Designed to provide maximum service life with minimum maintenance.

Fastest In-Line Repair – Repairable in-line more easily and at less cost than any other valve. Stem, disc, and packing can be quickly removed through the yoke, and the seat fully exposed for “like new” restoration.

High Dependability – One-piece forged body without pressure welds, seal welds, pressure-containing threads or gaskets, body/bonnet joints, or any of their related problems.

Greater Durability – Solid Stellite disc and seat ring all but eliminates cracking. Extra thickness of the seat ring also provides enough material to renew the seating surface over and over again.

High Flow Capacity – Generous port sizes and disc retraction well beyond that required for optimum flow. These features help to minimize flow velocities and, therefore, decrease the erosive forces which shorten the life of the seat and disc.

Available Off-The-Shelf – An in-depth stocking program makes Welbond® valves available to you directly off-the-shelf (socketweld ends standard to 2½").

Convertible Feature – The complete pre-machining of each Valve body means one of the backseat designs can be converted to the other, simply by reassembly with alternate backseat bushing.

tyco Flow Control

Specifications

Accessible Internals
stem, disc and packing assembly easily removed through the yoke. Repair and repack in minutes in line.

Stainless Steel Stem
has rugged acme threads.

Handwheels
with impactors available for 1½" and larger valves.

One-Piece Body Forging
Includes stuffing box; eliminates body welds and pressure-containing threads.

Captive Gland Bolts
allow quick release of packing gland without removal of gland nuts. "Ears" on gland prevent slipping. Optional API gland available

Packing
flexible graphite.

Removable Backseat
loose or thread in.

Retractable Disc
permits stem assembly to be fully withdrawn from flow area offers higher C_V characteristics, smoother flow pattern.

One-Piece Stellite Disc
for extra wear resistance. Body-guided over entire stroke.

Disc Design
reduces sealing thrust.

Double Orifice
dissipates erosive forces during throttling. Full-ported design for maximum C_V.

One-Piece Stellite Seat Insert
to eliminate thermal cracking. Reserve of material permits repeated refinishing for longer service life.

Welbond® High Pressure Globe Valve

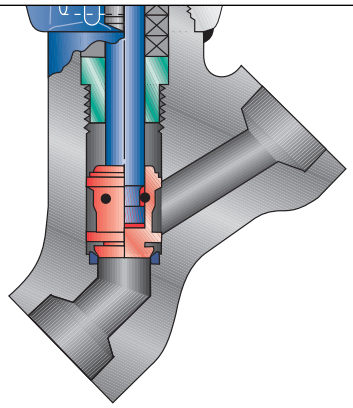
The Yarway Welbond® Valve has become an established stop valve for general line service in modern high pressure power plants.

The latest design of the valve combines the proven features of its predecessor with advantages made possible by advancements in metallurgy and fluid flow research. No other valve on the market offers this outstanding combination of features.

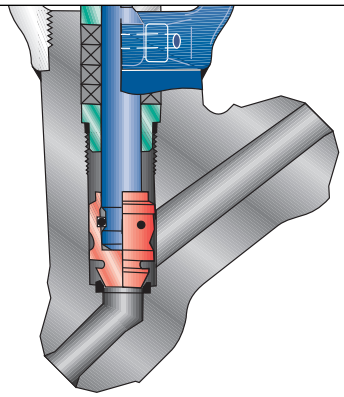
It offers industry a value-engineered product with minimum maintenance and maximum service life resulting from its unique in-line repairability feature. The one-piece body eliminates all pressure welds, threads, and their related problems.

The extra thickness of the Stellite seat ring eliminates seat cracking and provides for repeated renewal of the seating surface with Yarway's reseating tool.

The disc is a Stellite investment casting. The design provides a secondary orifice during opening and closing so that erosive forces are dissipated through the disc-body orifice rather than the disc-seat orifice, which must be protected for drop-tight sealing. The body design allows the disc-stem assembly to retract completely into the body, thus assuring smooth flow and a high C_V characteristic. The design of the disc reduces sealing torque for easy operation both manually and with a powered actuator.



Loose Backseat
Class 1700 117 bar – Fig. #5617
Class 2700 186 bar – Fig. #5627
Class 4500 310 bar – Fig. #5645



Threaded Backseat
Class 1700 117 bar – Fig. #5617B
Class 2700 186 bar – Fig. #5627B
Class 4500 310 bar – Fig. #5645B

Loose Backseat

This design offers the greatest accessibility, thus is the easiest to maintain, especially when complete removal of the stem packing is desired.

Because the stuffing box bushing is not fastened to the body, the entire stem, disc, and packing assembly can be jacked out of the body by simply turning the handwheel counter-clockwise after releasing the gland. No special tools or picks are required to extract the packing.

