

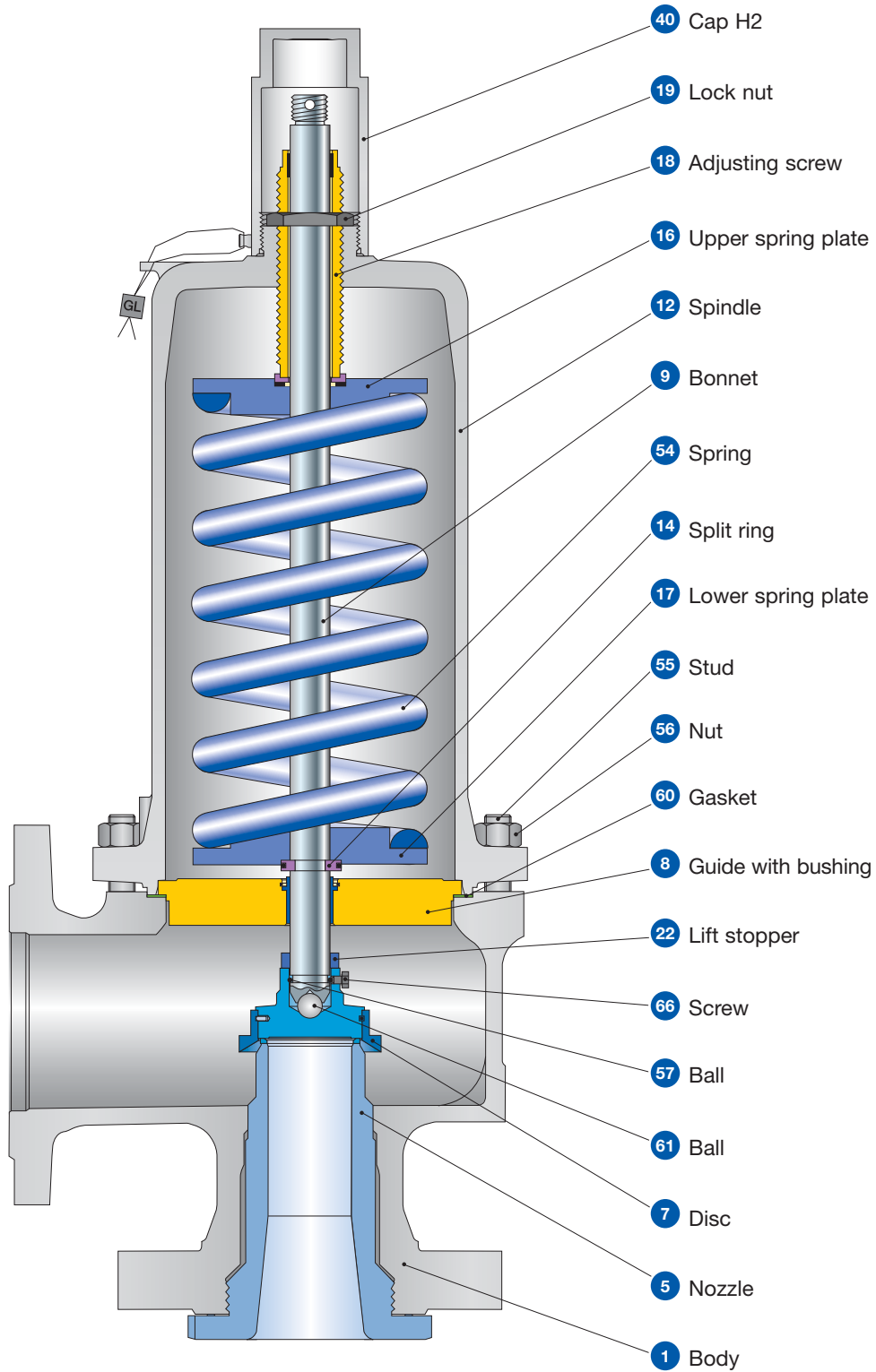


Type 458
 Packed lever H4
 Closed bonnet
 Conventional design

Type 457, 458
Flanged Safety Relief Valves

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Type 457, 458
Conventional design



