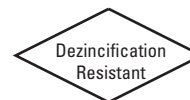


Bronze Check Valves & Y-Strainers

Illustrated Index



Bronze Check Valve Horizontal Swing 125 lb. SWP 200 lb. CWP  T or S-413-B or V, W, Y Bronze or Various Non-Metallic Discs Regrinding Type • Y-Pattern Sizes 1/4" thru 3" Threaded or Solder Ends Page 31	Bronze Check Valve Horizontal Swing 150 lb. SWP 300 lb. CWP  T or S-433-B or Y Bronze or PTFE Discs Regrinding Type • Y-Pattern Sizes 1/4" thru 3" Threaded or Solder Ends Page 32	Bronze Check Valve Horizontal Swing 150 lb. SWP 300 lb. CWP  S-433-B Bronze Disc Regrinding Type • Bolted Bonnet Size 4" Solder Ends Page 33	Bronze Check Valve Horizontal Swing 200 lb. SWP 400 lb. CWP  T-453-B Bronze Disc Regrinding Type • Y-Pattern Sizes 1/4" thru 3" Threaded Ends Page 34
Bronze Check Valve Horizontal Swing 300 lb. SWP 600 lb. CWP  T-473-B or Y Bronze or PTFE Disc Regrinding Type • Y-Pattern Sizes 1/4" thru 2" Threaded Ends Page 35	Bronze Silent Check Valve Ring Check Design • Spring Actuated 125 lb. SWP, 250 lb. CWP (TFE Disc) 250 lb. SWP (Buna-N Disc)  T or S-480 Buna-N or PTFE Disc (Y-suffix) Sizes 3/8" thru 2" Threaded or Solder Ends Page 36	Bronze Y-Strainer Tapped Cap w/Blow-off Plug 125 lb. SWP 200 lb. CWP  T/S-221/222-A 304 SS 20 Mesh or Perforated Screen Sizes 1/4" thru 3" Threaded or Solder Ends Page 37	Bronze Y-Strainer Solid Cap 125 lb. SWP 200 lb. CWP  T/S-221/222-B 304 SS 20 Mesh or Perforated Screen Sizes 1/4" thru 3" Threaded or Solder Ends Page 37

NOTE: Check valves should never be installed immediately adjacent to a pump discharge or change in direction. Check Valves should be installed downstream from all sources of line turbulence, including fittings and valves, at a minimum of 5x the nominal pipe diameter (preferably 10x) with straight piping to provide laminar flow.

Class 125 Bronze Check Valves

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

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

CONFORMS TO MSS SP-80

MATERIAL LIST

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

*Sizes ¾", 1", 1¼", 1½" and 2" only.

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions												
Size		A		B		C		T-413		S-413		Master Ctn. Qty.
In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Lbs.	Kg.	
¼	8	2.13	54	1.63	41	1.38	35	0.50	0.23	0.51	0.23	50
⅜	10	2.13	54	1.63	41	1.31	33	0.47	0.22	0.48	0.22	50
½	15	2.44	62	1.69	43	1.50	38	0.55	0.25	0.55	0.25	50
¾	20	2.94	75	1.88	48	1.88	48	0.90	0.41	0.88	0.40	10
1	25	3.56	90	2.31	59	2.25	57	1.46	0.66	1.48	0.67	5
1¼	32	4.19	106	2.69	68	2.75	70	2.17	0.99	2.22	1.01	20
1½	40	4.50	114	2.94	75	3.11	79	2.95	1.34	3.00	1.36	10
2	50	5.25	133	3.94	100	3.75	95	4.79	2.17	4.87	2.21	10
2½*	65	8.00	203	5.06	129	5.06	129	11.48	5.21	10.48	4.76	5
3*	80	9.25	235	6.25	159	6.25	159	17.53	7.96	15.29	6.94	4

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

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

*Class 150 (433) furnished for these sizes.

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

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

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

Warning – Do Not Use For Reciprocating Air Compressor Service.