In operation, full opening of the valve exerts an upward force on the stuffing box bushing, thus compressing the stem packing from below – a maintenance feature frequently used to prevent stem leakage until shutdown can be scheduled.

Loose backseat models are available in sizes shown on page 4 for Classes 1700, 2700 and 4500. Corresponding figure numbers are indicated. The appropriate figures should be specified when ordering.

Threaded-In Backseat

This design offers accessibility after removal of the threaded stuffing box bushing by means of a special Backseat Removal Tool. It requires no seal weld removal for maintenance.

A special packing removal tool, available from Yarway, can be used to remove old packing, quickly, from fixed backseat valves.

Threaded-in backseat models are available in all sizes shown on pages 8 and 9 for Classes 1700, 2700 and 4500. Corresponding figure numbers are indicated. When ordering the threaded-in backseat design, use suffix "B."

Quick Renewability In-Line

Without cutting the valve body out of the line, the stem/disc/packing assembly can be jacked out in minutes for inspection or replacement of the packing rings. With body still in place, the Yarway reseating tool can be mounted through the yoke, for the establishment of wholly new seating surfaces. Normally, the reconditioned and reassembled valve can be back in service in less than an hour without cleaning, welding, radiography, and other operations associated with the maintenance of conventional valves.

The reseating tool comprises a shaft with a removable tungsten carbide cutting head on one end and a handwheel on the other end. These components plus a key for removing the head are supplied as a kit by Yarway. Complete lists of tools for all valves can be found on these pages.

After removing the weld that secures the yoke bushing, the bushing is unscrewed and the stem is backed out. Then the tool is inserted into the valve body and slowly fed into contact with the seat by means of a threaded feed screw that engages the yoke threads.

With the cutting head against the valve seat a locknut is tightened to prevent too deep a bite into the stellite seat material. When the wheel turns freely the locknut is readjusted to permit a new cut. After five or six turns, an entirely new seat has been machined. The tool cuts both inclined portion and throat of seat to give a completely new line-contact seal.

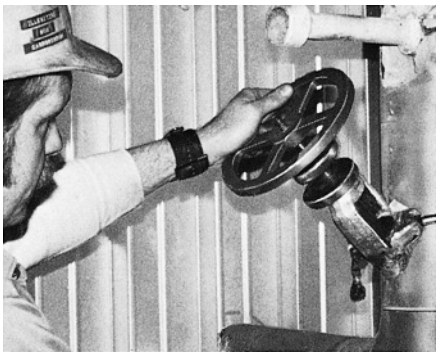
Welding of Welbond® Valves

Since welding procedure is dependent upon various codes established by users, contractors and government rules, qualification to the specific code involved should be followed during valve installation.

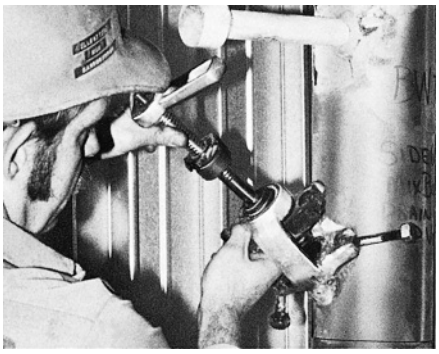
The valve should be full closed during welding.

Installation welds made in accordance with ASME Section I and ANSI B31.1 are exempt from post weld heat treatment as long as the preheat and exemptions of these codes are followed.

Reseating tool is lowered into valve body after removal of yoke bushing and valve stem.



After tool locknut has been tightened against yoke face, to prevent too deep a bite into seat material, seat can be reconditioned by means of a series of five or six slow cuts.



New stem/disc assembly is lowered into valve body after completion of reseating cuts.

Packing and Backseat Removal Tool Selector

Valve Size	Valve Fig. No.	Pressure Class, ANSI	Indent. Tool No.
1/2"	5617B	1700	60
	5627B	2700	61
	5645B	4500	66
	5645BR	4500	68
	56145B	4500	46
	W5617B	1700	66
	W5627B	2700	66
3/4"	5617B	1700	60
	5627B	2700	61
	5645B	4500	66
	5645BR	4500	68
	56145B	4500	46
	W5617B	1700	66
	W5627B	2700	66
1"	5617B	1700	40
	5627B	2700	40
	5645B	4500	66
	5645BR	4500	68
	56145B	4500	46
	W5617B	1700	66
	W5627B	2700	66
1 1/2"	5617B	1700	62
	5627B	2700	63
	5645B	4500	67
	56145B	4500	47
	W5617B	1700	62
	W5627B	2700	63
2"	5617B	1700	42
	5627B	2700	64
	5645B	4500	67
	56145B	4500	47
	W5617B	1700	42
	W5627B	2700	64
2 1/2"	5617B	1700	65
	5627B	2700	65
	W5627B	2700	65
3"	W5617B	1700	65
	W5627B	2700	65

