



**Gate, Globe, Check & Ball
Production**



GATE, GLOBE and CHECK VALVES DIVISION



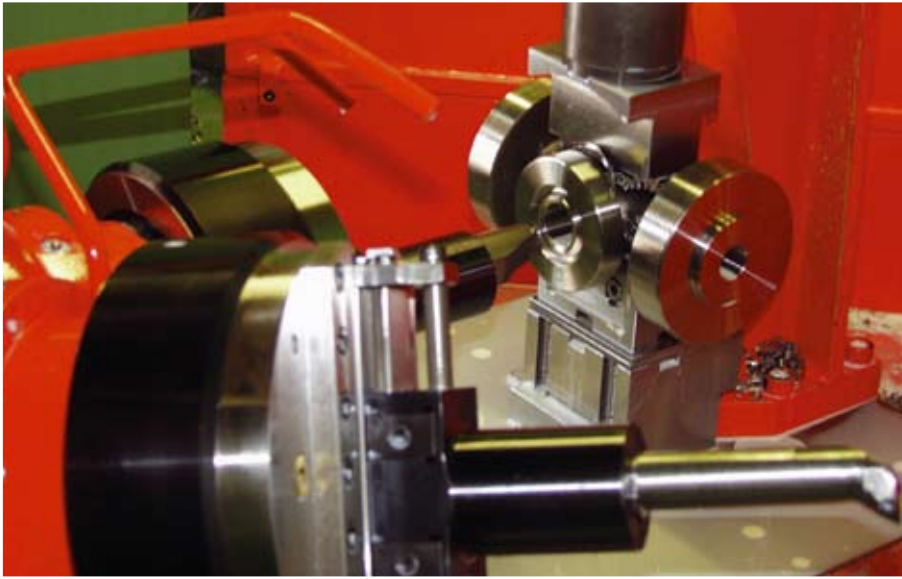
BALL VALVES DIVISION



WAREHOUSE



LVF HEAD OFFICES AND MANUFACTURING PLANT



CERT

QUALITY PROCEDURES IN THE MOST STRINGENT

LVF's production, is obtained with modern plant and equipment that assure a product of the highest quality checked by qualified and experienced technicians.

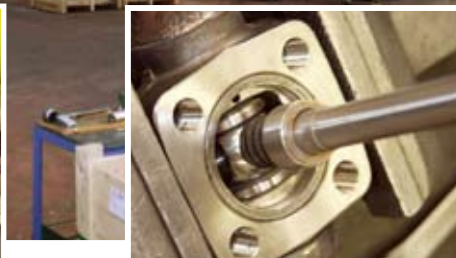
The latest generation of C.N.C. equipment designed and modified to the specifications of the company's Technical Department guarantees optimal results on finished bodies and bonnets.

Qualified and reliable subcontractors assure materials of the highest quality in complete compliance with the required applicable standards.

A well integrated combination of Quality Assurance and Quality Control Procedures permitted LVF to obtain the first certificate of approval ISO 9001 from BUREAU VERITAS QUALITY INTERNATIONAL on the 6th October 1992.



LVF - Production area Automatic machine



This page gives a summary description of LVF and its valve production for use in the petrochemical and allied industries, and conventional and nuclear power generation plants.

External laboratories are used to check and certify the chemical and mechanical properties of the materials employed.

Since its establishment, LVF has designed and manufactured its own forged steel valves, with particular attention to the heavy duty type valves and special applications. The company's product development and continuous growth has led to the decision to devote all the company's efforts to a manufacturing and sales strategy aimed at entering the international market. Auxiliary structures have been set up to meet the worldwide demand for quality products and reliable deliveries.

Substantial capital investment has also been made for the installation of the latest generation of high quality CNC machinery which allows LVF to meet rapidly all its customers' different delivery requirements through its

Modern equipment for inspection and testing guarantee conformity to the most stringent requirements of related specifications. Sophisticated equipment for the real valve flow coefficient (CV) measurement as well as FEA (Final Element Analysis) are available in our laboratory, so LVF is able to certify CV values, an extremely important parameter in the correct choice of the valve type during plant design.

Modern equipment to verify the functioning of bellows seal valves, not limited to structural control of the bellows, but offering a full analysis of the valve under simulated working conditions is also available.



LVF - Computerized automatically warehouse

highly flexible production planning and control systems. LVF's policy is ongoing technological progress and product improvement, conscious that quality always assures reliability.



The highest quality and variety of materials used (carbon steels, alloy steels, stainless steels, duplex steels, monel, titanium, hastelloy, inconel and incoloy) can satisfy all the requirements of chemical, petrochemical and power plants, oil and gas off-shore & on-shore, ship building, water treatment, paper and pulp, energy generation, and for chlorine, hydrogen, oxygen and sour service industries.

Each valve is manufactured in accordance with the relevant API, ANSI, DIN and BS standard and is supplied with certificates according to the relevant standards specifications.



TIFICATION

DESIGNED AND DEVELOPED IN ACCORDANCE WITH REQUIREMENTS OF THE API AND ISO 9001 STANDARDS



TECHNOLOGY



**DESIGN DEPARTMENT
- CAD-STATION -
Our ultra-modern equipment
consolidated know-how**



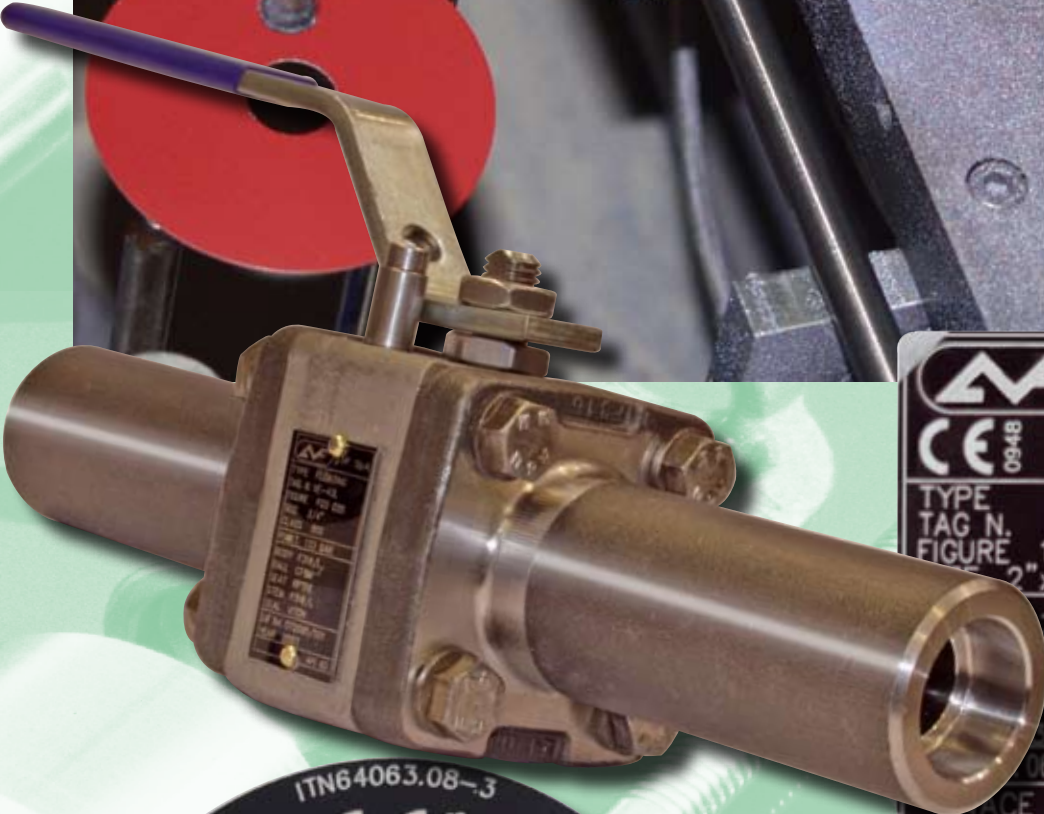
**AUTOMATIC MACHINE - Technology and automation
guarantee productivity and quality**



**COMPUTERIZED WAREHOUSE -
Assure a rapid respond on customer requests**



NAME PLATE OF IDENTIFICATION



		LVI SpA	
CE 0948		SAN PAOLO D'ARGON BERGAMO - ITALY	
TYPE	FLOATING		
TAG N.	FIGURE 1F02_Q50R		
SIZE	2" x 1.1/2"	CLASS	150
T Min (C)	-10	T Max (C)	220
PSOT min (bar)	1 BAR	PSOT Max	16,98 BAR
DISC	05N	SEAT	RPTFE
STEM	BM	SEAL	VITON
WEDGE	F316/L	YEAR	2008
FIGURE	061879/018	API	6D
NACE	MR0175		
NACE	MR0103		

ITN64063.08-3

CE 0948	
FIGURE	1BR 207
BODY	F316/L
STEM	F316/L
DISC	F316HF
SEAT	F316HF
T Min (C)	-29
PSOT min	20 BAR
NACE	MR 0175 ASME B16.34
LVI SpA - Italy -	
TYPE	GLOBE
SIZE	1.1/2"
CLASS	150
YEAR	2005
JOB/POS	050271/003
T Max (C)	100
PSOT max	16,7 BAR

CE 0948	
FIGURE	BR 107
BODY	A105N
STEM	F 316/L
WEDGE	F6 NACE
SEAT	F6HF
T Min (C)	20
PSOT min (bar)	137 BAR
NACE	MR 0175 ASME B16.34
LVI SpA - Italy -	
TYPE	GATE
SIZE	1.1/2"
CLASS	800
YEAR	2004
JOB/POS	045101/006
T Max (C)	500
PSOT max (bar)	23,47 BAR



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GATE

- 29 GATE VALVES**
- 30 BOLTED BONNET** - CLASS: 800 - 1500 - 2500
Standard & Reduced bore
WELDED BONNET - CLASS: 800 - 1500 - 2500 - 4500
Standard & Reduced bore
- 31 INTEGRAL FLANGED** - Bolted & Welded Bonnet
CLASS: 150 - 300 - 600 - 1500 - 2500
Standard & Reduced bore
- 32 CRYOGENIC VALVES** - Bolted & Welded Bonnet
CLASS: 800 - 1500 - 2500 - 4500 - Std./Red. Bore
CRYOGENIC VALVES Integral Flanged
B/B W/B - CLASS: 150 - 300 - 600 - 1500 - 2500
Standard & Reduced bore
- 33 BELLOWS SEAL VALVES**
Bolted & Welded Bonnet - CLASS: 800 - 1500
Integral Flanged - CLASS: 150 - 300 - 600 - 1500
Standard & Reduced bore
- 34 EXTENDED BODY - RE-IN/RE-OUT-FORCED BODY**
Bolted & Welded Bonnet - CLASS: 800 - 1500
Reduced bore
- 35 PRESSURE SEAL**
CLASS: 1500 - 2500 - 4500
Standard bore
- 36 SPECIAL SERVICES**
Bolted Bonnet - CLASS: 800 - 1500
Integral Flanged - CLASS: 150 - 300 - 600
Standard & Reduced bore
- 37 DIN VALVES** - PN 10÷16 - 25÷40 - 63÷100 - 160 - 250
BELLOWS SEAL/CRYOGENIC VALVES
PN 10÷16 - 25÷40
Bolted & Welded Bonnet - Integral Flanged
Standard & Reduced bore
- 38 THROUGH CONDUIT
SLAB and EXPANDING GATE VALVES**

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GLOBE

- 41 GLOBE VALVES**
- 42 BOLTED BONNET** - CLASS: 800 - 1500 - 2500
WELDED BONNET - CLASS: 800 - 1500 - 2500 - 4500
Standard & Reduced bore
- 43 Y PATTERN** - Welded Bonnet
CLASS: 800 - 1500 - 2500 - 4500 - Standard bore
- 44 INTEGRAL FLANGED** - Bolted & Welded Bonnet
CLASS: 150 - 300 - 600 - 1500 - 2500
Standard & Reduced bore
- 45 CRYOGENIC VALVES** - Bolted & Welded Bonnet
CLASS: 800 - 1500 - 2500 - 4500
Integral Flanged - CLASS: 150 - 300 - 600 - 1500 - 2500
Standard & Reduced bore
- 46 BELLOWS SEAL - Y TYPE**
CLASS: 800 - 1500
Integral Flanged - CLASS: 150 - 300 - 600 - 1500
Bolted & Welded Bonnet - Standard & Reduced bore
- 47 PRESSURE SEAL**
CLASS: 1500 - 2500 - 4500 - Standard bore
- 48 SPECIAL SERVICES** - Bolted Bonnet
CLASS: 800 - 1500 - Integral Flanged: 150 - 300 - 600
Standard & Reduced bore
- 49 ANGLE VALVES** - Bolted & Welded Bonnet
CLASS: 800 - 1500 - 2500 - Standard & Reduced bore
Integral Flanged - CLASS: 150 - 300 - 600 - 1500 - 2500
Reduced bore
- 50 DIN VALVES** - Bolted & Welded Bonnet
PN 10÷16 - 25÷40 - 63÷160 - 250
BELLOWS SEAL - CRYOGENIC VALVES
PN 10÷16 - 25÷40
Integral Flanged - Standard & Reduced bore

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CHECK

- 53 CHECK VALVES**
- 54 PISTON - BALL - SWING TYPE**
Bolted Cover - CLASS: 800 - 1500 - 2500
Welded Cover - CLASS: 800 - 1500 - 2500 - 4500
Standard & Reduced bore
- 55 Y PATTERN - PISTON/BALL TYPE**
CLASS: 800 - 1500 - 2500 - 4500
Welded Cover - Standard bore
- 56 PRESSURE SEAL
PISTON/BALL/TILTING/SWING TYPE**
CLASS: 1500 - 2500 - 4500
Bolted Cover - Standard bore
- 57 PISTON/BALL/SWING TYPE**
CLASS: 150 - 300 - 600 - 1500 - 2500
Welded Cover - Standard & Reduced bore
- 58 DIN CHECK VALVES - PISTON/BALL TYPE**
PN 10÷16 - 25÷40 - 63÷100 - 160 - 250
Bolted & Welded Cover - Integral Flanged
Standard & Reduced bore

