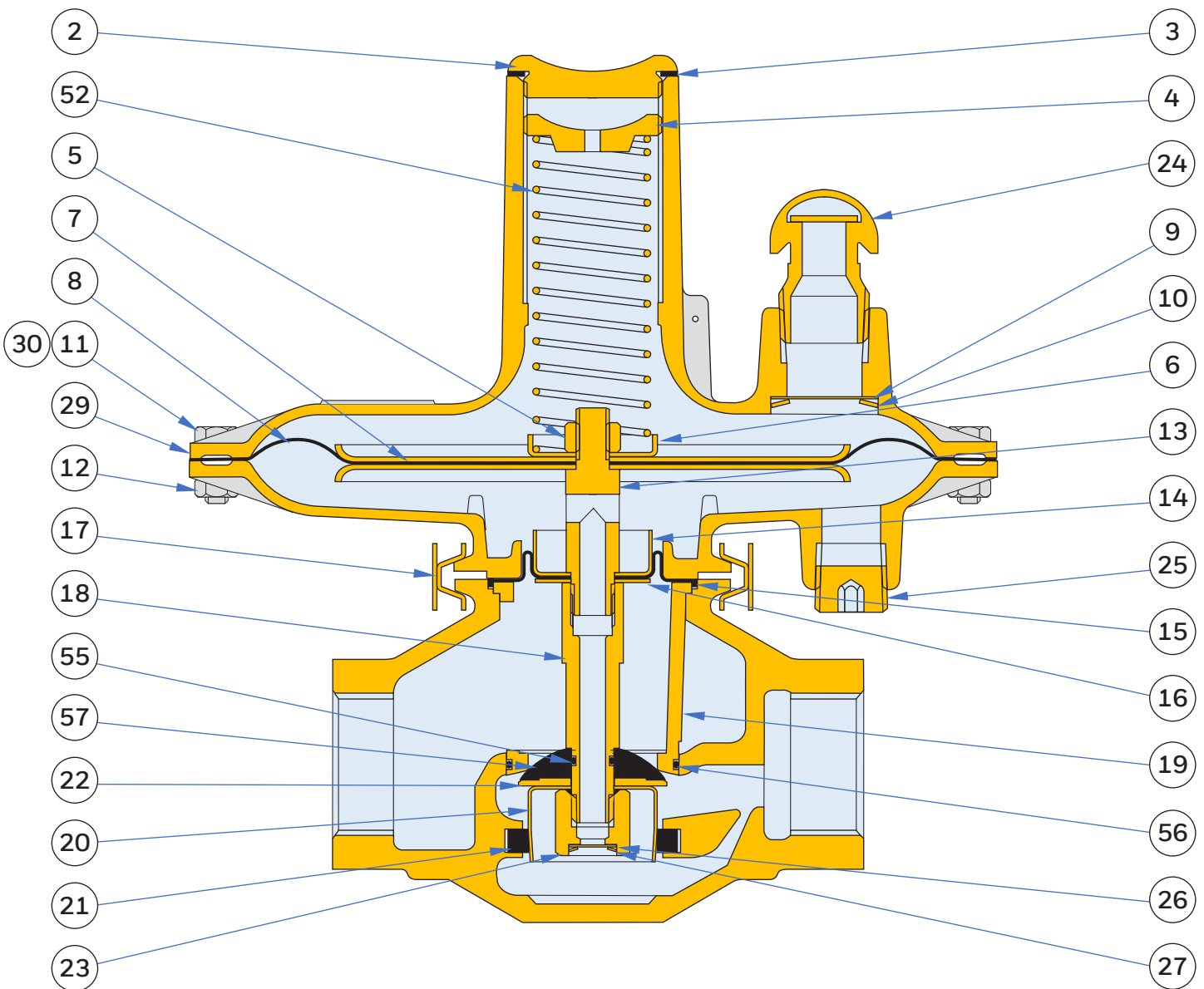
Note: When installing the Buna-N balancing piston ring in the 1-1/4" and 1-1/2" sizes, ensure that the letter T stamped on the ring faces upward.

# 1-1/4" and 1-1/2" Model 3000 Industrial Regulator Assembly



**Note:** Install balancing piston ring with "T" marking up. Joint can be in any position.

## Regulator Assembly Positions



# 1-1/4" and 1-1/2" Model 3000 Industrial Regulator Assembly

## Common Parts List

| Quantity | Item# | Part Name                     | Part No.  | Description |
|----------|-------|-------------------------------|-----------|-------------|
| 1        | 2     | Seal Plug                     | 73081P001 |             |
| 1        | 3     | Gasket (Seal Plug)            | 70019P098 |             |
| 1        | 4     | Pressure-Adjusting Screw      | 73080P001 |             |
| 1        | 5     | Diaphragm Stem Nut            | 78020P005 |             |
| 1        | 6     | Spring Guide                  | 72272P004 |             |
| 2        | 7     | Diaphragm Plate               | 70012P057 |             |
| 1        | 8     | Diaphragm                     | 70014P169 |             |
| 1        | 9     | Vent Flapper                  | 72163P017 |             |
| 1        | 10    | Retaining Ring (Vent Flapper) | 78074P009 |             |
| 8        | 11    | Hex-Head Cap Screw            | 78001P004 |             |
| 8        | 12    | Hex Nut                       | 22032P078 |             |
| 1        | 13    | Diaphragm Stem                | 73029P001 |             |
| 1        | 14    | Secondary Diaphragm Plate     | 73031P001 | Upper       |
| 1        | 15    | Secondary Diaphragm           | 73034P001 |             |
| 1        | 16    | Secondary Diaphragm Plate     | 70176P034 | Lower       |
| 1        | 17    | Body Coupling                 | 78134P001 |             |
| 1        | 18    | Valve Stem                    | 73030P001 |             |
| 1        | 19    | Valve Cage                    | 73027P001 |             |
| 1        | 20    | Balancing Piston              | 73032P001 |             |
| 1        | 21    | Balancing Piston Ring         | 74035P001 |             |
| 1        | 22    | Retainer                      | 73033P001 | Lower       |
| 1        | 23    | Balancing Piston Ret. Nut     | 73288P001 |             |
| 1        | 24    | Vent Cap                      | 78069P004 |             |
| 1        | 25    | Pipe Plug (Lower Chamber)     | 78039P025 | 3/4" NPT    |
| 1        | 26    | Valve-Stem Flapper            | 72163P013 |             |
| 1        | 27    | Ret. Ring (Vent-Stem Flap)    | 78074P013 |             |
| 1        | 28    | Tag                           | 78071P051 |             |
| 1        | 29    | Label                         | 78482P002 |             |

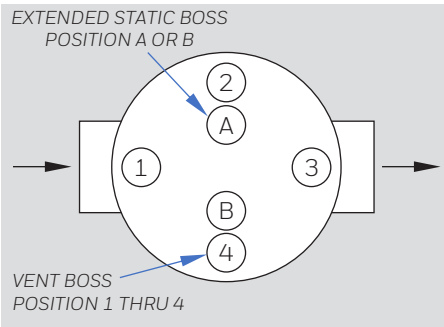
## Optional Parts List

| Quantity | Item# | Part Name                | Part No.  | Description       |
|----------|-------|--------------------------|-----------|-------------------|
| 1        | 52    | Pressure Spring          | 70156P033 | 1" – 3"           |
|          |       |                          | 70157P034 | 3" – 7"           |
|          |       |                          | 70157P035 | 7" – 14"          |
|          |       |                          | 70157P036 | 14" – 28"         |
|          |       |                          | 70157P037 | #1 – #2           |
| 1        | 55    | O-Ring (Valve Stem)      | 78037P005 | Buna-N (Standard) |
| 1        | 56    | O-Ring (Valve Cage)      | 78037P061 | Buna-N (Standard) |
|          |       |                          | 78037P081 | Viton             |
| 1        | 57    | Valve-Seat Disc Assembly | 73075G001 | Buna-N (Standard) |
|          |       |                          | 73075G002 | Viton             |

