



NIBCO[®]



Irrigation Valves Catalog

C-IRR-0320

Gate, Globe, Check, Ball, and Butterfly Valves
for Irrigation Applications



QUALITY PRODUCTS SINCE 1904

A recognized brand leader bringing flow control products and technologies to market, NIBCO has a history of success and innovation in the plumbing industry.

Headquartered in Elkhart, Indiana, we operate multiple manufacturing plants and distribution centers strategically located throughout the United States and globally, and offer more than 36,000 SKUs, including our NIBCO® family brands, Webstone®, Chemtrol® and Sure Seal®.

We have vertically integrated manufacturing, distribution and networked communications to provide a seamless source of information and service, 24/7. We place great emphasis on personal connections with our factory direct sales, live customer service and technical service support. We also offer unique programs to support our customers' success, including our NIBCO Partner program, Vendor Managed Inventory and EDI for wholesalers.

More than 90 percent of NIBCO-branded products are manufactured in the U.S. using high-quality materials and innovative processes and technologies to improve product performance and quality. For every high-quality valve or fitting made at NIBCO, each is made with pride by the hundreds of NIBCO associates who work there.

Today, NIBCO is a fifth-generation, family- and associate-owned business. Since 1904, we've pioneered many products and processes. As the flow control industry continues to become more demanding, we remain focused on what has made us successful: delivering more than a product and making business better for each of our customers.



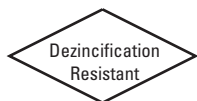
VISIT OUR WEBSITE TO LEARN MORE



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Visit our website for the most current information.

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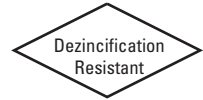


De-alloying corrosion, known as "Dezincification," was effectively eradicated from valve products in the 1950s. Today, however, this problem has returned with the increased use of high-zinc alloys (commonly referred to as 'Yellow Brass') in forged and cast valves typically produced outside the United States.

Dezincification selectively removes zinc from the alloy, leaving behind a porous, copper-rich structure that has little mechanical strength. The physical attributes of an in-service valve with Dezincification includes a white powdery substance or mineral stains on its exterior surface.

What's the cure? On all bronze valves the metal components in the waterway must not contain more than 15% zinc in their chemical makeup. As a standard NIBCO bronze irrigation valves are made to be "Dezincification Resistant," which is a seal of quality and longevity.

Bronze and Brass Gate Valves Illustrated Index



Bronze Gate Valve
Screw-in Bonnet
250 PSI

Dezincification Resistant



PR-113-K
Non-Rising Stem • Solid Wedge •
Push-on Ends with Joint Restraints
Size 2"
Threaded Ends
Page 5

Bronze Gate Valve
Screw-in Bonnet
125 lb. SWP
200 lb. CWP

Dezincification Resistant



T-113-K/T-113-BHW/T-113
Non-Rising Stem • Solid Wedge
Sizes 1/4" thru 3"
Threaded Ends
Page 6

Bronze Gate Valve
Screw-in Bonnet
200 lb. CWP

Dezincification Resistant



T-29-K/T-29
Non-Rising Stem • Solid Wedge
Sizes 1/2" thru 2"
Threaded Ends
Page 7

Brass Gate Valve
Screw-in Bonnet • Reduced Port
200 lb. CWP



TI-7
Non-Rising Stem • Solid Wedge
Sizes 1/2" thru 4"
Threaded Ends
Page 8

Brass Gate Valve
Screw-in Bonnet
200 lb. CWP



TI-8
Non-Rising Stem • Solid Wedge
Sizes 1/2" thru 2"
Threaded Ends
Page 9

Bronze Hose Gate Valve
Screw-in Bonnet
175 lb. CWP

Dezincification Resistant



T-103-HC
Non-Rising Stem • Solid Wedge
Sizes 1/2" thru 2"
Threaded x Hose Ends
Page 10

250 PSI CWP Bronze Gate Valve

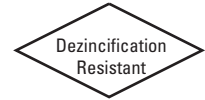
Screw-in Bonnet • Non-Rising Stem • Solid Wedge •
Push-on Ends with Joint Restraints

250 PSI/17.2 Bar Bar Non-Shock Cold Working Pressure

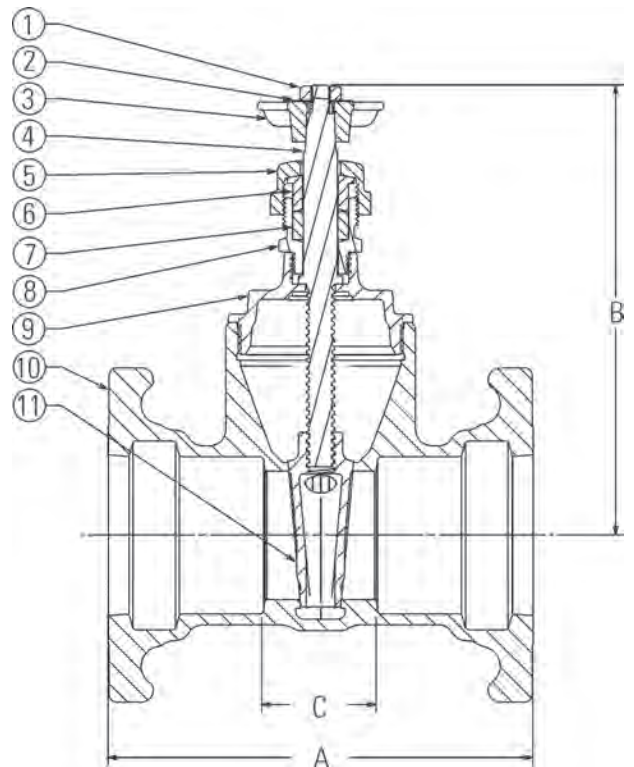
CONFORMS TO MSS SP-80

MATERIAL LIST

PART	SPECIFICATION
1. Handwheel Nut	300 Series Stainless Steel
2. Identification Plate	Aluminum
3. Handwheel, Cross	Bronze ASTM B 584 Alloy C84400
4. Stem	Silicon Bronze ASTM B 371 Alloy C69430 or ASTM B 99 Alloy C65100
5. Packing Nut	Bronze ASTM B 62 or ASTM B 584 or Brass ASTM B 16
6. Packing Gland	Bronze ASTM B 62 or ASTM B 584 or Brass ASTM B 16
7. Packing	Aramid Fibers with Graphite
8. Stuffing Box	Bronze ASTM B 62 Alloy C83600
9. Bonnet	Bronze ASTM B 62 Alloy C83600
10. Body	Bronze ASTM B 584 Alloy C84400 or ASTM B 62 Alloy C83600
11. Wedge	Bronze ASTM B 62 Alloy C83600



PR-113-K



PR-113-K
PO x PO

DIMENSIONS—WEIGHTS

Size	Dimensions						Weight		
	A		B		C		Lbs.	Kg.	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
2	50	6.63	168.4	7.00	177.8	1.78	45.2	8.28	3.75

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Freezing Weather Precaution – Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.

Class 125 Bronze Gate Valves

Screw-In Bonnet • Non-Rising Stem • Solid Wedge

125 PSI/8.6 bar saturated steam to 353°F/178°C
200 PSI/13.8 bar non-shock cold working pressure

CONFORMS TO MSS SP-80

MATERIAL LIST

PART	SPECIFICATION
1. Handwheel Nut	300 Series Stainless Steel
2. Identification Plate	Aluminum
3. Handwheel	a. Malleable Iron ASTM A 47 (T-113) b. Bronze (T-113-BHW) c. Bronze Cross (T-113-K)
4. Stem	Silicon Bronze ASTM B 371 Alloy C69400/C69430 or ASTM B99 Alloy C65100
5. Packing Nut	Bronze ASTM B 62 or ASTM B584 Alloy C84400 or Brass ASTM B 16
6. Packing Gland	Bronze ASTM B 62 or ASTM B584 Alloy C84400 or Brass ASTM B 16
7. Packing	Aramid Fibers with Graphite
8. Stuffing Box	Bronze ASTM B 62
9. Bonnet	Bronze ASTM B 62
10. Body	Bronze ASTM B 62
11. Wedge	Bronze ASTM B 62

DIMENSIONS—WEIGHTS—QUANTITIES

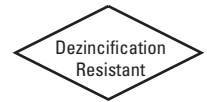
Size	Dimensions						T-113		Master Ctn. Qty.
	A		B		C		Lbs.	Kg.	
In. mm.	In.	mm.	In.	mm.	In.	mm.			
¼ † 8	1.69	43	3.38	86	x	x	0.74	0.33	50
⅜ † 10	1.69	43	3.38	86	.69	18	0.71	0.32	50
½ † 15	1.94	49	3.63	92	.75	19	0.82	0.37	50
¾ 20	2.06	54	3.91	99	.88	22	1.10	0.50	50
1 25	2.44	62	4.69	119	1.00	25	1.82	0.82	30
1¼ 32	2.63	67	5.22	133	1.19	32	2.40	1.09	20
1½ 40	2.88	72	6.25	159	1.25	33	3.51	1.59	10
2 50	3.06	78	7.06	179	1.31	34	4.93	2.24	10
2½ 65	4.13	105	8.41	224	1.81	46	9.96	4.52	5
3 80	4.50	114	10	254	1.94	49	14.40	6.53	4

†No packing gland, packing only in these sizes.

xNot available this size.

FREEZING WEATHER PRECAUTION: Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.

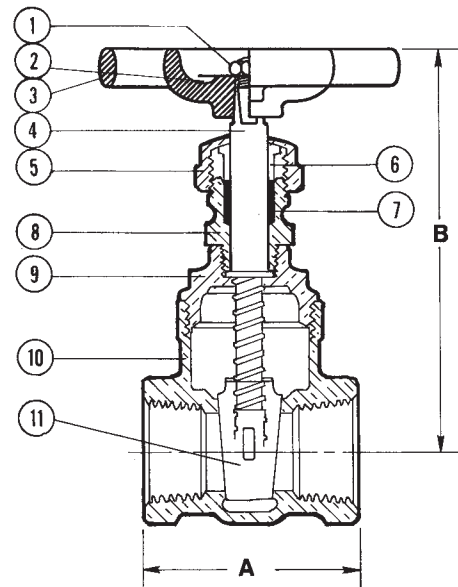
WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



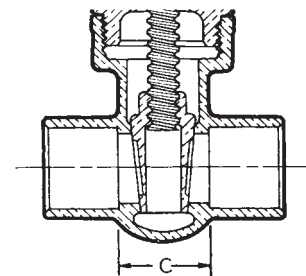
T-113
Threaded



T-113-K
Threaded
With Cross Handle



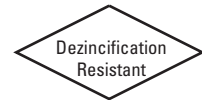
T-113
NPT x NPT



S-113
C x C

200 PSI CWP Bronze Gate Valves

Screw-in Bonnet • Non-Rising Stem • Solid Wedge • Compact Design



200 PSI/13.8 Bar Non-Shock Cold Working Pressure

MATERIAL LIST

PART	SPECIFICATION
1. Handwheel Screw	Stainless Steel
2. Handle	a. Bronze Cross (T-29-K) b. Aluminum (T-29)
3. Stem	Copper ASTM B 99 Alloy C10200
4. Stem Seal	Rubber EPDM "O" Ring
5. Bonnet	Cast Copper-based Alloy C84400
6. Wedge	Cast Copper-based Alloy C84400
7. Body	Cast Copper-based Alloy C84400



T-29-K*
Threaded
with Cross Handle



T-29
Threaded

DIMENSIONS—WEIGHTS—QUANTITIES

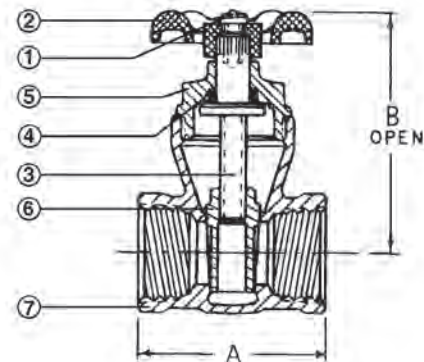
Size	Dimensions				T-29-K		Master Ctn. Qty.	
	A		B		Lbs.	Kg.		
In.	mm.	In.	mm.	In.	mm.			
1/2	15	1.81	46	2.50	64	.48	.22	100
3/4	20	2.00	51	2.88	73	.67	.30	100
1	25	2.31	59	3.56	90	1.22	.55	50
1 1/4	32	2.63	67	3.69	94	1.54	.70	40
1 1/2	40	2.75	70	4.19	106	2.12	.96	20
2	50	2.88	73	4.88	124	3.29	1.49	20

Each valve individually tested in ISO 9002 certified facility.

* T-29-K only available in sizes 1" to 2"

Freezing Weather Precaution – Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.

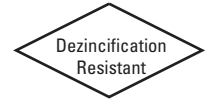
WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



T-29-K
NPT x NPT

150 PSI CWP Brass Gate Valves

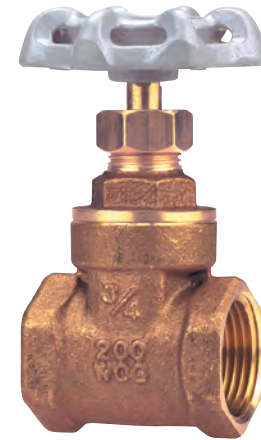
Bronze Body • Non-Rising Stem • Reduced Port



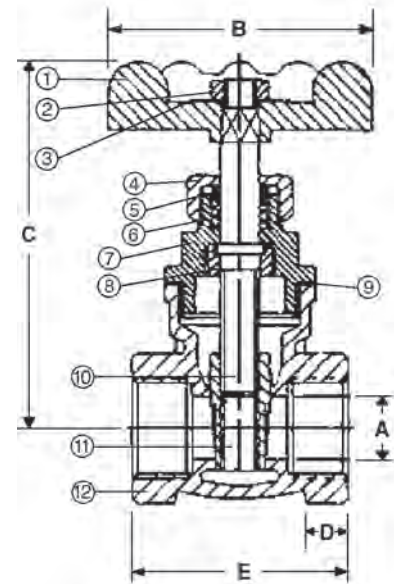
150 PSI/10.3 Bar Non-Shock Cold Working Pressure to 180° F/82° C

MATERIAL LIST

PART	SPECIFICATION
1. Handwheel	Cast Iron
2. Handle Nut	Brass Rod
3. Identification Plate	Aluminum
4. Packing Nut	Brass Rod
5. Gasket Washer	PTFE
6. Gasket	Brass Tube
7. Bonnet	Cast Brass
8. Retainer	Brass Rod
9. Washer	PTFE
10. Stem	Brass Rod
11. Disc	Cast Brass
12. Body	Cast Brass



TI-7
Threaded



TI-7
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

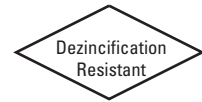
Size	Dimensions										Master			
	A		B		C		D (min)		E		Lbs.	Kg.	Ctn. Qty.	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.			
½	15	.47	12	2.09	53	2.56	65	.50	13	1.69	43	.46	.21	100
¾	20	.63	16	2.09	53	2.91	74	.50	13	1.81	46	.59	.27	60
1	25	.78	20	2.31	59	3.22	82	.59	15	2.06	52	.83	.38	40
1¼	32	1.03	26	2.31	59	3.66	93	.59	15	2.13	54	1.18	.54	30
1½	40	1.25	32	2.94	75	4.50	114	.59	15	2.25	57	1.65	.75	24
2	50	1.69	43	3.63	92	5.19	132	.59	15	2.50	64	2.62	1.19	16
2½	65	2.09	53	3.63	92	6.03	153	.88	22	3.03	77	3.86	1.75	8
3	80	2.28	58	4.31	110	6.81	173	.88	22	3.19	81	5.88	2.67	6
4	100	3.00	76	4.94	125	7.69	195	.88	22	3.50	89	8.82	4.00	3

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Freezing Weather Precaution – Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.

200 PSI CWP Brass Gate Valves

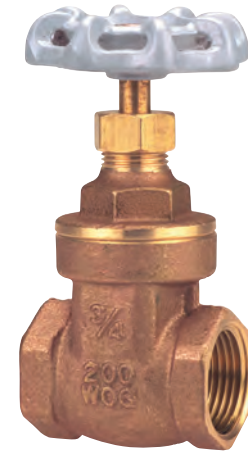
Bronze Body • Non-Rising Stem • Full Port



200 PSI/13.8 Bar Non-Shock Cold Working Pressure to 180° F/82° C

MATERIAL LIST

PART	SPECIFICATION
1. Handwheel	Cast Iron
2. Handle Nut	Brass Nut
3. Identification Plate	Aluminum
4. Packing Nut	Brass Rod
5. Packing Gland	Graphite Rubber
6. Bonnet	Cast Brass
7. Stem	Brass Rod/Cast Brass
8. Retainer	Brass Rod
9. Washer	PTFE
10. Disc	Cast Brass
11. Body	Cast Brass



TI-8
Threaded

DIMENSIONS—WEIGHTS—QUANTITIES

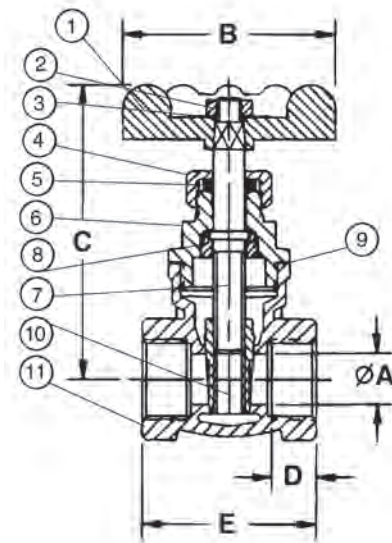
Dimensions

Size	A		B		C		D (min)		E		TI-8		Master	
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.		Ctn. Qty.
¼	8	.44	11	2.09	53	2.72	69	.38	10	1.56	40	.57	.26	100
⅜	10	.44	11	2.09	53	2.84	72	.38	10	1.63	41	.55	.25	100
½	15	.47	12	2.09	53	3.00	76	.50	13	1.69	43	.60	.27	100
¾	20	.75	19	2.09	53	3.31	84	.50	13	1.81	46	.77	.35	60
1	25	1.00	25	2.31	59	3.75	95	.59	15	2.09	53	1.05	.48	40
1¼	32	1.22	31	2.63	67	4.53	115	.59	15	2.31	59	1.54	.70	30
1½	40	1.50	38	2.94	75	5.13	130	.59	15	2.44	62	2.11	.96	24
2	50	1.88	48	3.63	92	5.91	150	.59	15	2.81	71	3.17	1.44	16
2½	65	2.47	63	4.31	110	7.81	198	.88	22	3.59	91	5.79	2.63	8
3	80	2.84	72	4.63	117	8.91	226	.88	22	3.81	97	8.09	3.67	6
4	100	3.66	93	4.94	125	10.38	264	.88	22	4.53	115	12.84	5.83	2

Threaded ends per ANSI B1 20.1.



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

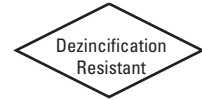


TI-8
NPT x NPT

Freezing Weather Precaution – Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.

175 PSI CWP Bronze Hose Gate Valves

Screw-in Bonnet • Non-Rising Stem • Solid Wedge



175 PSI/12.1 Bar Non-Shock Cold Working Pressure

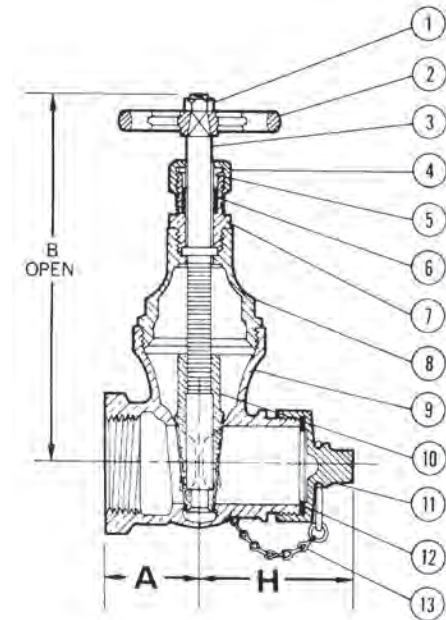
CONFORMS TO MSS SP-80 •
UL LISTED • FMRC APPROVED

MATERIAL LIST

PART	SPECIFICATION
1. Handwheel Nut	Bronze ASTM B 16
2. Handwheel	Malleable Iron
3. Stem	Silicon Bronze ASTM B 371 Alloy C69400
4. Packing Nut	Bronze ASTM B 62
5. Packing Gland	Bronze ASTM B 16 or ASTM B 62
6. Packing	Non-Asbestos
7. Stuffing Box	Bronze ASTM B 62
8. Bonnet	Bronze ASTM B 62
9. Body	Bronze ASTM B 62
10. Wedge	Bronze ASTM B 62
11. Hose Cap	Bronze ASTM B 62
12. Hose Cap Gasket	Rubber
13. Safety Chain	Brass



T-103-HC
Threaded
with Cap and Chain



T-103-HC
NPT x ANFH (NPPA)
Hose 7.5 Threads Per Inch

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions

Size	A		B		H		T-103-HC		Master	
	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.		
2½	65	3.00	76	11.38	289	4.75	121	18.5	8.40	2

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Freezing Weather Precaution – Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.

