





Section 1	
Bronze Globe Valve to BS 5154	1/1
Bronze Right Angle Valve to BS 5154	1/2
Bronze Globe Valve to BSMA 65	1/3
Bronze Right Angle Valve to BSMA 65	1/4
Cast Iron Globe Valve to BS 5152	1/5
Cast Iron Angle Valve to BS 5152	1/6
Cast Steel Globe Valve	1/7
Cast Steel Right Angle Valve	1/8
Section 2	
Bronze Inside Screw Gate Valve	2/1
Bronze Outside Screw Gate Valve	2/2
Cast Iron Inside Screw Gate Valve to BS 5150	2/3
Cast Iron Outside Screw Gate Valve to BS 5150	2/4
Cast Iron Inside Screw Gate Valve to BS 3464	2/5
Cast Iron Parallel Slide Valve to BS 5151	2/6
Cast Steel Parallel Slide Valve to BS 5157	2/7
Cast Steel Gate Valve Outside Screw	2/8
ANSI 150 lbs Gate Valve	2/9
Section 3	
Cast Iron Swing Check Valve to BS 5153	3/1
Cast Iron Globe and Angle Check Valves to BS 5152	3/2
Bronze Swing Check Valve to BS 5154	3/3
Bronze Globe & Angle Check Valve to BS 5154	3/4
Bronze Globe Check Valve to BSMA 65	3/5
Bronze Right Angle Check Valve to BSMA 65	3/6
Orbinax Wafer Check Valve, Type RM	3/7
Cast Steel Swing Check Valve	3/8
ANSI 150 lbs Swing Check Valve	3/9
Section 4	
Bronze Straight Through Back Balanced Storm Valve	4/1
Bronze Right Angle Back Balanced Storm Valve	4/2
Bronze Straight Through Horizontal Geared Storm Valve	4/3
Bronze Straight Through Vertical Geared Storm Valve	4/4
Bronze Right Angle Geared Storm Valve	4/5
Section 5	
Bronze Right Angle Screwed Relief Valve	5/1
Bronze Right Angle Relief Valve	5/2
Cast Iron Right Angle Relief Valve External Spring	5/3
Cast Iron Relief Valve (Enclosed)	5/4
Cast Steel Relief Valve	5/5
Section 6	
2:1 Ratio Mudbox - Plate Strainer with Bolted and Quick Release Covers	6/1
Cast Iron Basket Strainer to BSMA 26	6/2
Cast Iron Y Pattern Strainer	6/3
Bronze Y Strainer	6/4
Bronze Foot Valve & Strainer	6/5
Section 7	
Bronze Straight Through Gland Cock	7/1
Bronze Three-Way Gland Cock, T or L Port	7/2
Cast Iron Three Way Gland Cock T or L Port	7/3
Weighted Lever Self Closing Parallel Plug Gland Cock	7/4
Section 8	
65mm Straight Through Fire Hydrant Valve	8/1
65mm Right Angle Fire Hydrant Valve	8/2
Section 9	
Bronze Quiclose Globe Valve	9/1
Bronze Quicclose Gate Valve	9/2
Control Panel, Hydraulic	9/3
Section 10	
Wafer Pattern Butterfly Valve to BS 5155 Short	10/1
Wafer Lugged Butterfly Valve to BS 5155 Short	10/2
Double Flanged Butterfly Valve to BS 5155	10/3
Miscellaneous	
Bronze Lever Operated, Spring Loaded, Bunker Drain Valve	M/1
Bronze Push Button Self Closing Drain Valve with Locking Device (Screwed Inlet)	M/2
Semi-Rotary Hand Pump	M/3
C Type Deck Gland with Indicator	M/4
Cast Steel, Cast Iron or Bronze, Double Sided Sight Glasses to BSMA 27	M/5
Bronze Single Gland Expansion Joint	M/6
Standard Hinged Collapsible Rosebox	M/7
Bronze Flush Plug Deck Plate to BS 1400	M/8
Bronze Straight Bulkhead Pieces	M/9
Deck Control Assembly	M/10
Bronze Deck Handwheel Unit	M/11



Young & Cunningham

The information contained herein has been extracted from the relevant Standards as follows:-

BS 4504:1969 "Flanges and Bolting for Pipes, Valves and Fittings, Metric Series" and BS 10:1962 "Flanges and Bolting for Pipes, Valves and Fittings" with the permission of the British Standards Institution, 389 Chiswick High Rd., London W4 4AL.

USA Standard Cast Iron Pipe Flanges and Flanged Fitting (USAS B.16.24-1962) with the permission of the publisher, The American Society of Mechanical Engineers, United Engineering Center, 345 East 47th Street, New York NY 10017.

This metric publication has been compiled to provide a ready reference to the Nominal Pressure/Temperature Ratings and Dimensions of Integral Flanges up to 2000mm nominal size given in BS 4504:1969 and, where applicable, comparative dimensions from BS 10: 1962 Tables A,D,E,F and H, and ASA Classes 125, 150 and 300.

BS4504: 1969

Flange Designation

The first part of the Flange Designation is the Nominal Pressure Rating (NP) in bars (gauge). The ratings covered herein are NP 2.5, 6, 10, 16, 25 and 40.

The second part of the Flange Designation indicates the Material and Type of flange. Those involved in this publication are:-

-/1..... Steel-integral, -/11..... Grey Cast Iron-integral -/21..... Copper Alloy-integral

Thus an NP 2.5 Integral Grey Cast Iron Flange is designated 2.5/11.

Notes:-

1. Raised Joint Faces are applicable only to BS 4504 Grey Cast Iron and Steel, BS 10 Table H Steel and ASA Classes 150 and 300 Steel.
2. Flange Thickness is inclusive of raised face height where this is given.
3. All Flanges are drilled unless otherwise specified, with the bolt holes off centres.
4. Inch Dimensions are given in brackets for BS 10: 1962 and ASA Flanges.
5. In 1966 the American Standards Association (ASA) changed its name to "The United States of America Standards Institute" (USASI) and in 1969 again changed its name to "American National Standards Institute" (ANSI). In view of the world-wide acceptance and understanding of 'ASA' flanges, the relevant tables in this booklet are referenced 'ASA' irrespective of the fact that the current issue B16.24 is prefixed 'ASA', B16.1 and B16.5 are prefixed 'USAS' and future issues of these and other Standards may be prefixed 'ANS' or 'ANSI'.

NOMINAL SIZE	FLANGE TABLE REFERENCE										
	2.5/11	6/11	10/11	16/1	16/11	16/21	25/1	25/11	25/21	40/1	40/21
	MATERIAL OF FLANGE										
	CAST IRON	CAST IRON	CAST IRON	CAST STEEL	CAST IRON	COPPER ALLOY	CAST STEEL	CAST IRON	COPPER ALLOY	CAST STEEL	COPPER ALLOY
10	↑	x	↑	x		-	↑	x	-	x	-
15		x			x	x		x	x	x	x
20		x			x	x		x	x	x	x
25		x			x	x		x	x	x	x
32		x			x	x		x	x	x	x
40		x			x	x		x	x	x	x
50		x			x	x		x	x	x	x
65		x			x	x		x	x	x	x
80		x			x	x		x	x	x	x
100		x			x	x		x	x	x	x
125		x			x			x		x	
150		x			x			x		x	
175		-			x			x		x	
200		x			x			x		x	
250		x			x			x		x	
300		x			x			x		x	
350		x			x			x		x	
400		x			x			x		x	
450		-			x			-		-	
500		x			x			x		x	
600		x			x			x		x	
700		x			x			x		x	
800		x			x			x		x	
900		x			x			x		x	
1000	↓	x			x			x		x	
1200	x	x			x			x		x	
1400	x	x			x			x		x	
1600	x	x			x			x		x	
1800	x	x			x			x			
2000	x	x			x			x			
2200	x	x			x						
2400	x	x									
2600	x	x									
2800	x	x									
3000	x	x									
3200	x	x									
3400	x	x									
3600	x	x									
3800	x	-									
4000	x	-									

This Table indicates the availability (shown x) of Integral Flange details in B.S. 4504: 1969, but this Booklet only compares Flanges up to 2 000mm size.



Young & Cunningham

B.S. 4504: 1969 Pressure/Temperature Ratings Integral Cast Iron and Copper Alloy Flanges

NOMINAL PRESSURE (BAR GAUGE)	TYPICAL MATERIALS FOR				TEMPERATURE °C							
	INTEGRAL FLANGES		BOLTING		-10 TO 120	150	180	200	220	250	260	300
	CAST IRON B.S. 1452	COPPER ALLOY B.S. 1400	BOLTS, STUD BOLTS B.S. 3692	NUTS								
2.5	Grade 10 Grade 12		4.6 4.6	4 4	2.5 2.5	- 2.3	- 2	- 2	- 2	- 1.8	- 1.7	- 1.5
6	Grade 10 Grade 12		4.6 4.6	4 4	6 6	- 5.6	- 5.2	- 5	- 5	- 4.5	- 4.3	- 3.6
10	Grade 10 Grade 12		4.6 4.6	4 4	10 10	- 9.2	- 8.5	- 8	- 8	- 7	- 6.8	- 6
16	Grade 12	- B.S. 1400 LG2-C	4.6 4.6	4 4	16 16	14.8 16	13.9 16	13 13.5	13 11.3	11 8	10.8 7	10 -
25	Grade 14 -	- B.S. 1400 LG2-C	4.6 4.6	4 4	25 25	23 25	21.2 25	20 21.2	19 17.5	18 12.2	17.5 10.5	16 -
40		B.S. 1400 LG2-C	4.6	4	40	38.5	34	30	25.5	19.5	17.5	-

B.S. 4504: 1969 Pressure/Temperature Ratings Integral Steel Flanges

NOMINAL PRESSURE (BAR GAUGE)	TYPICAL MATERIALS FOR			TEMPERATURE °C													
	INTEGRAL CAST STEEL	BOLTING		-10 TO 120	200	250	300	350	400	425	450	475	500	510	520	530	
		BOLTS, STUD BOLTS	NUTS														
		DESIGN PRESSURE, BAR (GAUGE)															
2.5	B.S. 1504-161A B.S. 1504-161A	B.S. 1506-111 4.6	B.S. 1506-111 4	2.5 2.5	- 2	- 1.8	- 1.5	- -	- -	- -	- -	- -	- -	- -	- -	- -	
6	B.S. 1504-161A B.S. 1504-161A	B.S. 1506-111 4.6	B.S. 1506-111 4	6 6	- 6	- 5.5	- 5	- -	- -	- -	- -	- -	- -	- -	- -	- -	
10	B.S. 1504-161A B.S. 1504-161A B.S. 1504-161B	B.S. 1506-111 4.6 6.6	B.S. 1506-111 4 6	10 10 10	- 10 10	- 9 9	- 8 8	- - 7	- - 6	- - -	- - -	- - -	- - -	- - -	- - -	- - -	
16	B.S. 1504-161A B.S. 1504-161B	B.S. 1506-621A 6.6	B.S. 1506-111 6	16 16	- 16	- 15	- 13	- 11	- 9	- -	- -	- -	- -	- -	- -	- -	
25	B.S. 1504-161A	B.S. 1506-111	B.S. 1506-111	25	-	-	-	-	-	-	-	-	-	-	-	-	
	B.S. 1504-161B	6.6	6	25	25	24	21	17	14	-	-	-	-	-	-	-	
	B.S. 1504-161B	B.S. 1506-621B(T)	B.S. 1506-162	-	25	24	21	17	14	12	9	6	-	-	-	-	
	B.S. 1504-240	B.S. 1506-621B(T)	B.S. 1506-162	-	-	25	22	20	19	18	17	14	-	-	-	-	
	B.S. 1504-240	B.S. 1506-661	B.S. 1506-240(Q)	-	-	25	22	20	19	18	17	14	10	9	-	-	
	B.S. 1504-621	B.S. 1506-661	B.S. 1506-240(Q)	-	-	-	25	24	23	22	21	20	18	15	-	-	
40	B.S. 1504-621			-	-	-	25	24	23	22	21	20	18	15	12	9	
	B.S. 1504-261																
	B.S. 1504-161A	B.S. 1506-111	B.S. 1506-111	40	-	-	-	-	-	-	-	-	-	-	-	-	
	B.S. 1504-161B	6.6	6	40	40	38	33	28	23	-	-	-	-	-	-	-	
	B.S. 1504-161B	B.S. 1506-621B(T)	B.S. 1506-162	-	40	38	33	28	23	20	15	10	-	-	-	-	
	B.S. 1504-240	B.S. 1506-621B(T)	B.S. 1506-162	-	-	40	35	31	30	29	28	22	-	-	-	-	
40	B.S. 1504-240	B.S. 1506-661	B.S. 1506-240(Q)	-	-	40	35	31	30	29	28	22	17	15	-	-	
	B.S. 1504-621	B.S. 1506-661	B.S. 1506-240(Q)	-	-	-	40	38	36	35	34	33	29	24	-	-	
				-	-	-	40	38	36	35	34	33	29	24	19	15	



Young & Cunningham

NOMINAL BORE : 15MM (1/2 IN)

TABLE	INTEGRAL FLANGE					RAISED FACE	BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	80	12	-	-	40	2	M 10	4	11	55
6			-	-						
10	95	14	-	-	45		M 12		14	65
16			16	10						
25		16								
40		-		11						
A	95 (3 ³ / ₄)	13 (¹ / ₂)	-	6 (¹ / ₄)	-	-	13 (¹ / ₂)		14 (⁹ / ₁₆)	67 (2 ⁵ / ₈)
D			10 (³ / ₈)		-	-				
E					-	-				
F				8 (⁵ / ₁₆)	-	-				
H	114 (4 ¹ / ₂)	16 (⁵ / ₈)	13 (¹ / ₂)	10 (³ / ₈)	57 (2 ¹ / ₄)	2 (¹ / ₁₆)	16 (⁵ / ₈)		17 (¹¹ / ₁₆)	83 (3 ¹ / ₄)
ASA 150	89 (3 ¹ / ₂)	-	11 (⁷ / ₁₆)	8 (⁵ / ₁₆)	35 (1 ³ / ₈)	2 (¹ / ₁₆)	13 (¹ / ₂)		16 (⁵ / ₈)	60 (2 ³ / ₈)
ASA 300	95 (3 ³ / ₄)	-	14 (⁹ / ₁₆)	13 (¹ / ₂)						67 (2 ⁵ / ₈)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges .

NOTE 4-Table 16, 25, 40 Raised Faces are not applicable to Copper Alloy Flanges .

NOMINAL BORE : 20MM (3/4 IN)

TABLE	INTEGRAL FLANGE					RAISED FACE	HOLE DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	90	14	-	-	50	2	M 10	4	11	65
6			-	-						
10	105	16	-	-	58		M 12		14	75
16			18	10						
25		18								
40		-		11						
A	102 (4)	13 (¹ / ₂)	-	6 (¹ / ₄)	-	-	13 (¹ / ₂)		14 (⁹ / ₁₆)	73 (2 ⁷ / ₈)
D			10 (³ / ₈)		-	-				
E					-	-				
F				8 (⁵ / ₁₆)	-	-				
H	114 (4 ¹ / ₂)	16 (⁵ / ₈)	13 (¹ / ₂)	10 (³ / ₈)	57 (2 ¹ / ₄)	2 (¹ / ₁₆)	16 (⁵ / ₈)		17 (¹¹ / ₁₆)	83 (3 ¹ / ₄)
ASA 150	98 (3 ⁷ / ₈)	-	13 (¹ / ₂)	9 (¹¹ / ₃₂)	43 (1 ¹¹ / ₁₆)	2 (¹ / ₁₆)	13 (¹ / ₂)		16 (⁵ / ₈)	70 (2 ³ / ₄)
ASA 300	117 (4 ⁵ / ₈)	-	16 (⁵ / ₈)	13 (¹⁷ / ₃₂)			16 (⁵ / ₈)		19 (³ / ₄)	83 (3 ¹ / ₄)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of raised face height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges .

NOTE 4-Table 16, 25, 40 Raised Faces are not applicable to Copper Alloy Flanges .



Young & Cunningham

NOMINAL BORE 25MM (1 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	100	14	-	-	60	2	M 10	4	11	75
6			-	-						
10	115	16	-	-	68		M 12		14	85
16			18	10						
25		18		11						
40		-		13						
A	114 (4 ¹ / ₂)	13 (¹ / ₂)	-	8 (⁵ / ₁₆)	-	-	13 (¹ / ₂)		14 (⁹ / ₁₆)	83 (3 ¹ / ₄)
D			10 (³ / ₈)		-	-				
E					-	-				
F	121 (4 ³ / ₄)			10 (³ / ₈)	-	-	16 (⁵ / ₈)		17 (¹¹ / ₁₆)	87 (3 ⁷ / ₁₆)
H	(	19 ³ / ₄)	14 (⁹ / ₁₆)	11 (⁷ / ₁₆)	64 (2 ¹ / ₂)	2 (¹ / ₁₆)				
ASA 125	108 (4 ¹ / ₄)	11 (⁷ / ₁₆)	-	-	-	-	13 (¹ / ₂)		16 (⁵ / ₈)	79 (3 ¹ / ₈)
ASA 150	-		11 (⁷ / ₁₆)	10 (³ / ₈)	51 (2)	2 (¹ / ₁₆)				
ASA 300	124 (4 ⁷ / ₈)	-	17 (¹¹ / ₁₆)	15 (¹⁹ / ₃₂)			16 (⁵ / ₈)		19 (³ / ₄)	89 (3 ¹ / ₂)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges.

NOTE 4-Table 16, 25, 40 Raised Faces are not applicable to Copper Alloy Flanges.

NOMINAL BORE : 32MM (1 1/4 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	120	12	-	-	70	2	M 12	4	14	90
6			-	-						
10	140	18	-	-	78		M 16		18	100
16			18	10						
25		20		11						
40		-		13						
A	121 (4 ³ / ₄)	16 (⁵ / ₈)	-	8 (⁵ / ₁₆)	-	-	13 (¹ / ₂)		14 (⁹ / ₁₆)	87 (3 ⁷ / ₁₆)
D			13 (¹ / ₂)		-	-				
E					-	-				
F	133 (5 ¹ / ₄)			10 (³ / ₈)	-	-	16 (⁵ / ₈)		17 (¹¹ / ₁₆)	98 (3 ⁷ / ₈)
H	-	22 (⁷ / ₈)	17 (¹¹ / ₁₆)	11 (⁷ / ₁₆)	76 (3)	2 (¹ / ₁₆)				
ASA 125	117 (4 ⁵ / ₈)	13 (¹ / ₂)	-	-	-	-	13 (¹ / ₂)		16 (⁵ / ₈)	89 (3 ¹ / ₂)
ASA 150	-		13 (¹ / ₂)	10 (¹³ / ₃₂)	64 (2 ¹ / ₂)	2 (¹ / ₁₆)				
ASA 300	133 (5 ¹ / ₄)	-	19 (³ / ₄)	16 (⁵ / ₈)			16 (⁵ / ₈)		19 (³ / ₄)	98 (3 ⁷ / ₈)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of raised face height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for steel flanges.

NOTE 4-Table 16, 25, 40 Raised Faces are not applicable to Copper Alloy Flanges.



Young & Cunningham

NOMINAL BORE : 40MM (1 1/2 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	130	16	-	-	80	3	M 12	4	14	100
6			-	-						
10	150	18	-	-	88		M 16		18	110
16			18	11						
25		20		13						
40		-		15						
A	133 (5¼)	16 (5⁄8)	-	10 (3⁄8)	-	-	13 (1⁄2)		14 (9⁄16)	98 (37⁄8)
D			13 (1½)		-	-				
E					-	-				
F	140 (5½)			11 (7⁄16)	-	-	16 (5⁄8)		17 (11⁄16)	105 (41⁄8)
H	(	22 7⁄8)	17 (11⁄16)	13 (1½)	83 (31⁄4)	2 (1⁄16)				
ASA 125	127 (5)	14 (9⁄16)	-	-	-	-	13 (1½)		16 (5⁄8)	98 (37⁄8)
ASA 150	-		14 (9⁄16)	11 (7⁄16)	73 (2 7⁄8)	2 (1⁄16)				
ASA 300	156 (61⁄8)	-	21 (13⁄16)	17 (11⁄16)			19 (3⁄4)		22 (7⁄8)	114 (41⁄2)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges.

NOTE 4-Table 16, 25, 40 Raised Faces are not applicable to Copper Alloy Flanges.

NOMINAL BORE : 50MM (2 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	140	16	-	-	90	3	M 12	4	14	110
6			-	-						
10	165	20	-	-	102		M 16		18	125
16			20	11						
25		22		13						
40		-		15						
A	152 (6)	16 (⁵ / ₈)	-	10 (³ / ₈)	-	-	16 (⁵ / ₈)		17 (¹¹ / ₁₆)	114 (4 ¹ / ₂)
D		17 (¹¹ / ₁₆)	14 (⁹ / ₁₆)		-	-				
E		19 (³ / ₄)			-	-				
F	165 (6 ¹ / ₂)		16 (⁵ / ₈)	11 (⁷ / ₁₆)	-	-				127 (5)
H		25 (1)	19 (³ / ₄)	13 (¹ / ₂)	102 (4)	2 (¹ / ₁₆)				
ASA 125	152 (6)	16 (⁵ / ₈)	-	-	-	-	16 (⁵ / ₈)		19 (³ / ₄)	121 (4 ³ / ₄)
ASA 150	-		16 (⁵ / ₈)	13 (¹ / ₂)	92 (³⁵ / ₈)	2 (¹ / ₁₆)				
ASA 300	165 (6 ¹ / ₂)	-	22 (⁷ / ₈)	19 (³ / ₄)				8		127 (5)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges.

NOTE 4-Table 16, 25, 40 Raised Faces are not applicable to Copper Alloy Flanges.



Young & Cunningham

NOMINAL BORE : 65MM (2 1/2 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	160	16	-	-	110	3	M 12	4	14	130
6			-	-						
10	185	20	-	-	122		M 16		18	145
16			18	13						
25		24	22	15				8		
40		-		17						
A	165 (6 ¹ / ₂)	17 (1 ¹ / ₁₆)	-	11 (7 ¹ / ₁₆)	-	-	16 (5 ¹ / ₈)	4	17 (1 ¹ / ₁₆)	127 (5)
D			14 (9 ¹ / ₁₆)		-	-				
E	(	19 3 ¹ / ₄)			-	-				
F	184 (7 ¹ / ₄)		16 (5 ¹ / ₈)	13 (1 ¹ / ₂)	-	-		8		146 (5 ³ / ₄)
H		25 (1)	19 (3 ¹ / ₄)	14 (9 ¹ / ₁₆)	114 (4 ¹ / ₂)	2 (1 ¹ / ₁₆)				
ASA 125	178 (7)	17 (1 ¹ / ₁₆)	-	-	-	-	16 (5 ¹ / ₈)	4	19 (3 ¹ / ₄)	140 (5 ¹ / ₂)
ASA 150	-		17 (1 ¹ / ₁₆)	14 (9 ¹ / ₁₆)	105 4 (1 ¹ / ₈)	2 (1 ¹ / ₁₆)				
ASA 300	191 (7 ¹ / ₂)	-	25 (1)	21 (1 ³ / ₁₆)			19 (3 ¹ / ₄)	8	22 (7 ¹ / ₈)	149 (5 ⁷ / ₈)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges.

NOTE 4-Table 16, 25, 40 Raised Faces are not applicable to Copper Alloy Flanges.

NOMINAL BORE : 80MM (3 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	190	18	-	-	128	3	M 16	4	18	150
6			-	-						
10	200	22	-	-	138			8		160
16			20	15						
25		26	24	17						
40		-		19						
A	184 (7 ¹ / ₄)	17 (1 ¹¹ / ₁₆)	-	13 (1 ¹ / ₂)	-	-	16 (5 ⁵ / ₈)	4	17 (1 ¹¹ / ₁₆)	146 (5 ³ / ₄)
D	(	19 (3 ³ / ₄)	14 (9 ⁹ / ₁₆)		-	-				
E					-	-				
F	203 (8)	19 (3 ³ / ₄)	16 (5 ⁵ / ₈)	14 (9 ⁹ / ₁₆)	-	-		8		165 (6 ¹ / ₂)
H	(	29 (1 ¹ / ₈)	22 (7 ⁷ / ₈)	16 (5 ⁵ / ₈)	127 (5)	2 (1 ¹ / ₁₆)				
ASA 125	191 (7 ¹ / ₂)	19 (3 ³ / ₄)	-	-	-	-		4	19 (3 ³ / ₄)	152 (6)
ASA 150	-		19 (3 ³ / ₄)	16 (5 ⁵ / ₈)	127 (5)	2 (1 ¹ / ₁₆)				
ASA 300	210 (8 ¹ / ₄)	-	29 (1 ¹ / ₈)	23 (2 ⁹ / ₃₂)			19 (3 ³ / ₄)	8	22 (7 ⁷ / ₈)	163 (6 ⁵ / ₈)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges.

NOTE 4-Table 16, 25, 40 Raised Faces are not applicable to Copper Alloy Flanges.



Young & Cunningham

NOMINAL BORE : 100MM (4 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	210	18	-	-	148	3	M 16	4	18	170
6			-	-						
10	220	24	-	-	158			8		180
16			20	19						
25	235	28	24	21	162		M 20		22	190
40		-		23						
A	216 (8½)	19 (¾)	-	16 (⅝)	-	-	16 (⅝)	4	17 (Ⅺ/₁₆)	178 (7)
D			17 (Ⅺ/₁₆)		-	-				
E		22 (⅞)	(		-	-		8		
F	229 (9)		19 (¾)	17 (Ⅺ/₁₆)	-	-				191 (7½)
H		32 (Ⅰ/₄)	25 (1)	19 (¾)	152 (6)	2 (Ⅰ/₁₆)				
ASA 125		24 (Ⅰ⁵/₁₆)	-	-	-	-			19 (¾)	
ASA 150	-		24 (Ⅰ⁵/₁₆)	17 (Ⅺ/₁₆)	157 (6³/₁₆)	2 (Ⅰ/₁₆)				
ASA 300	254 (10)	-	32 (Ⅰ¼)	27 (Ⅰ¼)			19 (¾)		22 (⅞)	200 (7⅞)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges.

NOTE 4-Table 16, 25, 40 Raised Faces are not applicable to Copper Alloy Flanges.

NOMINAL BORE : 125MM (5 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	240	20	-	-	178	3	M 16	8	18	200
6			-	-						
10	250	26	-	-	188					210
16			22	-						
25	270	30	26	-			M 24		26	220
40		-		-						
A	254 (10)	19 (³ / ₄)	-	17 (¹¹ / ₁₆)	-	-	16 (⁵ / ₈)	4	17 (¹¹ / ₁₆)	210 (8 ¹ / ₄)
D		21 (¹³ / ₁₆)	17 (¹¹ / ₁₆)		-	-		8		
E		22 (⁷ / ₈)			-	-				
F	279 (11)	25 (1)	22 (⁷ / ₈)	19 (³ / ₄)	-	-	19 (³ / ₄)		22 (⁷ / ₈)	235 (9 ¹ / ₄)
H	(	35 13/8	29 (1 ¹ / ₈)	22 (⁷ / ₈)	178 (7)	2 (¹ / ₁₆)				
ASA 125	254 (10)	24 (¹⁵ / ₁₆)	-	-	-	-				216 (8 ¹ / ₂)
ASA 150	-		24 (¹⁵ / ₁₆)	19 (³ / ₄)	186 (7 ⁵ / ₁₆)	2 (¹ / ₁₆)				
ASA 300	279 (11)	-	35 (1 ³ / ₈)	29 (1 ¹ / ₈)						235 (9 ¹ / ₄)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges.



Young & Cunningham

NOMINAL BORE : 150MM (6 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	265	20	-	-	202	3	M 16	8	18	225
6			-	-						
10	285	26	-	-	212		M 20		22	240
16			22	-						
25	300	34	28	-	218		M 24		26	250
40		-		-						
A	279 (11)	21 (¹³ / ₁₆)	-	17 (¹¹ / ₁₆)	-	-	16 (⁵ / ₈)	4	17 (¹¹ / ₁₆)	235 (9 ¹ / ₄)
D			17 (¹¹ / ₁₆)	8	-	-				
E		22 (⁷ / ₈)			-	-	19 (³ / ₄)		22 (⁷ / ₈)	
F	305 (12)	25 (1)	22 (⁷ / ₈)	22 (⁷ / ₈)	-	-		12		260 (10 ¹ / ₄)
H		35 (1 ³ / ₈)	29 (1 ¹ / ₈)	25 (1)	210 (8 ¹ / ₄)	2 (¹ / ₁₆)				
ASA 125	279 (11)	25 (1)	-	-	-	-		8		241 (9 ¹ / ₂)
ASA 150		-	25 (1)	21 (¹³ / ₁₆)	216 (8 ¹ / ₂)	2 (¹ / ₁₆)				
ASA 300	318 (12 ¹ / ₂)	-	37 (1 ⁷ / ₁₆)	30 (1 ³ / ₁₆)				12		270 (10 ⁵ / ₈)

NOTE 1-Inch Dimensions are given in brackets .

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges .

NOMINAL BORE : 175MM (7 IN)

TABLE	INTEGRAL FLANGE					RAISED FACE	BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
16	315	28	24	-	242	3	M 20	8	22	270
25	330	34	28	-	248		M 24	12	26	280
40	350	-	32	-	260		M 27		30	295
A	305 (12)	21 (¹³ / ₁₆)	-	19 (³ / ₄)	-	-	16 (⁵ / ₈)	8	17 (¹¹ / ₁₆)	260 (10 ¹ / ₄)
D		22 (⁷ / ₈)	19 (³ / ₄)		-	-				
E		25 (1)			-	-	19 (³ / ₄)		22 (⁷ / ₈)	
F	337 (13 ¹ / ₄)		22 (⁷ / ₈)	22 (⁷ / ₈)	-	-		12		292 (11 ¹ / ₂)
H		38 (1 ¹ / ₂)	32 (1 ¹ / ₄)	32 (1 ¹ / ₄)	235 (9 ¹ / ₄)	2 (¹ / ₁₆)				

NOTE 1-Inch Dimensions are given in brackets .

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges .



Young & Cunningham

NOMINAL BORE : 200MM (8 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	320	22	-	-	258	3	M 16	8	18	280
6			-	-						
10	340	26	-	-	268		M 20		22	295
16	3	0	24	-				12		
25	360	34	30	-	278		M 24		26	310
40	375	-	34	-	285		M 27		30	320
A	337 (13 ¹ / ₄)	22 (⁷ / ₈)	-	19 (³ / ₄)	-	-	16 (⁵ / ₈)	8	17 (1 ¹ / ₁₆)	292 (11 ¹ / ₂)
D			19 (³ / ₄)		-	-				
E		25 (1)			-	-	19 (³ / ₄)		22 (⁷ / ₈)	
F	368 (14 ¹ / ₂)	29 (1 ¹ / ₈)	25 (1)	25 (1)	-	-		12		324 (12 ³ / ₄)
H		38 (1 ¹ / ₂)	32 (1 ¹ / ₄)	32 (1 ¹ / ₄)	260 (10 ¹ / ₄)	2 (1 ¹ / ₁₆)				
ASA 125	343 (13 ¹ / ₂)	29 (1 ¹ / ₈)	-	-	-	-		8	22 (⁷ / ₈)	298 (11 ³ / ₄)
ASA 150	-		29 (1 ¹ / ₈)	24 (¹⁵ / ₁₆)	270 (10 ⁵ / ₈)	2 (1 ¹ / ₁₆)				
ASA 300	381 (15	-	41 (1 ⁵ / ₈)	35 (1 ³ / ₈)			22 (⁷ / ₈)	12	25 (1)	330 (13)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, ASA 300 Raised Faces are recommended only for Steel Flanges.

NOMINAL BORE : 250MM (10 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	375	24	-	-	312	3	M 16	12	18	335
6			-	-						
10	395	28	-	-	320		M 20		22	350
16	405	32	26	-			M 24		26	355
25	425	36	32	-	335		M 27		30	370
40	450	-	38	-	345		M 30		33	385
A	406 (16)	24 (¹⁵ / ₁₆)	-	19 (³ / ₄)	-	-	19 (³ / ₄)	8	22 (⁷ / ₈)	356 (14)
D		25 (1)	19 (³ / ₄)		-	-				
E	-		22 (⁷ / ₈)	22 (⁷ / ₈)	-	-		12		
F	432 (17)	29 (¹ / ₈)	25 (1)	25 (1)	-	-	22 (⁷ / ₈)		25 (1)	381 (15)
H		41 (¹⁵ / ₈)	35 (¹³ / ₈)	35 (¹³ / ₈)	311 (12 ¹ / ₄)	2 (¹ / ₁₆)				
ASA 125	406 (16)	30 (¹³ / ₁₆)	-	-	-	-				362 (14 ¹ / ₄)
ASA 150	-		30 (¹³ / ₁₆)	25 (1)	324 (12 ³ / ₄)	2 (¹ / ₁₆)				
ASA 300	445 (17 ¹ / ₂)	-	48 (1 ⁷ / ₈)	-			25 (1)	16	29 (1 ¹ / ₈)	387 (15 ¹ / ₄)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, Raised Faces are recommended only for Steel Flanges.



Young & Cunningham

NOMINAL BORE : 300MM (12 IN)

TABLE	INTEGRAL FLANGE					RAISED FACE	BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	440	24	-	-	365	4	M 20	12	22	395
6			-	-						
10	445	28	-	-	370					400
16	460	32	28	-	378		M 24		26	410
25	485	40	34	-	395		M 27	16	30	430
40	515	-	42	-	410		M 30		33	450
A	457 (18)	24 (1 ⁵ / ₁₆)	-	22 (7 ⁷ / ₈)	-	-	19 (3 ³ / ₄)	8	22 (7 ⁷ / ₈)	406 (16)
D		25 (1)	22 (7 ⁷ / ₈)		-	-		12		
E		29 (1 ¹ / ₈)	25 (1)	25 (1)	-	-	22 (7 ⁷ / ₈)		25 (1)	
F	489 (19 ¹ / ₄)	32 (1 ¹ / ₄)	29 (1 ¹ / ₈)	29 (1 ¹ / ₈)	-	-		16		438 (17 ¹ / ₄)
H		44 (1 ³ / ₄)	38 (1 ¹ / ₂)	38 (1 ¹ / ₂)	362 (14 ¹ / ₂)	2 (1 ¹ / ₁₆)				
ASA 125	483 (19)	32 (1 ¹ / ₄)	-	-	-	-		12		432 (17)
ASA 150	-		32 (1 ¹ / ₄)	27 (1 ¹ / ₁₆)	381 (15)	2 (1 ¹ / ₁₆)				
ASA 300	521 (20 ¹ / ₂)	-	51 (2)	-			29 (29 ¹ / ₈)	16	32 (1 ¹ / ₄)	451 (17 ³ / ₄)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H, ASA 150, Raised Faces are recommended only for Steel Flanges.

NOMINAL BORE : 350MM (14 IN)

TABLE	INTEGRAL FLANGE					RAISED FACE	BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	490	26	-	-	415	4	M 20	12	22	445
6			-	-						
10	505	30	-	-	430			16		460
16	520	36	30	-	438		M 24		26	470
25	555	44	38	-	450		M 30		33	490
40	580	-	46	-	465		M 33		36	510
A	527 (20 ³ / ₄)	25 (1)	-	25 (1)	-	-	22 (7 ⁷ / ₈)	8	25 (1)	470 (18 ¹ / ₂)
D		29 29(1 ¹ / ₈)	25 (1)		-	-		12		
E		32 (1 ¹ / ₄)			-	-				
F	552 (21 ³ / ₄)	35 (1 ³ / ₈)	32 (1 ¹ / ₄)	32 (1 ¹ / ₄)	-	-	25 (1)	16	29 (1 ¹ / ₈)	495 (19 ¹ / ₂)
H		48 (17 ⁷ / ₈)	41 (15 ⁵ / ₈)	41 (15 ⁵ / ₈)	419 (16 ¹ / ₂)	2 (1 ¹ / ₁₆)				
ASA 125	533 (21)	35 (1 ³ / ₈)	-	-	-	-		12		476 (18 ³ / ₄)
ASA 150	-		35 (1 ³ / ₈)	-	413 (16 ¹ / ₄)	2 (1 ¹ / ₁₆)				
ASA 300	584 (23)	-	54 (2 ¹ / ₈)	-			29 (1 ¹ / ₈)	20	32 (1 ¹ / ₄)	514 20(1 ¹ / ₄)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H Raised Faces are recommended only for Steel Flanges.

**NOMINAL BORE : 400MM (16 IN)**

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	540	28	-	-	465	4	M 20	16	22	495
6			-	-						
10	565	32	-	-	482		M 24		26	515
16	580	38	32	-	490		M 27		30	525
25	620	48	40	-	505		M 33		36	550
40	660	-	50	-	535		M 36		39	585
A	578 (22 ³ / ₄)	27 (1 ¹ / ₁₆)	-	25 (1)	-	-	22 (⁷ / ₈)	12	25 (1)	521 (20 ¹ / ₂)
D		29 (1 ¹ / ₈)	25 (1)		-	-				
E		32 (1 ¹ / ₄)			-	-				
F	610 (24)	35 (1 ³ / ₈)	32 (1 ¹ / ₄)	32 (1 ¹ / ₄)	-	-	25 (1)	20	29 (1 ¹ / ₈)	552 (21 ³ / ₄)
H		51 (2)	44 (1 ³ / ₄)	44 (1 ³ / ₄)	483 (19)	2 (¹ / ₁₆)				
ASA 125	597 (23 ¹ / ₂)	37 (1 ⁷ / ₁₆)	-	-	-	-		16		540 (21 ¹ / ₄)
ASA 150	-		37 (1 ⁷ / ₁₆)	-	470 (18 ¹ / ₂)	2 (¹ / ₁₆)				
ASA 300	648 (25 ¹ / ₂)	-	57 (2 ¹ / ₄)	-			32 (1 ¹ / ₄)	20	35 (1 ³ / ₈)	571 (22 ¹ / ₂)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H. Raised Faces are recommended only for Steel Flanges.

NOMINAL BORE : 450MM (18 IN)

TABLE	INTEGRAL FLANGE				RAISED FACE		BOLT DIA.	DRILLING		
	DIA.	THICKNESS		DIA.	HEIGHT	NO.		HOLE DIA.	P.C.D.	
		GREY CAST IRON	STEEL							COPPER ALLOY
10	615	32	-	-	532	4	M 24	20	26	565
16	640	40	-	-	550		M 27		30	585
A	641 (25 ¹ / ₄)	27 (1 ¹ / ₁₆)	-	27 (1 ¹ / ₁₆)	-	-	22 (7 ⁷ / ₈)	12	25 (1)	584 (23)
D		32 (1 ¹ / ₄)	29 (1 ¹ / ₈)	29 (1 ¹ / ₈)	-	-				
E		35 (1 ³ / ₈)			-	-		16		
F	673 (26 ¹ / ₂)	38 (1 ¹ / ₂)	35 (1 ³ / ₈)	35 (1 ³ / ₈)	-	-	29 (1 ¹ / ₈)	20	32 (1 ¹ / ₄)	610 (24)
H		54 (2 ¹ / ₈)	48 (1 ⁷ / ₈)	48 (1 ⁷ / ₈)	533 (21)	2 (1 ¹ / ₁₆)				
ASA 125	635 (25)	40 (1 ⁹ / ₁₆)	-	-	-	-		16		578 (22 ³ / ₄)
ASA 150	-		40 (1 ⁹ / ₁₆)	-	533 (21)	2 (1 ¹ / ₁₆)				
ASA 300	711 (28)	-	60 (2 ³ / ₈)	-			32 (1 ¹ / ₄)	24	35 (1 ³ / ₈)	629 (24 ³ / ₄)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H. Raised Faces are recommended only for Steel Flanges.



Young & Cunningham

NOMINAL BORE : 500MM (20 IN)

TABLE	INTEGRAL FLANGE					RAISED FACE	BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	645	30	-	-	570	4	M 20	20	22	600
6			-	-						
10	670	34	-	-	585		M 24		26	620
16	715	42	36	-	610		M 30		33	650
25	730	52	44	-	615		M 33		36	660
40	755	-	52	-			M 39		42	670
- A	705 (27 ³ / ₄)	29 (1 ¹ / ₈)	-	29 (1 ¹ / ₈)	-	-	22 (7 ⁷ / ₈)	12	29 (1)	642 (25 ¹ / ₄)
D		32 (1 ¹ / ₄)	32 (1 ¹ / ₄)	32 (1 ¹ / ₄)	-	-		16		
E		38 (1 ¹ / ₂)			-	-				
F	737 (29)	41 (1 ⁵ / ₈)	38 (1 ¹ / ₂)	38 (1 ¹ / ₂)	-	-	29 (1 ¹ / ₈)	24	32 (1 ¹ / ₄)	673 (26 ¹ / ₂)
H		57 (2 ¹ / ₄)	51 (2)	51 (2)	597 (23 ¹ / ₂)	2 (1 ¹ / ₁₆)				
ASA 125	698 (27 ¹ / ₂)	43 (1 ¹¹ / ₁₆)	-	-	-	-		20		635 (25)
ASA 150	-		43 (1 ¹¹ / ₁₆)	-	584 (23)	2 (1 ¹ / ₁₆)				
ASA 300	774 (30 ¹ / ₂)	-	64 (2 ¹ / ₂)	-			32 (1 ¹ / ₄)	24	35 (1 ³ / ₈)	686 (27)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H. Raised Faces are recommended only for Steel Flanges.

NOMINAL BORE : 600MM (24 IN)

TABLE	INTEGRAL FLANGE					RAISED FACE	BOLT DIA.	DRILLING		
	DIA.	THICKNESS			DIA.	HEIGHT		NO.	HOLE DIA.	P.C.D.
		GREY CAST IRON	STEEL	COPPER ALLOY						
2.5	755	30	-	-	670	5	M 24	20	26	705
6			-	-						
10	780	36	-	-	685		M 27		30	725
16	840	48	40	-	725		M 33		36	770
25	845	-	46	-	720		M 36		39	
40	890	-	60	-	735		M 45		48	795
A	825 (32 ¹ / ₂)	30 (1 ³ / ₁₆)	-	30 (1 ³ / ₁₆)	-	-	25 (1)	12	29 (1 ¹ / ₈)	756 (29 ³ / ₄)
D		35 (1 ³ / ₈)	35 (1 ³ / ₈)	35 (1 ³ / ₈)	-	-		16		
E		41 (1 ⁵ / ₈)	38 (1 ¹ / ₂)	38 (1 ¹ / ₂)	-	-	29 (1 ¹ / ₈)		32 (1 ¹ / ₄)	
F	851 (33 ¹ / ₂)	44 (1 ³ / ₄)	41 (1 ⁵ / ₈)	41 (1 ⁵ / ₈)	-	-	32 (1 ¹ / ₄)	24	35 (1 ³ / ₈)	781 (30 ³ / ₄)
H		64 (2 ¹ / ₂)	57 (2 ¹ / ₄)	57 (2 ¹ / ₄)	698 (27 ¹ / ₂)	2 (1 ¹ / ₁₆)				
ASA 125	813 (32)	48 (17/8)	-	-	-	-		20		749 (29 ¹ / ₂)
ASA 150	-		48 (17/8)	-	692 (27 ¹ / ₄)	2 (1 ¹ / ₁₆)				
ASA 300	914 (36)	-	70 (2 ³ / ₄)	-			38 (1 ¹ / ₂)	24	41 (1 ⁵ / ₈)	812 (32)

NOTE 1-Inch Dimensions are given in brackets.

NOTE 2-Thickness is inclusive of Raised Face Height.

NOTE 3-Table H. Raised Faces are recommended only for Steel Flanges.

