

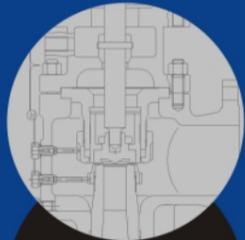
Safety Valve

安全阀 (国标/美标)

HENGGHUA Valve



hhsv 恒华阀门



Innovative
Professional
Eternal
创新 专业 永恒

恒华阀门有限公司

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○ 如需详细了解本公司的产品，敬请来电咨询，内页数据仅供参考。

○ 本手册仅介绍公司部分产品。版面有限，其它产品未能详细列出。敬请谅解。



企业 简介 | Company Introduction

HENGHUA VALVE

恒华阀门有限公司创建于2008年，注册资金10181.8万元，位于浙江省永嘉县瓯北街道园区大道582号，占地面积7906m²，建筑面积13971m²，是一家专业从事安全阀研发、生产、销售、服务于一体的国家高新技术企业。

本公司生产设备：大型卧式加工中心、立式加工中心、数控机床、激光融覆焊接，智能化生产车间。检验设备：德国贝莱克发射光谱仪试验、屏显式液压万能拉伸试验机、微机自动（常温）超低温冲击试验机、超声波测厚、布氏、洛氏、维氏等硬度测试计、PT、MT、UT、RT等无损探伤检测设备，德国思瑞三维坐标检测仪、弹簧拉压测试。产品试验设备：阀门流量流阻和位置精度综合试验装置、安全阀冷态试验装置、热态试验装置、低温试验装置等性能试验装置是目前国内最先进的试验设备。以不断的技术创新和稳定的产品性能为特点，对产品质量高要求、严规范是本公司的重要准则。产品的每一道工序，严格按照国际质量体系标准规范执行，在恒华可以让您感受近在咫尺的世界尖端制造技术。

公司始终坚持以质量求生存、以科技谋发展，以完善的

服务系统为您提供快速、高效、专业的服务，并聚集了专业技术精英力量组成具有国际先进水平的研发队伍，充分利用新技术、新工艺、新材料持续开发优质新产品供应市场的需求。公司建有省级高新技术企业研究开发中心，现拥有自主知识产权实用新型发明专利40项，国家发明专利3项，获得浙江省科技成果登记10项。全面实行标准化、规范化、程序化管理，具有健全、完善和运行有效的质量管理体系，并先后获取了ISO9001、ISO14001、ISO45001、TS(A)，CNAS、CE、CMS等认证。所生产的安全阀系列产品规格齐全，可按照最新的ANSI、ASME、API、DIN、JIS、GB、ISO等标准设计制造。安全阀的阀门材料有碳钢、铬钼钢、铬钼钒钢、马氏体不锈钢、奥氏体不锈钢、双相不锈钢、哈氏合金、镍基合金、特殊钢等；公称通径从DN10~600及1/2"~24"，公称压力从0.1~42.0Mpa及150Lb~2500Lb；工作温度-196℃~570℃。产品广泛应用于电站、锅炉、石油、化工、城建、医药、化肥、冶金、采矿等行业，产品远销韩国、日本、俄罗斯、蒙古、美国、土耳其、伊朗、印度等中东地区和东南亚地区，部分产品可代替进口，应用于国家重点工程项目的关键设备上。

经过多年的持续发展，公司目前有员工260人，其中高级工程师5人，工程师20人，助理工程师和技术人员28人，专门从事安全阀的研发、设计、工艺、试验和服务工作。公司全体同仁秉承“追求永恒，创中华品牌”的经营理念，不断应用新技术、新工艺、新材料、积极开发优质新产品，以严格的管理带给您质量的保证，以良好的信誉和优质的服务报答广大用户对恒华阀门的支持与厚爱，欢迎新老客户莅临我公司参观指导！

Henghua Valve Co., Ltd. was founded in 2008 with a registered capital of CNY 101.818 million, located at No. 582, Park Avenue, Oubei Street, Yongjia County, Zhejiang Province, covering an area of 7906m² and a construction area of 13971m². Our company is a national high-tech enterprise specializing in R&D, production, sales and service of safety valves.