Type 457, 458

Conventional design

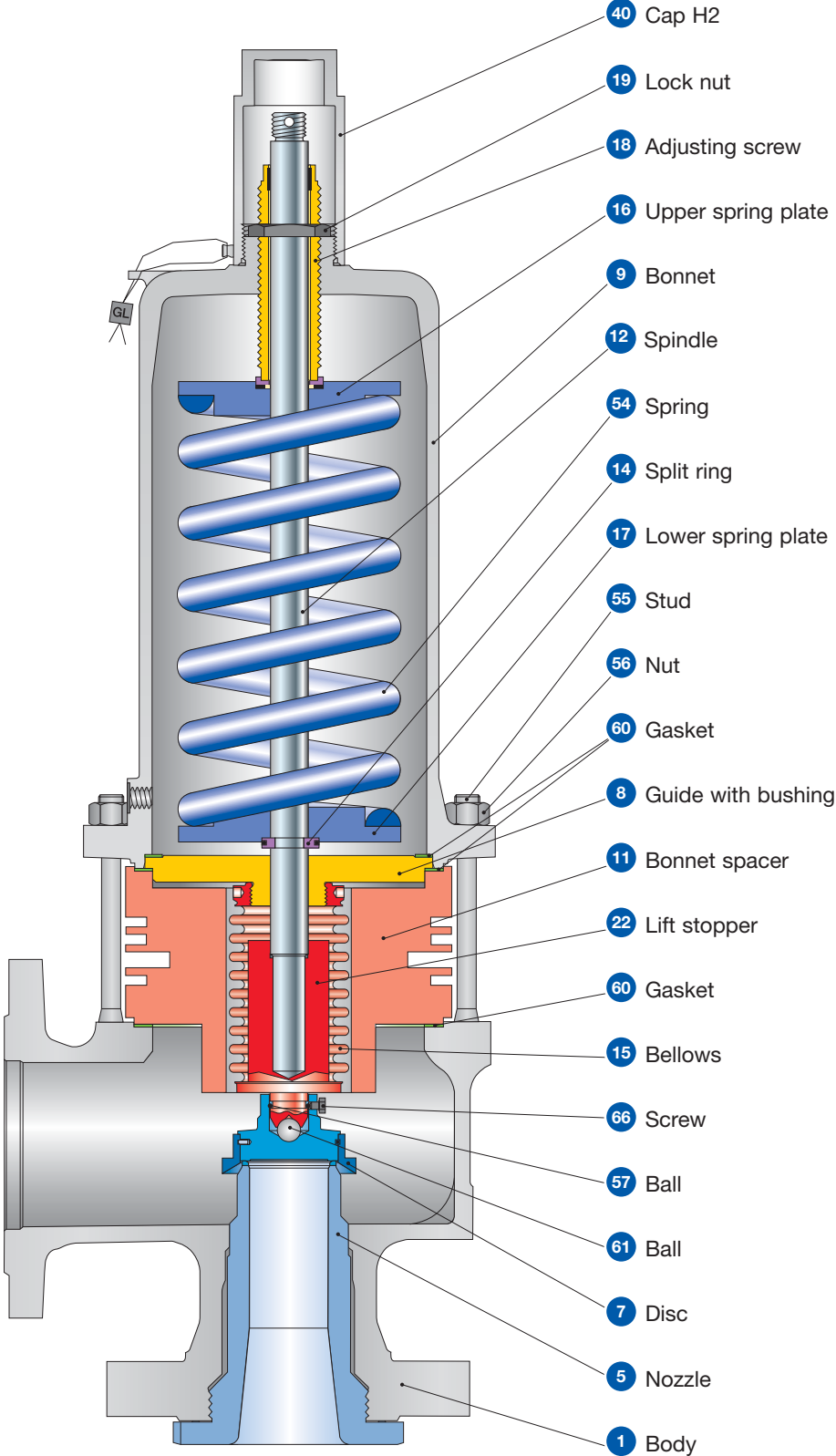
Materials

Item	Component	Type 4572 / 4582	Type 4577 / 4587	Type 4584
1	Body	1.0619	1.7357	1.4581
		SA 216 WCB	SA 217 WC6	SA 351 CF10M
5	Nozzle	1.4404 stellited	1.4404 stellited	1.4404 stellited
		316L stellited	316L stellited	316L stellited
7	Disc	1.4122	1.4122	1.4404
		Hardened stainless steel	Hardened stainless steel	316L
8	Guide with bushing	1.0501, 0.7040 Chrome or carbon steel	1.0501, 0.7040 Chrome or carbon steel	1.4404 316L
		1.4104 tenifer Chrome steel	1.4104 tenifer Chrome steel	–
9	Bonnet	0.7043 (Open bonnet 0.7040), 1.0619	0.7043 (Open bonnet 0.7040), 1.0619	1.4408, 1.4404, 1.4571
		Ductile Gr. 60-40-18, SA 216 WCB	Ductile Gr. 60-40-18, SA 216 WCB	SA 351 CF8M, SA 479 316L, 316Ti
12	Spindle	1.4404	1.4404	1.4404
		316L	316L	316L
14	Split ring	1.4104	1.4104	1.4404
		Chrome steel	Chrome steel	316L
16 / 17	Spring plate	1.0718	1.0718	1.4404
		Steel	Steel	316L
18	Adjusting screw with bushing	1.4104 PTFE	1.4104 PTFE	1.4404 PTFE
		Chrome steel PTFE	Chrome steel PTFE	316L PTFE
19	Lock nut	1.0718	1.0718	1.4404
		Steel	Steel	316L
22	Lift stopper	1.4404	1.4404	1.4404
		316L	316L	316L
40	Cap H2	1.0460	1.4404	1.4404
		SA 105	316L	316L
54	Spring standard	1.1200, 1.8159, 1.7102	1.1200, 1.8159, 1.7102	1.4310
		Carbon steel	Carbon steel	Stainless steel
	Spring optional	1.4310	1.4310	–
		Stainless steel	Stainless steel	–
55	Stud	1.4401	1.4401	1.4401
		B8M	B8M	B8M
56	Nut	1.4401	1.4401	1.4401
		8M	8M	8M
57	Ball	1.4401	1.4401	1.4401
		316	316	316
60	Gasket	Graphite / 1.4401	Graphite / 1.4401	Graphite / 1.4401
		Graphite / 316L	Graphite / 316L	Graphite / 316L
61	Ball	1.3541	1.3541	1.4401
		Hardened stainless steel	Hardened stainless steel	316
66	Screw	1.4401	1.4401	1.4401
		B8M	B8M	B8M

Please notice:

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

Type 457, 458
Balanced bellows design



Type 457, 458

Balanced bellows design

Materials

Item	Component	Type 4572 / 4582	Type 4577 / 4587	Type 4584
1	Body	1.0619	1.7357	1.4581
		SA 216 WCB	SA 217 WC6	SA 351 CF10M
5	Nozzle	1.4404 stellited	1.4404 stellited	1.4404 stellited
		316L stellited	316L stellited	316L stellited
7	Disc	1.4122	1.4122	1.4404
		Hardened stainless steel	Hardened stainless steel	316L
8	Guide with bushing	1.0501, 0.7040	1.0501, 0.7040	1.4404
		Chrome or carbon steel	Chrome or carbon steel	316L
		1.4104 tenifer Chrome steel	1.4104 tenifer Chrome steel	-
9	Bonnet	0.7043 or 1.0619	0.7043 or 1.0619	1.4408, 1.4404, 1.4571
		Ductile Gr. 60-40-18 or SA 216 WCB	Ductile Gr. 60-40-18 or SA 216 WCB	SA 351 CF8M, SA 479 316L, 316Ti
11	Bonnet spacer	1.0460	1.0460	1.4404
		Carbon steel	Carbon steel	316L
12	Spindle	1.4404	1.4404	1.4404
		316L	316L	316L
14	Split ring	1.4104	1.4104	1.4404
		Chrome steel	Chrome steel	316L
15	Bellows	1.4571	1.4571	1.4571
		316Ti	316Ti	316Ti
16 / 17	Spring plate	1.0718	1.0718	1.4404
		Steel	Steel	316L
18	Adjusting screw with bushing	1.4104 PTFE	1.4104 PTFE	1.4404 PTFE
		Chrome steel PTFE	Chrome steel PTFE	316L PTFE
19	Lock nut	1.0718	1.0718	1.4404
		Steel	Steel	316L
22	Lift stopper	1.4404	1.4404	1.4404
		316L	316L	316L
40	Cap H2	1.0460	1.4404	1.4404
		SA 105	316L	316L
54	Spring standard	1.1200, 1.8159, 1.7102	1.1200, 1.8159, 1.7102	1.4310
		Carbon steel	Carbon steel	Stainless steel
	Spring optional	1.4310	1.4310	-
55	Stud	1.7709	1.7709	1.4401
		B16	B16	B8M
56	Nut	1.7258	1.7258	1.4401
		7M	7M	8M
57	Ball	1.4401	1.4401	1.4401
		316	316	316
60	Gasket	Graphite / 1.4401	Graphite / 1.4401	Graphite / 1.4401
		Graphite / 316L	Graphite / 316L	Graphite / 316L
61	Ball	1.3541	1.3541	1.4401
		Hardened stainless steel	Hardened stainless steel	316
66	Screw	1.4401	1.4401	1.4401
		B8M	B8M	B8M

Bitte beachten:

- LESER behält sich Änderungen vor.
- LESER kann, ohne vorherige Benachrichtigung, höherwertige Materials einsetzen.
- Jedes Bauteil kann entsprechend der Kundenspezifikation in einem anderen Werkstoff ausgeführt werden.

Type 457, 458

Article numbers

	DN _{I+O}	25 x 50	25 x 50	50 x 80	50 x 80	80 x 100	80 x 100
	Valve size	1" x 2"	1" x 2"	2" x 3"	2" x 3"	3" x 4"	3" x 4"
	Actual Orifice diameter d ₀ [mm]	15	20	30	40	50	60
	Actual Orifice area A ₀ [mm ²]	177	314	707	1257	1964	2827

Body material: 1.0619 (WCB)

Bonnet closed	H2	Art. No. 4582.	6102	6112	6122	6132	6142	6152
	H3	Art. No. 4582.	6103	6113	6123	6133	6143	6153
	H4	Art. No. 4582.	6104	6114	6124	6134	6144	6154
open	H3	Art. No. 4572.	6105	6115	6125	6135	6145	6155

Body material: 1.7357 (WC6)

Bonnet closed	H2	Art. No. 4587.	6302	6312	6322	6332	6342	6352
	H3	Art. No. 4587.	6303	6313	6323	6333	6343	6353
	H4	Art. No. 4587.	6304	6314	6324	6334	6344	6354
open	H3	Art. No. 4577.	6305	6315	6325	6335	6345	6355

Body material: 1.4581 (CF10M)

Bonnet closed	H2	Art. No. 4584.	6202	6212	6222	6232	6242	6252
	H4	Art. No. 4584.	6204	6214	6224	6234	6244	6254

	DN _{I+O}	100 x 150	100 x 150	100 x 150	100 x 150	150 x 250
	Valve size	4" x 6"	4" x 6"	4" x 6"	4" x 6"	6" x 10"
	Actual Orifice diameter d ₀ [mm]	50	60	74	88	110
	Actual Orifice area A ₀ [mm ²]	1964	2827	4301	6082	9503

Body material: 1.0619 (WCB)

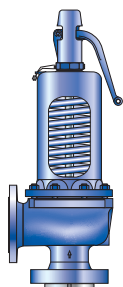
Bonnet closed	H2	Art. No. 4582.	6162	6172	6182	6192	4602
	H3	Art. No. 4582.	-	-	-	-	-
	H4	Art. No. 4582.	6124	6174	6184	6194	4604
open	H3	Art. No. 4572.	6125	6175	6185	6195	4605

Body material: 1.7357 (WC6)

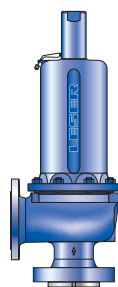
Bonnet closed	H2	Art. No. 4587.	6362	6372	6382	6392	-
	H3	Art. No. 4587.	-	-	-	-	-
	H4	Art. No. 4587.	6364	6374	6384	6394	-
open	H3	Art. No. 4577.	6365	6375	6385	6395	-

Body material: 1.4581 (CF10M)

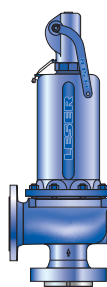
Bonnet closed	H2	Art. No. 4584.	6262	6272	6282	6292	1.4408 (CF8M)	4732
	H4	Art. No. 4584.	6264	6274	6284	6294	4734	



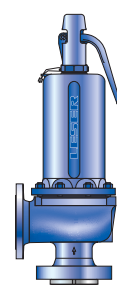
Type 457
Plain lever H3
Open bonnet
Conventional design



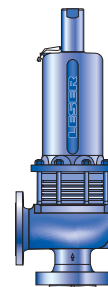
Type 458
Cap H2
Closed bonnet
Conventional design