## Standard Spare Kits

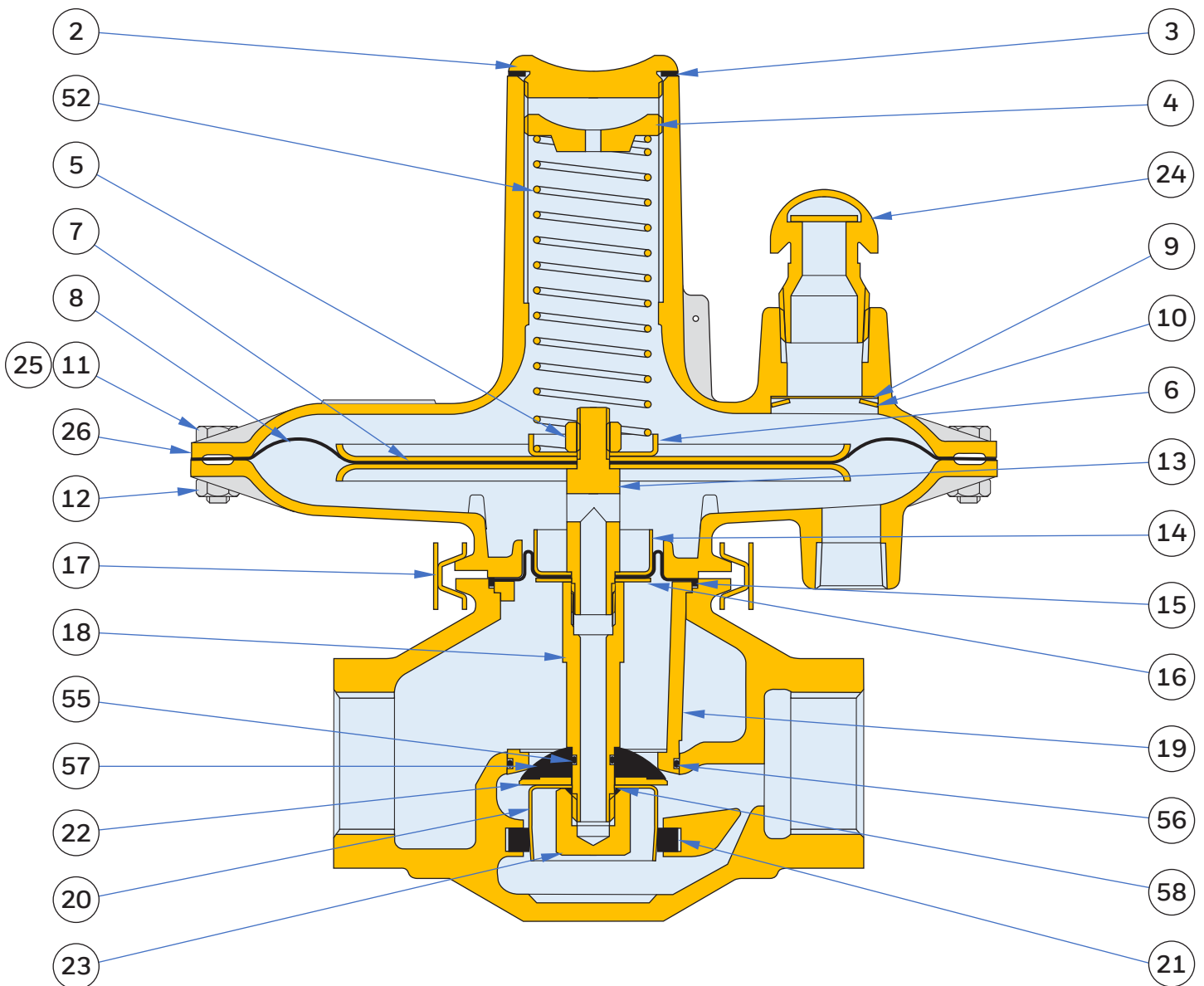
| Part Name | Part No.  | Description   |
|-----------|-----------|---|
| Spare Kit | 73913K001 | Includes Item # 3, 21, 26, 55, 56, 57                           |
| Spare Kit | 73913K002 | Includes Item # 3, 8, 9, 10, 11, 12, 15, 21, 26, 27, 55, 56, 57 |

# 1-1/4" and 1-1/2" Model 3010 Industrial Regulator Assembly



**Note:** Install balancing piston ring with "T" marking up. Joint can be in any position.

## Regulator Assembly Positions



# 1-1/4" and 1-1/2" Model 3010 Industrial Regulator Assembly

## Common Parts List

| Quantity | Item# | Part Name                     | Part No.  | Description |
|----------|-------|-------------------------------|-----------|-------------|
| 1        | 2     | Seal Plug                     | 73081P001 |             |
| 1        | 3     | Gasket (Seal Plug)            | 70019P098 |             |
| 1        | 4     | Pressure-Adjusting Screw      | 73080P001 |             |
| 1        | 5     | Diaphragm Stem Nut            | 78020P005 |             |
| 1        | 6     | Spring Guide                  | 72272P004 |             |
| 2        | 7     | Diaphragm Plate               | 70012P057 |             |
| 1        | 8     | Diaphragm                     | 70014P169 |             |
| 1        | 9     | Vent Flapper                  | 72163P017 |             |
| 1        | 10    | Retaining Ring (Vent Flapper) | 78074P009 |             |
| 8        | 11    | Hex-Head Cap Screw            | 78001P004 |             |
| 8        | 12    | Hex Nut                       | 22032P078 |             |
| 1        | 13    | Diaphragm Stem                | 73029P001 |             |
| 1        | 14    | Secondary Diaphragm Plate     | 73031P001 | Upper       |
| 1        | 15    | Secondary Diaphragm           | 73034P001 |             |
| 1        | 16    | Secondary Diaphragm Plate     | 70176P034 | Lower       |
| 1        | 17    | Body Coupling                 | 78134P001 |             |
| 1        | 18    | Valve Stem                    | 73030P001 |             |
| 1        | 19    | Valve Cage                    | 73027P001 |             |
| 1        | 20    | Balancing Piston              | 73032P001 |             |
| 1        | 21    | Balancing Piston Ring         | 74035P001 |             |
| 1        | 22    | Retainer                      | 73033P001 | Lower       |
| 1        | 23    | Balancing Piston Ret. Nut     | 73288P001 |             |
| 1        | 24    | Vent Cap                      | 78069P004 | 1" NPT      |
| 1        | 25    | Tag                           | 78071P051 |             |
| 1        | 26    | Label                         | 78482P002 |             |

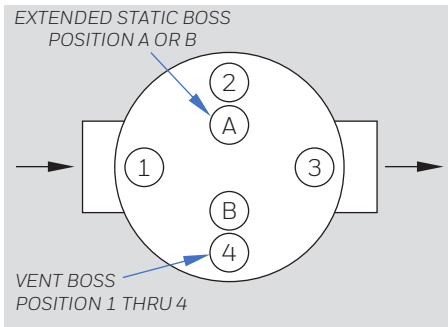
## Optional Parts List

| Quantity | Item# | Part Name                | Part No.  | Description       |
|----------|-------|--------------------------|-----------|-------------------|
| 1        | 52    | Pressure Spring          | 70156P033 | 1" - 3"           |
|          |       |                          | 70157P034 | 3" - 7"           |
|          |       |                          | 70157P035 | 7" - 14"          |
|          |       |                          | 70157P036 | 14" - 28"         |
|          |       |                          | 70157P037 | #1 - #2           |
| 1        | 55    | O-Ring (Valve Stem)      | 78037P005 | Buna-N (Standard) |
|          |       |                          | 78037P074 | Viton             |
| 1        | 56    | O-Ring (Valve Cage)      | 78037P061 | Buna-N (Standard) |
|          |       |                          | 78037P081 | Viton             |
| 1        | 57    | Valve-Seat Disc Assembly | 73075G001 | Buna-N (Standard) |
|          |       |                          | 73075G002 | Viton             |
| 1        | 58    | O-Ring (Piston Ret. Cap) | 78037P062 | Buna-N (Standard) |
|          |       |                          | 78037P082 | Viton             |

