



# Valves

For Fire Protection

American Standard

To Provide **Safe & Reliable** Products and **Smart & Complete**  
Solutions for Clients in Fluid Conveying Industry Across the Globe.





More than  
50 years of  
Foundry  
Experience

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## Company Profile

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Meide Group is a high-tech enterprise specialized in supplying fittings and valves in fluid industry. The company has won more than 400 great honors, such as Single Champion Demonstration Enterprise, Green Manufacturing Enterprise, China's top 100 Light Industrial Enterprise, China's Leading Enterprise of Malleable Iron Pipe Fitting Production Base, National Enterprise with Good Creditworthiness and China's Famous Brand.

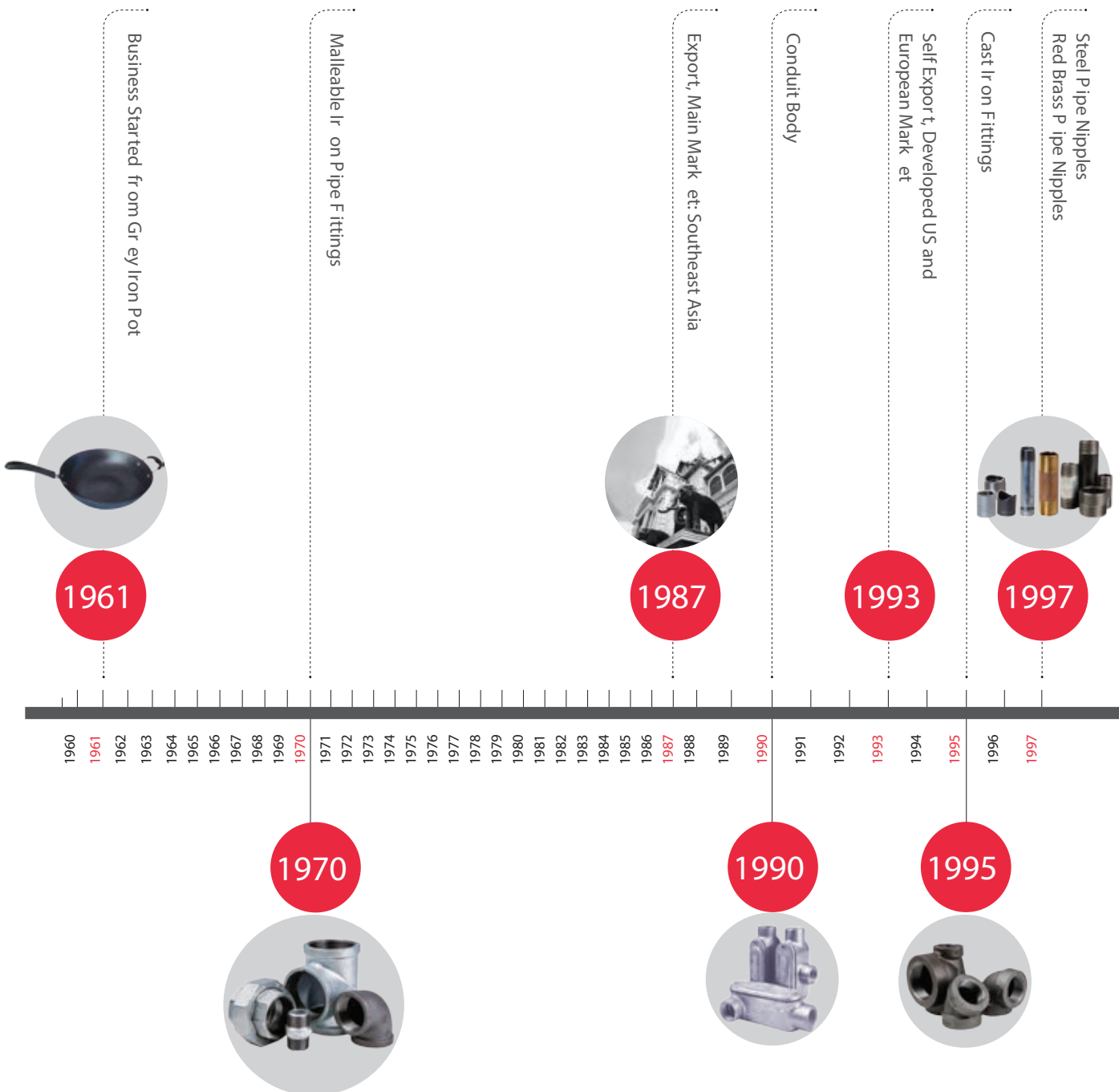
Inheriting the originality, and striving for excellence. "MECH" brand products are widely used in Burj Khalifa, dubai, new WTC in New York, Shanghai Tower, UHV transmission lines and other landmark buildings and projects such as Beijing-Shanghai high-speed railway. Adhering to the customer-centered product development and innovation concept, to meet and guide the growing needs of users, to provide safe & reliable products and smart & complete solutions for clients in fluid industry across the globe, Meide Group has become the industry leader.

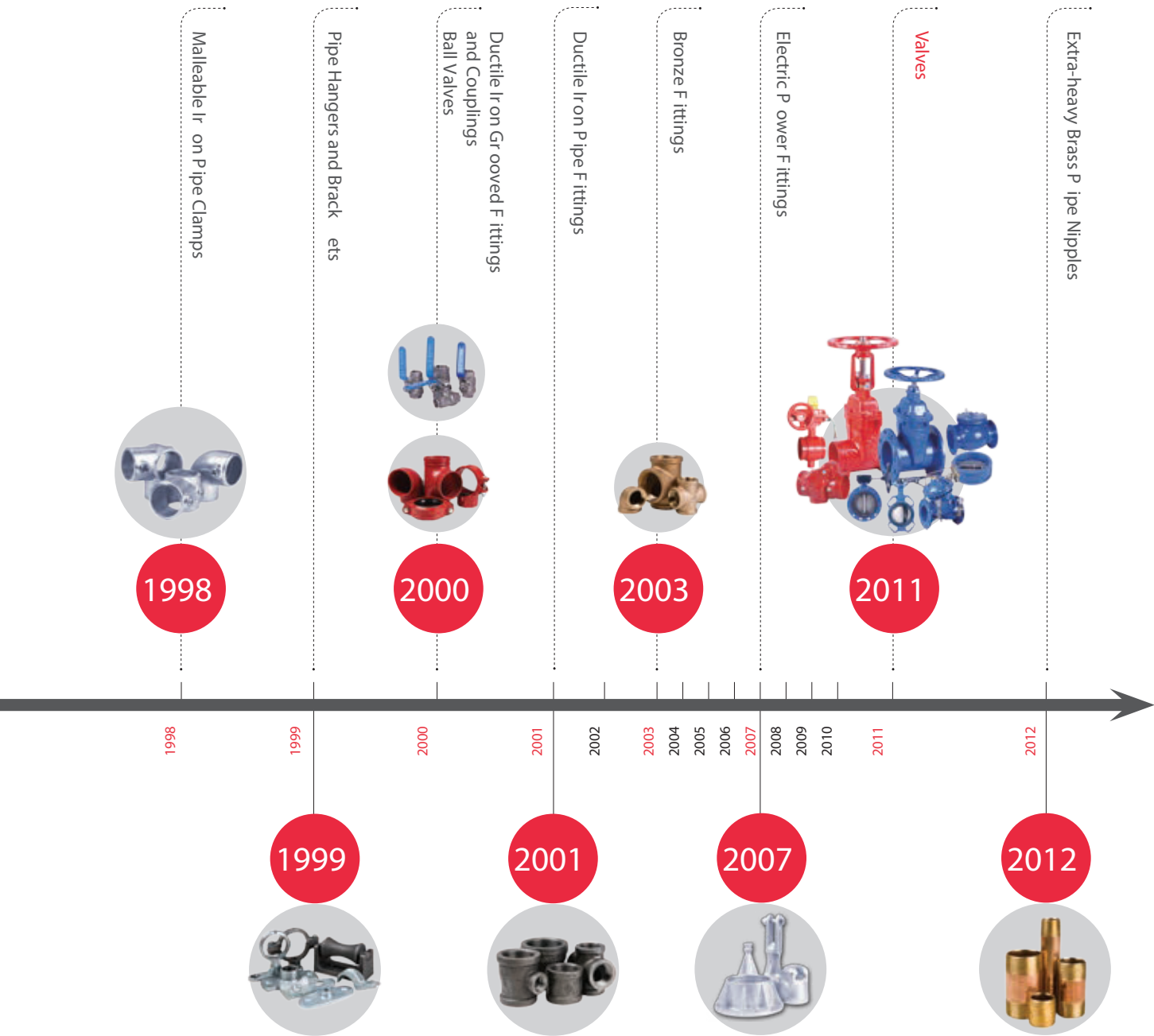
Using development innovation platform such as National Enterprise Technical Center and Post-Doctoral Research Center, Meide Group is promoting the transformation of technology innovation achievements into productive forces, has completed the transformation of production process from mechanization to automation and intelligence, management from experience to institutionalization and process, marketing is from selling products to offering solutions, steadily improve Meide Group's role in the global value chain.

Through the construction of three production bases, including Jinan, Linyi and Bangkok, Meide Group has formed a cross-regional, multi-base international development pattern. Meide Group never forgets the original intention, operates in compliance, keeps growing, insists on sharing development results with customers, employees, shareholders and the community, and strive to be a happy and respectable company.



# Company History





## State of the Art Equipment

High precision equipment is quality assurance. Jinan Meide's 8 factories are all equipped with the most advanced facilities and equipment in the industry. The main production facilities include Sinto automatic molding line, Tokyu automatic molding line, Chinese 416 automatic vertical molding line, automatic molding sand mixers, cupola furnaces, electric furnaces, water-cooled longevous cupola furnaces, CNC vertical machining centers, CNC machines, NC vertical lathes, radial drills, Jinan Meide proprietary automatic machines, hot-dipped galvanization line, automatic box sealing line, stereoscopic warehouse and so on.



Pattern



Tokyu AMF-111055



Pouring







Core Making



Sand Mulling



Melting



DISA



Sinto FCMX



Machining



Epoxy Coating



Assembling



Warehouse

## Reliable Quality Assurance

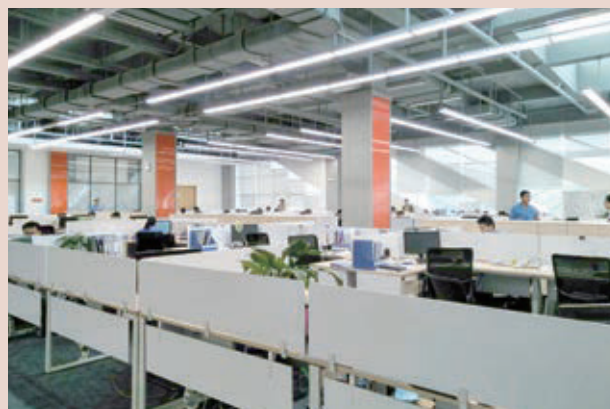
Jinan Meide is honored as the National enterprise technical center and is capable and qualified to conduct full series of tests and inspections including chemical checking, etc.

Inspection facilities include: spectrometer, carbon sulfur analyzer, metallurgical microscope, tensile strength testing equipment, pressure testing equipment, adhesive force testing equipment, CMM, hardness tester, etc.

From incoming inspection to finished product, quality is checked and monitored in the whole process. Each step of the manufacturing process is carefully documented, regularly reviewed for revision control and updating standard. Quality procedures are constantly monitored and updated to assure that only the highest and most consistent quality products are supplied to our valued customers.



Metallurgical Microscope



R & D



Spectrometer





CMM



Projector



Pipe line



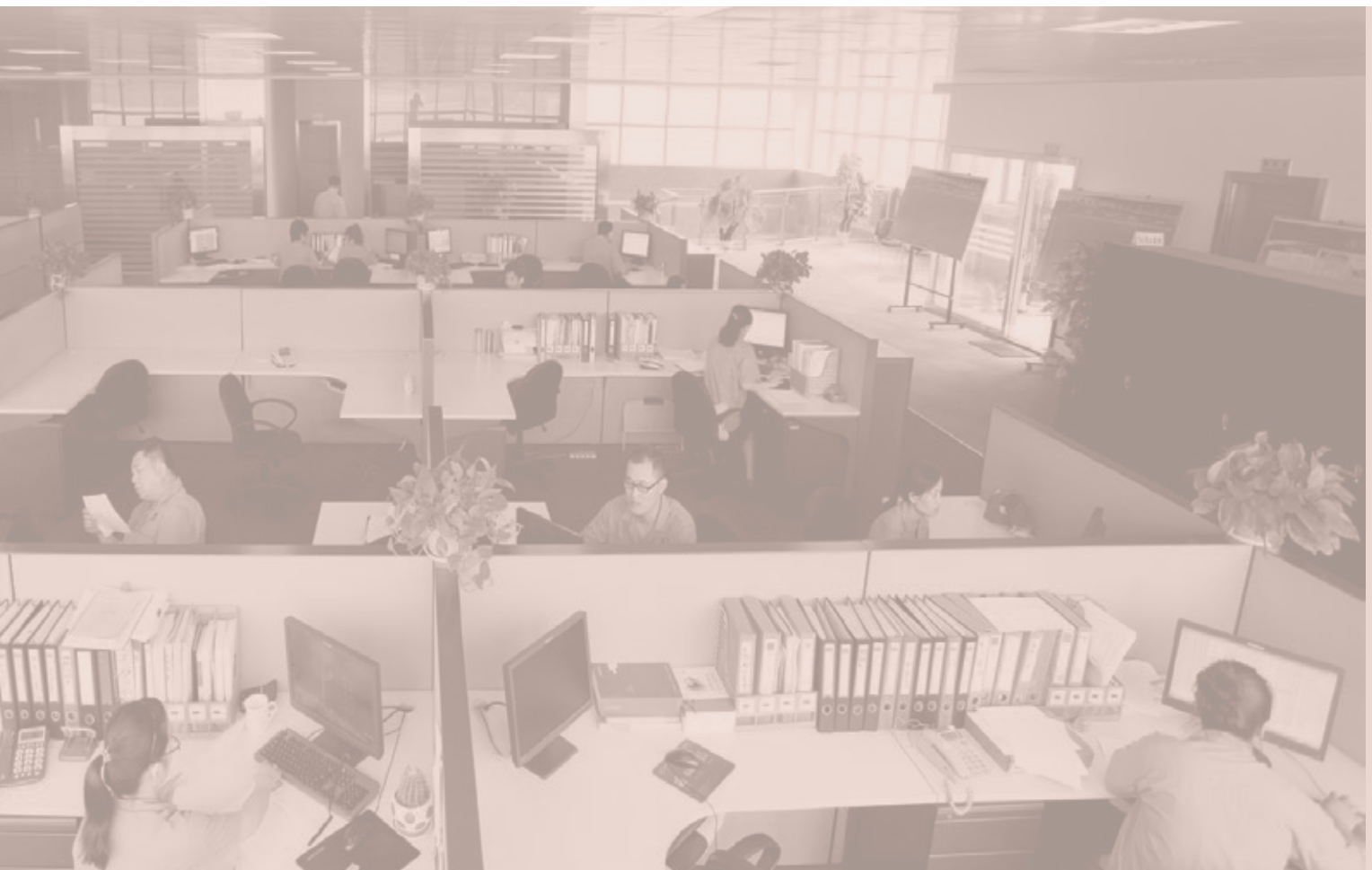
Valve Pressure Testing Machine (Vertical)



Endurance Test Machine



Valve Pressure Testing Machine (Horizontal)



# Certificates










**• XZ81X**

Grooved Resilient OS&Y Gate Valve


**• XZ41X**

Flanged Resilient OS&Y Gate Valve


**• XZ51X**

Flanged x Grooved Resilient OS&Y Gate Valve


**• MXHQ**

Supervisory Switch for OS&Y Gate Valve


**• Z85X**

Grooved Resilient NRS Gate Valve


**• Z45XC**

Flanged Resilient NRS Gate Valve


**• Z45XC-2**

Flanged Resilient NRS Gate Valve with Post Flange


**• IP**

Vertical Indicator Post


**• WP**

Wall Indicator Post


**• ZXHQ**

Supervisory Switch for Indicator Post


**• XD381X**

Grooved Butterfly Valve with Tamper Switch


**• XD381XG**

Grooved Butterfly Valve with Normally Closed Tamper Switch


**• XD381XC**

Grooved Butterfly Valve with Tamper Switch


**• XD381X4-C**

Grooved Butterfly Valve with Tamper Switch


**• XD382X**

Double Eccentric Grooved Butterfly Valve with Tamper Switch


**• D81X4**

Grooved Butterfly Valve


**• XD371X**

Wafer Butterfly Valve with Tamper Switch


**• XD371XL**

Lugged Wafer Butterfly Valve with Tamper Switch



• **H84X**  
Grooved Resilient Swing  
Check Valve



• **DH87X**  
Double Door Grooved  
Check Valve



• **H44X2/ H44X2A**  
Flanged Resilient Swing  
Check Valve



• **H44T2/H44T2A**  
Flanged Resilient Swing  
Check Valve



• **DH77X**  
Double Door Wafer  
Check Valve



• **HSB4X**  
Backwater Valve



• **ARVX**  
Micro Air Bleeding Valve



• **V8**  
Grooved Y-Type Strainer



• **V4**  
Flanged Y-Type Strainer



• **ZSFZ8X9**  
Grooved Wet Alarm  
Check Valve



• **ZSFZ4X**  
Flanged Wet Alarm Valve



• **SK790X**  
Deluge Alarm Valve



• **ZSJZYS**  
Water Flow Indicator  
with Retard



• **ZSJZ**  
Water Flow Indicator



• **YLKG**  
Pressure Switch



• **SSF**  
Dry Barrel Fire Hydrant



• **SSZ**  
Wet-Barrel Fire Hydrant



• **SN**  
Indoor Fire Hydrant



• **XZ45W**  
Dry Riser Landing Valve  
Flanged



• **XZ15W**  
Dry Riser Landing Valve  
Threaded



• **XZ25W**  
Dry Riser Landing Valve  
Threaded



• **ZSPM-80-DX**  
Electric Inspector's  
Test Connection



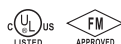
• **ZSPM-80-SA**  
Manual Inspector's  
Test Connection

## Grooved Resilient OS&Y Gate Valve (XZ81X), UL/FM Approved

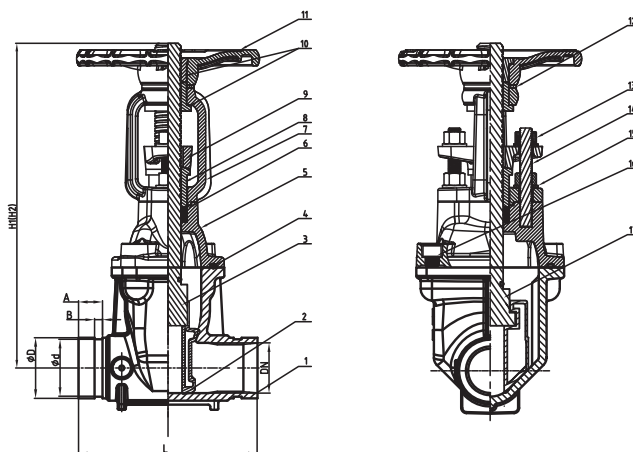
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0C3073.7



XZ81X



- Connection Ends: Groove to AWWA C606
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



### MATERIAL SPECIFICATION

| Part No. | Part                 | Standard Specification   | Options                                |
|----------|----------------------|--------------------------|----------------------------------------|
| 1        | Valve Body           | ASTM A536, 65-45-12      |                                        |
| 2        | Resilient Wedge Disc | ASTM A536, 65-45-12+EPDM |                                        |
| 3        | Stem                 | Stainless Steel          | AISI 304, AISI 316, AISI 420, AISI 431 |
| 4        | Bonnet Gasket        | EPDM                     | NBR                                    |
| 5        | Bonnet               | ASTM A536, 65-45-12      |                                        |
| 6        | Washer               | Brass HPb59-1            |                                        |
| 7        | Yoke                 | ASTM A536, 65-45-12      |                                        |
| 8        | Stem Bushing         | Brass HPb59-1            |                                        |
| 9        | Gland                | ASTM A536, 65-45-12      |                                        |
| 10       | Stem Nut             | Brass HPb59-1            | Bronze ZQSn5-5-5                       |
| 11       | Handwheel            | ASTM A536, 65-45-12      | Pressed Steel                          |
| 12       | Washer               | Brass HPb59-1            |                                        |
| 13       | Gland Nut            | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 14       | Stud                 | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 15       | Flat Washer          | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 16       | Nut                  | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 17       | O-Ring               | NBR                      | EPDM                                   |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.  
Size 2"~3" with 1pc of 3/8" bronze NPT tapping plug, size 4"~5" with 1pc of 1/2" bronze NPT tapping plug, size 6"~12 with 1pc of 3/4" bronze NPT tapping plug.

| DN   |     | Dimensions(mm) |           |          |       |        |       |       |
|------|-----|----------------|-----------|----------|-------|--------|-------|-------|
| Inch | mm  | L              | H1(Close) | H2(Open) | OD    | d      | A     | B     |
| 2"   | 50  | 178            | 348       | 400      | 60.3  | 57.15  | 15.88 | 7.92  |
| 2.5" | 65  | 190            | 373       | 440      | 73    | 69.09  | 15.88 | 7.92  |
| 3"   | 80  | 203            | 408       | 490      | 88.9  | 84.94  | 15.88 | 7.92  |
| 4"   | 100 | 229            | 471       | 573      | 114.3 | 110.08 | 15.88 | 9.52  |
| 5"   | 125 | 254            | 541       | 665      | 141.3 | 137.03 | 15.88 | 9.52  |
| 6"   | 150 | 267            | 601       | 755      | 168.3 | 163.96 | 15.88 | 9.52  |
| 8"   | 200 | 292            | 774       | 975      | 219.1 | 214.4  | 19.05 | 11.13 |
| 10"  | 250 | 330            | 1029      | 1283     | 273   | 268.28 | 19.05 | 12.7  |
| 12"  | 300 | 356            | 1065      | 1370     | 323.9 | 318.29 | 19.05 | 12.7  |

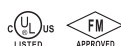


## Flanged Resilient OS&Y Gate Valve (XZ41X), UL/FM Approved

NSF/ANSI 61 NSF/ANSI 372  
0C3073.7



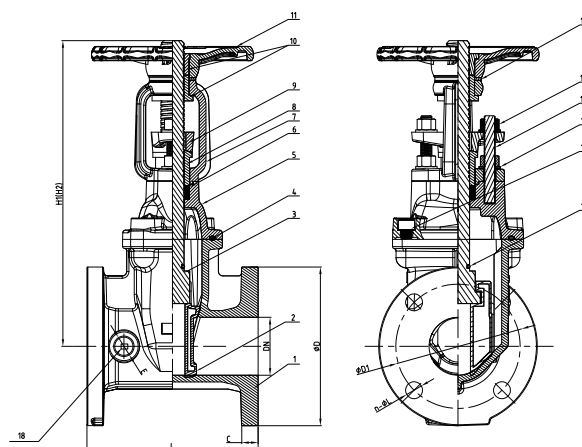
XZ41X



- Connection Ends: Flange to ASME B16.1 CL 125
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating Complies with  
ANSI/ AWWA C550



XZ41X-1



### MATERIAL SPECIFICATION

| Part No. | Part                 | Standard Specification   | Options                                 |
|----------|----------------------|--------------------------|-----------------------------------------|
| 1        | Valve Body           | ASTM A536, 65-45-12      |                                         |
| 2        | Resilient Wedge Disc | ASTM A536, 65-45-12+EPDM |                                         |
| 3        | Stem                 | AISI 420                 | AISI 304, AISI 316, AISI 431, Al-bronze |
| 4        | Bonnet Gasket        | EPDM                     | NBR                                     |
| 5        | Bonnet               | ASTM A536, 65-45-12      |                                         |
| 6        | Packing              | EPDM                     |                                         |
| 7        | Yoke                 | ASTM A536, 65-45-12      |                                         |
| 8        | Stem Bushing         | Brass Hpb59-1            |                                         |
| 9        | Gland                | ASTM A536, 65-45-12      |                                         |
| 10       | Stem Nut             | Brass Hpb59-1            | Bronze ZQSn5-5-5                        |
| 11       | Handwheel            | ASTM A536, 65-45-12      | Pressed Steel                           |
| 12       | Washer               | Brass Hpb59-1            |                                         |
| 13       | Gland Nut            | Carbon Steel Zinc Plated | AISI 304, AISI 316                      |
| 14       | Stud                 | Carbon Steel Zinc Plated | AISI 304, AISI 316                      |
| 15       | Flat Washer          | Carbon Steel Zinc Plated | AISI 304, AISI 316                      |
| 16       | Bolt                 | Carbon Steel Zinc Plated | AISI 304, AISI 316                      |
| 17       | O-Ring               | NBR                      | EPDM                                    |
| 18       | Plug                 | C89833                   |                                         |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.  
Size 2"~5" with 1pc of 1/2" bronze NPT tapping plug, size 6"~12 with 1pc of 3/4" bronze NPT tapping plug.