Type 458
Packed lever H4
Closed bonnet
Conventional design



Type 458
Plain lever H3
Closed bonnet
Conventional design



Type 458
Cap H2
Closed bonnet
Balanced bellows design

Type 457, 458

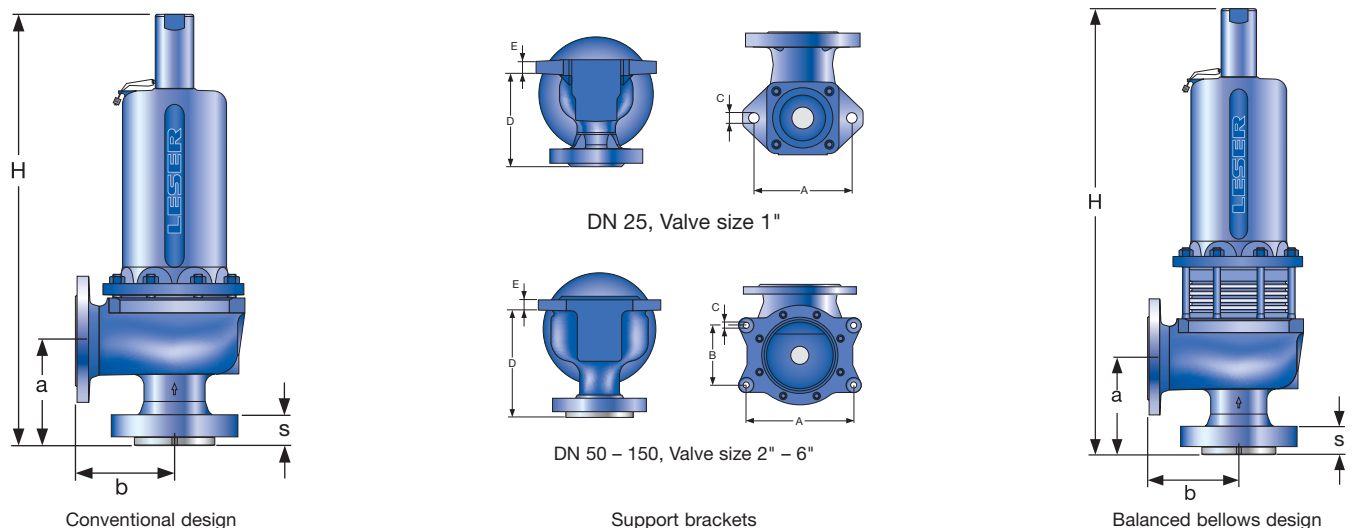
Dimensions and weights

Metric Units

	DN _{trO}	25 x 50	25 x 50	50 x 80	50 x 80	80 x 100	80 x 100	100 x 150	100 x 150	100 x 150	100 x 150	150 x 250
Valve size		1" x 2"	1" x 2"	2" x 3"	2" x 3"	3" x 4"	3" x 4"	4" x 6"	4" x 6"	4" x 6"	4" x 6"	6" x 10"
Actual Orifice diameter d _o [mm]		15	20	30	40	50	60	50	60	74	88	110
Actual Orifice area A _o [mm ²]		177	314	707	1257	1964	2827	1964	2827	4301	6082	9503
Weight [kg]		20	20	45	45	88	88	157	157	157	157	131
	with bellows	22	22	48	48	108	108	188	188	188	188	162
Center to face ¹⁾ [mm]	Inlet a	135	135	170	170	190	190	225	225	225	225	300
	Outlet b PN 40	120	120	145	145	180	180	235	235	235	235	225
	Outlet b PN 63	120	120	145	145	205	205	265	265	265	265	-
	Outlet b PN 160	130	130	-	-	-	-	-	-	-	-	-
Measure [mm]	PN 40 – 160	s	41	41	53	53	53	60	60	60	60	43
Used to find bolt length for inlet flange	PN 250	s	41	41	53	53	60	60	68	68	68	-
	PN 400	s	50	50	-	-	-	-	-	-	-	-
Height (H4) [mm]	Standard H max.	506	506	699	699	832	832	1079	1079	1079	1079	1098
	Bellows H max.	541	541	779	779	930	930	1170	1170	1170	1170	1156
Support brackets [mm]	A	140	140	184	184	278	278	364	364	364	364	320
	B	-	-	110	110	160	160	210	210	210	210	185
(drilled only on request, Option code H42)	C	Ø 14	Ø 14	Ø 14	Ø 14	Ø 18	Ø 18	Ø 18	Ø 18	Ø 18	Ø 18	Ø 18
	D	162	162	209	209	240	240	303	303	303	303	392
	E	18	18	18	18	27	27	32	32	32	32	28
Body material: 1.0619 (WCB)												
DIN Flange ²⁾	Inlet	PN 63 – 250					PN 63 – 160					PN 40
	Outlet	PN 40 – 63					PN 40					PN 16
Body material: 1.7357 (WC6)												
DIN Flange ²⁾	Inlet	PN 63 – 250					PN 63 – 160					-
	Outlet	PN 40 – 63					PN 40					-
Body material: 1.4581 (CF10M)												1.4408 (CF8M)
DIN Flange ²⁾	Inlet	PN 63 – 250					PN 63 – 160					PN 40
	Outlet	PN 40 – 63					PN 40					PN 16

¹⁾ Please note: For design with welding flanges attention should be paid to differing center to face dimensions.

²⁾ Standard flange rating. For other flange drillings please refer to page 97.