W = Buttweld ends

Reseating Tool Selector

Valve Fig. No.	Valve Size	Tool No.	Cutter No.
5617	1/2", 3/4"	50	26
	1"	20	20
	1 1/2"	52	23
	2"	22	29
	2 1/2", 3"	54	28
5627	1/2", 3/4"	51	26
	1"	20	20
	1 1/2"	53	27
	2"	54	29
	2 1/2", 3"	54	28
5645	1/2", 3/4"	55	26
	1"	55	20
	1 1/2", 2"	56	21
5645R	1/2", 3/4", 1"	55	20
56145	1/2", 3/4", 1"	25	20
	1 1/2", 2"	23	23

Power Actuation

Welbond® valves can be fitted with electric motor actuators for remote or local automatic push button control. With this addition, valves installed in elevated piping runs, or where an emergency will require rapid, positive, and remote operation, can be quickly controlled.

Motor actuated valves are available in the same sizes, materials and pressure classes as manually operated valves. They use standard repair parts which are interchangeable with manually operated valves of the same size and pressure class.

Motor actuators include position switches, torque switches, and auxiliary switches for audible or visual signals at the panel board. Dial indication of stem travel is also available.

Valve actuators are designed to provide constant seating thrust. This helps ensure drop-tight closure and automatic compensation for valve wear. A handwheel is provided for emergency operation in the event of power failure.

Pneumatic actuators, in both fail-open and fail-closed models, are also available for remote operation of Welbond valves. Manual handwheels, limit switches, solenoid valves and air filter regulators can be provided.

Throttling Services

Hy-Drop Throttling Valve controls the destructive forces inherent in high pressure drop service so that deterioration of parts is virtually eliminated. Rapid energy dissipation is essential to the throttling process, and the Hy-Drop Valve encourages this while containing the destructive capability.

Hy-Drop Throttling valve is designed for continuous blowdown, sampling, high pressure vents, boiler feed pump bypass relief, in fact any high pressure drop service.

Locking Devices

Welbond® valves for shut-off service on water columns, gages, and remote level indicators are made in 1" and 1 1/2" sizes with a locking device.

Class 1700 – specify Fig. 5617
Class 2700 – specify Fig. 5627

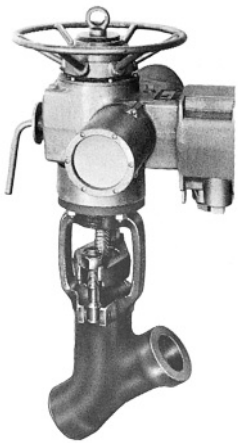
Be sure to specify if a lock-closed or lock-open attachment is required. Welbond® valves for other services are available with lock-open or lock-closed attachment in all sizes shown on page 10 for Classes 1700, 2700 and 4500. In ordering, specify which locking device is required.

Nuclear Construction

Welbond® valves of the threaded-in backseat design, through 2" size, meet all requirements for both “N” and “NPT” approvals for nuclear construction. Seismic analyses and seismic qualification test data are available through 2" sizes.

Chemical Processes

Carbon steel Welbond® meets the standards of the Refining Department of the API for use in drilling, refining, chemical and petrochemical applications. The valves perform in H_2N_2 and liquid NH_3 services in various refineries.



Electrically Actuated Welbond® Valve

Hy-Drop Valve

Pressure/Temperature Ratings

Forged Steel and Stainless Steel Welbond® Valves, Buttweld Ends (3" Size Only)

	Maximum Allowable Working Pressure, psig			
	Class 1700		Class 2700	
Service Temp., °F	ASME 182 Grade F22	ASME SA105[1]	ASME 182 Grade F22	ASME SA105[1]
100	4250	4195	6750	6660
150	4250	4010	6750	6365
200	4250	3825	6750	6075
250	4185	3770	6650	5990
300	4125	3715	6555	5905
350	4060	3655	6450	5805
400	4000	3590	6350	5700
450	3880	3490	6165	5545
500	3765	3390	5980	5385
550	3595	3245	5710	5155
600	3425	3100	5440	4925
650	3330	3040	5295	4830
700	3215	3020	5105	4795
750	3010	2855	4780	4535
800	2875	2330	4565	3700
850	2760	1515	4385	2405
900	2545	970	4045	1540
950	2135	580	3395	925
1000	1260	290	2340	460
1050	990	–	1570	–
1100	620	–	980	–

Notes:

1. Not recommended for prolonged use above 800°F.
2. Valves are rated in accordance with American National Standard ANSI B16.34 (1996).
3. Not available in F91, Stainless Steel or API version