## Standard Spare Kits

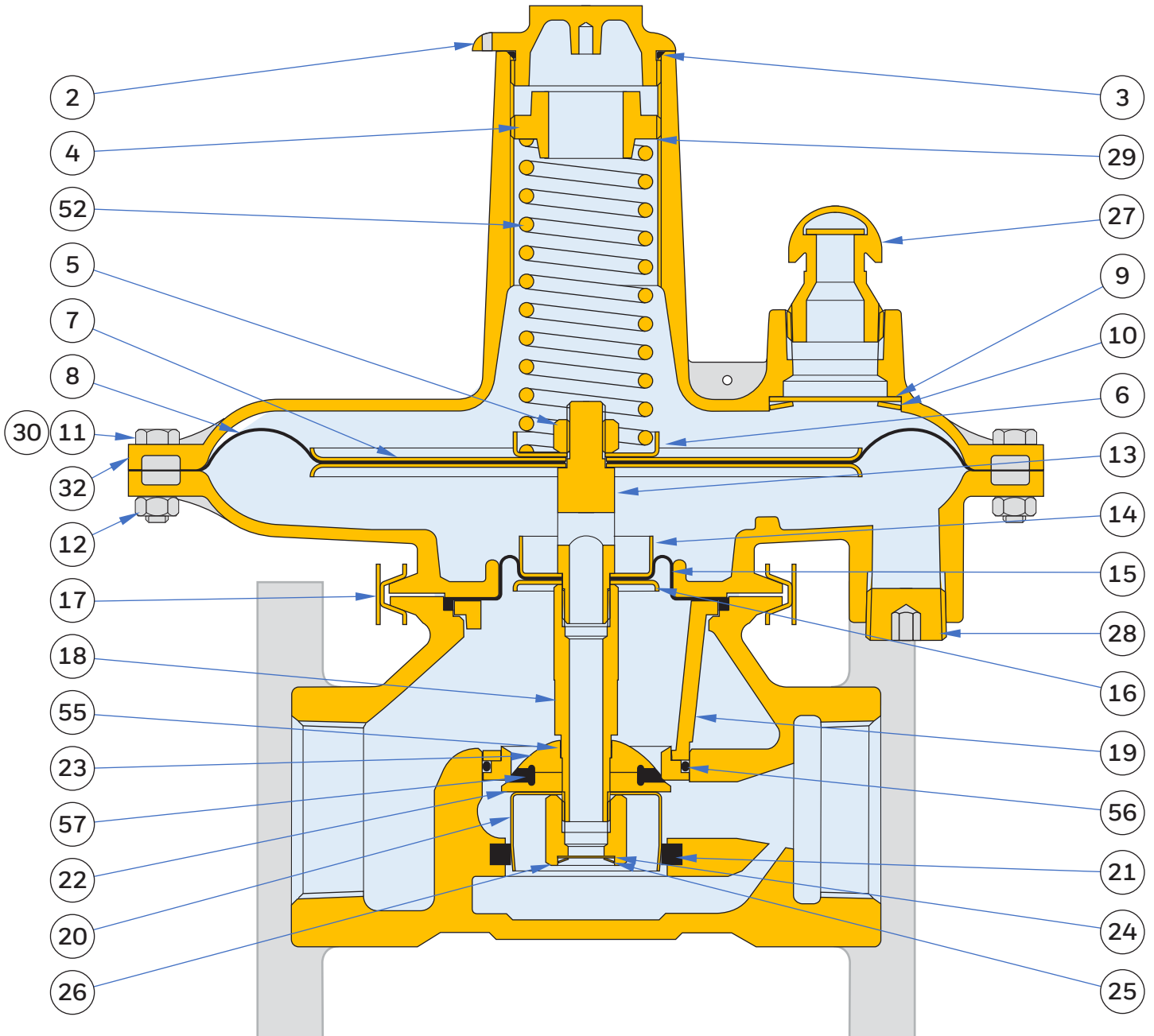
| Part Name | Part No.  | Description   |
|-----------|-----------|---|
| Spare Kit | 73913K001 | Includes Item # 3, 21, 26, 55, 56, 57                   |
| Spare Kit | 73913K002 | Includes Item # 3, 8, 9, 10, 11, 12, 15, 21, 55, 56, 57 |

# 2" Model 3000 Industrial Regulator Assembly



**Note:** Install felt ring with black stripes up. Joint to be located on valve inlet side.

## Regulator Assembly Positions





## 2" Model 3000 Industrial Regulator Assembly

### Common Parts List

| Quantity | Item# | Part Name                     | Part No.  | Description |
|----------|-------|-------------------------------|-----------|-------------|
| 1        | 2     | Seal Plug                     | 70103P001 |             |
| 1        | 3     | O-Ring (Seal Plug)            | 42710P107 |             |
| 1        | 4     | Pressure-Adjusting Screw      | 73183P001 |             |
| 1        | 5     | Diaphragm Stem Nut            | 78020P008 |             |
| 1        | 6     | Spring Guide                  | 70012P038 |             |
| 2        | 7     | Diaphragm Plate               | 70012P046 |             |
| 1        | 8     | Diaphragm                     | 70014P156 |             |
| 1        | 9     | Vent Flapper                  | 72770P002 |             |
| 1        | 10    | Retaining Ring (Vent Flapper) | 92943P118 |             |
| 12       | 11    | Hex-Head Cap Screw            | 78001P032 |             |
| 12       | 12    | Hex Nut                       | 78020P003 |             |
| 1        | 13    | Diaphragm Stem                | 72694P001 |             |
| 1        | 14    | Secondary Diaphragm Plate     | 72689P001 | Upper       |
| 1        | 15    | Secondary Diaphragm           | 72688P001 |             |
| 1        | 16    | Secondary Diaphragm Plate     | 70012P049 | Lower       |
| 1        | 17    | Body Coupling                 | 78134P002 |             |
| 1        | 18    | Valve Stem                    | 72687P001 |             |
| 1        | 19    | Valve Cage                    | 72691P004 |             |
| 1        | 20    | Balancing Piston              | 72695P001 |             |
| 1        | 21    | Felt Ring                     | 72699P001 |             |
| 1        | 22    | Seat-Disc Retainer            | 72959P001 | Lower       |
| 1        | 23    | Seat-Disc Retainer            | 72960P001 | Upper       |
| 1        | 24    | Valve-Stem Flapper            | 72163P011 |             |
| 1        | 25    | Ret. Ring (Valve Stem Flap)   | 78074P024 |             |
| 1        | 26    | Balancing Piston Ret. Nut     | 73286P001 |             |
| 1        | 27    | Vent Cap                      | 78069P005 | 1" NPT      |
| 1        | 28    | Pipe Plug (Lower Chamber)     | 78039P011 | 3/4" NPT    |
| 1        | 29    | Spring Follower               | 73261P001 |             |
| 1        | 30    | Tag                           | 78071P051 |             |
| 1        | 31    | Instruction Tag               | 73790P001 |             |
| 1        | 32    | Label                         | 78482P002 |             |

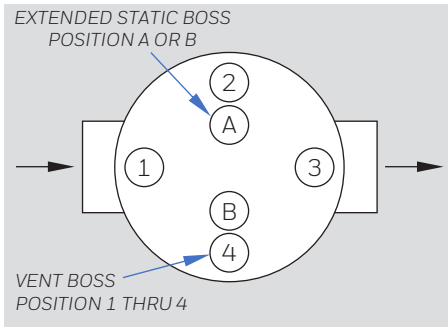
### Optional Parts List

| Quantity | Item# | Part Name           | Part No.  | Description       |
|----------|-------|---------------------|-----------|-------------------|
| 1        | 52    | Pressure Spring     | 70157P025 | 1" – 3"           |
|          |       |                     | 70157P027 | 3" – 7"           |
|          |       |                     | 70157P006 | 7" – 14"          |
|          |       |                     | 70157P017 | 14" – 28"         |
|          |       |                     | 70157P024 | #1 – #2           |
| 1        | 55    | O-Ring (Valve Stem) | 78037P054 | Buna-N (Standard) |
|          |       |                     | 78037P079 | Viton             |
| 1        | 56    | O-Ring (Valve Cage) | 78037P040 | Buna-N (Standard) |
|          |       |                     | 78037P076 | Viton             |
| 1        | 57    | Valve-Seat Disc     | 72696P001 | Buna-N (Standard) |
|          |       |                     | 72696P002 | Viton             |