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SPECIAL

- 59 SPECIAL BALL/GATE/GLOBE/CHECK VALVES**
- 60 MODULAR ASSEMBLY
GATE/GLOBE/BALL & NEEDLE VALVES**
ANSI 150 TO 4500
- 62 NEEDLE VALVES**
CLASS: 3000 - 6000 - 10000
Screw Bonnet - Standard bore
NEEDLE VALVES 4 WAYS
GLOBE QUICK OPENING
- 63 COMPACT AND MODULAR VALVES
WAFER GATE/GLOBE
DOUBLE GATE/GLOBE VALVES
PRESSURE SEAL GLOBE VALVES
VERTICAL BALL CHECK VALVES**

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OPTIONAL

- 64 GATE VALVES FLOW LIMIT CONTROL,
GLOBE VALVES POSITION INDICATOR,
PROTECTION STEM - LOCKING DEVICE**

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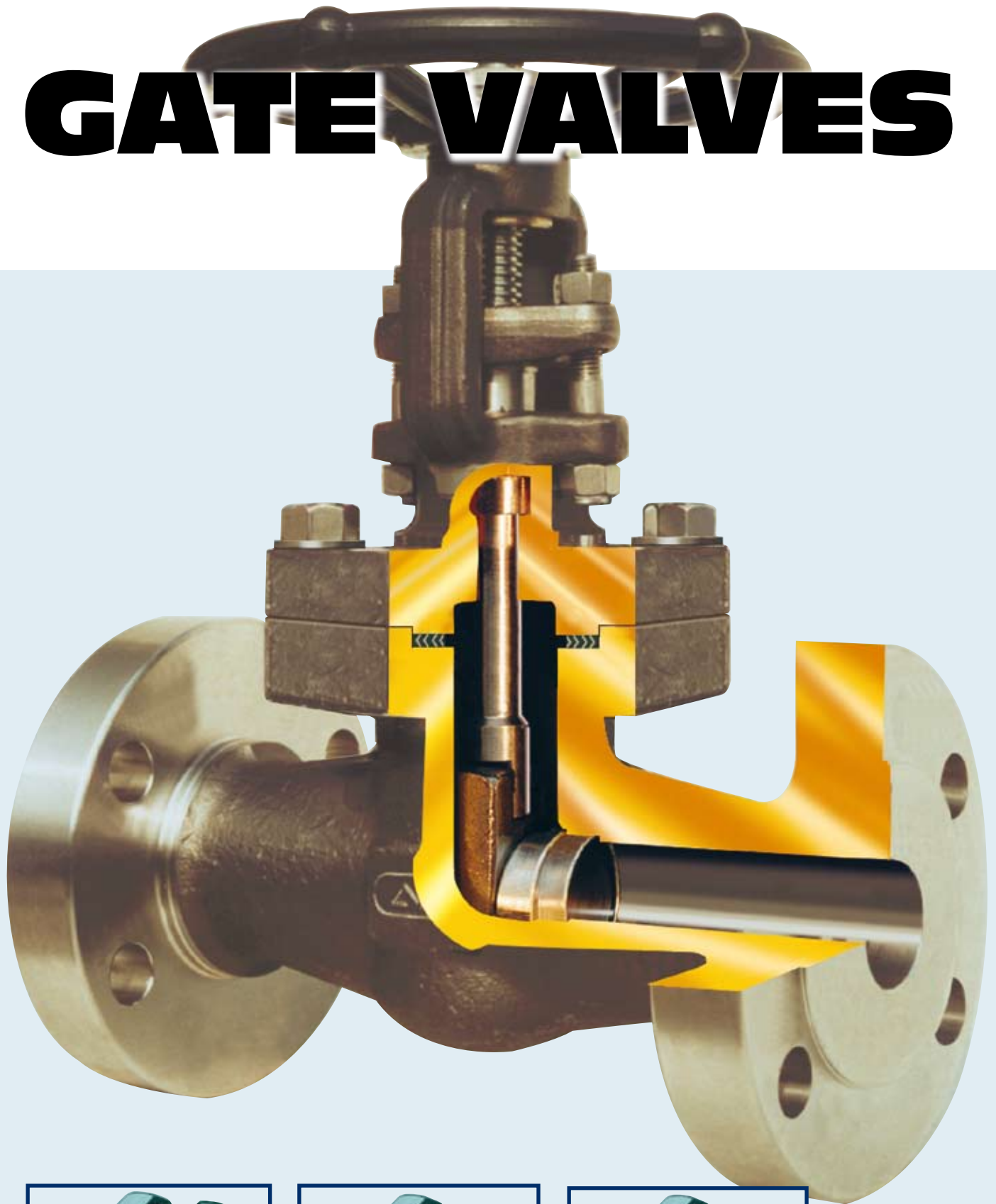
UTILITY

- 65 MATERIAL**
- 66 WEIGHTS AND MEASURES**
- 67 CONVERSION CHART (°C °F)**
- 68 CV FACTORS**
- 69 FLANGE FACING DIMENSIONS**
- 70 SW-BW-NPT DIMENSIONS**

BALL

GATE VALVES

GATE



Standard wedge



Flexible wedge



Split wedge

Welded bonnet

800 BOLTED BONNET - Standard & Reduced bore Outside screw & yoke - Threaded and socket weld ends

Std. bore		Red. bore		A	B	C	D	Kg
Size	Fig. n	Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	B 101			80	8	145	80	1,8
3/8	B 102	1/2	BR 103	80	10	145	80	1,8
1/2	B 103	3/4	BR 104	90	14	155	80	2,1
3/4	B 104	1	BR 105	110	18	185	100	3,6
1	B 105	1 1/4	BR 106	127	24	218	120	5,3
1 1/4	B 106	1 1/2	BR 107	127	30	255	140	7,5
1 1/2	B 107	2	BR 108	130	36,5	277	140	9,8
2	B 108			150/210	48	327	170	15

800 WELDED BONNET - Standard & Reduced bore Outside screw & yoke - Threaded and socket weld ends

Std. bore		Red. bore		A	B	C	D	Kg
Size	Fig. n	Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	W 101			80	8	145	80	1,6
3/8	W 102	1/2	WR 103	80	10	145	80	1,6
1/2	W 103	3/4	WR 104	90	14	155	80	2
3/4	W 104	1	WR 105	110	18	185	100	3,2
1	W 105	1 1/4	WR 106	127	24	218	120	4,8
1 1/4	W 106	1 1/2	WR 107	127	30	255	140	6,5
1 1/2	W 107	2	WR 108	130	36,5	277	140	8,5
2	W 108			150/210	48	327	170	14

1500 BOLTED BONNET - Standard & Reduced bore Outside screw & yoke - Threaded and socket weld ends

Std. bore		Red. bore		A	B	C	D	Kg
Size	Fig. n	Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	9B 101			90	8	152	80	2,5
3/8	9B 102	1/2	9BR 103	90	10	152	80	2,5
1/2	9B 103	3/4	9BR 104	110	14	180	100	3,8
3/4	9B 104	1	9BR 105	120	18	218	120	5,4
1	9B 105	1 1/4	9BR 106	130	24	252	140	8
1 1/4	9B 106	1 1/2	9BR 107	130	29	275	170	10,2
1 1/2	9B 107	2	9BR 108	150/210	36,5	320	170	15
2	9B 108			210	40	325	170	15

1500 WELDED BONNET - Standard & Reduced bore Outside screw & yoke - Threaded and socket weld ends

Std. bore		Red. bore		A	B	C	D	Kg
Size	Fig. n	Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	15W 101			90	8	152	80	2,2
3/8	15W 102	1/2	15WR 103	90	10	152	80	2,2
1/2	15W 103	3/4	15WR 104	110	14	180	100	3,6
3/4	15W 104	1	15WR 105	120	18	218	120	5,2
1	15W 105	1 1/4	15WR 106	130	24	252	140	7,5
1 1/4	15W 106	1 1/2	15WR 107	130	29	275	170	10
1 1/2	15W 107	2	15WR 108	150/210	36,5	320	170	14,5
2	15W 108			210	40	325	170	14,5
2S	15W 108S			210	40	325	260	19

NOTE: SPIRAL WOUND GASKET = Fig. 9B 100 - 9BR 100 - RING JOINT GASKET = Fig. 14B 100 - 14BR 100

1500 ROUND BOLTED BONNET - Standard bore Outside screw & yoke - Threaded and socket weld ends

Standard bore		A	B	C	D	Kg
Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	15B 101	110	8	205	100	5,5
3/8	15B 102	110	10	205	100	5,5
1/2	15B 103	110	14	210	100	5,5
3/4	15B 104	120	18	255	120	8,2
1	15B 105	130	24	274	140	9,8
1 1/4	15B 106	210	30	365	170	27
1 1/2	15B 107	210	36,5	380	170	27
2	15B 108	240	40	390	260	33
2S	15B 108S	240	48	400	260	35

2500 WELDED BONNET - Standard bore Outside screw & yoke - Threaded and socket weld ends

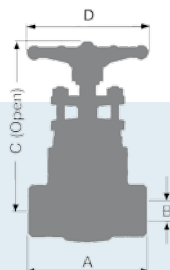
Standard bore		A	B	C	D	Kg
Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	25W 101	110	8	175	100	3,5
3/8	25W 102	110	10	175	100	3,5
1/2	25W 103	110	10	175	100	3,5
3/4	25W 104	120	14	210	120	5,5
1	25W 105	130	18	240	140	7,5
1 1/4	25W 106	130	24	280	170	10
1 1/2	25W 107	210	29	310	170	16
2S	25W 108	240	36,5	355	260	25

2500 ROUND BOLTED BONNET - Standard bore Outside screw & yoke - Threaded and socket weld ends

Standard bore		A	B	C	D	Kg
Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	25B 101	110	8	205	100	5,5
3/8	25B 102	110	10	205	100	5,5
1/2	25B 103	110	10	210	100	5,5
3/4	25B 104	120	14	255	120	8,5
1	25B 105	130	18	265	140	10,2
1 1/4	25B 106	210	24	365	170	26
1 1/2	25B 107	210	29	375	170	26
2	25B 108	240	36,5	390	260	37

4500 WELDED BONNET - Standard bore Outside screw & yoke - Threaded and socket weld ends

Standard bore		A	B	C	D	Kg
Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4						
3/8						
1/2	45W 103	120	12	265	140	8
3/4	45W 104	130	12	265	140	9
1	45W 105	130	12	265	170	9
1 1/4	45W 106	210	16	315	170	14,5
1 1/2	45W 107	210	16	315	260	15
2	45W 108	240	21	390	260	19



150 BOLTED & WELDED BONNET - Standard bore Outside screw & yoke - Integral flanged ends

Standard bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	1B 103	1W 103	108	14	180	80	3,2
3/4	1B 104	1W 104	118	18	185	100	4,2
1	1B 105	1W 105	127	24	210	120	5,8
1¼	-	-	-	-	-	-	-
1½	1B 107	1W 107	165	36,5	270	140	11
2	1B 108	1W 108	178	48	300	170	16

150 BOLTED & WELDED BONNET - Reduced bore Outside screw & yoke - Integral flanged ends

Reduced bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	1BR 103	1WR 103	108	10	173	80	3,1
3/4	1BR 104	1WR 104	118	14	180	80	4
1	1BR 105	1WR 105	127	18	205	100	5,7
1¼	1BR 106	1WR 106	140	24	235	120	8,2
1½	1BR 107	1WR 107	165	30	260	140	10,6
2	1BR 108	1WR 108	178	36,5	296	170	15,4

300 BOLTED & WELDED BONNET - Standard bore Outside screw & yoke - Integral flanged ends

Standard bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	3B 103	3W 103	140	14	180	80	4,1
3/4	3B 104	3W 104	153	18	188	100	5,5
1	3B 105	3W 105	165	24	210	120	6,8
1¼	3B 106	3W 106	178	29	260	140	12,5
1½	3B 107	3W 107	191	36,5	270	170	13,5
2	3B 108	3W 108	216	48	312	170	17,5

300 BOLTED & WELDED BONNET - Reduced bore Outside screw & yoke - Integral flanged ends

Reduced bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	3BR 103	3WR 103	140	10	174	80	4
3/4	3BR 104	3WR 104	153	14	180	80	5,4
1	3BR 105	3WR 105	165	18	205	100	6,5
1¼	3BR 106	3WR 106	178	24	260	140	12,5
1½	3BR 107	3WR 107	191	30	265	140	13
2	3BR 108	3WR 108	216	36,5	296	170	17,5

600 BOLTED & WELDED BONNET - Standard bore Outside screw & yoke - Integral flanged ends

Standard bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	6B 103	6W 103	165	14	180	80	4,5
3/4	6B 104	6W 104	191	18	205	100	5,8
1	6B 105	6W 105	216	24	232	120	7,5
1¼	6B 106	6W 106	229	29	245	140	14,5
1½	6B 107	6W 107	241	36,5	278	140	16
2	6B 108	6W 108	292	48	327	170	23

600 BOLTED & WELDED BONNET - Reduced bore Outside screw & yoke - Integral flanged ends

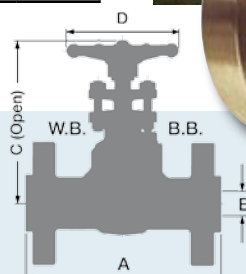
Reduced bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	6BR 103	6WR 103	165	10	145	80	4,2
3/4	6BR 104	6WR 104	191	14	155	80	5,6
1	6BR 105	6WR 105	216	18	185	100	7,2
1¼	6BR 106	6WR 106	229	29	248	140	14,5
1½	6BR 107	6WR 107	241	30	248	140	14,5
2	6BR 108	6WR 108	292	36,5	273	170	18

1500 ROUND BOLTED & WELDED BONNET - Standard bore Outside screw & yoke - Integral flanged ends

Standard bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	15BF 103	15WF 103	216	14	210	100	10
3/4	15BF 104	15WF 104	229	18	255	120	15
1	15BF 105	15WF 105	254	24	275	140	17
1½	15BF 107	15WF 107	305	36,5	380	172	35
2	15BF 108	15WF 108	368	40	388	260	55
2S	15BF 108S	15WF 108S	368	48	468	260	70