Our company's production equipment: Large-scale horizontal machining centers, vertical machining centers, CNC machine tools, laser overlay welding, and intelligent production workshops. Inspection equipment: German Belek emission spectrometer test, screen-explicit hydraulic universal tensile testing machine, microcomputer automatic (room temperature) ultra-low temperature impact testing machine, ultrasonic thickness measurement, Brinell, Rockwell, Vickers and other hardness testers, PT, MT, UT, RT and other non-destructive testing equipment, German Sirui three-dimensional coordinate detector, spring tension and compression test. Product testing equipment: The comprehensive test device for valve flow resistance and position accuracy, the cold state test device for safety valve, the hot state test device, the low temperature test device and other performance test devices are the most advanced test equipment in China. We are characterized by continuous technological innovation and stable product performance, and high requirements and strict specifications for product quality are important guidelines for our company. Each process of the product is strictly implemented in accordance with the international quality system standards. Henghua enables you to feel the world's cutting-edge manufacturing technology at your fingertips.

Our company always adheres to the quality of survival, science and technology for development, to provide you with fast, efficient and professional services with a perfect service system, and has gathered professional and technical elites to form an international advanced level of research and development team. We make full use of new technologies, new processes and new materials to continuously develop high-quality new products to meet the needs of the market. Our company has a provincial high-tech enterprise research

and development center, and now has 40 utility model invention patents with independent intellectual property rights, 3 national invention patents, and 10 scientific and technological achievements registration in Zhejiang Province. We fully implement standardized, standardized and procedural management, have a sound, perfect and effective quality management system, and have successively obtained ISO9001, ISO14001, ISO45001, TS(A), CNAS, CE, CMS and other certifications. The safety valve series products we produce have complete specifications and can be designed and manufactured in accordance with the latest ANSI, ASME, API, DIN, JIS, GB, ISO and other standards. The valve materials of the safety valve include carbon steel, chromium-molybdenum steel, chromium-molybdenum-vanadium steel, martensitic stainless steel, austenitic stainless steel, duplex stainless steel, Hastelloy, nickel-based alloy, special steel, etc. The nominal diameter is from DN10~600 and 1/2"~24", the nominal pressure is from 0.1~42.0Mpa and 150Lb~2500Lb, and the working temperature is -196℃~570℃. Our products are widely used in power stations, boilers, petroleum, chemical industry, urban construction, medicine, fertilizer, metallurgy, mining and other industries. Our products are exported to South Korea, Japan, Russia, Mongolia, the United States, Turkey, Iran, India and other Middle East and Southeast Asian regions. Some of our products can be used instead of imports for key equipment for national key projects.

After years of continuous development, our company currently has 260 employees, including 5 senior engineers, 20 engineers, 28 assistant engineers and technicians, specializing in the research and development, design, process, test and service of safety valves. Adhering to the business philosophy of "pursuing eternity and creating a Chinese brand", all our colleagues continue to apply new technologies, new processes and new materials, and actively develop high-quality new products, bring you quality assurance with strict management, and repay the support and love of Henghua valve to the majority of users with good reputation and high-quality service. Welcome all customers to visit our company!