### Standard Spare Kits

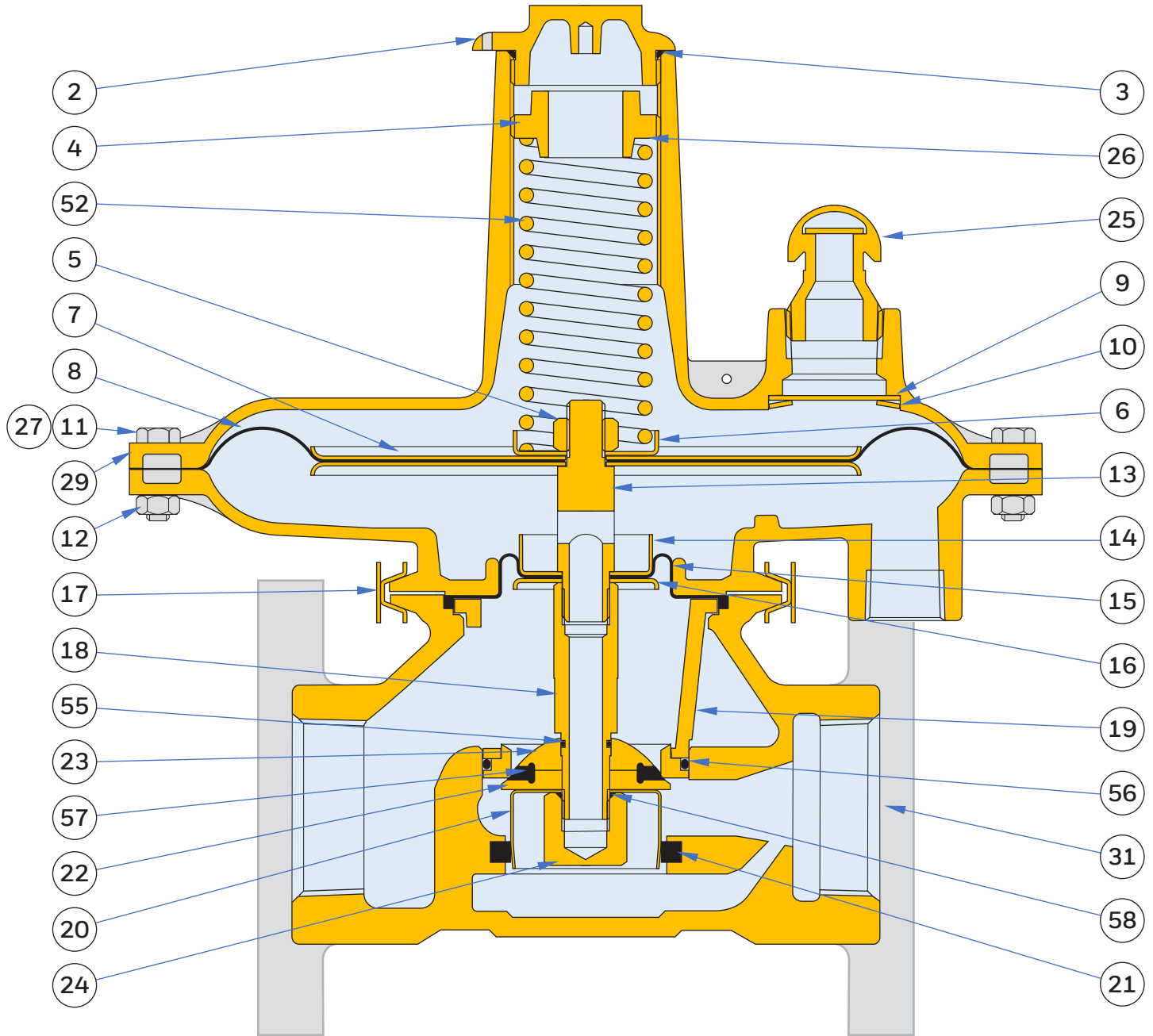
| Part Name | Part No.  | Description   |
|-----------|-----------|---|
| Spare Kit | 73913K003 | Includes Item # 3, 21, 24, 55, 56, 57                           |
| Spare Kit | 73913K004 | Includes Item # 3, 8, 9, 10, 11, 12, 15, 21, 24, 25, 55, 56, 57 |

## 2" Model 3010 Industrial Regulator Assembly



**Note:** Install felt ring with black stripes up. Joint to be located on valve inlet side.

### Regulator Assembly Positions



## 2" Model 3010 Industrial Regulator Assembly

### Common Parts List

| Quantity | Item# | Part Name                     | Part No.  | Description |
|----------|-------|-------------------------------|-----------|-------------|
| 1        | 2     | Seal Plug                     | 70103P001 |             |
| 1        | 3     | O-Ring (Seal Plug)            | 42710P107 |             |
| 1        | 4     | Pressure-Adjusting Screw      | 73183P001 |             |
| 1        | 5     | Diaphragm Stem Nut            | 78020P008 |             |
| 1        | 6     | Spring Guide                  | 70012P038 |             |
| 2        | 7     | Diaphragm Plate               | 70012P046 |             |
| 1        | 8     | Diaphragm                     | 70014P156 |             |
| 1        | 9     | Vent Flapper                  | 72770P002 |             |
| 1        | 10    | Retaining Ring (Vent Flapper) | 92943P118 |             |
| 12       | 11    | Hex Head Cap Screw            | 78001P032 |             |
| 12       | 12    | Hex Nut                       | 78020P003 |             |
| 1        | 13    | Diaphragm Stem                | 72694P001 |             |
| 1        | 14    | Secondary Diaphragm Plate     | 72689P001 | Upper       |
| 1        | 15    | Secondary Diaphragm           | 72688P001 |             |
| 1        | 16    | Secondary Diaphragm Plate     | 70012P049 | Lower       |
| 1        | 17    | Body Coupling                 | 78134P002 |             |
| 1        | 18    | Valve Stem                    | 72687P001 |             |
| 1        | 19    | Valve Cage                    | 72691P004 |             |
| 1        | 20    | Balancing Piston              | 72695P001 |             |
| 1        | 21    | Felt Ring                     | 72699P001 |             |
| 1        | 22    | Seat-Disc Retainer            | 72959P001 | Lower       |
| 1        | 23    | Seat-Disc Retainer            | 72960P001 | Upper       |
| 1        | 24    | Balancing Piston Ret. Cap     | 72966P001 |             |
| 1        | 25    | Vent Cap                      | 78069P005 | 1" NPT      |
| 1        | 26    | Spring Follower               | 73261P001 |             |
| 1        | 27    | Tag                           | 78071P051 |             |
| 1        | 28    | Instruction Tag               | 73790P001 |             |
| 1        | 29    | Label                         | 78482P002 |             |

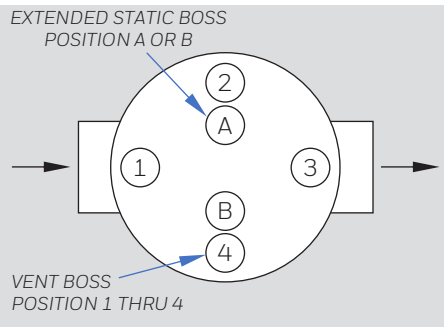
### Optional Parts List

| Quantity | Item# | Part Name           | Part No.  | Description       |
|----------|-------|---------------------|-----------|-------------------|
| 1        | 52    | Pressure Spring     | 70157P025 | 1" - 3"           |
|          |       |                     | 70157P027 | 3" - 7"           |
|          |       |                     | 70157P006 | 7" - 14"          |
|          |       |                     | 70157P017 | 14" - 28"         |
|          |       |                     | 70157P024 | #1 - #2           |
| 1        | 55    | O-Ring (Valve Stem) | 78037P054 | Buna-N (Standard) |
|          |       |                     | 78037P079 | Viton             |
| 1        | 56    | O-Ring (Valve Cage) | 78037P040 | Buna-N (Standard) |
|          |       |                     | 78037P076 | Viton             |
| 1        | 57    | Valve-Seat Disc     | 72696P001 | Buna-N (Standard) |
|          |       |                     | 72696P002 | Viton             |
| 1        | 58    | O-Ring (Piston Cap) | 78037P037 | Buna-N (Standard) |
|          |       |                     | 78037P085 | Viton             |

