

# Safety fittings for hygienic applications

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## Hygienic 400

Safety valve made of stainless steel, angle type, with stainless steel spring

# → Series Hygienic 400



### ■ MATERIAL



### ■ SPECIFICATION



### ■ SUITABLE FOR

Liquids	neutral and non-neutral	
Air, gases and vapours	neutral and non-neutral	
Steam		

### ■ EXAMPLES OF USE

For the protection of:

- processes, plants and containers in the food and pharmaceutical industry for air, neutral and non-neutral vapours and gases, steam and liquids taking into account the operation- and plant-specific regulations and making use of the suitable valve version and sealing material.

- Food industry
- Breweries and beverage industry
- Pharmaceutical industry
- Cosmetic industry
- Medical technology
- Clean Service applications

### ■ FEATURES

- Smooth and faultless surface finish optimized for cleaning process
- Minimal dead space in inlet area and no gaps in the valve
- Exposed and rinsed o-ring seals
- Shape of valve body avoids forming of puddles in the valve
- Adjustable and settable during operation
- Possible to carry-out CIP/SIP by lifting the disc from the seat
- Gap-free installation of seals
- Surface roughness in the primary area Ra < 0.75µm
- Optional: electropolished and/or mechanically polished
- Moulded diaphragm for separating the product space from the springhousing
- Dead space ratio L/D ~ 1,5

For explanation see chapter 1.1 General information on the hygienic valves. Definition of surface quality and options according to Chapter 1.1 Table V-301.

### ■ APPROVALS

TÜV-Type test approval 2062	D/G, F, F/K/S
EU type examination	S/G, L, F/K/S
TSG ZF001-2006	S/G, L, F/K/S
KGS	G
TR ZU 032/2013 - TR ZU 010/2011	S/G, L, F/K/S
<b>Requirements</b>	
DIN EN ISO 4126-1	TRD 421
PED 2014/68/EU	AD 2000 Data sheet A2
TRB 801 No. 22 and 23	KGS AA 319
<b>Additional hygienic requirements</b>	
EG No. 852/2004	GS-NG 2 and 5
DIN EN 1672-2	EHEDG Aseptik
9. GPSGV	
<b>Classification society</b>	
DNV	DNV
Bureau Veritas	BV
Russian Maritime Register of Shipping	RS

### ■ MATERIALS

Component	Material	DIN EN	ASME
Body	Stainless steel	1.4435	316 L
Inner parts, wetted	Stainless steel	1.4435	316 L
Upper section, other inner parts	Stainless steel	1.4404	316 L
Spring	Stainless steel	1.4310	302
Bellows	Stainless steel	1.4571	316 Ti

<b>b</b>	Standard with bellows	for neutral and non-neutral media and/or counter pressure up to 4 bar. Spring, moving parts and the environment are protected from being affected by the medium.
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Parts which are difficult to clean in the guide, the spring housing and the spindle / disc combination are protected against soiling by stainless steel bellows

#### ■ MEDIUM

<b>GF</b>	gaseous and liquid	Air, vapours, gases, liquids and - depending on safety valve version and seal - also for steam
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#### ■ TYPE OF LIFTING MECHANISM

<b>K</b>	Standard with twist-type lifting mechanism
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#### ■ AVAILABLE NOMINAL DIAMETERS AND CONNECTION SIZES

Nominal diameter		20									
Connection type		Clamp connection						Threaded ferrule connection			
		DIN 11864-3 / DIN 11853-3			DIN 32676			DIN 11864-1 / DIN 11853-1		DIN 11851	
Inlet		DN 20	DN 25	DN 32	DN 20	DN 25	DN 32	DN 20	DN 25	DN 20	DN 25
Outlet	DN 25	■	■	■	■	■	■	■	■	■	■
	DN 32	■	■	■	■	■	■				

#### ■ TYPE OF CONNECTION INLET / OUTLET

<b>KLSDIN / KLS DIN</b>	Standard	Clamp connection / Clamp connection	DIN 32676 -A/ DIN 32676-A	Pipe Standard DIN 11850 / 11866
<b>GSDIN / GSDIN</b>		Threaded ferrule connection / Threaded ferrule connection	DIN 11851 / DIN 11851	Pipe Standard DIN 11850 / 11866
		Aseptic collar clamp connection / Aseptic collar clamp connection	DIN 11864-3 / DIN 11864-3 DIN 11853-3 / DIN 11853-3	Pipe Standard DIN 11850 / 11866
		Aseptic-Threaded ferrule connection A/ Aseptic-Threaded ferrule connection A	DIN 11864-1 / DIN 11864-1 DIN 11853-1 / DIN 11853-1	Pipe Standard DIN 11850 / 11866

Other connection types possible on request.

