



API

Flanged Safety Relief Valves
Series 526

CATALOG

LESER

The-Safety-Valve.com

LESER Safety Valves for every industrial application



API



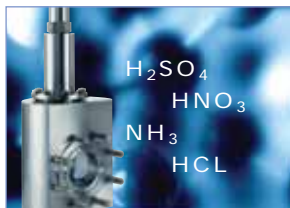
High Performance



Compact Performance



Clean Service



Critical Service



Modulate Action



Best Availability

Series 526
Type 526



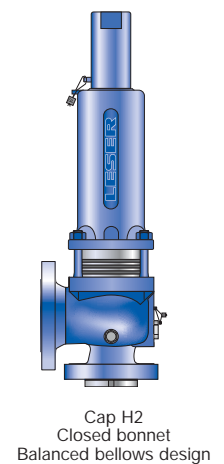
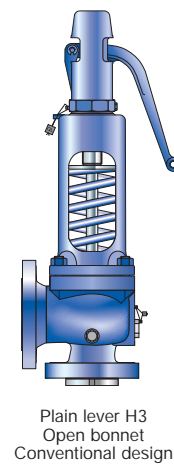
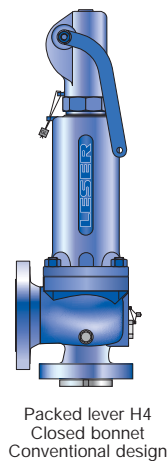
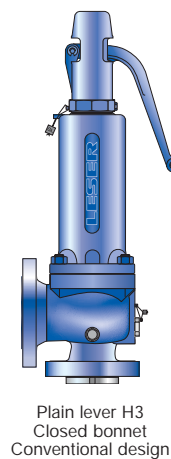
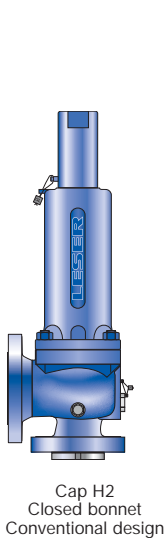
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First in safety	
Fax Order	





LESER – API Safety Valves

The API product group represents

- ✓ Full range of spring loaded safety valves acc. to API 526
- ✓ State-of-the-art design from the safety valve specialist
- ✓ Competitive solutions for the API market

LESER's API safety valves

- Are designed to meet all applications which require API.
- Open rapidly with an overpressure of max. 10 % to the full design lift.
- Have a maximum blowdown of minus 7 % for steam/gas service and minus 20 % for liquid service.
- Are developed in a close cooperation with plant engineers and service specialists.
- Serve for protection of processes and equipment.
- Are approved by all important approval organisations worldwide which ensures the worldwide applicability e.g.:
 - European Community: CE-marking acc. to Pressure Equipment Directive (PED) 97 / 23 / EC and EN ISO 4126-1
 - USA: UV-stamp acc. to ASME Section VIII Division 1, National Board certified capacities
 - Germany: VdTÜV approval acc. to PED, EN ISO 4126-1, TÜV SV 100 and AD 2000-Merkblatt A2
 - Canada: Canadian Registration Number acc. to the requirements of particular provinces
 - China: AOSIQ based on the approval acc. to ASME Section VIII Division 1 and AD 2000-Merkblatt A2

Furthermore, all LESER API safety valves are designed, marked, produced and approved acc. to the requirements of the following regulations (directives, codes, rules and standards).

EN ISO 4126-7, EN 12266-1/-2, EN 1092 Part I and II flanging
 ASME PTC 25, ASME-Code Sec. II, ASME B 16.34 and ASME B16.5- flanging, API Std. 527, API RP 576
 AD 2000-Merkblatt A4, AD 2000-Merkblatt HP0, TRD 110, TRD 421, TRD 721



Applications

LESER – API Safety Valves

offer ultimate protection against overpressures in all applications for steam, gases and liquids.

LESER's API Series 526

Safety valves present the simple safe solution for heavy duty applications, such as crude oil extraction, transportation and processing in

- Refineries
- Chemical industry
- Petrochemical industry
- Oil and gas – Onshore and Offshore
- Vessels and piping systems
- Blow-down systems
- Storage tank farms

General Design Features

LESER's API Safety Valves

cover a large variety of types, materials and options to fit any application:

- Design fully in accordance with API 526 for easy interchangeability
- Complete API 526 range: valve sizes 1" through 8", orifice D through T
- Materials: WCB, WCC, CF8M, WC6, LCB, LCC, 1.0619 and a wide range of special materials to fulfill the requirements of critical applications
- Special B³ design for high back pressure applications and material requirements far beyond API Standard
- Fool proof design with fewer parts for built-in safety
- Integral cast support brackets for easy handling and safe installation
- Open or closed bonnet, packed or plain lifting lever or gastight cap
- Flanged connections according ASME and DIN guarantee a worldwide applicability
- One design and spring (single trim) for steam, gas and liquid applications reduces the number of spare parts and ensures low cost maintenance management.
- One-piece spindle reduces friction which leads to high operation accuracy
- Self-draining body design, avoids residues and reduces corrosion

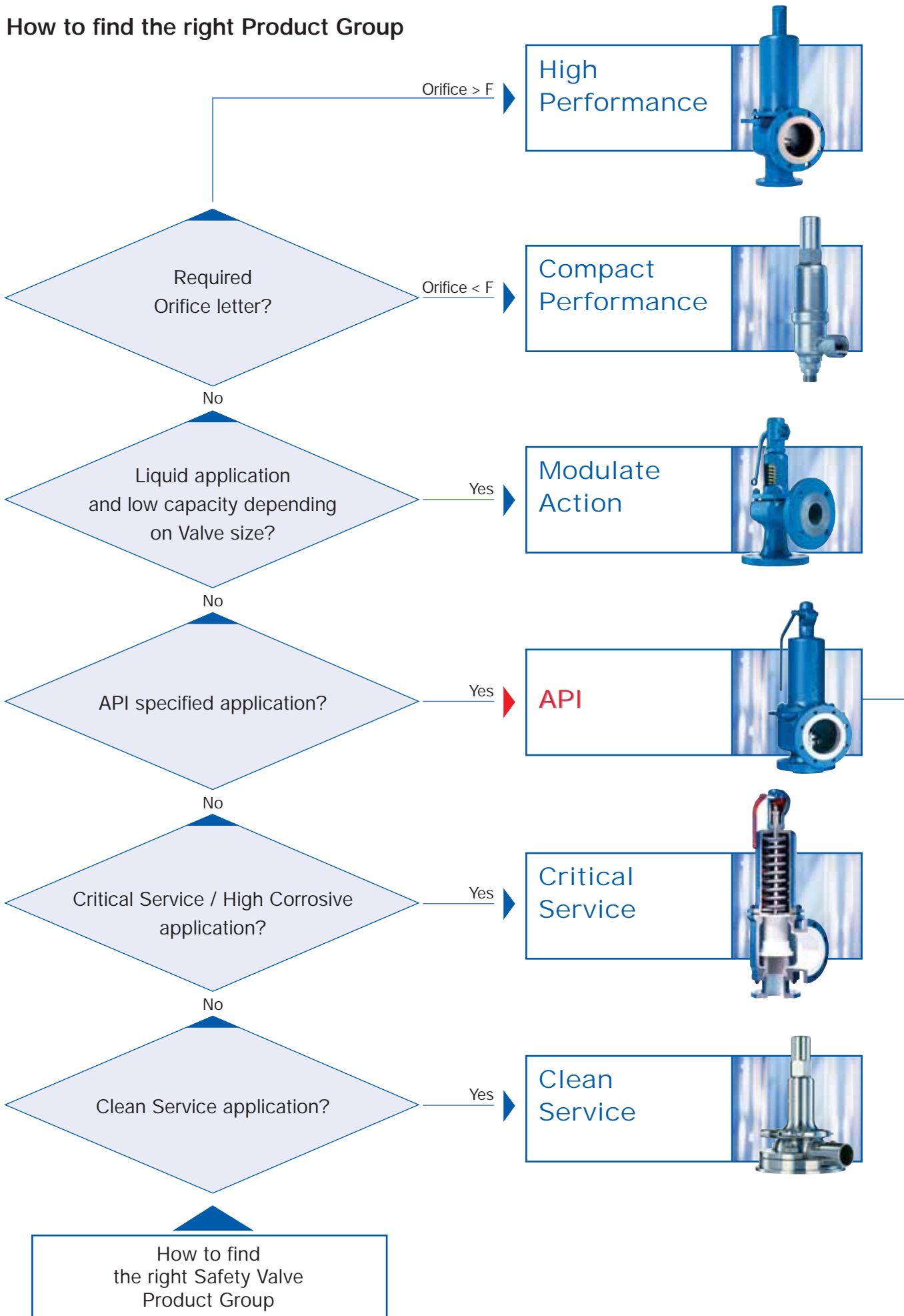
LESER's API Safety Valves

can be customized with a great variety of options, e.g.:

- Special connections specified by the customer for optimised adaptation to the plant.
- Stellite or hardened metal sealing for longer product life
- Soft seat solutions for superior tightness
- Stainless steel bellows for back pressure compensation
- Heating jackets for applications with high viscosity fluids
- Any and every part can be produced in special material exactly to meet customer specification requirements

Valve finder

How to find the right Product Group



How to find the right API Safety Valve

Step	Procedere	Reference																																																																									
6	LESER Type 526																																																																										
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1	Application data: <ul style="list-style-type: none"> Pressure, temperature Capacity Fluid 	<p>Fluid</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Steam</p> </div> <div style="text-align: center;"> <p>Gases</p> </div> <div style="text-align: center;"> <p>Liquids</p> </div> </div> <p>LESER Type 526 offers single trim for steam, gas and liquids in one design.</p>																																																																									

How to find the right API Safety Valve

General signs and symbols

*	This option is covered by standard design
✓	Available
-	Not possible

Signs and symbols for flange drillings and flange facings

*	Standard design, no option code required
(*)	Flange dimensions except flange thickness are in accordance with flange standard (e.g. ASME B16.5) Flange thickness is smaller (max. 2 mm), see "Multiple pressure rating"
-	Flange drilling/facing is not possible