Bronze Globe and Angle Valves Illustrated Index



Bronze Globe Valve
Screw-in Bonnet
250 PSI CWP



T-381-WK
Integral Seat • Renewable Disc
Size 2"
Threaded Ends
Page 12

Bronze Globe Valve
Screw-in Bonnet
125 PSI CWP



75-K
Integral Seat • Resilient Disc
Sizes 1/2" thru 3/4"
Threaded Ends
Page 13

Bronze Globe Valve
Screw-in Bonnet • Cross Handle
125 lb. SWP
200 lb. CWP



T-211-YK
Integral Seat • Renewable Seat and Disc
Sizes 1" thru 2"
Threaded Ends
Page 14

Bronze Globe Valve
Screw-in Bonnet
125 lb. SWP
200 lb. CWP



T-211-Y
Integral Seat • Renewable Seat and Disc
Sizes 1/4" thru 3"
Threaded Ends
Page 14

Bronze Angle Valve
Screw-in Bonnet • Cross Handle
125 lb. SWP
200 lb. CWP



T-311-YK
Integral Seat • Renewable Seat and Disc
Sizes 1" thru 2"
Threaded Ends
Page 15

Bronze Angle Valve
Screw-in Bonnet
125 lb. SWP
200 lb. CWP



T-311-Y
Integral Seat • Renewable Seat and Disc
Sizes 1/4" thru 3"
Threaded Ends
Page 15

250 PSI CWP Bronze Angle Valves

Screw-in Bonnet • Integral Seat • Renewable Disc



250 PSI/17.2 Bar Non-Shock Cold Working Pressure

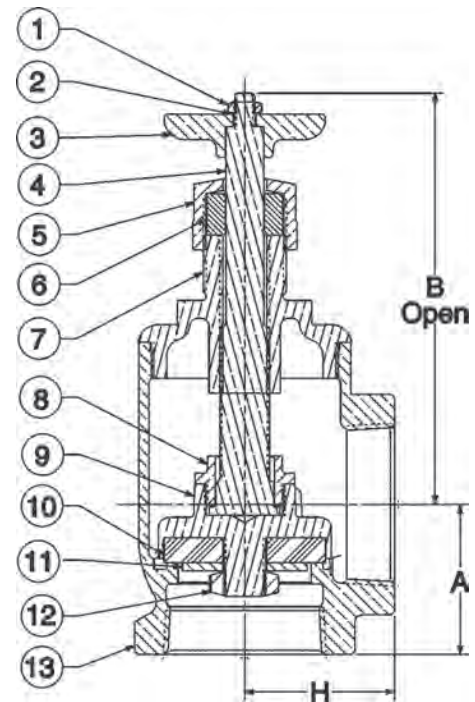
CONFORMS TO MSS SP-80

MATERIAL LIST

PART	SPECIFICATION
1. Handwheel Nut	Stainless Steel
2. Identification Plate	Aluminum
3. Handwheel	Bronze Cross ASTM B 62 Alloy C83600
4. Stem	Silicon Bronze ASTM B 371 Alloy C69430
5. Packing Nut	Brass ASTM B 16 Alloy C36000
6. Packing	Aramid Fibers with Graphite
7. Bonnet	Bronze ASTM B 62 Alloy C83600
8. Disc Holder Nut	Bronze ASTM B 62 Alloy C83600
9. Disc Holder	Bronze ASTM B 62 Alloy C83600
10. Seat Disc	Nitrile Rubber (W)
11. Seat Disc Washer	Stainless Steel
12. Seat Disc Nut	Silicon Bronze ASTM B 96 Alloy C65100
13. Body	Bronze ASTM B 584 Alloy C83600



T-381-WK
Threaded



T-381-WK
NPT x NPT

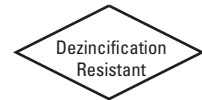
DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions						Weight		Box	
	A		B		H		Lbs.	Kg.	Qty.	Ctn. Qty.
In. mm.	In.	mm.	In.	mm.	In.	mm.				
Master										
2	50	2.25	57	7.14	181	2.25	57	6.72	3.05	1 6

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

125 PSI CWP Bronze Globe Valves

Screw-in Bonnet • Integral Seat • Resilient Seat



125 PSI/8.6 Bar Non-Shock Cold Working Pressure

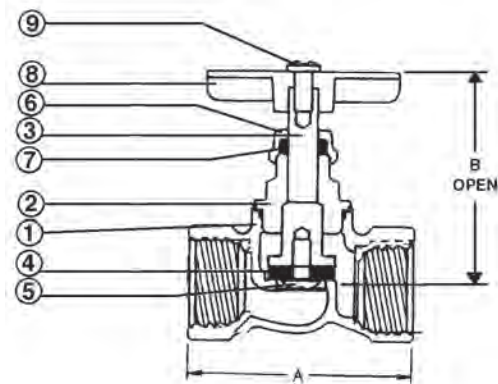
MATERIAL LIST

PART	SPECIFICATION
1. Body	Cast Copper-based Alloy C84400
2. Bonnet	Cast Copper-based Alloy C84400
3. Stem	Cold-formed Copper Alloy
4. Seat Disc	Buna-N Rubber
5. Seat Disc Screw	Stainless Steel Type 430
6. Packing Nut	Free Cutting Brass ASTM B 16
7. Packing	Graphite Impregnated Asbestos-Free
8. Handwheel	Cast Copper-based Alloy C83800
9. T-Handle Screw	Stainless Steel

Maximum operating temperature 180° F/82° C.



75-K
Threaded
with Cross Handle



75-K
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions				75-K		Master	
	A		B		Lbs.	Kg.	Ctn.	Qty.
In.	mm.	In.	mm.	In.	mm.			
1/2	15	2.13	54	2.44	62	.4	.18	100
3/4	20	2.25	57	2.44	62	.5	.23	100

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Freezing Weather Precaution – Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.

Class 125 Bronze Globe Valves

Screw-In Bonnet • Integral Seat • Renewable Seat Disc

125 PSI/8.6 bar saturated steam to 353° F/178° C
200 PSI/13.8 bar non-shock cold working pressure

CONFORMS TO MSS SP-80

MATERIAL LIST

PART	SPECIFICATION
1. Handwheel Nut	300 Series Stainless Steel
2. Identification Plate	Aluminum
3. Handwheel	Malleable Iron ASTM A 47
4. Stem	Silicon Bronze ASTM B 371 Alloy C69400/C69430
5. Packing Gland	Bronze ASTM B 62 or ASTM B124 Brass ASTM B16 C36000
6. Packing Nut	Bronze ASTM B 62 or ASTM B584 Alloy C37700 or Alloy C36000
7. Packing	Aramid Fibers with Graphite
8. Bonnet	Bronze ASTM B 62
9. Disc Holder Nut	Bronze ASTM B 140 Alloy C31400 or B 62
*10. Disc Holder	Bronze ASTM B 62
*11. Seat Disc	Water, Oil or Gas Steam (PTFE) (Y)
*11a. Seat Disc	Bronze ASTM B 62 (B)
*12. Disc Nut	Bronze ASTM B 62/ASTM B 98 Alloy C65100 w/SS Washer
13. Body	Bronze ASTM B 62

Note: S-211 not available with (B) Disc.

*The Bronze Disc does not require a Disc Nut. When converting from (B) Disc to (Y) Disc, order Disc Nut (12) and Disc Holder (10) and proper disc (11).

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions						T-211		Master Ctn. Qty.	
	In.	mm.	A In.	mm.	B In.	mm.	In.	mm.		Lbs.
*1/8†	6	2.38	60	3.38	86	1.81	46	1.01	0.46	50
*1/4†	8	2.38	60	3.38	86	1.81	46	1.00	0.45	50
*3/8†	10	2.38	60	3.38	86	1.81	46	0.98	0.45	50
*1/2†	15	2.56	65	3.38	86	1.69	43	1.03	0.47	50
3/4	20	3.06	78	4.88	124	2.25	57	1.73	0.79	30
1	25	3.69	94	5.69	145	2.81	72	2.85	1.29	20
1 1/4	32	4.31	110	6.13	156	3.06	78	3.79	1.72	10
1 1/2	40	4.69	119	7.38	187	3.56	91	5.90	2.68	10
2	50	5.63	143	7.94	202	4.44	113	8.68	3.94	6
2 1/2	65	6.63	168	10.19	259	5.25	133	15.40	6.98	2
3	80	7.75	197	11.19	284	6.50	165	22.44	10.18	2

*Stem and Disc (or Disc Holder) are integral.

†No packing gland, packing only in these sizes.

FREEZING WEATHER PRECAUTION: Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.



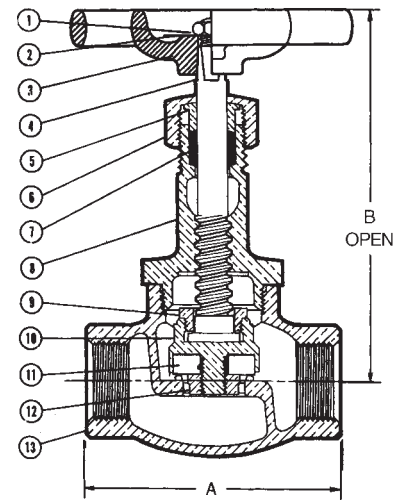
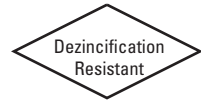
WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



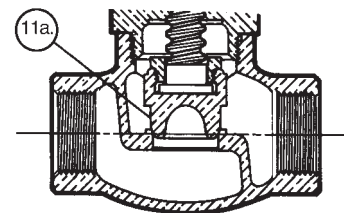
T-211
Threaded



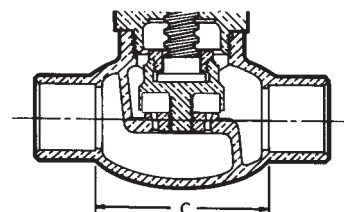
T-211-YK
Threaded
With Cross Handle



T-211-Y
NPT x NPT



T-211-B
NPT x NPT



S-211-Y
C x C

Class 125 Bronze Angle Valves

Screw-In Bonnet • Integral Seat • Renewable Seat Disc

125 PSI/8.6 bar saturated steam to 353° F/178° C
200 PSI/13.8 bar non-shock cold working pressure

CONFORMS TO MSS SP-80

MATERIAL LIST

PART	SPECIFICATION
1. Handwheel Nut	300 Series Stainless Steel
2. Identification Plate	Aluminum
3. Handwheel	Malleable Iron ASTM A 47
4. Stem	Silicon Bronze ASTM B 371 Alloy C69400/C69430
5. Packing Gland	Bronze ASTM B 62 or ASTM B124 Brass ASTM B16 C36000
6. Packing Nut	Bronze ASTM B 62 or ASTM B584 Alloy C37700 or Brass ASTM Alloy C36000
7. Packing	Aramid Fibers with Graphite
8. Bonnet	Bronze ASTM B 62
*9. Disc Holder Nut	Bronze ASTM B 62 or B 140 Alloy C31400
10. Disc Holder	Bronze ASTM B 62
11. Seat Disc	Steam (PTFE) (Y)
12. Seat Disc Nut	Bronze ASTM B 62 w/SS Washer
13. Body	Bronze ASTM B 62

*2½" and 3" are ASTM B 61

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions				T-311		Master Ctn. Qty.			
	In.	mm.	In.	mm.	Lbs.	Kg.				
*¼	8	3.50	89	.94	24	1.19	0.98	0.44	50	
*⅜	10	3.50	89	.88	22	1.19	0.93	0.42	50	
*½	15	3.50	89	.88	22	1.31	33	1.01	0.46	30
¾	20	4.94	126	1.13	29	1.56	40	1.70	0.77	20
1	25	5.75	146	1.44	37	1.88	48	2.82	1.28	10
1¼	32	6.13	156	1.50	38	2.19	51	3.76	1.70	10
1½	40	7.25	179	1.75	45	2.38	60	5.79	2.63	6
2	50	8.13	206	2.16	55	2.81	72	8.76	3.97	4
2½	65	10.56	268	2.69	68	3.19	81	16.13	7.32	2
3	80	11.19	284	3.25	83	3.88	99	21.72	9.85	2

*Stem and Disc or Disc Holder are integral. No packing gland, packing only in these sizes.

FREEZING WEATHER PRECAUTION: Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.



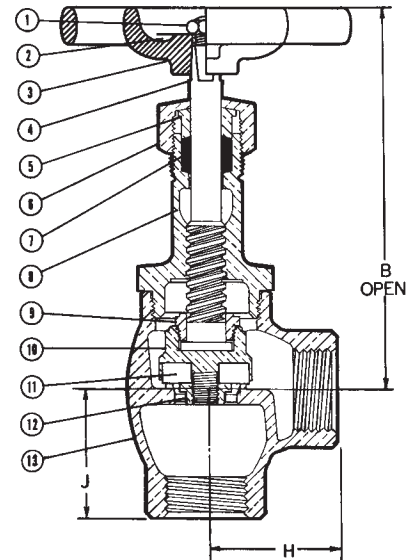
WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



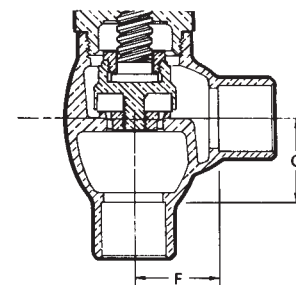
T-311-Y
Threaded



T-311-YK
Threaded
With Cross Handle

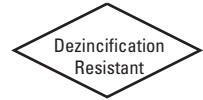


T-311-Y
NPT x NPT



S-311-Y
C x C

Bronze and Brass Check Valves Illustrated Index



Brass Check Valve
Horizontal Swing
200 lb. CWP



T1-3
Sizes 1/2" thru 4"
Threaded Ends
Page 17



Bronze Check Valve
Horizontal Swing
125 lb. SWP
200 lb. CWP



T-413-B or V, W, Y
Bronze or Various Non-Metallic Discs
Regrinding Type • Y-Pattern
Sizes 1/4" thru 3"
Threaded Ends
Page 18



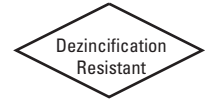
Bronze Silent Check Valve
Ring Check Design • Spring Actuated
125 lb. SWP/250 lb. CWP (PTFE Disc)
250 lb. CWP (Buna-N Disc)



T-480
Buna-N or PTFE Disc
Spring Actuated
Sizes 3/8" thru 2"
Threaded Ends
Page 19

200 PSI CWP Brass Check Valves

Swing Type



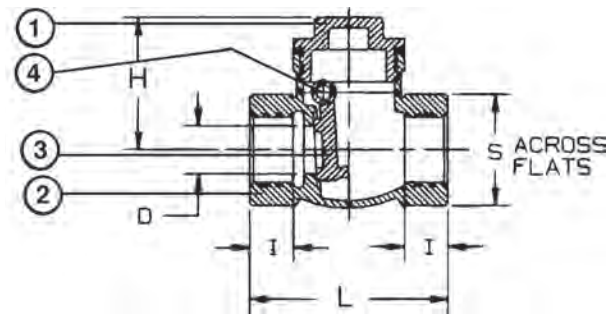
200 PSI/13.8 Bar Non-Shock Cold Working Pressure to 180° F/82° C



TI-3
Threaded

MATERIAL LIST

PART	SPECIFICATION
1. Cover	Bronze ASTM B 584 Alloy C85700
2. Body	Bronze ASTM B 584 Alloy C85700
3. Disc	Forging Brass ASTM B 124 Alloy C37700
4. Pin	Brass ASTM B 16 Alloy C36000
5. Screw	Brass ASTM B 16 Alloy C36000 (not shown)



TI-3
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions

Size	D		H		I (min)		L		S		Master			
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn. Qty.	
1/2	15	.50	13	1.50	38	.47	12	2.16	55	1.06	27	.46	.21	160
3/4	20	.72	18	1.66	42	.56	14	2.38	60	1.25	32	.66	.30	120
1	25	.94	24	1.78	45	.56	14	2.75	70	1.56	40	.92	.42	72
1 1/4	32	1.22	31	2.16	55	.72	18	3.22	82	1.97	50	1.60	.73	60
1 1/2	40	1.41	36	2.38	60	.72	20	3.75	95	2.16	55	1.79	.81	32
2	50	1.81	46	2.63	67	.72	20	4.13	105	2.69	68	2.87	1.30	24
2 1/2	65	2.25	57	3.22	82	.88	22	5.31	135	3.31	84	5.29	2.40	12
3	80	2.72	69	3.69	94	1.00	25	5.88	149	3.94	100	8.82	4.00	6

Threaded ends per ANSI B1 20 1.

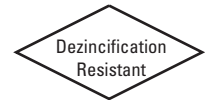
WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

NIBCO check valves may be installed in both horizontal and vertical lines with upward flow or in any intermediate position. They will operate satisfactorily in a declining plane (no more than 15°).

Warning – Do Not Use For Reciprocating Air Compressor Service.

Class 125 Bronze Check Valves

Horizontal Swing • Regrinding Type • Y-Pattern • Renewable Seat and Disc



125 PSI/8.6 Bar Saturated Steam to 353°F/178°C
200 PSI/13.8 Bar Non-Shock Cold Working Pressure

CONFORMS TO MSS SP-80

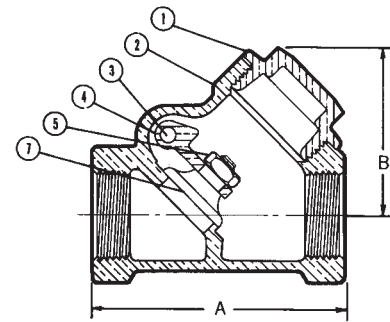
MATERIAL LIST

PART	SPECIFICATION
1. Bonnet	Bronze ASTM B 62
2. Body	Bronze ASTM B 62
3. Hinge Pin	Bronze ASTM B140 Alloy C31400 or B 134 Alloy C23000
4. Disc Hanger	Bronze ASTM B 62 or MPIF SS-316NI-25
5. Hanger Nut	Bronze ASTM B 16
6. Disc Holder	Bronze ASTM B 62
7. Seat Disc	Water, Oil or Gas (Buna-N) (W) Steam (PTFE) (Y) Bronze ASTM (B) FKM (V) B 62 C83600
8. Seat Disc Nut	Bronze ASTM B 16 or B 62
9. Hinge Pin Plug	Bronze ASTM B140 Alloy C31400 (not shown)
10. Seat Disc Washer*	ASTM B 98 Alloy C65500 or ASTM B 103

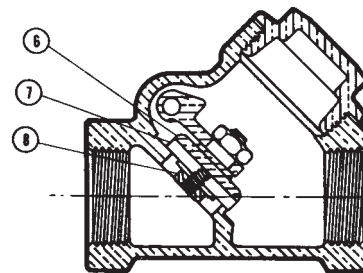
*Sizes ¾", 1", 1¼", 1½" and 2" only.



T-413
Threaded



T-413-B
NPT x NPT



T-413-Y
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions						T-413		Master Ctn. Qty.	
	A		B		C		Lbs.	Kg.		
In.	mm.	In.	mm.	In.	mm.	In.	mm.			
¼	8	2.13	54	1.63	41	1.38	35	0.50	0.23	50
⅜	10	2.13	54	1.63	41	1.31	33	0.47	0.22	50
½	15	2.44	62	1.69	43	1.50	38	0.55	0.25	50
¾	20	2.94	75	1.88	48	1.88	48	0.90	0.41	10
1	25	3.56	90	2.31	59	2.25	57	1.46	0.66	5
1¼	32	4.19	106	2.69	68	2.75	70	2.17	0.99	20
1½	40	4.50	114	2.94	75	3.11	79	2.95	1.34	10
2	50	5.25	133	3.94	100	3.75	95	4.79	2.17	10
2½*	65	8.00	203	5.06	129	5.06	129	11.48	5.21	5
3*	80	9.25	235	6.25	159	6.25	159	17.53	7.96	4

Ordering: T-413 and S-413 normally furnished with Bronze Disc (T-413-B) or (S-413-B).

Both available with PTFE Steam Disc (T-413-Y), (S-413-Y), or CWP Disc (T-413-W), (S-413-W) or 300° F 67 PSI steam FKM Disc (T-413-V).

*Class 150 (433) furnished for these sizes.

Install 5 pipe diameters minimum downstream from pump discharge or changes in direction to avoid flow turbulence. Flow straighteners may be required in extreme cases.

Note: On pump discharge, the preferred check valves are: inline, spring assisted, center-guided, lift checks.

NIBCO® Check Valves may be installed in both horizontal and vertical lines with upward flow or in any intermediate position. They will operate satisfactorily in a declining plane (no more than 15°).