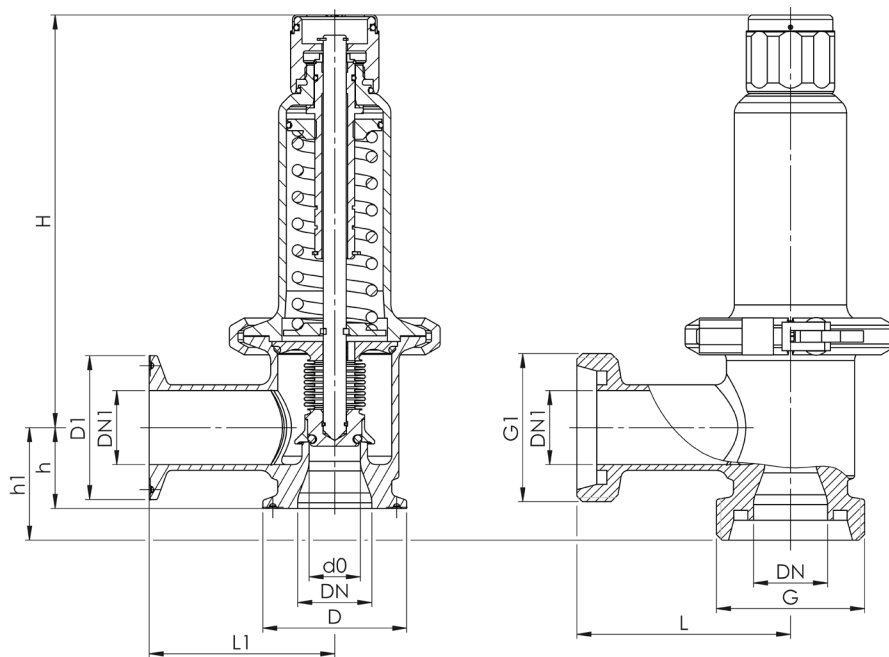
#### ■ SEALS

<b>FKM</b>	Fluorcarbon	Elastomere moulded seal	FDA, USP, 3-A, ADI-free	-20°C to +200°C
<b>EPDM</b>	Ethylene propylene diene	Elastomere moulded seal	FDA	-40°C to +170°C

■ NOMINAL DIAMETERS, CONNECTIONS, INSTALLATION DIMENSIONS

Series Hygienic 400: Connection, installation dimensions, ranges of adjustment							
Nominal diameter	DN	20			20		
Connection		Aseptic collar clamp connection DIN 11864-3 / DIN 11853-1 Clamp connection DIN 32676			Aseptic-Threaded ferrule connection A DIN 11864-1 / DIN 11853-1 Threaded ferrule connection DIN 11851		
Inlet	DN	20	25	32	20	25	
	G	-	-	-	20 (Rd 44 x 1/6")	25 (Rd 52 x 1/6")	
Outlet	DN1	25, 32	25, 32	32	25	25	
	G1	-	-	-	25 (Rd 52 x 1/6")	25 (Rd 52 x 1/6")	
Installation dimensions in mm	L	-	-	-	75	75	
	L1	65	65	65	-	-	
	H	145	145	145	145	145	
	h	29	29	29	-	-	
	h1	-	-	-	40	40	
	D	34	50,5	50,5	-	-	
	D1	50,5	50,5	50,5	-	-	
	do	18	18	18	18	18	
	Weight	kg	1,3	1,3	1,3	1,4	1,4
	Range of adjustment	bar	0,4-16	0,4-16	0,4-16	0,4-16	0,4-16

■ MAIN DIMENSIONS, INSTALLATION DIMENSIONS



Series	Valve version	Medium	Lifting device	Nominal diameter DN	Connection type		Connection type		Seal	Options	Set pressure
					Inlet	Outlet	Inlet	Outlet			
400	b	GF	K	20	GSDIN	GSDIN	25	25	FKM	P09	2,5
400	b	GF	K	20	KLSDIN	KLSDIN	25	25	EPDM	P07	3,2
400	b	GF	K	20							
400	b	GF	K	20							
400	b	GF	K	20							

