

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

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	1.4408	1.7357	
		SA 216 WCB	SA 315 CF8M	SA 217 WC6	SA 352 LCB
5	Nozzle ²⁾	1.4404	1.4404	1.4404 stellited	1.4404
		316 L	316L	316L stellited	316L
6	Adjusting ring	1.4408	1.4408	1.4404	1.4408
		CF8M	CF8M	316L	CF8M
7	Disc	1.4122	1.4404 stellited	1.4122	1.4122
		Hardened stainless steel	316L stellited	Hardened stainless steel	Hardened stainless steel
8	Guide	1.4404	1.4404	1.4404	1.4404
		316 L	316L	316L	316L
9	Bonnet	1.0619	1.4404, 1.4571	1.7357	
		SA 216 WCB	SA 479 316L, 316Ti	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	1.4021	1.4021	1.4021
		420	420	420	420
14	Split ring	1.4104	1.4404	1.4104	1.4104
		Chrome steel	316L	Chrome steel	Chrome steel
15	Bellows	1.4571	1.4571	1.4571	1.4571
		316 Ti	316 Ti	316 Ti	316 Ti
16 / 17	Spring plate	1.0718	1.4404	1.0718	1.0718
		Steel	316L	Steel	Steel
18	Adjusting screw	1.4104	1.4404 tenifer	1.4104	1.4104
		Chrome steel	316L tenifer	Chrome steel	Chrome steel
	with bushing	PTFE with 15% Glas - " -	PTFE 15% Glas - " -	PTFE 15% Glas - " -	PTFE 15% Glas - " -
19	Lock nut	1.0718	1.4404	1.0718	1.0718
		Steel	316L	Steel	Steel
22	Lift stopper	1.4404	1.4404	1.4404	1.4404
		316L	316L	316L	316L
40	Cap H2	1.0718	1.4404	1.0718	1.0718
		Steel	316L	Steel	Steel
54	Spring	1.8159	1.4310	1.8159	1.8159
		High temp. alloy steel	Stainless steel	High temp. alloy steel	High temp. alloy steel
55	Stud	1.4401	1.4401	1.7709	1.4401
		B8M	B8M	B16	B8M
56	Nut	1.4401	1.4401	1.7258	1.4401
		8M	8M	7M	8M
57	Ball	1.4401	1.4401	1.4401	1.4401
		316	316	316	316
60	Gasket	Graphite / 1.4401	Graphite / 1.4401	Graphite / 1.4401	Graphite / 1.4401
		Graphite / 316	Graphite / 316	Graphite / 316	Graphite / 316
61	Ball	1.3541	1.4401	1.3541	1.3541
		Hardened stainless steel	316	Hardened stainless steel	Hardened stainless steel
66	Screw	1.4401	1.4401	1.4401	1.4401
		B8M	B8M	B8M	B8M
69	Needle bearing	1.4404	1.4404	1.4404	1.4404
		316L	316 L	316L	316L
73	Lock screw	1.4404	1.4404	1.4404	1.4404
		8M	8M	8M	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.

