

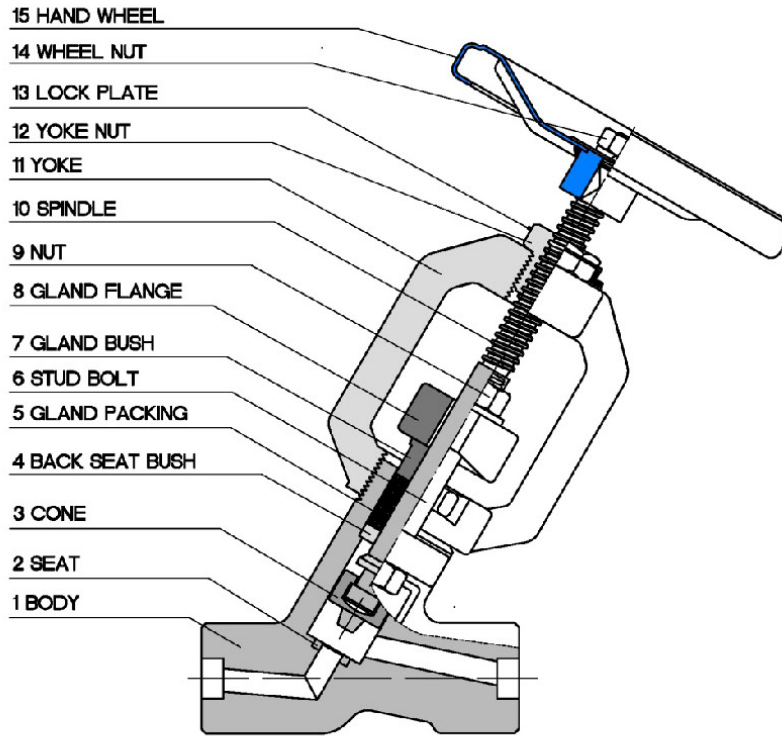
SAFELOK

BONNETLESS Y PATTERN STOP VALVES



- Severe Service
- One piece forged body
- Y pattern forged body
- Stellite 6 cone
- Integral Stellite 12 seat
- Combination gland ring packing
- ASME Class 4500LB
- Sizes: 10 to 50 mm

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ITEM	DESCRIPTION	QTY	F316H	A 105	F11	F22	F91	F92	WB36
1	BODY	1	ASTM A182 F316H	ASTM A105	ASTMA182 F11	ASTMA182 F22	ASTMA182 F91	ASTMA182 F92	WB36
2	SEAT	1	STELLITED GR 12	STELLITED GR 12	STELLITED GR 12	STELLITED GR 12	STELLITED GR 12	STELLITED GR 12	STELLITED GR 12
3	CONE	1	316HSS (STELLITED GR6)	316 SS (STELLITED GR6)	316 SS (STELLITED GR6)	316 SS (STELLITED GR6)	316 SS (STELLITED GR6)	316 SS (STELLITED GR6)	316 SS (STELLITED GR6)
4	BACK SEAT BUSH	1	316H SS	304 SS	304 SS	304 SS	304 SS	304SS	304SS
5	GLAND PACKING	1	GRAPHOIL	GRAPHOIL	GRAPHOIL	GRAPHOIL	GRAPHOIL	GRAPHOIL	GRAPHOIL
6	STUD BOLT	2	A193 B16	A193 B16	A193 B16	A193 B16	A193 B16	A193 B16	A193 B16
7	GLAND BUSH	1	316H SS	304 SS	304 SS	304 SS	304 SS	304SS	304SS
8	GLAND FLANGE	1	316H SS	304 SS	304 SS	304 SS	304 SS	304SS	304SS
9	NUT	1	A194 GR.4	A194 GR.4	A194 GR.4	A194 GR.4	A194 GR.4	A194 GR.4	A194 GR.4
10	SPINDLE	1	316H SS	316H SS	316H SS	316H SS	316H SS	316H SS	316H SS
11	YOKE	1	ASTMA182 F316H	ASTMA105	ASTMA182 F11	ASTMA182 F22	ASTMA182 F91	ASTMA182 F92	WB36
12	YOKE NUT	1	EN1A	EN1A	EN1A	EN1A	EN1A	EN1A	EN1A
13	LOCK PLATE	1	S.S.	S.S.	S.S.	S.S.	S.S.	S.S.	S.S.
14	WHEEL NUT	1	S.S.	S.S.	S.S.	S.S.	S.S.	S.S.	S.S.
15	HAND WHEEL	1	C.S. PAINTED	C.S. PAINTED	C.S. PAINTED	C.S. PAINTED	C.S. PAINTED	C.S. PAINTED	C.S. PAINTED



