

# Safety-Valve, springloaded

for steam, gases and liquids in closed completion

# Typ 31

## Standard version:

Material:	Inlet body	/ Spring bonnet, outlet body	Temperature ranges metal seated
<b>Typ 31.1:</b>	<b>BG I</b>	1.0460 / 0.7043	-10°C to 280°C
	<b>BG II - IV</b>	1.0619 / 1.0619	-10°C to 350°C
<b>Typ 31.2:</b>	<b>BG I</b>	1.4571 / 1.4581	-60°C to 280°C
	<b>BG II - IV</b>	1.4571, 1.4581 / 1.4581	-60°C to 350°C
<b>Typ 31.7:</b>	<b>BG I - IV</b>	1.4571 / 1.4308	-200°C to 280°C

**Connections:** soft seated  
Flange connections: DIN EN / ASME B16.5 see techn. appendix: KWD-1

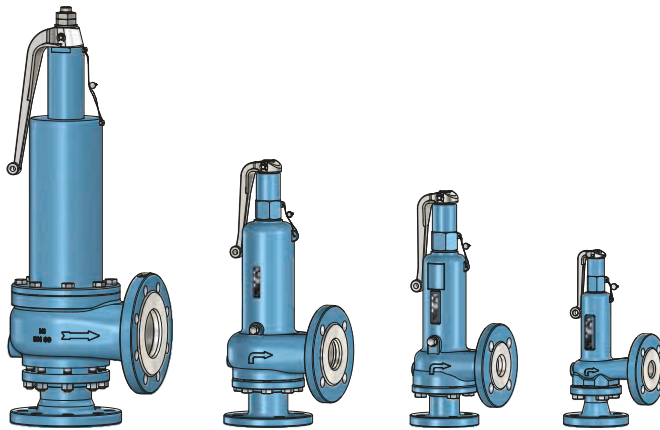
## Approvals:

**Pressure Equipment Directive:** 97/23/EG  
Declaration of Conformity



## TÜV - Approval:

VdTÜV-leaflet AD 2000-leaflet A 2 TÜV • SV • XX-713 / 820 / 896 / 902 • do • D/G/F • α<sub>w</sub> • p

