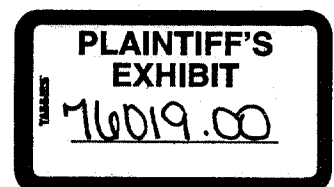


DESIGN AND CONSTRUCTION
UNION CARBIDE CHEMICALS COMPANY
Division of
UNION CARBIDE CORPORATION

SPECIFICATIONS VAN-JR1
For
Underground Cast Iron Pipe Lines
Using
"Snap-Lock" Method of Joint Restraint

September 1961

SOUTH CHARLESTON
WEST VIRGINIA



UCASB00242901

SPECIFICATIONS FOR JOINT RESTRAINT IN
CITY WATER AND COOLING WATER LINES

Joint restraint shall be provided by the "Snap-Lock" method.

At all fittings, latch keys and grooves to receive them shall be provided in accordance with details on page 2 of these Specifications. Assembly of joints shall be in accordance with the procedure outlined for mechanical joints on page 4 of these Specifications.

At all slip-type joints ("Bell-Tite"), latch keys or snap rings and grooves to receive them shall be provided in accordance with details on page 3 of these Specifications. Details of latch keys shown in these Specifications are for "Bell-Tite" pipe only. If a slip-type joint other than "Bell-Tite" is approved, appropriate details of latch keys and grooves will be provided. Assembly of joints shall be in accordance with the procedure outlined on page 4 of these Specifications.

Latch keys shall be of ASTM A-53 steel, preferably machined from pipe having sufficient wall thickness to provide the required dimensions.

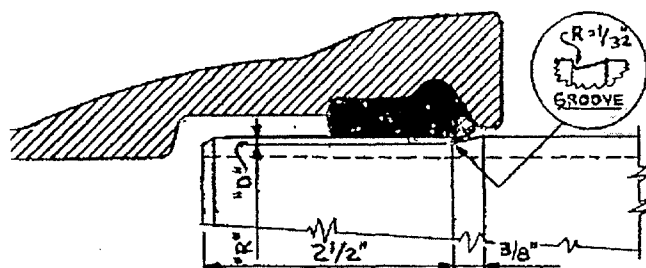
Snap rings shall be used in place of latch keys for larger pipe sizes, as shown and detailed on page 3 of these Specifications. Snap rings shall be machined from AISI 1095, or approved equal, spring steel and drawn to a Brinnell C hardness of 39 to provide expansion and contraction of the spring for assembly. Assembly shall be in accordance with the procedure outlined on page 4 of these Specifications.

DATA FOR SNAP-LOCK DESIGN WITH BELL-TITE JOINT

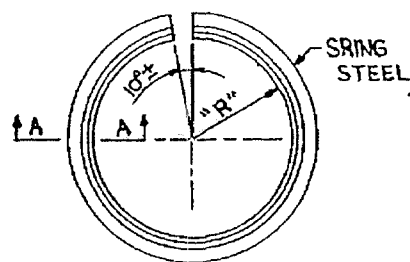
Number VAN-JR1

Date August 31, 1961

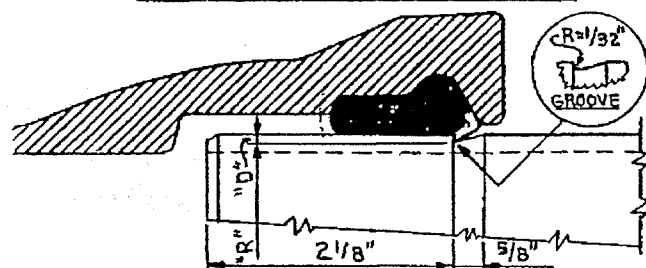
Page 3 of 4



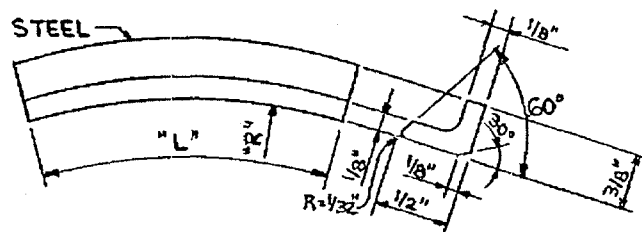
GROOVE FOR SNAP RING ASSEMBLY



SNAP RING DETAIL



GROOVE FOR LATCH KEY ASSEMBLY

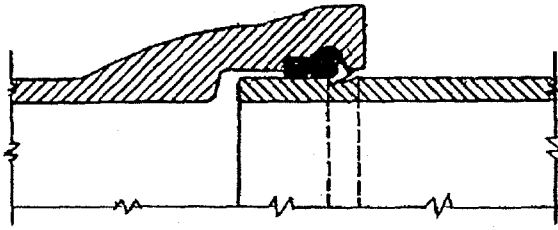


LATCH KEY DETAIL

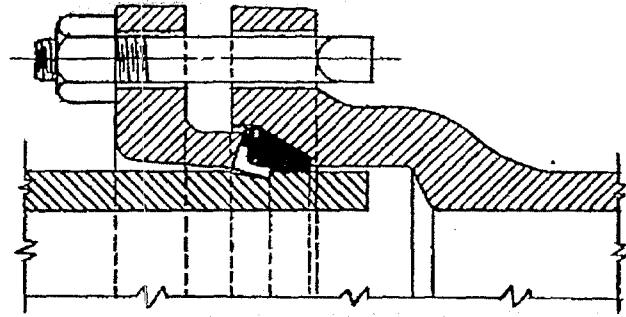
Nom. Dia. Pipe In.	O.D. of Pipe In.	Wall Thick- ness In.	Depth "D" of Groove In.	Radius "R" of Groove In.	Latch Keys or Snap Ring		
					No. Req'd.	Length "L" In.	Radius "R" In.
3	3.96	0.32	0.078	1.902	3	1.00	1.902
4	4.80	0.35	0.078	2.322	3	1.50	2.322
6	6.90	0.38	0.078	3.372	3	1.50	3.372
8	9.05	0.41	0.078	4.447	4	1.50	4.447
10	11.10	0.44	0.078	5.472	4	1.75	5.472
12	13.20	0.48	0.125	6.475	4	2.50	6.475
14	15.30	0.51	0.125	7.525	Snap Ring		7.525
16	17.40	0.54	0.125	8.575	Snap Ring		8.575
18	19.50	0.58	0.125	9.625	Snap Ring		9.625
20	21.60	0.62	0.125	10.675	Snap Ring		10.675
24	25.80	0.73	0.125	12.775	Snap Ring		12.775

UCASB00242904

INSTALLATION PROCEDURE FOR SNAP-LOCK RESTRAINED JOINTS



BELL-TITE JOINT
SNAP-LOCK RESTRAINED



MECHANICAL JOINT
SNAP-LOCK RESTRAINED

Field Assembly of Snap-Lock Joints

1. For use with Mechanical Joint at Fittings

- a. Wash socket and grooved plain end with soapy water. Slip gland and gasket over plain end with small side of gasket and lip side of gland facing the socket. Paint gasket with soapy water.
- b. Insert grooved plain end into socket until the shallow edge of the groove is flush with the flange face of the socket.
- c. Push gasket into the socket with fingers. Be sure gasket is evenly seated in the socket.
- d. Mark off uniform spaces around socket or plain end to locate the position of the locking keys required for the joint.
- e. Position locking keys at the points marked in step "d" by forcing the beveled edge under the gasket. Be sure key is forced in until the vertical leg bears against the gasket.
- f. Slide gland into position against the locking keys. Insert bolts and tighten nuts to bear against gland.
- g. With ratchet wrench tighten bolts alternately (bottom, then top, and so on all around) until all bolts are uniformly drawn up.

2. For use with Bell-Tite Slip-On Joints

- a. Clean plain end, groove, gasket, and bell thoroughly.
- b. Insert gasket into position in bell.
- c. Position the specified number of locking keys inside the bell by forcing the upstanding legs between the flange and the gasket to hold the keys in place. Locking keys must be uniformly spaced around the joint.
- d. Wipe lubricant onto gasket and locking keys.
- e. Force the grooved plain end into the bell until locking keys snap into the groove. Pipe length being inserted must be kept in careful alignment with bell during this operation.

3. For use of Snap Ring with Bell-Tite Pipe - Steps a, b, d, and e similar to "2" above.

- c. Position the snap ring inside the bell between the inside face of the flange and the gasket. Be sure 30-degree shoulder is bearing on 30-degree inside face of the bell flange. Force snap ring open by forcing between bell flange and gasket.

GENERAL

Type Valve	Gate; split wedge(1)
Type Valve Ends	Screwed
Press-Temp Ratings	125 psi at 500°F; 200 psi at 100°F
Construction	Screwed bonnet; rising stem; rising wheel; inside screw; integral seats

(1) Powell - solid wedge 1/4" to 3/4"

MATERIAL

Body-Bonnet	Bronze
Seat	Bronze
Disk	Bronze
Stem	Bronze
Packing	Asbestos: Garlock 117 or approved equal
Gasket	None

BILLING

Lunkenheimer 2125, 125 lb bronze screwed gate valve

Crane 430, 125 lb brass screwed gate valve

Jenkins 47, 125 lb bronze screwed gate valve

Powell 500, 125 lb bronze screwed gate valve

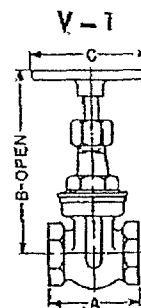
R. P. and C. 86X, 125 lb bronze screwed gate valve

Williams 1450, 125 lb bronze screwed gate valve

Avail Size Range Lunkenheimer: 1/4"-3"; Crane: 1/4"-3";
Jenkins: 1/4"-3"; Powell: 1/4"-3"; R. P. and C: 1/4"-3"; Williams: 1/4"-3"

DIMENSIONS

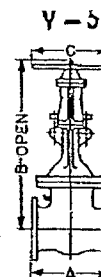
Valve									
Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2
A(Lunk)	1-7/8	2	2-3/16	2-1/2	2-13/16	3-3/16	3-1/2	4-1/16	4-11/16
A(Cra)	1-3/4	1-13/16	2	2-1/4	2-11/16	3	3-1/4	3-11/16	4-1/4
A(Jenk)	1-3/4	1-3/4	1-15/16	2-5/16	2-11/16	3	3-3/8	4	4-11/16
A(Pow)	1-3/4	2	2-3/16	2-7/16	2-3/4	3	3-1/4	3-13/16	4-5/16
A(RPC)	1-11/16	1-13/16	2-1/16	2-5/16	2-19/32	3	3-1/4	3-13/16	4-5/16
A(Will)	1-7/8	2	2-3/16	2-7/16	2-3/4	3-1/8	3-1/2	4-1/16	4-11/16
B(max)	5	5	6	7	8	10	11	13	16
C(max)	3	3	4	3	4	5	5	6	6



UCASB00242906

GENERAL

Type Valve Gate; solid wedge(1)
Type Valve Ratings Flanged; ASA 125 lb, plain face
Press-Temp Rating 125 psi at 500°F(2)
Construction OS and Y; rising stem; nonrising wheel;
bolted bonnet, flanged plain face; inserted
seats



- (1) Chapman-split wedge
(2) Reduced pressure and temperature ratings in large sizes; see mfr catalog

MATERIAL

Body-Bonnet Cast iron
Seat Bronze
Disk Bronze
Stem Bronze
Packing Asbestos: To 3", Garlock 117; 4" and up, Garlock 150
or approved equals
Gasket Compressed asbestos: U. S. Rubber 4899 or approved equal

BILLING

Powell 1444, 125 lb CI flg gate valve; bronze trim; FandD, ASA 125 lb

Jenkins 651A, 125 lb CI flg gate valve; bronze trim; FandD, ASA 125 lb

Chapman List 59-1/2 Fig. 263, 125 lb CI flg gate valve; bronze trim; FandD,
ASA 125 lb

O. I. C. 1140, 125 lb CI flg gate valve; bronze trim; FandD, ASA 125 lb

Lunkenheimer 1430, 125 lb CI flg gate valve; bronze trim; FandD, ASA 125 lb

Crane 465-1/2, 125 lb CI flg gate valve; brass trim; FandD, ASA 125 lb

Walworth 726F, 125 lb CI flg gate valve; bronze trim; FandD, ASA 125 lb

R. P. and C. 625, 125 lb CI flg gate valve; bronze trim; FandD, ASA 125 lb

Avail Size Range Powell: 2" - 8"; Jenkins: 2" - 24"; Chapman: 2" - 16"; O. I. C:
2" - 14"; Lunkenheimer: 2" - 24"; Crane: 2" - 12"; Walworth: 2" - 12"; R. P. and C:
2" - 24"

DIMENSIONS

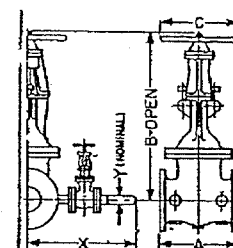
Valve													
Size	2	2-1/2	3	4	6	8	10	12	14	16	18	20	24
A	7	7-1/2	8	9	10-1/2	11-1/2	13	14	15	16	17	18	20
B(max)	15	17	20	24	33	41	50	58	66	78	85	95	110
C(max)	8	8	9	10	14	15	16	18	20	24	24	28	30

UCASB00242907

GENERAL

Type Valve Gate; with bypass, solid wedge (1)
Type Valve Ends Flanged; ASA 125 lb, plain face
Press-Temp Ratings 125 psi at 500°F; 200 psi at 100°F (2)
Construction OS and Y; rising stem; nonrising wheel; bolted bonnet; flanged plain face; inserted seats; bypass as shown unless otherwise ordered

V-6



- (1) Chapman-split wedge
(2) Reduced pressure and temperature ratings in large sizes; see mfr catalog

MATERIAL

Body-Bonnet Cast iron
Seat Bronze
Disk Bronze
Stem Bronze
Packing Asbestos: To 3", Garlock 117; 4" and up, Garlock 150 or approved equals
Gasket Compressed asbestos: U. S. Rubber 4899 or approved equal

BILLING

Powell 1793, 125 lb CI flg gate valve; bronze trim; screwed bypass; FandD, ASA 125 lb

Jenkins 651A, 125 lb CI flg gate valve; bronze trim; screwed bypass; FandD, ASA 125 lb

Chapman List 59-1/2, Fig. 263, 125 lb CI flg gate valve; bronze trim; built-up bypass; FandD, ASA 125 lb

O. I. C. 1140, 125 lb CI flg gate valve; bronze trim; screwed bypass; FandD, ASA 125 lb

Lunkenheimer 1430-Mod, 125 lb CI flg gate valve; bronze trim; built-up bypass; FandD, ASA 125 lb

Crane 465-1/2, 125 lb CI flg gate valve; brass trim; flg bypass; FandD, ASA 125 lb

Walworth 726F, 125 lb CI flg gate valve; bronze trim; screwed bypass; FandD, ASA 125 lb

R. P. and C. 625, 125 lb CI flg gate valve; bronze trim; flg bypass; FandD, ASA 125 lb

Avail Size Range Powell: 10" - 30"; Jenkins: 10" - 24"; Chapman: 10" - 24";
O. I. C.: 10" - 16"; Lunkenheimer: 10" - 24"; Crane: 10" - 48"; Walworth: 10" - 24";
R. P. and C.: 10" - 24"

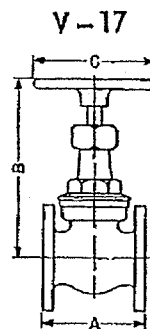
DIMENSIONS

Valve								
Size	10	12	14	16	18	20	24	30
A	13	14	15	16	17	18	20	30
B(max)	51	58	68	78	85	95	110	132
C(max)	20	20	22	22	26	24	30	36
X(max)	18	23	24	28	29	30	36	39
Y(max)	2	2	2	3	3	3	4	4