Warning – Do Not Use For Reciprocating Air Compressor Service.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Class 125 Bronze Ring Check® Valves

Inline Lift Type • Resilient Discs • Spring Actuated

125 PSI/8.6 bar saturated steam to 353° F/178° C (PTFE Disc)

250 PSI/17.2 bar non-shock cold working pressure

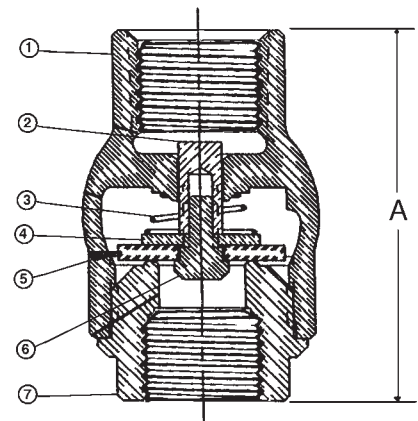


T-480

Threaded

MATERIAL LIST

PART	SPECIFICATION
1. Body	Bronze ASTM B584 Alloy C84400
2. Stem	Stainless Steel ASTM A 582 Alloy C30300
3. Spring	316 Stainless Steel
4. Disc Holder	Stainless Steel Type 301
5. Disc	Water, Oil or Gas (Buna-N) Steam (PTFE) (Y)
6. Seat Screw	Stainless Steel ASTM A276 Alloy S43000
7. Body End	Bronze ASTM B584 Alloy C84400



T-480-Y (PTFE Disc)
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions						T-480		Master Ctn. Qty.	
	A		B		C		Lbs.	mm.		
In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	mm.	
3/8	10	2.00	51	1.38	35	1.44	37	0.41	0.19	100
1/2	15	2.06	52	1.38	35	1.19	30	0.36	0.16	100
3/4	20	2.25	57	1.63	41	1.31	33	0.48	0.22	100
1	25	2.63	67	2.00	51	1.50	38	0.77	0.35	50
1 1/4	32	2.94	75	2.38	60	1.69	43	1.14	0.51	30
1 1/2	40	3.31	84	2.75	70	2.00	51	1.63	0.74	30
2	50	3.69	94	3.38	86	2.31	59	2.27	1.03	10

Ordering: The T-480 and S-480 both have standard Buna-N Discs.

Also available with PTFE (Y) Discs; specify T-480-Y or S-480-Y.

3/8" thru 2" require 1/2 pound pressure to open.

Install 5 pipe diameters minimum downstream from pump discharge or changes in direction to avoid flow turbulence. Flow straighteners may be required in extreme cases.

Note: On pump discharge, the preferred check valves are:
- inline, spring assisted, center-guided, lift checks.

NIBCO® Check Valves may be installed in both horizontal and vertical lines with upward flow or in any intermediate position.

Warning – Do Not Use For Reciprocating Air Compressor Service.



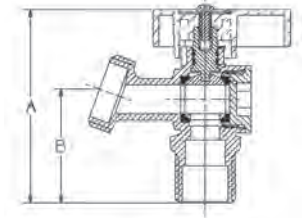
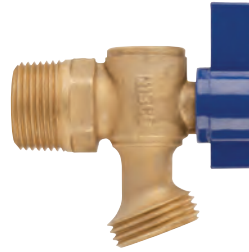
WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Quarter-Turn Boiler Drains

125 lb. CWP to 100°F
Maximum Temperature 180°F

QUARTER-TURN BOILER DRAINS MATERIAL LIST

PART	SPECIFICATION
Screw	Steel
I.D. Tag	Aluminum
Handle	Zinc
Stem	Brass ASTM B 16 UNS C36000
O-Ring	Nitrile
Seat	PTFE
Ball	Brass ASTM B 16 UNS C36000
Adapter	Brass ASTM B 283 UNS C37700
Body	Brass ASTM B 283 UNS C37700



QT74X

DESCRIPTION	NOM. SIZE	DIMENSIONS		APPROX. NET WT.
		A	B	
BOILER DRAIN Cup or MIP Threads to Hose	1/2"	2.64"	1.57"	.40 lb
	3/4"*	2.72"	1.65"	.42 lb

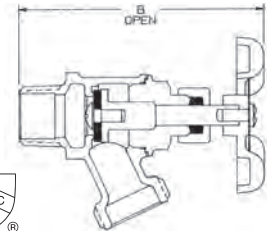
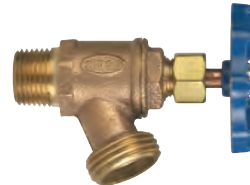
IAPMO Listed to cUPC®
* 3/4" furnished in male threads only

Multi-Turn Boiler Drains

125 lb. CWP to 100°F
Maximum Temperature 180°F

MULTI-TURN MATERIALS LIST

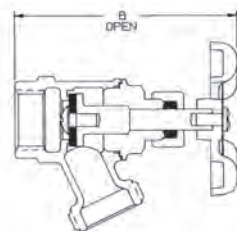
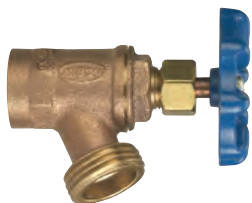
PART	SPECIFICATION
Body	Cast Copper - Based Alloy C84400
Bonnet	Cast Copper - Based Alloy C84400
Stem	Cold-formed Copper Alloy
Seat Disc	Buna-N
Seat Disc Screw	Stainless Steel, Type 410
Packing Nut	Free Cutting Brass - ASTM B 16
Packing	Graphite Impregnated, Asbestos-Free
Handwheel	Epoxy Coated Zinc Alloy
Handwheel Screw	Carbon Steel - Clear Chromate Finish



74-CL

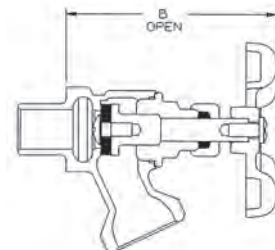
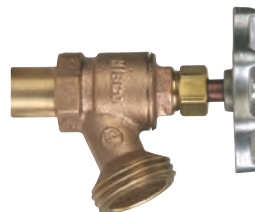
DESCRIPTION	NOM. SIZE	DIMENSIONS	APPROX. NET WT.
		B	
Boiler Drain Copper or Male Threads to Hose	1/2"	3 11/16"	.4 lb
	3/4"*	3 3/4"	.45 lb

IAPMO Listed to cUPC®
* 3/4" furnished in male threads only



73-CL

DESCRIPTION	NOM. SIZE	DIMENSIONS	APPROX. NET WT.
		B	
Boiler Drain Threaded to Hose	1/2"	3 1/4"	.50 lb
	3/4"	3 5/16"	.60 lb



74-2

DESCRIPTION	NOM. SIZE	DIMENSIONS	APPROX. NET WT.
		B	
Boiler Drain Fit to Hose	1/2"	3 3/8"	.40 lb

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

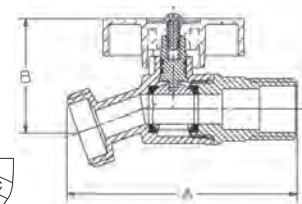
Hose Bibbs

125 lb. CWP to 100°F

Maximum Temperature 180°F

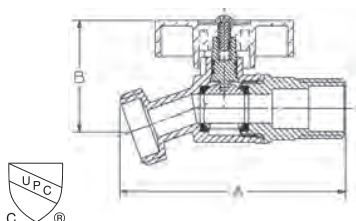
QUARTER TURN HOSE BIBBS MATERIALS LIST

PART	SPECIFICATION
Screw	Steel
I.D. Tag	Aluminum
Handle	Zinc
Stem	Brass ASTM B 16 UNS C36000
O-Ring	Nitrile
Seat	PTFE
Ball	Brass ASTM B 16 UNS C36000
Adapter	Brass ASTM B 283 UNS C37700
Body	Brass ASTM B 283 UNS C37700



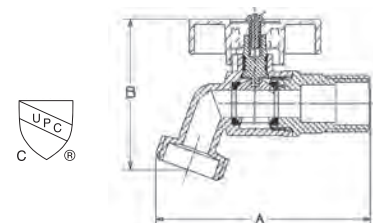
QT54X

DESCRIPTION	Nom. Size	DIMENSIONS		APPROX. NET WT.
		A	B	
NO-KINK HOSE BIB Male or Cup to Hose	1/2	3.15"	1.54"	.40 lb
	3/4	3.15"	1.54"	.42 lb



QT55X

DESCRIPTION	Nom. Size	DIMENSIONS		APPROX. NET WT.
		A	B	
NO-KINK HOSE BIBB FIP to Hose	1/2	2.87"	1.54"	.40 lb
	3/4	3.15"	1.54"	.45 lb



QT56X

DESCRIPTION	Nom. Size	DIMENSIONS		APPROX. NET WT.
		A	B	
HOSE BIBB Cup or Male to Hose Male Thread to Hose	1/2	3.15"	2.17"	.40 lb
	3/4	3.15"	2.14"	.42 lb

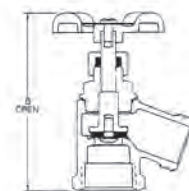
Garden Valves

125 lb. CWP to 100°F

Maximum Temperature 180°F

GARDEN VALVE MATERIALS LIST

PART	SPECIFICATION
Body	Cast Copper - Based Alloy C84400
Bonnet	Cast Copper - Based Alloy C84400
Stem	Cold-formed Copper Alloy
Seat Disc	Buna-N
Seat Disc Screw	Stainless Steel, Type 410
Packing Nut	Free Cutting Brass - ASTM B 16
Packing	Graphite Impregnated, Asbestos-Free
Handwheel	Epoxy Coated Zinc Alloy
Handwheel Screw	Carbon Steel - Clear Chromate Finish



61

DESCRIPTION	Nom. Size	DIMENSIONS	APPROX. NET WT.
		B	
Bent Nose Hose Bibb FIP to Hose	1/2"	3 5/8"	.60 lb
	3/4"	3 3/4"	.70 lb

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

4660-S/4660-T

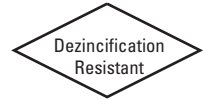
One-Piece Molded Body

150 PSI/10.3 Bar Non-Shock Cold Working Pressure to 73° F/23° C

NSF STANDARD 14

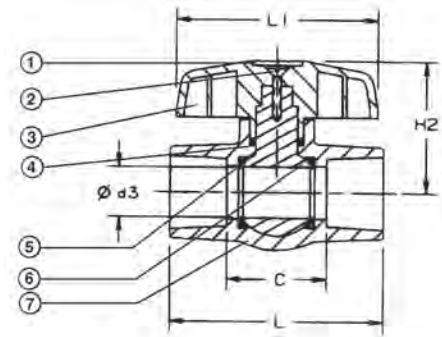
MATERIAL LIST

PART	SPECIFICATION
1. Handle Cap	ABS
2. Screw	Zinc-plated Steel
3. Handle	ABS
4. O-Ring	EPDM
5. Seat Seal	PTFE, EPDM
6. Ball	PVC
7. Body	PVC

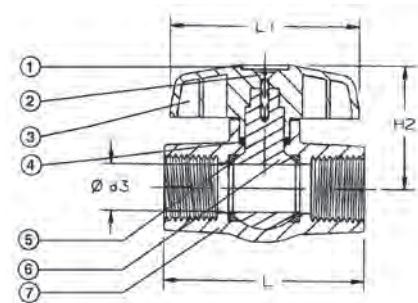


4660-S
Socket Weld

4660-T
Threaded
(not shown)



4660-S
Socket x Socket



4660-T
Threaded x Threaded

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions								4660-S		Master Ctn.	Qty.			
	C		d3		H2		L		L1	Lbs.			Kg.		
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn.	Qty.
½	15	1.52	38	.55	14	1.69	43	3.27	83	2.76	69	.18	.08	100	
¾	20	1.74	43	.79	20	2.13	54	3.74	93	3.47	87	.31	.14	100	
1	25	1.92	48	.98	24	2.56	64	4.17	104	3.94	98	.49	.22	100	
1¼	32	1.99	50	1.18	29	2.64	66	4.49	112	3.94	98	.57	.25	100	
1½	40	2.37	59	1.42	35	3.07	77	5.12	128	4.29	107	.88	.39	48	
2	50	2.79	70	1.83	46	3.50	87	5.79	145	5.28	132	1.50	.67	48	
2½	65	4.53	113	2.36	59	4.13	103	8.03	201	7.01	175	2.73	1.23	12	
3	80	5.27	132	3.03	76	4.88	122	9.02	225	8.82	220	4.01	1.80	12	
4	100	7.31	183	3.98	99	5.83	146	11.81	295	10.87	272	8.29	3.73	6	

Socket ends per ASTM D 2466

Thread ends per ANSI B1.20.1

Bronze and Brass Ball Valves Illustrated Index




Bronze Ball Valve
Standard Port
400 lb. CWP




T-580
Two-Piece Body • Blowout-Proof Stem
Sizes 1/2" thru 2"
Threaded Ends
Page 24


Bronze Ball Valve
Conventional Port
150 lb. SWP
600 lb. CWP



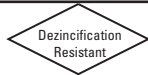
T-580-70
Two-Piece Body • Blowout-Proof Stem
Sizes 1/4" thru 3"
Threaded Ends
Page 25



Bronze Ball Valve
Full Port
150 lb. SWP
600 lb. CWP



T-585-70
Two-Piece Body • Blowout-Proof Stem
Sizes 1/4" thru 2"
Threaded Ends
Page 26




Brass Ball Valve
Full Port
600 lb. CWP



T-585-70-SSH
1/2" - 2"
T-580-70-SSH
2-1/2" - 3"
Threaded
Page 27

Brass Ball Valve
Full Port
600 lb. CWP



T-FP-600
Sizes 1/4" thru 4"
Threaded Ends
Page 28

WARNING: The body cavity around the ball of all ball valves should always be considered to contain media under pressure. The nature of the Quarter turn and floating ball allows media into the cavity, while in the closed position or anytime the valve is operated. The only means to assure the cavity is drained and the pressure is relieved is to leave the ball in the half open/Half closed position when the line is drained.

Bronze Ball Valves

Two-Piece Body • Standard Port • Blowout-Proof Stem • PTFE Seats

400 PSI/27.6 Bar Non-Shock Cold Working Pressure

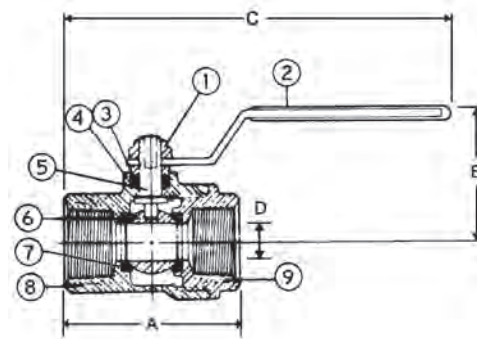


T-580

Threaded

MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Zinc Plated Steel
2. Handle	Zinc Plated Steel Clear Chromate Plastisol Coated
3. Packing Gland	Brass ASTM B 16 Alloy C36000
4. Packing	PTFE
5. Stem	Silicon Bronze ASTM B 371 Alloy C69400 or ASTM B 16 Alloy C36000
6. Ball	Brass ASTM B 124 Alloy C37700 or ASTM B 16 Alloy C36000
7. Seat Rings	PTFE
8. Body	Bronze ASTM B 584 Alloy C84400 or Brass ASTM B 124 Alloy C37700
9. Body End Piece	Bronze ASTM B 584 Alloy C84400 or Brass ASTM B 124 Alloy C37700



T-580
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions

Size	A		B		C		D Port		Master			
	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn. Qty.	
½	15	2.00	51	1.56	40	4.88	124	.38	10	.50	.23	100
¾	20	2.28	58	1.72	44	5.00	127	.50	13	.70	.32	
1	25	2.88	73	2.06	52	6.06	154	.75	19	1.20	.54	50
1¼	32	3.41	87	2.31	59	6.34	161	1.00	25	1.80	.82	40
1½	40	3.75	95	2.81	71	8.56	217	1.25	32	2.901	.32	20
2	50	4.44	113	3.06	78	8.88	226	1.50	38	4.30	1.95	10

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

◆ For detailed Operating Pressure, refer to Pressure Temperature Chart on page 45.

Bronze Ball Valves

Two-Piece Body • Full Port 1/4"-1" • Conventional Port 1 1/4"-3" • Bronze Trim • Blowout-Proof Stem



600 PSI/41.4 Bar Non-Shock Cold Working Pressure
150 PSI/10.3 Bar Saturated Steam ◆

CONFORMS TO MSS SP-110

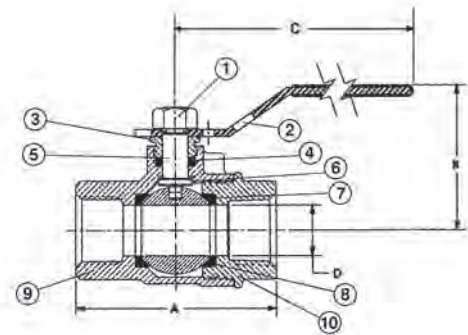
MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Zinc Plated Steel
2. Handle	Zinc Plated Steel Clear Chromate Plastisol Coated
3. Threaded Pack Gland	Brass ASTM B 16 Alloy C36000
4. Packing	PTFE
5. Stem	Silicon Bronze ASTM B 371 Alloy C69400 or ASTM B 99 Alloy C65100
6. Thrust Washer	Reinforced PTFE
7. Ball	Brass ASTM B 124 Alloy C37700 or ASTM B16 Alloy C36000 with Hard Chrome Plate
8. Seat Ring (2)	Reinforced PTFE
9. Body	Cast Red Bronze ASTM B 584 Alloy C84400
10. Body End Piece	Cast Red Bronze ASTM B 584 Alloy C84400

1/4" size only has a 304 stainless steel grounding washer.



T-580-70
Threaded



T-580-70
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

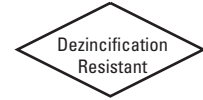
Size	Dimensions								Master			
	A		B		C		D Port		Lbs.	Kg.	Ctn. Qty.	
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.			
** 1/4	8	2.00	51	1.75	44	5.00	127	.38	10	.45	.21	100
** 3/8	10	2.00	51	1.75	44	5.00	127	.38	10	.45	.21	100
** 1/2	15	2.44	62	1.88	48	5.19	132	.50	13	.64	.29	100
** 3/4	20	2.94	75	2.25	57	6.25	159	.75	19	1.33	.60	50
** 1	25	3.34	94	2.38	60	6.44	164	1.00	25	1.79	.81	40
1 1/4	32	3.94	100	2.63	67	6.75	171	1.00	25	2.17	.98	20
1 1/2	40	4.31	110	3.00	76	8.88	226	1.25	32	3.27	1.48	20
2	50	4.63	117	3.25	83	9.06	230	1.50	38	5.09	2.31	10
2 1/2	65	5.84	148	3.53	90	9.66	245	2.00	51	8.25	3.74	6
3	80	7.09	180	4.41	112	11.53	293	2.50	64	15.65	7.10	4

**NIBCO supplies full port T-585-70 on this size.

⚠ WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Bronze Ball Valves

Two-Piece Body • Full Port • Bronze Trim • Blowout-Proof Stem



600 PSI/41.4 Bar Non-Shock Cold Working Pressure
150 PSI/10.3 Bar Saturated Steam ◆

CONFORMS TO MSS SP-110

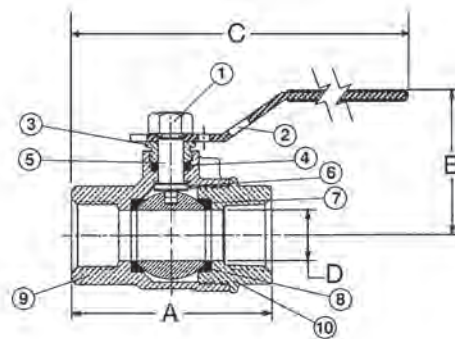
MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	Zinc Plated Steel
2. Handle	Zinc Plated Steel Clear Chromate Plastisol Coated
3. Threaded Pack Gland	Brass ASTM B 16 Alloy C36000
4. Packing	PTFE
5. Stem	Silicon Bronze ASTM B 371 Alloy C69430 or ASTM B 99 Alloy C65100
6. Thrust Washer	Reinforced PTFE
7. Ball	Brass ASTM B 124 Alloy C37700 or ASTM B16 Alloy C36000 with Hard Chrome Plate
8. Seat Ring (2)	Reinforced PTFE
9. Body	Cast Red Bronze ASTM B 584 Alloy C84400
10. Body End Piece	Cast Red Bronze ASTM B 584 Alloy C84400

1/4" size only has a 304 stainless steel grounding washer.