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

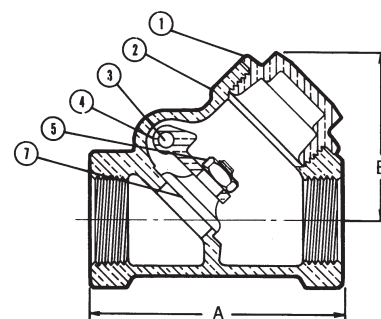
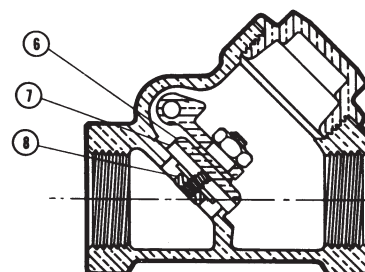
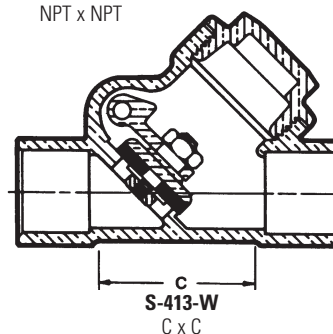
 Dezincification
Resistant

T-413

Threaded


S-413

Solder


T-413-B
NPT x NPT

T-413-Y
NPT x NPT

S-413-W
C x C

Visit our website for the most current information.

Class 150 Bronze Check Valves

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

150 PSI/10.3 bar saturated steam to 366° F/185° C
300 PSI/20.7 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 MP1F SS-316NI-25
5. Hanger Nut	Bronze ASTM B16
6. Disc Holder	Bronze ASTM B 62
7. Seat Disc	Steam (PTFE) (Y) Bronze ASTM B 62 C83600 (B)
8. Seat Disc Nut	Bronze ASTM B16 or B 62
9. Hinge Pin Plug	Bronze ASTM B 140 Alloy C31400 (not shown)
*10. Seat Disc Washer	ASTM B 98 Alloy C65500 or ASTM B 103

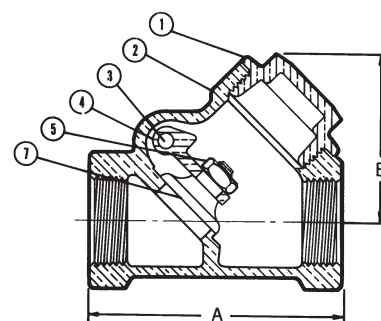
* Sizes ¾", 1", 1¼", 1½" and 2" only.



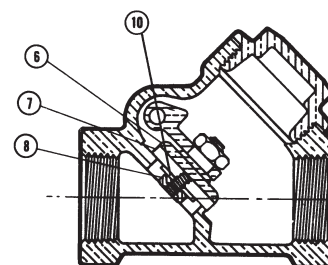
T-433
Threaded



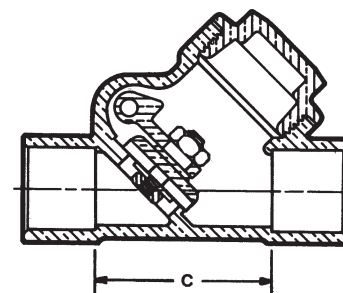
S-433
Solder



T-433-B
NPT x NPT



T-433-Y
NPT x NPT



S-433-Y
C x C

DIMENSIONS—WEIGHTS—QUANTITIES

DIMENSIONS WEIGHTS QUANTITIES														
Size		Dimensions								T-433		S-433		Master Ctn. Qty
		A		B		C		D						
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Lbs.	Kg.	
¼	8	2.13	54	1.63	41	1.63	41	1.38	35	0.54	0.24	0.54	0.24	50
⅜	10	2.13	54	1.63	41	1.63	41	1.31	33	0.54	0.24	0.53	0.24	50
½	15	2.44	62	1.69	43	1.69	43	1.50	38	0.60	0.27	0.60	0.27	50
¾	20	2.94	75	1.88	48	1.88	48	1.88	48	0.98	0.44	0.99	0.45	50
1	25	3.56	90	2.31	59	2.31	59	2.25	57	1.58	0.72	1.57	0.71	30
1¼	32	4.19	106	2.69	68	2.69	68	2.75	70	2.39	1.08	2.34	1.06	20
1½	40	4.50	114	2.94	75	2.94	75	3.13	79	3.16	1.43	3.11	1.41	10
2	50	5.25	133	3.94	100	3.94	100	3.75	95	5.41	2.45	5.34	2.42	10
2½	65	8.00	203	5.06	129	5.06	129	5.31	135	11.48	5.21	11.20	5.08	5
3	80	9.25	235	6.25	159	6.25	159	6.25	159	17.53	7.95	16.91	7.67	4

Ordering: T-433 and S-433 normally furnished with Bronze Disc (T-433-B) or (S-433-B).

