

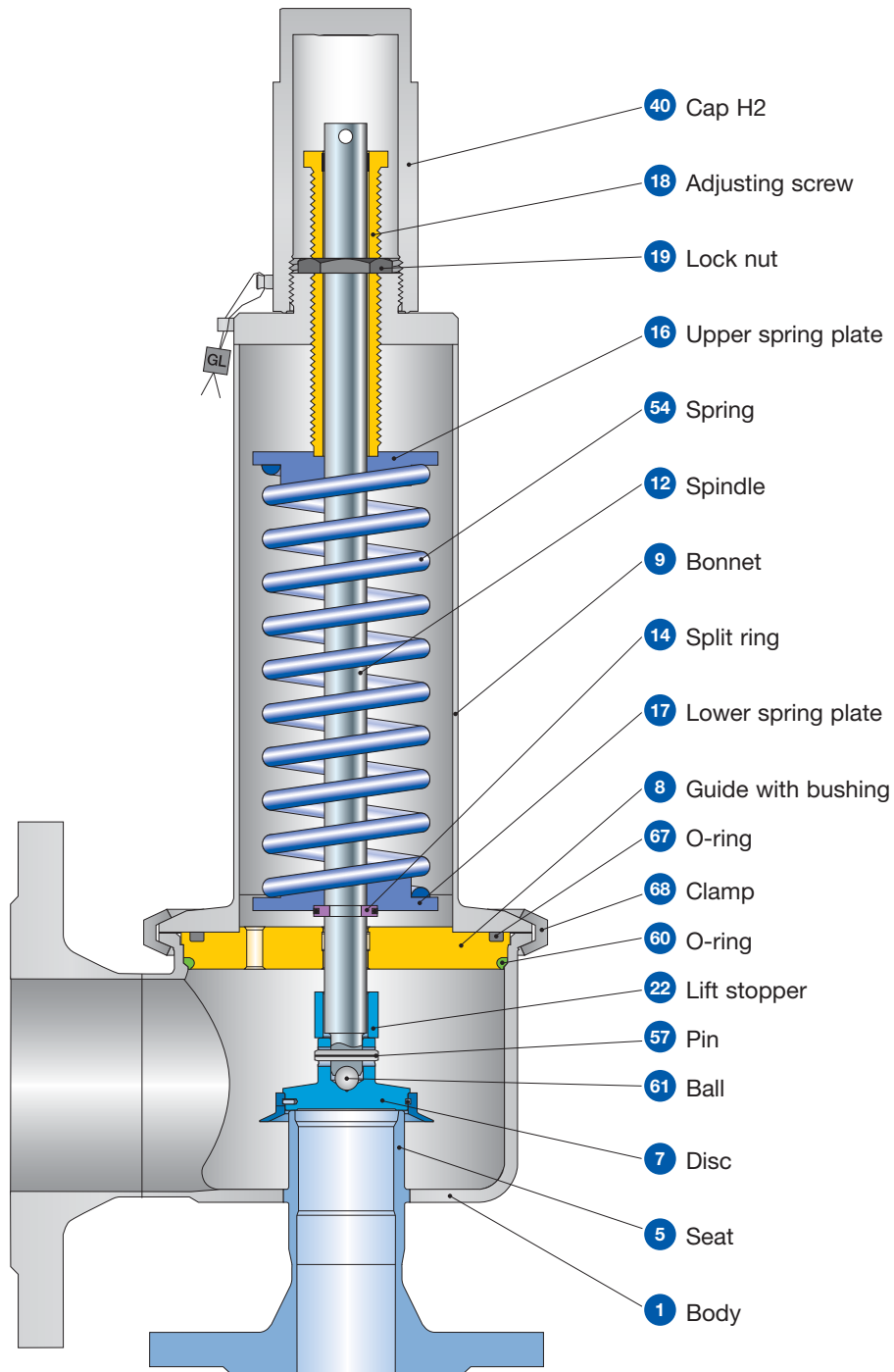


Type 444
 Packed lever H4
 Closed bonnet
 Conventional design

Type 444 DIN
Type 444 ANSI
Flanged Safety Relief Valves

Contents	Page
Materials	
• Conventional design	65
Article numbers	67
Dimensions and weights	
• Metric Units + US Units	68
Pressure temperature ratings	
• Metric Units + US Units	69
Flange drillings and facings	70
Approvals	71
Available options	72