Type 457, 458

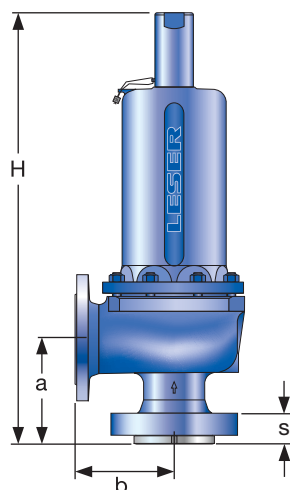
Dimensions and weights

US Units

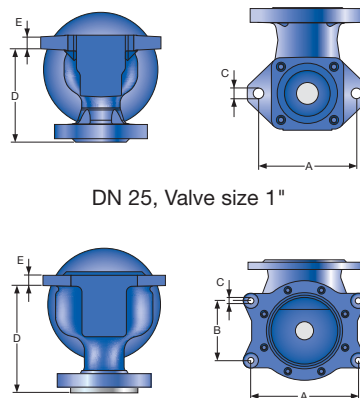
	DN _{I+O}	25 x 50	25 x 50	50 x 80	50 x 80	80 x 100	80 x 100	100 x 150	100 x 150	100 x 150	100 x 150	150 x 250
	Valve size	1" x 2"	1" x 2"	2" x 3"	2" x 3"	3" x 4"	3" x 4"	4" x 6"	4" x 6"	4" x 6"	4" x 6"	6" x 10"
	Actual Orifice diameter d ₀ [inch]	0.59	0.79	1.18	1.57	1.97	2.36	1.97	2.36	2.91	3.46	4.33
	Actual Orifice area A ₀ [inch ²]	0.274	0.487	1.096	1.948	3.043	4.383	3.043	4.383	6.666	9.427	14.730
Weight [lbs]		44	44	99	99	194	194	346	346	346	346	289
	with bellows	49	49	106	106	238	238	415	415	415	415	357
Center to face¹⁾ [inch]	Inlet a	5 5/16	5 5/16	6 11/16	6 11/16	7 15/32	7 15/32	8 27/32	8 27/32	8 27/32	8 27/32	11 13/16
	Outlet b CL150	4 23/32	4 23/32	5 23/32	5 23/32	7 3/32	7 3/32	9 1/4	9 1/4	9 1/4	9 1/4	8 27/32
	Outlet b CL300	4 23/32	4 23/32	5 23/32	5 23/32	-	-	-	-	-	-	-
Measure [inch]	CL150	s	-	-	-	-	-	-	-	-	-	1 11/16
Used to find bolt length for inlet flange	CL300 – 600	s	1 5/8	1 5/8	2 1/16	2 1/16	2 1/16	2 3/8	2 3/8	2 3/8	2 3/8	-
	CL300 – 1500	s	1 5/8	1 5/8	2 1/16	2 1/16	-	-	-	-	-	-
Height (H4) [inch]	Standard H max.	19 29/32	19 29/32	27 17/32	27 17/32	32 3/4	32 3/4	42 1/2	42 1/2	42 1/2	42 1/2	43 7/32
	Bellows H max.	21 5/16	21 5/16	30 21/32	30 21/32	36 5/8	36 5/8	46 1/16	46 1/16	46 1/16	46 1/16	45 1/2
Support brackets [inch]	A	5 1/2	5 1/2	7 1/4	7 1/4	10 15/16	10 15/16	4 11/32	4 11/32	4 11/32	4 11/32	12 19/32
	B	-	-	4 11/32	4 11/32	6 5/16	6 5/16	8 9/32	8 9/32	8 9/32	8 9/32	7 9/32
(drilled only on request, Option code H42)	C	Ø 9/16	Ø 9/16	Ø 9/16	Ø 9/16	Ø 23/32	Ø 23/32	Ø 23/32	Ø 23/32	Ø 23/32	Ø 23/32	Ø 23/32
	D	6 3/8	6 3/8	8 7/32	8 7/32	9 7/16	9 7/16	11 11/32	11 11/32	11 11/32	11 11/32	15 7/16
	E	23/32	23/32	23/32	23/32	1 1/16	1 1/16	1 1/4	1 1/4	1 1/4	1 1/4	1 3/32
Body material: 1.0619 (WCB)												
ANSI Flange	Inlet	CL300 – 1500					CL300 – 600					CL150
Class²⁾	Outlet	CL150 – 300					CL150					CL150
Body material: 1.7357 (WC6)												
ANSI Flange	Inlet	CL300 – 1500					CL300 – 600					-
Class²⁾	Outlet	CL150 – 300					CL150					-
Body material: 1.4581 (CF10M)												1.4408 (CF8M)
ANSI Flange	Inlet	CL300 – 1500					CL300 – 600					CL150
Class²⁾	Outlet	CL150 – 300					CL150					CL150

¹⁾ Please note: For design with welding flanges attention should be paid to differing center to face dimensions.

²⁾ Standard flange rating. For other flange drillings please refer to page 97.



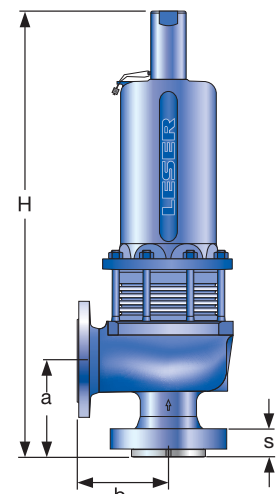
Conventional design



DN 25, Valve size 1"

DN 50 – 150, Valve size 2" – 6"