UCASB00242908

GENERAL

Type Valve Gate; split wedge
Type Valve Ends Flanged, plain face
Press-Temp Ratings 150 psi at 500°F; 225 psi at 100°F
Construction Screwed bonnet; rising stem; rising wheel;
inside screw; integral seats



MATERIAL

Body-Bonnet Bronze
Seat Bronze
Disk Bronze
Stem Bronze
Packing Asbestos: Carlock 117 or approved equal
Gasket Compressed asbestos: U.S. Rubber No. 4899 or
approved equal

BILLING

Lunkenheimer 2152, 150 lb bronze flg gate valve; FandD, ASA B16.24, 150 lb

Avail Size Range Lunkenheimer: 1/2" - 3"

DIMENSIONS

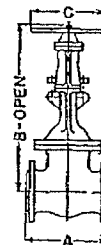
Valve							
Size	1/2	3/4	1	1-1/2	2	2-1/2	3
A	3-1/16	3-1/2	3-13/16	4-7/8	5-5/8	6-3/4	7-1/2
B	6	7	8	11	13	16	18
C	3	3	4	5	6	6	6

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GENERAL

Type Valve Gate; solid wedge
Type Valve Ends Flanged, ASA 300 lb, raised face
Press-Temp Ratings 300 psi at 850°F; 720 psi at 100°F
Construction OS and Y; rising stem; nonrising wheel; bolted bonnet, MandF flanged; inserted seats

V-23 V-23A



(ALUMINUM PAINT IS PROHIBITED)

MATERIAL

Body-Bonnet Carbon steel
Seat 11-1/2-13% chrome steel
Disk 11-1/2-13% chrome steel
Stem 11-1/2-13% chrome steel
Packing V-23, Asbestos: To 3", Garlock 117; 4" and up, Garlock 150 or approved equals
V-23A, Teflon, chevron type or approved equal
Gasket V-23, Compressed asbestos: U. S. Rubber 4899 or approved equal
V-23A, "Flexitallic" Style R or Style CG
Type 304 stainless steel winding with Teflon filler or approved equal, alternate to 4", Akron metallic Type C or PM Armco iron

BILLING(1)

Powell 3003 FE, 300 lb CS(P-200) flg gate valve; P-140 trim; FandD, ASA 300 lb
Chapman List 300, 300 lb CS(ASTM A216, WCB) flg gate valve; F-6 trim; FandD, ASA 300 lb

Walworth 5206F, 300 lb CS(W421) flg gate valve; W551 trim; FandD, ASA 300 lb

R. P. and C. 3001, 300 lb CS(ASTM A216, WCB) flg gate valve; F-6 trim; FandD, ASA 300 lb

Lunkenheimer 1938 B2, 300 lb CS flg gate valve; No. 2 trim; FandD, ASA 300 lb

O. I. C. 3002-C, 300 lb CS(ASTM A216, WCB) flg gate valve; F-6 trim; FandD, ASA 300 lb

Vogt 8078-84, 300 lb FS(ASTM A105, G2) flg gate valve; Stellite seats, F-6 disk and stem; FandD, ASA 300 lb

(1) For V-23A, billing phrase will include "Teflon packing, chevron type or approved equal; bonnet gasket to be..." (complete phrase as listed under gasket V-23A above.)

Avail Size Range Powell: 1"-30"; Chapman: 1-1/2"-30"; Walworth: 2"-24"

R. P. and C: 1-1/2"-24"; Lunkenheimer: 1-1/2"-24"; O. I. C: 1-1/2"-14";

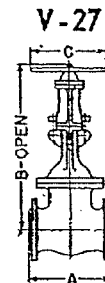
Vogt: 2"-8"

DIMENSIONS

Valve													
Size	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	10	12	14	16 18
A	6-1/2	7	7-1/2	8-1/2	9-1/2	11-1/8	12	15-7/8	16-1/2	18	19-3/4	30	33 36
B(max)	12	13	18	22	23	25	30	41	49	59	68	76	84 93
C(max)	6	6	8	8	10	12	12	16	20	24	24	27	28 34

UCASB00242910

Type Valve Gate; solid wedge
 Type Valve Ends Flanged; ASA 600 lb, raised face
 Press-Temp Ratings 600 psi at 850°F; 1440 psi at 100°F
 Construction OSandY; rising stem; nonrising wheel;
 bolted bonnet, MandF flanged; inserted
 seats



(ALUMINUM PAINT IS PROHIBITED)

MATERIAL

Body-Bonnet Carbon steel
 Seat Stellite
 Disk Stellite
 Stem 11-1/2-13% Chrome steel
 Packing Asbestos: To 3", Garlock 117; 4" and up, Garlock 150
 or approved equals
 Gasket "Flexitallic" Style R, Type 304 stainless steel with
 asbestos filler or approved equal

BILLING

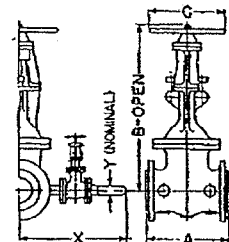
Chapman List 600, 600 lb CS(ASTM A216, WCB) flg gate valve; Stellite seats and disk; F-6 stem; gasket (as specified above under Material); FandD, ASA 600 lb
Powell 6003FE, 600 lb CS(P-200) flg gate valve; P-100 seat and disk; P-140 stem; gasket (as specified above under Material); FandD, ASA 600 lb
Walworth 5232-HF, 600 lb CS(W421) flg gate valve; Stellite seat and disk; W551 stem; gasket (as specified above under Material); FandD, ASA 600 lb
R. P. and C. 6001, 600 lb CS(ASTM A216, WCB) flg gate valve; Stellite seat and disk; F-6 stem; gasket (as specified above under Material); FandD, ASA 600 lb
Vogt Similar to No. 11403-12, 600 lb FS(ASTM A105, G1) flg gate valve; Stellite seat and disk; F-6 stem; gasket (as specified above under Material); FandD, ASA 600 lb
O. I. C. 6002U, 600 lb CS(ASTM A216, WCB) flg gate valve; Stellite seat and disk; F-6 stem; gasket (as specified above under Material); FandD, ASA 600 lb
Edward 611, 600 lb CS(ASTM A216, WCB) flg gate valve; Stellite seat and disk; Evelloy stem; gasket (as specified above under Material); FandD, ASA 600 lb
Avail Size Range Chapman: 1"-24"; Powell: 1/2"-24"; Walworth: 1-1/2"-18";
 R. P. and C: 1-1/2"-24"; Vogt: 1/2"-6"; O. I. C: 2"-14"; Edward: 2-1/2"-12"

DIMENSIONS

Valve														
Size	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	10	12	14
A	6-1/2	7-1/2	8-1/2	9	9-1/2	11-1/2	13	14	17	22	26	31	33	35
B(max)	12	14	16	19	19	21	24	27	33	47	53	66	73	81
C(max)	5	6	8	8	8	9	12	15	18	22	24	28	30	36

GENERAL

Type Valve Gate; solid wedge
Type Valve Ends Flanged; ASA 600 lb, raised face
Press-Temp Ratings 600 psi at 850°F; 1440 psi at 100°F
Construction OSandY; rising stem; nonrising wheel;
bolted bonnet, MandF flanged(1);
inserted seats; bypass as shown unless
otherwise ordered



(1) Powell and Walworth use TandG face
(ALUMINUM PAINT IS PROHIBITED)

MATERIAL

Body-Bonnet Carbon steel
Seat Stellite
Disk Stellite
Stem 11-1/2-13% Chrome steel
Packing Asbestos: To 3", Garlock 117;
4" and up, Garlock 150 or approved equals
Gasket "Flexitallic" Style R, Type 304 stainless steel with
asbestos filler or approved equal

BILLING

Chapman List 600, 600 lb CS(ASTM A216, WCB) flg gate valve; Stellite seat and disk,
F-6 stem; welded bypass; gasket (as specified above under Material); FandD,
ASA 600 lb

Powell 6013FE, 600 lb CS(P-200) flg gate valve; P-100 seat and disk, P-140 stem;
welded bypass; gasket (as specified above under Material); FandD, ASA 600 lb

Walworth 5233F, 600 lb CS(W421) flg gate valve; Stellite seat and disk, W551 stem;
screwed bypass; gasket (as specified above under Material); FandD, ASA 600 lb

R. P. and C. 6003, 600 lb CS(ASTM A216, WCB) flg gate valve; Stellite seat and disk,
F-6 stem; welded bypass; gasket (as specified above under Material); FandD,
ASA 600 lb

O. I. C. 6002-UJ, 600 lb CS(ASTM A216, WCB) flg gate valve; Stellite seat and disk,
F-6 stem; welded bypass; gasket (as specified above under Material); FandD,
ASA 600 lb

Edward 611, 600 lb CS(ASTM A216, WCB) flg gate valve; Stellite seat and disk;
Evalloy stem; welded bypass; gasket (as specified above under Material); FandD,
ASA 600 lb

Avail Size Range Chapman: 4"-24"; Crane: 4"-24"; Powell: 6"-24"; Walworth:
6"-18"; RPandC: 4"-24"; Lunkenheimer: 6"-24"; OIC: 4"-14"; Edward: 4"-12"

DIMENSIONS

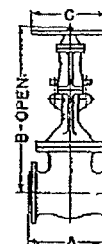
Valve										
Size	4	6	8	10	12	14	16	18	20	24
A	17	22	26	31	33	35	39	43	47	55
B(max)	32	48	54	66	74	81	93	97	113	126
C(max)	18	22	24	28	32	36	38	36	42	42
X(max)	21	25	26	31	32	35	37	38	42	47
Y(max)	1/2	3/4	3/4	1	1	1-1/4	1-1/4	1-1/2	1-1/2	2

GENERAL

V-59, V-59A

Type Valve Gate; solid wedge
Type Valve Ends Flanged; ASA 150 lb, raised face
Press-Temp Ratings 150 psi at 500°F; 275 psi at 100°F
Construction OSandY; rising stem; nonrising wheel;
bolted bonnet, flanged plain face;
inserted seats

(ALUMINUM PAINT IS PROHIBITED)



MATERIAL

Body-Bonnet Carbon steel
Seat 11-1/2-13% Chrome steel (1)
Disk 11-1/2-13% Chrome steel
Stem 11-1/2-13% Chrome steel
Packing V-59: To 3", Garlock 117; 4" and up, Garlock 150
or approved equals
V-59A: Teflon, Chevron type or approved equal
Gasket V-59: U.S. Rubber 4899 or approved equal
V-59A: "Flexitallic" Style R special or Style CG
special, Type 304 stainless steel with Teflon filler;
alternate for 1/2" to 4"; Akron metallic Type C or PM
Armco iron

(1) Vogt-Stellite

BILLING(2)

Powell 1503 FE, 150 lb CS(P-200) flg gate valve; P-140 trim; FandD, ASA 150 lb
Chapman List 150, 150 lb CS(ASTM A216, WCB) flg gate valve; F-6 trim; FandD,
ASA 150 lb

Crane 47X, 150 lb CS(ASTM A216, WCB) flg gate valve; FandD, ASA 150 lb

Vogt 6068-74, 150 lb FS(ASTM A105, G1) flg gate valve; Stellite seat, F-6 stem
and disk; FandD, ASA 150 lb

Lunk 1751-B2, 150 lb CS flg gate valve; FandD, ASA 150 lb

Walworth 5202F, 150 lb CS(W421) flg gate valve; W551 trim; FandD, ASA 150 lb

R.P.andC. 1501, 150 lb CS(ASTM A216, WCB) flg gate valve; F-6 trim; FandD,
ASA 150 lb

O.I.C. 1502C, 150 lb CS(ASTM A216, WCB) flg gate valve; F-6 trim; FandD, ASA
150 lb

(2) For V-59A, billing phrase will include "Teflon packing, Chevron type or approved
equal; bonnet gasket to be (complete phrase as listed under gasket V-59A above)

Avail Size Range Powell: 3/4"-30"; Chapman: 1"-24"; Crane: 2"-24"; Vogt:
2"-48"; Lunkenheimer: 2"-24"; Walworth: 2"-24"; RPandC: 2"-24"; OIC: 1-1/2"-16"

DIMENSIONS

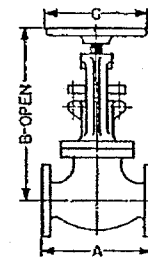
Valve														
Size	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	10	12	14	
A	4-5/8	5	5-1/2	6-1/2	7	7-1/2	8	9	10-1/2	11-1/2	13	14	15	
B(max)	9	12	11	13	18	19	21	26	36	44	53	61	71	
C(max)	4	6	5	6	8	8	10	10	14	16	18	20	24	

UCASB00242913

GENERAL

Type Valve Globe
Type Valve Ends Flanged; ASA 125 lb, plain face
Press-Temp Ratings 125 psi at 450°F; 200 psi at 100°F
Construction OSandY; rising stem; rising wheel;
bolted bonnet, flanged plain face;
inserted seats

V-102



MATERIAL

Body-Bonnet Cast iron
Seat Bronze
Disk Bronze
Stem Bronze
Packing Asbestos: To 3", Garlock 117; 4" and up, Garlock 150
or approved equals
Gasket Compressed Asbestos: U.S. Rubber 4899 or approved
equal

BILLING

Lunk 1123, 125 lb CI flg globe valve; bronze trim; FandD, ASA 125 lb

Jenkins 613, 125 lb CI flg globe valve; bronze trim; FandD, ASA 125 lb

Powell 241, 125 lb CI flg globe valve; bronze trim; FandD, ASA 125 lb

O. I. C. 116, 125 lb CI flg globe valve; bronze trim; FandD, ASA 125 lb

Avail Size Range Lunkenheimer: 2"-14"; Jenkins: 2"-6"; Powell: 2"-8"

O. I. C. 2"-12"

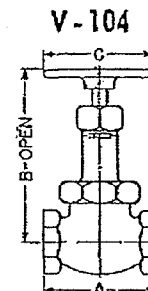
DIMENSIONS

Valve									
Size	2	2-1/2	3	4	6	8	10	12	14
A	8	8-1/2	9-1/2	11-1/2	14	19-1/2	24-1/4	27-1/2	32
B(max)	13	14	16	19	22	25	28	32	37
C(max)	8	8	9	10	12	18	20	22	26

UCASB00242914

GENERAL

Type Valve	Globe
Type Valve Ends	Screwed
Press-Temp Ratings	150 psi at 450°F; 225 psi at 100°F
Construction	Screwed union bonnet; rising stem; rising wheel; inside screw; inserted seats



MATERIAL

Body-Bonnet	Cast iron
Seat	Nickel alloy
Disk	Nickel alloy
Stem	Bronze
Packing	Asbestos: Garlock 117 or approved equal
Gasket	Compressed Asbestos: U. S. Rubber 4899 or approved equal

BILLING

Lunk 1021, 150 lb CI screwed globe valve; (NT4) nickel alloy seat and disk; bronze stem

Jenkins 890, 150 lb CI screwed globe valve; nickel alloy seat and disk; bronze stem

Powell 190, 150 lb CI screwed globe valve; nickel alloy seat and disk; bronze stem

Avail Size Range Lunkenheimer: 1/4"-3"; Jenkins: 3/8"-2"; Powell: 1/4"-3"

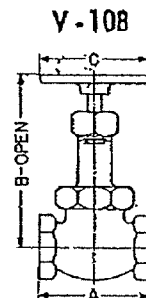
DIMENSIONS

Valve								
Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A(Lunk)	2-9/16	2-11/16	3	3-9/16	4-1/8	4-3/4	5-1/4	6-1/4
A(Jenkins)		2-5/8	3	3-5/8	4-1/8	4-5/8	5-1/4	6-5/16
A(Powell)	2-1/4	2-1/2	2-15/16	3-1/2	4-1/8	4-5/8	5-3/8	6-1/4
B(max)	5	5	6	7	8	9	9	11
C(max)	3	3	3	4	5	5	6	6

