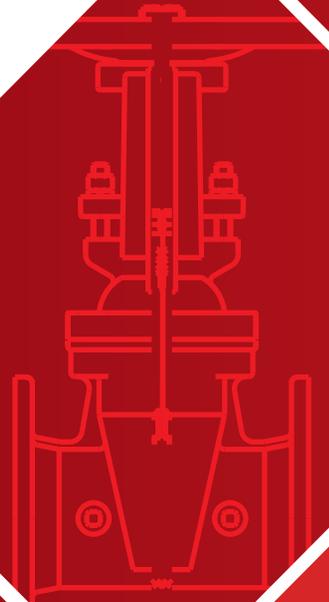




**fivalco**®



# PRODUCT CATALOGUE FIRE PROTECTION

A truly world class manufacturer serving Global Markets



## A True Manufacturer

Fivalco is a widely recognised world class manufacturer of flow control products primarily serving the critical Fire Protection, General Process Industries, Water Supply and Heating, Ventilating & Air Conditioning (HVAC) markets worldwide.

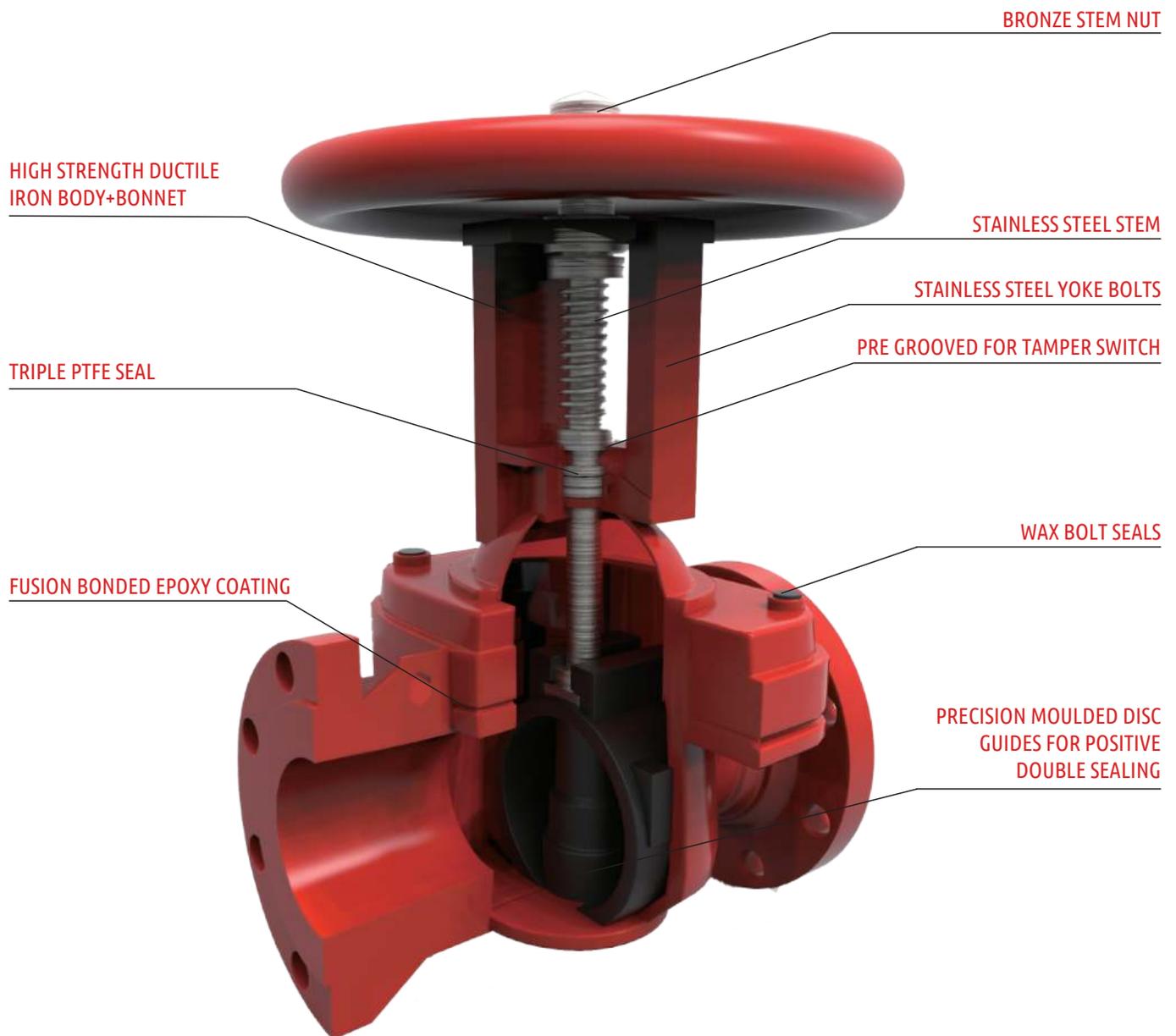
We operate from two main facilities utilising the latest manufacturing technologies and equipment available to produce world class flow control products serving multiple industries.

Our primary mission is to continue to provide the highest quality products to discerning customers, whilst allowing our employees career growth prospects, all elements working together as partners to enhance stakeholder value.

# FIVALCO HIGHRISER OS&Y GATE VALVE

300PSI/21BARS

UL LISTED FM APPROVED



FIVALCO® - BETTER BY DESIGN

# GENERAL INFORMATION

We are now in our 35th year of manufacturing Fire Protection Valves of uncompromising quality for our discerning customers.

All our products are FM or UL approved and most carry both UL and FM listings/approvals.

The latest edition of the NFPA code stated "products shall be listed or approved," without reference to either UL or FM although it is common practice for consultants to specify both a Underwriter Laboratories listed and a Factory Mutual approval.

UL listed means that the product has been tested, has passed all the stringent tests mandated by Underwriter Laboratories and is listed in the UL catalogue of Fire Protection Equipment.

FM approved means that the product has passed all severe tests mandated by Factory Mutual and is approved by FM for use in building structures insured by Factory Mutual Insurance.

We, and all other manufacturers of similar products are subject to identical factory and product audit approvals and tests without compromise as the same approval and test criteria are applied to all procedures of such products regardless of location any where in the world.

All valves are pressure tested for approval at 4 times the working pressure depending on valve size, and all valves must pass a cycling test of 1000 open/shut operations without failure of any part or component.

We take great care to make our products both attractive and functional and it is essential that our customers and end users do the same in order to maintain product integrity and proper function.

We draw your attention to minimum practices for handling and installation of our valves, at the end of this catalogue.

We are not content with making valves purely to meet mandatory specifications and have added quality and other features to stand out above the crowd.

All gate valves have stainless steel stems for better corrosion resistance - our competitors use common brass.

All gate valves are painted true fire engine red, no on site painting needed.

All materials for our valves are equal to, or superior to, our competitors.

**" The quality goes in before our name goes on"**

All written material in this catalogue is copyrighted and may not be produced in part or in whole without express written permission. Violators will be prosecuted.

Fivalco is registered trademark. Use of the trademarks without written permission is illegal and all violators will be prosecuted to the full extent of the law.

Design, materials, & specifications are subject to change without notice for continuous product improvement & development.

**FIVALCO® - BETTER BY DESIGN**

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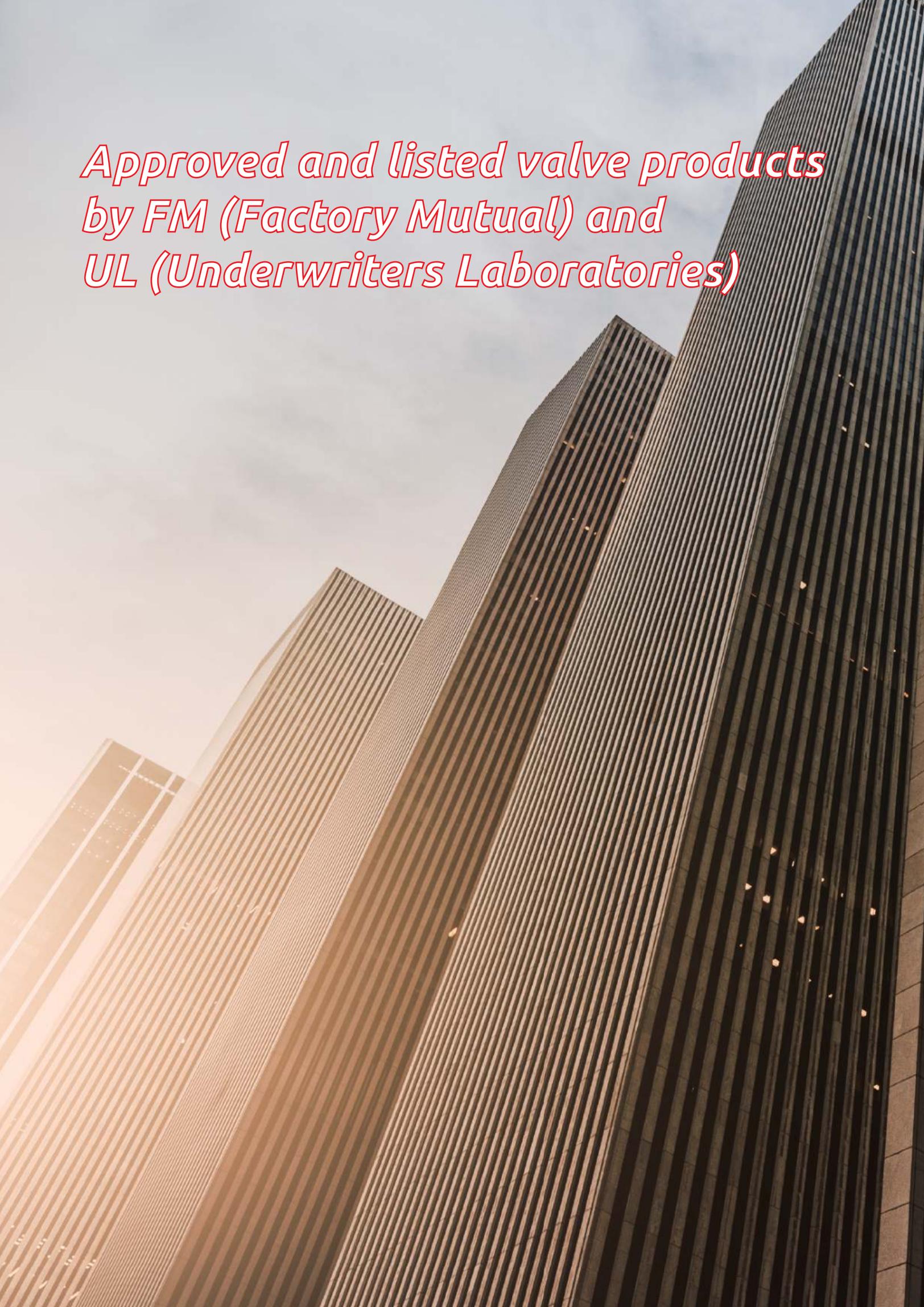
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*Approved and listed valve products  
by FM (Factory Mutual) and  
UL (Underwriters Laboratories)*



# HIGH RISER GATE VALVE RESILIENT SEATED OS&Y TYPE FLANGED ENDS

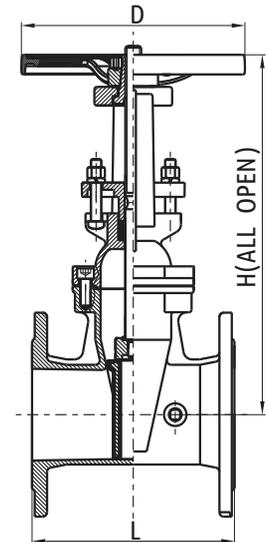
## 300PSI

## Fig No.: 3299-LI-300-FLA



### FEATURES & SPECIFICATIONS

- Rising stem, Outside Screw & Yoke (OS&Y)
- Stainless steel stem
- Valve conforms to AWWA C515 / BS5163
- Fusion bonded epoxy coated interior and exterior RAL3002
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150 / EN1092-2 PN16 / BS10 Table D / Table E
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C



### MATERIALS LIST

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge	Ductile Iron ASTM A536 65-45-12 + EPDM
Wedge Nut	Stainless Steel AISI 304
Stem	Stainless Steel AISI 304/420
Bonnet	Ductile Iron ASTM A536 65-45-12
Gasket	EPDM
Packing	Graphite
Stem Nut	Bronze ASTM B62
Handwheel	Ductile Iron ASTM A536 65-45-12

### DIMENSIONS (inch/mm)

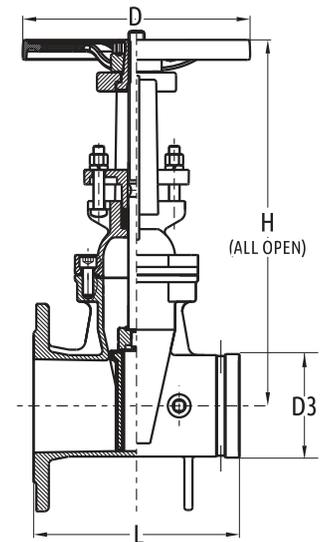
Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
L	7.01/178	7.50/191	8.00/203	9.00/229	10.00/254	10.50/267	11.50/292	13.00/330	14.00/356
H	16.18/411	16.18/411	18.19/462	20.24/514	24.76/629	27.91/709	36.18/919	43.94/1116	51.18/1300
D	7.20/183	7.20/183	9.96/253	9.96/253	12.05/306	12.05/306	13.98/355	17.52/445	17.52/445

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
N.W.	17.64	18.91	22.13	27.16	40.30	46.90	72.00	111.00	167.00
Crate Qty	25	25	16	16	9	9	6	4	2

**FEATURES & SPECIFICATIONS**

- Rising stem, Outside Screw & Yoke (OS&Y)
- Stainless steel stem
- Valve conforms to AWWA C515 / BS5163
- Fusion bonded epoxy coated interior and exterior RAL3002
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150 / EN1092-2 PN16 / BS10 Table D / Table E
- Grooved ends to suit ANSI / AWWA and BS Pipe size
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C



**MATERIALS LIST**

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge	Ductile Iron ASTM A536 65-45-12 + EPDM
Wedge Nut	Stainless Steel AISI 304
Stem	Stainless Steel AISI 304/420
Bonnet	Ductile Iron ASTM A536 65-45-12
Gasket	EPDM
Packing	Graphite
Stem Nut	Bronze ASTM B62
Handwheel	Ductile Iron ASTM A536 65-45-12

**DIMENSIONS (inch/mm)**

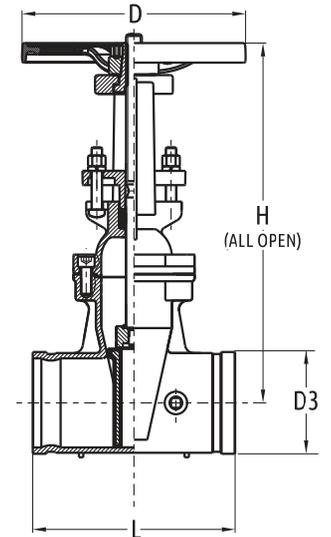
Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300			
<b>L</b>	7.00/178	7.50/191	8.00/203	9.00/229	10.00/254	10.50/267	11.50/292	13.00/330	14.00/356			
<b>H</b>	16.18/411	16.18/411	18.19/462	20.24/514	24.76/629	27.91/709	36.18/919	43.94/1116	51.18/1300			
<b>D</b>	7.20/183	7.20/183	9.96/253	9.96/253	12.05/306	12.05/306	13.98/355	17.52/445	17.52/445			
<b>D3</b>	2.37/60.3	2.87/73	2.99/76.1	2.37/88.9	4.5/114.3	5.56/141.3	5.5/139.7	6.63/168.3	6.5/165.1	8.63/219.1	10.75/273	12.75/323.9

**NET WEIGHT (kg) & CRATE QTY (pcs)**

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	17.64	18.91	22.13	27.16	40.30	46.90	72.00	111.00	167.00
<b>Crate Qty</b>	25	25	16	16	9	9	6	4	2

**FEATURES & SPECIFICATIONS**

- Rising stem, Outside Screw & Yoke (OS&Y)
- Stainless steel stem
- Valve conforms to AWWA C515 / BS5163
- Fusion bonded epoxy coated interior and exterior RAL3002
- Grooved ends to suit ANSI / AWWA and BS Pipe size
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C



**MATERIALS LIST**

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge	Ductile Iron ASTM A536 65-45-12 + EPDM
Wedge Nut	Stainless Steel AISI 304
Stem	Stainless Steel AISI 304/420
Bonnet	Ductile Iron ASTM A536 65-45-12
Gasket	EPDM
Packing	Graphite
Stem Nut	Bronze ASTM B62
Handwheel	Ductile Iron ASTM A536 65-45-12

**DIMENSIONS (inch/mm)**

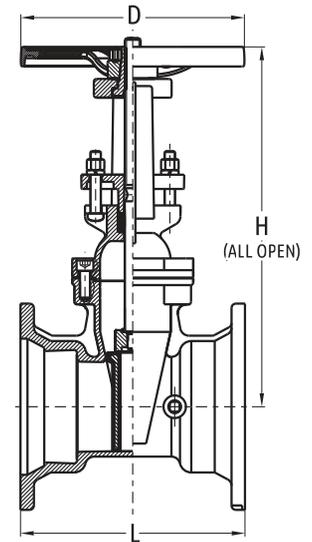
Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300			
<b>L</b>	7.00/178	7.50/191	8.00/203	9.00/229	10.00/254	10.50/267	11.50/292	13.00/330	14.00/356			
<b>H</b>	16.18/411	16.18/411	18.19/462	20.24/514	24.76/629	27.91/709	36.18/919	43.94/1116	51.18/1300			
<b>D</b>	7.20/183	7.20/183	9.96/253	9.96/253	12.05/306	12.05/306	13.98/355	17.52/445	17.52/445			
<b>D3</b>	2.37/60.3	2.87/73	2.99/76.1	2.37/88.9	4.5/114.3	5.56/141.3	5.5/139.7	6.63/168.3	6.5/165.1	8.63/219.1	10.75/273	12.75/323.9

**NET WEIGHT (kg) & CRATE QTY (pcs)**

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	17.64	18.91	22.13	27.16	40.30	46.90	72.00	111.00	167.00
<b>Crate Qty</b>	25	25	16	16	9	9	6	4	2