### Standard Spare Kits

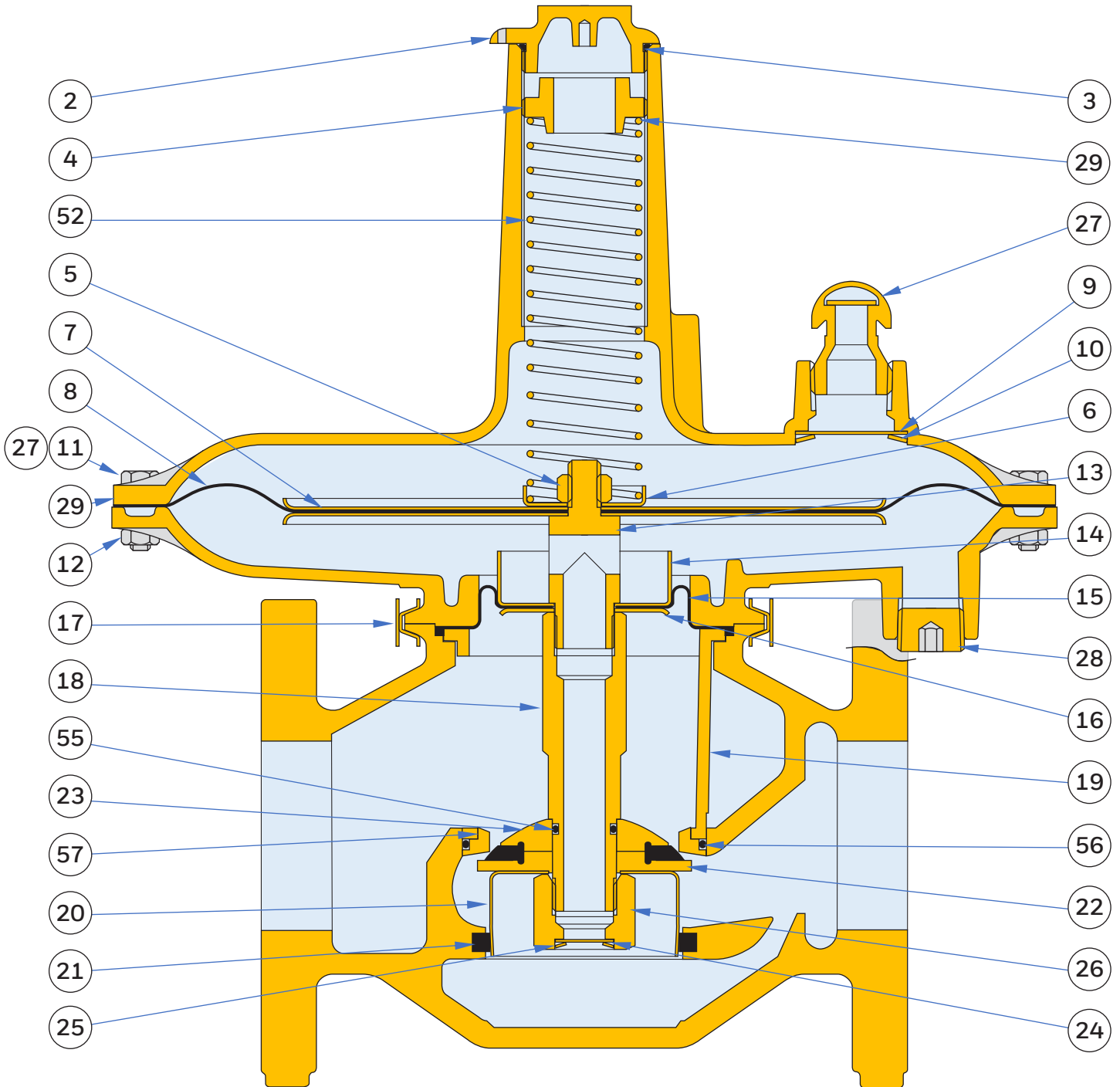
| Part Name | Part No.  | Description   |
|-----------|-----------|---|
| Spare Kit | 73913K003 | Includes Item # 3, 21, 55, 56, 57                               |
| Spare Kit | 73913K004 | Includes Item # 3, 8, 9, 10, 11, 12, 15, 21, 24, 25, 55, 56, 57 |

# 3" Model 3000 Industrial Regulator Assembly



**Note:** Install balancing piston ring with black stripes up. Joint to be located on valve inlet side.

## Regulator Assembly Positions



## 3" Model 3000 Industrial Regulator Assembly

### Common Parts List

| Quantity | Item# | Part Name                     | Part No.  | Description |
|----------|-------|-------------------------------|-----------|-------------|
| 1        | 2     | Seal Plug                     | 70103P001 |             |
| 1        | 3     | O-Ring (Seal Plug)            | 42710P107 |             |
| 1        | 4     | Pressure-Adjusting Screw      | 73183P001 |             |
| 1        | 5     | Diaphragm Stem Nut            | 78020P008 |             |
| 1        | 6     | Spring Guide                  | 70012P038 |             |
| 2        | 7     | Diaphragm Plate               | 70012P033 |             |
| 1        | 8     | Diaphragm                     | 70014P179 |             |
| 1        | 9     | Vent Flapper                  | 72770P002 |             |
| 1        | 10    | Retaining Ring (Vent Flapper) | 92943P118 |             |
| 12       | 11    | Hex-Head Cap Screw            | 78001P032 |             |
| 12       | 12    | Hex Nut                       | 78020P003 |             |
| 1        | 13    | Diaphragm Stem                | 72976P001 |             |
| 1        | 14    | Secondary Diaphragm Plate     | 72977P001 | Upper       |
| 1        | 15    | Secondary Diaphragm           | 72968P001 |             |
| 1        | 16    | Secondary Diaphragm Plate     | 70012P048 | Lower       |
| 1        | 17    | Body Coupling                 | 78134P003 |             |
| 1        | 18    | Valve Stem                    | 72973P001 |             |
| 1        | 19    | Valve Cage                    | 72962P002 |             |
| 1        | 20    | Balancing Piston              | 72975P001 |             |
| 1        | 21    | Felt Ring                     | 72699P002 |             |
| 1        | 22    | Seat-Disc Retainer            | 72974P001 | Lower       |
| 1        | 23    | Seat-Disc Retainer            | 72970P001 | Upper       |
| 1        | 24    | Valve-Stem Flapper            | 72163P012 |             |
| 1        | 25    | Ret. Ring (Valve Stem Flap)   | 78074P025 |             |
| 1        | 26    | Balancing Piston Ret. Nut     | 73287P001 |             |
| 1        | 27    | Vent Cap                      | 78069P005 | 1" NPT      |
| 1        | 28    | Pipe Plug (Lower Chamber)     | 78039P011 | 3/4" NPT    |
| 1        | 29    | Spring Follower               | 73261P001 |             |
| 1        | 30    | Tag                           | 78071P051 |             |
| 1        | 31    | Instruction Tag               | 73790P001 |             |
| 1        | 32    | Label                         | 78482P002 |             |

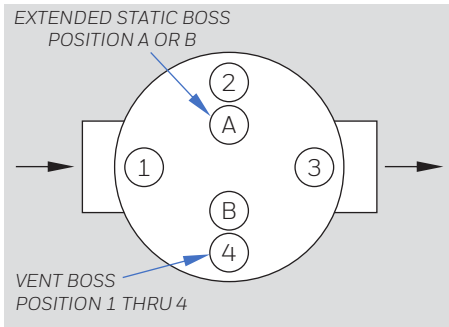
### Optional Parts List

| Quantity | Item# | Part Name           | Part No.  | Description       |
|----------|-------|---------------------|-----------|-------------------|
| 1        | 52    | Pressure Spring     | 70157P028 | 1" - 3"           |
|          |       |                     | 70157P029 | 3" - 7"           |
|          |       |                     | 70157P030 | 7" - 14"          |
|          |       |                     | 70157P031 | 14" - 28"         |
|          |       |                     | 70157P032 | #1 - #2           |
| 1        | 55    | O-Ring (Valve Stem) | 78037P044 | Buna-N (Standard) |
|          |       |                     | 78037P077 | Viton             |
| 1        | 56    | O-Ring (Valve Cage) | 78037P045 | Buna-N (Standard) |
|          |       |                     | 78037P078 | Viton             |
| 1        | 57    | Valve-Seat Disc     | 72696P001 | Buna-N (Standard) |
|          |       |                     | 72696P002 | Viton             |