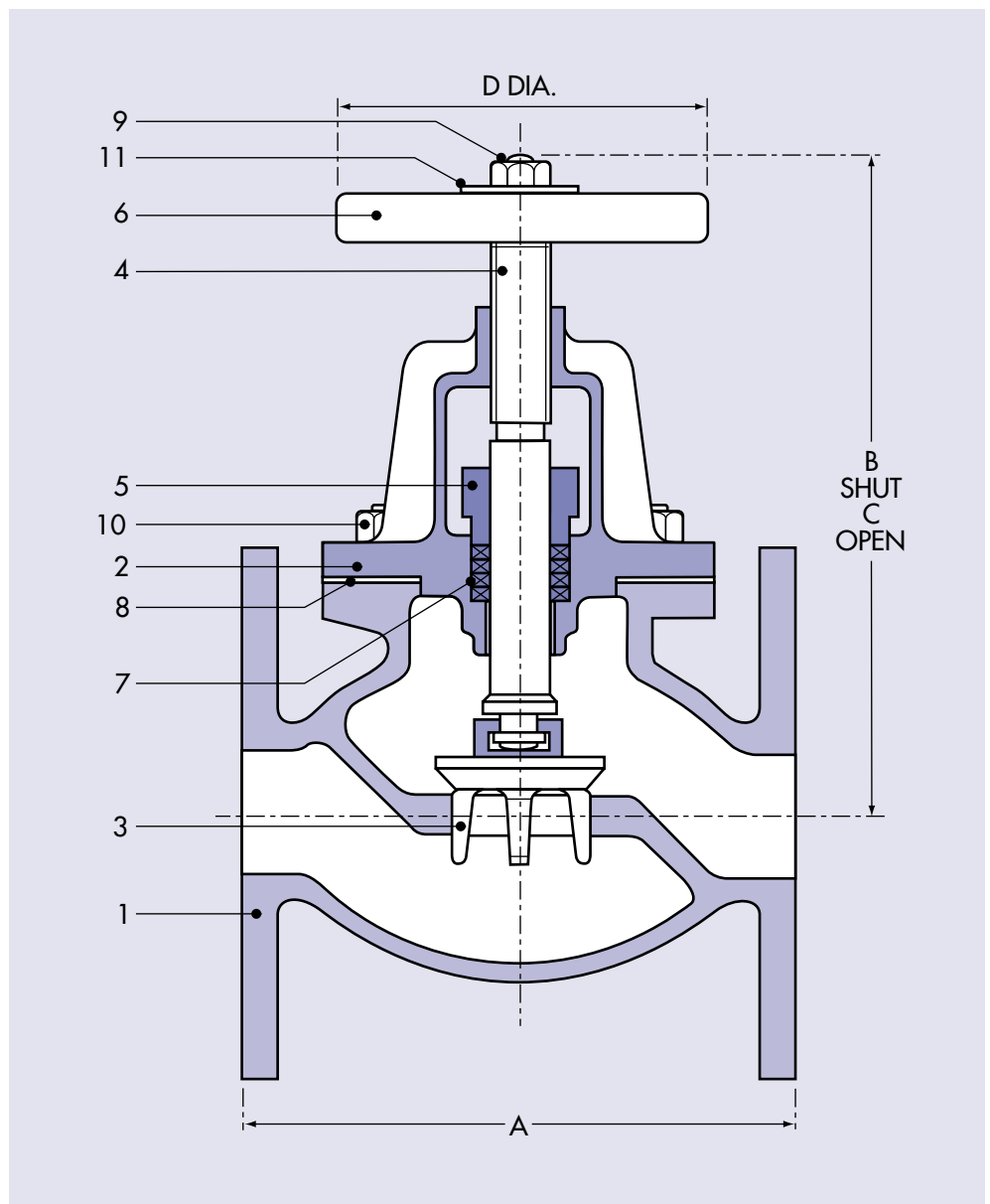


Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2
- 2 COVER**
Bronze BS 1400 LG2
- 3 LID (DISC)**
Bronze BS 1400 LG2
- 4 SPINDLE**
H.T Brass BS 2874 CZ114
- 5 GLAND**
Bronze BS 1400 LG2
- 6 HANDWHEEL**
Cast Iron
- 7 GLAND PACKING**
Graph. ASB. TBA 25
- 8 COVER GASKET**
C.A.F. BS 2815 GR A
- 9 HANDWHEEL NUT**
Carbon Steel
- 10 COVER STUD/NUT**
Carbon Steel BS 2693 & 1083
- 11 NAMEPLATE**
Aluminium

Options Available:-

Bronze BS 1400 LG4./AL. BR.
Renewable Seat.
ST. ST.Trim/AL. BR./Monel Trim.
ANSI/BS 10 Flanged.



Dimensions

BORE	15	20	25	32	40	50	65	80
A	108	117	127	146	159	190	216	254
B	166	166	194	200	207	236	243	264
C	153	153	178	184	197	217	235	251
D	89	89	102	102	115	127	140	153
Wt. kg	3.4	3.8	5.5	7	9	12	16	22.5

Flanged and drilled to BS 4504

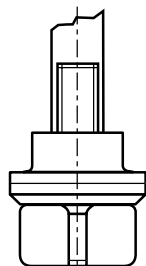
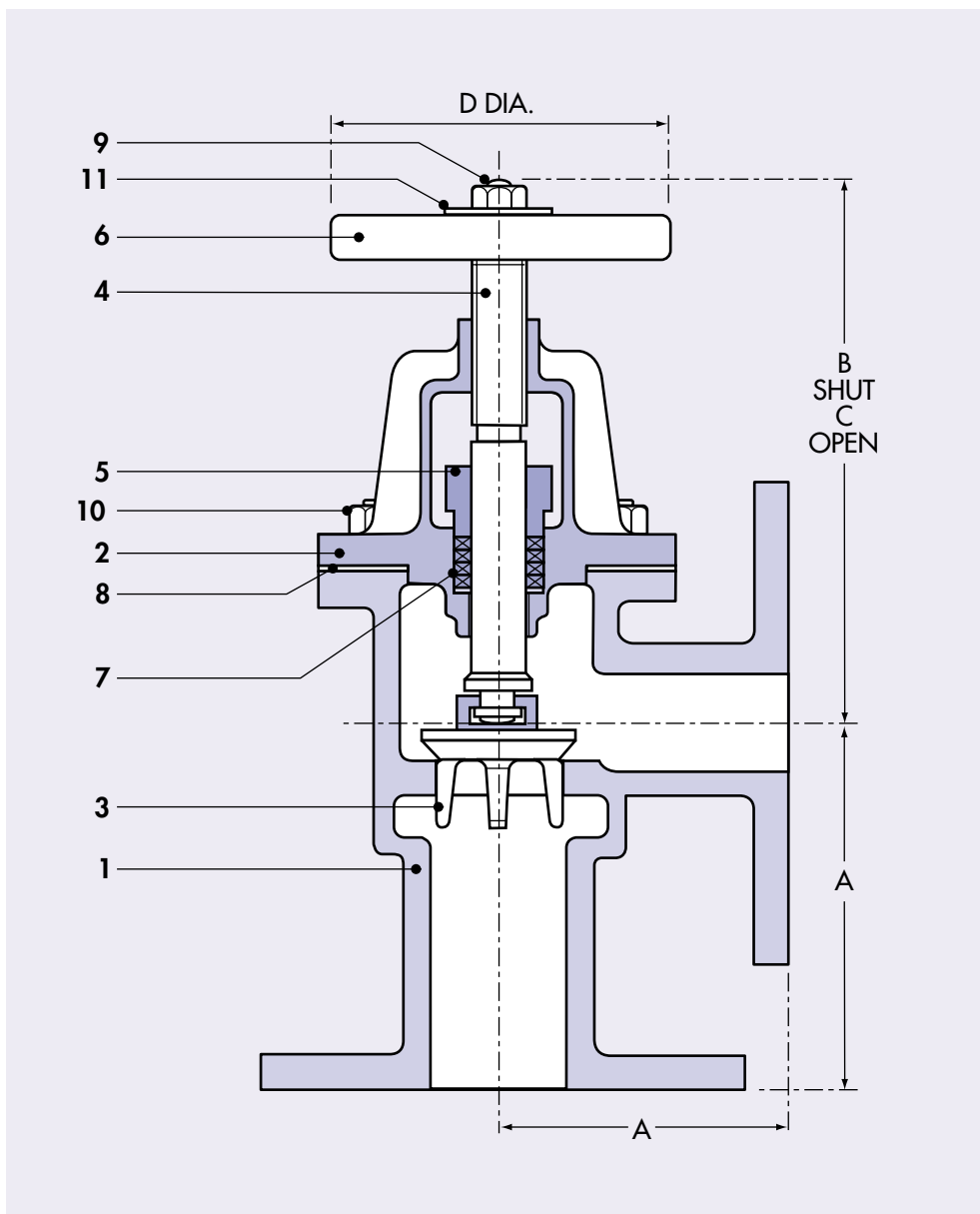


Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2
- 2 COVER**
Bronze BS 1400 LG2
- 3 LID (DISC)**
Bronze BS 1400 LG2
- 4 SPINDLE**
H.T. Brass BS 2874 CZ114
- 5 GLAND**
Bronze BS 1400 LG2
- 6 HANDWHEEL**
Cast Iron
- 7 GLAND PACKING**
Graph. ASB. D TBA 25
- 8 COVER GASKET**
C.A.F. BS 2815 GR A
- 9 HANDWHEEL NUT**
Carbon Steel
- 10 COVER STUD/NUT**
Carbon Steel BS 2693 & 1083
- 11 NAMEPLATE**
Aluminium

Options Available:-

Bronze BS 1400 LG4./AL.BR.
Renewable Seat.
ST. ST. Trim/AL.BR./Monel Trim.
ANSI/BS10 Flanged.



S.D.N.R. ARRGT.

Dimensions

BORE	15	20	25	32	40	50	65	80
A	70	75	85	95	100	115	125	135
B	166	166	194	200	207	236	243	264
C	147	147	163	172	178	194	214	226
D	89	89	102	102	115	127	140	153
Wt. kg	3.6	3.6	5.5	6	8.5	11.6	15	20

Flanged and drilled to BS 4504



Young & Cunningham

1 BODY
Bronze BS 1400 LG2

2 COVER
Bronze BS 1400 LG2

3 SEAT
Bronze BS 1400 LG2

4 LID
Bronze BS 1400 LG2

5 SPINDLE
Manganese Bronze
BS 2874 CZ114

6 LID NUT
Manganese Bronze
BS 2874 CZ114

7 COLLET
Manganese Bronze
BS 2874 CZ114

8 GLAND
Bronze BS 1400 LG2

9 GLAND PACKING
Non Asbestos

10 PILLARS
Steel

11 BRIDGE*
Steel

12 STUDS
Steel

13 NUTS
Brass

14 NUTS
Steel

15 WASHER
Brass

16 TAP BOLT
Steel

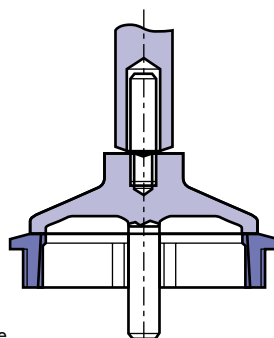
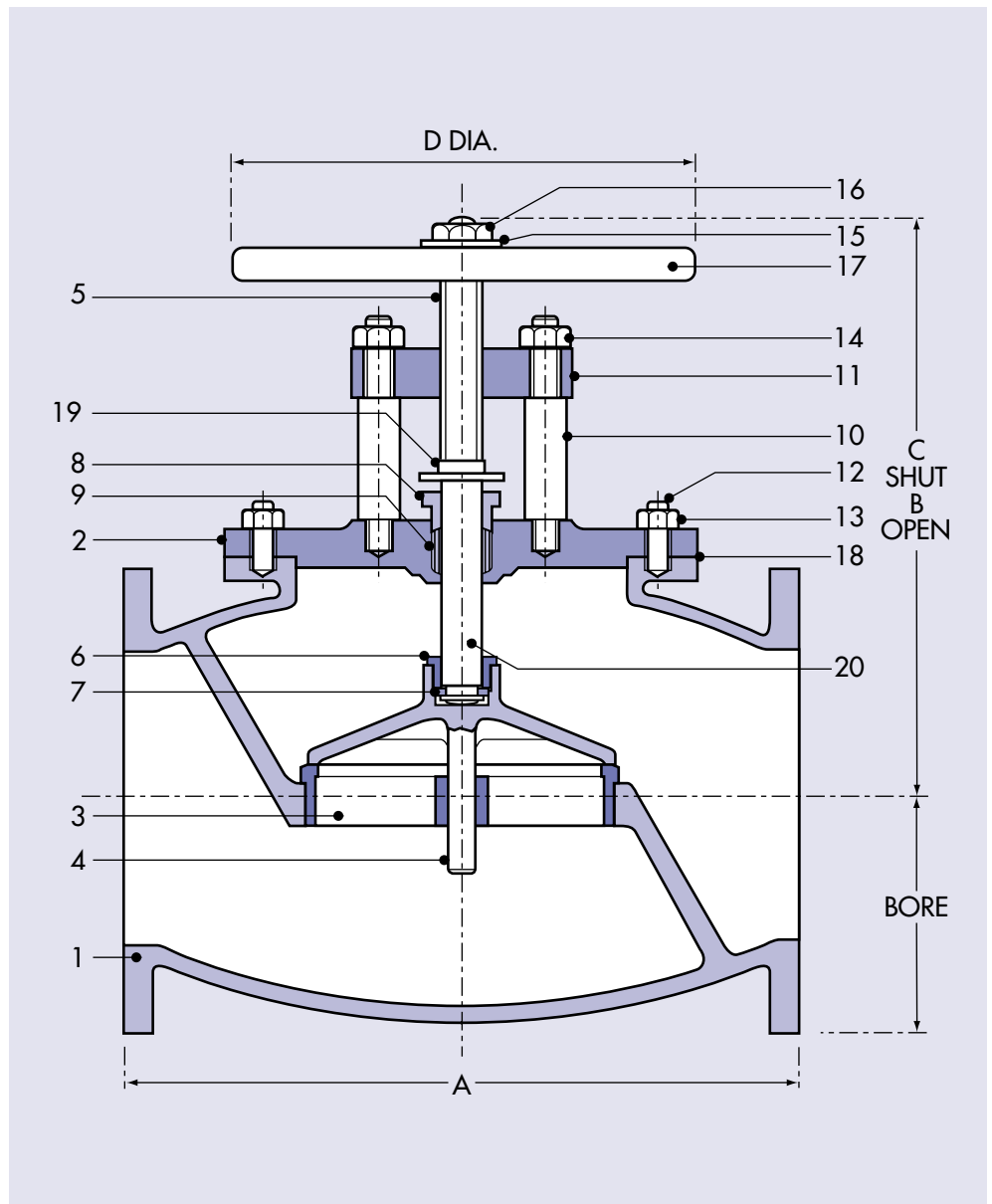
17 HANDWHEEL
Cast Iron

18 GASKET
Novus Scandura

19 INDICATOR
Manganese Bronze
BS 2874 CZ114

20 PINTLE
Manganese Bronze
BS 2874 CZ114

* Note - Bridge integral part of cover - 100mm and 125mm bore.



S.D.N.R. ARRGT.

Dimensions

BORE	100	125	150	200	250	300	350	400
A	292	330	356	495	622	698	777	914
B	324	406	466	533	619	644	736	800
C	283	375	428	483	555	578	647	700
D	190	229	300	410	410	444	510	510
Wt. kg	33	71	80	160	213	300	432	650

Flanged and drilled to BS 4504

Options Available:-

Bronze BS 1400 LG4/AL. BR.
ST. ST Trim/AL. BR./Monel T rim
ANSI/BS10 Flanged

Patterns can be altered to meet special face to face dimensions.



Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2

- 2 COVER**
Bronze BS 1400 LG2

- 3 SEAT**
Bronze BS 1400 LG2

- 4 LID**
Bronze BS 1400 LG2

- 5 SPINDLE**
Manganese Bronze BS 2874 CZ 114

- 6 LID NUT**
Manganese Bronze BS 2874 CZ 114

- 7 COLLET**
Manganese Bronze BS 2874 CZ 114

- 8 GLAND**
Bronze BS 1400 LG2

- 9 GLAND PACKING**
Non Asbestos

- 10 Pillars**
Steel

- 11 BRIDGE***
Steel

- 12 STUDS**
Steel

- 13 NUTS**
Brass

- 14 NUTS**
Steel

- 15 WASHER**
Brass

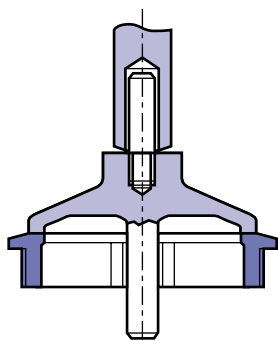
- 16 TAP BOLT**
Steel

- 17 HANDWHEEL**
Cast Iron

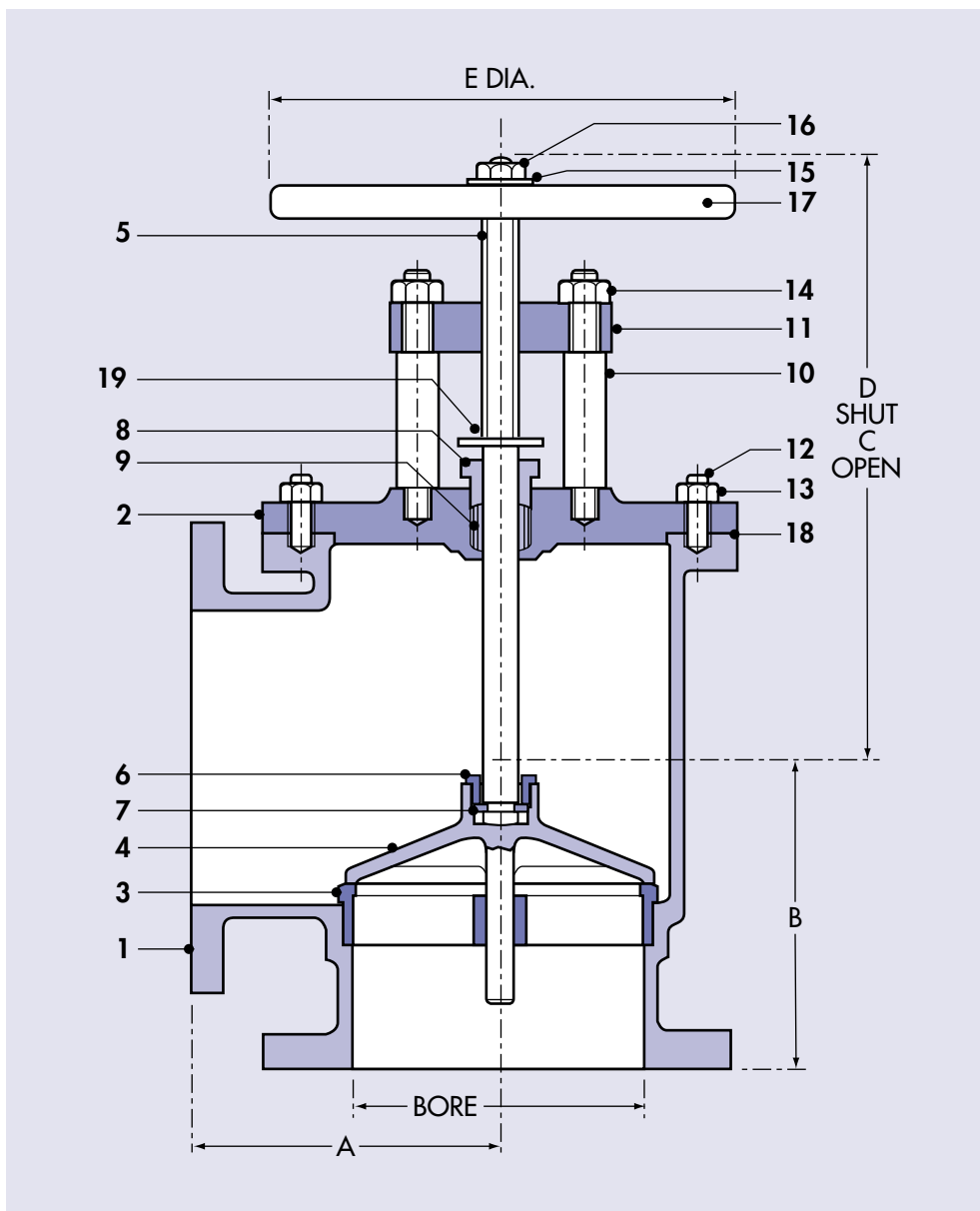
- 18 GASKET**
Novus Scandura

- 19 INDICATOR**
Brass

* Note - Bridge integral part of cover - 100mm and 125mm bore.



S.D.N.R. ARRGT.



Dimensions

BORE	100	125	150	200	250	300	350	400	450	500	600
A	146	165	178	248	311	350	338	343	464	490	508
B	146	165	178	248	311	350	350	368	464	490	508
C	280	390	416	527	578	622	673	711	902	997	1057
D	254	359	378	476	514	546	584	609	787	870	905
E	190	229	300	410	410	444	510	510	560	610	760
Wt. kg	33	64	75	145	218	285	340	460	640	830	1040

Flanged and drilled to BS 4504

Options Available:-

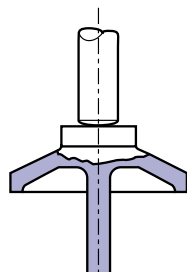
Bronze BS 1400 LG4/AL. BR.
ST. ST Trim/AL. BR./Monel Trim.
ANSI/BS 10 Flanged.

Patterns can be altered to meet special face to face dimensions.

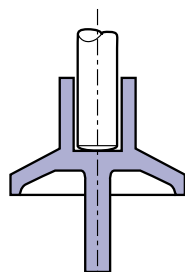


Young & Cunningham

- 1 HANDWHEEL**
Cast Iron
- 2 BRIDGE**
Steel BS 970 OM20
- 3 PILLARS**
Steel BS 970 220 MO7
- 4 GLAND**
Bronze BS 1400 LG2
- 5 GASKET**
Fibre
- 6 PACKING**
Braided Fibre
- 7 COVER**
Cast Iron BS 1452
- 8 SPINDLE**
Manganese Bronze
BS 2874 CZ 114
- 9 VALVE DISK**
Bronze BS 1400 LG2
- 10 VALVE SEAT**
Bronze BS 1400 LG2
- 11 BODY**
Cast Iron BS 1452



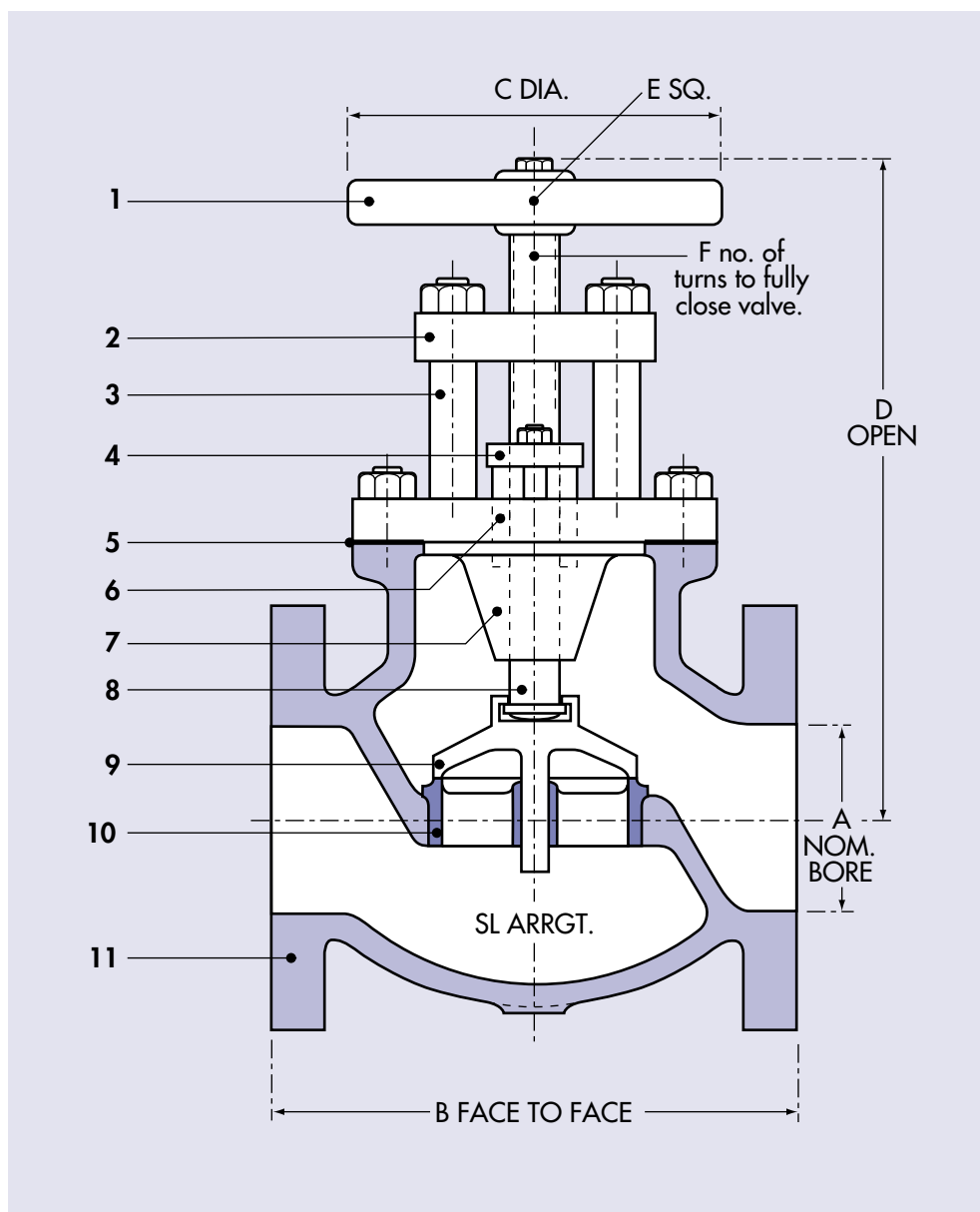
S.D.N.R. ARRGT.
(for valves up to 250 N.B.)



S.D.N.R. ARRGT.
(for valves 300 N.B. and above)

Options Available:-

Nodular Iron (Ductile).
ST. ST. Trim/LG4 Bronze.
ANSI/BS10 Flanged.



Dimensions

A	40	50	65	80	100	125	150	200	250	300	350	400	450	500
B	200	203	216	241	292	330	356	495	622	698	787	914	965	1118
C	213	125	125	165	190	230	250	350	400	500	500	500	660	660
D	127	254	260	300	362	395	450	500	605	720	775	890	940	1020
E	11	12.5	12.5	16	17.5	17.5	20.65	22	33.5	39	39	45	45	45
F	4 1/4	5	6 1/4	6 1/4	8	10	10 1/2	14	15	15	17 1/2	18	20 1/4	22 1/2
Wt. kg	12	16	22	29	43	58	82	142	227	380	487	677	853	1080

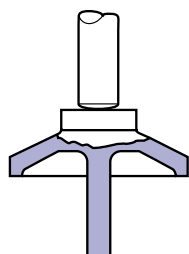
300mm and above to be
plain ends and keyed

Flanged and drilled to BS 4504

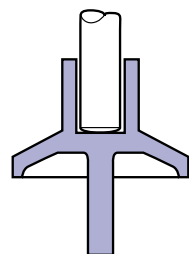


Young & Cunningham

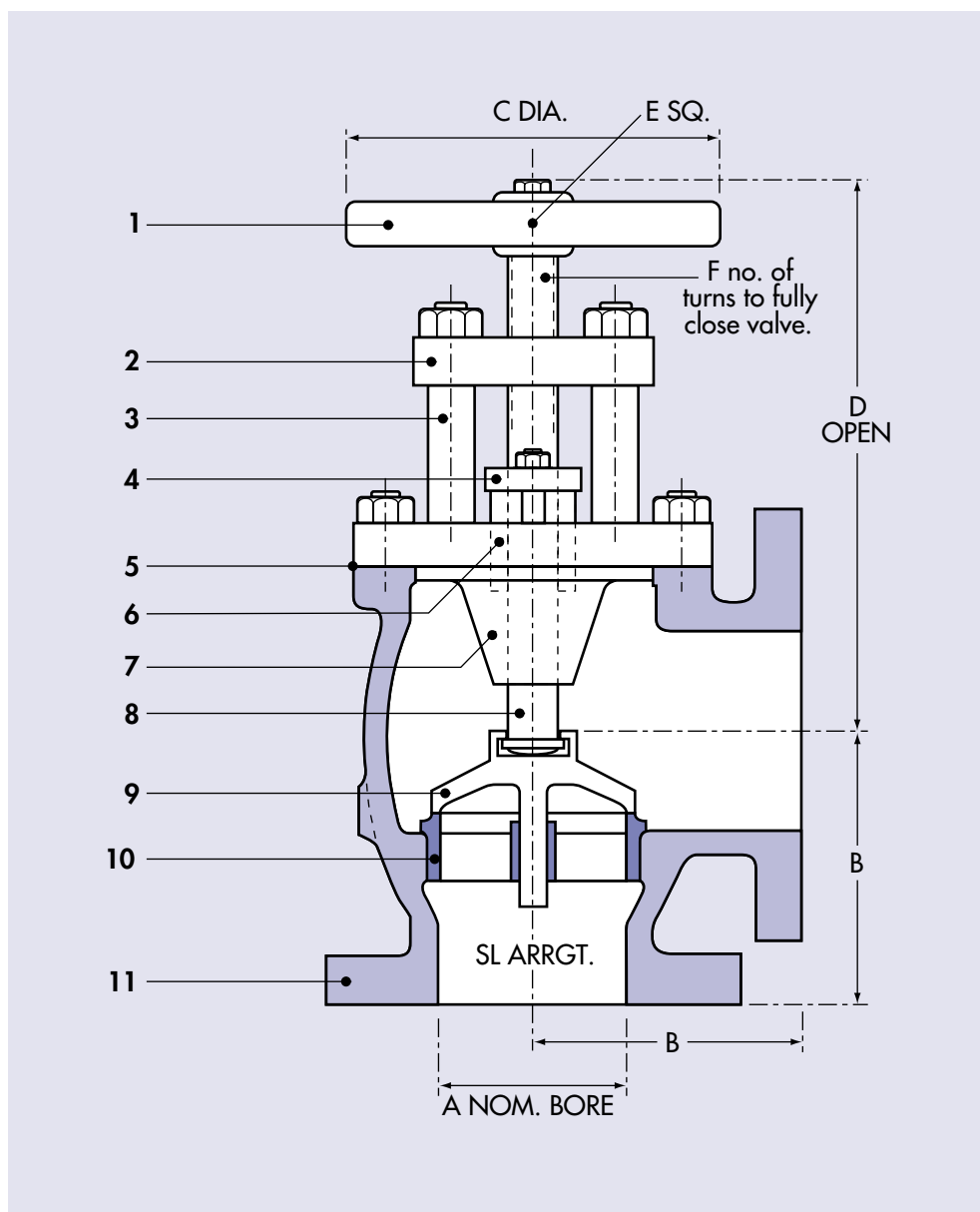
- 1 HANDWHEEL**
Cast Iron
- 2 BRIDGE**
Steel BS 970 OM20
- 3 PILLARS**
Steel BS 970 220 MO7
- 4 GLAND**
Bronze BS 1400 LG2
- 5 GASKET**
Fibre
- 6 PACKING**
Braided Fibre
- 7 COVER**
Cast Iron BS 1452
- 8 SPINDLE**
Manganese Bronze
BS 2874 CZ 114
- 9 VALVE DISK**
Bronze BS 1400 LG2
- 10 VALVE SEAT**
Bronze BS 1400 LG2
- 11 BODY**
Cast Iron BS 1452



S.D.N.R. ARRGT.
(for valves up to 250 N.B.)



S.D.N.R. ARRGT.
(for valves 300 N.B. and above)



Dimensions

A	40	50	65	80	100	125	150	200	250	300	350	400	450	500
B	115	125	145	155	146	165	178	248	311	350	394	457	483	483
C	115	125	125	165	190	230	250	350	400	400	500	500	660	660
D	200	210	220	240	300	330	365	460	510	600	630	720	760	810
E	11	12.5	12.5	16	17.5	17.5	20.65	22	33.5	39	39	45	45	45
F	4 1/4	5	6 1/4	6 1/4	8	10	10.5	14	15	15	17 1/4	18	20 1/4	22 1/2
Wt. kg	12	15	19	25	37	49	68	115	171	231	334	390	570	640

300mm and above to be
plain ends and keyed

Options Available:-

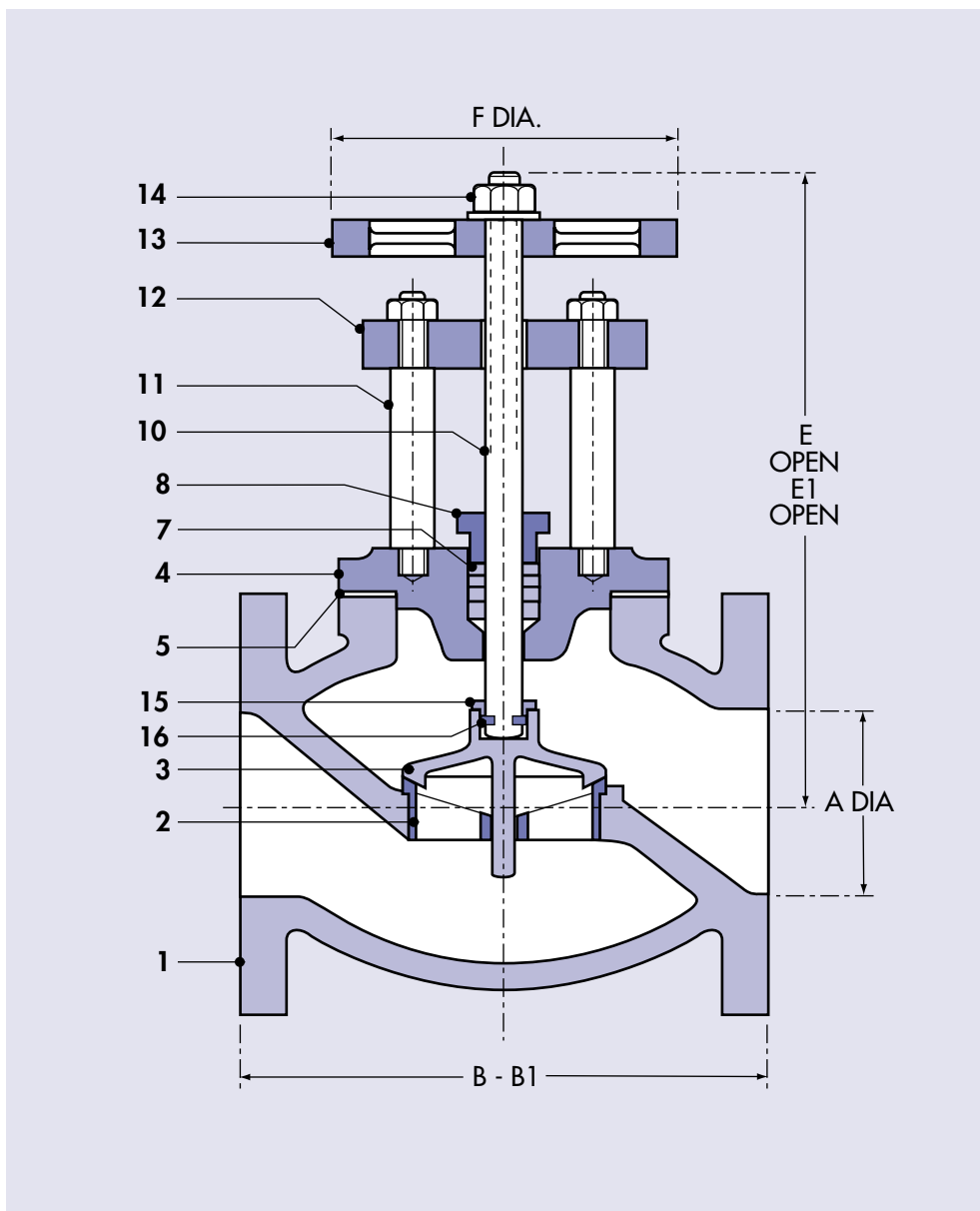
Nodular Iron (Ductile).
ST. ST. Trim/LG4 Bronze.
ANSI/BS10 Flanged.

Flanged and drilled to BS 4504



Young & Cunningham

- 1 VALVE BODY**
Cast Steel BS 1504 -161 GR 480
- 2 VALVE SEAT**
Stainless Steel BS 3100 -316 -C16
- 3 VALVE DISC**
Stainless Steel BS 1504 -452 -C11
- 4 VALVE COVER**
Cast Steel BS 1501-161- 430
- 5 GASKET**
C.A.F.
- 7 PACKING**
GR. A.S.B.
- 8 GLAND**
Cast Steel BS 1504 -161 GR 480
- 10 VALVE SPINDLE**
Stainless Steel BS 970 -431- 529
- 11 PILLARS**
Steel
- 12 BRIDGE**
Steel
- 13 HANDWHEEL**
Cast Iron
- 14 NUT**
Steel
- 15 VALVE NUT**
Stainless Steel BS 970 -431- S29
- 16 COLLETS**
Stainless Steel BS 970 -431- S29



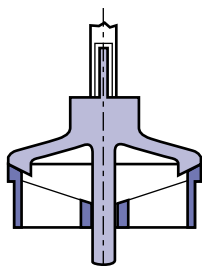
Options Available:-

Bronze Trim.
SDNR

Dimensions

B.S 4504/16 & ANSI 150 Only

B.S. 4504/40 & ANSI 300 Only



S.D.N.R. ARRGT.

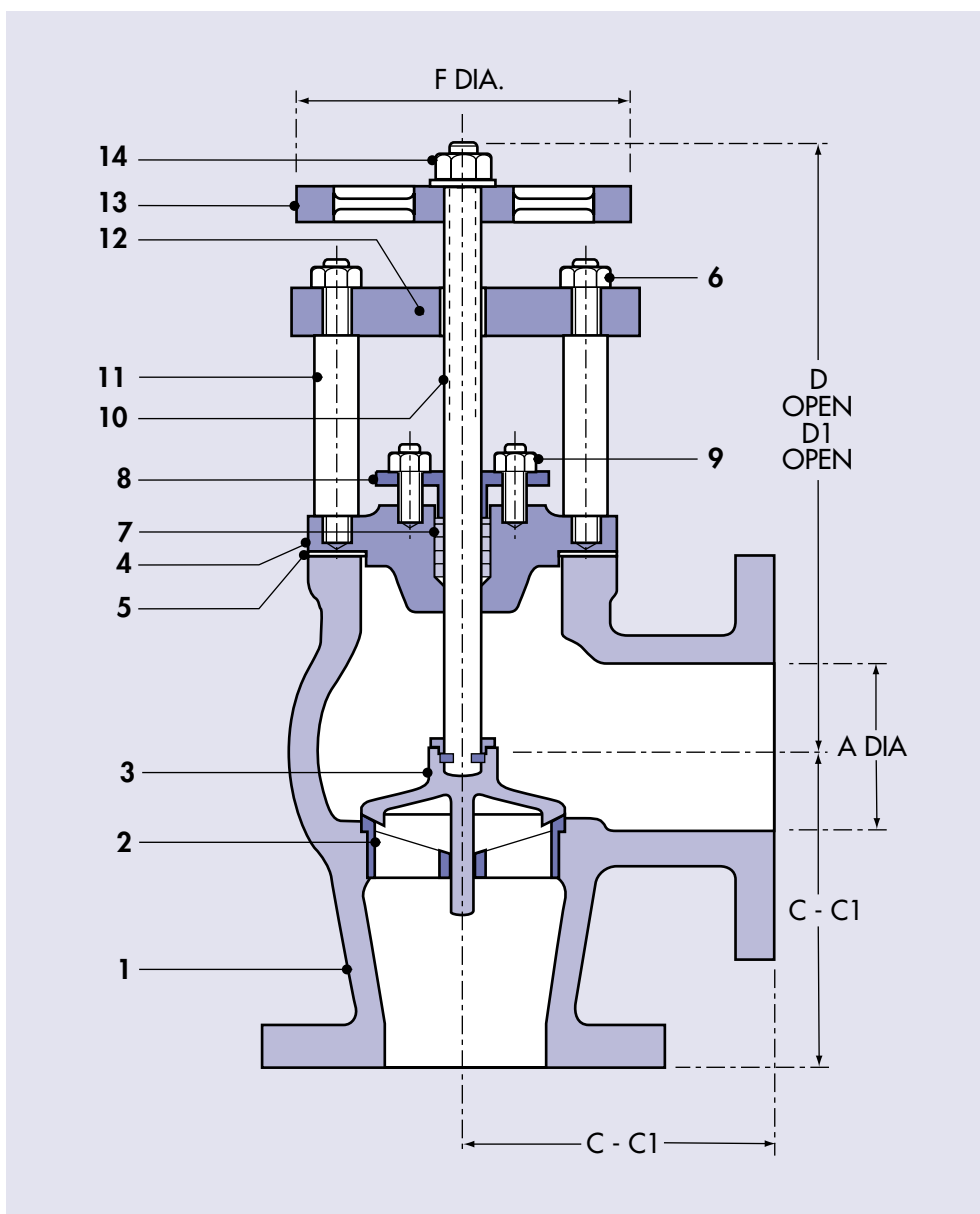
A	15	20	25	32	40	50	65	80	100	125	150	200	250
B	152	152	152	184	184	254	280	305	356	406	457	533	629
E	191	191	222	207	207	280	300	290	343	420	495	565	660
B1	152	152	168	194	200	280	305	330	406	457	508	572	-
E1	191	191	222	207	207	280	300	290	343	420	495	616	-
F	95	95	108	127	127	152	152	165	191	254	305	405	445
Wt. kg	7	7	9	15	15	28	33	47	78	112	153	400	520

Note:- Dimension B on PN16 Valves should read 200mm for 32 and 40mm N.B.



Young & Cunningham

- 1 VALVE BODY**
Cast Steel
BS 1504 -161 GR 480
- 2 VALVE SEAT**
Stainless Steel
BS 3100 -316 -C16
- 3 VALVE DISC**
Stainless Steel
BS 1504 -452 -C11
- 4 VALVE COVER**
Cast Steel
BS 1501-161- 430
- 5 GASKET**
C.A.F.
- 6 STUDS & NUTS**
Steel
- 7 PACKING**
GR. A.S.B.
- 8 GLAND**
Cast Steel
BS 1504 -161 GR 480
- 9 STUDS & NUTS**
Steel
- 10 VALVE SPINDLE**
Stainless Steel
BS 970 - 431- S29
- 11 PILLARS**
Steel
- 12 BRIDGE**
Steel
- 13 HANDWHEEL**
Cast Iron
- 14 NUT**
Steel

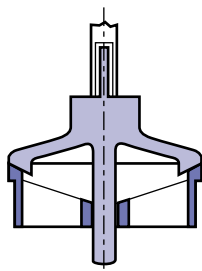


Options Available:-

Bronze Trim.
SDNR.

B.S 4504/16 & ANSI 150 Only

B.S. 4504/40 & ANSI 300 Only



S.D.N.R. ARRGT.

