

Dry-Barrel Fire Hydrant

FIG. F0733-250

Specifications

- Meet or exceed the requirements of AWWA C502 standard.
- NFPA 1963 standard nozzle threads.
- Traffic feature with duplex stainless steel safety stem coupling.
- Excellent flow characteristics.
- Multiple nozzle configurations.
- Monitor style available.
- Mechanical joint base elbow.
- Dry top design with O-ring sealed oil reservoir.
- Dual auto-frost bronze drain valves as standard.
- UL 246 listed and FM 1510 approved.

Working Pressure and Temperature

- 250 psi @ -10°C to 80°C.

Corrosion Protection

- Fusion bonded coating meet or exceed all applicable of AWWA C550 standard.

Options

- Monitor flange: ASTM B16.1 Class 125, size 4" or 3".
- With or without monitor.
- Flange base elbow.
- Multiple nozzle configurations

Material Specifications

| Part | Material | ASTM Specification |
|-----------------------|---------------------------|---------------------|
| Operating Nut | Bronze | B62 C83600 |
| Hold Down Nut | Bronze | B62 C83600 |
| Bonnet | Cast Iron | A126 Class B |
| Bonnet Bolts and Nuts | Carbon Steel, Zinc Plated | A307 Grade B |
| Bonnet Gasket | Rubber | D2000 NBR |
| Nozzle | Bronze | B62 C83600 |
| Nozzle Cap | Cast Iron | A126 Class B |
| Nozzle Gasket | Rubber | D2000 NBR |
| Nozzle O-Ring | Rubber | D2000 NBR |
| Nozzle Gasket | Rubber | D2000 NBR |
| Cap Chain | Carbon Steel | A105 |
| Standpipe Upper | Ductile Iron | A536 Grade 65-45-12 |
| Safety Coupling | Duplex Stainless Steel | A890 J92205 |
| Cotter Pin | Stainless Steel | A276 Grade 304 |
| Clevis Pin | Stainless Steel | A276 Grade 304 |
| Safety Flange | Cast Iron | A126 Class B |
| Flange Bolts and Nuts | Carbon Steel, Zinc Plated | A307 Grade B |
| Standpipe Lower | Ductile Iron | A536 Grade 65-45-12 |
| Upper Rod | Carbon Steel | A576 Grade B |
| Lower Rod | Carbon Steel | A576 Grade B |
| Valve Top Plate | Bronze | B62 C83600 |
| Drain Valve Facing | Plastic | |
| Seat Ring | Bronze | B62 C83600 |
| Drain Ring | Bronze | B62 C83600 |

Schematic



Buried Depth Dimensions (inch)

| Options | L (Buried Depth) |
|---------|------------------|
| 1 | 1' - 0" |
| 2 | 2' - 0" |
| 3 | 3' - 0" |
| 4 | 3' - 6" |
| 5 | 4' - 0" |
| 6 | 4' - 6" |
| 7 | 5' - 0" |
| 8 | 5' - 6" |
| 9 | 6' - 0" |
| 10 | 6' - 6" |
| 11 | 7' - 0" |

Material Specifications

| Part | Material | ASTM Specification |
|--------------------|--------------|---------------------|
| Drain Housing | Ductile Iron | A536 Grade 65-45-12 |
| Main Valve | Rubber | D2000 NBR |
| Valve Bottom Plate | Ductile Iron | A536 Grade 65-45-12 |
| Bottom Plate Nut | Ductile Iron | A536 Grade 65-45-12 |
| Elbow | Ductile Iron | A536 Grade 65-45-12 |