**FEATURES & SPECIFICATIONS**

- Rising stem, Outside Screw & Yoke (OS&Y)
- Stainless steel stem
- Valve conforms to AWWA C515 / BS5163
- Fusion bonded epoxy coated interior and exterior RAL3002
- Mechanical joint ends to AWWA C153 / A21.11
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C



**MATERIALS LIST**

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge	Ductile Iron ASTM A536 65-45-12 + EPDM
Wedge Nut	Stainless Steel AISI 304
Stem	Stainless Steel AISI 304/420
Bonnet	Ductile Iron ASTM A536 65-45-12
Gasket	EPDM
Packing	Graphite
Stem Nut	Bronze ASTM B62
Handwheel	Ductile Iron ASTM A536 65-45-12

**DIMENSIONS (inch/mm)**

Size	3"/80	4"/100	6"/150	8"/200	10"/250	12"/300
<b>L</b>	9.49/241	10.00/254	11.50/292	12.52/318	14.76/375	14.88/378
<b>H</b>	18.19/462	20.24/514	27.91/709	36.31/922	43.94/1116	51.18/1300
<b>D</b>	9.96/253	9.96/253	12.05/306	13.98/355	17.52/445	17.52/445

**NET WEIGHT (kg) & CRATE QTY (pcs)**

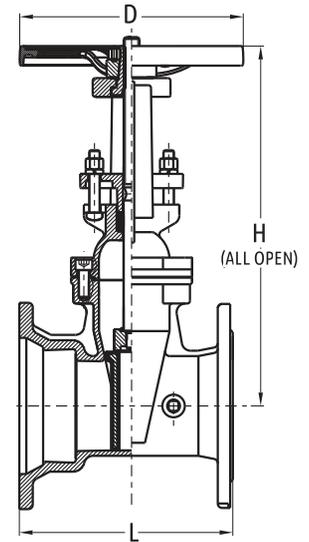
Size	3"/80	4"/100	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	22.13	27.16	46.90	72.00	111.00	167.00
<b>Crate Qty</b>	16	16	9	6	4	2

**300PSI**

**Fig No.: 3299-LI-300-FM**

**FEATURES & SPECIFICATIONS**

- Rising stem, Outside Screw & Yoke (OS&Y)
- Stainless steel stem
- Valve conforms to AWWA C515 / BS5163
- Fusion bonded epoxy coated interior and exterior RAL3002
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150 / EN1092-2 PN16 / BS10 Table D / Table E
- Mechanical joint ends to AWWA C153 / A21.11
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C



**MATERIALS LIST**

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge	Ductile Iron ASTM A536 65-45-12 + EPDM
Wedge Nut	Stainless Steel AISI 304
Stem	Stainless Steel AISI 304/420
Bonnet	Ductile Iron ASTM A536 65-45-12
Gasket	EPDM
Packing	Graphite
Stem Nut	Bronze ASTM B62
Handwheel	Ductile Iron ASTM A536 65-45-12

**DIMENSIONS (inch/mm)**

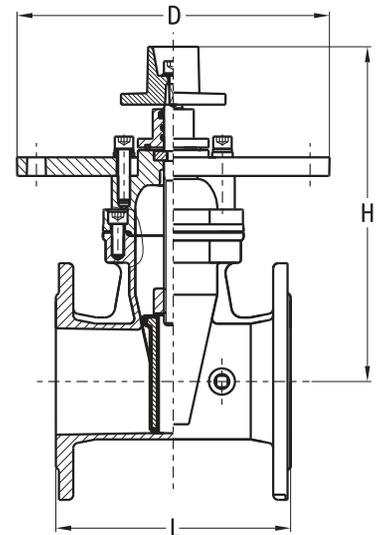
Size	3"/80	4"/100	6"/150	8"/200	10"/250	12"/300
<b>L</b>	8.74/222	9.51/241.5	11/279.5	12.00/305	13.88/352.50	14.45/367
<b>H</b>	18.19/462	20.24/514	27.91/709	33.31/922	43.94/1116	51.18/1300
<b>D</b>	9.96/253	9.96/253	12.05/306	13.98/355	17.52/445	17.52/445

**NET WEIGHT (kg) & CRATE QTY (pcs)**

Size	3"/80	4"/100	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	22.13	27.16	46.90	72.00	111.00	167.00
<b>Crate Qty</b>	16	16	9	6	4	2

**FEATURES & SPECIFICATIONS**

- Non-rising stem
- Stainless steel stem
- Valve conforms to AWWA C515 / BS5163
- Fusion bonded epoxy coated interior and exterior RAL3002
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150 / EN1092-2 PN16 / BS10 Table D / Table E
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C
- All valves provided with 2" (50mm) operating nut



**MATERIALS LIST**

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge Disc	Ductile Iron ASTM A536 65-45-12 + EPDM
Disc Nut	Bronze ASTM B62
Stem	Stainless Steel AISI 304/420
Gasket	EPDM
Bonnet	Ductile Iron ASTM A536 65-45-12
Thrust Collar	Bronze ASTM B62
Gland	Ductile Iron ASTM A536 65-45-12
Wrench Nut	Ductile Iron ASTM A536 65-45-12
Post Plate	Ductile Iron ASTM A536 65-45-12

**DIMENSIONS (inch/mm)**

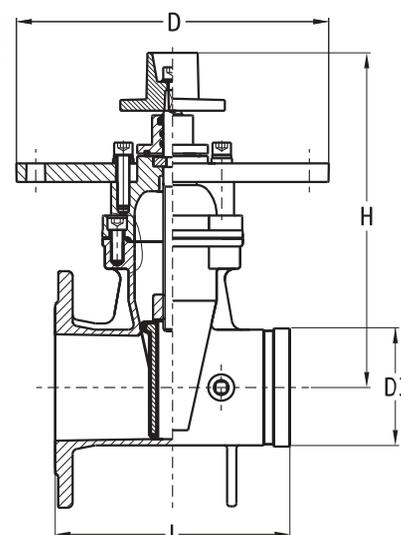
Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>L</b>	7.00/178	7.5/191	8.00/203	9.00/229	10.00/254	10.50/267	11.50/292	13.00/330	14.00/356
<b>H</b>	10.98/279	10.98/279	11.99/304.50	12.76/324	15.49/393.50	16.85/428	21.14/537	25.20/640	28.46/723
<b>D</b>	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305

**NET WEIGHT (kg) & CRATE QTY (pcs)**

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	24.00	25.30	27.50	35.00	42.00	50.00	83.00	123.50	175.50
<b>Crate Qty</b>	9	9	9	9	9	9	9	4	2


**FEATURES & SPECIFICATIONS**

- Non-rising stem
- Stainless steel stem
- Valve conforms to AWWA C515 / BS5163
- Fusion bonded epoxy coated interior and exterior RAL3002
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150 / EN1092-2 PN16 / BS10 Table D / Table E
- Grooved ends to suit ANSI / AWWA and BS Pipe size
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C
- All valves provided with 2" (50mm) operating nut


**MATERIALS LIST**

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge Disc	Ductile Iron ASTM A536 65-45-12 + EPDM
Disc Nut	Bronze ASTM B62
Stem	Stainless Steel AISI 304/420
Gasket	EPDM
Bonnet	Ductile Iron ASTM A536 65-45-12
Thrust Collar	Bronze ASTM B62
Gland	Ductile Iron ASTM A536 65-45-12
Wrench Nut	Ductile Iron ASTM A536 65-45-12
Post Plate	Ductile Iron ASTM A536 65-45-12

**DIMENSIONS (inch/mm)**

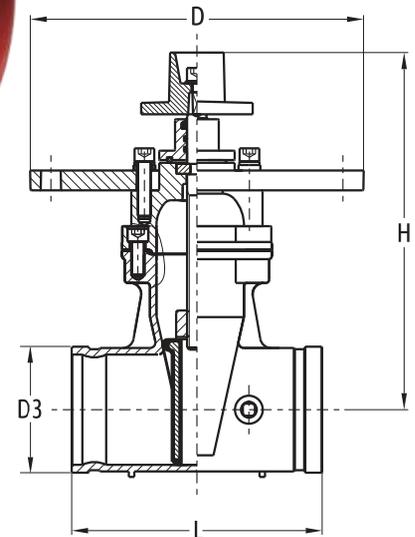
Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300			
<b>L</b>	7.00/178	7.5/191	8.00/203	9.00/229	10.00/254	10.50/267	11.50/292	13.00/330	14.00/356			
<b>H</b>	10.98/279	10.98/279	12.01/305	12.76/324	15.51/394	16.85/428	21.14/537	25.20/640	28.46/723			
<b>D</b>	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305			
<b>D3</b>	2.37/60.3	2.87/73	2.99/76.1	2.37/88.9	4.5/114.3	5.56/141.3	5.5/139.7	6.63/168.3	6.5/165.1	8.63/219.1	10.75/273	12.75/323.9

**NET WEIGHT (kg) & CRATE QTY (pcs)**

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	24.00	25.30	27.50	35.00	42.00	50.00	83.00	123.50	175.50
<b>Crate Qty</b>	9	9	9	9	9	9	9	4	2

**FEATURES & SPECIFICATIONS**

- Non-rising stem
- Stainless steel stem
- Valve conforms to AWWA C515 / BS5163
- Fusion bonded epoxy coated interior and exterior RAL3002
- Grooved ends to suit ANSI / AWWA and BS Pipe size
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C
- All valves provided with 2" (50mm) operating nut



**MATERIALS LIST**

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge Disc	Ductile Iron ASTM A536 65-45-12 + EPDM
Disc Nut	Bronze ASTM B62
Stem	Stainless Steel AISI 304/420
Gasket	EPDM
Bonnet	Ductile Iron ASTM A536 65-45-12
Thrust Collar	Bronze ASTM B62
Gland	Ductile Iron ASTM A536 65-45-12
Wrench Nut	Ductile Iron ASTM A536 65-45-12
Post Plate	Ductile Iron ASTM A536 65-45-12

**DIMENSIONS (inch/mm)**

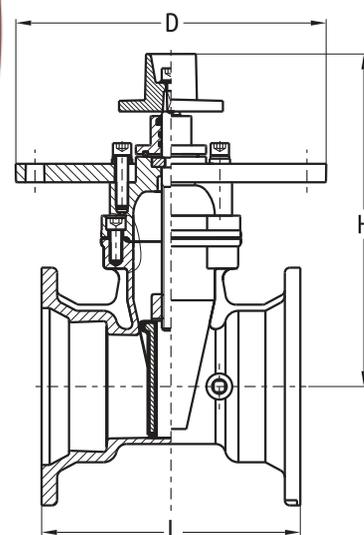
Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300			
<b>L</b>	7.00/178	7.5/191	8.00/203	9.00/229	10.00/254	10.50/267	11.50/292	13.00/330	14.00/356			
<b>H</b>	10.98/279	10.98/279	12.01/305	12.76/324	15.51/394	16.85/428	21.14/537	25.20/640	28.46/723			
<b>D</b>	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305			
<b>D3</b>	2.37/60.3	2.87/73	2.99/76.1	2.37/88.9	4.5/114.3	5.56/141.3	5.5/139.7	6.63/168.3	6.5/165.1	8.63/219.1	10.75/273	12.75/323.9

**NET WEIGHT (kg) & CRATE QTY (pcs)**

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	24.00	25.30	27.50	35.00	42.00	50.00	83.00	123.50	175.50
<b>Crate Qty</b>	9	9	9	9	9	9	9	4	2

**FEATURES & SPECIFICATIONS**

- Non-rising stem
- Stainless steel stem
- Valve conforms to AWWA C515 / BS5163
- Fusion bonded epoxy coated interior and exterior RAL3002
- Mechanical joint ends to AWWA C153 / A21.11
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C
- All valves provided with 2" (50mm) operating nut


**MATERIALS LIST**

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge Disc	Ductile Iron ASTM A536 65-45-12 + EPDM
Disc Nut	Bronze ASTM B62
Stem	Stainless Steel AISI 304/402
Gasket	EPDM
Bonnet	Ductile Iron ASTM A536 65-45-12
Thrust Collar	Bronze ASTM B62
Gland	Ductile Iron ASTM A536 65-45-12
Wrench Nut	Ductile Iron ASTM A536 65-45-12
Post Plate	Ductile Iron ASTM A536 65-45-12

**DIMENSIONS (inch/mm)**

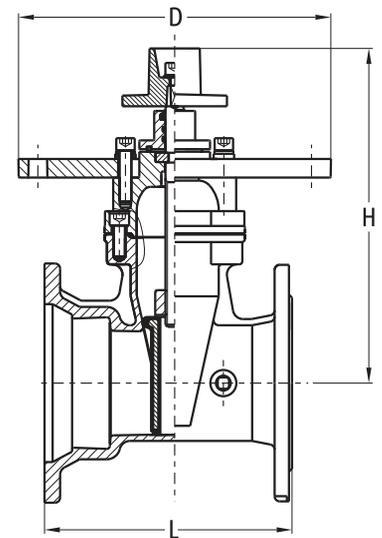
Size	3"/80	4"/100	6"/150	8"/200	10"/250	12"/300
<b>L</b>	9.49/241	10.00/254	11.50/292	12.52/318	14.76/375	14.88/378
<b>H</b>	12.01/305	12.76/324	16.85/428	21.14/537	25.20/640	28.46/723
<b>D</b>	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305

**NET WEIGHT (kg) & CRATE QTY (pcs)**

Size	3"/80	4"/100	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	27.50	35.00	50.00	83.00	123.50	175.50
<b>Crate Qty</b>	9	9	9	9	4	2

**FEATURES & SPECIFICATIONS**

- Non-rising stem
- Stainless steel stem
- Valve conforms to AWWA C515 / BS5163
- Fusion bonded epoxy coated interior and exterior RAL3002
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150 / EN1092-2 PN16 / BS10 Table D / Table E
- Mechanical joint ends to AWWA C153 / A21.11
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C
- All valves provided with 2" (50mm) operating nut



**MATERIALS LIST**

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge Disc	Ductile Iron ASTM A536 65-45-12 + EPDM
Disc Nut	Bronze ASTM B62
Stem	Stainless Steel AISI 304/402
Gasket	EPDM
Bonnet	Ductile Iron ASTM A536 65-45-12
Thrust Collar	Bronze ASTM B62
Gland	Ductile Iron ASTM A536 65-45-12
Wrench Nut	Ductile Iron ASTM A536 65-45-12
Post Plate	Ductile Iron ASTM A536 65-45-12

**DIMENSIONS (inch/mm)**

Size	3"/80	4"/100	6"/150	8"/200	10"/250	12"/300
<b>L</b>	8.74/222.0	9.51/241.5	11.00/279.5	12.01/305	13.88/352.5	14.45/367.0
<b>H</b>	12.01/305	12.76/324	16.85/428	21.14/537	25.20/640	28.46/723
<b>D</b>	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305

**NET WEIGHT (kg) & CRATE QTY (pcs)**

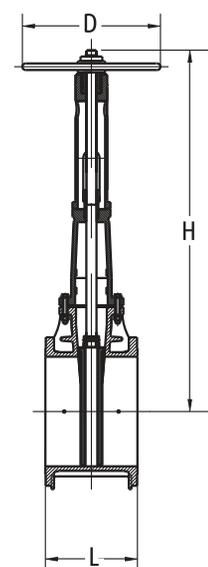
Size	3"/80	4"/100	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	27.50	35.00	50.00	83.00	123.50	175.50
<b>Crate Qty</b>	9	9	9	9	4	2

# FIRERISER GATE VALVE OS&Y TYPE FLANGED ENDS

**200PSI / 250PSI**
**Fig No.: 3299-L-200-FLA / 3299-L-250-FLA**

## FEATURES & SPECIFICATIONS

- Rising stem, Outside Screw & Yoke (OS&Y)
- Stainless steel stem
- Valve conforms to AWWA C515 / BS5163
- Fusion bonded epoxy coated interior and exterior RAL3002
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150 / EN1092-2 PN16 / BS10 Table D / Table E
- Working pressure : 250psi for DN350 / DN400 / DN450, 200psi for DN500 / DN600
- Working temperature : -10°C ... 120°C



## MATERIALS LIST

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge	Ductile Iron ASTM A536 65-45-12 + EPDM
Wedge Nut	Stainless Steel AISI 304
Stem	Stainless Steel AISI 304/420
Bonnet	Ductile Iron ASTM A536 65-45-12
Gasket	EPDM
Packing	Graphite
Stem Nut	Bronze ASTM B62
Handwheel	Ductile Iron ASTM A536 65-45-12

## DIMENSIONS (inch/mm)

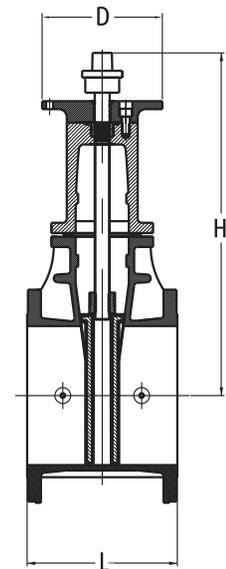
Size	14"/350	16"/400	18"/450	20"/500	24"/600
<b>L</b>	15.00/381	15.98/406	17.01/432	17.99/457	20.00/508
<b>H</b>	62.09/1577	70.87/1800	80.63/2048	90.43/2297	102.36/2600
<b>D</b>	20.00/508	21.97/558	24.02/610	24.02/610	30.00/762

## NET WEIGHT (kg) & CRATE QTY (pcs)

Size	14"/350	16"/400	18"/450	20"/500	24"/600
<b>N.W.</b>	277.00	366.00	530.00	754.00	1020.00
<b>Crate Qty</b>	1	1	1	1	1

### FEATURES & SPECIFICATIONS

- Non-rising stem
- Stainless steel stem
- Valve conforms to AWWA C515
- Fusion bonded epoxy coated interior and exterior RAL3002
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150 / EN1092-2 PN16 / BS10 Table D / Table E
- Working pressure : 250psi for DN350 / DN400 / DN450, 200psi for DN500 / DN600
- Working temperature : -10°C ... 120°C
- All valves provided with 2" (50mm) operating nut