Pressure/Temperature Ratings

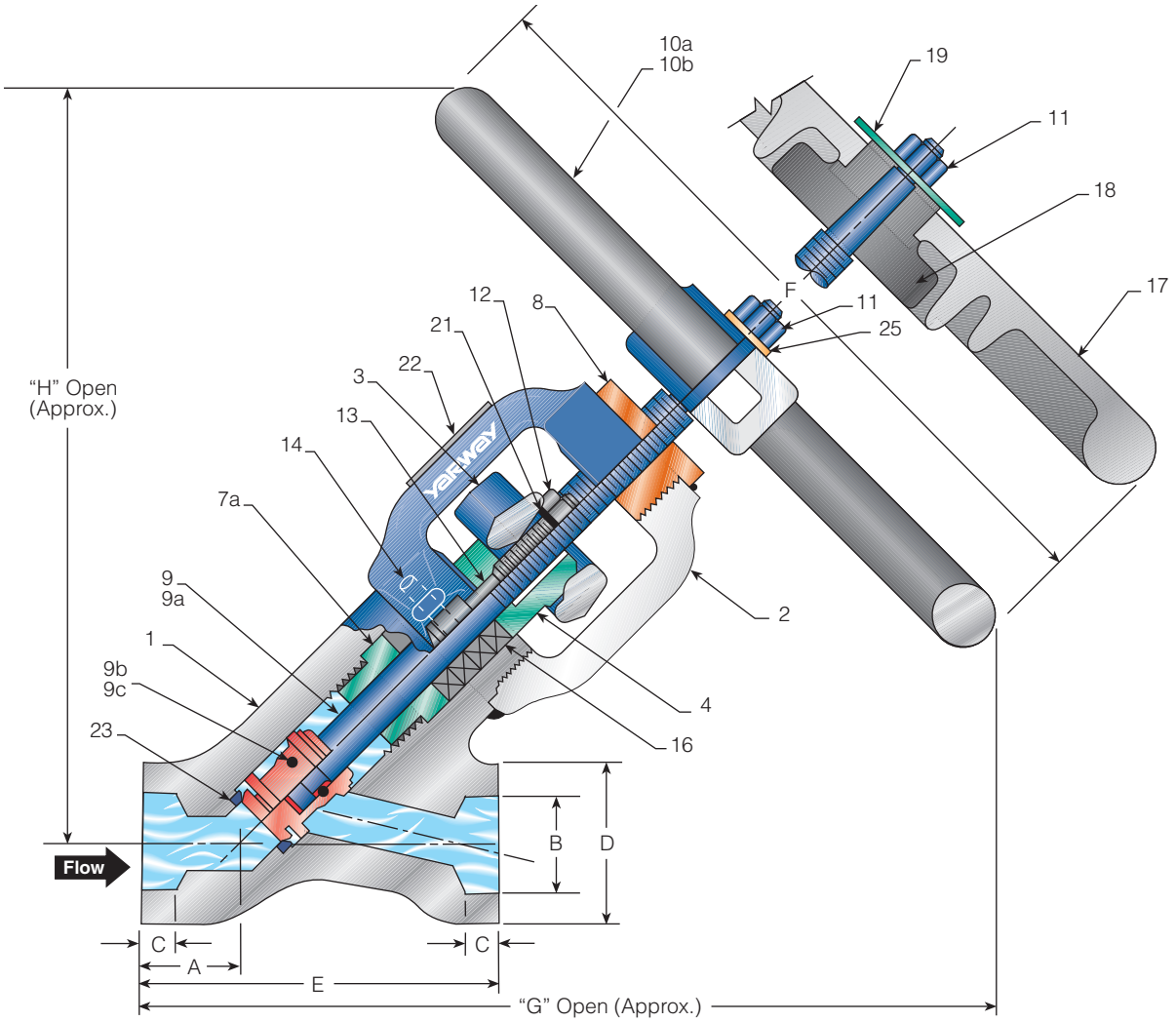
Forged Steel and Stainless Steel Welbond® Valves, Socketweld and Buttweld Ends (2½" and Smaller)