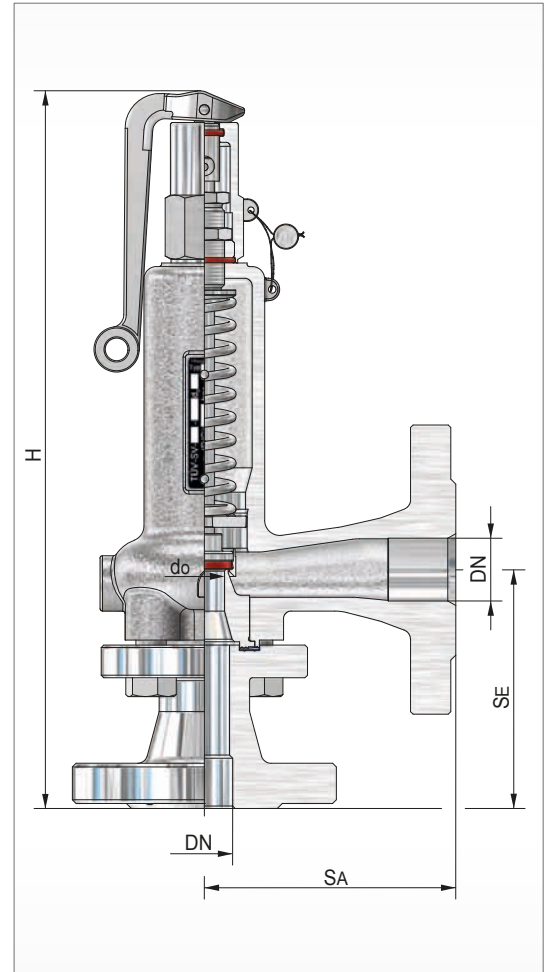


Size IV

Size III

Size II

Size I



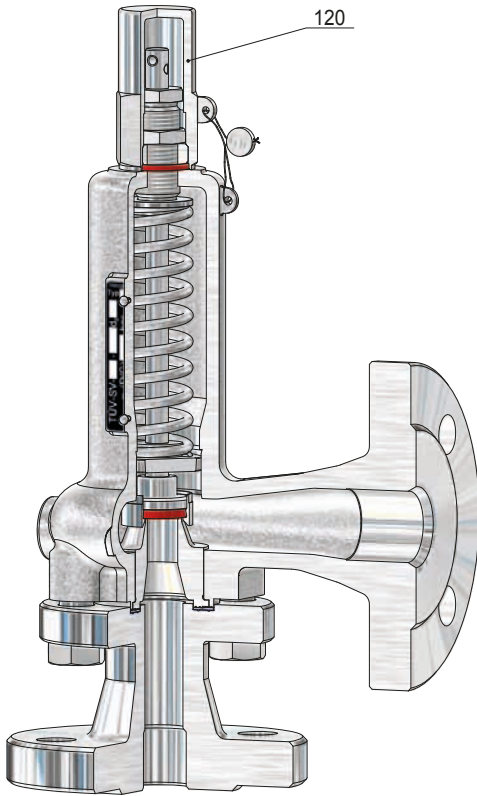
Size	Inlet					Outlet				Height 'H' for head		Coefficient		Set pressure		Weight ~ [kg]
	DN	NPS	PN / Class	do [mm]	SE [mm]	DN	NPS	PN / Class	SA [mm]	A [mm]	C [mm]	D/G α <sub>w</sub> max.	F α <sub>w</sub>	p min. [bar(g)]	p max. [bar(g)]	
I	15	½	16-63	12,5	90	20	¾	16-40	95	282	268	0,45	0,32	0,20	40	4,3
	20	¾	150-600	16	95	25	1	150-300	100	287	273	0,38	0,29	0,15	40	4,5
				18									0,28	0,22	0,10	20
II	25	1	16-63	20	105	32	1 ¼	16-40	105	395	375	0,43	0,34	0,10	40	10,2
	32	1 ¼	150-600	25	115	40	1 ½	150-300	115	405	385	0,41	0,32			11,2
III	40	1 ½	16-63	32	125	50	2	16-40	125	450	430	0,39	0,28	0,05	40	15,0
	50	2	150-600	40	145	65	2 ½	150-300	145	470	450	0,31	0,23			36
IV	65	2 ½	16-63	50	155	80	3	16-40	155	700	620	0,46	0,33	0,05	25	36,0
	80	3	150-600	60	175	100	4	150	175	730	650	0,44	0,30			16

other design on request

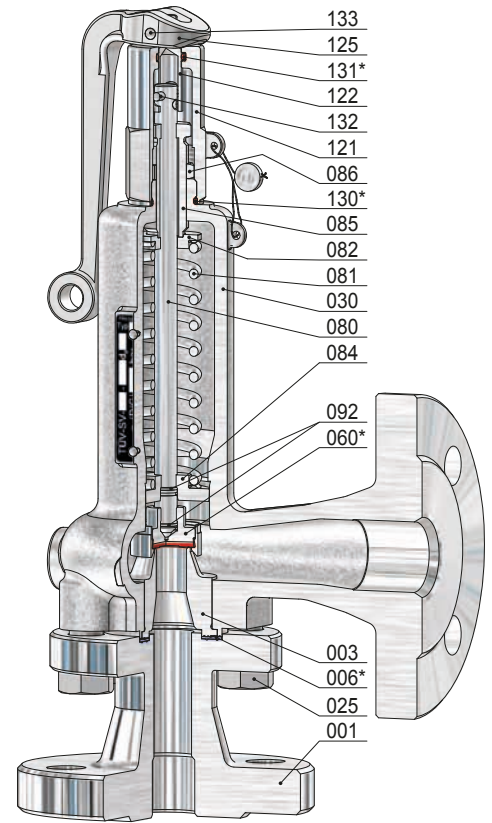
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Size I  
head C



