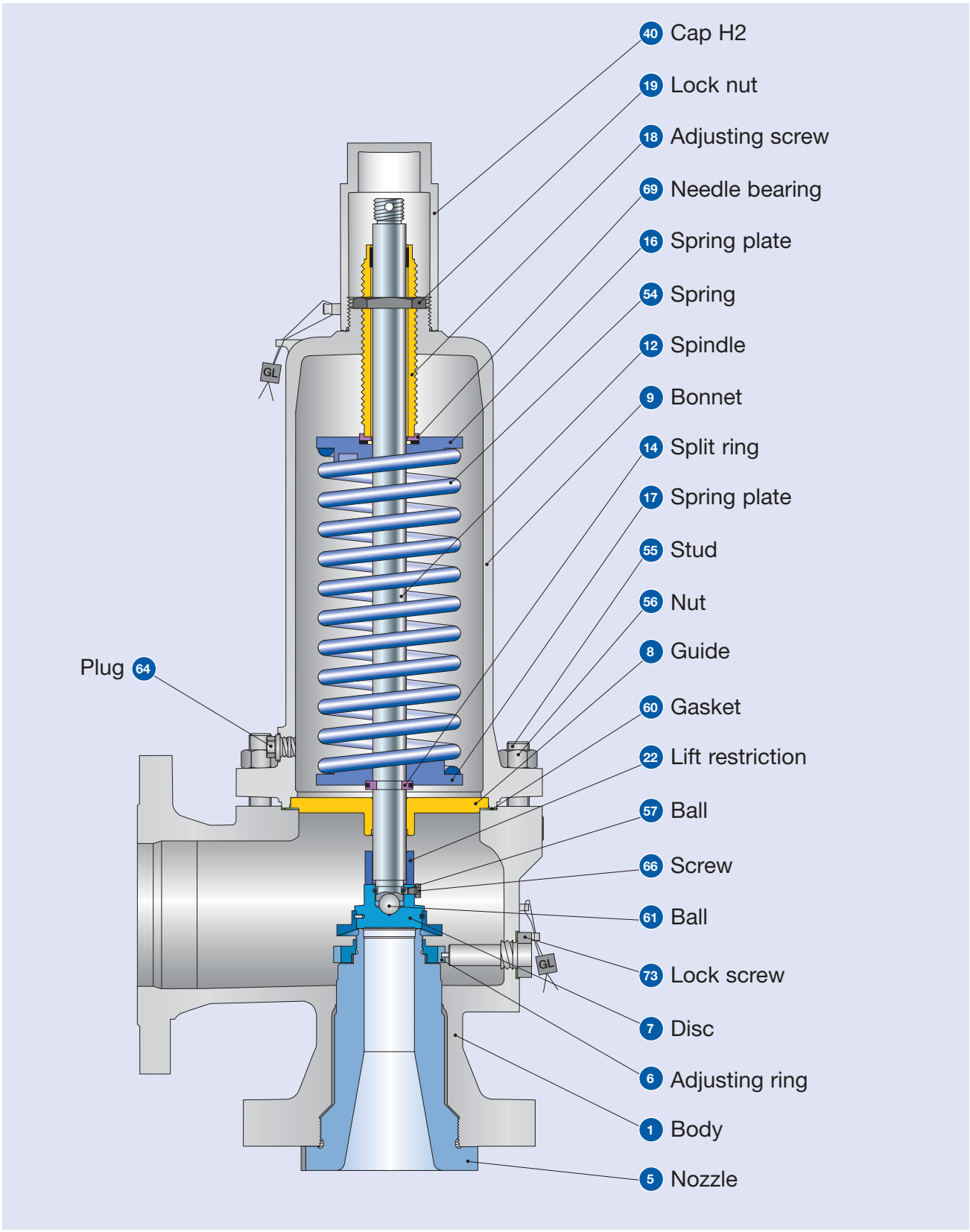
Type 526

Conventional design



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 351 CF8M	1.7357 SA 217 WC6	 SA 352 LCB
5	Nozzle[1)]	1.4408 CF8M	1.4408 CF8M	1.4408 stellited CF8M stellited	1.4408 CF8M
6	Adjusting ring	1.4408 CF8M	1.4408 CF8M	1.4408 CF8M	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 with bushing	1.0501 Steel	1.4404 316L	1.4404 316L	1.0501 Steel
		1.4104 tenifer Chrome steel tenifer	– –	– –	1.4104 tenifer Chrome steel tenifer
9	**Bonnet** Valve size 6 R 10, 8 T 10	1.0619 SA 216 WCB	1.4404, 1.4408, 1.4571 SA 479 316L, SA 351 CF8M, 316Ti	1.7357 SA 217 WC6	 SA 352 LCB
		1.0305 Steel	1.4571 SA 479 316Ti	1.0305 Steel	1.0305 Steel
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 with 15% Glas	PTFE 15% Glas PTFE with 15% Glas	PTFE 15% Glas PTFE with 15% Glas	PTFE 15% Glas PTFE with 15% Glas