2500 ROUND BOLTED & WELDED BONNET - Standard bore Outside screw & yoke - Integral flanged ends

Standard bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	25BF 103	25WF 103	264	14	250	120	14
3/4	25BF 104	25WF 104	273	14	255	120	16
1	25BF 105	25WF 105	308	18	270	140	25
1½	25BF 107	25WF 107	384	30	385	260	50
2	25BF 108	25WF 108	451	36,5	460	260	80



800 BOLTED BONNET - Standard & Reduced bore

Outside screw & yoke - Threaded and socket weld ends
WELDED BONNET Standard bore Fig. n° CW - Reduced bore Fig. n° CWR

Std. bore Size	Fig. n	Red. bore Size	Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	CB 101			80	8	405	100	3,4
3/8	CB 102	1/2	CBR 103	80	10	410	100	4,5
1/2	CB 103	3/4	CBR 104	90	14	420	100	5,1
3/4	CB 104	1	CBR 105	110	18	460	120	6,2
1	CB 105	1 1/4	CBR 106	127	24	480	140	9,5
1 1/4	CB 106	1 1/2	CBR 107	127	30	510	170	11,8
1 1/2	CB 107	2	CBR 108	130	36,5	530	170	15
2	CB 108			150/210	48	600	260	24,5

1500 BOLTED BONNET - Standard & Reduced bore

Outside screw & yoke - Threaded and socket weld ends
WELDED BONNET Standard bore Fig. n° 15CW - Reduced bore Fig. n° 15CWR

Std. bore Size	Fig. n	Red. bore Size	Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	9CB 101			90	8	410	100	3,2
3/8	9CB 102	1/2	9CBR 103	90	10	415	100	5,2
1/2	9CB 103	3/4	9CBR 104	110	14	452	120	6,5
3/4	9CB 104	1	9CBR 105	120	18	470	140	10
1	9CB 105	1 1/4	9CBR 106	130	24	480	140	12
1 1/4	9CB 106	1 1/2	9CBR 107	130	29	510	170	15
1 1/2	9CB 107	2	9CBR 108	150/210	36,5	530	170	22
2	9CB 108			210	48	600	260	29

1500 ROUND BOLTED & WELDED BONNET - Standard bore

Outside screw & yoke - Threaded and socket weld ends

Standard bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	15CB 101	15CW 101	110	8	460	120	6,2
3/8	15CB 102	15CW 102	110	10	460	120	6,2
1/2	15CB 103	15CW 103	110	14	465	120	7,2
3/4	15CB 104	15CW 104	120	18	480	140	9,5
1	15CB 105	15CW 105	130	24	510	170	14,5
1 1/4	15CB 106	15CW 106	210	30	530	170	18
1 1/2	15CB 107	15CW 107	210	36,5	570	170	24
2	15CB 108	15CW 108	240	40	610	260	29

2500 ROUND BOLTED & WELDED BONNET - Standard bore

Outside screw & yoke - Threaded and socket weld ends

Standard bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	25CB 101	25CW 101	110	8	460	120	6,2
3/8	25CB 102	25CW 102	110	10	460	120	6,2
1/2	25CB 103	25CW103	110	10	470	120	7,2
3/4	25CB 104	25CW 104	120	14	500	140	9,8
1	25CB 105	25CW 105	130	18	510	170	15
1 1/4	25CB 106	25CW106	210	24	610	170	18
1 1/2	25CB 107	25CW 107	210	29	620	260	25
2	25CB 108	25CW 108	240	36,5	640	260	31

4500 WELDED BONNET - Standard bore

Outside screw & yoke - Threaded and socket weld ends

Standard bore Size	Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	45CW 103	120	12	500	140	10,8
3/4	45CW 104	130	12	500	140	15,5
1	45CW 105	130	12	505	170	15,5
1 1/4	45CW 106	210	16	565	170	19
1 1/2	45CW 107	210	16	570	260	23
2	45CW 108	240	21	640	260	34

Integral flanged ends

150 BOLTED & WELDED BONNET - Reduced bore

Outside screw & yoke - Integral flanged ends

Reduced bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	1CBR 103	1CWR 103	108	10	435	100	4,9
3/4	1CBR 104	1CWR 104	118	14	440	100	6,1
1	1CBR 105	1CWR 105	127	18	480	120	8,9
1 1/4	-	-	-	-	-	-	-
1 1/2	1CBR 107	1CWR 107	165	30	515	170	15,5
2	1CBR 108	1CWR 108	178	36,5	560	170	20,5

300 BOLTED & WELDED BONNET - Reduced bore

Outside screw & yoke - Integral flanged ends

Reduced bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	3CBR 103	3CWR 103	140	10	435	100	5,3
3/4	3CBR 104	3CWR 104	153	14	445	100	6,8
1	3CBR 105	3CWR 105	165	18	480	120	9
1 1/4	-	-	-	-	-	-	-
1 1/2	3CBR 107	3CWR 107	191	30	525	170	16
2	3CBR 108	3CWR 108	216	36,5	560	170	21

600 BOLTED & WELDED BONNET - Reduced bore

Outside screw & yoke - Integral flanged ends

Reduced bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	6CBR 103	6CWR 103	165	10	410	100	6,3
3/4	6CBR 104	6CWR 104	191	14	420	100	7,5
1	6CBR 105	6CWR 105	216	18	460	120	10
1 1/4	-	-	-	-	-	-	-
1 1/2	6CBR 107	6CWR 107	241	30	510	170	18,5
2	6CBR 108	6CWR 108	292	36,5	530	170	23,5

1500 ROUND BOLTED & WELDED BONNET - Standard bore

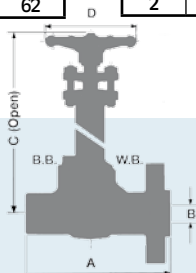
Outside screw & yoke - Integral flanged ends

Standard bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	15CBF 103	15CWF 103	216	14	465	120	12
3/4	15CBF 104	15CWF 104	229	18	480	140	17
1	15CBF 105	15CWF 105	254	24	510	170	19
1 1/4	-	-	-	-	-	-	-
1 1/2	15CBF 107	15CWF 107	305	36,5	570	170	38
2	15CBF 108	15CWF 108	368	40	610	260	62

2500 ROUND BOLTED & WELDED BONNET - Standard bore

Outside screw & yoke - Integral flanged ends

Standard bore Size	Fig. n° Bolted B.	Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	25CB103	25CW103	264	14	500	120	16
3/4	25CB 104	25CW 104	273	14	510	140	19
1	25CB 105	25CW 105	308	18	520	170	28
1 1/4	-	-	-	-	-	-	-
1 1/2	25CB 107	25CW 107	384	30	635	260	65
2	25CB 108	25CW 108	451	36,5	710	260	85



800 BOLTED BONNET - Standard & Reduced bore
Outside screw & yoke - Threaded and socket weld ends
WELDED BONNET Standard bore Fig. n° SW 100 - Reduced bore Fig. n° SWR 100

Std. bore Size	Std. bore Fig. n	Red. bore Size	Red. bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	SB 101	-	-	80	8	250	100	2,6
3/8	SB 102	1/2	SBR 103	80	10	250	100	2,8
1/2	SB 103	3/4	SBR 104	90	14	260	100	3,0
3/4	SB 104	1	SBR 105	110	18	305	120	3,5
1	SB 105	1 1/4	SBR 106	127	24	360	140	6,5
1 1/4	SB 106	1 1/2	SBR 107	127	30	410	170	9,0
1 1/2	SB 107	2	SBR 108	130	36,5	445	170	13
2	SB 108			150/210	48	548	260	21

1500 BOLTED BONNET - Standard & Reduced bore
Outside screw & yoke - Threaded and socket weld ends
WELDED BONNET Standard bore Fig. n° S15W 100 - Reduced bore Fig. n° S15WR 100

Std. bore Size	Std. bore Fig. n	Red. bore Size	Red. bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	-	-	-	-	-	-	-	-
3/8	-	1/2	S9BR 103	90	10	330	120	3,5
1/2	S9B 103	3/4	S9BR 104	110	14	370	120	4,5
3/4	S9B 104	1	S9BR 105	120	18	430	140	7,8
1	S9B 105	1 1/4	S9BR 106	120	24	510	170	8,5
1 1/4	S9B 106	1 1/2	S9BR 107	130	29	580	170	14,5
1 1/2	S9B 107	2	S9BR 108	150/210	36,5	640	260	19,8
2	S9B 108			240	40	720	260	25

Integral flanged ends

150 BOLTED & WELDED BONNET - Reduced bore
Outside screw & yoke - Integral flanged ends

Reduced bore Size	Reduced bore Fig. n° Bolted B.	Reduced bore Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	S1BR 103	S1WR 103	108	10	251	100	4,3
3/4	S1BR 104	S1WR 104	118	14	275	100	5,5
1	S1BR 105	S1WR 105	127	18	305	120	7,5
1 1/4	-	-	-	-	-	-	-
1 1/2	S1BR 107	S1WR 107	165	30	410	140	12,5
2	S1BR 108	S1WR 108	179	36,5	445	170	18,5

300 BOLTED & WELDED BONNET - Reduced bore
Outside screw & yoke - Integral flanged ends

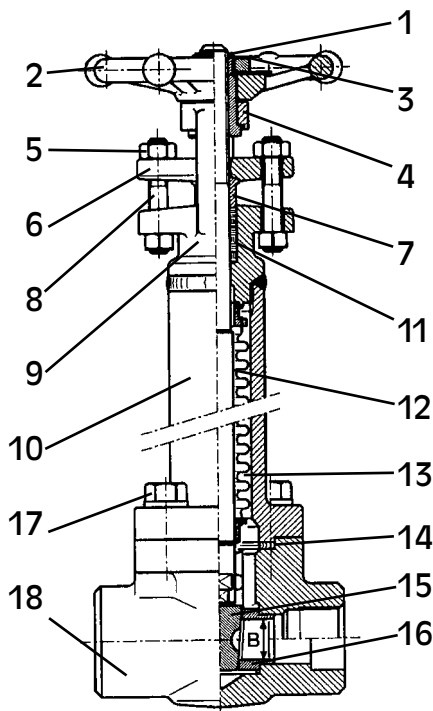
Reduced bore Size	Reduced bore Fig. n° Bolted B.	Reduced bore Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	S3BR 103	S3WR 103	140	10	268	100	5,5
3/4	S3BR 104	S3WR 104	153	14	275	100	6,8
1	S3BR 105	S3WR 105	165	18	305	120	8,6
1 1/4	-	-	-	-	-	-	-
1 1/2	S3BR 107	S3WR 107	191	30	410	170	16
2	S3BR 108	S3WR 108	216	36,5	445	170	21

600 BOLTED & WELDED BONNET - Reduced bore
Outside screw & yoke - Integral flanged ends

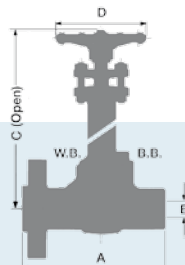
Reduced bore Size	Reduced bore Fig. n° Bolted B.	Reduced bore Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	S6BR 103	S6WR 103	165	10	260	100	5,7
3/4	S6BR 104	S6WR 104	191	14	305	100	7
1	S6BR 105	S6WR 105	216	18	360	120	9
1 1/4	-	-	-	-	-	-	-
1 1/2	S6BR 107	S6WR 107	241	30	410	170	16,5
2	S6BR 108	S6WR 108	292	36,5	450	170	22

1500 ROUND BOLTED & WELDED BONNET - Standard bore
Outside screw & yoke - Integral flanged ends

Standard bore Size	Standard bore Fig. n° Bolted B.	Standard bore Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	S15BRF 103	S15WRF 103	110	10	210	100	5,5
3/4	S15BRF 104	S15WRF 104	120	14	255	120	8,5
1	S15BRF 105	S15WRF 105	130	18	265	140	10,2
1 1/4	-	-	210	24	365	170	26
1 1/2	S15BRF 107	S15WRF 107	210	29	375	170	26
2	S15BRF 108	S15WRF 108	240	36,5	390	260	37



- DESCRIPTION**
- 1 HANDWHEEL NUT
 - 2 HANDWHEEL
 - 3 NAME PLATE
 - 4 YOKE SLEEVE
 - 5 GLAND NUTS
 - 6 GLAND FLANGE
 - 7 PACKING GLAND
 - 8 GLAND STUD
 - 9 BONNET
 - 10 EXTENSION
 - 11 PACKING
 - 12 STEM
 - 13 BELLOW
 - 14 B.B. GASKET
 - 15 WEDGE
 - 16 SEAT RINGS
 - 17 B.B. BOLTS
 - 18 BODY



RE-IN/OUT-FORCED BODY

800 BOLTED BONNET - Reduced bore
RE-OUT-FORCED Fig. VWR - RE-IN-FORCED Fig. VER

WELDED BONNET - Reduced bore
RE-OUT-FORCED Fig. n° WWR - RE-IN-FORCED Fig. n° WER

RE-OUT-FORCED Size	RE-OUT-FORCED Fig n..	RE-IN-FORCED Fig n.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	VWR 103	VER 103	207	10	150	80	2,7
3/4	VWR 104	VER 104	218,5	14	155	100	3,3
1	VWR 105	VER 105	244,5	18	185	100	5,2
1¼	-	-	-	-	-	-	-
1½	VWR 107	VER 107	263	29,5	260	140	9,9
2	VWR 108	VER 108	268	36,5	275	170	14,5

1500 BOLTED BONNET - Reduced bore
RE-OUT-FORCED Fig. 9VWR - RE-IN-FORCED Fig. 9VER

WELDED BONNET - Reduced bore
RE-OUT-FORCED Fig. n° 15WWR - RE-IN-FORCED Fig. n° 15WER

RE-OUT-FORCED Size	RE-OUT-FORCED Fig n.	RE-IN-FORCED Fig n.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	9VWR 103	9VER 103	218,5	10	155	80	3,8
3/4	9VWR 104	9VER 104	244,5	14	180	100	5,7
1	9VWR 105	9VER 105	263	18	245	140	10,4
1¼	-	-	-	-	-	-	-
1½	9VWR 107	9VER 107	268	29,5	260	170	15,4
2	-	-	-	-	-	-	-