SPECIFICATIONS

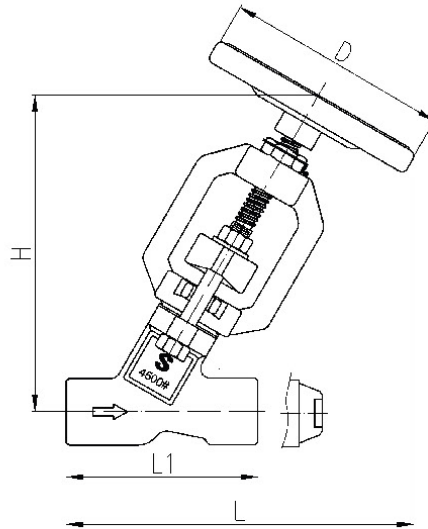
- **DESIGN: ASME B16.34**
- **BUTT WELD ENDS: ASME B16.25**
- **SOCKET WELD ENDS: ASME B16.11**
- **THREAD ENDS: ASME B1.20.1**

DESIGN FEATURE

- **ONE PIECE FORGED BODY**
 - Eliminates pressure retaining threads or bolts
 - No welds to cut for servicing
 - Eliminates deposits
- **Y PATTERN FORGED BODY**
 - Excellent flow characteristics
 - Allows streamlined flow
 - Eliminates corrosion and deposits
 - 60° incline pressure drop
- **STELLITE 6 CONE AND INTEGRAL STELLITE 12 SEAT**
 - Tight shut off
 - Long valve life
 - Prevents corruption
 - Easy to reface
 - Positive seating function as standard
 - Seat is guided at bottom and top
 - STELLITE Gr.6 deposited with specialized and automatic procedure which guarantees the achievement of stated constant characteristics
 - The deep thickness of the deposited STELLITE Gr.6 enables many renewing operations of the seating surface
- **COMBINATION GLAND RING PACKING**
 - Graphoil as standard maximum temperature 650 degree C
 - Long operating life
 - Prevents corruption

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DIMENSIONS AND WEIGHTS



Orifice Size in mm	L1	L	H	D	CV	Weights (kg)
0.4 10	5.43 138	9.84 250	9.05 230	7.09 180	2.5	5.5
0.79 20	7.79 198	13.7 348	11.0 280	7.09 180	5	11.5
1.18 30	9.5 241	17.2 438	16.93 430	10.24 260	7	17
1.57 40	12.63 321	22.56 573	22.44 570	13.78 350	22	23
1.97 50	15.75 400	27.83 707	27.56 700	18.11 460	25	27.5

INSTALLATION AND MAINTENANCE

• STORAGE ON SITE

- Store valves indoors in a well-protected, dry area. Do not store in contact with the floor
- Store on pallets or shelves

• INSTALLATION

- Check nameplate to ensure correct type of valve
- Valves should be partially open during welding. If the valve will be normally closed, piping should be flushed, the valve should then be operated 2-3 times before finally seating to prevent solid particles remaining between the seat & disc



• MAINTENANCE

Inspect periodically all critical parts for wear:

- ❖ Stem threads
- ❖ Packing and packing glands
- ❖ Body-bonnet joint and bolting
- ❖ Seats
- ❖ End connections
- If leakage on the stem seal occurs, tighten the gland nuts and the gland flange being careful to maintain perpendicular alignment between stem and gland flange. When tightening the gland nuts, alternate tightening with no more than 1/4 turn on each nut until the leak stops.
- When tightening the gland is not enough to stop the leak, it will be necessary to replace the packing.
- Re-packing or disassembly may be done while the valve is in line, however, strict attention should be paid to the following points:
 - ❖ Remove all line pressure, upstream and downstream.
 - ❖ The valve must be fully and tightly seated prior to any attempt to re-pack.
 - ❖ Disassemble with caution in case all pressures has not been fully relieved.
- Disassembly steps:
 - ❖ Unscrew the nuts from the stud bolts, and remove the stud bolts.
 - ❖ Open the valve completely.
 - ❖ Loosen the yoke by applying a force in counter clockwise, and unscrew it partly.
 - ❖ Turn the hand wheel counterclockwise to force the packing and back seat bush out of the stuffing box.
 - ❖ Unscrew the yoke and pull out the spindle assembly out of the valve body.
 - ❖ Remove the wheel nut which lock the hand wheel.
 - ❖ Rotate the hand wheel clockwise to unscrew the spindle from the yoke nut.
- For any other repair operation, it is advisable to remove the valve from the line.
- Use trained personnel and correct tools.
- If valve is removed from the line for any repair, pressure test the valve prior to re-installation.