Option code for flange drilling and dimension, e.g. H50

H50	Flange drilling as specified in flange standard Outer flange diameter, flange thickness and height of flange facing may be larger, see "Dimensions"
(H50)	Flange dimensions except flange thickness are in accordance with standard Flange thickness is smaller (max. 2 mm), see "Multiple pressure rating"
[H50]	Flange drilling as specified in standard/flange thickness may be smaller Outer flange diameter is smaller than required, but complete back side facing for nut is assured

Option code for flange facing, e.g. L38

L38	Flange facing as specified in flange standard
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General information concerning flange drillings and flange facings

Dimensions	<p>Flange dimensions of LESER Type 526 exceed flange dimension as mentioned in ASME / ANSI B16.5 and DIN EN 1092. This exceedance is in accordance with API Standard 526, Section 2.4.</p> <p>Dimensions: "For some valve designs, the inlet raised face height may substantially exceed the nominal dimension specified in ASME / ANSI B16.5 (and DIN EN 1092). Consult the manufacturer for exact dimension." The reason for this exceedance is:</p> <ul style="list-style-type: none"> - height of nozzle placed in the inlet of valve - due to the outer diameter of the nozzle thread flange thickness has to be thicker than normal ASME / ANSI B16.5 and DIN EN 1092 dimension to achieve the required pressure rating
Multiple pressure rating	The flange standard shows the same drilling, facing and outer diameter for several pressure ratings, e.g. PN 16 up to PN 40 Due to the pressure rating of the casting LESER fulfills the requirements for flange thickness e.g. of PN 16 but not PN 40
Smooth finish	The effective MSS SP-6 (Edition 2001) does not mention "smooth finish" anymore. In MSS SP-6 (Edition 1980) "smooth finish" is defined for finishes of contact flanges as "250 µinch (6,3 µm) AARH max.". LESER supplies flange facings according to ASME B16.5 – 1996, paragraph 6.4.4.3: "Either a serrated concentric or serrated spiral finish resulting in service finish from 125 µinch to 250 µinch average roughness shall be furnished." This finish meets the requirements of MSS SP-6 (Edition 1980), which is not valid anymore!
Stock finish	Stock finish is not defined in any technical standard. If purchase orders show "stock finish" LESER supplies standard facing according to DIN or ASME (marked with * in table "Flange facings" of each valve series).

Materials

Please find below a summary of material codes at LESER. Please note that

- for every body material an inspection certificate 3.1 according to EN 10204 is available
- many materials have a multiple inspection certificate 3.1.

Material code	Flanged safety valve body	Body material is certified with 3.1 (EN 10204) for the following materials	
		EN	ASME
2	Carbon steel	1.0619	WCB, WCC
3	Low temperature carbon steel	1.0619	LCB, LCC, WCB, WCC
4	Stainless steel	1.4408	CF8M (Charpy test at -196°C)
7	High temperature carbon steel	1.7357	WC6

Selection charts

The pages 01/16 – 01/71 contain selection charts and specification tables. They specify important data about the valves based on the API 526 fifth edition 2002 like

- Valve size
- Body materials
- Flange rating classes
- Set pressure and temperature limits
- Back pressure limits

Procedure		
Step	Procedure	Reference
1	Determination of the required flow area and orifice letter (sizing)	<ul style="list-style-type: none"> • API RP 520 • VALVESTAR – Sizing software • Capacity tables (page 01/86 – 01/91)
2	Determination of: <ul style="list-style-type: none"> • Material • Flange rating class • Article No. 	Selection charts (page 01/16 – 01/68) or Specification tables (page 01/17 – 01/71)
3	Determination of the material	Specification tables (page 01/17 – 01/71)
4	Determination of the code for lifting device	Specification tables (page 01/17 – 01/71)

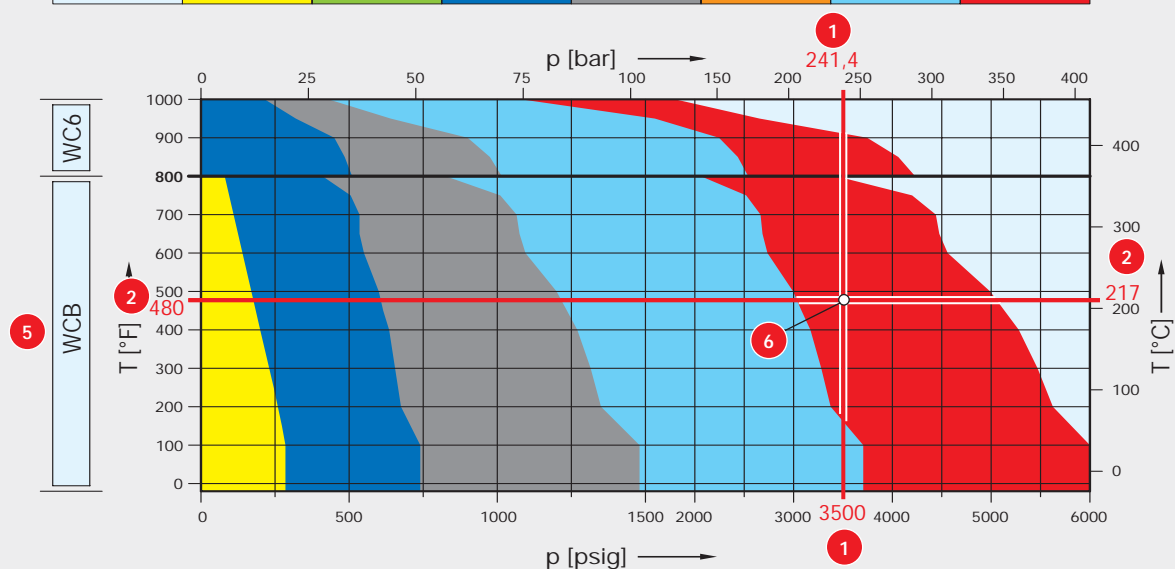
Type 526

Orifice D



Selection chart

	150 x 150	300L x 150	300 x 150	600 x 150	900 x 300	1500 x 300	2500 x 300
WCB	5262.001X	-	5262.002X	5262.003X	-	5262.004X	5262.005X
WC6	-	-	5267.006X	5267.007X	-	5267.008X	5267.009X



Explanation

No.	Description		Example
1	Set pressure	p	241,4 bar 3500 psig
2	Temperature	T	217 °C 480 °F
3	Required orifice letter		D
4	Flange rating class		2500 x 300
5	Material		WCB 1.0619
6	Article No. (X = Code for lifting device)		5262.005X

Sample Capacity sheet –

How to select capacities for steam: Type 526, Valve size 1 F 2

Type 526
Capacities – Steam

Capacities for saturated steam according to AD 2000-Merkblatt A2, based on set pressure plus 10 % overpressure. **8**

Capacities at 1 bar (14,5 psig) and below are based on 0,1 bar (1,45 psig) overpressure.

Metric Units		AD 2000-Merkblatt A2 [kg/h]				
Orifice	D	E	F	G	H	
Act. Orifice dia. d_0 [mm]	14	14	18	22,5	28,3	
Act. Orifice area A_0 [mm ²]	154	154	254	398	629	
LEO _{S/G} ^{*)} [inch ²]	0,111	0,19	0,324	0,506	0,801	
Set pressure [bar]	Capacities [kg/h]					
0,2	19	54	89	139	221	
0,5	42	90	149	232	367	
1	71	134	221	345	546	
2	120	217	359	561	888	
3	166	296	489	764	1209	

^{*)} LEO_{S/G} = LESER Effective Orifice steam/gas please refer to page 00/09

Capacities for saturated steam according to ASME Section VIII (UV), based on set pressure plus 10% overpressure.

Capacities at 2,07 bar (30 psig) and below are based on 0,207 bar (3 psig) overpressure.

US Units		ASME Section VIII [lb/h]				
Orifice	D	E	F	G	H	
Act. Orifice dia. d_0 [inch]	0,551	0,551	0,709	0,886	1,11	
Act. Orifice area A_0 [inch ²]	0,239	0,239	0,394	0,616	0,975	
LEO _{S/G} ^{*)} [inch ²]	0,111	0,196	0,324	0,506	0,801	
Set pressure [psig]	Capacities [lb/h]					
15	183	321	531	830	1313	
20	211	371	613	957	1515	
30	266	469	775	1212	1917	
40	328	577	954	1491	2359	
50	389	686	1133	1771	2802	

Explanation		Type 526, Valve size 1 F 2			
No.	Description		Metric Units	US Units	Example
1	Code				AD 2000-Merkblatt A2
2	Orifice				F
3	Actual orifice diameter	d_0	[mm]	[inch]	18
4	Actual orifice area	A_0	[mm ²]	[inch ²]	254
5	LESER Effective Orifice	LEO _{S/G}	[inch ²]	[inch ²]	0,324
6	Set pressure		[bar _g]	[psig]	1
7	Capacity		[kg/h]	[lb/h]	221
8	Base of calculation				see table page 00/08

8

Base of calculation

		Metric Units		US Units	
Code		Capacity calculation according to AD 2000-Merkblatt A2		Capacity calculation according to ASME Section VIII (UV)	
Media					
STEAM (saturated steam)	Standard conditions	Steam table IAPWS-IF97 IAPWS Industrial Formulation for the Thermodynamic Properties of Water and Steam	[kg/h]	Steam table IAPWS-IF97 IAPWS Industrial Formulation for the Thermodynamic Properties of Water and Steam	[lb/h]
AIR	Standard conditions	0 °C and 1013 mbar	[m _n ³ /h]	16 °C (60 °F)	[S.C.F.M.]
WATER	Standard conditions	20 °C (68 °F)	[10 ³ kg/h]	21 °C (70 °F)	[US-G.P.M.]
All Media					
	Calculation pressure	Set pressure plus 10 % overpressure		Set pressure plus 10 % overpressure	
	Calculation pressure for low set pressure	Capacities at 1 bar (14,5 psig) and below are based on 0,1 bar (1,45 psig) overpressure.		Capacities at 2,07 bar (30 psig) and below are based on 0,207 bar (3 psig) overpressure.	