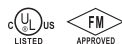
| DN   |     | Dimensions(mm) |           |          |     |       |      |          |
|------|-----|----------------|-----------|----------|-----|-------|------|----------|
| Inch | mm  | L              | H1(Close) | H2(Open) | D   | D1    | C    | n-ΦL     |
| 2"   | 50  | 178            | 348       | 400      | 152 | 120.7 | 16.0 | 4-Ø19.1  |
| 2.5" | 65  | 190            | 373       | 440      | 178 | 139.7 | 17.5 | 4-Ø19.1  |
| 3"   | 80  | 203            | 408       | 490      | 191 | 152.4 | 19.1 | 4-Ø19.1  |
| 4"   | 100 | 229            | 471       | 573      | 229 | 190.5 | 19.1 | 8-Ø19.1  |
| 5"   | 125 | 254            | 541       | 665      | 254 | 215.9 | 19.1 | 8-Ø22.2  |
| 6"   | 150 | 267            | 601       | 755      | 279 | 241.3 | 19.1 | 8-Ø22.2  |
| 8"   | 200 | 292            | 774       | 975      | 343 | 298.5 | 22.2 | 8-Ø22.2  |
| 10"  | 250 | 330            | 939       | 1193     | 406 | 362.0 | 23.8 | 12-Ø25.4 |
| 12"  | 300 | 356            | 1065      | 1370     | 483 | 431.8 | 25.4 | 12-Ø25.4 |
| 14"  | 350 | 381            | 1403      | 1817     | 533 | 476.3 | 25.4 | 12-Ø28.6 |
| 16"  | 400 | 406            | 1403      | 1817     | 597 | 539.8 | 25.4 | 16-Ø28.6 |
| 18"  | 450 | 432            | 1788      | 2308     | 635 | 577.9 | 25.4 | 16-Ø31.8 |
| 20"  | 500 | 457            | 1809      | 2329     | 699 | 635   | 28.6 | 20-Ø31.8 |
| 24"  | 600 | 508            | 2025      | 2649     | 813 | 749.3 | 30.1 | 20-Ø34.9 |

## Flanged x Grooved Resilient OS&Y Gate Valve (XZ51X), UL/FM Approved

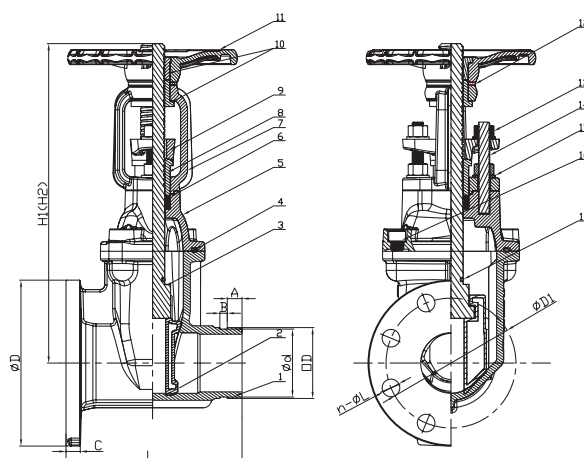
NSF/ANSI 61 NSF/ANSI 372  
0C3073.7



XZ51X



- Connection Ends: Flange to ASME B16.1 CL 125  
Groove to AWWA C606
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating Complies with  
ANSI/AWWA C550



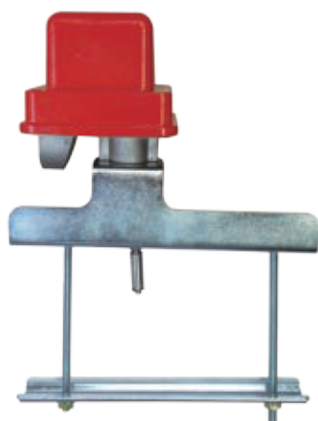
### MATERIAL SPECIFICATION

| Part No. | Part                 | Standard Specification   | Options                                |
|----------|----------------------|--------------------------|----------------------------------------|
| 1        | Valve Body           | ASTM A536, 65-45-12      |                                        |
| 2        | Resilient Wedge Disc | ASTM A536, 65-45-12+EPDM |                                        |
| 3        | Stem                 | Stainless Steel          | AISI 304, AISI 316, AISI 420, AISI 431 |
| 4        | Bonnet Gasket        | EPDM                     |                                        |
| 5        | Bonnet               | ASTM A536, 65-45-12      |                                        |
| 6        | Stem Packing         | EPDM                     |                                        |
| 7        | Yoke                 | ASTM A536, 65-45-12      |                                        |
| 8        | Stem Bushing         | Brass Hpb59-1            |                                        |
| 9        | Gland                | ASTM A536, 65-45-12      |                                        |
| 10       | Stem Nut             | Brass Hpb59-1            | Bronze ZQSn5-5-5                       |
| 11       | Handwheel            | ASTM A536, 65-45-12      | Pressed Steel                          |
| 12       | Washer               | Brass Hpb59-1            |                                        |
| 13       | Gland Nut            | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 14       | Stud                 | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 15       | Flat Washer          | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 16       | Bolt                 | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 17       | O-Ring               | NBR                      | EPDM                                   |

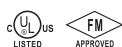
Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.  
Size 2"-5" with 1pc of 1/2" bronze NPT tapping plug, size 6"-12 with 1pc of 3/4" bronze NPT tapping plug.

| DN   |     | Dimensions(mm) |           |          |     |       |      |          |       |        |       |
|------|-----|----------------|-----------|----------|-----|-------|------|----------|-------|--------|-------|
| Inch | mm  | L              | H1(Close) | H2(Open) | D   | D1    | C    | n-ΦL     | OD    | d      | A     |
| 2"   | 50  | 178            | 348       | 400      | 152 | 120.7 | 16.0 | 4-Φ19.1  | 60.3  | 57.15  | 15.88 |
| 2.5" | 65  | 190            | 373       | 440      | 178 | 139.7 | 17.5 | 4-Φ19.1  | 73.0  | 69.09  | 15.88 |
| 3"   | 80  | 203            | 408       | 490      | 191 | 152.4 | 19.1 | 4-Φ19.1  | 88.9  | 84.94  | 15.88 |
| 4"   | 100 | 229            | 471       | 573      | 229 | 190.5 | 19.1 | 8-Φ19.1  | 114.3 | 110.08 | 15.88 |
| 5"   | 125 | 254            | 541       | 665      | 254 | 215.9 | 19.1 | 8-Φ22.2  | 141.3 | 137.03 | 15.88 |
| 6"   | 150 | 267            | 601       | 755      | 279 | 241.3 | 19.1 | 8-Φ22.2  | 168.3 | 163.96 | 15.88 |
| 8"   | 200 | 292            | 774       | 975      | 343 | 298.5 | 22.2 | 8-Φ22.2  | 219.1 | 214.4  | 19.05 |
| 10"  | 250 | 330            | 1029      | 1283     | 406 | 362.0 | 23.8 | 12-Φ25.4 | 273.0 | 268.28 | 19.05 |
| 12"  | 300 | 356            | 1065      | 1370     | 483 | 431.8 | 25.4 | 12-Φ25.4 | 323.9 | 318.29 | 19.05 |

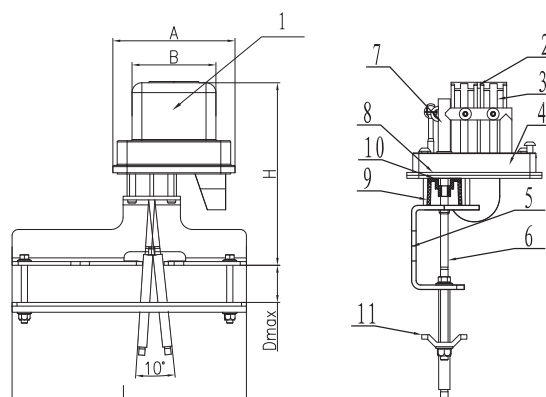
## Supervisory Switch for OS&Y Gate Valve (MXHQ)



MXHQ



- Service Environment: Indoor or Outdoor use, all parts have corrosion resistant finishes
- Temperature Range: -10°C - 80°C (14° F- 176° F)
- Cover Tamper: Tamper Resistant Screws  
Optional Cover Tamper Switch Available
- Electrical Ratings: 15 Amps at 125/250VAC
- Appliance Standards: NFPA-13, NFPA-13D, NFPA-13R, NFPA-72
- Statement: The Model MXHQ Supervisory Switch is used to monitor the open or close status of an OS&Y (outside screw and yoke) type gate valve. There are two sizes, the model MXHQ D50 serves the OS&Y Gate valves ranging in size from 2"-16"(50mm - 400mm), the other model MXHQ D450 is fit for the OS&Y Gate valves ranging in size from 18"-24"(450mm - 600mm).



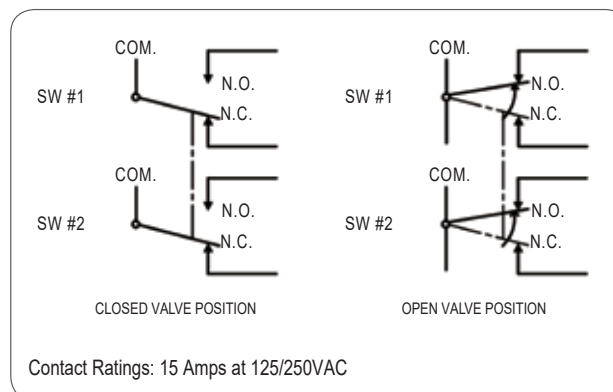
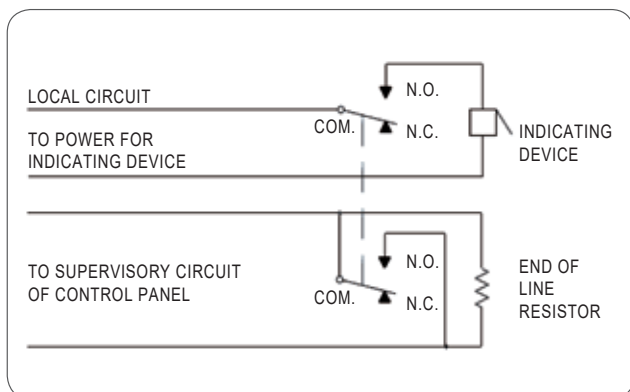
### MATERIAL SPECIFICATION

| Part No. | Part             | Standard Specification | Options            |
|----------|------------------|------------------------|--------------------|
| 1        | Outer Shell      | ADC12                  |                    |
| 2        | Brace            | Carbon Steel Q235      | AISI 304, AISI 316 |
| 3        | Micro Switch     |                        |                    |
| 4        | Base             | ADC12                  |                    |
| 5        | Connection Plate | Carbon Steel Q235      | AISI 304, AISI 316 |
| 6        | Driving Lever    | AISI 304               | AISI 316           |
| 7        | Axis             | Nylon                  |                    |
| 8        | Sealing Gasket   | CR Foam Cotton         |                    |
| 9        | Pressing Sleeve  | PTFE                   |                    |
| 10       | Rubber Ring      | EPDM                   |                    |
| 11       | Clamp Plate      | Carbon Steel Q235      |                    |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN      |         | Dimensions(mm) |    |     |     |      |
|---------|---------|----------------|----|-----|-----|------|
| Inch    | mm      | A              | B  | H   | L   | Dmax |
| 2"-16"  | 50-400  | 99             | 68 | 148 | 200 | 105  |
| 18"-24" | 450-600 | 99             | 68 | 148 | 360 | 135  |

### TYPICAL ELECTRICAL CONNECTIONS





## Grooved Resilient NRS Gate Valve (Z85X), UL/FM Approved

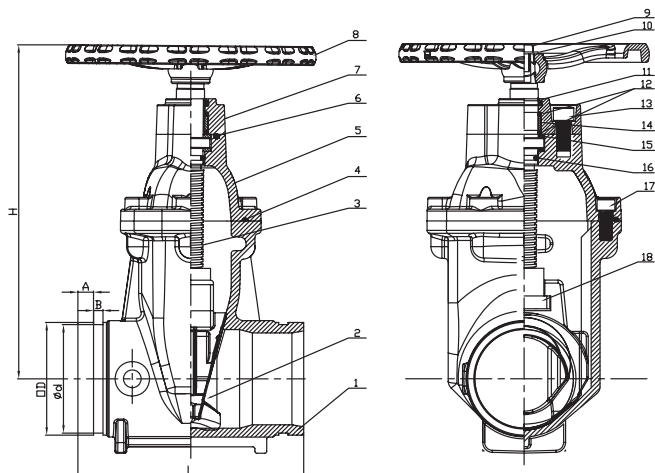
NSF/ANSI 61 NSF/ANSI 372  
0C3073.7



Z85X



- Connection Ends: Groove to AWWA C606
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with  
ANSI/AWWA C550 or painting upon request



### MATERIAL SPECIFICATION

| Part No. | Part                 | Standard Specification   | Options                                |
|----------|----------------------|--------------------------|----------------------------------------|
| 1        | Valve Body           | ASTM A536, 65-45-12      |                                        |
| 2        | Resilient Wedge Disc | ASTM A536, 65-45-12+EPDM |                                        |
| 3        | Stem                 | Stainless Steel          | AISI 304, AISI 316, AISI 420, AISI 431 |
| 4        | Bonnet Gasket        | EPDM                     | NBR                                    |
| 5        | Bonnet               | ASTM A536, 65-45-12      |                                        |
| 6        | O-Ring               | NBR                      | EPDM                                   |
| 7        | Gland                | ASTM A536, 65-45-12      |                                        |
| 8        | Handwheel            | ASTM A536, 65-45-12      | Pressed Steel                          |
| 9        | Bolt                 | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 10       | Flat Washer          | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 11       | Ring Wiper           | EPDM                     | NBR                                    |
| 12       | O-Ring               | NBR                      | EPDM                                   |
| 13       | Nut                  | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 14       | Axis Guide           | Brass HPb59-1            |                                        |
| 15       | Washer               | Brass HPb59-1            |                                        |
| 16       | O-Ring               | NBR                      | EPDM                                   |
| 17       | Nut                  | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 18       | Wedge Nut            | Brass HPb59-1            | Bronze ZQSn5-5-5                       |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.  
Size 2"-3" with 1pc of 3/8" bronze NPT tapping plug, size 4"-5" with 1pc of 1/2" bronze NPT tapping plug, size  
6"-12 with 1pc of 3/4" bronze NPT tapping plug.

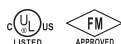
| DN   |     | Dimensions(mm) |     |       |        |       |       |
|------|-----|----------------|-----|-------|--------|-------|-------|
| Inch | mm  | L              | H   | OD    | d      | A     | B     |
| 2"   | 50  | 178            | 254 | 60.3  | 57.15  | 15.88 | 7.92  |
| 2.5" | 65  | 190            | 275 | 73    | 69.09  | 15.88 | 7.92  |
| 3"   | 80  | 203            | 301 | 88.9  | 84.94  | 15.88 | 7.92  |
| 4"   | 100 | 229            | 355 | 114.3 | 110.08 | 15.88 | 9.52  |
| 5"   | 125 | 254            | 393 | 141.3 | 137.03 | 15.88 | 9.52  |
| 6"   | 150 | 267            | 448 | 168.3 | 163.96 | 15.88 | 9.52  |
| 8"   | 200 | 292            | 548 | 219.1 | 214.4  | 19.05 | 11.13 |
| 10"  | 250 | 330            | 626 | 273   | 268.28 | 19.05 | 12.7  |
| 12"  | 300 | 356            | 722 | 323.9 | 318.29 | 19.05 | 12.7  |

## Flanged Resilient NRS Gate Valve (Z45XC), UL/FM Approved

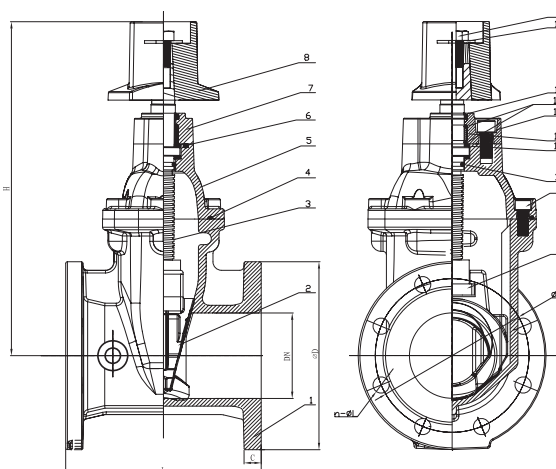
NSF/ANSI 61 NSF/ANSI 372  
OC3073.7



Z45XC



- Connection Ends: Flange to ASME B16.1 CL 125
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



### MATERIAL SPECIFICATION

| Part No. | Part                 | Standard Specification   | Options                                |
|----------|----------------------|--------------------------|----------------------------------------|
| 1        | Valve Body           | ASTM A536, 65-45-12      |                                        |
| 2        | Resilient Wedge Disc | ASTM A536, 65-45-12+EPDM |                                        |
| 3        | Stem                 | Stainless Steel          | AISI 304, AISI 316, AISI 420, AISI 431 |
| 4        | Bonnet Gasket        | EPDM                     | NBR                                    |
| 5        | Bonnet               | ASTM A536, 65-45-12      |                                        |
| 6        | O-Ring               | NBR                      | EPDM                                   |
| 7        | Gland                | ASTM A536, 65-45-12      |                                        |
| 8        | Stem Cap             | ASTM A536, 65-45-12      |                                        |
| 9        | Bolt                 | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 10       | Flat Washer          | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 11       | Ring Wiper           | EPDM                     | NBR                                    |
| 12       | O-Ring               | NBR                      | EPDM                                   |
| 13       | Nut                  | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 14       | Axis Guide           | Brass HPb59-1            |                                        |
| 15       | Washer               | Brass HPb59-1            |                                        |
| 16       | O-Ring               | NBR                      | EPDM                                   |
| 17       | Nut                  | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 18       | Wedge Nut            | Brass HPb59-1            | Bronze ZQSn5-5-5                       |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.  
Size 2"~5" with 1pc of 1/2" bronze NPT tapping plug, size 6"~12 with 1pc of 3/4" bronze NPT tapping plug.