HOW TO ORDER BONNETLESS Y PATTERN STOP VALVES

Example:

YPBL

-14M

-BW

-F91

-10

-GP

-ST

-F

-OC

YPBL

YPBL:
BONNETLESS Y PATTERN FORGED STOP
VALVE

CONNECTION SIZES

16M-INLET 16mm, OUTLET 16mm

25M16M-INLET 25mm, OUTLET 16mm

38M-INLET 38mm, OUTLET 38mm

Other sizes available on request

CONNECTIONS

BW-BUTT WELD SW-SOCKET WELD

MATERIAL

F91, F92, CS, F11, F22, F316H, WB36



ORIFICE SIZE	10 - 10mm BORE, 20 - 20mm BORE, 30 - 30mm BORE 40 - 40mmBORE, 50 - 50mmBORE
PACKING	GP-GRAPHOIL PACKING
CONE	ST-DEPOSITED STELLITE GR6 SS-SOLID STELLITE GR6
SEAT	F-STELLITE GR12
RATING	OC-OVER CRITICAL 4500LB

EXAMPLE:

Y PATTERN BONNETLESS FORGED BODY STOP VALVE, 16MM BUTT WELD, F91 MATERIAL, ORIFICE 10mm, DEPOSITE STELLITE GR6 CONE AND STELLITE GR12 SEAT, GRAPHOIL, OVER CRITICAL CLASS 4500LB.

YPBL-16M-BW-F91-10-GP-ST-F-OC

MATERIALS COMPOSITION AND FEATURE

MATERIAL	ASTM A182 F91	ASTM A182 F92	ASTM A182 F316H	ASTM A182 F22	ASTM A182 F11	STELLITE Gr.6	STELLITE Gr.12	ASTM A105 CS	WB36
Carbon %	0.08~0.12	0.07~0.13	0.04~0.10	0.15 max	0.10~0.20	1	1.8	0.35 max	0.17 max
Manganese %	0.3~0.6	0.30~0.60	2.00 max	0.30~0.60	0.30~0.80			0.60~1.05	0.8~1.2
Phosphorus %	0.02max	0.02max	0.04 max	0.04 max	0.04max			0.04 max	0.025 max
Sulphur %	0.01max	0.01max	0.03 max	0.04max	0.04max			0.05 max	0.02 max
Silicon %	0.20~0.50	0.5max	1.00 max	0.5 max	0.5~1.0			0.35max	0.25~0.50
Chromium %	8.00~9.50	8.50-9.50	16.0~18.0	2.0~2.5	1.0~1.5	28	29.0		0.3 max
Nickel %	0.40max	0.4max	10.0~14.0						1.0~1.3
Molybdenum %	0.85~1.05	0.30~0.60	2.00~3.00	0.87~1.13	0.44~0.65				0.25~0.50
Colunbium %	0.06~0.10	0.04~0.09							
Aluminium %	0.04	0.04							0.05 max
Iron %							1.0		
Cobalt %						66	60.2		
Tungsten %		1.50~2.00				5	8.0		
Others %	N 0.03~0.07 V 0.18~0.25	N 0.03~0.07 V 0.15~0.25 B 0.001~0.006							cu 0.50~0.80 Nb 0.015~0.045
Mechanical features									
Tensile Strength psi Mpa	85000 585	89900 620	75000 515	75000 515	70000 485			70000 485	88450 to 113100 610 to 780
Yield Strength psi Mpa	60000 415	63800 440	30000 205	45000 310	40000 275			36000 250	63800 440



**SAFELOK BONNETLESS Y PATTERN STOP VALVES
ASME CLASSES 4500LB**

TEMPERATURE – PRESSURE RATINGS

working Temperature DEG F.	working pressure for 4500LB(psi)				
	Material Schedule				
	F91	F316H	F22	F11	CS(A105)
122	11,250	11,250	11,250	11,250	11,250
212	11,250	11,250	11,250	11,250	11,250
392	10,611	8,500	10,611	10,434	11,000
500	10,076	7,900	10,076	10,034	11,000
599	8,845	7,500	9,135	9,319	10,690
644	8,749	7,300	8,749	8,749	10,485
752	7,954	7,100	7,954	7,954	9,450
842	7,353	6,900	7,353	7,353	5,015
932	5,795	6,800	6,050	5,488	
1070	5,100	6,200	4,060	1,915	
1112	4,525	5,700	2,545	1,316	
1200	2,160	3,450			
working Temperature DEG C.	working pressure for 4500LB(bar)				
	Material Schedule				
	F91	F316H	F22	F11	CS(A105)
50	775.9	775.9	775.9	775.9	775.9
100	775.9	775.9	775.9	775.9	775.9
200	731.8	586.2	731.8	719.6	758.6
260	694.9	544.8	694.9	692	758.6
315	642.7	517.2	630	642.7	737.2
340	603.4	503.4	603.4	603.4	723.1
400	548.6	489.6	548.6	548.6	651.7
450	507.1	475.8	507.1	507.1	345.9
500	399.7	468.9	417.2	378.5	
580	351.7	427.6	280	132.1	
600	312	393.1	175.5	90.8	
650	149	237.93			

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MANUFACTURED BY:

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