Both available with PTFE Steam Disc (T-433-Y), (S-433-Y).

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

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

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

Warning – Do Not Use For Reciprocating Air Compressor Service.

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

Visit our website for the most current information.

Class 150 Bronze Check Valves

Bolted Bonnet • Horizontal Swing • Regrinding Type • Renewable Seat and Disc

150 PSI/10.3 bar saturated steam to 366°F/185°C

300 PSI/20.7 bar non-shock cold working pressure

CONFORMS TO MSS SP-80

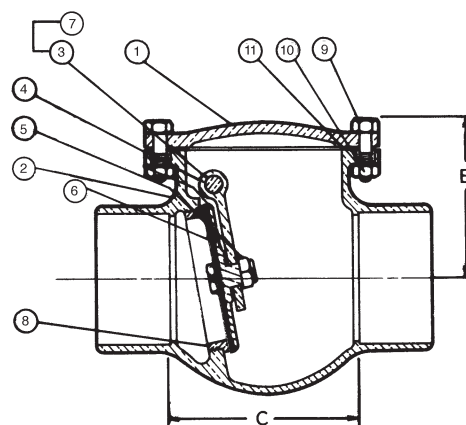
Dezincification
Resistant

MATERIAL LIST

PART	SPECIFICATION
1. Bonnet	Bronze ASTM B 62
2. Body	Bronze ASTM B 62
3. Hinge Pin	ASTM B371 Alloy C69400
4. Disc Hanger	Bronze ASTM B 62 or MPIF SS-316NI-25
5. Hanger Nut	ASTM B 62 Alloy C83600
6. Disc	Bronze ASTM B 62 (B)
7. Hinge Pin Plug	Bronze ASTM B140 Alloy C31400
8. Seat Ring	Bronze ASTM B 62 C83600
9. Body Bolt	Zinc Plated Steel
10. Body Nut	Zinc Plated Steel
11. Gasket	Aramid Fibers with Graphite



S-433-B
Solder



S-433-B
C x C

DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions				Weight		Master	
		B		C					
In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Ctn.	Qty.
4	100	6.19	157	7.38	187	37	16.78	1	

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

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

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

Warning – Do Not Use For Reciprocating Air Compressor Service.

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

Visit our website for the most current information.

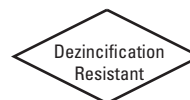
Class 200 Bronze Check Valves

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

200 PSI/13.8 bar saturated steam to 391° F/201° C

400 PSI/27.6 bar non-shock cold working pressure

CONFORMS TO MSS SP-80



MATERIAL LIST

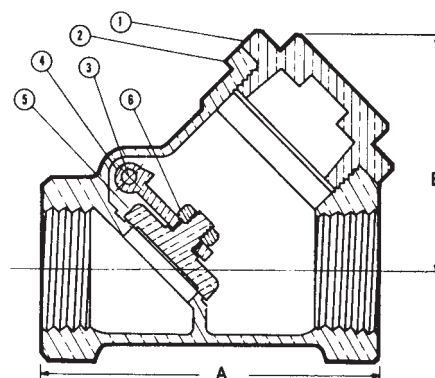
PART	SPECIFICATION
1. Bonnet	Bronze ASTM B 61
2. Body	Bronze ASTM B 61
3. Hinge Pin	Bronze ASTM B 140 Alloy C31400 or B 134 Alloy C23000
4. Disc Hanger	Bronze ASTM B 61 or MPIF SS-316NI-25
5. Seat Disc	Bronze ASTM B 61 C92200
6. Hanger Nut	Bronze ASTM B 16 C31400
7. Hinge Pin Plug	ASTM B 140 Alloy C31600 (not shown)



T-453-B
Threaded

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions								
Size		A		B		Weight		Master Ctn. Qty.
In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	
¼	8	2.25	57	1.56	40	0.53	0.24	50
⅜	10	2.25	57	1.56	40	0.54	0.24	50
½	15	2.63	67	1.75	44	0.60	0.27	50
¾	20	3.13	79	2.06	52	0.99	0.45	25
1	25	3.75	95	2.44	62	1.56	0.71	30
1¼	32	4.38	111	3.13	79	2.33	1.06	10
1½	40	4.94	125	3.75	95	3.11	1.41	10
2	50	5.81	148	4.50	114	5.33	2.42	5
2½	65	8.00	203	5.31	135	13.72	6.22	5
3	80	9.25	235	6.25	159	17.64	8.00	4



T-453-B
NPT x NPT

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

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

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

Warning – Do Not Use For Reciprocating Air Compressor Service.