	Maximum Allowable Working Pressure, psig						
	Class 1700			Class 2700			Class 4500
Service Temp., °F	ASME 182 Grade F22	ASME 182 Grade F91	ASME SA105[1]	ASME 182 Grade F22	ASME 182 Grade F91	ASME SA105[1]	ASME SA182 Grade F22
100	4250	4250	4250	6750	6750	6750	11250
150	4250	4250	4250	6750	6750	6750	11250
200	4250	4250	4250	6750	6750	6750	11250
250	4225	4250	4250	6710	6750	6750	11185
300	4200	4250	4250	6670	6750	6750	11120
350	4150	4250	4250	6595	6750	6750	10990
400	4100	4250	4250	6515	6750	6750	10865
450	4090	4250	4250	6495	6750	6750	10830
500	4080	4250	4250	6480	6750	6750	10800
550	4080	4250	4145	6480	6750	6580	10800
600	4080	4250	4040	6480	6750	6415	10800
650	4055	4250	3960	6440	6750	6290	10735
700	4030	4150	3930	6400	6595	6240	10670
750	3910	4130	3570	6210	6555	5670	10350
800	3810	4080	2910	6050	6480	4625	10095
850	3640	3835	1890	5780	6095	3005	9645
900	3400	3400	1210	5400	5400	1925	9000
950	2735	2740	745	4410	4410	1200	7555
1000	1990	2570	390	3315	4280	650	6050
1050	1335	2570	–	2220	4280	–	4060
1100	835	2305	–	1395	3840	–	2545

Notes:

1. Not recommended for prolonged use above 800°F.
2. Valves are rated in accordance with American National Standard ANSI B16.34 (1996) Limited Class.
3. 2½" not available in F91 material.

Model 5600 Welbond® Globe Valve – Socketweld Ends



F-22 Parts and Materials*

Item	Qty.	Part	Material
1	1	Body	ASME SA 182 Gr. F22
2	1	Yoke	ASME SA 182 Gr. F22
3	1	Gland	AISI 4140
4	1	Split Gland Bushing	AISI C-1215
7	1	Back Seat Bushing (Threaded-in Back Seat Design)	ASME SA 182 Gr. F6A CL. 2
7a	1	Stuffing Box Bushing (Loose Back Seat Design)	AISI 410
8	1	Yoke Bushing	ASTM B371 Alloy No. 694
9	1	Stem-Disc Assembly consisting of:	
	1	(9a) Stem	ASTM A582 Type 416
	1	(9b) Disc	AMS 5385 (Stellite 21)
	1	(9c) Disc Pin	AMS 5796 (Stellite 25)

Item	Qty.	Part	Material
10a	1	Handwheel[1]	ASTM A47 Gr. 32510
10b	1	"T" Handle[2]	ASTM A47 Gr. 32510
11	1	Locknut	Carbon Steel
12	2	Hex Nut	ASME SA 194 Gr. 2H
13	2	Swing Bolt	ASME SA 193 Gr. B7
14	2	Pin	AISI 6150 OR 8740
15	1	Gasket (Threaded-in Back Seat Design)	ASME SB 127
16[7]	1 set	Packing	Flexible Graphite
17	1	Impact Handwheel[3]	ASTM A47 Gr. 32510
18	1	T-Bar[4]	4140 Annealed
19	1	Washer[4]	Carbon Steel
20	1	Packing Support Ring (Threaded-in Back Seat Design)	AISI 430
21	1	Washer	Carbon Steel
22	1	Nameplate	AISI 302
23	1	Seat[6]	AMS 5387 (Stellite 6)
25	1	Washer	Carbon Steel

*Materials of Construction

The following items are material changes for carbon steel, stainless steel, and alloy steel. All other items on pages 8 - 9 remain the same.

Items 1 and 2 (Body and Yoke):
Carbon Steel ASME A105 Body with ASME SA182 Gr. F22 Yoke