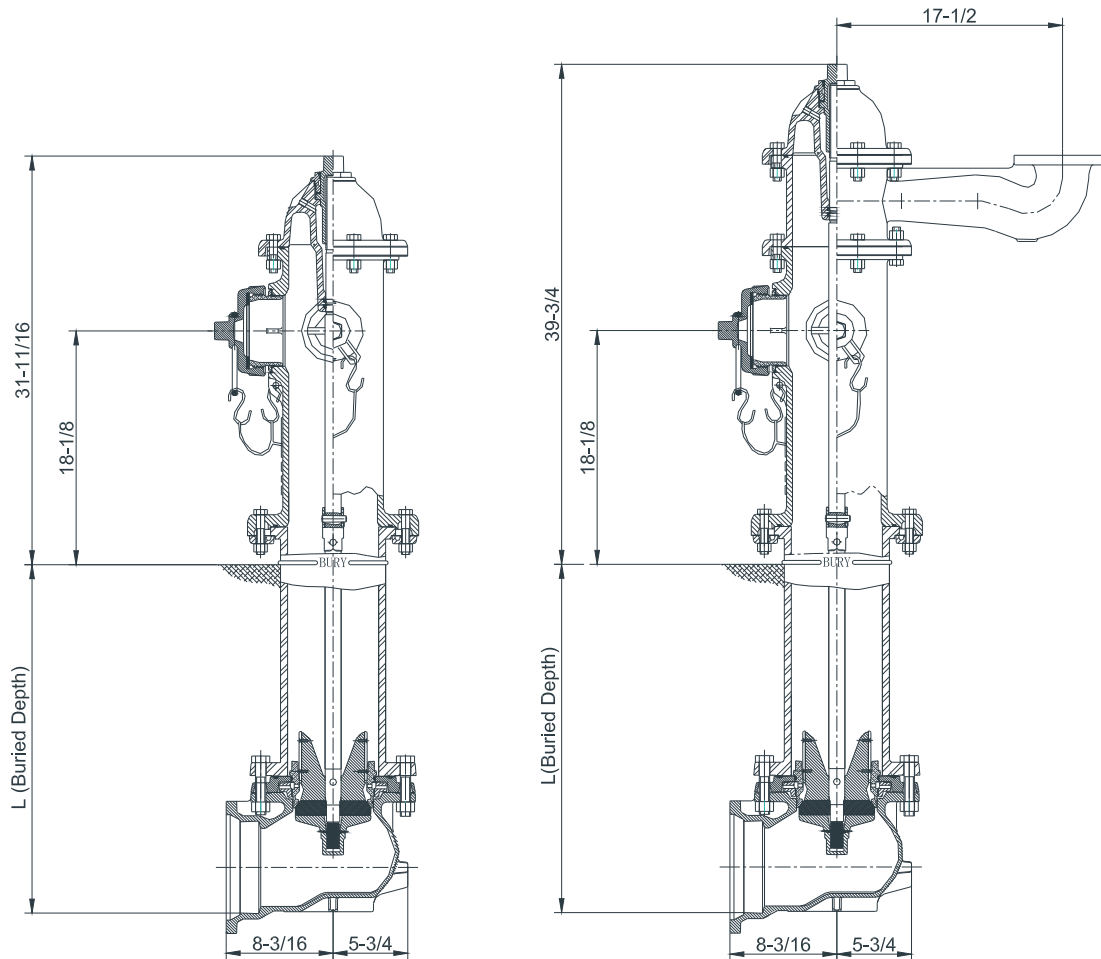
Notes

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Dry-Barrel Fire Hydrant

FIG. F0733-250

Schematic



Style

| Style No | Hose outlet | Pumper Nozzle Style | Monitor | Way |
|-----------|-------------|---------------------|-------------------------------------|-------|
| F0733-250 | -2H0P | 2 x 2.5" | N/A | 2-Way |
| F0733-250 | -2H0PM | 2 x 2.5" | Yes | 2-Way |
| F0733-250 | -2H1P | 2 x 2.5" | 1x 4" or 4.5" Nozzle, or 5" Storze | N/A |
| F0733-250 | -2H1PM | 2 x 2.5" | 1x 4" or 4.5" Nozzle, or 5" Storze | Yes |
| F0733-250 | -3H1P | 3 x 2.5" | 1x 4" or 4.5" Nozzle, or 5" Storze | N/A |
| F0733-250 | -3H1PM | 3 x 2.5" | 1x 4" or 4.5" Nozzle, or 5" Storze | Yes |
| F0733-250 | -4H0P | 4 x 2.5" | N/A | N/A |
| F0733-250 | -4H0PM | 4 x 2.5" | N/A | Yes |
| F0733-250 | -2H2P | 2 x 2.5" | 2 x 4" or 4.5" Nozzle, or 5" Storze | N/A |
| F0733-250 | -2H2PM | 2 x 2.5" | 2 x 4" or 4.5" Nozzle, or 5" Storze | Yes |

Notes

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C509 NRS Resilient Seated Gate Valve FL x PO Ends & PO x PO Ends

FIG. F1811-300

Specifications

- Meet or exceed the requirements of AWWA C509 standard.
- Full waterway.
- 2" Square Operating Nut or Handwheel.
- Robust design.
- Bolted bonnet.
- Rubber fully encapsulated ductile iron wedge.
- Triple O-Ring stem seal.
- Face to face dimension complies with ASME B16.10.
- Flange and drilling complies with ASTM B16.1 Class 125.
- Push-on joint outlet complies with ANSI/AWWA C110/A21.10 standard.

