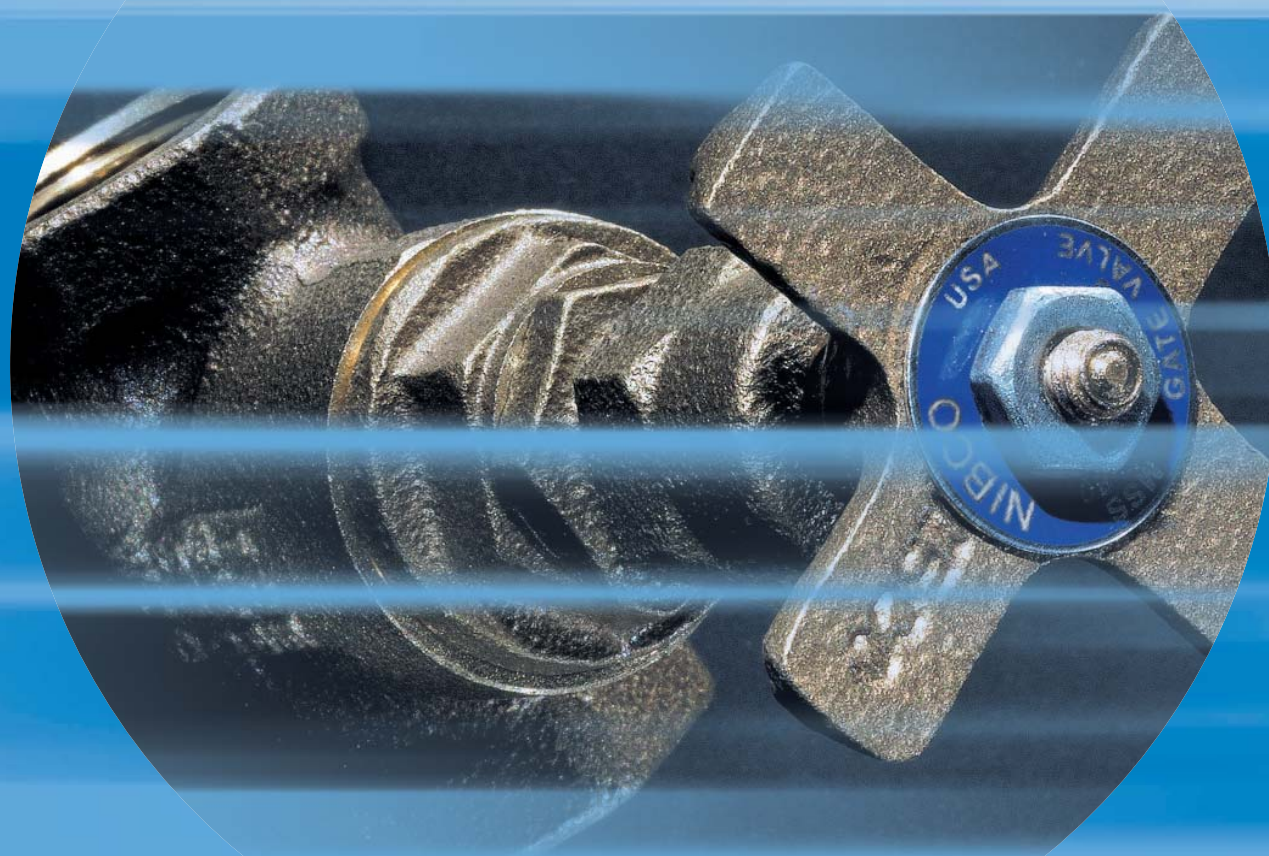


NIBCO®

AHEAD OF THE FLOW®



Irrigation Valves

Business-to-Business Solutions

Look to NIBCO for technology leadership.

The velocity with which e-business evolves demands that new products and services be continuously developed and introduced to keep our customers at the center of our business efforts. NIBCO provides an entire suite of business-to-business solutions that is changing the way we interact with customers.



NIBCOpartner.comSM is an exclusive set of secure web applications that allow quick access to customer-specific information and online order processing. This self-service approach gives you 24/7 access to your order status putting you in total control of your business.

Real time information includes:

- Online order entry
- Viewable invoices & reports
- Inventory availability
- Current price checks
- Order status
- Online library of price sheets, catalogs & submittals



Electronic Data Interchange (EDI) makes it possible to trade business documents at the speed of light. This technology cuts the cost of each transaction by eliminating the manual labor and paperwork involved in traditional order taking. This amounts to cost-savings, increased accuracy and better use of resources.

With EDI, you can trade:

- Purchase orders
- PO Acknowledgements
- Invoices
- Product activity data
- Advanced ship notices
- Remittance advice



Vendor Managed Inventory (VMI), a sophisticated service for automated inventory management, reduces your overhead by transferring inventory management, order entry and forecasting to NIBCO. This is an on-going, interactive partnership with NIBCO.

Through automation, VMI brings results:

- Improves customer service
- Optimum inventory efficiencies
- Better forecasting
- Cuts transaction costs
- Peace of mind
- Relief from day-to-day management

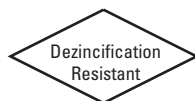




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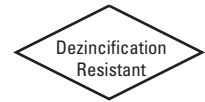
De-alloying corrosion, known as "Dezincification," was effectively eradicated from valve products in the 1950s. Today, however, this problem has returned with the increased use of high-zinc alloys (commonly referred to as 'Yellow Brass') in forged and cast valves typically produced outside the United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



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



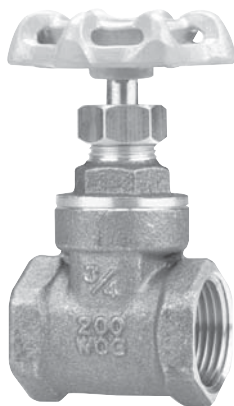
T-113-K/T-113-BHW/T-113
Non-Rising Stem • Solid Wedge
Sizes 1/4" thru 3"
Threaded Ends
Page 6

Bronze Gate Valve
Screw-in Bonnet
200 lb. CWP



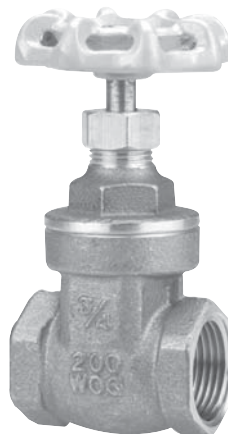
T-29-K/T-29
Non-Rising Stem • Solid Wedge
Sizes 1/2" thru 2"
Threaded Ends
Page 7

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



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

DIMENSIONS—WEIGHTS

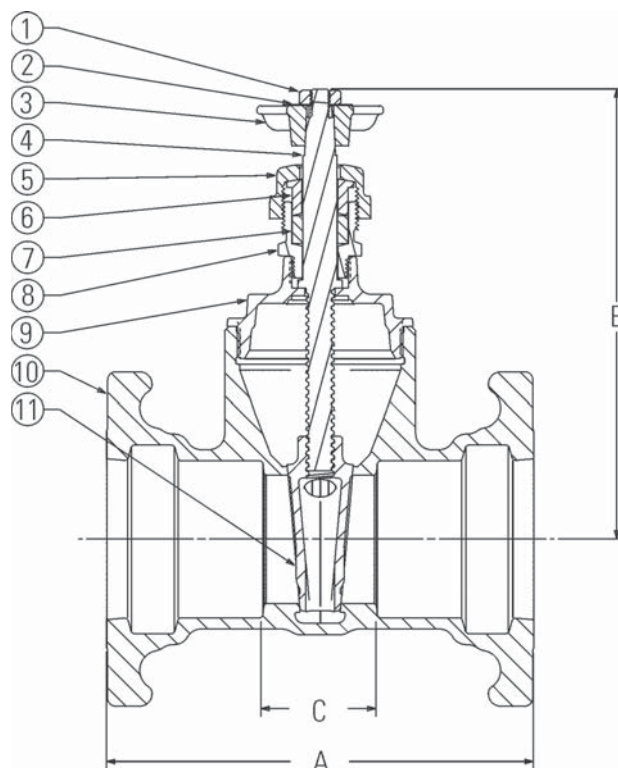
Size		Dimensions						Weight	
		A		B		C			
In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.
2	50	6.63	168.4	7.00	177.8	1.78	45.2	8.28	3.75

* Freezing weather precaution — subsequent to testing a piping system, valves should be in an open position to allow complete drainage.

Dezincification
Resistant



PR-113-K



PR-113-K
PO x PO

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

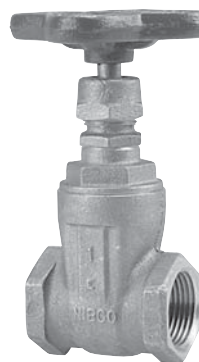
PART	SPECIFICATION
1. Handwheel Nut	300 Series Stainless Steel
2. Identification Plate	Aluminum
3. Handwheel	a. Malleable Iron ASTM A 47 (T-113) b. Bronze (T-113-BHW) c. Bronze Cross (T-113-K)
4. Stem or ASTM B 99 Alloy C65100	Silicon Bronze ASTM B 371 Alloy C69400
5. Packing Nut	Bronze ASTM B 62 or ASTM B 584 Alloy C84400 or Brass ASTM B 16
6. Packing Gland	Bronze ASTM B 62 or ASTM B 584 Alloy C84400 or Brass ASTM B 16
7. Packing	Aramid Fibres 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
		A		B				
In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn. Qty.
¼ †	8	1.69	43	3.38	86	0.74	0.33	50
⅜ †	10	1.69	43	3.38	86	0.71	0.32	50
½ †	15	1.94	49	3.63	92	0.82	0.37	50
¾	20	2.06	54	3.91	99	1.10	0.50	50
1	25	2.44	62	4.69	119	1.82	0.82	30
1 ¼	32	2.63	67	5.22	133	2.40	1.09	20
1 ½	40	2.88	72	6.25	159	3.51	1.59	10
2	50	3.06	78	7.06	179	4.93	2.24	10
2 ½	65	4.13	105	8.41	224	9.96	4.52	5
3	80	4.50	114	10.00	254	14.40	6.53	4

†No packing gland, packing only in these sizes.

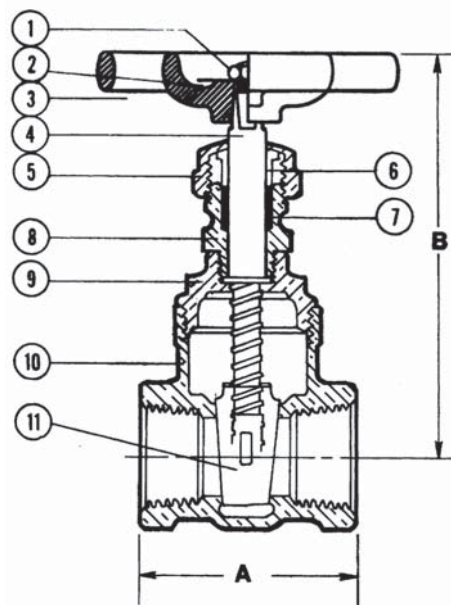
Dezincification
Resistant



T-113
Threaded



T-113-K
Threaded
With Cross Handle

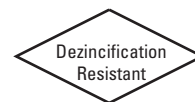


T-113
NPT x NPT

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

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

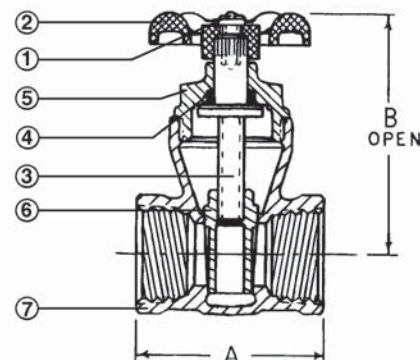
PART	SPECIFICATION
1. Handwheel Screw	Stainless Steel
2. Handle	a. Bronze Cross (T-29-K) b. Aluminum (T-29)
3. Stem	Copper ASTM B 99 Alloy C10200
4. Stem Seal	Rubber EPDM "O" Ring
5. Bonnet	Cast Copper-based Alloy C84400
6. Wedge	Cast Copper-based Alloy C84400
7. Body	Cast Copper-based Alloy C84400



T-29-K
Threaded
with Cross Handle



T-29
Threaded



T-29-K
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

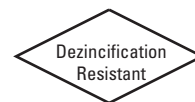
Size		Dimensions				T-29-K		Master Ctn. Qty.
		A		B				
In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	
½	15	1.81	46	2.50	64	.48	.22	100
¾	20	2.00	51	2.88	73	.67	.30	100
1	25	2.31	59	3.56	90	1.22	.55	50
1 ¼	32	2.63	67	3.69	94	1.54	.70	40
1 ½	40	2.75	70	4.19	106	2.12	.96	20
2	50	2.88	73	4.88	124	3.29	1.49	20

Each valve individually tested in ISO 9002 certified facility.