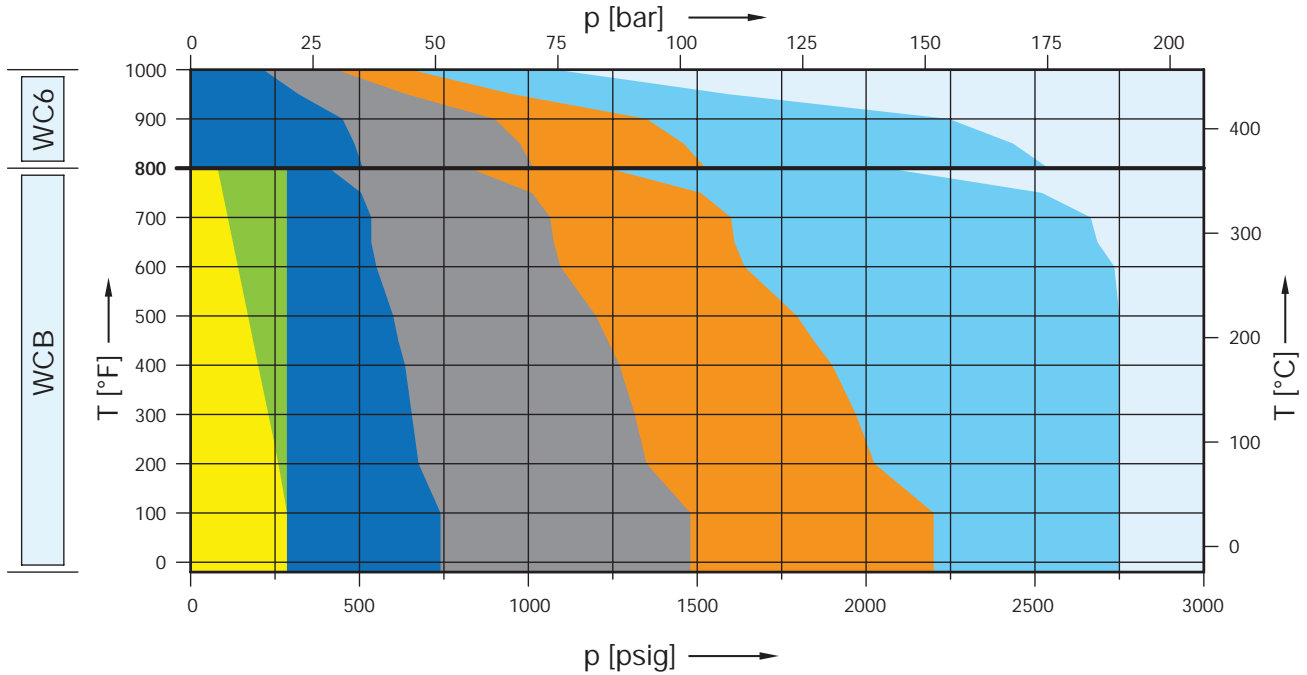
LWN 480.01-E

Special materials:

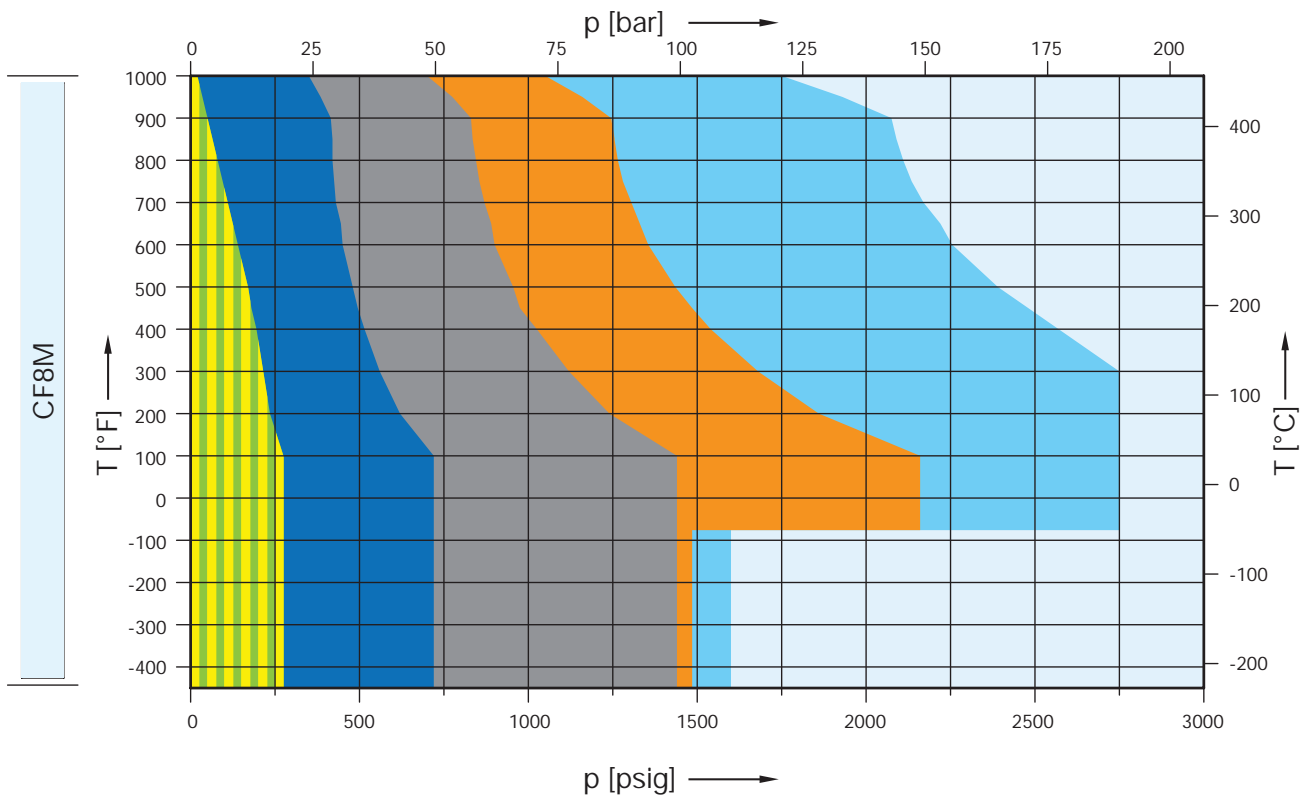
Body and trim available in various materials (Monel®, Hastelloy® ...).
For nozzle and disc machined from the bar a short lead time is possible.