### MATERIALS LIST

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge Disc	Ductile Iron ASTM A536 65-45-12 + EPDM
Disc Nut	ASTM B62 C83600
Stem	Stainless Steel AISI 431
Gasket	EPDM
Bonnet	Ductile Iron ASTM A536 65-45-12
Thrust Collar	Bronze ASTM B62
Gland	Ductile Iron ASTM A536 65-45-12
Wrench Nut	Ductile Iron ASTM A536 65-45-12
Post Plate	Ductile Iron ASTM A536 65-45-12

### DIMENSIONS (inch/mm)

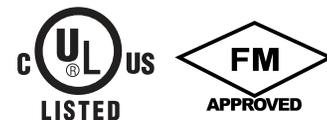
Size	14"/350	16"/400	18"/450	20"/500	24"/600
<b>L</b>	15.00/381	15.98/406	17.01/432	17.99/457	20.00/508
<b>H</b>	33.94/862	36.93/938	41.61/1057	44.96/1142	50.98/1295
<b>D</b>	12.01/305	12.01/305	12.01/305	12.01/305	12.01/305

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	14"/350	16"/400	18"/450	20"/500	24"/600
<b>N.W.</b>	232.00	308.00	446.00	636.00	848.00
<b>Crate Qty</b>	1	1	1	1	1

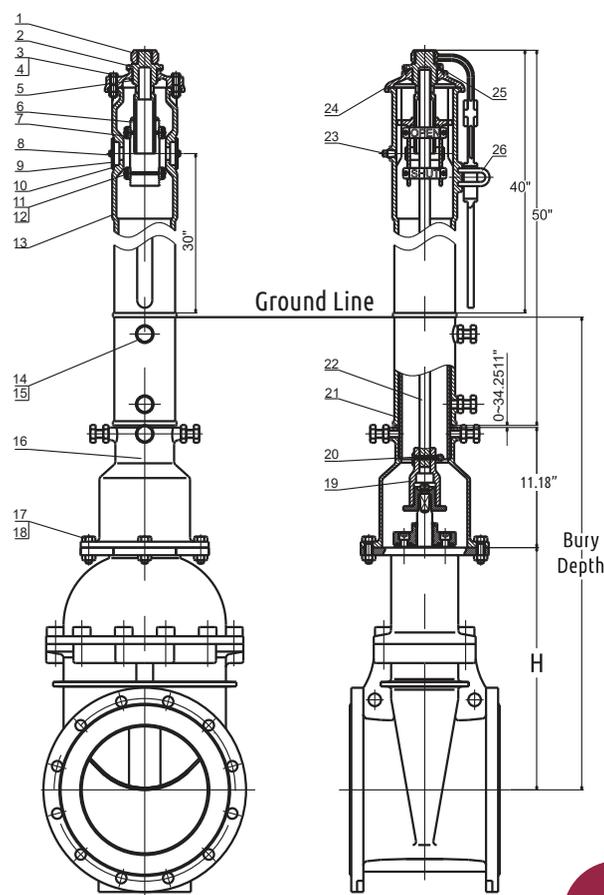
# INDICATOR POST

Fig No.: IPO888



## MATERIALS LIST

No.	QTY.	Name	Material
1	1	Locking Wrench	ASTM A126B
2	1	Operating Nut	ASTM B62
3	2	Hex Nut Screw	ASTM A105
4	2	Hex Nut	ASTM A105
5	1	Snap Ring	AISI 066
6	1	Target Carrier Nut	ASTM B62
7	4	Target	ASTM B108
8	4	Hex Cap Nut	ASTM A105
9	2	Window Glass	LEXAN-UM
10	2	Window Glass Gasket	PTFE
11	4	Hex Cap Screw	ASTM A105
12	4	Hex Nut	ASTM A105
13	1	Body	ASTM A536
14	6	Hex Cap Screw	ASTM A105
15	6	Hex Nut Screw	ASTM A105
16	1	Hex Nut	ASTM A126B
17	4	Base Flange	ASTM A105
18	4	Hex Nut	ASTM A105
19	1	Crane Coupling	ASTM A536
20	1	Cotter Pin	AISI 304
21	1	Stand Pipe	ASTM A53
22	1	Stem	AISI 1045
23	1	Plug	AISI 304
24	1	Cover	ASTM A126B
		Cross Recessed	
25	1	Countersunk Head	AISI 304
		Screw	
26	1	Locking Nose	ASTM 307 B

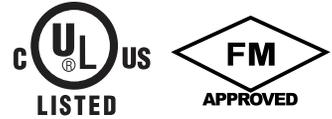


## BURY DEPTH

Valve Size	Min. Bury Depth (mm/inch)	Max. Bury Depth (mm/inch)	H	
			mm	inch
4"	757 / 29.8"	1627 / 64.06"	217	8.54"
5"	818 / 32.2"	1688 / 66.46"	278	10.94"
6"	852 / 33.54"	1722 / 67.8"	312	12.28"
8"	937 / 36.89"	1807 / 71.14"	397	15.63"
10"	1032 / 40.63"	1902 / 74.88"	492	19.37"
12"	1118 / 44.02"	1988 / 78.27"	578	22.76"

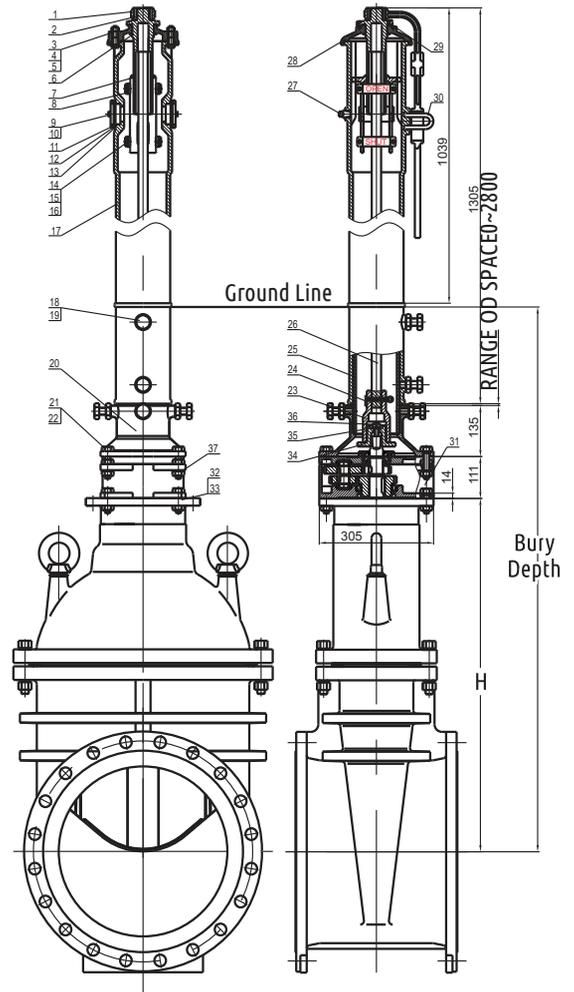
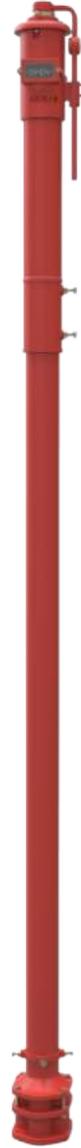
## FIELD ADJUSTMENT

1. Remove the top section from the top of the Indicator Post assembly.
2. Cut the required length off the bottom of the Standpipe for the Ground Line to match up with Standpipe Ground Line mark.
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.



## MATERIALS LIST

No.	Name	Material
1	Locking Wrench	ASTM A536
2	Operating Nut	ASTM B62/A351 CF8
3	Bolt	ASTM A105
4	Nut	ASTM A105
5	Flat Washer	ASTM A105
6	Shap Ring	AISI 606
7	Taget Carrier Nut	ASTM B62
8	Target	ASTM B108
9	Bolt	ASTM A105
10	Flat Washer	ASTM A105
11	Window Gland	ASTM A307B
12	Window Glass	LEXAN-UN STABILIZE
13	Gasket	EPDM
14	Bolt	ASTM A105
15	Spring Washer	ASTM A105
16	Nut	ASTM A105
17	Body	ASTM A536
18	Bolt	ASTM A105
19	Nut	ASTM A105
20	Base Flange	ASTM A126B
21	Bolt	ASTM A105
22	Nut	ASTM A105
23	Crane Coupling	ASTM A536
24	Cotter Pin	AISI 304
25	Stand Pipe	ASTM A536
26	Stem 1" Square	AISI 1045
27	Plug	AISI 304
28	Top Cover	ASTM A126B
29	Screw	AISI 304
30	Lock Nose	ASTM A307B
31	Reducer	PARTS
32	Bolt	ASTM A105
33	Nut	ASTM A105
34	Wrench Nut	ASTM A536
35	Washer	AISI 304
36	Hex. Socket Cap Screw	AISI 304
37	Spring Washer	AISI 304



## BURY DEPTH

Valve Size	Min. Bury Depth (inch)	Max. Bury Depth (inch)	H1		H2	
			mm	inch	mm	inch
14"	50.87"	158.35"	741	29.17"	889.5	35.02"
16"	53.82"	161.30"	816	32.13"	964.5	37.97"
18"	58.54"	166.02"	936	36.85"	1084	42.68"
20"	61.89"	169.37"	1021	40.20"	1169	46.02"
24"	67.87"	175.35"	1173	46.18"	1344.5	52.93"

## FIELD ADJUSTMENT

1. Remove the top section from the top of the Indicator Post assembly.
2. Cut the required length off the bottom of the Standpipe for the Gound Line to match up with Standpipe Gound Line mark.
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.

# INDICATOR POST WALL TYPE

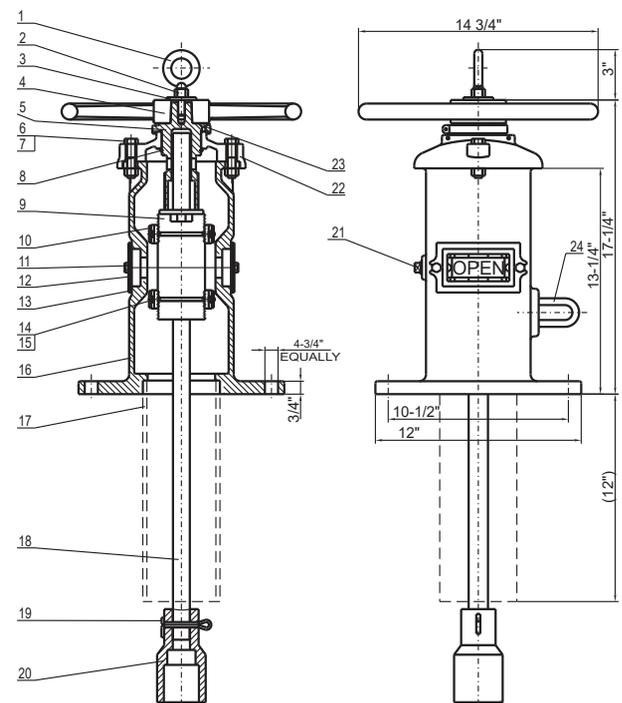
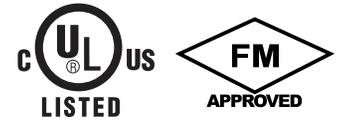
Fig No.: WPO999

## MATERIALS LIST

No.	QTY.	Name	Material
1	1	Lifting Eye Bolt	ASTM A105
2	1	Hex Nut	ASTM A105
3	1	Washer	ASTM A105
4	1	Hand Wheel	ASTM A536
5	1	Operating Nut	ASTM B62
6	2	Hex Cap Screw	ASTM A105
7	2	Hex Nut	ASTM A105
8	1	Snap Ring	AISI 066
9	1	Target Carrier Nut	ASTM B62
10	4	Target	ASTM B108
11	4	Hex Cap Screw	ASTM A105
12	2	Window Glass	LEXAN-UM
13	2	Window Glass Gasket	PTFE
14	4	Hex Cap Screw	ASTM A105
15	4	Hex Nut	ASTM A105
16	1	Body	ASTM A536
17	1	Stand Pipe	ASTM A53
18	1	Stem	AISI 1045
19	1	Cotter Pin	AISI 304
20	1	Crane Coupling	ASTM A536
21	1	Plug	AISI 304
22	1	Cover	ASTM A126B
		Cross Recessed	
23	1	Countersunk Head	AISI 304
		Screw	
24	1	Locking Nose	ASTM 307B

## FIELD ADJUSTMENT

1. Remove the top section from the top of the Indicator Post assembly.
2. Set the "OPEN" and "SHUT" targets for the appropriate valve size.
3. Reattach the Top Section to the top of the Indicator Post assembly.



## INSTALLATION

NOTE: Ensure that the Non-Rising Stem Gate Valve is in the fully open position before installing the Vertical Indicator Post.

### 1) Disassemble the Indicator Post

Take off the Locking Wrench (11). Slide off the Top Section (20) together with the Operating Nut (19) and the square Stem (9) as well as the Crane Coupling (3) and ensure that all other accessories attached from the end of the Body (10) by loosening two Hex Cap screws (24) and Square Nut (23), slide off the Body (10) from the Standpipe (8) by loosening two Hex Cap Screws and Hex Nut. Loosen the two Hex Cap Screws and Hex Nut. Slide off the Standpipe (8) from the Base Flange (5).

### 2) Install the Base Flange and Standpipe

Attach the Base Flange (5) together with the Standpipe to the Post Flange of the Non-Rising Stem Gate Valve using the four Cap Screws (1) and Hex Nut.

### 3) Adjust the Grade Line Mark

Pull in and lower the Body (10) over the Standpipe (8) until the Gound Line Mark on the Body (10) is the same height as ground level. Tighten the two Hex Cap Screws and Hex Nut.

### 4) Adjust the Square Stem

Lower the Stem (9) into Body (10) Standpipe (8) such that the Crane Coupling (13) fits over the Operating nut of the Non-Rising Stem Gate Valve. Ensure that the Stem (9) engages the Operating Nut (19) a minimum of 2 inches but no more than 4.5 inches. To check for correct engagement, the end of stem should be from 2 to 4.5 inches below the top of the Body (10).

### 5) Adjust the Targets

Remove the Target Carrier Assembly (12+13+14) from inside the Body (10) by rotating the Operating Nut (19) counterclockwise. The Open Target (16) and Shut Target (not shown) are adjusted up or down on the Target Carrier Assembly (12+13+14) by pulling the middle section of the Target (Open and Shut) a small distance away from the Target Carrier Assembly (12+13+14) and sliding the Target (Open and Shut) up or down as desired. If the Non-Rising Stem Gate Valve is opened left: move the two Open Targets (16) to the very top of the Target Carrier Assembly (12+13+14). Locate the two Shut Targets (not shown) according to the Non-Rising Stem Gate Valve size (stem) turning distance. If the Non-Rising Stem Gate Valve is opened right: move the two Shut Targets (not shown) to the very top of the Target Carrier Assembly (12+13+14).

Locate the two Open Targets (16) according to the Non-Rising Stem Gate Valve is opened right: move the two Shut Targets (not shown) to the very top of the Target Carrier Assembly (12+13+14).

### 6) Final Assembly and Test

Insert the Target Carrier Assembly (12+13+14) back into the Top Section (20) by rotating the Operating Nut (19) clockwise. Rotate until the Open Target (16) is centered in the window of the window of the Body (10) which corresponds with the Non-Rising Stem Gate Valve being in the open position. Lower the Top Section (20) with Target Carrier Assembly (12+13+14) onto the Body (10), assuring that the Stem (9) Engages with the Operating Nut (19) at least 2 inches but not more than 4.5 inches. Secure the Top Section (20) to the Body (10) by tightening the Cap Screw (24) and Square Nut (23). Close the Non-Rising Stem Gate Valve and make sure that the Shut Target (not shown) is properly centered in the window of the Body (10) and adjust as necessary.

## MAINTENANCE

Oil the baring in the Top Section (20) at least once per year by adding several drops of oil in the hole located on the top of the Operating Nut (19).

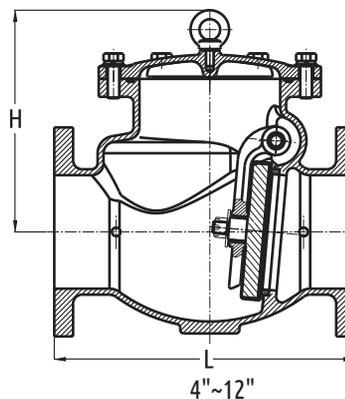
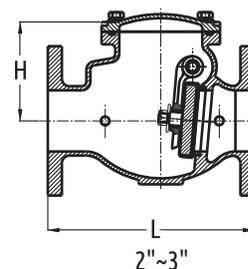
# HIGH RISER SWING CHECK VALVE RESILIENT SEATED FLANGED ENDS

## 300PSI

## Fig No.: 5201-LI-300-FLA

### FEATURES & SPECIFICATIONS

- Bolted bonnet
- Swing type
- Valve conforms to AWWA C508, clear waterway
- Fusion bonded epoxy coated RAL3002
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150 / EN1092-2 PN16 / BS10 Table D / Table E
- Working pressure : 300psi
- Working temperature : -10°C ... 110°C



### MATERIALS LIST

Name	Material
Body	Ductile Iron A536 65-45-12
Cover	Ductile Iron A536 65-45-12
Clapper	Ductile Iron A536 65-45-12 + EPDM
Clapper Arm	Ductile Iron A536 65-45-12
Hinge Pin	Stainless Steel AISI 304
Seat	Bronze ASTM B62 Stainless Steel AISI 304

### DIMENSIONS (inch/mm)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
L	8/203	10/254	11/279	13/330	14/356	16/406	19.5/495	22/559	26/660
H	4.60/117	5.04/128	5.21/132.5	8.76/222.5	11.42/290	11.69/297	14.37/365	16.34/417.5	17.83/453

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
N.W.	12.00	17.50	22.00	34.00	58.00	67.30	120.00	174.00	246.00
Crate Qty	30	20	20	12	8	6	6	2	2



### DESCRIPTION

5201-365-GGI is a non-return valve which permits water flow in one direction and prevents flow in reverse direction. This function is realized by a spring loaded EPDM sealed carbon steel clapper and a broadened bronze seat, to provide a long service time and leak-free sealing. It is widely used with various configurations in fire pump room, fire sprinkler systems, fire department connections, gravity pressure tank or by-pass connections etc.

