LESER

Conventional design

Materials

Item	Component	Standard Service Type 5262 Trim: Standard	Corrosive Service Type 5264 Trim: Standard	Type 5267 Trim: Standard	Type 5263 Trim: Standard
1	**Body**	1.0619 SA 216 WCB	1.4408 SA 315 CF8M	1.7357 SA 217 WC6	 SA 352 LCB
5	Nozzle[1)]	1.4404 316 L	1.4404 316L	1.4404 stellited 316L stellited	1.4404 316L
6	Adjusting ring	1.4408 CF8M	1.4408 CF8M	1.4404 316L	1.4408 CF8M
7	Disc	1.4122 Hardened stainless steel	1.4404 stellited 316L stellited	1.4122 Hardened stainless steel	1.4122 Hardened stainless steel
8	Guide	1.4404 316 L	1.4404 316L	1.4404 316L	1.4404 316L
9	**Bonnet**	1.0619 SA 216 WCB	1.4404, 1.4571 SA 479 316L, 316Ti	1.7357 SA 217 WC6	 SA 352 LCB
12	Spindle	1.4021 420	1.4021 420	1.4021 420	1.4021 420
14	Split ring	1.4104 Chrome steel	1.4404 316L	1.4104 Chrome steel	1.4104 Chrome steel
16 / 17	Spring plate	1.0718 Steel	1.4404 316L	1.0718 Steel	1.0718 Steel
18	Adjusting screw	1.4104 Chrome steel	1.4404 tenifer 316L tenifer	1.4104 Chrome steel	1.4104 Chrome steel
	with bushing	PTFE with 15% Glas – " –	PTFE 15% Glas – " –	PTFE 15% Glas – " –	PTFE 15% Glas – " –
19	Lock nut	1.0718 Steel	1.4404 316L	1.0718 Steel	1.0718 Steel
22	Lift stopper	1.4404 316L	1.4404 316L	1.4404 316L	1.4404 316L
40	Cap H2	1.0718 Steel	1.4404 316L	1.0718 Steel	1.0718 Steel
54	Spring	1.8159 High temp. alloy steel	1.4310 Stainless steel	1.8159 High temp. alloy steel	1.8159 High temp. alloy steel
55	Stud	1.4401 B8M	1.4401 B8M	1.4401 B8M	1.4401 B8M
56	Nut	1.4401 8M	1.4401 8M	1.4401 8M	1.4401 8M
57	Ball	1.4401 316	1.4401 316	1.4401 316	1.4401 316
60	Gasket	Graphite / 1.4401 Graphite / 316	Graphite / 1.4401 Graphite / 316	Graphite / 1.4401 Graphite / 316	Graphite / 1.4401 Graphite / 316
61	Ball	1.3541 Hardened stainless steel	1.4401 316	1.3541 Hardened stainless steel	1.3541 Hardened stainless steel
64	Plug	Steel – " –	1.4401 B8M	Steel – " –	Steel – " –
66	Screw	1.4401 B8M	1.4401 B8M	1.4401 B8M	1.4401 B8M
69	Needle bearing	1.4404 316L	1.4404 316 L	1.4404 316L	1.4404 316L
73	Lock screw	1.4404 8M	1.4404 8M	1.4404 8M	1.4404 8M

[1)] Stellited sealing surfaces please refer to page 99/06

Please notice:
- Modifications reserved by LESER
- LESER can upgrade materials without notice
- Every part can be replaced by other material acc. to customer specification.

Special materials:
Body and trim available in various materials (Monel®, Hastelloy® ...).
For nozzle and disc machined from the bar a short lead time is possible.