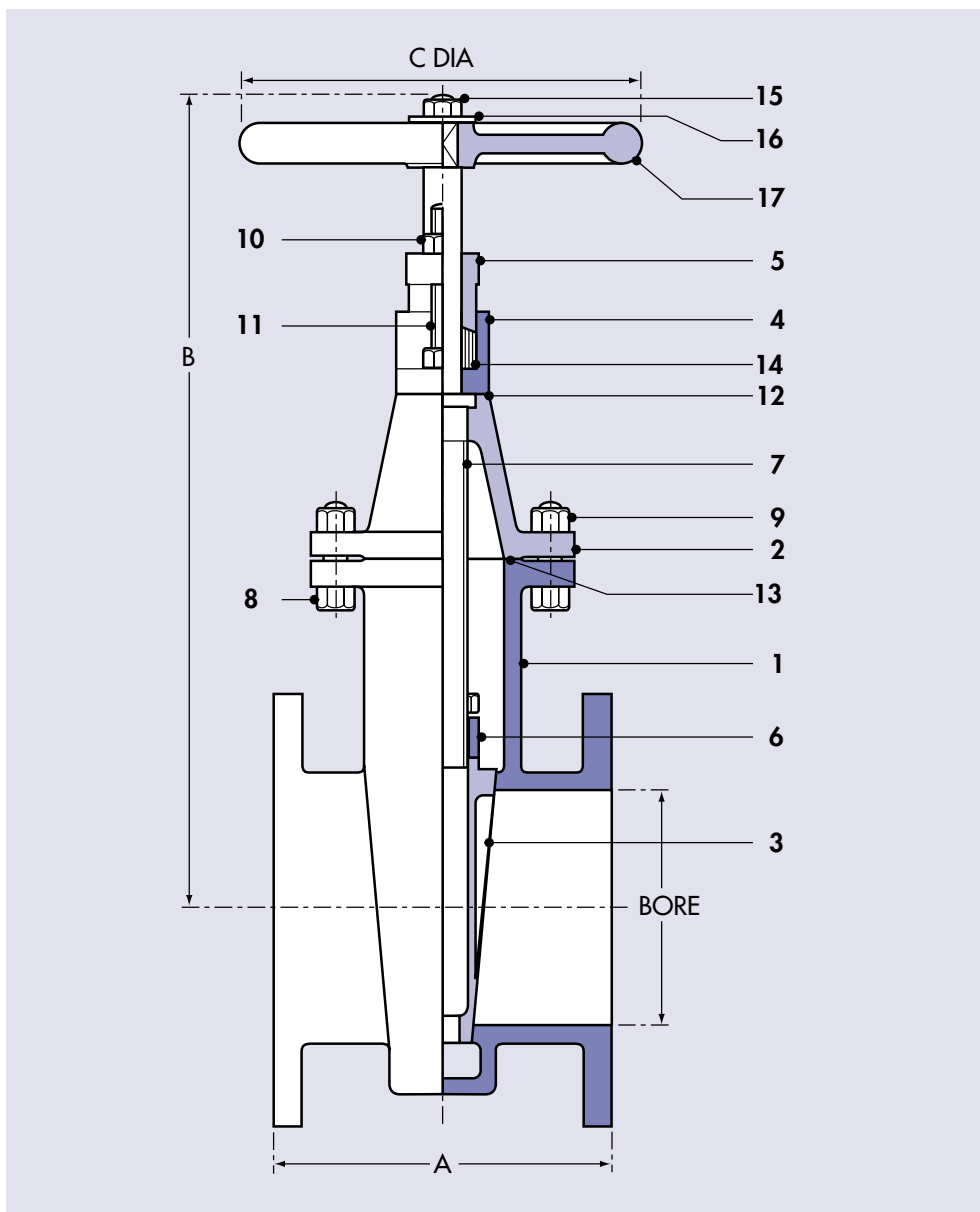
Dimensions

A	15	20	25	32	40	50	65	80	100	125	150	200	250
C	83	83	83	102	102	127	140	158	178	203	229	261	314
D	232	232	213	207	207	251	254	267	343	420	495	565	660
C1	83	83	95	115	115	140	152	165	203	229	254	280	-
D1	232	232	213	207	207	251	267	267	321	388	464	622	-
F	95	95	108	127	127	152	152	165	191	254	305	405	445
Wt. kg	7	7	10	16	16	25	30	39	60	94	122	250	370



Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2
- 2 COVER**
Bronze BS 1400 LG2
- 3 WEDGE**
Bronze BS 1400 LG2
- 4 PRIMARY GLAND**
Bronze BS 1400 LG2
- 5 SECONDARY GLAND**
Bronze BS 1400 LG2
- 6 WEDGE NUT**
Bronze BS 1400 LG2
- 7 SPINDLE**
Manganese Bronze BS 2874 CZ114
- 8 BOLTS**
Steel
- 9 NUTS**
Brass
- 10 GLAND NUTS**
Brass
- 11 GLAND STUDS**
Steel
- 12 GASKET**
Glass Fibre Jointing AF 2100
- 13 GASKET**
Glass Fibre Jointing AF 2100
- 14 PACKING**
Non -Asbestos
- 15 HANDWHEEL NUT**
Steel
- 16 WASHER**
Brass
- 17 HANDWHEEL**
Cast Iron



Dimensions

Options Available:-

Bronze BS1400 LG4./AL.BR.
AL. Bronze Trim./Monel/St.St. Trim.
Renewable Seats 100mm & above.
Patterns can be altered to meet special
face to face dimensions.

BORE	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
A	80	90	100	110	120	135	165	185	229	254	267	292	330	356	441
B	197	197	197	197	197	216	267	346	420	476	546	610	688	832	1015
C	76	76	76	115	115	127	152	165	191	254	254	305	406	445	510
Wt. kg	4	4.5	5	9	11	14	20	29	37	55	72	110	170	260	500

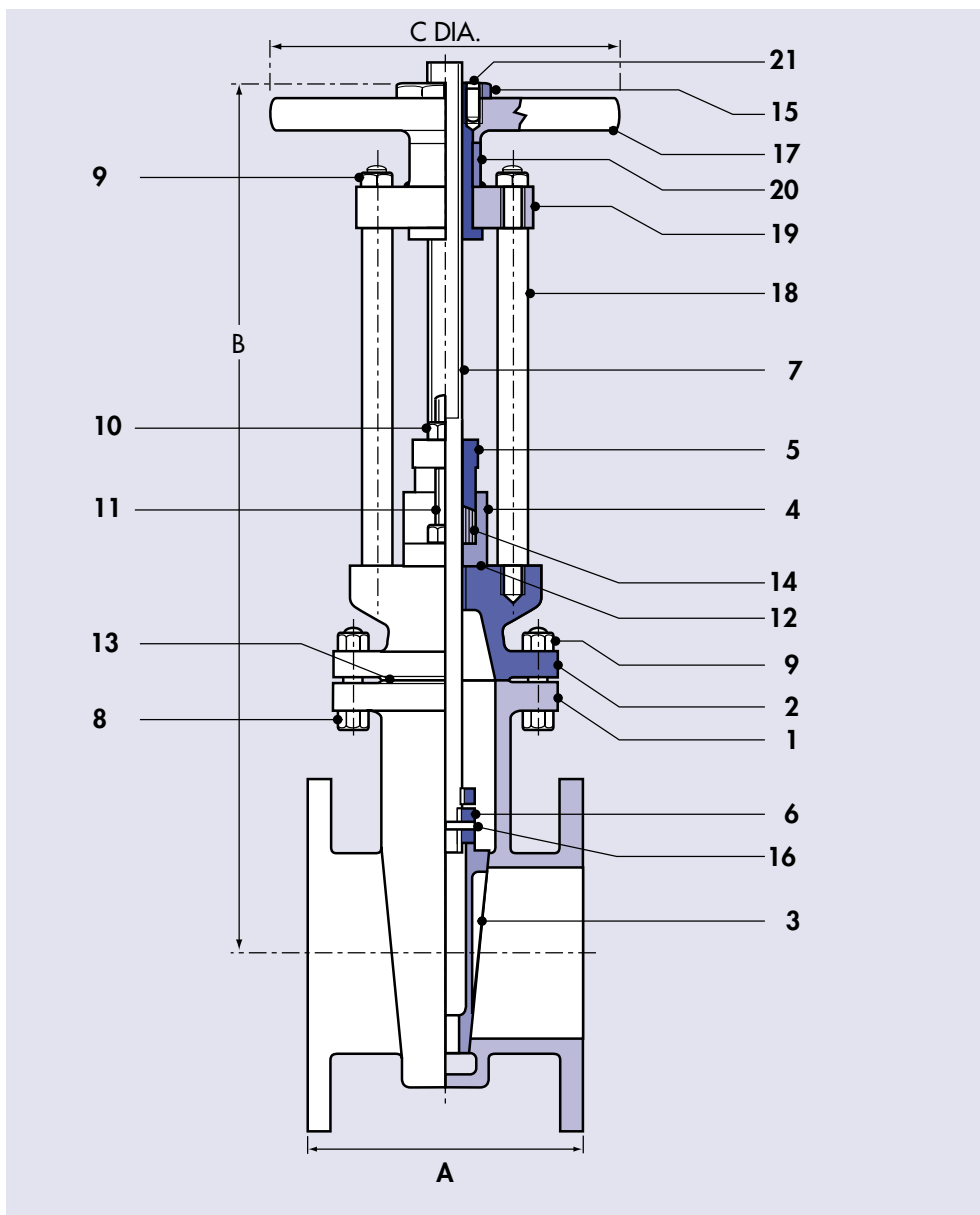
Face to Face Dimensions
15mm to 80mm BS 5154 Short Dimension
100mm to 250mm BSMA 65 Part 9

Flanged and drilled to BS 4504
Available with ANSI B16.24 Flanges



Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2
- 2 COVER**
Bronze BS 1400 LG2
- 3 WEDGE**
Bronze BS 1400 LG2
- 4 PRIMARY GLAND**
Bronze BS 1400 LG2
- 5 SECONDARY GLAND**
Bronze BS 1400 LG2
- 6 WEDGE NUT**
Bronze BS 1400 LG2
- 7 SPINDLE**
Manganese Bronze BS 2874
CZ 114
- 8 BOLTS**
Steel
- 9 NUTS**
Brass
- 10 GLAND NUTS**
Brass
- 11 GLAND STUDS**
Steel
- 12 GASKET**
Glass Fibre Sheet AF 2100
- 13 GASKET**
Glass Fibre Sheet AF 2100
- 14 PACKING**
Non -Asbestos
- 15 HANDWHEEL NUT**
Manganese Bronze BS 2874
CZ 114
- 16 SPLIT TAPER PIN**
Stainless Steel 304
- 17 HANDWHEEL**
Cast Iron
- 18 PILLARS**
Mild Steel BS 970 EN3B
- 19 *BRIDGE**
Mild Steel BS 4360 43A
- 20 HANDWHEEL BUSH**
Manganese Bronze BS 2874
CZ 114
- 21 GRUB SCREW**



Dimensions

BORE	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
A	80	90	100	110	120	135	165	185	229	254	267	292	330	356	441
B	197	197	197	302	302	359	378	464	535	635	724	844	1076	1232	1485
C	76	76	76	115	115	127	200	200	254	254	254	305	406	445	510
Wt. kg	5	5.5	6	10	12	16	22	31	40	59	78	122	190	290	550

Face to Face Dimensions.
15mm to 80mm BS 5150 Short Dimension.
100mm to 250mm BSMA 65 Part 9

Flanged and drilled to BS 4504
Available with ANSI B16.24 Flanges

*Note:- Bridge integral part of cover on some sizes.

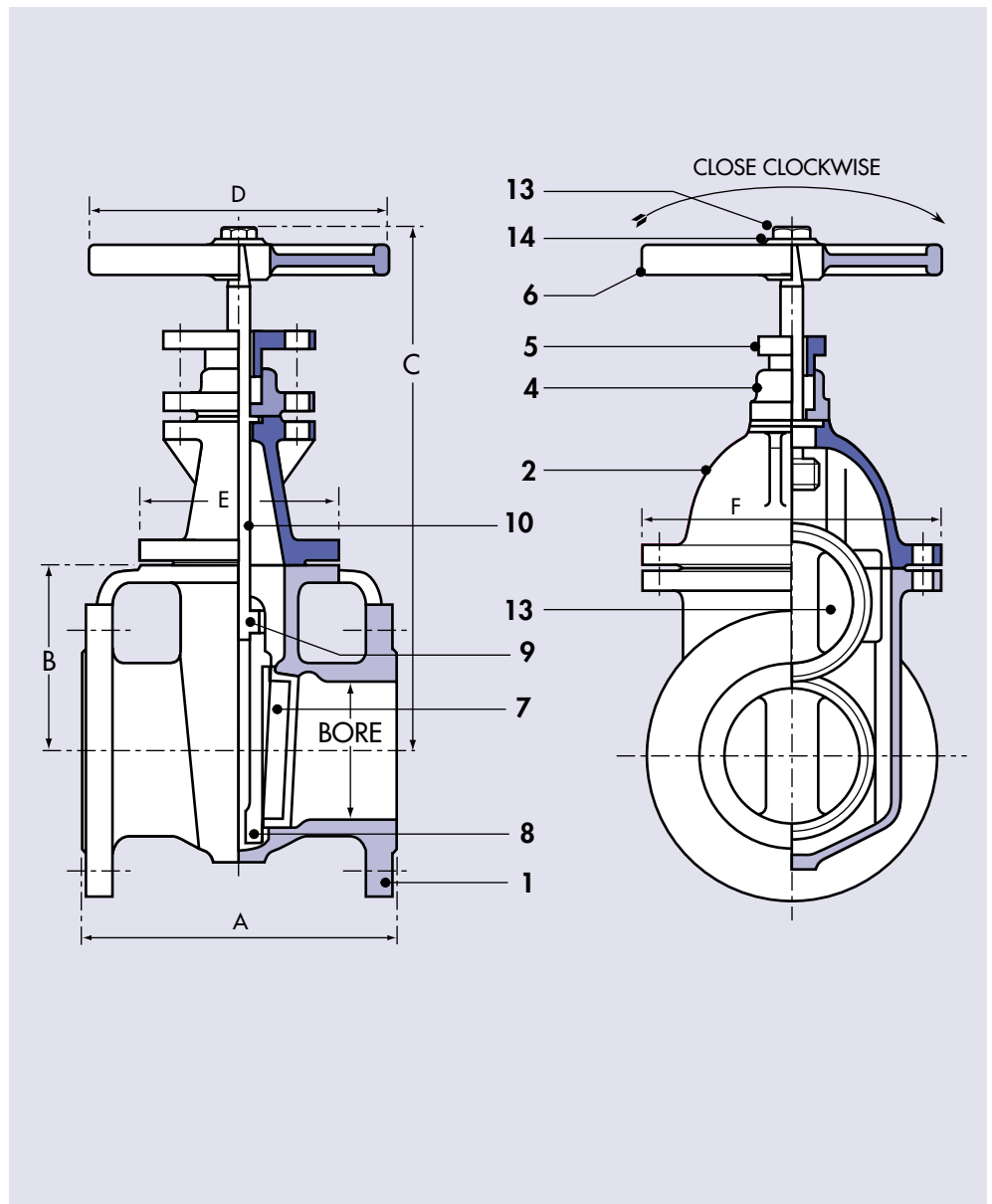
Options Available:-

Bronze BS 1400 LG4./AL BR.
AL. Bronze Trim./Monel/ST. ST. Trim
Renewable Seats 100mm & above.
Patterns can be altered to meet special
face to face dimensions.



Young & Cunningham

- 1 BODY**
Cast Iron BS 1452
- 2 BONNET**
Cast Iron BS 1452
- 3 WEDGE**
Cast Iron BS 1452
- 4 STUFFING BOX**
Cast Iron BS 1452
- 5 GLAND**
Cast Iron BS 1452
- 6 HANDWHEEL**
Cast Iron BS 1452
- 7 SEAT RINGS**
Bronze BS 1400 Grade LG2
- 8 WEDGE RINGS**
Bronze BS 1400 Grade LG2
- 9 NUT**
Bronze
- 10 SPINDLE**
H.T.B. BS 2872 Grade CZ 114
- 11 BODY-BONNET BOLTS**
Mild Steel BS 970 Grade CN3
- 12 BONNET-GLAND BOLTS**
Mild Steel BS 970 Grade CN3
- 13 SET SCREW**
Mild Steel BS 970 Grade CN3
- 14 WASHER**
Mild Steel BS 970 Grade CN3



Dimensions

BORE	40	50	65	80	100	125	150	200	250	300
A	165	178	190	203	229	254	267	292	330	356
B	90	110	110	120	140	170	170	230	280	340
C	241	273	292	330	387	419	460	587	711	806
D	152	152	152	152	229	267	267	305	381	381
E	127	127	130	140	150	165	172	216	260	260
F	143	159	175	197	222	251	276	352	429	483
Wt. kg	13	14	17	22	30	41	47	85	146	188

Flanged and drilled to BS 4504



Young & Cunningham

- 1 BODY**
Cast Iron BS 1452

- 2 BONNET**
Cast Iron BS 1452

- 3 WEDGE**
Cast Iron BS 1452

- 4 YOKE**
Cast Iron BS 1452

- 5 YOKE SLEEVE**
Bronze BS 1400 LG2

- 6 STUFFING BOX**
Cast Iron BS 1452

- 7 GLAND**
Cast Iron BS 1452

- 8 HANDWHEEL**
Cast Iron BS 1452

- 9 SEAT RINGS**
Bronze BS 1400 LG2

- 10 WEDGE RINGS**
Bronze BS 1400 LG2

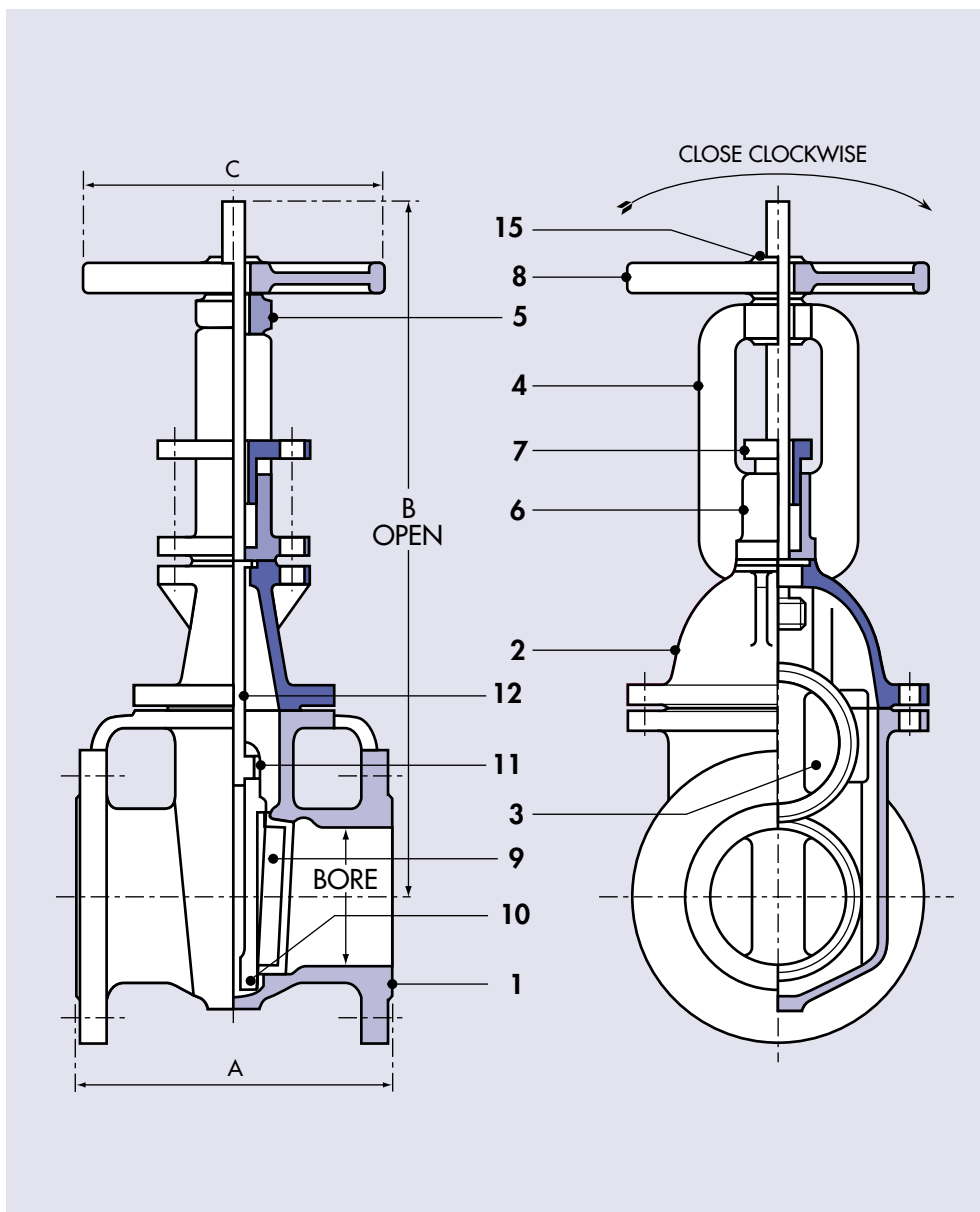
- 11 SPINDLE NUT**
Bronze BS 1400 LG2

- 12 SPINDLE**
H.T.B. BS 2872 Grade CZ114

- 13 BODY BONNET BOLTS**
Mild Steel BS 9 70 Grade EN3

- 14 BONNET-GLAND BOLTS**
Mild Steel BS 970 Grade EN3

- 15 NUT**
Mild Steel BS 970 Grade EN3



Dimensions

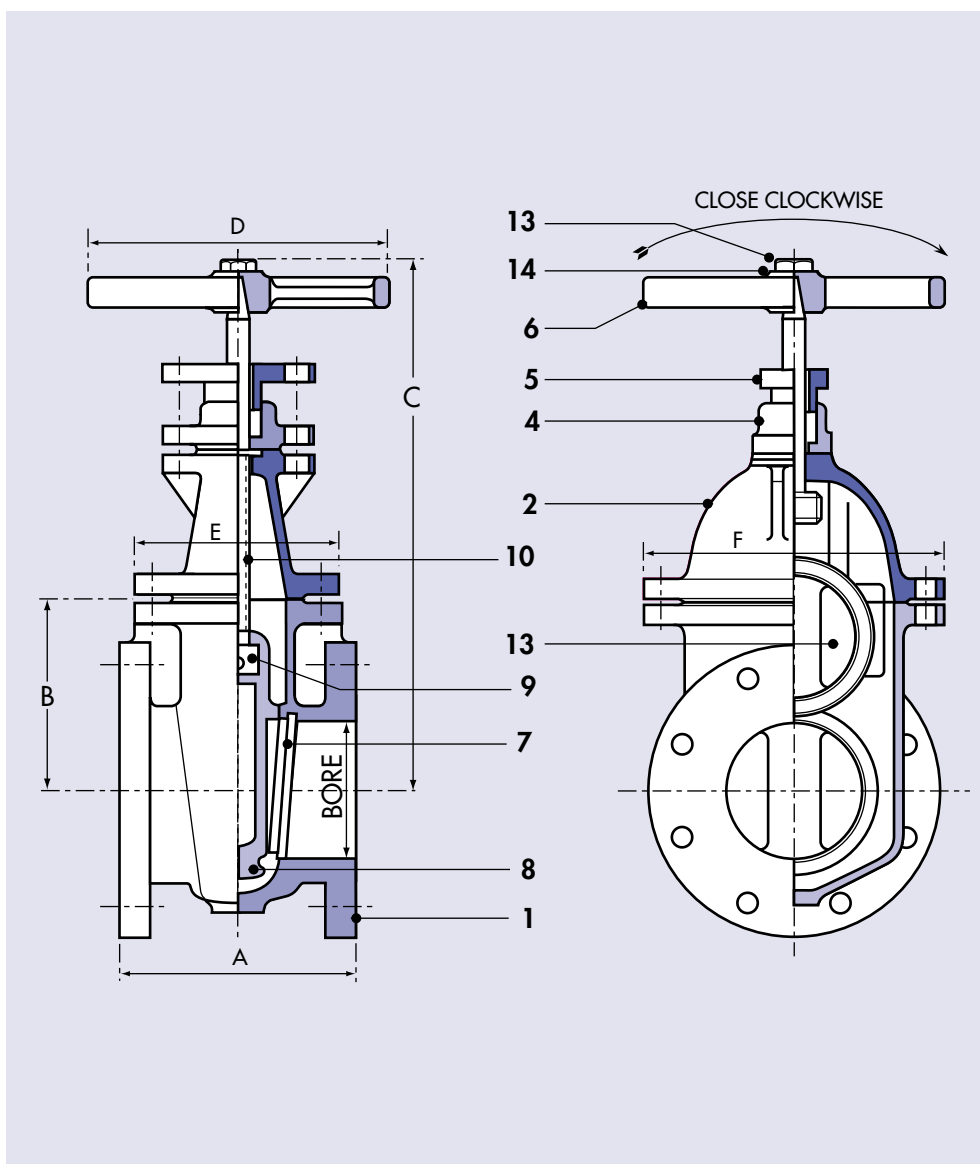
BORE	50	65	80	100	125	150	200	250	300
A	178	190	203	229	254	267	292	330	356
B	413	441	499	603	689	787	1022	1226	1445
C	178	203	203	254	254	305	356	406	457
Wt. kg	16	21	25	33	49	53	95	163	214

Flanged and drilled to BS 4504



Young & Cunningham

- 1 BODY**
Cast Iron BS 1452
- 2 BONNET**
Cast Iron BS 1452
- 3 WEDGE**
Cast Iron BS 1452
- 4 STUFFING BOX**
Cast Iron BS 1452
- 5 GLAND**
Cast Iron BS 1452
- 6 HANDWHEEL**
Cast Iron BS 1452
- 7 SEAT RINGS**
Bronze BS 1400 Grade LG2
- 8 WEDGE RINGS**
Bronze BS 1400 Grade LG2
- 9 NUT**
Bronze
- 10 SPINDLE**
H.T.B. BS 2872 Grade CZ 114
- 11 BODY-BONNET BOLTS**
Mild Steel BS 970 Grade CN3
- 12 BONNET-GLAND BOLTS**
Mild Steel BS 970 Grade CN3
- 13 SET SCREW**
Mild Steel BS 970 Grade CN3
- 14 WASHER**
Mild Steel BS 970 Grade CN3



Dimensions

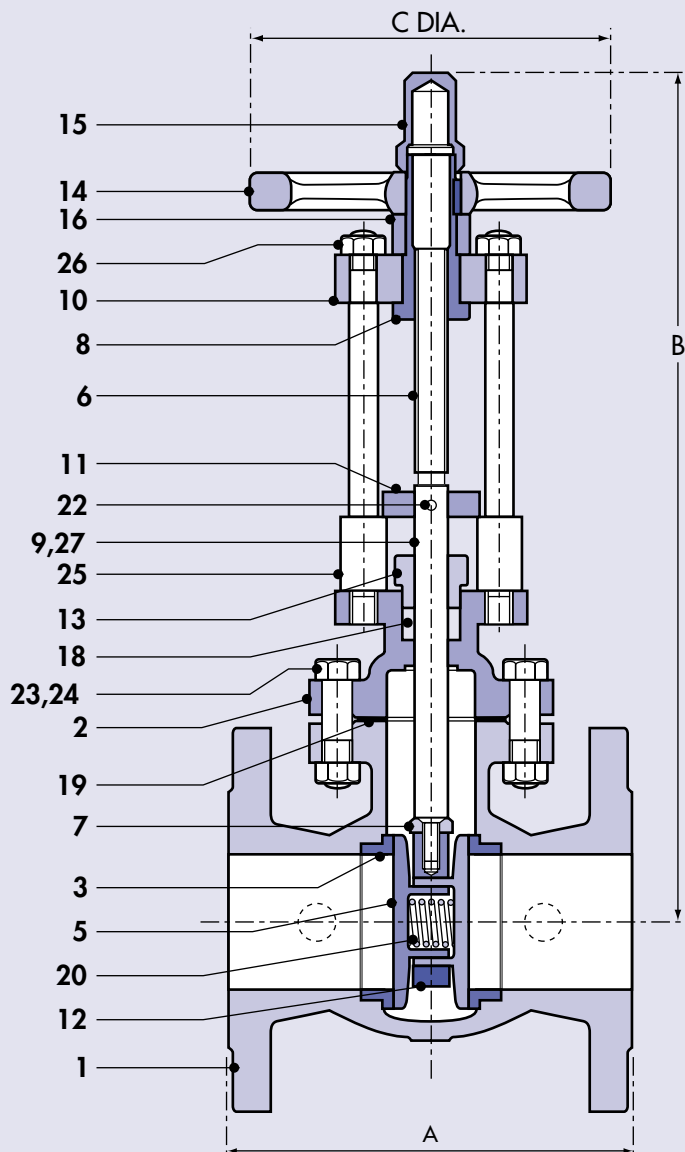
BORE	1 1/2	2	2 1/2	3	4	5	6	7	8	9	10	12
A	5 1/2	5 3/4	6 1/4	6 1/2	6 3/4	7 1/2	8 1/4	9	9 1/2	10	10 3/4	12
B	3 1/2	4 1/4	4 1/4	4 3/4	5 1/2	6 3/4	6 3/4	8	9	10	11	13 1/4
C	9 1/2	10 3/4	11 1/2	13	15 1/4	16 1/2	18 1/8	20 1/8	23 1/8	24 5/8	28	31 3/4
D	6	6	6	6	9	10 1/2	10 1/2	10 1/2	12	12	15	15
E	5 5/8	6 1/4	6 7/8	7 3/4	8 3/4	9 7/8	10 7/8	12 7/8	13 7/8	15 5/8	16 7/8	19
Wt. kg	10	14	16	20	27	39	44	63	82	96	123	174

Flanged and drilled to BST ÔDÔ or ÔEÔ



Young & Cunningham

- 1 BODY**
Cast Iron BS 1452 GR 220
- 2 COVER**
Cast Iron BS 1452 GR 220
- 3 SEAT**
Ni-Cu Alloy MS
- 4 DOOR FEMALE**
Ni-Cu Alloy MS
- 5 DOOR MALE**
Ni-Cu Alloy MS
- 6 SPINDLE**
17 CR St. Steel 431 S 29
- 7 SPINDLE STOP COLLAR**
17 CR St. Steel 431 S 29
- 8 YOKE SLEEVE**
HT Brass BS 2874 CZ 114
- 9 PILLARS**
Carbon Steel 070 M20
- 10 BRIDGE**
Carbon Steel BS 4360 43A
- 11 INDICATOR STOP**
Carbon Steel BS 4360 43A
- 12 BELT EYE**
Carbon Steel BS 4360 43A
- 13 GLAND**
Mall Iron BS 6681 W35 - 04
- 14 HANDWHEEL**
Cast Iron BS 1452 GR.180
- 15 HANDWHEEL CAP**
Cast Iron BS 1452 GR.220
- 16 HANDWHEEL SPACER**
Carbon steel 070 M20
- 17 HANDWHEEL KEY**
Key Steel 080 M40
- 18 GLAND PACKING**
Exfol. Graphite, Flexitallic MS
- 19 GASKET**
Caf BS 2815 B
- 20 SPRING**
Stainless Steel MS
- 21 TENSION PIN (Belt Eye)***
Spring Steel MS
- 22 TENSION PIN (Indicator)**
Spring Steel MS
- 23 COVER BOLTS**
Carbon Steel BS 4190 GR 4.6
- 24 COVER BOLTS NUTS**
Carbon Steel BS 4190 GR 4
- 25 GLAND SCREWS**
Carbon Steel BS 4190 GR 4.6
- 26 PILLAR NUTS**
Carbon Steel BS 916 or 1083
- 27 WASHER (Gland Adjust)***
Carbon Steel BS 4320



Dimensions

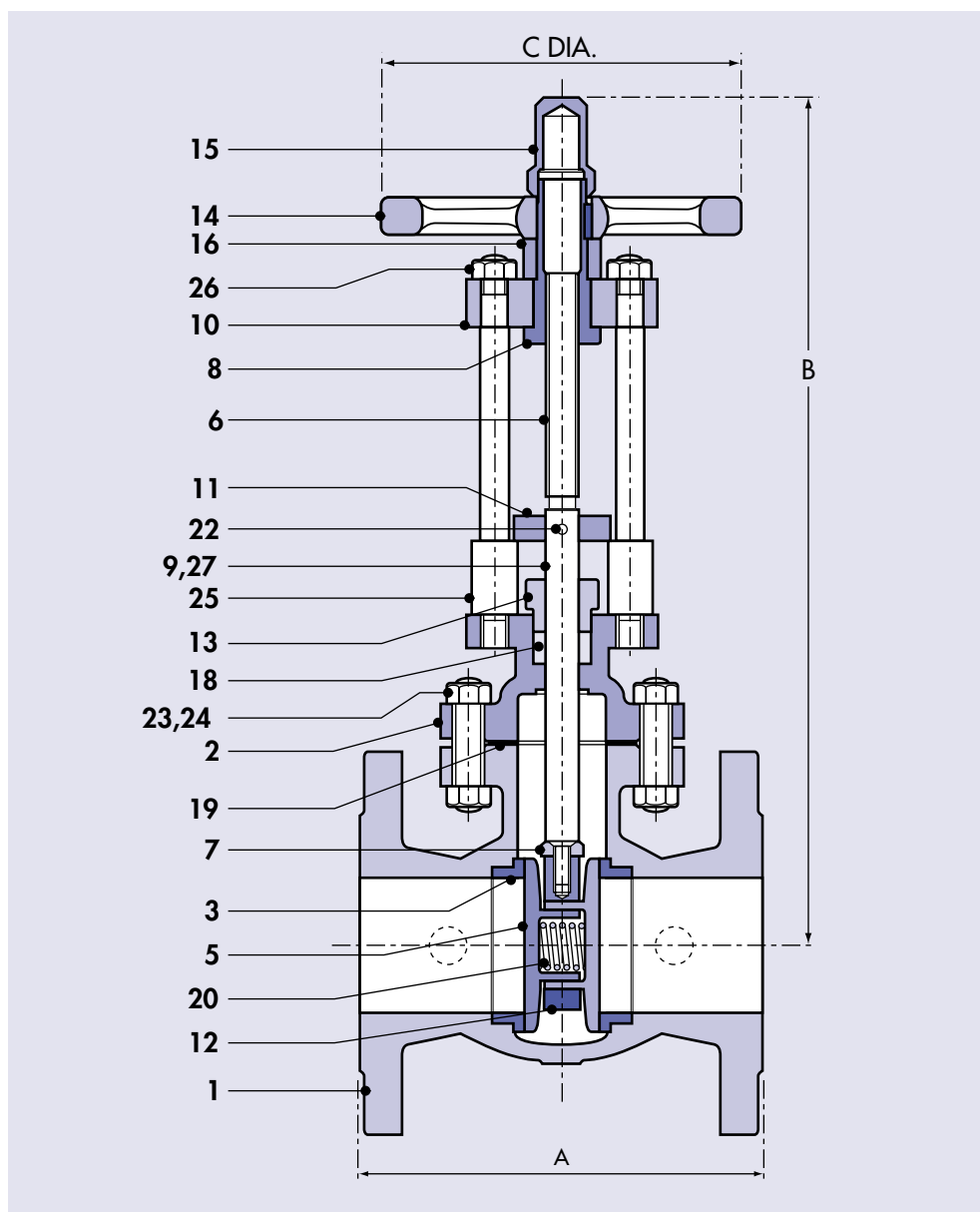
SIZE	50	65	80	100	125	150	200	250
A	178	190	203	229	254	267	292	330
B	355	400	490	580	720	810	980	1250
C	180	180	200	250	250	300	360	450

* Not Shown MS = Manufacturer's Standard



Young & Cunningham

- 1 BODY**
Carbon Steel A 216 WCB
- 2 COVER**
Carbon Steel A 216 WCB
- 3 SEAT**
Ni-Cu Alloy MS
- 4 DOOR FEMALE**
Ni-Cu Alloy MS
- 5 DOOR MALE**
Ni-Cu Alloy MS
- 6 SPINDLE**
17 CR St. Steel 431 S29
- 7 SPINDLE STOP COLLAR**
17 CR St. Steel 431 S29
- 8 YOKE SLEEVE**
HT Brass BS 2874 CZ 114
- 9 PILLARS**
Carbon Steel 070 M20
- 10 BRIDGE**
Carbon Steel BS 4360 43A
- 11 INDICATOR STOP**
Carbon Steel BS 4360 43A
- 12 BELT EYE**
Carbon Steel BS 4360 43A
- 13 GLAND**
Mall Iron BS 6681 W35 - 04
- 14 HANDWHEEL**
Cast Iron BS 1452 GR.220
- 15 HANDWHEEL CAP**
Cast Iron BS 1452 GR.220
- 16 HANDWHEEL SPACER**
Carbon Steel 070 M20
- 17 HANDWHEEL KEY**
Key Steel 080 M40
- 18 GLAND PACKING**
Exfol. Graphite, Flexitallic MS
- 19 GASKET**
Caf BS 2815 B
- 20 SPRING**
Stainless Steel MS
- 21 TENSION PIN (Belt Eye)**
Spring Steel MS
- 22 TENSION PIN (Indicator)***
Spring Steel MS
- 23 COVER STUD BOLTS**
Alloy Steel BS 4882 GR B7
- 24 COVER STUD NUTS**
Carbon Steel BS 4882 GR 2H
- 25 GLAND SCREWS**
Carbon Steel BS 4190 GR 4.6
- 26 PILLAR NUTS**
Carbon Steel BS 916 or 1083
- 27 WASHER (Gland Adjust)***
Carbon Steel BS 4320

**Dimensions**

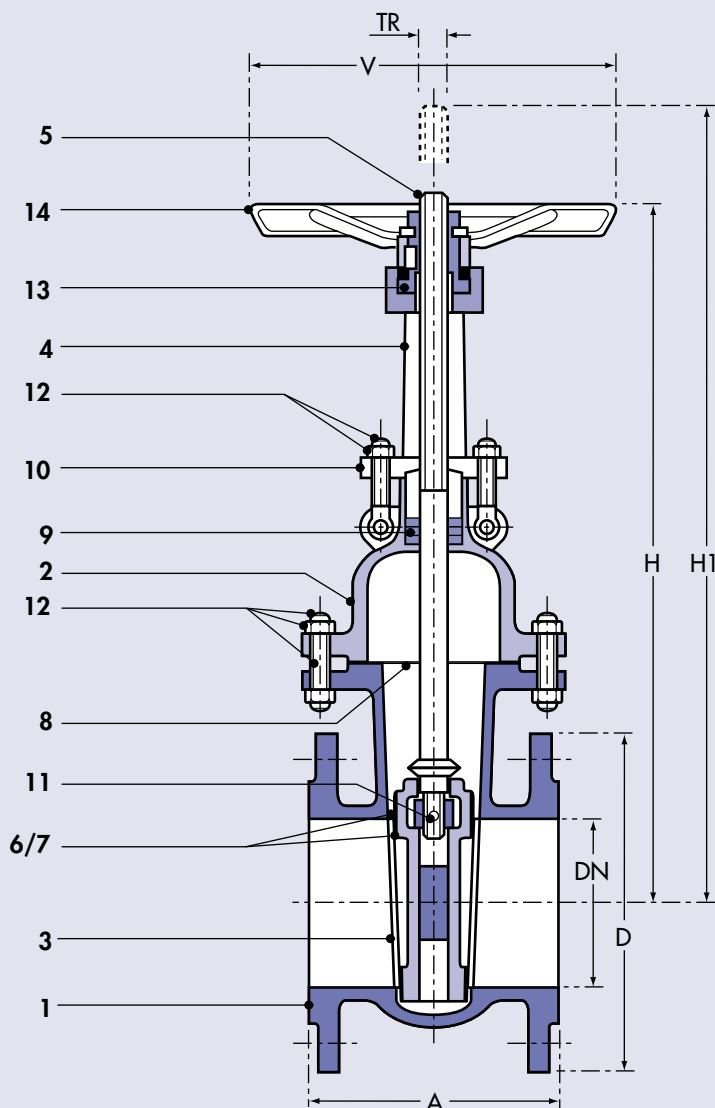
SIZE	50	65	80	100	125	150	200	250
PN 16	A	178	190	203	229	254	267	292
	B	355	400	490	580	720	810	980
PN 25/40	A	216	241	283	305	381	403	419
	B	355	400	490	580	720	810	980
C	180	180	200	250	250	300	360	450

* Not Shown MS = Manufacturer's Standard



Young & Cunningham

- 1 BODY**
GS C25N
- 2 BONNET**
GS C25N
- 3 WEDGE**
GS C25N
- 4 YOKE**
GS C25N
- 5 STEM**
X20 Cr13
- 6 BODY SEATS**
X8 Cr Mo Ti 18
- 7 WEDGE SEATS**
X8 Cr Mo Ti 18
- 8 GASKET**
Asbestos Free**
- 9 PACKING**
Braid Graphite
- 10 GLAND**
C22
- 11 BOSS**
X5 Cr Ni 18 9
- 12 BOLTS & NUTS**
42 Cr Mo 4 - C45
- 13 YOKE SLEEVE**
GGG40 - St 50.2
- 14 HANDWHEEL**
Pressed Steel



Dimensions

	DN	A	D	H	H1	TR	V	Kg	m ²
PN 16	50	150	165	320	380	18x4	200	15	0.01
	65	170	185	385	460	20x4	200	22	0.015
	80	180	200	400	490	20x4	200	27	0.018
	100	190	220	450	560	22x5	200	34	0.02
	125	200	250	530	565	25x5	250	43	0.03
	150	210	285	610	775	25x5	250	53	0.045
	200	230	340	750	965	28x5	300	92	0.072
	250	250	405	950	1215	32x6	350	130	0.1
	300	270	460	1050	1365	32x6	350	180	0.16
PN 10	350	290	520	1200	1570	32x6	350	230	0.22
	400	310	580	1350	1770	35x6	500	320	0.3
	500	350	670	1650	2170	40x7	500	560	0.47
PN 6	600	390	780	1940	2560	40x7	500	780	0.7
	700	430	895	2200	2920	55x9	600	1050	1
	800	470	1015	2570	3390	55x9	600	1550	1.5

*Other material on request.