Selection chart

	150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 300	2500 x 300
WCB	5262.142X	5262.143X	5262.144X	5262.145X	5262.146X	5262.147X	-
WC6	-	-	5267.148X	5267.149X	5267.150X	5267.151X	-



	150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 300	2500 x 300
CF8M	5264.152X	5264.153X	5264.154X	5264.155X	5264.156X	5264.157X	-



Article numbers, dimensions and weights

Article numbers

Valve size	1 1/2 H 3	1 1/2 H 3	2 H 3	2 H 3	2 H 3	2 H 3
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]	28,3	28,3	28,3	28,3	28,3	28,3
Actual Orifice area A ₀ [mm ²]	629	629	629	629	629	629
Body material						
WCB 1.0619	Art.-No. 5262.142 ^{ra}	5262.143 ^{ra}	5262.144 ^{ra}	5262.145 ^{ra}	5262.146 ^{ra}	5262.147 ^{ra}
CF8M 1.4408	Art.-No. 5264.152 ^{ra}	5264.153 ^{ra}	5264.154 ^{ra}	5264.155 ^{ra}	5264.156 ^{ra}	5264.157 ^{ra}
WC6 1.7357	Art.-No. -	-	5267.148 ^{ra}	5267.149 ^{ra}	5267.150 ^{ra}	5267.151 ^{ra}
LCB	Art.-No. 5263.523 ^{ra}	5263.524 ^{ra}	5263.525 ^{ra}	5263.526 ^{ra}	5263.527 ^{ra}	5263.528 ^{ra}

^{ra}) Please add code for the required cap or lifting device. See below.

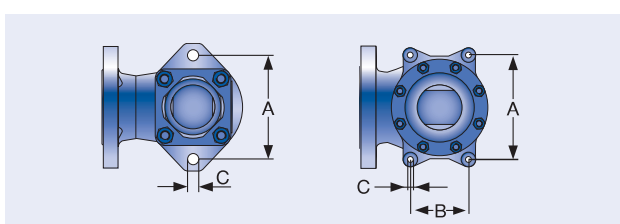
Dimensions and weights

Metric Units							
Weight [kg]		30,6	30,6	44,6	62,2	62,2	62,2
	with bellows	33,1	33,1	48,4	65,3	65,3	65,3
Center to face [mm]	Inlet a	130	130	130	154	154	154
	Outlet b	124	124	124	162	162	162
	s	38	38	43	56	56	56
Height (H4) [mm]	Standard H max.	542	542	666	691	691	691
	Bellows H max.	580	580	692	717	717	717
Support brackets [mm]	A	162	162	184	184	184	184
	B	-	-	110	110	110	110
	C	Ø 14	Ø 14	Ø 14	Ø 14	Ø 14	Ø 14
	D	155	155	177	202	202	202
	E	16	16	16	16	16	16
US Units							
Weight [lbs]		67,5	67,5	98,3	137,2	137,2	137,2
	with bellows	73	73	106,7	144	144	144
Center to face [inch]	Inlet a	5 1/8	5 1/8	5 1/8	6 1/16	6 1/16	6 1/16
	Outlet b	4 7/8	4 7/8	4 7/8	6 3/8	6 3/8	6 3/8
	s	1 1/2	1 1/2	1 1/16	2 3/16	2 3/16	2 3/16
Height (H4) [inch]	Standard H max.	21 11/32	21 11/32	26 7/32	27 7/32	27 7/32	27 7/32
	Bellows H max.	22 27/32	22 27/32	27 1/4	28 7/32	28 7/32	28 7/32
Support brackets [inch]	A	6 3/8	6 3/8	7 1/4	7 1/4	7 1/4	7 1/4
	B	-	-	4 11/32	4 11/32	4 11/32	4 11/32
	C	Ø 9/16	Ø 9/16	Ø 9/16	Ø 9/16	Ø 9/16	Ø 9/16
	D	6 3/32	6 3/32	6 31/32	7 15/16	7 15/16	7 15/16
	E	5/8	5/8	5/8	5/8	5/8	5/8