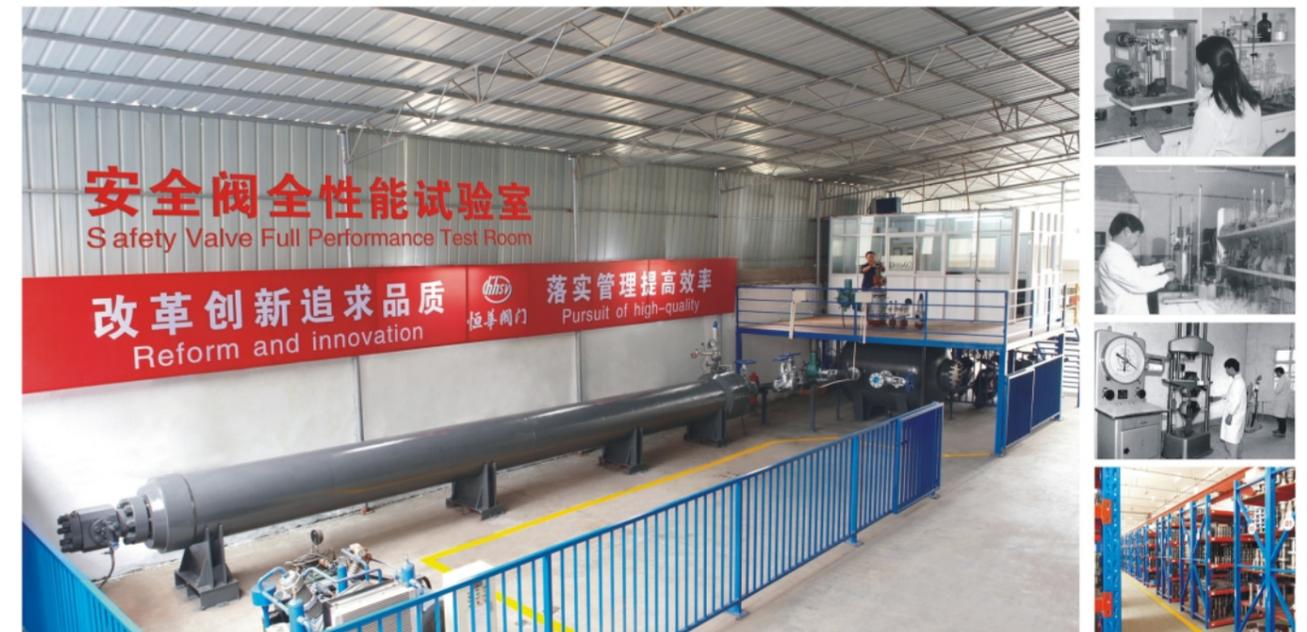
生产装备 | **Production Equipment**

完美的品质，取源于制造手段的先进
Perfect quality relies on advanced manufacturing equipment

我们拥有世界先进的生产装备，运用崭新的管理概念及强大的专业技术力量，生产出符合国际标准的高品质终极产品。品质体现我们的尊严，出类拔萃的品质拒绝平庸，千锤百炼，一丝不苟，标准化的管理和系统化的品质保证体系，让恒华品质在世界的每一个角落都畅通无阻。

We will produce high quality ultimate products that are in accordance with international standards by adopting world advanced production equipment, brand new management conception and powerful technical strength. Quality represents our dignity. The outstanding quality refuses commonness. Being meticulous and thoroughly tempered. The standardized management system and systematic quality assurance have led the products of Henghua Valve to get the reliance of customers from all over the world for their excellent quality. Through effective efforts with cooperators,