### ■ PROPERTIES

#### DEFINITION OF SURFACE QUALITY AND OPTIONS ACCORDING TO CHAPTER 1.1 TABLE V-301

P01	Oil- and grease-free production	<input type="checkbox"/>	<input type="checkbox"/>
P05	Quality of surfaces in contact with media in inlet Ra ≤ 0,375	<input type="checkbox"/>	<input type="checkbox"/>
P07	Electropolished surfaces	<input type="checkbox"/>	<input type="checkbox"/>
P09	Surfaces mechanically and electropolished	<input type="checkbox"/>	<input type="checkbox"/>

### ■ CERTIFICATES / APPROVALS

C01	Factory certificate acc. DIN EN 10204 2.2 (WKZ 2.2)	<input type="checkbox"/>	C06	ATEX evaluation acc. to 2014/34/EU	<input type="checkbox"/>
C02	Test certificate acc. DIN EN 10204 3.1 (WPZ 3.1)	<input type="checkbox"/>	C07	SIL evaluation relating to IEC 61508-2	<input type="checkbox"/>
C03	Material test certificate acc. DIN EN 10204 3.1 (MPZ 3.1) (pressure retaining part)	<input type="checkbox"/>	C09	Seat tightness test with helium, leak detection method under vacuum incl. Factory Inspection Certificate 3.1 acc. to DIN EN 10204	<input type="checkbox"/>
C04	TÜV/DEKRA individual inspection acc. EN 10204 3.2 (TÜV/DEKRA-APZ)	<input type="checkbox"/>	C10	Certificate of oil- and grease free production	<input type="checkbox"/>
C05	Sealing material Manufacturer certification (FDA, USP 3, 3-A,...), Please indicate description of certificate: .....	<input type="checkbox"/>			<input type="checkbox"/>

### ■ ADMISSIONS / ACCREDITATIONS

AA1	EC Type examination acc. to Directive 2014/68/EU	<input type="checkbox"/>	AK1	Det Norske Veritas (DNV) type approval	<input type="checkbox"/>
AA2	TÜV component test acc. to VdTÜV specification sheet SV 100	<input type="checkbox"/>	AK2	Lloyd's Register (LR) type approval	<input type="checkbox"/>
AA4	EAC - certificate/declaration with passport for the valve and laser marking of the valve	<input type="checkbox"/>	AK3	American Bureau of Shipping (ABS) type approval	<input type="checkbox"/>
AA5	Manufacture License of Special Equipment People's Republic of China (ML)	<input type="checkbox"/>	AK4	Bureau Veritas (BV) type approval	<input type="checkbox"/>
	<input type="checkbox"/>		AK5	Russian Maritime Register of Shipping (RMRS) type approval	<input type="checkbox"/>
	<input type="checkbox"/>		AK6	Registro Italiano Navale (RINA) type approval	<input type="checkbox"/>
	<input type="checkbox"/>		AL	Individual inspection by notified body inspector – (body to be indicated): .....	<input type="checkbox"/>

### ■ ENQUIRY

Copy and send to: [order@goetze-armaturen.de](mailto:order@goetze-armaturen.de).

Order form easily to be found online under the section for each series.

Series Hygienic 400: Blowing-off rates at 10% above set pressure				
Nominal diameter DN		20		
Set pressure bar	I	II	III	
<b>Air I</b> Nm <sup>3</sup> /h  <b>Steam II</b> kg/h  <b>Water III</b> m <sup>3</sup> /h	0,5	127	96	3,1
	1	189	151	4,5
	1,5	257	204	6,7
	2	332	262	7,7
	2,5	390	305	8,6
	3	447	349	9,4
	3,5	504	392	10,2
	4	561	435	10,9
	4,5	618	478	11,5
	5	675	521	12,2
	5,5	732	564	14,0
	6	790	608	14,6
	6,5	847	650	15,2
	7	904	692	15,8
	7,5	961	735	16,4
	8	1018	777	16,9
8,5	1075	820	17,4	
9	1132	862	17,9	
9,5	1190	905	18,4	
10	1247	947	18,9	
11	1361	1031	19,8	
12	1475	1115	20,7	
13	1590	1199	21,6	
14	1704	1284	23,4	
15	1818	1368	24,2	
16	1932	1453	25,0	