**Acc. to current technical standard.

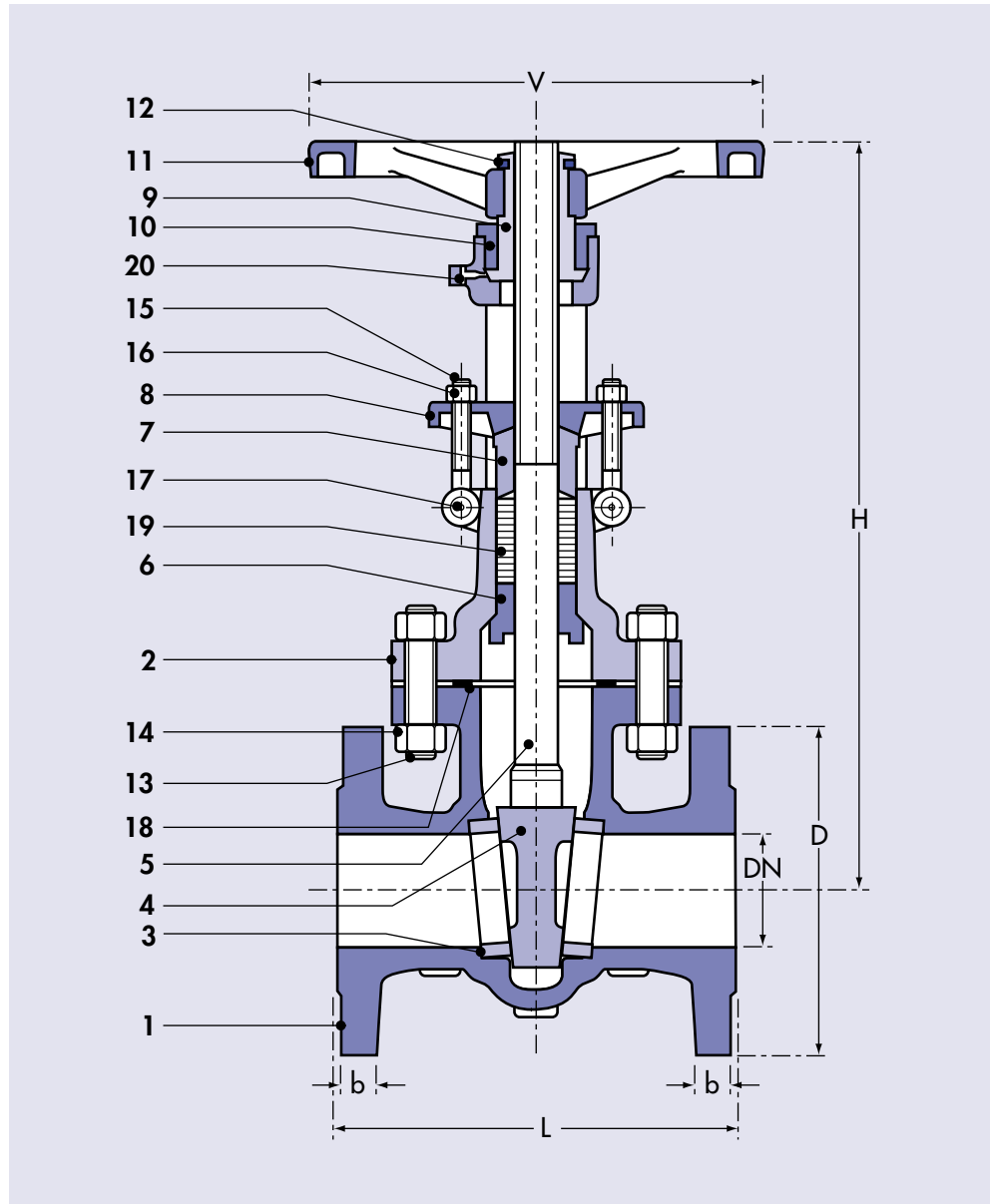
Face to Face DIN 3202 F4.

Flanges DIN 2501 - 2526 For m C.



Young & Cunningham

- 1 BODY**
ASTM A. 216 WCB
- 2 BONNET**
ASTM A. 216 WCB
- 3 SEAT RING**
ASTM A. 182 F6
- 4 WEDGE**
ASTM A. 182 F6
- 5 STEM**
ASTM A. 182 F6
- 6 STEM BUSHING**
ASTM A. 182 F6
- 7 GLAND**
ASTM A. 182 F6
- 8 GLAND FLANGE**
ASTM A. 105 II
- 9 YOKE SLEEVE**
ASTM B. 148 9A
- 10 YOKE NUT**
ASTM A. 105 II
- 11 HANDWHEEL**
Steel
- 12 HANDWHEEL NUT**
ASTM A. 105 II
- 13 BOLTS**
ASTM A. 193 B7
- 14 NUTS**
ASTM A. 194 2H
- 15 EYE BOLTS**
ASTM A. 193 B7
- 16 NUTS**
ASTM A. 194 2H
- 17 EYE BOLT PIN**
ASTM A. 193 B7
- 18 GASKET**
Asbestos
- 19 PACKING**
Asbestos
- 20 GREASE NIPPLE**
Brass



Dimensions

Standard Features:-

Outside Screw and Yoke.
Rising Stem.
Non Rising Handwheel.
Body Bonnet Bolted.
Solid Wedge.
Lapped Seats.
Renewable Seats.
Dimensions to API STD 600.
End to End Dimensions
According to ANSI B 16.10.
Flanges Raised Face and Butt
Welding Ends to ANSI B 16.5.

Features on Request:-

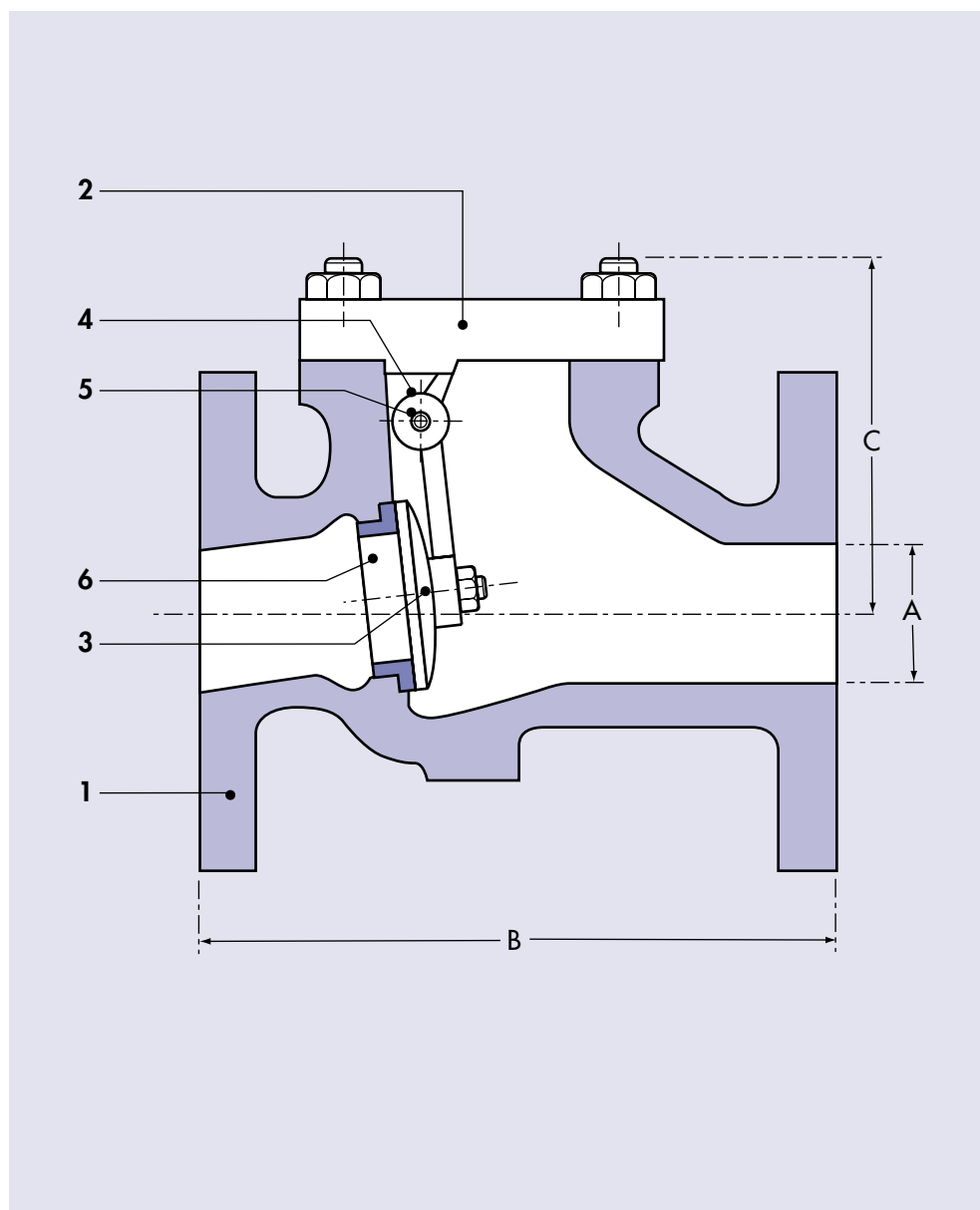
- A) With Flexible Wedge.
- B) With Teflon Soft Seat.
- C) With Operators Gear.
- D) With Chain Wheel Operating.
- E) With Extended Stuffing Box.
- F) With Split Wedge.
- G) With Integral Seats.
- H) With Uni-Din Connections.

DN	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24
L RF	165	178	191	203	229	254	267	292	330	356	381	406	432	457	508
L1 RTJ	178	191	203	216	241	267	279	305	343	368	394	419	445	470	521
L2 BW	165	216	241	283	305	381	403	419	457	502	571	610	660	711	813
D	127.0	152.4	177.8	190.5	228.6	254.0	279.4	342.9	406.4	482.6	533.4	596.9	635.0	698.5	812.8
b	17.5	19.0	22.2	23.8	23.8	23.8	25.4	28.6	30.2	31.7	34.9	36.5	39.7	42.9	47.6
H Closed	340	370	420	440	530	560	660	890	1050	1200	1300	1500	1650	1800	2050
V	175	200	200	225	250	300	300	425	500	575	650	650	650	700	800
Hole Centre	98.4	120.6	139.7	152.4	190.5	215.9	241.3	298.4	361.9	431.8	476.2	539.7	577.8	635.0	749.3
No. Holes	4	4	4	4	8	8	8	8	12	12	12	16	16	20	20
Dia. Holes	15.9	19.0	19.0	19.0	19.0	22.2	22.2	22.2	25.4	25.4	28.6	28.6	31.7	31.7	34.9



Young & Cunningham

- 1 BODY**
Cast Iron BS 1452
- 2 COVER**
Cast Iron BS 1452
- 3 DISC AND NUT**
Bronze BS 1400 LG2
- 4 HINGE**
S.G. Iron
- 5 HINGE PIN**
Bronze BS 1400 LG2
- 6 SEAT RING**
Bronze BS 1400 LG2



Options Available:-
External Lever and Weight.
Soft Seat.
ANSI/BS10 Flanges.

Dimensions

A	40	50	65	80	100	125	150	200	250	300	350
B	200	203	216	241	292	330	356	495	622	698	787
C	98	114	127	134	153	165	184	275	325	337	364
Wt. kg	11	15	19	21	29	39	54	105	162	242	290

Flanged and drilled to BS 4504



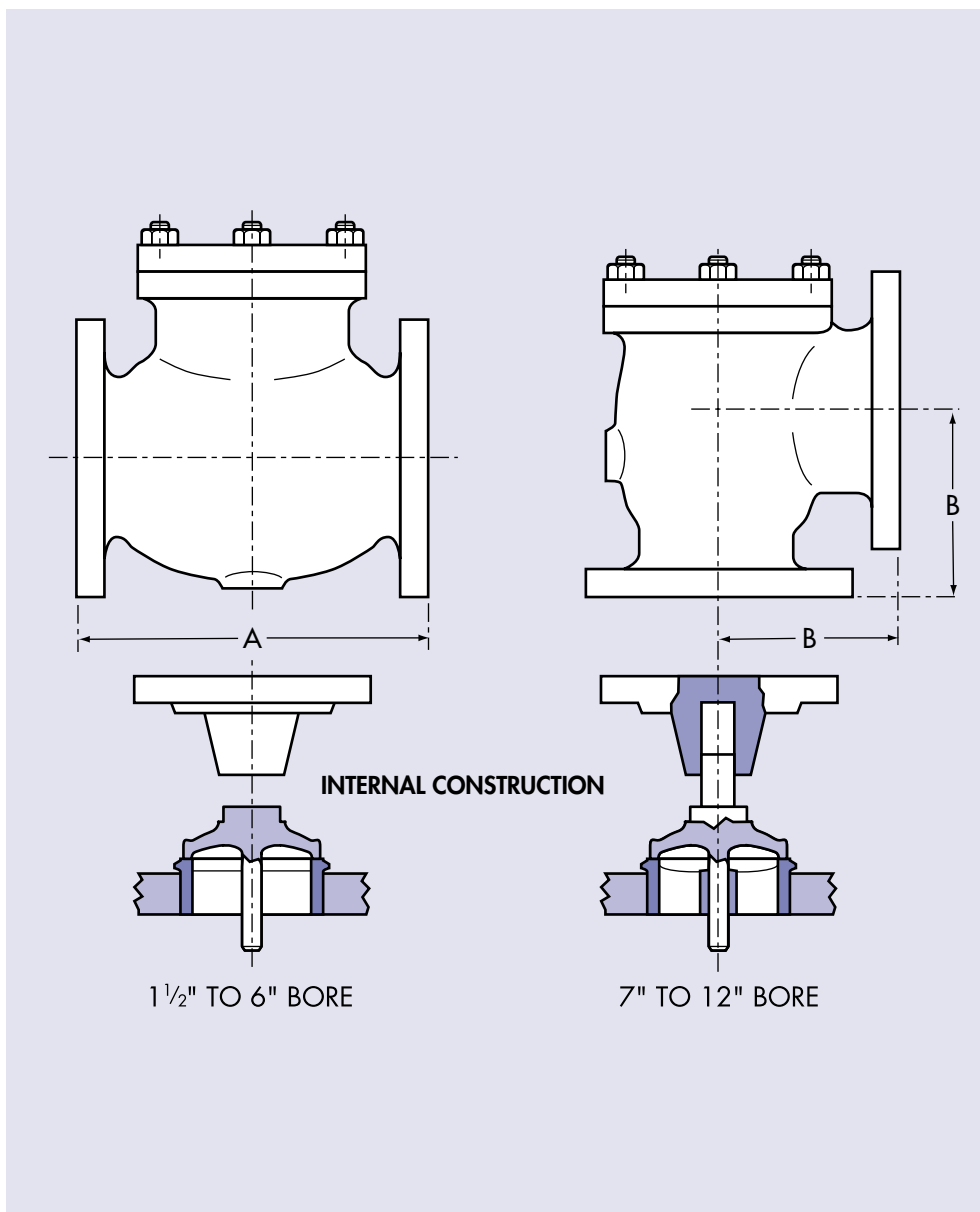
Young & Cunningham

1 BODY

Cast Iron BS 1452

2 TRIM

Bronze BS 1400 LG2



Options Available:-

Nodular Iron (Ductile)/Carbon Steel.
ST. ST. Trim/LG4 Bronze.
ANSI/BS10 Flanged.

Dimensions

BORE	40	50	65	80	100	125	150	200	250	300
A	165	203	216	241	292	330	356	495	622	698
B	115	125	145	155	146	165	178	248	311	350
Wt. kg	12	16	20	22	32	43	59	110	170	249

Flanged and drilled to BS 4504

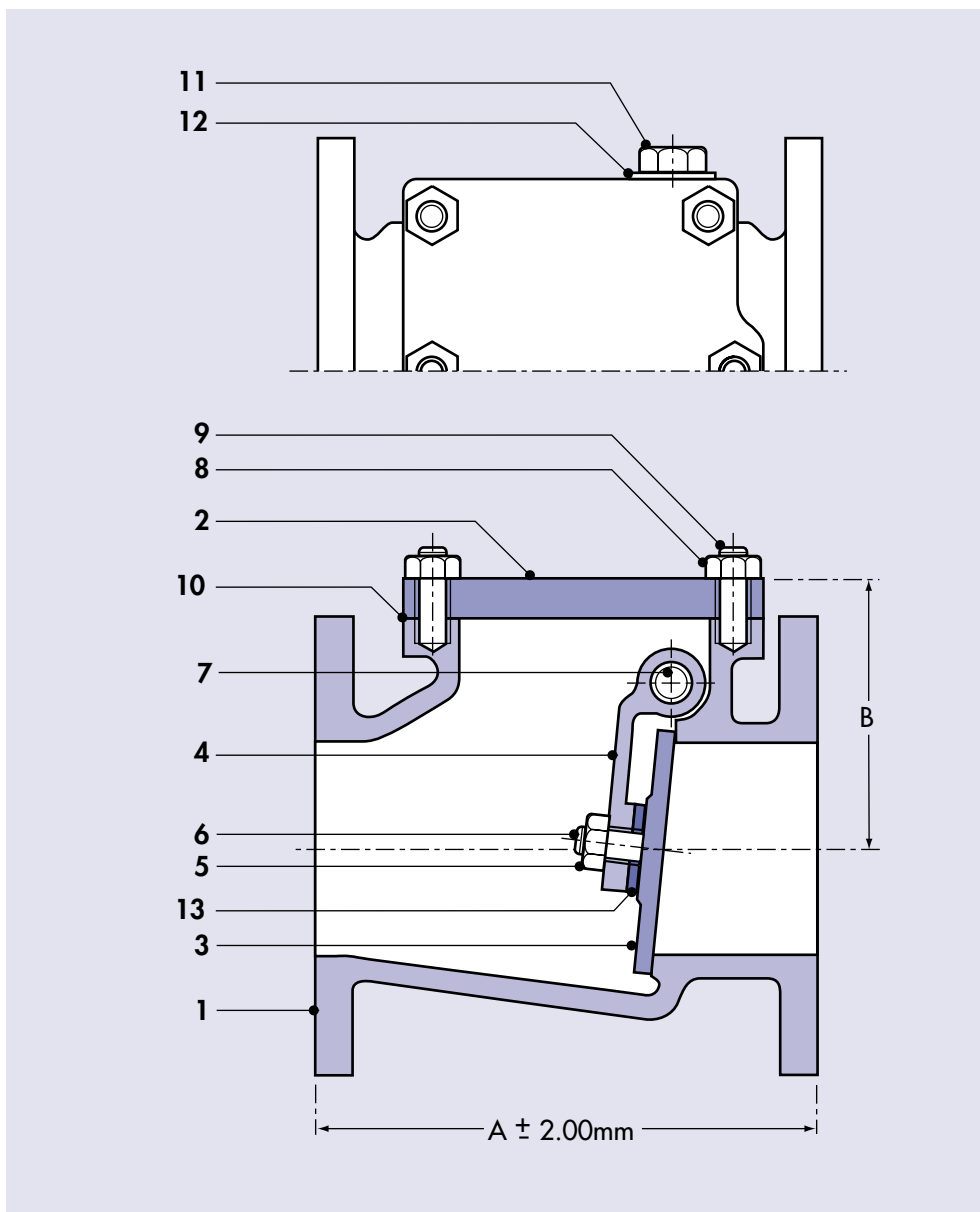


Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2
- 2 COVER**
Bronze BS 1400 LG2
- 3 FLAP**
Bronze BS 1400 LG2
- 4 HINGE ARM**
Bronze BS 1400 LG2
- 5 FLAP NUT**
Brass
- 6 SPLIT PIN**
Brass
- 7 HINGE PIN**
Manganese Bronze - 2874 CZ114A
- 8 NUT**
Brass
- 9 STUD**
Steel
- 10 GASKET**
Nitrile
- 11 TAP BOLT**
Manganese Bronze - 2874 CZ114A
- 12 WASHER**
Steel/Neoprene Insert
- 13 FLAP COLLAR**
Manganese Bronze - 2874 CZ114A

Options Available:-

Bronze BS 1400 LG4.
Renewable Seats available 100mm and above.
ST. ST. Trim/AL. BR.
Patterns may be altered to accommodate special face/face requirements.
ANSI/BS10 Flanges.



Dimensions

BORE	15	20	25	32	40	50	65	80	100	125	150	200	250	300	350
A	127	127	127	146	159	190	216	254	292	330	356	495	622	698	787
B	60	60	60	60	60	86	124	124	144	144	152	190	260	337	364
Wt. kg	4.5	5	5.5	11	12	15	21	23	31	38	44	71	148	270	350

Flanged and drilled to BS 4504



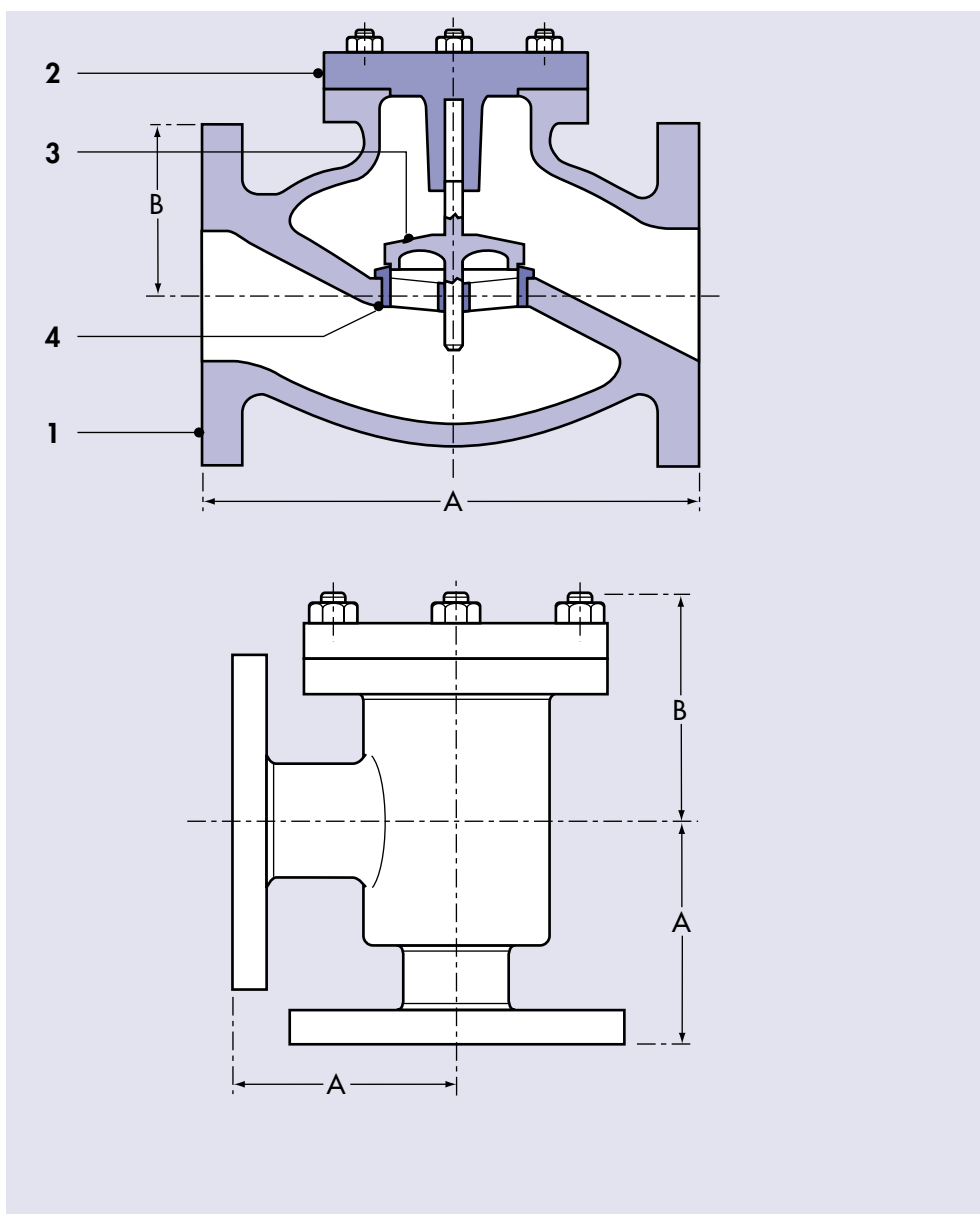
Young & Cunningham

1 BODY
Bronze BS 1400 LG2

2 COVER
Bronze BS 1400 LG2

3 LID (Disc)
Bronze BS 1400 LG2

4 SEAT
Bronze BS 1400 LG2



Options Available:-

ANSI/BS10 Flanged.
Illustrated showing Renewable Seat -
Standard Integral Seat.
ST. ST. Trim./Monel Trim./AL. BR.

Dimensions

GLOBE	VALVE	15	20	25	32	40	50	65	80	100
	A	108	117	127	146	159	190	216	254	292
	B	62	62	80	83	87	92	105	110	125
	Wt. kg	4.5	4.5	5	7	8	10.5	16	19.5	32

ANGLE	VALVE	15	20	25	32	40	50	65	80	100
	A	70	75	85	95	100	115	125	135	146
	B	52	52	65	70	72	72	75	82	100
	Wt. kg	4	4	4.5	6	7.5	9.5	15	18	28

Flanged and drilled to BS 4504



Young & Cunningham

1 BODY
Bronze BS 1400 LG2

2 COVER
Bronze BS 1400 LG2

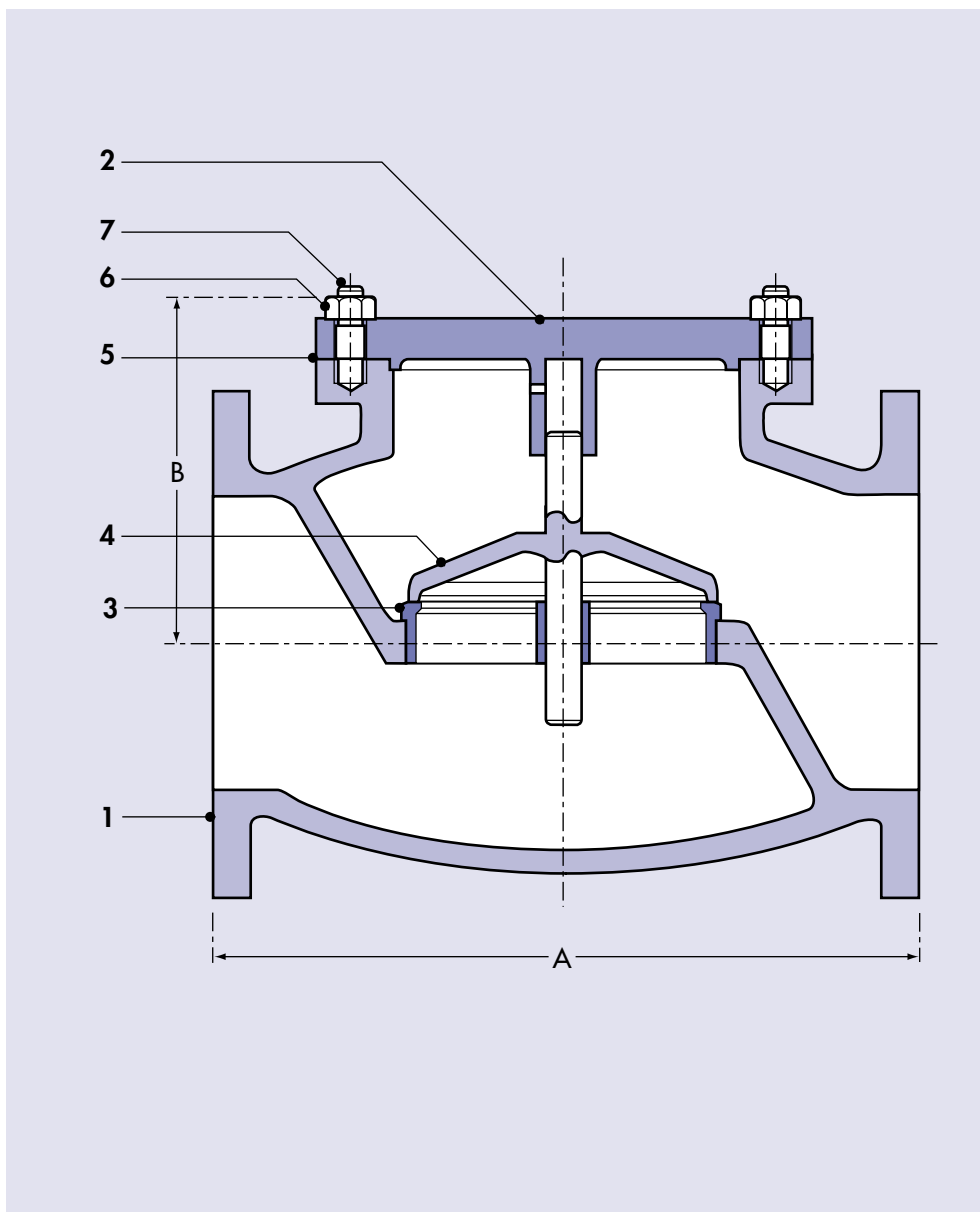
3 SEAT
Bronze BS 1400 LG2

4 LID
Bronze BS 1400 LG2

5 GASKET
C.A.F.

6 NUT
Brass

7 STUD
Steel



Options Available:-

Bronze BS 1400 LG4/AL. BR.
ST. ST. Trim/AL. BR./Monel T rim.
ANSI/BS10 Flanged.

Patterns can be altered to meet
special face to face dimensions.

Dimensions

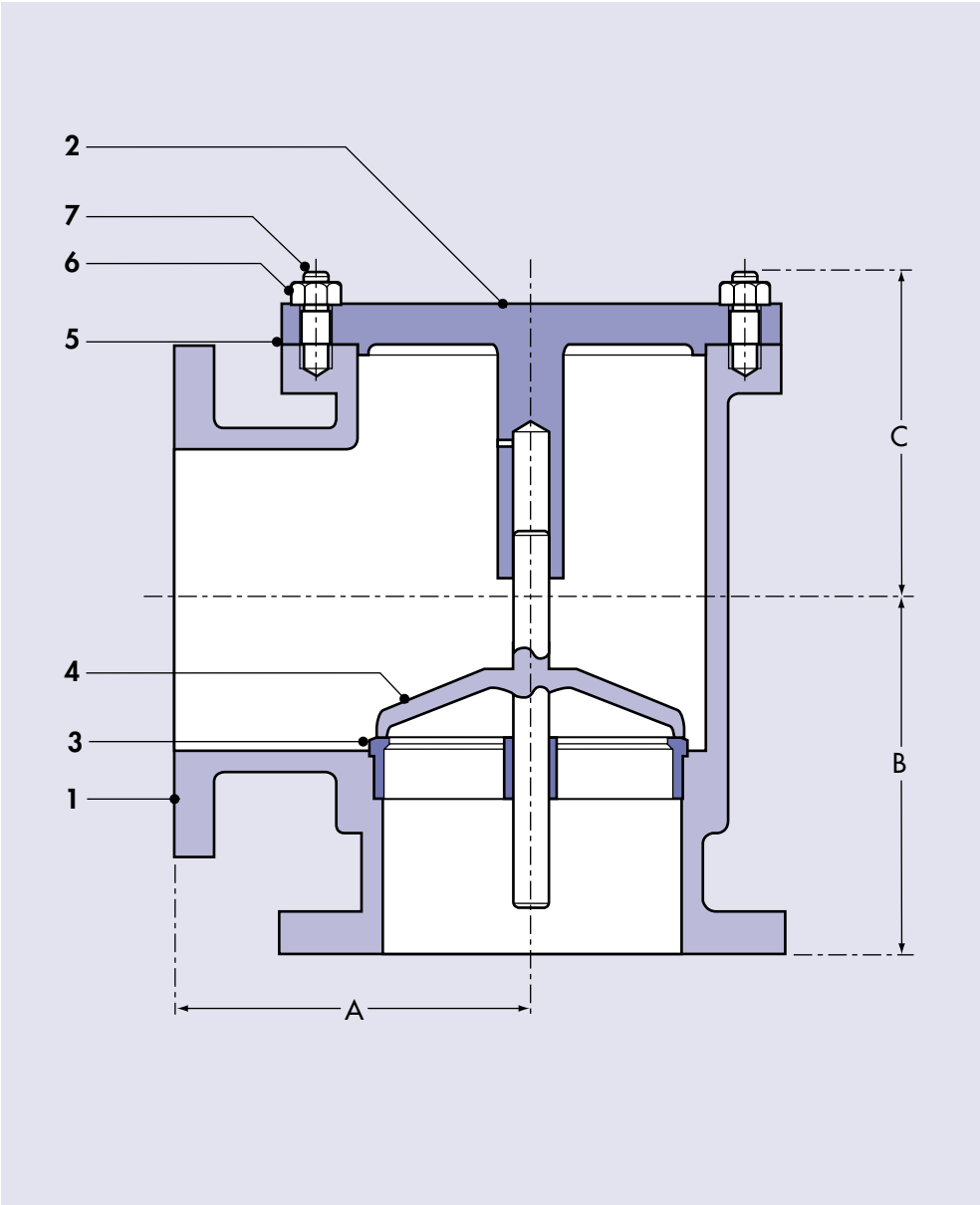
BORE	125	150	200	250	300	350	400
A	330	356	495	622	698	777	914
B	181	213	235	267	295	352	390
Wt. kg	54	67	144	190	273	398	610

Flanged and drilled to BS 4504



Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2
- 2 COVER**
Bronze BS 1400 LG2
- 3 SEAT**
Bronze BS 1400 LG2
- 4 LID**
Bronze BS 1400 LG2
- 5 GASKET**
C.A.F.
- 6 NUT**
Brass
- 7 STUD**
Steel



Options Available:-
Bronze BS 1400 LG4/AL. BR.
ST. ST. Trim/AL. BR./Monel T rim.
ANSI/BS10 Flanged.
Patterns can be altered to meet
special face to face dimensions.

Dimensions

BORE	125	150	200	250	300	350	400	450	500	600
A	165	178	248	311	350	338	343	464	490	508
B	165	178	248	311	350	350	368	464	490	508
C	149	172	216	238	267	286	330	381	419	432
Wt. kg	57	62	129	195	226	306	420	580	750	940

Flanged and drilled to BS 4504



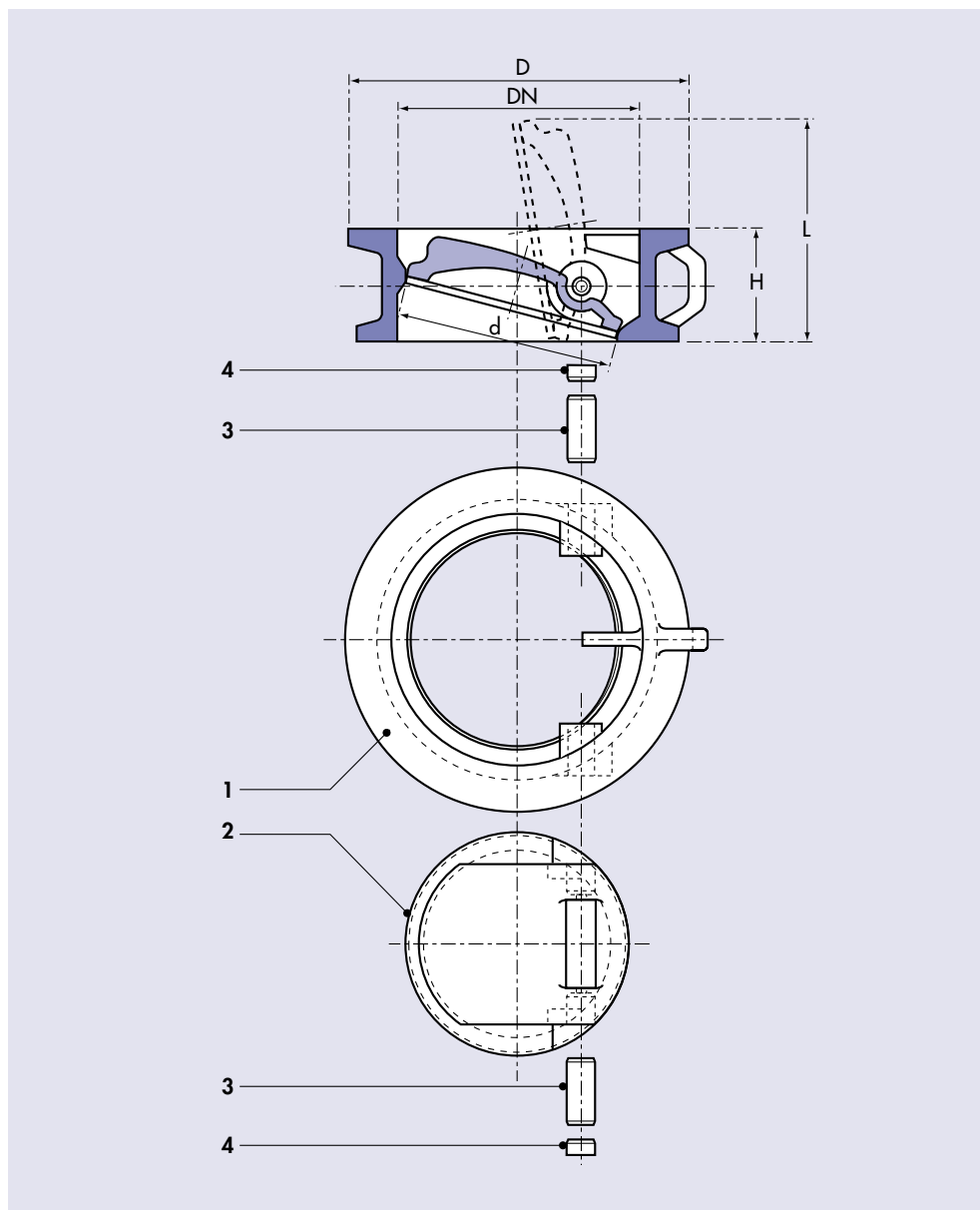
Young & Cunningham

- 1 BODY**
Stainless Steel CF 8M

- 2 FLAP**
Stainless Steel CF 8M

- 3 HINGE PIN**
Stainless Steel AISI 316

- 4 PLUG**
Stainless Steel AISI 316



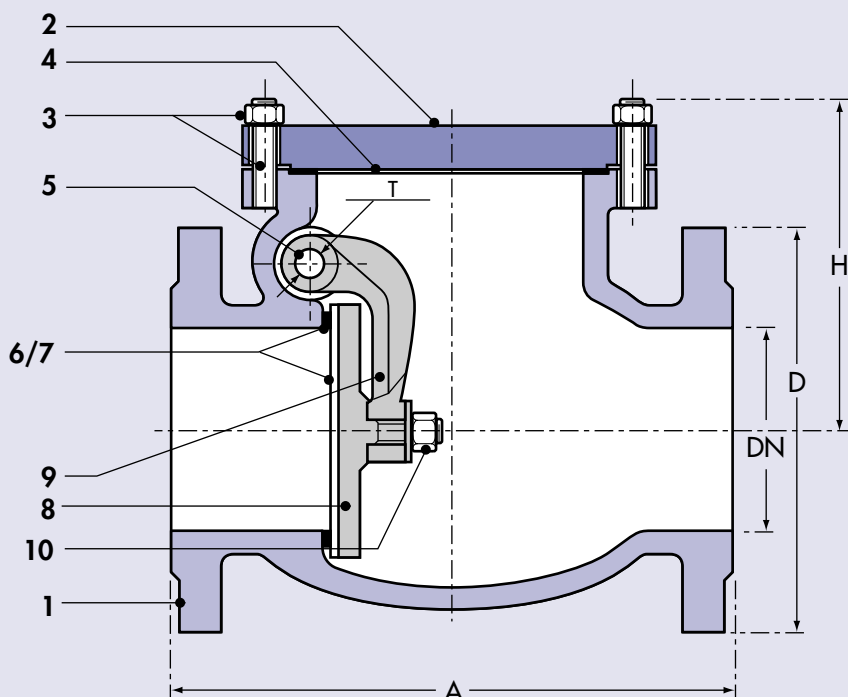
Dimensions

	BORE	50	65	80	100	125	150	200	250	300	350	400	450	500	600	700	800	900
D	PN 10	107	127	142	162	194	219	273	329	378	438	490	539	594	696	811	918	1018
	PN 16	107	127	142	162	194	219	273	329	384	444	496	556	618	735	805	912	1012
	PN 25	107	127	142	168	194	224	284	340	401	458	515	565	625	732	-	-	-
	ASA 150	102	121	134	172	194	219	273	337	407	448	512	547	604	715	-	-	-
	d	44	58	72	90	112	135	180	225	270	315	365	420	460	555	650	740	835
	H	43	46	64	64	70	76	89	114	114	127	140	152	152	178	229	241	275
	L	57	67	87	100	117	135	178	220	262	303	355	390	440	530	610	705	795
	Wt. kg	2	2	4	5	7	9	17	27	35	65	89	117	156	280	500	790	995



Young & Cunningham

- 1 BODY**
GS C25N
- 2 COVER**
C22
- 3 BOLTS & NUTS**
42 Cr Mo 4 - C45
- 4 GASKET**
Asbestos Free**
- 5 HINGE PIN**
X5 Cr Ni Mo 18 10
- 6 BODY SEATS**
X8 Cr Ti 18
- 7 DISK SEATS**
X8 Cr Mo Ti 18
- 8 DISK**
GS C25N/C22
- 9 HINGE**
GS C25N
- 10 HINGE DISK CONNECTION**
42 Cr Mo 4 - C45



*Other material on request.
**Acc. to current technical standard.

Face to face DIN 3202 F6.
Flanges DIN 2501 - 2526 For m C.

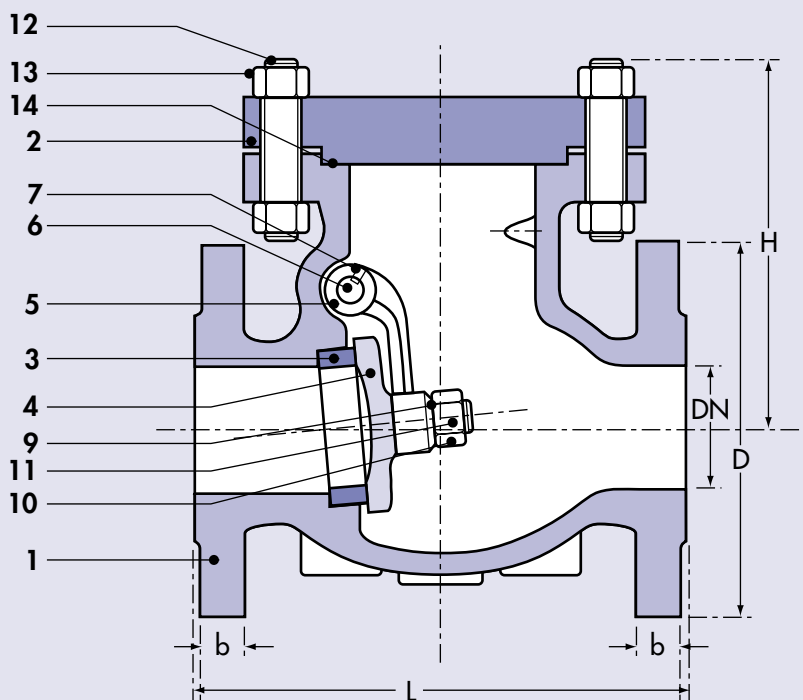
Dimensions

	DN	A	D	H	T	Kg	m ²
PN 25	40	180	150	130	10	14	0.006
	50	200	165	150	10	16	0.008
	65	240	185	170	10	24	0.012
	80	260	200	180	10	30	0.014
	100	300	235	200	10	37	0.022
	125	350	270	220	18	58	0.033
	150	400	300	230	18	80	0.046
	200	500	360	270	18	140	0.081
	250	600	425	330	25	200	0.14
	300	700	485	410	25	280	0.22
	350	800	555	460	32	520	0.33
	400	900	620	490	32	570	0.45
	450						
	500	1100	730	600	40	970	0.77
	600	1300	845	720	40	1500	1.3



Young & Cunningham

- 1 BODY**
ASTM A. 216 WCB
- 2 BONNET**
ASTM A. 216 WCB
- 3 SEAT RING**
ASTM A. 182 F6
- 4 DISK**
ASTM A. 182 F6
- 5 HINGE**
ASTM A. 216 WCB
- 6 HINGE PIN**
ASTM A. 182 F6
- 7 SET SCREW**
ASTM A. 182 F6
- 8 PLUGS**
ASTM A. 182 F6
- 9 PLATE**
ASTM A. 182 F6
- 10 NUT**
ASTM A. 182 F6
- 11 PIN**
ASTM A. 182 F6
- 12 BOLTS**
ASTM A. 193 B7
- 13 NUTS**
ASTM A. 194 2H
- 14 GASKET**
Asbestos



Standard Features:-

Disc and Seat Ring Rectified.
Flanged Body.
Bonnet Type.
Renewable Seats.
Dimensions to API STD 600.
End to End Dimensions
According to ANSI B 16.10.
Flanges Raised Face and Butt
Welding Ends to ANSI B 16.5.

Features on Request:-

- A) Check with Teflon or Rubber.
- B) With Lever and Weight.
- C) With Shock Absorber.
- D) With Integral Seats.
- E) With Uni -Din Connections.