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

150 PSI CWP Brass Gate Valves

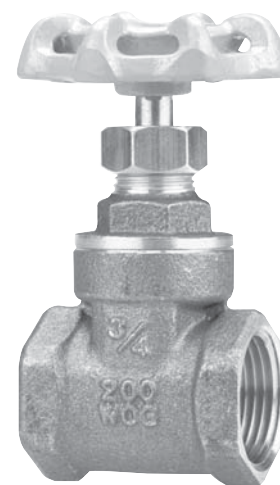
Bronze Body • Non-Rising Stem • Reduced Port



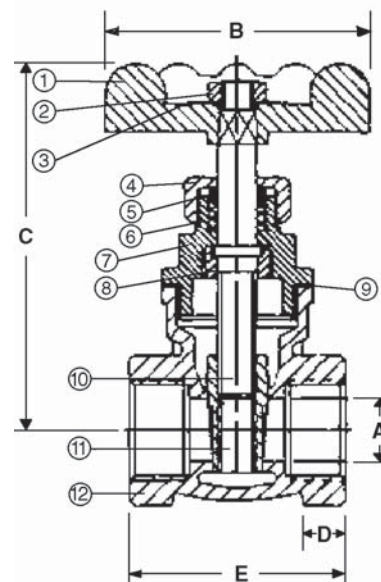
150 PSI/10.3 Bar Non-Shock Cold Working Pressure to 180° F/82° C

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

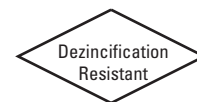
DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions - Weight - Quantities														
Dimensions														Master Ctn. Qty.
Size		A		B		C		D (min)		E		Lbs.		
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
1 ¼	32	1.03	26	2.31	59	3.66	93	.59	15	2.13	54	1.18	.54	30
1 ½	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
2 ½	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

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

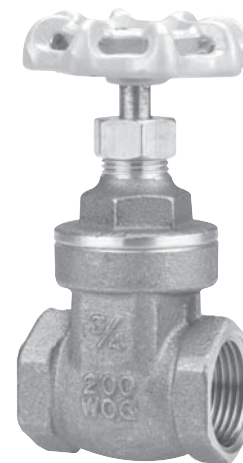
Bronze Body • Non-Rising Stem • Full Port



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

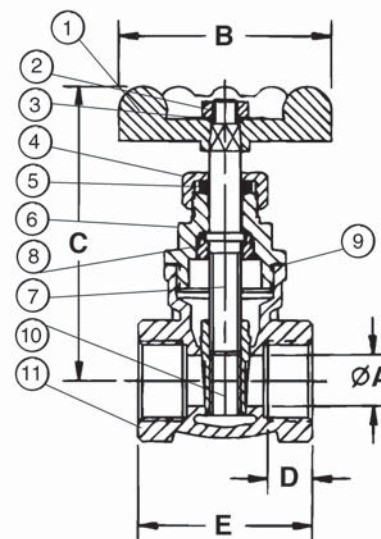


TI-8
Threaded

DIMENSIONS—WEIGHTS—QUANTITIES

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

Threaded ends per ANSI B1 20 1.

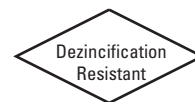


TI-8
NPT x NPT

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

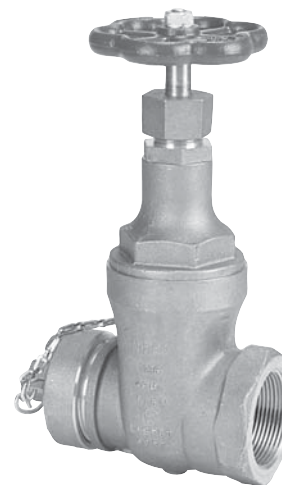


175 PSI/12.1 Bar Non-Shock Cold Working Pressure

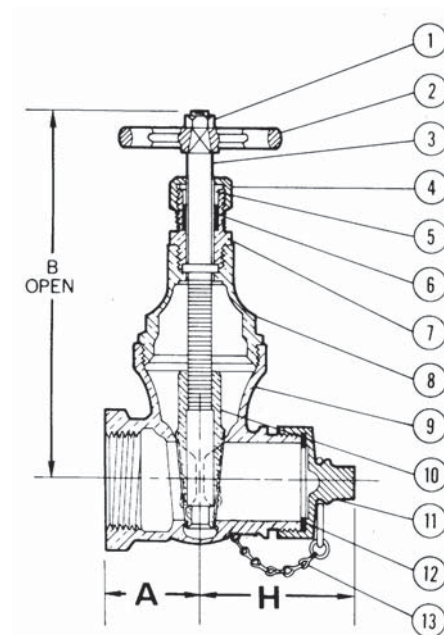
CONFORMS TO MSS SP-80 •
UL LISTED • FMRC APPROVED

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 (NFA)
Hose 7.5 Threads Per Inch

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions

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

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

Dezincification
Resistant

Bronze Globe Valve
Screw-in Bonnet
250 PSI CWP



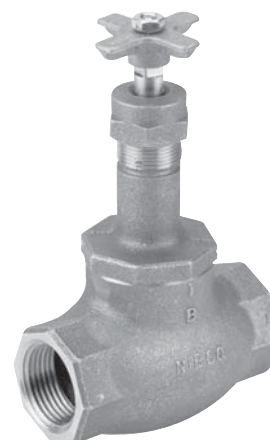
T-381-WK
Integral Seat • Renewable Disc
Size 2"
Threaded Ends
Page 12

Bronze Globe Valve
Screw-in Bonnet
125 PSI CWP



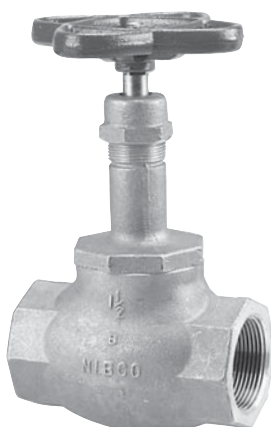
75-K
Integral Seat • Resilient Disc
Sizes ½" thru ¾"
Threaded Ends
Page 13

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 ¼" 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 ¼" thru 3"
Threaded Ends
Page 15

250 PSI CWP Bronze Angle Valves

Screw-in Bonnet • Integral Seat • Renewable Disc

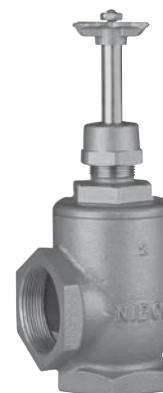
Dezincification
Resistant

250 PSI/17.2 Bar Non-Shock Cold Working Pressure

CONFORMS TO MSS SP-80

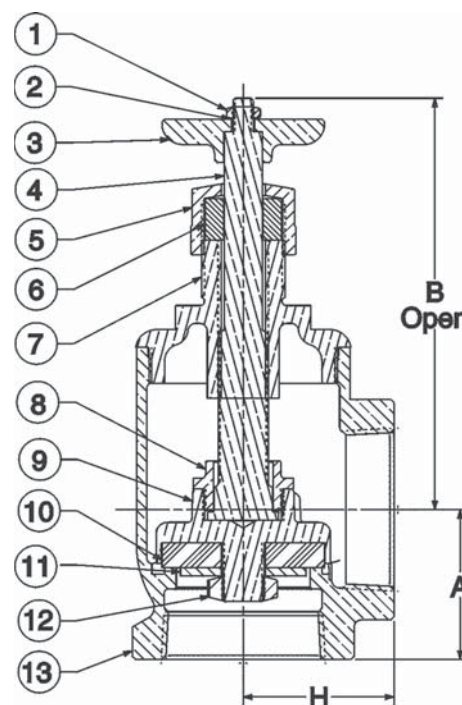
MATERIAL LIST

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

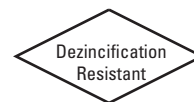
DIMENSIONS—WEIGHTS—QUANTITIES

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

125 PSI CWP Bronze Globe Valves

Screw-in Bonnet • Integral Seat • Resilient Seat

125 PSI/8.6 Bar Non-Shock Cold Working Pressure

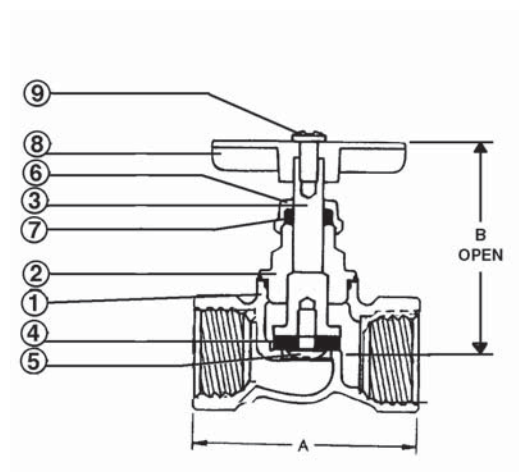


75-K
Threaded
with Cross Handle

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
NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

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

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 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. Handwheel Nut	300 Series Stainless Steel
2. Identification Plate	Aluminum
3. Handwheel	a. Malleable Iron ASTM A 47 (T-211) b. Bronze Cross Handwheel (T-211-YK)
4. Stem	Silicon Bronze ASTM B 371 Alloy C69400
5. Packing Gland	Bronze ASTM B 62 or ASTM B 584 Alloy C84400 or Brass ASTM B 16
6. Packing Nut	Bronze ASTM B 62 or ASTM B 584 Alloy C84400 or Brass ASTM B 16
7. Packing	Aramid Fibres 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
13. Body	Bronze ASTM B 62

*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
		A		B				
In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn. Qty.
*1/8†	6	2.38	60	3.38	86	1.01	0.46	50
*1/4†	8	2.38	60	3.38	86	1.00	0.45	50
*3/8†	10	2.38	60	3.38	86	0.98	0.45	50
*1/2†	15	2.56	65	3.38	86	1.03	0.47	50
3/4	20	3.06	78	4.88	124	1.73	0.79	30
**1	25	3.69	94	5.69	145	2.85	1.29	20
**1 1/4	32	4.31	110	6.13	156	3.79	1.72	10
**1 1/2	40	4.69	119	7.38	187	5.90	2.68	10
**2	50	5.63	143	7.94	202	8.68	3.94	6
2 1/2	65	6.63	168	10.19	259	15.40	6.98	2
3	80	7.75	197	11.19	284	22.44	10.18	2

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

†No packing gland, packing only in these sizes.

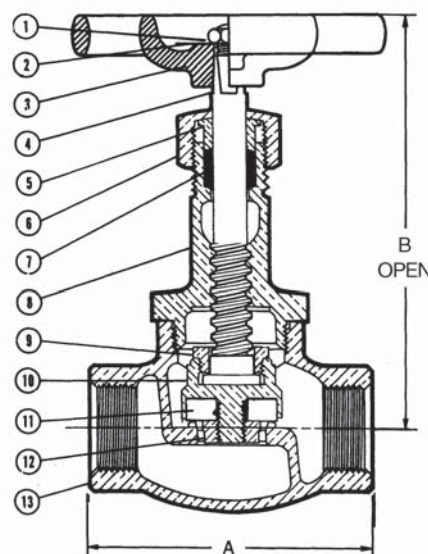
**T-211-YK is available in these sizes only.



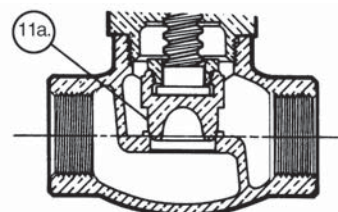
T-211
Threaded



T-211-YK
Threaded
With Cross Handle



T-211-Y
NPT x NPT



T-211-B
NPT x NPT

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

Class 125 Bronze Angle Valves

Screw-in Bonnet • Integral Seat • 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. Handwheel Nut	300 Series Stainless Steel
2. Identification Plate	Aluminum
3. Handwheel	a. Malleable Iron ASTM A 47 (T-311-Y) b. Bronze Cross Handwheel (T-311-YK)
4. Stem	Silicon Bronze ASTM B 371 Alloy C69400
5. Packing Gland	Bronze ASTM B 62 or ASTM B 584 Alloy C84400 or Brass ASTM B 16
6. Packing Nut	Bronze ASTM B 62 or ASTM B 584 Alloy C84400 or Brass ASTM B 16
7. Packing	Aramid Fibres 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
13. Body	Bronze ASTM B 62

*2½" and 3" are ASTM B 61

DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions				T-311		Master Ctn. Qty.
		B		H & J				
In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	
* ¼	8	3.50	89	1.19	30	0.98	0.44	50
* ⅜	10	3.50	89	1.19	30	0.93	0.42	50
* ½	15	3.50	89	1.31	33	1.01	0.46	30
¾	20	4.94	126	1.56	40	1.70	0.77	20
1	25	5.75	146	1.88	48	2.82	1.28	10
1 ¼	32	6.13	156	2.19	51	3.76	1.70	10
1 ½	40	7.25	179	2.38	60	5.79	2.63	6
2	50	8.13	206	2.81	72	8.76	3.97	4
2 ½	65	10.56	268	3.19	81	16.13	7.32	2
3	80	11.19	284	3.88	99	21.72	9.85	2

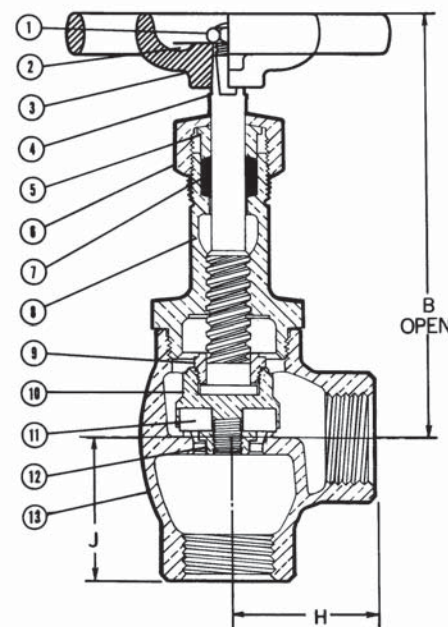
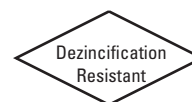
*Stem and Disc or Disc Holder are integral. No packing gland, packing only in these sizes.