Example

Capacity calculation pressure

Metric Units		US Units	
Set pressure	Capacity calculation pressure	Set pressure	Capacity calculation pressure
10 bar	10 bar + 10% overpressure = 11 bar	145 psig	145 psig + 10% overpressure = 159,5 psig
0,5 bar	0,5 bar + 0,1 bar overpressure = 0,6 bar	20 psig	20 psig + 3 psig overpressure = 23 psig

5

LESER Effective Orifice

Pressure relief devices may be initially sized using the equations shown in API RP 520, sections 3.6 through 3.10 as appropriate for vapors, gases, liquids, or two phase flow. These equations utilize effective coefficient of discharge (S/G 0,975, L 0,650) and effective areas (acc. to API Std. 526, Fifth Edition, June 2002, table 1) which are independent of any specific

valve design. In this way the designer can determine a preliminary pressure relief valve size. By using the LESER Effective Orifice the designer can directly select a LESER safety relief valve after calculating the orifice letter. In this case, a verification of the sizing with the selected actual orifice and the rated coefficient of discharge is not necessary.

LEO_{S/G}	LESER Effective Orifice (for steam, gas and vapor)	[inch²]	refer to page 00/09
LEO_L	LESER Effective Orifice (for liquid)	[inch²]	refer to page 00/10

For further information refer to LESER Engineering Handbook

This table is based on the rated coefficient of discharge for steams and gases of LESER safety valves certified by ASME. The appropriated K-values are shown in the column "K-value" of the table.

$$LEO_{S/G} [\text{inch}^2] = A_0 [\text{inch}^2] \cdot \left(\frac{K}{0,975} \right)$$

LEO _{S/G}		LESER Effective Orifice (for steam, gas and vapor)						
Orifice acc. API 526	Flange rating class	Valve size	d ₀ [inch]	d ₀ [mm]	K-value	LEO _{S/G} [inch ²]	% of higher orifice	% of lower orifice
D						0,110	100,0%	100,0%
	150 – 600	1 D 2	0,551	14,0	0,455	0,111	56,8%	101,2%
	900 – 1500	1 1/2 D 2	0,551	14,0	0,455	0,111	56,8%	101,2%
	2500	1 1/2 D 3	0,551	14,0	0,455	0,111	56,8%	101,2%
E						0,196	100,0%	100,0%
	150 – 600	1 E 2	0,551	14,0	0,801	0,196	63,9%	100,0%
	900 – 1500	1 1/2 E 2	0,551	14,0	0,801	0,196	63,9%	100,0%
	2500	1 1/2 E 3	0,551	14,0	0,801	0,196	63,9%	100,0%
F						0,307	100,0%	100,0%
	150 – 600	1 1/2 F 2	0,709	18,0	0,801	0,324	64,4%	105,5%
	900 – 2500	1 1/2 F 3	0,709	18,0	0,801	0,324	64,4%	105,5%
G						0,503	100,0%	100,0%
	150 – 900	1 1/2 G 3	0,886	22,5	0,801	0,506	64,5%	100,7%
	1500 – 2500	2 G 3	0,886	22,5	0,801	0,506	64,5%	100,7%
H						0,785	100,0%	100,0%
	150 – 300L	1 1/2 H 3	1,114	28,3	0,801	0,801	62,2%	102,0%
	300 – 1500	2 H 3	1,114	28,3	0,801	0,801	62,2%	102,0%
J						1,287	100,0%	100,0%
	150 – 300L	2 J 3	1,417	36,0	0,801	1,296	70,5%	100,7%
	300 – 1500	3 J 4	1,417	36,0	0,801	1,296	70,5%	100,7%
K						1,838	100,0%	100,0%
	150 – 600	3 K 4	1,693	43,0	0,801	1,849	64,8%	100,6%
	900 – 1500	3 K 6	1,693	43,0	0,801	1,849	64,8%	100,6%
L						2,853	100,0%	100,0%
	150 – 300L	3 L 4	2,106	53,5	0,801	2,863	79,5%	100,3%
	300 – 1500	4 L 6	2,106	53,5	0,801	2,863	79,5%	100,3%
M						3,600	100,0%	100,0%
	150 – 900	4 M 6	2,374	60,3	0,801	3,637	83,8%	101,0%
N						4,340	100,0%	100,0%
	150 – 900	4 N 6	2,598	66,0	0,801	4,357	68,3%	100,4%
P						6,380	100,0%	100,0%
	150 – 900	4 P 6	3,150	80,0	0,801	6,401	57,9%	100,3%
Q						11,050	100,0%	100,0%
	150 – 600	6 Q 8	4,154	105,5	0,801	11,132	69,6%	100,7%
R						16,000	100,0%	100,0%
	150	6 R 8	4,980	126,5	0,801	16,004	61,6%	100,0%
	300 – 600	6 R 10	4,980	126,5	0,801	16,004	61,6%	100,0%
T						26,000	100,0%	100,0%
	150 – 300	8 T 10	6,358	161,5	0,801	26,085	100,3%	

This table is based on the rated coefficient of discharge for steams and gases of LESER safety valves certified by ASME. The appropriated K-values are shown in the column "K-value" of the table.

$$LEO_L [\text{inch}^2] = A_0 [\text{inch}^2] \cdot \left(\frac{K}{0,650} \right)$$

LEO _L		LESER Effective Orifice (for liquid)						
Orifice acc. API 526	Flange rating class	Valve size	d ₀ [inch]	d ₀ [mm]	K-value	LEO _L [inch ²]	% of higher orifice	% of lower orifice
D						0,110	100,0%	100,0%
	150 – 600	1 D 2	0,551	14,0	0,343	0,126	64,2%	114,5%
	900 – 1500	1 1/2 D 2	0,551	14,0	0,343	0,126	64,2%	114,5%
	2500	1 1/2 D 3	0,551	14,0	0,343	0,126	64,2%	114,5%
E						0,196	100,0%	100,0%
	150 – 600	1 E 2	0,551	14,0	0,579	0,213	69,2%	108,4%
	900 – 1500	1 1/2 E 2	0,551	14,0	0,579	0,213	69,2%	108,4%
	2500	1 1/2 E 3	0,551	14,0	0,579	0,213	69,2%	108,4%
F						0,307	100,0%	100,0%
	150 – 600	1 1/2 F 2	0,709	18,0	0,579	0,351	69,8%	114,4%
	900 – 2500	1 1/2 F 3	0,709	18,0	0,579	0,351	69,8%	114,4%
G						0,503	100,0%	100,0%
	150 – 900	1 1/2 G 3	0,886	22,5	0,579	0,549	69,9%	109,1%
	1500 – 2500	2 G 3	0,886	22,5	0,579	0,549	69,9%	109,1%
H						0,785	100,0%	100,0%
	150 – 300L	1 1/2 H 3	1,114	28,3	0,579	0,868	67,5%	110,6%
	300 – 1500	2 H 3	1,114	28,3	0,579	0,868	67,5%	110,6%
J						1,287	100,0%	100,0%
	150 – 300L	2 J 3	1,417	36,0	0,579	1,405	76,5%	109,2%
	300 – 1500	3 J 4	1,417	36,0	0,579	1,405	76,5%	109,2%
K						1,838	100,0%	100,0%
	150 – 600	3 K 4	1,693	43,0	0,579	2,005	70,3%	109,1%
	900 – 1500	3 K 6	1,693	43,0	0,579	2,005	70,3%	109,1%
L						2,853	100,0%	100,0%
	150 – 300L	3 L 4	2,106	53,5	0,579	3,104	86,2%	108,8%
	300 – 1500	4 L 6	2,106	53,5	0,579	3,104	86,2%	108,8%
M						3,600	100,0%	100,0%
	150 – 900	4 M 6	2,374	60,3	0,579	3,943	90,9%	109,5%
N						4,340	100,0%	100,0%
	150 – 900	4 N 6	2,598	66,0	0,579	4,724	74,0%	108,8%
P						6,380	100,0%	100,0%
	150 – 900	4 P 6	3,150	80,0	0,579	6,940	62,8%	108,8%
Q						11,050	100,0%	100,0%
	150 – 600	6 Q 8	4,154	105,5	0,579	12,070	75,4%	109,2%
R						16,000	100,0%	100,0%
	150	6 R 8	4,980	126,5	0,579	17,353	66,7%	108,5%
	300 – 600	6 R 10	4,980	126,5	0,579	17,353	66,7%	108,5%
T						26,000	100,0%	100,0%
	150 – 300	8 T 10	6,358	161,5	0,579	28,283		108,8%

Sour gas service (H₂S)

Normative basis

In accordance with NACE standard MR 0175-2003 sour gas service means the presence of H₂S in the following conditions:

Part 1.4.1.1.: All gas, gas condensate, and sour crude oil – When the partial pressure of H₂S in a wet (water as a liquid) gas phase of a gas, gas condensate, or crude oil system is equal to or exceeds 0,003 bar_g (0,05 psia)

Exceptions are:

Part 1.4.2.1.: **Low-pressure gas:** When the total pressure is lower than 4,5 bar_a (65psia)

Part 1.4.2.2.: **Low-pressure oil and gas multiphase systems:** ...

Other Sour gas standards:

NACE MR 0103-2003: Materials resistance to sulfide stress cracking in corrosive petroleum refining environments.

DIN EN ISO 15156-1: Petroleum and natural gas industries – Materials for use in H₂S-containing environments in oil and gas production – Part 1: General principles for selection of cracking-resistant materials (ISO 15156-1:2001)

Miscellaneous

Workstandards: Please refer to LWN 001.91

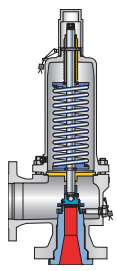
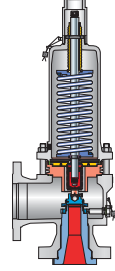
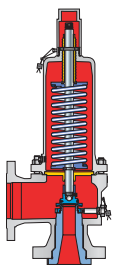
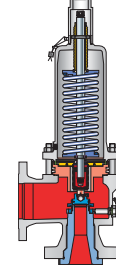
General requirements for sour gas service

The above mentioned standards require a maximum hardness of 22 HRC for the most steels. For the actual requirements of a specific material please refer to the applied standard.

LESER sour gas level

General: Sour gas material requirements must be fulfilled if pressure and partial pressure conditions according to the applied standard exist.