LESER

Balanced bellows design

Materials

Item	Component	Standard Service Type 5262 Trim: Standard	Corrosive Service Type 5264 Trim: Standard	Type 5267 Trim: Standard	Type 5263 Trim: Standard
1	**Body**	1.0619 SA 216 WCB	1.4408 SA 315 CF8M	1.7357 SA 217 WC6	 SA 352 LCB
5	Nozzle[2)]	1.4404 316 L	1.4404 316L	1.4404 stellited 316L stellited	1.4404 316L
6	Adjusting ring	1.4408 CF8M	1.4408 CF8M	1.4404 316L	1.4408 CF8M
7	Disc	1.4122 Hardened stainless steel	1.4404 stellited 316L stellited	1.4122 Hardened stainless steel	1.4122 Hardened stainless steel
8	Guide	1.4404 316 L	1.4404 316L	1.4404 316L	1.4404 316L
9	**Bonnet**	1.0619 SA 216 WCB	1.4404, 1.4571 SA 479 316L, 316Ti	1.7357 SA 217 WC6	 SA 352 LCB
	Valve size 6 R 10, 8T10	1.0305 Steel	1.4571 SA 479 316Ti	1.0305 Steel	1.0305 Steel
11	Bonnet spacer[1)]	1.0460 Carbon steel	1.4404 SA 479 316L	1.4404 SA 479 316L	1.4404 316L
12	Spindle	1.4021 420	1.4021 420	1.4021 420	1.4021 420
14	Split ring	1.4104 Chrome steel	1.4404 316L	1.4104 Chrome steel	1.4104 Chrome steel
15	Bellows	1.4571 316 Ti	1.4571 316 Ti	1.4571 316 Ti	1.4571 316 Ti
16 / 17	Spring plate	1.0718 Steel	1.4404 316L	1.0718 Steel	1.0718 Steel
18	Adjusting screw	1.4104 Chrome steel	1.4404 tenifer 316L tenifer	1.4104 Chrome steel	1.4104 Chrome steel
	with bushing	PTFE with 15% Glas – " –	PTFE 15% Glas – " –	PTFE 15% Glas – " –	PTFE 15% Glas – " –
19	Lock nut	1.0718 Steel	1.4404 316L	1.0718 Steel	1.0718 Steel
22	Lift stopper	1.4404 316L	1.4404 316L	1.4404 316L	1.4404 316L
40	Cap H2	1.0718 Steel	1.4404 316L	1.0718 Steel	1.0718 Steel
54	Spring	1.8159 High temp. alloy steel	1.4310 Stainless steel	1.8159 High temp. alloy steel	1.8159 High temp. alloy steel
55	Stud	1.4401 B8M	1.4401 B8M	1.7709 B16	1.4401 B8M
56	Nut	1.4401 8M	1.4401 8M	1.7258 7M	1.4401 8M
57	Ball	1.4401 316	1.4401 316	1.4401 316	1.4401 316
60	Gasket	Graphite / 1.4401 Graphite / 316	Graphite / 1.4401 Graphite / 316	Graphite / 1.4401 Graphite / 316	Graphite / 1.4401 Graphite / 316
61	Ball	1.3541 Hardened stainless steel	1.4401 316	1.3541 Hardened stainless steel	1.3541 Hardened stainless steel
66	Screw	1.4401 B8M	1.4401 B8M	1.4401 B8M	1.4401 B8M
69	Needle bearing	1.4404 316L	1.4404 316 L	1.4404 316L	1.4404 316L
73	Lock screw	1.4404 8M	1.4404 8M	1.4404 8M	1.4404 8M