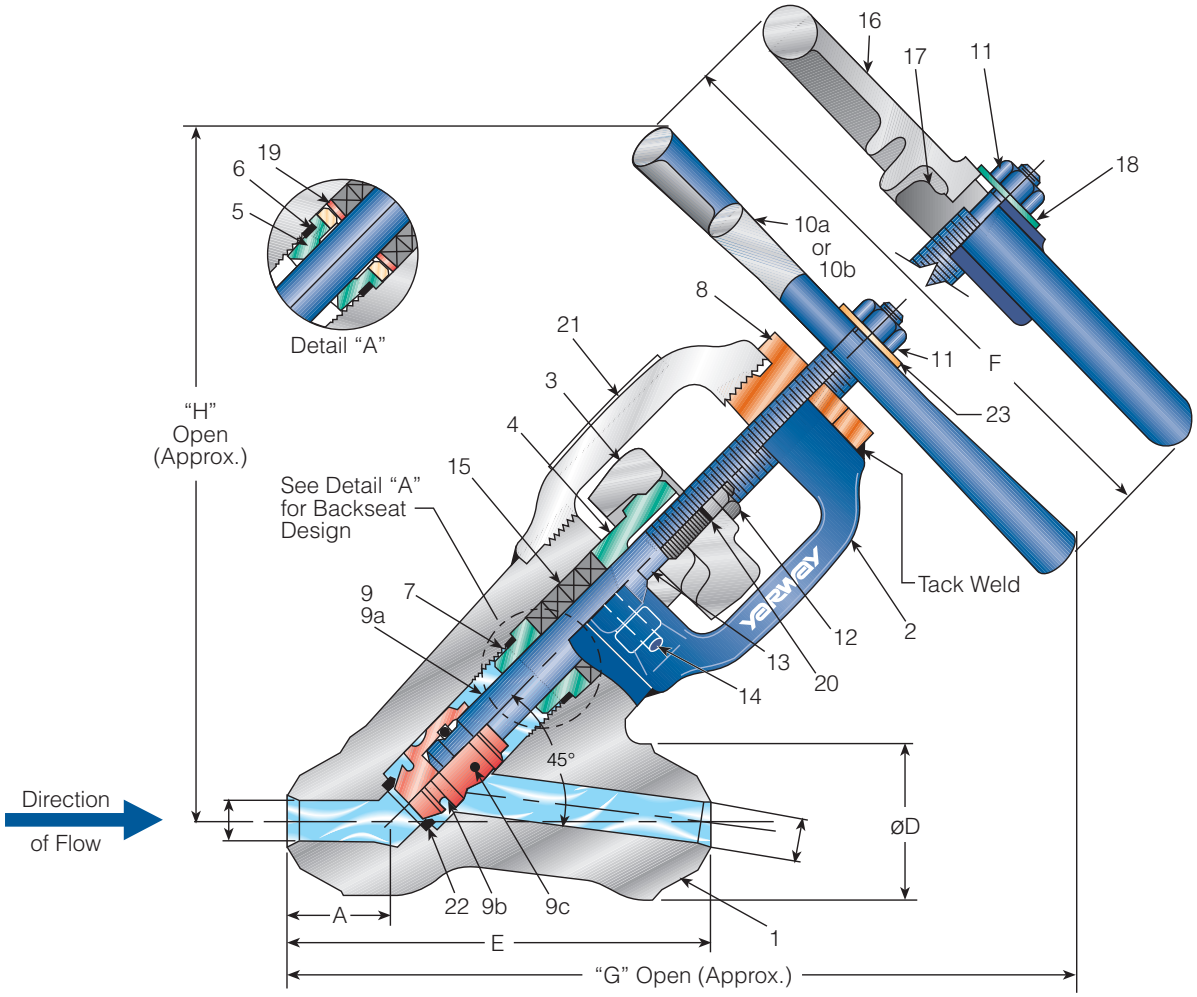
Stainless Steel ASME SA182 Gr. 316 Body with ASME SA182 Gr. F22 Yoke

Alloy Steel ASME SA182 Gr. F91 Body with ASME SA182 Gr. F22 Yoke

Item 9a (Stem Disc Assembly):
Alloy Steel ASME SA182 Gr. F91
• Stem ASTM A565 Type 422

Item 13 (Swing Bolt):
Alloy Steel ASME SA Gr. F91
• Swing Bolt ASME SA193 B16

Model 5600 Welbond® Globe Valve – Buttweld Ends



F-22 Parts and Materials*

Item	Qty.	Part	Material
1	1	Body	ASME SA 182 Gr. F22
2	1	Yoke	ASME SA 182 Gr. F22
3	1	Gland	AISI 4140
4	1	Split Gland Bushing	AISI C-1215
5[7]	1	Back Seat Bushing	ASME SA 182 Gr. F6A CL.2
6[7]	1	Gasket	ASME SB 127
7	1	Stuffing Box Bushing	AISI 410
8	1	Yoke Bushing	ASTM B371 Alloy No. 694
9[7]	1	Stem Disc Assembly consisting of:	
	1	(9a) Stem	ASTM A582 Type 416
	1	(9b) Disc	AMS 5385 (Stellite 21)
	1	(9c) Disc Pin	AMS 5796/5759 (Stellite 25)

Item	Qty.	Part	Material
10a	1	Handwheel[1]	ASTM A47 Gr. 32510
10b	1	"T" Handle[2]	ASTM A47 Gr. 32510
11	1	Locknut	Carbon Steel
12	2	Hex Nut	ASME SA 194 Gr. 2H
13	2	Swing Bolt	ASME SA 193 Gr. B7
14	2	Pin	AISI 6150 OR 8740
15[7]	1 set	Packing	Flexible Graphite
16	1	Impact Handwheel[3]	ASTM A47 Gr. 32510
17	1	T-Bar[4]	AISI 4140
18	1	Washer[4]	Carbon Steel
19	1	Packing Support Ring	AISI 430
20	2	Washer	Carbon Steel
21	1	Nameplate	AISI 302
22	1	Seat[6]	AMS 5387 (Stellite 6)
23	1	Washer[8]	Carbon Steel

Notes (pages 8 - 9):

1. Handwheel furnished on 1 1/2" and 2".
2. "T" Handle furnished on 1/2", 3/4" and 1" sizes.
3. Impact Handwheel furnished on 2 1/2" size; optional on 1 1/2" and 2" sizes.
4. For use with Impact Handwheel (Item 17, pg. 8) only
   For use with Impact Handwheel (Item 16, pg. 9) only.
5. Valves are suitable for acid washing.
6. Seat is vacuum brazed to body – not replaceable.
7. Recommended spare parts.
8. Used on valve sizes 1/2" and 2" only.