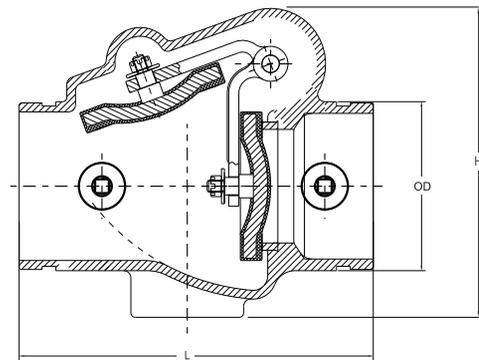
### FEATURES & SPECIFICATIONS

- Swing type
- Spring loaded EPDM sealed carbon steel clapper
- Fusion bonded epoxy coated RAL3002
- Grooved ends to suit ANSI / AWWA and BS Pipe size
- Working pressure : 365psi
- Working temperature : 0°C ... 80°C



### MATERIALS LIST

Part	Specification
Body	Ductile Iron ASTM A536 65-45-12
Seat	Bronze ASTM B62 C83600
Clapper	Carbon Steel WCB Q235 + EPDM
Clapper Arm	Stainless Steel AISI 304
Washer	Stainless Steel AISI 304
Hexagonal Slot Thin Nut	Stainless Steel AISI 304
Split Pin	Stainless Steel AISI 304



### DIMENSIONS (inch/mm)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300			
L	6.65/169	7.99/203	8.39/213	9.65/245	10.54/267	11.50/292	14.02/356	17.01/432	19.49/495			
H	5.69/144.65	6.02/153	6.71/170.5	7.89/200.5	9.33/237	10.75/273	12.91/328	15.24/387	17.66/448.5			
OD	2.37/60.3	2.87/73	3.0/76.1	3.5/88.9	4.5/114.3	5.5/139.7	5.56/141.3	6.5/165.1	6.63/168.3	8.63/219.1	10.75/273	12.75/323.9

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
N.W.	3.5	4.5	6	9.5	18	19.5	33	53	94
Crate Qty	100	100	95	50	32	32	6	6	2

# HIGHRISER SWING CHECK VALVE GROOVED ENDS

**365 PSI**

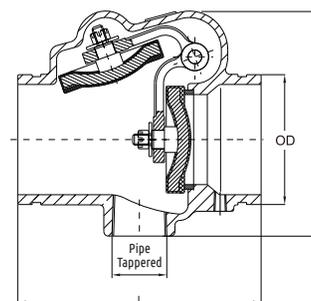
**Fig No.: 5201-365-GGP**

## DESCRIPTION

5201-365-GGP is a vertical installed non-return valve in a "Riser" arrangement. With trim unit, the check valve utilizes an electric flow switch and alarm bell instead of a water motor gong for fire notification. Valve body is the same as 5201-365-GGI, easy to adapt on job field.

## FEATURES & SPECIFICATIONS

- Swing type
- Spring loaded EPDM sealed carbon steel clapper
- Fusion bonded epoxy coated RAL3002
- Grooved ends to suit ANSI / AWWA and BS Pipe size
- Working pressure : 365psi
- Working temperature : 0°C ... 80°C



## MATERIALS LIST

Part	Specification
Body	Ductile Iron ASTM A536 65-45-12
Seat	Bronze ASTM B62 C83600
Clapper	Carbon Steel WCB Q235 + EPDM
Clapper Arm	Stainless Steel AISI 304
Washer	Stainless Steel AISI 304
Hexagonal Slot Thin Nut	Stainless Steel AISI 304
Split Pin	Stainless Steel AISI 304

## PIPE TAPERED THREAD SIZE TABLE

Nominal Size (inch/mm)	Pipe Tapered Standard Thread Size	Pipe Tapered Optional Thread Size
2/50	1"	0.25", 0.5", 0.75"
2.5/65	1.25"	0.25", 0.5", 0.75", 1"
3/80	1.25"	0.25", 0.5", 0.75", 1"
4/100	2"	0.25", 0.5", 0.75", 1", 1.25", 1.5"
5/125	2"	0.25", 0.5", 0.75", 1", 1.25", 1.5"
6/150	2"	0.25", 0.5", 0.75", 1", 1.25", 1.5"
8/200	2"	0.25", 0.5", 0.75", 1", 1.25", 1.5"
10/250	2"	0.25", 0.5", 0.75", 1", 1.25", 1.5"
12/300	2"	0.25", 0.5", 0.75", 1", 1.25", 1.5"

Note: Pipe tapered thread hole size has to be specified by ordering. If non-standard thread, please contact Fivalco or its local distributor.

## DIMENSIONS (inch/mm)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300			
L	6.65/169	7.99/203	8.39/213	9.65/245	10.54/267	11.50/292	14.02/356	17.01/432	19.49/495			
H	5.69/144.65	6.02/153	6.71/170.5	7.89/200.5	9.33/237	10.75/273	12.91/328	15.24/387	17.66/448.5			
OD	2.37/60.3	2.87/73	3.0/76.1	3.5/88.9	4.5/114.3	5.5/139.7	5.56/141.3	6.5/165.1	6.63/168.3	8.63/219.1	10.75/273	12.75/323.9

## NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
N.W.	3.5	4.5	6	9.5	18	19.5	33	53	94
Crate Qty	100	100	95	50	32	32	6	6	2

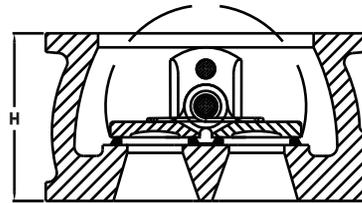
### FEATURES & SPECIFICATIONS

- Spring loaded double door
- Rubber seat for non-slam effect
- Fusion bonded epoxy coated RAL3002
- Valve conforms to API 594
- Wafer connection to ANSI Class 125 / ANSI Class 150 / EN 1092-2 PN16 / BS10 Table D / Table E
- Working pressure : 300psi
- Working temperature : -20°C ... 110°C



### MATERIALS LIST

Name	Material
Body	Ductile Iron A536 65-45-12
Disc	Stainless Steel A351 CF8
Stem	Stainless Steel AISI 416
Seat-Ring	EPDM
Spring	Stainless Steel AISI 304



Note : Lifting ring for DN200 and above

### DIMENSIONS (inch/mm)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
H	2.13/54	2.36/60	2.64/67	2.64/67	3.27/83	3.74/95	5/127	5.51/140	7.13/181

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
N.W.	1.80	2.90	4.80	5.40	8.10	12.00	19.20	33.20	52.90
Crate Qty	1296	686	539	396	250	168	84	54	28

# HIGHRISER BUTTERFLY VALVE WAFER TYPE

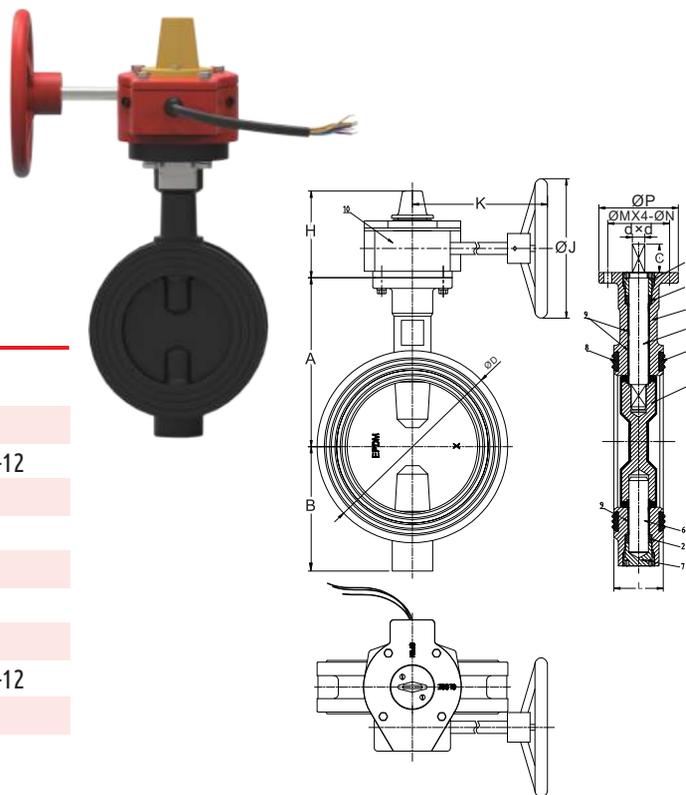
## 300PSI

## Fig No.: FPB-300W



### FEATURES & SPECIFICATIONS

- Valve conforms to MSS SP-67 / BS EN593: 2009
- Fusion bonded epoxy coated interior and exterior RAL3000
- Factory installed UL listed double tamper switches
- Valve approved for indoor and outdoor use
- Universal Wafer Type Butterfly Valve suitable for connecting to ANSI B16.1 Class 125, ISO 2084 / DIN 2501 PN16 & BS 4504 PN16 Flanges
- Working pressure : 300psi - Non Shock Coldwater  
Max. Test Pressure : 600psi
- Working temperature : -20°C ... 110°C



### MATERIALS LIST

Name	Material
Signal Gearbox	Ductile Iron ASTM A536 65-45-12
End Face Seal	EPDM
Lower Shaft Sealing Nut	WCB ASTM A216
Lower Shaft	Stainless Steel SS416
Disc	DI+EPDM
Upper Shaft	Stainless Steel SS416
Body	Ductile Iron ASTM A536 65-45-12
Shaft Seal	EPDM
Upper Shaft Sealing Nut	WCB ASTM A216

### DIMENSIONS (inch/mm)

Size	A	B	C	D	H	K	J	P	M	N	d	L
2"/50	110	85	32	100	111	218	152	90	70	9	10	42
2.5"/65	125	95	32	112	111	218	152	90	70	9	10	44.2
3"/80	140	100	32	120	111	218	152	90	70	9	11	45.3
4"/100	160	100	32	165	111	218	152	90	70	9	14	52
5"/125	170	125	32	182	111	218	152	90	70	9	14	54.4
6"/150	190	140	32	216	111	218	200	90	70	9	16	55.8
8"/200	230	175	32	260	126	232	290	125	102	12	19	60.5

### NET WEIGHT (kg) & CRATE QTY (pcs)

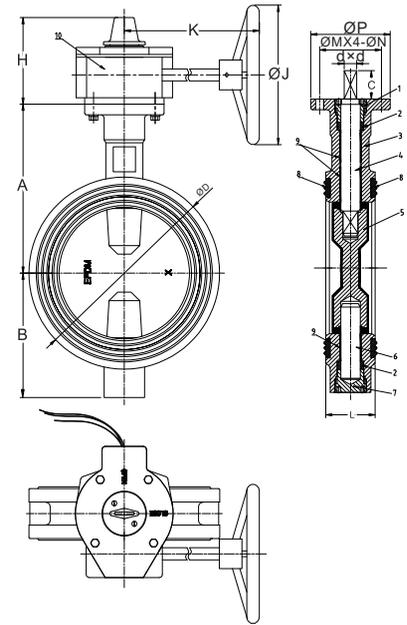
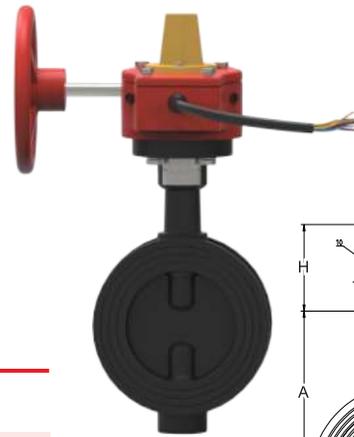
Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200
N.W.	8.40	8.70	8.80	10.80	12.00	14.60	26.70
Crate Qty	35	30	25	25	18	18	9

Note : FM approved for 2.5" - 8", UL listed for 2" - 8".



### FEATURES & SPECIFICATIONS

- Valve conforms to MSS SP-67 / BS EN593: 2009
- Fusion bonded epoxy coated interior and exterior RAL3000
- Factory installed UL listed double tamper switches
- Valve approved for indoor and outdoor use
- Universal Wafer Type Butterfly Valve suitable for connecting to ANSI B16.1 Class 125, ISO 2084 / DIN 2501 PN16 & BS 4504 PN16 Flanges
- Working pressure : 300psi - Non Shock Coldwater  
Max. Test Pressure : 600psi
- Working temperature : -20°C ... 110°C



### MATERIALS LIST

Name	Material
Signal Gearbox	Ductile Iron ASTM A536 65-45-12
End Face Seal	EPDM
Lower Shaft Sealing Nut	WCB ASTM A216
Lower Shaft	Stainless Steel SS416
Disc	DI+EPDM
Upper Shaft	Stainless Steel SS416
Body	Ductile Iron ASTM A536 65-45-12
Shaft Seal	EPDM
Upper Shaft Sealing Nut	WCB ASTM A216

### DIMENSIONS (mm)

Size	A	B	C	D	H	K	J	P	M	N	d	L
10"/250	260	200	45	320	126	232	290	125	102	12	22	66.5
12"/300	300	240	45	375	161	252	350	150	125	14	24	76.9

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	10"/250	12"/300
N.W.	33.70	62.10
Crate Qty	5	3

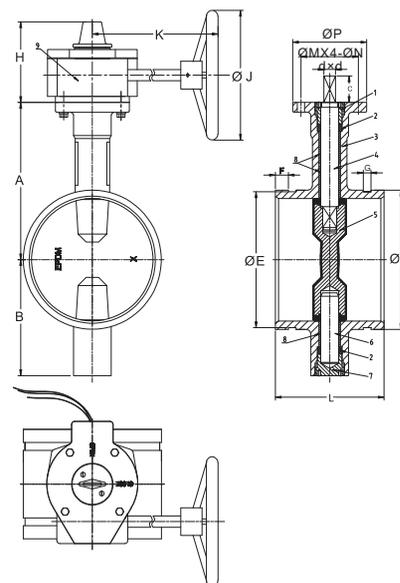
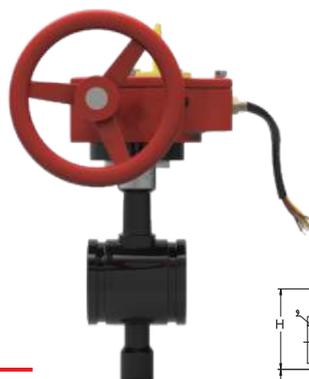
# HIGHRISE BUTTERFLY VALVE GROOVED ENDS

## 300PSI

## Fig No.: FPB-300G

### FEATURES & SPECIFICATIONS

- Valve conforms to MSS SP-67 / BS EN593: 2009
- Fusion bonded epoxy coated interior and exterior RAL3000
- Factory installed UL listed double tamper switches
- Valve approved for indoor and outdoor use
- Grooved ends to suit BS or ANSI pipe size
- Working pressure : 300psi - Non Shock Coldwater  
Max. Test Pressure : 600psi / FM Standard 1112
- Working temperature : -20°C ... 110°C



### MATERIALS LIST

Name	Material
Signal Gearbox	Ductile Iron ASTM A536 65-45-12
Lower Shaft Sealing Nut	WCB ASTM A216
Lower Shaft	Stainless Steel SS416
Disc	DI+EPDM
Upper Shaft	Stainless Steel SS416
Body	Ductile Iron ASTM A536 65-45-12
Shaft Seal	EPDM
Upper Shaft Sealing Nut	WCB ASTM A216

### DIMENSIONS (mm)

Size	A	B	C	D	E	F	G	H	K	J	P	M	N	d	L
2"/50	110	85	32	60.3	57	15.9	7.9	111	218	152	90	70	9	10	88
2.5"/65	120	95	32	73/76.1	72.1	15.9	7.9	111	218	152	90	70	9	10	96.4
3"/80	140	100	32	88.9	84.9	15.9	7.9	111	218	152	90	70	9	11	97
4"/100	160	100	32	114.3	110.1	15.9	9.5	111	218	152	90	70	9	14	115.1
5"/125	170	125	32	141.3/139.7	137	15.9	9.5	111	218	152	90	70	9	14	132.4
6"/150	190	140	32	168.3/165.1	164	15.9	9.5	111	218	200	90	70	9	16	132.4
8"/200	230	175	32	219.1	214.6	19	11.1	126	232	290	125	102	12	19	147.4

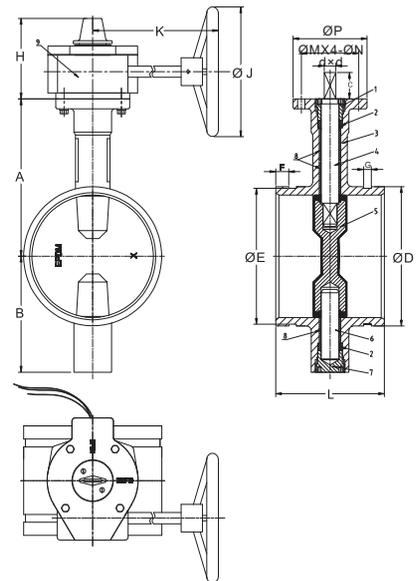
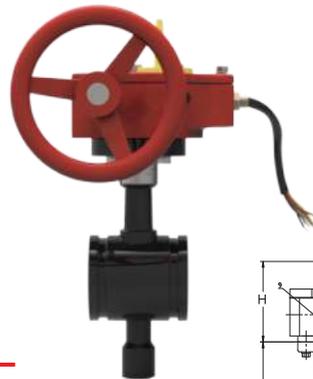
### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200
N.W.	8.20	8.40	9.10	10.10	13.80	14.70	28.70
Crate Qty	35	30	25	25	18	16	8

Note : FM approved for 2.5" - 8", UL listed for 2" - 8".