Type 444 DIN, 444 ANSI
Conventional design



Type 444

Type 444 DIN, ANSI

Conventional design

Materials

Item	Component	Type 4444 DIN, ANSI
1	Body	1.4404
		SA 479 316L
5	Seat	1.4404
		316L
7	Disc	1.4404
		316L
8	Guide with bushing	1.4404
		316L
		PTFE +15% glass
		PTFE +15% glass
9	Bonnet	1.4404
		SA 479 316L
12	Spindle	1.4404
		316L
14	Split ring	1.4404
		316L
16 / 17	Spring plate	1.4404
		316L
18	Adjusting screw with bushing	1.4404, PTFE + 15% glass
		316L, PTFE + 15% glass
19	Lock nut	1.4404
		316L
22	Lift stopper	1.4404
		316L
40	Cap H2	1.4404
		316L
54	Spring	1.4310
		Stainless steel
57	Pin	1.4310
		302
60	O-ring	EPDM-FDA
		EPDM-FDA
61	Ball	1.4401
		316
67	O-ring	EPDM-FDA
		EPDM-FDA
68	Clamp	1.4401
		316

Please notice:

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

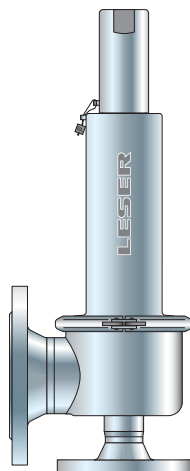
Type 444 DIN, 444 ANSI
Article numbers

Type 444 DIN

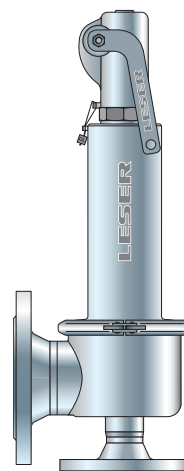
	DN _i	25	40	50	65	80	80
	DN _o	50	80	80	100	100	100
	Actual Orifice diameter d _o [mm]	23	37	46	60	74	74
	Actual Orifice area A _o [mm ²]	416	1075	1662	2827	4301	4301
	Set pressure range S/G/L [bar _g]	See page 69				0.1 – 6.8	6.81 – 16
	Set pressure range S/G/L [psig]	See page 69				1.5 – 98.6	98.61 – 232
Body material: 1.4404 (316L)							
Bonnet closed	H2	Art. No. 4444.	3642	3662	3672	3682	3702
	H4	Art. No. 4444.	3644	3664	3674	3684	3704

Type 444 ANSI

	Valve size	1" x 2"	1½" x 3"	2" x 3"	2½" x 4"	3" x 4"	3" x 4"
	Actual Orifice diameter d _o [mm]	23	37	46	60	74	74
	Actual Orifice area A _o [mm ²]	416	1075	1662	2827	4301	4301
	Set pressure range S/G/L [bar _g]	See page 69				0.1 – 6.8	6.81 – 16
	Set pressure range S/G/L [psig]	See page 69				1.5 – 98.6	98.61 – 232
Body material: 1.4404 (316L)							
Bonnet closed	H2	Art. No. 4444.	8902	8922	8932	8942	8962
	H4	Art. No. 4444.	8904	8924	8934	8944	8964



Type 444
 Cap H2
 Closed bonnet
 Conventional design



Type 444
 Packed lever H4
 Closed bonnet
 Conventional design

Type 444 DIN, 444 ANSI Dimensions and weights

Metric Units

	DN _i	25	40	50	65	80	80
	DN _o	50	80	80	100	100	100
	Valve size	1" x 2"	1½" x 3"	2" x 3"	2½" x 4"	3" x 4"	3" x 4"
	Actual Orifice diameter d _o [mm]	23	37	46	60	74	74
	Actual Orifice area A _o [mm ²]	416	1075	1662	2827	4301	4301
	Set pressure range S/G/L [bar _g]	See page 69				0.1 – 6.8	6.81 – 16
Weight [kg]		7	13	14	23	24	24
Center to face [mm]	Inlet a	85	110	110	125	125	125
	Outlet b	90	128	128	160	160	160
Height (H4) [mm]	Standard H max.	308	519	519	631	631	631

Body material: 1.4404 (316L)

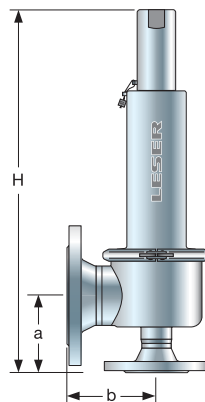
DIN Flange	Inlet / Outlet	PN 16
ANSI Flange Class	Inlet / Outlet	CL150