UCASB00242915

GENERAL

Type Valve Globe
Type Valve Ends Screwed
Press-Temp Ratings 200 psi at 500°F; 400 psi at 100°F
Construction Screwed union bonnet; rising stem;
rising wheel; inside screw; integral
seats



Body-Bonnet Bronze
Seat Bronze
Disk Bronze
Stem Bronze
Packing Asbestos: Garlock 117 or approved equal
Gasket Compressed Asbestos: U.S. Rubber 4899 or approved
equal

BILLING

Crane 70, Dwg A-11556, 200 lb brass screwed globe valve

Jenkins 750, 200 lb bronze screwed globe valve

Lunk 407, 200 lb bronze screwed globe valve

Powell 110, 200 lb bronze screwed globe valve

Walworth 160, 200 lb bronze screwed globe valve

R.P. and C. 409, 200 lb bronze screwed globe valve

O.I.C. 270, 200 lb bronze screwed globe valve

Avail Size Range Crane: 1/8"-3"; Jenkins: 1/8"-3"; Lunkenheimer: 1/8"-3";
Powell: 1/8"-3"; Walworth: 1/4"-3"; R.P. and C: 1/8"-3"; O.I.C: 1/8"-3"

DIMENSIONS

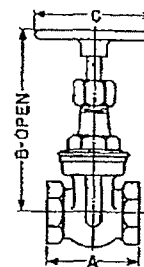
Valve									
Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2
A(Crane)	1-11/16	1-15/16	2-1/4	2-3/4	3-5/16	3-7/8	4-1/2	5-1/4	6-5/16
A(Jenkins)	1-3/4	2	2-1/4	2-7/8	3-9/32	3-7/8	4-7/16	5-3/8	6-5/16
A(Lunk)	1-1/32	2-1/8	2-7/16	2-15/16	3-11/32	3-7/8	4-5/16	5-1/4	6-7/16
A(Powell)	2	2-1/8	2-1/2	2-7/8	3-3/8	3-7/8	4-3/8	5-1/4	6-1/2
A(Walw)	1-15/16	2-1/16	2-7/16	2-3/4	3-7/16	3-7/8	4-3/16	5	6
A(R.P.C.)	1-7/8	2-1/8	2-7/16	2-15/16	3-11/32	3-7/8	4-5/16	5-1/4	6-7/16
A(O.I.C.)	1-5/8	1-15/16	2-1/4	2-3/4	3-5/16	3-7/8	4-1/2	5-1/4	6-3/8
B(max)	5	5	6	7	7	8	9	10	11
C(max)	3	3	3	4	5	5	6	6	7

UCASB00242916

GENERAL

Type Valve Globe
Type Valve Ends Screwed
Press-Temp Ratings 1000 psi at 450°F; 4000 psi at 100°F
Construction Screwed bonnet; rising stem; rising wheel; inside screw; integral seats

V-115, V-115A



MATERIAL

Body-Bonnet Carbon steel
Seat Carbon steel
Disk Type 304 stainless steel
Stem Type 304 stainless steel
Packing V-115, Garlock 166 or approved equal
V-115A, Teflon or approved equal
Gasket V-115, Soft iron or approved equal
V-115A, "Flexitallic" Style R, Type 304 stainless steel winding with Teflon filler or approved equal

BILLING

Vogt No. 9871-78, 4000 lb FS(ASTM A105,G2) screwed globe valve; F-8 disk and stem; gasket and packing (as specified above under Material); tee handle

Avail Size Range Vogt: 1/4"-2"

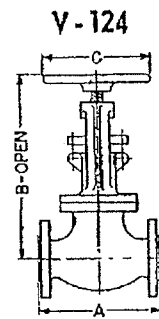
DIMENSIONS

Valve								
Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A (Vogt)	2-1/8	2-3/8	2-3/4	3-3/8	4	4-3/4	5-1/2	6-1/4
B (max)	4	5	6	7	8	9	10	12
C (max)	3	3	4	4	5	6	7	8

UCASB00242917

GENERAL

Type Valve Globe
Type Valve Ends Flanged; ASA 600 lb, raised face
Press-Temp Ratings 600 psi at 850°F; 1440 psi at 100°F
Construction OSandY; rising stem; rising wheel;
bolted bonnet, MandF flanged(1);
inserted seats



(1) Han, Pow, Chap - TandG
(ALUMINUM PAINT IS PROHIBITED)

MATERIAL

Body-Bonnet Carbon steel
Seat 11-1/2-13% Chrome steel(2)
Disk 11-1/2-13% Chrome steel
Stem 11-1/2-13% Chrome steel
Packing Asbestos: To 3", Garlock 117; 4" and up, Garlock 1700
or approved equals
Gasket "Flexitallic" Style R, Type 304 stainless steel winding
with asbestos filler

(2) Edward - Stellite

BILLING

Edward Fig 428, 1/2"-2"; Fig 618, 2-1/2"-6"; 600 lb, CS(ASM A216, WCB) flg globe valve; Stellite seat; Evalloy disk and stem; gasket and packing (as specified above under Material); FandD, ASA 600 lb

Hancock Type 5630F, 600 lb CS(ASM A216, WCB) flg globe valve; F-6 trim; gasket and packing (as specified above under Material); FandD, ASA 600 lb

R.P.andC 6011, 600 lb CS(ASM A216, WCB) flg globe valve; F-6 trim; gasket and packing (as specified above under Material); FandD, ASA 600 lb

Powell 6031 FE, 600 lb CS(P-200) flg globe valve; P-140 trim; gasket and packing (as specified above under Material); FandD, ASA 600 lb

Chapman List 603, 600 lb CS(ASM A216, WCB) flg globe valve; F-6 trim; gasket and packing (as specified above under Material); FandD, ASA 600 lb

Avail Size Range Edward: 1/2"-6"; Hancock: 2-1/2"-6"; R.P.andC: 1-1/2"-8";
Powell: 1/2"-12"; Chapman: 1-1/2"-8"

DIMENSIONS

Valve													
Size	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	10	12
A	6-1/2	7-1/2	8-1/2	9	9-1/2	11-1/2	13	14	17	22	26	31	33
B(max)	9	10	10	14	17	21	22	25	29	44	53	52	60
C(max)	5	6	7	9	9	12	15	15	18	26	36	30	36

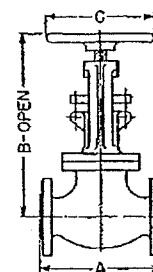
UCASB00242918

GENERAL

Type Valve Globe
Type Valve Ends Flanged; ASA 300 lb, raised face
Press-Temp Ratings 300 psi at 850°F; 720 psi at 100°F
Construction OSandY; rising stem; rising wheel;
bolted bonnet, MandF flanged;
inserted seats

(ALUMINUM PAINT IS PROHIBITED)

V-134, V-134A



MATERIAL

Body-Bonnet Carbon steel
Seat 11-1/2-13% Chrome steel
Disk 11-1/2-13% Chrome steel
Stem 11-1/2-13% Chrome steel
Packing V-134, Asbestos: To 3", Garlock 117; 4" and up,
Garlock 150 or approved equals
V-134A, Teflon, Chevron type or approved equal
Gasket V-134, Compressed Asbestos: U.S. Rubber 4899 or
approved equal
V-134A, "Flexitallic" Style R or Style CG, Type 304
stainless steel winding with Teflon filler or approved
equal

BILLING

Powell 3031 FE, 300 lb CS(P-200) flg globe valve; P-140 trim; FandD, ASA 300 lb
(8" and up, with anti-friction bearing yoke)

Chapman List 300-A, 300 lb CS(ASTM A216, WCB) flg globe valve; F-6 trim; FandD,
ASA 300 lb

Edward 6518, 300 lb CS(ASTM A216, WCB) flg globe valve; Evalloy trim; FandD,
ASA 300 lb (10" and up, Impactor handwheel)

Jenkins 1042-C, 300 lb CS(ASTM A217, WCB) flg globe valve; F-6 trim; FandD,
ASA 300 lb

Lunk 1600-B2, 300 lb CS flg globe valve; No. 2 trim; FandD, ASA 300 lb

Walworth 5281F, 300 lb CS(W421) flg globe valve; W551 trim; FandD, ASA 300 lb

R.P. and C. 3011, 300 lb CS(ASTM A216, WCB) flg globe valve; F-6 trim; FandD,
ASA 300 lb

Avail Size Range Powell: 1"-12"; Chapman: 2"-10"; Edward: 2-1/2"-16";

Jenkins: 2"-10"; Walworth: 2"-8"; R.P. and C: 2"-12"; Lunkenheimer: 2"-8"

DIMENSIONS

Valve										
Size	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	10
A	8-1/2	9	9-1/2	10-1/2	11-1/2	12-1/2	14	17-1/2	22	24-1/2
B(max)	10	13	13	20	21	24	27	34	47	49
C(max)	6	7	7	10	12	12	15	22	30	30

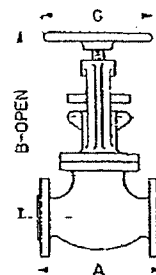
UCASB00242919

GENERAL

Type Valve Globe
Type Valve Ends Flanged; ASA 150 lb, raised face
Press-Temp Ratings 150 psi at 500°F; 275 psi at 100°F
Construction OSandY; rising stem; rising wheel;
bolted bonnet, MandF flanged; inserted
seats

(ALUMINUM PAINT IS PROHIBITED)

V-143, V-143 A



MATERIAL

Body-Bonnet Carbon steel
Seat 11-1/2-13% Chrome steel
Disk 11-1/2-13% Chrome steel
Stem 11-1/2-13% Chrome steel
Packing V-143, Asbestos: To 3", Garlock 117; 4" and up, G
Garlock 150 or approved equals
V-143A, Teflon, Chevron type or approved equal
Gasket V-143, Compressed Asbestos: U.S. Rubber 4899 or
approved equal
V-143A, "Flexitallic" Style R, Type 304 stainless steel
with Teflon filler

BILLING

Powell 1531 FE, 150 lb CS(P-200) flg globe valve; P-140 trim; gasket and packing
(as specified above under Material); FandD, ASA 150 lb

Crane 143X, 150 lb CS(ASTM A216, WCB) flg globe valve; Exelloy trim; gasket and
packing (as specified above under Material); FandD, ASA 150 lb

Jenkins 1040C, 150 lb CS(ASTM A216, WCB) flg globe valve; gasket and packing
(as specified above under Material); FandD, ASA 150 lb

Lunk 1755-B2, 150 lb CS flg globe valve; No. 2 trim; gasket and packing (as
specified above under Material); FandD, ASA 150 lb

Walworth 5275F, 150 lb CS(W421) flg globe valve; W551 trim; gasket and packing
(as specified above under Material); FandD, ASA 150 lb

R. P. and C. 1511, 150 lb CS(ASTM A216, WCB) flg globe valve; F-6 trim; gasket
and packing (as specified above under Material); FandD, ASA 150 lb

O. I. C. 1542, 150 lb CS(ASTM A216, WCB) flg globe valve; F-6 trim; gasket and
packing (as specified above under Material); FandD, ASA 150 lb

Pacific 160-1, 150 lb CS(ASTM A216, WCB) flg globe valve; F-6 trim; FandD, ASA
150 lb

Avail Size Range Powell: 3/4"-12"; Crane: 2"-8"; Jenkins: 2"-8"; Lunkenheimer:
2"-6"; Walworth: 2"-8"; R. P. and C.: 2"-8"; O. I. C.: 2"-8"; Pacific: 1-1/2"-12"

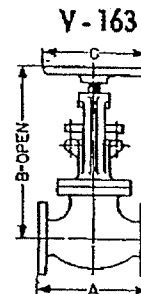
DIMENSIONS

Valve												
Size	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	10	12
A	4-5/8	5	5-1/2	6-1/2	8	8-1/2	9-1/2	11-1/2	16	19-1/2	24-1/2	27-1/2
B(max)	8	9	9	13	15	16	19	21	26	31	45	49
C(max)	4	4	5	7	8	9	10	12	16	18	20	22

UCASB00242920

GENERAL

Type Valve Globe
Type Valve Ends Flanged: ASA 150 lb, plain face
Press-Temp Ratings 150 psi at 500°F; 225 psi at 150°F
Construction OSandY; rising stem; rising wheel;
bolted bonnet, MandF flanged; inserted
seats



MATERIAL

Body-Bonnet Bronze
Seat Ni-Bronze
Disk Ni-Bronze
Stem Bronze
Packing Asbestos: To 3", Garlock 117; 4" and up, Garlock 150
or approved equals
Gasket Compressed Asbestos: U.S. Rubber 4899 or approved
equal

BILLING

Powell 1218, 150 lb bronze flg globe valve; nickel bronze seat and disk; bronze
stem; FandD, ASA B16.24, 150 lb

Avail Size Range Powell: 1-1/4"-6"

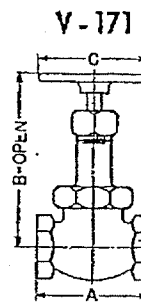
DIMENSIONS

Valve							
Size	1-1/4	1-1/2	2	2-1/2	3	4	6
A	6	6-1/2	7-1/2	8-1/4	9-1/2	10	12-3/4
B	9	9	10	12	13	16	20
C	5	5	6	7	8	10	12

UCASB00242921

GENERAL

Type Valve Globe
Type Valve Ends Screwed
Press-Temp Ratings 300 psi at 750°F; 600 psi at 100°F
Construction Screwed union bonnet; rising stem;
rising wheel; inside screw; inserted
seats



MATERIAL

Body-Bonnet Forged steel
Seat Stellite
Disk 11-1/2-13% Chrome steel
Stem 11-1/2-13% Chrome steel
Packing Asbestos: Garlock 117 or approved equal
Gasket Compressed Asbestos: U. S. Rubber 4899 or approved
equal

BILLING

Vogt 851-58, 300 lb FS(ASTM A105, G2) screwed globe valve; Stellite seat; F-6
disk and stem

Avail Size Range Vogt: 1/4"-2"

DIMENSIONS

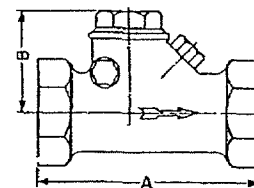
Valve								
Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A	2-3/8	2-3/8	2-3/4	3-3/8	4	5-1/2	5-1/2	6-1/4
B	6	6	6	8	9	12	12	13
C	4	4	4	5	6	7	7	8

UCASB00242922

GENERAL

Type Valve Swing Check, horizontal and vertical upward
Type Valve Ends Screwed
Press-Temp Ratings 125 psi at 353°F; 200 psi at 100°F
Construction Screwed cap; integral seat

V-201



MATERIAL

Body Bronze
Seat Bronze
Disk Bronze
Hinge Bronze
Pin Bronze
Gasket Rubber: US Rubber 4009 Rainbow

BILLING

Crane 34, 125 lb brass screwed swing check valve
Chapman List 20 Fig. 64, 150 lb bronze screwed swing check valve
Jenkins 92, 125 lb bronze screwed swing check valve
Powell 578, 125 lb bronze screwed swing check valve
Walworth 406, 125 lb bronze screwed swing check valve
R. P. and C. 198, 125 lb bronze screwed swing check valve
O. I. C. 134, 125 lb bronze screwed swing check valve
Stockham B319, 125 lb bronze screwed swing check valve
Avail Size Range Crane: 3/8"-3"; Chapman: 1/4"-3"; Jenkins: 1/4"-3";
Walworth: 1/4"-3"; R. P. and C: 1/4"-3"; O. I. C: 1/8"-3"; Stockham: 1/4"-3"