Dimensions

DN	1 1/2"	2"	2 1/2"	3"	4"	5"	6"	8"	10"	12"	14"	16"	18"	20"	24"
L RF BW	165	203	216	241	292	330	356	495	622	699	787	864	978	978	1295
L1 RTJ	178	216	229	254	305	343	368	508	635	711	800	876	991	991	1308
D	127.0	152.4	177.8	190.5	228.6	254.0	279.4	342.9	406.5	482.6	533.4	596.9	635.0	698.5	812.8
b	17.5	19.0	22.2	23.8	23.8	23.8	25.4	28.6	30.2	31.7	34.9	36.5	39.7	42.9	47.6
H	140	150	180	195	220	230	270	330	350	400	440	490	550	620	740
Hole Centre	98.4	120.6	139.7	152.4	190.5	215.9	241.3	298.4	361.9	431.8	476.2	539.7	577.8	635.0	749.9
No. Holes	4	4	4	4	8	8	8	8	12	12	12	16	16	20	20
Dia. Holes	15.9	19.0	19.0	19.0	19.0	22.2	22.2	22.2	25.4	25.4	28.6	28.6	31.7	31.7	34.9



Young & Cunningham

1 BODY
Bronze BS 1400 LG2

2 COVER
Bronze BS 1400 LG2

3 FLAP
Bronze BS 1400 LG2

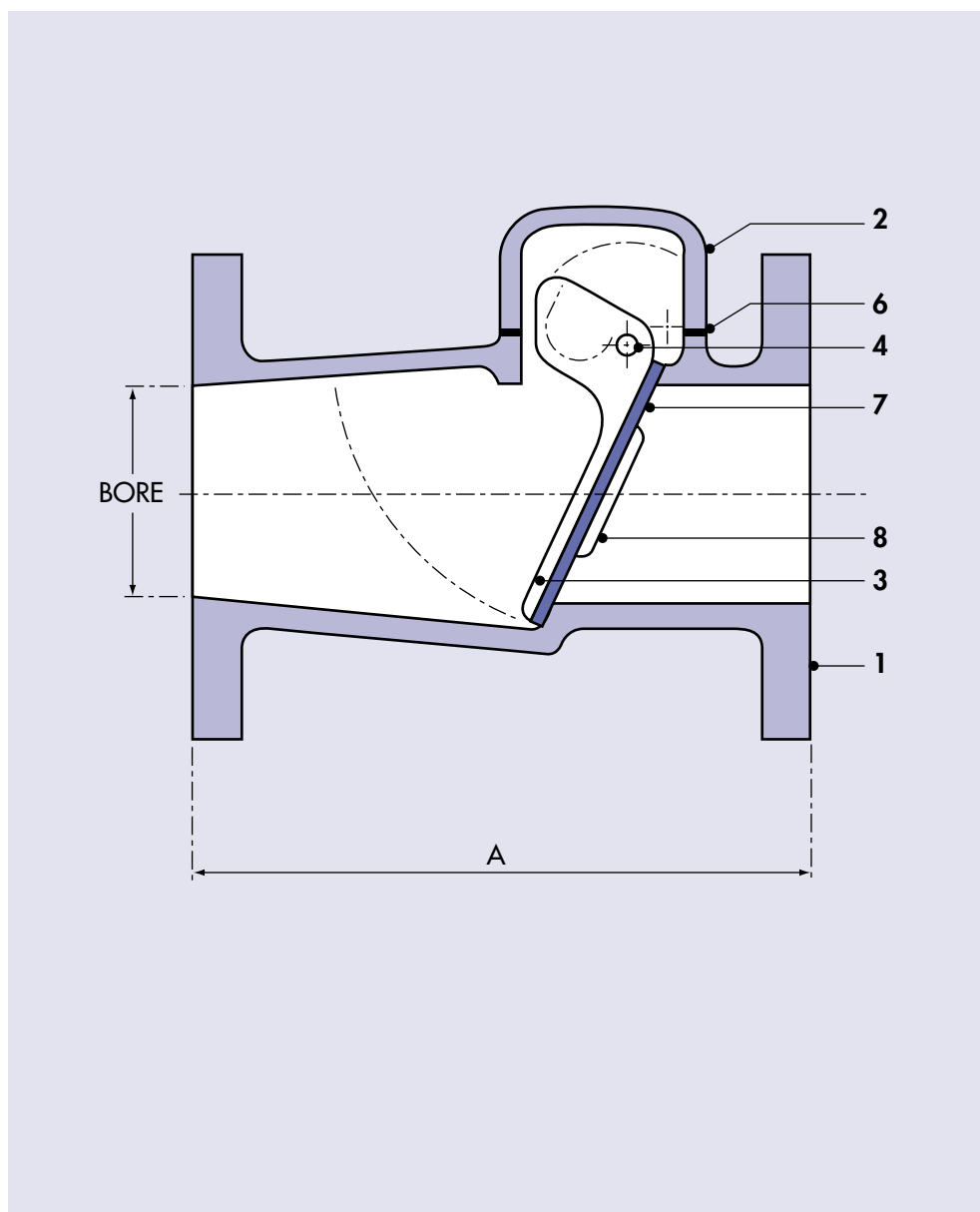
4 HINGE PIN
Manganese Bronze
BS 2878 CZ114

5 STUD BOLTS
Steel

6 GASKET
Rubber

7 SEAT
Rubber

8 KEEP PLATE
Brass



Options Available:-

Bronze BS 1400 LG4.
Leather Faced Seat.
ANSI/BS10 Flanges.
Can be balanced for Horizontal/Vertical
Mounting.
Patterns can be altered to suit special
face to face dimensions.

Dimensions

BORE	40	50	65	80	100	125	150	200	250	300
A	178	193	204	224	266	283	321	396	464	500
Wt. kg	9	12	16	19	24	42	59	95	140	285

Flanged and drilled to BS 4504



Young & Cunningham

1 BODY
Bronze BS 1400 LG2

2 COVER
Bronze BS 1400 LG2

3 FLAP
Bronze BS 1400 LG2

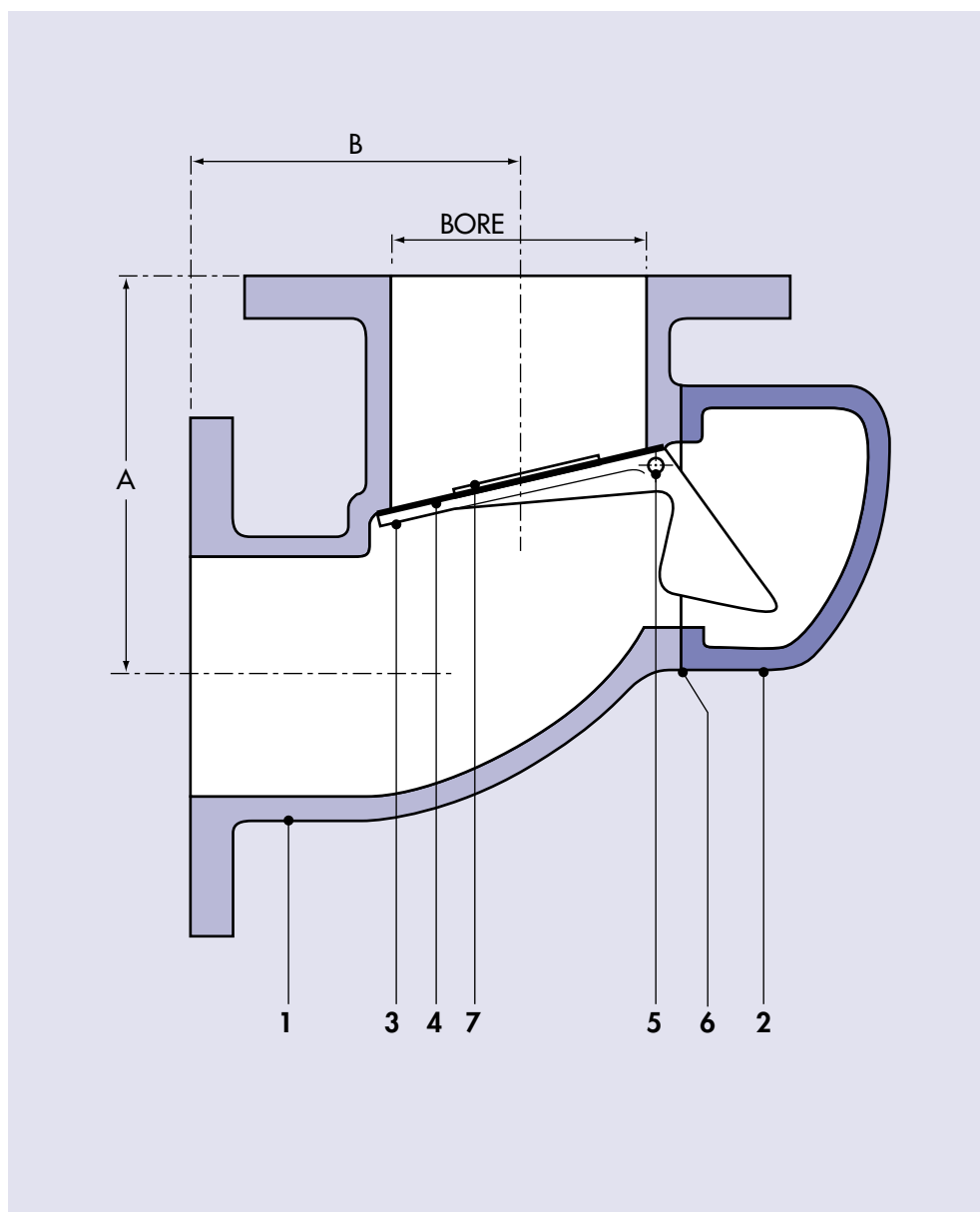
4 SEAT
Rubber/Leather

5 HINGE PIN
Manganese Bronze
BS 2874 CZ114

6 GASKET
Rubber

7 KEEP PLATE
Brass

8 STUDS AND NUTS
Steel/Brass



Options Available:-

Bronze BS 1400 LG4.
Leather Faced Seat.
ANSI/BS10 Flanges.
Patterns can be altered to suit
special centre to face dimensions.

Dimensions

BORE	40	50	65	80	100	125	150	200	250
A	162	162	154	143	168	305	305	489	650
B	103	103	110	108	133	156	168	203	250
Wt. kg	11	13	15	16	23	44	67	125	215

Flanged and drilled to BS 4504

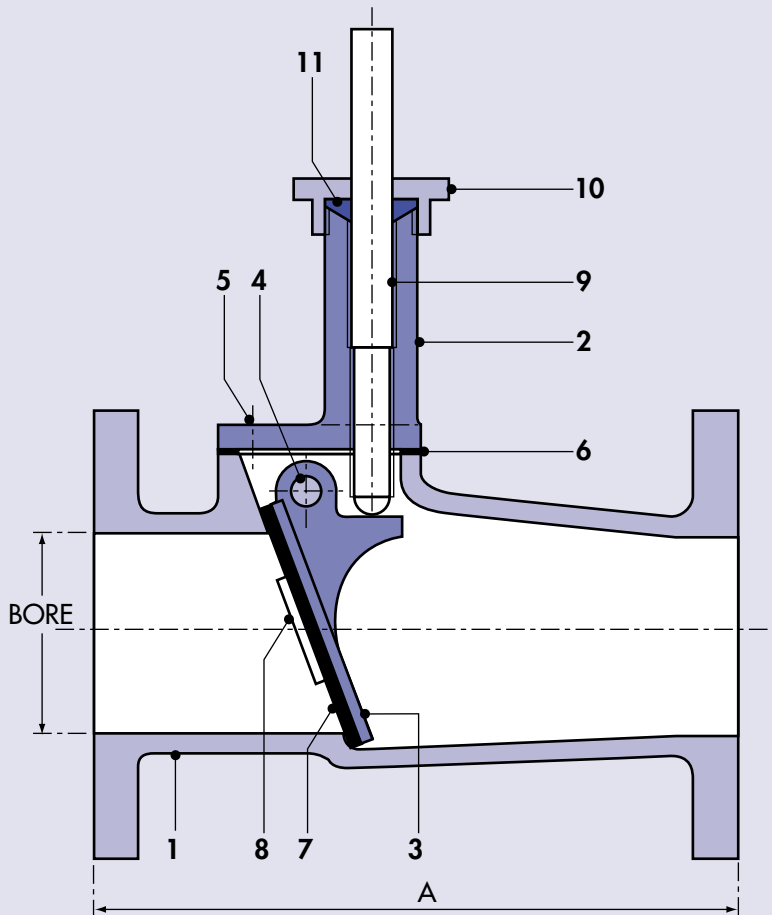


Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2
- 2 COVER**
Bronze BS 1400 LG2
- 3 FLAP**
Bronze BS 1400 LG2
- 4 HINGE PIN**
Manganese Bronze
BS 2874 CZ114
- 5 STUDS AND NUTS**
Steel/Brass
- 6 GASKET**
Rubber
- 7 SEAT**
Rubber
- 8 KEEP PLATE**
Brass
- 9 SPINDLE**
Manganese Bronze
BS 2874 CZ114
- 10 GLAND**
Bronze BS 1400 LG2
- 11 PACKING**
Graphite

Options Available:-

Bronze BS 1400 LG4.
Leather Faced Seat.
ANSI/BS10 Flanges.
Fixed Handwheel & Open/Shut
Indicators.
Patterns can be altered to suit special
centre to face dimensions.



Dimensions

BORE	40	50	65	80	100	125	150	200	250	300
A	178	193	204	224	266	283	321	396	464	500
Wt. kg	10	14	18	19	28	46	64	100	155	305

Flanged and drilled to BS 4504



Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2

- 2 COVER**
Bronze BS 1400 LG2

- 3 FLAP**
Bronze BS 1400 LG2

- 4 HINGE PIN**
Manganese Bronze
BS 2874 CZ114

- 5 STUDS AND NUTS**
Steel/Brass

- 6 GASKET**
Rubber

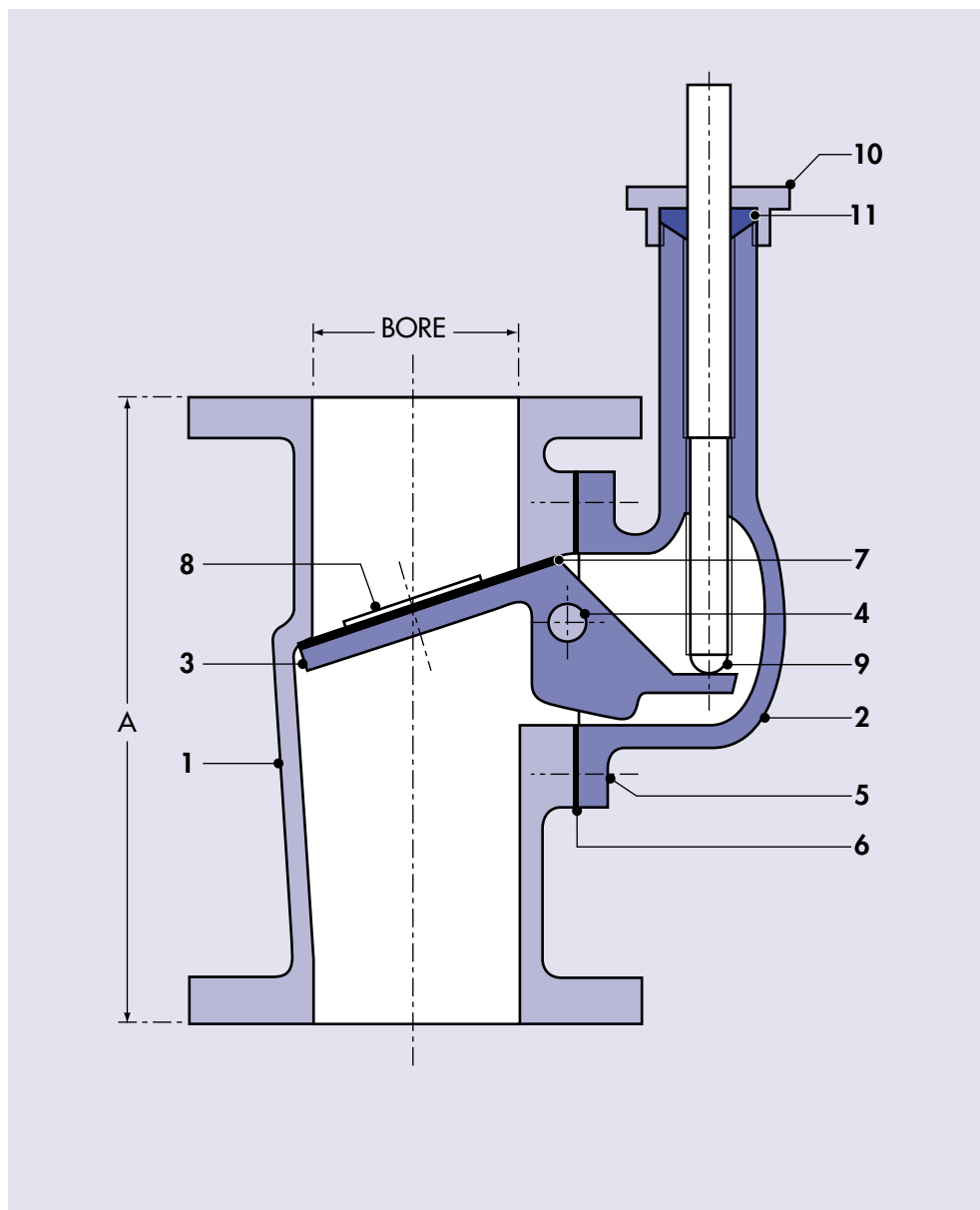
- 7 SEAT**
Rubber

- 8 KEEP PLATE**
Brass

- 9 SPINDLE**
Manganese Bronze
BS 2874 CZ114

- 10 GLAND**
Bronze BS 1400 LG2

- 11 PACKING**
Graphite



Options Available:-

Bronze LG4.
Leather Faced Seat.
ANSI/BS10 Flanges.
Fixed Handwheel & Open/Shut
Indicators.
Patterns can be altered to suit special
centre to face dimensions.

Dimensions

BORE	40	50	65	80	100	125	150	200	250	300
A	178	193	204	219	266	283	321	400	464	500
Wt. kg	12	17	22	26	33	51	71	110	180	355

Flanged and drilled to BS 4504



Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2

- 2 COVER**
Bronze BS 1400 LG2

- 3 FLAP**
Bronze BS 1400 LG2

- 4 SEAT**
Rubber

- 5 HINGE PIN**
Manganese Bronze
BS 2874 CZ114

- 6 GASKET**
Rubber

- 7 KEEP PLATE**
Brass

- 8 SPINDLE**
Manganese Bronze
BS 2874 CZ114

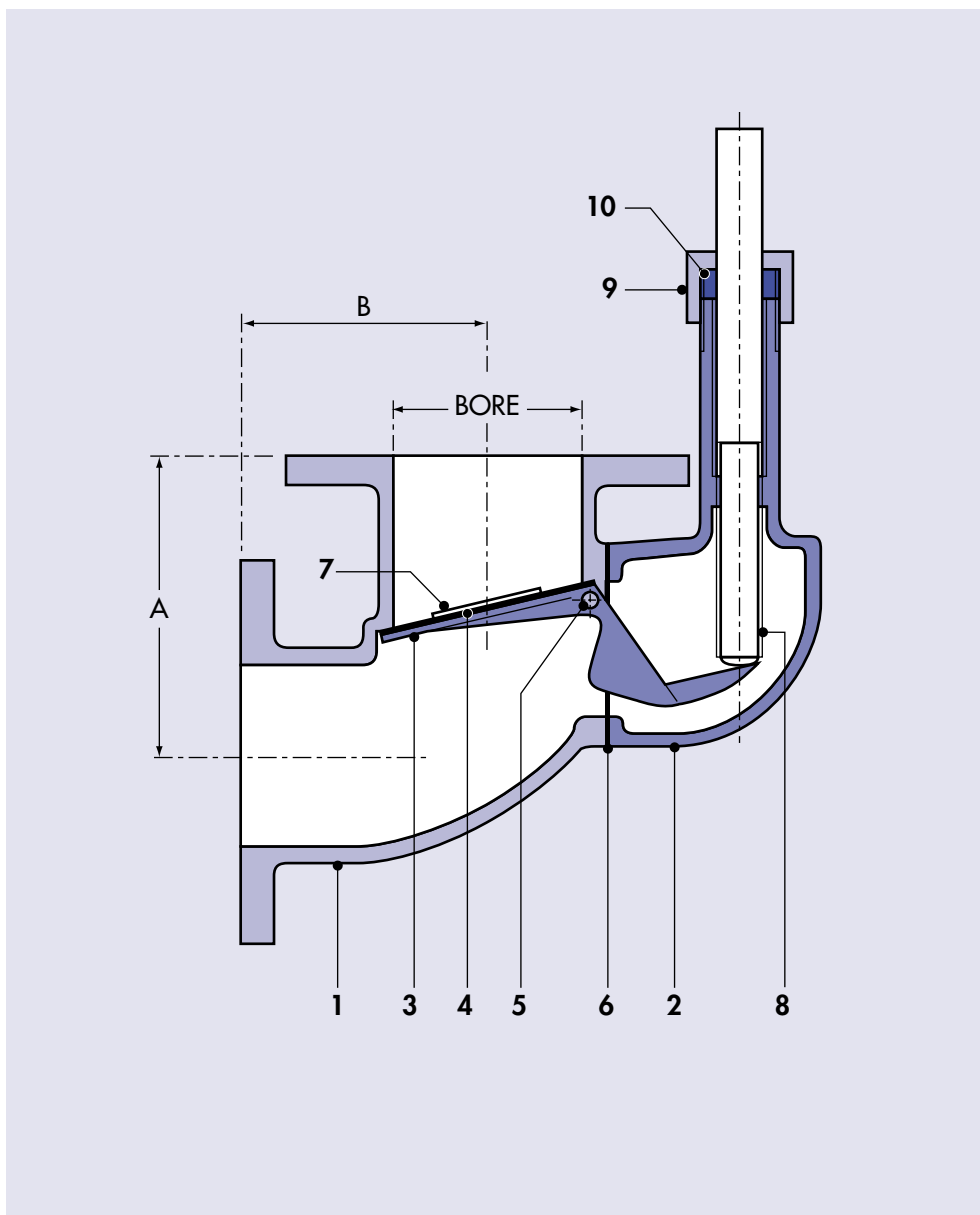
- 9 GLAND**
Brass

- 10 GLAND PACKING**
Graphite

- 11 STUDS AND NUTS**
Steel/Brass

Options Available:-

Bronze BS 1400 LG4.
Leather Faced Seat.
ANSI/BS10 Flanges.
Fixed Handwheel & Open/Shut
Indicators.
Patterns can be altered to suit special
centre to face dimensions.



Dimensions

BORE	40	50	65	80	100	125	150	200	250
A	162	162	154	143	168	305	305	489	650
B	103	103	110	108	133	156	168	203	250
Wt. kg	13	16	18	20	28	54	71	135	240

Flanged and drilled to BS 4504



Young & Cunningham

1 BODY
Bronze BS 1400 LG2

2 COLUMN
Bronze BS 1400 LG2

3 CLACK
Bronze BS 1400 LG2

4 SPINDLE
Brass

5 SPRING CAP
Brass

6 SPRING
Steel

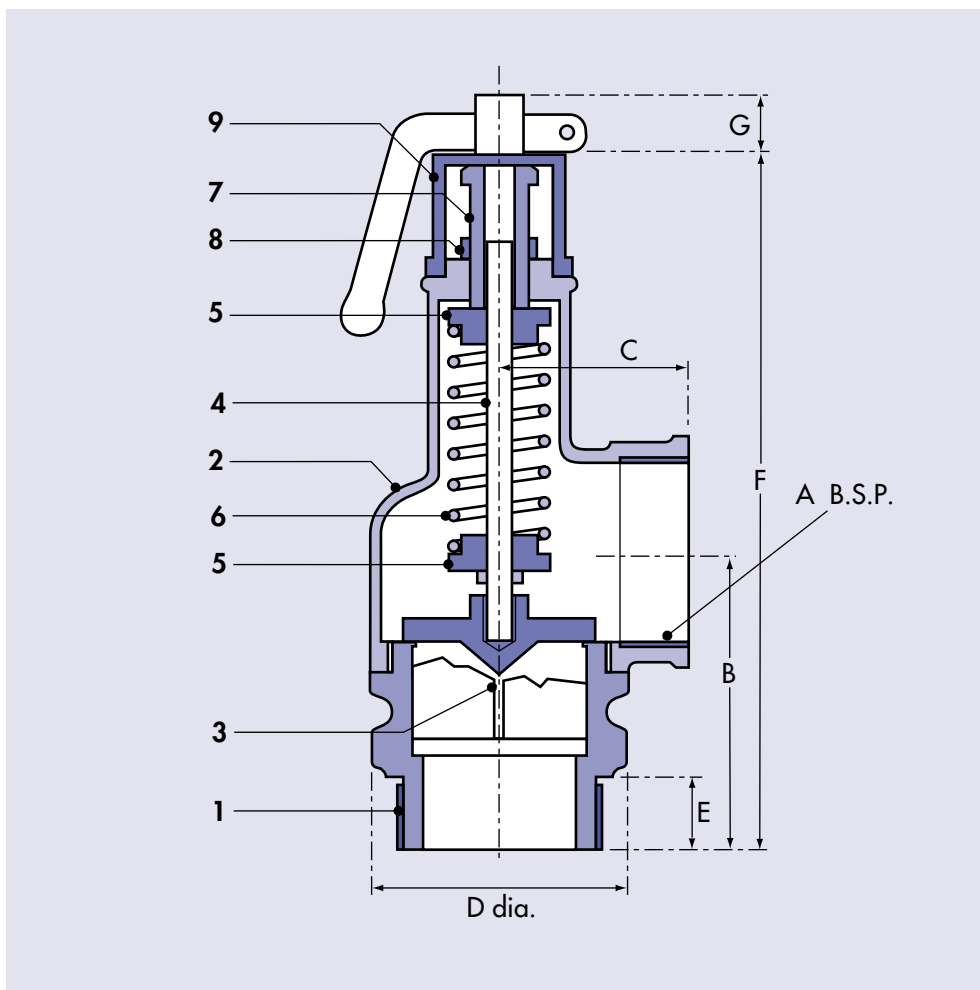
7 COMPRESSION SCREW
Brass

8 LOCKNUT
Brass

9 DOME
Brass

Options Available:-

Composition Seat.
Stainless Steel Seats.
Stainless Steel Spring.
Lockable Dome.
Lockable Dome & Easing Lever.
Solid Top Compression Screw.
No Dome.
API/NPT Threads.
Straight Through Pattern.



Dimensions

G	20	9.5					13		25
F	121	143	149	168	191	210	260	311	438
E	13	14	14	16	20	22	32	35	50
D	35	41	47	57	67	80	98	118	146
C	27	35	36	41	49	60	80	91	129
B	24	30	38	45	53	72	83	92	130
A	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
BORE	15	20	25	32	40	50	65	80	100

Spring Ranges and Maximum Working Pressure

Bores	15		20		25		32		40		50		65		80		100	
PRESSURE RANGES IN KG/CM ²	0.34	1.38	0.34	1.72	0.34	2.41	0.34	1.72	0.34	1.38	0.34	1.03	0.34	1.03	0.34	0.69	0.34	1.38
	1.38	3.10	1.72	3.45	2.41	4.48	1.72	2.76	1.38	2.41	1.03	2.76	1.03	2.41	0.69	1.38	1.38	2.76
	3.10	5.86	3.45	5.86	4.48	6.90	2.76	4.48	2.41	3.79	2.76	5.52	2.41	4.48	1.38	2.41	2.76	5.86
	5.86	10.10	5.86	9.65	6.90	12.41	4.48	6.90	3.79	6.21	5.52	12.07	4.48	7.58	2.41	4.48	5.86	11.38
	10.10	15.51	9.65	15.17	12.41	20.69	6.90	11.03	6.21	10.34	12.07	22.06	7.58	13.79	4.48	7.58	11.38	20.69
	15.51	20.69	15.17	20.69			11.03	17.24	10.34	18.27			13.79	22.06	7.58	11.38		
									18.27	22.06					11.38	15.51		

Ends Screwed BSP Male/Female



Young & Cunningham

1 BODY
Bronze BS 1400 LG2

2 COLUMN
Bronze BS 1400 LG2

3 CLACK
Bronze BS 1400 LG2

4 SPINDLE
Brass

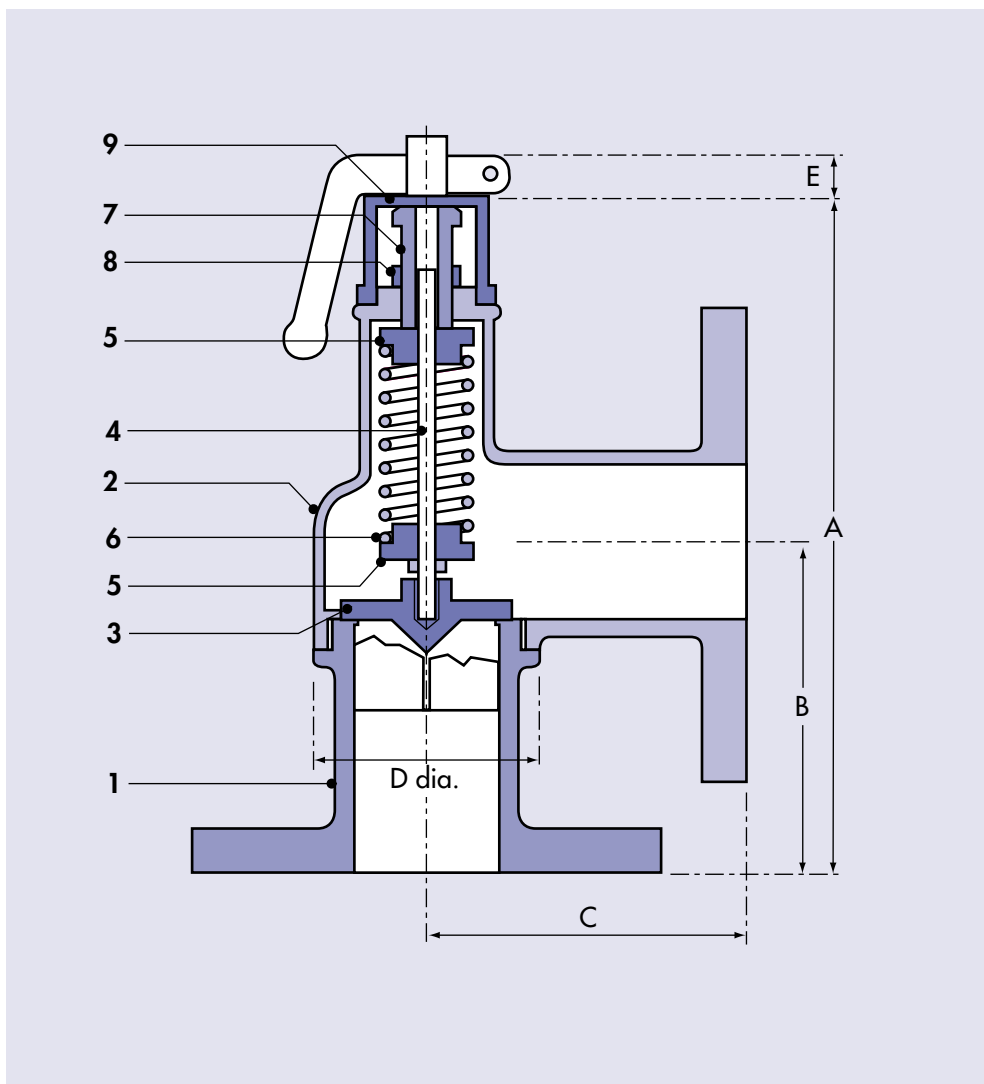
5 SPRING CAP
Brass

6 SPRING
Steel

7 COMPRESSION SCREW
Brass

8 LOCKNUT
Brass

9 DOME
Brass



Options Available:-

Straight Through.
Composition Seat.
Stainless Steel Seats.
Stainless Steel Spring.
Lockable Dome.
Lockable Dome & Easing Lever .
Solid Top Compression Screw .
No Dome.
ANSI/BS10 Flanges.

Dimensions

E	20	10					15		25
D	35	41	48	57	67	80	98	118	146
C	76	76	83	98	102	114	127	133	152
B	76	76	83	98	102	114	127	133	152
A	165	179	184	210	229	241	280	330	406
SIZE	15	20	25	32	40	50	65	80	100

Spring Ranges and Maximum Working Pressure

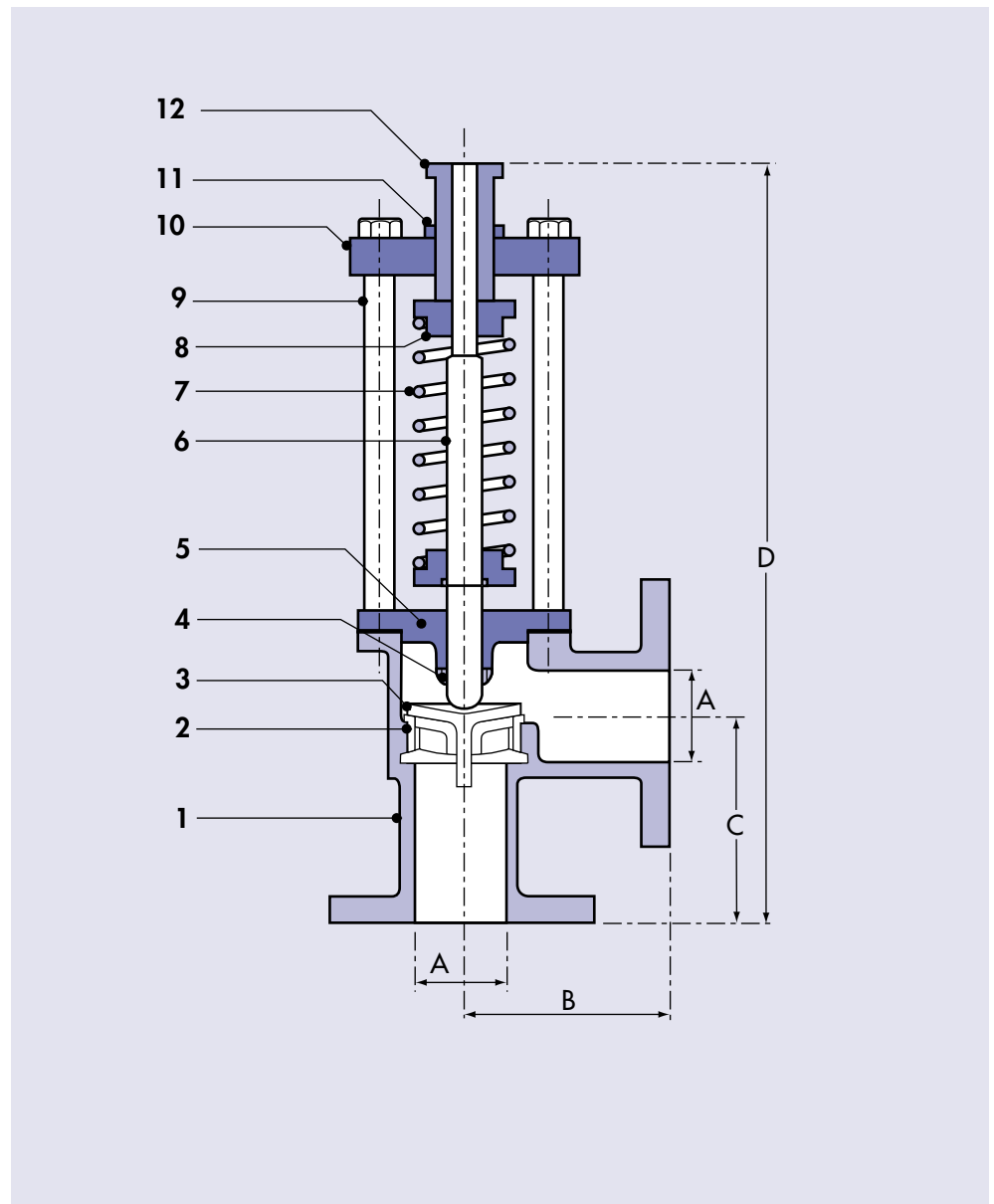
Bore	15		20		25		32		40		50		65		80		100	
PRESSURE RANGES IN KG/CM ²	0.34	1.38	0.34	1.72	0.34	2.41	0.34	1.72	0.34	1.38	0.34	1.03	0.34	1.03	0.34	0.69	0.34	1.38
	1.38	3.10	1.72	3.45	2.41	4.48	1.72	2.76	1.38	2.41	1.03	2.76	1.03	2.41	0.69	1.38	1.38	2.76
	3.10	5.86	3.45	5.86	4.48	6.90	2.76	4.48	2.41	3.79	2.76	5.52	2.41	4.48	1.38	2.41	2.76	5.86
	5.86	10.10	5.86	9.65	6.90	12.41	4.48	6.90	3.79	6.21	5.52	12.07	4.48	7.58	2.41	4.48	5.86	11.38
	10.10	15.51	9.65	15.17	12.41	20.69	6.90	11.03	6.21	10.34	12.07	22.06	7.58	13.79	4.48	7.58	11.38	20.69
	15.51	20.69	15.17	20.69			11.03	17.24	10.34	18.27			13.79	22.06	7.58	11.38		
									18.27	22.06					11.38	15.51		

Flanged and drilled to BS 4504



Young & Cunningham

- 1 VALVE BODY**
Cast Iron BS 1452
- 2 VALVE SEAT**
Bronze BS 1400 LG2
- 3 VALVE LID**
Bronze BS 1400 LG2
- 4 SPINDLE BUSH**
Oilite
- 5 VALVE COVER**
Cast Iron BS 1452
- 6 VALVE SPINDLE**
Manganese Bronze
BS 2874 CZ 114
- 7 VALVE SPRING**
Stainless Steel
- 8 SPRING GUIDE**
Steel
- 9 PILLARS**
Steel
- 10 BRIDGE**
Steel
- 11 LOCK NUT**
Steel
- 12 ADJUSTING NUT**
Bronze BS 1400 LG2



Options Available:-
ANSI/BS10 Flanges.

Dimensions

A	40	50	65	80	100	125	150
B	115	125	145	155	146	165	178
C	115	125	145	155	146	165	178
D	250	356	390	450	533	585	597
Wt. kg	13	16	20	25	39	53	71

Flanged and drilled to BS 4504



Young & Cunningham

APPLICATION

Designed for installations with permanently flooded discharge, these valves completely contain the excess fluid by means of a totally enclosed and leakproof outlet making them suitable for toxic or valuable, recoverable gases or liquids.

The relief pressure is the static set pressure plus prevailing back pressure which can be up to 100 P.S.I. allowing use as a pump suction/discharge bypass, relief to a second system in process plant, return of discharged fluid to overhead storage tanks against static head and for pressure sustaining duty with continuous discharge.

A handwheel and glanded spindle can be fitted allowing manual continuously variable adjustment with plant in operation.

For aggressive duties all stainless steel internal parts can be fitted.

RANGE

40, 50, 65, 80, 100, 150mm

FLANGED

BS 10 Table D, E & F
BS 4504 PN 10 & 16
ANSI Class 125

PRESSURE RATINGS

	Psi	Bars
Min. set pressure	5	0.35
Max. set pressure		
40 - 80mm	300	20.6
Max. set pressure		
100 - 150mm	230	15.8

TEMPERATURE LIMITS

220°C (430°F)	150	10.6
193°C (380°F)	190	13.1
Cold	Up to Max. Limit	

MATERIALS

Body and Cover

Cast Iron BS 1452-220

Seat and Disc (Sid) GM

Bronze BS 1400 LG2 or
(SS trim) SS BS 3100 316C16

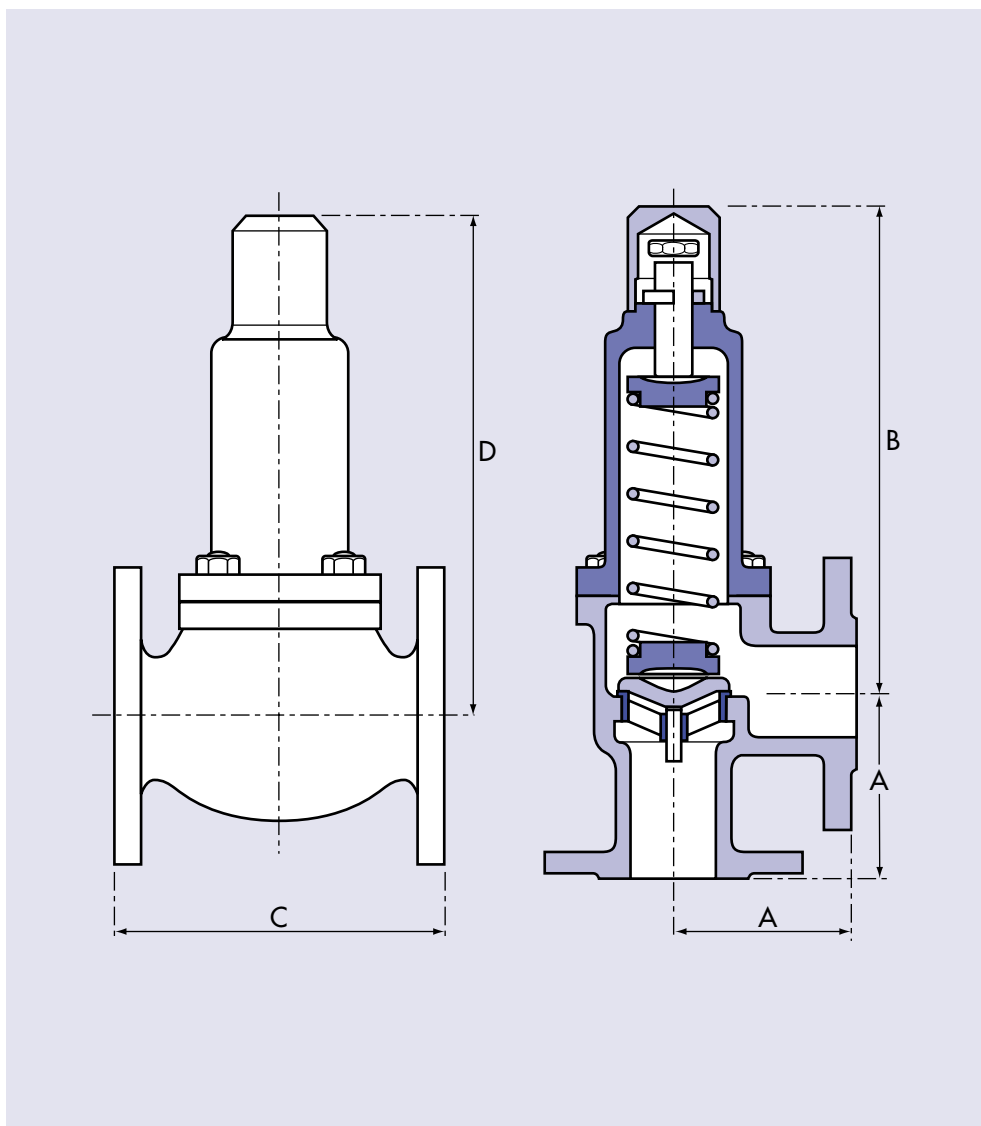
*Spring

Alloy Steel BS 970 750A50

*Adj. Bolt & Pads

Steel BS 970 070M20

* These items Cadmium Plated



Dimensions

SIZE	A				B	C		D	Wt. kg
	BS 10		ANSI	4504		BS10	4504		
	D&E	F	125	PN16		ANSI	PN16		
40	90	90	90	115	212	178	200	222	14
50	101	127	101	125	275	203	203	286	17
65	108	140	140	145	300	216	216	315	21
80	120	152	152	155	325	241	241	340	26
100	146	178	178	146	400	292	292	416	41
150	178	228	178	178	510	356	356	550	72

Standard Springs

All Sizes		lb/in ²	
No.	Nom. Pres.	Lower Limit	(Bar) Upper Limit
1	7.5	5 (0.35)	9 (0.62)
2	12.5	10 (0.69)	15 (1.03)
3	20	16 (1.10)	25 (1.72)
4	32.5	26 (1.80)	40 (2.75)
5	52	41 (2.82)	64 (4.41)
6	82.5	65 (4.48)	100 (6.9)
7	125	101 (6.9)	150 (10.3)
8	190	151 (10.4)	230 (15.8)



Young & Cunningham

APPLICATION

Designed for installations with permanently flooded discharge, these valves completely contain the excess fluid by means of a totally enclosed and leakproof outlet making them suitable for toxic or valuable, recoverable gases or liquids.