19	Lock nut	1.0718 Steel	1.4404 316L	1.0718 Steel	1.0718 Steel
22	Lift restriction	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	1.7102, 1.8159 High temp. alloy steel	1.4310 Stainless steel	1.7102, 1.8159 High temp. alloy steel	1.7102, 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 Steel	1.4401 B8M	Steel Steel	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. LESER reserves also to use the nozzle material 1.4404/316L.

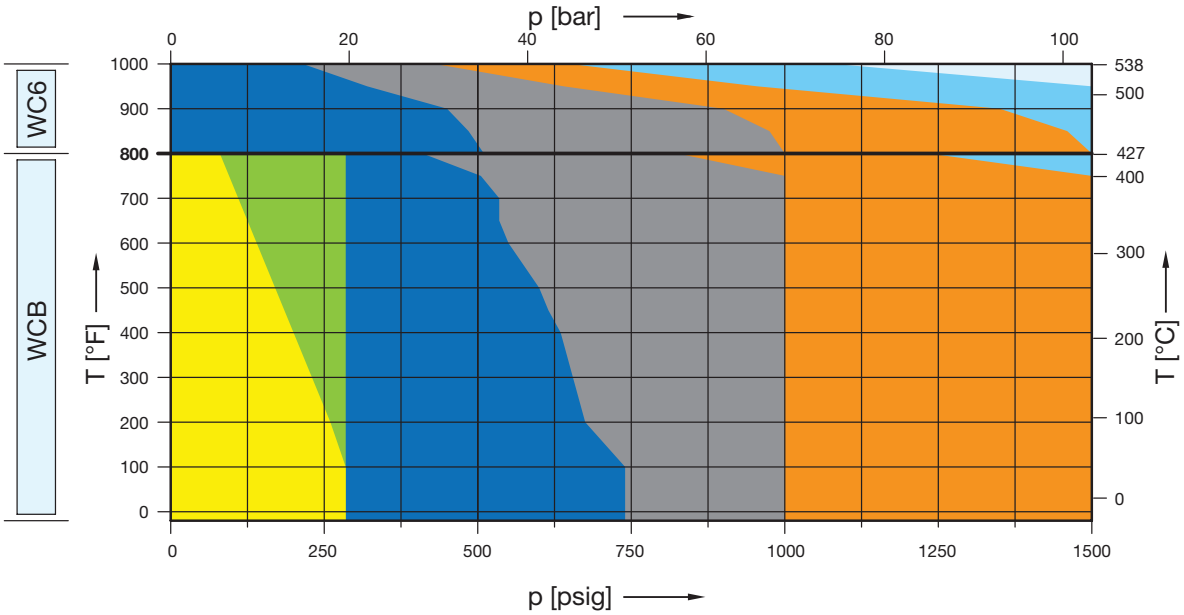
Please notice:
- Modifications reserved by LESER
- If several materials are specified LESER defines the material.
- LESER can upgrade materials without notice
- Every part can be replaced by other material acc. to customer specification.