[1)] Valve size 6 R 10 and 8 T 10 without bonnet spacer

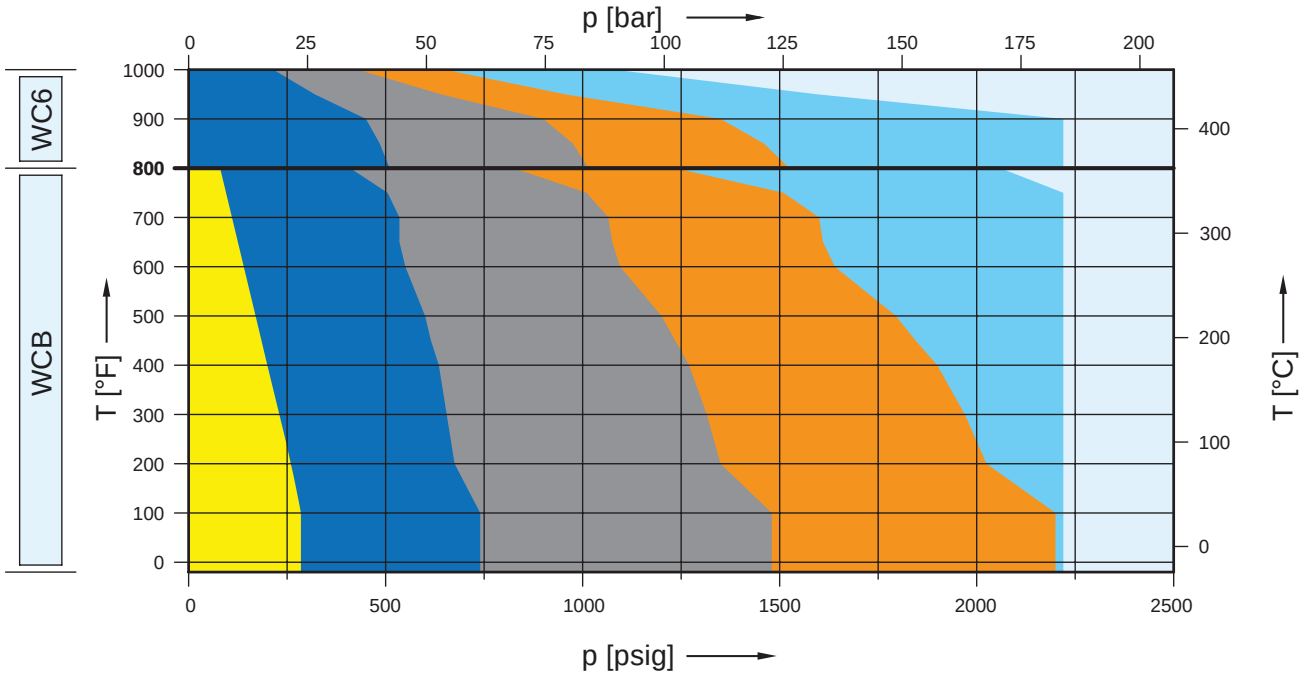
[2)] Stellited sealing surfaces please refer to page 99/06

Please notice:
- Modifications reserved by LESER
- LESER can upgrade materials without notice
- Every part can be replaced by other material acc. to customer specification.

Special materials:
Body and trim available in various materials (Monel®, Hastelloy® ...).
For nozzle and disc machined from the bar a short lead time is possible.

Selection chart

	150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 300	2500 x 300
WCB	5262.202X	–	5262.203X	5262.204X	5262.205X	5262.206X	–
WC6	–	–	5267.207X	5267.208X	5267.209X	5267.210X	–