Size I  
head A

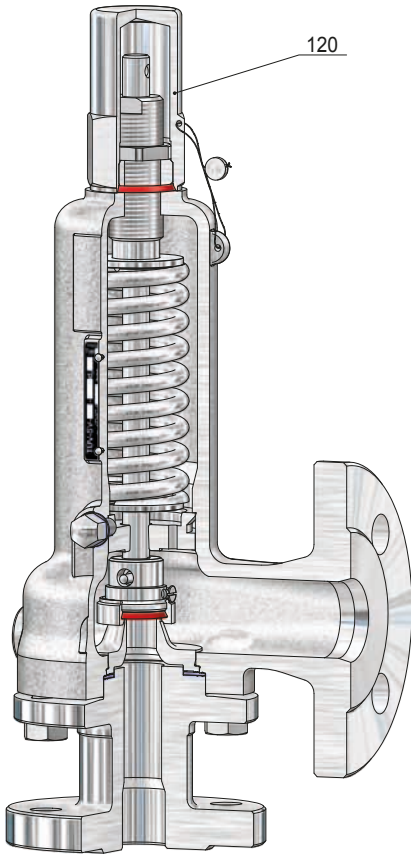
Item	Piece	Description	Item	Piece	Description
001	1	inlet body	086	1	lock nut
003	1	seat	092	2	lock ring
006 *	1	packing ring	120	1	cap
025	4	screw	121	1	lifting cap
030	1	spring bonnet	122	1	coupling
060 *	1	disc, complete	125	1	lifting button
560	1	disc	130 *	1	o-ring
062	1	soft sealing	131 *	1	o-ring
063	1	disc ring	132	1	groove pin
080	1	spindle	133	1	groove pin
081	1	spring			
082	1	springplate, upper			
084	1	springplate, lower			
085	1	adjusting screw			

\* expendable parts

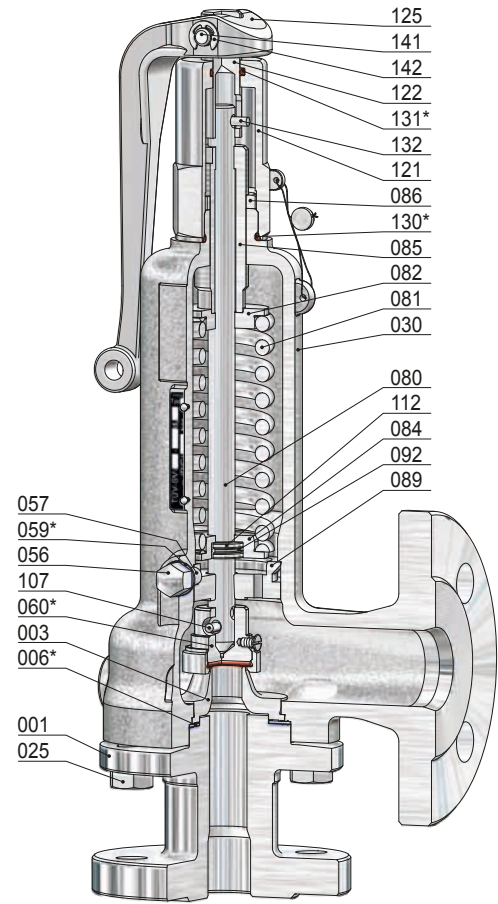
# Safety-Valve, springloaded

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## Typ 31



Size II  
head C



Size II  
head A

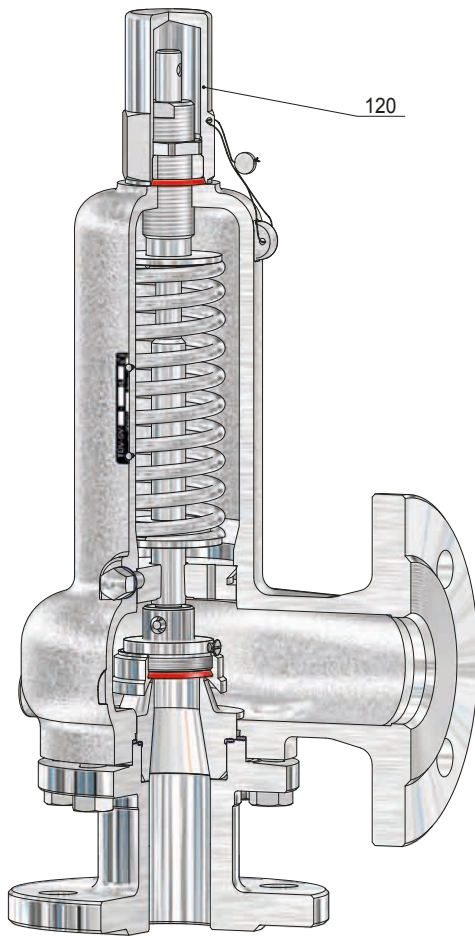
Item	Piece	Description	Item	Piece	Description
001	1	inlet body	085	1	adjusting screw
003	1	seat	086	1	lock nut
006 *	1	packing ring	089	1	guide plate
025	4	screw	092	1	lock ring
030	1	spring bonnet	107	1	spring pin
056	2	lock nut	112	1	split ring
057	2	screwed pin	120	1	cap
059 *	2	packing ring	121	1	lifting cap
060 *	1	disc, complete	122	1	coupling
062	1	disc	125	1	lifting button
063	1	soft sealing	130 *	1	o-ring
067	1	disc ring	131 *	1	o-ring
067	1	security screw	132	1	groove pin
080	1	spindle	141	1	bolt
081	1	spring	142	2	stop washer
082	1	springplate, upper			
084	1	springplate, lower			