T-311-Y
Threaded



T-311-YK
Threaded
With Cross Handle



T-311-Y
NPT x NPT

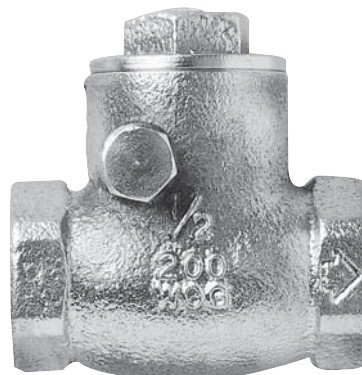
Freezing Weather Precaution – Subsequent to testing a piping system, valves should be in an open position to allow complete drainage.

Bronze and Brass Check Valves

Illustrated Index

Dezincification
Resistant

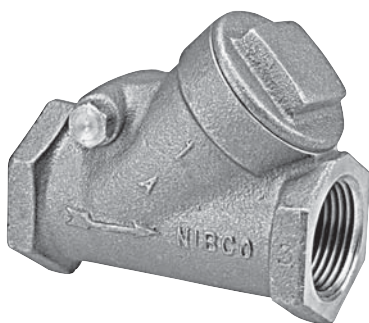
Brass Check Valve
Horizontal Swing
200 lb. CWP



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

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

Dezincification
Resistant



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)

Dezincification
Resistant

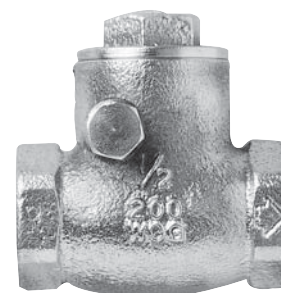
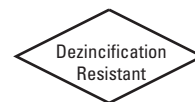


T-480
Buna-N or PTFE Disc
Spring Actuated
Sizes 3/8" thru 2"
Threaded Ends
Page 19

200 PSI CWP Brass Check Valves

Swing Type

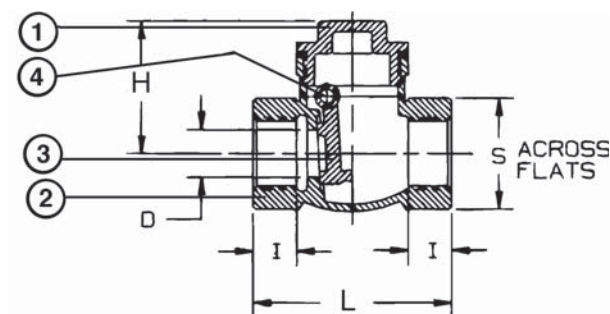
200 PSI/13.8 Bar Non-Shock Cold Working Pressure to 180° F/82° C



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.	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.

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 B 140 Alloy C31400 or B 134 Alloy C23000
4. Disc Hanger	Bronze ASTM B 62 or 304 Stainless Steel ¼" thru ¾" sizes
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 62 (B) FKM (V)
8. Seat Disc Nut	Bronze ASTM B 16 or B 62
9. Hinge Pin Plug	Bronze ASTM B 140 Alloy C32000 (not shown)
*10. Seat Disc Washer	ASTM B 98 Alloy C65500 or ASTM B 103 (not shown)

*Sizes ¾", 1", 1¼", and 1½" only.

DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions				Master			
		A		B					
In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn.	Qty.
¼	8	2.13	54	1.63	41	0.50	0.23	50	
⅜	10	2.13	54	1.63	41	0.47	0.22	50	
½	15	2.44	62	1.69	43	0.55	0.25	50	
¾	20	2.94	75	1.88	48	0.90	0.41	50	
1	25	3.56	90	2.31	59	1.46	0.66	30	
1¼	32	4.19	106	2.69	68	2.17	0.99	20	
1½	40	4.50	114	2.94	75	2.95	1.34	10	
2	50	5.25	133	3.94	100	4.79	2.17	10	
2½*	65	8.00	203	5.06	129	11.48	5.21	5	
3*	80	9.25	235	6.25	159	17.53	7.96	4	

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

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

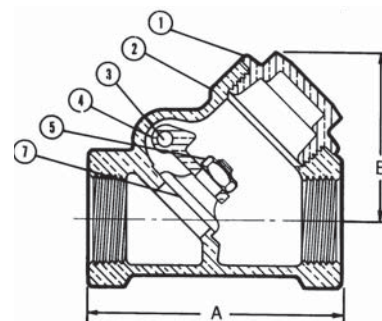
*— Class 150 (433) furnished for these sizes.

Dezincification
Resistant



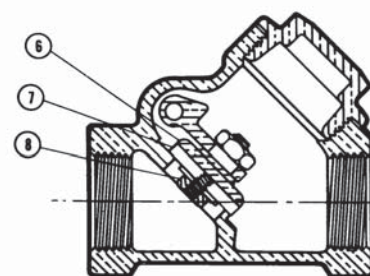
T-413

Threaded



T-413-B

NPT x NPT



T-413-Y

NPT x NPT

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 Ring Check® Valves

Inline Lift Type • Resilient Discs • Spring Actuated

125 PSI/8.6 Bar Saturated Steam (PTFE Disc)
250 PSI/17.2 Bar Non-Shock Cold Working Pressure

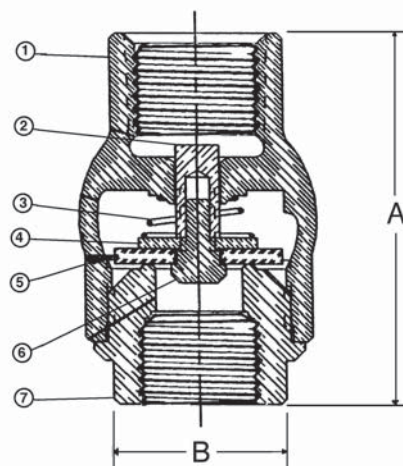
CONFORMS TO MSS SP-80

MATERIAL LIST

PART	SPECIFICATION
1. Body	Bronze ASTM B 584 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	Buna-N Rubber or PTFE (Y)
6. Seat Screw	Stainless Steel ASTM A 276 Alloy S43000
7. Body End	Bronze ASTM B 584 Alloy C84400



T-480
Threaded



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

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions

Size	A				B				Master	
	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.		
3/8	10	2.00	51	1.38	35	0.41	0.19	100		
1/2	15	2.06	52	1.38	35	0.36	0.16	100		
3/4	20	2.25	57	1.63	41	0.48	0.22	100		
1	25	2.63	67	2.00	51	0.77	0.35	50		
1 1/4	32	2.94	75	2.38	60	1.14	0.51	30		
1 1/2	40	3.31	84	2.75	70	1.63	0.74	30		
2	50	3.69	94	3.38	86	2.27	1.03	10		

Ordering: The T-480 has standard Buna-N Discs.

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

3/8" and 1/2" require 1 1/2 pounds pressure to open.

3/4" thru 2" require 1/2 pound pressure to open.

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.

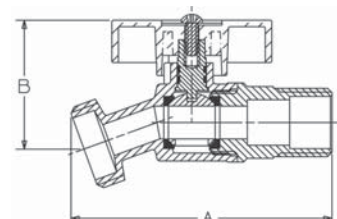
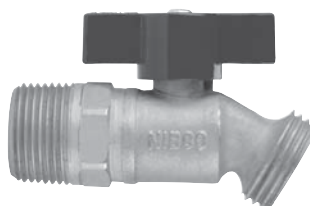
Hose Bibbs

125 PSI/8.6 Bar Non-Shock Cold Working Pressure to 100° F
Maximum Temperature 180° F/82° C

Dezincification
Resistant

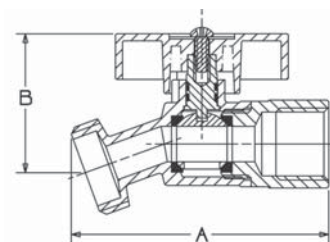
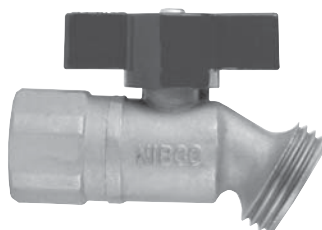
Quarter-Turn No-Kink Hose Bibb (Male or Cup to Hose) QT54X

Size	Dimensions		Dimensions		Weight	
	A		B		Weight	
	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	3.15	.00	1.54	.00	.40	
3/4	3.15	.00	1.54	.00	.42	



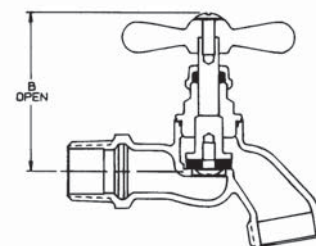
No-Kink Hose Bibb (Female to Hose) QT55X

Size	Dimensions		Dimensions		Weight	
	A		B		Weight	
	In.	mm.	In.	mm.	Lbs.	Kg.
1/2	2.87	.00	1.54	.00	.40	
3/4	3.15	.00	1.54	.00	.45	



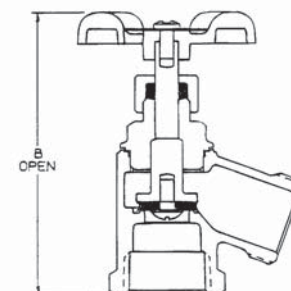
Hose Bibb (Male or Cup to Hose) 46-U

Size	Dimensions		Weight	
	In.	mm.	Lbs.	Kg.
1/2	2.06	52	.50	.23
3/4	2.06	52	.50	.23
46: 1/2 Cl 3/4 I	46-U: 1/2 Cl 3/4 I			



Garden Hose Valve/Inverted Neck Design (Female to Hose) 61

Size	Dimensions		Weight	
	In.	mm.	Lbs.	Kg.
1/2 Cl	3.63	92	.60	.27
3/4 I	3.75	95	.70	.32



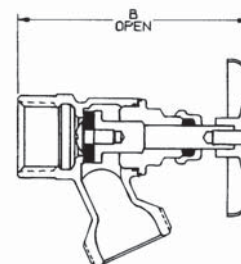
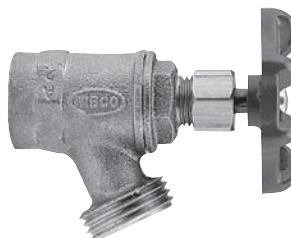
Classic Valves/Boiler Drains

125 PSI/8.6 Bar Non-Shock Cold Working Pressure to 100° F
Maximum Temperature 180° F/82° C

Dezincification
Resistant

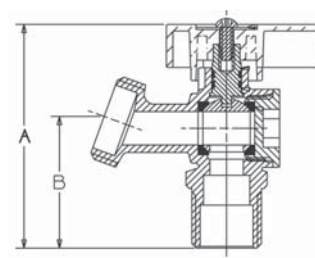
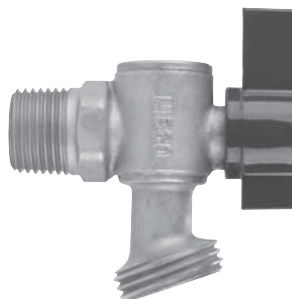
Boiler Drains (Female to Hose) 73-CL

Size	Dimensions		Weight	
	B		Lbs.	Kg.
	In.	mm.		
1/2 ^{CI}	3.25	83	.50	.23
3/4 ^{CI}	3.31	84	.50	.23



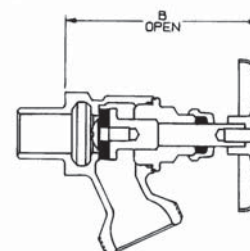
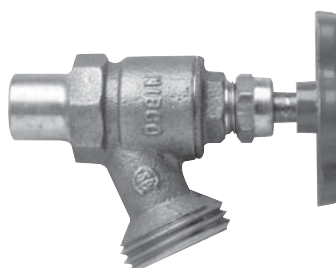
Quarter Turn Boiler Drains (Cup or Male Threads to Hose) QT74X

Size	Dimensions		Weight	
	A	B	Lbs.	Kg.
	In.	mm.		
1/2	2.64	.00	1.57	.40
3/4	2.72	.00	1.65	.42



Boiler Drains (FIT to Hose) 74-2

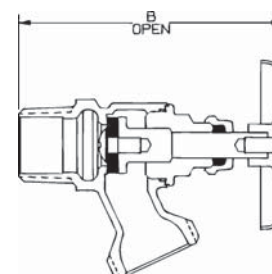
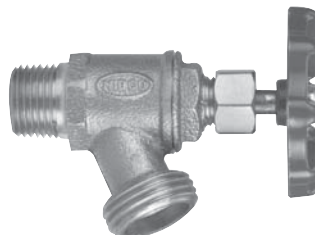
Size	Dimensions		Weight	
	B		Lbs.	Kg.
	In.	mm.		
1/2 ^C	3.38	56	.40	.18



Boiler Drains (Cup or Male to Hose) 74-CL

Size	Dimensions		Weight	
	B		Lbs.	Kg.
	In.	mm.		
1/2 ^{CI}	3.69	94	.50	.23
3/4 ^{CI*}	3.75	95	.50	.23

*3/4 furnished in male threads only.