Dimensions, Weights, and C_V Values

Class 1700 (1700 psi at 1022°F) – Fig. No. 5617 and 5617B

Valve Size in. [DN]	Dimensions, in. [mm] A	B	C	D	D[1]	E	E[1]	F	G	H	Max. Stem Rise, in. [mm]	C_V Value [K_V]	Approx. Weight lb. (kg)
1/2 [15]	1 5/16 [33.5]	.855 [21.7]	3/8 [9.5]	1 13/16 [46]	– –	4 3/8 [111]	– –	8 [203]	10 15/16 [278]	9 5/8 [244.5]	5/8 [16]	6 [5]	10 (4.5)
3/4 [20]	1 5/16 [33.5]	1.065 [27]	1/2 [12.5]	1 13/16 [46]	– –	4 3/8 [111]	– –	8 [203]	10 15/16 [278]	9 5/8 [244.5]	5/8 [16]	6 [5]	10 (4.5)
1 [25]	1 13/32 [35.5]	1.330 [33.8]	1/2 [12.5]	2 3/8 [60.3]	2 5/16 [58]	5 [127]	5 3/4 [146]	8 [203]	11 1/8 [282.5]	10 [254]	3/4 [19]	10 [9]	15 (6.8)
1 1/2 [40]	1 23/32 [43.5]	1.915 [48.6]	1/2 [12.5]	3 [76.2]	2 7/8 [73]	6 1/4 [158.5]	6 1/4 [158.8]	12 [305]	17 3/16 [436.5]	16 5/16 [414.5]	1 3/8 [35]	38 [33]	36 (16.3)
2 [50]	2 [51]	2.406 [61.1]	5/8 [16]	3 5/8 [92.1]	3 13/32 [86.5]	7 1/4 [184]	8 [203.2]	12 [305]	17 7/16 [443]	16 1/16 [408]	1 1/2 [38]	60 [52]	50 (22.7)
2 1/2 [65]	2 3/8 [60.5]	2.906 [73.8]	5/8 [16]	4 13/16 [122.2]	– –	9 5/8 [244.5]	– –	14 [355.5]	21 1/2 [546]	20 7/16 [519]	2 [51]	80 [69]	105 (47.6)
3 [75]	2 3/8 [60.5]	—— Buttweld End Only ——			– –	9 5/8 [244.5]	– –	14 [355.5]	21 1/2 [546]	20 7/16 [519]	2 [51]	70 [61]	105 (47.6)

Class 2700 (2700 psi at 1028°F) – Fig. No. 5627 and 5627B

Valve Size in. [DN]	Dimensions, in. [mm] A	B	C	D	D[1]	E	E[1]	F	G	H	Max. Stem Rise, in. [mm]	C_V Value [K_V]	Approx. Weight lb. (kg)
1/2 [15]	1 13/32 [33.5]	.855 [21.7]	3/8 [9.5]	2 3/8 [60.3]	1 3/4 [44.5	5 [127]	5 3/4 [146]	8 [203]	10 15/16 [278]	9 9/16 [243]	5/8 [16]	6 [5]	15 (6.8)
3/4 [20]	1 13/32 [33.5]	1.065 [27]	1/2 [12.5]	2 3/8 [60.3]	2 1/32 [51.2]	5 [127]	5 3/4 [146]	8 [203]	10 15/16 [278]	9 9/16 [243]	5/8 [16]	6 [5]	15 (6.8)
1 [25]	1 13/32 [35.5]	1.330 [33.8]	1/2 [12.5]	2 3/8 [60.3]	2 5/16 [58]	5 [127]	5 3/4 [146]	8 [203]	11 1/8 [282.5]	9 13/16 [249]	3/4 [19]	12 [10]	15 (6.8)
1 1/2 [40]	2 [51]	1.915 [48.6]	1/2 [12.5]	3 5/8 [92.1]	3 5/8 [92.1]	7 1/4 [184]	8 [203.2]	12 [305]	17 1/8 [435]	15 1/4 [387.5]	1 5/16 [33.5]	34 [29]	52 (23.6)
2 [50]	2 3/8 [60.5]	2.406 [61.1]	5/8 [16]	4 13/16 [122.2]	– –	9 5/8 [244.5]	– –	14 [355.5]	21 3/8 [543]	19 1/16 [484]	1 3/4 [44.5]	65 [56]	98 (44.4)
2 1/2 [65]	2 3/8 [60.5]	2.906 [73.8]	5/8 [16]	4 13/16 [122.2]	– –	9 5/8 [244.5]	– –	14 [355.5]	21 1/2 [546]	19 1/8 [486]	2 [51]	90 [78]	105 (47.6)
3 [75]	2 3/8 [60.5]	—— Buttweld End Only ——			– –	9 5/8 [244.5]	– –	14 [355.5]	21 1/2 [546]	19 1/8 [486]	2 [51]	75 [65]	105 (47.6)