The relief pressure is the static set pressure plus prevailing back pressure allowing use as a pump suction/discharge bypass, relief to a second system in process plant, return of discharge fluid to overhead storage tanks against static head and for pressure sustaining duty with continuous discharge.

A handwheel and glanded spindle can be fitted allowing manual continuously variable adjustment with plant in operation.

RANGE

15mm to 150mm inclusive

LINE CONNECTIONS:

Flanged and drilled to the appropriate table of BS 10, BS 4504 or BS 1560 (ANSI)

Note: Flanges up to BS 10 Table H, BS 4504 PN16 and ANSI 150, use DIM A1 and C1, except for 32 and 40mm BS 4504 PN 16 for which use A 2 and C 2

For higher rated flanges, information upon request.

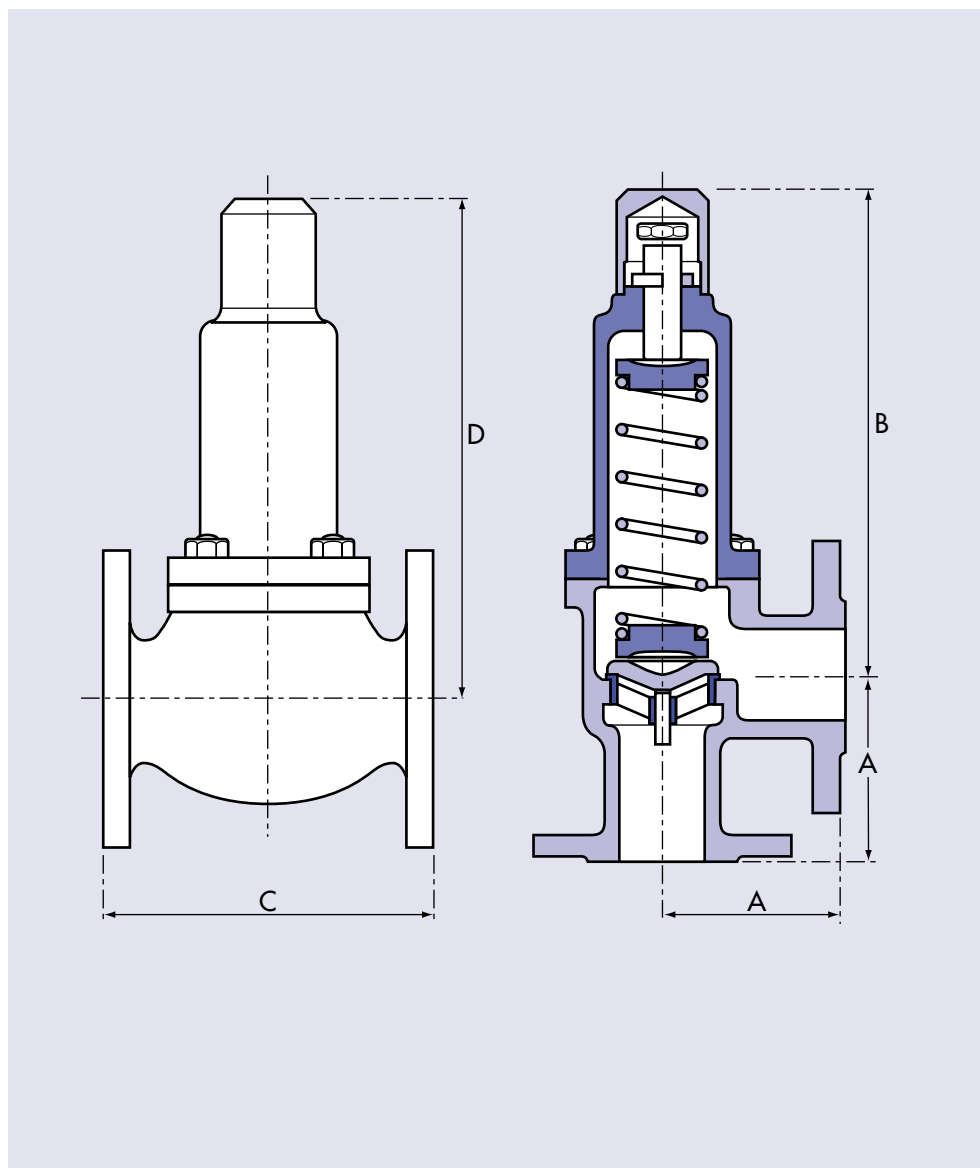
PRESSURE RATINGS

	Psi	Bars
Min. set pressure	5	0.35
Max. set pressure		
15 - 25mm	1000	69
Max. set pressure		
40 - 80mm	500	34.5
Max. set pressure		
100 - 150mm	300	20.7
(Note Max: pressure subject to temperature limitations)		

NOTE

1) Cover may be fabricated in material of equivalent specification.

2) Seat and Disc arrangement for sizes up to 40 mm are of Cage Guided Design - Material BS970 431S29



Dimensions

SIZE	15	20	25	32	40	50	65	80	100	125	150
A1	82.5	82.5	82.5	101.6	101.6	127	140	152	178	203	229
A2	82.5	82.5	95	114	114	140	152	165	203	229	254
B	178	178	190	264	264	260	279	308	371	419	460
C1	152	152	152	184	184	254	279	305	356	406	457
C2	152	152	168	194	200	279	305	330	406	457	508
D	178	178	190	264	264	292	318	343	425	483	552

Materials

Body	Carbon Steel
Cover	BS 1504 - 161 GR 430
Seat	St. St. BS 3100316C16
Disc	St. St. BS 1504425C11
Spring	Nickle Plated Alloy Steel
Pads	Carbon Steel BS 970 - 070M20
Adj. Screw	
Cap	



Young & Cunningham

BODY & COVER

Cast Iron BS 1452

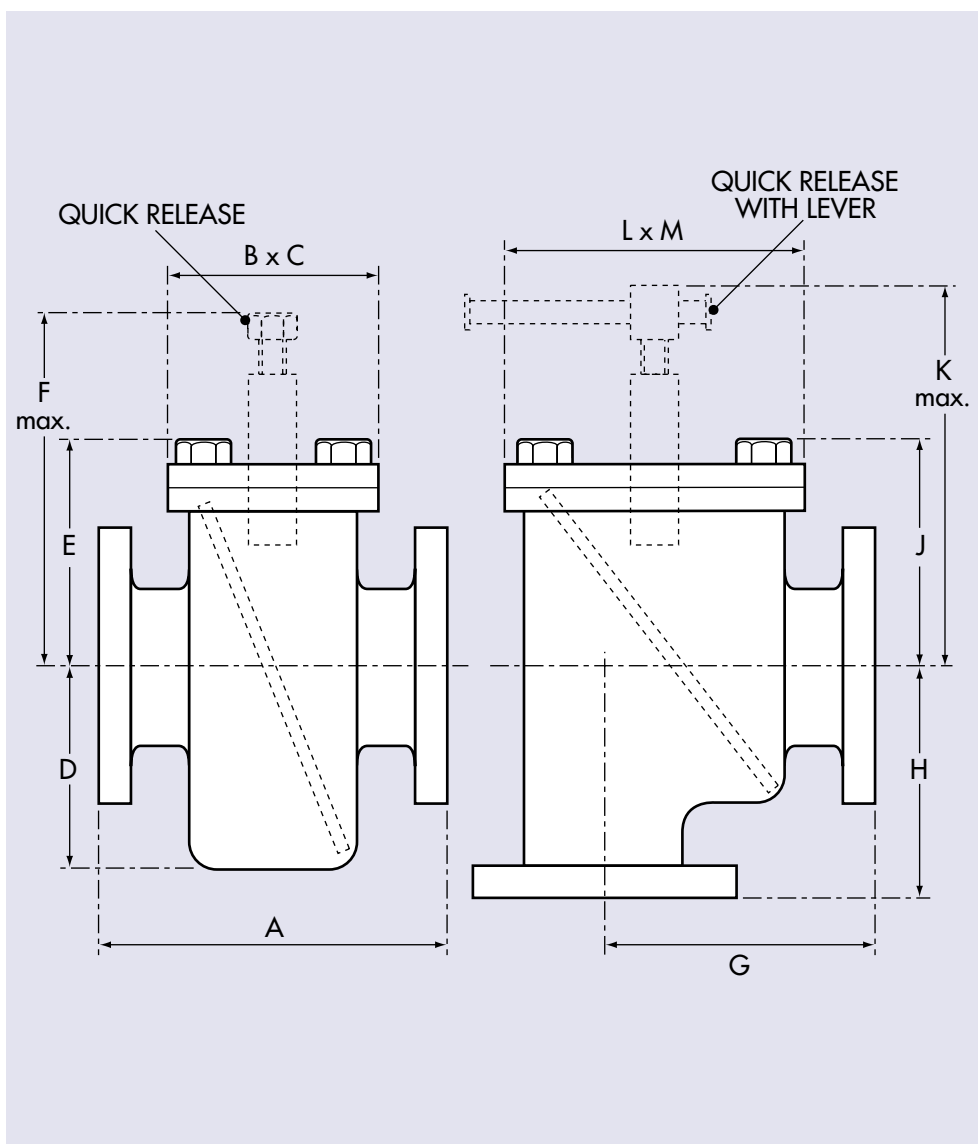
STRAINER PLATE

Galvanised Steel -

Stainless Steel - Brass

STANDARD PERFORATIONS

3mm - 6mm - 10mm



Options Available:-

ANSI/BS10 Flanges.

Nodular (Ductile) Iron.

Bronze BS 1400 LG2/LG4.

Patterns can be altered to suit special dimensions.

Dimensions

	NB	40	50	65	80	100	125	150	175	200	250	300	350	400
STRAIGHT	A	190	225	225	240	240	265	265	355	355	460	460	535	535
	B	114	140	140	150	150	150	150	225	225	305	305	305	305
	C	114	150	150	215	215	265	265	330	330	460	533	610	795
	D	64	83	83	111	111	146	203	228	203	280	330	405	483
	E	73	113	113	143	143	173	200	181	206	287	338	368	397
	F	185	228	228	258	258	288	315	296	321	405			
	Wt. kg	10	16	18	29	31	41	50	80	100	156	188	272	400
ANGLE	G	114	135	125	195	190	255	240	305	290	370			
	H	114	140	140	165	190	210	210	265	265	305			
	J	73	109	109	111	146	138	138	165	165	213			
	K	185	224	224	226	261	253	253	280	280	330			
	L	114	140	140	215	215	290	290	375	375	305			
	M	114	150	150	215	215	290	290	375	375	455			
	Wt. kg	10	16	19	31	39	59	77	100	115	179			

Flanged and drilled to BS 4504

Section 6/1



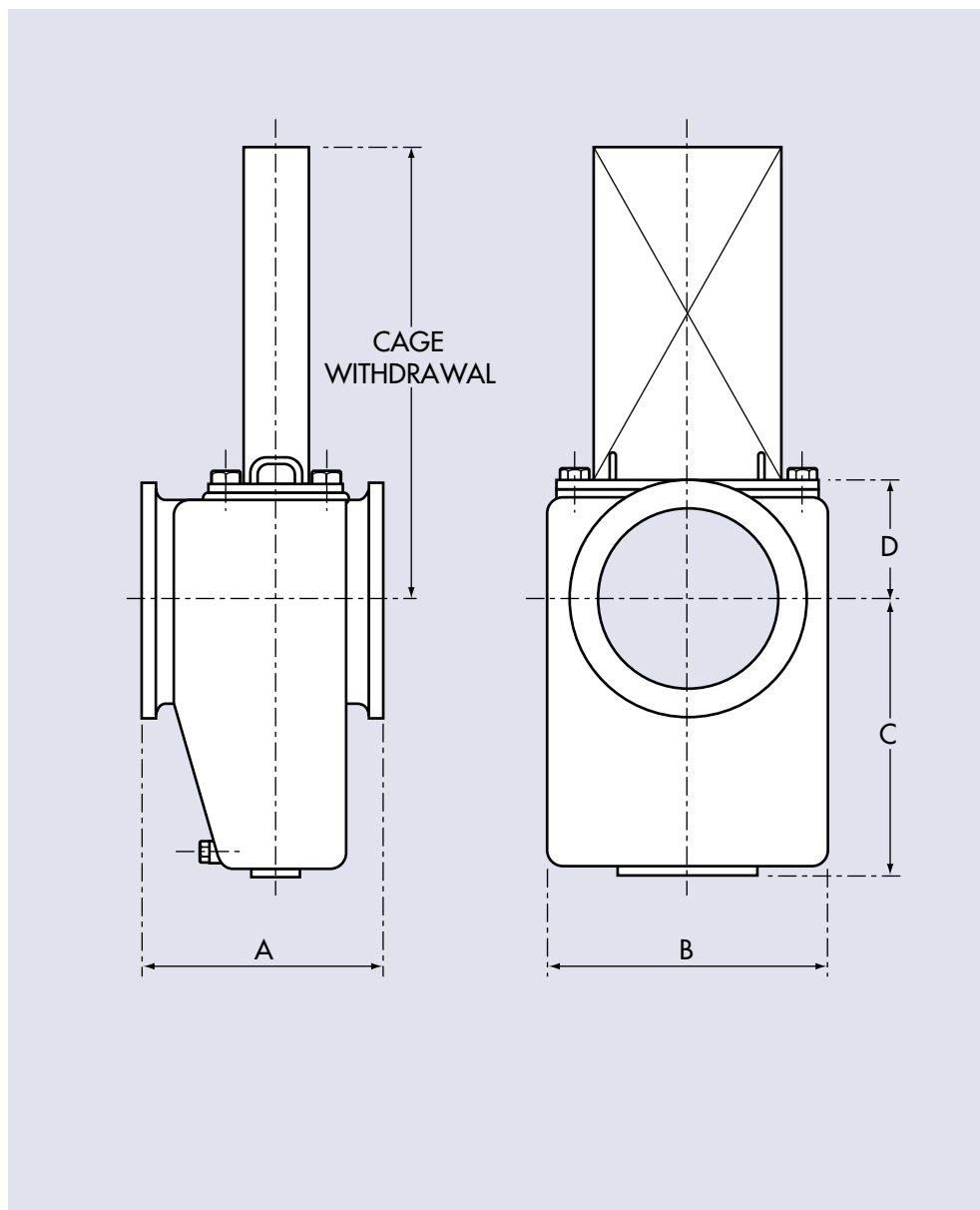
Young & Cunningham

BODY

Cast Iron BS 1452

COVER

Mild Steel BS 4360



Options Available:-

ANSI/BS10 Flanges.
BS 1400 LG2/LG4.
Suitable Sea Water/Oil.

Dimensions

NOM BORE	40	50	65	80	100	125	150	200
A	220	220	240	240	280	310	330	375
B	145	145	180	180	215	245	280	355
C	140	135	185	175	185	200	240	305
D	40	45	50	60	80	90	100	130
E	200	200	260	260	320	350	410	540
Wt. kg	18	22	29	44	59	68	118	126

Flanged and drilled to BS 4504



Young & Cunningham

SCREEN DETAIL

Austenitic stainless steel woven wire mesh. Welded seam. Open area better than 3 x area of bore. Refer to table for mesh details.

BLOWDOWN DETAIL

Cover may be tapped BSP or API for Blowdown fitting or drain plug to special order at extra cost. Refer to table for available sizes. (Note: Plugs and Fittings not supplied).

RANGE

15, 20, 25, 32, 40, 50, 65, 80, 100, 125, 150, 200, 250, 300mm

Max Permissible Gauge Working Pressures

16 BAR -- 10 to 120°C

14.8 BAR -- 150°C

13.9 BAR -- 180°C

13 BAR -- 200 to 220°C

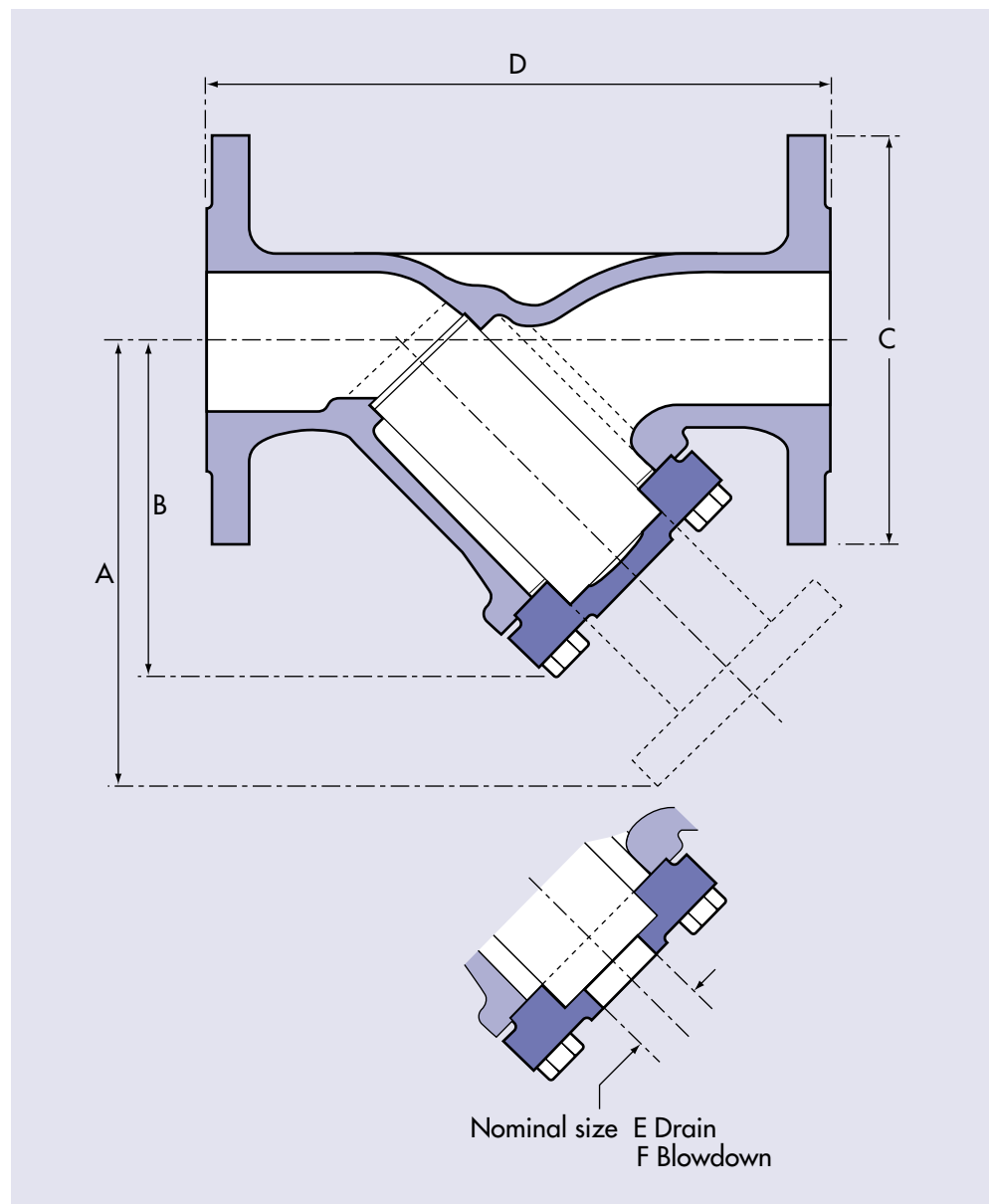
Flanges to BS 4504 PN 16/1 1

MATERIALS**BODY**

Cast Iron BS 1452 - GR14

COVER

Cast Iron BS 1452 - GR14

**Dimensions**

SIZE	15	20	25	32	40	50	65	80	100	125	150	200	250	300
A	116	110	152	152	182	200	228	255	315	396	478	575	680	810
B	78	72	100	100	125	135	153	173	210	272	326	380	456	535
C	95	105	115	140	150	165	185	200	220	250	285	340	405	460
PCD	65	75	85	100	110	125	145	160	180	210	240	295	355	410
No of Holes	4	4	4	4	4	4	4	8	8	8	8	12	12	12
DIA HOLES	14	14	14	18	18	18	18	18	18	18	23	23	27	27
WEIGHT KGS	2.5	3	4	6	7	10	11	17	24	44	67	110	160	228
D	130	150	160	180	200	230	290	310	350	400	480	600	730	850
MESH M.M.	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.25	1.25	1.25	1.25	1.6	1.6	1.6
E	1/4	1/2	1/2	1/2	1/2	1/2	1/2	3/4	3/4	3/4	3/4	3/4	3/4	3/4
F	1/4	1/2	1/2	1	1	1	1	1 1/4	1 1/4	1 1/4	1 1/4	1 1/2	1 1/2	1 1/2



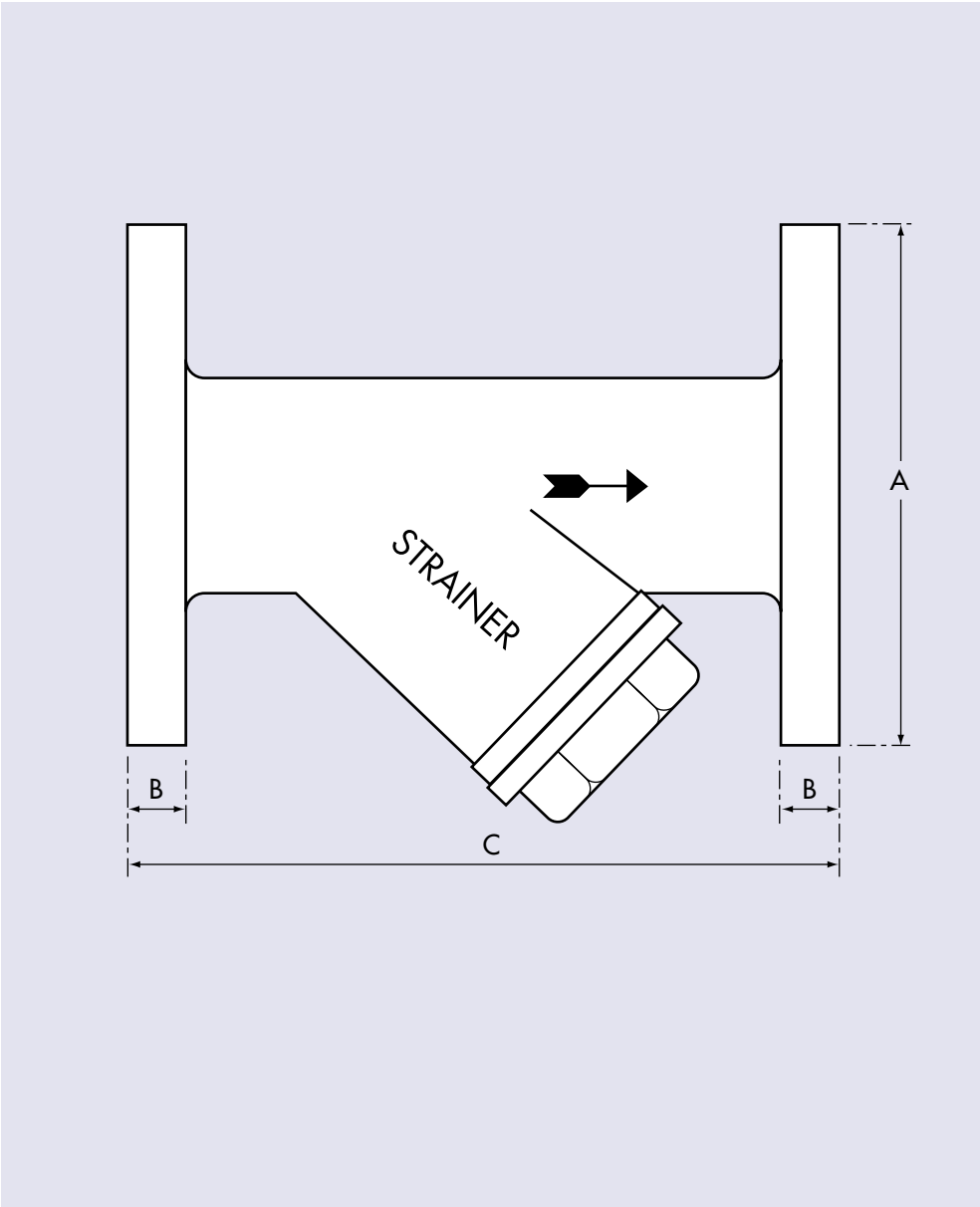
Young & Cunningham

BODY

Bronze BS 1400 LG2

SCREEN

Stainless Steel



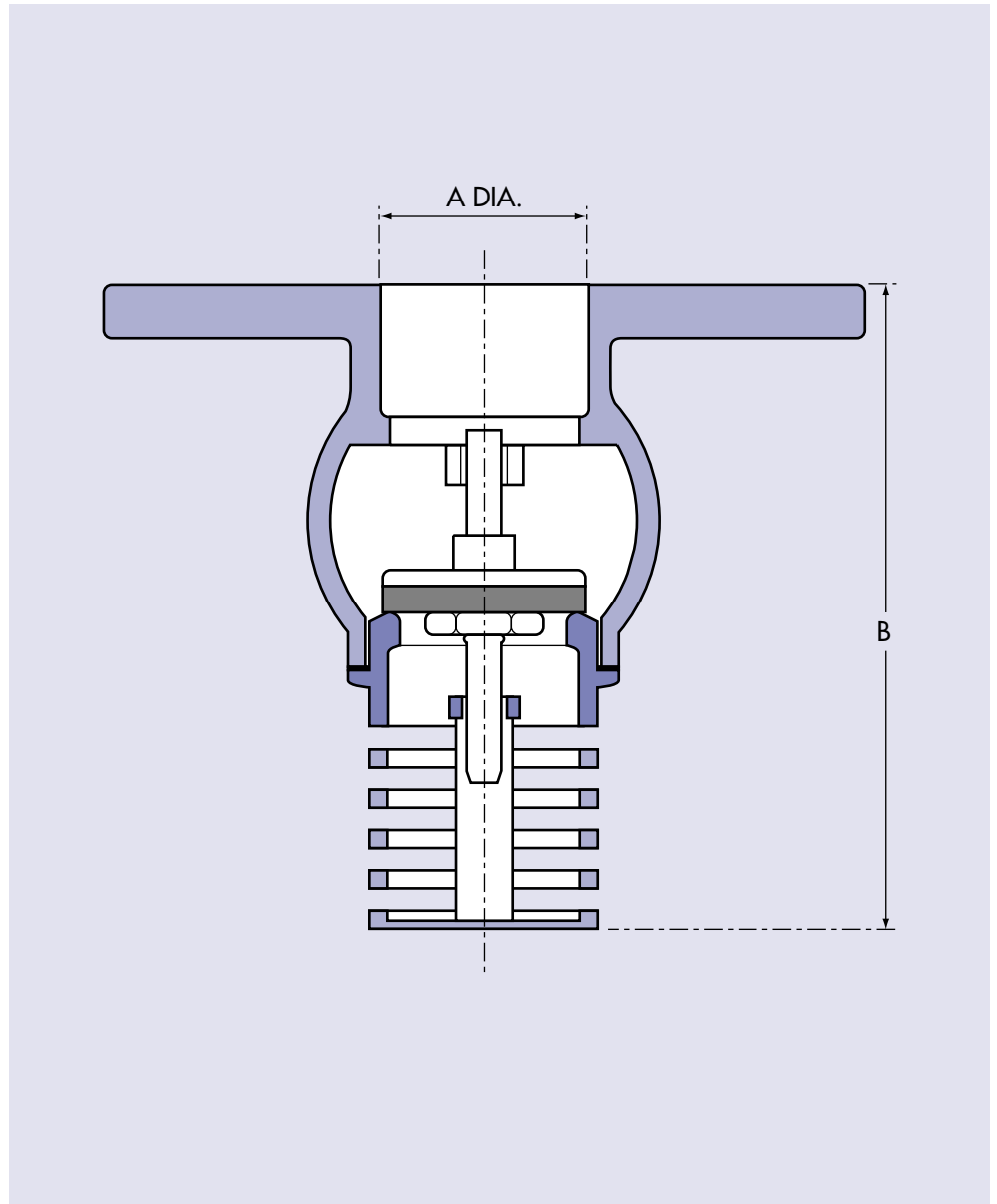
Options Available:-

ANSI/BS10 Flanges
Screwed Ends BSP .

Dimensions

BORE	15	20	25	32	40	50
A	95	105	115	140	150	165
B	13	13	13	14	17	19
C	133	133	165	178	210	235
Wt. kg	2.5	3	4	5	7	10

Flanged and drilled to BS 4504



Options Available:-

ANSI/BS10 Flanges
Screwed Ends BSP .
Other sizes on request.

Dimensions

A	50	65
B	140	165
Wt. kg	7	9

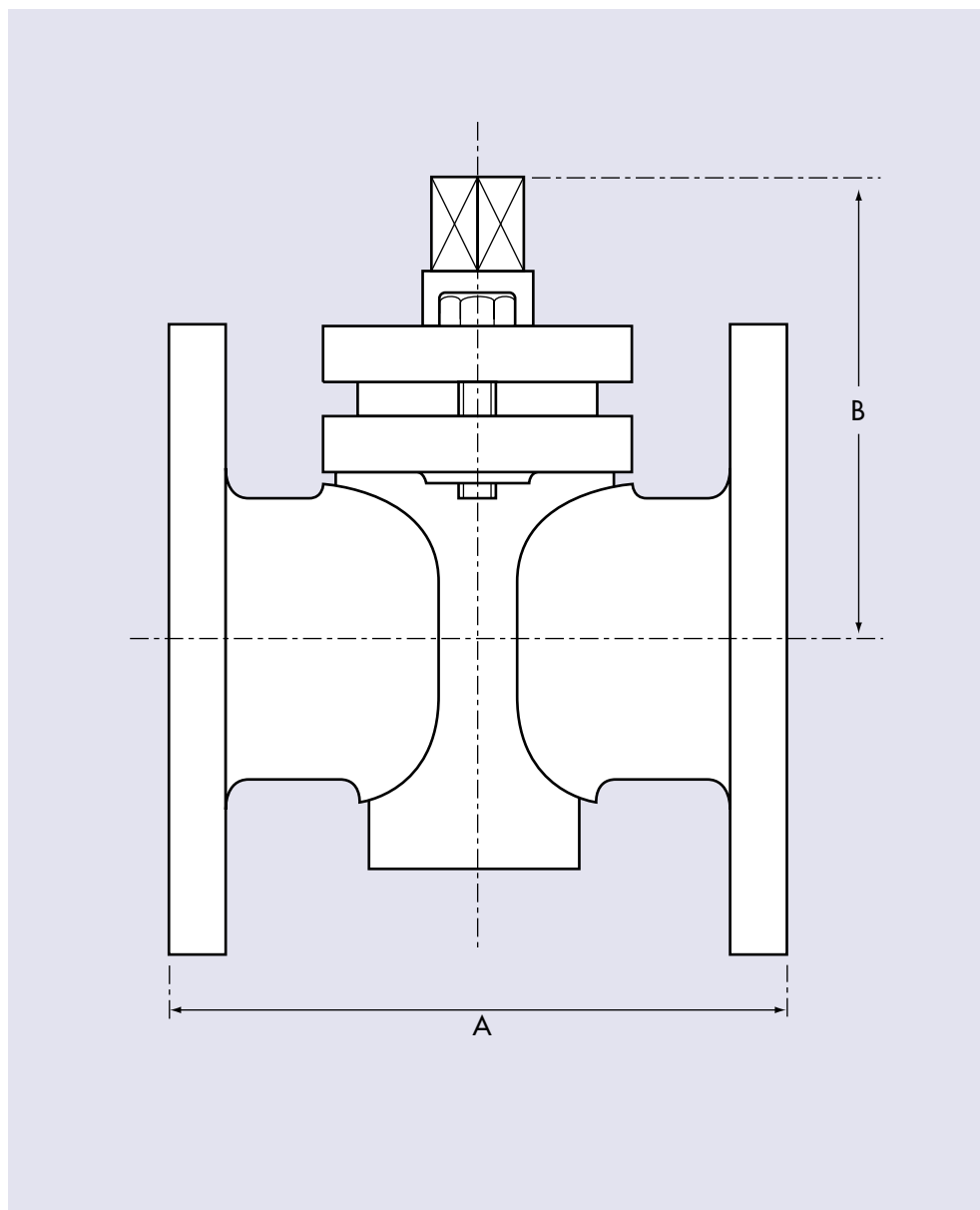
Flanged and drilled to BS 4504



Young & Cunningham

MATERIAL

Bronze BS1400 LG2 throughout



Options Available:-

Bronze BS 1400 LG4
ANSI/BS10 Flanges.
Levers on request.

Dimensions

BORE	15	20	25	32	40	50	65	80
A	62	70	75	82	93	102	112	127
B	78	84	98	99	110	120	143	165
Wt. kg	1	2	3	5	6	10	13	16

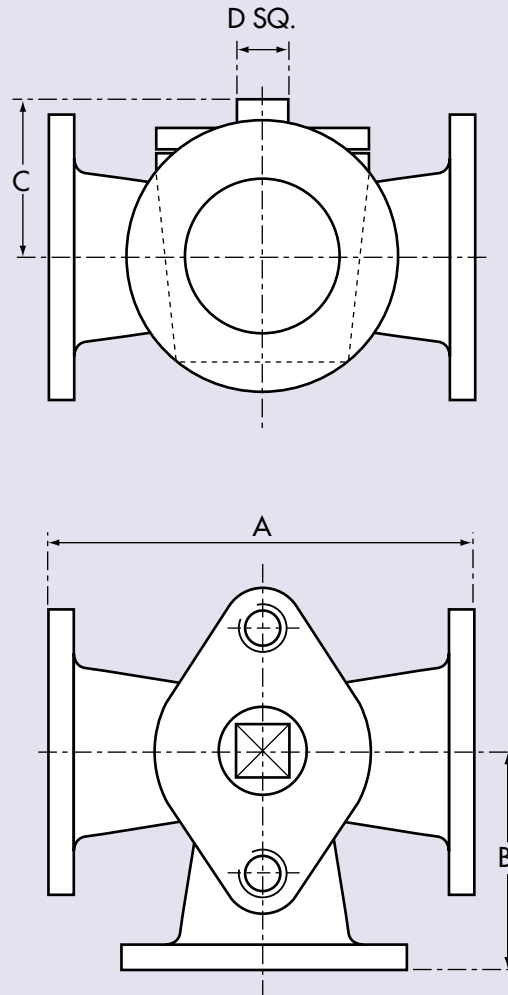
Flanged and drilled to BS 4504



Young & Cunningham

MATERIAL

Bronze BS 1400 LG2 throughout



Options Available:-

Bronze BS 1400 LG4
ANSI/BS10 Flanges.
Levers on request.

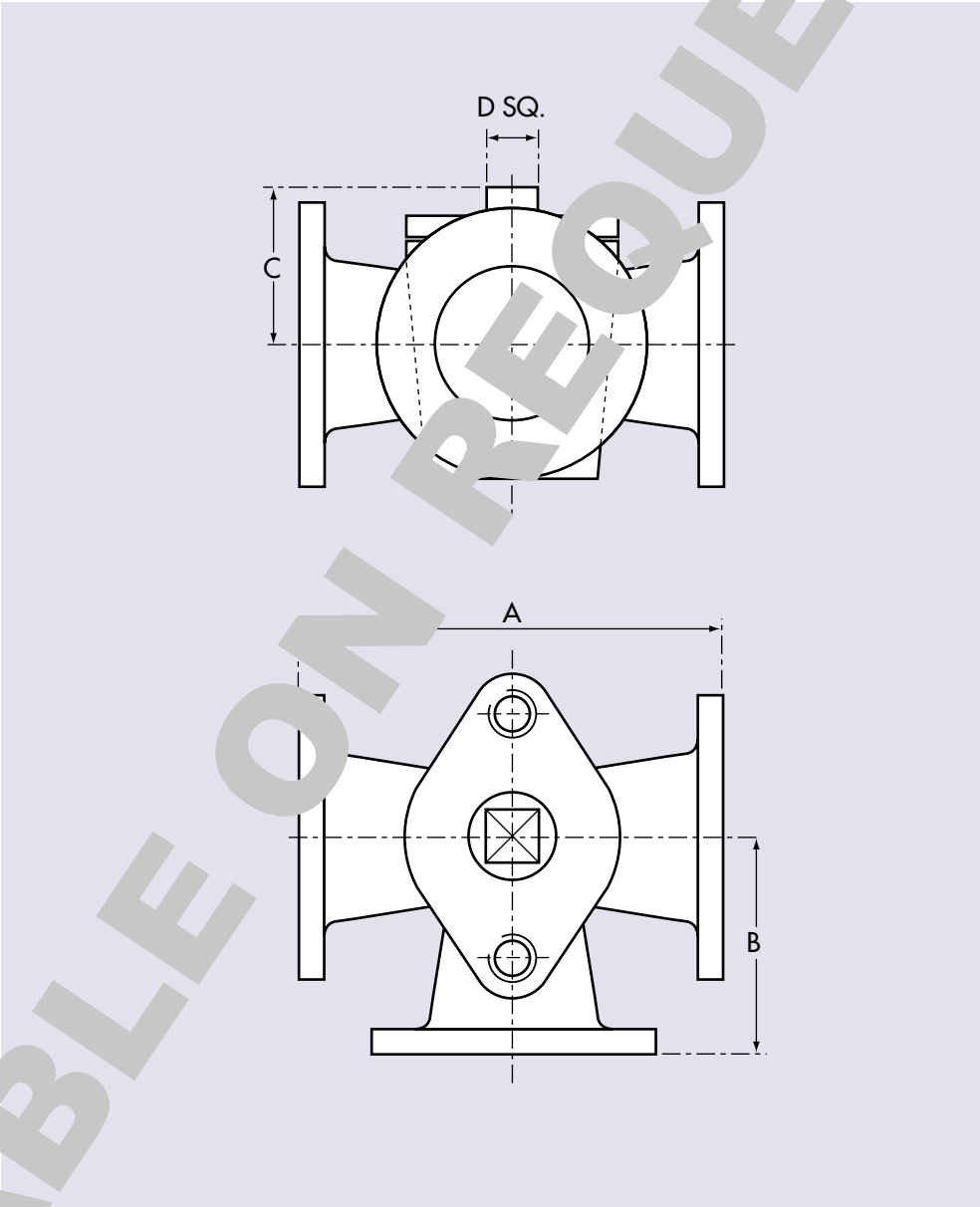
Dimensions

BORE	15	20	25	32	40	50	65	80	100
A	124	139	150	165	186	205	224	255	271
B	63	70	75	86	94	105	112	129	135
C	78	84	98	99	110	120	143	165	203
D	13	14	16	22	22	26	31	35	38
Wt. kg	3	4	5	7	9	13	18	25	37

Flanged and drilled to BS 4504



MATERIAL
Cast Iron BS 1452 - 220 throughout
Fasteners: Mild Steel.



Options Available:-
Levers on request.
ANSI/BS10 Flanges.

Dimensions

BORE	40	50	65	80	100	125	150
A	200	229	241	267	292	343	381
B	100	115	120	133	146	171	190
C	117	141	160	186	219	243	265
D	27	32	38	46	57	68	84
Wt. kg	9	16	20	28	47	67	90

Flanged and drilled to BS 4504



Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2

- 2 PLUG**
Bronze BS 1400 LG2

- 3 COVER**
Bronze BS 1400 LG2

- 4 CAP**
Bronze BS 1400 LG2

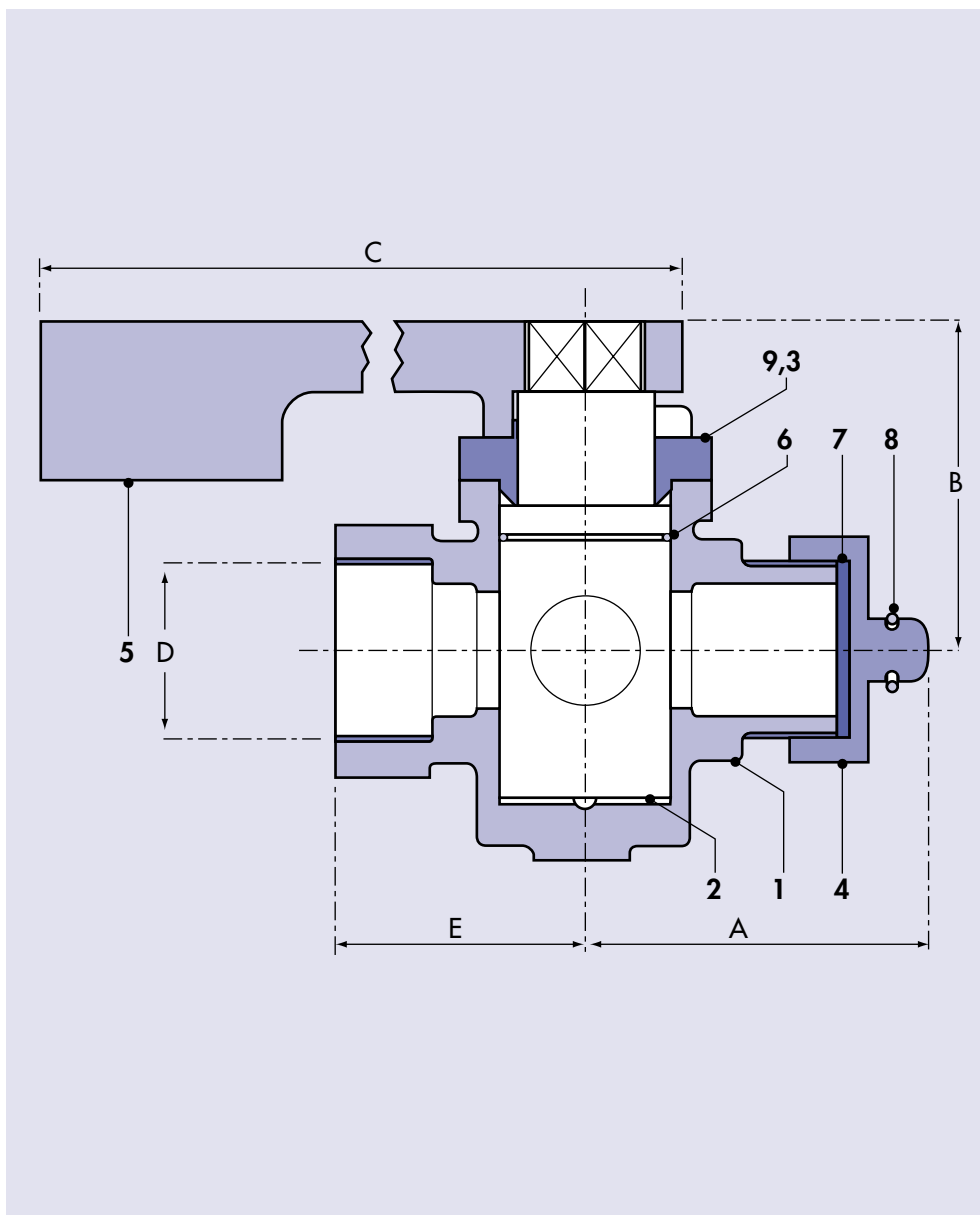
- 5 LEVER**
Cast Iron

- 6 O RING**
Nitrile

- 7 CAP WASHER**
Nitrile

- 8 CHAIN**
Brass

- 9 TAP BOLTS**
Steel



Options Available:-

Flanged Inlet Screwed Outlet.
Flanged Inlet Flanged Outlet.
NPT Female Inlet.
Test Cock.