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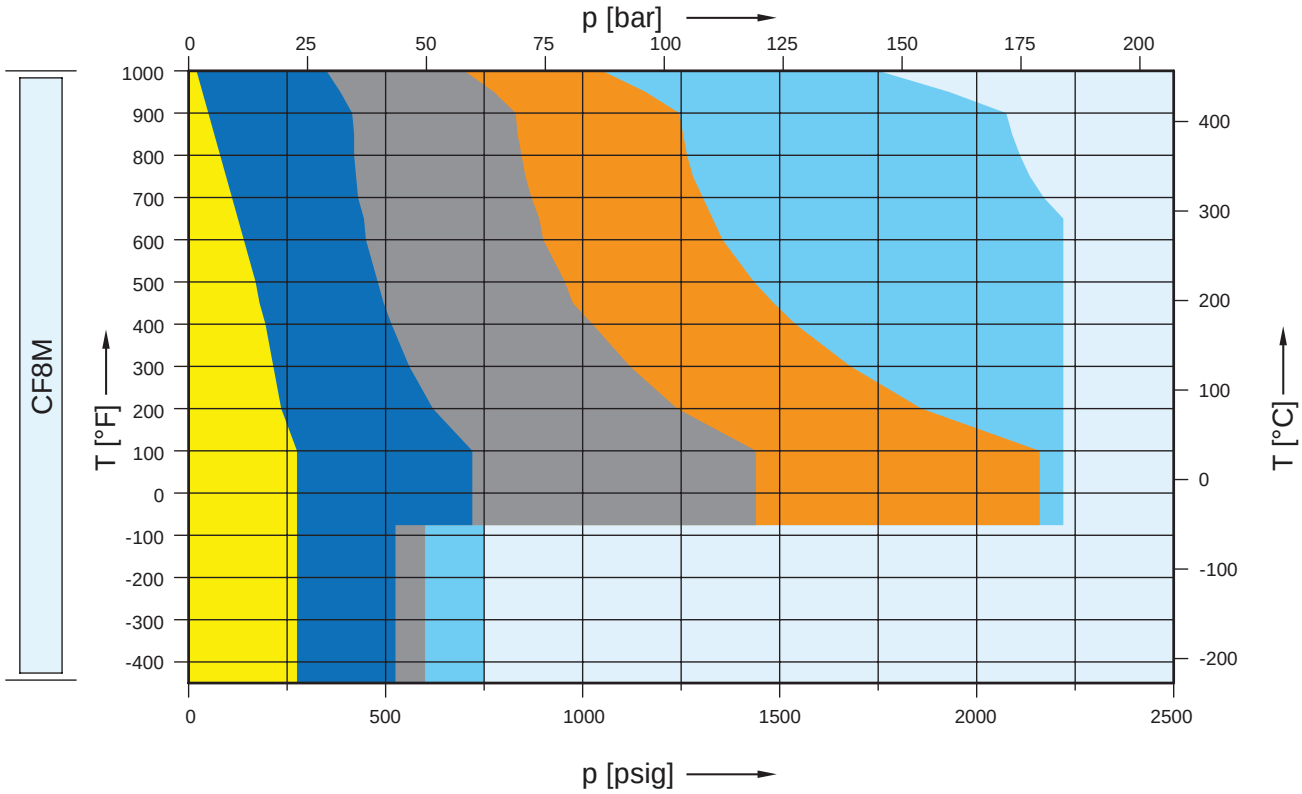
	150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 300	2500 x 300
CF8M	5264.211X	–	5264.212X	5264.213X	5264.214X	5264.215X	–



Article numbers, dimensions and weights

Article numbers

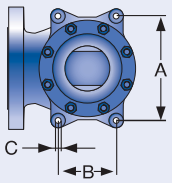
Valve size		3 K 4	3 K 4	3 K 4	3 K 4	3 K 6	3 K 6
Flange rating class Inlet x Outlet		150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 300
Actual Orifice diameter d_0 [mm]		43	43	43	43	43	43
Actual Orifice area A_0 [mm²]		1452	1452	1452	1452	1452	1452
Body material							
WCB 1.0619	Art.-No.	**5262.202**¤	Use 3 K 4 300 x 150	**5262.203**¤	**5262.204**¤	**5262.205**¤	**5262.206**¤
CF8M 1.4408	Art.-No.	**5264.111**¤		**5264.112**¤	**5264.113**¤	**5264.114**¤	**5264.115**¤
WC6 1.7357	Art.-No.	–		**5267.207**¤	**5267.208**¤	**5267.209**¤	**5267.210**¤
LCB	Art.-No.	**5263.535**¤		**5263.536**¤	**5263.537**¤	**5263.538**¤	**5263.539**¤

¤) Please add code for the required cap or lifting device. See below.