Special materials:

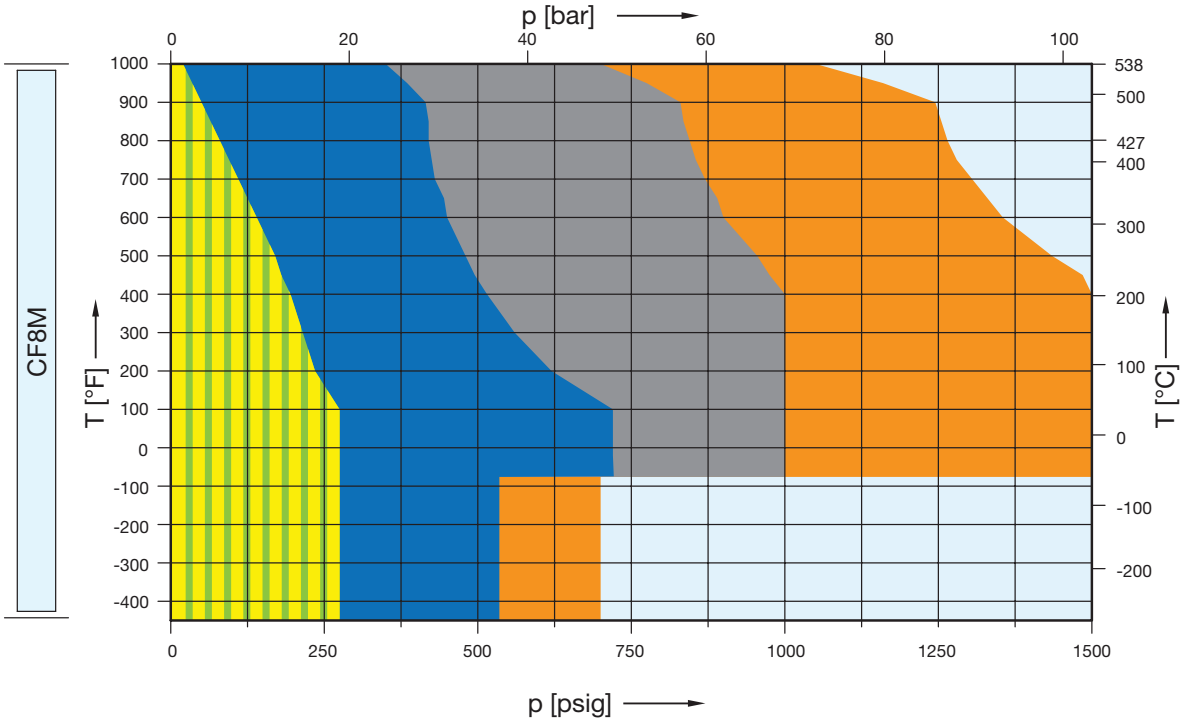
Body and trim available in various materials (Monel®, Hastelloy® ...).
For nozzle and disc machined from the bar a short lead time is possible.

Selection chart

	150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 150	2500 x 300
WCB	5262.232X	5262.233X	5262.234X	5262.235X	5262.236X	5262.237X	–
WC6	–	–	5267.238X	5267.239X	5267.240X	5267.241X	–



	150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 150	2500 x 300
CF8M	5264.242X	5264.243X	5264.244X	5264.245X	5264.246X	–	–



L

Article numbers, dimensions and weights

Article numbers

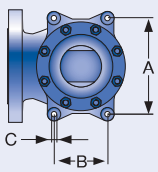
Valve size		3 L 4	3 L 4	4 L 6	4 L 6	4 L 6	4 L 6
Flange rating class Inlet x Outlet		150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 150
Actual Orifice diameter d_0 [mm]		53.5	53.5	53.5	53.5	53.5	53.5
Actual Orifice area A_0 [mm²]		2248	2248	2248	2248	2248	2248
Body material							
WCB 1.0619	Art.-No.	**5262.232**¤	**5262.233**¤	**5262.234**¤	**5262.235**¤	**5262.236**¤	**5262.237**¤
CF8M 1.4408	Art.-No.	**5264.242**¤	**5264.243**¤	**5264.244**¤	**5264.245**¤	**5264.246**¤	–
WC6 1.7357	Art.-No.	–	–	**5267.238**¤	**5267.239**¤	**5267.240**¤	**5267.241**¤
LCB	Art.-No.	**5263.540**¤	**5263.541**¤	**5263.542**¤	**5263.543**¤	**5263.544**¤	**5263.545**¤