T-585-70
Threaded



NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions								Lbs.	Kg.	Master Ctn. Qty.
	A		B		C		D				
In. mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.			
1/4 8	2.00	51	1.75	44	5.00	127	.38	10	.45	.21	100
3/8 10	2.00	51	1.75	44	5.00	127	.38	10	.45	.21	100
1/2 15	2.44	62	1.88	48	5.19	132	.50	13	.64	.29	100
3/4 20	2.94	75	2.25	57	6.25	159	.75	19	1.33	.60	50
1 25	3.34	85	2.38	60	6.44	164	1.00	25	1.79	.81	40
1 1/4 32	4.19	106	3.00	76	6.75	171	1.25	32	3.12	1.41	20
1 1/2 40	4.72	120	3.16	80	9.06	230	1.50	38	4.78	2.17	10
2 50	5.16	131	3.50	89	9.25	235	2.00	51	6.68	3.03	8

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Bronze Ball Valves

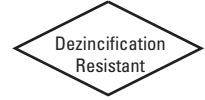
Two-Piece Body • Full Port (1/2"-2") • Conventional Port (2 1/2"-3") •
Bronze Trim • Blowout Proof Stem •
Stainless Steel Handle and Handle Nut

600 PSI/41.4 bar non-shock cold working pressure
150 PSI/10.3 bar saturated steam*

CONFORMS TO MSS SP-110

MATERIAL LIST

PART	SPECIFICATION
1. Handle Nut	300 Series Stainless Steel
2. Handle	300 Series Stainless Steel Plastisol Coated
3. Threaded Pack Gland	Brass ASTM B 16 Alloy C36000
4. Packing	PTFE
5. Stem	Silicon Bronze ASTM B 371 Alloy C69300 or ASTM B 99 Alloy C65100
6. Thrust Washer	Reinforced PTFE
7. Ball	Brass ASTM B 124 Alloy C37700 or ASTM B16 Alloy C36000 EACH with Hard Chrome Plate
8. Seat Ring (2)	Reinforced PTFE
9. Body	Cast Red Bronze ASTM B 584 Alloy C84400
10. Body End Piece	Cast Red Bronze ASTM B 584 Alloy C84400



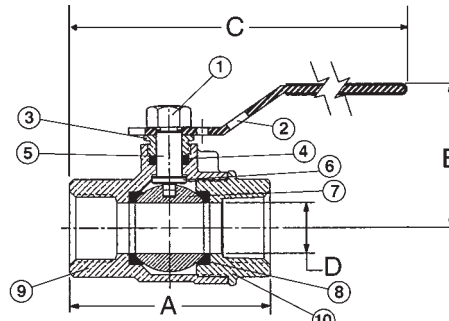
T-585-70-SSHN

1/2" - 2"

T-580-70-SSHN

2-1/2" - 3"

Threaded



T-585-70-SSHN
T-580-70-SSHN
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions											
	A		B		C		D		T-585-70		Master	
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs.	Kg.	Ctn.	Qty.	
1/2	15	2.44	62	1.88	48	5.19	132	.50	13	.64	.29	100
3/4	20	2.94	75	2.25	57	6.25	159	.75	19	1.33	.60	50
1	25	3.34	85	2.38	60	6.44	164	1.00	25	1.79	.81	40
1 1/4	32	4.19	106	3.00	76	6.75	171	1.25	32	3.12	1.41	20
1 1/2	40	4.72	120	3.16	80	9.06	230	1.50	38	4.78	2.17	10
2	50	5.16	131	3.50	89	9.25	235	2.00	51	6.68	3.03	8
2 1/2	65	5.84	148	3.50	89	9.66	245	2.00	51	8.25	3.74	6
3	80	7.09	180	4.41	112	11.53	293	2.50	64	15.65	7.10	4

Note: Higher temperature solders will damage the seat material. See installation sheet packaged with valves.

♦For detailed operating pressure, refer to pressure temperature chart on page 42.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

*Weighted average lead content ≤ 0.25%

Brass Ball Valves

Two-Piece Body • Full Port • Blowout-Proof Stem • PTFE Seats
1/4"-2" 600 PSI/41.4 Bar Non-Shock Cold Working Pressure
2 1/2"-4" 400 PSI/27.6 Bar Non-Shock Cold Working Pressure

CSA CERTIFIED TO ASME B16.44 AND CR91-002 (THREADED 1/4"-4")
 • UL LISTED (THREADED 1/4"-4") • FM APPROVED (THREADED 1/4"-2")
 • CRN: 0C19353.5XX*

Threaded
 CSA (1/4" - 4"):
 • CR91-002: 1/2 psig, 2 psig, and 5 psig (these are specific approved categories)
 • ASME B16.33: 125 psig (maximum)
 • Temperature is -4° F to 194° F

Threaded
 FM (1/4" - 2"):
 • 175wwp Threaded

UL, Gas and Oil (1/4" - 4"):
 • YQNZ, Compressed Gas Shutoff Valves: 250 psi
 • YRBX, Flammable Liquid Shutoff Valves: 250 psi
 • YRPV, Gas Shutoff Valves: 250 psi
 • YSDT, LP-Gas Shutoff Valves: 250 psi
 • MHKZ, Manual Valves: 250 psi

*Please contact Technical Customer Service for the CRN Jurisdictions/Provinces list



T-FP-600A
Threaded



S-FP-600A
Solder



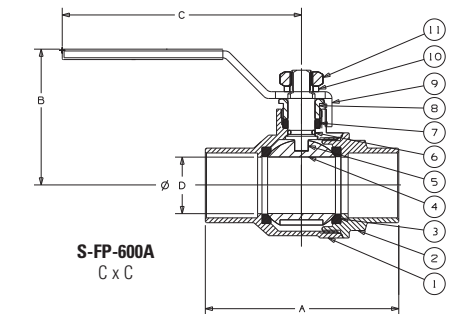
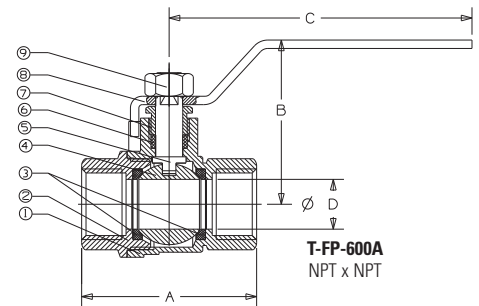
MATERIAL LIST

PART	SPECIFICATION
1. Body	Forged Brass ² CU > 57%
2. End Cap	Forged Brass ² CU > 57%
3. Ball Seat	PTFE
4. Ball	Brass, Chrome Plated
5. Stem	Brass
6. O-Ring (Stem Seal)*	Fluorocarbon (FKM)
7. Stem Packing	PTFE
8. Packing Nut	Brass
9. Lever Handle ¹	Steel, Plated
10. Lock Washer*	Stainless Steel
11. Handle Nut ¹	Stainless Steel

Note: * Parts 6 and 10 are applicable of S-FP-600A only.

¹ Due to Standard Approvals, Lever Handles and Nuts are not interchangeable between Solder and Threaded.

² For Material Certification, contact NIBCO Technical Services.



DIMENSIONS—WEIGHTS—QUANTITIES

Size	T-FP-600A		S-FP-600A		T-FP-600A		S-FP-600A		T-FP-600A		S-FP-600A		Port		T-FP-600A		S-FP-600A		T-FP-600A		S-FP-600A		
	A	A	B	B	C	C	D	D	Lbs.	Kg.	Lbs.	Kg.	Ctn.	Qty.	Ctn.	Qty.	Lbs.	Kg.	Lbs.	Kg.	Ctn.	Qty.	
1/4	8	1.76	45	—	—	1.73	44	—	—	3.54	90	—	—	.39	10	.33	.15	—	—	18	—	—	
3/8	10	1.76	45	1.75	44	1.73	44	1.58	40	3.54	90	3.78	96	.39	10	.30	.14	.38	.17	18	18	—	—
1/2	15	2.05	52	2.01	51	1.92	49	1.78	45	3.54	90	3.78	96	.59	15	.44	.20	.40	.18	18	18	—	—
3/4	20	2.36	60	2.74	70	2.09	53	2.13	54	3.78	96	3.98	101	.75	19	.66	.30	.67	.30	12	12	—	—
1	25	2.76	70	3.35	85	2.56	65	2.52	64	4.53	115	4.41	112	.98	25	1.10	.50	1.12	.51	6	6	—	—
1 1/4	32	3.31	84	3.78	96	2.95	75	2.65	67	4.53	115	5.04	128	1.26	32	1.57	.71	1.49	.67	4	4	—	—
1 1/2	40	3.66	93	4.42	112	3.35	85	3.12	79	5.51	140	6.22	158	1.57	40	2.40	1.09	2.38	1.08	2	2	—	—
2	50	4.18	106	5.34	136	3.68	93	3.41	87	5.51	140	6.22	158	1.97	50	3.37	1.53	3.62	1.64	2	2	—	—
2 1/2	65	5.38	137	6.28	160	4.76	121	4.76	121	8.66	220	8.66	220	2.56	65	7.60	3.45	6.36	2.88	3	3	—	—
3	75	6.04	153	7.15	182	5.08	129	5.08	129	8.66	220	8.66	220	2.95	75	9.36	4.24	8.32	3.77	2	2	—	—
4	100	7.39	188	—	—	5.87	149	—	—	9.61	244	—	—	3.89	99	16.85	7.64	—	—	1	—	—	—

NOT FOR USE WITH POTABLE DRINKING WATER APPLICATIONS AFTER JANUARY 3, 2014.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Iron Body Gate Valves Illustrated Index

	<p>Iron Body Gate Valve Bolted Bonnet 125 lb. SWP 200 lb. CWP</p>  <p>F-619/T-619 Non-Rising Stem • Solid Wedge Sizes 2" thru 16" Flanged or Threaded Ends Page 30</p>	<p>Iron Body Gate Valve Bolted Bonnet 200 lb. CWP</p>  <p>F-619-RWS Non-Rising Stem • Resilient Wedge Sizes 2" thru 16" Flanged Ends Page 31</p>
<p>Iron Body Gate Valve Bolted Bonnet 200 lb. CWP</p>  <p>FM-619-RWS-SON Non-Rising Stem • Resilient Wedge Sizes 3" thru 12" Flanged by MJ Ends Page 32</p>	<p>Iron Body Gate Valve Bolted Bonnet 200 lb. CWP</p>  <p>MJ-619-RWS Non-Rising Stem • Resilient Wedge Sizes 3" thru 16" Mechanical Joint Ends Page 33</p>	<p>Iron Body Gate Valve Bolted Bonnet 200 lb. CWP</p>  <p>P-619-RW Non-Rising Stem • Resilient Wedge Sizes 2" thru 12" IPS Push-On Ends Page 34</p>

Class 125 Iron Body Gate Valves

Bolted Bonnet • Non-Rising Stem • Solid Wedge • Bronze Mounted

200 PSI/13.8 bar non-shock cold working pressure from -20°F to 150°F/-29°C to 66°C[†]
Maximum working temperature 450°F/232°C at 125 PSI/8.6 bar
125 PSI/8.6 bar saturated steam to 353°F/178°C

CONFORMS TO MSS SP-70

MATERIAL LIST

PART	SPECIFICATION
1. Handwheel Nut	Steel ASTM A307
2. Identification Plate	Aluminum
3. Handwheel or Square Operating Nut	Cast Iron ASTM A126 Class B
4. Stem	Brass ASTM B16 Alloy C36000
5. Gland Follower Nut	Copper Alloy ASTM F467 Alloy C27000
6. Gland Follower	Cast Iron ASTM A126 Class B or Ductile Iron ASTM A536
7. Gland Follower Bolt	Steel ASTM A307/SAE J429
8. Packing Gland	Zinc Plated Powdered Iron ASTM B783 or Copper Alloy ASTM B16
9. Stuffing Box	Cast Iron ASTM A126 Class B
10. Packing	Aramid Fibers with Graphite
11. Stuffing Box Gasket	Synthetic Fibers
12. Bonnet	Cast Iron ASTM A126 Class B
13. Body Bolt	ASTM A307/SAE J429
14. Body Gasket	Synthetic Fibers / Nitrile
15. Body Nut	Steel ASTM A307/SAE J429
16. ¹ Wedge Bushing	Copper Alloy ASTM B584 Alloy C84400
17. Seat Ring	Copper Alloy ASTM B584 Alloy C84400
18. Wedge Face Ring	Copper Alloy ASTM B584 Alloy C84400
19. ¹ Wedge	Cast Iron ASTM A126 Class B
20. Body	Cast Iron ASTM A126 Class B
21. Stuffing Box Nut	Steel ASTM A307 (not shown) /SAE J429

¹Sizes thru 6" have Bronze Wedges. Sizes 8" thru 16" made with Cast Iron Wedge with Bronze Bushing and Wedge Face Rings.

NOTE: 14" thru 16" Maximum Steam Rating 100 PSI/6.9 Bar Maximum Non-Shock Cold Working Pressure 150 PSI/10.3 Bar.

Sizes 2" thru 12" have Aramid Fibers/graphite packings. Sizes 14" & 16" have Wire reinforced carbon yarn with resilient core with graphite and Zinc finish.

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions										F-619		T-619				
	A		B		C		D		E		Lbs.	Kg.	Lbs.	Kg.			
In. mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.							
2	50	7.00	178	5.63	143	11.00	279	7	178	6.00	152	.63	16	35	16	25	11
2½	65	7.50	191	5.88	149	12.50	318	7	178	7.00	178	.69	17	49	22	33	15
3	80	8.00	203	6.13	156	13.50	343	8	203	7.50	191	.75	19	60	27	42	19
4	100	9.00	229	6.50	165	15.75	400	10	254	9.00	229	.94	24	90	41	61	28
5	125	10.00	254	x	x	17.00	432	10	254	10.00	254	.94	24	129	59	x	x
6	150	10.50	267	x	x	21.00	533	12	305	11.00	279	1.00	25	161	73	x	x
8	200	11.50	292	x	x	25.00	635	14	356	13.50	343	1.13	29	277	126	x	x
10	250	13.00	330	x	x	29.00	737	16	406	16.00	406	1.19	30	415	188	x	x
12	300	14.00	356	x	x	34.50	876	18	457	19.00	483	1.25	32	631	287	x	x
14	350	15.00	381	x	x	40.38	1026	24	610	21.00	533	1.38	35	869	394	x	x
16	400	16.00	407	x	x	45.75	1162	24	610	23.50	597	1.44	37	1224	555	x	x

xNot available this size.



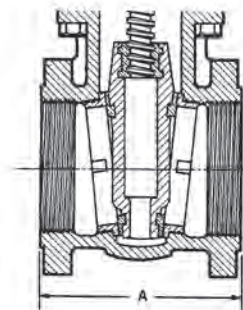
T-619
Threaded



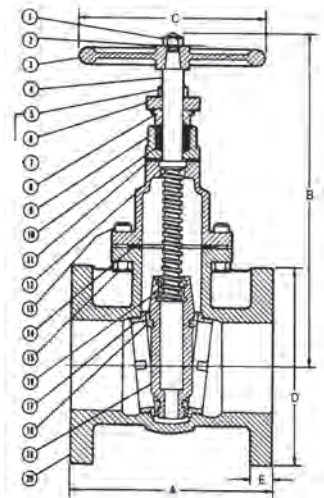
F-619-SON
Flanged
With Square Op. Nut



F-619
Flanged



T-619
NPT x NPT



F-619
Flg x Flg

FREEZING WEATHER PRECAUTION: Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.

◆For detailed Operating Pressure, refer to Pressure Temperature Chart on page 114.



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

300 PSI CWP Iron Body Gate Valves

Bolted Bonnet • Non-Rising Stem • Resilient Wedge • Flanged Ends

300 PSI/20.6 bar non-shock cold working pressure to 33°F to 160°F
Maximum working temperature 180°F at 250 PSI

CERTIFIED LEAD-FREE* BY TRUESDAIL
LABORATORIES TO NSF/ANSI 61 AND 372



F-619-RWS
Flanged

F-619-RWS-SON
Flanged

MATERIAL LIST

PART	SPECIFICATION
1 Valve Body	Ductile Iron ASTM A536 65-45-12
2 Resilient Wedge	Ductile Iron ASTM A536 / EPDM ASTM D2000
3 Wedge Nut	ASTM B584 UNS C83600
4 Stem	Stainless Steel 304
5 Bonnet Gasket	EPDM ASTM D2000
6 Bonnet Screw	Corrosion-resistant Steel
7 Bonnet	Ductile Iron ASTM A536
8 Stem Primary O-Ring	EPDM ASTM D2000
9 Stem Thrust Washer (lower)	Bronze ASTM B584 UNS C83600
10 Stem Thrust Washer (upper)	Stainless Steel ASTM A276 UNS S41000
11 Gland Seal O-Ring	EPDM ASTM D2000
12 Stem Seal Bushing	ASTM B584 UNS C83600
13 Stem Secondary O-Ring	EPDM ASTM D2000
14 Gland Flange	Ductile Iron ASTM A536
15 Stem Ring Wiper	EPDM ASTM D2000

Coating — Electrostatically applied fusion-bonded epoxy 8-20 mil. inside and outside meets or exceeds performance requirements of AWWA C550.
Epoxy coating is not intended to serve as a dielectric barrier internal to the piping system.

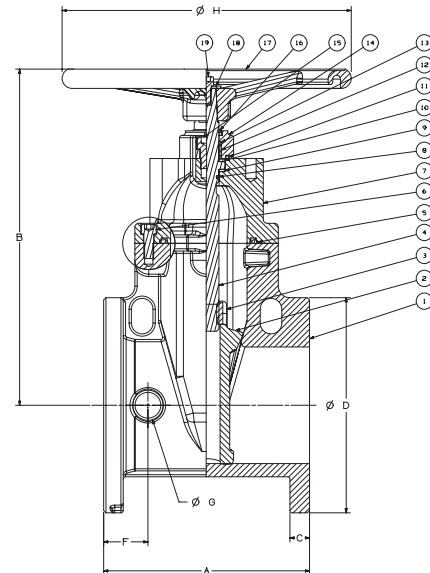
NOTE: Flanged valve is consistent with ANSI B16.1 Class 125.

NOTE: 14" & 16" sizes rated to 250 psi

NOTE: Hand wheel is secured with a 12mm x 25mm metric socket head cap screw. Also needs 1/2" wide diameter flat washer.

FREEZING WEATHER PRECAUTION: Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



F-619-RWS

Flg x Flg
Shown with optional handwheel,
square operating nut not shown

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions														Bolt Circle	Flange Holes	Turns to Open	Weight			
	A		B		C		D		F		G		H					Lbs.	Kg.		
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.							
2	50	7.0	178	10.0	255	0.63	16.0	6.0	152	1.42	36	1.6	40	7.9	200	4.75	121	4	6.3	22	10
2½	65	7.5	190	11.3	287	0.69	17.5	7.0	178	1.50	38	1.6	40	7.9	200	5.50	140	4	8.1	29	13
3	80	8.0	203	12.6	321	0.75	19.0	7.5	191	1.73	44	1.42	36	10.2	260	6.00	152	4	10.0	35	16
4	100	9.0	229	13.5	344	0.94	24.0	9.0	229	2.13	54	1.42	36	10.2	260	7.50	191	8	12.5	75	34
6	150	10.5	267	17.4	441	1.00	25.4	11.0	279	2.24	57	1.54	39	14.8	375	9.50	241	8	15.0	105	48
8	200	11.5	292	20.8	529	1.13	28.6	13.5	343	2.48	63	1.54	39	14.8	375	11.75	298	8	16.7	163	74
10	250	13.0	330	24.2	614	1.19	30.2	16.0	406	2.56	65	1.82	46	15.7	400	14.25	362	12	20.8	256	116
12	300	14.0	356	27.6	700	1.25	31.8	19.0	483	2.91	74	1.82	46	19.7	500	17.00	432	12	25.0	399	181
14	350	15.0	381	31.8	807	1.38	35.0	21.0	533	2.95	75	3.1	80	19.7	500	18.75	476	12	43.8	620	281
16	400	16.0	406	34.1	869	1.46	37.0	23.5	597	3.00	77	3.1	80	19.7	500	21.25	540	16	50.0	816	370