Class 4500 (4500 psi at 1039°F) – Fig. No. 5645 and 5645B

Valve Size in. [DN]	Dimensions, in. [mm] A	B	C	D	E	F	G	H	Max. Stem Rise, in. [mm]	C_V Value [K_V]	Approx. Weight lb. (kg)
1/2 [15]	2 [51]	.855 [21.7]	3/8 [9.5]	3 5/8 [92.1]	7 1/4 [184]	8 [203]	14 5/8 [371.5]	12 11/16 [322.5]	15/16 [24]	2 [1.7]	43 (19.5)
3/4 [20]	2 [51]	1.065 [27]	1/2 [12.5]	3 5/8 [92.1]	7 1/4 [184]	8 [203]	14 5/8 [371.5]	12 11/16 [322.5]	15/16 [24]	5 [4]	43 (19.5)
1 [25]	2 [51]	1.330 [33.8]	1/2 [12.5]	3 5/8 [92.1]	7 1/4 [184]	8 [203]	14 5/8 [371.5]	12 11/16 [322.5]	15/16 [24]	6 [5]	43 (19.5)
1 1/2 [40]	2 3/8 [60.5]	1.915 [48.6]	1/2 [12.5]	4 13/16 [122.2]	9 5/8 [244.5]	12 [305]	19 3/4 [501.5]	17 3/8 [441.5]	1 1/4 [31.5]	18 [16]	105 (47.6)
2 [50]	2 3/8 [60-5]	——— Buttweld End Only ———			9 5/8 [244.5]	12 [305]	19 3/4 [501.5]	17 3/8 [441.5]	1 1/4 [31.5]	17 [15]	105 (47.6)

Note:

1. Dimensional changes with preheat and postweld heat treat requirements. Changes made to valves purchased after January 1, 2005.

How to Select

As shown in temperature-pressure rating tables, pages 6 and 7, Yarway Welbond® Valves cover a wide range of services including pressures up to 11,250 psi and temperatures as high as 1100°F. When maximum temperature requirements are known, the proper valve (Classes 1700, 2700, 4500) can be determined from the pressure rating tables on pages 6 and 7.

For example: Class 4500 forged chrome-moly F22 steel Welbond® Valve, designed for temperatures to 1100°F in standard steam service, may be operated at pressures up to 9645 if temperature does not exceed 850°F. In other services, maximum pressure may be as high as 11,250 at temperatures not exceeding 200°F. Check tables on pages 6 and 7 for other corresponding limits of Classes 1700, 2700 and 4500 forged Welbonds.

Applications

The Series 5600 Welbond® has opened up a new dimension in stop valve maintenance and reliability in these typical applications: Waterwall Drains, Superheater Drains, Reheater Inlet Drains, Economiser Drains, Constant Head Chamber Shut-Off, Water Column and Gage Drains and Shut-Off, Drum Vents, Reheat Spray Isolation and Water and Steam Sampling.

Installation Requirements

Yarway Welbond® Valves conform to all requirements of the ASME Boiler Code. Installation in any position gives proper drainage. The materials listed on pages 8 and 9 make these valves fully suitable for acid wash operations. Adjacent piping should be adequately supported in a manner to keep thrust and moment force at a minimum as covered by ANSI B31.1 Power Piping, Chapter II, Design.

How to Specify

Select figure number whenever possible. If not permitted to use name and figure number, describe as follows: valve shall be of seat and disc type straightway pattern with forged (specify material grade) steel body having integral stellite #6 seat.

Body to be one-piece design with no pressure boundary welds or threads and to have socketweld or buttweld ends. Disc to be of self-aligning design. Working parts to be removable through top of yoke.

How to Order

May be ordered simply by giving your sales representative the following details:

- Size
- Figure number and material (ASME SA182 F22 furnished unless otherwise specified)
- Basic Pressure Rating or Class
- Service (see list of applications)
- Maximum operating pressure and temperature