Based on these general statement LESER defines two sour gas level for safety valves:

		Level 1		Level 2	
Part definition		Contact with the medium in closed position		Contact with the medium in opened position	
		Conventional	Balanced bellows	Conventional	Balanced bellows
Contact area					
Pressure requirements		Set pressure ≥ 4,5 bar _a (65psia)		Back pressure ≥ 4,5 bar _a (65psia)	
Safety valve operation		closed		closed / opened	
Parts concerned		Conventional design	Nozzle Disc	All	
		Balanced bellows design	Nozzle Disc	Nozzle Disc Bonnet spacer Bellows	

Necessary material modification

Type	Body material	Design	Part	Material	Option code	Material	Option code
5262 5263 5267	WCB 1.0619 LCB WC6 1.7357	Conventional	Disc	1.4404 / 316L stellite	J25	Please choose balanced bellows design	
		Balanced bellows	Disc	1.4404 / 316L stellite	J25	1.4404 / 316L stellite	J25
			Bellows		1.4571 / 316Ti	J78	1.4571 / 316Ti
5264	CF8M 1.4408	Conventional		No modification required		No modification required	
		Balanced bellows	Bellows	1.4571 / 316Ti	J78	1.4571 / 316Ti	J78

Type 526

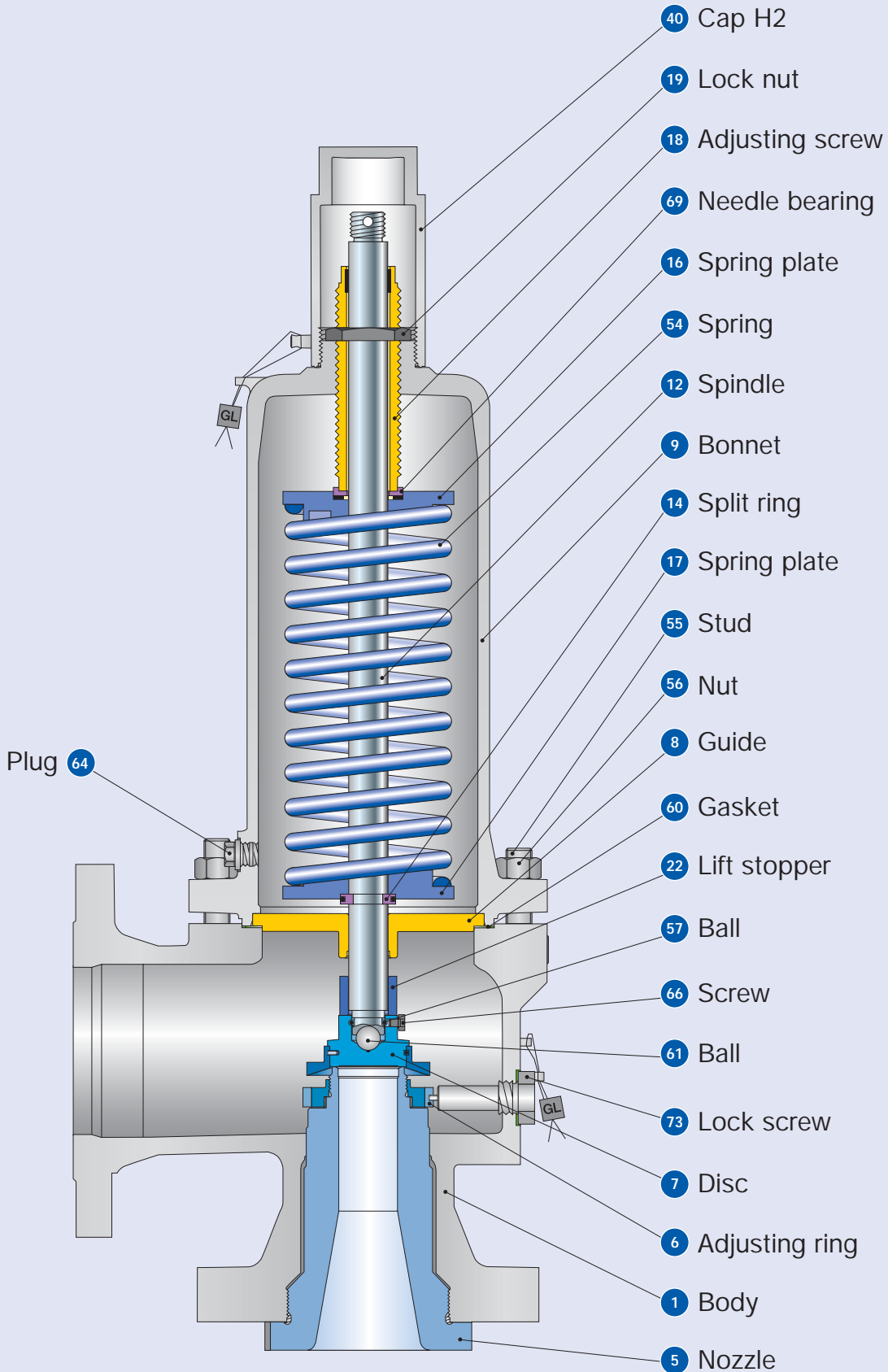
Type 526
Packed lever H4
Closed bonnet
Conventional design



Flanged Safety Relief Valves – spring loaded

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Conventional design



Conventional design

Materials		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
		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	1.4401	1.4401
		B8M	B8M	B8M	B8M
56	Nut	1.4401	1.4401	1.4401	1.4401
		8M	8M	8M	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
64	Plug	Steel	1.4401	Steel	Steel
		- " -	B8M	- " -	- " -
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⁾ Stellited sealing surfaces please refer to page 99/06

Please notice:

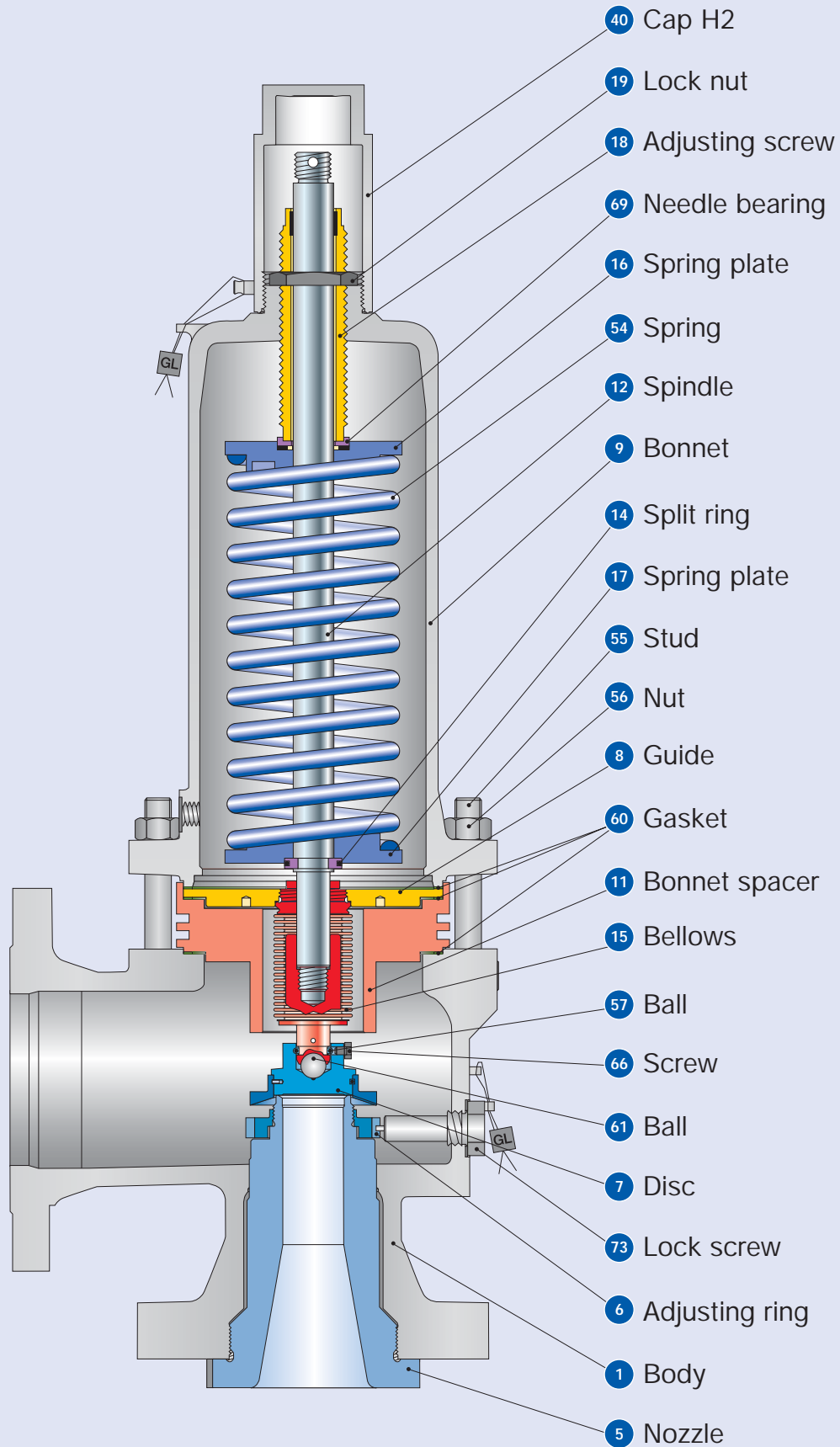
- Modifications reserved by LESER
- LESER can upgrade materials without notice
- Every part can be replaced by other material acc. to customer specification.

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

Type 526



Balanced bellows design

Materials		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	1.4404	1.4404	1.4404
		Carbon steel	SA 479 316L	SA 479 316L	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.

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.

How to order – Numbering system

1

Article Number

1	2	3	4
526	2	001	2

1 Valve Type 526

2 Material code

Code	Body + bonnet material
2	WCB 1.0619
3	LCB
4	CF8M 1.4408
7	WC6 1.7357

3 Valve code
Identifies valve size, body material, orifice and flange class. Refer to page 01/08 and 01/09.

4

Code	Lifting lever	
2	screwed cap	H2
3	plain lever	H3
4	packed lever	H4
5	plain lever with open bonnet	H3

5262.0012

Article No.

2

Set Pressure

Please state unit (in gauge)!

Please do not exceed the pressure range defined in the spring charts.

5 barg

Set Pressure

3

Connections

If different from API 526 Standard please refer to page 01/72.