DIMENSIONS

Valve						
Size	1/2	3/4	1	1-1/4	1-1/2	2
A(Crane)	2-1/4	2-11/16	3-3/16	3-11/16	4-1/4	5-1/8
A(Chap)	2-1/2	3	3-3/8	3-7/8	4-1/4	5-1/8
A(Jenk)	2-3/8	2-13/16	3-5/16	3-13/16	4-1/4	5-1/4
A(Pow)	2-3/4	2-7/8	3-1/4	3-3/4	4-1/4	5-1/4
A(Wal)	2-3/4	3-1/8	3-9/16	4-5/16	4-3/4	5-1/2
A(RPC)	2-1/2	2-7/8	3-3/8	3-13/16	4-3/16	5-1/2
A(OIC)	2-7/16	2-3/4	3-1/8	3-5/8	4-1/8	4-11/16
A(Stock)	2-7/16	2-13/16	3-3/16	3-3/4	4-3/16	5-1/8
B(Max)	3	3	4	4	5	5

UCASB00242923

GENERAL

Type Valve Swing check, horizontal and vertical upward

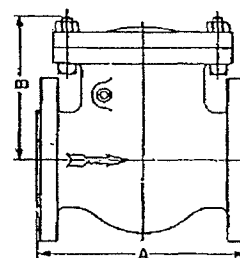
Type Valve Ends Flanged; ASA 150 lb, raised face

Press-Temp Ratings 150 psi at 500°F; 230 psi at 100°F

Construction Bolted cap; MandF flanged, inserted seat

(ALUMINUM PAINT IS PROHIBITED)

V-203, V-203A



MATERIAL

Body Carbon steel

Seat 11-1/2-13% Chrome steel

Disk 11-1/2-13% Chrome steel

Hinge 11-1/2-13% Chrome steel

Pin 11-1/2-13% Chrome steel

Gasket V-203, US Rubber 4899 or approved equal
V-203A, "Flexitallic" Style R or CG, Type 304 stainless steel with Teflon filler or approved equal

BILLING

Powell 1561A-FE 150 lb CS(P-200) flg swing check valve; P-140 trim; FandD, ASA 150 lb

Crane 147X, 150 lb CS(ASTM A216, WCB) flg swing check valve; Exelloy trim; FandD, ASA 150 lb

Jenkins 1025, 150 lb CS(ASTM A216, WCB) flg swing check valve; F-6 trim; FandD, ASA 150 lb

Lunk 1759-B2, 150 lb CS flg swing check valve; F-6 trim; FandD, ASA 150 lb

Walworth 5341F, 150 lb CS(W421) flg swing check valve; W551 trim; FandD, ASA 150 lb

R. P. and C. 1531, 150 lb CS(ASTM A216, WCB) flg swing check valve; F-6 trim; FandD, ASA 150 lb

O. I. C. 1572-C, 150 lb CS(ASTM A216, WCB) flg swing check valve; F-6 trim; FandD, ASA 150 lb

Chapman List 151-A 150 lb CS (ASTM A216, WCB) flg swing check valve; F-6 trim; FandD, ASA 150 lb

Avail Size Range Powell: 1/2"-16"; Crane: 2"-12"; Jenkins: 2"-12";

Lumkenheimer: 2"-10"; Walworth: 2"-8"; R. P. and C: 1-1/2"-8"; O. I. C: 2"-10";

Chapman: 2"-4"

DIMENSIONS

Valve												
Size	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	10
A	4-1/4	4-5/8	5	5-1/2	6-1/2	8	8-1/2	9-1/2	11-1/2	14	19-1/2	24-1/2
B(Max)	3	4	4	4	6	7	7	8	9	12	15	16

UCASB00242924

GENERAL

Type Valve

Swing check, horizontal and vertical upward

Type Valve Ends

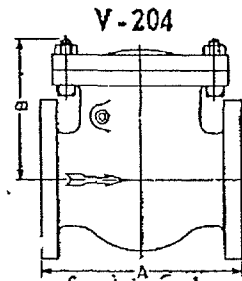
Flanged; ASA 125 lb, plain face

Press-Temp Ratings

125 psi at 450°F; 200 psi at 100°F(1)

Construction

Bolted cap, flanged plain face; inserted seat



(1) Reduced pressure and temperature ratings in large sizes; see manufacturer's catalog

MATERIAL

Body

Cast iron

Seat

Bronze

Disk

Bronze

Hinge

Bronze

Pin

Bronze

Gasket

Compressed Asbestos: US Rubber 4899 or approved equal

BILLING

Crane 373, 125 lb CI flg swing check valve; brass trim; FandD, ASA 125 lb

Jenkins 624, 125 lb CI flg swing check valve; bronze trim; FandD, ASA 125 lb

Lunk 1790, 125 lb CI flg swing check valve; bronze trim; FandD, ASA 125 lb

Powell 559, 125 lb CI flg swing check valve; bronze trim; FandD, ASA 125 lb

O.I.C. 124, 125 lb CI flg swing check valve; bronze trim; FandD, ASA 125 lb

Walworth 928F, 125 lb CI flg swing check valve; bronze trim; FandD, ASA 125 lb

R.P. and C. 216, 125 lb CI flg swing check valve; bronze trim; FandD, ASA 125 lb

Stockham G-931, 125 lb CI flg swing check valve; bronze trim; FandD, ASA 125 lb

Avail Size Range Crane: 2"-24"; Jenkins: 2"-12"; Lunkenheimer: 2"-12";

Powell: 2"-18"; O.I.C: 2"-14"; Walworth: 2"-14"; R.P. and C: 2"-6";

Stockham: 2"-6"

DIMENSIONS

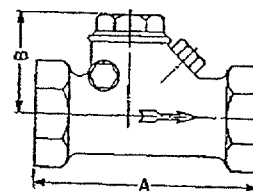
Valve								
Size	2	2-1/2	3	4	6	8	10	12
A	8	8-1/2	9-1/2	11-1/2	14	19-1/2	24-1/2	27-1/2
B(Max)	6	7	7	9	10	14	15	17

UCASB00242925

GENERAL

Type Valve Swing check, horizontal and vertical upward
Type Valve Ends Screwed
Press-Temp Ratings 200 psi at 500°F; 400 psi at 100°F
Construction Screwed cap; integral seat

Y-210



MATERIAL

Body Bronze
Seat Bronze
Disk Bronze
Hinge Bronze
Pin Bronze
Gasket Compressed Asbestos: US Rubber 4899 or approved equal

BILLING

Lunk 554, 200 lb bronze screwed swing check valve

Jenkins 762A, 200 lb bronze screwed swing check valve

Powell 560, 200 lb bronze screwed swing check valve

Walworth 420, 200 lb bronze screwed swing check valve

O. I. C. 236, 200 lb bronze screwed swing check valve

Williams 254, 200 lb bronze screwed swing check valve

Avail Size Range Lunkenheimer: 1/4"-3"; Jenkins: 1/4"-3"; Powell: 1/8"-3";

O. I. C: 1/8"-3"; Williams: 1/4"-3"

DIMENSIONS

Valve						
Size	1/2	3/4	1	1-1/4	1-1/2	2
A(Lunk)	2-9/16	3	3-17/32	3-15/16	4-3/8	5-3/8
A(Jenk)	2-1/2	2-15/16	3-7/16	3-15/16	4-3/8	5-3/8
A(Pow)	2-3/4	3	3-3/8	4	4-1/2	5-1/2
A(Walw)	2-3/4	3-3/16	3-5/8	4-5/16	4-3/4	5-5/8
A(O. I. C.)	2-11/16	3-3/16	3-11/16	4-1/8	4-11/16	5-1/2
B(Max)	2	3	3	3	4	4

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GENERAL

Type Valve

Swing check, horizontal and vertical upward

Type Valve Ends

Flanged; ASA 300 lb, raised face

Press-Temp Ratings

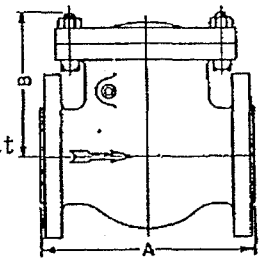
300 psi at 750°F; 500 psi at 100°F

Construction

Bolted cap, MandF flanged; inserted seat

(ALUMINUM PAINT IS PROHIBITED)

V-211, V-211A



MATERIAL

Body

Carbon steel

Seat

11-1/2-13% Chrome steel

Disk

11-1/2-13% Chrome steel

Hinge

11-1/2-13% Chrome steel

Pin

11-1/2-13% Chrome steel

Gasket

V-211, Compressed Asbestos: US Rubber 4899 or approved equal

V-211A, "Flexitallic" Style R or CJ, Type 304 stainless steel winding with Teflon filler or approved equal

BILLING

Powell 3061F.E., 300 lb CS(P-200) flg swing check valve; P-140 trim; FandD, ASA 300 lb

Chapman List 301, 300 lb CS(ASTM A216, WCB) flg swing check valve; F-6 trim; FandD, ASA 300 lb

Jenkins 1026C, 300 lb CS(ASTM A95) flg swing check valve; F-6 trim; FandD, ASA 300 lb

Lunk 1491B, 300 lb cast carbon stl flg swing check valve; 2 trim; FandD, ASA 300 lb

R.P.andC. 3031, 300 lb CS(ASTM A216, WCB) flg swing check valve; F-6 trim; FandD, ASA 300 lb

Walworth 5344F, 300 lb CS(W421) flg swing check valve; W551 trim; FandD, ASA 300 lb

O.I.C. 3072-C, 300 lb CS(ASTM A216, WCB) flg swing check valve; F-6 trim; FandD, ASA 300 lb

Avail Size Range Powell: 1"-14"; Chapman: 2"-4"; Jenkins: 2"-10"; Lunk: 2"-10"; R.P.andC: 2"-14"; Walworth: 2"-12"; O.I.C: 2"-10"

DIMENSIONS

Valve

Size	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	10
A	8-1/2	9	9-1/2	10-1/2	11-1/2	12-1/2	14	17-1/2	21	24-1/2
B(Max)	5	6	8	8	8	9	10	13	16	19

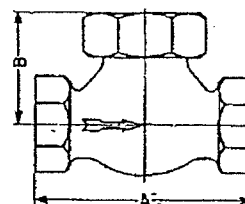
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GENERAL

Type Valve
Type Valve Ends
Press-Temp Ratings
Construction

Piston check, horizontal
Screwed
600 psi at 900°F; 2000 psi at 100°F
Screwed cap; inserted seat

V-217, V-217A



MATERIAL

Body Forged steel
Seat 11-1/2-13% Chrome steel
Piston 11-1/2-13% Chrome steel
Gasket V-217, US Rubber 4899 or approved equal
V-217A, "Flexitallic" Style R or CG, Type 304 stainless steel winding with Teflon filler or approved equal

BILLING

BILLING

Vogt No. 9091-98, 600 lb FS(ASTM A105, G1) screwed piston check valve; F-6 trim

Crane 3670X, 600 lb FS(ASTM A105, G1) screwed piston check valve; Exelloy trim

O. I. C. 2221-C, 700 lb FS(ASTM A105, G2) screwed piston check valve; F-6 trim

Edward 2678, 600 lb FS(ASTM A105, G2) screwed piston check valve; Exelloy trim

Avail Size Range Vogt: 1/4"-2"; Crane: 1/4"-3/4"; O. I. C.: 1/4"-3/4";

Edward: 1/4"-1"

DIMENSIONS

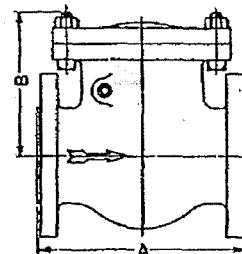
Valve								
Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A(Vogt)	3-1/8	3-1/8	3-5/8	4-3/8	5	6	6-3/4	8-1/4
A(Crane)	3	3	3-1/2	4-1/2				
A(O. I. C.)	2-1/2	3	3-1/2	4-1/2				
A(Edward)	3	3	3-3/4	4-1/2				
B(Max)	3	3	3	4	4	4	5	5

UCASB00242928

GENERAL

V-262

Type Valve Swing check, horizontal and vertical upward
Type Valve Ends Flanged; ASA 600 lb, raised face
Press Temp Ratings 600 psi at 850°F; 1440 psi at 100°F
Construction Bolted cap, MandF flanged(1); inserted seat



(1) Crane, O.I.C. - Ring-joint; Powell, Walworth - TandG
(ALUMINUM PAINT IS PROHIBITED)

MATERIAL

Body Carbon steel
Seat 11-1/2-13% Chrome steel
Disk 11-1/2-13% Chrome steel
Hinge 11-1/2-13% Chrome steel
Pin 11-1/2-13% Chrome steel
Gasket "Flexitallic" Style R, Type 304 stainless steel with asbestos filler

BILLING

Chapman List 601, 600 lb CS(ASTM A216, WCB) flg swing check valve; F-6 trim; gasket (as specified above under Material); FandD, ASA 600 lb

Crane 175X, 600 lb CS(ASTM A216, WCB) flg swing check valve; Exelloy trim; gasket (as specified above under Material); FandD, ASA 600 lb

Jenkins 1028C, 600 lb CS(ASTM A216, WCB) flg swing check valve; Exelloy trim; gasket (as specified above under Material); FandD, ASA 600 lb

Powell 6061FE, 600 lb CS(P-200) flg swing check valve; P-140 trim; gasket (as specified above under Material); FandD, ASA 600 lb

Walworth 5350F, 600 lb CS(W421) flg swing check valve; W551 trim; gasket (as specified above under Material); FandD, ASA 600 lb

Lunk 1495-B2, 600 lb CS(ASTM A216, WCB); flg swing check valve; F-6 trim; gasket (as specified above under Material); FandD, ASA 600 lb

R.P. andC. 6031, 600 lb CS(ASTM A216, WCB) flg swing check valve; F-6 trim; gasket (as specified above under Material); FandD, ASA 600 lb

O.I.C. 6072-C, 600 lb CS(ASTM A216, WCB) flg swing check valve; F-6 trim; gasket (as specified above under Material); FandD, ASA 600 lb

Avail Size Range Chapman: 1-1/2"-12"; Crane: 1-1/4"-12"; Jenkins: 2"-8"; R.P. andC: 1-1/2"-8"; O.I.C: 2"-12"

DIMENSIONS

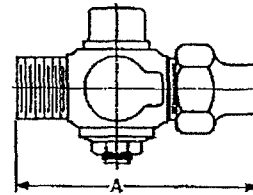
Valve								
Size	2	2-1/2	3	4	6	8	10	12
A	11-1/2	13	14	17	22	26	31	33
B(Max)	8	10	10	12	16	18	20	22

UCASB00242929

GENERAL

Type Valve Plug; corporation stop cock,
horizontal
Type Valve Ends Screwed
Press-Temp Ratings 100 psi at 100°F
Construction Integral seat

V-415



MATERIAL

Body Brass
Seat Brass
Plug Brass
Packing
Gasket

BILLING

Mueller H-15025, 100 lb brass screwed corporation stop cock; iron pipe thread (Male) on the inlet side, Copper service pipe connection on outlet side, for inserting with Mueller tapping machine

Avail Size Range Mueller: 1/2"-2"

DIMENSIONS

Valve						
Size	1/2	3/4	1	1-1/4	1-1/2	2
A	4-17/64	4-13/16	6-3/64	6-59/64	8-13/64	9-63/64
IPT	1/2	3/4	1	1-1/4	1-1/2	2

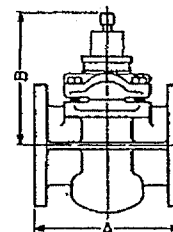
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GENERAL

