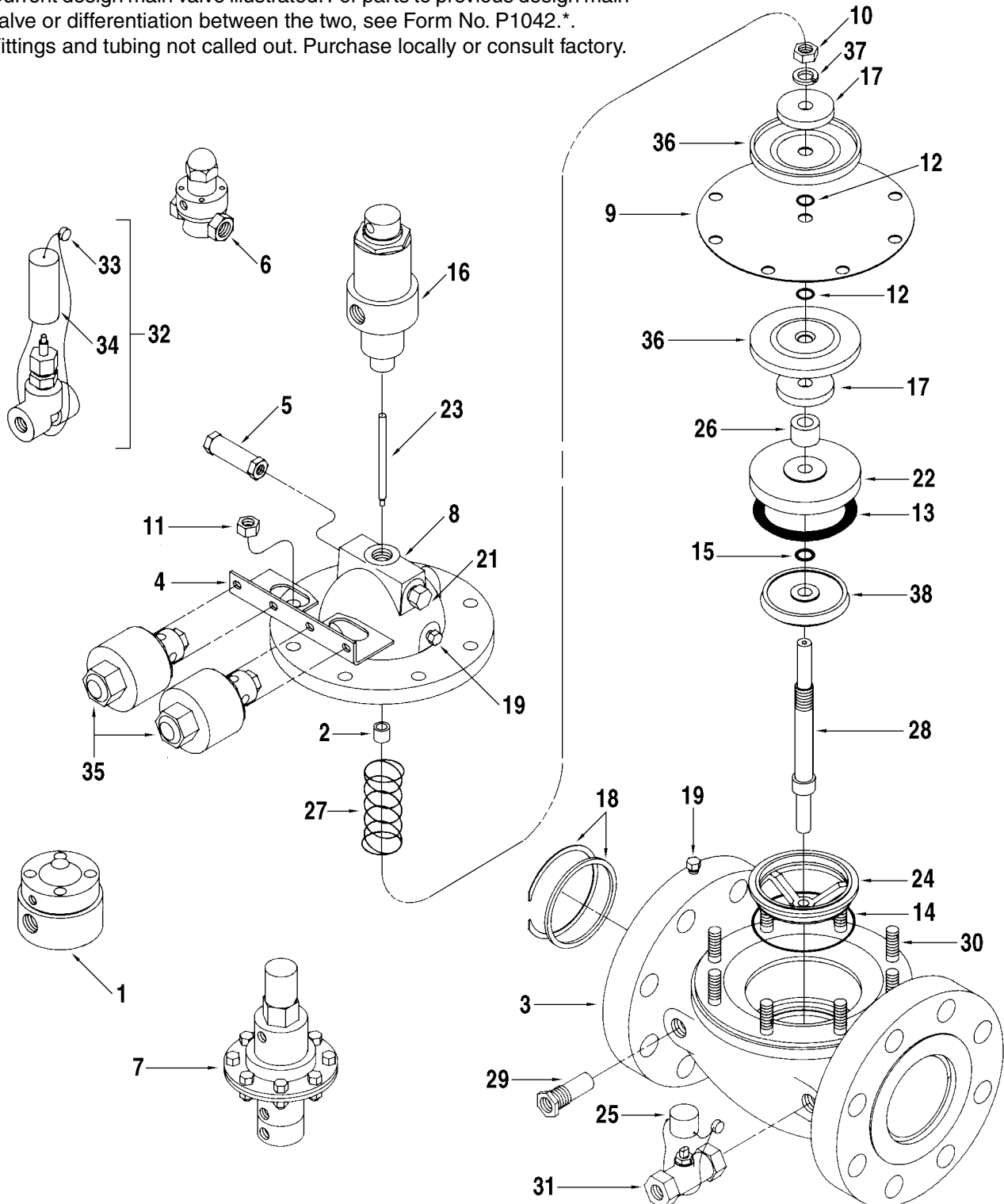


Current design main valve illustrated. For parts to previous design main valve or differentiation between the two, see Form No. P1042.\*.  
Fittings and tubing not called out. Purchase locally or consult factory.