\* expendable parts

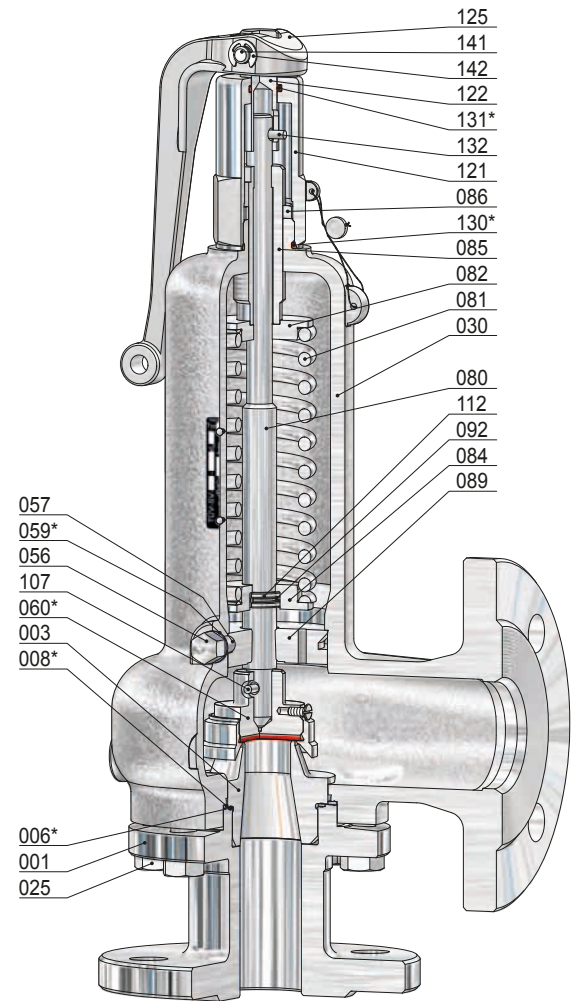
# Safety-Valve, springloaded

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# Typ 31



Size III  
head C



Size III  
head A

Item	Piece	Description	Item	Piece	Description
001	1	inlet body	084	1	springplate, lower
003	1	seat	085	1	adjusting screw
006 *	1	packing ring	086	1	lock nut
008 *	1	packing ring	089	1	guide plate
025	8	screw	092	1	lock ring
030	1	spring bonnet	107	1	spring pin
056	2	lock nut	112	1	split ring
057	2	screwed pin	120	1	cap
059 *	2	packing ring	121	1	lifting cap
060 *	1	disc, complete	122	1	coupling
560	1	disc	125	1	lifting button
062	1	soft sealing	130 *	1	o-ring
063	1	disc ring	131 *	1	o-ring
067	1	security screw	132	1	groove pin
080	1	spindle	141	1	bolt
081	1	spring	142	2	stop washer
082	1	springplate, upper			