- UL/ULC 262 listed, FM 1120/1130 approved.
- Certificated to ANSI/NSF 61 & 372.

Working Pressure and Temperature

- 300 psi rated @ -10°C to 82°C.

Corrosion Protection

- Fusion bonded coating interior and exterior meet or exceed all applicable of AWWA C550 standard.

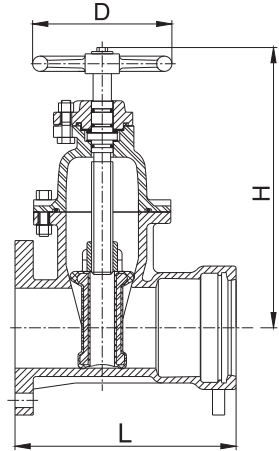
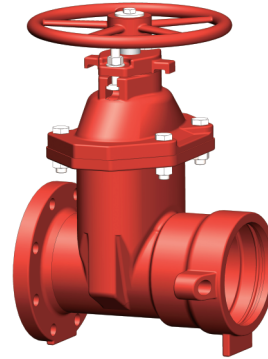
Options

- 200 psi or 250 psi rated.
- ASTM B150 or other standard bronze stem.
- ASTM A276 Grade 316 stem.
- Stainless steel fasteners: A4-70.
- With Post Flange.
- Other flange types available upon request.

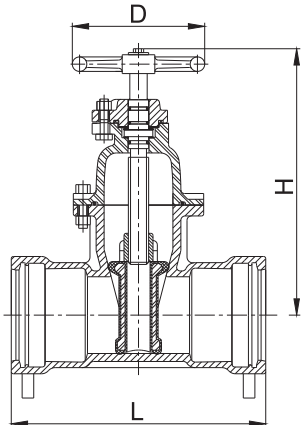
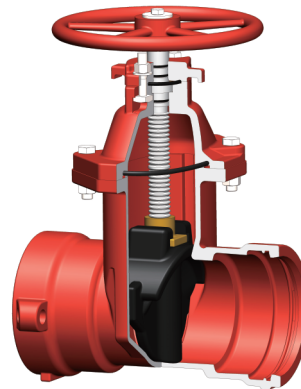
Material Specification

| Part | Material | ASTM Specification |
|--------------------|--------------------------------------|---------------------|
| Body | Ductile Iron | A536 Grade 65-45-12 |
| Wedge | EPDM Fully Encapsulated Ductile Iron | |
| Wedge Nut | Bronze | B148 C95200 |
| Bonnet | Ductile Iron | A536 Grade 65-45-12 |
| Stem | Stainless Steel | A276 Grade 304 |
| Gland | Ductile Iron | A536 Grade 65-45-12 |
| Operating Nut | Ductile Iron | A536 Grade 65-45-12 |
| Post Flange | Ductile Iron | A536 Grade 65-45-12 |
| Fasteners | Stainless Steel | F593 Grade 304 |
| Body/Bonnet Gasket | EPDM | D2000 |

Schematic



FL x PO



PO x PO

Main Dimensions (mm/inch)

| Size | 4 | 6 | 8 | 10 | 12 |
|------------|----------|----------|----------|----------|----------|
| L- FL x PO | 292/11.5 | 322/12.7 | 373/14.7 | 399/15.7 | 415/16.3 |
| L- PO x PO | 351/13.8 | 376/14.8 | 454/17.9 | 468/18.4 | 473/18.6 |
| H (OPEN) | 410/16.0 | 485/19.0 | 585/23.0 | 660/26.0 | 790/31.0 |
| D | 255/10.0 | 305/12.0 | 356/14.0 | 445/17.5 | 445/17.5 |

Notes

- 4" to 12" valves are UL listed.
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C509 OS&Y Resilient Seated Gate Valve FL x PO Ends & PO x PO Ends

FIG. F1711-300

Specifications

- Meet or exceed the requirements of AWWA C509 standard.
- Full waterway.
- Robust design.
- Bolted bonnet.
- Adjustable packing
- Rubber fully encapsulated ductile iron wedge.
- Handwheel - open left or open right.
- Face to face dimension complies with ASME B16.10.
- Flange and drilling complies with ASTM B16.1 Class 125.
- Push-on joints outlet complies with ANSI/AWWA C110/A21.10 standard.