### Standard Spare Kits

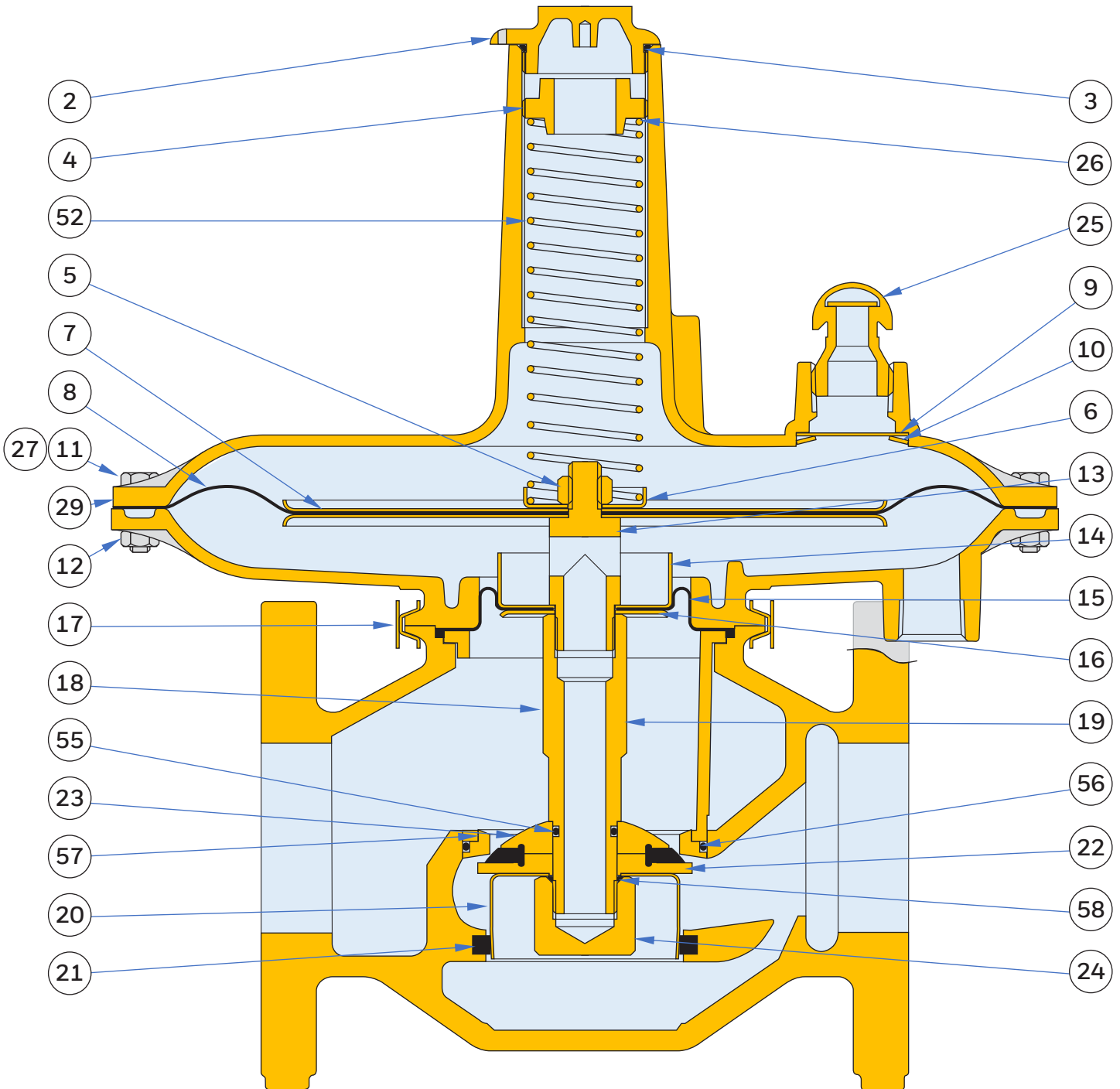
| Part Name | Part No.  | Description   |
|-----------|-----------|---|
| Spare Kit | 73913K005 | Includes Item # 3, 21, 24, 55, 56, 57                           |
| Spare Kit | 73913K006 | Includes Item # 3, 8, 9, 10, 11, 12, 15, 21, 24, 25, 55, 56, 57 |

# 3" Model 3010 Industrial Regulator Assembly



**Note:** Install balancing piston ring with black stripes up. Joint to be located on valve inlet side.

## Regulator Assembly Positions



## 3" Model 3010 Industrial Regulator Assembly

### Common Parts List

| Quantity | Item# | Part Name                     | Part No.  | Description |
|----------|-------|-------------------------------|-----------|-------------|
| 1        | 2     | Seal Plug                     | 70103P001 |             |
| 1        | 3     | O-Ring (Seal Plug)            | 42710P107 |             |
| 1        | 4     | Pressure-Adjusting Screw      | 73183P001 |             |
| 1        | 5     | Diaphragm Stem Nut            | 78020P008 |             |
| 1        | 6     | Spring Guide                  | 70012P038 |             |
| 2        | 7     | Diaphragm Plate               | 70012P033 |             |
| 1        | 8     | Diaphragm                     | 70014P179 |             |
| 1        | 9     | Vent Flapper                  | 72770P002 |             |
| 1        | 10    | Retaining Ring (Vent Flapper) | 92943P118 |             |
| 12       | 11    | Hex-Cap Screw                 | 78001P032 |             |
| 12       | 12    | Hex Nut                       | 78020P003 |             |
| 1        | 13    | Diaphragm Stem                | 72976P001 |             |
| 1        | 14    | Secondary Diaphragm Plate     | 72977P001 | Upper       |
| 1        | 15    | Secondary Diaphragm           | 72968P001 |             |
| 1        | 16    | Secondary Diaphragm Plate     | 70012P048 | Lower       |
| 1        | 17    | Body Coupling                 | 78134P003 |             |
| 1        | 18    | Valve Stem                    | 72973P001 |             |
| 1        | 19    | Valve Cage                    | 72962P002 |             |
| 1        | 20    | Balancing Piston              | 72975P001 |             |
| 1        | 21    | Felt Ring                     | 72699P002 |             |
| 1        | 22    | Seat-Disc Retainer            | 72974P001 | Lower       |
| 1        | 23    | Seat-Disc Retainer            | 72970P001 | Upper       |
| 1        | 24    | Balancing Piston Ret. Cap     | 73005P001 |             |
| 1        | 25    | Vent Cap                      | 78069P005 | 1" NPT      |
| 1        | 26    | Spring Follower               | 73261P001 |             |
| 1        | 27    | Tag                           | 78071P051 |             |
| 1        | 28    | Instruction Tag               | 73790P001 |             |
| 1        | 29    | Label                         | 78482P002 |             |

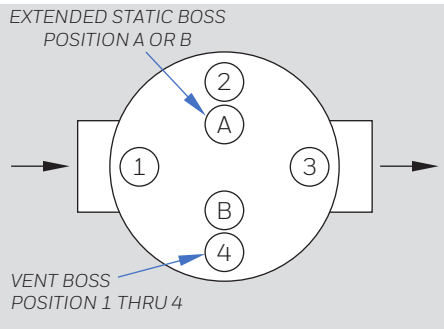
### Optional Parts List

| Quantity | Item# | Part Name                | Part No.  | Description       |
|----------|-------|--------------------------|-----------|-------------------|
| 1        | 52    | Pressure Spring          | 70157P028 | 1" - 3"           |
|          |       |                          | 70157P029 | 3" - 7"           |
|          |       |                          | 70157P030 | 7" - 14"          |
|          |       |                          | 70157P031 | 14" - 28"         |
|          |       |                          | 70157P032 | #1 - #2           |
| 1        | 55    | O-Ring (Valve Stem)      | 78037P044 | Buna-N (Standard) |
|          |       |                          | 78037P077 | Viton             |
| 1        | 56    | O-Ring (Valve Cage)      | 78037P045 | Buna-N (Standard) |
|          |       |                          | 78037P078 | Viton             |
| 1        | 57    | Valve-Seat Disc          | 72696P001 | Buna-N (Standard) |
|          |       |                          | 72696P002 | Viton             |
| 1        | 58    | O-Ring (Piston Ret. Cap) | 78037P056 | Buna-N (Standard) |
|          |       |                          | 78037P080 | Viton             |