Type Valve Plug; lubricated
Type Valve Ends Flanged; ASA 150 lb, raised face
Press-Temp Ratings 300 psi at 850°F; 720 psi at 100°F
Construction Bolted cover, MandF flanged; integral seat; 1"-4", wrench operated; 6" and up, worm gear

(ALUMINUM PAINT IS PROHIBITED)

V-431



MATERIAL

Body Carbon steel
Seat Carbon steel
Plug Carbon steel
Stem Carbon steel
Packing Asbestos: To 3", Garlock 117; 4" and up, Garlock 150 or approved equals
Gasket Compressed Asbestos: US Rubber 4899 or approved equal

BILLING

Walworth 1764F, 1"-4"; 1764F, 6"-12", 300 lb CS(W421) flg lubricated plug valve; to 4" with wrench, 6" and up, worm gear operated; assembled with _____ lubricant; FandD, ASA 300 lb

Nordstrom 2025, 1"-4"; 4289, 6"-24", 300 lb CS(ASTM A216, WCB) flg lubricated plug valve; to 4", with wrench; 6" and up, worm gear operated; assembled with _____ lubricant; FandD, ASA 300 lb

Powell 3059, 1"-4"; 3059G, 6"-12", 300 lb CS(ASTM A216, WCB) flg lubricated plug valve; To 4", with wrench, 6" and up, worm gear operated; assembled with _____ lubricant; FandD, ASA 300 lb

Avail Size Range Walworth: 1"-12"; Nordstrom: 1"-24"; Powell: 1"-12"

DIMENSIONS

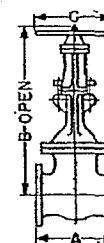
Valve											
Size	1	1-1/2	2	2-1/2	3	4	6	8	10	12	14
A	6-1/4	7-1/2	8-1/2	9-1/2	11-1/8	12	15-7/8	16-1/2	18	19-3/4	30
B(Max)	8	9	11	12	13	15	20	24	26	27	31

UCASB00242931

GENERAL

Type Valve Gate; solid wedge(1)
Type Valve Ends Flanged; MSS 150 lb, plain face
Press-Temp Ratings 150 psi at 500°F; 230 psi at 100°F
Construction OSandY; rising stem; nonrising wheel; bolted bonnet, MandF flanged; integral seats

V-588, V-588A



(1) Alloyco, Crane - split wedge

MATERIAL

Body-Bonnet Type 316 stainless steel
Seat Type 316 stainless steel
Disk Type 316 stainless steel
Stem Type 316 stainless steel
Packing V-588, Teflon, Chevron type or approved equal
V-588A, Pure asbestos rope or approved equal
Gasket Compressed asbestos: Garlock 7705 or approved equal
Pressure-Restraining
Bolts and Nuts A combination of non-galling Type 18-8 stainless steel

BILLING

Powell Fig 2491, 1/2"-2" incl; Fig 2453SG, 2-1/2"-12", 150 lb 18-8 SMO(Type 316) flg gate valve; solid wedge disk; packing, gasket and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Alloyco 111, 150 lb 18-8 SMO(Type 316) flg gate valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Cooper 100SW, 150 lb 18-8 SMO(Type 316) flg gate valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Crane 18845, 150 lb 18-8 SMO(Type 316) flg gate valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Pacific S-500, 150 lb 18-8 SMO(Type 316) flg gate valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Jenkins 1327, 150 lb 18-8 SMO(Type 316) flg gate valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Avail Size Range Powell: 1/2"-14"; Alloyco: 1/2"-14"; Cooper: 1/2"-14"; Crane: 1/2"-12"; Pacific: 1/2"-8"; Jenkins: 1/2"-8"

DIMENSIONS

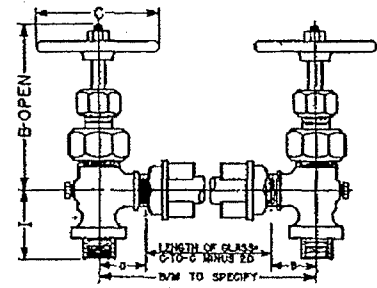
Valve														
Size	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	10	12	14
A	4-1/4	4-5/8	5	5-1/2	6-1/2	7	7-1/2	8	9	10-1/2	11-1/2	13	14	15
B(max)	9	10	11	13	13	15	18	20	24	32	40	49	58	66
C(max)	5	5	5	6	6	7	7	9	11	14	16	18	20	22

UCASB00242932

Y-603

Type Valve
Type Valve Ends
Press-Temp Ratings
Construction

Gage cock
Screwed
200 psi at 387°F
Screwed union bonnet; rising
stem; rising wheel; inside
screw; integral seat



MATERIAL

Body	Bronze
Seat	Bronze
Disk	Bronze
Stem	Bronze
Packing	Asbestos: Garlock 117 or approved equal
Gasket	Compressed Asbestos: US Rubber 4899 or approved equal

BILLING

Lunk 460, 200 lb bronze screwed liquid level gage; rough body

Avail Size Range Lunkenheimer: 3/8"-3/4"

DIMENSIONS

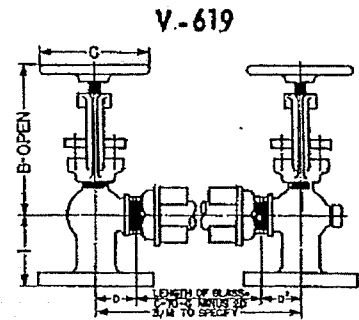
Valve Size	3/8	1/2	3/4
I	1-13/16	2-3/32	2-11/32
B	5	5	5
C	2	2	2
D	1/2	3/4	1

UCASB00242933

GENERAL

Type Valve
Type Valve Ends
Press-Temp Ratings
Construction

Gage cock
Flanged; MSS 150 lb, plain face
150 psi at 400°F
OSandY; rising wheel; rising
stem; screwed union bonnet;
integral seat



MATERIAL

Body Type 316 stainless steel
Seat Type 316 stainless steel
Disk Type 316 stainless steel
Stem Type 316 stainless steel
Packing Teflon, Chevron type or approved equal
Gasket: Compressed Asbestos: Garlock 7705 or approved equal
Pressure-Restraining
Bolts and Nuts A combination of non-galling Type 18-8 stainless steel

BILLING

Powell Dwg D-31506, 150 lb 18-8 SMO (Type 316) SS flg liquid level gage;
packing and pressure-restraining bolts
(as specified above under Material); FandD, MSS SP-42

Avail Size Range Powell: 1/2"-3/4"

DIMENSIONS

Valve		
Size	1/2	3/4
A	2-1/16	2-3/32
B	6	6
C	3	3
D ¹		
D		

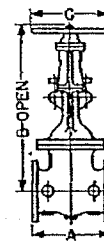
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GENERAL

Type Valve
Type Valve Ends
Press-Temp Ratings
Construction

Gate; split wedge
Flanged; ASA 150 lb, plain face
150 psi; 300 psi at 100°F
OSandY; rising stem; nonrising wheel;
bolted bonnet, flanged plain face;
inserted seats

V-846



MATERIAL

Body-Bonnet	Cast iron
Seat	Bronze
Disk	Cast iron, bronze faced
Stem	Bronze
Packing	Asbestos: To 3", Garlock 117; 4" and up, Garlock 150 or approved equals
Gasket	Rubber: U. S. Rubber 4009 Rainbow

BILLING

Mueller-Columbian A-2073-6, 150 lb cast iron flg gate valve; bronze trim;
FandD, ASA 150 lb

DIMENSIONS

Valve								
Size	2-1/2	3	4	6	8	10	12	14
A	7-1/2	8	9	10-1/2	11-1/2	13	14	15
B	16	19	25	32	41	49	56	65
C	6	8	11	13	14	16	16	18

UCASB00242935

GENERAL

Type Valve

Swing check, horizontal and vertical upward

Type Valve Ends

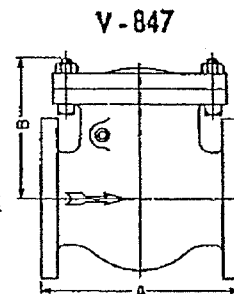
Flanged, ASA 125 lb, plain face

Press-Temp Ratings

150 psi at 450°F; 300 psi at 100°F

Construction

Bolted cap, flanged plain face; inserted seat



MATERIAL

Body

Cast iron

Seat

Bronze

Disk

Cast iron, bronze faced

Hinge

Cast iron

Pin

Bronze

Gasket

Rubber: US Rubber 4009 Rainbow

BILLING

Mueller-Columbian A-2120-6, 150 lb CI flg swing check valve; bronze trim;
FandD, ASA 125 lb

Avail Size Range Mueller: 2-1/2"-14"

DIMENSIONS

Valve								
Size	2-1/2	3	4	6	8	10	12	14
A	9-1/8	10-3/8	12-7/8	16-1/2	19-1/2	21-1/2	24-1/8	29-1/2
B	6	6	7	9	11	13	15	17

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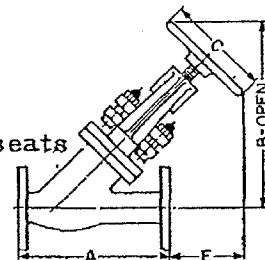
GENERAL

Type Valve
Type Valve Ends
Press-Temp Ratings
Construction

Y Globe

Flanged; MSS 150 lb, plain face
150 psi at 500°F; 230 psi at 100°F
OSandY; rising stem; rising wheel;
bolted bonnet, MandF flanged; integral seats

V-894, V-894A



MATERIAL

Body-Bonnet

Type 316 stainless steel

Seat

Type 316 stainless steel

Disk

Type 316 stainless steel

Stem

Type 316 stainless steel

Packing

V-894, Teflon, chevron type or approved equal

V-894A, Asbestos: U.S. Rubber 293 or approved equal

Compressed Asbestos: Garlock 7705 or approved equal

Gasket

Press-Restraining

Bolts and Nuts

A combination of non-galling Type 18-8 stainless steel

BILLING

Powell 1/2"-3" Fig. 2107, 4"-8" Fig. 1944; 150 lb 18-8 SMO(Type 316) SS flg Y-globe valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Aloyco 365-B, B/M 365-B

150 lb 18-8 SMO(Type 316) SS flg

Y-globe valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Cooper 225, 150 lb 18-8 SMO(Type 316) SS flg Y-globe valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Hasco 1/2"-4" Fig. H508, 6"-10" Fig. H229; 150 lb 18-8 SMO(Type 316) SS flg Y-globe valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Duriron Type J, 150 lb 18-8 SMO(Type 316) SS flg Y-globe valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Avail Size Range Powell: 1/2"-8"; Aloyco: 1/2"-10"; Cooper: 1/2"-8"; Hasco: 1/2"-10"; Duriron: 1"-6"

DIMENSIONS

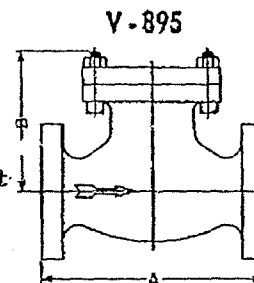
Valve

Size	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6	8	10
A	5-1/2	6	6-1/2	7-1/4	8	9	11	12-1/2	14-1/2	18-1/2	23-1/2	26-1/2
B(max)	8	8		11	12	14	15	16	20	29	32	33
C(max)	3	4		5	5	7	7	8	10	14	16	16
E(max)	4	4	4	5	5	6	5	5	7	9	9	10

UCASB00242937

GENERAL

Type Valve Piston check, horizontal
Type Valve Ends Flanged; MSS 150 lb, plain face
Press-Temp Ratings 150 psi at 500°F; 230 psi at 100°F
Construction Bolted cap, MandF flanged; integral seat



MATERIAL

Body Type 316 stainless steel
Seat Type 316 stainless steel
Piston Type 316 stainless steel
Gasket Compressed Asbestos: Garlock 7705 or approved equal
Pressure Restraining
Bolts and Nuts A combination of non-galling Type 18-8 stainless steel

BILLING

Powell 2003, 150 lb 18-8 SMO(Type 316) SS flg piston check valve; gasket and pressure-restraining bolts and nuts (as specified above under Material); FandD, SP-42

Aloyco 551, B/M 551(V-895), 150 lb 18-8 SMO(Type 316) SS flg globe check valve; gasket and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Cooper 70, 150 lb 18-8 SMO(Type 316) SS flg globe check valve; gasket and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Pacific 18, 150 lb 18-8 SMO(Type 316) SS flg piston check valve; gasket and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Avail Size Range Powell: 1/4"-3"; Aloyco: 1/4"-6"; Cooper: 1/2"-6";
Pacific: 1"-2"

DIMENSIONS

Valve										
Size	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
A	4-1/4	4-5/8	5	5-1/2	6-1/2	8	8-1/2	9-1/2	11-1/2	16
B(max)	3	4	4	4	5	6	6	6	7	9

UCASB00242938

GENERAL

Type Valve

Swing check, horizontal and vertical upward

Type Valve Ends

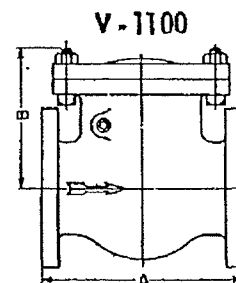
Flanged; ASA 150 lb, plain face

Press-Temp Ratings

150 psi at 500°F; 275 psi at 100°F

Construction

Bolted cap, MandF flanged(1); integral seat



(1) Hasco and Jenkins - Plain face

MATERIAL

Body

Type 316 stainless steel

Seat

Type 316 stainless steel

Disk

Type 316 stainless steel

Hinge

Type 316 stainless steel

Pin

Type 316 stainless steel

Gasket

U.S. Rubber: Garlock 7705 or approved equal

Pressure-Restraining

Bolts and Nuts

A combination of non-galling 18-8 stainless steel

BILLING

Powell, 1/4"-2" Fig. 2342, 2-1/2"-up Fig. 2433SS, 150 lb 18-8 SMO(Type 316) flg swing check valve; gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Aloyco 371, B/M 371 150 lb 18-8 SMO(Type 316) flg swing check valve; gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Pacific S-1100, 150 lb 18-8 SMO(Type 316) flg swing check valve; gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Cooper Fig. 2002, 150 lb 18-8 SMO(Type 316) flg swing check valve; gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Crane 18829, 150 lb 18-8 SMO(Type 316) flg swing check valve; gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Hasco H-106, 150 lb 18-8 SMO(Type 316) flg swing check valve; gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Jenkins 1331, 150 lb 18-8 SMO(Type 316) flg swing check valve; gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Avail Size Range Powell: 1/4"-12"; Aloyco: 1/2"-10"; Pacific: 1/2"-6"; Cooper: 1/2"-6"; Crane: 2-1/2"-6"; Hasco: 1"-10"; Jenkins: 1/2"-8"

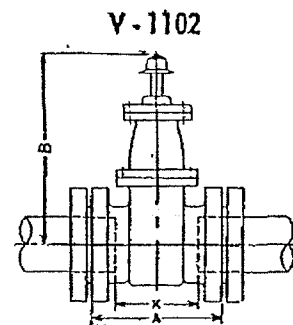
DIMENSIONS

Valve

Size	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4	6
A	4-1/4	4-5/8	5	5-1/2	6-1/2	8	8-1/2	9-1/2	11-1/2	14
B(max)	3	4	4	5	5	6	6	7	7	10

GENERAL

Type Valve Gate; split wedge
Type Valve Ends Mechanical joint
Press-Temp Ratings 175 psi at 100°F
Construction Bolted bonnet, flanged plain face;
nonrising stem; wheel-yard key
inside
screw; inserted seats



MATERIAL

Body-Bonnet Cast iron
Seat Bronze
Disk Cast iron, bronze faced
Stem Bronze
Packing "O"-Ring or approved equal
Gasket Rubber: U.S. Rubber 4009 Rainbow or approved equal