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

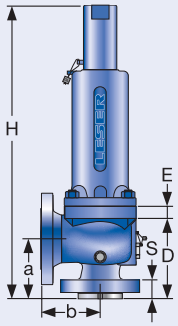
Dimensions and weights

Metric Units							
Weight [kg]		70.1	70.1	112.2	122	134.1	127.5
	with bellows	75.7	75.7	118.8	128.6	140.7	134.1
Center to face [mm]	Inlet a	156	156	179	179	197	197
	Outlet b	165	165	181	203	222	222
	s	49	49	49	57	72	72
Height (H4) [mm]	Standard H max.	758	758	853	853	871	871
	Bellows H max.	796	796	886	886	904	904
Support brackets [mm]	A	238	238	278	278	278	278
	B	140	140	160	160	160	160
	C	Ø 18	Ø 18	Ø 18	Ø 18	Ø 18	Ø 18
	D	206	206	262	262	280	280
	E	25	25	25	25	25	25
US Units							
Weight [lbs]		154.6	154.6	247.4	269	295.7	281.1
	with bellows	166.9	166.9	262	283.6	310.2	295.7
Center to face [inch]	Inlet a	6 1/8	6 1/8	7 1/16	7 1/16	7 3/4	7 3/4
	Outlet b	6 1/2	6 1/2	7 1/8	8	8 3/4	8 3/4
	s	1 15/16	1 15/16	1 15/16	2 1/4	2 3/4	2 3/4
Height (H4) [inch]	Standard H max.	29 27/32	29 27/32	33 19/32	33 19/32	34 9/32	34 9/32
	Bellows H max.	31 11/32	31 11/32	34 7/8	34 7/8	35 19/32	35 19/32
Support brackets [inch]	A	9 3/8	9 3/8	10 15/16	10 15/16	10 15/16	10 15/16
	B	5 1/2	5 1/2	6 5/16	6 5/16	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	10 15/16	10 15/16	11	11
	E	31/32	31/32	31/32	31/32	31/32	31/32

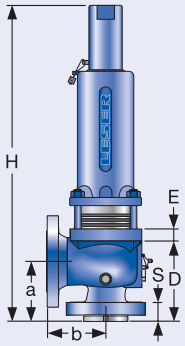
¤ Code for lifting device				
Lifting device	**H2**	**H3**	**H4**	**H3**
Bonnet	closed	closed	closed	open
WCB 1.0619, WC6 1.7357, LCB	2	3	4	5
CF8M 1.4408	2	–	4	–