- UL/ULC 262 listed and FM 1120/1130 approved .
- Certificated to ANSI/NSF 61 & 372.

Working Pressure and Temperature

- 300 psi rated @ -10°C to 82°C

Corrosion Protection

- Fusion bonded coating interior and exterior meet or exceed all applicable of AWWA C550 standard.

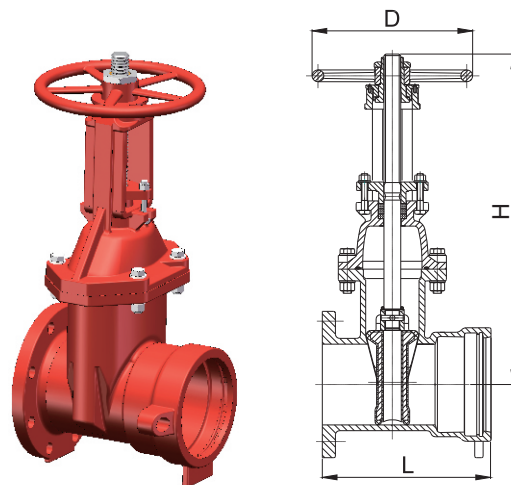
Options

- 200 psi or 250 psi rated.
- ASTM B150 or other standard bronze stem.
- ASTM A276 Grade 316 stem.
- Stainless steel fasteners: A4-70.
- Other flange types available upon request.

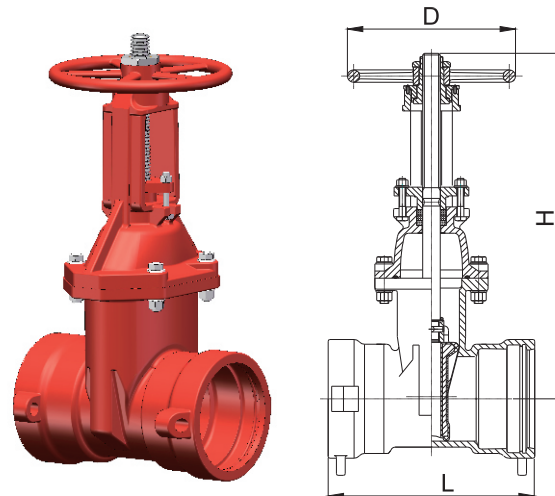
Material Specification

| Part | Material | ASTM Specification |
|--------------------|--------------------------------------|---------------------|
| Body | Ductile Iron | A536 Grade 65-45-12 |
| Wedge | EPDM Fully Encapsulated Ductile Iron | |
| Wedge Nut | Stainless Steel | A351 Grade CF 8 |
| Bonnet | Ductile Iron | A536 Grade 65-45-12 |
| Stem | Stainless Steel | A276 Grade 304 |
| Stem Nut | Bronze | B148 C95200 |
| Packing | Graphite | Non-Asbestos |
| Gland | Ductile Iron | A536 Grade 65-45-12 |
| Gland stud | Stainless Steel | F593 Grade 304 |
| Fasteners | Stainless Steel | F593 Grade 304 |
| Body/Bonnet Gasket | EPDM | D2000 |
| Plug | Malleable Iron | A47 Grade 22010 |
| Handwheel | Ductile Iron | A536 Grade 65-45-12 |

Schematic



FL x PO



PO x PO

Main Dimensions (mm/inch)

| Size | 4 | 6 | 8 | 10 | 12 |
|-----------|----------|----------|-----------|-----------|-----------|
| L-FL x PO | 292/11.5 | 322/12.7 | 373/14.7 | 399/15.7 | 415/16.3 |
| L-PO x PO | 351/13.8 | 376/14.8 | 454/17.9 | 468/18.4 | 473/18.6 |
| H (OPEN) | 610/24.0 | 790/31.0 | 1015/40.0 | 1195/47.0 | 1425/56.0 |
| D | 255/10.0 | 305/12.0 | 356/14.0 | 445/17.5 | 445/17.5 |

Notes

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Pressure Reducing Valve

FIG. F1318

Specifications

- Reducing valve: reduces a higher inlet pressure to a lower outlet pressure.
- Constant outlet pressure over wide flow range.
- Pilot-operated main valve not subject to pressure fall off.
- Outlet pressure is adjustable with single screw.
- Can be maintained without remove from the pipe line.
- Adjustable opening/response speed.
- Stabilized regulation at near-zero flow.
- Flanged ends to EN 1092-2PN10/PN16, ANSI B16.1 Class125. (Other available on request)
- Grooved Ends to AWWA C606 Standard.
- GOST certificated.