### FEATURES & SPECIFICATIONS

- Valve conforms to MSS SP-67 / BS EN593: 2009
- Fusion bonded epoxy coated interior and exterior RAL3000
- Factory installed UL listed double tamper switches
- Valve approved for indoor and outdoor use
- Grooved ends to suit BS or ANSI pipe size
- Working pressure : 300psi - Non Shock Coldwater  
Max. Test Pressure : 600psi / FM Standard 1112
- Working temperature : -20°C ... 110°C



### MATERIALS LIST

Name	Material
Signal Gearbox	Ductile Iron ASTM A536 65-45-12
Lower Shaft Sealing Nut	WCB ASTM A216
Lower Shaft	Stainless Steel SS416
Disc	DI+EPDM
Upper Shaft	Stainless Steel SS416
Body	Ductile Iron ASTM A536 65-45-12
Shaft Seal	EPDM
Upper Shaft Sealing Nut	WCB ASTM A216

### DIMENSIONS (mm)

Size	A	B	C	D	E	F	G	H	K	J	P	M	N	d	L
10"/250	260	200	45	273	268.3	19	12.7	126	232	290	125	102	12	22	159
12"/300	300	240	45	324	318.3	19	12.7	161	252	350	150	125	14	24	165

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	10"/250	12"/300
N.W.	37.40	72.70
Crate Qty	5	3

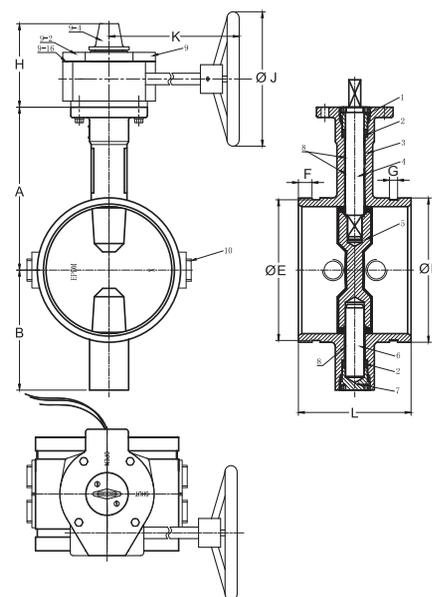
# HIGHRISE BUTTERFLY VALVE GROOVED ENDS TAPPED

## 300PSI

## Fig No.: FPB-300GT

### FEATURES & SPECIFICATIONS

- Valve conforms to MSS SP-67 / BS EN593: 2009
- Fusion bonded epoxy coated interior and exterior RAL3000
- Factory installed UL listed double tamper switches
- Valve approved for indoor and outdoor use
- Grooved ends to suit BS or ANSI pipe size
- Working pressure : 300psi - Non Shock Coldwater  
Max. Test Pressure : 600psi / FM Standard 1112
- Working temperature : -20°C ... 110°C



### MATERIALS LIST

Name	Material
Signal Gearbox	Ductile Iron ASTM A536 65-45-12
Lower Shaft Sealing Nut	WCB ASTM A216
Lower Shaft	Stainless Steel SS416
Disc	DI+EPDM
Upper Shaft	Stainless Steel SS416
Body	Ductile Iron ASTM A536 65-45-12
Shaft Seal	EPDM
Upper Shaft Sealing Nut	WCB ASTM A216
Plug	C95400 ASTM B148

### DIMENSIONS (mm)

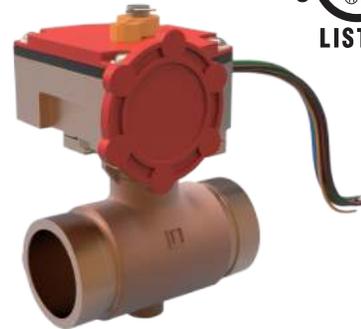
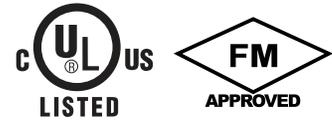
Size	A	B	C	D	E	F	G	H	K	J	L
2.5"/65	125	95	32	73/76.1	69.1/72.1	15.9	7.9	111	153	152	152.4
3"/80	140	100	32	88.9	84.9	15.9	7.9	111	153	152	158.8
4"/100	160	100	32	114.3	110.1	15.9	9.5	111	153	152	168.4
6"/150	190	140	32	168.3/165.1	164/160.7	15.9	9.5	111	153	200	177.8
8"/200	230	175	32	219.4/216.3	214.6/211.6	19	11.1	126	230	290	203

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2.5"/65	3"/80	4"/100	6"/150	8"/200
N.W.	9.30	10.20	11.50	17.00	32.90
Crate Qty	25	20	20	14	6

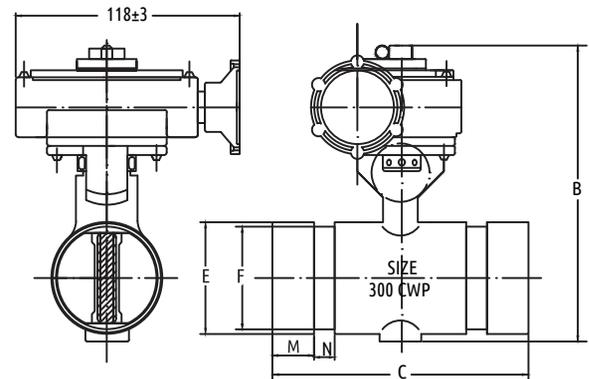
### FEATURES & SPECIFICATIONS

- Factory installed UL listed double tamper switches
- Valve approved for indoor and outdoor use
- Grooved ends to suit BS or ANSI pipe size
- Working pressure : 300psi  
Max. Test Pressure : 600psi
- Max. working temperature : 250°F (120°C)



### MATERIALS LIST

Name	Material
Body	Bronze C836000
Disc	Stainless Steel AISI304
Handwheel	WCB
Seat	Viton
Indicator	Powder Metal
Housing	Forged Brass



### DIMENSIONS (mm)

Size	1.25"/32	1.5"/40	2"/50	2.5"/65
<b>B</b>	138.9	145.9	159	175.5
<b>C</b>	98	102	104	114
<b>ØE</b>	42.4	48.3	60.3	73
<b>ØF</b>	38.99	45.09	57.15	69.09
<b>M</b>	15.88	15.88	15.88	15.88
<b>N</b>	7.95	7.95	7.95	7.95

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	1.25"/32	1.5"/40	2"/50	2.5"/65
<b>N.W.</b>	1.80	1.87	2.17	2.80
<b>Crate Qty</b>	6	6	6	6

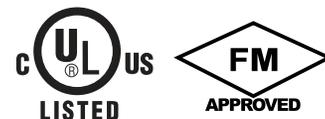
# FIREFLY BRONZE BUTTERFLY VALVE THREADED ENDS

## 300PSI

## Fig No.: BBT-300

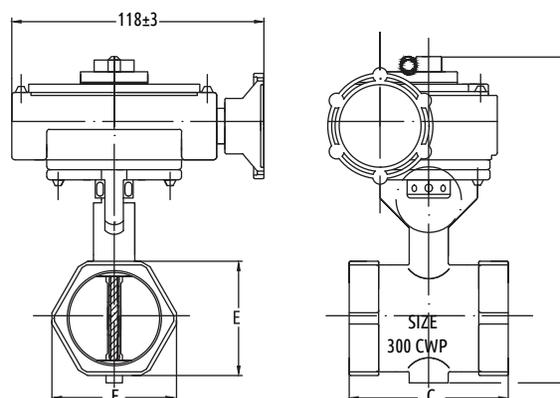
### FEATURES & SPECIFICATIONS

- Factory installed UL listed double tamper switches
- Valve approved for indoor and outdoor use
- Threaded : NPT or BSPT
- Working pressure : 300psi  
Max. Test Pressure : 600psi
- Max. working temperature : 250°F (120°C)



### MATERIALS LIST

Name	Material
Body	Bronze C836000
Disc	Stainless Steel AISI304
Handwheel	WCB
Seat	Viton
Indicator	Powder Metal
Housing	Forged Brass



### DIMENSIONS (mm)

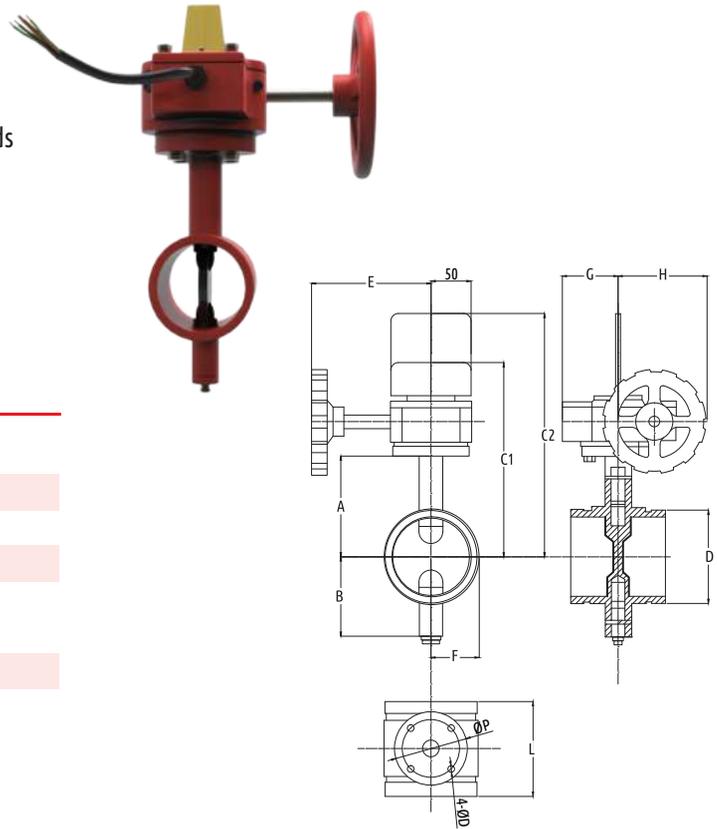
Size	1"/25	1.25"/32	1.5"/40	2"/50	2.5"/65
<b>B</b>	129	137.9	145.9	159.8	175.5
<b>C</b>	54	66.7	73	82.6	114
<b>E</b>	39.7	49.2	55.6	70	86.5
<b>F</b>	44.5	55	60.3	79	96

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	1"/25	1.25"/32	1.5"/40	2"/50	2.5"/65
<b>N.W.</b>	1.55	1.71	1.83	2.35	3.38
<b>Crate Qty</b>	6	6	6	6	6

### FEATURES & SPECIFICATIONS

- Valve complies with EN593 / BS5155 / MSS SP-67
- Top flange complies with ISO5211/1
- End-to-end dimensions according to MSS SP-67-2002
- Grooved dimensions comply with Metric or ANSI pipe standards
- Gear operator with two internal CE approved switches
- Working pressure : 300psi
- Working temperature : -10°C ... 100°C for EPDM coated disc  
Working temperature : -10°C ... 82°C for NBR coated disc



### MATERIALS LIST

Name	Material	EN Spec.
Body	Ductile Iron	EN-JS1050
Shaft	Stainless Steel	BS970 420S37
Disc	EPDM Coated DI NBR Coated DI	EN-JS1050 EN-JS1050
Bushing	PTFE	Commercial
O-Ring	EPDM/NBR	Commercial

### DIMENSIONS (mm)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>A</b>	100.5	107	114.5	135	148.5	169	198	228.5	266
<b>B</b>	62	73/75	81	97	114	129	159	191	222
<b>C1</b>	201.5	208	215.5	236	249.5	270	299	329.5	367
<b>C2</b>	261.5	268	275.5	296	309.5	330	359	389.5	427
<b>Pipe OD</b>	60.3	73/76.1	88.9	114.3	141.3/139.7	168.3/165.1	219.1	273	323.9
<b>E</b>	147	147	147	147	147	147	47	197	197
<b>F</b>	50	50	50	59	72	85.5	112	138	164
<b>G</b>	71.5	71.5	71.5	71.5	71.5	71.5	71.5	75	75
<b>H</b>	109	109	109	109	109	145	145	166	166
<b>L</b>	81	96	96	116	147.6	148	135	159	165
<b>P</b>	70	70	70	70	70	70	70	102	102

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	6.50	7.00	7.50	7.50	14.00	16.00	20.00	32.00	48.00
<b>Crate Qty</b>	100	100	80	80	42	42	30	14	14

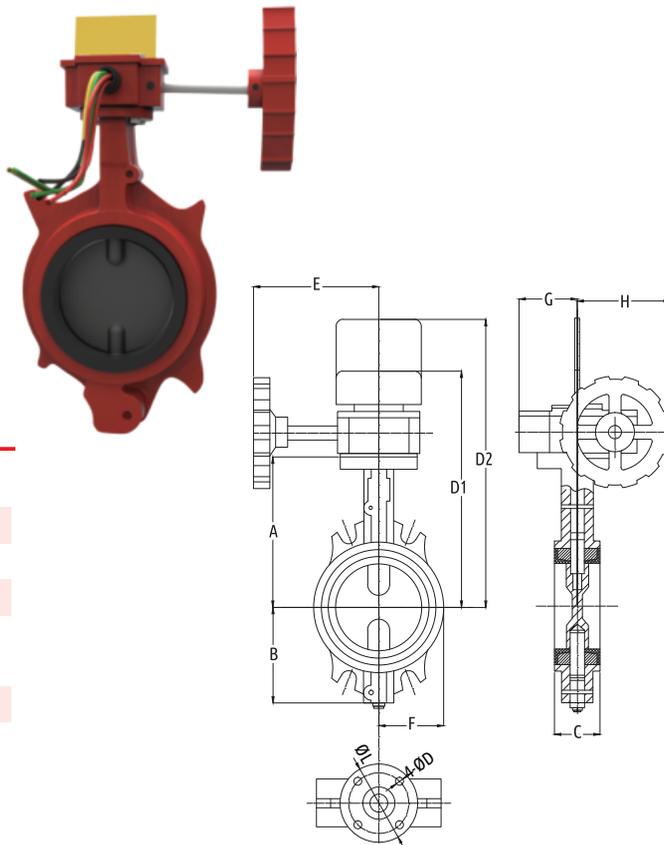
# BS BUTTERFLY VALVE WAFER TYPE

## 300PSI

## Fig No.: 1353

### FEATURES & SPECIFICATIONS

- Valve complies with EN593 / BS5155 / MSS SP-67
- Top flange complies with ISO5211/1
- End-to-end dimensions according to MSS SP-67-2002
- Flange drilled to BS EN 1092-2 PN16 / ANSI B16.1 Class125
- Gear operator with two internal CE approved switches
- Working pressure : 300psi
- Working temperature : -10°C ... 100°C for EPDM coated disc  
Working temperature : -10°C ... 82°C for NBR coated disc



### MATERIALS LIST

Name	Material	EN Spec.
Body	Ductile Iron	EN-JS1050
Shaft	Stainless Steel	BS970 420S37
Disc	EPDM Coated DI NBR Coated DI	EN-JS1050 EN-JS1050
Bushing	PTFE	Commercial
O-Ring	EPDM/NBR	Commercial

### DIMENSIONS (mm)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>A</b>	132.5	145	154.5	179	191.5	213.5	250.5	282.5	325.5
<b>B</b>	78	85	93	112	130	146	175	210	247
<b>C</b>	43	46	46	52	56	56	60	68	78
<b>D1</b>	233.5	246	255.5	280	292.5	314.5	351.5	383.5	426.5
<b>D2</b>	293.5	306	315.5	340	352.5	374.5	411.5	443.5	486.5
<b>E</b>	147	147	147	147	147	147	147	197	197
<b>F</b>	53	63	74	77.5	93	107	134	162	185
<b>G</b>	71.5	71.5	71.5	71.5	71.5	71.5	71.5	75	75
<b>H</b>	109	109	109	109	109	145	145	166	166
<b>L</b>	70	70	70	70	70	70	70	102	102
<b>4-ØD</b>	6	6	6	6	6	8	8	10	10

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	7.00	7.30	8.30	11.00	12.50	14.00	22.00	29.00	36.00
<b>Crate Qty</b>	100	100	80	80	50	50	24	20	20

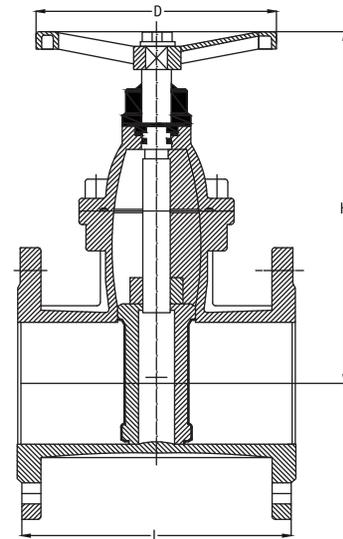
### FEATURES & SPECIFICATIONS

- Valve complies with BS5163 Type A
- Fusion bonded epoxy coated RAL3000 with open shut indicator
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150
- Handwheel operator
- Working pressure :  
DN50 - DN300 : 300psi  
DN350 - DN600 : 235psi
- Working temperature : -10°C ... 120°C



### MATERIALS LIST

Name	Material
Body	Ductile Iron ASTM A536 65-45-12
Wedge Disc	EPDM NBR
Stem Nut	Brass
Stem	SS420
Bonnet	Ductile Iron ASTM A536 65-45-12
Gland	Ductile Iron ASTM A536 65-45-12
Dust Cap	EPDM NBR
Indicator	SS304
Indicator Plate	SS304
Handwheel	Ductile Iron ASTM A536 65-45-12
O-Ring	EPDM NBR
O-Ring(Cover)	EPDM NBR
Gland Ring	EPDM NBR
Spacer	PTFE
O-Ring	EPDM NBR



### DIMENSIONS (inch/mm)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300	14"/350	16"/400	18"/450	20"/500	24"/600
<b>L</b>	7.00/178	7.48/190	8.00/203	9.00/229	10.00/254	10.50/267	11.50/292	13.00/330	14.00/358	13.78/381	15.98/406	17.00/432	17.99/457	20.00/508
<b>H</b>	8.27/210	9.33/237	9.72/247	11.81/300	14.33/364	15.90/404	19.57/497	23.23/590	26.26/667	34.72/882	37.64/956	40.43/1027	43.54/1106	49.53/1258
<b>D</b>	6.30/160	7.87/200	7.87/200	7.87/200	9.84/250	9.84/250	12.60/320	14.57/370	14.57/370	17.72/450	17.72/450	25.20/640	24.20/640	25.20/640

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300	14"/350	16"/400	18"/450	20"/500	24"/600
<b>N.W.</b>	26.00	27.00	30.00	39.00	48.00	56.00	90.00	130.00	182.00	232.00	308.00	446.00	616.00	848.00
<b>Crate Qty</b>	9	9	9	9	9	9	9	4	2	1	1	1	1	1