Z45X



Z35X



Z05X



Z55X

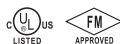
| DN   |     | Dimensions(mm) |         |          |     |       |      |          |
|------|-----|----------------|---------|----------|-----|-------|------|----------|
| Inch | mm  | L              | H(Z45X) | H(Z45XC) | D   | D1    | C    | n-ΦL     |
| 2"   | 50  | 178            | 254     | 278      | 152 | 120.7 | 16.0 | 4-Ø19.1  |
| 2.5" | 65  | 190            | 275     | 300      | 178 | 139.7 | 17.5 | 4-Ø19.1  |
| 3"   | 80  | 203            | 301     | 321      | 191 | 152.4 | 19.1 | 4-Ø19.1  |
| 4"   | 100 | 229            | 355     | 375      | 229 | 190.5 | 19.1 | 8-Ø19.1  |
| 5"   | 125 | 254            | 393     | 415      | 254 | 215.9 | 19.1 | 8-Ø22.2  |
| 6"   | 150 | 267            | 448     | 455      | 279 | 241.3 | 19.1 | 8-Ø22.2  |
| 8"   | 200 | 292            | 548     | 565      | 343 | 298.5 | 22.2 | 8-Ø22.2  |
| 10"  | 250 | 330            | 626     | 636      | 406 | 362.0 | 23.8 | 12-Ø25.4 |
| 12"  | 300 | 356            | 722     | 731      | 483 | 431.8 | 25.4 | 12-Ø25.4 |
| 14"  | 350 | 381            | 918     | 928      | 533 | 476.3 | 25.4 | 12-Ø28.6 |
| 16"  | 400 | 406            | 918     | 928      | 597 | 539.8 | 25.4 | 16-Ø28.6 |
| 18"  | 450 | 432            | 1108    | 1165     | 635 | 577.9 | 25.4 | 16-Ø31.8 |
| 20"  | 500 | 457            | 1130    | 1188     | 699 | 635   | 28.6 | 20-Ø31.8 |
| 24"  | 600 | 508            | 1321    | 1364     | 813 | 749.3 | 30.1 | 20-Ø34.9 |

## Flanged Resilient NRS Gate Valve with Post Flange (Z45XC-2), UL/FM Approved

NSF/ANSI 372  
OC3073.7



Z45XC-2



- Connection Ends: Flange to ASME B16.1 CL 125
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



Z35XC-2

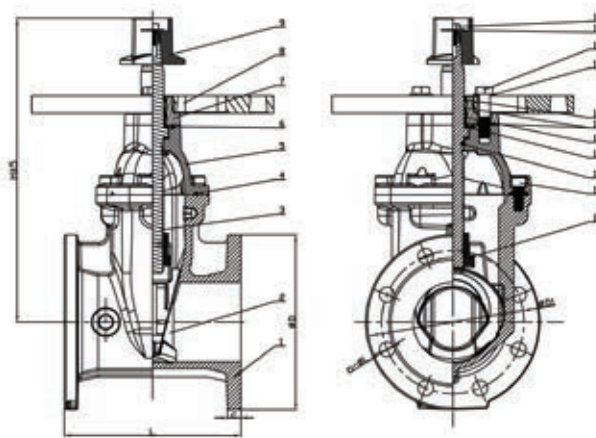


Z85XC-2

OC3073.7



Z05XC-2



### MATERIAL SPECIFICATION

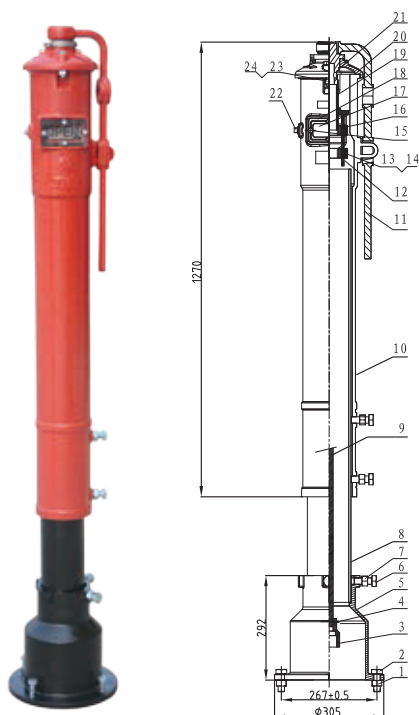
| Part No. | Part                 | Standard Specification   | Options                                |
|----------|----------------------|--------------------------|----------------------------------------|
| 1        | Valve Body           | ASTM A536, 65-45-12      |                                        |
| 2        | Resilient Wedge Disc | ASTM A536, 65-45-12+EPDM |                                        |
| 3        | Stem                 | Stainless Steel          | AISI 304, AISI 316, AISI 420, AISI 431 |
| 4        | Bonnet Gasket        | EPDM                     | NBR                                    |
| 5        | Bonnet               | ASTM A536, 65-45-12      |                                        |
| 6        | O-Ring               | NBR                      | EPDM                                   |
| 7        | Gland                | ASTM A536, 65-45-12      |                                        |
| 8        | Post Flange          | ASTM A536, 65-45-12      |                                        |
| 9        | Square Operating Nut | ASTM A536, 65-45-12      |                                        |
| 10       | Bolt                 | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 11       | Flat Washer          | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 12       | Nut                  | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 13       | Flat Washer          | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 14       | Ring Wiper           | EPDM                     | NBR                                    |
| 15       | O-Ring               | NBR                      | EPDM                                   |
| 16       | Axis Guide           | Brass Hpb59-1            |                                        |
| 17       | Washer               | Brass Hpb59-1            |                                        |
| 18       | O-Ring               | NBR                      | EPDM                                   |
| 19       | Nut                  | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 20       | Wedge Nut            | Brass Hpb59-1            | Bronze ZQSn5-5-5                       |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.  
Size 4"-5" with 1pc of 1/2" bronze NPT tapping plug, size 6"-12 with 1pc of 3/4" bronze NPT tapping plug.

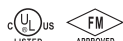
| DN   |     | Dimensions(mm) |      |     |       |      |          |
|------|-----|----------------|------|-----|-------|------|----------|
| Inch | mm  | L              | H    | D   | D1    | C    | n-ΦL     |
| 4"   | 100 | 229            | 395  | 229 | 190.5 | 19.1 | 8-Φ19.1  |
| 5"   | 125 | 254            | 432  | 254 | 215.9 | 19.1 | 8-Φ22.2  |
| 6"   | 150 | 267            | 475  | 279 | 241.3 | 19.1 | 8-Φ22.2  |
| 8"   | 200 | 292            | 585  | 343 | 298.5 | 22.2 | 8-Φ22.2  |
| 10"  | 250 | 330            | 656  | 406 | 362   | 23.8 | 12-Φ25.4 |
| 12"  | 300 | 356            | 751  | 483 | 431.8 | 25.4 | 12-Φ25.4 |
| 14"  | 350 | 381            | 952  | 533 | 476.3 | 25.4 | 12-Φ28.6 |
| 16"  | 400 | 406            | 952  | 597 | 539.8 | 25.4 | 16-Φ28.6 |
| 18"  | 450 | 432            | 1178 | 635 | 577.9 | 25.4 | 16-Φ31.8 |
| 20"  | 500 | 457            | 1199 | 699 | 635   | 28.6 | 20-Φ31.8 |
| 24"  | 600 | 508            | 1367 | 813 | 749.3 | 30.1 | 20-Φ34.9 |



## Vertical Indicator Post (IP), UL/FM Approved



IP



- **Statement:**  
Vertical indicator post provides a means to operate a buried or otherwise inaccessible valve and able to indicate the open or shut position of the valve.
- **Coating:**  
Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550

### MATERIAL SPECIFICATION

| Part No. | Part               | Standard Specification      |
|----------|--------------------|-----------------------------|
| 1        | Hex Nut            | Carbon Steel Zinc Plated    |
| 2        | Hex Bolt           | Carbon Steel Zinc Plated    |
| 3        | Socket             | ASTM A536, 65-45-12         |
| 4        | Cotter Pin         | AISI 304                    |
| 5        | Base Flange        | Cast Iron ASTM A126 Class B |
| 6        | Hex Bolt           | Carbon Steel Zinc Plated    |
| 7        | Hex Nut            | Carbon Steel Zinc Plated    |
| 8        | Standpipe          | Carbon Steel ASTM A53       |
| 9        | Stem 1" Square     | Carbon Steel AISI 1045      |
| 10       | Body               | Cast Iron ASTM A126 Class B |
| 11       | Locking Wrench     | ASTM A536, 65-45-12         |
| 12       | Target Carrier Nut | AISI 304                    |
| 13       | Hex Bolt           | Carbon Steel Zinc Plated    |
| 14       | Hex Nut            | Carbon Steel Zinc Plated    |
| 15       | Hex Bolt           | Carbon Steel Zinc Plated    |
| 16       | Target             | Cast Aluminum               |
| 17       | Window Class       | Plexiglass                  |
| 18       | Gasket             | EPDM                        |
| 19       | Operating Nut      | AISI 304                    |
| 20       | Top Section        | Cast Iron ASTM A126 Class B |
| 21       | Snap Ring          | AISI 1066                   |
| 22       | Plug               | Malleable Iron              |
| 23       | Square Nut         | Carbon Steel Zinc Plated    |
| 24       | Hex Bolt           | Carbon Steel Zinc Plated    |

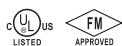
### Field Adjustment:

- 1.Remove the Top Section from the top of the Indicator Post assembly;
- 2.Cut the required stem length and adjust the Standpipe to match up to the ground line;
- 3.Set the "OPEN" and "SHUT" targets for the appropriate valve size;
- 4.Reattach the Top Section to the top of the Indicator Post assembly.

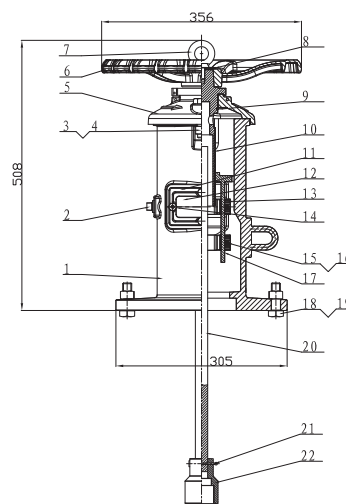
## Wall Indicator Post (WP), UL/FM Approved



WP



- **Statement:**  
Wall indicator post provides a means to operate a valve installed behind a wall and able to indicate the open or shut position of the valve.
- **Coating:**  
Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



### MATERIAL SPECIFICATION

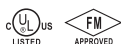
| Part No. | Part               | Standard Specification      |
|----------|--------------------|-----------------------------|
| 1        | Body               | Cast Iron ASTM A126 Class B |
| 2        | Plug               | Malleable Iron              |
| 3        | Square Nut         | Carbon Steel Zinc Plated    |
| 4        | Hex Bolt           | Carbon Steel Zinc Plated    |
| 5        | Cover              | Cast Iron ASTM A126 Class B |
| 6        | Hand Wheel         | ASTM A536, 65-45-12         |
| 7        | Eye Bolt           | Carbon Steel Zinc Plated    |
| 8        | Gasket             | Carbon Steel Zinc Plated    |
| 9        | Snap Ring          | AISI 1066                   |
| 10       | Operating NUT      | AISI 304                    |
| 11       | Gasket             | EPDM                        |
| 12       | Window Glass       | Plexiglass                  |
| 13       | Target             | Cast Aluminum               |
| 14       | Hex Bolt           | Carbon Steel Zinc Plated    |
| 15       | Hex Bolt           | Carbon Steel Zinc Plated    |
| 16       | Hex Nut            | Carbon Steel Zinc Plated    |
| 17       | Target Carrier Nut | AISI 304                    |
| 18       | Hex Nut            | Carbon Steel Zinc Plated    |
| 19       | Hex Bolt           | Carbon Steel Zinc Plated    |
| 20       | Stem 1" Square     | Carbon Steel AISI 1045      |
| 21       | Cotter Pin         | AISI 304                    |
| 22       | Socket             | ASTM A536, 65-45-12         |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list;

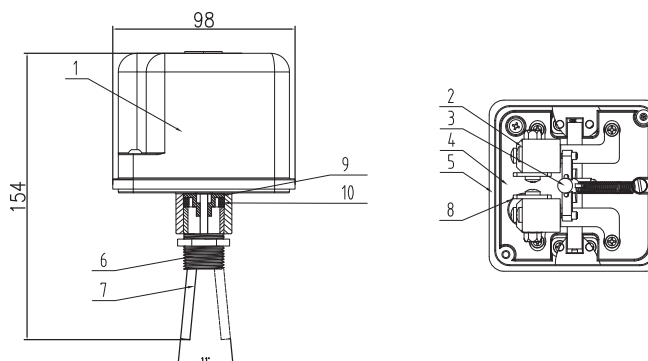
## Supervisory Switch for Indicator Post (ZXHQ)



ZXHQ



- Service Environment: Indoor or Outdoor use, all parts have corrosion resistant finishes
- Temperature Range: -10°C - 80°C (14° F - 176° F)
- Cover Tamper: Tamper Resistant Screws  
Optional Cover Tamper Switch Available
- Electrical Ratings: 15 Amps at 125/250VAC
- Appliance Standards: NFPA-13, NFPA-13D, NFPA-13R, NFPA-72
- Statement: The Model ZXHQ is a weather proof and tamper resistant switch for monitoring the open position of firesprinkler control valves of the post indicator, butterfly and other types.

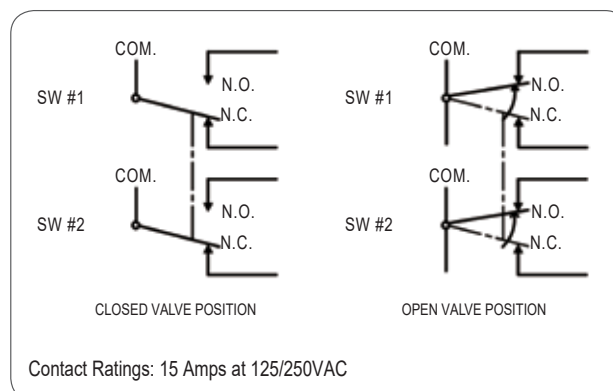
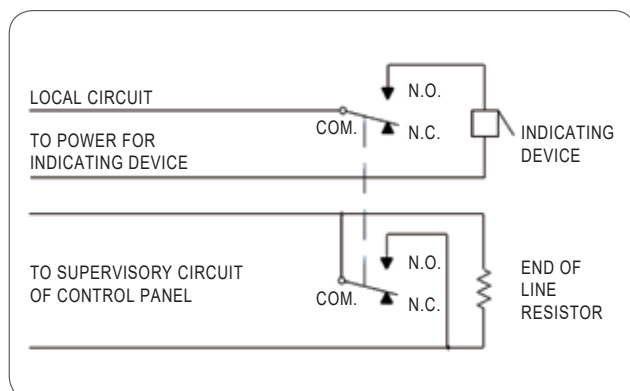


### MATERIAL SPECIFICATION

| Part No. | Part               | Standard Specification | Options            |
|----------|--------------------|------------------------|--------------------|
| 1        | Outer Shell        | ADC12                  |                    |
| 2        | Micro Switch       |                        |                    |
| 3        | The Rotating Shaft | PA66+GF30              |                    |
| 4        | Base               | ADC12                  |                    |
| 5        | Sealing Gasket     | CR foam cotton         |                    |
| 6        | Connecting Pipe    | AISI 304               | AISI 316           |
| 7        | Stem               | AISI 304               | AISI 316           |
| 8        | Micro Stents       | Q235                   | AISI 304, AISI 316 |
| 9        | Rubber Ring        | EPDM                   |                    |
| 10       | Pressing Sleeve    | PTFE                   |                    |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

### TYPICAL ELECTRICAL CONNECTIONS





## Grooved Butterfly Valve with Tamper Switch (XD381X), UL/FM/VdS Approved

00C3073.7

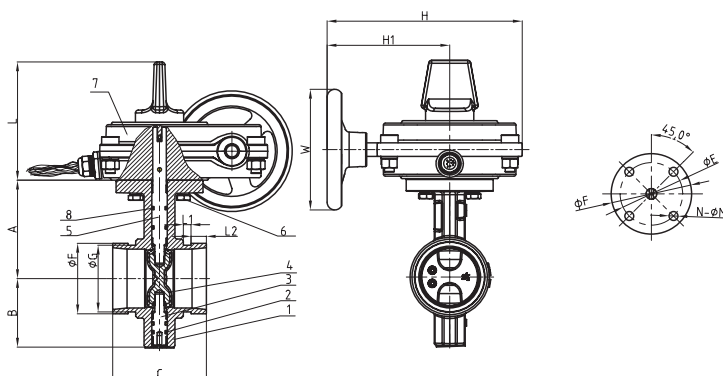


XD381X



RoHS NSF/ANSI 61 NSF/ANSI 372

- Design Standard: MSS SP-67
- Connection Ends: Groove to AWWA C606
- Top Flange Standard: ISO 5211
- Working Pressure: 300PSI  
175PSI, 200PSI and 250PSI available upon request
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with  
ANSI/AWWA C550

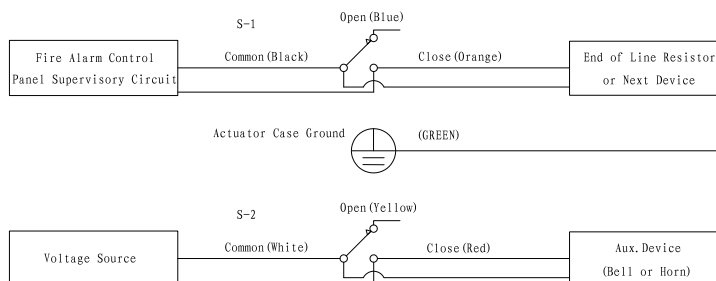


### MATERIAL SPECIFICATION

| Part No. | Part           | Standard Specification   | Options                |
|----------|----------------|--------------------------|------------------------|
| 1        | Body           | ASTM A536,65-45-12       |                        |
| 2        | O-Ring         | NBR                      | EPDM                   |
| 3        | Stub Shaft     | AISI 431                 |                        |
| 4        | Disc           | ASTM A536,65-45-12+EPDM  | ASTM A536,65-45-12+NBR |
| 5        | Drive Shaft    | AISI 431                 |                        |
| 6        | Hex Nut        | Carbon Steel Zinc plated |                        |
| 7        | Signal Gearbox | Body:ASTM A536,65-45-12  |                        |
| 8        | O-Ring         | NBR                      | EPDM                   |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

### SWITCH WIRING DIAGRAM



| DN   |     | Dimensions(mm) |     |     |       |        |       |       |       |       |       |     |     |     |       |         |
|------|-----|----------------|-----|-----|-------|--------|-------|-------|-------|-------|-------|-----|-----|-----|-------|---------|
| Inch | mm  | A              | B   | C   | F     | G      | L     | L1    | L2    | H1    | H     | W   | ΦE  | ΦF  | N-ΦM  | ISO5211 |
| 2"   | 50  | 89             | 65  | 81  | 60.3  | 57.15  | 122.5 | 7.93  | 15.88 | 127   | 202.2 | 125 | 70  | 90  | 4-Φ10 | F07     |
| 2.5" | 65  | 102            | 71  | 97  | 73.0  | 69.09  | 122.5 | 7.93  | 15.88 | 127   | 202.2 | 125 | 70  | 90  | 4-Φ10 | F07     |
| 3"   | 80  | 109            | 81  | 97  | 88.9  | 84.94  | 122.5 | 7.93  | 15.88 | 127   | 202.2 | 125 | 70  | 90  | 4-Φ10 | F07     |
| 4"   | 100 | 128            | 95  | 116 | 114.3 | 110.08 | 122.5 | 9.53  | 15.88 | 127   | 202.2 | 125 | 70  | 90  | 4-Φ10 | F07     |
| 5"   | 125 | 141            | 111 | 148 | 141.3 | 137.03 | 122.5 | 9.53  | 15.88 | 127   | 202.2 | 125 | 70  | 90  | 4-Φ10 | F07     |
| 6"   | 150 | 153            | 133 | 148 | 168.3 | 163.96 | 122.5 | 9.53  | 15.88 | 139.5 | 215   | 225 | 70  | 90  | 4-Φ10 | F07     |
| 8"   | 200 | 184            | 164 | 133 | 219.1 | 214.40 | 122.5 | 11.10 | 19.05 | 198.5 | 274   | 225 | 102 | 125 | 4-Φ12 | F10     |
| 10"  | 250 | 216            | 196 | 159 | 273.1 | 268.28 | 122.5 | 12.70 | 19.05 | 198.5 | 274   | 225 | 102 | 125 | 4-Φ12 | F10     |
| 12"  | 300 | 254            | 226 | 165 | 323.9 | 318.29 | 132.0 | 12.70 | 19.05 | 198.5 | 293.5 | 225 | 102 | 125 | 4-Φ12 | F10     |

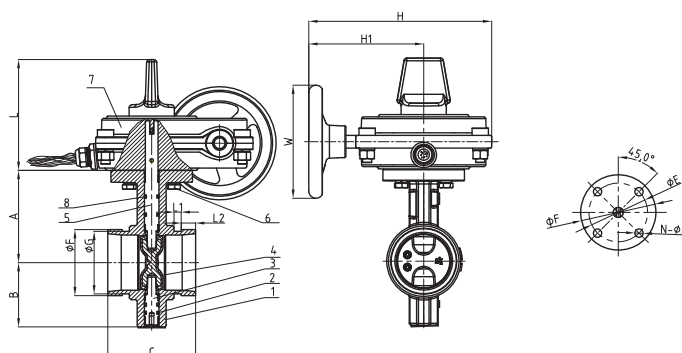
Note: Valve must not be installed with disc in full open position. Disc must be partly closed so that no part is protruding beyond end of valve body.