Dimensions

BORE	32	40	50	65
A	89	89	100	111
B	89	89	100	130
C	210	210	210	210
D	1 1/4	1 1/2	2	2 1/2
E	67	67	76	86
Wt. kg	5.7	6	7	10

Ends Screwed BSP.



Young & Cunningham

BODY AND COVER

Bronze BS 1400 LG2

SPINDLE

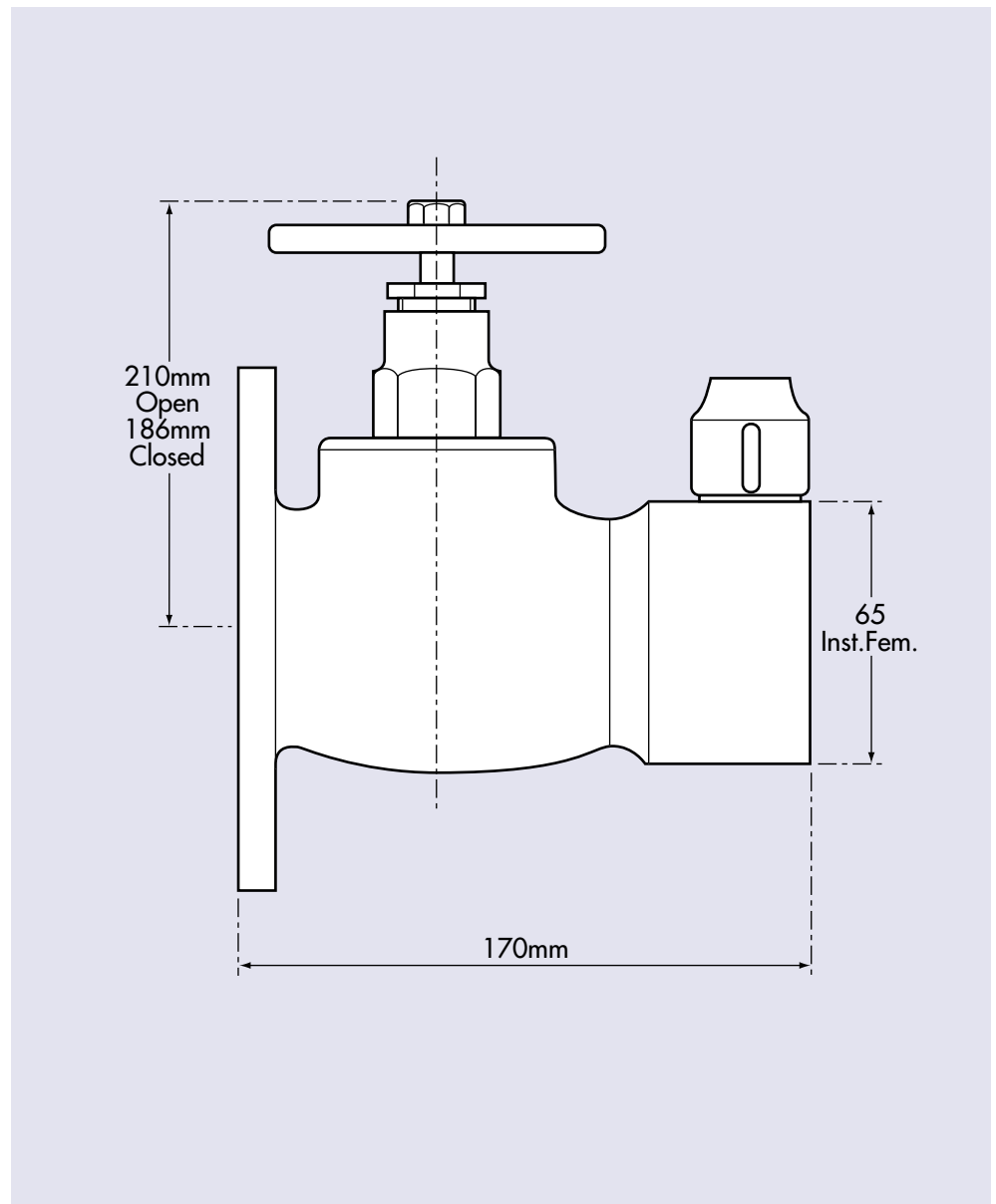
Manganese Bronze
BS 2874 CZ 114

FLANGED INLET

BS4504 PN16 Drilled/BS10

OUTLET

To BS336
65mm FEM. INST C/W Plastic
Plug & Brass Keep Chain



Options Available:-

Brass INST. Male Plug.
Having American Fire Hose Thread
with Caps.
Patterns held for 40mm NB Size.
Associated Fire Fittings available on
request.

Dual Seated Arrgt. to D.T.I. Regulations.

Wt. kg	8
--------	---



Young & Cunningham

BODY AND COVER

Bronze BS 1400 LG2

SPINDLE

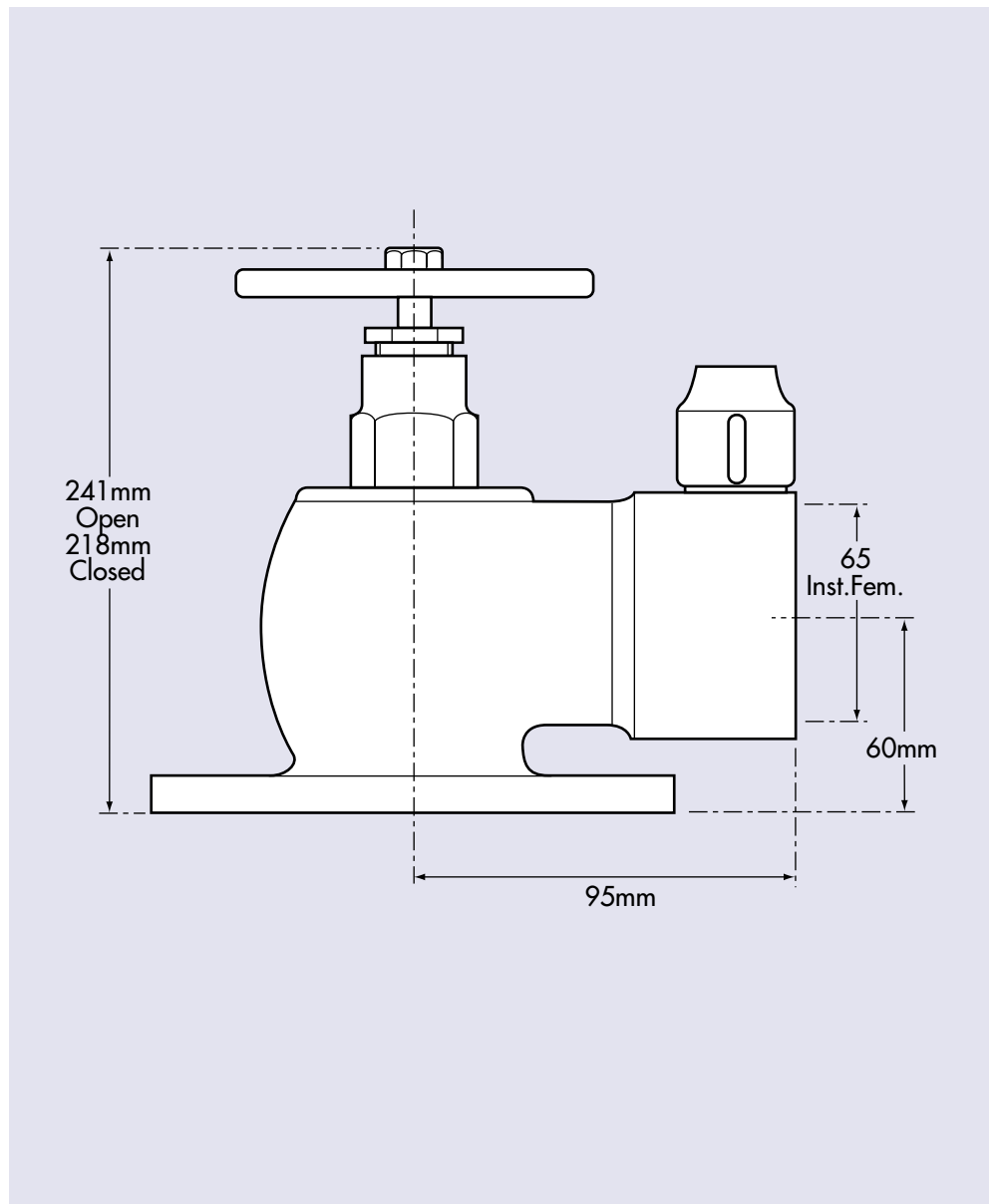
Manganese Bronze
BS 2874 CZ 114

FLANGED INLET

BS4504 PN16 Drilled/BS10

OUTLET

To BS336
65mm FEM. INST C/W Plastic
Plug & Brass Keep Chain



Options Available:-

Brass INST. Male Plug.
Having American Fire Hose Thread
with Caps.
Patterns held for 40mm NB Size.
Associated Fire Fittings available on
request.

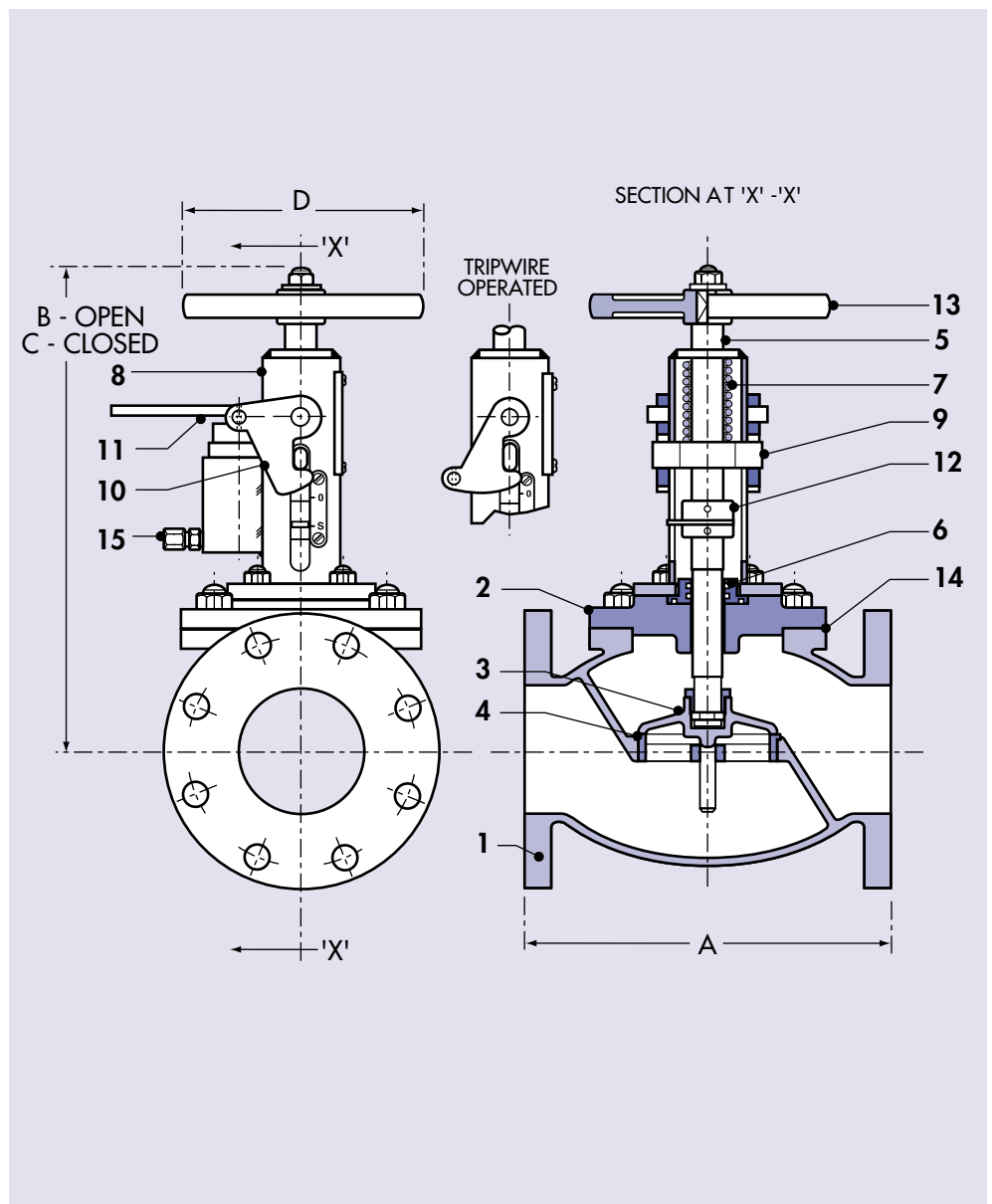
Dual Seated Arrgt. to D.T.I. Regulations.

Wt. kg	8
--------	---



Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2
- 2 COVER**
Bronze BS 1400 LG2
- 3 LID**
Bronze BS 1400 LG2
- 4 SEAT**
Bronze BS 1400 LG2
- 5 SPINDLE**
Manganese Bronze
BS 2874 CZ114
- 6 O RING 210**
Nitrile BS 1806
- 7 SPRING**
Spring Steel BS EN 49B
- 8 VALVE HEAD**
Mild Steel BS 1387
- 9 WING COLLAR**
Aluminium Bronze BS 1400 AB2
- 10 LOCKING LEVER**
Aluminium Bronze BS 1400 AB2
- 11 RELEASE BAR**
Mild Steel BS 4360 43A
- 12 INDICATOR**
Manganese Bronze BS 2874 CZ114
- 13 HANDWHEEL**
Cast Iron BS 1452 Gr . 14
- 14 GASKET**
Novus Scandura BS 6920
- 15 CYLINDER COUPLING**
Steel



Dimensions

Notes:-

- A Flange Rating BS 4504 NP16.
- B Body Test Pressure 217.5 P.S.I.
Seat 145 P.S.I.
- C Renewable Seats 50mm to 300mm.
- D Items 9 & 10 150mm to 300mm -
Material Mild Steel.

Options Available:-

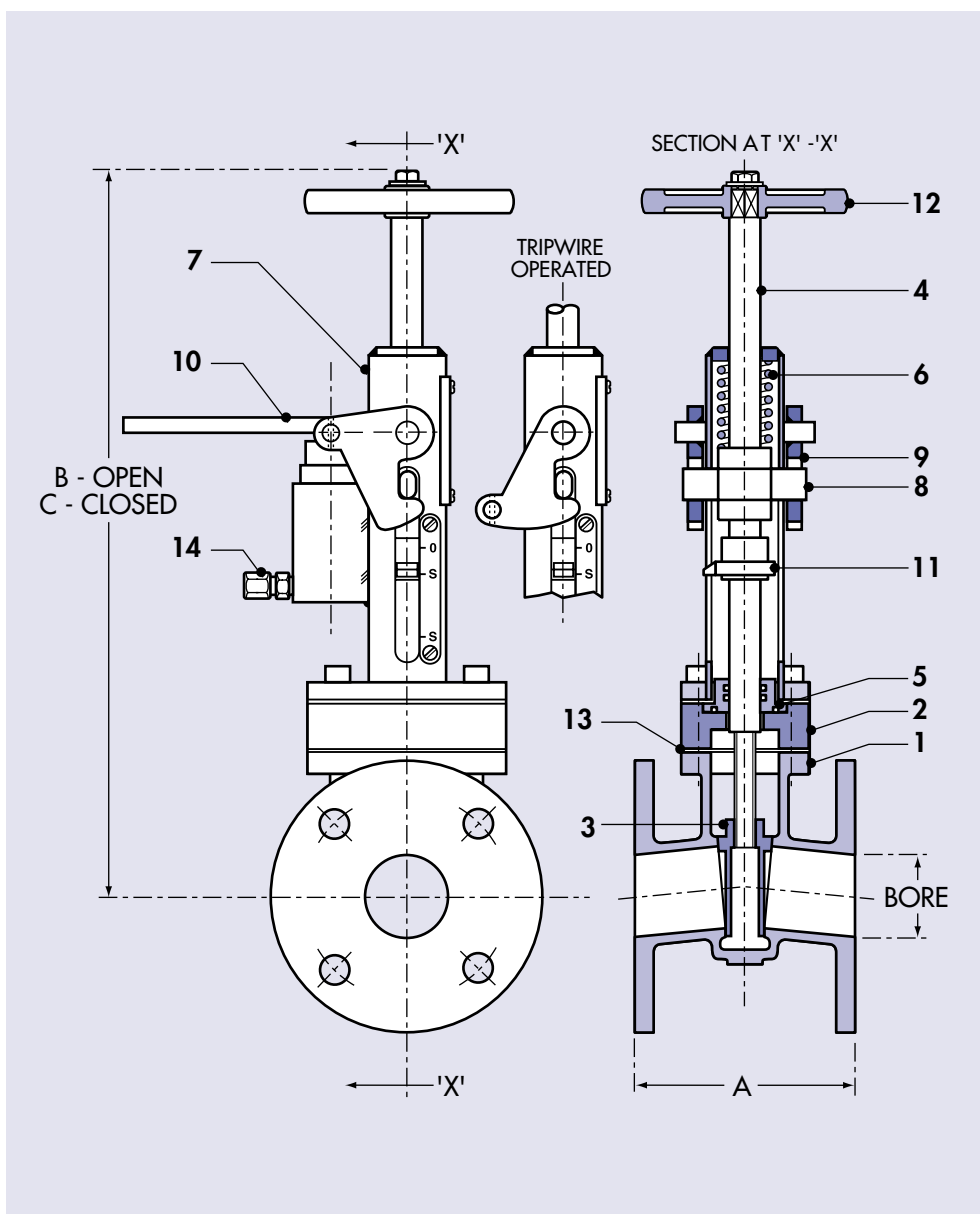
- ANSI/BS 10.
- CS/St.St. (Dims may alter).
- Right Angle.

N.B.	15	20	25	32	40	50	65	80	100	125	150	200	250	300
A	108	117	127	146	159	190	216	254	292	330	356	495	622	698
B	281	298	308	313	324	328	335	346	419	495	581	-	-	-
C	275	290	300	305	311	312	315	325	390	460	540	-	-	-
D	90	90	90	115	115	127	152	152	190	229	305	394	394	-
Wt. kg	7	7	8	8	11	14	18	25	37	-	-	-	-	-



Young & Cunningham

- 1 BODY**
Bronze BS 1400 LG2
- 2 COVER**
Bronze BS 1400 LG2
- 3 WEDGE**
Bronze BS 1400 LG2
- 4 SPINDLE**
Stainless Steel BS 970 316
- 5 O RING**
Nitrile BS 1806
- 6 SPRING**
Spring Steel BS EN 49B
- 7 VALVE HEAD**
Mild Steel BS 1387
- 8 WING COLLAR**
Aluminium Bronze BS 1400 AB2
- 9 LOCKING LEVER**
Aluminium Bronze BS 1400 AB2
- 10 RELEASE BAR**
Mild Steel BS 970 EN 3B
- 11 INDICATOR**
Bronze BS 1400 LG2
- 12 HANDWHEEL**
Cast Iron BS 1452 Gr . 14
- 13 GASKET**
Novus Scandura BS 6920
- 14 CYLINDER COUPLING**
Steel



Dimensions

Notes:-

- A Flange Rating BS 4504 NP16.
B Body Test Pressure 217.5 P.S.I. Seat 145 P.S.I.

Options Available:-

- ANSI/BS 10.
CS/St.St. (Dims may alter).

N.B.	15	20	25	32	40	50
A	80	90	100	110	120	135
B	360	360	360	406	406	500
C	318	318	318	365	365	460
D	90	90	90	90	90	115
Wt. kg	6.9	7	7.5	9.5	11	14



Young & Cunningham

1 PANEL PLATE
Mild Steel AISI 1049

2 TUBE
Copper

3 SELECTOR COCK
Brass Forging Ni Plated
B 455 - 380

4 VENT COCK
Brass Forging Ni Plated
B 455 - 380

5 HANDPUMP BARREL
Steel SAE 1112/SAE 113

6 HANDPUMP PISTON
Manganese Bronze B 138 - 675

7 HANDPUMP LEVER
Manganese Bronze B 138 - 675

8 HANDPUMP O-RING
BS 210
Nitrile ASTM A2000

9 RESERVOIR
Steel ASTM A36

10 FILLER PLUG
Brass B 455 - 380

11 DRAIN PLUG
Brass AISI 1049

12 NON RETURN VALVE
Manganese Bronze B 138 - 675

13 PRESSURE GAUGE
Brass ISO 9002

14 SIGHT GAUGE
Perspex (Commercial)

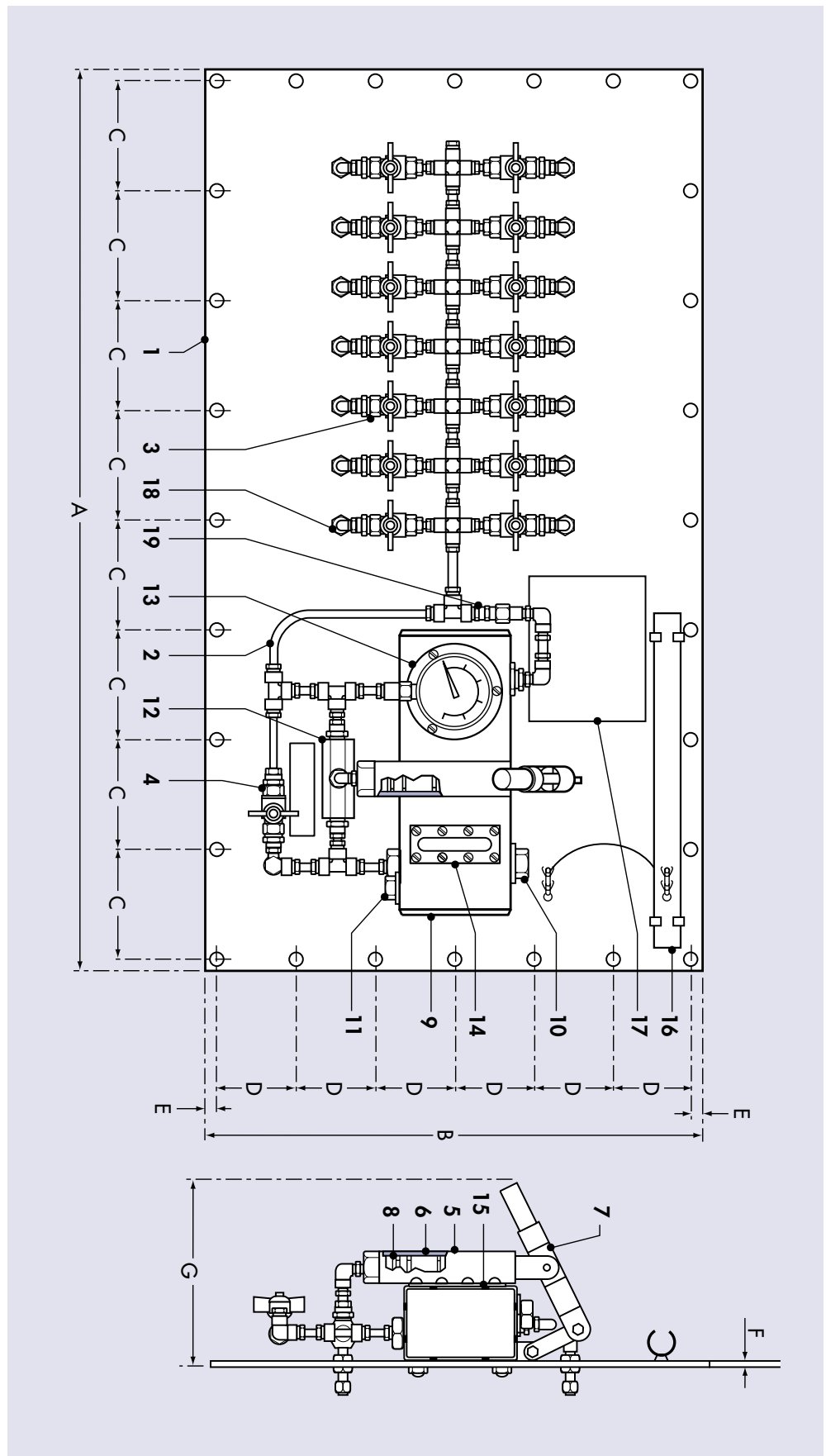
15 SIGHT GAUGE GASKET
Novus Supra

16 EXTENSION LEVER
Steel A 120

17 INSTRUCTION PLATE
Brass B 455 - 385

18 BULKHEAD CONNECTOR
Steel

19 RELIEF VALVE
Brass B 21 - 462





Young & Cunningham

1 BODY

Cast Iron, Nodular Cast Iron,
Cast Steel, Stainless Steel,
Bronze, Aluminium.

2 LINER

Buna-n, Polychloroprene, Butyl,
Viton, E.P.D.M., S.B.R., P.K. Rubber.

3 DISC

Aluminium, Bronze, Cast Steel,
Cast Iron, Nodular Cast Iron
possibly Ebonited, Stainless Steel.

4 VALVE SHAFT

Stainless Steel, K - Monel, Bronze.

5 TAPER PINS

Stainless steel, K - Monel.

6 RADIAL BEARINGS

Bronze, Stainless Steel.

7 O RING

Buna - N., Viton

8 TRUST BEARING

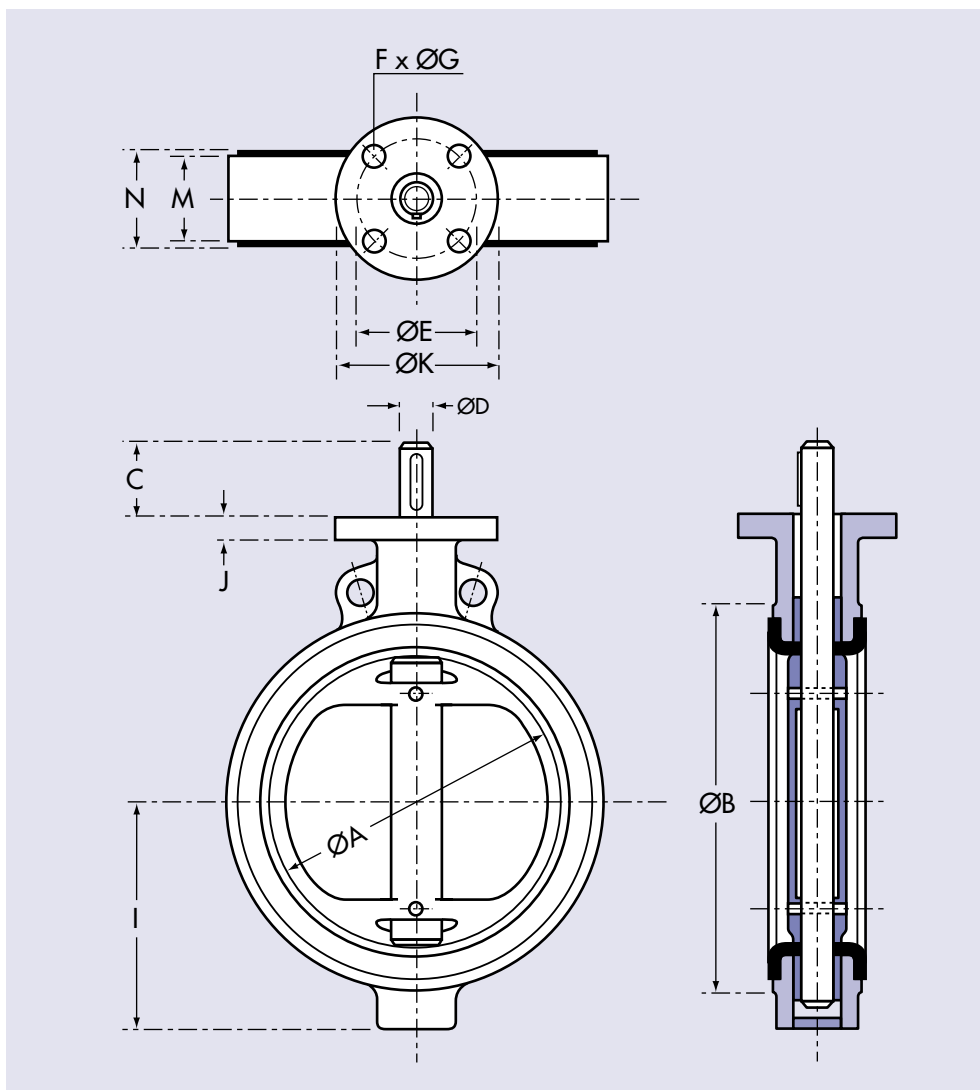
Bronze

9 COVERPLATE

Steel, Bronze.

Options Available:-

Lever Operation.
Manual Gearbox Operation.
Pneumatic/Electric Operation.



Dimensions

Dimension in accordance with ISO - 5752/521 1 - 1

Nominal Size	A	B	C	D	E	F	G	I	J	K	M	N	Key Dimensions	No. of Keys	Wt. kg
40	40	80	40	10	70	4	9	50	15	90	33	36	3 x 3 x 32	1	7.5
50	50	95	40	10	70	4	9	55	15	90	43	46	3 x 3 x 32	1	8
65	65	115	40	10	70	4	9	65	15	90	46	49	3 x 3 x 32	1	8.5
80	80	130	50	16	70	4	9	80	15	90	46	49	5 x 5 x 40	1	9
100	100	158	50	16	70	4	9	90	15	90	52	55	5 x 5 x 40	1	10
125	125	188	50	16	102	4	12	105	15	125	56	59	5 x 5 x 40	1	11
150	150	212	50	20	102	4	12	130	15	125	56	59	6 x 6 x 40	1	13
175	175	242	50	20	102	4	12	140	15	125	60	63	6 x 6 x 40	1	17
200	200	268	50	20	102	4	12	155	15	125	60	63	6 x 6 x 40	1	21
250	250	320	60	25	125	4	14	185	20	150	68	71	8 x 7 x 50	1	31
300	300	373	60	25	125	4	14	210	20	150	78	81	8 x 7 x 50	1	40
350	335	422	80	30	125	4	14	240	20	150	78	81	8 x 7 x 70	1	4
400	385	476	80	35	125	4	14	275	20	150	102	105	10 x 8 x 70	1	78



Young & Cunningham

1 BODY

Cast Iron, Nodular Cast Iron,
Cast Steel, Stainless Steel,
Bronze, Aluminium.

2 LINER

Buna-n, Polychloroprene, Butyl,
Viton, E.P.D.M., S.B.R., P.K. Rubber.

3 DISC

Aluminium, Bronze, Cast Steel,
Cast Iron, Nodular Cast Iron
possibly Ebonited, Stainless Steel.

4 VALVE SHAFT

Stainless Steel, K - Monel, Bronze.

5 TAPER PINS

Stainless steel, K - Monel.

6 RADIAL BEARINGS

Bronze, Stainless Steel.

7 O RING

Buna - N., Viton

8 TRUST BEARING

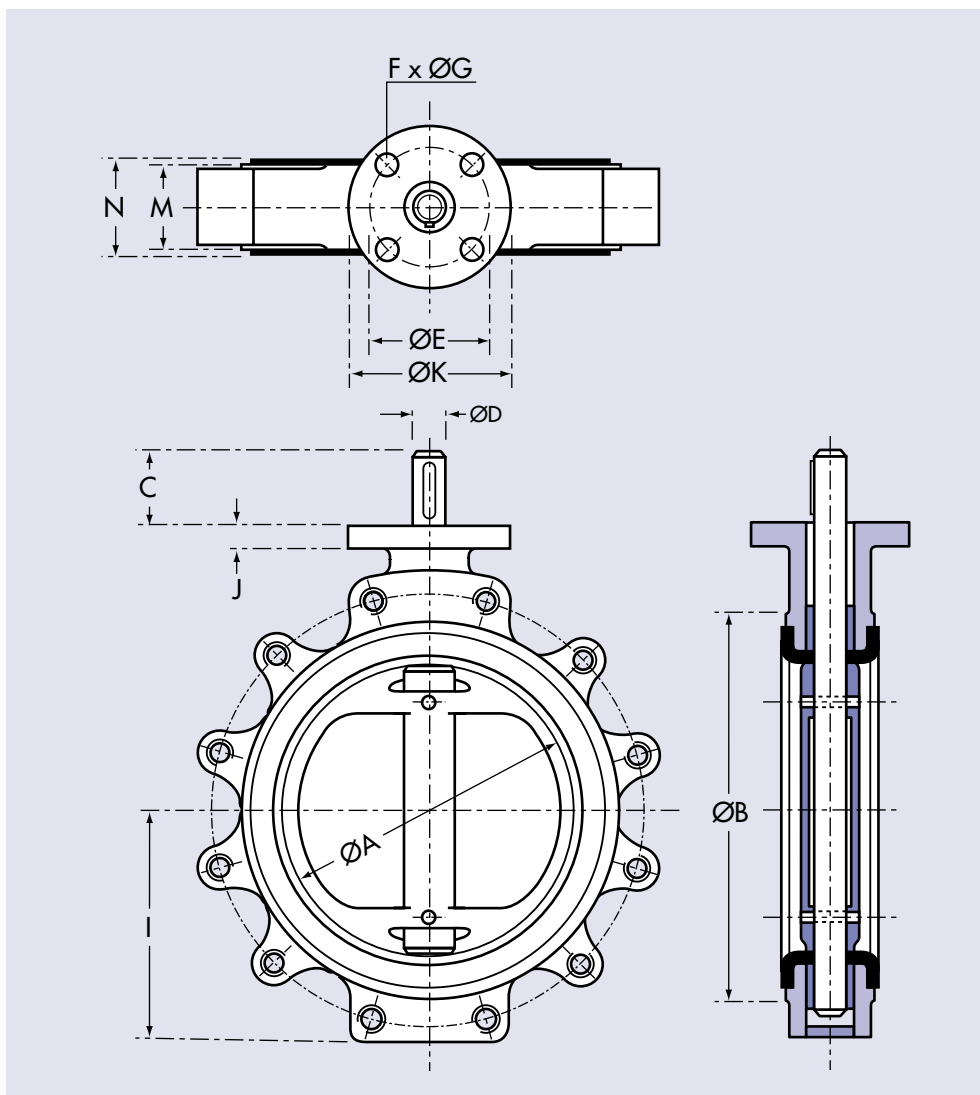
Bronze

9 COVERPLATE

Steel, Bronze.

Options Available:-

Lever Operation.
Manual Gearbox Operation.
Pneumatic/Electric Operation.



Dimensions

Dimension in accordance with ISO - 5752/521 1 - 1

Nominal Size	A	B	C	D	E	F	G	I	J	K	M	N	Key Dimensions	No. of Keys	Wt. kg
40	40	80	40	10	70	4	9	50	15	90	33	36	3 x 3 x 32	1	7.5
50	50	95	40	10	70	4	9	62	15	90	43	46	3 x 3 x 32	1	9
65	65	115	40	10	70	4	9	70	15	90	46	49	3 x 3 x 32	1	10
80	80	130	50	16	70	4	9	95	15	90	46	49	5 x 5 x 40	1	11
100	100	160	50	16	70	4	9	105	15	90	52	55	5 x 5 x 40	1	13
125	125	190	50	16	102	4	12	115	15	125	56	59	5 x 5 x 40	1	14
150	150	212	50	20	102	4	12	130	15	125	56	59	6 x 6 x 40	1	18
175	175	242	50	20	102	4	12	145	15	125	60	63	6 x 6 x 40	1	22
200	200	270	50	20	102	4	12	160	15	125	60	63	6 x 6 x 40	1	27
250	250	320	60	25	125	4	14	195	20	150	68	71	8 x 7 x 50	1	39
300	300	370	60	25	125	4	14	220	20	150	78	81	8 x 7 x 50	1	48
350	335	422	80	30	125	4	14	255	20	150	78	81	8 x 7 x 70	1	69
400	385	482	80	35	125	4	14	290	20	150	102	105	10 x 8 x 70	1	121



Young & Cunningham

1 BODY

Cast Iron, Nodular Cast Iron,
Cast Steel, Stainless Steel,
Bronze, Aluminium.

2 LINER

Buna-n, Polychloroprene, Butyl,
Viton, E.P.D.M., S.B.R., P.K. Rubber.

3 DISC

Aluminium, Bronze, Cast Steel,
Cast Iron, Nodular Cast Iron
possibly Ebonited, Stainless Steel.

4 VALVE SHAFT

Stainless Steel, K - Monel, Bronze.

5 TAPER PINS

Stainless steel, K - Monel.

6 RADIAL BEARINGS

Bronze, Stainless Steel.

7 O RING

Buna - N., Viton

8 TRUST BEARING

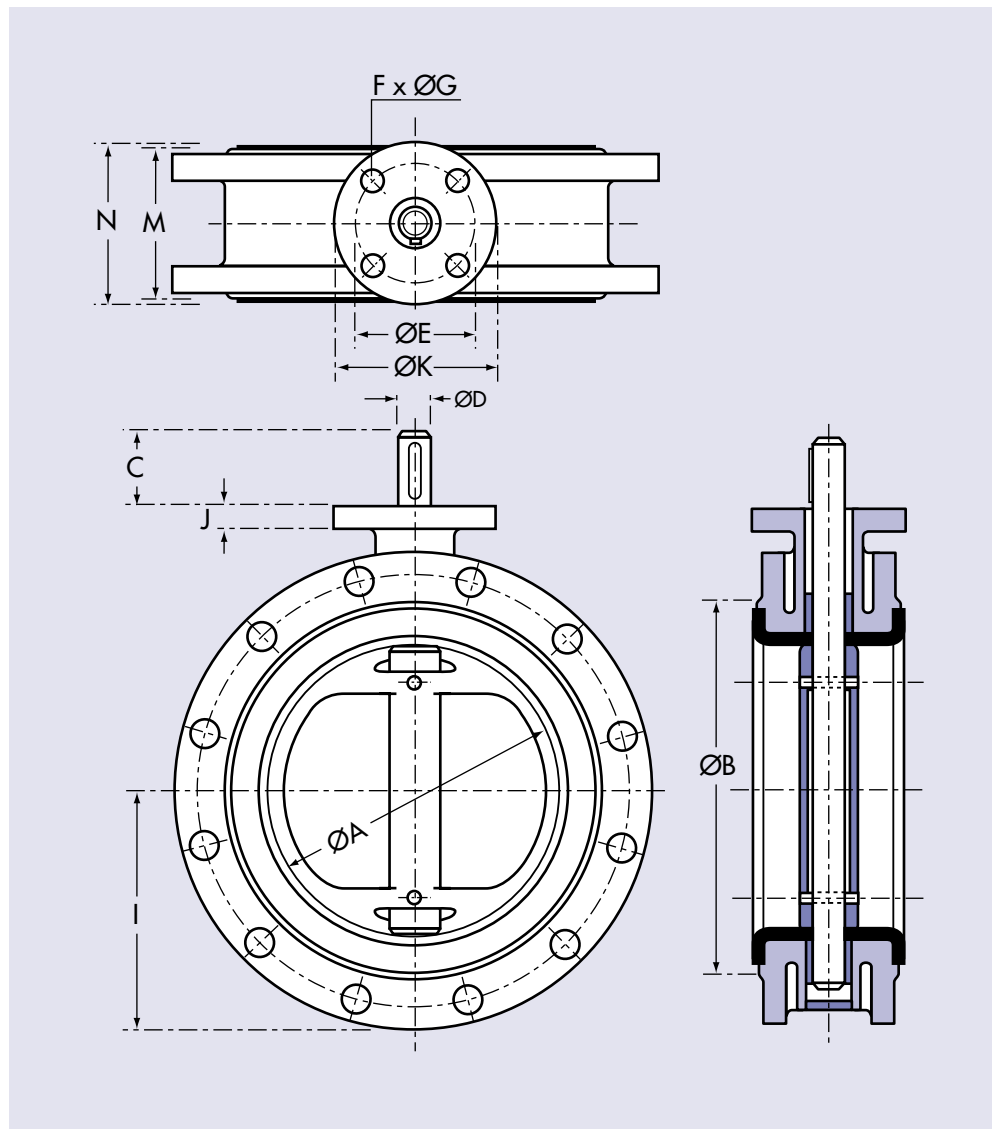
Bronze

9 COVERPLATE

Steel, Bronze.

Options Available:-

Lever Operation.
Manual Gearbox Operation.
Pneumatic/Electric Operation.