Working Pressure

- Upstream pressure: Max 300psi, 175psi, 10bar, 16bar.
- Downstream pressure: 30-165psi. (Other pressures available on request)

Working Temperature

- 0°C to 87°C.

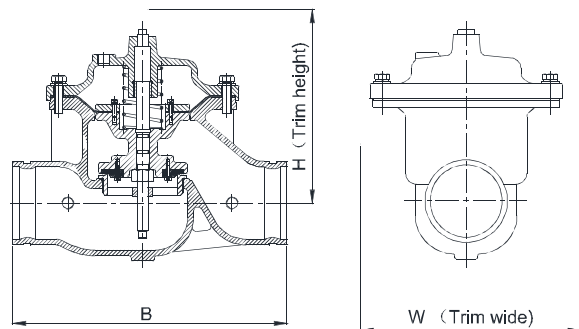
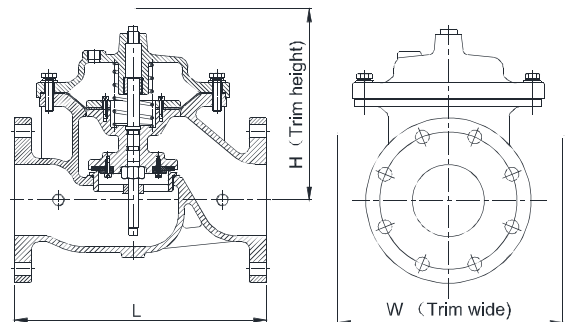
Corrosion Protection

- Enamel Paint Fusion Bonded Epoxy Coated Interior and Exterior.

Material Specifications

| Part | Material | ASTM Specification |
|-------------------------|--------------------------------------|---------------------|
| Body | Ductile Iron | A536 Grade 65-45-12 |
| Bonnet | Ductile Iron | A536 Grade 65-45-12 |
| Seat | Stainless Steel | A276 Grade 304 |
| Stem | Stainless Steel | A276 Grade 304 |
| Spring | Stainless Steel | A276 Grade 304 |
| Diaphragm | Nylon Reinforced, NBR/Natural Rubber | |
| Seat Disc | NBR/EPDM | |
| Pressure Reducing Pilot | Bronze | B62 C62300 |

Schematic



Main Dimensions (mm /inch)

| Size | DN40 | DN50 | DN65 | DN80 | DN100 | DN125 | DN150 | DN200 | DN250 | DN300 |
|------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| L | 200/7.87 | 230/9.05 | 290/11.42 | 310/12.2 | 350/13.78 | 400/15.75 | 480/18.9 | 600/23.6 | 730/28.75 | 850/33.46 |
| B | 220/8.66 | 241/9.48 | 290/11.42 | 325/12.8 | 381/15 | 419/16.5 | 508/20 | 645/25.4 | 762/30 | 900/35.43 |
| H | 180/7.1 | 200/7.9 | 215/8.46 | 265/10.45 | 290/11.42 | 340/13.4 | 390/15.35 | 470/18.5 | 570/22.45 | 690/27.2 |
| W | 410/16.2 | 420/16.6 | 440/17.35 | 455/18 | 470/18.5 | 490/19.3 | 540/21.25 | 590/23.23 | 640/25.2 | 690/27.2 |