EXTENDED BODY

800 BOLTED & WELDED BONNET
Reduced bore - Outside screw & yoke

EXTENDED BODY Size	EXTENDED BODY Fig. n° Bolted B.	EXTENDED BODY Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	MER 103	WMER 103	141,5	10	162	80	2,6
3/4	MER 104	WMER 104	146,5	14	185	100	2,9
1	MER 105	WMER 105	166	18	192	100	4,3
1¼	-	-	-	-	-	-	-
1½	MER 107	WMER 107	191	29	255	140	8,8
2	MER 108	WMER 108	216	36,5	273	170	13

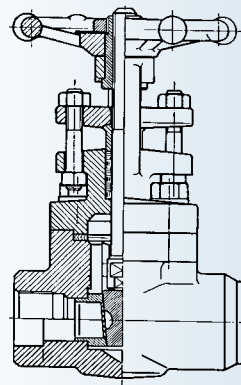
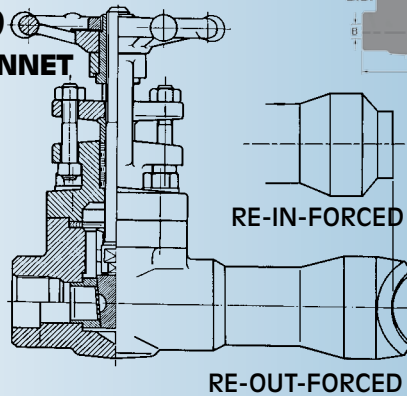
1500 BOLTED & WELDED BONNET
Reduced bore - Outside screw & yoke

EXTENDED BODY Size	EXTENDED BODY Fig. n° Bolted B.	EXTENDED BODY Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	9MER 103	15WMER 103	146	10	165	80	2,9
3/4	9MER 104	15WMER 104	166	14	180	100	4,3
1	9MER 105	15WMER 105	191	18	240	140	8,8
1¼	-	-	-	-	-	-	-
1½	9MER 107	15WMER 107	216	29	270	170	13,5
2	9MER 108	15WMER 108	250	36,5	320	260	18,7

RE-IN-FORCED RE-OUT-FORCED

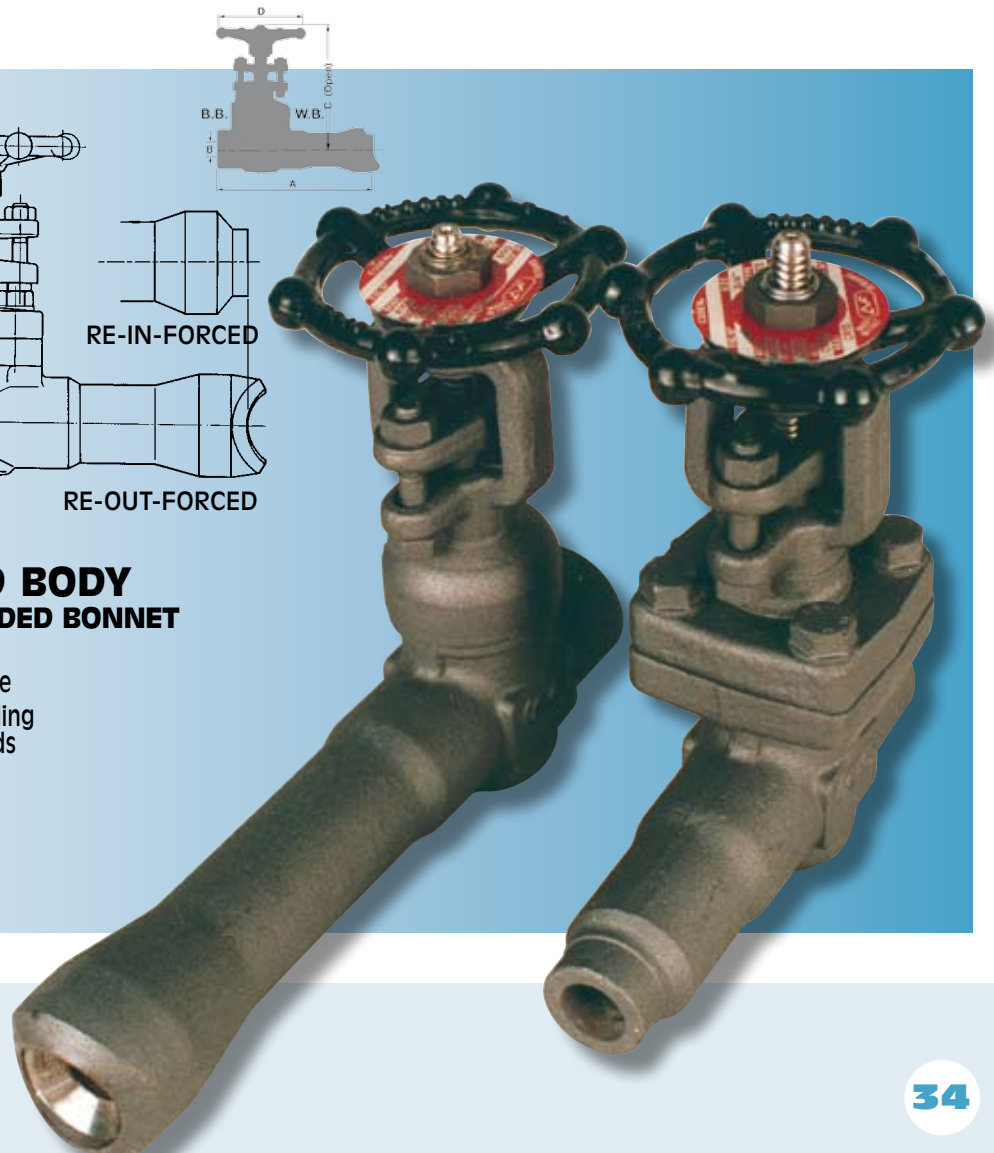
BOLTED & WELDED BONNET

Reduced bore
Outside screw & yoke
Threaded, Butt Welding
and socket weld ends



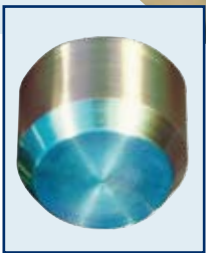
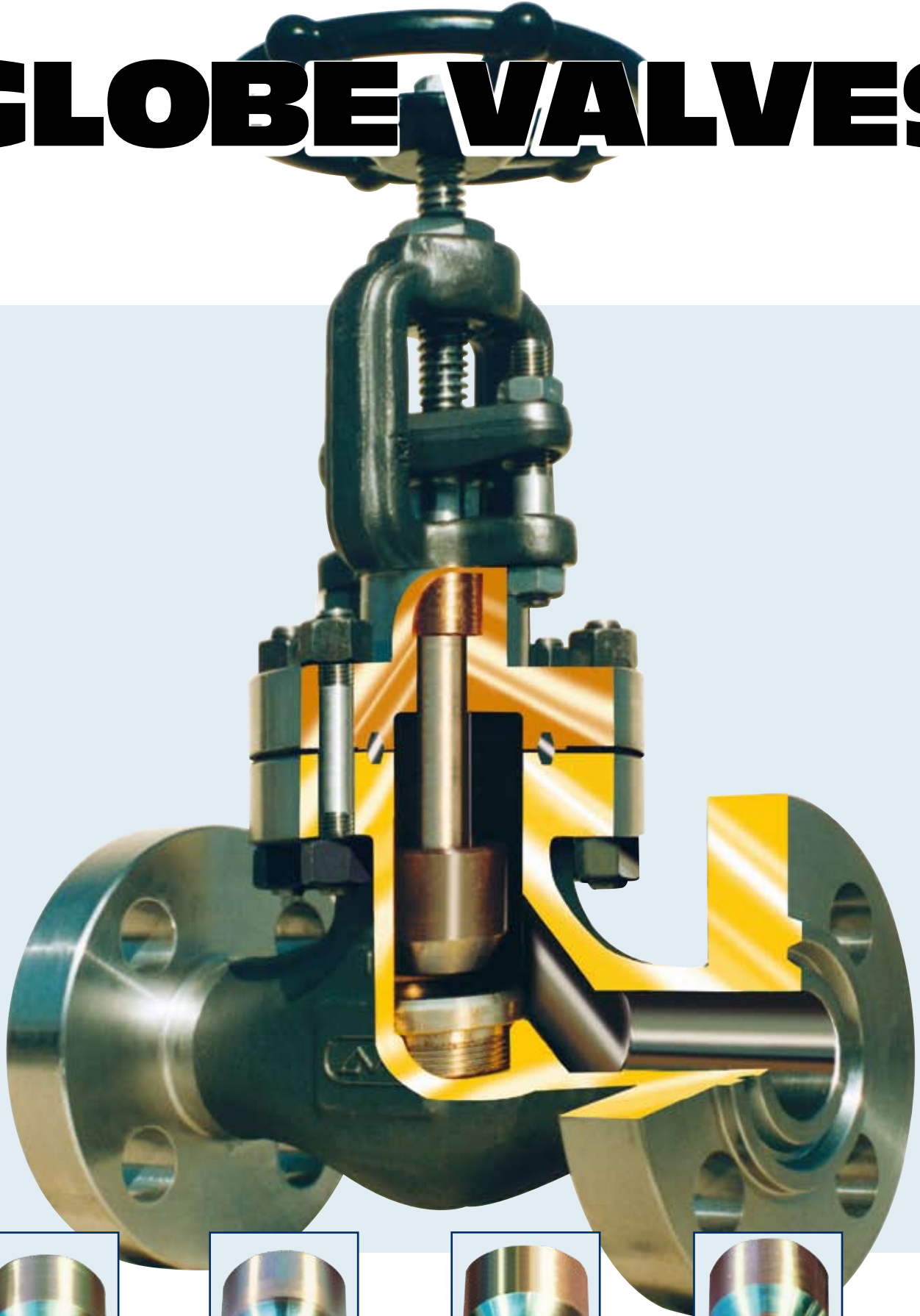
EXTENDED BODY BOLTED & WELDED BONNET

Reduced bore
Outside screw & yoke
Threaded, Butt Welding
and socket weld ends

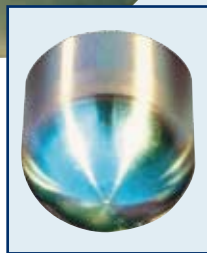


GLOBE VALVES

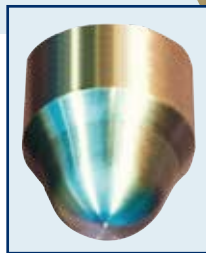
GLOBE



Disc type



Ball type



Parabolic type



Needle type

Welded bonnet

800 BOLTED BONNET - Standard & Reduced bore Outside screw & yoke - Threaded and socket weld ends

Std. bore Size	Std. bore Fig. n°	Red. bore Size	Red. bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	B 201	-	-	80	7	160	80	1,8
3/8	B 202	1/2	BR 203	80	9	160	80	1,8
1/2	B 203	3/4	BR 204	90	12,5	170	80	2,0
3/4	B 204	1	BR 205	110	17,5	200	100	3,3
1	B 205	1 1/4	BR 206	127	22,5	235	120	5,4
1 1/4	B 206	1 1/2	BR 207	155	29	270	140	7,9
1 1/2	B 207	2	BR 208	170	35	290	170	10,8
2	B 208	-	-	210	45	345	170	19

800 WELDED BONNET - Standard & Reduced bore Outside screw & yoke - Threaded and socket weld ends

Std. bore Size	Std. bore Fig. n°	Red. bore Size	Red. bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	W 201	-	-	80	7	160	80	1,8
3/8	W 202	1/2	WR 203	80	9	160	80	1,8
1/2	W 203	3/4	WR 204	90	12,5	170	80	2,0
3/4	W 204	1	WR 205	110	17,5	200	100	3,3
1	W 205	1 1/4	WR 206	127	22,5	235	120	5,4
1 1/4	W 206	1 1/2	WR 207	155	29	270	140	7,9
1 1/2	W 207	2	WR 208	170	35	290	170	10,8
2	W 208	-	-	210	45	345	170	19

1500 BOLTED BONNET - Standard & Reduced bore Outside screw & yoke - Threaded and socket weld ends

Std. bore Size	Std. bore Fig. n°	Red. bore Size	Red. bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	9B 201	-	-	90	7	165	80	1,8
3/8	9B 202	1/2	9BR 203	90	9	165	80	2
1/2	9B 203	3/4	9BR 204	110	11	195	120	3,3
3/4	9B 204	1	9BR 205	120	14,5	230	140	5,5
1	9B 205	1 1/4	9BR 206	130	19	260	140	9
1 1/4	9B 206	1 1/2	9BR 207	170	27	285	170	12
1 1/2	9B 207	2	9BR 208	210	31	330	170	18
2	9B 208	-	-	210	37,5	340	260	22

1500 WELDED BONNET - Standard & Reduced bore Outside screw & yoke - Threaded and socket weld ends

Std. bore Size	Std. bore Fig. n°	Red. bore Size	Red. bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	15W 201	-	-	90	7	165	80	1,9
3/8	15W 202	1/2	15WR 203	90	9	165	80	1,9
1/2	15W 203	3/4	15WR 204	110	11	195	120	3,2
3/4	15W 204	1	15WR 205	120	14,5	235	140	5,5
1	15W 205	1 1/4	15WR 206	130	19	265	140	8
1 1/4	15W 206	1 1/2	15WR 207	170	27	280	140	11
1 1/2	15W 207	2	15WR 208	210	31	335	170	18
2	15W 208	-	-	210	37,5	380	260	23

NOTE: SPIRAL WOUND GASKET = Fig. 9B 200 - 9BR 200 - RING JOINT GASKET = Fig. 14B 200 - 14BR 200

1500 ROUND BOLTED BONNET - Standard bore Outside screw & yoke - Threaded and socket weld ends

Standard bore Size	Standard bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	15B 201	110	7	225	120	4,2
3/8	15B 202	110	9	225	120	4,2
1/2	15B 203	110	11	225	120	4,2
3/4	15B 204	120	14,5	270	140	7,2
1	15B 205	130	19	285	140	9,5
1 1/4	15B 206	210	27	385	170	23
1 1/2	15B 207	210	31	405	170	24
2	15B 208	240	37,5	420	260	30