\*The latest edition is indicated by a 2-digit postscript (e.g., .01, .02, etc.).

| Item |    | Description                                                 | Qty. | Part Number |
|------|----|-------------------------------------------------------------|------|-------------|
| 1    | @1 | Accelerator, Model 21A .....                                | 1    | See Note @1 |
| 2    |    | Bearing:                                                    |      |             |
|      |    | Bronze .....                                                | 1    | 640688-021  |
|      |    | Stainless Steel .....                                       | 1    | 526389-007  |
|      |    | Steel.....                                                  | 1    | 524262-007  |
|      |    | Ni-Resist (PTFE <sup>1</sup> Valve) .....                   | 1    | 529675-004  |
| 3    |    | Body:                                                       |      |             |
|      |    | Class 150, Steel.....                                       | 1    | 528705-001  |
|      |    | Class 300, Steel.....                                       | 1    | 528801-001  |
| 4    |    | Bracket .....                                               | 1    | 526355-001  |
| 5    | @2 | Check Feature, Model 10B.....                               | 1    | See Note @2 |
| 6    | @3 | Check Feature, Diaphragm, Model 12.....                     | 1    | See Note @3 |
| 7    | @4 | Control, Rate of Flow, Model 40A.....                       | 1    | See Note @4 |
| 8    |    | Cover:                                                      |      |             |
|      |    | Standard - Steel.....                                       | 1    | 528765-001  |
|      |    | Epoxy Coated - Steel.....                                   | 1    | 528765-031  |
|      |    | PTFE <sup>1</sup> - Steel (Includes Bearing).....           | 1    | 528765-004  |
| 9    | +  | Diaphragm:                                                  |      |             |
|      |    | Buna-N.....                                                 | 1    | 507400-001  |
|      | R  | Low Swell Buna .....                                        | 1    | 507400-009  |
|      |    | Viton.....                                                  | 1    | 507400-002  |
|      |    | EPR .....                                                   | 1    | 507400-003  |
|      |    | Gylon .....                                                 | 1    | 507400-008  |
| 10   |    | Nut, Stem, 7/8"-14, UNF-2B, Stainless Steel .....           | 1    | 643756-403  |
| 11   |    | Nut, Stud:                                                  |      |             |
|      |    | Standard, 5/8"-11, UNC-2B - Low Carbon Steel.....           | 12   | 642138-405  |
|      |    | PTFE <sup>1</sup> Valve, 5/8"-11, UNC-2B, High Tensile..... | 12   | 006309-400  |
| 12   | +  | O-Ring, Diaphragm:                                          |      |             |
|      |    | Buna-N.....                                                 | 2    | 640887-009  |
|      |    | Viton.....                                                  | 2    | 640798-420  |
|      |    | EPR .....                                                   | 2    | 641558-409  |
|      |    | PTFE <sup>1</sup> .....                                     | 2    | 645487-418  |
| 13   | +  | O-Ring, Retainer:                                           |      |             |
|      |    | Buna-N.....                                                 | 1    | 507573-001  |
|      | R  | Low Swell Buna .....                                        | 1    | 507573-008  |
|      |    | Viton.....                                                  | 1    | 507573-003  |
|      |    | EPR .....                                                   | 1    | 507573-004  |
|      |    | PTFE <sup>1</sup> .....                                     | 1    | 507573-005  |
| 14   | +  | O-Ring, Seat:                                               |      |             |
|      |    | Buna-N.....                                                 | 1    | 641136-403  |
|      |    | Viton.....                                                  | 1    | 643313-401  |
|      |    | EPR .....                                                   | 1    | 641559-414  |
|      |    | PTFE <sup>1</sup> .....                                     | 1    | 645487-419  |
| 15   | +  | O-Ring, Stem:                                               |      |             |
|      |    | Buna-N.....                                                 | 1    | 640887-009  |
|      |    | Viton.....                                                  | 1    | 640798-420  |
|      |    | EPR .....                                                   | 1    | 641558-409  |
|      |    | PTFE <sup>1</sup> .....                                     | 1    | 645487-418  |
| 16   | @5 | Pilot, Set-Stop, Model 196.....                             | 1    | See Note @5 |
| 17   |    | Plate, Backup:                                              |      |             |
|      |    | Standard - Carbon Steel .....                               | 2    | 528847-001  |
|      |    | Epoxy Coated - Carbon Steel .....                           | 2    | 528847-002  |
| 18   | @6 | Plate, Orifice.....                                         | 1    | See Note @6 |
| 19   |    | Plug, Pipe, 1/8" NPT, Steel.....                            | #    | 644522-401  |
| 20   |    | Plug, Pipe, 1/2" NPT, Steel.....                            | #    | 006505-002  |
| 21   |    | Plug, Pipe, 3/4" NPT, Steel.....                            | #    | 006878-002  |

<sup>1</sup> Polytetrafluoroethylene (PTFE).