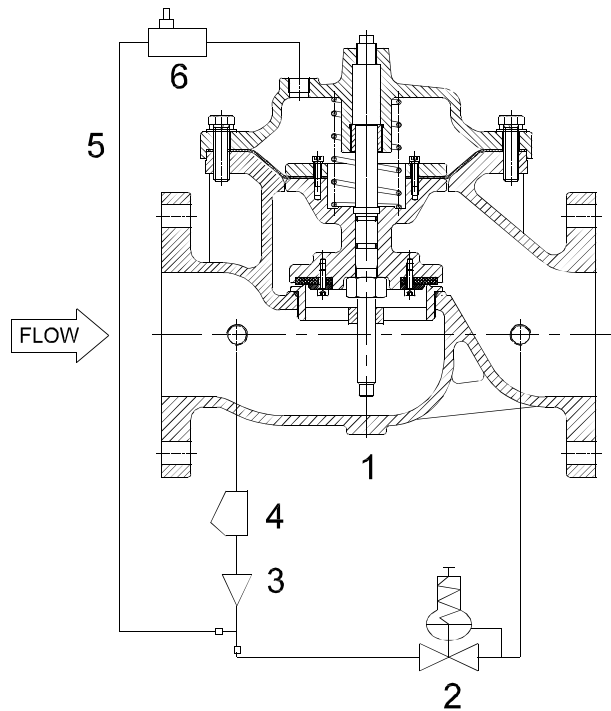
Notes

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Pressure Reducing Valve

FIG. F1318

Components Assembly Schematic



| NO. | Components | NO. | Components |
|-----|-------------------------|-----|-----------------|
| 1 | Basic Control Valve | 4 | Y-strainer |
| 2 | Pressure Reducing Pilot | 5 | Tubing/Fittings |
| 3 | Ejector | 6 | Stabilizer |

Operation

- The normally open spring loaded pilot sensing downstream pressure responds to changes in pressure and causes the main valve to do the same.
- The net result is a constant modulating action of the pilot and main valve to hold the downstream pressure constant.
- The pilot system is equipped with an opening speed control that fine tunes the valve response to the system variables.

Notes

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Pressure Relief Valve

FIG. 1321-300

Specifications

- Pressure Relief Valve: Limits pipe line pressure by release excess pressure.
 - Pressure sustaining: Prevents pipe line pressure from rising to a maximum value.
 - Operates over a wide flow range.
 - Set pressure is adjustable with single screw.
 - Can be maintained without removal from the pipe line.
 - Flanged to EN1092-2 PN10/PN16, ANSI B16.1 Class125. (Other available on request)
 - Grooved ends to AWWA C606 Standard.
 - Adjustment range of set pressure: 65 to 180 psi.
- FM Approved.

Working Pressure and Temperature

- 300 psi @ 0°C to 87°C.

Corrosion Protection

- Fusion bonded coating interior and exterior meet or exceed all applicable of AWWA C550 standard.

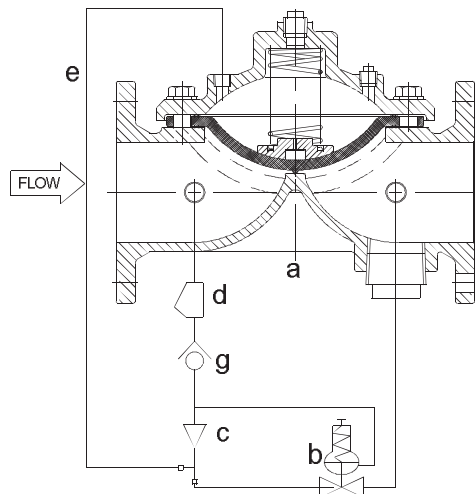
Material Specifications

| Part | Material | ASTM Specification |
|-------------------|---------------------------------|---------------------|
| Body | Ductile Iron | A536 Grade 65-45-12 |
| Bonnet | Ductile Iron | A536 Grade 65-45-12 |
| Diaphragm | Nylon Reinforced Natural Rubber | |
| Spring Retainer | Ductile Iron | A536 Grade 65-45-12 |
| Spring | Stainless Steel | A276 Grade 304 |
| Galvanized Bolt | Carbon Steel | A307 Grade B |
| Galvanized Washer | Carbon Steel | A307 Grade B |