### Standard Spare Kits

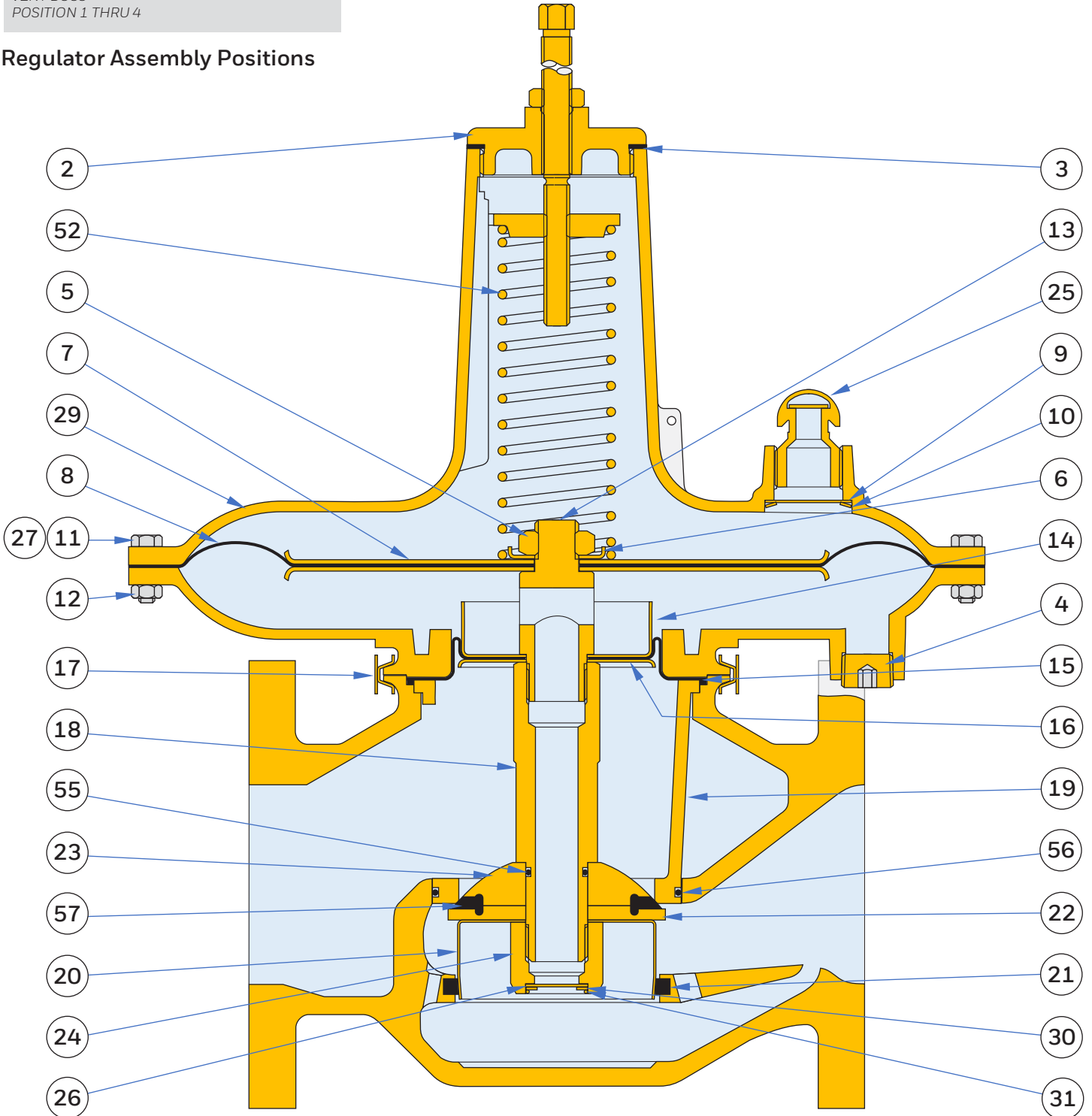
| Part Name | Part No.  | Description   |
|-----------|-----------|---|
| Spare Kit | 73913K005 | Includes Item # 3, 21, 24, 55, 56, 57                           |
| Spare Kit | 73913K006 | Includes Item # 3, 8, 9, 10, 11, 12, 15, 21, 24, 25, 55, 56, 57 |

# 4" Model 3000 Industrial Regulator Assembly



**Note:** Install balancing piston ring with black stripes up. Joint to be located on valve inlet side.

## Regulator Assembly Positions





## 4" Model 3000 Industrial Regulator Assembly

### Common Parts List

| Quantity | Item# | Part Name                     | Part No.  | Description |
|----------|-------|-------------------------------|-----------|-------------|
| 1        | 2     | Seal-Plug Assembly            | 73486G001 |             |
| 1        | 3     | Seal-Plug Gasket              | 70019P087 |             |
| 1        | 4     | Pipe Plug (Lower Chamber)     | 78039P011 |             |
| 1        | 5     | Diaphragm Stem Nut            | 78022P008 |             |
| 1        | 6     | Spring Guide                  | 70012P062 |             |
| 2        | 7     | Diaphragm Plate               | 70012P060 |             |
| 1        | 8     | Diaphragm                     | 70014P180 |             |
| 1        | 9     | Vent Flapper                  | 72770P002 |             |
| 1        | 10    | Retaining Ring (Vent Flapper) | 92943P118 |             |
| 16       | 11    | Hex-Head Cap Screw            | 78001P032 |             |
| 16       | 12    | Hex Nut                       | 78020P003 |             |
| 1        | 13    | Diaphragm Stem                | 73001P001 |             |
| 1        | 14    | Secondary Diaphragm Plate     | 72993P001 | Upper       |
| 1        | 15    | Secondary Diaphragm           | 72997P001 |             |
| 1        | 16    | Secondary Diaphragm Plate     | 70012P059 | Lower       |
| 1        | 17    | Body Coupling                 | 78134P004 |             |
| 1        | 18    | Valve Stem                    | 73000P001 |             |
| 1        | 19    | Valve-Cage Assembly           | 72998P001 |             |
| 1        | 20    | Balancing Piston              | 72994P001 |             |
| 1        | 21    | Felt Ring                     | 72699P007 |             |
| 1        | 22    | Seat-Disc Retainer            | 72996P001 | Lower       |
| 1        | 23    | Seat-Disc Retainer            | 72995P001 | Upper       |
| 1        | 24    | Balancing Piston Ret. Nut     | 73289P001 |             |
| 1        | 25    | Vent Cap                      | 78069P005 | 1" NPT      |
| 1        | 26    | Stem-Flapper Stop             | 73329P001 |             |
| 1        | 27    | Tag                           | 78071P051 |             |
| 1        | 28    | Instruction Tag               | 73790P001 |             |
| 1        | 29    | Label                         | 78482P002 |             |
| 1        | 30    | Valve-Stem Flapper            | 72163P014 |             |
| 1        | 31    | Retaining Ring (Stem Flapper) | 78074P009 |             |

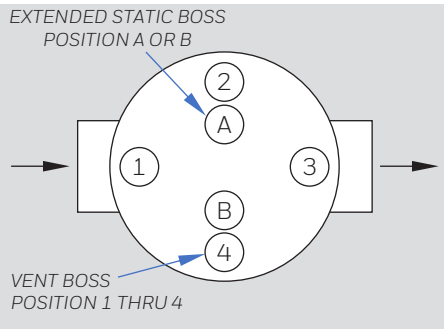
### Optional Parts List

| Quantity | Item# | Part Name           | Part No.  | Description       |
|----------|-------|---------------------|-----------|-------------------|
| 1        | 52    | Pressure Spring     | 71411P036 | 4" – 8"           |
|          |       |                     | 71411P034 | 7" – 14"          |
|          |       |                     | 71411P037 | 14" – 28"         |
|          |       |                     | 71411P038 | #1 – #2           |
| 1        | 55    | O-Ring (Valve Stem) | 78037P064 | Buna-N (Standard) |
|          |       |                     | 78037P083 | Viton             |
| 1        | 56    | O-Ring (Valve Cage) | 78037P065 | Buna-N (Standard) |
|          |       |                     | 78037P084 | Viton             |
| 1        | 57    | Valve-Seat Disc     | 72999P001 | Buna-N (Standard) |
|          |       |                     | 72999P002 | Viton             |