H45

Connections

4 Options

Type 526	Option code
• RJ groove inlet	L58
• O-ring-disc	
CR "K"	J21
EPDM "D"	J22
FKM "L"	J23
FFKM "C"	J20
• Disc 1.4404 / 316L stellited	J25
• Nozzle 1.4404 / 316L stellited	L62
• Stainless steel bellows	
- open bonnet	J68
- closed bonnet	J78
- high temperature equipment (Type 5267 only)	J88
• Stainless steel spring	X04
• Adaptor for lift indicator H4	J39
• Lift indicator	J93
• Test gag	
- cap H2	J70
- packed lever H4	J69
• Free of oil and grease	J85
• Materials	
- NACE	H01
• Heating jacket	
- Couplings G 3/8	H29
G 3/4	H30
- Flanges DN 15	H31
DN 25	H32
1/2" class 150	K31
1" class 150	K32
- Bonnet spacer	H33
• Bolted cap H1	K01
• Bolted lifting device H6	K06

Option code applies only if not standard

J22

Options

5 Documentation

Please select requested documentation:

Inspections, tests:	Option Code
DIN EN 10204-3.2: TÜV-Nord Certificate for test pressure	M33
LESER Certificate for Global Application	H03
- Inspection certificate 3.1 acc. to DIN EN 10204	
- Declaration of conformity acc. to PED 97/23/EC	
Material test certificate:	
DIN EN 10204-3.1	
Part	Option code
Body	H01
Bonnet	L30
Cap / lever cover	L31
Nozzle	L59
Disc	L23
Studs	N07
Nuts	N08

H01 L30

Documentation

6 Code and Medium

1	2
3	1

1 Code

1. ASME Section VIII
2. CE / VdTUEV
3. ASME Section VIII + CE / VdTUEV

2 Medium

- .1 Gases
- .2 Liquids
- .3 Steam
- .0 Steam / Gases / Liquids (valid only for CE / VdTUEV)

3.1

Code and Medium

Article numbers – Overview

Article numbers												
Material	WCB	CF8M	WC6	LCB	WCB	CF8M	WC6	LCB	WCB	CF8M	WC6	LCB
	1.0619	1.4408	1.7357		1.0619	1.4408	1.7357		1.0619	1.4408	1.7357	
Flange class	150 x 150				300L x 150				300 x 150			
Valve size	1 D 2				1 D 2				1 D 2			
D	5262.001 ^a	5264.010 ^a	–	5263.500 ^a	Use 1 D 2 300 x 150				5262.002 ^a	5264.011 ^a	5267.006 ^a	5263.501 ^a
Valve size	1 E 2				1 E 2				1 E 2			
E	5262.015 ^a	5264.024 ^a	–	5263.505 ^a	Use 1 E 2 300 x 150				5262.016 ^a	5264.025 ^a	5267.020 ^a	5263.506 ^a
Valve size	1 1/2 F 2				1 1/2 F 2				1 1/2 F 2			
F	5262.029 ^a	5264.039 ^a	–	5263.510 ^a	5262.030 ^a	5264.040 ^a	–	5263.511 ^a	5262.031 ^a	5264.041 ^a	5267.035 ^a	5263.512 ^a
Valve size	1 1/2 G 3				1 1/2 G 3				1 1/2 G 3			
G	5262.045 ^a	5264.110 ^a	–	5263.516 ^a	5262.046 ^a	5264.111 ^a	–	5263.517 ^a	5262.047 ^a	5264.112 ^a	5267.052 ^a	5263.518 ^a
Flange class	150 x 150				300L x 150				300 x 150			
Valve size	1 1/2 H 3				1 1/2 H 3				2 H 3			
H	5262.142 ^a	5264.152 ^a	–	5263.523 ^a	5262.143 ^a	5264.153 ^a	–	5263.524 ^a	5262.144 ^a	5264.154 ^a	5267.148 ^a	5263.525 ^a
Valve size	2 J 3				2 J 3				3 J 4			
J	5262.162 ^a	5264.196 ^a	–	5263.529 ^a	5262.163 ^a	5264.197 ^a	–	5263.530 ^a	5262.164 ^a	5264.198 ^a	5267.168 ^a	5263.531 ^a
Valve size	3 K 4				3 K 4				3 K 4			
K	5262.202 ^a	5264.211 ^a	–	5263.535 ^a	Use 3 K 4 300 x 150				5262.203 ^a	5264.212 ^a	5267.207 ^a	5263.536 ^a
Flange class	150 x 150				300L x 150				300 x 150			
Valve size	3 L 4				3 L 4				4 L 6			
L	5262.232 ^a	5264.242 ^a	–	5263.540 ^a	5262.233 ^a	5264.243 ^a	–	5263.541 ^a	5262.234 ^a	5264.244 ^a	5267.238 ^a	5263.542 ^a
Valve size	4 M 6				4 M 6				4 M 6			
M	5262.580 ^a	5264.587 ^a	–	5263.546 ^a	Use 4 M 6 300 x 150				5262.581 ^a	5264.588 ^a	5267.584 ^a	5263.547 ^a
Valve size	4 N 6				4 N 6				4 N 6			
N	5262.590 ^a	5264.597 ^a	–	5263.550 ^a	Use 4 N 6 300 x 150				5262.591 ^a	5264.598 ^a	5267.594 ^a	5263.551 ^a
Valve size	4 P 6				4 P 6				4 P 6			
P	5262.645 ^a	5264.653 ^a	–	5263.554 ^a	5262.646 ^a	5264.654 ^a	–	5263.555 ^a	5262.647 ^a	5264.655 ^a	5267.650 ^a	5263.556 ^a
Valve size	6 Q 8				6 Q 8				6 Q 8			
Q	5262.657 ^a	5264.662 ^a	–	5263.559 ^a	Use 6 Q 8 300 x 150				5262.658 ^a	5264.663 ^a	5267.660 ^a	5263.560 ^a
Valve size	6 R 8				6 R 8				6 R 10			
R	5262.665 ^a	5264.671 ^a	–	5263.562 ^a	5262.666 ^a	5264.672 ^a	5267.669 ^a	5263.563 ^a	5262.667 ^a	5264.673 ^a	–	5263.564 ^a
Valve size	8 T 10				8 T 10				8 T 10			
T	5262.675 ^a	5264.678 ^a	–	5263.566 ^a	Use 8 T 10 300 x 150				5262.676 ^a	5264.679 ^a	5267.677 ^a	5263.567 ^a

Article numbers – Overview

Article numbers																
Material	WCB	CF8M	WC6	LCB	WCB	CF8M	WC6	LCB	WCB	CF8M	WC6	LCB	WCB	CF8M	WC6	LCB
	1.0619	1.4408	1.7357		1.0619	1.4408	1.7357		1.0619	1.4408	1.7357		1.0619	1.4408	1.7357	
Flange class	600 x 150				900 x 300				1500 x 300				2500 x 300			
Valve size	1 D 2				1 1/2 D 2				1 1/2 D 2				1 1/2 D 3			
D	5262.003 ²⁾	5264.012 ²⁾	5267.007 ²⁾	5263.502 ²⁾	Use 1 1/2 D 2 1500 x 300				5262.004 ²⁾	5264.013 ²⁾	5267.008 ²⁾	5263.503 ²⁾	5262.005 ²⁾	5264.014 ²⁾	5267.009 ²⁾	5263.504 ²⁾
E	1 E 2				1 1/2 E 2				1 1/2 E 2				1 1/2 E 3			
	5262.017 ²⁾	5264.026 ²⁾	5267.021 ²⁾	5263.507 ²⁾	Use 1 1/2 E 2 1500 x 300				5262.018 ²⁾	5264.027 ²⁾	5267.022 ²⁾	5263.508 ²⁾	5262.019 ²⁾	5264.028 ²⁾	5267.023 ²⁾	5263.509 ²⁾
F	1 1/2 F 2				1 1/2 F 3				1 1/2 F 3				1 1/2 F 3			
	5262.032 ²⁾	5264.042 ²⁾	5267.036 ²⁾	5263.513 ²⁾	Use 1 1/2 F 3 1500 x 300				5262.033 ²⁾	5264.043 ²⁾	5267.037 ²⁾	5263.514 ²⁾	5262.034 ²⁾	5264.044 ²⁾	5267.038 ²⁾	5263.515 ²⁾
G	1 1/2 G 3				1 1/2 G 3				2 G 3				2 G 3			
	5262.048 ²⁾	5264.113 ²⁾	5267.053 ²⁾	5263.519 ²⁾	5262.049 ²⁾	5264.114 ²⁾	5267.054 ²⁾	5263.520 ²⁾	5262.050 ²⁾	5264.115 ²⁾	5267.055 ²⁾	5263.521 ²⁾	5262.051 ²⁾	5264.116 ²⁾	5267.056 ²⁾	5263.522 ²⁾
Flange class	600 x 150				900 x 150				1500 x 300							
Valve size	2 H 3				2 H 3				2 H 3							
H	5262.145 ²⁾	5264.155 ²⁾	5267.149 ²⁾	5263.526 ²⁾	5262.146 ²⁾	5264.156 ²⁾	5267.150 ²⁾	5263.527 ²⁾	5262.147 ²⁾	5264.157 ²⁾	5267.151 ²⁾	5263.528 ²⁾				
J	3 J 4				3 J 4				3 J 4							
	5262.165 ²⁾	5264.199 ²⁾	5267.169 ²⁾	5263.532 ²⁾	5262.166 ²⁾	5264.200 ²⁾	5267.170 ²⁾	5263.533 ²⁾	5262.167 ²⁾	5264.201 ²⁾	5267.171 ²⁾	5263.534 ²⁾				
K	3 K 4				3 K 6				3 K 6							
	5262.204 ²⁾	5264.213 ²⁾	5267.208 ²⁾	5263.537 ²⁾	5262.205 ²⁾	5264.214 ²⁾	5267.209 ²⁾	5263.538 ²⁾	5262.206 ²⁾	5264.215 ²⁾	5267.210 ²⁾	5263.539 ²⁾				
Flange class	600 x 150				900 x 150				1500 x 150							
Valve size	4 L 6				4 L 6				4 L 6							
L	5262.235 ²⁾	5264.245 ²⁾	5267.239 ²⁾	5263.543 ²⁾	5262.236 ²⁾	5264.246 ²⁾	5267.240 ²⁾	5263.544 ²⁾	5262.237 ²⁾	-	5267.241 ²⁾	5263.545 ²⁾				
M	4 M 6				4 M 6											
	5262.582 ²⁾	5264.589 ²⁾	5267.585 ²⁾	5263.548 ²⁾	5262.583 ²⁾	-	5267.586 ²⁾	5263.549 ²⁾								
N	4 N 6				4 N 6											
	5262.592 ²⁾	5264.599 ²⁾	5267.595 ²⁾	5263.552 ²⁾	5262.593 ²⁾	-	5267.596 ²⁾	5263.553 ²⁾								
P	4 P 6				4 P 6											
	5262.648 ²⁾	5264.656 ²⁾	5267.651 ²⁾	5263.557 ²⁾	5262.649 ²⁾	-	5267.652 ²⁾	5263.558 ²⁾								
Q	6 Q 8															
	5262.659 ²⁾	5264.664 ²⁾	5267.661 ²⁾	5263.561 ²⁾												
R	6 R 10															
	5262.668 ²⁾	5264.674 ²⁾	5267.670 ²⁾	5263.565 ²⁾												
T	8 T 10															
	-	-	-	-												

²⁾ Please add code for the required cap or lifting device.