Support brackets



Conventional design



Balanced bellows design

Pressure temperature ratings

Metric Units

Valve size		3 L 4	3 L 4	4 L 6	4 L 6	4 L 6	4 L 6
Flange rating class Inlet x Outlet		150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 150
Actual Orifice diameter d_0 [mm]		53.5	53.5	53.5	53.5	53.5	53.5
Actual Orifice area A_0 [mm²]		2248	2248	2248	2248	2248	2248
Minimum set pressure [bar] S/G/L		0.3	0.3	0.2	0.2	0.2	0.2
Minimum set pressure [bar] S/G Balanced bellows Inconel [bar] L		3.5 3.5	3.5 3.5	3.5 6.0	3.5 6.0	3.5 6.0	3.5 6.0
Body material: WCB 1.0619		**Pressure range p [bar] S/G/L**					
Maximum set pressure	-29 to 38 °C	19.7	19.7	51.0	69.0	103.4	–
	39 to 232 °C	12.8	19.7	42.4	69.0	103.4	–
	233 to 427 °C	5.5	19.7	28.3	56.9	85.2	103.4
Outlet pressure limit Conventional design		19.7	19.7	19.7	19.7	19.7	19.7
Outlet pressure limit Balanced bellows design		6.9	6.9	11.7	11.7	11.7	11.7
Body material: CF8M 1.4408		**Pressure range p [bar] S/G/L**					
Maximum set pressure	-268 to -60 °C	19.0	19.0	36.2	36.9	48.3	–
	-59 to -29 °C	19.0	19.0	49.7	69.0	103.4	–
	-28 to 38 °C	19.0	19.0	49.7	69.0	103.4	–
	39 to 232 °C	12.4	12.4	34.1	67.2	102.4	–
	233 to 427 °C	5.5	5.5	29.0	58.3	87.2	–
	428 to 538 °C	1.4	1.4	24.1	48.3	72.4	–
Outlet pressure limit Conventional design		19.0	19.0	19.0	19.0	19.0	–
Outlet pressure limit Balanced bellows design		6.9	6.9	11.7	11.7	11.7	–
Body material: WC6 1.7357		**Pressure range p [bar] S/G/L**					
Maximum set pressure	233 to 427 °C	–	–	35.2	69.0	103.4	103.4
	428 to 538 °C	–	–	14.8	29.7	44.8	74.5
Outlet pressure limit Conventional design		–	–	19.7	19.7	19.7	19.7
Outlet pressure limit Balanced bellows design		–	–	11.7	11.7	11.7	11.7
Body material: LCB		**Pressure range p [bar] S/G/L**					
Maximum set pressure	-46 to 38 °C	18.4	18.4	48.0	96.0	144.1	240.1
	39 to 200 °C	13.8	13.8	42.5	85.1	127.6	212.7
	201 to 343 °C	8.4	8.4	36.4	72.8	109.2	182.0
Outlet pressure limit Conventional design		18.4	18.4	18.4	18.4	18.4	18.4
Outlet pressure limit Balanced bellows design		6.9	6.9	11.7	11.7	11.7	11.7

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 if the maximum pressure is not limited by API 526.

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 L 4	3 L 4	4 L 6	4 L 6	4 L 6	4 L 6
Flange rating class Inlet x Outlet		150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 150
Actual Orifice diameter d_0 [inch]		2.11	2.11	2.11	2.11	2.11	2.11
Actual Orifice area A_0 [inch^2]		3.48	3.48	3.48	3.48	3.48	3.48
Minimum set pressure [psig] S/G/L		4.0	4.0	3.0	3.0	3.0	3.0
Minimum set pressure [psig] S/G		50.8	50.8	50.8	50.8	50.8	50.8
Balanced bellows Inconel [psig] L		50.8	50.8	87.0	87.0	87.0	87.0
Body material: WCB 1.0619		**Pressure range p [psig] S/G/L**					
Maximum set pressure	-20 to 100 °F	285	285	740	1000	1500	–
	101 to 450 °F	185	285	615	1000	1500	–
	451 to 800 °F	80	285	410	825	1235	1500
Outlet pressure limit Conventional design		285	285	285	285	285	285
Outlet pressure limit Balanced bellows design		100	100	170	170	170	170
Body material: CF8M 1.4408		**Pressure range p [psig] S/G/L**					
Maximum set pressure	-450 to -76 °F	275	275	535	535	700	–
	-75 to -21 °F	275	275	720	1000	1500	–
	-20 to 100 °F	275	275	720	1000	1500	–
	101 to 450 °F	180	180	495	975	1485	–
	451 to 800 °F	80	80	420	845	1265	–
	801 to 1000 °F	20	20	350	700	1050	–
Outlet pressure limit Conventional design		275	275	275	275	275	–
Outlet pressure limit Balanced bellows design		100	100	170	170	170	–
Body material: WC6 1.7357		**Pressure range p [psig] S/G/L**					
Maximum set pressure	451 to 800 °F	–	–	510	1000	1500	1500
	801 to 1000 °F	–	–	215	430	650	1080
Outlet pressure limit Conventional design		–	–	285	285	285	285
Outlet pressure limit Balanced bellows design		–	–	170	170	170	170
Body material: LCB		**Pressure range p [psig] S/G/L**					
Maximum set pressure	-50 to 100 °F	265	265	695	1395	2090	3480
	101 to 400 °F	200	200	615	1230	1845	3075
	401 to 650 °F	125	125	535	1065	1600	2665
Outlet pressure limit Conventional design		265	265	265	265	265	265
Outlet pressure limit Balanced bellows design		100	100	170	170	170	170

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 if the maximum pressure is not limited by API 526.

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.