## Grooved Butterfly Valve with Normally Closed Tamper Switch (XD381XG)



XD381XG

- Design Standard: MSS SP-67
- Connection Ends: Groove to AWWA C606
- Top Flange Standard: ISO 5211
- Working Pressure: 363PSI  
175PSI, 200PSI, 250PSI and 300PSI available upon request
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



### MATERIAL SPECIFICATION

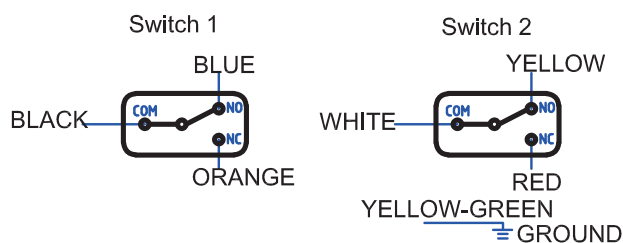
| Part No. | Part           | Standard Specification   | Options                |
|----------|----------------|--------------------------|------------------------|
| 1        | Body           | ASTM A536,65-45-12       |                        |
| 2        | O-Ring         | NBR                      | EPDM                   |
| 3        | Stub Shaft     | SS431                    |                        |
| 4        | Disc           | ASTM A536,65-45-12+EPDM  | ASTM A536,65-45-12+NBR |
| 5        | Drive Shaft    | SS431                    |                        |
| 6        | Hex Nut        | Carbon Steel Zinc Plated |                        |
| 7        | Signal Gearbox | Body: ASTM A536,65-45-12 |                        |
| 8        | O-Ring         | NBR                      | EPDM                   |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

### Signal description:

1.Switch parameters:16A 1/2HP 125/250VAC

2.Wiring diagram:



| DN   |     | Dimensions(mm) |       |       |       |        |       |       |       |       |       |     |     |     |       |         |
|------|-----|----------------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-----|-----|-----|-------|---------|
| Inch | mm  | A              | B     | C     | F     | G      | L     | L1    | L2    | H1    | H     | W   | ΦE  | ΦF  | N-ΦM  | ISO5211 |
| 2"   | 50  | 89             | 65.00 | 81.00 | 60.3  | 57.15  | 122.5 | 7.93  | 15.88 | 127   | 202.2 | 125 | 70  | 90  | 4-φ10 | F07     |
| 2.5" | 65  | 102            | 71    | 97    | 73.0  | 69.09  | 122.5 | 7.93  | 15.88 | 127   | 202.2 | 125 | 70  | 90  | 4-φ10 | F07     |
| 3"   | 80  | 109            | 81    | 97    | 88.9  | 84.94  | 122.5 | 7.93  | 15.88 | 127   | 202.2 | 125 | 70  | 90  | 4-φ10 | F07     |
| 4"   | 100 | 128            | 95    | 116   | 114.3 | 110.08 | 122.5 | 9.53  | 15.88 | 127   | 202.2 | 125 | 70  | 90  | 4-φ10 | F07     |
| 5"   | 125 | 141            | 111   | 148   | 141.3 | 137.03 | 122.5 | 9.53  | 15.88 | 127   | 202.2 | 125 | 70  | 90  | 4-φ10 | F07     |
| 6"   | 150 | 153            | 133   | 148   | 168.3 | 163.96 | 122.5 | 9.53  | 15.88 | 139.5 | 215   | 225 | 70  | 90  | 4-φ10 | F07     |
| 8"   | 200 | 184            | 164   | 133   | 219.1 | 214.40 | 122.5 | 11.10 | 19.05 | 198.5 | 274   | 225 | 102 | 125 | 4-φ12 | F10     |
| 10"  | 250 | 216            | 196   | 159   | 273.1 | 268.28 | 122.5 | 12.70 | 19.05 | 198.5 | 274   | 225 | 102 | 125 | 4-φ12 | F10     |
| 12"  | 300 | 254            | 226   | 165   | 323.9 | 318.29 | 132.0 | 12.70 | 19.05 | 202   | 297.5 | 225 | 102 | 125 | 4-φ12 | F10     |

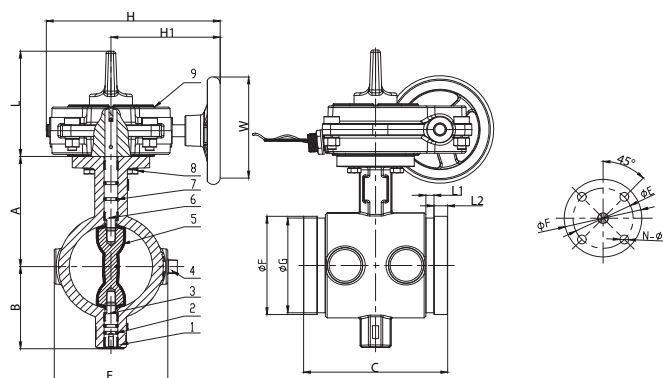
## Grooved Butterfly Valve with Tamper Switch (XD381XC)



XD381XC



- Design Standard: MSS SP-67
- Connection Ends: Groove to AWWA C606
- Top Flange Standard: ISO 5211
- Working Pressure: 300PSI
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



### MATERIAL SPECIFICATION

| Part No. | Part           | Standard Specification   | Options                                |
|----------|----------------|--------------------------|----------------------------------------|
| 1        | Valve Body     | ASTM A536,65-45-12       |                                        |
| 2        | O-Ring         | NBR                      | EPDM                                   |
| 3        | Stub Shaft     | Stainless Steel,2Cr13    | AISI 304, AISI 316, AISI 420, AISI 431 |
| 4        | Plug           | Bronze ASTM B584         | Malleable Iron Galvanized              |
| 5        | Disc           | ASTM A536,65-45-12+EPDM  |                                        |
| 6        | Drive Shaft    | Stainless Steel,2Cr13    | AISI 304, AISI 316, AISI 420, AISI 431 |
| 7        | O-Ring         | NBR                      | EPDM                                   |
| 8        | Bolt and Nut   | Carbon Steel Zinc Plated | AISI 304, AISI 316                     |
| 9        | Signal Gearbox | ASTM A536,65-45-12       |                                        |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |     | Dimensions(mm) |     |       |         |       |        |       |      |       |       |     |     |       |         | P        |          |
|------|-----|----------------|-----|-------|---------|-------|--------|-------|------|-------|-------|-----|-----|-------|---------|----------|----------|
| Inch | mm  | A              | B   | C     | E       | F     | G      | L     | L1   | L2    | H1    | H   | W   | N-ΦM  | ISO5211 | standard | optional |
| 2.5" | 65  | 102            | 71  | 152.5 | 94±1.5  | 73    | 69.09  | 122.5 | 7.93 | 15.88 | 127   | 202 | 125 | 4-Φ10 | F07     | 1/2      | 3/4      |
| 3"   | 80  | 109            | 81  | 160.0 | 107±1.5 | 88.9  | 84.94  | 122.5 | 7.93 | 15.88 | 127   | 202 | 125 | 4-Φ10 | F07     | 1/2      | 3/4      |
| 4"   | 100 | 128            | 95  | 167.6 | 132±1.5 | 114.3 | 110.08 | 122.5 | 9.53 | 15.88 | 127   | 202 | 125 | 4-Φ10 | F07     | 3/4      | 1/2      |
| 6"   | 150 | 153            | 133 | 175.3 | 188±1.5 | 168.3 | 163.96 | 122.5 | 9.53 | 15.88 | 139.5 | 215 | 225 | 4-Φ10 | F07     | 3/4      | 1/2      |
| 8"   | 200 | 184            | 165 | 200.7 | 236±1.5 | 219.1 | 214.4  | 122.5 | 11.1 | 19.05 | 198.5 | 274 | 225 | 4-Φ12 | F10     | 3/4      | 1/2      |

## Grooved Butterfly Valve with Tamper Switch (XD381X4-C)

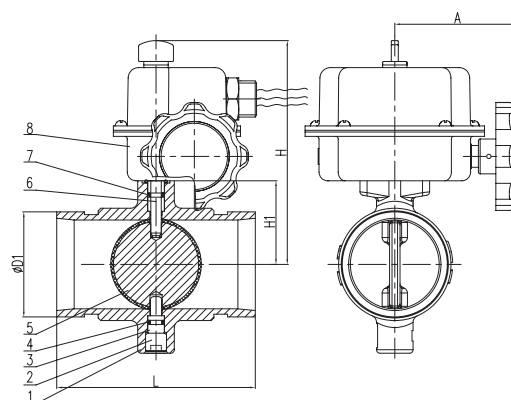


XD381X4-C



- Design Standard: MSS SP-67
- Connection Ends: Groove to AWWA C606
- Top Flange Standard: ISO 5211  
Stem drive by keys and six-square
- Working Pressure: 200PSI, 175PSI
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with  
ANSI/AWWA C550 or painting upon request

**Compact Design**



### MATERIAL SPECIFICATION

| Part No. | Part           | Standard Specification   | Options                                |
|----------|----------------|--------------------------|----------------------------------------|
| 1        | Valve Body     | ASTM A536 65-45-12       |                                        |
| 2        | Screw Plug     | Carbon Steel Zinc Plated |                                        |
| 3        | Stub Shaft     | Stainless Steel          | AISI 304, AISI 316, AISI 420, AISI 431 |
| 4        | O-Ring         | NBR                      | EPDM                                   |
| 5        | Disc           | Carbon Steel+EPDM        |                                        |
| 6        | Drive Shaft    | Stainless Steel          | AISI 304, AISI 316, AISI 420, AISI 431 |
| 7        | O-Ring         | NBR                      | EPDM                                   |
| 8        | Signal Gearbox | Carbon Steel             |                                        |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |    | Dimensions(mm) |      |       |    |       |
|------|----|----------------|------|-------|----|-------|
| Inch | mm | A              | ØD1  | H     | H1 | L     |
| 2"   | 50 | 72             | 60.3 | 128.5 | 48 | 114.0 |
| 2.5" | 65 | 72             | 73.0 | 132.5 | 52 | 114.0 |

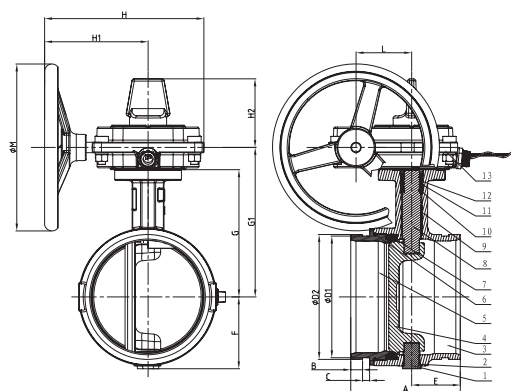


## Double Eccentric Grooved Butterfly Valve with Tamper Switch (XD382X)



XD382X

- Design Standard: MSS SP-67
- Connection Ends: Groove to AWWA C606
- Top Flange Standard: ISO 5211  
Stem drive by keys, parallel or diagonal square or flat head
- Working Pressure: 300PSI  
175PSI, 200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



### MATERIAL SPECIFICATION

| Part No. | Part           | Standard Specification | Options                                |
|----------|----------------|------------------------|----------------------------------------|
| 1        | Upper Stem     | Stainless Steel        | AISI 304, AISI 316, AISI 420, AISI 431 |
| 2        | O-Ring         | NBR                    | EPDM                                   |
| 3        | Right Body     | ASTM A536, 65-45-12    |                                        |
| 4        | Disc           | AISI 316               |                                        |
| 5        | Left Body      | ASTM A536, 65-45-12    |                                        |
| 6        | O-Ring         | NBR                    | EPDM                                   |
| 7        | Sealing Ring   | EPDM                   | NBR                                    |
| 8        | Lower Stem     | Stainless Steel        | AISI 304, AISI 316, AISI 420, AISI 431 |
| 9        | Shaft Sleeve   | AISI 304+PTFE          |                                        |
| 10       | O-Ring         | NBR                    | EPDM                                   |
| 11       | Stuffing Box   | ZcSn5pb5zn5            |                                        |
| 12       | O-Ring         | NBR                    | EPDM                                   |
| 13       | Signal Gearbox | ASTM A536, 65-45-12    |                                        |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |     | Dimensions(mm) |       |       |       |        |      |       |       |     |       |       |       |    |
|------|-----|----------------|-------|-------|-------|--------|------|-------|-------|-----|-------|-------|-------|----|
| Inch | mm  | A              | B     | C     | ØD1   | ØD2    | E    | F     | G     | ØM  | H     | H1    | H2    | L  |
| 2"   | 50  | 81             | 15.88 | 7.93  | 60.3  | 57.15  | 36.5 | 46    | 96.8  | 125 | 202.2 | 127   | 122.5 | 75 |
| 2.5" | 65  | 96.8           | 15.88 | 7.93  | 73.0  | 69.09  | 45   | 53.3  | 108   | 125 | 202.2 | 127   | 122.5 | 75 |
| 3"   | 80  | 115.8          | 15.88 | 7.93  | 88.9  | 84.94  | 45   | 59.7  | 114.3 | 125 | 202.2 | 127   | 122.5 | 75 |
| 4"   | 100 | 147.6          | 15.88 | 9.53  | 114.3 | 110.08 | 55.4 | 73.2  | 133.4 | 125 | 202.2 | 127   | 122.5 | 75 |
| 5"   | 125 | 147.6          | 15.88 | 9.53  | 141.3 | 137.03 | 65.5 | 84.8  | 158.8 | 125 | 202.2 | 127   | 122.5 | 75 |
| 6"   | 150 | 147.6          | 15.88 | 9.53  | 168.3 | 163.96 | 65.5 | 97.3  | 171.5 | 225 | 215   | 139.5 | 122.5 | 75 |
| 8"   | 200 | 133.4          | 19.05 | 11.10 | 219.1 | 214.4  | 59.2 | 127   | 203.2 | 225 | 274   | 198.5 | 122.5 | 75 |
| 10"  | 250 | 158.8          | 19.05 | 12.70 | 273.1 | 268.28 | 76.2 | 155.7 | 247.7 | 225 | 274   | 198.5 | 122.5 | 75 |
| 12"  | 300 | 165.1          | 19.05 | 12.70 | 323.9 | 318.29 | 76.2 | 181.1 | 273.1 | 225 | 293.5 | 198.5 | 132   | 87 |

## Grooved Butterfly Valve (D81X4, D381X4)

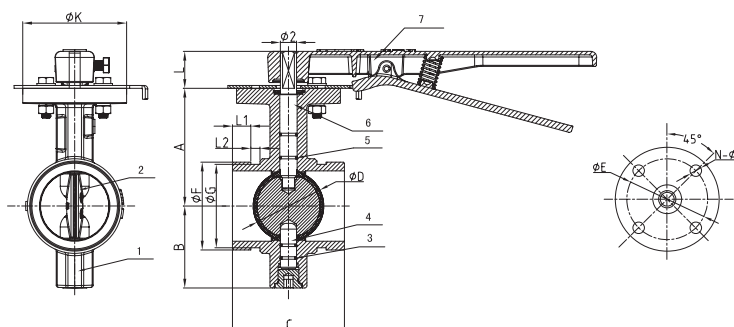
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D81X4

NSF/ANSI 61 NSF/ANSI 372

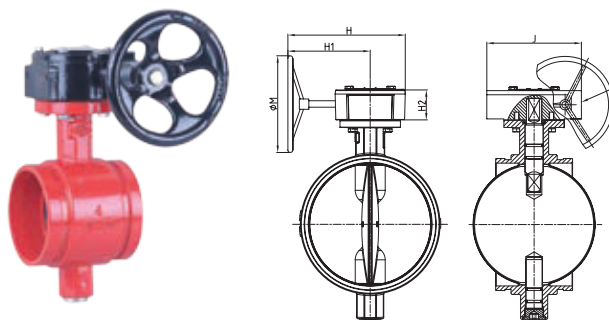
- Design Standard: MSS SP-67
- Connection Ends: Groove to AWWA C606
- Top Flange Standard: ISO 5211  
Stem drive by keys, parallel or diagonal square or flat head
- Working Pressure: 300PSI  
175PSI, 200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550 or painting upon request



### MATERIAL SPECIFICATION

| Part No. | Part           | Standard Specification   | Options                                |
|----------|----------------|--------------------------|----------------------------------------|
| 1        | Valve Body     | ASTM A536, 65-45-12      |                                        |
| 2        | Disc           | ASTM A536, 65-45-12+EPDM | ASTM A536, 65-45-12+NBR                |
| 3        | O-Ring         | NBR                      | EPDM                                   |
| 4        | Stem           | Stainless Steel          | AISI 304, AISI 316, AISI 420, AISI 431 |
| 5        | O-Ring         | NBR                      | EPDM                                   |
| 6        | Stem           | Stainless Steel          | AISI 304, AISI 316, AISI 420, AISI 431 |
| 7        | Lever          | ASTM A536, 65-45-12      | Aluminum                               |
| 8        | Signal Gearbox | ASTM A536, 65-45-12      |                                        |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.



D381X4

| DN   |     | Dimensions(mm) |     |     |       |       |        |       |       |    |     |     |     |    |     |     |      |          |     |       |
|------|-----|----------------|-----|-----|-------|-------|--------|-------|-------|----|-----|-----|-----|----|-----|-----|------|----------|-----|-------|
| Inch | mm  | A              | B   | C   | ΦD    | ΦF    | ΦG     | L1    | L2    | L  | ΦK  | H   | H1  | H2 | J   | ΦM  | Φ2   | ISO 5211 | ΦE  | N-Φ1  |
| 2"   | 50  | 89             | 65  | 81  | 50.3  | 60.3  | 57.15  | 15.88 | 7.93  | 32 | 90  | 206 | 158 | 52 | 114 | 150 | 14   | F07      | 70  | 4-Φ10 |
| 2.5" | 65  | 102            | 71  | 97  | 60.8  | 73.0  | 69.09  | 15.88 | 7.93  | 32 | 90  | 206 | 158 | 52 | 114 | 150 | 14   | F07      | 70  | 4-Φ10 |
| 3"   | 80  | 109            | 81  | 97  | 76    | 88.9  | 84.94  | 15.88 | 7.93  | 32 | 90  | 206 | 158 | 52 | 114 | 150 | 14   | F07      | 70  | 4-Φ10 |
| 4"   | 100 | 128            | 95  | 116 | 98.5  | 114.3 | 110.08 | 15.88 | 9.53  | 32 | 90  | 206 | 158 | 52 | 114 | 150 | 16   | F07      | 70  | 4-Φ10 |
| 5"   | 125 | 141            | 111 | 148 | 122.6 | 141.3 | 137.03 | 15.88 | 9.53  | 32 | 90  | 206 | 158 | 52 | 114 | 150 | 16   | F07      | 70  | 4-Φ10 |
| 6"   | 150 | 153            | 133 | 148 | 148   | 168.3 | 163.96 | 15.88 | 9.53  | 32 | 90  | 206 | 158 | 52 | 114 | 150 | 20   | F07      | 70  | 4-Φ10 |
| 8"   | 200 | 184            | 164 | 133 | 199   | 219.1 | 214.4  | 19.05 | 11.10 | 45 | 125 | 310 | 239 | 69 | 167 | 300 | 26   | F10      | 102 | 4-Φ12 |
| 10"  | 250 | 216            | 196 | 159 | 252   | 273.0 | 268.28 | 19.05 | 12.70 | 45 | 125 | 310 | 239 | 69 | 167 | 300 | 26   | F10      | 102 | 4-Φ12 |
| 12"  | 300 | 254            | 226 | 165 | 300.5 | 323.9 | 318.29 | 19.05 | 12.70 | 45 | 125 | 307 | 229 | 73 | 190 | 300 | 28   | F10      | 102 | 4-Φ12 |
| 14"  | 377 | 290            | 241 | 178 | 324   | 377   | 371.4  | 23.8  | 12.7  | 45 | 150 | 307 | 229 | 73 | 190 | 300 | 31.7 | F12      | 125 | 4-Ø14 |

Note: Valve must not be installed with disc in full open position. Disc must be partly closed so that no part is protruding beyond end of valve body.