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

Visit our website for the most current information.

Class 300 Bronze Check Valves

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

300 PSI/20.7 bar saturated steam to 421°F/216°C

600 PSI/41.4 bar non-shock cold working pressure

CONFORMS TO MSS SP-80

MATERIAL LIST

PART	SPECIFICATION
1. Bonnet	Bronze ASTM B 61
2. Body	Bronze ASTM B 61
3. Hinge Pin	Bronze ASTM B 140 Alloy C31400 or B 134 Alloy C23000
4. Disc Hanger	Bronze ASTM B 61 or MPIF SS-316NI-25
5. Seat Disc	Bronze ASTM B 61 C92200 Steam (PTFE) (Y)
6. Hanger Nut	Bronze ASTM B16
7. Hinge Pin Plug	Bronze ASTM B 140 Alloy C31400 (not shown)
8. Disc Holder	Bronze ASTM B 61
9. Disc Nut	Bronze ASTM B 62 or B 16
*10. Seat Disc Washer	ASTM B 98 Alloy C65500 (not shown) or ASTM B 103 (not shown)

*Sizes ¾", 1", 1¼", 1½" and 2" only.



T-473
Threaded

DIMENSIONS—WEIGHTS—QUANTITIES

Size		Dimensions				Weight		Master Ctn. Qty.
		A		B				
In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	
¼	8	2.25	57	1.56	40	0.57	0.26	50
⅜	10	2.25	57	1.56	40	0.57	0.26	50
½	15	2.63	67	1.75	44	0.69	0.31	50
¾	20	3.13	79	2.06	52	1.02	0.46	25
1	25	3.75	95	2.44	62	1.65	0.75	30
1¼	32	4.38	111	3.13	79	2.98	1.35	10
1½	40	4.94	125	3.75	95	4.81	2.18	10
2	50	5.81	148	4.50	114	8.13	3.69	5

Ordering: T-473 is normally furnished with Bronze Disc (T-473-B).

Available with PTFE Steam Disc (T-473-Y).

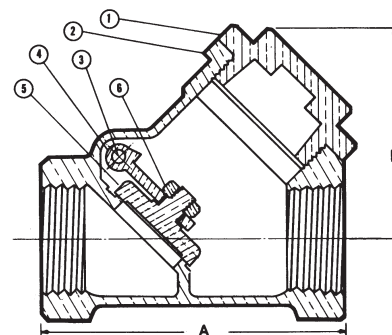
Install 5 pipe diameters minimum downstream from pump discharge or changes in direction to avoid flow turbulence. Flow straighteners may be required in extreme cases.

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

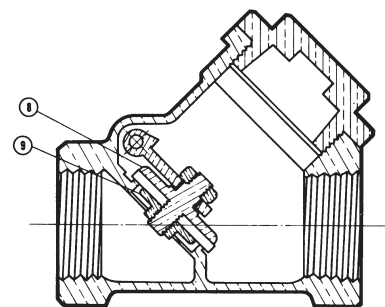
NIBCO® Check Valves may be installed in both horizontal and vertical lines with upward flow or in any intermediate position. They will operate satisfactorily in a declining plane (no more than 15°).

Warning – Do Not Use For Reciprocating Air Compressor Service.

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



T-473-B
NPT x NPT



T-473-Y
NPT x NPT

Visit our website for the most current information.

Class 125 Bronze Ring Check® Valves

Inline Lift Type • Resilient Discs • Spring Actuated

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

250 PSI/17.2 bar non-shock cold working pressure

MATERIAL LIST

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

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions												
Size		A		B		C		T-480		S-480		Master Ctn. Qty.
In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	mm.	Lbs.	Kg.	
¾	10	2.00	51	1.38	35	1.44	37	0.41	0.19	0.44	0.20	100
½	15	2.06	52	1.38	35	1.19	30	0.36	0.16	0.40	0.18	100
¾	20	2.25	57	1.63	41	1.31	33	0.48	0.22	0.52	0.24	100
1	25	2.63	67	2.00	51	1.50	38	0.77	0.35	0.85	0.39	50
1¼	32	2.94	75	2.38	60	1.69	43	1.14	0.51	1.28	0.58	30
1½	40	3.31	84	2.75	70	2.00	51	1.63	0.74	1.75	0.79	30
2	50	3.69	94	3.38	86	2.31	59	2.27	1.03	2.70	1.23	10

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

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

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

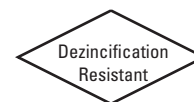
Install 5 pipe diameters minimum downstream from pump discharge or changes in direction to avoid flow turbulence. Flow straighteners may be required in extreme cases.