Dimensions

Dimension in accordance with ISO - 5752/521 1 - 1

Nominal Size	A	B	C	D	E	F	G	I	J	K	M	N	Key Dimensions	No. of Keys	Wt. kg
50	50	102	40	10	70	4	9	83	15	90	108	111	3 x 3 x 32	1	12
65	65	122	40	10	70	4	9	93	15	90	112	115	3 x 3 x 32	1	13
80	80	130	50	16	70	4	9	100	15	90	114	117	5 x 5 x 40	1	14
100	100	158	50	16	70	4	9	110	15	90	127	130	5 x 5 x 40	1	16
125	125	188	50	16	102	4	12	127	15	125	140	143	5 x 5 x 40	1	20
150	150	212	50	20	102	4	12	143	15	125	140	143	6 x 6 x 40	1	27
175	175	242	50	20	102	4	12	158	15	125	152	155	6 x 6 x 40	1	32
200	200	268	50	20	102	4	12	170	15	125	152	155	6 x 6 x 40	1	35
250	250	320	60	25	125	4	14	204	20	150	165	168	8 x 7 x 50	1	51
300	300	373	60	25	125	4	14	223	20	150	178	181	8 x 7 x 50	1	68
350	330	422	80	30	125	4	14	253	20	150	190	193	8 x 7 x 70	1	78
400	385	476	80	35	125	4	14	283	20	150	216	219	10 x 8 x 70	1	124



Young & Cunningham

1 BODY
Bronze BS 1400 LG2

2 SPINDLE
Manganese Bronze
BS 2874 CZ 114

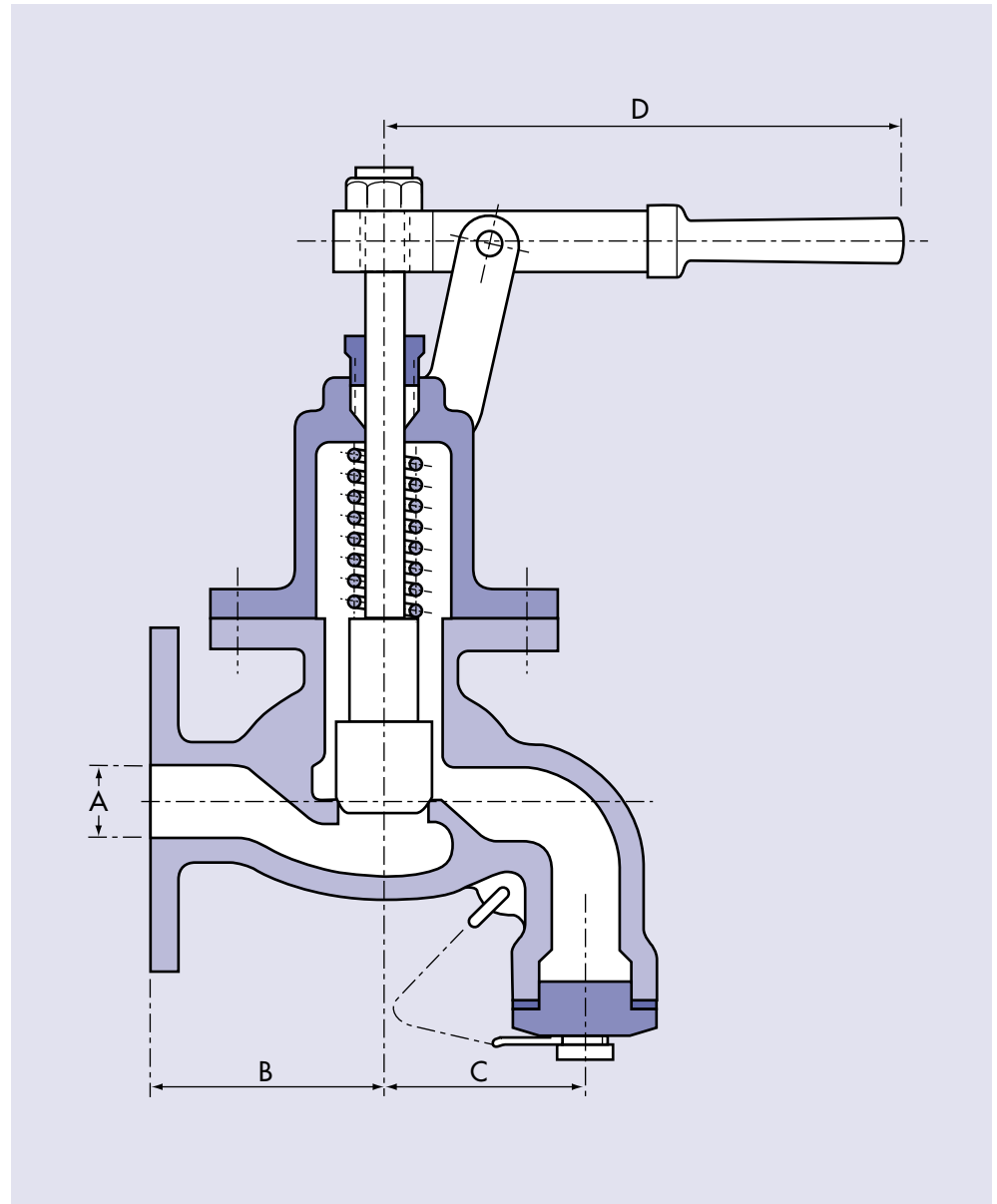
3 SPRING
Stainless Steel

4 LEVER
Bronze BS 1400 LG2

5 GLAND
Bronze BS 1400 LG2

6 PLUG
Brass

7 WASHER
Fibre



Options Available:-

ANSI/BS10 Flanged Inlet.
Flanged Inlet Flanged Outlet Straight
through pattern (Flush Valve).
Cast Steel details on request.

Dimensions

A	15	20	25	32	40	50
B	76	76	76	95	95	95
C	67	67	70	102	102	102
D	175	175	175	175	175	180
Wt. kg	6	6	6	10	10	20

Flanged and drilled to BS 4504



Bronze Push Button Self Closing Drain Valve with Locking Device (Screwed Inlet)

Young & Cunningham

1 BODY
Bronze BS 1400 LG2

2 SPINDLE
Manganese Bronze
BS 7874 CZ 114

3 SPRING
Stainless Steel

4 PUSH BUTTON
Brass

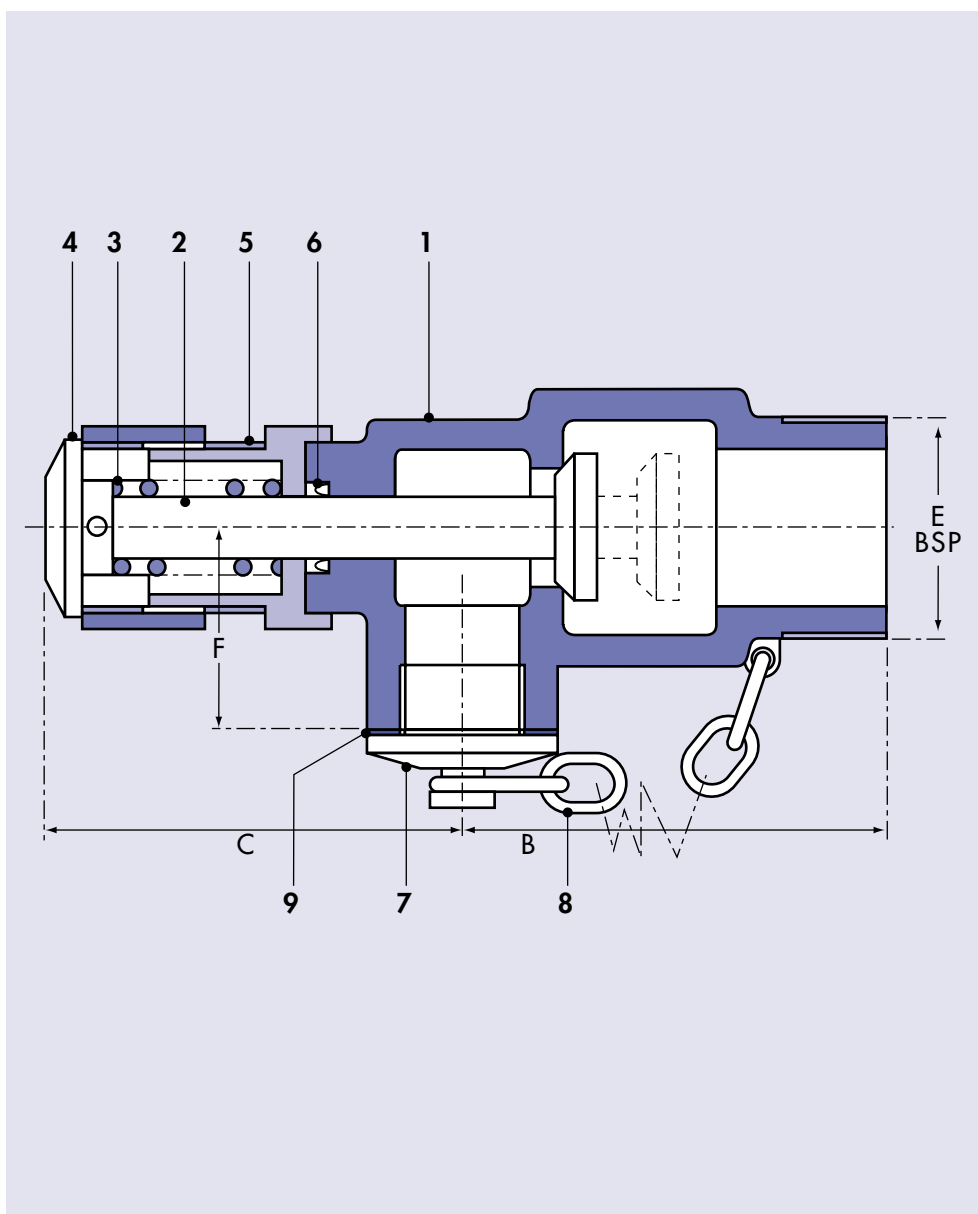
5 LOCKING DEVICE
Manganese Bronze
BS 2874 CZ 114

6 GLAND
Synthetic Rubber

7 PLUG
Brass

8 CHAIN
Brass

9 WASHER
Fibre



Options Available:-
Without Locking Device.

Dimensions

BORE	15	20	25	32	40
B	90	90	90	105	105
C	95	95	95	102	102
D	95	105	115	140	150
E	1	1 1/4	1 1/2	1 3/4	2
F	44.5	44.5	44.5	57.2	57.2
Wt. kg	1	2	3	3	3

Ends Screwed BSP .



Young & Cunningham

STANDARD MATERIALS

Cast iron body and counter flanges: brass wings, valve box & valves: steel spindle.

REGULAR USE

Iron pumps dealing with water should be used daily to prevent the formation of rust. If not possible a brass pump is advised.

COLOURS

Standard double acting pumps are suitable for water and petrol and are painted green.

ANTI-FREEZING

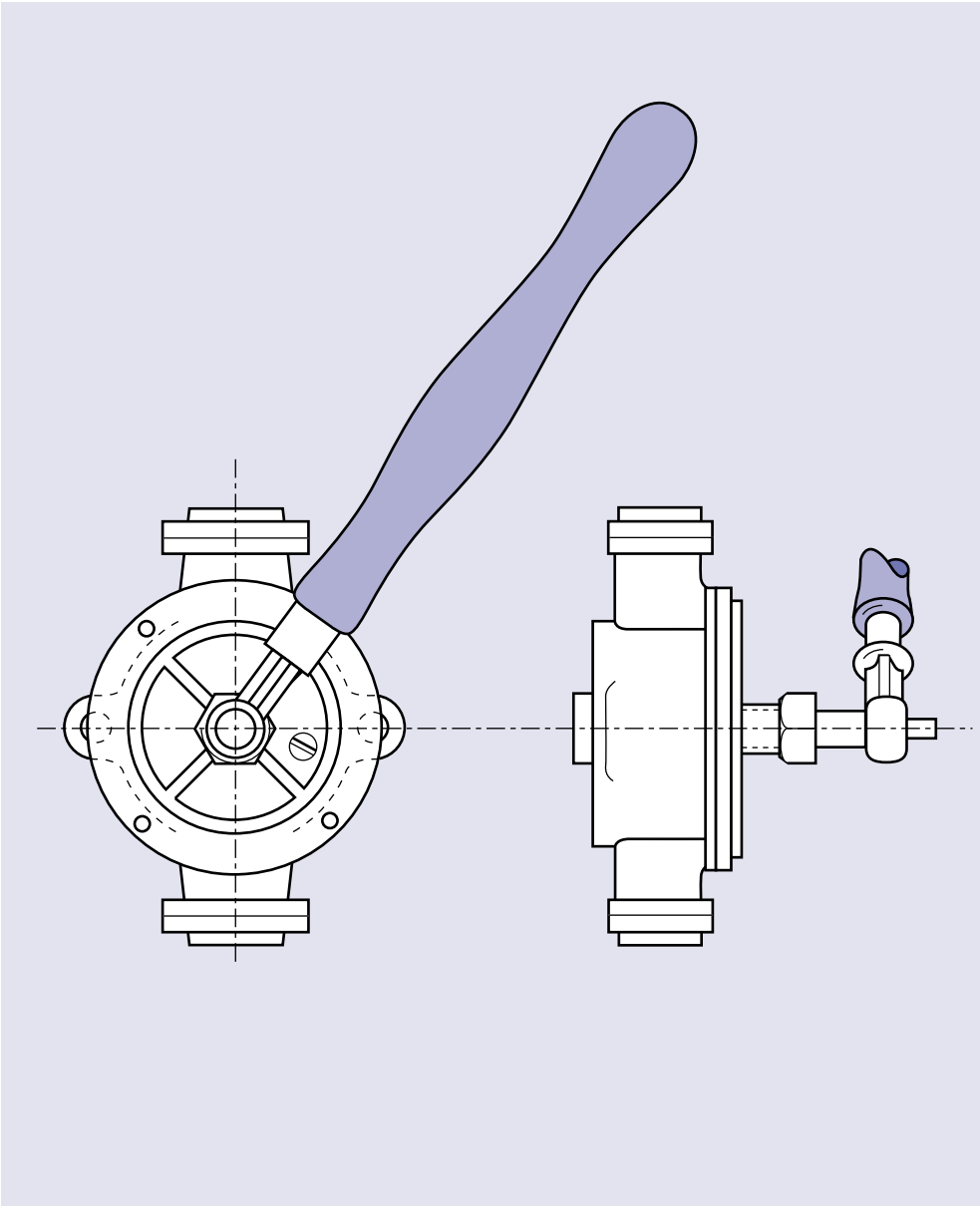
In frost remove plug in front cover, operate handle a few times and leave handle at full stroke to right.

SUCTION LIFTS

When supplied for pumping water, petrol or paraffin, a suitable foot valve and strainer should be fitted at the bottom of the suction pipe. The pumps are then satisfactory for a vertical suction lift of 6.1 meters (20 feet). Without a foot valve, wing pumps are only satisfactory for very short suction lifts.

CAPACITIES

The listed capacities are based on a suction lift of 0.9 metre (3 feet) and delivery of 0.9 meters (3 feet). As the lift increases so the effort required to operate increases. If the pump is to be worked for a fair length of time the effort may not be maintained and customers are advised to assume an output of about two-thirds of the listed figures.



Options Available:-

- Bronze BS 1400 LG2/LG4
- Stainless Steel 316

Production Sizes

Size No	Approx. Capacity Per Hour		Speed Double Strokes Per Min	Suction and Delivery Pipes		Distance between Bolt Holes in Lugs		Wt. kg
	Litres	Gallons		mm	ins	mm	ins	
0	690	150	65	13	0.50	130	5.125	4
1	1035	225	60	19	0.75	150	5.906	6
2	1350	300	55	25	1.00	170	6.688	8
3	1740	390	50	32	1.25	200	7.875	10
4	2595	570	50	32	1.25	220	8.656	12
5	3210	705	45	38	1.50	240	9.453	15
7	5400	1188	40	-	-	-	-	28



Young & Cunningham

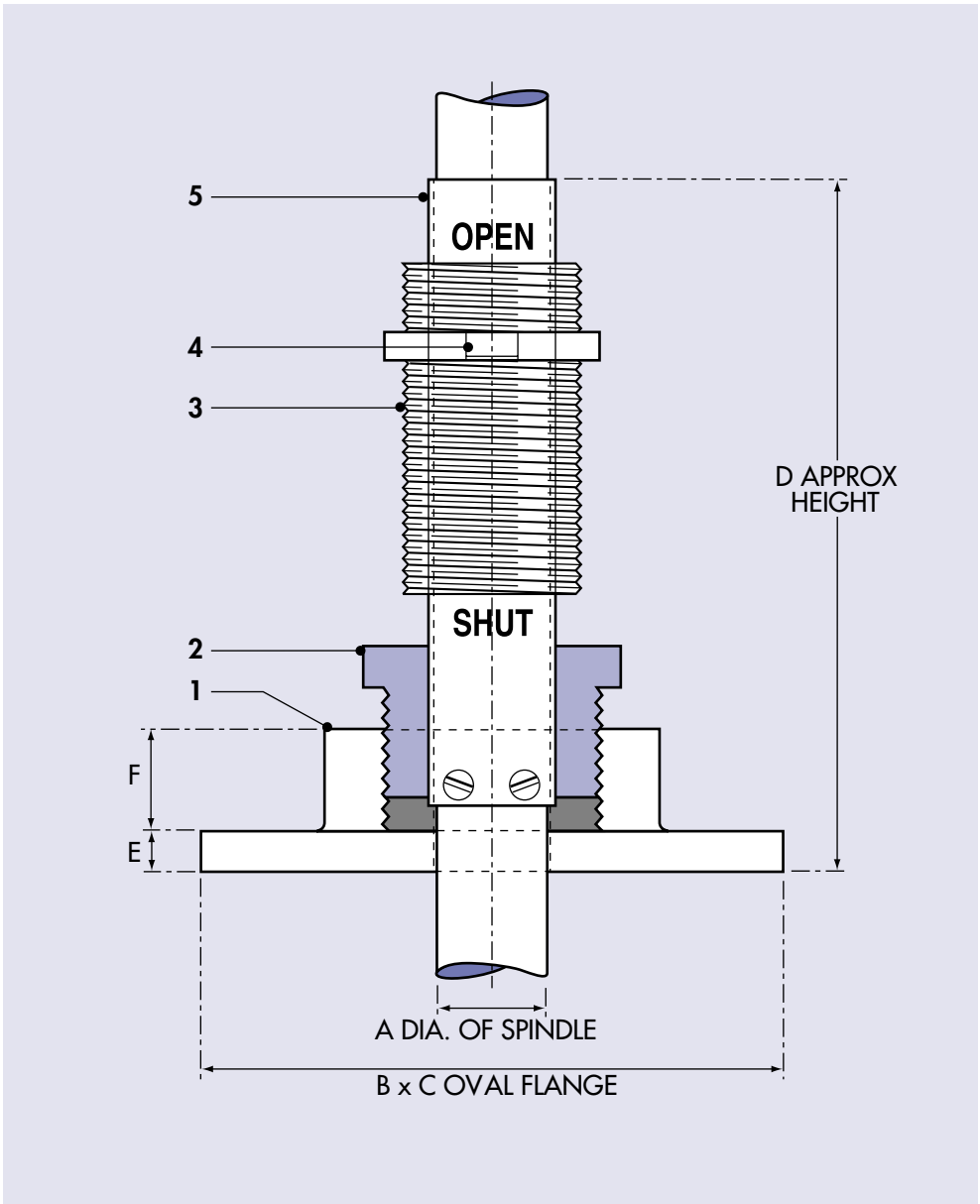
- 1 FLANGE**
Bronze BS 1400 LG2

- 2 GLAND**
Brass

- 3 BUSH**
Brass

- 4 POINTER**
Bronze BS 1400 LG2

- 5 INDICATOR PLATE**
Brass



Dimensions

A	15	20	25	32	40
B	121	121	121	127	127
C	73	73	73	76	76
D	150	150	150	150	150
E	10	10	10	10	10
F	16	16	16	22	22



Young & Cunningham

INSTALLATION OF SIGHT - FLOW INDICATORS

When the sight - flow indicator is installed in the over flow pipe line it is essential that the arrow indicating the direction of flow is pointing downwards.

An electric light of sufficient brilliance to ensure satisfactory illumination of the interior of the body should be sited as close as practicable to one of the plate glass ports of the sight-flow indicator.

In order to ensure ideal visibility it is suggested that the sight-flow indicator should be installed in the pipeline so that the centre of the plate glass ports should be at a height not exceeding 1600mm above the viewing platform.

TESTED

4 Bar (Body)

FLANGES

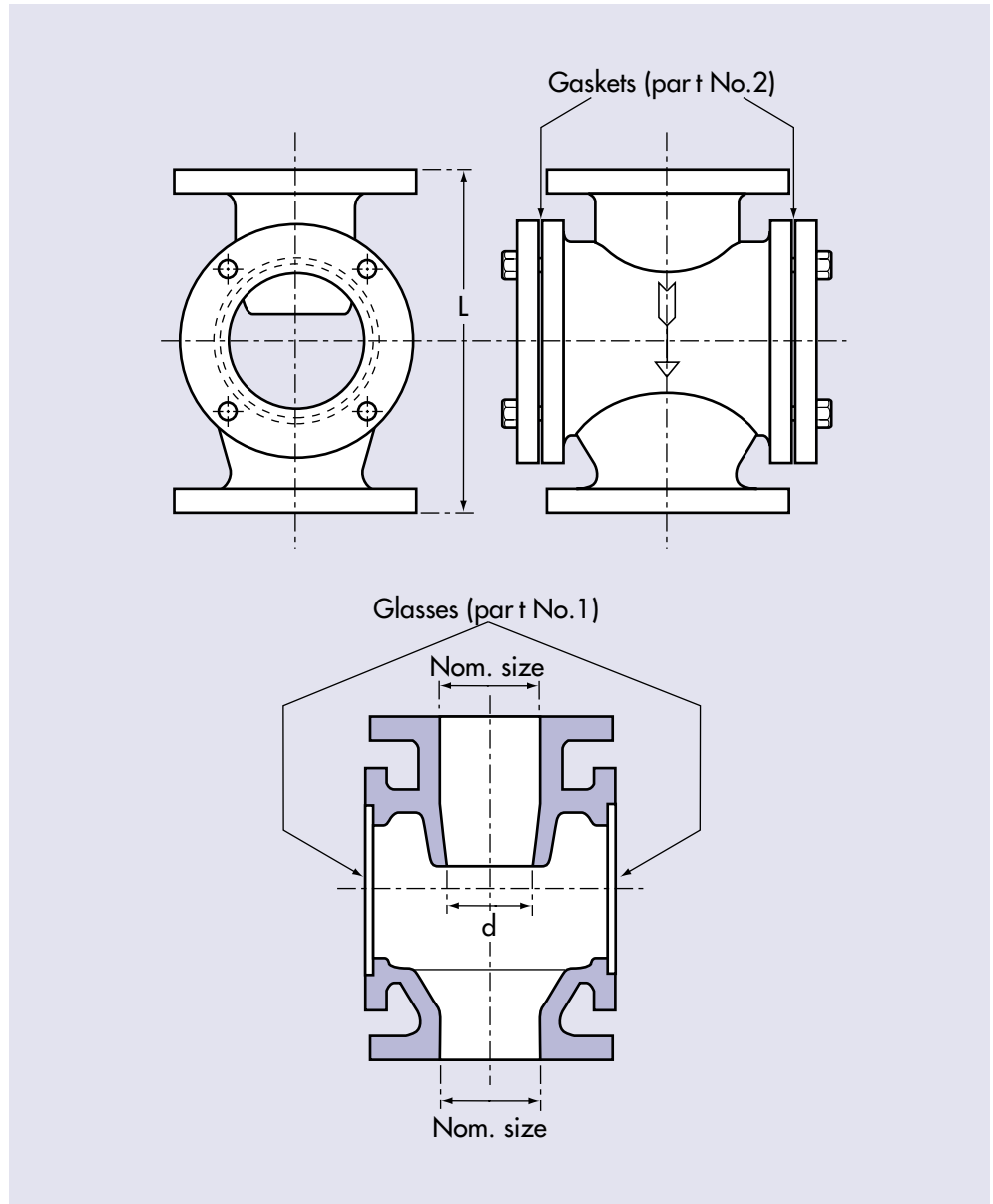
BS 4504 - Table 16 Drilled

MATERIALS

Cast Steel to BS 1504 - 161
Cast Iron to BS 1452 - 220
Bronze to BS 1400 LG/LG4

Options Available:-

ANSI/BS10 Flanges.
Double Glazing.



Dimensions

Nominal Size	32	40	50	65	80	100	125	150	200
Face - to - face Dimension	195	195	210	225	280	305	330	355	405
Nominal Bore of tank filling line	25	32	40	50	65	80	100	125	150
Minimum nozzle dia. d for flow area 25% greater than sectional area of filling line	28	36	45	56	75	90	112	140	170



Young & Cunningham

HOUSING

Bronze BS 1400 LG2

SLEEVE AND GLAND

Bronze BS 1400 LG2

GLAND BOLTS

M.S. Plated

STAYBOLTS

Mild Steel

GLAND PACKING

Braided ASB & Graph

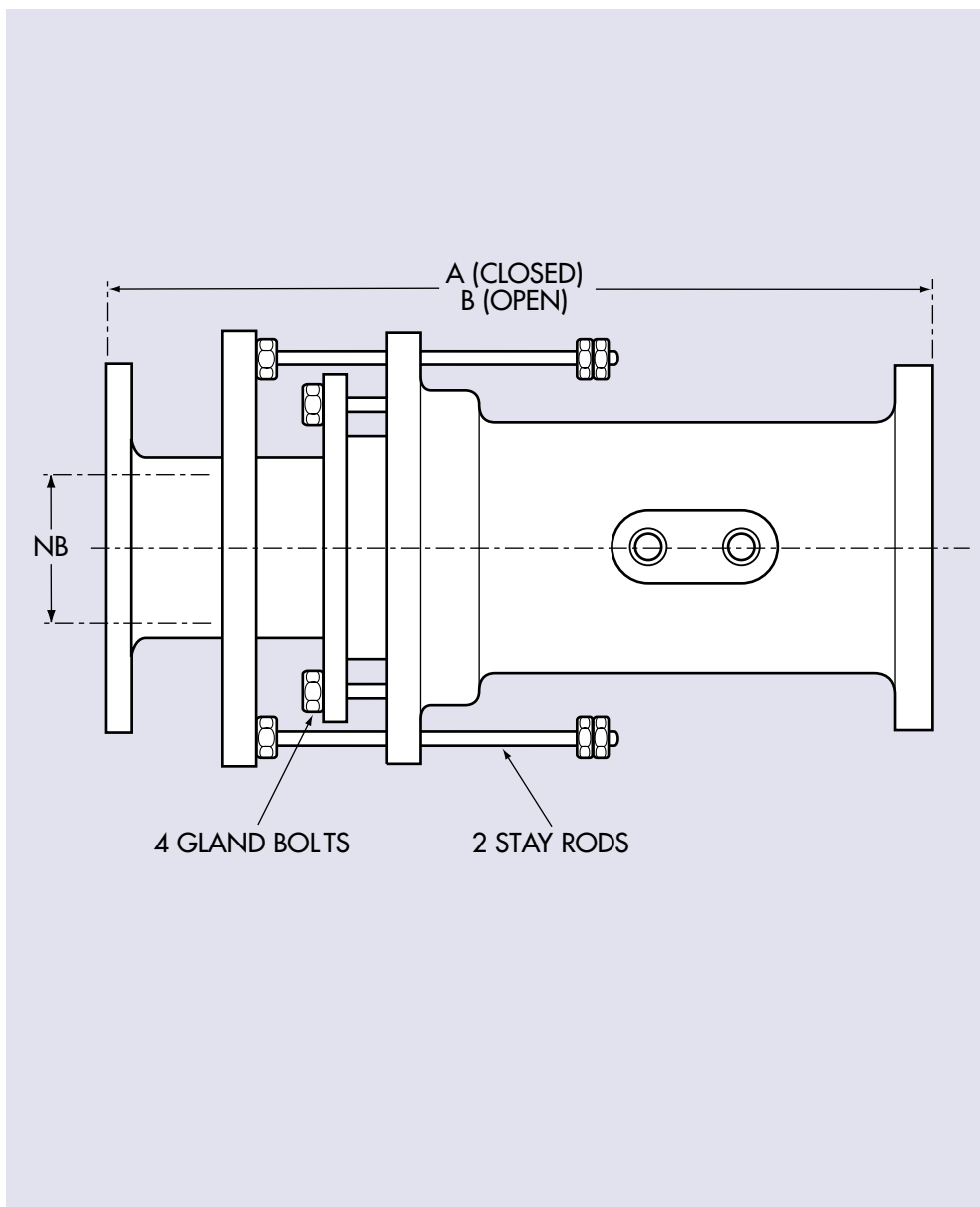
SUPPORT PAD

To 100mm - 2 x M12 on 50CRS

To 150mm - 2 x M16 on 65CRS

To 200mm - 2 x M16 on 65CRS

To 250mm - 2 x M16 on 65CRS

**Options Available:-**

With Gland Bolts/Stay Rods
in AL. BR./ST. Steel.
ANSI/BS10 Flanges.

Patterns held for Double Gland Type
Details on request.

Dimensions

Nom Bore	40	50	65	80	100	125	150	200	250	300
A	267	267	267	305	343	406	446	457	508	508
B	347	347	347	385	423	533	573	584	635	635
Wt. kg					30		53	82	120	

Flanged and drilled to BS 4504



Young & Cunningham

SIZE AND PITCH OF HOLES

10mm

MATERIAL

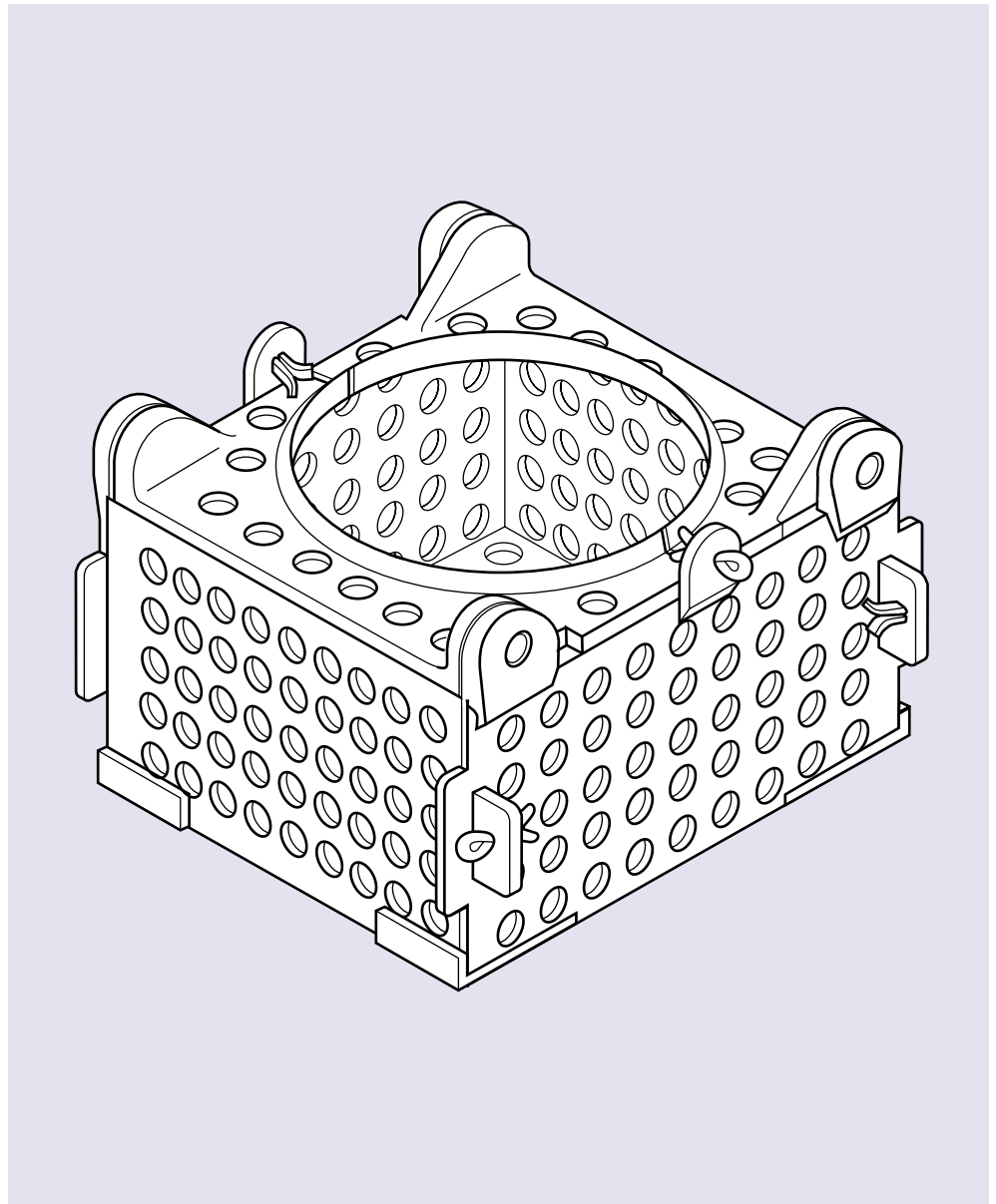
Cast Iron

SPLIT PINS

Brass

FINISH

Zinc Coated



Options Available:-

Nodular Iron (Ductile).
Galvanised.

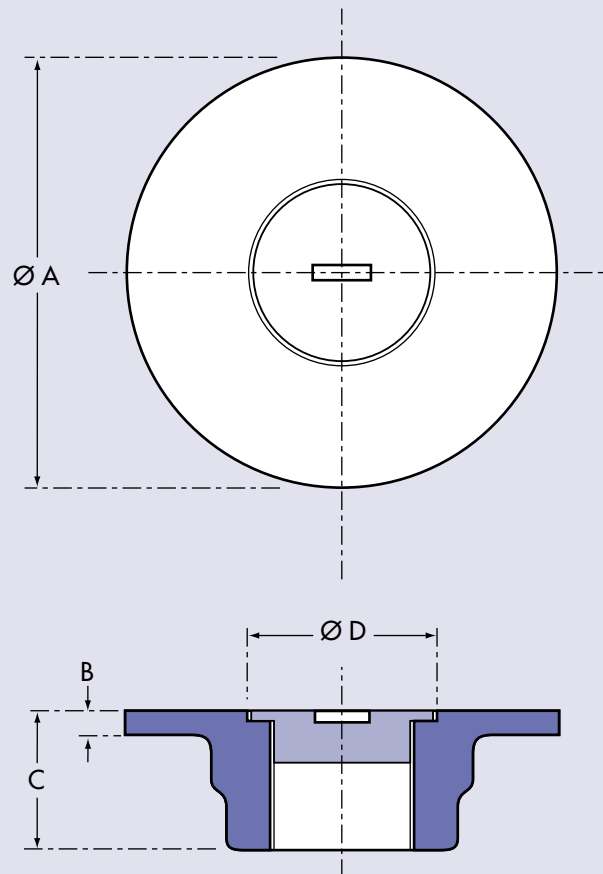
Dimensions

Nom. Bore	40mm	50mm	65mm	100mm
Top Plate Aperture Dia.	50mm	68mm	83mm	127mm
Overall Dimensions	100x150x150	100x150x150	100x150x150	205x230x125



MATERIAL

Bronze BS 1400 LG2



Dimensions

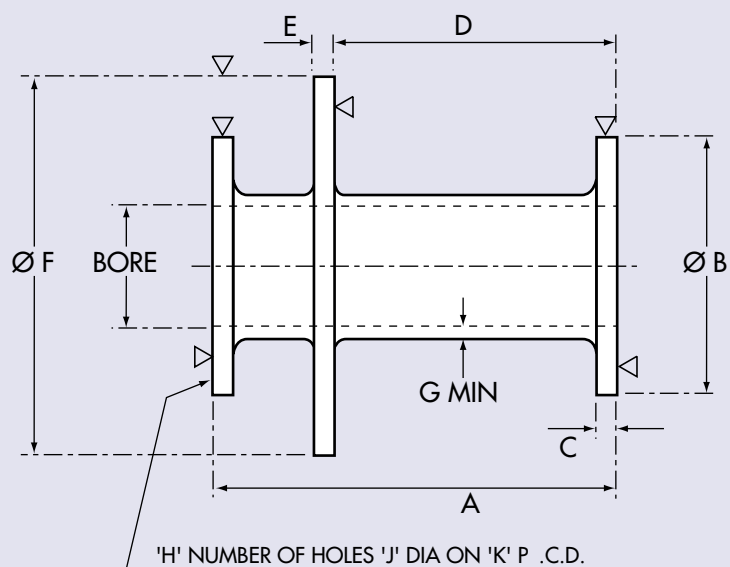
PIPE SIZE	25	32	40	50	65	80	100	125	150
A	100	105	130	150	160	170	220	230	250
B	5	5	6.4	6.4	6.4	6.4	8	9.5	9.5
C	32	34	45	45	45	57	57	67	83
D	41	47	54	71	86	98	127	162	187
HOLE IN DECK	60	65	76	90	100	110	160	175	200



Young & Cunningham

BODY

Bronze



▽ Denotes Fine Machine
Centre Flange left Undrilled

Dimensions

BORE	A	mm B	mm C	D	E	F	G	H	mm J	mm K
2	9	165	11	4 1/2	1/2	9 3/4	5/16	4	18	125
2	10 1/2	165	11	6	1/2	9 3/4	5/16	4	18	125
2 1/2	10 1/2	185	13	6	1/2	10 1/4	5/16	4	18	145
3	10 1/2	200	13	6	1/2	11	5/16	8	18	160
4	10 1/2	220	16	6	5/8	12 1/4	5/16	8	18	180

End Flanges to BS 4504 NP16



Young & Cunningham

- 1 HANDWHEEL**
Cast Iron

- 2 BUSH**
Brass

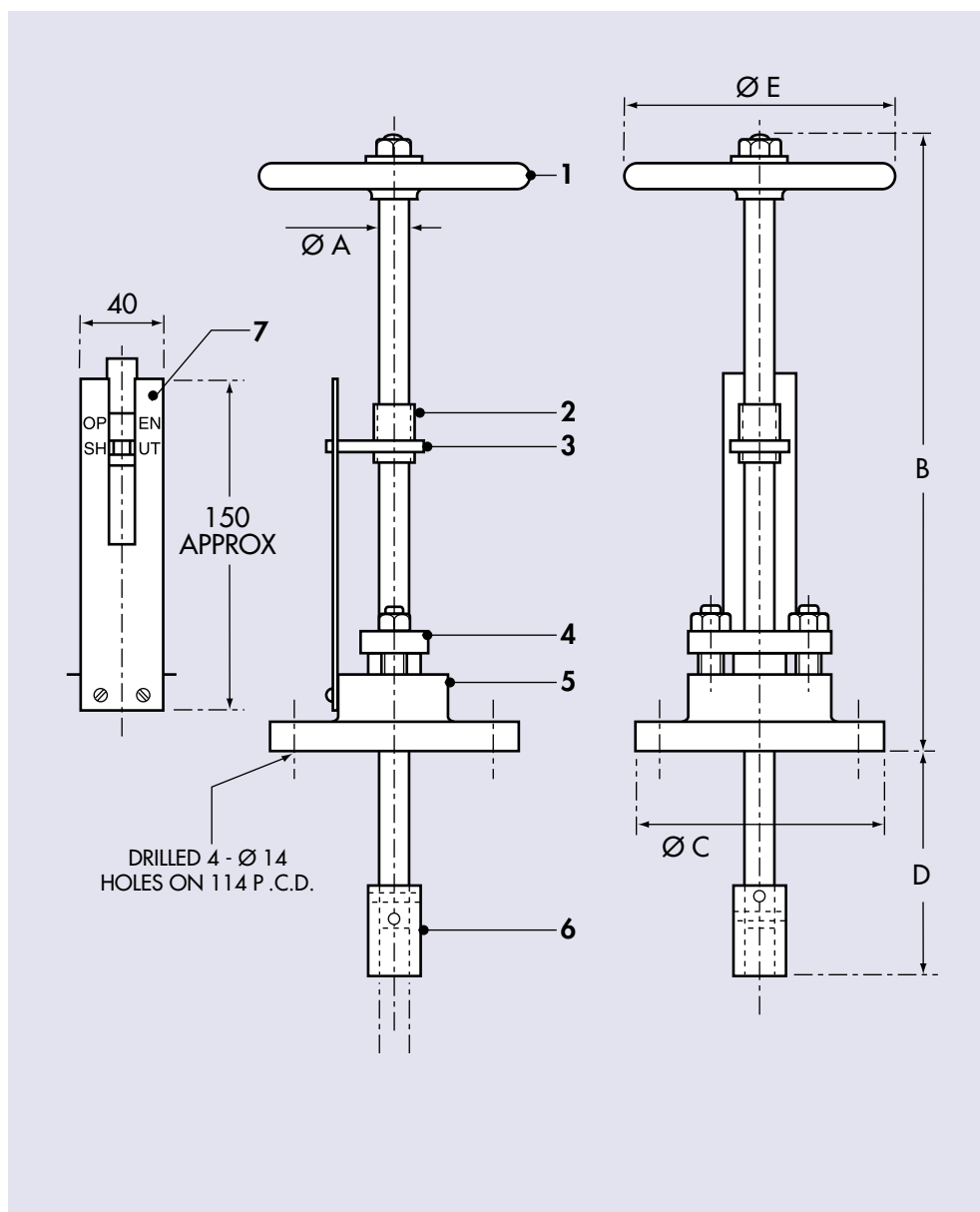
- 3 POINTER**
Gunmetal

- 4 GLAND**
Gunmetal

- 5 DECK FLANGE**
Gunmetal

- 6 SPINDLE & MUFF COUPLING**
Mild Steel

- 7 INDICATOR PLATE**
Brass



Dimensions

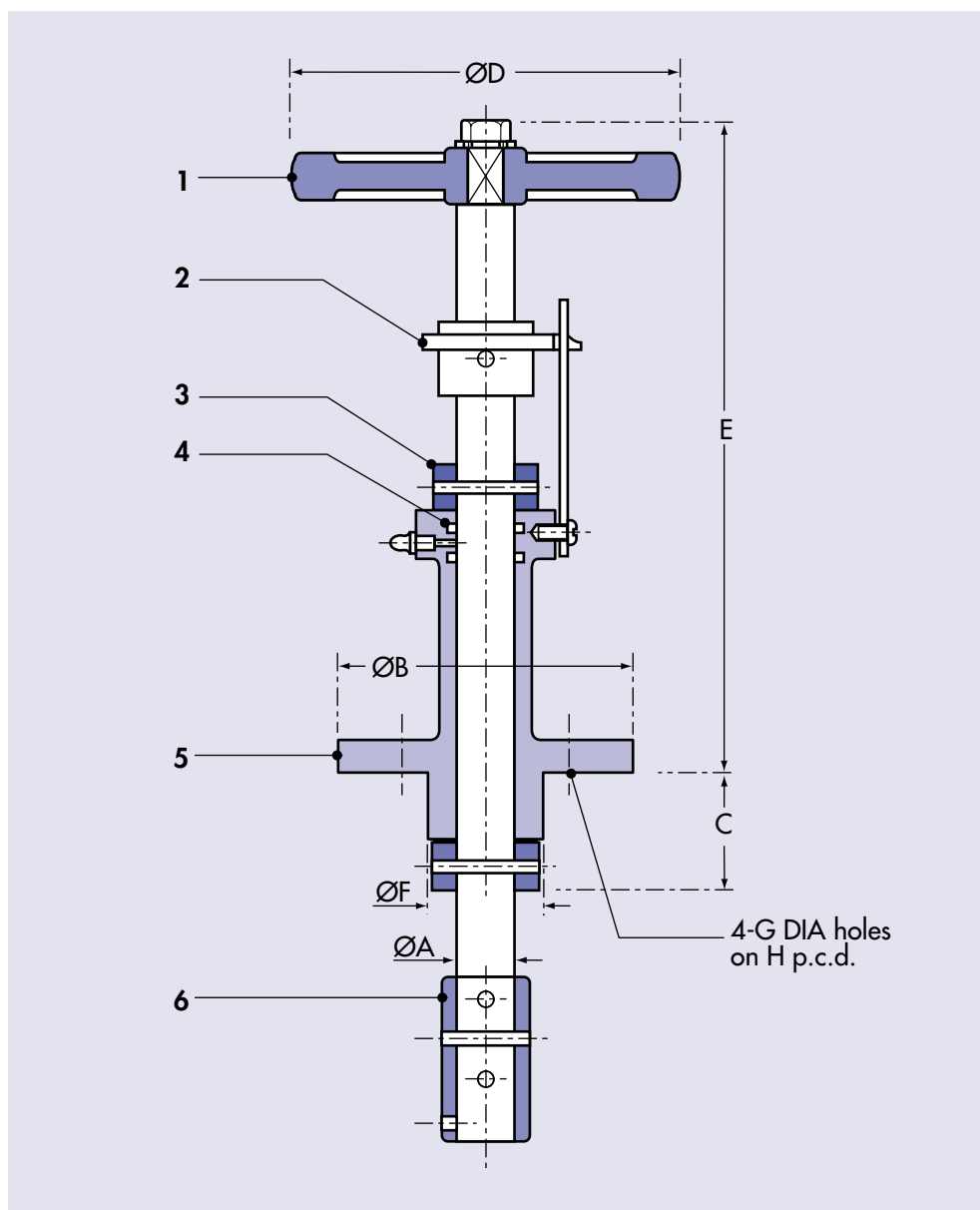
A	B	C	D	E
25	457	146	305	165

Muff Coupling to suit 1 5-25mm Dia Spindles.



Young & Cunningham

- 1 HANDWHEEL**
Cast Iron
- 2 INDICATOR**
Bronze
- 3 BUSH**
Manganese Bronze
- 4 O RINGS**
Rubber
- 5 BODY**
Bronze
- 6 MUFF COUPLING**
to Customers Requirements

**Dimensions**

A	B	C	D	E	F	G	H
19.05	99	30	150	260	46	10	81
25.4	127	30	190	280	50	14	102
31.75	127	30	229	300	50	14	102