## Wafer Butterfly Valve with Tamper Switch (XD371X), UL/FM/VdS Approved

0C3073.7

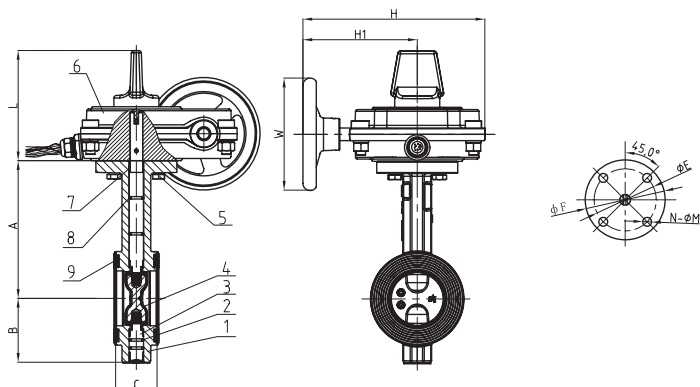


XD371X



RoHS NSF/ANSI 61 NSF/ANSI 372

- Design Standard: MSS SP-67
- Top Flange Standard: ISO 5211
- Working Pressure: 300PSI  
175PSI, 200PSI and 250PSI available upon request
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550
- Flange specification: ASME B16.1 CL125,  
ASME B16.5 CL150

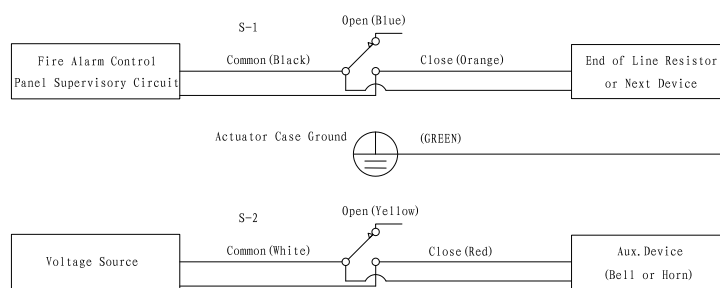


### MATERIAL SPECIFICATION

| Part No. | Part           | Standard Specification   | Options                |
|----------|----------------|--------------------------|------------------------|
| 1        | Valve Body     | ASTM A536,65-45-12       |                        |
| 2        | O-Ring         | NBR                      | EPDM                   |
| 3        | Stub Shaft     | AISI 431                 |                        |
| 4        | Disc           | ASTM A536,65-45-12+EPDM  | ASTM A536,65-45-12+NBR |
| 5        | Hex Nut        | Carbon Steel Zinc plated |                        |
| 6        | Signal Gearbox | Body:ASTM A536,65-45-12  |                        |
| 7        | Drive Shaft    | AISI 431                 |                        |
| 8        | O-Ring         | NBR                      | EPDM                   |
| 9        | End Face Seal  | EPDM                     | NBR                    |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

### SWITCH WIRING DIAGRAM



| DN   |     | Dimensions(mm) |     |    |       |       |       |     |         |     |     |       |
|------|-----|----------------|-----|----|-------|-------|-------|-----|---------|-----|-----|-------|
| Inch | mm  | A              | B   | C  | L     | H1    | H     | W   | ISO5211 | ΦE  | ΦF  | N-ΦM  |
| 2"   | 50  | 140.5          | 65  | 43 | 122.5 | 127   | 202.2 | 125 | F07     | 70  | 90  | 4-Φ10 |
| 2.5" | 65  | 153            | 71  | 46 | 122.5 | 127   | 202.2 | 125 | F07     | 70  | 90  | 4-Φ10 |
| 3"   | 80  | 157.5          | 81  | 46 | 122.5 | 127   | 202.2 | 125 | F07     | 70  | 90  | 4-Φ10 |
| 4"   | 100 | 176            | 95  | 52 | 122.5 | 127   | 202.2 | 125 | F07     | 70  | 90  | 4-Φ10 |
| 5"   | 125 | 191            | 111 | 56 | 122.5 | 127   | 202.2 | 125 | F07     | 70  | 90  | 4-Φ10 |
| 6"   | 150 | 202.5          | 133 | 56 | 122.5 | 139.5 | 215   | 225 | F07     | 70  | 90  | 4-Φ10 |
| 8"   | 200 | 243.5          | 164 | 60 | 122.5 | 198.5 | 274   | 225 | F10     | 102 | 125 | 4-Φ12 |
| 10"  | 250 | 273            | 196 | 68 | 122.5 | 198.5 | 274   | 225 | F10     | 102 | 125 | 4-Φ12 |
| 12"  | 300 | 311            | 226 | 78 | 132   | 198.5 | 293.5 | 225 | F10     | 102 | 125 | 4-Φ12 |

## Lugged Wafer Butterfly Valve with Tamper Switch (XD371XL), UL/FM/VdS Approved

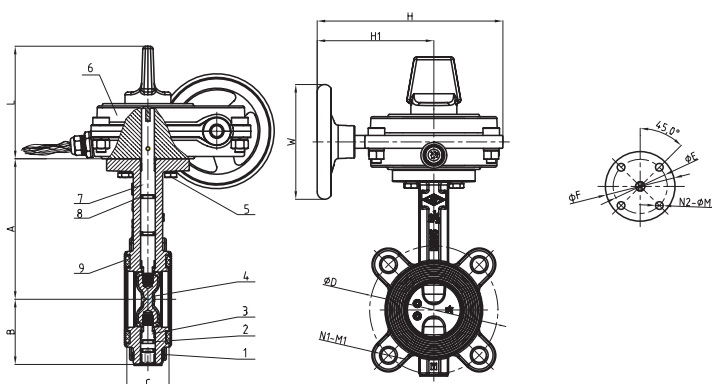
00C3073.7



XD371XL


**RoHS** NSF/ANSI 61 NSF/ANSI 372

- Design Standard: MSS SP-67
- Top Flange Standard: ISO 5211
- Working Pressure: 300PSI  
175PSI, 200PSI and 250PSI available upon request
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550
- Flange specification: ASME B16.1 CL125,  
ASME B16.5 CL150

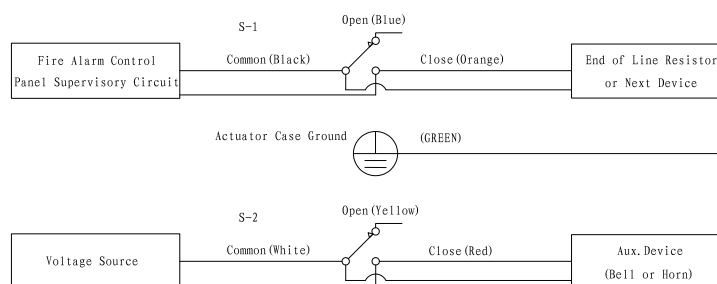


### MATERIAL SPECIFICATION

| Part No. | Part           | Standard Specification   | Options                |
|----------|----------------|--------------------------|------------------------|
| 1        | Valve Body     | ASTM A536,65-45-12       |                        |
| 2        | O-Ring         | NBR                      | EPDM                   |
| 3        | Stub Shaft     | AISI 431                 |                        |
| 4        | Disc           | ASTM A536,65-45-12+EPDM  | ASTM A536,65-45-12+NBR |
| 5        | Hex Nut        | Carbon Steel Zinc plated |                        |
| 6        | Signal Gearbox | Body:ASTM A536,65-45-12  |                        |
| 7        | Drive Shaft    | AISI 431                 |                        |
| 8        | O-Ring         | NBR                      | EPDM                   |
| 9        | End Face Seal  | EPDM                     | NBR                    |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

### SWITCH WIRING DIAGRAM



| DN   |     | Dimensions(mm) |     |    |       |       |       |     |       |        |        |         |     |     |
|------|-----|----------------|-----|----|-------|-------|-------|-----|-------|--------|--------|---------|-----|-----|
| Inch | mm  | A              | B   | C  | L     | H1    | H     | W   | ØD    | N1-M1  | N2-M2  | ISO5211 | ΦE  | ΦF  |
| 2"   | 50  | 140.5          | 65  | 43 | 122.5 | 127   | 202.2 | 125 | 120.7 | 4-M16  | 4-5/8  | F07     | 70  | 90  |
| 2.5" | 65  | 153            | 71  | 46 | 122.5 | 127   | 202.2 | 125 | 139.7 | 4-M16  | 4-5/8  | F07     | 70  | 90  |
| 3"   | 80  | 157.5          | 81  | 46 | 122.5 | 127   | 202.2 | 125 | 152.4 | 8-M16  | 4-5/8  | F07     | 70  | 90  |
| 4"   | 100 | 176            | 95  | 52 | 122.5 | 127   | 202.2 | 125 | 190.5 | 8-M16  | 8-5/8  | F07     | 70  | 90  |
| 5"   | 125 | 191            | 111 | 56 | 122.5 | 127   | 202.2 | 125 | 215.9 | 8-M16  | 8-3/4  | F07     | 70  | 90  |
| 6"   | 150 | 202.5          | 133 | 56 | 122.5 | 139.5 | 215   | 225 | 241.3 | 8-M20  | 8-3/4  | F07     | 70  | 90  |
| 8"   | 200 | 243.5          | 164 | 60 | 122.5 | 198.5 | 274   | 225 | 298.5 | 8-M20  | 8-3/4  | F10     | 102 | 125 |
| 10"  | 250 | 273            | 196 | 68 | 122.5 | 198.5 | 274   | 225 | 362   | 12-M20 | 12-7/8 | F10     | 102 | 125 |
| 12"  | 300 | 311            | 226 | 78 | 132   | 198.5 | 293.5 | 225 | 431.8 | 12-M20 | 12-7/8 | F10     | 102 | 125 |



## Grooved Resilient Swing Check Valve (H84X), UL/FM/LPCB Approved

0C3073.7



H84X



NSF/ANSI 61 NSF/ANSI 372

- Connection Ends: Groove to AWWA C606
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with  
ANSI/AWWA C550 or painting upon request

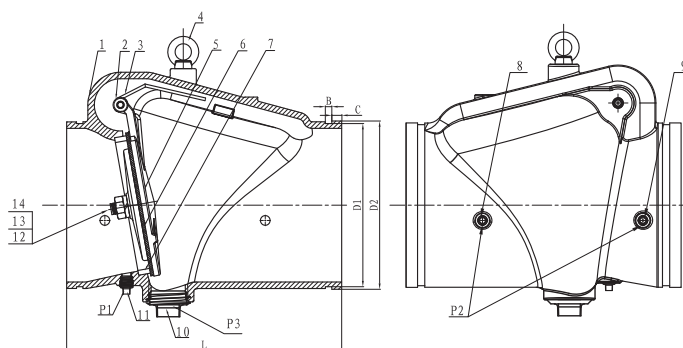
0C3073.7



H84XF4



NSF/ANSI 61 NSF/ANSI 372



### MATERIAL SPECIFICATION

| Part No. | Part              | Standard Specification                             | Options                                    |
|----------|-------------------|----------------------------------------------------|--------------------------------------------|
| 1        | Valve Body        | ASTM A536, 65-45-12                                |                                            |
| 2        | Hinge Pin         | AISI 420                                           |                                            |
| 3        | Spring            | AISI 304                                           | AISI 316                                   |
| 4        | Eye Bolt          | Carbon Steel Zinc Plated                           |                                            |
| 5        | Disc              | DN50-100 AISI 304<br>DN150-300 ASTM A536, 65-45-12 | AISI 304                                   |
| 6        | Disc Sealing Ring | EPDM                                               |                                            |
| 7        | Seat Ring         | ASTM B62 C83600 (Pressed Fit)                      | AISI 304, AISI 316 Pressed Fit or Threaded |
| 8        | Plug              | Malleable Iron Galvanized                          | Bronze ASTM B584                           |
| 9        | Plug              | Malleable Iron Galvanized                          | Bronze ASTM B584                           |
| 10       | Plug              | Malleable Iron Galvanized                          | Bronze ASTM B584                           |
| 11       | Plug              | Malleable Iron Galvanized                          | Bronze ASTM B584                           |
| 12       | Bolt              | AISI 304                                           | AISI 316                                   |
| 13       | Washer            | AISI 304                                           | AISI 316                                   |
| 14       | Nut               | AISI 304                                           | AISI 316                                   |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

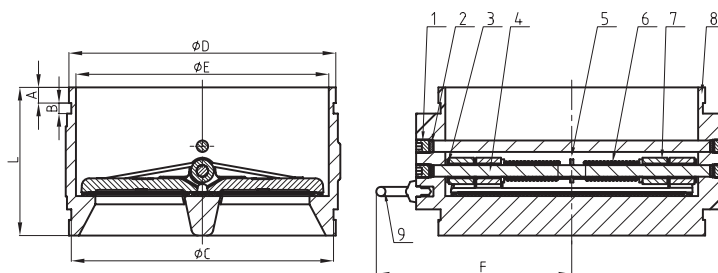
| DN   |     | Dimensions(mm) |        |       |       |       |           |           |               |           |
|------|-----|----------------|--------|-------|-------|-------|-----------|-----------|---------------|-----------|
| Inch | mm  | L              | D1     | D2    | B     | C     | P1        | P3        |               | P2        |
|      |     |                |        |       |       |       |           | Standard  | Optional      |           |
| 2"   | 50  | 171            | 57.15  | 60.3  | 7.93  | 15.88 | 1/2-14NPT | 1/2-14NPT | 1-11.5NPT     | 3/8-18NPT |
| 2.5" | 65  | 184            | 69.09  | 73    | 7.93  | 15.88 | 1/2-14NPT | 1/2-14NPT | 1 1/4-11.5NPT | 3/8-18NPT |
| 3"   | 80  | 197            | 84.94  | 88.9  | 7.93  | 15.88 | 1/2-14NPT | 1/2-14NPT | 1 1/4-11.5NPT | 3/8-18NPT |
| 4"   | 100 | 210            | 110.08 | 114.3 | 9.53  | 15.88 | 1/2-14NPT | 1/2-14NPT | 2-11.5NPT     | 1/2-14NPT |
| 5"   | 125 | 248            | 137.03 | 141.3 | 9.53  | 15.88 | 1/2-14NPT | 1/2-14NPT | 2-11.5NPT     | 1/2-14NPT |
| 6"   | 150 | 324            | 163.96 | 168.3 | 9.53  | 15.88 | 1/2-14NPT | 1/2-14NPT | 2-11.5NPT     | 1/2-14NPT |
| 8"   | 200 | 371            | 214.4  | 219.1 | 11.13 | 19.05 | 1/2-14NPT | 1/2-14NPT | 2-11.5NPT     | 1/2-14NPT |
| 10"  | 250 | 457            | 268.28 | 273   | 12.7  | 19.05 | 1/2-14NPT | 1/2-14NPT | 2-11.5NPT     | 1/2-14NPT |
| 12"  | 300 | 535            | 318.29 | 323.9 | 12.7  | 19.05 | 1/2-14NPT | 1/2-14NPT | 2-11.5NPT     | 1/2-14NPT |

## Double Door Grooved Check Valve (DH87X)



DH87X

- Connection Ends: Groove to AWWA C606
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with  
ANSI/AWWA C550 or painting upon request



### MATERIAL SPECIFICATION

| Part No. | Part                        | Standard Specification   | Options                      |
|----------|-----------------------------|--------------------------|------------------------------|
| 1        | Countersunk Hex Head Screws | Carbon Steel Zinc Plated |                              |
| 2        | Seal Ring                   | EPDM                     |                              |
| 3        | Gasket                      | PTFE                     |                              |
| 4        | Shaft                       | AISI 420                 | AISI 304, AISI 316, AISI 431 |
| 5        | Gasket                      | PTFE                     |                              |
| 6        | Spring                      | AISI 304                 |                              |
| 7        | Disc                        | AISI 304                 | AISI 316, QT450-10           |
| 8        | Body                        | ASTM A536, 65-45-12      |                              |
| 9        | Eye Bolt                    | Carbon Steel Zinc Plated |                              |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |       | Dimensions(mm) |      |        |     |     |     |     |
|------|-------|----------------|------|--------|-----|-----|-----|-----|
| Inch | mm    | A              | B    | C      | D   | E   | F   | L   |
| 8"   | 219.1 | 19.1           | 11.1 | 214.4  | 219 | 200 | 165 | 160 |
| 10"  | 273.0 | 19.1           | 12.7 | 268.28 | 273 | 253 | 203 | 180 |
| 12"  | 323.9 | 19.1           | 12.7 | 318.29 | 324 | 307 | 228 | 180 |
| 14"  | 377.0 | 23.8           | 12.7 | 371.1  | 377 | 354 | 258 | 200 |

## Flanged Resilient Swing Check Valve (H44X2/ H44X2A), UL/FM/LPCB Approved

0C3073.7

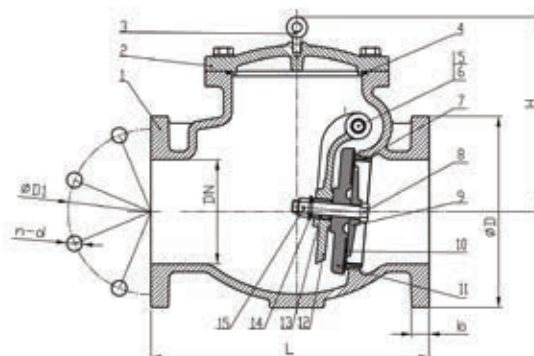


H44X2



NSF/ANSI 61 NSF/ANSI 372

- Connection Ends: Flange to ASME B16.1 CL 125
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



### MATERIAL SPECIFICATION

| Part No. | Part              | Standard Specification                        | Options                                    |
|----------|-------------------|-----------------------------------------------|--------------------------------------------|
| 1        | Valve Body        | ASTM A536, 65-45-12                           |                                            |
| 2        | Bonnet            | ASTM A536, 65-45-12                           |                                            |
| 3        | Eye Bolt          | Carbon Steel Zinc Plated                      |                                            |
| 4        | O-Ring            | NBR                                           | EPDM                                       |
| 5        | Hinge Pin         | AISI 304                                      |                                            |
| 6        | Hinge Bushing     | Brass ASTM B16 C36000/Hpb63-3                 |                                            |
| 7        | Seat Ring         | Bronze ASTM B62 C83600/ZQSn5-5-5(Pressed Fit) | AISI 304, AISI 316 Pressed Fit or Threaded |
| 8        | Disc Seat Bolt    | AISI 304                                      |                                            |
| 9        | Retainer Washer   | Bronze ASTM B62 C83600/ZQSn5-5-5              |                                            |
| 10       | Disc Sealing Ring | EPDM                                          | AISI 304, AISI 316, Bronze ASTM B62        |
| 11       | Disc              | ASTM A536, 65-45-12                           |                                            |
| 12       | Clapper Arm       | ASTM A536, 65-45-12                           |                                            |
| 13       | Stud Bushing      | Brass ASTM B16 C36000/Hpb63-3                 |                                            |
| 14       | O-Ring            | NBR                                           | EPDM                                       |
| 15       | Nut               | AISI 304                                      | AISI 316                                   |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |     | Dimensions(mm) |          |     |       |      |          |     |
|------|-----|----------------|----------|-----|-------|------|----------|-----|
| Inch | mm  | L              |          | D   | D1    | b    | n-Φd     | H   |
|      |     | Standard       | Optional |     |       |      |          |     |
| 2"   | 50  | 203            | 203      | 152 | 120.5 | 16   | 4-Φ19.1  | 133 |
| 2.5" | 65  | 254            | 216      | 178 | 139.5 | 17.5 | 4-Φ19.1  | 150 |
| 3"   | 80  | 278            | 241      | 191 | 152.5 | 19   | 4-Φ19.1  | 150 |
| 4"   | 100 | 330            | 292      | 229 | 190.5 | 24   | 8-Φ19.1  | 218 |
| 6"   | 150 | 406            | 356      | 279 | 241.5 | 25.5 | 8-Φ22.2  | 290 |
| 8"   | 200 | 495            | 495      | 343 | 298.5 | 28.5 | 8-Φ22.2  | 330 |
| 10"  | 250 | 622            | 622      | 406 | 362   | 30.5 | 12-Φ25.4 | 350 |
| 12"  | 300 | 660            | 698      | 483 | 432   | 32   | 12-Φ25.4 | 376 |

Note: Standard of Face-to-Face in according with AWWA C508.  
Optional of Face-to-Face in according with ASME B16.10 CL125.

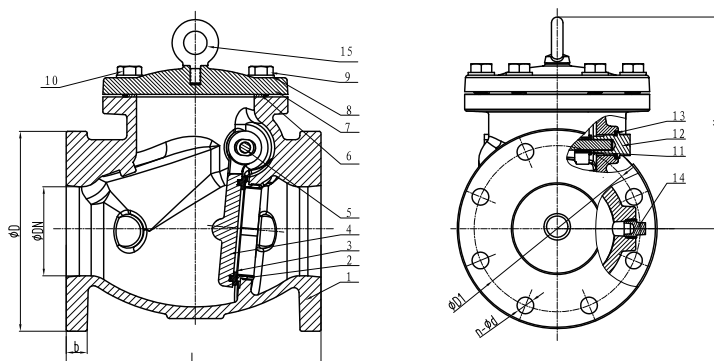
## Flanged Resilient Swing Check Valve (H44T2/H44T2A), UL/FM/LPCB Approved



H44T2



- Design Standard: AWWA C508
- Flange Specification: ASME B16.1 CL125
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: -10°C -250°C
- Coating: Fusion Bonded Epoxy Coating Complies with AWWA C550



### MATERIAL SPECIFICATION

| Part No. | Part          | Standard Specification | Options            |
|----------|---------------|------------------------|--------------------|
| 1        | Valve Body    | ASTM A536              |                    |
| 2        | Seat Ring     | C83600                 |                    |
| 3        | Flap Seat     | C83600                 |                    |
| 4        | Disc          | ASTM A536              |                    |
| 5        | Hinge Pin     | AISI 420               | AISI 304, AISI 316 |
| 6        | Flange Gasket | Graphite+SS304         |                    |
| 7        | Bonnet HGT    | ASTM A536              |                    |
| 8        | Flat Washer   | 45# Steel              |                    |
| 9        | Bolts         | Carbon Steel           | AISI 304, AISI 316 |
| 10       | Bolts         | Carbon Steel           | AISI 304, AISI 316 |
| 11       | Bushing       | CW617N                 |                    |
| 12       | Plug          | AISI 304               | AISI 304           |
| 13       | Gasket        | PTFE                   |                    |
| 14       | Plugged       | C89833                 |                    |
| 15       | Eye Bolt      | Carbon Steel           | AISI 304, AISI 316 |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |     | Dimensions(mm) |     |       |      |     |    |      |
|------|-----|----------------|-----|-------|------|-----|----|------|
| Inch | mm  | L              | D   | D1    | b    | H   | n  | φd   |
| 2"   | 50  | 203            | 152 | 120   | 16   | 133 | 4  | 19   |
| 2.5" | 65  | 216            | 178 | 140   | 17.5 | 150 | 4  | 19   |
| 3"   | 80  | 241            | 191 | 152.4 | 19   | 150 | 4  | 19   |
| 4"   | 100 | 292            | 229 | 190.5 | 24   | 218 | 8  | 19   |
| 6"   | 150 | 356            | 279 | 241.3 | 25.5 | 290 | 8  | 22.2 |
| 8"   | 200 | 495            | 343 | 298.5 | 28.5 | 330 | 8  | 22.2 |
| 10"  | 250 | 622            | 406 | 362   | 30.5 | 350 | 12 | 25.4 |
| 12"  | 300 | 698            | 483 | 431.8 | 32   | 376 | 12 | 25.4 |

## Double Door Wafer Check Valve (DH77X), UL Listed

OC2700.7CL

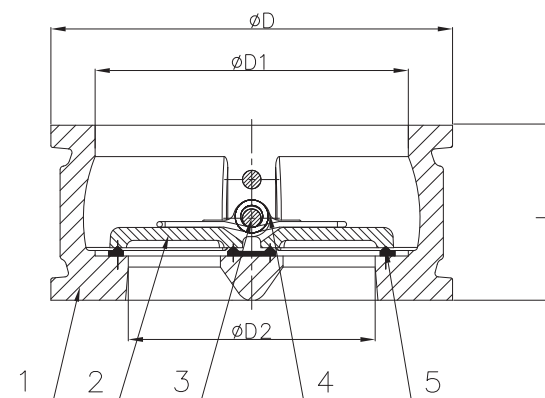


DH77X



NSF/ANSI 61 NSF/ANSI 372

- Connection Ends: ASME B16.1 CL 125, ASME B16.5 CL 150
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with  
ANSI/AWWA C550