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HENGHUA VALVE



Testing Equipment | **检测设备**

一流检测设备确保一流品质
First class inspection equipment ensures excellent quality

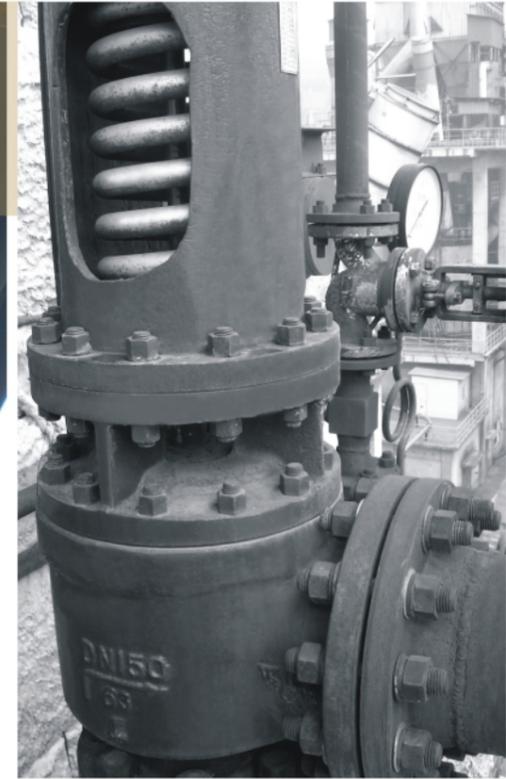
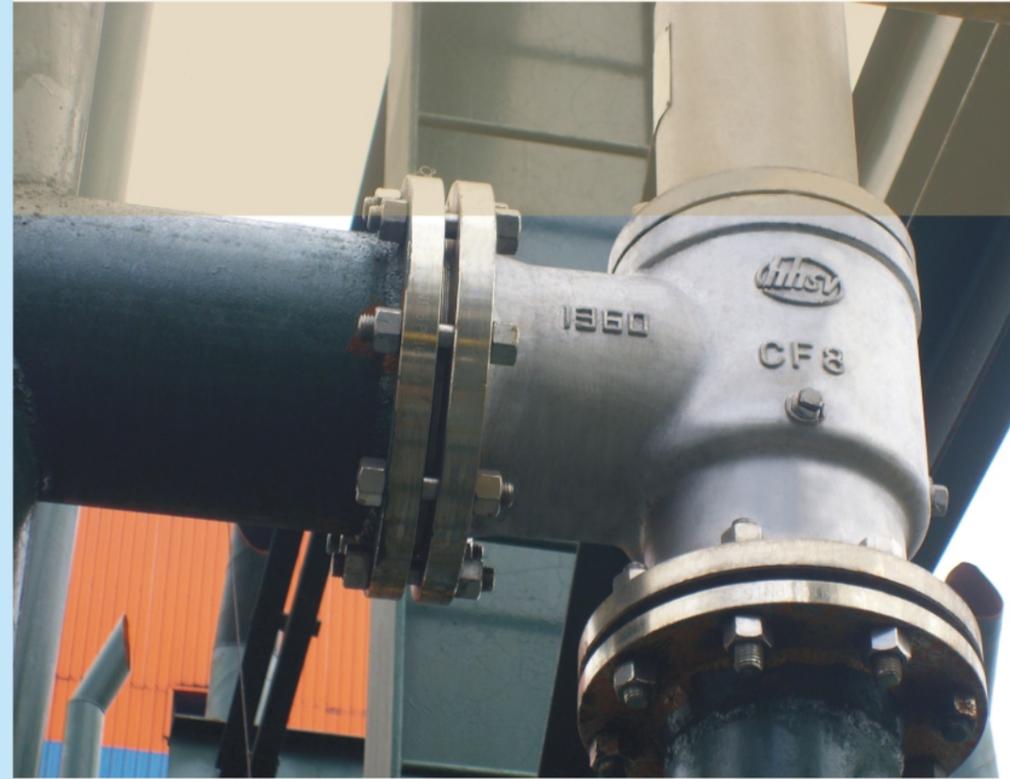
高品质的产品要求精心设计，精心制造，恒华公司拥有高素质专业技术队伍、精良的加工装备和检测中心，为用户提供高品质产品。

High quality product requires elaborate design, elaborate manufacture, Henghua company has high-quality professional team, excellent processing equipment and testing center, to provide users with high-quality products.

HENGHUA VALVE



Many Honours



工程案例 | Example Projects

为您提供从工艺设计到设备安装调试所需的一切

Providing you with everything you need from technological design to equipment inatallation and commissioning

我们希望通过完善的设计、制造和售后服务确保每一个安装工程在有效使用期内充分发挥各项性能指标；我们拥有世界先进的生产装备，运用崭新的工业概念及强大的技术力量，生产出符合国际标准的高品质终极产品。

We will make sure that all projects installed can ecert their performance in effective service by our perfect design, manufacturing and after-saques services. We will produce high quality ultimate products that are in accordance with international standgars by adopting world advanced production equipment, brand new industrial concept and powerful technical strength.



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● 安全阀整定压力分级 Set pressure grading of safety valve

Table with 9 columns: Nominal Pressure, Set pressure grading, and various pressure ranges from 1.6 to 32.0.

● 主要零部件材料 Main Parts and Materials

Table with 6 columns: Part Name, Body Materials code, C, P, R, R3. Lists materials for Body, Seat, Disc, etc.

● 安全阀进出口法兰规定 Standards for Safety Valve Inlet and Outlet Flange

法兰压力级按表5规定,进出口口径按表6规定 Standards for flange pressure class is table five, Standards for Inlet and Outlet diameter is table six

Table 5: Standards for flange pressure class. Table 6: Standards for Inlet and Outlet diameter.

Table with 4 columns: Safety valve type, Inlet diameter, Outlet diameter, and Same as nominal diameter.