### Standard Spare Kits

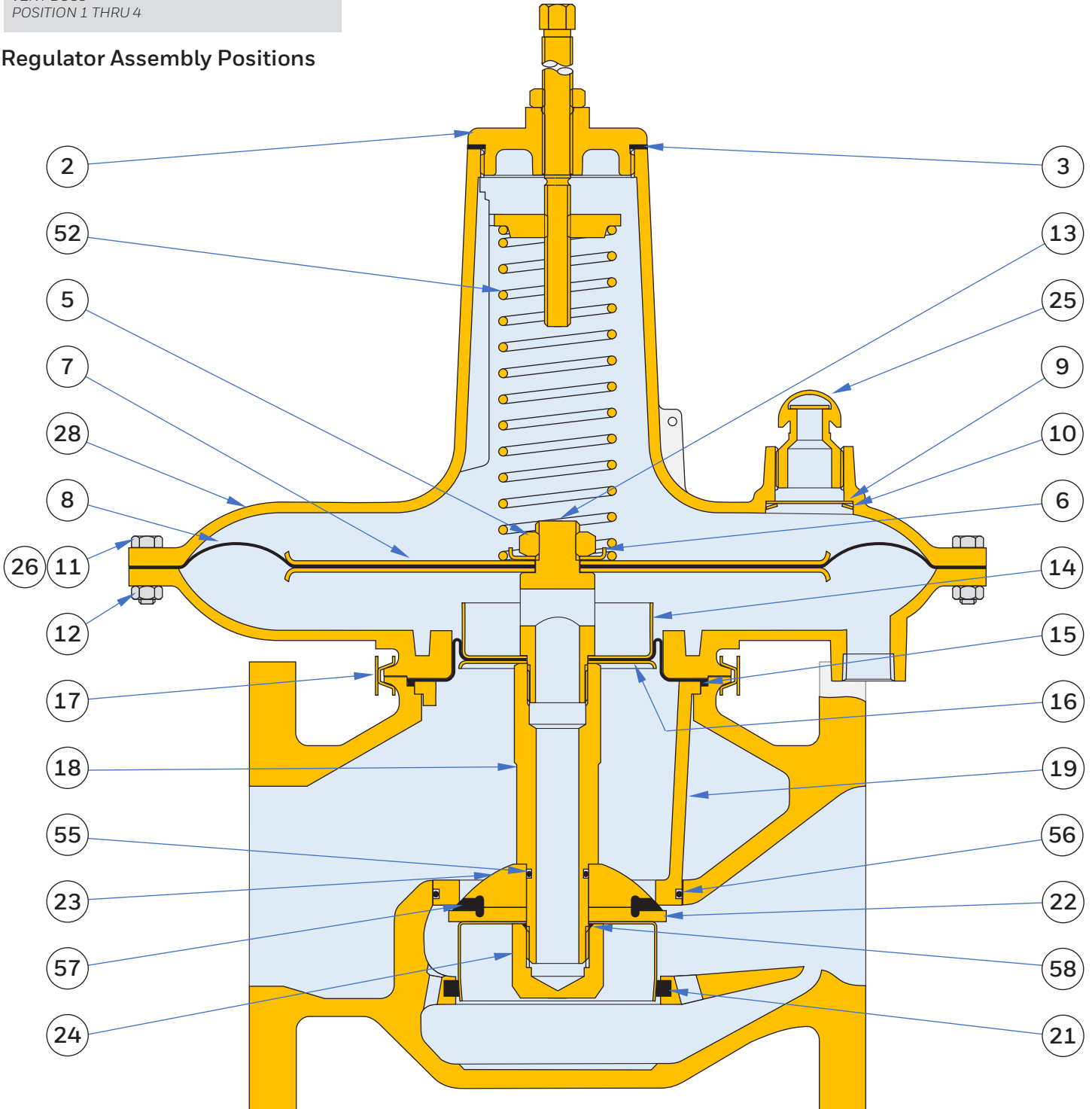
| Part Name | Part No.  | Description   |
|-----------|-----------|---|
| Spare Kit | 73913K007 | Includes Item # 3, 21, 30, 55, 56, 57                           |
| Spare Kit | 73913K008 | Includes Item # 3, 8, 9, 10, 11, 12, 15, 21, 30, 31, 55, 56, 57 |

# 4" Model 3010 Industrial Regulator Assembly



**Note:** Install balancing piston ring with black stripes up. Joint to be located on valve inlet side.

## Regulator Assembly Positions



## 4" Model 3010 Industrial Regulator Assembly

### Common Parts List

| Quantity | Item# | Part Name                     | Part No.  | Description |
|----------|-------|-------------------------------|-----------|-------------|
| 1        | 2     | Seal-Plug Assembly            | 73486G001 |             |
| 1        | 3     | Seal-Plug Gasket              | 70019P087 |             |
| 1        | 4     | Caplug                        | 78068P047 |             |
| 1        | 5     | Diaphragm Stem Nut            | 78022P008 |             |
| 1        | 6     | Spring Guide                  | 70012P062 |             |
| 2        | 7     | Diaphragm Plate               | 70012P060 |             |
| 1        | 8     | Diaphragm                     | 70014P180 |             |
| 1        | 9     | Vent Flapper                  | 72770P002 |             |
| 1        | 10    | Retaining Ring (Vent Flapper) | 92943P118 |             |
| 16       | 11    | Hex-Head Cap Screw            | 78001P032 |             |
| 16       | 12    | Hex Nut                       | 78020P003 |             |
| 1        | 13    | Diaphragm Stem                | 73001P001 |             |
| 1        | 14    | Secondary Diaphragm Plate     | 72993P001 | Upper       |
| 1        | 15    | Secondary Diaphragm           | 72997P001 |             |
| 1        | 16    | Secondary Diaphragm Plate     | 70012P059 | Lower       |
| 1        | 17    | Body Coupling                 | 78134P004 |             |
| 1        | 18    | Valve Stem                    | 73000P001 |             |
| 1        | 19    | Valve-Cage Assembly           | 72998P001 |             |
| 1        | 20    | Balancing Piston              | 72994P001 |             |
| 1        | 21    | Felt Ring                     | 72699P007 |             |
| 1        | 22    | Seat-Disc Retainer            | 72996P001 | Lower       |
| 1        | 23    | Seat-Disc Retainer            | 72995P001 | Upper       |
| 1        | 24    | Balancing Piston Ret. Cap     | 73290P001 |             |
| 1        | 25    | Vent Cap                      | 78069P005 | 1" NPT      |
| 1        | 26    | Tag                           | 78071P051 |             |
| 1        | 27    | Instruction Tag               | 73790P001 |             |
| 1        | 28    | Label                         | 78482P002 |             |

### Optional Parts List

| Quantity | Item# | Part Name           | Part No.  | Description       |
|----------|-------|---------------------|-----------|-------------------|
| 1        | 52    | Pressure Spring     | 71411P036 | 4" – 8"           |
|          |       |                     | 71411P034 | 7" – 14"          |
|          |       |                     | 71411P037 | 14" – 28"         |
|          |       |                     | 71411P038 | #1 – #2           |
| 1        | 55    | O-Ring (Valve Stem) | 78037P064 | Buna-N (Standard) |
|          |       |                     | 78037P083 | Viton             |
| 1        | 56    | O-Ring (Valve Cage) | 78037P065 | Buna-N (Standard) |
|          |       |                     | 78037P084 | Viton             |
| 1        | 57    | Valve-Seat Disc     | 72999P001 | Buna-N (Standard) |
|          |       |                     | 72999P002 | Viton             |
| 1        | 58    | O-Ring (Piston Cap) | 78037P041 | Buna-N (Standard) |
|          |       |                     | 78037P088 | Viton             |

### Standard Spare Kits

| Part Name | Part No.  | Description   |
|-----------|-----------|---|
| Spare Kit | 73913K005 | Includes Item # 3, 21, 24, 55, 56, 57                           |
| Spare Kit | 73913K006 | Includes Item # 3, 8, 9, 10, 11, 12, 15, 21, 24, 25, 55, 56, 57 |

## Caution

“As a knowledgeable user of American Meter’s products, we are sure that you are aware that parts in the Company’s meters and regulators contain or are coated with heavy metals such as cadmium, zinc, lead and chromium. Obviously, therefore, repair or refurbishment of this equipment should take into account the presence of these materials and should comply with all state and federal requirements concerning worker protection, proper disposal and safety, including protection against exposure to dust and fumes.”

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