*Weighted average lead content ≤ 0.25%

300 PSI CWP Iron Body Gate Valve

Bolted Bonnet • Non-Rising Stem • Resilient Wedge • Flanged by MJ Ends

300 PSI/20.6 bar non-shock cold working pressure from 33° F to 160° F
Maximum working temperature 180° F at 250 PSI

CERTIFIED LEAD-FREE BY TRUESDAIL
LABORATORIES TO NSF 61 AND 372



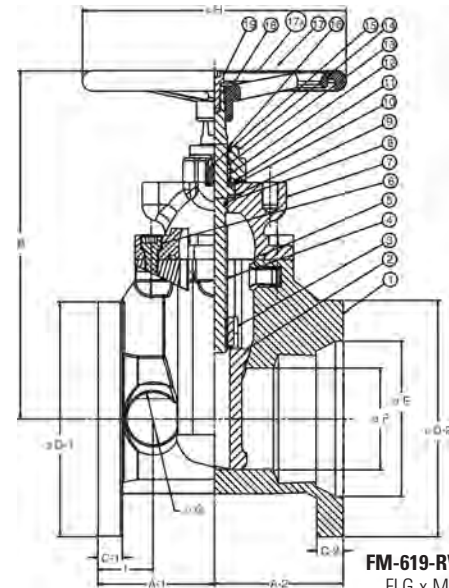
NSF/ANSI 61
NSF/ANSI 372



FM-619-RWS



FM-619-RWS-SON



FM-619-RWS
FLG x MJ

MATERIAL LIST

PART	SPECIFICATION
1. Valve Body	Ductile Iron ASTM A 536
2. Resilient Wedge	Ductile Iron ASTM A 536/EPDM ASTM D 2000
3. Wedge Nut	Bronze ASTM B 584 UNS C83600 4" - 12" ASTM B584 UNS C92200 3"
4. Stem	SS304
5. Bonnet Gasket	EPDM ASTM D 2000
6. Bonnet Screw	18-8 Stainless Steel ASTM 193
7. Bonnet	Ductile Iron ASTM A 536
8. Stem Primary O-Ring	EPDM ASTM D 2000
9. Stem Thrust Washer (lower)	Bronze ASTM B 584 UNS C83600
10. Stem Thrust Washer (upper)	Stainless Steel ASTM A 276 UNS S41000
11. Gland Seal O-Ring	EPDM ASTM D 2000
12. Stem Seal Bushing	Bronze ASTM B 584 UNS C83600
13. Stem Secondary O-Ring (2)	EPDM ASTM D 2000
14. Gland Flange	Ductile Iron ASTM A 536
15. Gland Flange Screw	Alloy Steel ASTM A 574M Zinc Plated
16. Stem Ring Wiper	EPDM ASTM D 2000
17. Square Operating Nut	Cast Iron ASTM A 126 B
17A. Handwheel (optional)	Ductile Iron ASTM A 536
18. Flat Washer	Carbon Steel Zinc Plated
19. Screw	Alloy Steel ASTM A 574M Zinc Plated

Coating — Electrostatically applied fusion-bonded epoxy 10-14 mil. inside and outside.
Meets or exceeds AWWA C 550
Coating is NSF and FDA certified

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions																
	A-1		A-2		B		C-1		C-2		D-1		D-2		E		F
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.
3 80	4.0 101.5	4.0 101.5	12.6 321	0.75 19.0	0.94 24	7.5 191	7.7 195.3	4.9 126	3.1 80								
4 100	4.5 114.5	5.0 127.0	13.5 344	0.94 24.0	1.00 26	9.0 229	9.1 232.0	6.0 153	3.9 100								
6 150	5.3 133.5	5.7 146.0	17.4 441	1.00 25.4	1.06 27	11.0 279	11.1 282.5	8.1 206	5.9 150								
8 200	5.7 146.0	5.7 146.0	20.8 529	1.13 28.6	1.12 28	13.5 343	13.4 339.6	10.3 261	7.9 200								
10 250	6.5 165.0	6.5 165.0	24.2 614	1.19 30.2	1.18 30	16.0 406	15.6 396.8	12.3 313	9.8 250								
12 300	7.0 178.0	7.0 178.9	27.6 700	1.25 31.8	1.25 32	19.0 483	17.9 454.2	14.4 367	11.8 300								

Size	Dimensions										No. holes Flanged	No. holes M-Joint	Turns to Open	Weight	
	G		H		I		Flanged B.C.		MJ B.C.					Lbs.	Kg.
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	Lbs.	Kg.	
3 80	2.1 54	10.2 260	1.73 44	6.00 152	6.19 157	4 4	10.8 43	20 20							
4 100	2.1 54	10.2 260	2.13 54	7.50 191	7.50 191	8 8	13.0 70	36 36							
6 150	2.5 64	14.8 375	2.24 57	9.50 241	9.50 241	8 6	15.7 112	51 51							
8 200	2.8 70	14.8 375	2.48 63	11.75 298	11.75 298	8 6	17.3 170	77 77							
10 250	2.8 70	15.7 400	2.56 65	14.25 362	14.00 356	12 8	21.4 267	121 121							
12 300	3.4 86	19.7 500	2.91 74	17.01 432	16.25 413	12 8	25.3 388	176 176							

END CONNECTIONS

- A-1 Center to face on Flanged end
- A-2 Center to face on MJ end
- B Center to top of stem
- C-1 Flange thickness on Flanged end
- C-2 Flange thickness on MJ end
- D-1 Flange O.D. on Flanged end
- D-2 Flange O.D. on MJ end
- E O-ring groove diameter or MJ end
- F Waterway diameter
- G Boss diameter on Flanged end
- H Handwheel diameter
- I Face to center of boss on Flanged end

FREEZING WEATHER PRECAUTIONS:
Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

*Weighted average lead content ≤ 0.25%

300 PSI CWP Iron Body Gate Valves

Bolted Bonnet • Non-Rising Stem • Resilient Wedge • Mechanical Joint Ends

300 PSI/20.6 bar non-shock cold working pressure to 33°F to 160°F

Maximum working temperature 180°F at 250 PSI

CERTIFIED LEAD-FREE* BY TRUESDAIL LABORATORIES TO NSF/
ANSI 61 & 372 • DUCTILE IRON PIPE SIZE AWWA C151/
ANSI A21.51 AND C900 CPVC PIPE



MJ-619-RWS
Mechanical Joint



MJ-619-RWS-SON
Mechanical Joint

MATERIAL LIST

PART	SPECIFICATION
1 Valve Body	Ductile Iron ASTM A536
2 Resilient Wedge	Ductile Iron ASTM A536 / EPDM ASTM D2000
3 Wedge Nut	ASTM B584 UNS C83600
4 Stem	Stainless Steel 304
5 Bonnet Gasket	EPDM ASTM D2000
6 Bonnet Screw	Corrosion-resistant Steel
7 Bonnet	Ductile Iron ASTM A536
8 Stem Primary O-Ring	EPDM ASTM D2000
9 Stem Thrust Washer (lower)	Bronze ASTM B584 UNS C83600
10 Stem Thrust Washer (upper)	Stainless Steel ASTM A276 UNS S41000
11 Gland Seal O-Ring	EPDM ASTM D2000
12 Stem Seal Bushing	ASTM B584 UNS C83600
13 Stem Secondary O-Ring	EPDM ASTM D2000
14 Gland Flange	Ductile Iron ASTM A536
15 Stem Ring Wiper	EPDM ASTM D2000

Coating — Electrostatically applied fusion-bonded epoxy 8-20 mil. inside and outside meets or exceeds performance requirements of AWWA C550. Epoxy coating is not intended to serve as a dielectric barrier internal to the piping system.

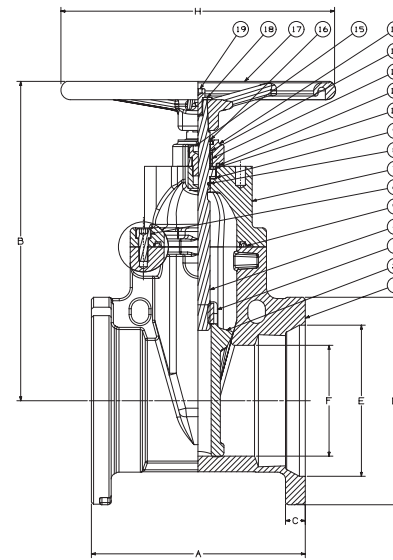
NOTE: Flanged valve is consistent with ANSI B16.1 Class 125.

NOTE: 14" & 16" sizes rated to 250 psi

NOTE: Hand wheel is secured by a 12mm x 25mm socket head cap screw. Also need 1/2" wide diameter washer.

FREEZING WEATHER PRECAUTION: Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



MJ-619-RWS
MJ x MJ
square operating nut not shown

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions														Bolt Circle	Flange Holes	Turns to Open	Weight			
	A	B	C	D	E	F	H	In.	mm.	In.	mm.	In.	mm.	Lbs.				Kg.			
3	80	8.0	203	12.7	322	0.94	24	7.7	196	4.9	126	3.1	80	10.2	260	6.19	157	4	10.0	39	16
4	100	10.0	254	13.5	344	1.00	26	9.1	232	6.0	153	3.9	100	10.2	260	7.50	191	4	12.5	64	33
6	150	11.5	292	17.4	441	1.06	27	11.1	283	8.1	206	5.9	150	14.8	375	9.50	241	6	15.0	104	46
8	200	11.5	292	20.8	529	1.12	28	13.4	340	10.3	261	7.9	200	14.8	375	11.75	298	6	16.7	161	67
10	250	13.0	330	24.2	614	1.18	30	15.7	400	12.3	313	9.8	250	15.7	400	14.00	356	8	20.8	262	107
12	300	14.0	356	27.6	700	1.25	32	18.0	456	14.4	367	11.8	300	19.7	500	16.25	413	8	25.0	406	160
14	350	15.0	381	31.8	807	1.34	34	20.5	516	16.5	420	13.8	350	19.7	500	18.75	476	10	43.8	573	259
16	400	16.0	406	34.2	869	1.38	35	22.5	573	18.6	474	15.7	400	19.7	500	21.00	533	12	50.0	765	348

*Weighted average lead content ≤ 0.25%

250 PSI CWP Iron Body Gate Valves

Bolted Bonnet • Non-Rising Stem • Resilient Wedge • IPS PVC Push-On

250 PSI/17.2 bar non-shock cold working pressure

CERTIFIED LEAD-FREE* BY IAPMO R&T TO NSF/ANSI 372
END CONNECTION DESIGNED FOR USE WITH PVC ASTM D1785,
PVC AND/OR ASME B36.10 STEEL



P-619-RW

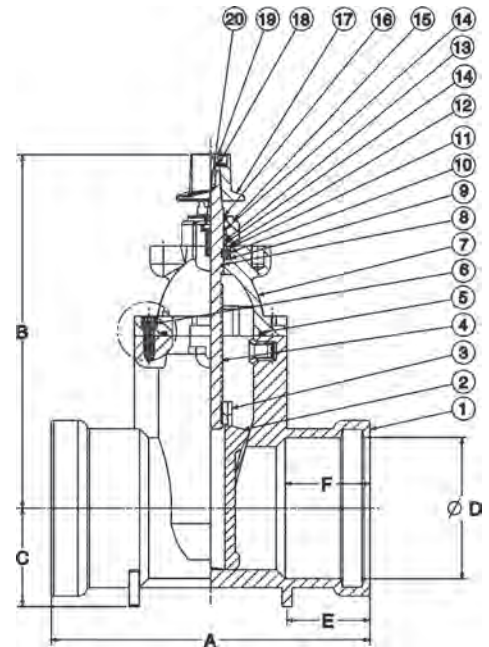
IPS Push-On

MATERIAL LIST

PART	SPECIFICATION
1. Valve Body	Cast Iron ASTM A126-B
2. Resilient Wedge	Ductile Iron ASTM A536/EPDM ASTM D 2000
3. Wedge Nut	Bronze ASTM B584 UNS C83600 4" - 12" ASTM B584 UNS C92200 2" - 3"
4. Stem	Stainless Steel ASTM A 276 UNS S41000
5. Bonnet Gasket	EPDM ASTM D 2000
6. Bonnet Screw	18-8 Stainless Steel ASTM A193
7. Bonnet	Cast Iron ASTM A126-B
8. Stem Primary O-Ring	EPDM ASTM D 2000
9. Stem Thrust Washer (lower)	Nylon 1010
10. Stem Collar	Brass ASTM B 16 UNS C36000
11. Stem Thrust Washer (upper)	Stainless Steel ASTM A 276 UNS S41000
12. Gland Seal O-Ring	EPDM ASTM D 2000
13. Stem Seal Bushing	Nylon 1010
14. Stem Secondary O-Ring (2)	EPDM ASTM D 2000
15. Gland Flange	Ductile Iron ASTM A536
16. Stem Ring Wiper	EPDM ASTM D 2000
17. Square Operating Nut	Cast Iron ASTM A126-B
17A. Handwheel (Optional)	Ductile Iron ASTM A536
18. Operating Nut Washer	Carbon Steel Zinc Plated
19. Operating Nut Screw	Alloy Steel ASTM A 574M Zinc Plated
20. Gland Flange Screw	Alloy Steel ASTM A 574M Zinc Plated

Coating — Electrostatically applied fusion-bonded epoxy 8-20 mil. inside and outside.
Meets or exceeds performance requirements of AWWA C550.
Epoxy coating is not intended to serve as a dielectric barrier internal to the piping system.

Maximum operating temperature 160°F/71°C.



P-619-RW

IPS Push-On

DIMENSIONS — WEIGHTS — QUANTITIES

Size	Dimensions														Handwheel (Opt.) Turns to Open	Weight	
	A	B	C	D	E	F							Lbs.	Kg.			
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.
2	50 11.4	289 10.2	259 10.2	259 10.2	2.4 60	2.48 63	2.3 58	2.7 69	2.7 69	7.9 200	7.9 200	6.5 165	24	11			
2½	65 11.4	289 11.3	288 11.3	288 11.3	2.6 67	2.99 76	2.3 58	2.7 69	2.7 69	7.9 200	7.9 200	8.8 223	32	15			
3	80 11.3	287 12.7	322 12.7	322 12.7	3.1 80	3.62 92	2.2 56	3.0 75	3.0 75	10.2 255	10.2 255	10.6 270	40	18			
4	100 11.7	298 13.4	341 13.4	341 13.4	3.5 90	4.65 118	2.5 63	3.5 89	3.5 89	10.2 260	10.2 260	12.8 325	56	25			
6	150 15.3	388 17.0	431 17.0	431 17.0	4.7 120	6.77 172	4.0 101	4.1 103	4.1 103	14.8 375	14.8 375	15.6 396	106	48			
8	200 16.5	418 20.4	518 20.4	518 20.4	5.9 150	8.74 222	3.0 77	4.5 115	4.5 115	14.8 375	14.8 375	17.3 438	172	78			
10	250 21.2	539 23.8	604 23.8	604 23.8	7.1 180	10.94 278	3.7 93	5.2 132	5.2 132	15.7 400	15.7 400	21.3 541	307	140			
12	300 26.5	672 27.0	685 27.0	685 27.0	8.1 206	12.89 327.5	4.1 103	5.5 139	5.5 139	19.7 500	19.7 500	25.3 643	447	203			

FREEZING WEATHER PRECAUTION: Subsequent to testing a piping system, valves should be left in an open position to allow complete drainage.



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

*Weighted average lead content ≤ 0.25%

Iron Body Check Valves Illustrated Index

Iron Body Check Valve
Horizontal Swing Type
125 lb. SWP
200 lb. CWP



F-918/T-918
Bolted Bonnet • Renewable Seat and Disc
Sizes 2" thru 12"
Flanged or Threaded Ends
Page 36

Iron Body Silent Check Valve
Spring Actuated Type
Class 125/200 CWP
Class 250/400 CWP



W-910/W-960
Renewable Seat and Disc • Wafer Style
Sizes 2" thru 12"
Page 37

Class 125 Iron Body Check Valves

Bolted Bonnet • Horizontal Swing • Renewable Seat and Disc*

200 PSI/13.8 bar non-shock cold working pressure to -20°F to 150°F/-29°C to 66°C*

Maximum working temperature 450°F/232°C at 125 PSI/8.6 bar

125 PSI/8.6 bar saturated steam to 353°F/178°C

CONFORMS TO MSS SP-71 TYPE 1

MATERIAL LIST

PART	SPECIFICATION
1. Body Bolt	Steel ASTM A307
2. Identification Plate	Aluminum
3. Bonnet	Cast Iron ASTM A126 Class B
4. Body Gasket	Synthetic Fibers
5. Body Nut	Steel ASTM A563
6. Side Plug	Brass ASTM B16 Alloy C36000
7. Hanger Pin	Brass ASTM B16 Alloy C36000
8. Hanger	Ductile Iron ASTM A536
9. ¹ Disc	Brass ASTM B584 Alloy C84400 or ASTM A536 Ductile Iron with Brass Face Ring
10. Seat Ring	Brass ASTM B584 Alloy C84400
11. Disc Nut	Brass ASTM B16 Alloy C36000
12. Body	Cast Iron ASTM A126 Class B
13. ¹ Disc Bolt	Brass ASTM B16 Alloy C36000
14. Disc Plate**	Cast Iron ASTM A126 Class B
15. Disc Cage**	Cast Iron ASTM A126 Class B

¹2" thru 4" have Bronze ASTM B584 Disc.

¹5" thru 12" have Iron Disc with Bronze Disc Face Rings and Disc Bolt.

**These items are not in the -B, only the -W and -Y.

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions															
Size	F-918-B		T-918-B		B	D	E	F-918-B	T-918-B	F-918-B	T-918-B	F-918-B	T-918-B		
	A	A	A	A										Lbs.	Kg.
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Lbs.	Kg.		
2	50	8.00	203	6.50	165	3.94	100	6.00	152	.63	16	24	11	15	7
2½	65	8.50	216	7.50	191	4.50	114	7.00	178	.69	17	35	16	26	12
3	80	9.50	241	8.00	203	5.13	130	7.50	191	.75	19	47	21	31	14
4	100	11.50	292	9.38	238	6.13	156	9.00	229	.94	24	80	36	54	24
5	125	13.00	330	x	x	6.81	173	10.00	254	.94	24	100	45	80	36
6	150	14.00	356	x	x	8.00	203	11.00	279	1.00	25	146	66	121	54
8	200	19.50	495	x	x	9.44	240	13.50	343	1.13	29	274	124	x	x
10	250	24.50	622	x	x	12.06	306	16.00	406	1.19	30	426	193	x	x
12	300	27.50	699	x	x	16.13	410	19.00	483	1.25	32	675	306	x	x

Note: On pump discharge, the preferred check valves are:

- inline, spring assisted, center-guided, lift checks
- spring assisted twin (double) disc
- swing design with lever and weight or lever and spring

*Proper machining facilities required.

x Not available this size.

¹2½" thru 12" are available with lever and weight or lever and spring.

Install 5 pipe diameters minimum downstream from pump discharge or changes in direction to avoid flow turbulence. Flow straighteners may be required in extreme cases.

NIBCO Iron Body Check Valves may be installed in both horizontal and vertical lines with upward flow or in any intermediate position.

Warning – Do Not Use For Reciprocating Air Compressor Service.

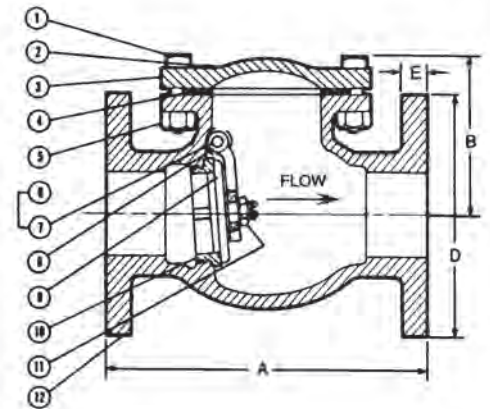
◆ For detailed Operating Pressure, refer to Pressure Temperature Chart on page 114.



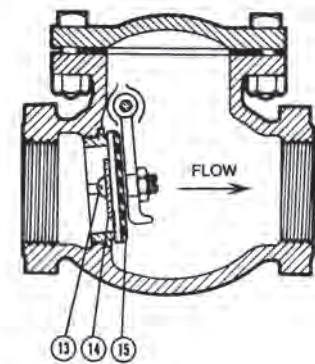
F-918-B
Flanged



T-918-B
Threaded



F-918-B
Flg x Flg



T-918
NPT x NPT
Buna-N Disc Shown



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Lead-Free* Class 125/250 Iron Body Silent Check Valves

Wafer Style • Renewable Seat and Disc • Spring Actuated (1/2 PSI cracking pressure)

Class 125, 200 PSI/13.8 bar non-shock cold working pressure

Class 250, 400 PSI/27.6 bar non-shock cold working pressure

Maximum temperature to 200°F/93°C

W910-B-LF — 2" thru 10" ONLY

CERTIFIED LEAD-FREE* BY WQA TO NSF/ANSI 372
NSF/ANSI 61 CERTIFIED BY UL
CONFORMS TO MSS SP-125 • FM APPROVED



C USA
COMPONENT LEAD-FREE



MATERIAL LIST

PART	SPECIFICATION
1. Body	Cast Iron ASTM 126 Class B
2. Seat (B)	Bronze ASTM B584 Alloy C87600
2a. Seat (W)	with Buna-N O-ring
3. Disc	Bronze ASTM B584 Alloy C87600
4. Spring	Stainless Steel ASTM A313 UNS S31600
5. Bushing	Aluminum Bronze B505 C95400
6. O-Ring	EPDM

DIMENSIONS—WEIGHTS

Size	Dimensions				W-910		W-960		
	A		B		Lbs.	Kg.	Lbs.	Kg.	
*2	50	4.25	108	2.63	67	6	5	6	3
*2½	65	5.00	127	2.88	73	7	3	7	3
*3	80	5.75	146	3.13	79	12	5	12	5
*4	100	7.00	178	4.00	102	18	8	18	8
*5	125	8.38	213	4.75	121	27	12	27	12
*6	150	9.75	248	5.50	140	42	19	42	19
8	200	13.38	340	6.50	165	†85	39	86	39
10	250	16.00	406	8.25	210	†99	45	†137	62

*NOTE: Sizes 2" thru 6" have dual class ratings (125 lb. and 250 lb.) resulting in W-910-LF and W-960-LF being identical. 8" and 10" have special machining in accordance with Flange Class.