BILLING

Mueller-Columbian A-2380-20, 175 lb CI mechanical joint gate valve; bronze trim;
"O"-Ring packing

MandH Fig. 67M, 200 lb CI mechanical joint gate valve; bronze trim; "O"-Ring
packing

Iowa F-5155, 175 lb CI mechanical joint gate valve; bronze trim; "O"-Ring
packing

Avail Size Range Mueller: 2"-12"; MandH: 2"-12"; Iowa: 2"-12"

DIMENSIONS

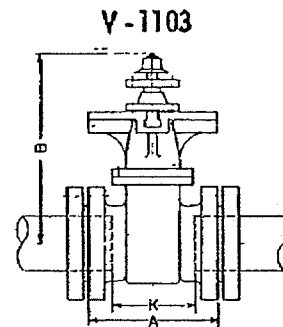
Valve							
Size	2	3	4	6	8	10	12
A(Muel)	8-1/4	8-3/4	9-1/4	10-1/2	11-1/2	13	13-1/4
A(MH)	8	9-1/2	10	12-1/2	13	14	14-1/2
A(Iowa)	8-1/4	9-3/4	11	13-1/2	14-1/2	15-1/2	13
B(max)	13	15	17	20	25	29	32
K(max)	3-1/4	3-3/4	5	5-1/2	6-1/2	8	8-1/4

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GENERAL

Type Valve
Type Valve Ends
Press-Temp Ratings
Construction

Gate: split wedge
Mechanical joint
175 psi at 100°F
Bolted bonnet, flanged plain face;
nonrising stem;
indicator post;
inside screw; inserted seats



MATERIAL

Body-Bonnet Cast iron
Seat Bronze
Disk Cast iron, bronze faced
Stem Bronze
Packing Asbestos: Garlock 150 or approved equal
Rubber: U. S. Rubber 4009 Rainbow or approved equal

BILLING

Mueller-Columbian A-2072-20, 175 lb CI mechanical joint gate valve; bronze trim; Garlock 150 packing; Mueller-Columbian indicator post Fig. A-20800; center line of valve _____ below grade

MandH Fig. 82M, 175 lb CI mechanical joint gate valve; Garlock 150 packing; MandH indicator post Fig. 83; center line of valve _____ below

IOWA F-5570, 175 lb CI mechanical joint gate valve; bronze trim; Garlock 150 packing; Iowa F-5565 indicator post; center line of valve _____ below grade

Avail Size Range Mueller: 4"-12"; MandH: 4"-14"; Iowa: 4"-16"

DIMENSIONS

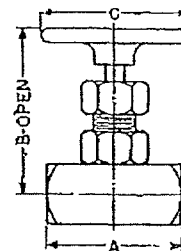
Valve							
Size	4	6	8	10	12	14	16
A(Mul)	9-1/4	10-1/2	11-1/2	13	13-1/4		
A(MH)	10	12-1/2	13	14	14-1/2	20	22
A(Iowa)	11	13-1/2	14-1/2	15-1/2	13	19-1/2	24
B(max)	20	22	26	31	35	40	43
K(max)	5	5-1/2	6-1/2	6-3/4	7	13	15

UCASB00242941

GENERAL

Type Valve Globe
Type Valve Ends Screwed
Press-Temp Ratings 600 psi at 400°F; 3000 psi at 150°F
Construction Screwed bonnet; rising stem;
rising wheel; inside screw;
integral seats

V-1107



MATERIAL

Body-Bonnet Type 316 stainless steel
Seat Type 316 stainless steel
Disk Type 316 stainless steel
Stem Type 316 stainless steel
Packing Teflon, chevron type or equal
Gasket Compressed Asbestos: U.S. Rubber 4899 or
approved equal

BILLING

Powell Dwg E-18751-1-MO, 600 lb 18-8 SMO(Type 316) screwed globe valve;
packing (as specified above under Material)

Aloyco 40-N, Dwg D-18899-1, B/M 40-N 600 lb 18-8 SMO(Type 316)
screwed globe valve; packing (as specified above under Material)

Cooper 400, 4000 lb (cold) 18-8 SMO(Type 316) screwed globe valve; packing (as
specified above under Material)

Avail Size Range Powell: 1/8"-1"; Aloyco: 1/8"-1/2"; Cooper: 1/8"-1"

DIMENSIONS

Valve						
Size	1/8	1/4	3/8	1/2	3/4	1
A(Powell)	1-7/8	1-7/8	2-1/4	2-5/8	3	3-1/2
A(Aloyco)	2	2	2	2-1/2		
A(Cooper)	1-5/8	1-13/16	2-1/16	2-3/8	3	3-3/4
B(max)	4	4	5	5	6	7
C(max)	3	3	3	3	4	5

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GENERAL

Type Valve

Swing check, horizontal and vertical upward

Type Valve Ends

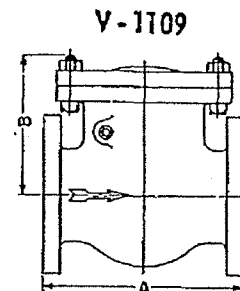
Flanged; MSS 150 lb, plain face

Press-Temp Ratings

150 psi at 450°F

Construction

Bolted cap, MandF flanged; integral seat



MATERIAL

Body

Bronze

Seat

Bronze

Disk

Bronze

Hinge

Bronze

Pin

Bronze

Gasket

Compressed Asbestos: U.S. Rubber 4899 or approved equal

BILLING

Walworth 421F, 150 lb bronze flg swing check valve; FandD, ASA B16.24, 150 lb

Powell 2433, 150 lb bronze flg swing check valve; FandD, ASA B16.24, 150 lb

Crane, Special 373-1/2, 150 lb brass flg swing check valve; FandD, ASA B16.24, 150 lb

Avail Size Range Walworth: 4"-6"; Powell: 2"-8"; Crane: 2"-12"

DIMENSIONS

Valve								
Size	2	2-1/2	3	4	6	8	10	12
A	8	8-1/2	9-1/2	11-1/2	14	19-1/2	24-1/2	27-1/2
B(max)	5	5	6	7	8	11	13	14

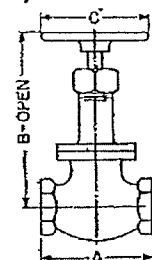
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GENERAL

Type Valve
Type Valve Ends
Press-Temp Ratings
Construction

Gate; solid wedge
Screwed
600 psi at 850°F; 1440 psi at 100°F
Bolted-bonnet, Mand F flanged; rising stem;
rising wheel; inside screw; inserted seats

V-1117, V-1117A, V-1117B



MATERIAL

Body-Bonnet Carbon steel
Seat Stellite
Disk 11-1/2-13% Chrome steel
Stem 11-1/2-13% Chrome steel
Packing V-1117, Garlock 117 or approved equal
V-1117A, Bottom ring, Durametallc D-10; second ring, Garlock 1700; remainder of gland, Allpax 2 or approved equal
V-1117B, Teflon, chevron type or approved equal
Gasket V-1117, "Flexitallic" Style R, Type 304 winding with asbëstos filler or approved equal
V-1117A, Soft iron or approved equal
V-1117B, "Flexitallic" Style R, Type 304 winding with Teflon filler or approved equal

BILLING

New England Valve Corp (Smith) Fig 850 modified, 600 lb FS(ASTM A105, G2) screwed gate valve; Stellite seat; F-6 disk and stem; bonnet gasket and packing (as specified above under Material)

R. P. and C F-59, 600 lb FS(ASTM A105, G2) screwed gate valve; Stellite seat; F-6 disk and stem; bonnet gasket and packing (as specified above under Material)

Pacific Fig 695, 600 lb CS(ASTM A216, WCB) screwed gate valve; No. 2 trim; bonnet gasket and packing (as specified above under Material)

Hancock 930, 600 lb FS(ASTM A105, G2) screwed gate valve; Stellite seat; F-6 disk and stem; bonnet gasket and packing (as specified above under Material)

Vogt Similar to No. 12163-67, 600 lb FS(ASTM A105, G2) screwed gate valve; Stellite seat; F-6 disk and stem; bonnet gasket and packing (as specified above under Material)

Avail Size Range N. E. V. Corp: 1/2"-2"; R. P. and C: 1/4"-2"; Pacific: 1/4"-2"; Hancock: 1/4"-2"; Vogt: 1/4"-2"

DIMENSIONS

Valve								
Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A(NEV)	3	3	3	3-1/2	4-1/8	4-1/4	4-3/4	5-1/4
A(RPC)	3	3	3	3-1/2	4-1/8	4-1/4	4-3/4	5-1/4
A(Pacif)	2-3/4	2-3/4	3	3-1/2	4-1/8	4-1/2	4-3/4	5-1/4
A(Hanc)	3-5/16	3-5/16	3	3-9/16	4-1/2	4-3/4	4-3/4	5-1/8
A(Vogt)	2-3/8	2-3/8	2-3/4	3-3/8	4	5-1/2	5-1/2	6-1/4
B(max)	7	7	7	8	9	12	12	14
C(max)	4	4	4	5	5	7	7	8

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GENERAL

Type Valve

Type Valve Ends

Press-Temp Ratings

Construction

Globe

Flanged; ASA 150 lb, plain face

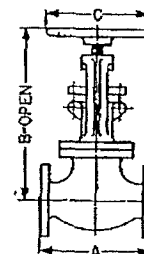
150 psi at 500°F; 275 psi at 100°F

OSandY; rising stem; rising wheel;

bolted bonnet, MandF flanged;

integral seats

V-1118



MATERIAL

Body-Bonnet

Type 316 stainless steel

Seat

Type 316 stainless steel

Disk

Type 316 stainless steel

Stem

Type 316 stainless steel

Packing

Teflon, chevron type or approved equal

Gasket

Compressed Asbestos: Garlock 7705 or approved equal

Pressure-Restraining

Bolts and Nuts

A combination of non-galling 18-8 stainless steel

BILLING

Powell 2475, 150 lb 18-8 SMO(Type 316) flg globe valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Aloyco 311-B, B/M 311-B

150 lb 18-8 SMO(Type 316) flg globe

valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Cooper 10, 150 lb 18-8 SMO(Type 316) flg globe valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Pacific S-700, 150 lb 18-8 SMO(Type 316) flg globe valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Hasco H-13, 150 lb 18-8 SMO(Type 316) flg globe valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Crane 18811, 150 lb 18-8 SMO(Type 316) flg globe valve; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Avail Size Range Powell: 1/4"-3"; Aloyco: 1/4"-6"; Cooper: 1/2"-6";

Pacific: 1/2"-6"; Hasco: 1/2"-4"; Crane: 1/2"-6"

DIMENSIONS

Valve

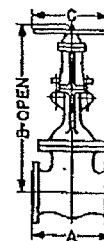
Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A	4	4	4-1/4	4-5/8	5	5-1/2	6-1/2	8	8-1/2	9-1/2	11-1/2
B(max)	7	7	10	10	11	11	11	13	14	16	21
C(max)	3	3	4	5	5	5	6	7	8	9	10

UCASB00242945

GENERAL

Type Valve Gate; solid wedge
Type Valve Ends Flanged; 150 lb plain face
Press-Temp Ratings 150 psi at 500°F; 200 psi at 150°F
Construction OSandY; rising stem; nonrising wheel;
bolted bonnet, plain face flange;
integral seats

V-1119



MATERIAL

Body-Bonnet Bronze
Seat Bronze
Disk Bronze
Stem Bronze
Packing Asbestos: To 3", Garlock 117; 4" and up, Garlock
150 or approved equals
Gasket Compressed Asbestos: U.S. Rubber 4899 or approved
equal

BILLING

Powell 1414G, 150 lb bronze flg gate valve; FandD, ASA B16.24, 150 lb

Walworth 42F, 150 lb bronze flg gate valve; FandD, ASA B16.24, 150 lb

Fairbanks 0245, 150 lb bronze flg gate valve; FandD, ASA B16.24, 150 lb

Avail Size Range Powell: 2"-12"; Walworth: 2"-12"; Fairbanks: 3"-12"

DIMENSIONS

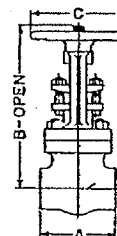
Valve								
Size	2	2-1/2	3	4	6	8	10	12
A	7	7-1/2	8	9	10-1/2	11-1/2	13	14
B(max)	14	16	19	23	32	40	48	56
C(max)	8	8	9	10	14	14	16	18

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GENERAL

Type Valve Gate; split wedge(1)
Type Valve Ends Screwed
Press-Temp Ratings 150 psi at 500°F; 230 psi at 100°F
Construction OSandY; rising stem; nonrising wheel;
bolted bonnet, flanged plain face(2);
integral seats

V-1139



- (1) Jenkins - solid wedge
(2) Crane, Jenkins - Mand F flanged

MATERIAL

Body Bonnet Type 316 stainless steel
Seat Type 316 stainless steel
Disk Type 316 stainless steel
Stem Type 316 stainless steel
Packing Teflon, Chevron type or approved equal
Gasket Compressed Asbestos: Garlock 7705 or approved equal

BILLING

Aloyco 110, 150 lb 18-8SMO(Type 316) screwed gate valve; split wedge disk;
(packing and gasket as specified above under Material)

Powell 2494, 150 lb 18-8SMO(Type 316) screwed gate valve; split wedge disk;
(packing and gasket as specified above under Material)

Crane 18844, 150 lb 18-8SMO(Type 316) screwed gate valve; split wedge disk;
(packing and gasket as specified above under Material)

Jenkins 1306-A, 150 lb 18-8SMO(Type 316) screwed gate valve; solid wedge disk;
(packing and gasket as specified above under Material)

Avail Size Range Aloyco: 1/2"-4"; Powell: 1/2"-2"; Crane: 1/2"-2";
Jenkins: 1/2"-2"

DIMENSIONS

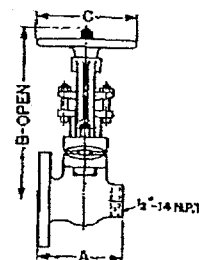
Valve									
Size	1/2	3/4	1	1-1/4	1-1/2	2	2-1/2	3	4
A(Aloy)	2-3/4	3	3-1/2	4-1/4	4-1/2	4-3/4	5-5/8	6	6-5/8
A(Pow)	3	3-1/2	4	4-1/2	5	5-3/4			
A(Crane)	2-5/8	2-7/8	3-1/4	4	4-1/4	4-1/2			
A(Jenk)	2-1/4	2-5/8	3	3-7/16	3-3/4	4			
B(max)	9	9	10	11	13	15	16	18	22
C(max)	4	4	5	5	6	7	7	8	10

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GENERAL

Type Valve Gate; split wedge
Type Valve Ends Flanged and screwed; ASA 150 lb;
raised face
Press-Temp Ratings 150 psi at 400°F; 275 psi at 100°F
Construction OSandY; rising stem; nonrising wheel;
bolted bonnet; MandF flanged
integral seat

V-1142



MATERIAL

Body Type 316 stainless steel
Seat Type 316 stainless steel
Disk Type 316 stainless steel
Stem Type 316 stainless steel
Packing Teflon, chevron type or approved equal
Gasket Compressed Asbestos: Garlock 7705 or approved equal
Pressure-Restraining
Bolts and Nuts A combination of non-galling 18-8 stainless steel

BILLING

Powell, similar to Dwg D-38468, 150 lb 18-8 SMO(Type 316) flg gate valve; split wedge disk; packing, gasket, and pressure-restraining bolts and nuts (as specified above under Material); FandD, MSS SP-42

Avail Size Range Powell: 1-1/2"

DIMENSIONS

Valve

Size	1-1/2
A	4-1/2
B	8
C	4

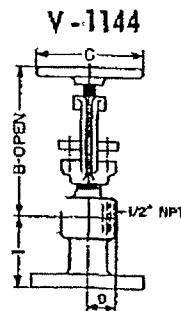
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GENERAL