US Units

	DN _i	25	40	50	65	80	80
	DN _o	50	80	80	100	100	100
	Valve size	1" x 2"	1½" x 3"	2" x 3"	2½" x 4"	3" x 4"	3" x 4"
	Actual Orifice diameter d _o [inch]	0.91	1.46	1.81	2.36	2.91	2.91
	Actual Orifice area A _o [inch ²]	0.644	1.667	2.576	4.383	6.666	6.666
	Set pressure range S/G/L [psig]	See page 69				1.5 – 98.6	98.61 – 232
Weight [lbs]		16	29	31	51	53	53
Center to face [inch]	Inlet a	3 ³ / ₈	4 ⁵ / ₁₆	4 ⁵ / ₁₆	4 ¹⁵ / ₁₆	4 ¹⁵ / ₁₆	4 ¹⁵ / ₁₆
	Outlet b	3 ¹ / ₂	5 ¹ / ₁₆	5 ¹ / ₁₆	6 ⁵ / ₁₆	6 ⁵ / ₁₆	6 ⁵ / ₁₆
Height (H4) [inch]	Standard H max.	12 ¹ / ₈	20 ⁷ / ₁₆	20 ⁷ / ₁₆	20 ¹³ / ₁₆	20 ¹³ / ₁₆	20 ¹³ / ₁₆

Body material: 1.4404 (316L)

DIN Flange	Inlet / Outlet	PN 16
ANSI Flange Class	Inlet / Outlet	CL150



Conventional design

Type 444 DIN, 444 ANSI

Pressure temperature ratings

Metric Units

	DN _i	25	40	50	65	80	80
	DN _o	50	80	80	100	100	100
	Valve size	1" x 2"	1½" x 3"	2" x 3"	2½" x 4"	3" x 4"	3" x 4"
	Actual Orifice diameter d ₀ [mm]	23	37	46	60	74	74
	Actual Orifice area A ₀ [mm ²]	416	1075	1662	2827	4301	4301
Body material: 1.4404 (316L)							
DIN Flange	Inlet / Outlet						PN 16
ANSI Flange Class¹⁾	Inlet / Outlet						CL150
Minimum set pressure	p [bar _g] S/G/L	0.1	0.1	0.1	0.1	0.1	6.81
Maximum set pressure	p [bar _g] S/G/L	16	16	16	16	6.8	16
Temperature acc. to DIN EN	min. [°C]						-45
	max. [°C]						+200
Temperature acc. to ASME	min. [°C]						-45
	max. [°C]						+200

US Units

	DN _i	25	40	50	65	80	80
	DN _o	50	80	80	100	100	100
	Valve size	1" x 2"	1½" x 3"	2" x 3"	2½" x 4"	3" x 4"	3" x 4"
	Actual Orifice diameter d ₀ [inch]	0.91	1.46	1.81	2.36	2.91	2.91
	Actual Orifice area A ₀ [inch ²]	0.644	1.667	2.576	4.383	6.666	6.666
Body material: 1.4404 (316L)							
DIN Flange	Inlet / Outlet						PN 16
ANSI Flange Class¹⁾	Inlet / Outlet						CL150
Minimum set pressure	p [psig] S/G/L	1.5	1.5	1.5	1.5	1.5	98.61
Maximum set pressure	p [psig] S/G/L	232	232	232	232	98.6	232
Temperature acc. to DIN EN	min. [°F]						-49
	max. [°F]						+392
Temperature acc. to ASME	min. [°F]						-49
	max. [°F]						+392

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

Type 444 DIN, 444 ANSI Flange drillings

	DN _i	25	40	50	65	80
	DN _o	50	80	80	100	100
	Valve size	1" x 2"	1½" x 3"	2" x 3"	2½" x 4"	3" x 4"
	Actual Orifice diameter d _o [mm]	23	37	46	60	74
	Actual Orifice area A _o [mm ²]	416	1075	1662	2827	4301
Body material: 1.4404 (316L)						
Inlet	DIN EN 1092	PN 10	–	–	–	–
		PN 16	*	*	*	*
		PN 25	–	–	–	–
		PN 40	–	–	–	–
	ASME B16.5	CL150	*	*	*	*
		CL300	–	–	–	–
Outlet	DIN EN 1092	PN 10	–	–	–	–
		PN 16	*	*	*	*
		PN 25	–	–	–	–
		PN 40	–	–	–	–
	ASME B16.5	CL150	*	*	*	*
		CL300	–	–	–	–