# HIGHRISER Y STRAINER FLANGED ENDS

## 300PSI

## Fig No.: YS-300-FF

### FEATURES & SPECIFICATIONS

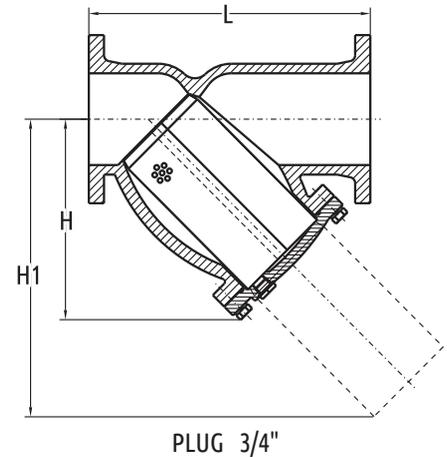
- Fusion bonded epoxy coated RAL3002
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150 / EN1092-2 PN16 / BS10 Table D / Table E
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C



### MATERIALS LIST

Name	Material
Body	Ductile Iron A536 65-45-12
Cover	Ductile Iron A536 65-45-12
Screen	Stainless Steel AISI 304
Gasket	EPDM
Plug	Carbon Steel

Size In/mm	Measured Loss at 15 fps (4.6m/s)
2"/50	7.22 psi
2.5"/65	5.89 psi
3"/80	8.24 psi
4"/100	5.88 psi
5"/125	7.63 psi
6"/150	4.82 psi
8"/200	5.83 psi
10"/250	7.25 psi
12"/300	5.73 psi



### DIMENSIONS (inch/mm)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>L</b>	7.99/203	10.00/254	10.24/260	12.13/308	15.67/398	18.58/472	21.65/550	25.75/654	30.00/762
<b>H</b>	5.20/132	6.22/158	6.89/175	7.99/202	11.42/290	13.15/334	15.39/391	18.11/460	23.23/590
<b>H1</b>	7.68/195	9.45/240	10.63/270	12.60/320	16.73/425	19.49/495	22.44/570	27.56/700	33.07/840

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	7.55	13.05	17.00	26.00	32.00	55.60	93.60	132.00	206.00
<b>Crate Qty</b>	90	50	40	32	16	12	6	2	2

### FEATURES & SPECIFICATIONS

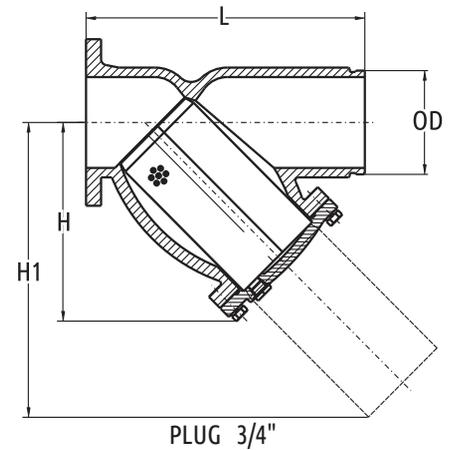
- Fusion bonded epoxy coated RAL3002
- Flange drilled to ANSI B16.1 Class 125 / ANSI B16.5 Class 150 / EN1092-2 PN16 / BS10 Table D / Table E / AWWA C606
- Grooved ends to suit ANSI or BS standard pipe
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C



### MATERIALS LIST

Name	Material
Body	Ductile Iron A536 65-45-12
Cover	Ductile Iron A536 65-45-12
Screen	Stainless Steel AISI 304
Gasket	EPDM
Plug	Carbon Steel

Size In/mm	Measured Loss at 15 fps (4.6m/s)
2"/50	7.22 psi
2.5"/65	5.89 psi
3"/80	8.24 psi
4"/100	5.88 psi
5"/125	7.63 psi
6"/150	4.82 psi
8"/200	5.83 psi
10"/250	7.25 psi
12"/300	5.73 psi



### DIMENSIONS (inch/mm)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>L</b>	7.99/203	10.00/254	10.24/260	12.13/308	15.67/398	18.58/472	21.65/550	25.75/654	30.00/762
<b>H</b>	5.20/130	6.22/158	6.69/175	7.95/202	11.42/290	13.15/334	15.39/391	18.11/460	23.23/590
<b>H1</b>	7.68/195	9.45/240	10.63/270	12.60/320	16.73/425	19.49/495	22.44/570	27.56/700	33.07/840
<b>OD</b>	2.37/60.3	2.87/73.0	3/76.1	3.50/88.9	4.50/114.3	5.56/141.3	6.5/165.1	8.63/219.1	10.75/273

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	7.55	13.05	17.00	26.00	32.00	55.60	93.60	132.00	206.00
<b>Crate Qty</b>	90	50	40	32	16	12	6	2	2

# HIGHRISER Y STRAINER GROOVED ENDS

## 300PSI

## Fig No.: YS-300-GG

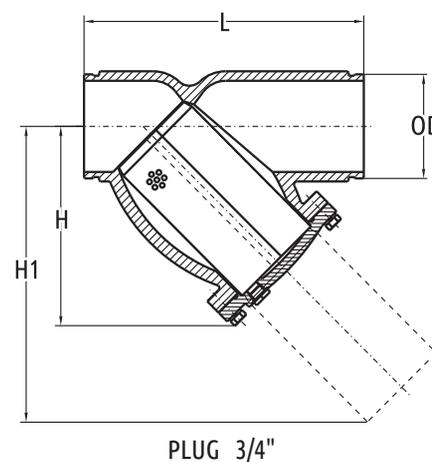
### FEATURES & SPECIFICATIONS

- Fusion bonded epoxy coated RAL3002
- Grooved ends to suit ANSI or BS standard pipe
- Working pressure : 300psi
- Working temperature : -10°C ... 120°C



### MATERIALS LIST

Name	Material
Body	Ductile Iron A536 65-45-12
Cover	Ductile Iron A536 65-45-12
Screen	Stainless Steel AISI 304
Gasket	EPDM
Plug	Carbon Steel



Size In/mm	Measured Loss at 15 fps (4.6m/s)
2"/50	7.22 psi
2.5"/65	5.89 psi
3"/80	8.24 psi
4"/100	5.88 psi
5"/125	7.63 psi
6"/150	4.82 psi
8"/200	5.83 psi
10"/250	7.25 psi
12"/300	5.73 psi

### DIMENSIONS (inch/mm)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300			
<b>L</b>	7.99/203	10.00/254	10.24/260	12.13/308	15.67/398	18.58/472	21.65/550	25.75/654	30.00/762			
<b>H</b>	5.20/130	6.22/158	6.69/175	7.95/202	11.42/290	13.15/334	15.39/391	18.11/460	23.23/590			
<b>H1</b>	7.68/195	9.45/240	10.63/270	12.60/320	16.73/425	19.49/495	22.44/570	27.56/700	33.07/840			
<b>OD</b>	2.37/60.3	2.87/73.0	3/76.1	3.50/88.9	4.50/114.3	5.56/141.3	5.5/139.7	6.63/168.3	6.5/165.1	8.63/219.1	10.75/273	12.75/323.9

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	2"/50	2.5"/65	3"/80	4"/100	5"/125	6"/150	8"/200	10"/250	12"/300
<b>N.W.</b>	7.55	13.05	17.00	26.00	32.00	55.60	93.60	132.00	206.00
<b>Crate Qty</b>	90	50	40	32	16	12	6	2	2

### FEATURES & SPECIFICATIONS

- Threaded ends : NPT or BSPT
- Working pressure : 200psi
- Working temperature : -10°C ... 120°C



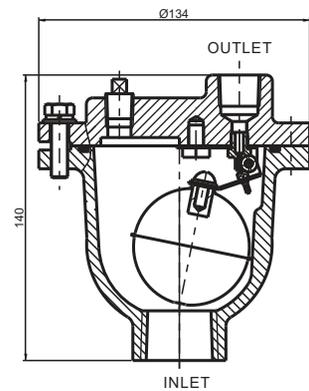
### MATERIALS LIST

Name	Material
Body	Ductile Iron A536 65-45-12
Cover	Ductile Iron A536 65-45-12
Level	Stainless Steel AISI 304
Seat Ring	Stainless Steel
Float	Stainless Steel AISI 304
Float Arm	Stainless Steel AISI 304
Orifice Button	Viton



### DIMENSIONS (inch/mm)

Size	Female Threaded
1/2"/15	1/2" BSPT or NPT
3/4"/20	3/4" BSPT or NPT
1"/25	1" BSPT or NPT



### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	N.W	Crate Qty
1/2" - 1"	2.9	300

# FIRERISER DRY BARREL FIRE HYDRANT

**250PSI**

Fig No.: DBH2013-114(Flanged) / DBH2012-114(MJ)



## FEATURES

- Valve complies with AWWA C502
- Working pressure : 250psi
- Working temperature : 0.6°C ... 52°C

## CONSTRUCTION

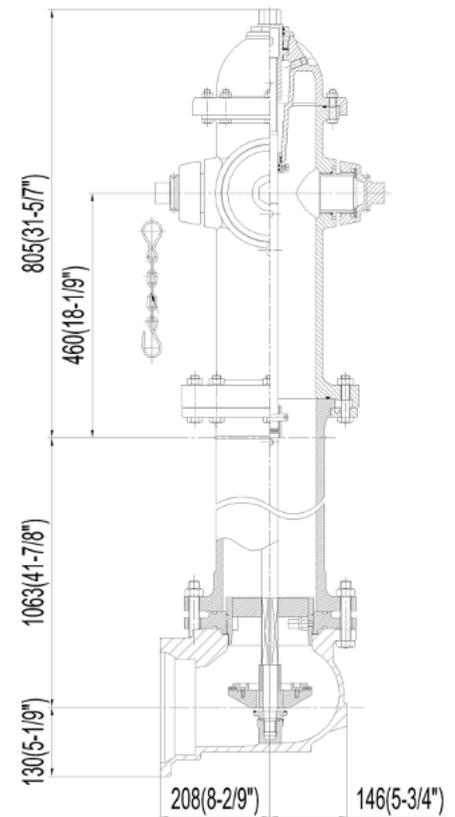
- Seating type is resilient material to bronze seal construction
- One pumper nozzle, 4.5-4NH threaded. Two hose nozzles, 2.5-7.5NH thread, other size threads are available
- 6" mechanical joint designed to ANSI / AWWA C153 / A21.53 / Flanged to ANSI B16.1 Class125 / ANSI B16.5 Class150 / EN 1092-2 PN16

## MATERIALS LIST

Name	Material
Operating Nut	Bronze ASTM B62
Hold Down Nut	Bronze ASTM B62
O-Ring	NBR
Bonnet	Ductile Iron A536-65-45-12
Bonnet Bolt & Nut	Stainless Steel AISI 201
Upper Rod	Carbon Steel AISI 1045
Pumper Nozzle	Bronze ASTM B62
Pumper Nozzle Gasket	NBR
Hose Nozzle	Bronze ASTM B62
Hose Nozzle Gasket	NBR
Pumper Nozzle Cap	Ductile Iron A536-65-45-12
Hose Nozzle Cap	Ductile Iron A536-65-45-12
Cap Chain	Carbon Steel Plated
Standpipe Upper	Ductile Iron A536-65-45-12
Safety Coupling	Stainless Steel A890
Safety Flange Bolt & Nut	Stainless Steel AISI 201
Safety Flange	Ductile Iron A536-65-45-12
Lower Rod	Carbon Steel AISI 1045
Standpipe Lower	Ductile Iron A536-65-45-12
Stem Pin	Stainless Steel A276
Drain Ring Housing	Ductile Iron A536-65-45-12
Drain Ring	Bronze ASTM B62
Seat Ring	Bronze ASTM B62
Bottom Plate	Ductile Iron A536-65-45-12
Disc Ring	NBR
Bottom Plate Nut	Ductile Iron A536-65-45-12
Elbow	Ductile Iron A536-65-45-12

## BURY DEPTH

Bury Depths	3'-0"	3'-6"	4'-0"	4'-6"	5'-0"	5'-6"	6'-0"
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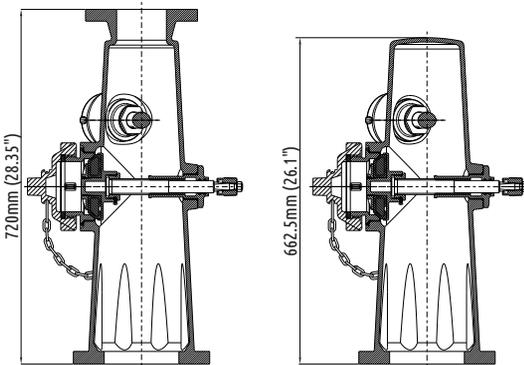


### FEATURES

- Complies with AWWA C503
- Working pressure : 250psi
- Working temperature : -10°C ... 120°C

### CONSTRUCTION

- One pumper nozzle 4.5-4NH threaded or 4-4NH threaded, two hose nozzles 2.5-7.5NH threaded
- The quantities for pumper nozzle and hose nozzles can be chosen
- Flange drilled to ANSI B16.1 Class 125 / EN1092-2 PN16
- Available in Monitor Flange Style



### MATERIALS LIST

Name	Material
Hydrant Body	A536 65-45-12
Pumper Connection	
Chain	Carbon Steel + Zn
O-Ring	EPDM
Pumper Nozzle Cap	A536 65-45-12
Pumper Nozzle	C84400
Pumper Nozzle Gasket	EPDM
4.5" Gland	A351 CF8
Inner Six Angle Flat End Set Screw	A2
4.5" Disc Sealing Ring	EPDM
4.5" Disc	A351 CF8
Shaft	AISI 304/420
Fasten Nut	AISI 304
Inner Six Angle Cylindrical Head Screw	A2-70
4.5" Shaft Nut	C84400
O-Ring	EPDM
Operating Nut	A351 CF8
Hexagon Nut	A2-70
Hexagon Headed Bolt	AISI 304
Flat Washer	AISI 304
Hexagon Nut	AISI 304
Inner Six Angle Set Screw	Carbon Steel + Zn
Hose Connection	
O-Ring	EPDM
Hose Nozzle Cap	A536 65-45-12
Hose Nozzle	C84400
Hose Nozzle Gasket	EPDM
2.5" Gland	A351 CF8
2.5" Disc Sealing Ring	EPDM
2.5" Disc	A351 CF8
Shaft Stem Nut	C84400
Inner Six Angle Set Screw	Carbon Steel + Zn

### MODEL OPTIONS

Model No.	Hose Nozzle	Pumper Nozzle	Monitor Flange	Lower Flange
FV-WBH-2H0P	2½" *2	--	--	6"
FV-WBH-2H0PM	2½" *2	--	4"	6"
FV-WBH-1H1P	2½" *1	4" or 4½" Pumper Connection *1	--	6"
FV-WBH-1H1PM	2½" *1	4" or 4½" Pumper Connection *1	4"	6"
FV-WBH-2H1P	2½" *2	4" or 4½" Pumper Connection *1	--	6"
FV-WBH-2H1PM	2½" *2	4" or 4½" Pumper Connection *1	4"	6"

*Saving lives and properties*



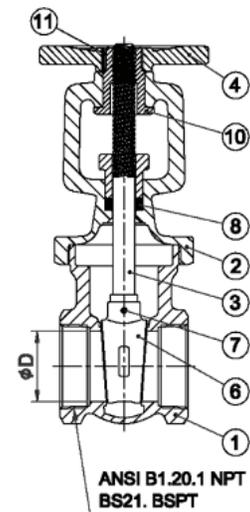
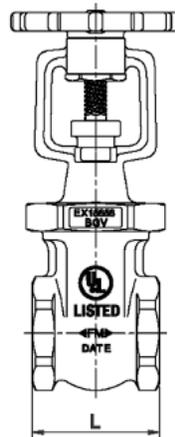
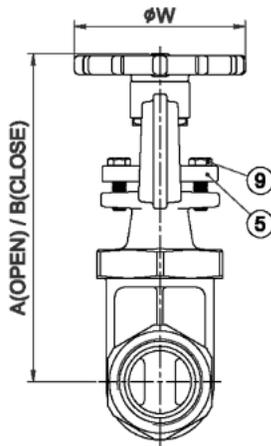
### FEATURES & SPECIFICATIONS

- Threaded ends : NPT or BSPT
- Working pressure : 175psi



### MATERIALS LIST

No.	Name	Material
1	Body	Bronze ASTM C83600
2	Bonnet	Bronze ASTM C83600
3	Stem	Brass
4	Handwheel	Cast Iron
5	Packing Gland	Bronze ASTM C83600
6	Disc	Bronze ASTM C83600
7	Disc Pin	SS304
8	Gland Packing	Graphite
9	Stud	Steel
10	Yoke Bushing	Brass
11	Set Screw	Steel



### DIMENSIONS (mm)

Size	A±3	B±3	L±0.5	D	W±3
0.75"/20	173	145.5	59	20	80
1"/25	196.5	163	69	25	80
1.25"/32	220.5	181.5	75	32	80
1.5"/40	243	197	82	37.5	100
2"/50	282	227	90.5	50	120

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	N.W.	Crate Qty
0.75"/20	1.40	18
1"/25	1.80	16
1.25"/32	2.48	12
1.5"/40	3.24	8
2"/50	4.73	6

# FIREFLY BRONZE ANGLE VALVE THREADED ENDS

## 300PSI

## Fig No.: BAV

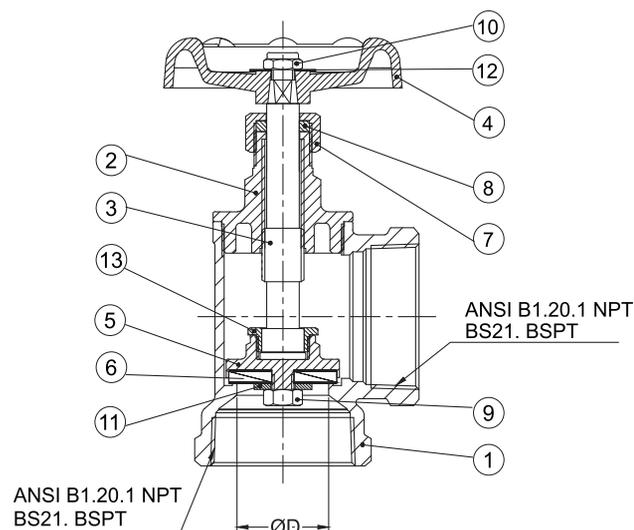
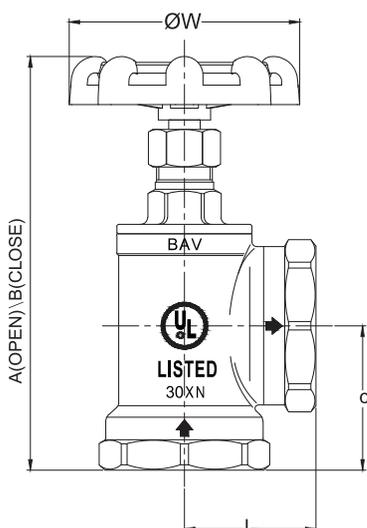
### FEATURES & SPECIFICATIONS