4660-S/4660-T

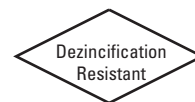
One-Piece Molded Body

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

NSF STANDARD 14

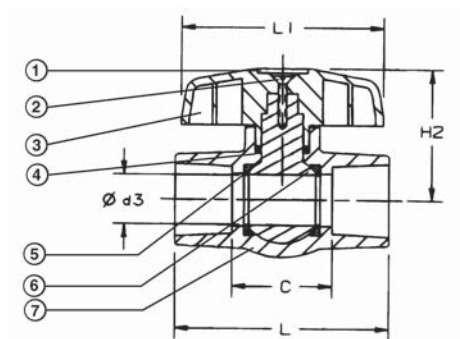
MATERIAL LIST

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

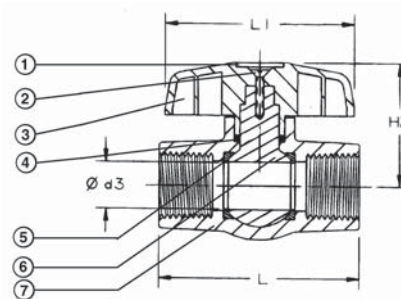


4660-S
Socket Weld

4660-T
Threaded
(not shown)



4660-S
Socket x Socket



4660-T
Threaded x Threaded

DIMENSIONS—WEIGHTS—QUANTITIES

DIMENSIONS WEIGHTS QUANTITIES														
Size		Dimensions										4660-S		Master
		C		d3		H2		L		L1				
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

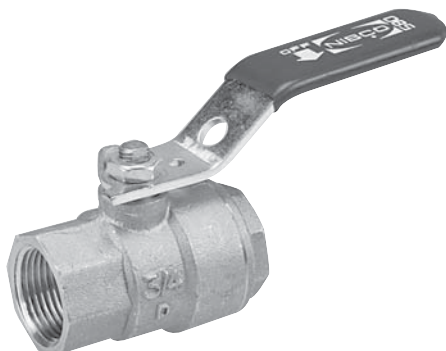
Socket ends per ASTM D 2466

Thread ends per ANSI B1.20.1

Bronze and Brass Ball Valves Illustrated Index

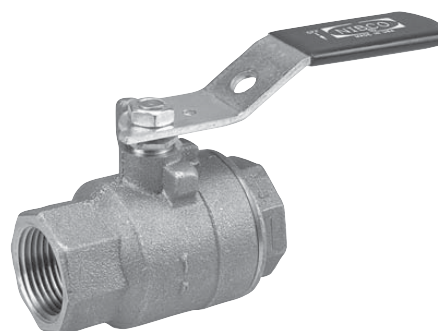
Dezincification
Resistant

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

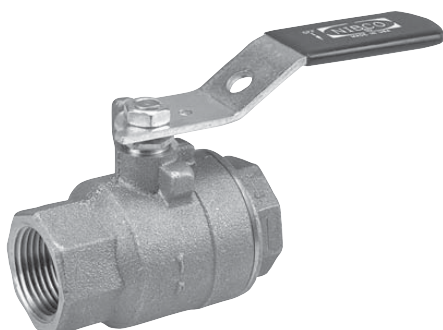
Bronze Ball Valve
Conventional Port
150 lb. SWP
600 lb. CWP



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

Dezincification
Resistant

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

Dezincification
Resistant

Brass Ball Valve
Full Port
600 lb. CWP



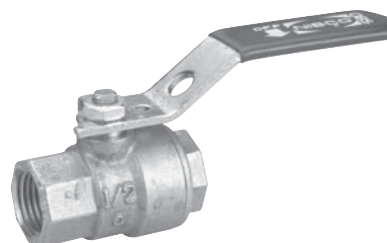
T-FP-600
Sizes 1/4" thru 4"
Threaded Ends
Page 27

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

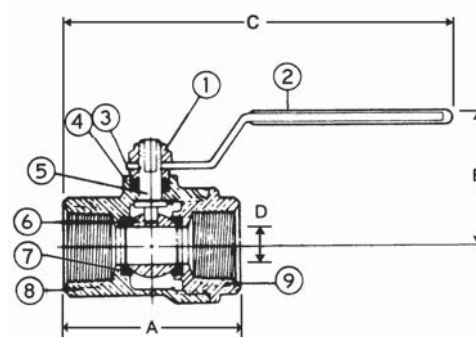
400 PSI/27.6 Bar Non-Shock Cold Working Pressure



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.	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	100	
1 25	2.88	73	2.06	52	6.06	154	.75	19	1.20	.54	50	
1 ¼ 32	3.41	87	2.31	59	6.34	161	1.00	25	1.80	.82	40	
1 ½ 40	3.75	95	2.81	71	8.56	217	1.25	32	2.90	.32	20	
2 50	4.44	113	3.06	78	8.88	226	1.50	38	4.30	1.95	10	

◆ 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

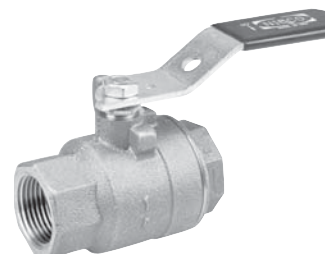
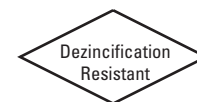
600 PSI/41.4 Bar Non-Shock Cold Working Pressure
150 PSI/10.3 Bar Saturated Steam ◆

CONFORMS TO MSS SP-110

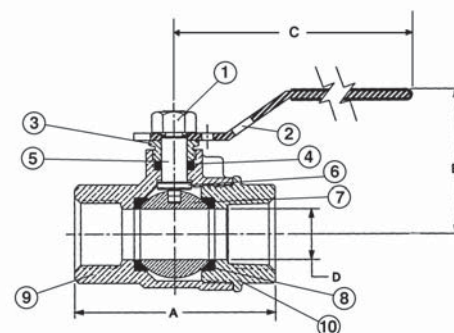
MATERIAL LIST

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

Dimensions												
Size		A		B		C		D Port		Master		
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn. Qty.
** ¼	8	2.00	51	1.75	44	5.00	127	.38	10	.45	.21	100
** ⅜	10	2.00	51	1.75	44	5.00	127	.38	10	.45	.21	100
** ½	15	2.44	62	1.88	48	5.19	132	.50	13	.64	.29	100
** ¾	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 ¼	32	3.94	100	2.63	67	6.75	171	1.00	25	2.17	.98	20
1 ½	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 ½	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.

Bronze Ball Valves

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

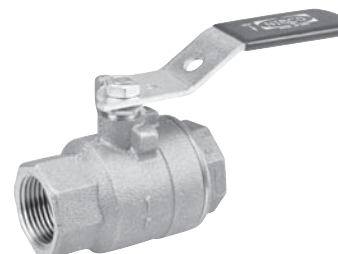
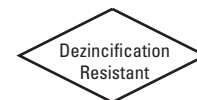
600 PSI/41.4 Bar Non-Shock Cold Working Pressure
150 PSI/10.3 Bar Saturated Steam ◆

CONFORMS TO MSS SP-110

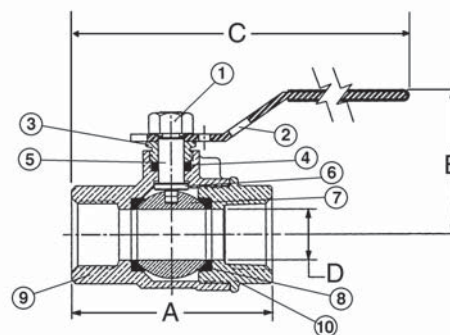
MATERIAL LIST

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

¼" size only has a 304 stainless steel grounding washer.



T-585-70
Threaded



NPT x NPT

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions

Size	A		B		C		D				Master
In. mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn. Qty.
¼ 8	2.00	51	1.75	44	5.00	127	.38	10	.45	.21	100
⅜ 10	2.00	51	1.75	44	5.00	127	.38	10	.45	.21	100
½ 15	2.44	62	1.88	48	5.19	132	.50	13	.64	.29	100
¾ 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
1¼ 32	4.19	106	3.00	76	6.75	171	1.25	32	3.12	1.41	20
1½ 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

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

UL SUBJECT 258 • FM1140 • ASME B16.44

MATERIAL LIST

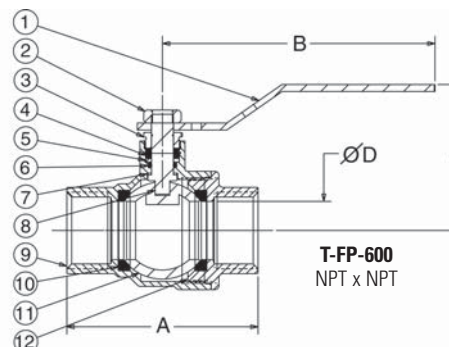
PART	SPECIFICATION
1. Handle	Steel, Plated
2. Nut, Handle	Steel, Plated
3. Pack Gland	Brass ASTM B 16 Alloy C36000
4. Packing, Stem	Virgin PTFE
5. Washer, Flat	430 Stainless
6. O-Ring (Stem Seal)	Fluorocarbon (FKM)
7. Washer, Thrust	Reinforced PTFE
8. Stem (3/8" - 3/4")	Brass ASTM B 16 Alloy C36000
9. Body	Forged Brass ASTM B 283 Alloy C37700
10. Seat Ring	Virgin PTFE
11. Ball (3/8" - 3/4")	Brass ASTM B 16 Alloy C36000 with Chrome Plate
12. End Piece	Forged Brass ASTM B 283 Alloy C37700

Note: AGA, CGA and UL approvals for T-FP-600 1/2"-2" only.
CSA is now the approving agency for AGA and CGA standards.
Meets Dimensional Requirements of MSS SP110



T-FP-600

Threaded

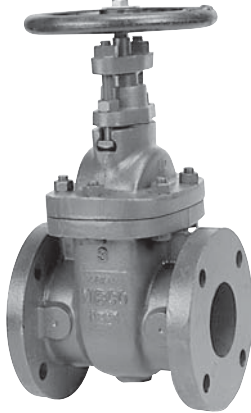
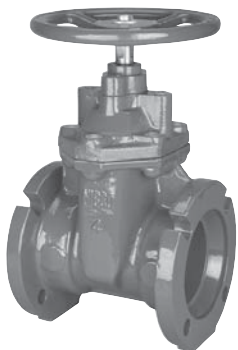


DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions												
Size	A		B		C		Port D					
In. mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Master Ctn.	Qty.
1/4	8	1.98	50	3.90	99	1.95	49	.31	8	.52	.24	24
3/8	10	1.98	50	3.90	99	1.95	49	.38	10	.46	.21	24
1/2	15	2.22	56	3.34	85	1.95	49	.50	13	.48	.22	18
3/4	20	2.66	67	3.34	85	2.30	58	.75	19	.90	.41	12
1	25	3.27	83	4.13	105	2.50	64	1.00	25	.60	1.25	6
1 1/4	32	3.66	93	4.13	105	3.07	78	1.25	32	2.14	.97	4
1 1/2	40	3.96	100	5.13	130	3.25	83	1.50	38	2.94	1.33	2
2	50	4.66	118	5.13	130	3.55	90	2.00	51	4.46	2.02	2
2 1/2	65	5.56	141	9.44	240	4.25	108	2.50	64	7.30	3.32	5
3	75	6.38	162	9.44	240	5.00	127	3.00	76	10.40	7.73	4
4	100	7.75	197	9.44	240	5.25	140	4.00	102	16.50	7.49	4

Iron Body Gate Valves

Illustrated Index

	Iron Body Gate Valve Bolted Bonnet 125 lb. SWP 200 lb. CWP  F-619/T-619 Non-Rising Stem • Solid Wedge Sizes 2" thru 16" Flanged or Threaded Ends Page 29	Iron Body Gate Valve Bolted Bonnet 200 lb. CWP  F-619-RW Non-Rising Stem • Resilient Wedge Sizes 2" thru 16" Flanged Ends Page 30
Iron Body Gate Valve Bolted Bonnet 200 lb. CWP  MJ-619-RW Non-Rising Stem • Resilient Wedge Sizes 3" thru 16" Mechanical Joint Ends Page 32	Iron Body Gate Valve Bolted Bonnet 200 lb. CWP  FM-619-RW-SON Non-Rising Stem • Resilient Wedge Sizes 3" thru 12" Flanged by MJ Ends Page 31	Iron Body Gate Valve Bolted Bonnet 200 lb. CWP  P-619-RW Non-Rising Stem • Resilient Wedge Sizes 2" thru 12" IPS Push-On Ends Page 33

Class 125 Iron Body Gate Valves

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

125 PSI/8.6 Bar Saturated Steam to 353° F/178° C
200 PSI/13.8 Bar Non-Shock Cold Working Pressure
to -20° F to 150° F/-29° C to 66° C ♦

CONFORMS TO MSS SP-70

MATERIAL LIST

PART	SPECIFICATION
1. Handwheel Nut	Steel ASTM A 307
2. Identification Plate	Aluminum
3. Handwheel or Square Operating Nut	Cast Iron ASTM A 126 Class B
4. Stem	Brass ASTM B 16 Alloy C36000
5. Gland Follower Nut	Bronze ASTM F 467 Alloy C27000
6. Gland Follower	Cast Iron ASTM A 126 Class B or Ductile Iron ASTM A 536
7. Gland Follower Bolt	Steel ASTM A 307
8. Packing Gland	Zinc Plated Powdered Iron ASTM B 783 or Brass ASTM B 16
9. Stuffing Box	Cast Iron ASTM A 126 Class B
10. Packing	Synthetic Fibers with Graphite
11. Stuffing Box Gasket	Synthetic Fibers
12. Bonnet	Cast Iron ASTM A 126 Class B
13. Body Bolt	ASTM A 307
14. Body Gasket	Synthetic Fibers
15. Body Nut	Steel ASTM A 307
16. † Wedge Bushing	Cast Bronze ASTM B 584 Alloy C84400
17. Seat Ring	Cast Bronze ASTM B 584 Alloy C84400
18. Wedge Face Ring	Cast Bronze ASTM B 584 Alloy C84400
19. † Wedge	Cast Iron ASTM A 126 Class B
20. Body	Cast Iron ASTM A 126 Class B
21. Stuffing Box Nut	Steel ASTM A 307 (not shown)

† Sizes thru 6" have Bronze Wedges. Sizes 8" thru 12" made with Cast Iron Wedge with Bronze Bushing and Wedge Face Rings.

DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions														F-619		T-619	
		F-619		T-619		B		C		D		E							
		A	A																
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Lbs.	Kg.		
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	x	x	21.00	533	1.38	35	869	394	x	x		
16	400	16.00	407	x	x	45.75	1162	x	x	23.50	597	1.44	37	1224	555	x	x		

x Not available this size.



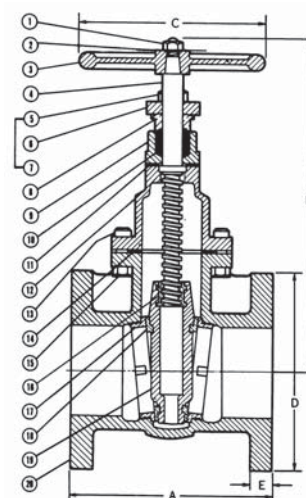
F-619
Flanged



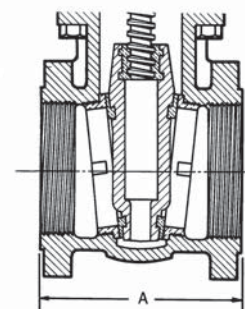
T-619
Threaded



F-619-SON
Flanged
With Square Op. Nut



F-619
Flg x Flg



T-619
NPT x NPT

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

Position indicators available, see page 92.

♦ For detailed Operating Pressure, refer to Chart on page 109.

250 PSI CWP Iron Body Gate Valves

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

250 PSI/17.2 Bar Non-Shock Cold Working Pressure

CONFORMS TO AWWA C509 & C515

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. Stem	Bronze ASTM B 150 UNS C61400
5. Bonnet Gasket	EPDM ASTM D 2000
6. Bonnet Screw	Alloy Steel ASTM A 574M Zinc Plated
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

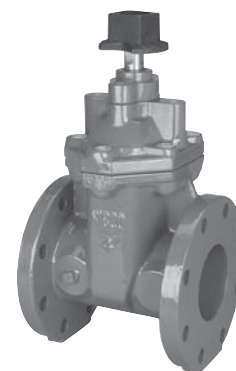
Coating – Electrostatically applied fusion-bonded epoxy 10-14 mil. inside and outside. Meets or exceeds AWWA C550. Coating is NSF and FDA certified.

Maximum operating temperature 160° F/71° C.



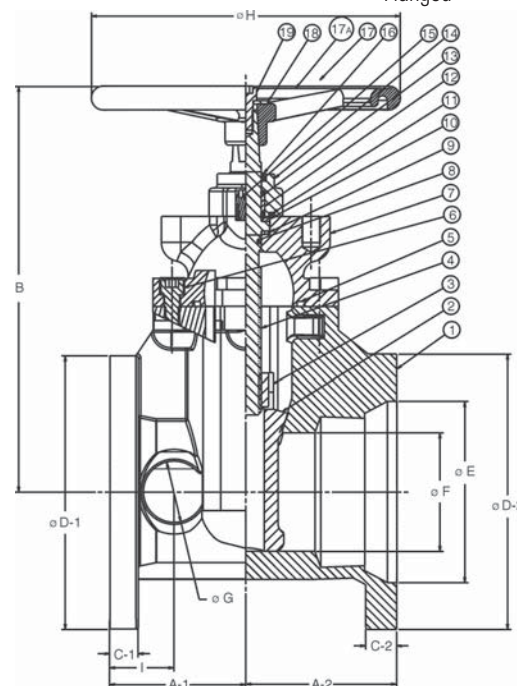
F-619-RW

Flanged



F-619-RW-SON

Flanged



FM-619-RW
FLG x MJ
F-619-RW

Flg x Flg

Shown with optional handwheel

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions												Bolt Circle	Flange Holes	Turns to Open	Weight					
	A		B		C		D		F		G					Lbs.	Kg.				
	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	6.5	30	14
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	8.8	35	16
3	80	8.0	203	12.6	321	0.75	19.0	7.5	191	1.73	44	2.1	54	10.2	260	6.00	152	4	10.6	45	20
4	100	9.0	229	13.5	344	0.94	24.0	9.0	229	2.13	54	2.1	54	10.2	260	7.50	191	8	13.0	71	32
6	150	10.5	267	17.4	441	1.00	25.4	11.0	279	2.24	57	2.5	64	14.8	375	9.50	241	8	15.6	122	55
8	200	11.5	292	20.8	529	1.13	28.6	13.5	343	2.48	63	2.8	70	14.8	375	11.75	298	8	17.3	196	89
10	250	13.0	330	24.2	614	1.19	30.2	16.0	406	2.56	65	2.8	70	15.7	400	14.25	362	12	21.4	294	134
12	300	14.0	356	27.6	700	1.25	31.8	19.0	483	2.91	74	3.4	86	19.7	500	17.00	432	12	25.3	426	194
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	44	600	273
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	810	369

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

250 PSI CWP Iron Body Gate Valve

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

250 PSI/17.2 Bar Non-Shock Cold Working Pressure

Conforms to AWWA C 509 & C 515

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. Stem	Bronze ASTM B 150 UNS C61400
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

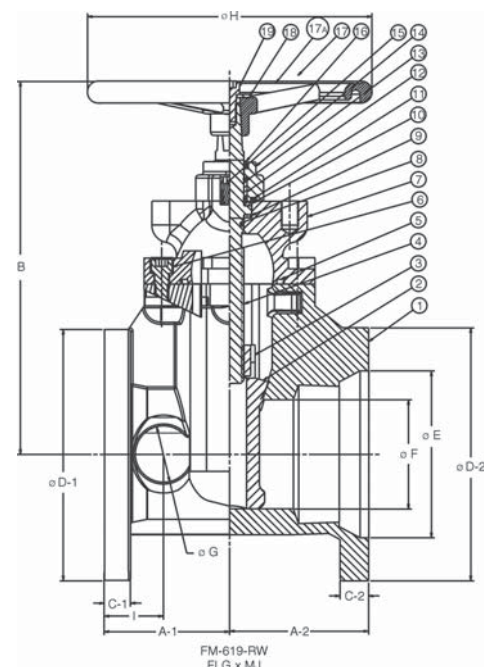
Maximum operating temperature 160°F/71°C.



FM-619-RW



FM-619-RW-SON



DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions																	
Size	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.
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

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

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

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

250 PSI CWP Iron Body Gate Valves

Bolted Bonnet • Non-rising Stem • Resilient Wedge • MJ Ends

250 PSI/17.2 Bar Non-Shock Cold Working Pressure

CONFORMS TO AWWA C509 & C515

MATERIAL LIST

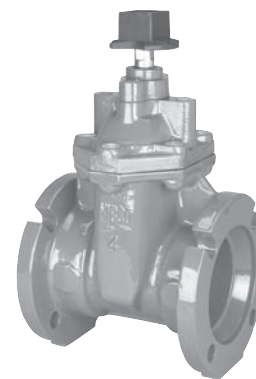
PART	SPECIFICATION
1. Valve Body	Ductile Iron ASTM A 536
2. Resilient Wedge	Ductile Iron ASTM A 536/EPDM ASTM D 2000
3. Wedge Nut	Bronze ASTM B 584 UNS C83600
4. Stem	Bronze ASTM B 150 UNS C61400
5. Bonnet Gasket	EPDM ASTM D 2000
6. Bonnet Screw	18-8 Stainless Steel ASTM 193
7. Bonnet	Ductile Iron ASTM 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 C550. Coating is NSF and FDA certified.
Maximum operating temperature 160° F/71° C.



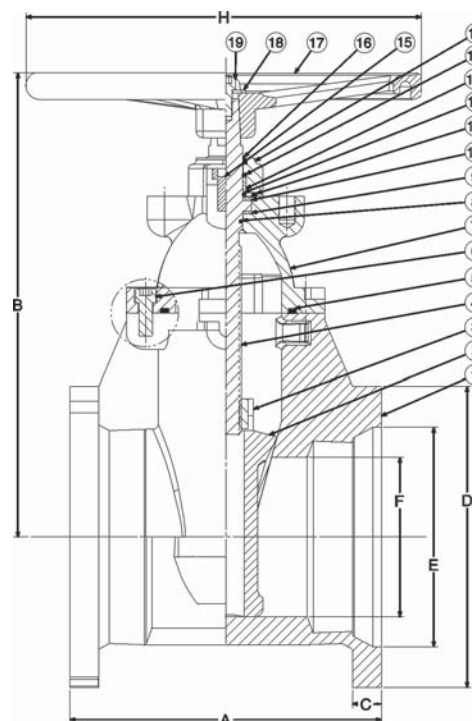
MJ-619-RW

Mechanical Joint



MJ-619-RW-S0N

Mechanical Joint



MJ-619-RW
MJ x MJ

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.	In.	mm.	In.	mm.	In.	mm.	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	10.8	43	20
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	13.0	70	36
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	15.7	112	51
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	17.3	170	77
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	21.4	267	121
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	25.3	388	176
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	44.0	570	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

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

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

CONFORMS TO AWWA C509

MATERIAL LIST

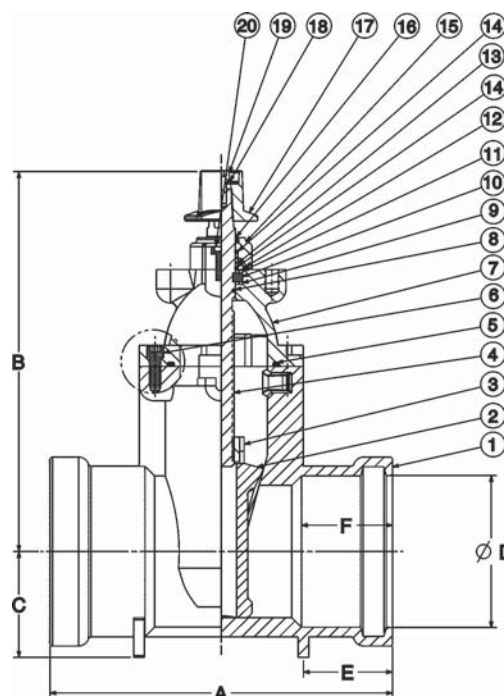
PART	SPECIFICATION
1. Valve Body	Cast Iron ASTM A 126-B
2. Resilient Wedge	Ductile Iron ASTM A 536/EPDM ASTM D 2000
3. Wedge Nut	Bronze ASTM B 584 UNS C83600
4. Stem	Stainless Steel ASTM A 276 UNS S41000
5. Bonnet Gasket	EPDM ASTM D 2000
6. Bonnet Screw	18-8 Stainless Steel ASTM 193
7. Bonnet	Cast Iron ASTM A 126-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 A 536
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. 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 10-14 mil. inside and outside. Meets or exceeds AWWA C550. Coating is NSF and FDA certified.
Maximum operating temperature 160° F/71° C.



P-619-RW

IPS Push-On



P-619-RW

IPS Push-On

DIMENSIONS—WEIGHTS—QUANTITIES

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

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

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 35

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 36

Class 125 Iron Body Check Valves

Bolted Bonnet • Horizontal Swing • *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
to -20° F to 150° F/-29° C to 66° C

CONFORMS TO MSS SP-71 TYPE 1

MATERIAL LIST

PART	SPECIFICATION
1. Body Bolt	Steel ASTM A 307
2. Identification Plate	Aluminum
3. Bonnet	Cast Iron ASTM A 126 Class B
4. Body Gasket	Synthetic Fibres
5. Body Nut	Steel ASTM A 307
6. Side Plug	Brass ASTM B 16 Alloy C36000
7. Hanger Pin	Brass ASTM B 16 Alloy C36000
8. ² Hanger	Cast Bronze ASTM B 584 Alloy C84400
9. ¹ Disc	Cast Bronze ASTM B 584 Alloy C84400 or ASTM A 536 Ductile Iron with Bronze Face Ring
10. Seat Ring	Cast Bronze ASTM B 584 Alloy C84400
11. Disc Nut	Brass ASTM B 16 Alloy C36000
12. Body	Cast Iron ASTM A 126 Class B
13. ¹ Disc Bolt	Brass ASTM B 16 Alloy C36000
14. Disc Plate	Cast Iron ASTM A 126 Class B
15. Disc Cage	Cast Iron ASTM A 126 Class B

¹ 2" thru 4" have Bronze ASTM B 62 Disc.

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

² 10" is Ductile Iron ASTM A 536.