Type Valve
Type Valve Ends

Press-Temp Ratings
Construction

Angle
Flanged and screwed; ASA 150 lb,
raised face
150 psi at 400°F; 275 psi at 100°F
OSandY; rising stem; rising wheel;
screwed union bonnet; integral seats



MATERIAL

Body-Bonnet Type 316 stainless steel
Seat Type 316 stainless steel
Disk Type 316 stainless steel
Stem Type 316 stainless steel
Packing Teflon, chevron type or approved equal
Gasket Compressed Asbestos: Garlock 7705 or approved equal
Pressure-Restraining
Bolts and Nuts A combination of non-galling 18-8 stainless steel

BILLING

Powell 1" similar to E-34904-A, 1-1/2" similar to E-36371-A, 150 lb 18-8 SMO
(Type 316) SS flg angle needle valve; packing and pressure-restraining bolts and
nuts (as specified above under Material); FandD, MSS SP-42

Avail Size Range Powell: 1"-1-1/2"

DIMENSIONS

Valve Size	1	1-1/2
I	2-1/2	2-1/2
B	9	9
C	4	4
D	29/32	29/32

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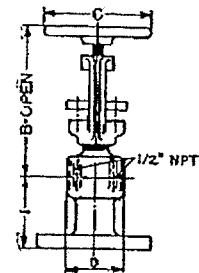
GENERAL

Type Valve
Type Valve Ends

Press-Temp Ratings
Construction

Cross
Flanged and screwed; ASA 150 lb,
raised face
150 psi at 400°F; 275 psi at 100°F
OSandY; rising stem; rising wheel;
screwed union bonnet; integral seats

V-1145



MATERIAL

Body-Bonnet Type 316 stainless steel
Seat Type 316 stainless steel
Disk Type 316 stainless steel
Stem Type 316 stainless steel
Packing Teflon, chevron type or approved equal
Gasket Compressed Asbestos: Garlock 7705 or approved equal
Pressure-Restraining
Bolts and Nuts A combination of non-galling 18-8 stainless steel

BILLING

Powell, Dwg 1" similar to E-34904-A, 1-1/2" similar to E-36371-A, 150 lb
18-8 SMO(Type 316) flg, cross needle valve; packing and pressure-restraining
bolts and nuts (as specified above under Material); FandD, MSS SP-42

Avail Size Range Powell: 1"-1-1/2"

DIMENSIONS

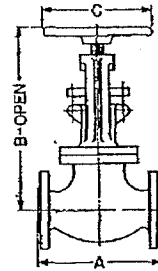
Valve		
Size	1	1-1/2
I	2-1/2	2-1/2
B	9	9
C	4	4
D	1-11/13	1-11/13

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GENERAL

V-1148, V-1148A

Type Valve Gate; solid wedge
Type Valve Ends Flanged; ASA 150 lb, raised face
Press-Temp Ratings 150 psi at 500°F; 275 psi at 100°F
Construction OSandY; rising stem; rising wheel;
bolted bonnet, MandF flanged; integral
seats(1)



(1) Vogt - inserted seats
(ALUMINUM PAINT IS PROHIBITED)

MATERIAL

Body-Bonnet Carbon steel
Seat Stellite
Disk 11-1/2-13% Chrome steel
Stem 11-1/2-13% Chrome steel
Packing V-1148, Garlock 117 or approved equal
V-1148-A, Teflon, Chevron type or approved equal
Gasket V-1148, "Flexitallic" Style R, Type 304 stainless steel
winding with asbestos filler or approved equal
V-1148-A, "Flexitallic" Style R, Type 304 stainless
steel winding with Teflon filler or approved equal

BILLING

Vogt Fig 353-8, Dwg F36386, 150 lb FS(ASTM A105, G2) flg gate valve; Stellite seat; F-6 disk and stem; packing and gasket (as specified above under Material); FandD, ASA 150 lb

Pacific 1595-FX2, 150 lb CS(ASTM A216, WCB) flg gate valve; Stellite seat; F-6 disk and stem; packing and gasket (as specified above under Material); FandD, ASA 150 lb

New England Valve Corp (Smith) Fig 815, 150 lb CS(ASTM(A216, WCB) flg gate valve; Stellite seat; F-6 disk and stem; packing and gasket (as specified above under Material); FandD, ASA 150 lb

R. P. and C. Fig F-158, 150 lb CS(ASTM A216, WCB) flg gate valve; Stellite seat; F-6 disk and stem; packing and gasket (as specified above under Material); FandD, ASA 150 lb

Hancock No. 950F-15, 150 lb FS(ASTM A105, G2) flg gate valve; Stellite seat; F-6 disk and stem; packing and gasket (as specified above under Material); FandD, ASA 150 lb

Avail Size Range Vogt: 1/2"-2"; Pacific: 1/2"-2"; N. E. V. Corp: 1/2"-2";
R. P. and C: 1/2"-2"; Hancock: 1/2"-2"

DIMENSIONS

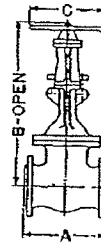
Valve						
Size	1/2	3/4	1	1-1/4	1-1/2	2
A	4-1/4	4-5/8	5	5-1/2	6-1/2	7
B(max)	8	9	10	11	13	15
C(max)	4	5	6	6	6	8

UCASB00242951

GENERAL

V-1149, V-1149A

Type Valve Gate; solid wedge
Type Valve Ends Flanged; ASA 300 lb, raised face
Press-Temp Ratings 300 psi at 850°F; 720 psi at 100°F
Construction OSandY; rising stem; nonrising wheel;
bolted bonnet, MandF flanged; integral
seats(1)



(1) Vogt - inserted seats
(ALUMINUM PAINT IS PROHIBITED)

MATERIAL

Body-Bonnet Carbon steel
Seat Stellite
Disk 11-1/2-13% Chrome steel
Stem 11-1/2-13% Chrome steel
Packing V-1149, Garlock 117 or approved equal
V-1149-A, Teflon, Chevron type or approved equal
Gasket V-1149, "Flexitallic" Style R, Type 304 stainless steel
winding with asbestos filler or approved equal
V-1149-A, "Flexitallic" Style R, Type 304 stainless
steel winding with Teflon filler or approved equal

BILLING

Vogt Fig 363-8, Dwg F36386, 300 lb FS(ASTM A105, G2) flg gate valve; Stellite seat, F-6 disk and stem; gasket(as specified above under Material); FandD, ASA 300 lb

Pacific 3595-FX2, 300 lb CS(ASTM A216, WCB) flg gate valve; Stellite seat, F-6 disk and stem; gasket (as specified above under Material); FandD, ASA 300 lb

New England Valve Corp (Smith) Fig 830, 300 lb CS(ASTM A216, WCB) flg gate valve; Stellite seat, F-6 disk and stem; gasket (as specified above under Material); FandD, ASA 300 lb

R. P. and C. Fig F-308, 300 lb FS(ASTM A105, G2) flg gate valve; Stellite seat; F-6 disk and stem; gasket (as specified above under Material); FandD, ASA 300 lb

Hancock No. 950F-30, 300 lb (ASTM A105, G2) flg gate valve; Stellite seat; F-6 disk and stem; gasket (as specified above under Material); FandD, ASA 300 lb

Avail Size Range Vogt: 1/2"-2"; Pacific: 1/2"-2"; NEV Corp: 1/2"-2";
R. P. and C: 1/2"-2"; Hancock: 1/2"-2"

DIMENSIONS

Valve						
Size	1/2	3/4	1	1-1/4	1-1/2	2
A	5-1/2	6	6-1/2	7	7-1/2	8-1/2
B(max)	9	9	11	11	12	15
C(max)	4	5	6	6	7	8

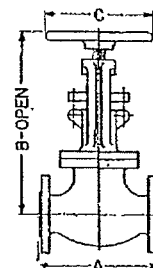
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GENERAL

Type Valve Gate; solid wedge
Type Valve Ends Flanged; ASA 600 lb, raised face
Press-Temp Ratings 600 psi at 850°F; 1440 psi at 100°F
Construction OSandY: rising stem; nonrising wheel;
bolted bonnet, MandF flanged; inserted
seats(1)

(1) NEV, Hancock - integral seats
(ALUMINUM PAINT IS PROHIBITED)

V-1150, V-1150 A



MATERIAL

Body-Bonnet Carbon steel
Seat Stellite
Disk 11-1/2-13% Chrome steel
Stem 11-1/2-13% Chrome steel
Packing V-1150, Garlock 117 or approved equal
V-1150-A, Teflon, Chevron type or approved equal
Gasket V-1150, "Flexitallic" Style R, Type 304 stainless steel
winding with asbestos filler or approved equal
V-1150-A, "Flexitallic" Style R, Type 304 stainless
steel winding with Teflon filler or approved equal

BILLING

Vogt Fig 373-8, Dwg F36383, 600 lb FS(ASTM A105, G2) flg gate valve; Stellite
seat; F-6 disk and stem; gasket (as specified above under Material); FandD,
ASA 600 lb

Pacific 6595-FX2, 600 lb FS(ASTM A216, WCB) flg gate valve; Stellite seat, F-6
disk and stem; gasket (as specified above under Material); FandD, ASA 600 lb

New England Valve Corp (Smith) Fig 860, 600 lb CS(ASTM A216, WCB) flg gate valve;
Stellite seat, F-6 disk and stem; gasket (as specified above under Material); FandD,
ASA 600 lb

Hancock 950F, 600 lb FS(ASTM A105, G2) flg gate valve; Stellite seat, F-6 disk
and stem; gasket (as specified above under Material) FandD, ASA 600 lb

R. P. and C. Fig F-608, 600 lb FS(ASTM A105, G2) flg gate valve; Stellite seat;
F-6 disk and stem; gasket (as specified above under Material); FandD, ASA 600 lb.

Avail Size Range Vogt: 1/2"-2"; Pacific: 1/2"-2"; N. E. V. Corp: 1/2"-2";
Hancock: 1/2"-2"; R. P. and C: 1/2"-2"

DIMENSIONS

Valve						
Size	1/2	3/4	1	1-1/4	1-1/2	2
A	6-1/2	7-1/2	8-1/2	9	9-1/2	11-1/2
B(max)	9	9	10	11	12	16
C(max)	4	5	6	6	7	8

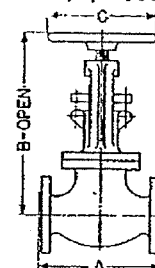
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GENERAL

Type Valve Globe
Type Valve Ends Flanged; ASA 300 lb, raised face
Press-Temp Ratings 300 psi at 850°F; 720 psi at 100°F
Construction OSandY; rising stem; rising wheel;
bolted bonnet, MandF flanged(1);
integral seats(2)

- (1) Pacific - TandG flanged
(2) N.E.V., Pacific - Inserted seats

V-1152, V-1152A



MATERIAL

Body-Bonnet Forged carbon steel
Seat Stellite
Disk 11-1/2-13% Chrome steel
Stem 11-1/2-13% Chrome steel
Packing V-1152, Garlock 117 or approved equal
Gasket V-1152-A, Teflon, Chevron type or approved equal
V-1152, "Flexitallic" Style R, Type 304 stainless steel
winding with asbestos filler or approved equal
V-1152-A, "Flexitallic" Style R, Type 304 stainless
steel winding with Teflon filler or approved equal

BILLING

Vogt Fig. 483-88, Dwg F36373. 300 lb FS(ASTM A105, G2) flg globe valve;
Stellite seat; F-6 disk and stem; gasket (as specified above under Material);
FandD, ASA 300 lb

Pacific 3360-FX2, 300 lb (CS(ASTM A216, WCB) flg globe valve; Stellite seat,
F-6 disk and stem; gasket (as specified above under Material); FandD, ASA 300 lb

N.E.V., Type G83R, 300 lb FS(ASTM A105, G2) flg globe valve; Stellite seat;
F-6 disk and stem; gasket (as specified above under Material); FandD, ASA 300 lb

Avail Size Range Vogt: 1/2"-2"; Pacific: 1/2"-2"; N.E.V.: 1/2"-2"

DIMENSIONS

Valve					
Size	1/2	3/4	1	1-1/2	2
A	6	7	8	9	10-1/2
B(max)	7	9	9	12	15
C(max)	4	5	6	7	8

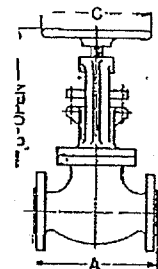
UCASB00242954

GENERAL

Type Valve Globe
Type Valve Ends Flanged; ASA 600 lb, raised face
Press-Temp Ratings 600 psi at 850°F; 1440 psi at 100°F
Construction OSandY; rising stem; rising wheel;
bolted bonnet; MandF flanged(1);
integral seats(2)

- (1) Pacific - TandG flanged
(2) Pacific, N. E. V. - Inserted seats

V-1153, V-1153A



MATERIAL

Body-Bonnet Forged carbon steel
Seat Stellite
Disk 11-1/2-13% Chrome steel
Stem 11-1/2-13% Chrome steel
Packing V-1153, Garlock 117 or approved equal
Gasket V-1153-A, Teflon, Chevron type or approved equal
V-1153, "Flexitallic" Style R, Type 304 stainless steel
winding with asbestos filler or approved equal
V-1153-A, "Flexitallic" Style R, Type 304 stainless
steel winding with Teflon filler or approved equal

BILLING

Vogt Fig. 493-498, Dwg F36319, 600 lb FS(ASTM A105, G2) flg globe valve;
Stellite seat; F-6 disk and stem; gasket (as specified above under Material);
FandD, ASA 600 lb

Pacific 3660-FX2, 600 lb CS(ASTM A216, WCB) flg globe valve; Stellite seat;
F-6 disk and stem; gasket (as specified above under Material); FandD, ASA 600 lb

Hancock 5520F, 600 lb FS(ASTM A105, G2) flg globe valve; Stellite seat; F-6 disk
and stem; gasket (as specified above under Material); FandD, ASA 600 lb

N. E. V. Type G86R, 600 lb FS(ASTM A105, G2) flg globe valve; Stellite seat;
F-6 disk and stem; gasket (as specified above under Material); FandD, ASA 600 lb

Avail Size Range Vogt: 1/2"-2"; Pacific: 1/2"-2"; Hancock: 1/2"-2";
N. E. V.: 1/2"-2"

:

DIMENSIONS

Valve					
Size	1/2	3/4	1	1-1/2	2
A	6-1/2	7-1/2	8-1/2	9-1/2	11-1/2
B(max)	7	9	10	12	15
C(max)	4	5	6	7	9

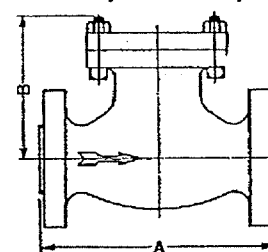
UCASB00242955

GENERAL

Type Valve Piston check, horizontal
Type Valve Ends Flanged; ASA 600 lb, raised face
Press-Temp Ratings 600 psi at 850°F; 1440 psi at 100°F
Construction Bolted cap, MandF flanged(1);
 integral seat

(1) Pacific - TandG flanged

V-1156, V-1156 A



MATERIAL

Body Forged carbon steel
Seat Stellite
Piston 11-1/2-13% Chrome steel
Gasket V-1156, "Flexitallic" Style R, Type 304 stainless steel
 winding with asbestos filler or approved equal
 V-1156-A, "Flexitallic" Style R, Type 304 stainless
 steel winding with Teflon filler or approved equal

BILLING

Vogt Fig. 593-98, Dwg F36758, 600 lb FS(ASTM A105, G2) flg check valve;
Stellite seat; F-6 piston; gasket (as specified above under Material); FandD,
ASA 600 lb