†Class 125 only.

‡Class 250 only.

WARNING: 1. These are not to be used as steam valves.

2. Valves are not to be used near a reciprocating air compressor.

3. Do not install in vertical line with downward flow.

Note: On pump discharge, the preferred check valves are:

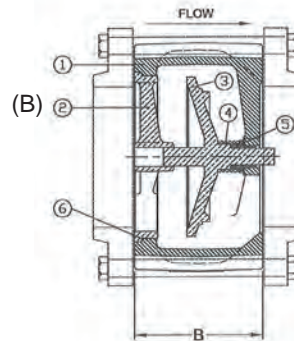
- inline, spring assisted, center-guided, lift checks
- spring assisted twin (double) disc
- swing design with lever and weight or lever and spring

Install 5 pipe diameters minimum downstream from pump discharge or changes in direction to avoid flow turbulence. Flow straighteners may be required in extreme cases.

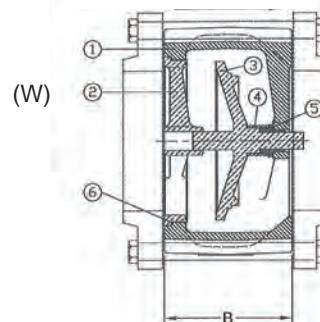
Note: W-960-LF 8" and 10" not FM approved.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

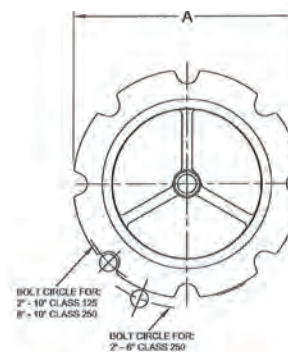
W-910-LF 125 lb. Class
W-960-LF 250 lb. Class



W-910-B-LF/W-960-B-LF
Wafer



W-910-W-LF/W-960-W-LF
Wafer



W-910-B-LF/W-960-B-LF
Wafer

*Weighted average lead content ≤ 0.25%

Iron Body Butterfly Valves Illustrated Index

Iron Body Butterfly Valve
Ductile Iron Body
200 lb. CWP



LD-2000/WD-2000
Extended Neck • Molded Insert Liner
Lug or Wafer Style
Sizes 2" thru 12"
Page 39

Iron Body Butterfly Valve
Ductile Iron body
150 lb. CWP



LD-1000
Extended Neck • Cartridge Seat Liner
Lug Style
Sizes 14" thru 24"
Page 40

Iron Body Butterfly Valve
Cast Iron Body
200 lb. CWP



N-200
Extended Neck • Cartridge Seat Liner
Lug Style
Sizes 2" thru 12"
Page 41

Iron Body Butterfly Valve
Cast Iron Body
200 lb. CWP



N-200
Extended Neck • Cartridge Seat Liner
Wafer Style
Sizes 2" thru 12"
Page 42

200 PSI Butterfly Valves

Ductile Iron Body • Extended Neck • Geometric Drive • Molded-In Seat Liner
• Lug and Wafer Style

Sizes 2" through 12"

Install between Std. ASME Class 125/150 flanges.
Lug Style 200 PSI bi-directional dead end service rating without a downstream flange required.

THIRD PARTY CERTIFIED BY QAI TO MEET MSS SP-67 STANDARD •
U.S. COAST GUARD "CATEGORY A" • CERTIFIED LEAD-FREE* BY
TRUESDAIL LABS TO NSF/ANSI 61-8 COMMERCIAL HOT 180°F
AND NSF/ANSI 61 AND 372



WD-2000
Wafer Style
EPDM Liner
and Aluminum
Bronze Disc



LD-2000
Lug Style
EPDM Liner
and Aluminum
Bronze Disc

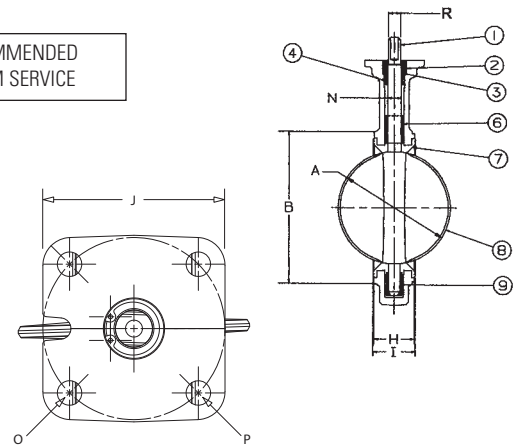
MATERIAL LIST

PART	SPECIFICATION
1. Stem	Stainless Steel ASTM A582 Type 416
2. Collar Bushing	Brass ASTM B16
3. Stem Seal	EPDM Rubber
4. Body Seal	EPDM Rubber
5. Nameplate	Aluminum
6. Upper Bushing	Copper CDA 122
7. Liner	EPDM Rubber
8. Disc	Alum. Brz. ASTM B148 Alloy 955
9. Lower Bushing	Copper CDA 122
10. Body Wafer	Ductile Iron ASTM A536
11. Body Lug	Ductile Iron ASTM A536

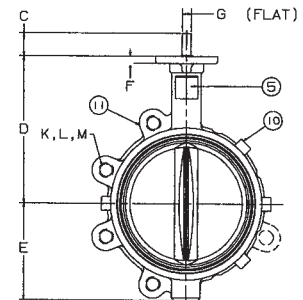
NOT RECOMMENDED
FOR STEAM SERVICE

DIMENSIONS — WEIGHTS

Size	Flat Metal Rubber Square Dia.										
In. mm. A B C D E F G H I J N											
2 50	2.53	4.00	1.25	5.38	2.88	.38	.312	1.688	1.812	3.25	.500
2½ 65	2.90	4.69	1.25	5.88	3.27	.38	.370	1.812	1.938	3.25	.562
3 80	3.15	5.12	1.25	6.12	3.40	.38	.370	1.812	1.938	3.25	.562
4 100	4.09	6.12	1.25	6.88	4.00	.38	.403	2.062	2.188	3.25	.625
5 125	5.13	7.25	1.25	7.38	4.75	.38	.496	2.188	2.312	3.25	.750
6 150	6.13	8.25	1.25	8.00	5.29	.38	.496	2.188	2.312	3.25	.750
8 200	8.13	10.41	1.25	9.25	6.50	.50	.560	2.375	2.500	3.25	.875
10 250	10.13	12.52	1.25	10.50	8.00	.50	.686	2.688	2.812	4.75	1.125
12 300	12.13	15.00	1.25	12.00	9.25	.50	.748	3.000	3.125	4.75	1.250



Size	Capscrew/Stud Data						Lug Weight		Wafer Weight		
	In. mm.	O B.C.	P Dia.	R Dia.	K No.	L Dia.	Wafer Length	Lug Length	M B.C.	Lbs. Kg.	Lbs. Kg.
2 50	3.25	.437	.437	4	5/8-11unc	Refer to butterfly valve technical information for bolt lengths	4 ¾	7	3.2	5.5	2.5
2½ 65	3.25	.437	.500	4	5/8-11unc		5 ½	9	4.1	7.5	3.4
3 80	3.25	.437	.500	4	5/8-11unc		6	9.5	4.3	8	3.6
4 100	3.25	.437	.562	8	5/8-11unc		7 ½	15	6.8	11	5.0
5 125	3.25	.437	.656	8	¾-10unc		8 ½	21	9.5	15	6.8
6 150	3.25	.437	.656	8	¾-10unc		9 ½	24	10.9	18	8.2
8 200	3.25	.437	.781	8	¾-10unc		11 ¾	34	15.4	28	12.7
10 250	5.00	.562	1.000	12	7/8-9unc		14 ¼	62	28.1	45.5	20.7
12 300	5.00	.562	1.062	12	7/8-9unc	17	90	40.9	70	31.8	



For actuated service where a lower torque is required use NIBCO Fig. No. WDLXXX-0 or LDLXXX-0 series, sizes 2" thru 12" only. Maximum pressure rating of 100 PSI for wet application and 50 PSI for dry application.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

*Weighted average lead content ≤ 0.25%

150 PSI Butterfly Valves

Ductile Iron Body • Cartridge Liner • Lug Style

Sizes 14", 16", 18", 20", and 24"

Install between Std. ASME Class 125/150 flanges. 150 PSI bi-directional dead end service rating without a downstream flange. Do NOT install between AWWA C115/A21.5 type flanges.

THIRD PARTY CERTIFIED BY QAI TO MEET MSS SP-67 STANDARD • CERTIFIED LEAD -FREE* W/ TRUESDAIL TO NSF/ANSI 372

MATERIAL LIST

PART	SPECIFICATION
1. Screw	Steel, ANSI 1035 (2) 16" & 18" (4) 20" & 24"
2. Bottom Plate	Ductile Iron ASTM A536 grade 65-45-12
3. O-ring	Nitrile ASTM D2000
4. Body	Ductile Iron ASTM A536 grade 65-45-12
5. Long Bushing	Bronze ASTM B584 UNS C83600
6. Stem	Stainless Steel ASTM A582 UNS S41600 Stainless Steel ASTM A276 UNS S31600
7. Disc	Aluminum bronze ASTM B148 UNS C95400 Ductile Iron ASTM A536 grade 65-45-12 Nickel Plated Stainless Steel ASTM A351 CF8M
8. Taper Pin (2)	Stainless Steel ASTM A564 UNS S17400
9. Seat	Nitrile ASTM D2000 EPDM ASTM D2000
10. Nameplate	Aluminum
11. Short Bushing (2)	Bronze ASTM B584 UNS C83600
12. O-ring	Nitrile ASTM D2000
13. Key	Steel, ASTM A108 UNS C10450
14. Screw	Steel, ANSI 1035 (6) 14" thru 18" (8) 20" & 24"
15. Retainer Plate	ASTM A570 GR33 Galvanized
16. Bolts M6	ASTM A570 GR33 Galvanized

DIMENSIONS — WEIGHTS

Size	A	Minimum.	B	C				G	H	I
In. mm	Dia.	Pipe I.D.	Dia.	Dia.	D	E	F	Body	Seat	Dia.
14" 350	13.12	13.02	14.77	17.20	14.49	1.77	26.77	3.00	3.13	1.244
16" 400	15.34	15.20	17.30	19.21	15.75	2.02	29.93	3.37	3.54	1.305
18" 450	17.34	17.09	19.31	21.22	16.61	2.02	31.54	4.12	4.29	1.494
20" 500	19.36	18.90	21.08	23.31	18.90	2.53	35.64	5.13	5.31	1.619
24" 600	23.33	23.05	25.71	32.09	22.13	2.76	42.96	5.96	6.14	1.993

DIMENSIONS — WEIGHTS

Size	J	K	L	M	P	Q	R	T	WEIGHT	
In. mm	Dia.	Dia.	Dia.	Drive Key		Dia.	Dia.	In.	Lbs.	Kg
14" 350	5.51	4.25	0.55	.250 x 1.125 WOODRUFF #809	12	1"-8 UNC	18.75	17.52	141	64
16" 400	7.76	6.25	0.83	.312 X.312 X 1.811 LONG	16	1"-8 UNC	21.25	20.08	199	90
18" 450	7.76	6.25	0.83	.375 X .375 X 1.881 LONG	16	1-1/8"-7 UNC	22.75	21.26	261	119
20" 500	7.76	6.25	0.83	.375 x .375 x 1.811 LONG	20	1-1/8"-7 UNC	25.00	24.02	395	179
24" 600	10.87	8.50	0.94	.500 x .500 x 2.362 LONG	20	1-1/4"-7 UNC	29.50	27.87	591	268



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

*Weighted average lead content ≤ 0.25%

LD-1000/LD-1100

Lug Style
EPDM or Buna-N Liner
Aluminum Bronze Disc

LD-1010/LD-1110

Lug Style
EPDM or Buna-N Liner
Ductile Iron Disc

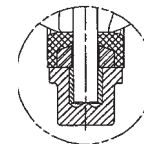
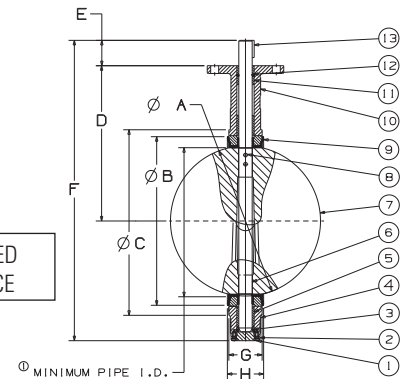
LD-1022/LD-1122

Lug Style
EPDM or Buna-N Liner
Stainless Steel Disc

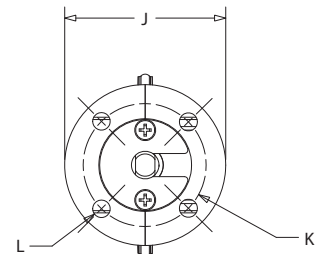
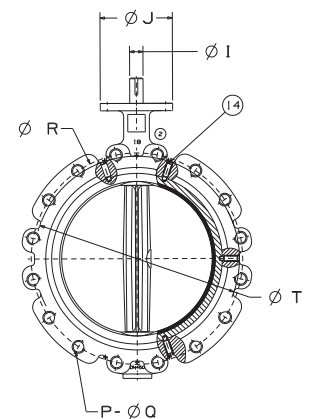


NSF/ANSI 372

NOT RECOMMENDED FOR STEAM SERVICE



14" Reference Lower Shaft Well



200 PSI Butterfly Valves

Cast Iron Body • Extended Neck • Cartridge Seat Liner* • Wafer Style

Sizes 2" through 12"

Install between Std. ASME Class 125 flanges.

THIRD PARTY CERTIFIED BY QAI TO MEET
MSS SP-67 STANDARD

MATERIAL LIST

PART	SPECIFICATION
1. Body	Cast Iron, Epoxy coated ASTM A126 CL.B
2. Body Bushing	Bronze ASTM B584 Grade C83600
3. Liner	EPDM Rubber w/Phenolic Backing Buna-N Rubber Nitrile w/Phenolic Backing
4. Stem	Stainless Steel ASTM A582 Type 416
5. Disc	Alum. Brz. ASTM B148 Alloy C95400 Ductile Iron ASTM A536 Grade 65-45-12 (plated)
6. Taper Pin (2 pin 6" - 12")	Stainless Steel ASTM A582 Type 416
7. Name Plate	Aluminum
8. Shaft Bushing	Bronze ASTM B584 Grade C83600
9. Stem Seal	Buna-N Rubber Nitrile
10. Retainer Plate	ASTM A570 GR33 Galvanized
11. Bolts M6	ASTM A570 GR33 Galvanized

DIMENSIONS — WEIGHTS

Size	A	Min.	B	C	E	F	G	H	I
In. mm.	Pipe I.D.	Dia.	Dia.	D			Body	Seat	Dia.
2 50	2.08 1.38	3.00 3.94	6.34 1.26	10.75 1.655	1.81 0.496				
2 ½ 65	2.54 1.95	3.50 4.72	6.89 1.26	11.65 1.759	1.93 0.496				
3 80	3.10 2.66	4.09 5.00	7.13 1.26	12.12 1.780	1.93 0.496				
4 100	4.10 3.67	5.32 6.14	7.87 1.26	13.62 2.050	2.18 0.621				
5 125	4.85 4.48	6.26 7.48	8.39 1.26	14.65 2.140	2.31 0.745				
6 150	6.12 5.84	7.42 8.35	8.90 1.26	15.62 2.195	2.33 0.745				
8 200	7.97 7.85	9.38 10.55	10.24 1.77	18.90 2.385	2.52 0.870				
10 250	9.86 9.76	11.51 12.79	11.50 1.77	21.26 2.584	2.83 1.120				
12 300	11.87 11.72	13.55 15.87	13.27 1.77	24.57 3.029	3.19 1.244				

Size	J	B.C.	L	M	R	Q	T	Lug Weight
In. mm.	Dia.	Dia.	Dia.	Dia.	Dia.	Dia.	Flats	Lbs. Kg.
2 50	3.00 2.25	0.28 0.75	4.75 4	5/8-11UNC .350	5.7 2.6			
2 ½ 65	3.03 2.25	0.28 0.75	5.50 4	5/8-11UNC .350	7.5 3.9			
3 80	3.03 2.25	0.28 0.75	6.00 4	5/8-11UNC .350	8.4 3.8			
4 100	3.62 2.75	0.39 0.75	7.50 8	5/8-11UNC .437	12.3 5.6			
5 125	3.62 2.75	0.39 0.88	8.50 8	3/4-10UNC .500	17.2 7.8			
6 150	3.62 2.75	0.39 0.88	9.50 8	3/4-10UNC .500	19.6 8.9			
8 200	4.50 3.50	0.47 0.88	11.75 8	3/4-10UNC .625	29.7 13.5			
10 250	4.50 3.50	0.47 1.00	14.25 12	7/8-9UNC .812	44.0 20.0			
12 300	5.50 4.25	0.47 1.00	17.00 12	7/8-9UNC .875	65.8 29.9			

*Note: refer to NIBCO O & M manual for specified installation instructions for optimal performance of cartridge seat valves

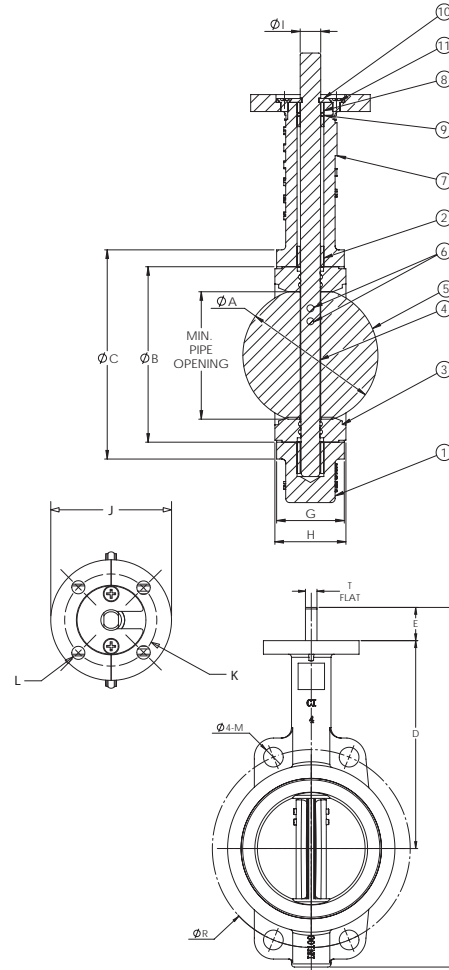


N-200135
Wafer Style
EPDM Liner
Aluminum Bronze Disc

N-200136
Wafer Style
EPDM Liner
Ductile Iron Disc

N-200145
Wafer Style
Buna Liner
Aluminum Bronze Disc

N-200146
Wafer Style
Buna Liner
Ductile Iron Disc



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

NOT RECOMMENDED
FOR STEAM SERVICE

200 PSI Butterfly Valves

Cast Iron Body • Extended Neck • Cartridge Seat Liner* • Lug Style

Sizes 2" through 12"

Install between Std. ASME Class 125/150 flanges†.
Bi-directional dead end service rating without a downstream flange required: 2"-6" 200 PSI, 8" 150 PSI, 10"-12" 100 PSI.