Code for 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	-

Type 526

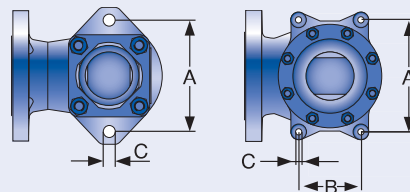
Dimensions

Metric Units

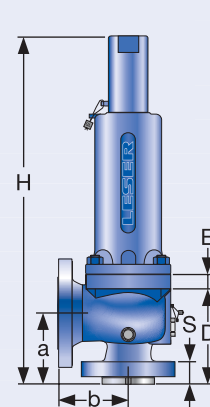
Safety valve dimensions [mm]		a	b	s	H _{max.}	H _{max.} with bellows	a	b	s	H _{max.}	H _{max.} with bellows	a	b	s	H _{max.}	H _{max.} with bellows	
Support brackets [mm]		A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	
Flange rating class		150 x 150					300L x 150					300 x 150					
Valve size		1 D 2					1 D 2					1 D 2					
D	d ₀ [mm]	14	105	114	30	440	Please see 1 D 2					105	114	30	440	465	
	A ₀ [mm ²]	154	130	-	Ø 14	132	300 x 150					130	-	Ø 14	132	16	
Valve size		1 E 2					1 E 2					1 E 2					
E	d ₀ [mm]	14	105	114	30	440	Please see 1 E 2					105	114	30	440	465	
	A ₀ [mm ²]	154	130	-	Ø 14	132	300 x 150					130	-	Ø 14	132	16	
Valve size		1 1/2 F 2					1 1/2 F 2					1 1/2 F 2					
F	d ₀ [mm]	18	124	121	32	536	124	121	32	536	561	124	152	35	536	561	
	A ₀ [mm ²]	254	162	-	Ø 14	148	162	-	Ø 14	148	16	162	-	Ø 14	148	16	
Valve size		1 1/2 G 3					1 1/2 G 3					1 1/2 G 3					
G	d ₀ [mm]	22,5	124	121	32	536	124	121	32	536	574	124	152	35	536	574	
	A ₀ [mm ²]	398	162	-	Ø 14	148	162	-	Ø 14	148	16	162	-	Ø 14	148	16	
Flange rating class		150 x 150					300L x 150					300 x 150					
Valve size		1 1/2 H 3					1 1/2 H 3					2 H 3					
H	d ₀ [mm]	28,3	130	124	38	542	130	124	38	542	580	130	124	43	666	692	
	A ₀ [mm ²]	629	162	-	Ø 14	155	162	-	Ø 14	155	16	184	110	Ø 14	177	16	
Valve size		2 J 3					2 J 3					2 J 3					
J	d ₀ [mm]	36	137	124	49	673	137	124	49	673	722	184	181	49	786	824	
	A ₀ [mm ²]	1018	184	110	Ø 14	184	16	184	110	Ø 14	184	16	238	140	Ø 18	234	25
Valve size		3 K 4					3 K 4					3 K 4					
K	WCB, LCB, CF8M (WC6)	d ₀ [mm]	43	156	162	49	758	Please see 3 K 4					156	162	49	758	796
	WC6	A ₀ [mm ²]	1452	238	140	Ø 18	206	300 x 150					238	140	Ø 18	206	25
Flange rating class		150 x 150					300L x 150					300 x 150					
Valve size		3 L 4					3 L 4					4 L 6					
L	d ₀ [mm]	53,5	156	165	49	758	156	165	49	758	796	179	181	49	853	886	
	A ₀ [mm ²]	2248	238	140	Ø 18	206	25	238	140	Ø 18	206	25	278	160	Ø 18	262	25
Valve size		4 M 6					4 M 6					4 M 6					
M	d ₀ [mm]	60,3	178	184	48	852	Please see 4 M 6					178	184	48	852	885	
	A ₀ [mm ²]	2856	278	160	Ø 18	260	25	300 x 150					278	160	Ø 18	260	25
Valve size		4 N 6					4 N 6					4 N 6					
N	d ₀ [mm]	66	197	210	48	871	Please see 4 N 6					197	210	48	871	904	
	A ₀ [mm ²]	3421	278	160	Ø 18	280	25	300 x 150					278	160	Ø 18	280	25
Valve size		4 P 6					4 P 6					4 P 6					
P	d ₀ [mm]	80	181	229	48	855	181	229	48	855	888	225	254	62	1079	1138	
	A ₀ [mm ²]	5027	278	160	Ø 18	262	25	278	160	Ø 18	262	25	370	210	Ø 18	306	25
Valve size		6 Q 8					6 Q 8					6 Q 8					
Q	d ₀ [mm]	105,5	240	241	68	1120	Please see 6 Q 8					240	241	68	1120	1200	
	A ₀ [mm ²]	8742	370	210	Ø 18	346	25	300 x 150					370	210	Ø 18	346	25
Valve size		6 R 8					6 R 8					6 R 10					
R	d ₀ [mm]	126,5	240	241	68	1120	240	241	68	1120	1200	240	267	68	1426	1426	
	A ₀ [mm ²]	12568	370	210	Ø 18	346	25	370	210	Ø 18	346	25	470	150	Ø 18	460	25
Valve size		8 T 10					8 T 10					8 T 10					
T	d ₀ [mm]	161,5	276	279	62	1462	Please see 8 T 10					276	279	62	1462	1462	
	A ₀ [mm ²]	20485	470	150	Ø 18	497	25	300 x 150					470	150	Ø 18	497	25

d_0 = Actual orifice diameter
 A_0 = Actual orifice area

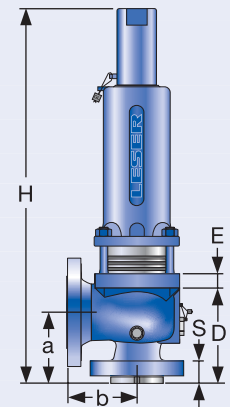
a	b	s	H _{max.}	H _{max.} with bellows	a	b	s	H _{max.}	H _{max.} with bellows	a	b	s	H _{max.}	H _{max.} with bellows	a	b	s	H _{max.}	H _{max.} with bellows
A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
600 x 150					900 x 300					1500 x 300					2500 x 300				
1 D 2					1 1/2 D 2					1 1/2 D 2					1 1/2 D 3				
105	114	30	440	465	Please see 1 1/2 D 2					105	140	44	517	542	140	178	57	576	576
130	-	Ø 14	132	16	1500 x 300					162	-	Ø 14	129	16	162	-	Ø 14	189	16
1 E 2					1 1/2 E 2					1 1/2 E 2					1 1/2 E 3				
105	114	30	440	465	Please see 1 1/2 E 2					105	140	44	517	542	140	178	57	576	576
130	-	Ø 14	132	16	1500 x 300					162	-	Ø 14	129	16	162	-	Ø 14	189	16
1 1/2 F 2					1 1/2 F 3					1 1/2 F 3					1 1/2 F 3				
124	152	35	536	561	Please see 1 1/2 F 3					124	165	44	560	560	140	178	57	576	576
162	-	Ø 14	148	16	1500 x 300					162	-	Ø 14	174	16	162	-	Ø 14	189	16
1 1/2 G 3					1 1/2 G 3					2 G 3					2 G 3				
124	152	35	536	574	124	165	44	560	573	156	172	68	688	705	156	172	68	688	705
162	-	Ø 14	148	16	162	-	Ø 14	174	16	184	110	Ø 14	198	16	184	110	Ø 14	198	16
600 x 150					900 x 150					1500 x 300									
2 H 3					2 H 3					2 H 3									
154	162	56	691	717	154	162	56	691	717	154	162	56	691	717					
184	110	Ø 14	202	16	184	110	Ø 14	202	16	184	110	Ø 14	202	16					
3 J 4					3 J 4					3 J 4									
184	181	49	786	824	184	181	65	786	824	184	181	65	786	824					
238	140	Ø 18	234	25	238	140	Ø 18	234	25	238	140	Ø 18	234	25					
3 K 4					3 K 6					3 K 6									
184	181	49	786	824	198	216	67	880	880	197	216	65	879	879					
238	140	Ø 18	234	25	278	160	Ø 18	288	25	278	160	Ø 18	287	25					
156	162	49	758	796															
238	140	Ø 18	206	25															
600 x 150					900 x 150					1500 x 150									
4 L 6					4 L 6					4 L 6									
179	203	57	853	886	197	222	72	871	904	197	222	72	871	904					
278	160	Ø 18	262	25	278	160	Ø 18	280	25	278	160	Ø 18	280	25					
4 M 6					4 M 6														
178	203	56	852	885	197	222	72	871	904										
278	160	Ø 18	260	25	278	160	Ø 18	280	25										
4 N 6					4 N 6														
197	222	72	871	904	197	222	72	871	904										
278	160	Ø 18	280	25	278	160	Ø 18	280	25										
4 P 6					4 P 6														
225	254	62	1079	1138	225	254	62	1079	1138										
370	210	Ø 18	306	25	370	210	Ø 18	306	25										
6 Q 8																			
240	241	68	1120	1200															
370	210	Ø 18	346	25															
6 R 10																			
240	267	68	1426	1426															
470	150	Ø 18	460	25															
-	-	-	-	-															
-	-	-	-	-															
-	-	-	-	-															