2500 WELDED BONNET - Standard bore Outside screw & yoke - Threaded and socket weld ends

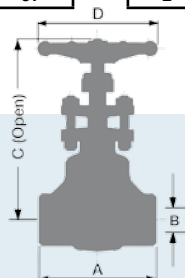
Standard bore Size	Standard bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	25W 201	110	7	192	120	3,9
3/8	25W 202	110	8	194	120	3,9
1/2	25W 203	110	11	195	120	3,9
3/4	25W 204	120	14	225	140	6,4
1	25W 205	130	19	255	140	9
1 1/4	25W 206	210	24	325	170	20
1 1/2	25W 207	210	28	330	170	22
2S	25W 208	240	36	370	260	28

2500 ROUND BOLTED BONNET - Standard bore Outside screw & yoke - Threaded and socket weld ends

Standard bore Size	Standard bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	25B 201	110	7	260	120	4,5
3/8	25B 202	110	8	260	120	4,5
1/2	25B 203	110	11	270	120	5
3/4	25B 204	120	14	275	140	8
1	25B 205	130	19	290	140	10,7
1 1/4	25B 206	210	24	390	170	24
1 1/2	25B 207	210	28	415	260	32
2	25B 208	240	36	425	260	37

4500 WELDED BONNET - Standard bore Outside screw & yoke - Threaded and socket weld ends

Standard bore Size	Standard bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	-	-	-	-	-	-
3/8	-	-	-	-	-	-
1/2	45W 203	120	8	228	120	8
3/4	45W 204	155	12	275	140	11
1	45W 205	155	15	280	140	19
1 1/4	45W 206	210	20	410	260	23
1 1/2	45W 207	210	25	410	260	23
2	45W 208	240	28	420	260	23



Welded bonnet

800 WELDED BONNET - Standard bore

Outside screw & yoke - Threaded and socket weld ends

Standard bore	A	B	C	D	Kg	
Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	Y 211	80	7	160	80	2,4
3/8	Y 212	80	9	160	80	2,4
1/2	Y 213	80	12	160	80	2,4
3/4	Y 214	100	17,5	185	100	3
1	Y 215	110	22,5	235	120	4
1¼	Y 216	150	30	310	170	9,5
1½	Y 217	160	35	310	170	10
2	Y 218	190	46	355	260	16
2½	Y 219	210	48	368	260	20
3	Y 2110	280	65	550	370	48
• 4	Y 2112	368	70	700	500	65

• BW only

1500 WELDED BONNET - Standard bore

Outside screw & yoke - Threaded and socket weld ends

Standard bore	A	B	C	D	Kg	
Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	15Y 211	100	7	185	100	3
3/8	15Y 212	100	9	185	100	3
1/2	15Y 213	100	13	185	100	3
3/4	15Y 214	110	17,5	230	140	4
1	15Y 215	125	22,5	240	140	5
1¼	15Y 216	150	28	305	170	9,5
1½	15Y 217	160	35	340	200	11
2	15Y 218	190	44	400	260	17
2½	15Y 219	216	46	420	260	22
3	15Y 2110	280	55	550	370	50
• 4	15Y 2112	368	62	700	-	65

• BW only

2500 WELDED BONNET - Standard bore

Outside screw & yoke - Threaded and socket weld ends

Standard bore	A	B	C	D	Kg	
Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	25Y 211	110	7	230	120	4
3/8	25Y 212	110	10	230	120	4
1/2	25Y 213	110	12	230	120	4
3/4	25Y 214	125	15	240	140	5
1	25Y 215	160	20	305	170	9,5
1¼	25Y 216	160	25	305	170	10,5
1½	25Y 217	190	31	345	200	17
2	25Y 218	210	38	400	260	23
2½	25Y 219	280	44	550	-	50
3	25Y 2110	280	48	550	-	50
• 4	25Y 2112	368	52	700	-	65

• BW only

4500 WELDED BONNET - Standard bore

Outside screw & yoke - Threaded and socket weld ends

Standard bore	A	B	C	D	Kg	
Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	45Y 211	110	7	235	120	5
3/8	45Y 212	125	7	235	140	5,5
1/2	45Y 213	125	8	240	140	5,5
3/4	45Y 214	160	11	285	170	10
1	45Y 215	190	15	320	200	17
1¼	45Y 216	190	18	320	200	17
1½	45Y 217	210	20	360	260	19
2	45Y 218	280	25	450	370	24
2½	45Y 219	280	28	500	370	45
3	45Y 2110	360	35	700	-	60
• 4	45Y 2112	360	40	700	-	60

• BW only

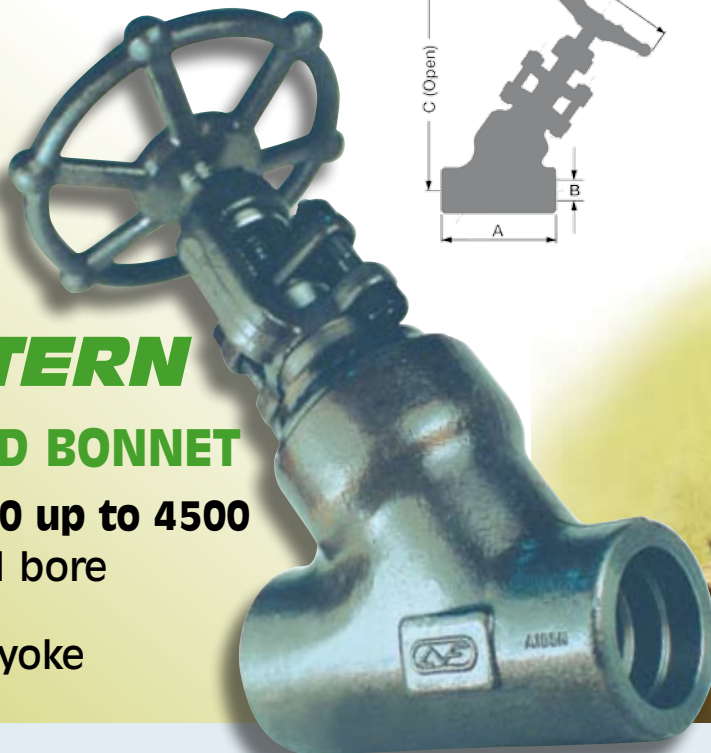
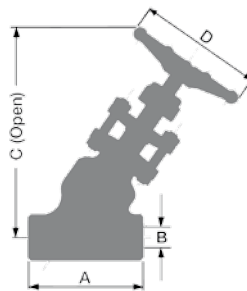
Y PATTERN

WELDED BONNET

Class: 800 up to 4500

Standard bore

Outside
screw & yoke



Reduced bore

150 BOLTED & WELDED BONNET

Standard bore

Outside screw & yoke - Integral flanged ends

Standard bore		Fig. n°	A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	1B 203	1W 203	108	12	185	80	3,2
3/4	1B 204	1W 204	118	16	195	100	4,3
1	1B 205	1W 205	127	21	220	120	5,9
1½	1B 207	1W 207	165	33	270	140	10,8
2	1B 208	1W 208	203	45	320	170	18

150 BOLTED & WELDED BONNET

Reduced bore

Outside screw & yoke - Integral flanged ends

Reduced bore		Fig. n°	A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	1BR 203	1WR 203	108	9	185	80	3,1
3/4	1BR 204	1WR 204	118	12,5	192	80	4
1	1BR 205	1WR 205	127	17,5	220	100	5,7
1½	1BR 207	1WR 207	165	29	265	140	10,6
2	1BR 208	1WR 208	203	35	310	170	15,4

300 BOLTED & WELDED BONNET

Standard bore

Outside screw & yoke - Integral flanged ends

Standard bore		Fig. n°	A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	3B 203	3W 203	152,5	12	185	80	4
3/4	3B 204	3W 204	178	17,5	220	100	6,6
1	3B 205	3W 205	203	22	250	120	8,5
1½	3B 207	3W 207	229	35	295	170	18
2	3B 208	3W 208	267	45	350	170	26

300 BOLTED & WELDED BONNET

Reduced bore

Outside screw & yoke - Integral flanged ends

Reduced bore		Fig. n°	A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	3BR 203	3WR 203	152,5	9	160	80	3,5
3/4	3BR 204	3WR 204	178	12,5	168	80	4,8
1	3BR 205	3WR 205	203	17,5	200	100	7,2
1½	3BR 207	3WR 207	229	29	268	140	14,5
2	3BR 208	3WR 208	267	35	290	170	18

600 BOLTED & WELDED BONNET

Standard bore

Outside screw & yoke - Integral flanged ends

Standard bore		Fig. n°	A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	6B 203	6W 203	165	12	185	80	4,2
3/4	6B 204	6W 204	190,5	17,5	220	100	6,8
1	6B 205	6W 205	216	22	250	120	8,8
1½	6B 207	6W 207	241,5	35	295	170	19
2	6B 208	6W 208	292	45	350	170	28

600 BOLTED & WELDED BONNET

Reduced bore

Outside screw & yoke - Integral flanged ends

Reduced bore		Fig. n°	A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	6BR 203	6WR 203	165	9	160	80	3,7
3/4	6BR 204	6WR 204	190,5	12,5	168	80	5,3
1	6BR 205	6WR 205	216	17,5	200	100	8,2
1½	6BR 207	6WR 207	241,5	29	268	140	15
2	6BR 208	6WR 208	292	35	290	170	21,5

1500 ROUND BOLTED & WELDED BONNET

Standard bore

Outside screw & yoke - Integral flanged ends

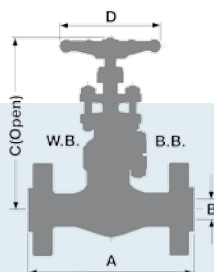
Standard bore		Fig. n°	A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	15BF 203	15WF 203	216	11	225	120	10
3/4	15BF 204	15WF 204	229	14,5	270	140	15
1	15BF 205	15WF 205	254	19	285	140	17
1½	15BF 207	15WF 207	305	31	400	170	36
2	15BF 208	15WF 208	368	37,5	420	260	55

2500 ROUND BOLTED & WELDED BONNET

Standard bore

Outside screw & yoke - Integral flanged ends

Standard bore		Fig. n°	A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	25BF 203	25WF 203	264	11	270	140	14
3/4	25BF 204	25WF 204	273	14	275	140	15
1	25BF 205	25WF 205	308	19	290	170	28
1½	25BF 207	25WF 207	384	28	400	260	50
2	25BF 208	25WF 208	451	35	480	260	75



800 BOLTED & WELDED BONNET

Welded: Standard B. Fig.n°CW 200 - Reduced B. Fig.n°CWR 200
Outside screw & yoke - Threaded and socket weld ends

Std. bore Size	Std. bore Fig. n°	Red. bore Size	Red. bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	CB 201			80	7	420	100	3,5
3/8	CB 202	1/2	CBR 203	80	9	420	100	4,6
1/2	CB 203	3/4	CBR 204	90	12,5	425	100	5,2
3/4	CB 204	1	CBR 205	110	17,5	475	120	6,5
1	CB 205	1 1/4	CBR 206	127	22,5	490	140	9,5
1 1/4	CB 206	1 1/2	CBR 207	155	29	530	170	12
1 1/2	CB 207	2	CBR 208	170	35	550	170	15,2
2	CB 208			210	45	600	260	25

1500 BOLTED & WELDED BONNET

Welded: Standard B. Fig.n°15CW 200 - Reduced B. Fig.n°15CWR 200
Outside screw & yoke - Threaded and socket weld ends

Std. bore Size	Std. bore Fig. n°	Red. bore Size	Red. bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	9CB 201			90	7	420	100	5
3/8	9CB 202	1/2	9CBR 203	90	9	425	100	5,2
1/2	9CB 203	3/4	9CBR 204	110	11	470	120	6,5
3/4	9CB 204	1	9CBR 205	120	14,5	490	140	9,5
1	9CB 205	1 1/4	9CBR 206	130	19	525	170	12
1 1/4	9CB 206	1 1/2	9CBR 207	170	27	550	170	15,2
1 1/2	9CB 207	2	9CBR 208	210	31	590	260	24
2	9CB 208			210	37,5	620	260	29

1500 ROUND BOLTED & WELDED BONNET

Standard bore
Outside screw & yoke - Threaded and socket weld ends

Std. bore Size	Std. bore Fig. n°	Red. bore Size	Red. bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	15CB 201		15CW 201	110	7	455	120	5,8
3/8	15CB 202	1/2	15CW 202	110	9	455	120	5,8
1/2	15CB 203	3/4	15CW 203	110	11	480	120	7
3/4	15CB 204	1	15CW 204	120	14,5	490	140	9,8
1	15CB 205	1 1/4	15CW 205	130	19	530	170	12
1 1/2	15CB 207	2	15CW 207	210	31	390	260	25
2	15CB 208		15CW 208	240	37,5	630	260	34

2500 ROUND BOLTED & WELDED BONNET

Standard bore
Outside screw & yoke - Threaded and socket weld ends

Std. bore Size	Std. bore Fig. n°	Red. bore Size	Red. bore Fig. n°	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/4	25CB 201		25CW 201	110	7	500	120	5,8
3/8	25CB 202	1/2	25CW 202	110	8	500	120	5,8
1/2	25CB 203	3/4	25CW 203	110	11	510	120	7
3/4	25CB 204	1	25CW 204	120	14	530	140	9,9
1	25CB 205	1 1/4	25CW 205	130	19	540	170	12,5
1 1/2	25CB 207	2	25CW 207	210	28	660	260	26
2	25CB 208		25CW 208	240	36	680	260	34,5

4500 WELDED BONNET - Standard bore

Outside screw & yoke - Threaded and socket weld ends

Standard bore Size	Standard bore Fig. n° Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	45CW 203	120	8	480	120	10
3/4	45CW 204	155	12	525	140	14
1	45CW 205	155	15	530	170	21
1 1/2	45CW 207	210	25	660	260	28
2	45CW 208	240	28	680	260	37

Cryogenic integral flanges

150 BOLTED & WELDED BONNET - Reduced bore

Outside screw & yoke - Integral flanged ends

Reduced bore Size	Reduced bore Bolted B.	Reduced bore Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	1CBR 203	1CWR 203	108	9	445	100	5,1
3/4	1CBR 204	1CWR 204	118	12,5	455	100	5,7
1	1CBR 205	1CWR 205	127	17,5	500	120	7,3
1 1/2	1CBR 207	1CWR 207	165	29	545	170	13,8
2	1CBR 208	1CWR 208	203	35	575	170	22,2