THIRD PARTY CERTIFIED BY QAI TO MEET MSS SP-67 STANDARD

MATERIAL LIST

PART	SPECIFICATION
1. Body	Cast Iron, Epoxy coated ASTM A126 CL.B
2. Body Bushing	Bronze ASTM B584 Grade C83600
3. Liner	EPDM Rubber w/Phenolic Backing Buna-N Rubber Nitrile w/Phenolic Backing
4. Stem	Stainless Steel ASTM A582 Type 416
5. Disc	Alum. Brz. ASTM B148 Alloy C95400 Ductile Iron ASTM A536 Grade 65-45-12 (plated)
6. Taper Pin (2 pin 6" - 12")	Stainless Steel ASTM A582 Type 416
7. Name Plate	Aluminum
8. Shaft Bushing	Bronze ASTM B584 Grade C83600
9. Stem Seal	Buna-N Rubber Nitrile
10. Retainer Plate	ASTM A570 GR33 Galvanized
11. Bolts M6	ASTM A570 GR33 Galvanized

DIMENSIONS — WEIGHTS

Size	A	Min.	B	C	G	H	I				
In. mm.	Dia.	Pipe I.D. Dia.	Dia.	D	E	F	Body	Seat	Dia.		
2	50	2.08	1.38	3.00	3.94	6.34	1.26	10.75	1.655	1.81	0.496
2 ½	65	2.54	1.95	3.50	4.72	6.89	1.26	11.65	1.759	1.93	0.496
3	80	3.10	2.66	4.09	5.00	7.13	1.26	12.12	1.780	1.93	0.496
4	100	4.10	3.67	5.32	6.14	7.87	1.26	13.62	2.050	2.18	0.621
5	125	4.85	4.48	6.26	7.48	8.39	1.26	14.65	2.140	2.31	0.745
6	150	6.12	5.84	7.42	8.35	8.90	1.26	15.62	2.195	2.33	0.745
8	200	7.97	7.85	9.38	10.55	10.24	1.77	18.88	2.385	2.52	0.870
10	250	9.86	9.76	11.51	12.79	11.50	1.77	21.26	2.584	2.83	1.120
12	300	11.87	11.72	13.55	15.87	13.27	1.77	24.57	3.029	3.19	1.244

Size	J	K	L	M	R	P	Q	T	Lug Weight		
In. mm.	Dia.	B.C. Dia.	Dia.	Dia.	Dia.		Dia.	Flats	Lbs.	Kg.	
2	50	3.00	1.97	0.28	0.75	4.75	4	5/8-11UNC	.350	8.6	3.9
2 ½	65	3.03	1.97	0.28	0.75	5.50	4	5/8-11UNC	.350	10.8	4.9
3	80	3.03	1.97	0.28	0.75	6.00	4	5/8-11UNC	.350	11.4	5.2
4	100	3.62	2.76	0.39	0.75	7.50	8	5/8-11UNC	.437	18.9	8.6
5	125	3.62	2.76	0.39	0.88	8.50	8	3/4-10UNC	.500	22.8	10.4
6	150	3.62	2.76	0.39	0.88	9.50	8	3/4-10UNC	.500	27.1	12.3
8	200	4.50	4.02	0.47	0.88	11.75	8	3/4-10UNC	.625	41.2	18.7
10	250	4.50	4.02	0.47	1.00	14.25	12	7/8-9UNC	.812	56.3	25.9
12	300	5.50	4.02	0.47	1.00	17.00	12	7/8-9UNC	.875	90.3	41.0

* Note: refer to NIBCO O & M manual for specified installation instructions for optimal performance of cartridge seat valves

† Note: lug style valves- extra care should be used when installing with raised face flanges. Over-tightening can result in broken lugs.

N-200235

Lug Style
EPDM Liner
Aluminum Bronze Disc

N-200236

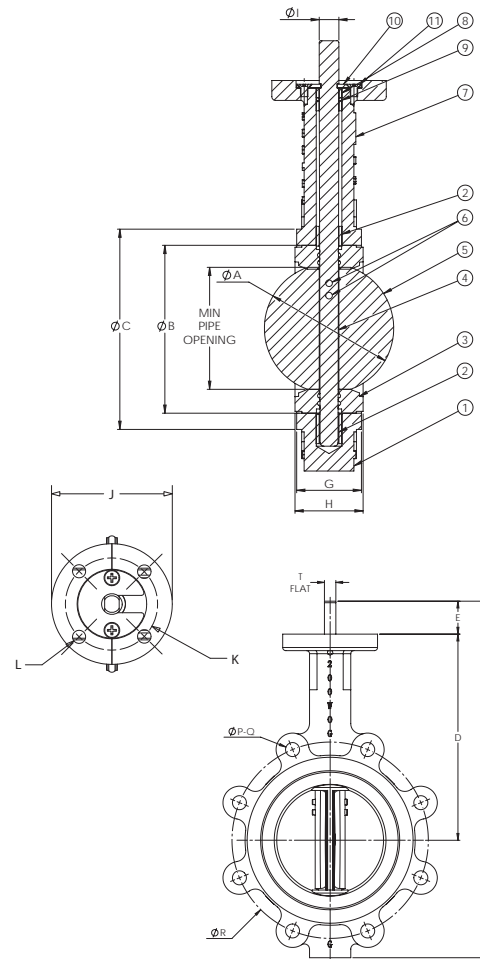
Lug Style
EPDM Liner
Ductile Iron Disc

N-200245

Lug Style
Buna Liner
Aluminum Bronze Disc

N-200246

Lug Style
Buna Liner
Ductile Iron Disc



WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

NOT RECOMMENDED
FOR STEAM SERVICE

150 PSI Butterfly Valves

Cast Iron Body • Extended Neck • Cartridge Seat Liner* • Lug Style

Sizes 14" through 24"

Install between Std. ASME Class 125 flanges†.
Bi-directional dead end service rating without a downstream flange required: 2"-6" 200 PSI, 8" 150 PSI, 10"-12" 100 PSI.

THIRD PARTY CERTIFIED BY QAI TO MEET MSS SP-67 STANDARD

N-150238

Lug Style
EPDM Liner
Nylon Bonded DI Disc

N-150248

Lug Style
Buna-N Liner
Nylon Bonded DI Disc



MATERIAL LIST

PART	SPECIFICATION
1. Body	Cast Iron, Epoxy coated ASTM A126 CL.B
2. Body Bushing	Bronze ASTM B584 Grade C83600
3. Liner	EPDM Rubber w/Phenolic Backing Buna-N Rubber Nitrile w/Phenolic Backing
4. Stem	Stainless Steel ASTM A582 Type 416
5. Disc	Ductile Iron ASTM A536 Grade 65-45-12 (nylon bonded DI)
6. Taper Pin (2 pin 6" - 12")	Stainless Steel ASTM A582 Type 416
7. Name Plate	Aluminum
8. Shaft Bushing	Bronze ASTM B584 Grade C83600
9. Stem Seal	Buna-N Rubber Nitrile

DIMENSIONS — WEIGHTS

Size	A	Minimum.	B	C	D	E	F	G	H	I	
In. mm	Dia.	Pipe I.D.	Dia.	Dia.				Body	Seat	Dia.	
14"	350	13.12	13.02	14.77	17.20	14.49	1.77	26.77	3.00	3.13	1.244
16"	400	15.34	15.20	17.30	19.21	15.75	2.02	29.93	3.37	3.54	1.305
18"	450	17.34	17.09	19.31	21.22	16.61	2.02	31.54	4.12	4.29	1.494
20"	500	19.36	18.90	21.08	23.31	18.90	2.53	35.64	5.13	5.31	1.619
24"	600	23.33	23.05	25.71	32.09	22.13	2.76	42.96	5.96	6.14	1.993

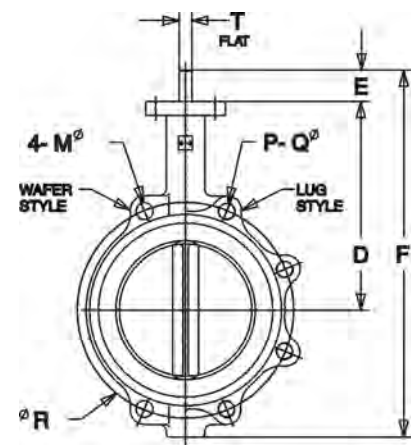
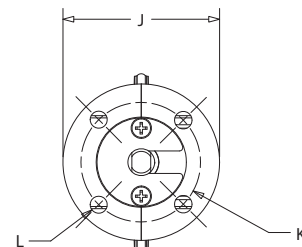
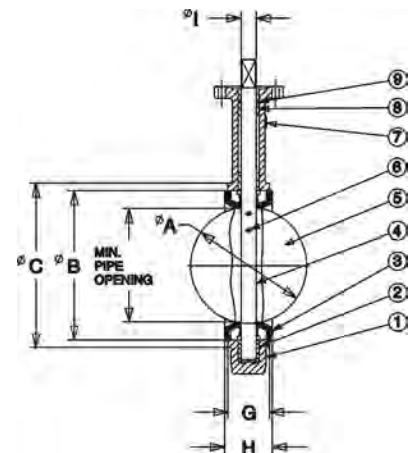
DIMENSIONS — WEIGHTS

Size	J	K	L	M	P	Q	R	T	WEIGHT
In. mm	Dia.	Dia.	Dia.	Drive Key		Dia.	Dia.	In. Lbs. Kg	
14"	350	5.51	4.25	0.55	.250 x 1.125 WOODRUFF #809	12	1"-8 UNC	18.75 17.52	141 64
16"	400	7.76	6.25	0.83	.312 X .312 X 1.811 LONG	16	1"-8 UNC	21.25 20.08	199 90
18"	450	7.76	6.25	0.83	.375 X .375 X 1.881 LONG	16	1-1/8"-7 UNC	22.75 21.26	261 119
20"	500	7.76	6.25	0.83	.375 x .375 x 1.811 LONG	20	1-1/8"-7 UNC	25.00 24.02	395 179
24"	600	10.87	8.50	0.94	.500 x .500 x 2.362 LONG	20	1-1/4"-7 UNC	29.50 27.87	591 268

*Note: refer to NIBCO O & M manual for specified installation instructions for optimal performance of cartridge seat valves

†Note: lug style valves- extra care should be used when installing with raised face flanges. Over-tightening can result in broken lugs.

WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.



NOT RECOMMENDED FOR STEAM SERVICE

200 PSI Butterfly Valves

Cast Iron Body • Extended Neck • Cartridge Seat Liner* • Lug Style

Sizes 2" through 12"

Install between Std. ASME Class 125 flanges†.

Bi-directional dead end service rating without a downstream flange required: 2"-6" 200 PSI, 8" 150 PSI, 10"-12" 100 PSI.

THIRD PARTY CERTIFIED BY QAI TO MEET MSS SP-67 STANDARD

MATERIAL LIST

PART	SPECIFICATION
1. Body	Cast Iron, Epoxy coated ASTM A126 CL.B
2. Body Bushing	Bronze ASTM B584 Grade C83600
3. Liner	EPDM Rubber w/Phenolic Backing Buna-N Rubber Nitrile w/Phenolic Backing
4. Stem	Stainless Steel ASTM A582 Type 416
5. Disc	Ductile Iron ASTM A536 Grade 65-45-12 (nylon bonded)
6. Taper Pin (2 pin 6" - 12")	Stainless Steel ASTM A582 Type 416
7. Name Plate	Aluminum
8. Shaft Bushing	Bronze ASTM B584 Grade C83600
9. Stem Seal	Buna-N Rubber Nitrile

DIMENSIONS — WEIGHTS

Size	A	Min.	B	C	E		F	G	H	I	
In. mm.	Dia.	Pipe I.D.	Dia.	Dia.	D			Body	Seat	Dia.	
2	50	2.08	1.38	3.00	3.94	6.34	1.26	10.75	1.655	1.81	0.496
2 ½	65	2.54	1.95	3.50	4.72	6.89	1.26	11.65	1.759	1.93	0.496
3	80	3.10	2.66	4.09	5.00	7.13	1.26	12.12	1.780	1.93	0.496
4	100	4.10	3.67	5.32	6.14	7.87	1.26	13.62	2.050	2.18	0.621
5	125	4.85	4.48	6.26	7.48	8.39	1.26	14.65	2.140	2.31	0.745
6	150	6.12	5.84	7.42	8.35	8.90	1.26	15.62	2.195	2.33	0.745
8	200	7.97	7.85	9.38	10.55	10.24	1.77	18.88	2.385	2.52	0.870
10	250	9.86	9.76	11.51	12.79	11.50	1.77	21.26	2.584	2.83	1.120
12	300	11.87	11.72	13.55	15.87	13.27	1.77	24.57	3.029	3.19	1.244

Size	J	K	L	M	R	Q	T	Lug Weight			
In. mm.	Dia.	B.C. Dia.	Dia.	Dia.	Dia.	Dia.	Flats	Lbs.	Kg.		
2	50	3.00	1.97	0.28	0.75	4.75	4	5/8-11UNC	.350	8.6	3.9
2 ½	65	3.03	1.97	0.28	0.75	5.50	4	5/8-11UNC	.350	10.8	4.9
3	80	3.03	1.97	0.28	0.75	6.00	4	5/8-11UNC	.350	11.4	5.2
4	100	3.62	2.76	0.39	0.75	7.50	8	5/8-11UNC	.437	18.9	8.6
5	125	3.62	2.76	0.39	0.88	8.50	8	3/4-10UNC	.500	22.8	10.4
6	150	3.62	2.76	0.39	0.88	9.50	8	3/4-10UNC	.500	27.1	12.3
8	200	4.92	4.02	0.47	0.88	11.75	8	3/4-10UNC	.625	41.2	18.7
10	250	4.92	4.02	0.47	1.00	14.25	12	7/8-9UNC	.812	56.3	25.9
12	300	5.50	4.02	0.47	1.00	17.00	12	7/8-9UNC	.875	90.3	41.0

*Note: refer to NIBCO O & M manual for specified installation instructions for optimal performance of cartridge seat valves

†Note: lug style valves- extra care should be used when installing with raised face flanges. Over-tightening can result in broken lugs.

N-200238

Lug Style
EPDM Liner
Nylon Bonded DI Disc

N-200138

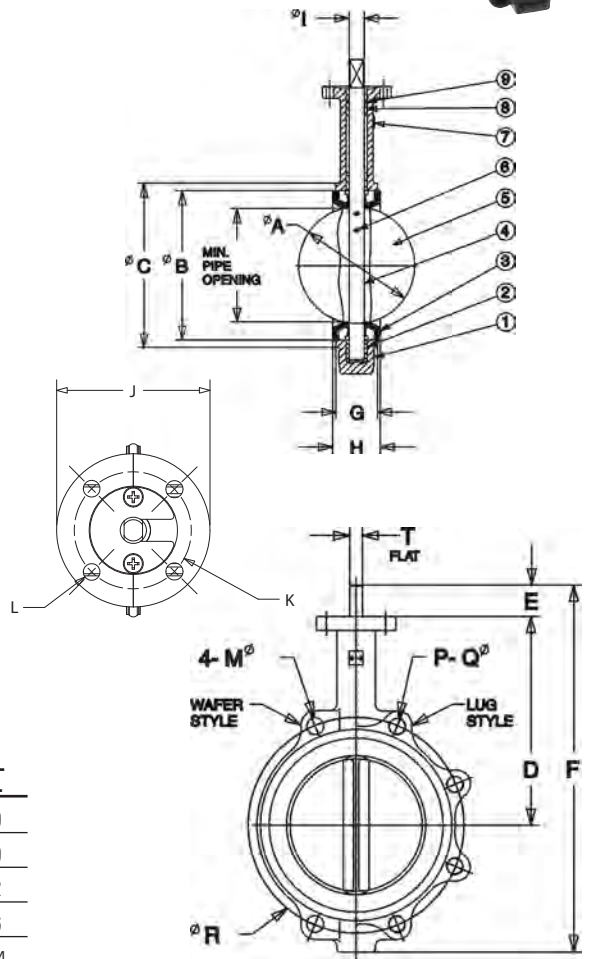
Wafer Style
EPDM Liner
Nylon Bonded DI Disc

N-200248

Lug Style
Buna-N Liner
Nylon Bonded DI Disc

N-200148






Wafer Style
Buna-N Liner
Nylon Bonded DI Disc



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NOT RECOMMENDED
FOR STEAM SERVICE

Bronze Valve Options and Accessories Handles

<p>Malleable Iron</p> <p>Available for 125, 150, 200, 300 lb. SWP Bronze Body Valves.</p>	<p>Malleable</p> 
<p>Red Bronze 85-5-5-5% ASTM B 62</p> <p>Available for some NIBCO 125 lb. SWP Bronze Body Valves 3/8" thru 2". Used where code requirements or personal preference dictate a bronze handwheel. Specify by adding (BHW) to Fig. No., i.e. T-000-BHW. For field replacement, specify valve type and size.</p>	<p>Bronze</p> 
<p>Red Bronze 85-5-5-5% ASTM B 62</p> <p>Available for some NIBCO 125 lb. SWP Bronze Body Valves 3/8" thru 3". Use where standard handwheel would be out of reach or hand space is restricted. Specify by adding (K) to Fig. No., i.e. T-000-K.</p>	<p>Cross</p> 
<p>Red Bronze 85-5-5-5% ASTM B 62 or ASTM B 16</p> <p>Available for some NIBCO 125 lb. SWP Bronze Body Valves thru 4". Use where valve might be subject to unauthorized use or tampering. Specify by adding (L) to Fig. No., i.e. T-000-L. For field replacement, specify valve type and size.</p>	<p>Lockshield</p> 
<p>Red Bronze 85-5-5-5% ASTM B 62</p> <p>Available for some NIBCO 125 lb. SWP Bronze Body Valves thru 4". Used as handle for lockshields. Specify: "Lockshield Key." For field replacement, specify valve type and size. Key available only for valves with spline stems.</p>	<p>Lockshield Key</p> 

NIBCO INC. reserves the right to change materials, options and accessories without notice.

Iron Valve Options and Accessories

Operating Nut, Position Indicator, Sprocket Rims

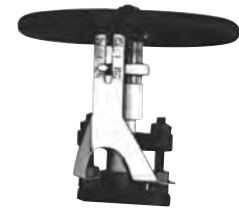
Square Operating Nut

The square operating nut can be substituted for the regular handwheel when an NRS valve is to be installed in an inaccessible location. It may be operated by a key or a wrench. A directional arrow indicating "open" is cast on top of the nut. All square operating nuts have a standard 2" square which facilitates opening and closing the valve with a square socket wrench as used by the Water Works. Material: Cast Iron ASTM A 126 Class B. Field retrofit is standard. Specify valve figure number and size when ordering



Position Indicator

For non-rising stem (2"-12") iron body gate valves. Indicates whether it is open, partly open or closed by the position of the needle which moves as the valve is operated. It may be factory or field mounted. Ordering Information: Specify size and figure number of the valve to be fitted. Available on models T and F619 only.



Adjustable Sprocket

The Babbitt Adjustable Sprocket Rim will provide for remote operation of gate, globe and angle valves in high, normally out-of-reach locations. Attaches to valve wheel for instant valve open/close response. Sprocket rim made from cast iron, chain guide is malleable iron. When ordering, specify either the sprocket and chain number or the NIBCO valve figure number and size. The chain length must also be specified.

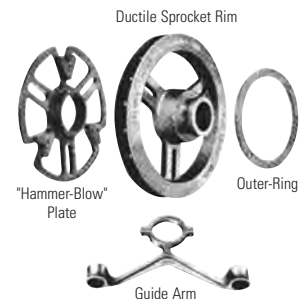
Size	Diameter of Sprocket Wheel (In.)	Weight (Lbs.)	Diameter of Valve Wheels Rim Will Fit	Chain Size No.	Chain Weight per 100' (Lbs.)
0	4	2	2 to 4	2	10
1	5 ⁷ / ₈	4	4 ¹ / ₈ to 5 ⁷ / ₈	1/0	17 ¹ / ₂
1 ¹ / ₂	7 ¹ / ₂	5	6 to 7 ¹ / ₂	1/0	17 ¹ / ₂
2	9	8	7 ³ / ₄ to 9	1/0	17 ¹ / ₂
2 ¹ / ₂	12 ¹ / ₂	15	9 ¹ / ₄ to 12 ¹ / ₂	4/0	30
3	15 ¹ / ₂	21	12 ³ / ₄ to 15 ¹ / ₂	4/0	30
3 ¹ / ₂	19	25	15 ³ / ₄ to 19	4/0	30
4	22	34	19 ¹ / ₄ to 22	5/0	35
4 ¹ / ₂	26	38	22 ¹ / ₄ to 26	5/0	35
5	30	46	26 ¹ / ₄ to 30	5/0	35



Hammer-Blow Sprocket

The Babbitt Adjustable Hammer-Blow Sprocket Rim is for use with hard-to-operate gate, globe and angle valves in overhead locations. The Hammer-Blow plate and rim are made of tough, shock resistant ductile iron to withstand heavy, valve releasing impact. The chain guide is malleable iron. When ordering, specify the sprocket number, chain number and length, or the NIBCO valve figure number, size and the chain length.

Ductile Rim Guide with Hammer Blow Complete	Diameter of Sprocket Wheel (In.)	Weight (Lbs.)	Diameter of Valve Wheels Assembly Will Fit	Chain Size No.	Chain Weight per 100' (Lbs.)
2	9	13	7 ³ / ₄ to 9	1/0	17 ¹ / ₂
2 ¹ / ₂	12 ¹ / ₂	22	9 ¹ / ₄ to 12 ¹ / ₂	4/0	30
3	15 ¹ / ₂	30	12 ³ / ₄ to 15 ¹ / ₂	4/0	30
3 ¹ / ₂	19	35	15 ³ / ₄ to 19	4/0	30
4	22	55	19 ¹ / ₄ to 22	5/0	35
4 ¹ / ₂	26	78	22 ¹ / ₄ to 26	5/0	35
5	30	78	26 ¹ / ₄ to 30	5/0	35



Sprocket Rim Selection Guide

	#1 ¹ / ₂	#2	#2 ¹ / ₂	#3	#3 ¹ / ₂	#4	#4 ¹ / ₂	#5
Fig. F-617-O Size Valve Rim will fit	2"	2 ¹ / ₂ " , 3"	4" , 5" , 6"	8"	10" , 12"		14" , 16" , 18" , 20"	24"
Fig. F-619 Size Valve Rim will fit	2" , 2 ¹ / ₂ "	3"	4" , 5" , 6"	8"	10" , 12"	14"	16"	
Fig. F-667-O Size Valve Rim will fit		2" , 2 ¹ / ₂ " , 3"	3" , 4" , 5"		6" , 8"	10" , 12"		
Fig. F-669 Size Valve Rim will fit	2"	2 ¹ / ₂ "	3" , 4" , 5"		6" , 8" , 10"	12"		

NIBCO INC. reserves the right to change materials, options and accessories without notice.