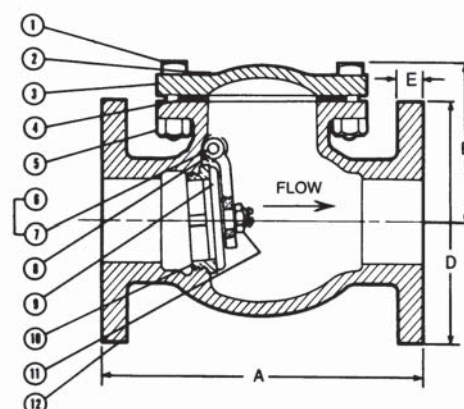
F-918-B

Flanged



T-918-B

Threaded



F-918-B

Flg x Flg

DIMENSIONS—WEIGHTS—QUANTITIES

DIMENSIONS VERSUS CAPACITIES															
Size		Dimensions													
		F-918-B				T-918-B				F-918-B		T-918-B			
		A		A		B		D						E	
In.	mm.	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	10.63	270	6.81	173	10.00	254	.94	24	100	45	80	36
6	150	14.00	356	12.25	311	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

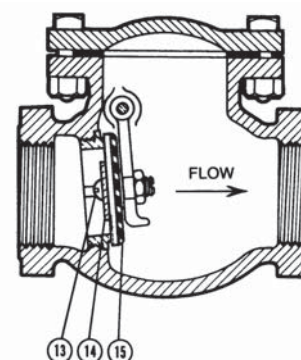
Note: On pump discharge, the preferred check valves are one of the following types: "in-line spring loaded or swing design with lever and weight or with lever and spring." You should also install the check valve as far from the pump as possible and at a minimum length of 5 times the pipe diameter. Flow straighteners may be required.

* Proper machining facilities required.

x Not available this size.

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

Swing Check valves should be sized for a 0.50 PSI pressure drop.



T-918

NPT x NPT

WARNING: Do not use for Reciprocating Air Compressor Service.

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

Class 125/250 Iron Body Silent Check Valves

Wafer Style • Renewable Seat and Disc • Spring Actuated

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

CONFORMS TO MSS SP-71 TYPE 1 •

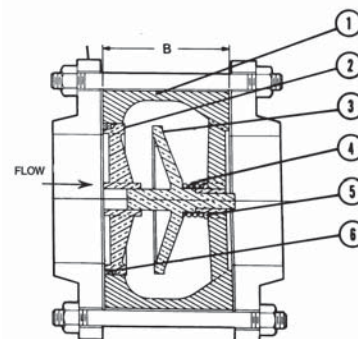
FM APPROVED (CLASS 125)

MATERIAL LIST

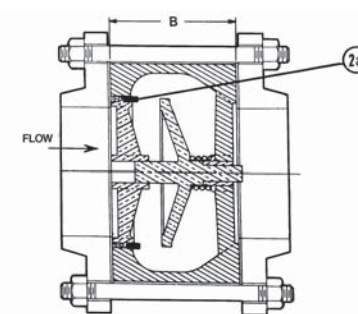
PART	SPECIFICATION
1. Body	Cast Iron ASTM A 126 Class B
2. Seat	Bronze ASTM B 584 Alloy C83600 (B)
2a. Seat	Buna-N Bonded to Bronze (W)
3. Disc	Bronze ASTM B 584 Alloy C83600
4. Spring	Stainless Steel Type 316 ASTM A 313
5. Bushing	6" and smaller ASTM B 16 Alloy C36000
6. Set Screws	Stainless Steel Type 304 ASTM F 879



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



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



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

DIMENSIONS—WEIGHTS—QUANTITIES

Size	Dimensions				W-910		W-960		
	In.	mm.	A	B					
			In.	mm.	In.	mm.	Lbs.	Kg.	Lbs.
*2	50	127	4.25	108	2.63	67	6	3	6
*2½	65	165	5.00	127	2.88	73	7	3	7
*3	80	203	5.75	146	3.13	79	12	5	12
*4	100	254	7.00	178	4.00	102	18	8	18
*5	125	318	8.75	222	4.75	121	27	12	27
*6	150	381	9.75	248	5.50	140	42	19	42
8	200	508	13.38	340	6.50	165	†85	39	†86
10	250	635	16.00	406	8.25	210	†146	66	†137

*NOTE: Sizes 2" thru 6" have dual class ratings (125 lb. and 250 lb.) resulting in W-910 and W-960 being identical. 8" and 12" have special machining in accordance with Flange Class.

316 Stainless Steel Trim available – Consult Factory.

† Class 125 only.

‡ Class 250 only.

USE THIS VALVE ONLY WITH FLAT FACE FLANGE AND FULL FACE GASKET

WARNING: 1. Seat end of valve must be mated to a standard flat faced metal flange. Rubber flanges not acceptable.

2. These are not to be used as steam valves.

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

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

NOTE: On pump discharge, the preferred check valves are an in-line spring loaded, swing design with lever and weight or lever and spring.

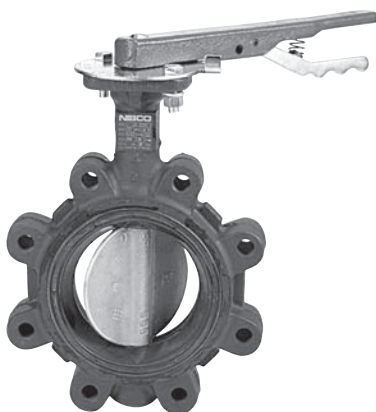
Wafer Check valves should be sized for a 3.0 PSI pressure drop.

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

Iron Body Butterfly Valves

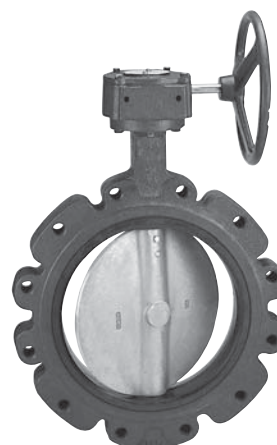
Illustrated Index

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 38

Iron Body Butterfly Valve
Ductile Iron body
150 lb. CWP



LD-1000
Extended Neck • Cartridge Seat Liner
Lug Style
Sizes 14" thru 24"
Page 39

Iron Body Butterfly Valve
Cast Iron Body
200 lb. CWP



N-200
Extended Neck • Cartridge Seat Liner
Lug Style
Sizes 2" thru 12"
Page 40

Iron Body Butterfly Valve
Cast Iron Body
200 lb. CWP



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

200 PSI Butterfly Valves

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

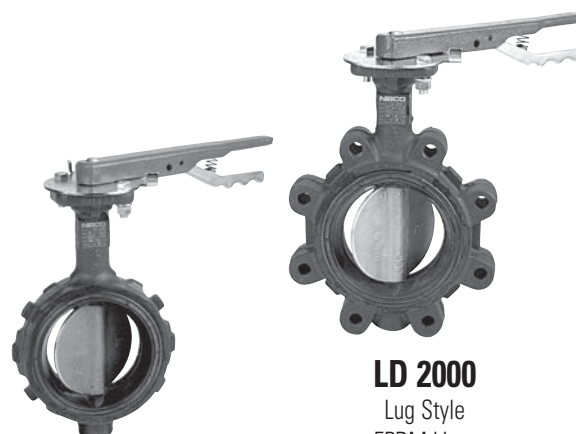
Sizes 2" through 12"

Install between Std. ANSI Class 125/150 Flanges

CONFORMS TO MSS-SP67 • MSS-SP25 • API-609

MATERIAL LIST

PART	SPECIFICATION
1. Stem	Stainless Steel ASTM A 582 Type 416
2. Collar Bushing	Brass ASTM B 124
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 B 148 Alloy 954/955
9. Lower Bushing	Copper CDA 122
10. Body Wafer	Ductile Iron ASTM A 536
11. Body Lug	Ductile Iron ASTM A 536



WD 2000

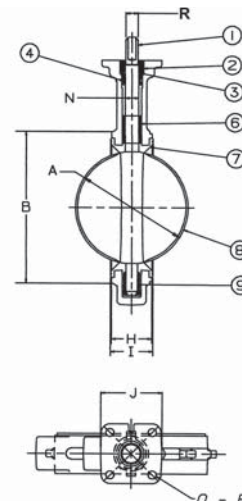
Wafer Style
EPDM Liner
and Aluminum
Bronze Disc

LD 2000

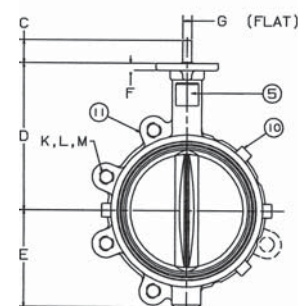
Lug Style
EPDM Liner
and Aluminum
Bronze Disc

DIMENSIONS — WEIGHTS

Size	In. mm.	A	B	C	D	E	F	G Flat	Metal H	Rubber I	J Square	N Dia.
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	
		O	P	R	K	L	Wafer	Lug	M	Lbs.	Kg.	Lbs.	Kg.
In.	mm.	B.C.	Dia.	Dia.	No.	Dia.	Length	Length	B.C.				
2	50	3.25	.437	.437	4	5/8-11unc	4	1½	4¾	7	3.2	5.5	2.5
2½	65	3.25	.437	.500	4	5/8-11unc	4¼	1½	5½	9	4.1	7.5	3.4
3	80	3.25	.437	.500	4	5/8-11unc	4¼	1⅝	6	9.5	4.3	8	3.6
4	100	3.25	.437	.562	8	5/8-11unc	5	1⅞	7½	15	6.8	11	5.0
5	125	3.25	.437	.656	8	¾-10unc	5¼	2	8½	21	9.5	15	6.8
6	150	3.25	.437	.656	8	¾-10unc	5¼	2	9½	24	10.9	18	8.2
8	200	3.25	.437	.781	8	¾-10unc	5¾	2¼	11¾	34	15.4	28	12.7
10	250	5.00	.562	1.000	12	7/8-9unc	6¼	2¼	14¼	62	28.1	45.5	20.7
12	300	5.00	.562	1.062	12	7/8-9unc	6¾	2½	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

NOT RECOMMENDED
FOR STEAM SERVICE

150 PSI Butterfly Valves

Ductile Iron Body • Cartridge Liner • Lug Style •
Install between Std. ANSI Class 125/150 Flanges

150 PSI/10.3 Bar Non-Shock Working Pressure

CONFORMS TO MSS SP-67, MSS SP-25, API-609

MATERIAL LIST

PART	SPECIFICATION
1. Bottom Plate	Steel ASTM A 108 Grade 1035
*2. Bolt	Steel ASTM A 307
3. O-Ring	Buna-N Rubber Nitrile
4. Bushing	Bronze ASTM B 584 Grade C83600
5. O-Ring (2)	Buna-N Rubber Nitrile
6. Body	Ductile Iron ASTM A 536
7. Seat	a. EPDM Rubber b. Buna-N Rubber Nitrile
8. Disc	a. Alum. Bronze ASTM B 148 Alloy C95400 b. Ductile Iron ASTM A 536 Grade 65-45-12 (plated) c. Stainless Steel ASTM A 351 Grade CF8M
9. Stem	Stainless Steel ASTM A 276 Type 316
10. Taper Pin (2)	Stainless Steel ASTM A 564 Type 17-4 PH
11. Bushing	Bronze ASTM B 584 Grade C83600
12. Identification Plate	Aluminum
13. Bushing	Bronze ASTM B 584 Grade C83600
14. Key	Steel ASTM A 108 Grade 1045

*2 for 14"-20", 4 for 24"



LD-1000

Lug Style
EPDM Liner
Aluminum Bronze Disc

LD-1010

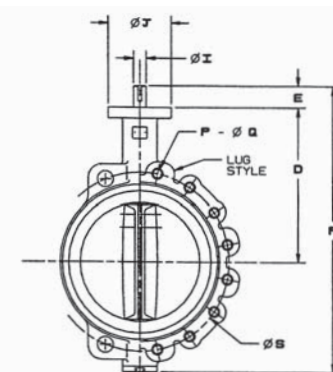
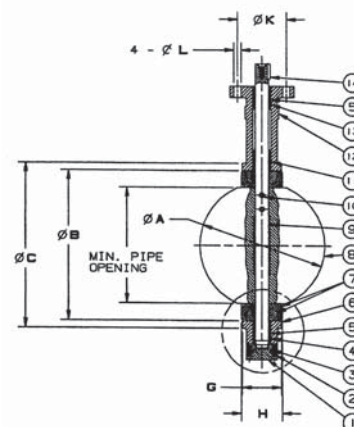
Lug Style
EPDM Liner
Ductile Iron Disc

LD-1100

Lug Style
Buna-N Liner
Aluminum Bronze Disc

LD-1022

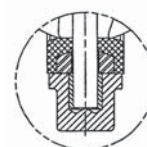
Lug Style
EPDM Liner
Stainless Steel Disc



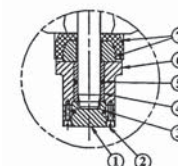
DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions										
Size	A	Min. Pipe I.D.	B Dia.	C Dia.	D	E	F	G Body	H Seat	
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	
14 350	13.13 333	13.00 330	14.81 376	17.19 437	14.50 368	1.78 45	26.77 680	3.01 76	3.13 80	
16 400	15.31 389	15.19 386	17.28 439	19.22 488	15.72 399	2.00 51	29.94 760	3.38 86	3.54 90	
18 450	17.28 439	17.09 434	19.28 490	21.19 538	16.63 422	2.00 51	31.55 801	4.12 105	4.29 109	
20 500	19.41 493	18.91 480	21.09 536	23.31 592	18.91 480	2.50 64	35.65 906	5.14 131	5.31 135	
24 600	23.31 592	23.13 587	25.72 653	32.09 815	22.09 561	2.75 70	40.20 1021	5.98 152	6.14 156	