Support brackets



Conventional design



Balanced bellows design

Type 526

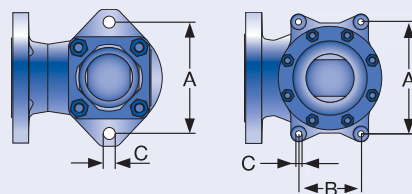
Dimensions

US Units

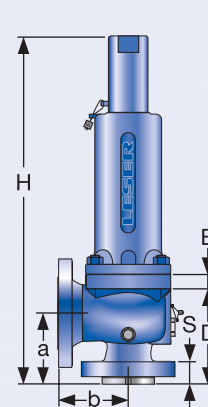
Safety valve dimensions [inch]		a	b	s	H _{max.}	H _{max.} with bellows	a	b	s	H _{max.}	H _{max.} with bellows	a	b	s	H _{max.}	H _{max.} with bellows	
Support brackets [inch]		A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	
Flange rating class		150 x 150					300L x 150					300 x 150					
Valve size		1 D 2					1 D 2					1 D 2					
D	d ₀ [inch]	0,552	4 1/8	4 1/2	1 3/16	17 5/16	18 5/16	Please see 1 D 2					4 1/8	4 1/2	1 3/16	17 5/16	18 5/16
	A ₀ [inch ²]	0,239	5 1/8	-	Ø 9/16	5 7/32	5/8	300 x 150					5 1/8	-	Ø 9/16	5 7/32	5/8
Valve size		1 E 2					1 E 2					1 E 2					
E	d ₀ [inch]	0,552	4 1/8	4 1/2	1 3/16	17 5/16	18 5/16	Please see 1 E 2					4 1/8	4 1/2	1 3/16	17 5/16	18 5/16
	A ₀ [inch ²]	0,239	5 1/8	-	Ø 9/16	5 7/32	5/8	300 x 150					5 1/8	-	Ø 9/16	5 7/32	5/8
Valve size		1 1/2 F 2					1 1/2 F 2					1 1/2 F 2					
F	d ₀ [inch]	0,709	4 7/8	4 3/4	1 1/4	21 3/32	22 3/32	4 7/8	4 3/4	1 1/4	21 3/32	22 3/32	4 7/8	6	1 13/32	21 3/32	22 3/32
	A ₀ [inch ²]	0,394	6 3/8	-	Ø 9/16	5 27/32	5/8	6 3/8	-	Ø 9/16	5 27/32	5/8	6 3/8	-	Ø 14	5 27/32	5/8
Valve size		1 1/2 G 3					1 1/2 G 3					1 1/2 G 3					
G	d ₀ [inch]	0,886	4 7/8	4 3/4	1 1/4	21 3/32	22 19/32	4 7/8	4 3/4	1 1/4	21 3/32	22 19/32	4 7/8	6	1 13/32	21 3/32	22 19/32
	A ₀ [inch ²]	0,616	6 3/8	-	Ø 9/16	5 27/32	5/8	6 3/8	-	Ø 9/16	5 27/32	5/8	6 3/8	-	Ø 9/16	5 27/32	5/8
Flange rating class		150 x 150					300L x 150					300 x 150					
Valve size		1 1/2 H 3					1 1/2 H 3					2 H 3					
H	d ₀ [inch]	1,11	5 1/8	4 7/8	1 1/2	21 11/32	22 27/32	5 1/8	4 7/8	1 1/2	21 11/32	22 27/32	5 1/8	4 7/8	1 11/16	26 7/32	27 1/4
	A ₀ [inch ²]	0,98	6 3/8	-	Ø 9/16	6 3/32	5/8	6 3/8	-	Ø 9/16	6 3/32	5/8	7 1/4	4 11/32	Ø 9/16	6 31/32	5/8
Valve size		2 J 3					2 J 3					2 J 3					
J	d ₀ [inch]	1,42	5 3/8	4 7/8	1 15/16	26 1/2	28 7/16	5 3/8	4 7/8	1 15/16	26 1/2	28 7/16	7 1/4	7 1/8	1 15/16	30 15/16	32 7/16
	A ₀ [inch ²]	1,58	7 1/4	4 11/32	Ø 9/16	7 1/4	5/8	7 1/4	4 11/32	Ø 9/16	7 1/4	5/8	9 3/8	5 1/2	Ø 23/32	9 7/32	31/32
Valve size		3 K 4					3 K 4					3 K 4					
K	WCB, LCB, d ₀ [inch]	1,69	6 1/8	6 3/8	1 15/16	29 27/32	23 11/32	Please see 3 K 4					6 1/8	6 3/8	1 15/16	29 27/32	31 11/32
	CF8M (WC6) A ₀ [inch ²]	2,25	9 3/8	5 1/2	Ø 23/32	8 3/32	31/32	300 x 150					9 3/8	5 1/2	Ø 23/32	8 3/32	31/32
WC6																	
Flange rating class		150 x 150					300L x 150					300 x 150					
Valve size		3 L 4					3 L 4					4 L 6					
L	d ₀ [inch]	2,11	6 1/8	6 1/2	1 15/16	23 27/32	31 11/12	6 1/8	6 1/2	1 15/16	29 27/32	31 11/12	7 1/6	7 1/8	1 15/16	33 19/32	34 7/8
	A ₀ [inch ²]	3,48	9 3/8	5 1/2	Ø 23/32	8 3/32	31/32	9 3/8	5 1/2	Ø 23/32	8 3/32	31/32	10 15/16	6 5/16	Ø 23/32	10 5/16	31/32
Valve size		4 M 6					4 M 6					4 M 6					
M	d ₀ [inch]	2,37	7	7 1/4	1 7/8	33 17/32	34 27/32	Please see 4 M 6					7	7 1/4	1 7/8	33 17/32	34 27/32
	A ₀ [inch ²]	4,43	10 15/16	6 5/16	Ø 23/32	10 1/4	31/32	300 x 150					10 15/16	6 5/16	Ø 23/32	10 1/4	31/32
Valve size		4 N 6					4 N 6					4 N 6					
N	d ₀ [inch]	2,60	7 3/4	8 1/4	1 7/8	34 9/32	35 19/32	Please see 4 N 6					7 3/4	8 1/4	1 7/8	34 9/32	35 19/32
	A ₀ [inch ²]	5,30	10 15/16	6 5/16	Ø 23/32	11	31/32	300 x 150					10 15/16	6 5/16	Ø 23/32	11	31/32
Valve size		4 P 6					4 P 6					4 P 6					
P	d ₀ [inch]	3,15	7 1/8	9	1 7/8	33 31/32	34 31/32	7 1/8	9	1 7/8	33 31/32	34 31/32	8 7/8	10	2 7/16	42 1/2	44 13/16
	A ₀ [inch ²]	7,79	10 15/16	6 5/16	Ø 23/32	10 5/16	31/32	10 15/16	6 5/16	Ø 23/32	10 5/16	31/32	14 9/16	8 9/32	Ø 23/32	12 1/16	31/32
Valve size		6 Q 8					6 Q 8					6 Q 8					
Q	d ₀ [inch]	4,15	9 7/16	9 1/2	2 11/16	44 1/8	47 1/4	Please see 6 Q 8					9 7/16	9 1/2	2 11/16	44 1/8	47 1/4
	A ₀ [inch ²]	13,55	14 9/16	8 9/32	Ø 23/32	13 5/8	31/32	300 x 150					14 9/16	8 9/32	Ø 23/32	13 5/8	31/32
Valve size		6 R 8					6 R 8					6 R 10					
R	d ₀ [inch]	4,98	9 7/16	9 1/2	2 11/16	44 1/8	47 1/4	9 7/16	9 1/2	2 11/16	41 5/8	44 3/4	9 7/16	10 1/2	2 11/16	56 1/8	56 1/8
	A ₀ [inch ²]	19,84	14 9/16	8 9/32	Ø 23/32	13 5/8	31/32	14 9/16	8 9/32	Ø 23/32	13 5/8	31/32	18 1/2	5 29/32	Ø 23/32	18 1/8	31/32
Valve size		8 T 10					8 T 10					8 T 10					
T	d ₀ [inch]	6,36	10 7/8	11	2 7/16	57 9/16	57 9/16	Please see 8 T 10					10 7/8	11	2 7/16	57 9/16	57 9/16
	A ₀ [inch ²]	31,75	18 1/2	5 29/32	Ø 23/32	19 9/16	31/32	300 x 150					18 1/2	5 29/32	Ø 23/32	19 9/16	31/32