300 BOLTED & WELDED BONNET - Reduced bore

Outside screw & yoke - Integral flanged ends

Reduced bore Size	Reduced bore Bolted B.	Reduced bore Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	3CBR 203	3CWR 203	152,5	9	420	100	6
3/4	3CBR 204	3CWR 204	178	12,5	430	100	7,5
1	3CBR 205	3CWR 205	203	17,5	470	120	10,2
1 1/2	3CBR 207	3CWR 207	229	29	530	170	18,5
2	3CBR 208	3CWR 208	267	35	600	170	26

600 BOLTED & WELDED BONNET - Reduced bore

Outside screw & yoke - Integral flanged ends

Reduced bore Size	Reduced bore Bolted B.	Reduced bore Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	6CBR 203	6CWR 203	165	9	420	100	6,2
3/4	6CBR 204	6CWR 204	190,5	12,5	430	100	7,8
1	6CBR 205	6CWR 205	216	17,5	470	120	11
1 1/2	6CBR 207	6CWR 207	241,5	29	530	170	19,5
2	6CBR 208	6CWR 208	292	35	600	170	27,5

1500 ROUND BOLTED & WELDED BONNET

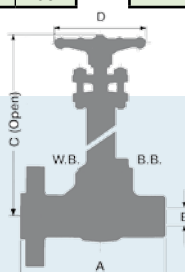
Standard bore
Outside screw & yoke - Integral flanged ends

Standard bore Size	Standard bore Bolted B.	Standard bore Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	15CBF 203	15CWF 203	216	11	480	120	12
3/4	15CBF 204	15CWF 204	229	14	490	140	17
1	15CBF 205	15CWF 205	254	19	530	170	20
1 1/2	15CBF 207	15CWF 207	305	31	590	260	39
2	15CBF 208	15CWF 208	368	37,5	630	260	65

2500 ROUND BOLTED & WELDED BONNET

Standard bore
Outside screw & yoke - Integral flanged ends

Standard bore Size	Standard bore Bolted B.	Standard bore Welded B.	A End to end	B Dia of port	C Centre to top	D Handwheel	Kg Weight
1/2	25CBF 203	25CWF 203	264	11	480	120	16
3/4	25CBF 204	25CWF 204	273	14	490	140	18
1	25CBF 205	25CWF 205	308	19	530	170	32
1 1/2	25CBF 207	25CWF 207	384	28	610	260	54
2	25CBF 208	25CWF 208	451	35	650	260	81



800 BOLTED & WELDED BONNET

Welded: Standard B. Fig.n°SW 200 - Reduced B. Fig.n°SWR 200
Outside screw & yoke - Threaded and socket weld ends

Std. bore	Red. bore		A	B	C	D	Kg	
Size	Fig. n°	Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	SB 201	-	-	80	7	240	100	2,9
3/8	SB 202	1/2	SBR 203	80	9	245	100	2,9
1/2	SB 203	3/4	SBR 204	90	12,5	245	100	3,3
3/4	SB 204	1	SBR 205	110	17,5	290	120	5,8
1	SB 205	1 1/4	SBR 206	127	22,5	340	140	7,8
1 1/4	SB 206	1 1/2	SBR 207	155	29	350	170	12
1 1/2	SB 207	2	SBR 208	170	35	360	170	15,9
2	SB 208	-	-	210	45	455	260	24

1500 BOLTED & WELDED BONNET

Welded: Standard B. Fig.n° S15W 200 - Reduced B. Fig.n° S15WR 200
Outside screw & yoke - Threaded and socket weld ends

Std. bore	Red. bore		A	B	C	D	Kg	
Size	Fig. n°	Size	Fig. n°	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	-	-	-	-	-	-	-	-
3/8	-	1/2	S9BR 203	90	9	245	100	3,3
1/2	S9B 203	3/4	S9BR 204	110	11	290	120	5,9
3/4	S9B 204	1	S9BR 205	120	14,5	340	140	7,8
1	S9B 205	1 1/4	S9BR 206	130	19	350	170	12,2
1 1/4	S9B 206	1 1/2	S9BR 207	170	27	360	170	16,1
1 1/2	S9B 207	2	S9BR 208	210	31	450	260	24,3
2	S9B 208	-	-	210	37,5	530	260	24,5

Bellows seal Y type

800 Y TYPES WELDED BONNET - Standard bore

Outside screw & yoke - Threaded and socket weld ends

Standard bore	Fig. n°	A	B	C	D	Kg
Size	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/4	SY 211	80	7	300	100	2,9
3/8	SY 212	80	9	300	100	2,9
1/2	SY 213	80	12	320	120	3,1
3/4	SY 214	100	17,5	320	120	3,7
1	SY 215	110	22,5	380	140	5,1
1 1/4	SY 216	150	30	415	170	11,7
1 1/2	SY 217	160	35	480	170	12,1
2	SY 218	190	46	575	260	19

1500 Y TYPES WELDED BONNET - Standard bore

Outside screw & yoke - Threaded and socket weld ends

Standard bore	Fig. n°	A	B	C	D	Kg
Size	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	S15Y 213	110	12,5	450	140	6
3/4	S15Y 214	125	17,5	570	170	8
1	S15Y 215	160	22	580	170	16
1 1/4	-	-	-	-	-	-
1 1/2	S15Y 217	190	31	670	260	21
2	S15Y 218	210	38	685	260	28

Bellows seal integral flanged

150 BOLTED & WELDED BONNET - Reduced bore

Outside screw & yoke - Integral flanged ends

Reduced bore	Fig. n°		A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	S1BR 203	S1WR 203	108	9	250	100	3,5
3/4	S1BR 204	S1WR 204	118	12,5	275	120	4,5
1	S1BR 205	S1WR 205	127	17,5	315	120	6,2
1 1/2	S1BR 207	S1WR 207	165	29	355	140	11,5
2	S1BR 208	S1WR 208	203	35	355	170	16,5

300 BOLTED & WELDED BONNET - Reduced bore

Outside screw & yoke - Integral flanged ends

Reduced bore	Fig. n°		A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	S3BR 203	S3WR 203	152,5	9	245	100	3,9
3/4	S3BR 204	S3WR 204	178	12,5	250	100	5,3
1	S3BR 205	S3WR 205	203	17,5	290	120	7,6
1 1/2	S3BR 207	S3WR 207	229	29	350	140	15,3
2	S3BR 208	S3WR 208	267	35	360	170	20



600 BOLTED & WELDED BONNET - Reduced bore

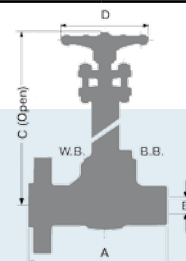
Outside screw & yoke - Integral flanged ends

Reduced bore	Fig. n°		A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	S6BR 203	S6WR 203	165	9	245	100	4
3/4	S6BR 204	S6WR 204	190,5	12,5	250	100	5,6
1	S6BR 205	S6WR 205	216	17,5	290	120	8,6
1 1/2	S6BR 207	S6WR 207	241,5	29	350	140	16
2	S6BR 208	S6WR 208	292	35	360	170	23

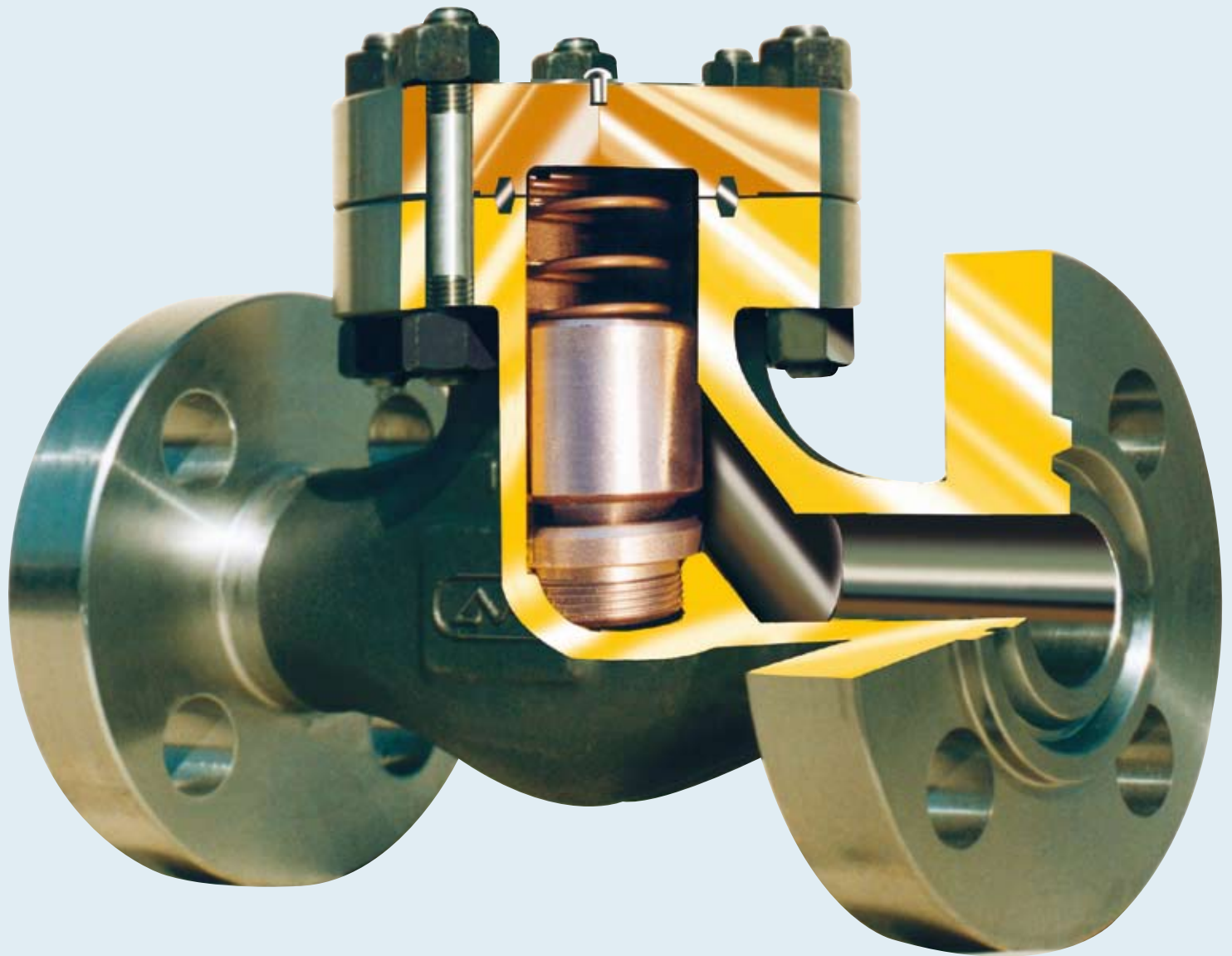
1500 ROUND BOLTED & WELDED BONNET

Reduced bore
Outside screw & yoke - Integral flanged ends

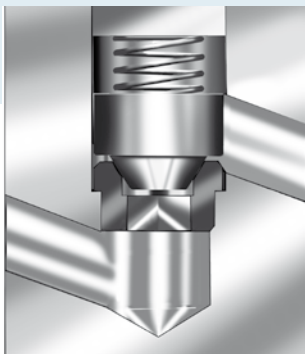
Reduced bore	Fig. n°		A	B	C	D	Kg
Size	Bolted B.	Welded B.	End to end	Dia of port	Centre to top	Handwheel	Weight
1/2	S15BRF 203	S15WRF 203	216	11	350	120	12
3/4	S15BRF 204	S15WRF 204	229	14	360	120	17,5
1	S15BRF 205	S15WRF 205	254	18	420	140	19
1 1/2	S15BRF 207	S15WRF 207	305	28	580	170	39
2	S15BRF 208	S15WRF 208	368	37	620	260	62



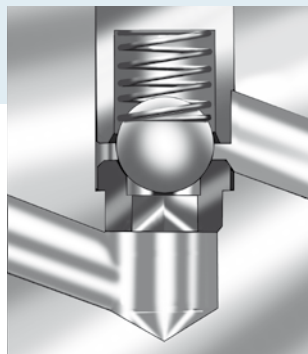
CHECK VALVES



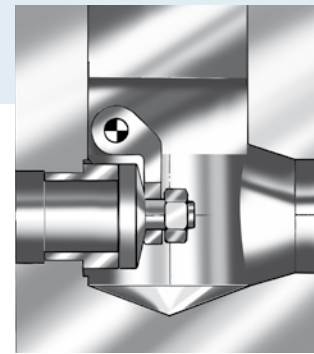
CHECK



Piston type Fig. n° 300



Ball type Fig. n° 400



Swing type Fig. n° 500

800 BOLTED COVER Standard & Reduced bore

Std. bore		Red. bore		A	B	B	C	Kg
Size	Fig. n	Size	Fig. n°	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/4	B 301			80	7	-	49	1,1
3/8	B 302	1/2	BR 303	80	9	10	49	1,1
1/2	B 303	3/4	BR 304	90	12,5	14	55	1,8
3/4	B 304	1	BR 305	110	17,5	18	70	2,6
1	B 305	1 1/4	BR 306	127	22,5	24	77	3,6
1 1/4	B 306	1 1/2	BR 307	• 155	29	29,5	105	5,5
1 1/2	B 307	2	BR 308	• 170	35	36,5	120	8,4
2	B 308			• 210	45	48	145	11,8

• For swing type end to end: $\varnothing 1^{1/4} = 127 - \varnothing 1^{1/2} = 130 - \varnothing 2 = 150/210$

1500 BOLTED COVER Standard & Reduced bore

Std. bore		Red. bore		A	B	B	C	Kg
Size	Fig. n	Size	Fig. n°	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/4	9B 301			90	7	-	55	2,2
3/8	9B 302	1/2	9BR 303	90	9	10	55	2,2
1/2	9B 303	3/4	9BR 304	110	11	14	70	3,1
3/4	9B 304	1	9BR 305	120	14,5	18	77	4,2
1	9B 305	1 1/4	9BR 306	130	19	24	105	5,8
1 1/4	9B 306	1 1/2	9BR 307	• 170	27	29,5	115	9,4
1 1/2	9B 307	2	9BR 308	210	31	36	145	12,1
2	9B 308			210	37,5	40	145	13,5