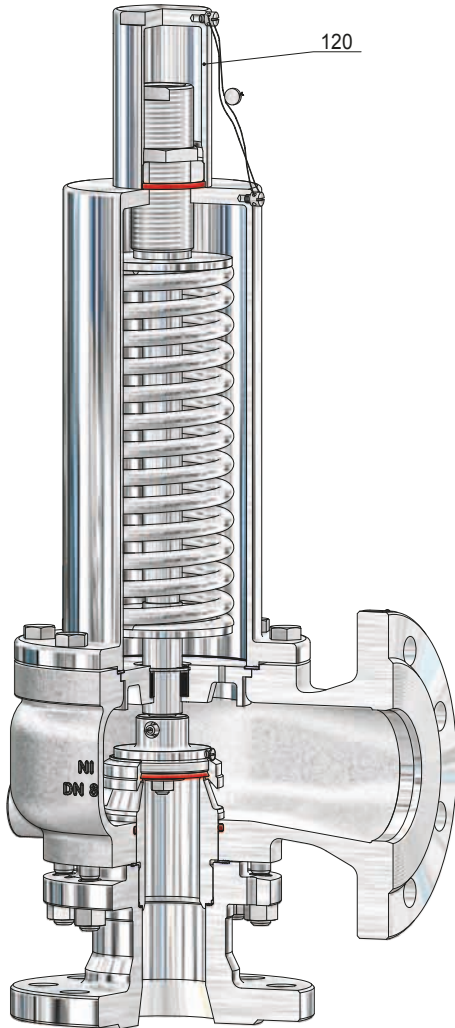
\* expendable parts



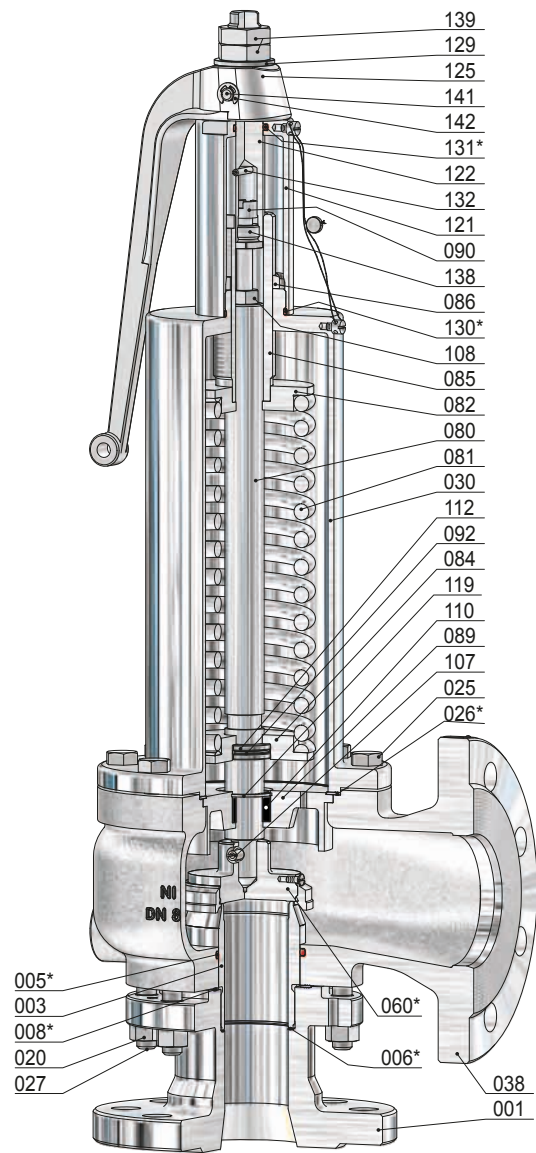
# Safety-Valve, springloaded

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## Typ 31



Size IV  
head C



Size IV  
head A

Item	Piece	Description	Item	Piece	Description	Item	Piece	Description
001	1	inlet body	073	1	o-ring	121	1	lifting cap
003	1	seat	074	1	disc plate	122	1	coupling
005 *	1	o-ring	080	1	spindle	125	1	lifting button
006 *	1	packing ring	081	1	spring	129	1	pressure plate
008 *	1	packing ring	082	1	springplate, upper	130 *	1	o-ring
020	8	nut	084	1	springplate, lower	131 *	1	o-ring
025	8	screw	085	1	adjusting screw	132	1	groove pin
026 *	1	packing ring	086	1	lock nut	138	1	screw
027	8	stud bolt	089	1	guide plate	139	2	nut
030	1	spring bonnet	090	1	screw	141	1	bolt
038	1	outlet body	092	1	lock ring	142	2	stop washer
060 *	1	disc, complete	107	1	spring pin			
560	1	disc	108	1	nut			
062	1	soft sealing	110	1	bush			
063	1	disc ring	112	1	split ring			
065	1	disc bolt	119	1	locking ring			
067	1	security screw	120	1	cap			

\* expendable parts