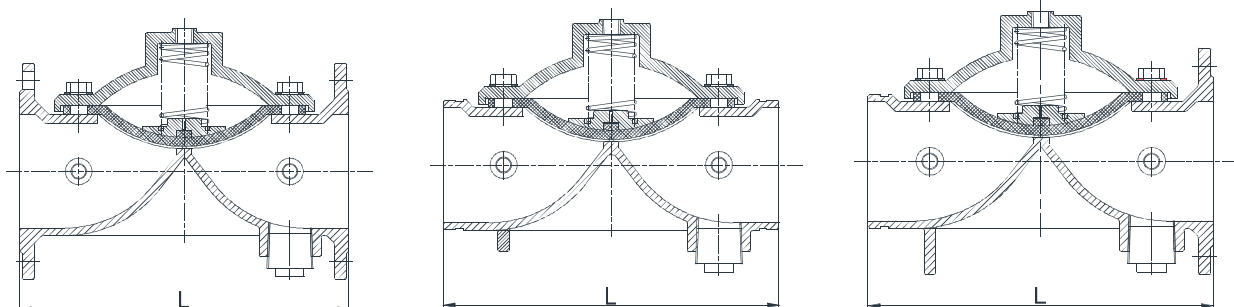
Main Dimensions (mm/inch)

| Size | 2 | 2.5 | 3 | 4 | 5 |
|------|----------|----------|----------|----------|----------|
| L | 233/9 | 290/11.5 | 310/12.2 | 356/14 | 370/14.5 |
| Size | 6 | 8 | 10 | 12 | |
| L | 436/17.2 | 530/20.8 | 636/25 | 835/32.8 | |

Schematic



| NO. | Components | NO. | Components |
|-----|-------------------------|-----|-------------|
| a | Main Valve | d | Y-Strainer |
| b | Pressure Reducing Pilot | e | Pipeline |
| c | Restriction Orifice | g | Check Valve |



Notes

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Y-Type Strainer, Flanged Ends

FIG. F0511-175

Specification

- Meet or exceed the requirements of UL 321 standard.
 - NPT or BSPT blowoff outlet on cover (blowoff outlets are furnished with plugs).
 - Recessed seat in body assure accurate screen alignment.
 - Round holes with 60 degrees staggered.
 - Excellent flow characteristics and low pressure losses at high flow rates.
 - Connection Ends: ASME B16.1 Class 125 or EN1092-2 PN10/16.
- UL 321/ULC listed.
 - GOST certificated.

Working Pressure and Temperature

- 175 psi @ 0 °C to 120 °C.

Corrosion Protection

- Fusion bonded coating interior and exterior meet or exceed all applicable of AWWA C550 standard.

Options

- Spray painted.

Material Specification

| Part | Material | ASTM Specification |
|-------------------|-----------------|--------------------|
| Body | Cast Iron | A126 Class B |
| Cover | Cast Iron | A126 Class B |
| Screen | Stainless Steel | A276 Grade 304 |
| Body/Cover Gasket | PTFE / Graphite | Commercial |
| Body/Cover Bolts | Carbon Steel | A307 Grade B |
| Plug | Malleable Iron | A47 Grade 22010 |

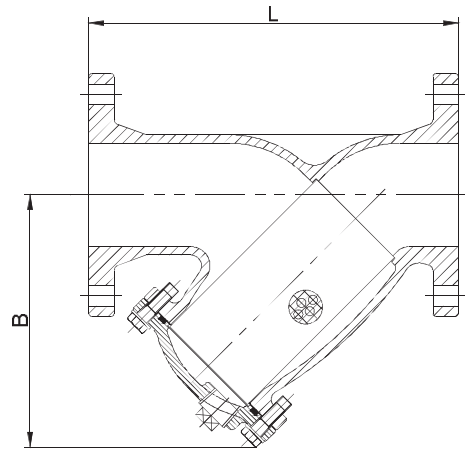
Standard Screens(mm/inch)

| Size | Hole Diameter | Free Flow Area Opening |
|-----------|---------------|------------------------|
| 2.5" | 3.0/0.12 | 53.60% |
| 3" to 5" | 4.3/0.17 | 55.43% |
| 6" to 10" | 6.0/0.24 | 63.00% |
| 12" | 6.3/0.25 | 40.70% |

Main Dimensions (mm/inch)

| Size | 2.5 | 3 | 4 | 5 | 6 | 8 | 10 | 12 |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| L | 273/10.75 | 295/11.63 | 352/13.88 | 416/16.38 | 470/18.50 | 543/21.38 | 660/26.00 | 770/30.31 |
| B | 140/5.50 | 203/8.00 | 240/9.50 | 290/11.50 | 305/12.00 | 410/16.00 | 480/19.00 | 560/22.00 |
| Plug Size | 1" | 1" | 1" | 1-1/4" | 1-1/2" | 1-1/2" | 2" | 2" |

Schematic



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