Support brackets



Balanced bellows design

Type 457, 458

Pressure temperature ratings

Metric Units

DN _{I+O}	25 x 50	25 x 50	50 x 80	50 x 80	80 x 100	80 x 100	100 x 150	100 x 150	100 x 150	100 x 150	100 x 150	150 x 250
Valve size	1" x 2"	1" x 2"	2" x 3"	2" x 3"	3" x 4"	3" x 4"	4" x 6"	4" x 6"	4" x 6"	4" x 6"	4" x 6"	6" x 10"
Actual Orifice diameter d ₀ [mm]	15	20	30	40	50	60	50	60	74	88	110	
Actual Orifice area A ₀ [mm ²]	177	314	707	1257	1964	2827	1964	2827	4301	6082	9503	
Body material: 1.0619 (WCB)												
DIN Flange	Inlet	PN 63 – 250					PN 63 – 160					PN 40
	Outlet	PN 40 – 63					PN 40					PN 40
Minimum set pressure	p [bar _g] S/G/L	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Min. set pressure ¹⁾ standard bellows	p [bar _g] S/G/L	13.5	13.5	20	2.5	10	10	10	6	5	5	5
Min. set pressure low press. bellows	p [bar _g] S/G/L					on request						
Maximaler set pressure	p [bar _g] S/G/L	300	180	125	98	130	77	43	46	53	34	18
Max. set pressure with special spring	p [bar _g] S/G/L	300	180	210	114.5	160	77	160	160	77	53	40
Temperature	min. [°C]						-85					
acc. to DIN EN	max. [°C]						+450					
Temperature	min. [°C]						-29					
acc. to ASME	max. [°C]						+427					
Body material: 1.7357 (WC6)												
DIN Flange	Inlet	PN 63 – 250					PN 63 – 160					–
	Outlet	PN 40 – 63					PN 40					–
Minimum set pressure	p [bar _g] S/G/L	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	–
Min. set pressure ¹⁾ standard bellows	p [bar _g] S/G/L	13.5	13.5	20	2.5	10	10	10	6	5	5	–
Min. set pressure low press. bellows	p [bar _g] S/G/L					on request						–
Maximaler set pressure	p [bar _g] S/G/L	300	180	125	98	130	77	43	46	53	34	–
Max. set pressure with special spring	p [bar _g] S/G/L	300	180	210	114.5	160	77	160	160	77	53	–
Temperature	min. [°C]						-85					
acc. to DIN EN	max. [°C]						+550					
Temperature	min. [°C]						-29					
acc. to ASME	max. [°C]						+538					
Body material: 1.4581 (CF10M)												1.4408 (CF8M)
DIN Flange	Inlet	PN 63 – 250					PN 63 – 160					PN 40
	Outlet	PN 40 – 63					PN 40					PN 16
Minimum set pressure	p [bar _g] S/G/L	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
Min. set pressure ¹⁾ standard bellows	p [bar _g] S/G/L	13.5	13.5	20	2.5	10	10	10	6	5	5	5
Min. set pressure low press. bellows	p [bar _g] S/G/L					on request						–
Maximaler set pressure	p [bar _g] S/G/L	250	146	82	61	61	35	15.8	11	16.9	0	4.4
Max. set pressure with special spring	p [bar _g] S/G/L	250	146	130	65	104	51.5	71	55	49	32	10
Temperature	min. [°C]						-85					-270
acc. to DIN EN	max. [°C]						+550					+400
Temperature	min. [°C]						-29					-268
acc. to ASME	max. [°C]						+538					+538

¹⁾ Min. set pressure standard bellows = Max. set pressure low pressure bellows.

Type 457, 458

Pressure temperature ratings

US Units

DN _{r,0}	25 x 50	25 x 50	50 x 80	50 x 80	80 x 100	80 x 100	100 x 150	100 x 150	100 x 150	100 x 150	150 x 250
Valve size	1" x 2"	1" x 2"	2" x 3"	2" x 3"	3" x 4"	3" x 4"	4" x 6"	4" x 6"	4" x 6"	4" x 6"	6" x 10"
Actual Orifice diameter d ₀ [inch]	15	20	30	40	50	60	50	60	74	88	110
Actual Orifice area A ₀ [inch ²]	177	314	707	1257	1964	2827	1964	2827	4301	6082	9503

Body material: 1.0619 (WCB)

ANSI Flange Class ¹⁾	Inlet		CL300 – 1500				CL300 – 600				CL150		
	Outlet		CL150 – 300				CL150				CL150		
Minimum set pressure	p [psig]	S/G/L	36	36	36	36	36	36	36	36	36	36	
Min. set pressure²⁾ standard bellows	p [psig]	S/G/L	196	196	290	36	145	145	145	87	73	73	
Min. set pressure low press. bellows	p [psig]	S/G/L					on request						
Maximum set pressure	p [psig]	S/G/L	4350	2610	1813	1421	1885	1117	624	667	769	493	
Max. set pressure with special spring	p [psig]	S/G/L	4350	2610	3045	1660	2320	1117	2320	2320	1117	769	
Temperature acc. to DIN EN	min. [°F]								-121				
	max. [°F]								+842				
Temperature acc. to ASME	min. [°F]								-20				
	max. [°F]								+800				

Body material: 1.7357 (WC6)

ANSI Flange Class ¹⁾	Inlet		CL300 – 1500				CL300 – 600				–		
	Outlet		CL150 – 300				CL150				–		
Minimum set pressure	p [psig]	S/G/L	36	36	36	36	36	36	36	36	36	36	
Min. set pressure²⁾ standard bellows	p [psig]	S/G/L	196	196	290	36	145	145	145	87	73	73	
Min. set pressure low press. bellows	p [psig]	S/G/L					on request						
Maximum set pressure	p [psig]	S/G/L	4350	2610	1813	1421	1885	1117	624	667	769	493	
Max. set pressure with special spring	p [psig]	S/G/L	4350	2610	3045	1660	2320	1117	2320	2320	1117	769	
Temperature acc. to DIN EN	min. [°F]								-121				–
	max. [°F]								+1022				–
Temperature acc. to ASME	min. [°F]								-20				–
	max. [°F]								+1000				–

Body material: 1.4581 (CF10M)

ANSI Flange Class ¹⁾	Inlet		CL300 – 1500				CL300 – 600				1.4408 (CF8M)		
	Outlet		CL150 – 300				CL150				CL150		
Minimum set pressure	p [psig]	S/G/L	36	36	36	36	36	36	36	36	36	36	
Min. set pressure²⁾ standard bellows	p [psig]	S/G/L	196	196	290	36	145	145	145	87	73	73	
Min. set pressure low press. bellows	p [psig]	S/G/L					on request					–	
Maximum set pressure	p [psig]	S/G/L	3625	2117	1189	885	885	508	229	160	245	0	
Max. set pressure with special spring	p [psig]	S/G/L	3625	2117	1885	943	1508	747	1030	798	711	464	
Temperature acc. to DIN EN	min. [°F]								-121				-454
	max. [°F]								+1022				+752
Temperature acc. to ASME	min. [°F]								-20				-450
	max. [°F]								+1000				+1000

¹⁾ For flange rating class 150 the pressure temperature ratings according to ASME ANSI B 16.34 apply.

²⁾ Min. set pressure standard bellows = Max. set pressure low pressure bellows.