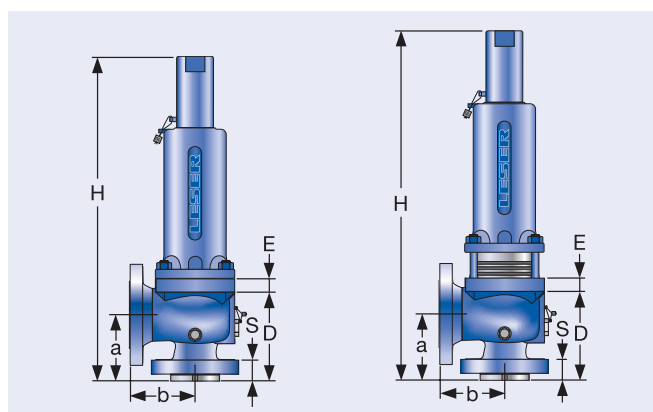
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Code for lifting device

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		1 1/2 H 3	1 1/2 H 3	2 H 3	2 H 3	2 H 3	2 H 3
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]		28,3	28,3	28,3	28,3	28,3	28,3
Actual Orifice area A ₀ [mm ²]		625	625	625	625	625	625
Body material: WCB 1.0619							
Temperature range		Pressure range p [bar] S/G/L					
Maximum set pressure	-29 to 38 °C	19,7	19,7	51,0	102,1	153,1	189,7
	39 to 232 °C	12,8	19,7	42,4	85,2	127,2	189,7
	233 to 427 °C	5,5	19,7	28,3	56,9	85,2	142,1
Outlet pressure limit Conventional design		19,7	19,7	19,7	19,7	19,7	51,0
Outlet pressure limit Balanced bellows design		15,9	15,9	15,9	15,9	15,9	28,6
Body material: CF8M 1.4408							
Temperature range		Pressure range p [bar] S/G/L					
Maximum set pressure	-268 to -60 °C	19,0	19,0	49,7	99,3	102,4	110,3
	-59 to -29 °C	19,0	19,0	49,7	99,3	149,0	189,7
	-28 to 38 °C	19,0	19,0	49,7	99,3	149,0	189,7
	39 to 232 °C	12,4	12,4	34,1	67,2	102,4	171,0
	233 to 427 °C	5,5	5,5	29,0	58,3	87,2	145,5
428 to 538 °C	1,4	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	41,4
Outlet pressure limit Balanced bellows design		15,9	15,9	15,9	15,9	15,9	28,6
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	175,2
	428 to 538 °C	-	-	14,8	29,7	44,8	74,5
Outlet pressure limit Conventional design		-	-	19,7	19,7	19,7	51,0
Outlet pressure limit Balanced bellows design		-	-	15,9	15,9	15,9	28,6
Body material: LCB							
Temperature range		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		19,7	19,7	19,7	19,7	19,7	51,0
Outlet pressure limit Balanced bellows design		15,9	15,9	15,9	15,9	15,9	28,6

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		1 1/2 H 3	1 1/2 H 3	2 H 3	2 H 3	2 H 3	2 H 3
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]		1,11	1,11	1,11	1,11	1,11	1,11
Actual Orifice area A ₀ [inch ²]		0,975	0,975	0,975	0,975	0,975	0,975
Body material: WCB 1.0619							
Temperature range		Pressure range p [psig] S/G/L					
Maximum set pressure	-20 to 100 °F	285	285	740	1480	2220	2750
	101 to 450 °F	185	285	615	1235	1845	2750
	451 to 800 °F	80	285	410	825	1235	2060
Outlet pressure limit Conventional design		285	285	285	285	285	740
Outlet pressure limit Balanced bellows design		230	230	230	230	230	415
Body material: CF8M 1.4408							
Temperature range		Pressure range p [psig] S/G/L					
Maximum set pressure	-450 to -76 °F	275	275	720	1440	1485	1600
	-75 to -21 °F	275	275	720	1440	2160	2750
	-20 to 100 °F	275	275	720	1440	2160	2750
	101 to 450 °F	180	180	495	975	1485	2480
	451 to 800 °F	80	80	420	845	1265	2110
801 to 1000 °F	20	20	350	700	1050	1750	
Outlet pressure limit Conventional design		275	275	275	275	600	600
Outlet pressure limit Balanced bellows design		230	230	230	230	230	415
Body material: WC6 1.7357							
Temperature range		Pressure range p [psig] S/G/L					
Maximum set pressure	451 to 800 °F	-	-	510	1015	1525	2540
	801 to 1000 °F	-	-	215	430	650	1080
Outlet pressure limit Conventional design		-	-	285	285	285	740
Outlet pressure limit Balanced bellows design		-	-	230	230	230	415
Body material: LCB							
Temperature range		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		285	285	285	285	285	740
Outlet pressure limit Balanced bellows design		230	230	230	230	230	415

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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.