• For swing type end to end: $\varnothing 1^{1/4} = 130$

1500 ROUND BOLTED COVER Standard bore

Standard bore		A	B	B	C	Kg
Size	Fig. n°	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/4	15B 301	110	7	-	90	5,7
3/8	15B 302	110	8	10	90	5,7
1/2	15B 303	110	11	14	90	5,7
3/4	15B 304	120	14,5	18	105	7,1
1	15B 305	130	19	24	120	7,9
1 1/2	15B 307	210	31	36	160	19
2	15B 308	240	37,5	40	170	19,5

2500 ROUND BOLTED COVER Standard bore

Standard bore		A	B	B	C	Kg
Size	Fig. n°	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/4	25B 301	110	7	-	105	7
3/8	25B 302	110	8	10	105	7
1/2	25B 303	110	11	10	105	7
3/4	25B 304	120	14	14	110	7,2
1	25B 305	130	19	19	125	9,
1 1/2	25B 307	210	28	30	160	24
2	25B 308	240	36	36,5	170	26

Welded cover

800 WELDED COVER Standard & Reduced bore

Std. bore		Red. bore		A	B	B	C	Kg
Size	Fig. n	Size	Fig. n°	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/4	W 301			80	7	-	49	0,9
3/8	W 302	1/2	WR 303	80	9	10	49	0,9
1/2	W 303	3/4	WR 304	90	12,5	14	56	1,2
3/4	W 304	1	WR 305	110	17,5	18	69	2,1
1	W 305	1 1/4	WR 306	127	22,5	24	80	3,4
1 1/4	W 306	1 1/2	WR 307	• 155	29	29,5	95	5,3
1 1/2	W 307	2	WR 308	• 170	35	36,5	105	7,8
2	W 308			• 210	45	48	125	10,9

• For swing type end to end: $\varnothing 1^{1/4} = 127 - \varnothing 1^{1/2} = 130 - \varnothing 2 = 150/210$

1500 WELDED COVER Standard & Reduced bore

Std. bore		Red. bore		A	B	B	C	Kg
Size	Fig. n	Size	Fig. n°	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/4	15W 301			90	7	-	55	1,3
3/8	15W 302	1/2	15WR 303	90	9	10	55	1,3
1/2	15W 303	3/4	15WR 304	110	11	14	70	2,5
3/4	15W 304	1	15WR 305	120	14,5	18	80	3,8
1	15W 305	1 1/4	15WR 306	130	19	24	90	5,5
1 1/4	15W 306	1 1/2	15WR 307	• 170	27	29,5	100	8,3
1 1/2	15W 307	2	15WR 308	210	31	36	115	11
2	15W 308			210	37,5	40	130	12,5

• For swing type end to end: $\varnothing 1^{1/4} = 130$

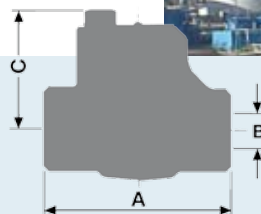
2500 WELDED COVER Standard bore

Standard bore		A	B	B	C	Kg
Size	Fig. n°	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/4	25W 301	110	7	-	70	2,8
3/8	25W 302	110	8	10	70	2,8
1/2	25W 303	110	11	10	70	2,8
3/4	25W 304	120	14	14	85	4,5
1	25W 305	130	19	18	90	6,2
1 1/4	25W 306	210	24	24	130	8,9
1 1/2	25W 307	210	28	29	130	8,9
2	25W 308	240	36	36	140	15

4500 WELDED COVER Standard bore

Standard bore		A	B	B	C	Kg
Size	Fig. n°	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/2	45W 313	120	8	-	85	4,5
3/4	45W 314	155	12	-	95	7
1	45W 315	155	15	-	95	7
1 1/2	45W 317	210	25	-	140	14
2	45W 318	240	28	-	140	15

Swing type on request



800 WELDED COVER - Standard bore

Threaded and socket weld ends

Standard bore		A	B	C	Kg
Size	Fig. n°	End to end	Dia of port	Centre to top	Weight
1/4	Y 311	80	7	60	1,5
3/8	Y 312	80	9	60	1,5
1/2	Y 313	80	12	60	1,5
3/4	Y 314	100	17,5	75	2,5
1	Y 315	110	22,5	80	3
1¼	Y 316	150	30	115	5,5
1½	Y 317	160	35	115	6
2	Y 318	190	46	140	9
2½	Y 319	210	48	160	18
3	Y 3110	280	65	200	30
• 4	Y 3112	368	70	260	41

• BW only

1500 WELDED COVER - Standard bore

Threaded and socket weld ends

Standard bore		A	B	C	Kg
Size	Fig. n°	End to end	Dia of port	Centre to top	Weight
1/4	15Y 311	100	7	75	2,5
3/8	15Y 312	100	9	75	2,5
1/2	15Y 313	100	13	75	2,5
3/4	15Y 314	110	17,5	80	3
1	15Y 315	125	22,5	85	4,5
1¼	15Y 316	150	28	115	5,5
1½	15Y 317	160	35	115	6
2	15Y 318	190	44	140	9
2½	15Y 319	216	46	160	18
3	15Y 3110	280	55	200	30
• 4	15Y 3112	368	62	260	42

• BW only

2500 WELDED COVER - Standard bore

Threaded and socket weld ends

Standard bore		A	B	C	Kg
Size	Fig. n°	End to end	Dia of port	Centre to top	Weight
1/4	25Y 311	110	7	80	3
3/8	25Y 312	110	10	80	3
1/2	25Y 313	110	12	80	3
3/4	25Y 314	125	15	85	4,5
1	25Y 315	160	20	115	5,5
1¼	25Y 316	160	25	115	6
1½	25Y 317	190	31	140	9
2	25Y 318	210	38	150	12
2½	25Y 319	280	44	200	31
• 3	25Y 3110	280	48	200	31
• 4	25Y 3112	368	52	260	42

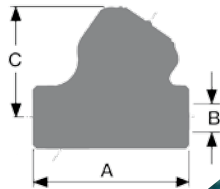
• BW only

4500 WELDED COVER - Standard bore

Threaded and socket weld ends

Standard bore		A	B	C	Kg
Size	Fig. n°	End to end	Dia of port	Centre to top	Weight
1/4	45Y 311	110	7	85	4
3/8	45Y 312	110	7	85	4
1/2	45Y 313	125	8	100	5
3/4	45Y 314	160	11	125	7
1	45Y 315	190	15	140	9
1¼	45Y 316	190	18	140	9
1½	45Y 317	210	20	150	9
2	45Y 318	280	25	200	31
• 2½	45Y 319	280	28	200	32
• 3	45Y 3110	360	35	260	43
• 4	45Y 3112	360	40	260	44

• BW only



**Y PATTERN CHECK
WELDED COVER**
Standard bore
Piston & Ball type

1500 PRESSURE SEAL - Standard bore Butt welding ends

Standard bore		A	B	B	C	Kg
Size	Fig. n°	End to end	Dia of port PISTON/BALL	Dia of port TILTING	Center to top	Weight
• 1	15PS 315	130	18	-	115	6,5
• 1¼	15PS 316	180	28	-	140	9
• 1½	15PS 317	180/210	31	-	165	15
• 2	15PS 318	216	35	43	165	30
• 2½	15PS 319	254/368	40	50	220	36
• 3	15PS 3110	305/368	52	63	220	39
• 4	-	-	-	-	-	-
• 6	-	-	-	-	-	-
• 8	-	-	-	-	-	-

• On request

2500 PRESSURE SEAL - Standard bore Butt welding ends

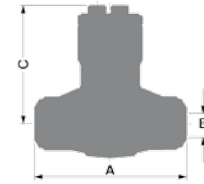
Standard bore		A	B	B	C	Kg
Size	Fig. n°	End to end	Dia of port PISTON/BALL	Dia of port TILTING	Center to top	Weight
• 1	25PS 315	180	18	-	140	9
• 1¼	25PS 316	210	24	-	165	15
• 1½	25PS 317	210	29	-	165	15
• 2	25PS 318	280	35	43	165	31
• 2½	25PS 319	330	40	43	165	36
• 3	25PS 3110	368	52	52	220	39
• 4	-	-	-	-	-	-
• 6	-	-	-	-	-	-
• 8	-	-	-	-	-	-

• On request

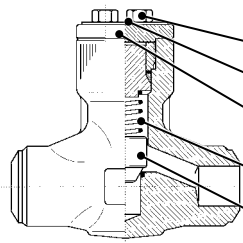
4500 PRESSURE SEAL - Standard bore Butt welding ends

Standard bore		A	B	B	C	Kg
Size	Fig. n°	End to end	Dia of port PISTON/BALL	Dia of port TILTING	Center to top	Weight
• 1	45PS 315	180	12,5	-	140	9,5
• 1¼	45PS 316	210	16	-	165	16
• 1½	45PS 317	210	16	-	165	16
• 2	45PS 318	280	25	30	165	31
• 2½	45PS 319	330	30	30	220	36
• 3	45PS 3110	330	30	32	220	39
• 4	-	-	-	-	-	-
• 6	-	-	-	-	-	-
• 8	-	-	-	-	-	-

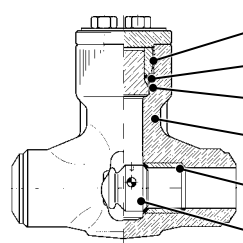
• On request



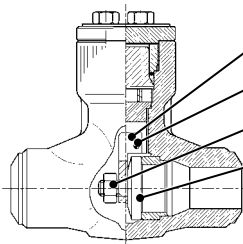
PRESSURE SEAL CHECK VALVES BOLTED COVER



PISTON TYPE



TILTING TYPE



SWING TYPE

DESCRIPTION

- 1 BOLTS
- 2 NAME PLATE
- 3 STAND
- 4 SPRING
- 5 PISTON
- 6 BONNET NUT
- 7 PRESSURE SEAL RING
- 8 PRESSURE SEAL GASKET
- 9 BODY
- 10 SEAT
- 11 TILTING DISC
- 12 HINGE
- 13 HINGE PIN
- 14 SWING NUT
- 15 SWING



150 BOLTED & WELDED COVER

Standard bore - Integral flanged ends

Standard bore n°			A	B	B	C	Kg
Size	Bolted/B.	Welded/B.	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/2	1B 303	1W 303	108	12	14	76	2,6
3/4	1B 304	1W 304	118	16	18	80	3,8
1	1B 305	1W 305	127	21	24	92	5,1
1 1/2	1R 307	1W 307	165	33	36,5	100	8,9
2	1B 308	1W 308	203	45	48	140	14,3

150 BOLTED & WELDED COVER

Reduced bore - Integral flanged ends

Reduced bore n°			A	B	B	C	Kg
Size	Bolted/B.	Welded/B.	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/2	1BR 303	1WR 303	108	9	10	70	2,8
3/4	1BR 304	1WR 304	118	12,5	10	80	4
1	1BR 305	1WR 305	127	17,5	18	92	5,3
1 1/2	1BR 307	1WR 307	165	29	29,5	100	9
2	1BR 308	1WR 308	203	35	36,5	140	15

300 BOLTED & WELDED COVER

Standard bore - Integral flanged ends

Standard bore n°			A	B	B	C	Kg
Size	Bolted/B.	Welded/B.	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/2	3B 303	3W 303	152,5	12	14	80	3
3/4	3B 304	3W 304	178	17,5	18	85	5,1
• 1	3B 305	3W 305	203	21	24	95	6
• 1 1/2	3B 307	3W 307	229	35	36,5	102	12,5
2	3B 308	3W 308	267	45	48	145	19

• For swing type end to end $\varnothing 1 - 216 \cdot \varnothing 1^{1/4} - 229 \cdot \varnothing 1^{1/2} - 241$

300 BOLTED & WELDED COVER

Reduced bore - Integral flanged ends

Reduced bore n°			A	B	B	C	Kg
Size	Bolted/B.	Welded/B.	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/2	3BR 303	3WR 303	152,5	9	10	50	2,8
3/4	3BR 304	3WR 304	178	12,5	14	55	4,7
• 1	3BR 305	3WR 305	203	17,5	18	70	5,7
• 1 1/2	3BR 307	3WR 307	229	29	30	98	11,8
2	3BR 308	3WR 308	267	35	36,5	110	17

• For swing type end to end $\varnothing 1 - 216 \cdot \varnothing 1^{1/4} - 229 \cdot \varnothing 1^{1/2} - 241$

600 BOLTED & WELDED COVER

Standard bore - Integral flanged ends

Standard bore n°			A	B	B	C	Kg
Size	Bolted/B.	Welded/B.	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/2	6B 303	6W 303	165	12	14	80	3,1
3/4	6B 304	6W 304	191	16	18	85	5,3
1	6B 305	6W 305	216	22	24	95	6,2
1 1/2	6B 307	6W 307	241	34	36	102	12,8
2	6B 308	6W 308	292	45	48	145	19,2

600 BOLTED & WELDED COVER

Reduced bore - Integral flanged ends

Reduced bore n°			A	B	B	C	Kg
Size	Bolted/B.	Welded/B.	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/2	6BR 303	6WR 303	165	9	10	50	2,9
3/4	6BR 304	6WR 304	191	12,5	14	55	4,8
1	6BR 305	6WR 305	210	17,5	18	70	9,7
1 1/2	6BR 307	6WR 307	241	29	30	98	12
2	6BR 308	6WR 308	292	35	36,5	110	17,3

1500 BOLTED & WELDED COVER

Standard bore - Integral flanged ends

Standard bore n°			A	B	B	C	Kg
Size	Bolted/B.	Welded/B.	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/2	15BF 303	15WF 303	216	11	14	90	7,6
3/4	15BF 304	15WF 304	229	14,5	18	105	10,8
1	15BF 305	15WF 305	254	19	24	120	14,5
1 1/2	15BF 307	15WF 307	305	31	36	160	31
2	15BF 308	15WF 308	368	37,5	40	170	43