- Threaded ends : NPT or BSPT
- Working pressure : 300psi



### MATERIALS LIST

No.	Name	Material
1	Body	Bronze ASTM C84400
2	Bonnet	Forged Brass
3	Stem	Brass
4	Handwheel	Cast Iron
5	Disc Holder	Forged Brass
6	Seat	BUNA-N
7	Packing Nut	Brass
8	Gland Packing	PTFE
9	Lock Nut	Brass
10	Wheel Nut	Steel
11	Washer	Brass
12	Name Plate	Aluminum
13	Disc Nut	Brass



### DIMENSIONS (mm)

Size	A	B	C	ØD	L	ØW
2"/50	184.5	168.5	58.8	38	46	99

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	N.W.	Crate Qty
2"/50	1.82	12

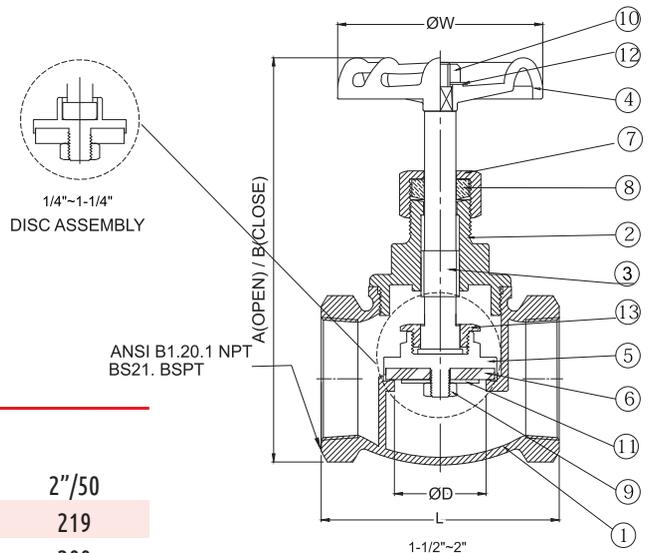


### FEATURES & SPECIFICATIONS

- Threaded ends : NPT or BSPT
- Working pressure : 175psi

### MATERIALS LIST

No.	Name	Material
1	Body	Bronze C84400
2	Bonnet	Brass C37700(1/4"~3/4") Bronze C84400(1"~2")
3	Stem	Brass
4	Handwheel	Cast Iron
5	Disc Holder	Brass(1/4"~1 1/4") Forged Brass(1 1/2"~2")
6	Seat	BUNA-N
7	Packing Nut	Brass
8	Gland Packing	PTFE
9	Lock Nut	Brass
10	Wheel Nut	Steel
11	Washer(1 1/2"~2")	Brass
12	Name Plate	Aluminum
13	Disc Nut(1 1/2"~2")	Brass



### DIMENSIONS (mm)

Size	0.5"/15	0.75"/20	1"/25	1.25"/32	1.5"/40	2"/50
<b>A</b>	99	103	130	166	181	219
<b>B</b>	90.5	98	119	151.5	165	200
<b>L</b>	54.7	60.5	77	91.8	101.5	116.5
<b>ØW</b>	58	58	74	78.5	78.5	99
<b>ØD</b>	13.5	16.5	23	28	34	45

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	0.5"/15	0.75"/20	1"/25	1.25"/32	1.5"/40	2"/50
<b>N.W.</b>	0.32	0.41	0.82	1.19	1.50	2.30
<b>Crate Qty</b>	80	60	30	24	18	12

# FIREFLY BRONZE 3 WAY GLOBE VALVE THREADED ENDS

**175PSI**

**Fig No.: BGL**

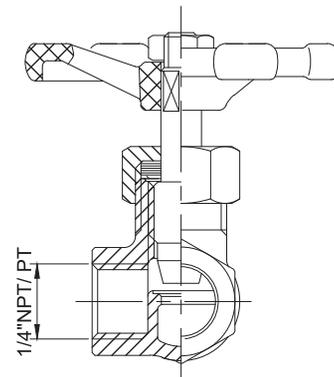
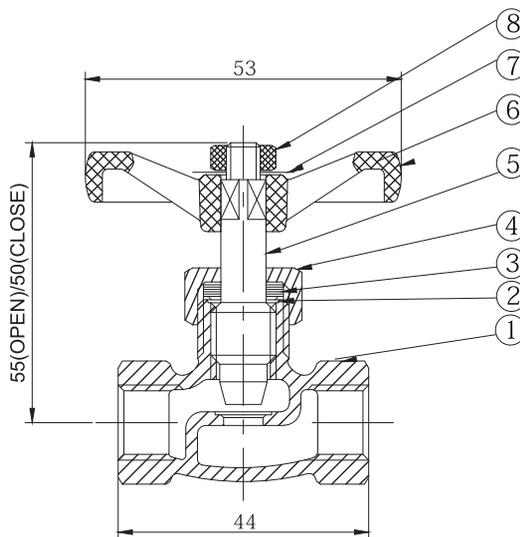
## FEATURES & SPECIFICATIONS

- Threaded ends : NPT or BSPT
- Working pressure : 175psi



## MATERIALS LIST

No.	Name	Material
1	Body	Bronze C84400
2	Washer	Steel
3	Packing	PTFE
4	Packing Nut	Brass
5	Stem	Brass
6	Handwheel	Cast Iron
7	Name Plate	Aluminum
8	Nut	Steel



## NET WEIGHT (kg) & CRATE QTY (pcs)

Size	N.W.	Crate Qty
1/4\"/8	0.17	144

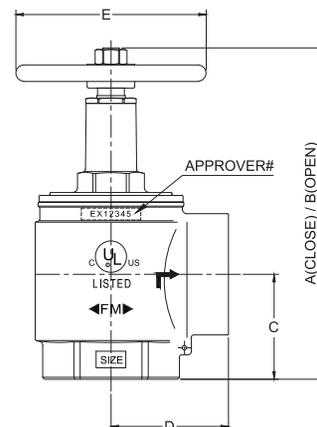
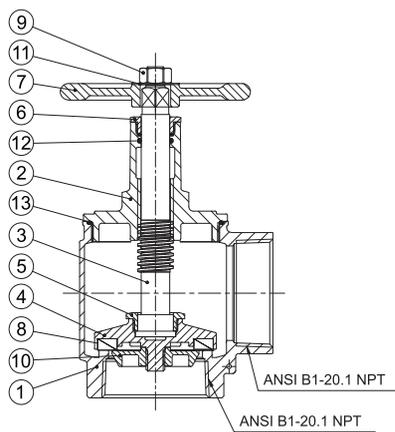
### FEATURES & SPECIFICATIONS

- Inlet : Female NPT
- Outlet : Female NPT
- Working pressure : 300psi



### MATERIALS LIST

DET	QTY	Name	Material
1	1	Body	Brass ASTM B584
2	1	Bonnet	Brass ASTM B584
3	1	Stem	Brass
4	1	Disc Holder	Forged Brass
5	1	Disc Nut	Brass
6	1	Packing Nut	Brass
7	1	Handwheel	Ductile Iron
8	1	Seat	NBR
9	1	Nut	Stainless Steel
10	1	Clamping Ring	Forged Brass
11	1	Name Plate	Aluminum
12	2	O-Ring	NBR
13	1	O-Ring	NBR



### DIMENSIONS (mm)

Size	A±2	B±2	C±0.5	D±0.5	E
1.5"/40	161.5	188	49.5	58	90
2.5"/65	222	270.5	70	79	128

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	1.5"/40	2.5"/65
N.W.	1.75	4.03
Crate Qty	12	4

# FIREFLY BRASS FIRE HOSE VALVE

## 300PSI

Fig No.: BHVGF

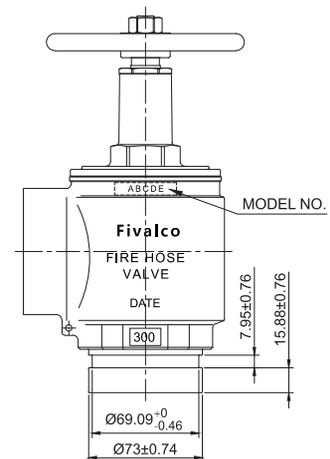
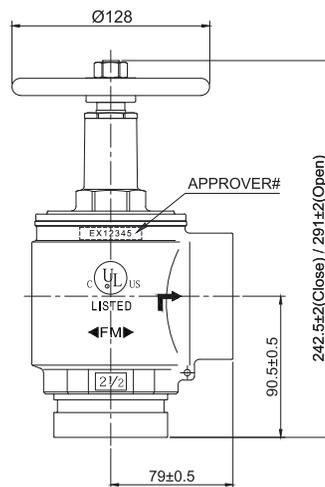
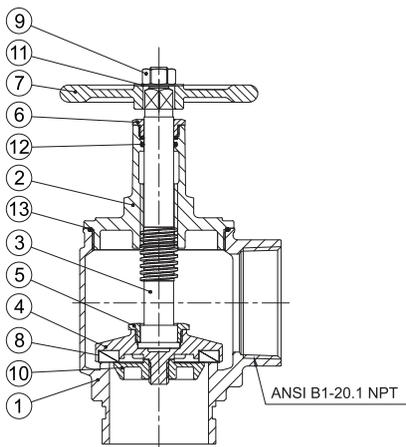
### FEATURES & SPECIFICATIONS

- Inlet : Grooved
- Outlet : Female NPT
- Working pressure : 300psi



### MATERIALS LIST

DET	QTY	Name	Material
1	1	Body	Brass ASTM B584
2	1	Bonnet	Brass ASTM B584
3	1	Stem	Brass
4	1	Disc Holder	Forged Brass
5	1	Disc Nut	Brass
6	1	Packing Nut	Brass
7	1	Handwheel	Ductile Iron
8	1	Seat	NBR
9	1	Nut	Stainless Steel
10	1	Clamping Ring	Forged Brass
11	1	Name Plate	Aluminum
12	2	O-Ring	NBR
13	1	O-Ring	NBR



### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	N.W.	Crate Qty
2.5"/65	4.18	4

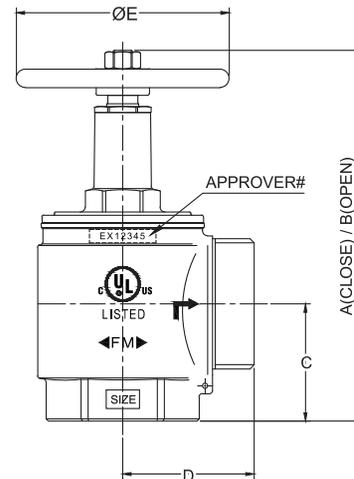
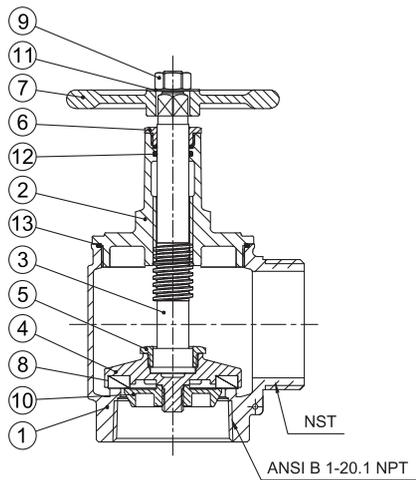
### FEATURES & SPECIFICATIONS

- Inlet : Female NPT
- Outlet : Male NST
- Working pressure : 300psi



### MATERIALS LIST

DET	QTY	Name	Material
1	1	Body	Brass ASTM B584
2	1	Bonnet	Brass ASTM B584
3	1	Stem	Brass
4	1	Disc Holder	Forged Brass
5	1	Disc Nut	Brass
6	1	Packing Nut	Brass
7	1	Handwheel	Ductile Iron
8	1	Seat	NBR
9	1	Nut	Stainless Steel
10	1	Clamping Ring	Forged Brass
11	1	Name Plate	Aluminum
12	2	O-Ring	NBR
13	1	O-Ring	NBR



### DIMENSIONS (mm)

Size	A±2	B±2	C±0.5	D±0.5	E
1.5"/40	161.5	188	49.5	58	90
2.5"/65	222	270.5	70	79	128

### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	1.5"/40	2.5"/65
N.W.	1.82	4.03
Crate Qty	12	4

# FIREFLY BRASS FIRE HOSE VALVE

## 300PSI

## Fig No.: BHVGM

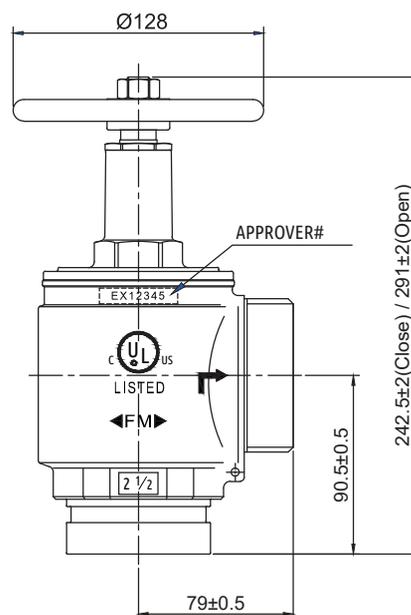
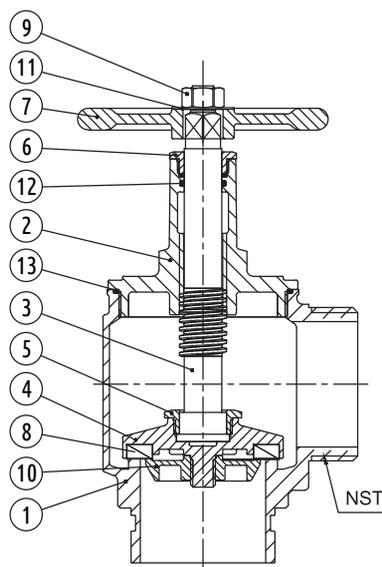
### FEATURES & SPECIFICATIONS

- Inlet : Grooved
- Outlet : Male NST
- Working pressure : 300psi



### MATERIALS LIST

DET	QTY	Name	Material
1	1	Body	Brass ASTM B584
2	1	Bonnet	Brass ASTM B584
3	1	Stem	Brass
4	1	Disc Holder	Forged Brass
5	1	Disc Nut	Brass
6	1	Packing Nut	Brass
7	1	Handwheel	Ductile Iron
8	1	Seat	NBR
9	1	Nut	Stainless Steel
10	1	Clamping Ring	Forged Brass
11	1	Name Plate	Aluminum
12	2	O-Ring	NBR
13	1	O-Ring	NBR

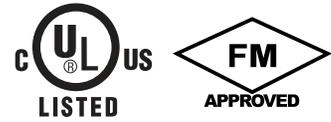


### NET WEIGHT (kg) & CRATE QTY (pcs)

Size	N.W.	Crate Qty
2.5"/65	4.18	4

## FEATURES & SPECIFICATIONS

- QF-600 : Unbraided Hose
- QF-1000 : Braided Hose
- QF-1000E : Braided Hose With Elbow Nipple
- Anchoring components are intended for use with drop ceilings conforming to ASTM C635 and other major
- Standards when installed in accordance with the Standard Practice for installation Metal Ceiling Suspension
- Systems for Acoustical Tile and Lay-In Panels, ASTM C636 or other equivalent standards.