### MATERIAL SPECIFICATION

| Part No. | Part        | Standard Specification | Options                                         |
|----------|-------------|------------------------|-------------------------------------------------|
| 1        | Valve Body  | ASTM A536, 65-45-12    |                                                 |
| 2        | Disc        | AISI 316               | ASTM A536, 65-45-12, SS316, AL-Bronze UNC 95400 |
| 3        | Stem        | AISI 420               | AISI 304, AISI 316, AISI 416                    |
| 4        | Spring      | AISI 304               | AISI 316                                        |
| 5        | Rubber Seat | EPDM                   | NBR                                             |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |     | Dimensions(mm) |     |     |     |
|------|-----|----------------|-----|-----|-----|
| Inch | mm  | L              | D   | D1  | D2  |
| 2"   | 50  | 54             | 106 | 68  | 46  |
| 2.5" | 65  | 60             | 127 | 78  | 60  |
| 3"   | 80  | 57             | 134 | 102 | 70  |
| 4"   | 100 | 67             | 162 | 117 | 84  |
| 5"   | 125 | 83             | 194 | 145 | 115 |
| 6"   | 150 | 95             | 218 | 170 | 134 |
| 8"   | 200 | 127            | 277 | 226 | 184 |
| 10"  | 250 | 140            | 336 | 265 | 220 |
| 12"  | 300 | 181            | 406 | 310 | 260 |
| 14"  | 350 | 184            | 447 | 360 | 302 |
| 16"  | 400 | 191            | 505 | 410 | 350 |

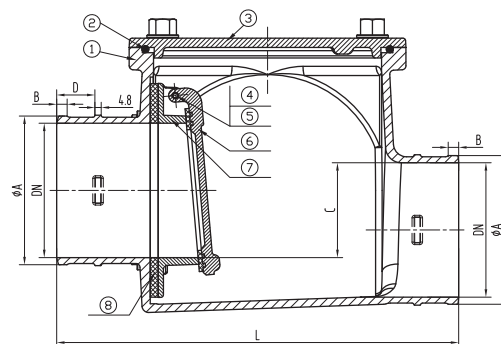


## Backwater Valve (HSB4X)



HSB4X

- Connection Ends: ASTM A888
- Working Pressure: 175PSI
- Temperature Range: 0°C - 80°C
- Coating: Painting



### MATERIAL SPECIFICATION

| Part No. | Part           | Standard Specification |
|----------|----------------|------------------------|
| 1        | Valve Body     | ASTM A536, 65-45-12    |
| 2        | O-Ring         | NBR                    |
| 3        | Bonnet         | ASTM A536, 65-45-12    |
| 4        | Bolt           | AISI 304               |
| 5        | Nut            | AISI 304               |
| 6        | Disc           | ASTM B62 C83600        |
| 7        | Seat           | ASTM B62 C83600        |
| 8        | Disc Seat Ring | EPDM                   |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

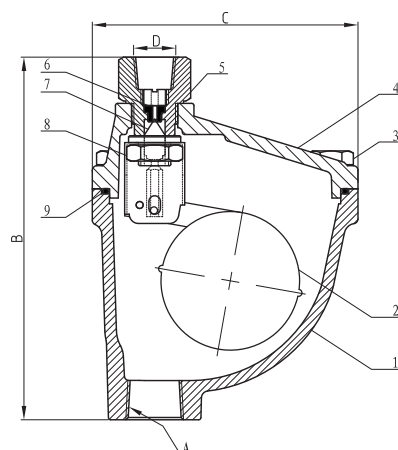
| DN   |     | PSI | Dimensions(mm) |          |      |         |    |
|------|-----|-----|----------------|----------|------|---------|----|
| Inch | mm  |     | L              | A ± 2.29 | B    | C (min) | D  |
| 2"   | 50  | 175 | 203            | 61.21    | 6.35 | 25      | 29 |
| 3"   | 80  | 175 | 241            | 86.61    | 6.35 | 38      | 29 |
| 4"   | 100 | 175 | 305            | 112.78   | 7.87 | 50      | 29 |
| 6"   | 125 | 175 | 394            | 161.54   | 7.87 | 76      | 38 |
| 8"   | 150 | 175 | 457            | 214.38   | 7.87 | 101     | 51 |

## Micro Air Bleeding Valve (ARVX)



ARVX

- Connection Ends: ASME B1.20.1
- Working pressure: 300PSI
- Temperature Range: 0°C - 80°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



### MATERIAL SPECIFICATION

| Part No. | Part           | Standard Specification   |
|----------|----------------|--------------------------|
| 1        | Valve Body     | ASTM A536 64-45-12       |
| 2        | Ball           | AISI 304                 |
| 3        | Hex Bolt       | Carbon Steel Zinc Plated |
| 4        | Bonnet         | ASTM A536 64-45-12       |
| 5        | Exhaust Joint  | Brass HPb59-1            |
| 6        | Exhaust Gasket | EPDM                     |
| 7        | Valve Needle   | AISI 304                 |
| 8        | Nut            | AISI 304                 |
| 9        | O-Ring         | NBR                      |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN     |    | Dimensions(mm) |     |     |           |
|--------|----|----------------|-----|-----|-----------|
| Inch   | mm | A              | B   | C   | D         |
| 1/2"   | 15 | 1/2-14NPT      | 157 | 115 | 3/8-18NPT |
| 3/4"   | 20 | 3/4-14NPT      | 157 | 115 | 3/8-18NPT |
| 1"     | 25 | 1-11.5NPT      | 157 | 115 | 3/8-18NPT |
| 1 1/4" | 32 | 1-1/4-11.5NPT  | 157 | 115 | 3/8-18NPT |
| 1 1/2" | 40 | 1-1/2-11.5NPT  | 157 | 115 | 3/8-18NPT |

## Grooved Y-Type Strainer (V8), UL Listed

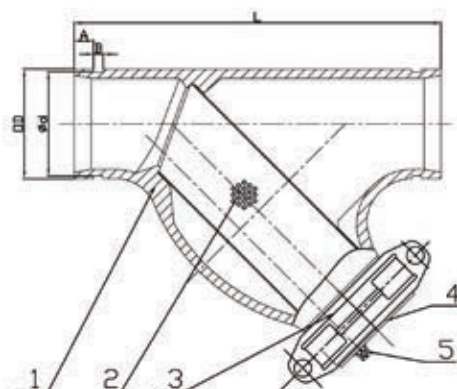


V8



NSF/ANSI 61 NSF/ANSI 372

- Connection Ends: Groove to AWWA C606
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with  
ANSI/AWWA C550 or painting upon request



### MATERIAL SPECIFICATION

| Part No. | Part           | Standard Specification    | Options          |
|----------|----------------|---------------------------|------------------|
| 1        | Valve Body     | ASTM A536, 65-45-12       |                  |
| 2        | Screen         | AISI 304                  | AISI 316         |
| 3        | Rigid Coupling | ASTM A536, 65-45-12       |                  |
| 4        | Cap            | ASTM A536, 65-45-12       |                  |
| 5        | Plug           | Malleable Iron Galvanized | Bronze ASTM B584 |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |     | Dimensions(mm) |       |        |       |       |
|------|-----|----------------|-------|--------|-------|-------|
| Inch | mm  | L              | OD    | d      | A     | B     |
| 2"   | 50  | 247.5          | 60.3  | 57.15  | 15.88 | 7.92  |
| 2.5" | 65  | 273            | 73    | 69.09  | 15.88 | 7.92  |
| 3"   | 80  | 298.5          | 88.9  | 84.94  | 15.88 | 7.92  |
| 4"   | 100 | 362            | 114.3 | 110.08 | 15.88 | 9.52  |
| 5"   | 125 | 419            | 141.3 | 137.03 | 15.88 | 9.52  |
| 6"   | 150 | 470            | 168.3 | 163.96 | 15.88 | 9.52  |
| 8"   | 200 | 609.5          | 219.1 | 214.4  | 19.05 | 11.13 |
| 10"  | 250 | 686            | 273   | 268.28 | 19.05 | 12.7  |
| 12"  | 300 | 762            | 323.9 | 318.29 | 19.05 | 12.7  |

## Flanged Y-Type Strainer (V4), UL Listed

0E3072.7

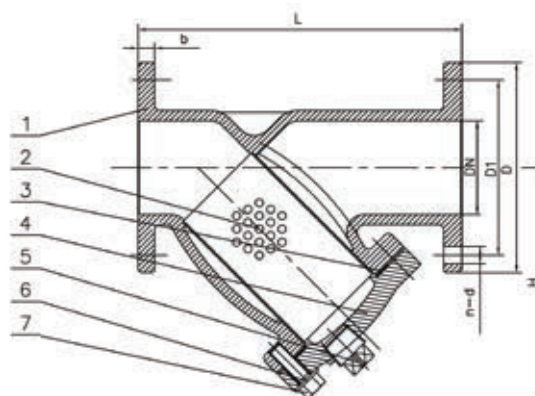


V4



NSF/ANSI 61 NSF/ANSI 372

- Connection Ends: Flange to ASME B16.1 Class 125 / ASME B16.42 Class 150
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: -10°C- 200°C Graphite Gasket  
0°C- 100°C Rubber Gasket
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



### MATERIAL SPECIFICATION

| Part No. | Part        | Standard Specification       | Options                                                    |
|----------|-------------|------------------------------|------------------------------------------------------------|
| 1        | Valve Body  | ASTM A536 65-45-12           |                                                            |
| 2        | Screen      | AISI 304 (Perforated)        | AISI 304, AISI 316<br>(Perforated, Knitted, Double Screen) |
| 3        | Gasket      | Graphite + Acanthopore Plate | EPDM                                                       |
| 4        | Bonnet      | ASTM A536 65-45-12           |                                                            |
| 5        | Plug        | Malleable Iron Galvanized    | Bronze ASTM B584                                           |
| 6        | Bolt        | Carbon Steel Zinc Plated     | AISI 304, AISI 316                                         |
| 7        | Flat Washer | Carbon Steel Zinc Plated     | AISI 304, AISI 316                                         |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |     | Dimensions(mm) |     |       |      |          |     |
|------|-----|----------------|-----|-------|------|----------|-----|
| Inch | mm  | L              | D   | D1    | b    | n-Φd     | H   |
| 2"   | 50  | 200            | 152 | 120.5 | 16   | 4-Φ19.1  | 155 |
| 2.5" | 65  | 254            | 178 | 139.5 | 17.5 | 4-Φ19.1  | 165 |
| 3"   | 80  | 257            | 191 | 152.5 | 19   | 4-Φ19.1  | 180 |
| 4"   | 100 | 308            | 229 | 190.5 | 24   | 8-Φ19.1  | 229 |
| 5"   | 125 | 397            | 254 | 216   | 24   | 8-Φ22.2  | 285 |
| 6"   | 150 | 470            | 279 | 241.5 | 25.5 | 8-Φ22.2  | 311 |
| 8"   | 200 | 549            | 343 | 298.5 | 28.5 | 8-Φ22.2  | 394 |
| 10"  | 250 | 654            | 406 | 362   | 30.5 | 12-Φ25.4 | 487 |
| 12"  | 300 | 759            | 483 | 432   | 32   | 12-Φ25.4 | 547 |

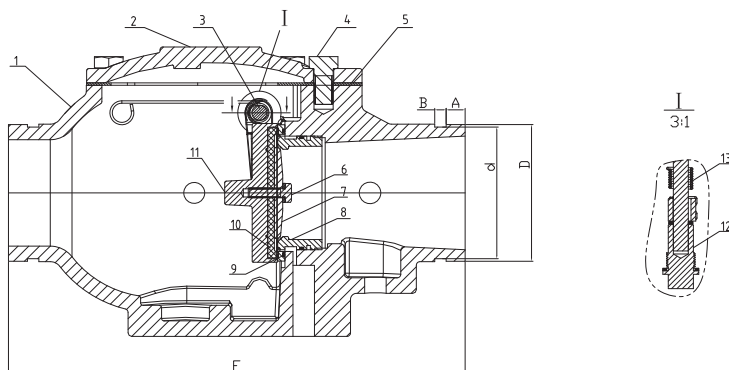
## Grooved Wet Alarm Check Valve (ZSFZ8X9)



ZSFZ8X9



- Connection Ends: Groove to AWWA C606
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Painting or Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550

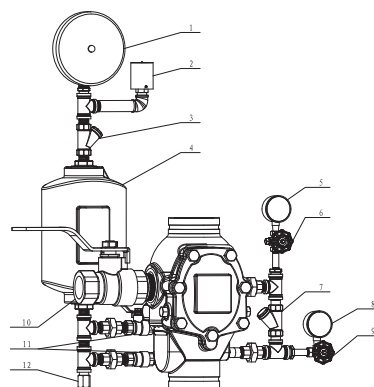


### MATERIAL SPECIFICATION

| Part No. | Part       | Standard Specification   | Options  |
|----------|------------|--------------------------|----------|
| 1        | Valve Body | ASTM A536, 65-45-12      |          |
| 2        | Bonnet     | ASTM A536, 65-45-12      |          |
| 3        | Pin        | AISI 304                 | AISI 316 |
| 4        | Hex Bolt   | Carbon Steel Zinc Plated |          |
| 5        | Gasket     | EPDM                     | NBR      |
| 6        | Hex Bolt   | AISI 304                 | AISI 316 |
| 7        | Gland      | Brass H62                |          |
| 8        | Seat       | C89833                   |          |
| 9        | O-Ring     | NBR                      | EPDM     |
| 10       | Gasket     | EPDM                     |          |
| 11       | Disc       | C89833                   |          |
| 12       | Plug       | AISI 304                 | AISI 316 |
| 13       | Spring     | AISI 321                 |          |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |     | Dimensions(mm) |       |      |        |       |       |
|------|-----|----------------|-------|------|--------|-------|-------|
| Inch | mm  | OD             | A     | B    | Ø d    | Ø D   | F     |
| 3"   | 80  | 88.9           | 15.88 | 7.93 | 84.94  | 88.9  | 320.3 |
| 4"   | 100 | 114.3          | 15.88 | 9.53 | 110.08 | 114.3 | 382   |
| 6"   | 150 | 168.3          | 15.88 | 9.53 | 163.96 | 168.3 | 406.4 |
| 8"   | 200 | 219.1          | 19.05 | 11.1 | 214.4  | 219.1 | 446   |



| External accessories |                 |          |                |
|----------------------|-----------------|----------|----------------|
| Part No.             | Part            | Part No. | Part           |
| 1                    | Alarm           | 7        | Check Valve    |
| 2                    | Pressure Switch | 8        | Pressure Gauge |
| 3                    | Strainer        | 9        | Ball Valve     |
| 4                    | Decelerator     | 10       | Ball Valve     |
| 5                    | Pressure Gauge  | 11       | Ball Valve     |
| 6                    | Ball Valve      | 12       | Orifice        |



## Flanged Wet Alarm Valve (ZSFZ4X)

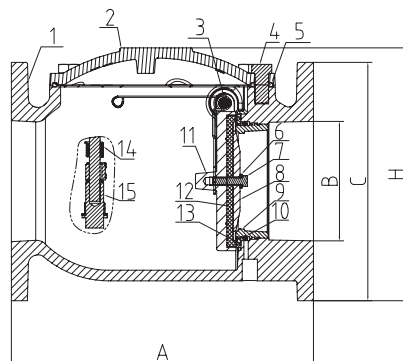
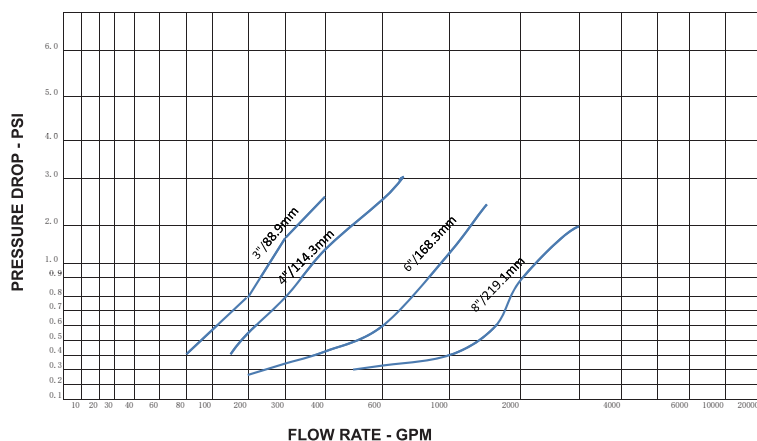


ZSFZ4X

- Connection Ends: ASME B16.1 CL 125
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Painting

• Statement: The alarm check valve works as a check valve by preventing the reverse flow of water from the system piping to the water supply. The valve is trimmed with a water bypass line, which has an in-line swing check valve. The bypass line allows pressure surges to enter the system and to be trapped above the alarm check valve's clapper without the clapper lifting and causing false alarms.

When a significant flow of water occurs, such as from an open sprinkler, the alarm valve's clapper lifts and allows water to enter the system. Simultaneously, water enters an intermediate chamber, which allows the water to activate an alarm either through a water motor alarm or through a water pressure alarm. These alarms continue to sound until the flow of water is stopped.

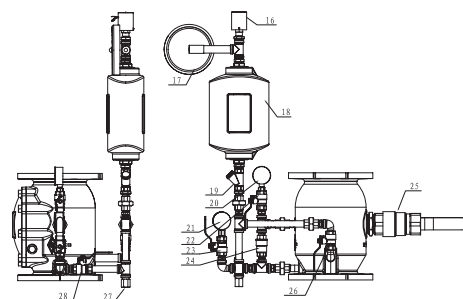


### MATERIAL SPECIFICATION

| Part No. | Part          | Standard Specification   | Options  |
|----------|---------------|--------------------------|----------|
| 1        | Valve Body    | ASTM A536,65-45-12       |          |
| 2        | Bonnet        | ASTM A536,65-45-12       |          |
| 3        | Pin           | AISI 304                 | AISI 316 |
| 4        | Hex Bolt      | Carbon Steel Zinc Plated |          |
| 5        | Gasket        | EPDM                     | NBR      |
| 6        | Spring Washer | AISI 304                 |          |
| 7        | Hex Bolt      | AISI 304                 |          |
| 8        | Gland         | Brass H62                |          |
| 9        | Seat          | C83600                   |          |
| 10       | O-Ring        | NBR                      | EPDM     |
| 11       | Disc          | Brass H62                |          |
| 12       | Gasket        | EPDM                     |          |
| 13       | O-Ring        | NBR                      |          |
| 14       | Spring        | AISI 321                 |          |
| 15       | Plug          | AISI 304                 |          |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |     | Dimensions(mm) |     |     |     |
|------|-----|----------------|-----|-----|-----|
| Inch | mm  | A              | B   | C   | H   |
| 3"   | 80  | 241            | 80  | 191 | 235 |
| 4"   | 100 | 292            | 100 | 229 | 230 |
| 6"   | 150 | 356            | 150 | 279 | 298 |
| 8"   | 200 | 495            | 200 | 343 | 352 |



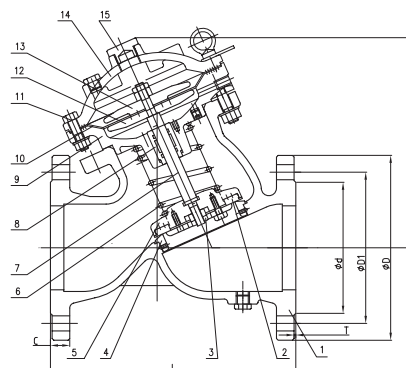
| External accessories |                 |          |             |
|----------------------|-----------------|----------|-------------|
| Part No.             | Part            | Part No. | Part        |
| 16                   | Pressure Switch | 23       | Ball Valve  |
| 17                   | Alarm           | 24       | Check Valve |
| 18                   | Decelerator     | 25       | Ball Valve  |
| 19                   | Strainer        | 26       | Ball Valve  |
| 20                   | Pressure Gauge  | 27       | Water Valve |
| 21                   | Pressure Gauge  | 28       | Ball Valve  |
| 22                   | Ball Valve      |          |             |

## Deluge Alarm Valve (SK790X)



SK790X

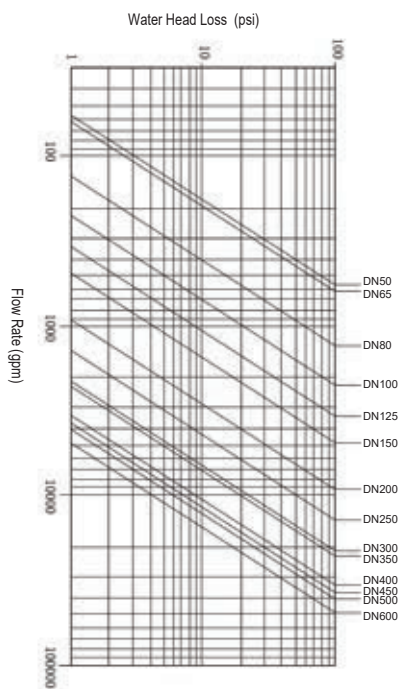
- Connection Ends: ASME B16.1 CL 125
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C- 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550
- Statement: SK790X Deluge Alarm Valve is a diaphragm type of hydraulic control valve driven by the hydraulic pressure within the piping system, functioning as flow control and alarming device in the sprinkler and pre-action system, i.e. to start the sprinkler system for quenching of the fire and send out fire alarm through the fire bell when there is fire detected.