Pacific Fig. 3680-FX2, 600 lb CS(ASTM A216, WCB) flg check valve; Stellite seat;
F-6 piston; gasket (as specified above under Material); FandD, ASA 600 lb

Avail Size Range Vogt: 1/2"-2"; Pacific: 1/2"-2"

DIMENSIONS

Valve Size	1/2	3/4	1	1-1/4	1-1/2	2
A	6-1/2	7-1/2	8-1/2	9	9-1/2	11-1/2
B(max)	3	3	4	5	5	6

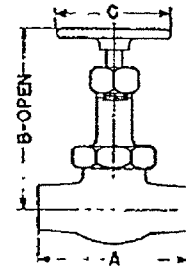
UCASB00242956

GENERAL

Type Valve
Type Valve Ends
Press-Temp Ratings
Construction

Globe
Solder end
150 psi at 500°F; 300 psi at 100°F
Screwed union bonnet; rising stem;
rising wheel; inside screw;
integral seat; non-metallic disk

V-1162



MATERIAL

Body-Bonnet
Seat
Disk
Stem
Packing

Bronze
Bronze
Non-metallic
Bronze
Asbestos: Garlock 117 or approved equal

BILLING

Lunkenheimer 126, 150 lb bronze solder end globe valve; non-metallic disk;
bronze seat and stem

DIMENSIONS

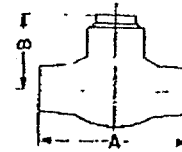
Valve Size	1/2	3/4	1	1-1/4	1-1/2	2
A	3-1/2	4-1/4	4-15/16	5-7/16	6-1/8	7-3/8
B	6	7	7	8	9	10
C	3	4	5	5	6	6

UCASB00242957

GENERAL

Type Valve Swing check, horizontal and vertical upward
Type Valve Ends Solder end
Press-Temp Ratings 125 psi at 500°F; 200 psi at 100°F
Construction Screwed cap; integral seat

V-1163



MATERIAL

Body Bronze
Seat Bronze
Disk Bronze
Hinge Bronze
Pin Bronze

BILLING

Lunkenheimer 2145, 125 lb bronze solder end swing check valve; bronze integral seat

Avail Size Range Lunkenheimer: 1/2"-2"

DIMENSIONS

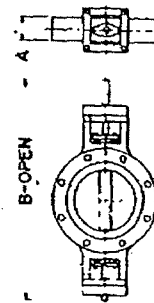
Valve Size	1/2	3/4	1	1-1/4	1-1/2	2
A	3-3/16	3-15/16	4-5/16	5	5-9/16	6-9/16
B	2	2	3	3	3	4

UCASB00242958

GENERAL

Type Valve	Gate (Butterfly)
Type Valve Ends	Wafer
Press-Temp Ratings	125 psi at 180°F
Construction	Wafer type with rubber seat

V-1170



MATERIAL

Body	Cast iron
Seat	Neoprene
Disk	Aluminum-Bronze
Stem	Steel
Packing	Garlock 150 or approved equal

BILLING

Keystone 4" to 12", Fig. 100; 14" to 20", Fig. 102; 24" to 30", 125 lb, 125 lb CI wafer butterfly valve, aluminum-bronze disk, steel stem, neoprene seat. Worm gear operated 10" to 30".

Allis Chalmers Fig. 125-125, 125 lb CI wafer butterfly valve, bronze disk, Type 316 stainless steel stem, neoprene seat. Worm gear operated 10" to 24".

Henry Pratt 4" to 10", Dwg 13-10-90222; 12" to 20", Dwg 13-10-90223, 125 lb CI wafer butterfly valve; bronze disk, Type 316 stainless steel stem, Hycar seat. Worm gear operated 10" to 20".

Rockwell 4" to 16", No. WH-125-04-L through -16-L; 18" to 36", No. WH-125-18-L through -36-L, 125 lb CI heavy-duty type wafer butterfly valve, bronze disk, steel stem, rubber seat. Worm gear operated 10" to 36".

Avail Size Range Keystone: 4" - 30"; Allis Chalmers: 4" - 24"; Henry Pratt: 4" - 20"; Rockwell: 4" - 36".

DIMENSIONS

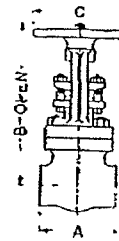
VALVE									
SIZE	8	10	12	14	16	18	20	24	30
A(max)	3	3-1/4	3-1/2	4	4-1/4	5	5-1/2	6	6-5/8
B(max)	27-1/8	32	33-1/8	36-3/4	42-3/4	44-1/4	48-1/4	60-3/8	57

UCASB00242959

GENERAL

Type Valve	Globe
Type Valve Ends	Socket ends
Press-Temp Ratings	600 psi at 910°F; 2000 psi at 100°F
Construction	OSandY; rising stem; rising wheel; bolted bonnet, MandF flanged; integral seat

V-1256



MATERIAL

Body-Bonnet	Carbon steel
Seat	11-1/2-13% Chrome steel
Disk	11-1/2-13% Chrome steel
Stem	11-1/2-13% Chrome steel
Packing	Maker's standard
Gasket	Maker's standard

BILLING

Hancock 5500 W, 600 lb FS(ASTM A105, G2) socket end globe valve; F-6 trim

Avail Size Range Hancock: 1/4"-2"

DIMENSIONS

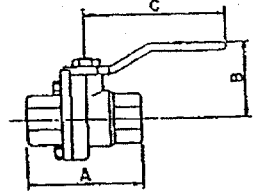
Valve Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A	3-5/16	3-5/16	3-9/16	4-3/8	5-1/4	7	7	9
B	6	6	7	8	9	12	12	13
C	3	3	4	4	5	6	7	9

UCASB00242960

GENERAL

Type Valve Ball
Type Valve Ends Screwed
Press-Temp Ratings V-1173: 125 psi at 250°F (300 psi at 100°F)
V-1173A: 125 psi at 353°F (400 psi at 100°F)
Construction Resilient replaceable seats and seals

V-1173, V-1173 A



MATERIAL

Body-Bonnet Bronze
Ball Bronze
Stem Bronze
Seats and seals V-1173: Buna "N"
V-1173A: Teflon

BILLING

Ball Valves (Smith) Fig. 125 (Fig. 400), 125 lb screwed bronze ball valve; bronze ball and stem; buna "N" (Teflon) seats and seals

Jamesbury Type D11BB (D11TT) 125 lb screwed bronze ball valve; bronze ball and stem; buna "N" (Teflon) seats and seals

R.PandC Fig. BL-300 (Fig. BL-300TF), 125 lb screwed bronze ball valve; bronze ball and stem; buna "N" (Teflon) seats and seals

Avail Size Range Ball Valves: 1/4"-2"; Jamesbury: 1/4"-8"; R.PandC: 1/4"-2"

DIMENSIONS

Valve								
Size	1/4	3/8	1/2	3/4	1	1-1/4	1-1/2	2
A(Ball Valve)	2-3/8	2-3/4	2-3/4	2-7/8	3-9/32	4-1/16	4-7/16	4-3/4
A(James)	2-3/4	2-3/4	2-3/4	3-1/8	3-3/4	4	4-1/4	4-3/4
A(R.PandC)	2-3/8	2-3/4	2-3/4	2-7/8	3-9/32	4-1/16	4-7/16	4-3/4
B(max)	3	3	3	3	3	3	4	5
C(max)	5	5	6	6	7	8	9	10

UCASB00242961

GENERAL

VAN-1

Type Valve Gate; solid wedge
Type Valve Ends Screwed
Press-Temp Rating 200 psi at 550°F; 400 psi at 100°F
Construction Screwed bonnet union; nonrising stem;
nonrising wheel; inside screw; inserted seats

MATERIAL

Body-Bonnet Bronze
Seat Bronze, 1/4" to 3/4"; nickel alloy 1" and larger
Disk Bronze, 1/4" to 3/4"; nickel alloy 1" and larger
Stem Bronze
Packing Manufacturer's standard

BILLING

Lunkheimer 768, 200 lb screwed gate valve; nickel alloy trim

DIMENSIONS

Size	1/4	3/8	1/2	3/4	1	1-1/2	2	3
A	2-1/16	2-3/16	2-7/16	2-3/4	3-5/16	3-15/16	4-9/16	5-5/8
B	5	5	5	6	7	9	10	13
C	3	3	3	3	4	5	6	7

UCASB00242962

GENERAL

VAN-2

Type Valve	Gate; solid wedge
Type Valve Ends	Flanged; ASA 250 lb, plain face
Press-Temp Ratings	250 psi at 450°F, 500 psi at 100°F
Construction	OS & Y; rising stem; nonrising wheel; bolted bonnet, flanged plain face; inserted seats

MATERIAL

Body-Bonnet	Cast Iron
Seat	Bronze
Disk	Bronze
Stem	Bronze
Packing	Manufacturer's standard
Gasket	Manufacturer's standard

BILLING

Lunkenheimer 1436, 250 lb CI flanged gate valve, bronze trim, FandD,
ASA 125 lb

DIMENSIONS

Size	1-1/2	2	2-1/2	3	4	6	8	10	12
A	7-1/2	8-1/2	9-1/2	11-1/8	12	15-7/8	16-1/2	18	19-3/4
B	13	16	18	20	24	33	40	48	56
C	7	8	9	9	12	16	18	20	22

UCASB00242963

GENERAL

VAN-3

Type Valve	Gate; solid wedge
Type Valve Ends	Solder End
Press-Temp Ratings	125 lb S.P., - 200 lb W.O.G.
Construction	Screwed bonnet union; rising stem; rising wheel; inside screw, integral seats

MATERIAL

Body-Bonnet	Bronze
Seat	Bronze
Disk	Bronze
Stem	Bronze
Packing	Manufacturer's standard
Gasket	None

BILLING

Lunkenheimer 2131, 125 lb bronze solder end gate valve

DIMENSIONS

Size	1/4	3/8	1/2	3/4	1	1-1/2	2	3
A	1-7/8	2	2-3/16	2-1/2	2-13/16	3-1/2	4-1/16	5-1/4
B	5	5	6	7	8	11	13	18
C	3	3	4	3	4	5	6	6

UCASB00242964

GENERAL

VAN-101

Type Valve	Globe
Type Valve Ends	Screwed
Press-Temp Ratings	200 psi at 550°F, 400 psi at 100°F
Construction	Screwed union bonnet; rising stem, rising wheel, inside screw integral seat

MATERIAL

Body-Bonnet	Bronze
Seat	Bronze
Disk	Bronze
Stem	Bronze
Packing	Manufacturer's standard
Gasket	None

BILLING

Lunkenheimer 407. 200 lb bronze, screwed globe valve

DIMENSIONS

Size	1/4	3/8	1/2	3/4	1	1-1/2	2	3
A	2-1/32	2-1/8	2-7/16	2-15/16	3-11/32	4-5/16	5-1/4	7-3/16
B	5	5	5	6	6	8	9	11
C	3	3	3	4	5	6	6	8

UCASB00242965

GENERAL

VAN-102

Type Valve	Globe
Type Valve Ends	Flanged, 250 lb ASA, raised face
Press-Temp Ratings	250 psi at 450°F, 500 psi at 100°F
Construction	OS & Y; rising stem; rising wheel, bolted bonnet, MandF flanged; inserted seats

MATERIAL

Body-Bonnet	Cast Iron
Seat	Bronze
Disk	Bronze
Stem	Bronze
Packing	Manufacturer's standard
Gasket	Corr. copper

BILLING

Lunkheimer 884, 250 lb CI flanged globe valve; bronze trim; packing and gasket as specified above under material; FandD, ASA 250 lb

DIMENSIONS

Size	2	2-1/2	3	4	6	8
A	10-1/2	11-1/2	12-1/2	14	17-1/2	21
B	14	15	17	20	24	30
C	8	9	10	14	18	22

UCASB00242966

GENERAL

VAN-103

Type Valve Globe
Type Valve Ends Screwed
Press-Temp Rating 800 psi at 850°F, 2000 psi at 100°F
Construction Screwed union bonnet; rising stem;
 rising wheel; inside screw, hard faced
 integral seat

MATERIAL

Body-Bonnet Forged steel
Seat Stellite
Disk 13% Chrome stainless steel
Stem Stainless steel
Packing Manufacturer's standard
Gasket Manufacturer's standard

BILLING

Vogt 851-858; 800 lb screwed, FS globe valve 13% chrome stainless steel trim

DIMENSIONS

Size	1/4	3/8	1/2	3/4	1	1-1/2	2
A	2-3/8	2-3/8	2-3/4	3-3/8	4	5-1/2	6-1/4
B	6	6	6	8	9	12	13
C	4	4	4	5	6	7	8

UCASB00242967

GENERAL

VAN-201

Type Valve	Swing check, horizontal and vertical upward
Type Valve Ends	Screwed
Press-Temp Ratings	200 psi at 500°F, 400 psi at 100°F
Construction	Screwed cap; integral seat

MATERIAL

Body-Bonnet	Bronze
Seat	Bronze
Disk	Bronze
Hinge	Bronze
Pin	Bronze
Gasket	Manufacturer's standard

BILLING

Lunkenheimer 554, 200 lb all bronze, screwed swing check valve

DIMENSIONS

Size	1/4	3/8	1/2	3/4	1	1-1/2	2	3
A	2-5/16	2-7/16	2-9/16	3	3-17/32	4-3/8	5-3/8	7-1/16
B	2	2	2	2	3	3	4	5

UCASB00242968

GENERAL

VAN-104

Type Valve	Globe
Type Valve Ends	Solder Ends
Press-Temp Ratings	150 lbs S.P., - 300 lbs W.O.G.
Construction	Screwed bonnet union; rising stem; rising wheel; inside screw; integral seat

MATERIAL

Body-Bonnet	Bronze
Seat	Bronze
Disk	Non-metallic
Stem	Bronze
Packing	Manufacturer's standard
Gasket	None

BILLING

Lunkenheimer 126; 150 lb bronze, solder end globe valve

DIMENSIONS

Size	1/2	3/4	1	1-1/2	2
A	3-1/2	4-1/4	4-15/16	6-1/8	7-3/8
B	6	7	7	9	10
C	3	4	5	6	6

UCASB00242969

GENERAL

VAN-204

Type Valve	Swing check, horizontal and vertical upward
Type Valve Ends	Solder Ends
Press-Temp Ratings	125 lbs S.P. - 200 lbs W.O.G.
Construction	Screwed Cap; integral seat

MATERIAL

Body-Bonnet	Bronze
Seat	Bronze
Disk	Bronze
Hinge	Bronze
Pin	Bronze
Gasket	Manufacturer's standard

BILLING

Lunkenheimer 2145, 125 lb swing check valve, solder ends

DIMENSIONS

Size	1/2	3/4	1	1-1/2	2
A	3-3/16	3-15/16	4-5/16	5-1/2	6-9/16
B	2	2	3	3	4

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GENERAL

VAN-203

Type Valve	Swing check; horizontal and vertical upward
Type Valve Ends	Flanged, ASA, 250 lb raised face
Press-Temp Ratings	250 psi at 450°F, 500 psi at 100°F
Construction	Bolted cap, MandF flanged, inserted seat

MATERIAL

Body-Bonnet	Cast Iron
Seat	Bronze
Disk	Bronze
Hinge	Malleable iron
Pin	Bronze
Gasket	Manufacturer's standard

BILLING

Crane 39E, 250 lb CI swing check valve, bronze trim. FandD, ASA 250 lb

DIMENSIONS

Size	2	2-1/2	3	4	6	8	10	12
A	10-1/2	11-1/2	12-1/2	14	17-1/2	21	24-1/2	28
B	6	6	7	8	9	11	13	15

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None

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