Dimensions										
Size	I Dia.	J Dia.	K Dia.	L Dia.	Q	Cap Screw Length	S Dia.	Lug Weight		
In. mm.	In. mm.	In. mm.	In. mm.	In. mm.	P Dia.	In. mm.	In. mm.	Lbs. Kg.		
14 350	1.25 32	5.50 197	4.25 108	.56 14	12 1"-8unc	2.75 70	18.75 476	121 55		
16 400	1.31 33	7.75 197	6.25 159	.81 21	16 1"-8unc	3.25 83	21.25 540	211 96		
18 450	1.50 38	7.75 197	6.25 159	.81 21	16 1 1/8"-7unc	3.50 89	22.75 578	268 123		
20 500	1.63 41	7.75 197	6.25 159	.81 21	20 1 1/8"-7unc	4.00 102	25.00 635	444 202		
24 600	2.00 51	10.87 276	8.50 216	.87 22	20 1 1/4"-7unc	5.00 127	29.50 749	594 270		



14" Reference



16"-24" Reference

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. ANSI Class 125/150 Flanges

CONFORMS TO MSS-SP67

MATERIAL LIST

PART	SPECIFICATION
1. Body	Cast Iron ASTM A-126 CL.B
2. Body Bushing	Bronze ASTM B-584 Grade C83600
3. Liner	EPDM Rubber w/Phenolic Backing Buna-N Rubber Nitrile w/Phenolic Backing
4. Stem	Stainless Steel ASTM A 582 Type 416
5. Disc	Alum. Brz. ASTM B-148 Alloy C95400 Ductile Iron ASTM A 536 Grade 65-45-12 (plated)
6. Taper Pin (2 pin 6" - 12")	Stainless Steel ASTM A 582 Type 416
7. Name Plate	Aluminum
8. Shaft Bushing	Bronze ASTM B 584 Grade C83600
9. Stem Seal	Buna-N Rubber Nitrile

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	1.772	0.496
2½ 65	2.54	1.95	3.50	4.72	6.89	1.26	11.65	1.759	1.874	0.496
3 80	3.10	2.66	4.09	5.00	7.13	1.26	12.12	1.780	1.929	0.496
4 100	4.10	3.67	5.32	6.14	7.87	1.26	13.62	2.050	2.154	0.621
5 125	4.85	4.48	6.26	7.48	8.39	1.26	14.65	2.140	2.283	0.745
6 150	6.12	5.84	7.42	8.35	8.90	1.26	15.62	2.195	2.307	0.745
8 200	7.97	7.85	9.38	10.55	10.24	1.77	18.88	2.385	2.496	0.870
10 250	9.86	9.76	11.51	12.79	11.50	1.77	21.26	2.584	2.756	1.120
12 300	11.87	11.72	13.55	15.87	13.27	1.77	24.57	3.029	3.154	1.244

Size	J	B.C.	L	M	R	P	Q	S	T	Lug Weight
In. mm.	Dia.	Dia.	Dia.	Dia.	Dia.		Dia.	Dia.	Flats	Lbs. Kg.
2 50	3.00	2.25	0.26	0.75	4.75	4	¾-11UNC	4.75	.350	8.5 3.9
2½ 65	3.03	2.25	0.26	0.75	5.50	4	¾-11UNC	5.50	.350	9 4.1
3 80	3.03	2.25	0.26	0.75	6.00	4	¾-11UNC	6.00	.350	10.5 4.8
4 100	3.62	2.75	0.41	0.75	7.50	8	¾-11UNC	7.50	.437	20 9.1
5 125	3.62	2.75	0.41	0.88	8.50	8	¾-10UNC	8.50	.500	24 10.9
6 150	3.62	2.75	0.41	0.88	9.50	8	¾-10UNC	9.50	.500	31.5 14.3
8 200	4.50	3.50	0.56	0.88	11.75	8	¾-10UNC	11.75	.625	40 18.2
10 250	4.50	3.50	0.56	1.00	14.25	12	¾-9UNC	14.25	.812	59 26.8
12 300	5.50	4.25	0.56	1.00	17.00	12	¾-9UNC	17.00	.875	87 39.5

NOT RECOMMENDED
FOR STEAM SERVICE

N200235

Lug Style
EPDM Liner
Aluminum Bronze Disc

N200236

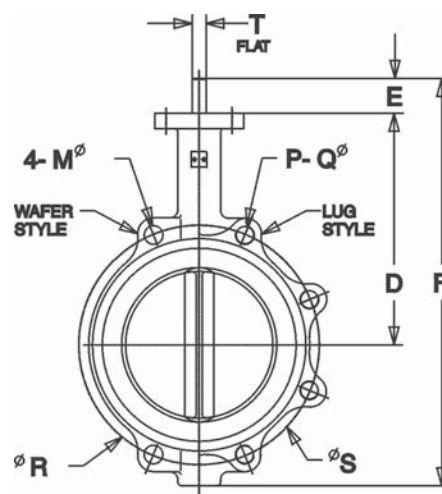
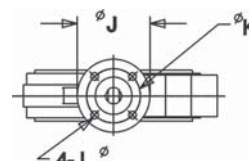
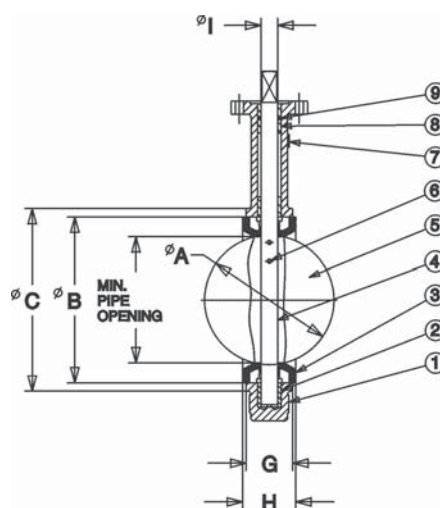
Lug Style
EPDM Liner
Ductile Iron Disc

N200245

Lug Style
Buna Liner
Aluminum Bronze Disc

N200246

Lug Style
Buna Liner
Ductile Iron Disc



200 PSI Butterfly Valves

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

Sizes 2" through 12"

Install between Std. ANSI Class 125/150 Flanges

CONFORMS TO MSS-SP67

MATERIAL LIST

PART	SPECIFICATION
1. Body	Cast Iron ASTM A-126 CL.B
2. Body Bushing	Bronze ASTM B-584 Grade C83600
3. Liner	EPDM Rubber w/Phenolic Backing Buna-N Rubber Nitrile w/Phenolic Backing
4. Stem	Stainless Steel ASTM A 582 Type 416
5. Disc	Alum. Brz. ASTM B-148 Alloy C95400 Ductile Iron ASTM A 536 Grade 65-45-12 (plated)
6. Taper Pin (2 pin 6" - 12")	Stainless Steel ASTM A 582 Type 416
7. Name Plate	Aluminum
8. Shaft Bushing	Bronze ASTM B 584 Grade C83600
9. Stem Seal	Buna-N Rubber Nitrile

DIMENSIONS — WEIGHTS

Size	A	Min.	B	C	D	E	F	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	1.772	0.496
2½ 65	2.54	1.95	3.50	4.72	6.89	1.26	11.65	1.759	1.874	0.496
3 80	3.10	2.66	4.09	5.00	7.13	1.26	12.12	1.780	1.929	0.496
4 100	4.10	3.67	5.32	6.14	7.87	1.26	13.62	2.050	2.154	0.621
5 125	4.85	4.48	6.26	7.48	8.39	1.26	14.65	2.140	2.283	0.745
6 150	6.12	5.84	7.42	8.35	8.90	1.26	15.62	2.195	2.307	0.745
8 200	7.97	7.85	9.38	10.55	10.24	1.77	18.88	2.385	2.496	0.870
10 250	9.86	9.76	11.51	12.79	11.50	1.77	21.26	2.584	2.756	1.120
12 300	11.87	11.72	13.55	15.87	13.27	1.77	24.57	3.029	3.154	1.244

Size	J	B.C.	L	M	R	P	Q	S	T	Wafer Weight
In. mm.	Dia.	Dia.	Dia.	Dia.	Dia.	P	Dia.	Dia.	Flats	Lbs. Kg.
2 50	3.00	2.25	0.26	0.75	4.75	4	¾-11UNC	4.75	.350	5.5 2.5
2½ 65	3.03	2.25	0.26	0.75	5.50	4	¾-11UNC	5.50	.350	7.0 3.2
3 80	3.03	2.25	0.26	0.75	6.00	4	¾-11UNC	6.00	.350	8.0 3.6
4 100	3.62	2.75	0.41	0.75	7.50	8	¾-11UNC	7.50	.437	11.0 5.0
5 125	3.62	2.75	0.41	0.88	8.50	8	¾-10UNC	8.50	.500	15.5 7.0
6 150	3.62	2.75	0.41	0.88	9.50	8	¾-10UNC	9.50	.500	17.5 7.9
8 200	4.50	3.50	0.56	0.88	11.75	8	¾-10UNC	11.75	.625	29.0 13.2
10 250	4.50	3.50	0.56	1.00	14.25	12	¾-9UNC	14.25	.812	42.5 19.3
12 300	5.50	4.25	0.56	1.00	17.00	12	¾-9UNC	17.00	.875	71.5 32.5

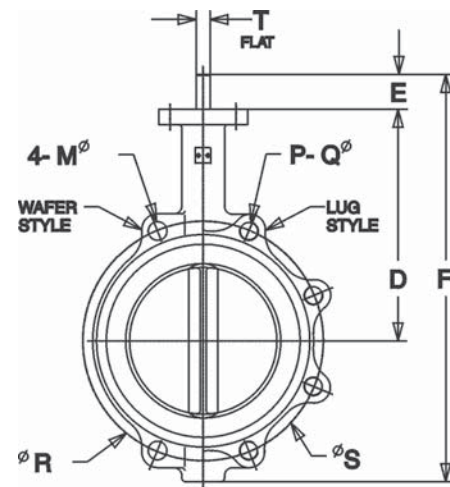
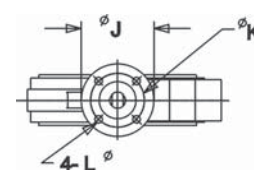
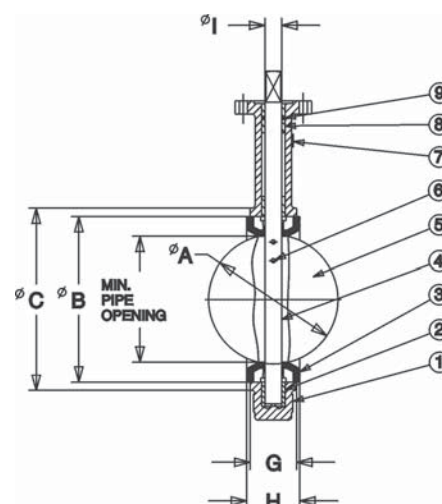
NOT RECOMMENDED
FOR STEAM SERVICE

N200135
Wafer Style
EPDM Liner
Aluminum Bronze Disc

N200136
Wafer Style
EPDM Liner
Ductile Iron Disc

N200145
Wafer Style
Buna Liner
Aluminum Bronze Disc

N200146
Wafer Style
Buna Liner
Ductile Iron Disc



Bronze Valve Options and Accessories Handles

Malleable Iron

Available for 125, 150, 200, 300 lb. SWP Bronze Body Valves.

Malleable



Red Bronze 85-5-5-5% ASTM B 62

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.

Bronze



Red Bronze 85-5-5-5% ASTM B 62

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.

Cross



Red Bronze 85-5-5-5% ASTM B 62 or ASTM B 16

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.

Lockshield



Red Bronze 85-5-5-5% ASTM B 62

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.