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

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

Warning – Do Not Use For Reciprocating Air Compressor Service.

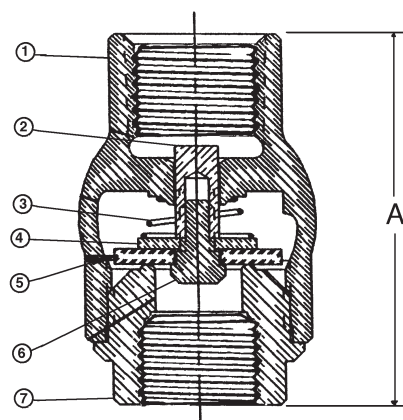
♦ For detailed Operating Pressure, refer to Pressure Temperature Chart on page 114.



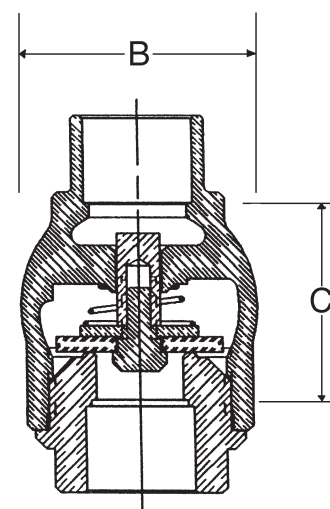
T-480
Threaded



S-480
Solder



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



S-480-Y (PTFE Disc)
C x C

Visit our website for the most current information.

Class 125 Bronze Y-Strainers

Screw-In Cap • Tapped Cap with Blow-Off Plug or Solid Cap •
20 Mesh Stainless Steel Screen or Stainless Steel Perforated Screen

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

200 PSI/13.8 bar non-shock cold working pressure

CONFORMS TO ANSI B1.20.1 (NPT) OR B16.18 (SOLDER)

MATERIAL LIST

PART	SPECIFICATION
1. Body	Bronze ASTM B584 Alloy C84400 (Solder) Bronze ASTM B62 Alloy C83600 (Threaded)
2. Cap	Bronze ASTM B62 Alloy C83600
3. Gasket	PTFE
4. Screen	ASTM E2016 20 Mesh - 304 Stainless Steel or ASTM E674 Perforated - 304 Stainless Steel
5. Plug	Brass ASTM B16 Alloy C36000 or Bronze ASTM B584 Alloy C84400

END CONNECTION	SCREEN	CAP
S - Solder	221 - 20 Mesh (STD.)	A - Tapped Cap w/Plug (STD.)
T - Threaded	222 - Perforated*	B - Solid Cap

*331 1/32" perforations per square inch.

DIMENSIONS—WEIGHTS—QUANTITIES

Dimensions														
Size		A		B		C		D		T-221		S-221		Maste. Ctn. Qty.
In.	mm.	In.	mm.	In.	mm.	In.	mm.	In.	mm.	Lbs.	Kg.	Lbs.	Kg.	
¼	8	1.75	45	2.53	64	1.79	46	1/4	8	0.74	0.33	—	—	50
⅜	10	1.75	45	2.53	64	1.79	46	1/4	8	0.72	0.32	—	—	50
½	15	1.75	45	2.53	64	1.79	46	1/4	8	0.81	0.37	0.57	0.26	50
¾	20	2.20	56	3.25	83	2.15	55	3/8	10	1.13	0.51	1.01	0.46	30
1	25	2.59	66	3.77	96	2.82	72	3/8	10	1.85	0.84	1.58	0.72	25
1 ¼	32	3.27	83	4.56	116	3.25	83	3/4	20	2.96	1.34	2.69	1.22	10
1 ½	40	3.59	114	5.24	133	3.63	92	3/4	20	4.47	2.03	3.99	1.81	10
2	50	4.44	113	5.95	151	5.00	127	1	25	7.43	3.37	6.94	3.15	6
2 ½	65	—	—	7.98	203	5.70	145	1 ¼	32	14.94	6.78	—	—	3
3	80	—	—	9.28	236	6.52	166	1 ½	40	21.68	9.84	—	—	2