### MATERIAL SPECIFICATION

| Part No. | Part               | Standard Specification |
|----------|--------------------|------------------------|
| 1        | Valve Body         | ASTM A536, 65-45-12    |
| 2        | Main Gasket        | EPDM                   |
| 3        | Gland of Main Disc | ASTM A536, 65-45-12    |
| 4        | Seat               | AISI 304               |
| 5        | Main Disc          | ASTM A536, 65-45-12    |
| 6        | Spring             | Stainless Steel 4Cr13  |
| 7        | Stem               | AISI 304               |
| 8        | Bushing            | Brass H62              |
| 9        | Middle Bonnet      | ASTM A536, 65-45-12    |
| 10       | Diaphragm          | EPDM                   |
| 11       | Bolt               | AISI 304               |
| 12       | Up Gland           | ASTM A536, 65-45-12    |
| 13       | Bottom Gland       | ASTM A536, 65-45-12    |
| 14       | Up Bonnet          | ASTM A536, 65-45-12    |
| 15       | Cap Plug           | Brass H62              |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.



| DN | 50 | 65 | 80  | 100 | 125 | 150 | 200 | 250  | 300  | 350  | 400  | 450  | 500  | 600  |
|----|----|----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|
| Kv | 41 | 53 | 105 | 175 | 285 | 402 | 730 | 1160 | 1400 | 1770 | 3010 | 3225 | 3395 | 4272 |

| DN   |     | Dimensions(mm) |     |     |       |      |          |
|------|-----|----------------|-----|-----|-------|------|----------|
| Inch | mm  | L              | H   | D   | D1    | b    | n-ΦL     |
| 2"   | 50  | 206            | 170 | 152 | 120.5 | 16   | 4-Φ19.1  |
| 2.5" | 65  | 211            | 195 | 178 | 139.5 | 17.5 | 4-Φ19.1  |
| 3"   | 80  | 249            | 215 | 191 | 152.5 | 19   | 4-Φ19.1  |
| 4"   | 100 | 320            | 255 | 229 | 190.5 | 24   | 8-Φ19.1  |
| 6"   | 150 | 414            | 360 | 279 | 241.5 | 25.5 | 8-Φ22.2  |
| 8"   | 200 | 500            | 450 | 343 | 298.5 | 28.5 | 8-Φ22.2  |
| 10"  | 250 | 605            | 550 | 406 | 362   | 30.5 | 12-Φ25.4 |
| 12"  | 300 | 724            | 645 | 483 | 432   | 32   | 12-Φ25.4 |
| 14"  | 350 | 734            | 700 | 533 | 476   | 35   | 12-Φ28.5 |
| 16"  | 400 | 991            | 790 | 597 | 540   | 36.5 | 16-Φ28.5 |

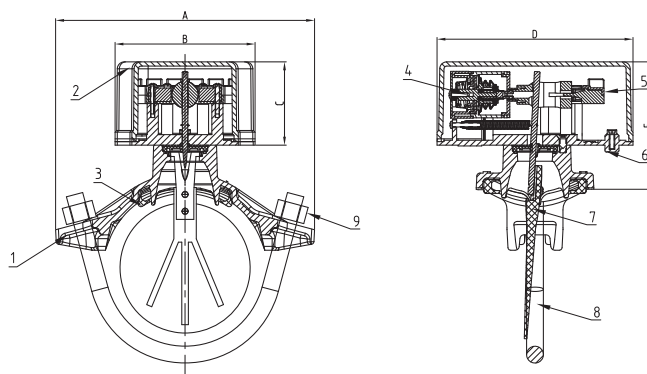
## Water Flow Indicator with Retard (ZSJZYS)



ZSJZYS



- Connection Ends: AWWA C606
- Working Pressure: 363PSI and 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C - 68°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550
- Electrical Ratings: 125/250VAC 5A 24/30VDC 3A
- Minimum Flow Rate For Alarm: 4-10 gpm

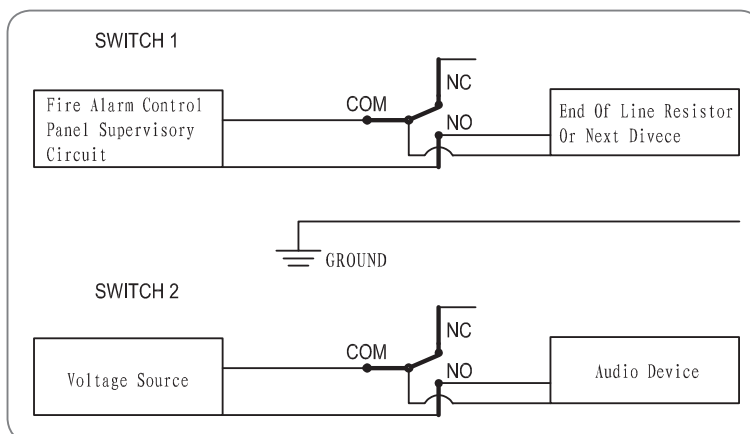


### MATERIAL SPECIFICATION

| Part No. | Part              | Standard Specification   | Options            |
|----------|-------------------|--------------------------|--------------------|
| 1        | Body              | ASTM A536.65-45-12       |                    |
| 2        | Cover             | Aluminum Alloy           |                    |
| 3        | Gasket            | EPDM                     | NBR                |
| 4        | Delay Device      | Plastic                  |                    |
| 5        | Signal Connection | N/A                      |                    |
| 6        | Connection Plate  | Aluminum Alloy           |                    |
| 7        | Vane              | Plastic                  |                    |
| 8        | U-Bolts           | Carbon Steel Zinc Plated | AISI 304, AISI 316 |
| 9        | Nuts              | Carbon Steel Zinc Plated | AISI 304, AISI 316 |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

### WIRING DIAGRAM



| DN   |     | Dimensions(mm) |     |     |      |     |       |           |
|------|-----|----------------|-----|-----|------|-----|-------|-----------|
| Inch | mm  | R              | A   | B   | C    | D   | E     | Hole Dia. |
| 2"   | 50  | 60.3           | 116 | 100 | 59.5 | 140 | 79.5  | 29        |
| 2.5" | 65  | 73             | 120 | 100 | 59.5 | 140 | 79.5  | 29        |
| 2.5" | 65  | 76.1           | 120 | 100 | 59.5 | 140 | 79.5  | 29        |
| 3"   | 80  | 88.9           | 145 | 100 | 59.5 | 140 | 80.9  | 51        |
| 4"   | 100 | 114.3          | 185 | 100 | 59.5 | 140 | 98.5  | 51        |
| 5"   | 125 | 139.7          | 212 | 100 | 59.5 | 140 | 82.6  | 51        |
| 5"   | 125 | 141.3          | 212 | 100 | 59.5 | 140 | 82.6  | 51        |
| 6"   | 150 | 165.1          | 254 | 100 | 59.5 | 140 | 90.4  | 51        |
| 6"   | 150 | 168.3          | 254 | 100 | 59.5 | 140 | 90.4  | 51        |
| 8"   | 200 | 219.1          | 298 | 100 | 59.5 | 140 | 90.5  | 51        |
| 10"  | 250 | 273.0          | 381 | 100 | 59.5 | 140 | 100.5 | 70        |

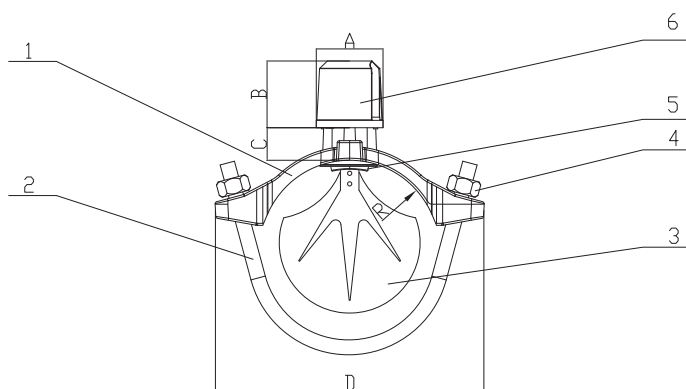
Note: Size 10" is not UL listed.

## Water Flow Indicator (ZSJZ)



ZSJZ

- Connection Ends: AWWA C606
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C - 68°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550

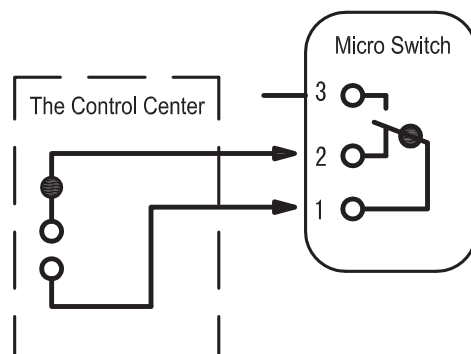


### MATERIAL SPECIFICATION

| Part No. | Part     | Standard Specification   | Options            |
|----------|----------|--------------------------|--------------------|
| 1        | Body     | ASTM A536, 65-45-12      |                    |
| 2        | Bolt     | Carbon Steel Zinc Plated | AISI 304, AISI 316 |
| 3        | Lodicule | Plastic                  |                    |
| 4        | Nut      | Carbon Steel Zinc Plated | AISI 304, AISI 316 |
| 5        | Gasket   | EPDM                     | NBR                |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

### SWITCH WIRING DIAGRAM



| DN   |     | Dimensions(mm) |    |    |      |       |           |
|------|-----|----------------|----|----|------|-------|-----------|
| Inch | mm  | R              | A  | B  | C    | D     | Hole Dia. |
| 2"   | 50  | 60.3           | 62 | 48 | 36   | 120   | 32        |
| 2.5" | 65  | 73             | 62 | 48 | 31   | 130   | 32        |
| 3"   | 80  | 88.9           | 62 | 48 | 36.5 | 145   | 51        |
| 4"   | 100 | 114.3          | 62 | 48 | 30.5 | 185   | 51        |
| 5"   | 125 | 141.3          | 62 | 48 | 36.5 | 221.5 | 51        |
| 6"   | 150 | 168.3          | 62 | 48 | 33   | 254   | 51        |
| 8"   | 200 | 219.1          | 62 | 48 | 36.5 | 300   | 51        |

## Pressure Switch (YLKG)

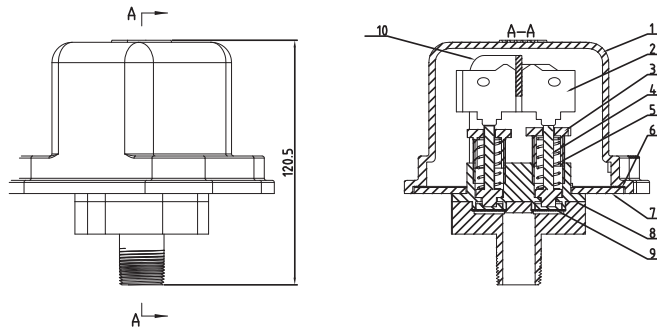


YLKG



- Service Environment: Indoor or Outdoor Use, all parts have corrosion resistant finishes
- Temperature Range: -10°C - 80°C (14° F - 176° F)
- Cover Tamper: Tamper Resistant Screws  
Optional Cover Tamper Switch Available
- Connection: 1/2-14NPT Thread
- Electrical Ratings: 125/250VAC 15A

Different pressure springs are selected according to the difference between the power range of the Pressure Switch (0-20 psi, 0-60 psi, 0-120 psi).

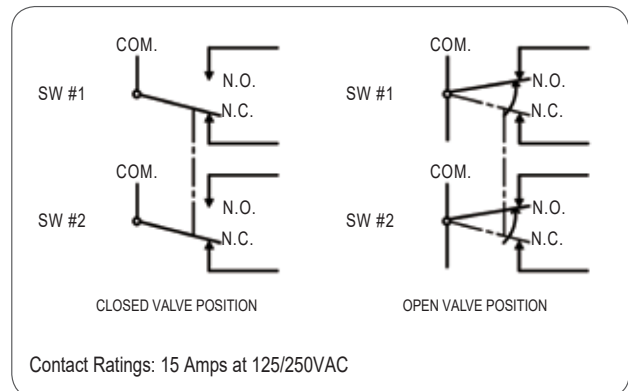
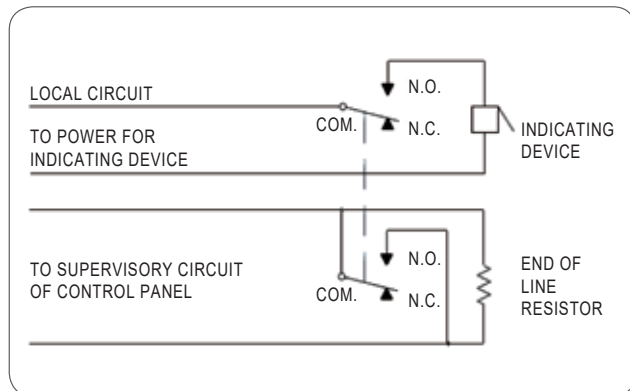


### MATERIAL SPECIFICATION

| Part No. | Part                   | Standard Specification | Options  |
|----------|------------------------|------------------------|----------|
| 1        | Outer Shell            | ADC12                  |          |
| 2        | Micro Switch           |                        |          |
| 3        | Regulating Accessories | PA66+GF30              |          |
| 4        | Stem                   | PA66+GF30              |          |
| 5        | Compression Spring     | 65#                    |          |
| 6        | Sealing Washer         | PA66+GF30              |          |
| 7        | Back Shell             | ADC12                  |          |
| 8        | Pressure parts         | PA66+GF30              |          |
| 9        | Pressure Diaphragm     | EPDM                   |          |
| 10       | Micro Stents           | Carbon Steel Q235      | AISI 304 |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

### TYPICAL ELECTRICAL CONNECTIONS





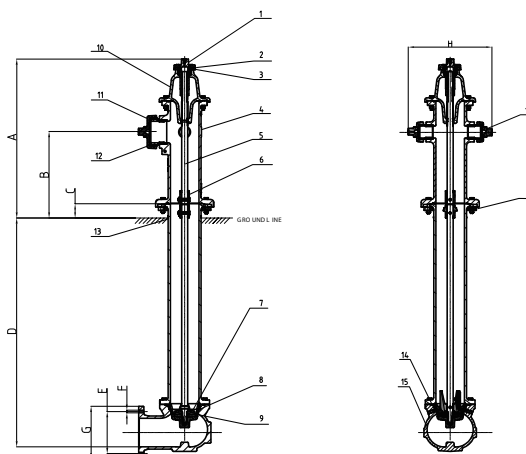
## AWWA C502 Dry Barrel Fire Hydrant (SSF)



SSF



- Design Standard: AWWA C502-2014
- Bottom Flange Standard: ASME B16.1
- Working pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C-100°C



### MATERIAL SPECIFICATION

| Part No. | Part                   | Standard Specification | QTY |
|----------|------------------------|------------------------|-----|
| 1        | Operating Stem Nut     | C95400                 | 1   |
| 2        | Dirt Shield            | ASTM A536,65-45-12     | 1   |
| 3        | Stem Lock Nut          | C83600                 | 1   |
| 4        | Upper Barrel           | ASTM A536,65-45-12     | 1   |
| 5        | Upper Stem             | ASTM 1045              | 1   |
| 6        | Stem Breaking Coupling | ASTM A126 CLASS B      | 1   |
| 7        | Drain Valve            | C83600                 | 1   |
| 8        | Seat Ring              | C83600                 | 1   |
| 9        | Main Valve             | ASTM A283GRC+EPDM      | 1   |
| 10       | Hydrant Cap            | ASTM A536,65-45-12     | 1   |
| 11       | Nozzle Cap             | ASTM A536,65-45-12     | 1   |
| 12       | Nozzle                 | C83600                 | 1   |
| 13       | Lower Barnd            | ASTM A536,65-45-12     | 1   |
| 14       | Bottom Plate           | ASTM A536,65-45-12     | 1   |
| 15       | Elbow                  | ASTM A536,65-45-12     | 1   |
| 16       | Breaking Ring          | ASTM A126 CLASS B      | 2   |
| 17       | Nozzle Cap             | ASTM A536,65-45-12     | 2   |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

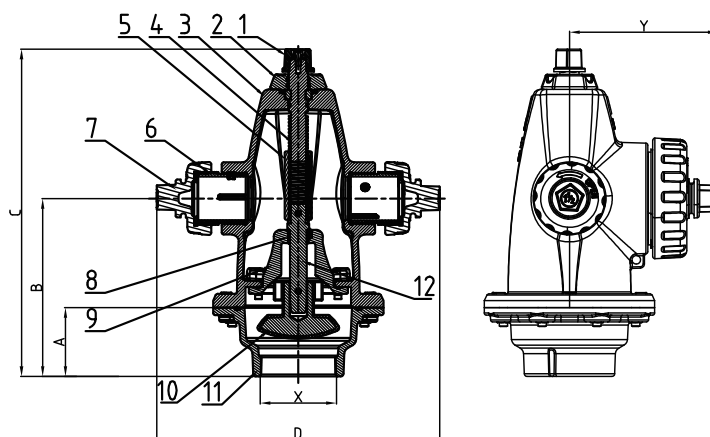
| DN    | Dimensions(mm) |     |    |      |       |         |      |
|-------|----------------|-----|----|------|-------|---------|------|
| Inch  | A              | B   | C  | D    | E     | F       | G    |
| 41/2" | 847            | 461 | 76 | 1219 | 241.3 | 8-Φ22.2 | Φ280 |

## AWWA C503 Wet-Barrel Fire Hydrant (SSZ)



SSZ

- Design Standard: AWWA C503-2014
- Working Pressure: 300PSI
- Temperature Range: 0°C - 80°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



### MATERIAL SPECIFICATION

| Part No. | Part         | Standard Specification     | Options                   |
|----------|--------------|----------------------------|---------------------------|
| 1        | Stem Cap     | ASTM A536, 65-45-12        |                           |
| 2        | Gland        | ASTM A536, 65-45-12        |                           |
| 3        | Body         | ASTM A536, 65-45-12        |                           |
| 4        | Upper Stem   | AISI 420                   | AISI 431                  |
| 5        | Stem Nut     | C95400                     |                           |
| 6        | Nozzle       | C83600                     |                           |
| 7        | Nozzle Cap   | ASTM A536, 65-45-12        |                           |
| 8        | Stem Ferrule | C83600                     |                           |
| 9        | Seat         | ASTM A536, 65-45-12        |                           |
| 10       | Clapper      | ASTM A536, 65-45-12 + EPDM | ASTM A536, 65-45-12 + NBR |
| 11       | Lower Body   | ASTM A536, 65-45-12        |                           |
| 12       | Lower Stem   | AISI 420                   | AISI 431                  |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

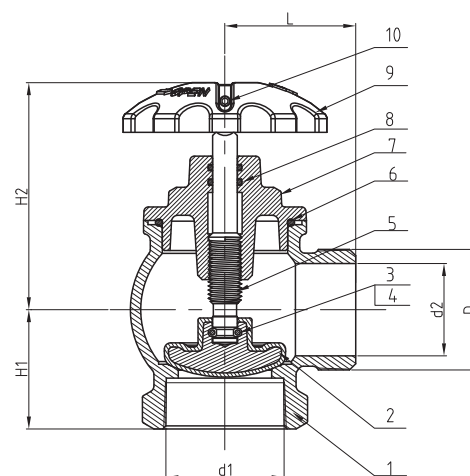
| DN   |     | Dimensions(mm) |       |       |       |        |     |
|------|-----|----------------|-------|-------|-------|--------|-----|
| Inch | mm  | A              | B     | C     | D     | X      | Y   |
| 4"   | 100 | 101            | 261.1 | 480.2 | 415.5 | 4-8NPT | 220 |

## Indoor Fire Hydrant (SN)



SN

- Thread: ASME B1.20.1
- Working Pressure: 300PSI  
200PSI and 250PSI available upon request
- Temperature Range: 0°C - 100°C
- Coating: Fusion Bonded Epoxy Coating in accordance with ANSI/AWWA C550



### MATERIAL SPECIFICATION

| Part No. | Part            | Standard Specification |
|----------|-----------------|------------------------|
| 1        | Body            | ASTM A536, 65-45-12    |
| 2        | Disc            | ASTM A536, 65-45-12    |
| 3        | Steel Ball      | AISI 304               |
| 4        | Inner Hex Screw | AISI 304               |
| 5        | Stem            | AISI 420               |
| 6        | O-Ring          | NBR                    |
| 7        | Bonnet          | ASTM A536, 65-45-12    |
| 8        | O-Ring          | NBR                    |
| 9        | Handwheel       | ABS                    |
| 10       | Screw           | AISI 304               |

Note: For special material request other than standard specification, please indicate clearly on the inquiry or order list.

| DN   |    | Dimensions(mm) |       |    |                  |      |                  |
|------|----|----------------|-------|----|------------------|------|------------------|
| Inch | mm | H1             | H2    | L  | d1(Rc)           | d2   | D(R)             |
| 2"   | 50 | 57.5           | 109.5 | 63 | 2                | 44.5 | 2                |
| 2.5" | 65 | 71             | 109.3 | 71 | 2 <sup>1/2</sup> | 58   | 2 <sup>1/2</sup> |

## Dry Riser Landing Valve



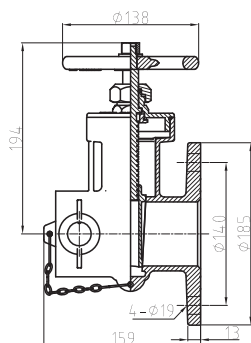
XZ45W



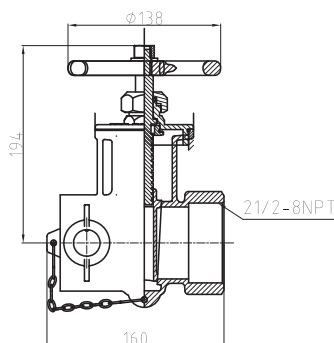
XZ15W



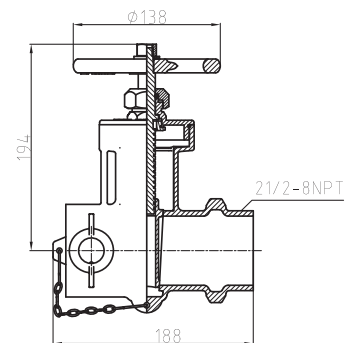
XZ25W



XZ45W



XZ15W



XZ25W

### Description

- Dry Riser Gate Valve Flanged (XZ45W), 2.5"
- Dry Riser Gate Valve Threaded (XZ15W / XZ25W), 2.5"
- Working Pressure: 250PSI

### Features

- Compact design with excellent flow characteristics
- High quality casting finishes
- Precise machining for metal to metal leak proof seating
- Corrosion resistant
- Maintenance free
- Leather strap and padlock available

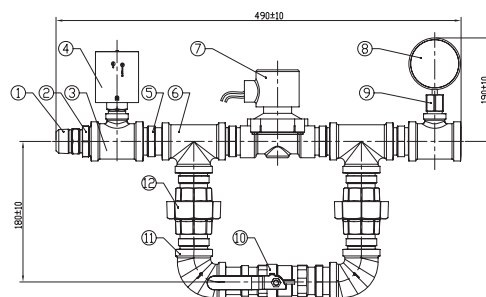
### MATERIAL SPECIFICATION

| Part No. | Part       | Standard Specification |
|----------|------------|------------------------|
| 1        | Lock       | HPb59-1                |
| 2        | Disc       | HPb59-1                |
| 3        | Valve Body | Gunmetal               |
| 4        | Bonnet     | HPb59-1                |
| 5        | Stem       | HPb59-1                |
| 6        | Handwheel  | ASTM A536 65-45-12     |