Lockshield Key



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

Iron Valve Options and Accessories

Operating Nut, Position Indicator, Sprocket Rims

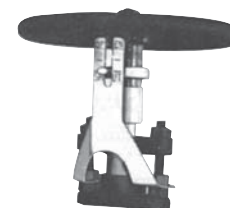
Square Operating Nut

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

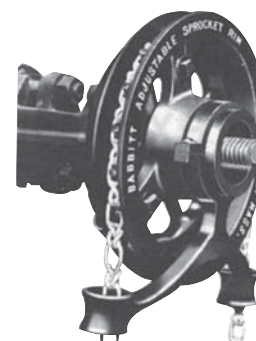
For non-rising stem (2"-12") iron body gate valves. Indicates whether it is open, partly open or closed by the position of the needle which moves as the valve is operated. It may be factory or field mounted. Ordering Information: Specify size and figure number of the valve to be fitted. Available on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

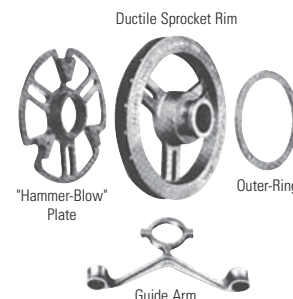
Size	Diameter of Sprocket Wheel (In.)	Weight (Lbs.)	Diameter of Valve Wheels Rim Will Fit	Chain Size No.	Chain Weight per 100' (Lbs.)
0	4	2	2 to 4	2	10
1	5 ⁷ / ₈	4	4 ¹ / ₈ to 5 ⁷ / ₈	1/0	17 ¹ / ₂
1 ¹ / ₂	7 ¹ / ₂	5	6 to 7 ¹ / ₂	1/0	17 ¹ / ₂
2	9	8	7 ³ / ₄ to 9	1/0	17 ¹ / ₂
2 ¹ / ₂	12 ¹ / ₂	15	9 ¹ / ₄ to 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

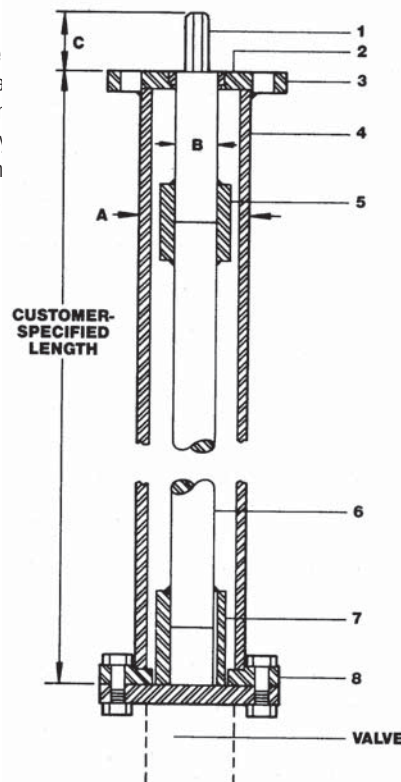
Stem Extensions

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

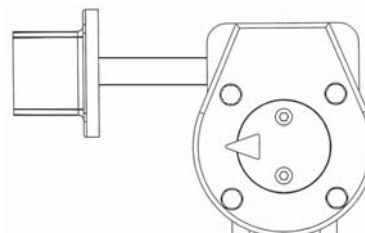
Dimensions			
Size	A	B	C
2"-12"	2.38	1.125	1.12
14"-24" consult factory			



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")

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:

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

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

	0	.01	.05	.16	.30	.37	.45	.58	.71	.87	1.00
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.	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

			NOMINAL OR MAXIMUM CHEMICAL COMPOSITION								
			AL	C	Cr	Co	Cu	Fe	Pb	MANGA-NESE Mn	MOLYB-DENUM Mo
ALLOY	ASTM NO.	OTHER ALLOY DESIGNATION									
Bronze & Brass	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	
Copper	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			
Iron	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) (Ductile) (Ni-Resist)	A 536 65-45-12 A 536 80-55-06 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 INC. 125% LIMITED WARRANTY

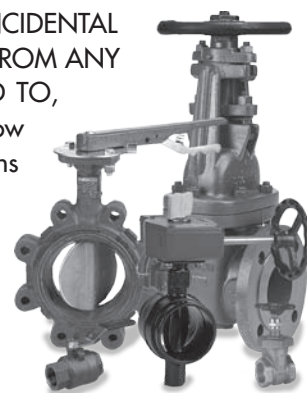
Applicable to NIBCO INC. Pressure Rated Metal Valves

NIBCO INC. warrants each NIBCO pressure rated metal valve to be free from defects in materials and workmanship under normal use and service for a period of five (5) years from date put into service.

In the event any defect occurs which the owner believes is covered by this warranty, the owner should immediately contact NIBCO Technical Services, either in writing or by telephone at (888) 446-4226 or (574) 295-3000. The owner will be instructed to return said product, at the owner's expense, to NIBCO INC., or an authorized representative for inspection. In the event said inspection discloses to NIBCO INC.'s satisfaction that said valve is defective, it will be replaced at NIBCO INC.'s expense. Replacements shall be shipped free of charge to the owner. In the event of the replacement of any valve, NIBCO INC. shall further pay the owner the greater of Twenty-Five (25%) Percent of the price of the valve according to NIBCO INC.'s published suggested list price schedule in effect at the time of purchase, or Ten (\$10.00) Dollars, to apply on the cost of the installation of said replacement valve.

TO THE EXTENT PERMITTED BY LAW, THIS WARRANTY SPECIFICALLY EXCLUDES INCIDENTAL AND CONSEQUENTIAL DAMAGES OF EVERY TYPE AND DESCRIPTION RESULTING FROM ANY CLAIMED DEFECT IN MATERIAL OR WORKMANSHIP, INCLUDING BUT NOT LIMITED TO, PERSONAL INJURIES AND PROPERTY DAMAGES. Some states or countries do not allow the exclusion or limitation of incidental or consequential damages so these limitations may not apply to you. TO THE EXTENT PERMITTED BY LAW, IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION.

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



how to order

State quantity, figure number and size for each valve you wish to order. See individual valve catalog pages for specific or special product designations.

HOW MANY TO ORDER

NIBCO valves are decimal packed for your convenience in handling, shipping and stock-keeping. Number in master carton varies with item.

POLICY ON RETURNS TO FACTORY

NO NIBCO valves are to be returned without prior written agreement. Transportation must be prepaid. A 20% charge will be made to cover cost of rehandling and reinspection.

TECHNICAL ASSISTANCE

Engineers, contractors, wholesalers or manufacturers may obtain special or technical assistance from any factory representative of NIBCO. Write, fax or phone.

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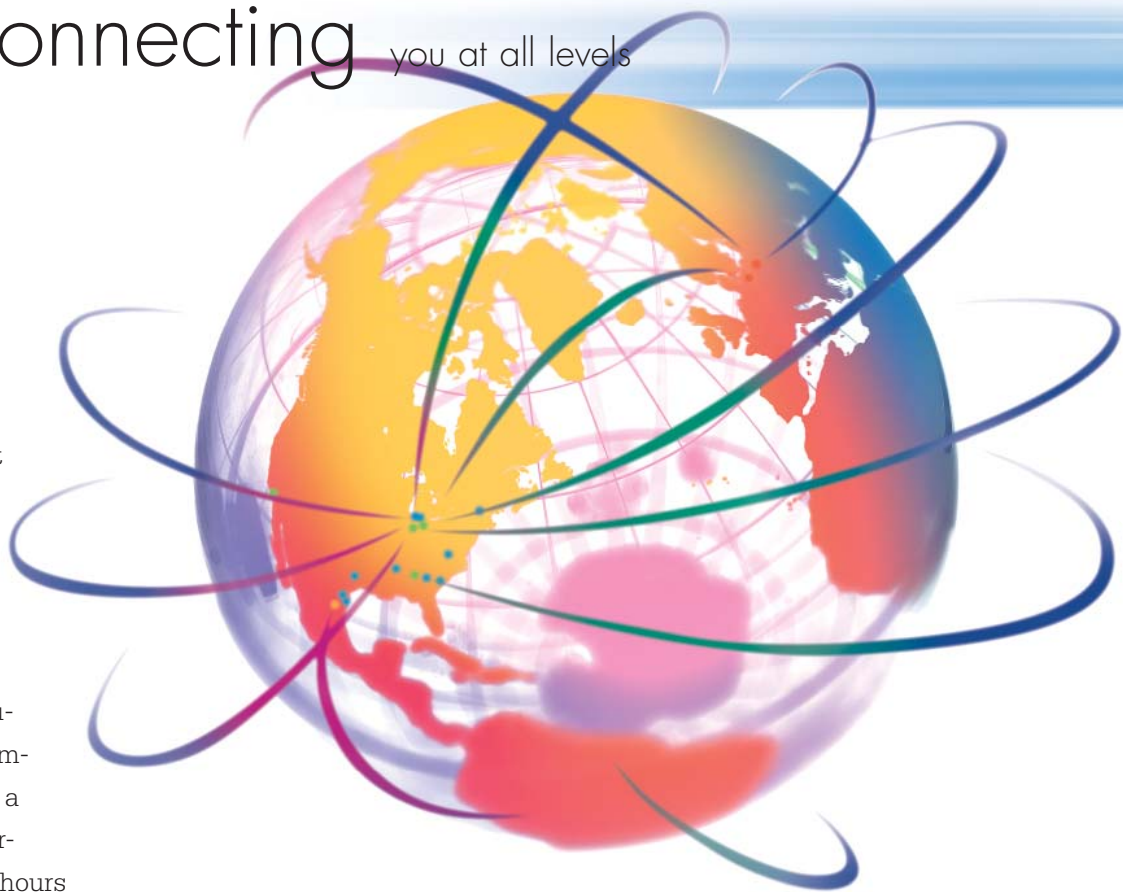
Fax: 1.574.295.3307

Technical Service Phone: 1.888.446.4226

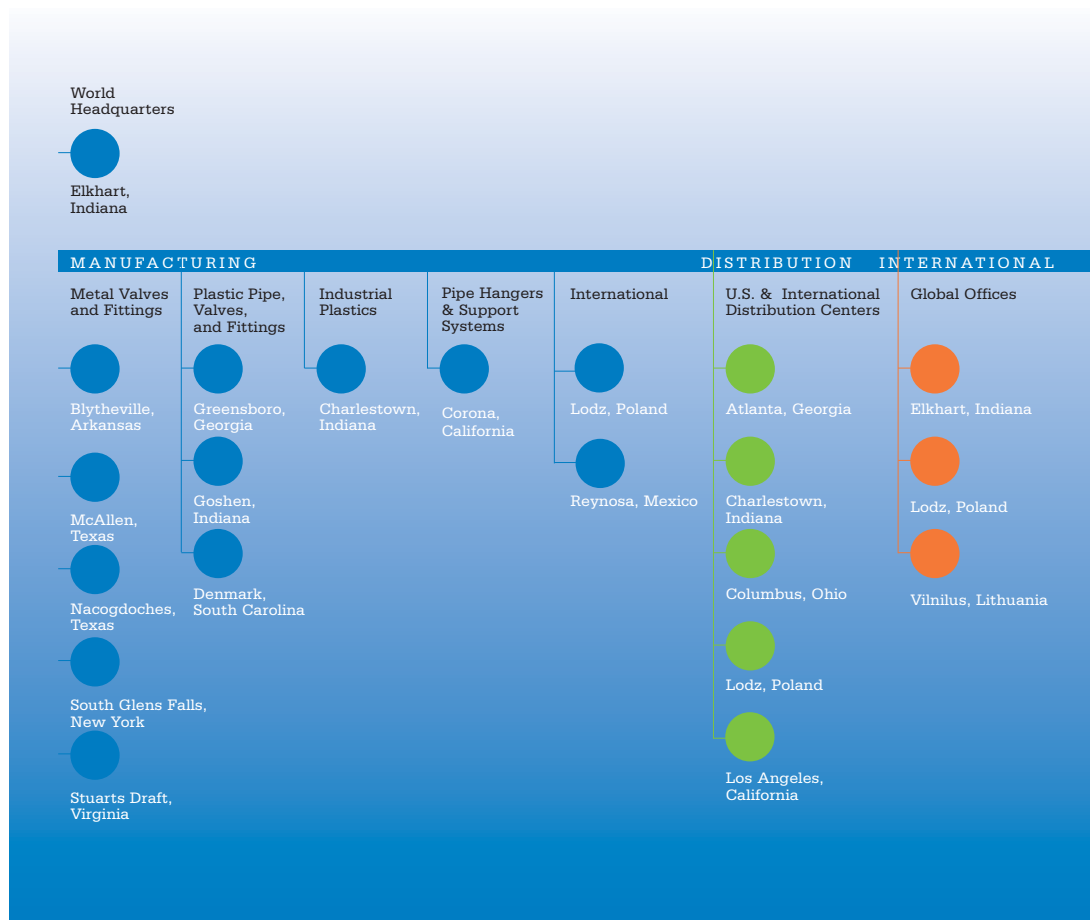
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globally connecting you at all levels



It's a new age of business, and a new way at NIBCO. From Elkhart, Indiana to Lodz, Poland, and points beyond, our company has integrated manufacturing, distribution, and networked communications to provide a seamless source of information and service, 24 hours a day, 7 days a week. But this integration hasn't happened overnight. It's been part of a long-term strategic process that has pushed us to reconsider every aspect of our business. The result? We're a vertically integrated manufacturer with the products and systems in place to deliver low cost and high quality. NIBCO's products are manufactured under a Quality Management System conforming to the current revision of ISO-9001 International Standards. We know the flow control industry is only going to get more demanding, and we are more than ready. We will continue to lead. That's what NIBCO is all about.



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C-IRR-0805

NIBCO® NEXTPure™ PEX potable water system • NIBCO® Press System™

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Wrot and cast copper pressure and drainage fittings • Cast copper alloy flanges • ABS and PVC DWV fittings • Schedule 40 PVC pressure fittings • CPVC CTS fittings • CPVC CTS-to-metal transition fittings • Schedule 80 PVC and CPVC systems • CPVC metric piping systems.

VALVES & ACTUATION

Pressure-rated bronze, iron and alloy-iron gate, globe and check valves • Pressure-rated bronze ball valves • Boiler specialty valves • Commercial and industrial butterfly valves • Circuit balancing valves • Carbon and stainless steel ball valves • ANSI flanged steel ball valves • Pneumatic and electric actuators and controls • Grooved ball and butterfly valves • High performance butterfly valves • UL/FM fire protection valves • MSS specification valves • Bronze specialty valves • Low pressure gate, globe, check and ball valves • Frostproof sillcocks • Quarter-turn supply stops • Quarter-turn low pressure valves • PVC ball valves • CPVC CTS ball valves • Just Right® recirculating valves.



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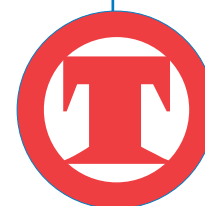


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