Flange facings

Indication	Standard	Inlet	Outlet	Remark						
General										
Flange undrilled	–	H38	H39							
Linde-V-Nut, Form V48	Linde Standard 420-08	J07	J08	Groove: Rz 16						
Linde-V-Nut, Form V48A	LDeS 3313.36	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 also LDeS 3313.40)		PN 10 – PN 40	PN 10 – PN 40	Rz-data according to DIN EN 1092 in µm						
Raised face	Type B1	*	*	Facing: Rz = 12.5 – 50						
	Type B2	L36	L38	Facing: Rz = 3.2 – 12.5						
Tongue face C ¹⁾		H94	H92	Steel flanges only						
Groove face D ¹⁾		H93	H91							
Male face E		H96	H98							
Female face F		H97	H99							
O-ring male face G		J01	J02							
O-ring female face H		J03	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		RTJ- Class	Option code	RTJ- Class	Option code
1.4404	all	all	L52	L53	*	*	CL150	H62	CL150	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".

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.

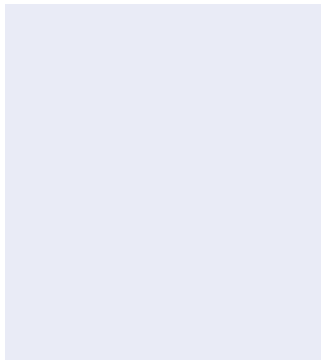
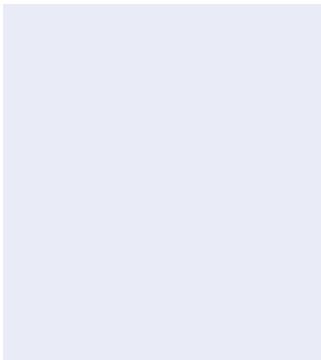
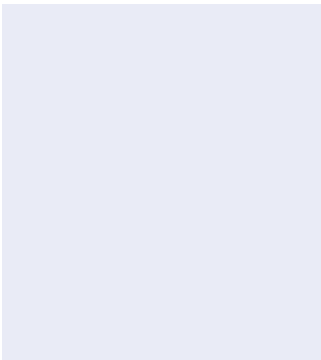
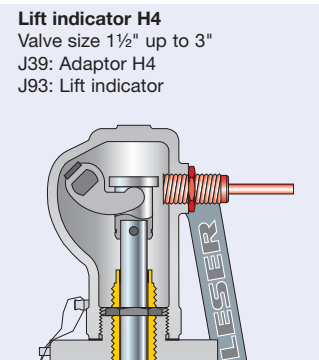
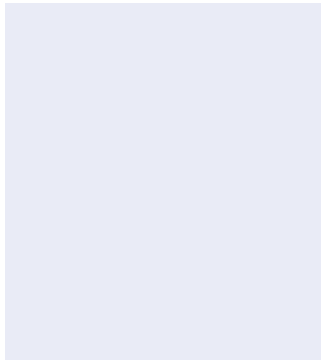
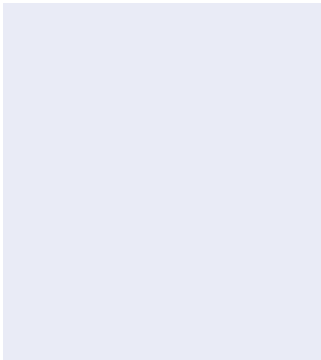
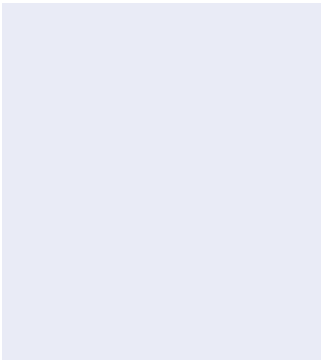
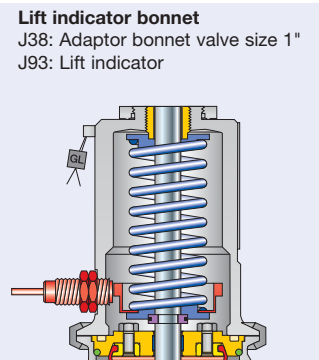
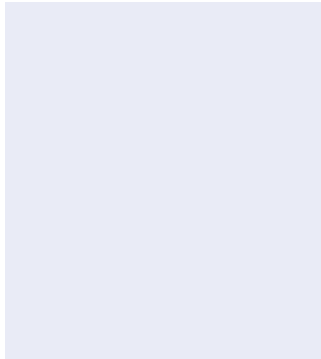
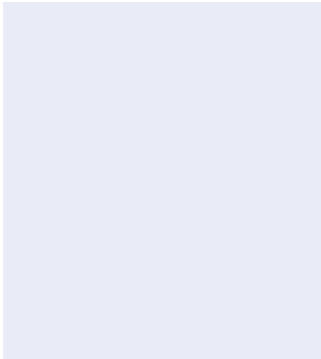
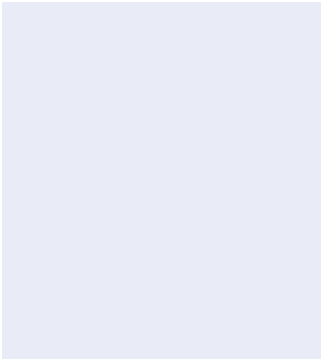
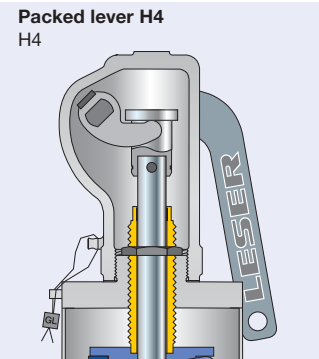
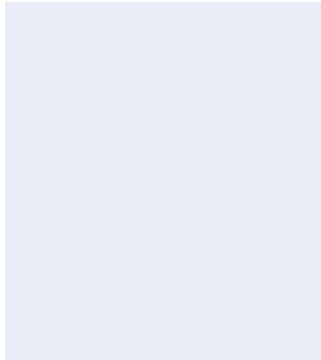
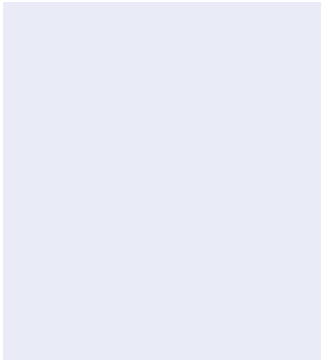
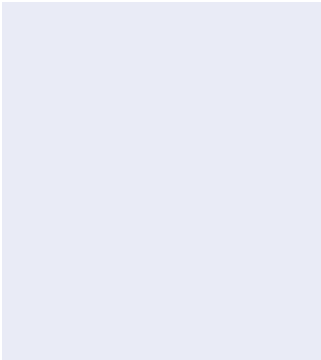
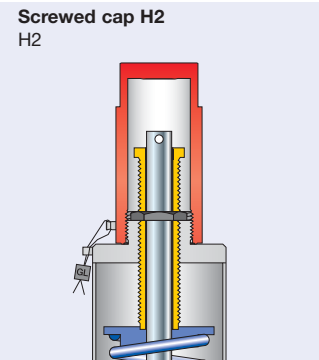
Type 444 DIN, 444 ANSI