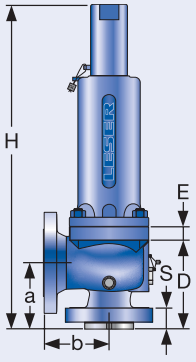
Dimensions and weights

Metric Units								
					Other	WC6		
Weight [kg]		70,1		70,1	77,7	70,1	127,5	127,5
	with bellows	75,7		75,7	83,2	75,7	134,1	134,1
Center to face [mm]	Inlet a	156		156	184	156	198	197
	Outlet b	162		162	181	162	216	216
	s	49		49	49	49	67	65
Height (H4) [mm]	Standard H max.	758	Use 3 K 4 300 x 150	758	786	758	880	879
	Bellows H max.	796		796	824	796	880	879
Support brackets [mm]	A	238		238	238	238	278	278
	B	140		140	140	140	160	160
	C	Ø 18		Ø 18	Ø 18	Ø 18	Ø 18	Ø 18
	D	206		206	234	206	288	287
	E	25		25	25	25	25	25
US Units								
Weight [lbs]		154,6		154,6	171,3	154,6	281,1	281,1
	with bellows	166,9		166,9	183,5	166,9	295,7	295,7
Center to face [inch]	Inlet a	6 1/8		6 1/8	7 1/4	6 1/8	7 13/16	7 3/4
	Outlet b	6 3/8		6 3/8	7 1/8	6 3/8	8 1/2	8 1/2
	s	1 15/16		1 15/16	1 15/16	1 15/16	2 9/16	2 9/16
Height (H4) [inch]	Standard H max.	29 27/32	Use 3 K 4 300 x 150	29 27/32	30 15/16	29 27/32	34 21/32	34 19/32
	Bellows H max.	31 11/32		31 11/32	32 7/16	31 11/32	34 21/32	34 19/32
Support brackets [inch]	A	9 3/8		9 3/8	9 3/8	9 3/8	10 15/16	10 15/16
	B	5 1/2		5 1/2	5 1/2	5 1/2	6 5/16	6 5/16
	C	Ø 23/32		Ø 23/32	Ø 23/32	Ø 23/32	Ø 23/32	Ø 23/32
	D	8 3/32		8 3/32	9 7/32	8 3/32	11 11/32	11 9/32
	E	31/32		31/32	31/32	31/32	31/32	31/32

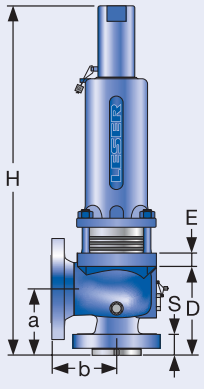
¤ Code for lifting device				
Lifting device	H2	H3	H4	H3
Bonnet	closed	closed	closed	open
WCB 1.0619, WC6 1.7357, LCB	2	3	4	5
CF8M 1.4408	2	–	4	–



Support brackets



Conventional design



Balanced bellows design

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Pressure temperature ratings

Metric Units

Valve size		3 K 4	3 K 4	3 K 4	3 K 4	3 K 6	3 K 6
Flange rating class Inlet x Outlet		150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 300
Actual Orifice diameter d_0 [mm]		43	43	43	43	43	43
Actual Orifice area A_0 [mm²]		1452	1452	1452	1452	1452	1452
Body material: WCB 1.0619							
Temperature range		Pressure range p [bar] S/G/L					
Maximum set pressure	-29 to 38 °C	19,7	Use 3 K 4 300 x 150	51,0	102,1	153,1	153,1
	39 to 232 °C	12,8		42,4	85,2	127,2	153,1
	233 to 427 °C	5,5		28,3	56,9	85,2	142,1
Outlet pressure limit Conventional design		19,7		19,7	19,7	19,7	41,4
Outlet pressure limit Balanced bellows design		10,3		10,3	13,8	13,8	13,8
Body material: CF8M 1.4408							
Temperature range		Pressure range p [bar] S/G/L					
Maximum set pressure	-268 to -60 °C	19,0	Use 3 K 4 300 x 150	36,2	41,4	41,4	51,7
	-59 to -29 °C	19,0		49,7	99,3	149,0	153,1
	-28 to 38 °C	19,0		49,7	99,3	149,0	153,1
	39 to 232 °C	12,4		34,1	67,2	102,4	171,0
	233 to 427 °C	5,5		29,0	58,3	87,2	145,5
	428 to 538 °C	1,4		24,1	48,3	72,4	120,7
Outlet pressure limit Conventional design		19,0		19,0	19,0	19,0	41,4
Outlet pressure limit Balanced bellows design		10,3		10,3	13,8	13,8	13,8
Body material: WC6 1.7357							
Temperature range		Pressure range p [bar] S/G/L					
Maximum set pressure	233 to 427 °C	–	–	35,2	70,0	105,2	153,1
	428 to 538 °C	–	–	14,8	29,7	44,8	74,5
Outlet pressure limit Conventional design		–	–	19,7	19,7	19,7	41,4
Outlet pressure limit Balanced bellows design		–	–	10,3	13,8	13,8	13,8
Body material: LCB							
Temperature range		Pressure range p [bar] S/G/L					
Maximum set pressure	-46 to 38 °C	18,4	Use 3 K 4 300 x 150	48,0	96,0	144,1	240,1
	39 to 200 °C	13,8		42,5	85,1	127,6	212,7
	201 to 343 °C	8,4		36,4	72,8	109,2	182,0
Outlet pressure limit Conventional design		19,7		19,7	19,7	19,7	41,4
Outlet pressure limit Balanced bellows design		10,3		10,3	13,8	13,8	13,8