Type 457, 458

Flange drillings

	DN _{IHO}	25 x 50	25 x 50	50 x 80	50 x 80	80 x 100	80 x 100	100 x 150	100 x 150	100 x 150	100 x 150	150 x 250		
	Valve size	1" x 2"	1" x 2"	2" x 3"	2" x 3"	3" x 4"	3" x 4"	4" x 6"	4" x 6"	4" x 6"	4" x 6"	6" x 10"		
	Actual Orifice diameter d ₀ [mm]	15	20	30	40	50	60	50	60	74	88	110		
	Actual Orifice area A ₀ [mm ²]	177	314	707	1257	1964	2827	1694	2827	4301	6082	9503		
Body material: 1.0619 (WCB), 1.7357 (WC6), 1.4581 (CF10M), 1.4408 (CF8M)														
Inlet	DIN EN 1092	PN 16	H47	H47	H47	H47	H47	H47	–	–	–	–		
		PN 25	H47	H47	H47	H47	H47	H47	H47	H47	H47	H47	*	
		PN 40	H47	H47	H47	H47	H47	H47	H47	H47	H47	H47	*	
		PN 63	*	*	H10	H10	H10	H10	H10	H10	H10	H10	S01	
		PN 100	*	*	*	*	*	*	*	*	*	*	–	
		PN 160	*	*	*	*	*	*	*	*	*	*	–	
		PN 250	H12	H12	H12	H12	S01	S01	S01	S01	S01	S01	–	
		PN 320	S01	S01	S01	S01	S01	S01	S01	S01	S01	S01	–	
		PN 400	S01	S01	S01	S01	S01	S01	S01	S01	S01	S01	–	
	ASME B16.5	CL150	–	–	–	–	–	–	–	–	–	–	H64	
		CL300	H65	H65	H65	H65	H65	H65	H65	H65	H65	H65	–	
		CL600	H67	H67	H67	H67	H67	H67	H67	H67	H67	H67	–	
		CL900	H69	H69	H69	H69	S01	S01	S01	S01	S01	S01	–	
		CL1500	H69	H69	H69	H69	S01	S01	S01	S01	S01	S01	–	
		CL2500	S01	S01	S01	S01	S01	S01	S01	S01	S01	S01	–	
	Outlet	DIN EN 1092	PN 10	*	*	*	*	H51	H51	H51	H51	H51	H51	H50
			PN 16	*	*	*	*	H51	H51	H51	H51	H51	H51	*
			PN 25	*	*	*	*	*	*	*	*	*	*	–
PN 40			*	*	*	*	*	*	*	*	*	*	–	
PN 63			H16	H16	H16	H16	S01	S01	S01	S01	S01	S01	–	
ASME B16.5		CL150	H79	H79	H79	H79	H79	H79	H79	H79	H79	H79	H79	
		CL300	H80	H80	H80	H80	S01	S01	S01	S01	S01	S01	–	

Type 457, 458 Flange facings

Indication	Standard	Inlet		Outlet		Remark							
General													
Flange undrilled	–	H38		H39									
Linde-V-Nut, Type V48	Linde Standard 420-08 LDeS 3313.36	J07		J08		Groove: Rz 16							
Linde-V-Nut, Type V48A		J05		J06		Groove: Rz 4, e.g. with hydrogen							
Lens seal form L (without sealing lens)	DIN 2696 LDeS 3313.35	J11		J12									
Acc. to DIN EN 1092													
Flange facing (see LDeS 3313.40)		Inlet		Outlet		Remark							
		PN 10 – PN 40	PN 63 – PN 400	PN 10 – PN 40	PN 63	Rz-data according to DIN EN 1092 in µm							
Raised face	Type B1	*	–	*	–	Facing: Rz = 12.5 – 50							
	Type B2	–	*	L38	*	Facing: Rz = 3.2 – 12.5							
Tongue face C ¹⁾		–		H92		Steel flange only							
Groove face D ¹⁾		L55		H91									
Male face E		–		H98									
Female face F		–		H99									
O-ring male face G		–		J02									
O-ring female face H		–		J04									
Acc. to ASME B16.5													
Body material	Inlet	Outlet	Smooth finish ²⁾		Serrated finish		RTJ-groove						
			Inlet	Outlet	Inlet	Outlet	Inlet					Outlet	
			Option code	Option code	CL300	CL600	CL900	CL1500	CL2500	CL150	CL300		
All	1"	2"	L52	L53	–	*	L58	L58	L58	L58	L58	H63	H63
	2"	3"	L52	L53	–	*	L58	L58	L58	L58	L58	H63	H63
	3"	4"	L52	L53	–	*	L58	L58	L58	L58	L58	–	H63
	4"	6"	L52	L53	–	*	L58	L58	L58	L58	–	–	H63

¹⁾ LESER manufactures the groove at flanged valves by milling. If a customer demands a turned surface in the soil of the groove according to DIN EN 1092-1 an additional option code is necessary: "S01: soil of the groove drilled". Groove and tongue for PN160 flanges refer to DIN 2512 / WI 3313.32.

²⁾ Smooth finish is not defined in the effective standards.

Note: Flange drillings and facings meet always the requirements of mentioned flange standards.
Flange thickness and outer diameter may vary from flange standard.