## Electric Inspector's Test Connection (ZSPM-80-DX)



ZSPM-80-DX



### MATERIAL SPECIFICATION

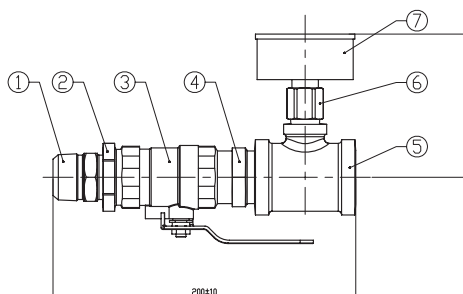
| Part No. | Part                  | Standard Specification    |
|----------|-----------------------|---------------------------|
| 1        | Test Nozzle           | AISI 304                  |
| 2        | Outside Hex Bushing   | Malleable Iron Galvanized |
| 3        | Reducing Tee          | Malleable Iron Galvanized |
| 4        | Pressure Switch       |                           |
| 5        | Nexagon Nipple, Equal | Malleable Iron Galvanized |
| 6        | Reducing Tee          | Malleable Iron Galvanized |
| 7        | Solenoid Valves       | Brass                     |
| 8        | Pressure Gauge        |                           |
| 9        | Connector             | Brass                     |
| 10       | Ball Valve            | AISI 304                  |
| 11       | 90° Elbow             | Malleable Iron Galvanized |
| 12       | Union With Brass Seat | Malleable Iron Galvanized |

Note: 1. For special material request other than standard specification, please indicate clearly on the inquiry or order list.  
2. Threads connection options available includes: ASME B1.20.1, ISO 7-1

## Manual Inspector's Test Connection (ZSPM-80-SA)



ZSPM-80-SA



### MATERIAL SPECIFICATION

| Part No. | Part                  | Standard Specification    |
|----------|-----------------------|---------------------------|
| 1        | Test Nozzle           | AISI 304                  |
| 2        | Outside Hex Bushing   | Malleable Iron Galvanized |
| 3        | Ball Valve            | AISI 304                  |
| 4        | Nexagon Nipple, Equal | Malleable Iron Galvanized |
| 5        | Reducing Tee          | Malleable Iron Galvanized |
| 6        | Connector             | Brass                     |
| 7        | Pressure Gauge        |                           |

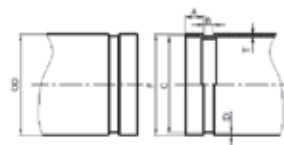
Note: 1. For special material request other than standard specification, please indicate clearly on the inquiry or order list.  
2. Threads connection options available includes: ASME B1.20.1, ISO 7-1



## Roll Groove Dimensions

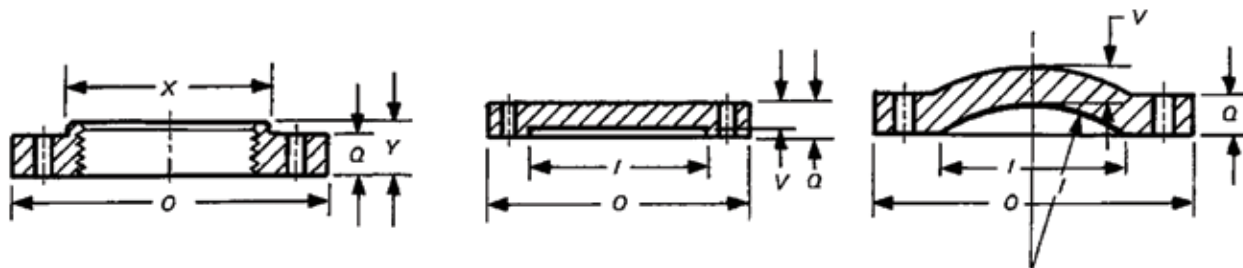


Roll Grooving Machine



| Nominal<br>Size<br>mm/in | Pipe OD         |                    |                 | Gasket seat<br>A<br>±0.76/±0.03<br>mm/in | Groove Width B<br>±0.76/±0.03<br>mm/in | Groove Dia C     |                    | Groove Depth<br>D(ref)<br>mm/in | Max<br>Allow Flare Dia<br>F<br>mm/in | Min.<br>Allow wall thickness<br>T<br>mm/in |
|--------------------------|-----------------|--------------------|-----------------|------------------------------------------|----------------------------------------|------------------|--------------------|---------------------------------|--------------------------------------|--------------------------------------------|
|                          | Basic<br>mm/in  | Tolerance<br>mm/in |                 |                                          |                                        | Basic<br>mm/in   | Tolerance<br>mm/in |                                 |                                      |                                            |
| 25<br>1                  | 33.7<br>1.327   | +0.41<br>+0.016    | -0.68<br>-0.026 | 15.88<br>0.625                           | 7.14<br>0.281                          | 30.23<br>1.190   | -0.38<br>-0.015    | 1.60<br>0.063                   | 34.5<br>1.358                        | 1.8<br>0.071                               |
| 32<br>1¼                 | 42.4<br>1.669   | +0.50<br>+0.020    | -0.60<br>-0.023 | 15.88<br>0.625                           | 7.14<br>0.281                          | 38.99<br>1.535   | -0.38<br>-0.015    | 1.60<br>0.063                   | 43.3<br>1.705                        | 1.8<br>0.071                               |
| 40<br>1½                 | 48.3<br>1.900   | +0.44<br>+0.017    | -0.52<br>-0.020 | 15.88<br>0.625                           | 7.14<br>0.281                          | 45.09<br>1.779   | -0.38<br>-0.015    | 1.60<br>0.063                   | 49.4<br>1.945                        | 1.8<br>0.071                               |
| 50<br>2                  | 60.3<br>2.375   | +0.61<br>+0.024    | -0.61<br>-0.024 | 15.88<br>0.625                           | 8.74<br>0.344                          | 57.15<br>2.250   | -0.38<br>-0.015    | 1.60<br>0.063                   | 62.2<br>2.449                        | 1.8<br>0.071                               |
| 65<br>2½                 | 73.0<br>2.875   | +0.74<br>+0.029    | -0.74<br>-0.029 | 15.88<br>0.625                           | 8.74<br>0.344                          | 69.09<br>2.720   | -0.46<br>-0.018    | 1.98<br>0.078                   | 75.2<br>2.961                        | 2.3<br>0.091                               |
| 65<br>2½                 | 76.1<br>3.000   | +0.76<br>+0.030    | -0.76<br>-0.030 | 15.88<br>0.625                           | 8.74<br>0.344                          | 72.26<br>2.845   | -0.46<br>-0.018    | 1.99<br>0.078                   | 77.7<br>3.059                        | 2.3<br>0.091                               |
| 80<br>3                  | 88.9<br>3.500   | +0.89<br>+0.035    | -0.79<br>-0.031 | 15.88<br>0.625                           | 8.74<br>0.344                          | 84.94<br>3.344   | -0.46<br>-0.018    | 1.98<br>0.078                   | 90.6<br>3.567                        | 2.3<br>0.091                               |
| 100<br>4                 | 108.0<br>4.250  | +1.07<br>+0.042    | -0.79<br>-0.031 | 15.88<br>0.625                           | 8.74<br>0.344                          | 103.73<br>4.084  | -0.51<br>-0.020    | 2.11<br>0.083                   | 109.7<br>4.319                       | 2.3<br>0.091                               |
| 100<br>4                 | 114.3<br>4.500  | +1.14<br>+0.045    | -0.79<br>-0.031 | 15.88<br>0.625                           | 8.74<br>0.344                          | 110.08<br>4.334  | -0.51<br>-0.020    | 2.11<br>0.083                   | 116.2<br>4.575                       | 2.3<br>0.091                               |
| 125<br>5                 | 133.0<br>5.250  | +1.32<br>+0.052    | -0.79<br>-0.031 | 15.88<br>0.625                           | 8.74<br>0.344                          | 129.13<br>5.084  | -0.51<br>-0.020    | 2.11<br>0.083                   | 134.9<br>5.311                       | 2.9<br>0.114                               |
| 125<br>5                 | 139.7<br>5.500  | +1.40<br>+0.055    | -0.79<br>-0.031 | 15.88<br>0.625                           | 8.74<br>0.344                          | 135.48<br>5.334  | -0.51<br>-0.020    | 2.11<br>0.083                   | 141.7<br>5.579                       | 2.9<br>0.114                               |
| 125<br>5                 | 141.3<br>5.563  | +1.42<br>+0.056    | -0.79<br>-0.031 | 15.88<br>0.625                           | 8.74<br>0.344                          | 137.03<br>5.395  | -0.56<br>-0.022    | 2.13<br>0.084                   | 143.5<br>5.650                       | 2.9<br>0.114                               |
| 150<br>6                 | 159.0<br>6.250  | +1.60<br>+0.063    | -0.79<br>-0.031 | 15.88<br>0.625                           | 8.74<br>0.344                          | 154.50<br>6.083  | -0.56<br>-0.022    | 2.16<br>0.085                   | 161.0<br>6.339                       | 2.9<br>0.114                               |
| 150<br>6                 | 165.1<br>6.500  | +1.60<br>+0.063    | -0.79<br>-0.031 | 15.88<br>0.625                           | 8.74<br>0.344                          | 160.8<br>6.330   | -0.56<br>-0.022    | 2.16<br>0.085                   | 167.1<br>6.579                       | 2.9<br>0.114                               |
| 150<br>6                 | 168.3<br>6.625  | +1.60<br>+0.063    | -0.79<br>-0.031 | 15.88<br>0.625                           | 8.74<br>0.344                          | 163.96<br>6.455  | -0.56<br>-0.022    | 2.16<br>0.085                   | 170.7<br>6.720                       | 2.9<br>0.114                               |
| 200A<br>8                | 216.3<br>8.516  | +1.60<br>+0.063    | -0.79<br>-0.031 | 19.05<br>0.750                           | 11.91<br>0.469                         | 211.60<br>8.331  | -0.64<br>-0.025    | 2.35<br>0.093                   | 219.8<br>8.653                       | 2.9<br>0.114                               |
| 200<br>8                 | 219.1<br>8.625  | +1.60<br>+0.063    | -0.79<br>-0.031 | 19.05<br>0.750                           | 11.91<br>0.469                         | 214.40<br>8.441  | -0.64<br>-0.025    | 2.34<br>0.092                   | 221.5<br>8.720                       | 2.9<br>0.114                               |
| 250A<br>10               | 267.4<br>10.528 | +1.60<br>+0.063    | -0.79<br>-0.031 | 19.05<br>0.750                           | 11.91<br>0.469                         | 262.60<br>10.339 | -0.69<br>-0.027    | 2.40<br>0.095                   | 270.9<br>10.665                      | 3.6<br>0.142                               |
| 250<br>10                | 273.0<br>10.750 | +1.60<br>+0.063    | -0.79<br>-0.031 | 19.05<br>0.750                           | 11.91<br>0.469                         | 268.28<br>10.562 | -0.69<br>-0.027    | 2.39<br>0.094                   | 275.4<br>10.842                      | 3.6<br>0.142                               |
| 300A<br>12               | 318.5<br>12.539 | +1.60<br>+0.063    | -0.79<br>-0.031 | 19.05<br>0.750                           | 11.91<br>0.469                         | 312.90<br>12.319 | -0.76<br>-0.030    | 2.77<br>0.109                   | 322.0<br>12.677                      | 4.0<br>0.158                               |
| 300<br>12                | 323.9<br>12.750 | +1.60<br>+0.063    | -0.79<br>-0.031 | 19.05<br>0.750                           | 11.91<br>0.469                         | 318.29<br>12.531 | -0.76<br>-0.030    | 2.77<br>0.109                   | 326.2<br>12.842                      | 4.0<br>0.158                               |
| 350<br>14                | 377.0<br>14.842 | +1.60<br>+0.063    | -0.79<br>-0.031 | 23.83<br>0.938                           | 11.91<br>0.469                         | 371.44<br>14.623 | -0.76<br>-0.030    | 2.77<br>0.109                   | 379.5<br>14.941                      | 4.5<br>0.177                               |
| 400<br>16                | 426.0<br>16.772 | +1.60<br>+0.063    | -0.79<br>-0.031 | 23.83<br>0.938                           | 11.91<br>0.469                         | 420.46<br>16.553 | -0.76<br>-0.030    | 2.77<br>0.109                   | 428.5<br>16.870                      | 4.5<br>0.177                               |
| 500<br>20                | 529.0<br>20.827 | +1.60<br>+0.063    | -0.79<br>-0.031 | 25.40<br>1.000                           | 11.91<br>0.469                         | 523.46<br>20.608 | -0.76<br>-0.030    | 2.77<br>0.109                   | 533.0<br>20.984                      | 5.0<br>0.197                               |

## Class 125 Flange and Bolting Dimensions



| NPS   | Flanges               |                                        | Hub              |                                              | Blind Flanges                 |                             | Bolt Holes              |                                          | Bolting         |                                     |                                   |                                             |
|-------|-----------------------|----------------------------------------|------------------|----------------------------------------------|-------------------------------|-----------------------------|-------------------------|------------------------------------------|-----------------|-------------------------------------|-----------------------------------|---------------------------------------------|
|       | Diameter of Flange, O | Thickness of Flange, Min., Q [Note(1)] | Diameter Min., X | Length of Hub and Threads, Min., Y [Note(2)] | Diameter of Port, I [Note(3)] | Wall thickness, V [Note(4)] | Diameter of Bolt Circle | Diameter of Bolt Holes [Notes(5) and(6)] | Number of Bolts | Diameter of Bolts [Notes(7) and(8)] | Length of Bolts [Notes(7) and(8)] | Length of Bolt Stud With Two Nuts [Note(7)] |
| 1     | 110                   | 11.1                                   | 49               | 18                                           | 25                            | 9.6                         | 79                      | 5/8                                      | 4               | 1/2                                 | 45                                | ...                                         |
| 1 1/4 | 115                   | 12.7                                   | 59               | 21                                           | 32                            | 11.1                        | 89                      | 5/8                                      | 4               | 1/2                                 | 51                                | ...                                         |
| 1 1/2 | 125                   | 14.3                                   | 65               | 22                                           | 38                            | 12.7                        | 98                      | 5/8                                      | 4               | 1/2                                 | 51                                | ...                                         |
| 2     | 150                   | 15.9                                   | 78               | 25                                           | 51                            | 14.3                        | 121                     | 3/4                                      | 4               | 5/8                                 | 57                                | ...                                         |
| 2 1/2 | 180                   | 17.5                                   | 91               | 29                                           | 64                            | 15.9                        | 140                     | 3/4                                      | 4               | 5/8                                 | 64                                | ...                                         |
| 3     | 190                   | 19.0                                   | 108              | 30                                           | 76                            | 17.5                        | 152                     | 3/4                                      | 4               | 5/8                                 | 64                                | ...                                         |
| 3 1/2 | 215                   | 20.6                                   | 122              | 32                                           | 89                            | 19.0                        | 178                     | 3/4                                      | 8               | 5/8                                 | 70                                | ...                                         |
| 4     | 230                   | 23.8                                   | 135              | 33                                           | 102                           | 22.2                        | 191                     | 3/4                                      | 8               | 5/8                                 | 76                                | ...                                         |
| 5     | 255                   | 23.8                                   | 164              | 37                                           | 127                           | 22.2                        | 216                     | 7/8                                      | 8               | 3/4                                 | 76                                | ...                                         |
| 6     | 280                   | 25.4                                   | 192              | 40                                           | 152                           | 23.8                        | 241                     | 7/8                                      | 8               | 3/4                                 | 83                                | ...                                         |
| 8     | 345                   | 28.6                                   | 246              | 45                                           | 203                           | 27.0                        | 299                     | 7/8                                      | 8               | 3/4                                 | 89                                | ...                                         |
| 10    | 405                   | 30.2                                   | 303              | 49                                           | 254                           | 28.6                        | 362                     | 1                                        | 12              | 7/8                                 | 95                                | ...                                         |
| 12    | 485                   | 31.8                                   | 357              | 56                                           | 305                           | 20.6                        | 432                     | 1                                        | 12              | 7/8                                 | 95                                | ...                                         |
| 14    | 535                   | 32.4                                   | 391              | 57                                           | 356                           | 22.2                        | 476                     | 1 1/8                                    | 12              | 1                                   | 108                               | ...                                         |
| 16    | 595                   | 36.5                                   | 445              | 64                                           | 406                           | 25.4                        | 540                     | 1 1/8                                    | 16              | 1                                   | 114                               | ...                                         |
| 18    | 635                   | 39.7                                   | 499              | 68                                           | 457                           | 27.0                        | 578                     | 1 1/4                                    | 16              | 1 1/8                               | 121                               | ...                                         |
| 20    | 700                   | 42.9                                   | 553              | 73                                           | 508                           | 28.6                        | 635                     | 1 1/4                                    | 20              | 1 1/8                               | 127                               | ...                                         |
| 24    | 815                   | 47.6                                   | 660              | 83                                           | 610                           | 31.8                        | 749                     | 1 3/8                                    | 20              | 1 1/4                               | 140                               | ...                                         |
| 30    | 985                   | 54.0                                   | ...              | ...                                          | 762                           | 36.6                        | 914                     | 1 3/8                                    | 28              | 1 1/4                               | 159                               | ...                                         |
| 36    | 1170                  | 60.3                                   | ...              | ...                                          | 914                           | 41.3                        | 1086                    | 1 5/8                                    | 32              | 1 1/2                               | 178                               | 222                                         |
| 42    | 1345                  | 66.7                                   | ...              | ...                                          | 1066                          | 46.0                        | 1257                    | 1 5/8                                    | 36              | 1 1/2                               | 191                               | 235                                         |
| 48    | 1510                  | 69.9                                   | ...              | ...                                          | 1219                          | 50.8                        | 1422                    | 1 5/8                                    | 44              | 1 1/2                               | 197                               | 242                                         |
| 54(9) | 1685                  | 76.2                                   | ...              | ...                                          | ...                           | ...                         | 1594                    | 2                                        | 44              | 1 3/8                               | 216                               | 267                                         |
| 60(9) | 1855                  | 79.4                                   | ...              | ...                                          | ...                           | ...                         | 1759                    | 2                                        | 52              | 1 3/8                               | 222                               | 273                                         |
| 72(9) | 2195                  | 88.9                                   | ...              | ...                                          | ...                           | ...                         | 2096                    | 2                                        | 60              | 1 3/8                               | 241                               | 292                                         |
| 84(9) | 2535                  | 98.4                                   | ...              | ...                                          | ...                           | ...                         | 2426                    | 2 1/4                                    | 64              | 2                                   | 267                               | 324                                         |
| 96(9) | 2875                  | 108.0                                  | ...              | ...                                          | ...                           | ...                         | 2756                    | 2 1/2                                    | 68              | 2 1/4                               | 292                               | 356                                         |

General Note: Dimensions are in millimeters.

Notes:

(1) For facing see para.7.2.(a)

(2) For thread of threaded flanges, see paras.7.5.1 and 7.5.2.

(3) All blind flange NPS 12 and larger must be dished with inside radius equal to the port diameter.

(4) For wall thickness tolerance, see para.7.1.

(5) For flange bolt holes, see para.7.6.

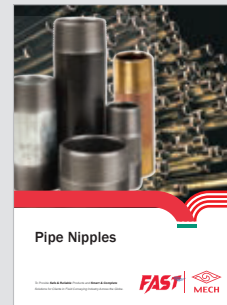
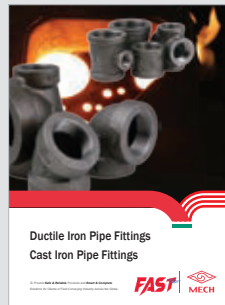
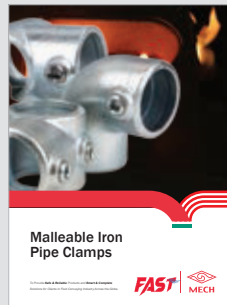
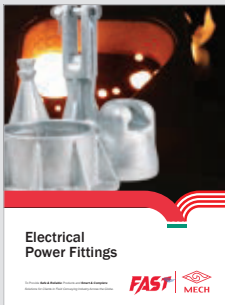
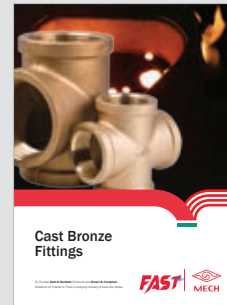
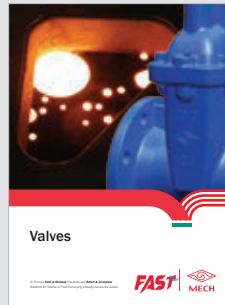
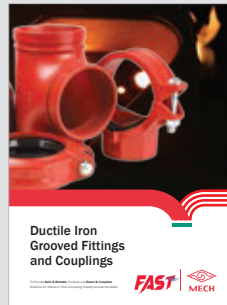
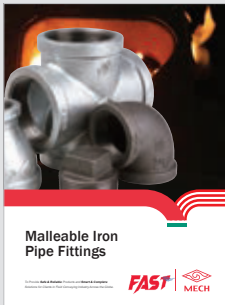
(6) For spot facing, see para.7.7.

(7) For bolts and nuts, see para.8.1.1.

(8) Bolt lengths to be compensated for when bolting steel to gray iron flanges.

(9) NPS 54 through 96 are included for convenience. Pressure-temperature ratings are the user's responsibility.

## MECH FLOW SUPPLIES



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010 690 111 / 010 468 111



info@fastcambodia.com



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www.fastcambodia.com



#59, Street Lom, Phum Somrorn, Sangkat Khmounh, Khan  
Sensok, Phnom Penh, Cambodia