d_0 = Actual orifice diameter
 A_0 = Actual orifice area

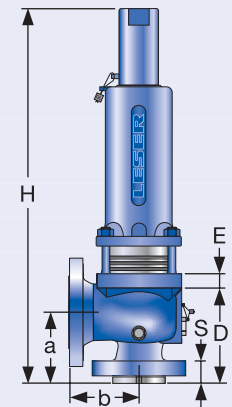
a	b	s	H _{max.}	H _{max.} with bellows	a	b	s	H _{max.}	H _{max.} with bellows	a	b	s	H _{max.}	H _{max.} with bellows	a	b	s	H _{max.}	H _{max.} with bellows
A	B	C	D	E	A	B	C	D	E	A	B	C	D	E	A	B	C	D	E
600 x 150					900 x 300					1500 x 300					2500 x 300				
1 D 2					1 1/2 D 2					1 1/2 D 2					1 1/2 D 3				
4 1/8	4 1/2	1 3/16	17 5/16	18 5/16	Please see 1 1/2 D 2 1500 x 300					4 1/8	5 1/2	1 3/4	20 11/32	21 11/32	4 1/2	7	2 1/4	22 11/16	22 11/16
5 1/8	-	Ø 9/16	5 7/32	5/8						6 3/8	-	Ø 9/16	5 3/32	5/8	6 3/8	-	Ø 9/16	7 15/32	5/8
1 E 2					1 1/2 E 2					1 1/2 E 2					1 1/2 E 3				
4 1/8	4 1/2	1 3/16	17 5/16	18 5/16	Please see 1 1/2 E 2 1500 x 300					4 1/8	5 1/2	1 3/4	20 11/32	21 11/32	5 1/2	7	2 1/4	22 11/16	22 11/16
5 1/8	-	Ø 9/16	5 7/32	5/8						6 3/8	-	Ø 9/16	5 3/32	5/8	6 3/8	-	Ø 9/16	7 15/32	5/8
1 1/2 F 2					1 1/2 F 3					1 1/2 F 3					1 1/2 F 3				
4 7/8	6	1 13/32	21 3/32	22 3/32	Please see 1 1/2 F 3 1500 x 300					4 7/8	6 1/2	1 3/4	22 1/16	22 1/16	5 1/2	7	2 1/4	22 11/16	22 11/16
6 3/8	-	Ø 9/16	5 27/32	5/8						6 3/8	-	Ø 9/16	6 27/32	5/8	6 3/8	-	Ø 9/16	7 15/32	5/8
1 1/2 G 3					1 1/2 G 3					2 G 3					2 G 3				
4 7/8	6	1 13/32	21 3/32	22 19/32	4 7/8	6 1/2	1 3/4	22 1/16	22 9/16	6 1/8	6 3/4	2 11/16	27 3/32	27 3/4	6 1/8	6 3/4	2 11/16	27 3/32	27 3/4
6 3/8	-	Ø 9/16	5 27/32	5/8	6 3/8	-	Ø 14	6 27/32	5/8	7 1/4	4 11/32	Ø 9/16	7 13/16	5/8	7 1/4	4 11/32	Ø 9/16	7 13/16	5/8
600 x 150					900 x 150					1500 x 300									
2 H 3					2 H 3					2 H 3									
6 1/16	6 3/8	2 3/16	27 7/32	28 7/32	6 1/16	6 3/8	2 3/16	27 7/32	28 7/32	6 1/16	6 3/8	2 3/16	27 7/32	28 7/32					
7 1/4	4 11/32	Ø 9/16	7 15/16	5/8	7 1/4	4 11/32	Ø 9/16	7 15/16	5/8	7 1/4	4 11/32	Ø 9/16	7 15/16	5/8					
3 J 4					3 J 4					3 J 4									
7 1/4	7 1/8	1 15/16	30 15/16	32 7/16	7 1/4	7 1/8	2 9/16	30 15/16	32 7/16	7 1/4	7 1/8	2 3/16	30 15/16	32 7/16					
9 3/8	5 1/2	Ø 23/32	9 7/32	31/32	9 3/8	5 1/2	Ø 23/32	9 7/32	31/32	9 3/8	5 1/2	Ø 23/32	9 7/32	31/32					
3 K 4					3 K 6					3 K 6									
7 1/4	7 1/8	1 15/16	30 15/16	32 7/16	7 13/16	8 1/2	2 9/16	34 21/32	34 21/32	7 3/4	8 1/2	2 9/16	34 19/32	34 19/32					
9 3/8	5 1/2	Ø 23/32	9 7/32	31/32	10 15/16	6 5/16	Ø 23/32	11 11/32	31/32	10 15/16	6 5/16	Ø 23/32	10 15/16	31/32					
6 1/8	6 3/8	1 15/16	29 27/32	31 11/32															
9 3/8	5 1/2	Ø 23/32	8 3/32	31/32															
600 x 150					900 x 150					1500 x 150									
4 L 6					4 L 6					4 L 6									
7 1/16	8	2 1/4	33 19/32	34 7/8	7 3/4	8 3/4	2 3/4	34 9/32	35 19/32	7 3/4	8 3/4	2 3/4	34 9/32	35 19/32					
10 15/16	6 5/16	Ø 23/32	10 15/16	31/32	10 15/16	6 5/16	Ø 23/32	11	31/32	10 15/16	6 5/16	Ø 23/32	11	31/32					
4 M 6					4 M 6														
7	8	2 3/16	33 17/32	34 27/32	7 3/4	8 3/4	2 3/4	34 9/32	35 19/32										
10 15/16	6 5/16	Ø 23/32	10 1/4	31/32	10 15/16	6 5/16	Ø 23/32	11	31/32										
4 N 6					4 N 6														
7 3/4	8 3/4	2 3/4	34 9/32	35 19/32	7 3/4	8 3/4	2 3/4	34 9/32	35 19/32										
10 15/16	6 5/16	Ø 23/32	11	31/32	10 15/16	6 5/16	Ø 23/32	11	31/32										
4 P 6					4 P 6														
8 7/8	10	2 7/16	42 1/2	44 13/16	8 7/8	10	2 7/16	42 1/2	44 13/16										
14 9/16	8 9/32	Ø 23/32	12 1/16	31/32	14 9/16	8 9/32	Ø 23/32	12 1/16	31/32										
6 Q 8																			
9 7/16	9 1/2	2 11/16	44 1/8	47 1/4															
14 9/16	8 9/32	Ø 23/32	13 5/8	31/32															
6 R 10																			
9 7/16	10 1/2	2 11/16	56 1/8	56 1/8															
18 1/2	5 29/32	Ø 23/32	18 1/8	31/32															
-	-	-	-	-															
-	-	-	-	-															



Support brackets



Conventional design



Balanced bellows design

Weights

Metric Units

		Bonnet			all					
		Lifting device			all					
Flange class		150 x 150	300L x 150	300 x 150	600 x 150	900 x 300	1500 x 300	2500 x 300		
Valve size		1 D 2	1 D 2	1 D 2	1 D 2	1 1/2 D 2	1 1/2 D 2	1 1/2 D 3		
D	Weight [kg]	17,3	Use 300 lbs dimensions for this size	17,3	17,3	Use 1500 lbs dimensions for this size	31,1	41,8		
	with bellows [kg]	18,4		18,4	18,4		33,1	44,6		
E	Weight [kg]	17,3	Use 300 lbs dimensions for this size	17,3	17,3	Use 1500 lbs dimensions for this size	31,1	41,8		
	with bellows [kg]	18,4		18,4	18,4		33,1	44,6		
F	Weight [kg]	30,6	30,6	32,5	32,5	Use 1500 lbs dimensions for this size	36,3	41,8		
	with bellows [kg]	33,1	33,1	35	35		38,6	44,6		
G	Weight [kg]	30,6	30,6	32,5	32,5	36,3	69,9	69,9		
	with bellows [kg]	33,1	33,1	35	35	38,6	72,5	72,5		
Flange class		150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 300			
Valve size		1 1/2 H 3	1 1/2 H 3	2 H 3	2 H 3	2 H 3	2 H 3			
H	Weight [kg]	30,6	30,6	44,6	62,2	62,2	62,2			
	with bellows [kg]	33,1	33,1	48,4	65,3	65,3	65,3			
J	Weight [kg]	44,6	44,6	77,7	77,7	100,2	100,2			
	with bellows [kg]	48,4	48,4	83,2	83,2	105,7	105,7			
K	Weight [kg]	70,1	Use 300 lbs dimensions for this size	70,1	Other	WC6	127,5	127,5		
	with bellows [kg]	75,7		75,7	83,2	75,7			134,1	134,1
Flange class		150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 150			
Valve size		3 L 4	3 L 4	4 L 6	4 L 6	4 L 6	4 L 6			
L	Weight [kg]	70,1	70,1	112,2	122	134,1	127,5			
	with bellows [kg]	75,7	75,7	118,8	128,6	140,7	134,1			
M	Weight [kg]	112,1	Use 300 lbs dimensions for this size	112,1	122	134,1				
	with bellows [kg]	118,7		118,7	128,6	140,7				
N	Weight [kg]	128,6	Use 300 lbs dimensions for this size	128,6	134,1	134,1				
	with bellows [kg]	135,2		135,2	140,7	140,7				
P	Weight [kg]	107,7	107,7	164	164	164				
	with bellows [kg]	114,8	114,8	172	172	172				
Q	Weight [kg]	221	Use 300 lbs dimensions for this size	221	221					
	with bellows [kg]	230		230	230					
R	Weight [kg]	221	221	277	277					
	with bellows [kg]	230	230	288	288					
T	Weight [kg]	287	Use 300 lbs dimensions for this size	287						
	with bellows [kg]	298		298						

Weights

US Units

		Bonnet			all			
		Lifting device			all			
Flange class		150 x 150	300L x 150	300 x 150	600 x 150	900 x 300	1500 x 300	2500 x 300
Valve size		1 D 2	1 D 2	1 D 2	1 D 2	1 1/2 D 2	1 1/2 D 2	1 1/2 D 3
D	Weight [lbs]	38,1	Use 300 lbs dimensions for this size	38,1	38,1	Use 1500 lbs dimensions for this size	68,6	92,2
	with bellows [lbs]	40,6		40,6	40,6		73	98,3
E	Weight [lbs]	38,1	Use 300 lbs dimensions for this size	38,1	38,1	Use 1500 lbs dimensions for this size	68,6	92,2
	with bellows [lbs]	40,6		40,6	40,6		73	98,3
F	Weight [lbs]	67,5	67,5	71,7	71,7	Use 1500 lbs dimensions for this size	80	92,2
	with bellows [lbs]	73	73	77,2	77,2		85,1	98,3
G	Weight [lbs]	67,5	67,5	71,7	71,7	80	154,1	154,1
	with bellows [lbs]	73	73	77,2	77,2	85	159,9	159,9
Flange class		150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 300	
Valve size		1 1/2 H 3	1 1/2 H 3	2 H 3	2 H 3	2 H 3	2 H 3	
H	Weight [lbs]	67,5	67,5	98,3	137,2	137,2	137,2	
	with bellows [lbs]	73	73	106,7	144	144	144	
J	Weight [lbs]	98,3	98,3	171,3	171,3	220,9	220,9	
	with bellows [lbs]	106,7	106,7	183,5	183,5	233,1	233,1	
K	Weight [lbs]	154,6	Use 300 lbs dimensions for this size	154,6	Other	WC6	281,1	281,1
	with bellows [lbs]	166,9		166,9	183,5	166,9		
Flange class		150 x 150	300L x 150	300 x 150	600 x 150	900 x 150	1500 x 150	
Valve size		3 L 4	3 L 4	4 L 6	4 L 6	4 L 6	4 L 6	
L	Weight [lbs]	154,6	154,6	247,4	269	295,7	281,1	
	with bellows [lbs]	166,9	166,9	262	283,6	310,2	295,7	
M	Weight [lbs]	247,2	Use 300 lbs dimensions for this size	247,2	269	295,7		
	with bellows [lbs]	261,7		261,7	283,6	310,2		
N	Weight [lbs]	283,6	Use 300 lbs dimensions for this size	283,6	295,7	295,7		
	with bellows [lbs]	298,1		298,1	310,2	310,2		
P	Weight [lbs]	237,5	237,5	361,6	361,6	361,6		
	with bellows [lbs]	253,1	253,1	379,2	379,2	379,2		
Q	Weight [lbs]	487,3	Use 300 lbs dimensions for this size	487,3	487,3			
	with bellows [lbs]	507,2		507,2	507,2			
R	Weight [lbs]	487,3	487,3	610,8	610,8			
	with bellows [lbs]	507,2	507,2	635	635			
T	Weight [lbs]	632,8	Use 300 lbs dimensions for this size	632,8				
	with bellows [lbs]	657,1		657,1				