Type 457, 458

Approvals

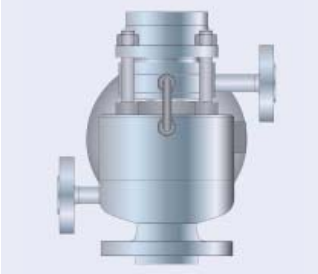
	DN _{vo}	25 x 50	25 x 50	50 x 80	50 x 80	80 x 100	80 x 100	100 x 150	100 x 150	100 x 150	100 x 150	100 x 250
	Valve size	1" x 2"	1" x 2"	2" x 3"	2" x 3"	3" x 4"	3" x 4"	4" x 6"	4" x 6"	4" x 6"	4" x 6"	6" x 10"
	Actual Orifice diameter d ₀ [mm]	15	20	30	40	50	60	50	60	74	88	110
	Actual Orifice area A ₀ [mm ²]	177	314	707	1257	1964	2827	1694	2827	4301	6082	9503
Europe												
Coefficient of discharge K_{dr}												
PED / DIN EN ISO 4126-1 12/2013	Approval No.	072020111Z0008/0/12										
	S/G	0.83	0.84	0.84	0.8	0.83	0.75	0.84	0.8	0.8	0.75	0.7
	L	0.63	0.6	0.58	0.54	0.58	0.5	0.6	0.54	0.56	0.49	0.45
Germany												
Coefficient of discharge α_w												
PED / AD 2000-Merkblatt A2 07/2012	Approval No.	TÜV SV 934										
	S/G	0.83	0.84	0.84	0.8	0.83	0.75	0.84	0.8	0.8	0.75	0.7
	L	0.63	0.6	0.58	0.54	0.58	0.5	0.6	0.54	0.56	0.49	0.45
United States												
Coefficient of discharge K												
ASME Sec. VIII	Approval No.	M37066	M37066	M37066	M37066	M37066	M37088	M37066	M37066	M37066	M37088	M37088
	S/G	0.798	0.798	0.798	0.798	0.798	0.754	0.798	0.798	0.798	0.754	0.754
	Approval No.	M37077	M37077	M37077	M37077	M37077	M37099	M37077	M37077	M37077	M37099	M37099
	L	0.572	0.572	0.572	0.572	0.572	0.479	0.572	0.572	0.572	0.479	0.479
Canada												
Coefficient of discharge K												
CRN	Approval No.	-										
	S/G	0.798	0.798	0.798	0.798	0.798	0.754	0.798	0.798	0.798	0.754	0.754
	L	0.572	0.572	0.572	0.572	0.572	0.479	0.572	0.572	0.572	0.479	0.479
China												
Coefficient of discharge α_w												
AQSIQ	Approval No.	For current approval no. see www.leser.com										
	S/G	0.83	0.84	0.84	0.8	0.83	0.75	0.84	0.8	0.8	0.75	0.7
	L	0.63	0.6	0.58	0.54	0.58	0.5	0.6	0.54	0.56	0.49	0.45
Eurasian Custom Union												
Coefficient of discharge α_w												
EAC	Approval No.	For current approval no. see www.leser.com										
	S/G	0.83	0.84	0.84	0.8	0.83	0.75	0.84	0.8	0.8	0.75	0.7
	L	0.63	0.6	0.58	0.54	0.58	0.5	0.6	0.54	0.56	0.49	0.45
Classification societies												
on request												

Type 457, 458

Available Options

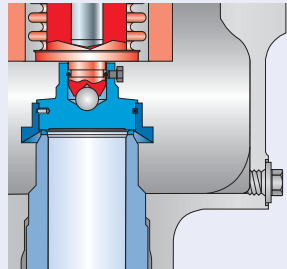
Heating jacket

H29, H30: Couplings G $\frac{3}{8}$, G $\frac{3}{4}$
 H31, H32: Flanges DN 15, DN 25



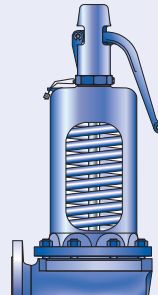
Drain hole

J18: G $\frac{1}{4}$
 J19: G $\frac{1}{2}$



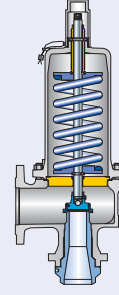
Open bonnet

See article number



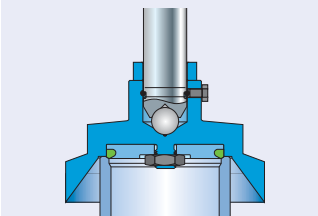
Butt-welded connection

S05



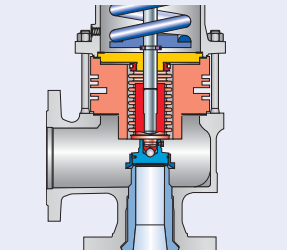
O-ring disc

J20: FFKM "C"
 J21: CR "K"
 J22: EPDM "D"
 J23: FKM "L"



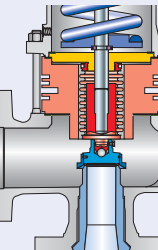
Stainless steel bellows

J68: Bonnet open
 J78: Bonnet closed



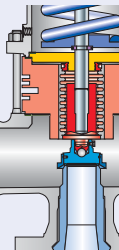
Conversion kit for stainless steel bellows

on request



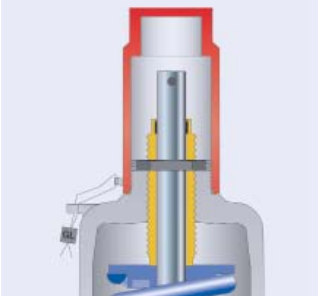
High temperature equipment

J88



Screwed cap H2

H2



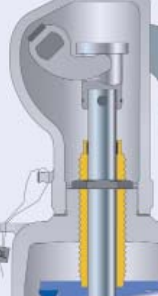
Plain lever H3

H3



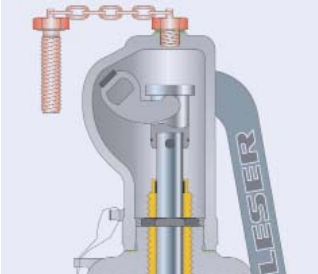
Packed lever H4

H4



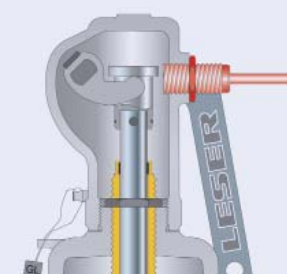
Test gag

J69: H4
 J70: H2



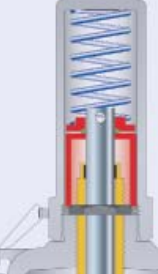
Lift indicator

J39: Adaptor H4
 J93: Lift indicator



O-ring damper H2

J65



O-ring damper H4

J66