● 安全阀性能规范(依据CB/T 12243标准) Safety Valve Performance specification (According to CB/T 12243 standard)

Table with 7 columns: Performance specification, Shell test pressure, Seal test pressure, Blowdown, Discharge pressure, Lift height. Lists specifications for steam, air, and water valves.

注:Pk为整定压力,do为喉径。 Note: PK is the set pressure while do is the orifice area.



● 安全阀排量计算

一、介质为气体

1. 临界条件: Po/Pd <= (2/(k+1))^(k/(k-1))

Ws=7.6 x 10^-2 CKPa A sqrt(M/ZT) kg/h

2. 亚临界条件: Po/Pd > (2/(k+1))^(k/(k-1))

式中 Ws--安全阀的排放能力 kg/h

K--排放系数,与安全阀结构有关,由制造厂提供;也可按下述规定选取;

全启式安全阀K=0.7~0.75

带调节圈的微启式安全阀K=0.4~0.5

不带调节圈的微启式安全阀K=0.25~0.35

Pd--安全阀的排放压力<绝压>, Pd=1.1Ps+0.1,MPa

Ps--安全阀的整定压力,MPa

Po--安全阀的出口侧压力<绝压>,MPa

A--安全阀最小排气截面积,mm^2

全启式安全阀,即h>=1/4 do时, A= pi do^2/4

微启式安全阀,即h>=1/20 do时,

平面密封, A= pi Dh; 锥面密封, A= pi doh sin psi

式中 h--安全阀的开启高度,mm;

do--安全阀最小流通直径<阀座喉径>,mm;

D--安全阀阀座口径,mm;

psi--锥形密封面的半锥角。

C--气体特性系数, C=520 sqrt(k/(k+1))^(k/(k-1)),见附表

K--气体绝热指数, K=Cp/Cv

M--气体摩尔质量,kg/kmol

T--气体的温度,K;

Z--气体在操作温度压力下的压缩系数。

二、介质为液体

Ws=5.1KA sqrt(rho delta P) kg/h

式中 rho--阀门入口侧温度下的液体密度, kg/m^3

delta P--阀门前后压力降, MPa;

delta P=Pd-Po, Pd=1.2Ps+0.1, Mpa;

三、介质为饱和蒸气

饱和蒸气中含量不小于98%,最大过热度为10℃

1.当Pd<=10MPa时

Ws=5.25KAPd kg/h

Pd=1.03Ps+0.1 MPa;

2.当10MPa< Pd<=22 Mpa时

Ws=5.25KAPd (190.6Pd-6895 / 229.2Pd-7315) kg/h

Pd=1.03Ps+0.1 Mpa

● Rated discharging coefficient of safety valve

I、Gas medium

1. Critical conditions: Po/Pd <= (2/(k+1))^(k/(k-1))

Ws=7.6 x 10^-2 CKPa A sqrt(M/ZT) kg/h

2. Under critical conditions: Po/Pd > (2/(k+1))^(k/(k-1))

Type:WS--Discharge capacity of the safety valve

K--discharge coefficient,which is related with the structure,and provided by them manufacturer;It can also be selected by one of the rules below :

Fall lift safety valve K=0.7~0.75

Low lift safety valve with adjusting ring K=0.4~0.5

Low lift safety valve without adjusting rink K=0.25~0.35

Pd--Discharge pressure(Absolute pressure),

Pd=1.1Ps+0.1,MPa

Ps--Set pressure, Mpa

Po--Pressure of the outlet side,Mpa

A--Minimum exhaust cross-sectional area,mm^2

Fall lift safety valve ,when h>=1/4 do, A= pi do^2/4

Low lift safety valve, When h>=1/20 do,

Flat sealing,A= pi Dh; Cone sealing,A= pi doh sin psi

Type:H--Lift height ,mm;

do--minimum flow-through diameter (orifice area of the seat), mm

D--Diameter of the seat,mm

psi--The half cone angle of the cone sealing seat

C--Characteristic coefficient of the gas,C=520 sqrt(k/(k+1))^(k/(k-1))