Remark: SA 352 Gr. LCB is not listed in the API 526. Pressure-Temperature Rating acc. to ASME B16.34 Table 2-1.3
The stated Pressure-Temperature Rating are taken from ASME B16.34 Table 2-1.3

Due to the extended material test certificate the LESER LCB can be applied as LCC, WCB, WCC and 1.0619 with the respective pressure-temperature range as well.

Pressure temperature ratings

US Units

	Valve size	3 K 4	3 K 4	3 K 4	3 K 4	3 K 6	3 K 6
	Flange rating class Inlet x Outlet	150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 300
	Actual Orifice diameter d_0 [inch]	1,69	1,69	1,69	1,69	1,69	1,69
	Actual Orifice area A_0 [inch^2]	2,25	2,25	2,25	2,25	2,25	2,25
Body material: WCB 1.0619							
	Temperature range	Pressure range p [psig] S/G/L					
Maximum set pressure	-20 to 100 °F	285	Use 3 K 4 300 x 150	740	1480	2220	2200
	101 to 450 °F	185		615	1235	1845	2200
	451 to 800 °F	80		410	825	1235	2060
Outlet pressure limit Conventional design		285		285	285	285	600
Outlet pressure limit Balanced bellows design		150		150	200	200	200
Body material: CF8M 1.4408							
	Temperature range	Pressure range p [psig] S/G/L					
Maximum set pressure	-450 to -76 °F	275	Use 3 K 4 300 x 150	525	600	600	750
	-75 to -21 °F	275		720	1440	2160	2220
	-20 to 100 °F	275		720	1440	2160	2220
	101 to 450 °F	180		495	975	1485	2480
	451 to 800 °F	80		420	845	1265	2110
	801 to 1000 °F	20		350	700	1050	1750
Outlet pressure limit Conventional design		275		275	275	275	600
Outlet pressure limit Balanced bellows design		150		150	200	200	200
Body material: WC6 1.7357							
	Temperature range	Pressure range p [psig] S/G/L					
Maximum set pressure	451 to 800 °F	–	–	510	1015	1525	2220
	801 to 1000 °F	–	–	215	430	650	1080
Outlet pressure limit Conventional design		–	–	285	285	285	600
Outlet pressure limit Balanced bellows design		–	–	150	200	200	200
Body material: LCB							
	Temperature range	Pressure range p [psig] S/G/L					
Maximum set pressure	-50 to 100 °F	265	Use 3 K 4 300 x 150	695	1395	2090	3480
	101 to 400 °F	200		615	1230	1845	3075
	401 to 650 °F	125		535	1065	1600	2665
Outlet pressure limit Conventional design		285		285	285	285	600
Outlet pressure limit Balanced bellows design		150		150	200	200	200

Remark: SA 352 Gr. LCB is not listed in the API 526. Pressure-Temperature Rating acc. to ASME B16.34 Table 2-1.3
The stated Pressure-Temperature Rating are taken from ASME B16.34 Table 2-1.3

Due to the extended material test certificate the LESER LCB can be applied as LCC, WCB, WCC and 1.0619 with the respective pressure-temperature range as well.