Approvals

	DN _i	25	40	50	65	80	80
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	Actual Orifice area A _o [mm ²]	416	1075	1662	2827	4301	4301
	Set pressure range S/G/L [bar _g]	See page 69				0.1 – 6.8	6.81 – 16
	Set pressure range S/G/L [psig]					1.5 – 98.6	98.61 – 232
Europe		Coefficient of discharge K_{dr}					
PED / DIN EN ISO 4126-1 12/2013	Approval No.	072020111Z0008/0/08 Rev.3					
	S/G	0.7					0.55
	F	0.48					0.48
Germany		Coefficient of discharge α_w					
PED / AD 2000-Merkblatt A2 07/2012	Approval No.	TÜV SV 576					
	S/G	0.7					0.55
	F	0.48					0.48
United States		Coefficient of discharge K					
ASME Sec. VIII Div. 1	Approval No.	M37044					–
	S/G	0.699					–
	Approval No.	M37055					M37055
	F	0.521					0.521
Canada		Coefficient of discharge K					
CRN	Approval No.	For current approval no. see www.leser.com					
	S/G	0.699					–
	F	0.521					0.521
China		Coefficient of discharge α_w					
AQSIQ	Approval No.	For current approval no. see www.leser.com					
	S/G	0.7					0.55
	F	0.48					0.48
Eurasian Custom Union		Coefficient of discharge α_w					
EAC	Approval No.	For current approval no. see www.leser.com					
	S/G	0.7					0.55
	F	0.48					0.48
Classification societies							
		on request					

Type 444 DIN, 444 ANSI

Available Options



Type 444