| Item | Description                                                     | Qty. | Part Number |
|------|-----------------------------------------------------------------|------|-------------|
| 22   | Retainer, O-Ring:                                               |      |             |
|      | Standard, Ductile Iron .....                                    | 1    | 524174-004  |
|      | Epoxy Coated, Ductile Iron .....                                | 1    | 524176-006  |
|      | PTFE <sup>1</sup> Valve, Nickel Coated Ductile Iron.....        | 1    | 524176-005  |
| 23   | Rod, Actuator, Carbon Steel.....                                | 1    | 510721-001  |
| 24   | Seat:                                                           |      |             |
|      | Bronze .....                                                    | 1    | 528380-001  |
|      | Stainless Steel .....                                           | 1    | 528380-002  |
|      | Ni-Resist - PTFE <sup>1</sup> Valve .....                       | 1    | 528380-005  |
|      | Ni-Resist .....                                                 | 1    | 528380-004  |
| 25   | Shell, Steel .....                                              | 1    | 643706-403  |
| 26   | Spacer:                                                         |      |             |
|      | Standard, Carbon Steel .....                                    | 1    | 528845-001  |
|      | Epoxy Coated .....                                              | 1    | 528845-003  |
|      | Stainless Steel - PTFE <sup>1</sup> Valve, Seawater Valve ..... | 1    | 528845-004  |
| 27   | Spring, Stainless Steel .....                                   | 1    | 525355-001  |
| 28   | Stem, Stainless Steel .....                                     | 1    | 528844-001  |
| 29   | Strainer, Model 09SC .....                                      | 1    | 528342-002  |
| 30   | Stud:                                                           |      |             |
|      | Class 150, Standard Valve.....                                  | 12   | 642363-405  |
|      | Class 300, Standard Valve.....                                  | 12   | 642363-406  |
|      | Class 150, PTFE <sup>1</sup> Valve .....                        | 10   | 643823-407  |
|      | Class 150, PTFE <sup>1</sup> Valve .....                        | 2    | 643823-408  |
| 31   | Valve, Ball, Model 03A (1/2" NPT).....                          | 1    | 529313-003  |
| 32   | Valve, Needle, Model 13.....                                    | 3    | 527065-001  |
| 33   | Seal, Lead, and Wire .....                                      | 1    | 001627-400  |
| 34   | Shell.....                                                      | 1    | 643706-401  |
| 35   | @7 Valve, Solenoid, Model 31 .....                              | 2    | See Note @7 |
| 36   | Washer, Diaphragm:                                              |      |             |
|      | Standard, Carbon Steel .....                                    | 2    | 528848-001  |
|      | Epoxy Coated .....                                              | 2    | 528848-002  |
|      | PTFE <sup>1</sup> Valve, Stainless Steel .....                  | 2    | 528848-005  |
| 37   | Washer, Lock Spring, Stainless Steel.....                       | 1    | 643164-407  |
| 38   | Washer, O-Ring:                                                 |      |             |
|      | Standard, Ductile Iron .....                                    | 1    | 528937-002  |
|      | Epoxy Coated .....                                              | 1    | 528937-003  |
|      | PTFE <sup>1</sup> Valve, Nickel Coated Ductile Iron.....        | 1    | 508040-004  |

+ Recommended stock.

# Order quantity required.

R Indicates change since last revision.

@1 See Form No. P1001.\* for component parts.

@2 See Form No. P1005.\* for component parts.

@3 See Form No. P1006.\* for component parts.

@4 See Form No. P1023.\* for component parts.

@5 See Form No. P1024.\* for component parts.

@6 Consult Smith Meter Inc. sales office for ordering instructions.

@7 See Form No. P1025.\* for ordering instructions.

\* The latest edition is indicated by a 2-digit postscript (e.g., .01, .02, etc.).

<sup>1</sup> Polytetrafluoroethylene (PTFE).

**Editorial Change:** 11/13: Items 2, 8, 11, 12, 13, 14, 15, 17, 22, 24, 26, 30, 36, 38 - material reference changed to PTFE.

**Headquarters:**

500 North Sam Houston Parkway West,  
Suite 100, Houston, TX 77067 USA  
Phone: +1 (281) 260 2190  
Fax: +1 (281) 260 2191

**Operations:**

**Measurement Products and Equipment:**  
Ellerbek, Germany +49 (4101) 3040  
Erie, PA USA +1 (814) 898 5000

**Integrated Measurement Systems:**  
Corpus Christi, TX USA +1 (361) 289 3400  
Kongsberg, Norway +47 (32) 286700

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.

Contact information is subject to change. For the most current contact information, visit our website at [www.fmctechnologies.com/measurementsolutions](http://www.fmctechnologies.com/measurementsolutions) and click on the "Contact Us" link in the left-hand column.

**[www.fmctechnologies.com/measurementsolutions](http://www.fmctechnologies.com/measurementsolutions)**