Butterfly Valves

Options and Accessories

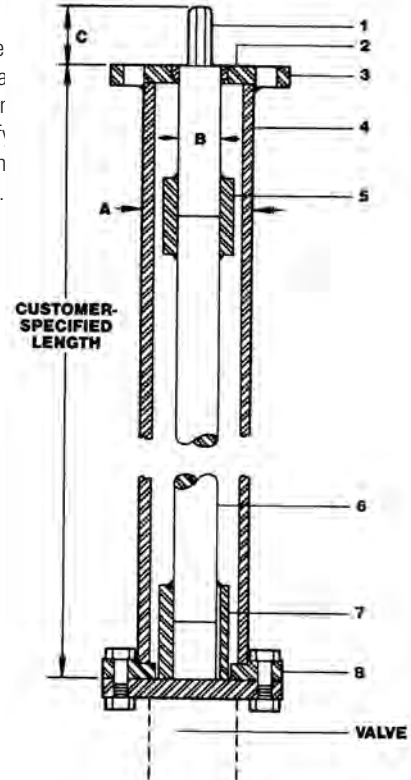
Stem Extensions

Stem extensions can be furnished to permit remote operation of butterfly valves in any required length. The top flange of an extension stem, plug shaft diameter, and distance across flats on plug shaft are the same size as the valve selected. This allows interchangeability of gear operators, actuators, or adapter bushings from valve mounting flange to extension stem top flange. When ordering, specify valve size, figure number, and the exact distance from the valve flange to the top of extension flange (customer-specified length shown at right). Stem extensions are available in lengths up to 10 feet. For stem extensions in excess of 10 feet, consult factory.

MATERIAL LIST

PART	SPECIFICATION
1. Plug	Steel
2. Top Flange Bushing	Bronze
3. Top Flange	Steel
4. Housing	Steel
5. Plug and Rod Coupling	Steel
6. Rod	Steel
7. Rod and Stem Coupling	Steel
8. Bottom Flange	Steel

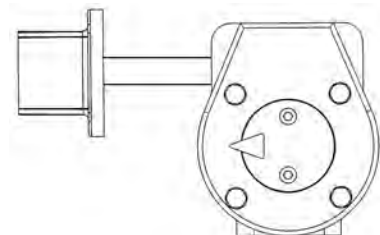
Dimensions			
Size	A	B	C
2"-12"	2.38	1.125	1.12
14"-24" consult factory			



Square Operating Nuts for Butterfly LD/WD 2000

Square Operating Nuts for LD/WD 2000 Series Valves - Fits on Gear Operator Only

Valve Size	2" thru 8" Gear Operator	10" thru 12" Gear Operator
Part Number	T117792 FC	T117793 FC



Golf Course Service Specifications

The Golf Course industry requirements for strong, sturdy maintenance-free valves are critical to the operation of the Golf Course. Corrosion is a real concern for many irrigation installations and high quality valves are the best solution for flow isolation in irrigation piping systems. NIBCO valves use optimum materials to protect the valves from failure due to corrosion or dezincification, problems often encountered with foreign yellow brass.

Isolation Valves 3" and Smaller

Gate Valves:

Non-Rising Stem: Valves shall be class 125 and 200 PSI CWP, non-rising stem, screw-in bonnet, solid wedge and USA produced in accordance with MSS SP-80. Body, bonnet, external stuffing box and wedge are to be of Bronze ASTM B 62. Stems shall be of dezincification-resistant silicon Bronze ASTM B 371 or low-zinc alloy B 99, non-asbestos packing and malleable or ductile iron handwheel. For buried service — Bronze Cross or Bronze handwheel required. Valve ends shall be threaded type.

Acceptable Valves:

200 PSI CWP NIBCO T-113-K (Bronze Cross H/W) (¾" thru 3")
200 PSI CWP NIBCO T-113-BHW (Bronze H/W) (¼" thru 3")
200 PSI CWP NIBCO T-113 (MI H/W) (¼" thru 3")

Globe/Angle Valves:

Valves shall be Class 125 and 200 PSI CWP, body and bonnet are to be of Bronze ASTM B 62 and USA produced in accordance with MSS SP-80. Stems shall be of dezincification-resistant Silicon Bronze ASTM B 371 or Low-Zinc Alloy B 99, non-asbestos packing, PTFE seat disc and malleable or ductile iron handwheel. For buried service — Bronze Cross handwheel required. Valve ends shall be threaded type.

Acceptable Valves:

200 PSI CWP NIBCO globe/angle T-211-YK/T-311-YK (Bronze Cross H/W) (1" thru 2")
200 PSI CWP NIBCO globe/angle T-211-Y/T-311-Y (MI H/W) (¼" thru 3")

Ball Valves:

Valves shall be Class 150 and 600 PSI non-shock CWP and USA produced in accordance with MSS SP-110. Two-piece cast bronze bodies, PTFE seats, full port or reduced port on 2½" and 3", separate packnut with adjustable stem packing, anti-blowout stems. Stainless steel ball, handle and nut or chrome plated ball and steel handle. Valve ends shall have full depth ANSI threads.

Acceptable Valves – Full Port:

Class 150 NIBCO T-580-70-66 (SS ball and handle) (¼" thru 2")
Class 150 NIBCO T-585-70 (Chrome plated ball and steel handle) (¼" thru 2")

Acceptable Valves – Reduced Port:

Class 150 NIBCO T-580-70-66 (SS ball and handle) (2½" and 3")
Class 150 NIBCO T-580-70 (Chrome plated ball and steel handle) (2½" and 3")

Isolation Valves 2" and larger

Gate Valves:

Non-Rising Stem:

Resilient Wedge Design: Valves shall be 200 PSI CWP and USA produced, valve body and bonnet designed and tested to meet AWWA C 509. Body and bonnet are to be of Cast Iron Alloy ASTM A 126 Class B or Ductile Iron ASTM A 536. Valve to be epoxy coated inside and outside. Two upper O-ring stem seals. Sealed counter sunk body bonnet bolts providing no exposure of bonnet bolts. Stems to be stainless steel. Resilient rubber encapsulated wedge. Cast iron 2" square operating nut. Valve ends shall be IPS PVC push-on joint, flanged-type or mechanical joint-type.

Acceptable Valves:

Golf Course Service Specifications

200 PSI CWP NIBCO P-619-RW (IPS PVC push-on) (2" thru 12")
200 PSI CWP NIBCO F-619-RW (Flanged) (2" thru 16")
200 PSI CWP NIBCO MJ-619-RW (Mechanical joint) (2" thru 16")
200 PSI CWP NIBCO FM-619-RW (Flanged by mechanical joint) (2" thru 12")

IBBM Design: Valves to be Class 125 and 200 PSI CWP and USA produced in accordance with MSS SP-70. Bolted bonnet, bronze trimmed, with body and bonnet conforming to ASTM A 126 Class B cast iron. Packing and gaskets to be non-asbestos. Valve ends shall be flanged-type.

Acceptable Valves:

200 PSI CWP NIBCO F-619 (Cast iron H/W) (2" thru 16")
200 PSI CWP NIBCO F-619-SON (2" Square operating nut) (2" thru 16")

Butterfly Valves:

Valve shall be 200 PSI CWP (2" thru 12") and 150 PSI CWP (14" and larger) and USA produced in accordance with MSS SP-67. Body to have 2" extended neck and to be cast iron or ductile iron. Valve to have aluminum bronze alloy disc with EPDM rubber seat and seals; or EPDM rubber encapsulated disc with polymer-coated body. Stem shall be 400 series stainless steel and shall not have exposed stem to disc fasteners. Sizes 2 1/2" thru 6" shall be lever-operated with 10-position throttling plate; sizes 8" and larger shall have gear operators. Lug-style, flanged and grooved style shall be capable for use as isolation valves and recommended by manufacturer for dead-end service at full pressure—without the need of downstream flanges. Valve ends shall be lug, wafer, flanged or I.P.S. grooved body style.

Acceptable Valves:

200 PSI CWP Lug body, aluminum bronze disc NIBCO LD/WD-2000-3 (lever operator); LD/WD-2000-5 (gear operator) (2" thru 24")
200 PSI CWP Flanged body, rubber coated disc NIBCO FC-2765-3 (lever operator); FC-2765-5 (gear operator) (2" thru 12")
300 PSI CWP Grooved body, rubber coated disc NIBCO GD-4765-3 (lever operator); GD-4765-5 (gear operator) (2" thru 12")

Golf Course Service Specifications

Check Valves for Backflow 3" and Smaller

Check Valves:

Valves shall be Class 125 and 200 PSI CWP and USA produced in accordance with MSS SP-80, body shall be bronze ASTM B 62 body with PTFE seat disc, Y-pattern swing type or stainless steel spring loaded center guided lift-type with PTFE seating. Valve ends shall be threaded type.

Acceptable Valves:

200 PSI CWP NIBCO T-413-Y (Swing Type) (1/4" thru 2"); NIBCO T-433-Y (Swing Type) (2 1/2" and 3")
200 PSI CWP NIBCO T-480-Y (Center Guided) (3/8" thru 2")

Check Valves for Backflow 2" and Larger

Check Valves:

Valves shall be Class 125 and 200 PSI CWP and USA produced in accordance with MSS SP-71, bolted bonnet, bronze trimmed, with body and bonnet conforming to ASTM A 126 Class B cast iron, gasket to be non-asbestos, swing type. Or, valves shall be Class 125 and 200 PSI CWP and USA manufactured in accordance with FM, bronze trim, with body and bonnet conforming to ASTM A 48 cast iron, stainless steel spring-loaded center-guided globe-style lift-type. Valve ends shall be flanged type or wafer type.

Acceptable Valves:

200 PSI CWP NIBCO F-918-B (Flanged, swing type) (2" thru 12")
200 PSI CWP NIBCO F-910-B (Flanged, center guided) (2" thru 36")
200 PSI CWP NIBCO W-910-B (Wafer, center guided) (2" thru 10")

Valve Flow Data

Liquid Flow:

$$Q = C_v \sqrt{\frac{\Delta P}{S}} \quad \text{or} \quad \Delta P = S \left(\frac{Q}{C_v} \right)^2$$

where... Q = flow rate (gallons per minute)
 ΔP = pressure drop across valve (psi)
 S = specific gravity of media

This equation is good for turbulent flow and for liquids with viscosities near that of water.
 (Cv is defined as the flow in GPM that a valve will carry with a pressure drop of 1.0 psi when the media is water at 60°F.) (The specific gravity of water is 1 (one).)

Gas Flow:

$$Q = 1360 C_v \sqrt{\frac{\Delta P \times P_1}{ST}}$$

where... Q = gas flow (SCFH—std. cu. ft/hr)
 S = specific gravity of gas (air = 1.0)
 T = temp—degrees Rankine (°F + 460)
 ΔP = pressure drop across valve (psi)
 P₁ = upstream pressure (psia) absolute

NOTE: ΔP must be less than .5 P₁. (Flow is critical w greater than .5 P₁.)

Throttling Factors

For throttling use with disc partially open. Multiply Cv by factor.

	0	10	20	30	40	50	60	70	80	90	100
T-211/311	0	.35	.65	.90	.93	.96	.98	.99	1.00	1.00	1.00

Ball and Butterfly Valves Degrees of Open

T-580	0	.01	.05	.16	.30	.37	.45	.58	.71	.87	1.00
T-580-70	0	.01	.05	.16	.30	.37	.45	.58	.71	.87	1.00
T-585-70	0	.01	.05	.16	.30	.37	.45	.58	.71	.87	1.00
LD/WD 2000	0	.03	.06	.12	.18	.22	.27	.40	.56	.80	1.00

Warning

The Fluid Flow factors contained herein are calculated values. They are therefore approximations and cannot be used for highly critical flow or pressure drop calculations.

For very precise flow measurements, tests must be conducted on any valve mentioned within this catalog.

Flow Data

Cv Values for Valves

Figure Nos.	Value Size																	
	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	16"
Gates																		
T-113		5.6	10.7	17.6	32	54	97	135	230	337	536	960	1525	2250				
T/F-619									215	335	510	945	1525	2250	4150	6700	9925	18375
Globes																		
T-211/311	0.61	1.16	2.21	3.64	6.65	11.1	20	28	48	70	111							
Checks																		
T-413 (swing)	1.3	2.5	4.8	14.3	24	43	60	102	150	238	465							
T-480 (poppet)			3.7	6.86	16.3	30	49	72	130									
F-918 (swing)									150	243	356	665	1073	1584	2937	4730	6985	
W-910 (poppet)												500	806	1200	2200	3550	5250	
Ball																		
T-580			5.8	13.9	27	44	64	100										
T-580-70							38.5	76	101.4	183	390							
T-585-70		4.2	6.2	15.3	30.4	48.8	103	143	245									
Butterfly																		
LD/WD 2000									166	247	340	660	1080	1613	3759	5300	7969	

Properties of Valve Materials

ALLOY	ASTM NO.	OTHER ALLOY DESIGNATION	NOMINAL OR MAXIMUM CHEMICAL COMPOSITION									
			CARBON		CHROME	COBALT	COPPER	IRON	LEAD	MANGA-NESE	MOLYB-DENUM	
			AL	C	Cr	Co	Cu	Fe	Pb	Mn	Mo	
Commercial Aluminum 380	SC 84 A (modified)	UNS A38000	87.0				1.0	1.3		.35		
Free Cutting Brass	B 16	UNS C36000					61.5		3.0			
Navy "M" (Steam Bronze)	B 61	UNS C92200	.005				88.0	.25	1.5			
Composition Bronze (Ounce Metal)	B 62	UNS C83600	.005				85.0	.30	5.0			
Copper-Silicon Alloy B	B 98/B 99	UNS C65100					96.0	.8	.05	.7		
Forging Brass	B 124	UNS C37700					60.0	.3	2.0			
Forging Brass	B 283	UNS C37700					58.0	.3	2.5			
Brass Wire (Red Brass)	B 134	UNS C23000					85.0	.05	.05			
Leaded Red Brass	B 140	UNS C31400					89.0	.10	1.9			
Aluminum Bronze (Cast)	B 148	UNS C95400	11.0				85.0	4.0				
Aluminum Bronze (Rod)	B 150	UNS C64200	7.0				91.0	.30	.05	.10		
Silicon Red Brass	B 371	UNS C69400					81.5	.20	.30			
Leaded Semi-Red Brass	B 584	UNS C84400	.005				81.0	.40	7.0			
Leaded Red Brass		UNS C84500	.005				78.0	.40	7.0			
Leaded Nickel Bronze	B 584	UNS C97600					64.0		4.0			
Copper (Wrot)	B 75	UNS C12200					99.9					
Gray Iron	A 126	Class B										
3% Ni Gray Iron	A 126 (modified)	Class B										
Austenitic Gray Iron (Ni-Resist)	A 436	Type 2		3.00	2.0		.5			1.0		
Ductile Iron (Ferritic)	A 395			3.20								
Austenitic Ductile Iron (Ductile)	A 536 65-45-12											
(Ductile)	A 536 80-55-06											
(Ni-Resist)	A 439 D2C		2.9	.5						2.4	1.0	

NOMINAL OR MAXIMUM CHEMICAL COMPOSITION								NOMINAL PHYSICAL PROPERTIES				
NICKEL Ni	PHOS P	SILICON Si	SULFUR S	TIN Sn	TITAN- IUM Ti	TUNG- STEN W	ZINC Zn	TENSILE STRENGTH Psi	YIELD STRENGTH Psi	% ELONGATION	HARDNESS	
.50		12.0		.15			.50	42,000	19,000	3.5		
							35.5	50,000	20,000	15	75 HRB	
1.0	.05	.005	.05	6.0			4.5	34,000	16,000	22	65 HB *500 kg	
1.0	.05	.005	.08	5.0			5.0	30,000	14,000	20	60 HB 500 kg	
		1.6					1.5	86,000**	20,000	11	65 HRB	
							38.0	52,000	20,000	45	80 HRB	
							38.0	52,000	20,000	45	78 HRB	
							15.0	56,000			60 HRB	
.7							9.1	50,000	30,000	7	60 HRB	
								75,000	30,000	12	170 HB *3000 kg	
.25		2.0		.20			.50	90,000	45,000	9	80 HRB	
		4.0					14.5	80,000	40,000	15	85 HRB	
	.02	.005	.08	3.0			9.0	29,000	13,000	18	55 HB *500 kg	
1.0	.02	.005	.08	3.0			12.0	29,000	13,000	16	55 HB *500 kg	
20.0				4.0			8.0	40,000	17,000	10	80 HB	
	.02							36,000	30,000	25	45 T	
	.75		.15					31,000			195 HB	
3.00	.75		.15					31,000			195 HB	
20.0		2.0	.12					25,000			118 HB	
	.08	2.50						60,000	40,000	18	167 HB	
	.08	2.50						65,000	45,000	12	160 HB	
	.08	2.50						80,000	55,000	6	160 HB	
24.0	.08	3.0						58,000	28,000	20	146 HB	

*Load Applied During Testing
**Allowable Range is 75,000 to 95,000

NIBCO® Pressure Rated Metal Valves Limited Warranty



NIBCO INC. 125% LIMITED WARRANTY

Applicable to NIBCO Pressure Rated Metal Valves

NIBCO INC. warrants each NIBCO pressure rated metal valve (“Valves”) to be free from defects in materials and workmanship under normal use, service, and maintenance in accordance with the product specifications (including, but not limited to installation recommendations) for a period of five (5) years from the Warranty Commencement Date. The Warranty Commencement Date shall be the date upon which a Valve is installed.

NIBCO will repair or replace – at its option and at no charge – Valves that have been determined by NIBCO, or an authorized representative or agent thereof, to have failed solely because of a defect in materials or workmanship under normal use, service, and maintenance during the warranty period. Replacements shall be shipped free of charge to the owner. In the event of the replacement of any Valve, NIBCO shall further pay the owner the greater of twenty-five (25%) percent of the price of the Valve according to the published suggested list price schedule of NIBCO in effect at the time of purchase, or ten (\$10.00) dollars, to apply on the cost of the installation of said replacement Valve.

This limited warranty applies to all Valves installed, tested, applied, and used in accordance with NIBCO’s approved and published recommendations and instructions.

This warranty does not cover any failure or damage for or caused by:

1. any product, parts, or systems which are not manufactured or sold by NIBCO;
2. any Valve which is used for purposes other than a purpose authorized by NIBCO;
3. any Valve not installed, tested, applied, used, or maintained in accordance with NIBCO’s recommended installation guidelines and instructions;
4. any Valve not installed or used in accordance with applicable codes;
5. any damage caused by, contributed in whole or in part by, or resulting from, any of the following:
 - a. abuse, misuse, mishandling, alteration, tampering, neglect, or accidental damage such as, without limitation, vandalism;
 - b. natural disasters, such as, without limitation, flooding, windstorm, and lightning;
 - c. attachments or modifications not authorized by NIBCO;
 - d. external, physical or chemical qualities, or an unsuitable or hostile environment,;
 - e. any defects other than those in material or workmanship; or
 - f. any other cause beyond the control of NIBCO.

NIBCO DISCLAIMS ANY AND ALL LIABILITY FOR ANY OTHER DIRECT OR INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND, INCLUDING BUT NOT LIMITED TO, ECONOMIC LOSS, LOSS OF BUSINESS, LOST PROFITS, PUNITIVE DAMAGES, MOLD INTRUSION, WATER DAMAGE, ETC.

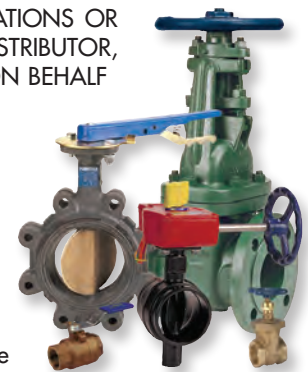
Some states do not allow the exclusion or limitation of damages, so the above limitation or exclusion may not apply to you.

THIS WARRANTY IS THE ONLY WARRANTY FOR THE VALVES PROVIDED BY NIBCO, AND IS AND SHALL BE IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, AN IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND FOR ALL OTHER OBLIGATIONS OR LIABILITIES ON THE PART OF A MANUFACTURER. NO EMPLOYEE OF NIBCO, OR ANY OTHER DISTRIBUTOR, AGENT, OR OTHER PERSON OR BUSINESS, IS AUTHORIZED TO MAKE ANY OTHER WARRANTY ON BEHALF OF NIBCO.

Some states do not allow limitations on implied warranties, so the above limitation may not apply to you.

In the event any defect occurs which is believed to be covered by this warranty, NIBCO Technical Services must immediately be contacted by calling 888.446.4226 or emailing CS-TechnicalServices@nibco.com. NIBCO Technical Services after being contacted will make further arrangements for the product’s return to NIBCO at the customer’s expense for review and evaluation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.





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