2500 ROUND BOLTED & WELDED COVER

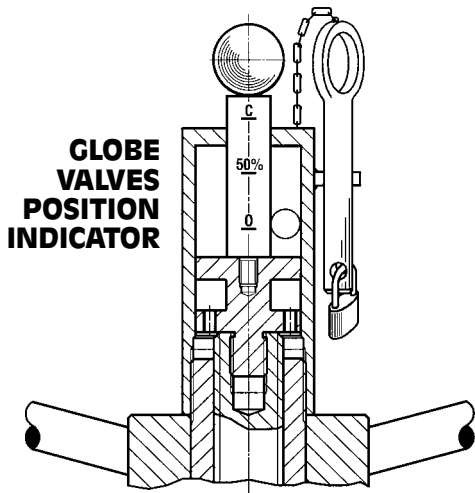
Standard bore - Integral flanged ends

Standard bore n°			A	B	B	C	Kg
Size	Bolted/B.	Welded/B.	End to end	Dia of port PISTON/BALL	Dia of port SWING	Center to top	Weight
1/2	25BF 303	25WF 303	264	10	10	105	9,8
3/4	25BF 304	25WF 304	273	14	14	110	11,8
1	25BF 305	25WF 305	308	19	19	125	16,5
1 1/2	25BF 307	25WF 307	384	28	30	160	37
2	25BF 308	25WF 308	451	35	36,5	170	58

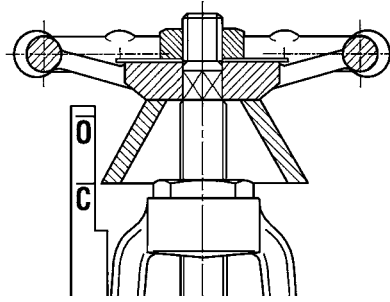


OPTIONAL FEATURES

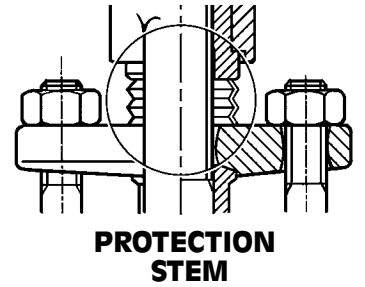
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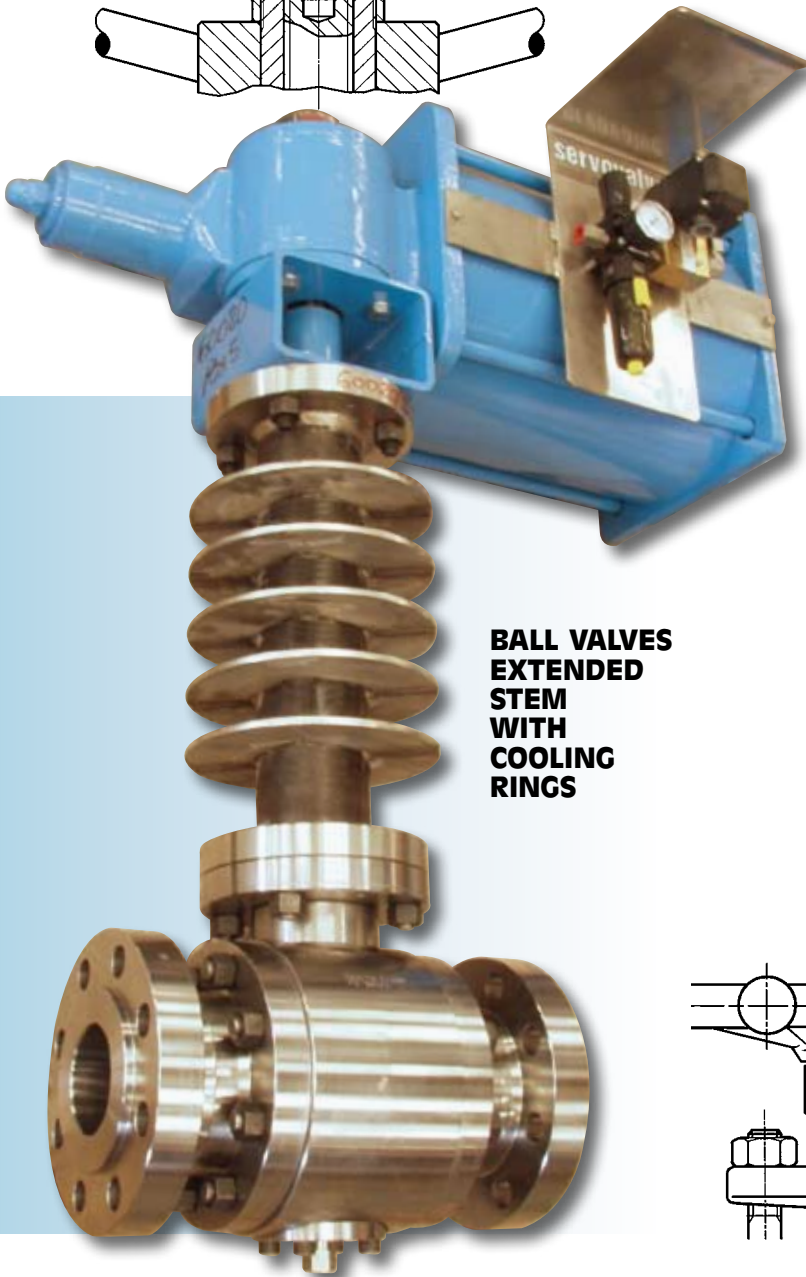
GLOBE VALVES POSITION INDICATOR



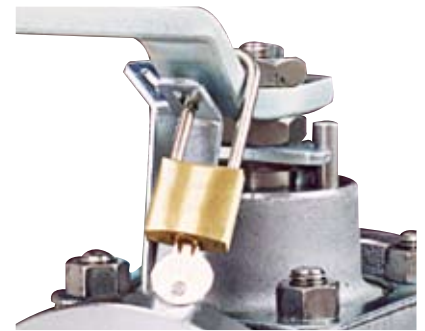
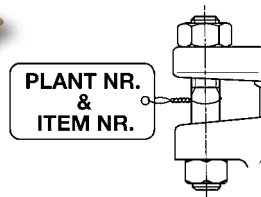
GATE VALVES FLOW LIMIT CONTROL



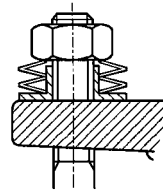
PROTECTION STEM



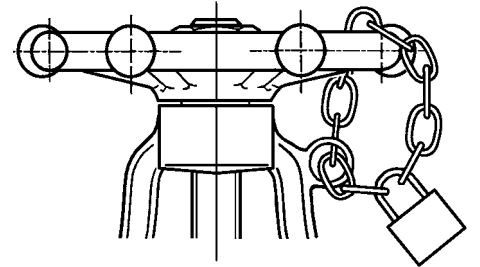
BALL VALVES EXTENDED STEM WITH COOLING RINGS



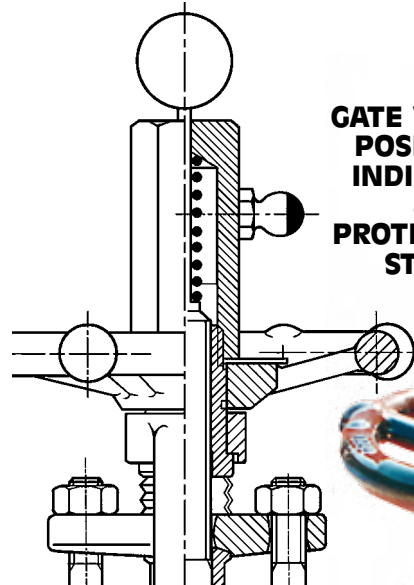
BALL VALVES LEVER LOCKING DEVICE



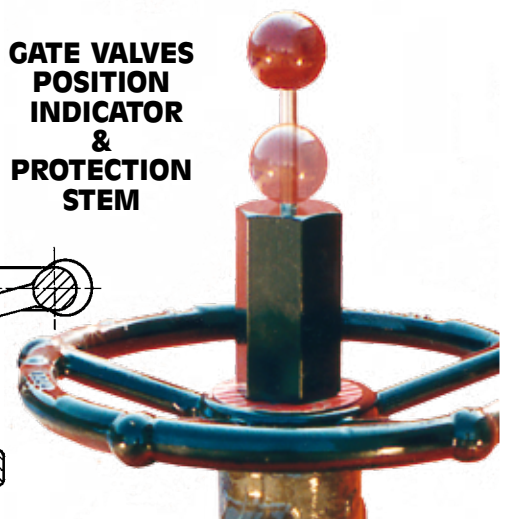
SPRING LOADED PACKING DETAIL



VALVES HANDWHEEL LOCKING DEVICE



GATE VALVES POSITION INDICATOR & PROTECTION STEM



BODY/BONNET LVF'S MATERIALS

MAT.	DESCRIPTION	SERVICE RECOMMENDATIONS	TEMPERATURE
A105	Carbon steel	General service: oil, oil vapor, gas, steam, water	-10 ÷ 540 °C
LF2	Low temp. Carbon steel	Low temperature applications	-46 ÷ 425 °C
LF3	Low temp. Carbon steel	Low temperature applications	-101 ÷ 345 °C
F11	1.25 Cr, 0.5 Mo alloy steel	To minimize graphitization	-29 ÷ 600 °C
F22	2.25 Cr, 1 Mo alloy steel	For service requiring greater strength than F11	-29 ÷ 600 °C
F5	5 Cr, 0.5 Mo alloy steel	Corrosive/erosive refinery use	-29 ÷ 600 °C
F9	9 Cr, 1 Mo alloy steel	For media with higher sulphur content	-29 ÷ 600 °C
F44	Austenitic stainless steel	Very high strength, high resistance to corrosion	-29 ÷ 400 °C
F304DG	18 Cr, 8 Ni stainless steel	Corrosive and cryogenic service	-29 ÷ 540 °C
F316 DG	18 Cr, 8 Ni, 2 Mo stainless steel	As F304 with superior resistance to corrosion	-29 ÷ 540 °C
F51, F53, F55	Ferritic-austenitic stainless steel	High strength, resistance to corrosion, pitting and stress corrosion in chloride media	-50 ÷ 315 °C
Titanium	Metal	Good resistance to corrosion with low weight	-60 ÷ 315 °C
Monel	Nickel-copper alloy	Resistant to corrosion, sea water, acids and alkalies	-196 ÷ 482 °C
Inconel Incoloy	Nickel alloy	Resistant to corrosion, nuclear application	High temp.
Hastelloy	Nickel alloy	Excellent corrosion resistance in hydrochloric acid	High temp.

MAIN TRIM LVF'S MATERIALS

MAT.	DESCRIPTION	SERVICE RECOMMENDATIONS	TEMPERATURE
13Cr, F6	Stainless steel	General service: oil, oil vapor, gas, steam, water	High temp.
F304, F316	Austenitic stainless steel	Corrosive service	-29 ÷ 540 °C
Monel	Nickel-copper alloy	Corrosive service such as acids, alkalies salt solutions.	-196 ÷ 482 °C
Stellite	Hard facing overlay	Premium trim, suitable for sever service	≤ 649 °C

The most of the above material grades may be provided fully suitable for sour service as defined by NACE MR 0175 and MR 0103 standards.

LVF VALVES CV FACTORS

The CV factors (US gallons per minute of water at 70°F flowing through the valve at a pressure drop of one p.s.i.) for standard design LVF valves are listed below.

These average values were obtained performing the test in our factory upon valves taken randomly. For valves not listed below CV values can be easily found when required.

Useful conversion formulas for liquid:

Flow rate (GPM):

K factor (flow resistance coefficient):

$$K = (29,9 \frac{d^2}{C_v})^2$$

Flow rate (GPM)

$$Q = (C_v \sqrt{\Delta p / S})$$

Pressure drop (p.s.i.):

$$\Delta p = S (Q / C_v)^2$$

where: d = internal diameter of pipe in which valve is to be installed (in);

S = specific gravity of liquid relative to water at 60°F.



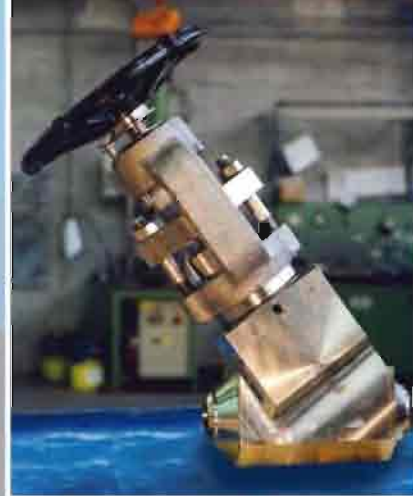
VALVE TYPE	RATING	BORE	SIZE							
			1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
GATE	150 ÷ 800	FULL	2	4,8	12,3	23,2	43	57	98	200
GATE	150 ÷ 800	REDUCED			6	10	26	44	65	103
GATE	1500	FULL	2,1	5	12,5	23,7	44	59	100	*
GATE	1500	REDUCED			6,2	10,5	26,5	45	65,5	99
GATE	2500	FULL			5	12,1	23	42,5	56	97
GLOBE	150 ÷ 800	FULL	0,9	1,5	3,2	5,8	11,5	15,2	20,9	38,3
GLOBE	150 ÷ 800	REDUCED			1,5	3,7	6,4	10,4	17,8	21,5
GLOBE	1500	FULL			2,8	6	12		20	24
GLOBE	1500	REDUCED			1,7	2,9	5,8		15,5	19,8
GLOBE -Y PATTERN.....	800				5,5	11,8	22		48	69
GLOBE -Y PATTERN.....	1500				5,5	11,8	15,5		36	56
GLOBE -Y PATTERN.....	2500				3,5	6,5	11,8		24,5	45

Bores: *40mm = >155 - * 48mm = >200

The Cv Valve is affected by several factors (e.g. shape of piston / disc, presence of spring, profile of internal bore...)

- The data shown in the above table are therefore approximate. When the Cv value is critical for the process or when ever the exact value is required, it may be requested directly to LVF.
- Our technical department will also be pleased to provide you with the Cv values for any type of valves not covered by the above table.

LVF Reserves the right to make all necessary changes on its products, without notice.



HEAD OFFICE AND PLANT

LVF S.p.A.

Via Giuseppe Mazzini, 6

24060 - San Paolo - d'Argon - (BG) ITALY

Phone: +39-035-4255211 - Telefax: +39-035-959210

E-mail: info@lvf.it - Web: www.lvf.it