## TECHNICAL DATA

- Rated Pressure : 200psi
- Maximum Ambient Temperature : 225(°F), 107(°C)
- Connection : DN25\*DN15 or DN20 (1" x 1/2" or 3/4"), NPT or BSPT
- Hose Diameter : O.D. 26.8mm / 1 1/15" Flow: 22.5mm / 7/8"
- Designed for use in Wet and Dry Systems

## MAIN COMPONENTS & MATERIALS LIST

DET	QTY	Name	Material
1	1	Corrugated Tube	AISI 304 Stainless Steel
2	1	Discharge Nipple(Elbow)	Galv. Steel ASTM 1020
3	1	Inlet Nipple	Galv. Steel ASTM 1020
4	2	Hexagon Slip Nut	Galv. Steel ASTM 1020
5	2	Gasket	EPDM
6	2	Isolation Ring	Nylon 66
7	1	Center Bracket	Galv. Steel ASTM A283 Gr. D
8	2	Side Bracket	Galv. Steel ASTM A283 Gr. D
9	1	Square Bar	Galv. Steel ASTM A283 Gr. B
10	1 Set	Bolts & Screws	Galv. Steel ASTM A283 Gr. D



Assembling Length	In-&Outlet Head Size	Max. number of 90° bends	Min bending radius	Equivalent Length of DN25/1" Sch. 40 Pipe at C=120 in
mm inch	DN in.	n x 90°	mm inch	QF-600 With straight discharge Nipple*
700	25x15	1	100	5.5
28	1"x1/2"		4	18
1000	25x15	2	100	10
40	1"x1/2"		4	33
1200	25x15	2	100	13
48	1"x1/2"		4	43
1500	25x15	3	100	19.2
60	1"x1/2"		4	63
1800	25x15	4	100	23.8
72	1"x1/2"		4	78
700	25x20	1	100	7.3
28	1"x3/4"		4	24
1000	25x20	2	100	12.5
40	1"x3/4"		4	41
1200	25x20	2	100	14
48	1"x3/4"		4	46
1500	25x20	3	100	19.5
60	1"x3/4"		4	64
1800	25x20	4	100	24.4
72	1"x3/4"		4	80

Assembling Length	In-&Outlet Head Size	Max. number of 90° bends	Min bending radius	Equivalent Length of DN25/1" Sch. 40 Pipe at C=120 in	
mm inch	DN in.	n x 90°	mm inch	QF-1000 With	QF-1000E With 90° elbow discharge
700	25x15	1	250	8.1	8
28	1"x1/2"		10	26.7	26.5
1000	25x15	3	250	12.9	12.4
40	1"x1/2"		10	42.6	40.8
1200	25x15	3	250	16.2	15.4
48	1"x1/2"		10	53.2	50.4
1500	25x15	4	250	20.6	20
60	1"x1/2"		10	67.8	65.7
1800	25x15	4	250	25.1	24.6
72	1"x1/2"		10	82.4	81
700	25x20	1	250	6.5	5.1
28	1"x3/4"		10	21.5	16.8
1000	25x20	3	250	12	10.4
40	1"x3/4"		10	39.5	34.2
1200	25x20	3	250	15.7	13.9
48	1"x3/4"		10	51.6	45.8
1500	25x20	4	250	19.3	17
60	1"x3/4"		10	63.5	58.7
1800	25x20	4	250	22.9	21.7
72	1"x3/4"		10	75.4	71.5

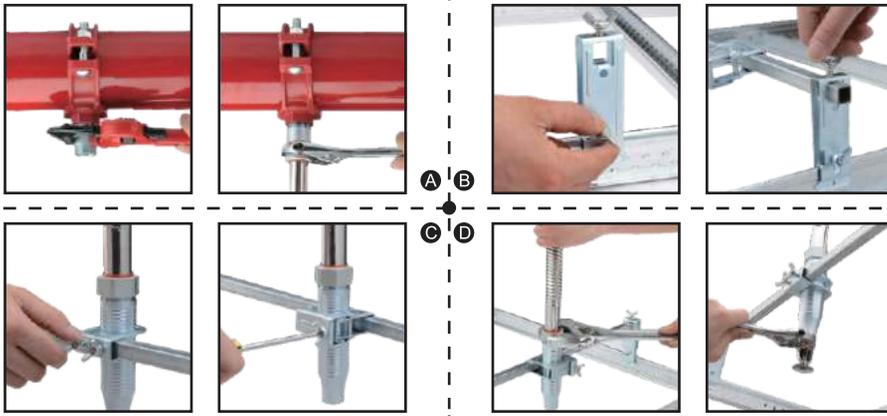
Results are tested & recorded by UL under minimum bending radius in maximum bending degrees.  
Results are tested & recorded by FM approvals under minimum bending radius in maximum bending degrees.

- Note :
1. For QF-600, UL & ULC Listed
  2. For QF-1000, FM Approved, UL & ULC Listed

# FLEXIBLE SPRINKLER CONNECTOR

## INSTALLATION INSTRUCTIONS

### ASSEMBLY INSTRUCTIONS



#### A. Connect Inlet Nipple

Use pipe wrench to screw the Inlet Nipple into the branch outlet interface on water supply pipeline, use pipe sealant (Teflon tape or pipe glue etc.) to seal and apply tightening torque of approx. 50N·m/35ft·lbs. Then tighten the Hexagon Slip Nut with 15N·m/10ft·lbs to ensure sealing performance.

#### B. Fix bracket set

Attach side brackets to the main-rail of the T-bar grid and cross the square bar through 2 side brackets, with the center bracket in the middle. Tighten all fixing bolt on the side brackets with 4N·m/3ft·lbs.

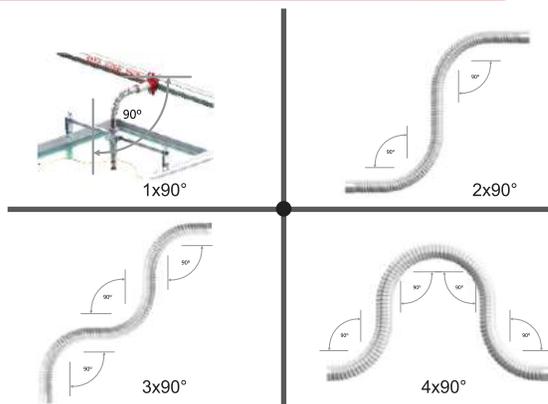
#### C. Bending & Locating

Bend the Flexible Hose body as desired (According the parameters on Specification sheet) and locate the Discharge Nipple into the center bracket. Tighten the bolts on center bracket with 4N·m/3ft·lbs after the proper location of sprinkler head has been found.

#### D. Connect Discharge Nipple

Tighten the Slip Nuts with 15N·m/10ft·lbs and install sprinkler head to Discharge Nipple by following the sprinkler manufacture's installation instructions. Finally test leak in according with NFPA guidelines.

### HOSE BENDING, CORRECT OR WRONG?



#### Actual bending radius

EQUAL to | GREATER than | SMALLER than  
Required minimum bending radius



Use Fivalco® bend snap-gauge for bending gradius inspection

### CALCULATION OF BENDING DEGREES

Hose Length	Carton box							Pallet						
	Size			Qty	Gross weight		Size			Quantity		Gross weight		
mm	L mm	W mm	H mm		ea	QF-600 kg	QF-1000 kg	L mm	W mm	H mm	Box ea	Hose ea	QF-600 kg	QF-1000 kg
700	1050	205	195	20	27.2	31.5	1050	1050	1125	25	500	700	805	
1000	1300	205	195	20	28.9	35.3	1300	1050	1125	25	500	745	905	
1200	1500	205	195	20	30.2	37.7	1500	1050	1125	25	500	780	970	
1500	1800	205	195	20	32	42	1800	1050	1125	25	500	830	1080	
1800	2100	205	195	20	34	45.6	2100	1050	1125	25	500	885	1175	

**fivalco**<sup>®</sup>

Fivalco grooved butterfly valve should be connected to the piping system with approved coupling or flange adapters. Flow may be from either direction, and the valve may be positioned in any direction.

**Design Requirements**

Fivalco butterfly valves have been designed with a slow close handwheel operator which effectively minimizes water hammer. These valves feature minimum flow restriction and pressure loss when in the fully open position.

When the valves are received from the manufacture they should be handled carefully to avoid breakage and damage to the seating area. Before installation of the valve, clean piping, flange and coupling. When the valve closes hard, it is usually due to debris lodged in the sealing area. Often this may be corrected by backing off the hand wheel and closing again.

**Installation**

The valve should never be forced to seat by applying a wrench to the hand wheel as this may distort the valve components or score the sealing surface. The use of excessive force to open or close the valve violates all warranties express or implied.

The inlet and outlet pipe adjacent to the valve should be properly supported to prevent excessive stress on the valve body. The valve should not be used to force a pipeline into position as this may result in distortion of the valve body.

Conduit and electrical connections to the optional tamper switch must be in accordance with National Electrical Code(NFPA 72) and /or requirements of the local authority having jurisdiction.

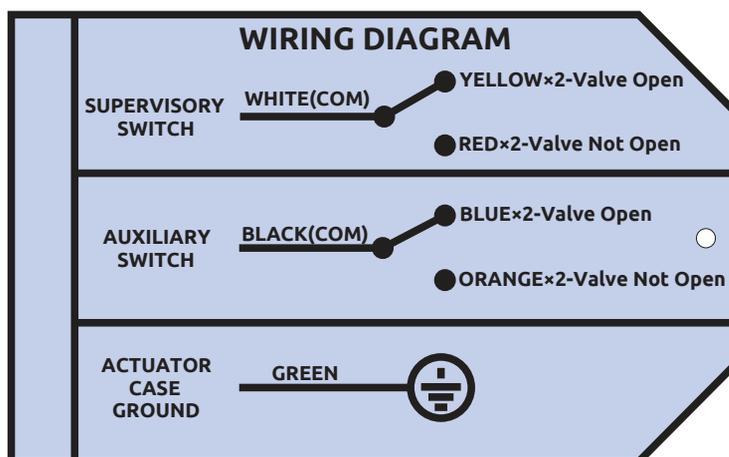
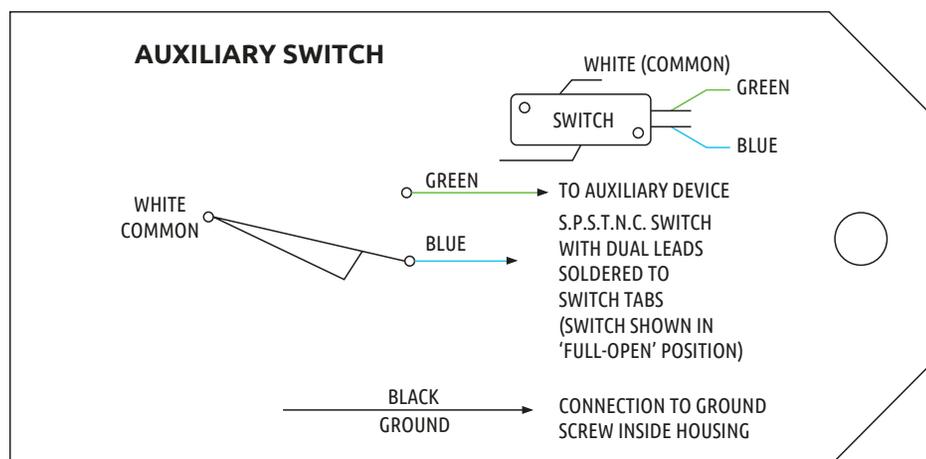
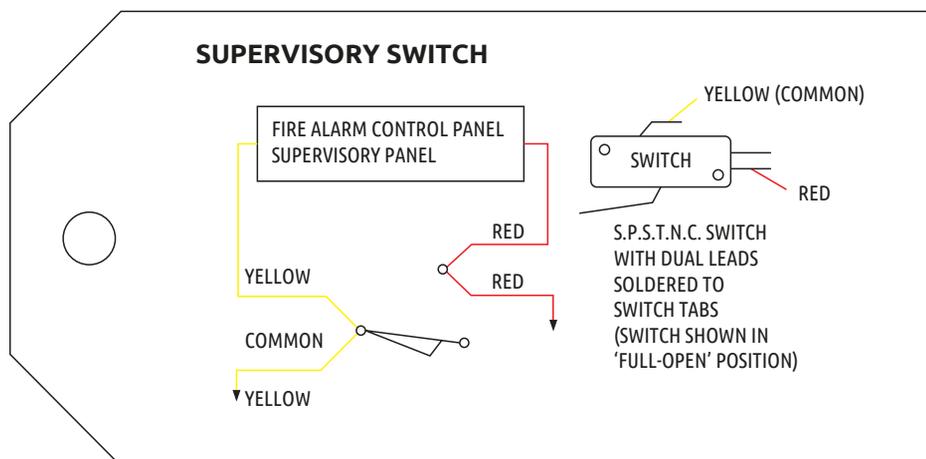
**Care&Maintenance**

Fivalco butterfly valves require no regular maintenance, however, it is advisable to inspect and verify proper operation of the unit annually or in accordance with the authority having jurisdiction. The inspection should include a visual check for leakage at the valve pipe connection and body to operator connection.

Inspection and maintenance should be performed by a qualified inspection service.

## BUTTERFLY VALVE INSTALLATION GUIDE

**Switch Installation** Fivalco butterfly valves are provided with internal supervisory position switches. The tamper switch operates by a cam connected to the valve stem.



## 1. GENERAL

Gate valves form a significant component of the piping systems. Failure of a gate valve in such systems, either due to faulty installation or improper maintenance, could result in extensive damage and costly repairs. In addition, many gate valves are installed in buried-service or underground applications. Problems with or malfunctions of the valves due to faulty installation or improper maintenance may result in extensive and costly unearthing operation to effectively correct or eliminate the problem. Many gate-valve problems and failure can be traced back to improper installation, operation, or maintenance procedures. Gate valves may not be installed and used as anchor points, and should at all times be kept free from stress arising from the system pipeline.

## 2. UNLOADING & TRANSPORTATION

A vital consideration in handling valves should be avoid damaging or scratching the coating protection.

All valves should be unloaded carefully. Each valve should be carefully lowered from the truck to the ground; it should not be dropped. In the case of larger valves, forklifts or slings around the body of the valve or under the skids should be used for unloading. Only hoists and slings with adequate load capacity to handle the weight of the valve or valves should be used. Hoists should not be hooked into or chains fastened around yokes, stem, or handwheels. Failure to carefully follow these recommendations is likely to result in damage to the valve.

## 3. STORAGE

Valves should be stored in the fully closed position to prevent the entry of foreign material that could cause damage to the seating surface. Whenever practical, valves should be stored indoors under dry, cool conditions, away from direct sunlight and corrosive or otherwise chemically active atmosphere. If outside storage is required, means should be provided to protect the operating mechanism from weather elements. During outside storage, valves should be protected from the weather, sunlight, ozone, and foreign materials. In colder climates where valves may be subject to freezing temperatures, it is absolutely essential to remove the water from the valve interior and close the valve before storage. Failure to do so many results in a cracked valve casting and or deterioration of the resilient seat material.

## 4. INSPECTION PRIOR TO INSTALLATION

Gate valves should be inspected at the time of receipt for damage in shipment. The initial inspection should be to verify compliance with specifications, direction of opening, and type of end connections. A visual inspection of the seating surfaces should be performed to detect any damage in shipment or scoring of the seating surfaces. Inspection personnel should look for bent stems, broken handwheels, cracked parts, loose bolt, missing parts and accessories, and any other evidence of mishandling during shipment. Each valve should be operated through one complete opening-and-closing cycle in the position in which it is to be installed.

## 5. INSTALLATION

At the jobsite prior to installation, each valve should be visually inspected and any foreign material in the interior portion of the valve should be removed.

Before being installed, the valves need to be washed so as to eliminate the dust caused during the transportation and storage.

Valves can be installed at horizontal or vertical pipe line. When being installed, the medium flow direction should be same as the showing flowing direction on the valves.

During installation in the pipeline system, care must be taken to ensure that the connecting flanges of the pipeline getting in contact with the gate valve are arranged parallel to each other and are exactly aligned to avoid any tension loads acting upon the valve body.

Only hand can be used to open and close the valves, all of the other force from outside should not be used.

**5.1** All bolts should be checked for proper tightness and protected by the installer to prevent corrosion, either with a suitable paint or by polyethylene wrapping.

**5.2** Underground installation valves in water-distribution lines shall, where practical, be located in easily accessible areas.

**5.2.1** During installation there is the possibility of foreign materials inadvertently entering the valve. Foreign material can damage internal working parts during operation of the gate valve. For this reason, gate valves should be installed in the closed position. Each valve should be placed on firm footing in the trench to prevent setting and excessive strain on the connection to the pipe. Pipe systems should be supported and aligned to avoid damage to the valve.

**5.2.2** A valve box or vault should be provided for each valve used in a buried-service application. The valve box should be installed so as not to transmit shock loads or stress to the valve. The valve box should be centered over the operating nut of the valve with the box cover flush with the surface of the finished area or such other level as directed by the owner. Valve boxes should be of such design that a traffic load on the top of is not transmitted to the valve.

**5.2.3** Valves buried in unusually deep trenches should have special provisions for operating the valve - either a riser on the stem to permit use of a normal key or a notation on the valve records that a long key will be required.

**5.2.4** When valves with exposed gearing or operating mechanisms are installed belowground, a vault designed to allow pipe clearance and prevent setting on the pipe should be provided. The operating nut should be accessible from the top opening of the vault with a valve key. The size of the vault should provide for easy removal of the valve bonnet and internal parts of the valve for purpose of repair. Consideration should be given to the possible entry of groundwater and/or surface water and to the need to provide for the disposal of such water.

**5.3** Aboveground Installation. Valves installed aboveground or in a plant piping system should be supported and aligned to avoid damage to the valves. Valves should not be used to correct the misalignment of piping.

**5.4** After installation and before pressurization of the valve, all pressure-containing bolting (bonnet, seal plate, packing gland, and end connections) should be inspected for adequate tightness to prevent leakage. In addition, an inspection should be made for adequate tightness of all tapped and plugged connections to the valve interior. Proper inspection at this time will minimize the possibility of leaks after pressurization of the piping system.

**5.5** In order to prevent time lost searching for leaks, it is recommended that the valve excavations are not backfilled until after until after pressure tests have been made. After installation, it is desirable to test newly installed piping sections, including valves, at some pressure above the system design pressure. The valve should not be operated in either the opening or closing direction at different pressures above the rated working pressure. It is also recognized that wear or foreign material may damage valve seating surfaces and may cause leakage.

**5.6** On completion of the installation, valve location, size, make, type, date of installation, number of turns to open, direction of opening, and other information deemed pertinent should be entered on permanent records.

**5.7** Application Hazards. Valves should not be installed in applications or for service other than the recommended for that purpose or approved in advance by the manufacture.

**5.7.1** Valves should not be installed in lines where service pressure will exceed the rated working pressure of the valve.

**5.7.2** Gate valves should not be used for throttling service unless the design is specially recommended for that purpose or approved in advance by the manufacture.

**5.7.3** Valves should not be used in applications that are exposed to freezing temperature unless sufficient flow is maintained through the valve or other protection is provided to prevent freezing.

**5.7.4** Gate valves should not be installed at a dead end or near a bend in a pipeline without proper and adequate restraint to support the valve and prevent it from blowing off the end of the line.

**5.7.5** To prevent damage, 4" and below size NPS resilient-seated gate valves should not be operated with input torques greater than 200ft-lb(270N.m). Gate valves 6" to 12" NPS should not be operated with input torques greater than 300ft-lb(406N.m). See table 1 & 2 for bolt tightening torques.



## **FIVALCO WARRANTY STATEMENT**

Fivalco's products are designed, engineered and manufactured within its specification of intended use, under the highest quality control possible. Commitment on quality and performance is always at the top of our agenda.

Fivalco warrants that for a period of thirty-six (36) months following delivery, the Fivalco products will perform in accordance with published specifications, and will be free from defects in material or workmanship provided that the products are stored and installed in accordance with recommendations in our catalogues.

Fivalco's obligation shall be to replace any product found to be defective in design, material or workmanship during the warranty period. Fivalco shall not be obligated to refund the purchase price and other liabilities on monetary compensation, nor shall it be obligated to pay for any labor or costs associated with the removal of the defective products or the reinstallation of those products. No warranty coverage will be provided for products that have been altered and / or used for a purpose other than that for which they were designed or installed contrary to Fivalco's guidelines.



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# NOTES

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## NOTES

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