See the attached chart

k--Adiabatic index of the gas,K=Cp/Cv

M--Molar mass of the gas,kg/kmol

T--Temperature of the gas

Z--Compressibility factor of the gas under operating temperature and pressure

II: liquid medium

Ws=5.1KA sqrt(rho delta P) kg/h

Formula:rho--density of the liquid of the inlet side,kg/m^3

delta P--Differential pressure between the inlet and outlet said

delta P=Pd-Po, Pd=1.2Ps+0.1, Mpa;

III: saturated steam medium

Content of the saturated steam >=98%,maximum over heat temperature should be 10℃

1:when Pd<=10MPa

Ws=5.25KAPd kg/h

Pd=1.03Ps+0.1 MPa;

2:when 10MPa< Pd<=22 Mpa

Ws=5.25KAPd (190.6Pd-6895 / 229.2Pd-7315) kg/h

Pd=1.03Ps+0.1 Mpa

● 不同K值气体特性系数C值 Different Characteristic Coefficient of The Gas (C) Under Different K

Table with 8 columns: K, C, K, C, K, C, K, C. Lists characteristic coefficients for various K values.

A27H-10、A27H-¹⁶/₂₅C、A27Y-¹⁶/₂₅P/R型 弹簧微启式安全阀 Spring low lift safety valve

● 用途:

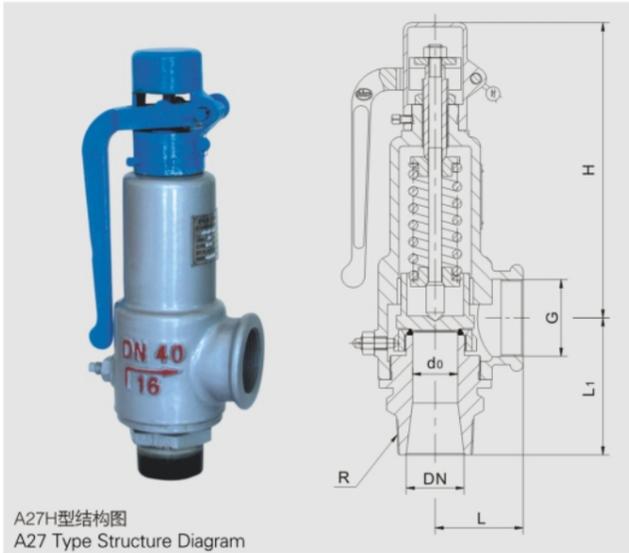
A27H型适用于工作温度≤200℃的水、空气、蒸气等介质的设备和管路上。A27Y-P/R适用于工作温度≤200℃有腐蚀性介质设备或管路上，作为超压保护装置。

● Use:

A27H type are used for the equipment and pipelines with such media as water, air and steam at a working temperature less than 200℃. A27Y-P/R type are used for the equipment and pipelines containing corrosive media at a working temperature less than 200℃. They function as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 Nominal DN (mm) Diameter		尺寸 Dimension					
do	R	L	L ₁	G	≈H		
15	10	1/2"	37	58	1/2"	140	
20	15	3/4"	37	58	3/4"	140	
25	20	1"	43	63	1"	155	
32	25	1 1/4"	47	77	1 1/4"	174	
40	32	1 1/2"	58	87	1 1/2"	220	
50	40	2"	68	101	2"	225	
65	50	2 1/2"	78	132	2 1/2"	295	
80	65	3"	108	147	3"	349	



A28H-10、A28H-¹⁶/₂₅C、A28Y-¹⁶/₂₅P/R型 带手柄弹簧全启式安全阀 Spring fall lift safety valve with handle

● 用途:

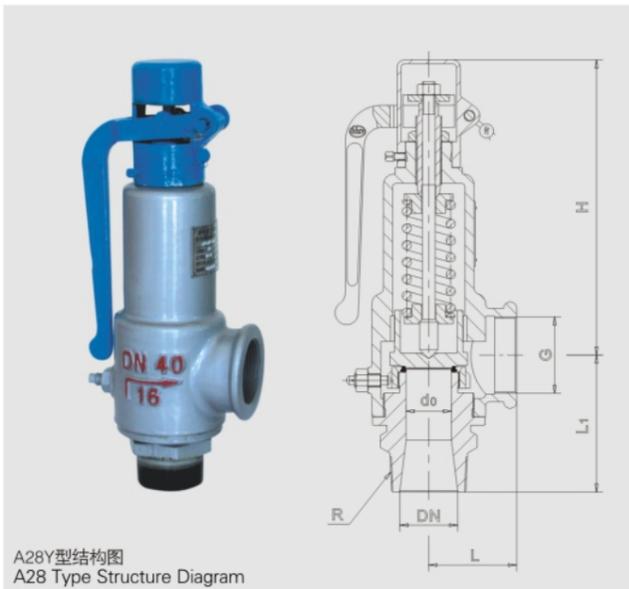
A28H/Y型适用于工作温度≤200℃的空气、蒸气、水、氮氢混合气体等介质的设备和管路上。A28Y-P/R适用于工作温度≤200℃有腐蚀性介质设备或管路上，作为超压保护装置。

● Use:

A28H/Y type are used for the equipment and pipelines with such media as air, vapour, water and N₂-H₂ mixed gas at a working temperature less than 200℃. A28Y-P/R type are used for the equipment and pipelines containing corrosive media at a working temperature less than 200℃. They function as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 Nominal DN (mm) Diameter		尺寸 Dimension					
do	R	G	L	L ₁	≈H		
15	10	1/2"	3/4"	37	57	140	
20	12	3/4"	1"	43	60	148	
25	15	1"	1 1/4"	47	69	158	
32	20	1 1/4"	1 1/2"	61	83	208	
40	25	1 1/2"	2"	61	86	216	
50	32	2"	2 1/2"	72	106	225	
65	40	2 1/2"	3"	109	139	295	



A41H-¹⁶/₂₅C/P/R型 弹簧微启封闭式安全阀 Spring low lift closed safety valve

● 用途:

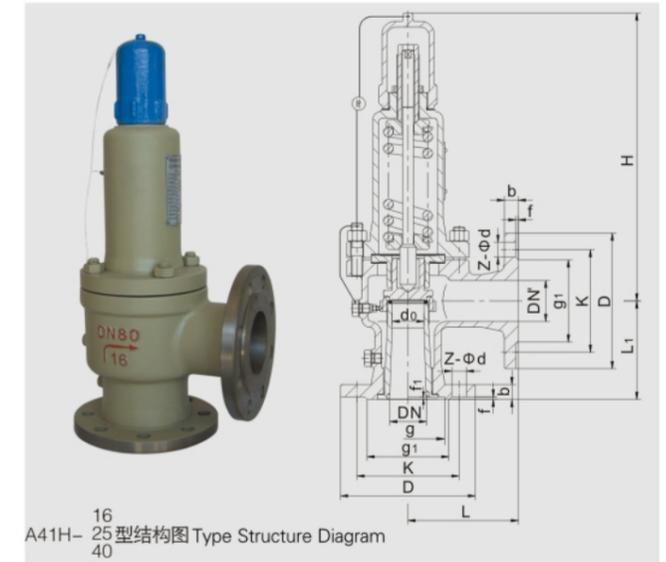
A41Y适用于工作温度≤300℃的石油、空气、水等介质的设备或管路上。A41Y-P/R型适用于工作温度≤200℃有腐蚀性介质的设备上或管路上，作为超压保护装置。

● Use:

A41Y type are used for the equipment and pipelines with such media as petroleum, air and water at a working temperature less than 300℃. A41Y-P/R type are used for the equipment and pipelines containing corrosive media at a working temperature less than 200℃. They function as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 Nominal DN	Diameter	do	DN'	L	L ₁	≈H
20	15	20	100	85	275	
25	20	25	100	85	275	
32	25	32	115	100	285	
40	32	40	120	110	285	
50	40	50	135	120	355	
65	50	65	140	130	390	
80	65	80	160	135	394	
100	80	100	170	160	500	
125	100	125	190	190	570	
150	125	150	205	195	585	
200	150	200	240	230	710	
250	200	250	350	320	905	



A41Y-⁶⁴/₁₀₀C/P/R型 弹簧微启封闭式安全阀 Spring low lift closed safety valve

● 用途:

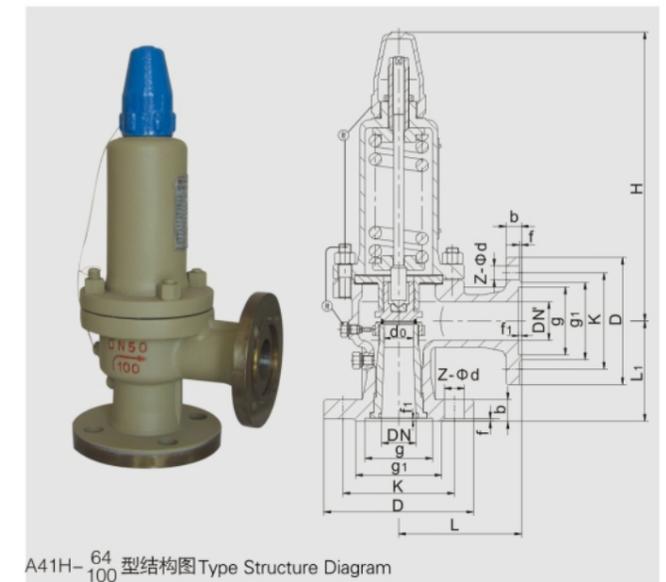
A41Y适用于工作温度≤300℃的石油、空气、水等介质的设备或管路上。A41Y-P/R型适用于工作温度≤200℃有腐蚀性介质的设备上或管路上，作为超压保护装置。

● Use:

A41Y type are used for the equipment and pipelines with such media as petroleum, air and water at a working temperature less than 300℃. A41Y-P/R type are used for the equipment and pipelines containing corrosive media at a working temperature less than 200℃. They function as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 Nominal DN	Diameter	do	DN'	L	L ₁	≈H
20	15	20	100	95	268	
25	20	25	100	95	268	
32	25	32	115	105	279	
40	32	40	135	115	330	
50	40	50	160	130	365	
65	50	65	175	160	503	
80	65	80	175	160	498	
100	80	100	190	180	530	
150	100	150	280	260	657	

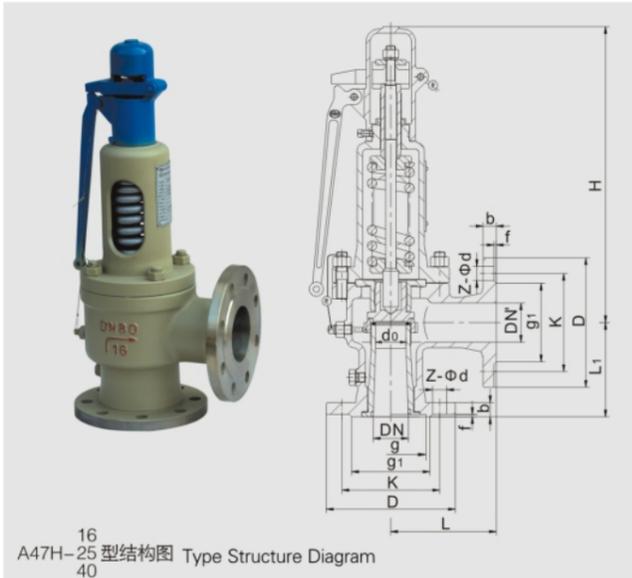


A47H-¹⁶/₂₅/₄₀C型 带扳手弹簧微启式安全阀 Spring low lift safety valve with spanner

- 用途: 本阀门适用于工作温度在 $\leq 350^{\circ}\text{C}$ 的蒸汽、空气等介质的设备或管路上, 作为超压保护装置。
- Use: This safety valve is used for the equipment and pipelines with such media as steam and air at a working temperature less than 350°C . It serves as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 DN	Nominal Diameter	do	DN'	L	L ₁	≈ H
20	15	20	100	85	298	
25	20	25	100	85	298	
32	25	32	115	100	310	
40	32	40	120	110	315	
50	40	50	135	120	377	
65	50	65	140	130	415	
80	65	80	160	135	420	
100	80	100	170	160	539	
125	100	125	190	190	624	
150	125	150	205	195	636	
200	150	200	240	230	772	
250	200	250	350	320	970	

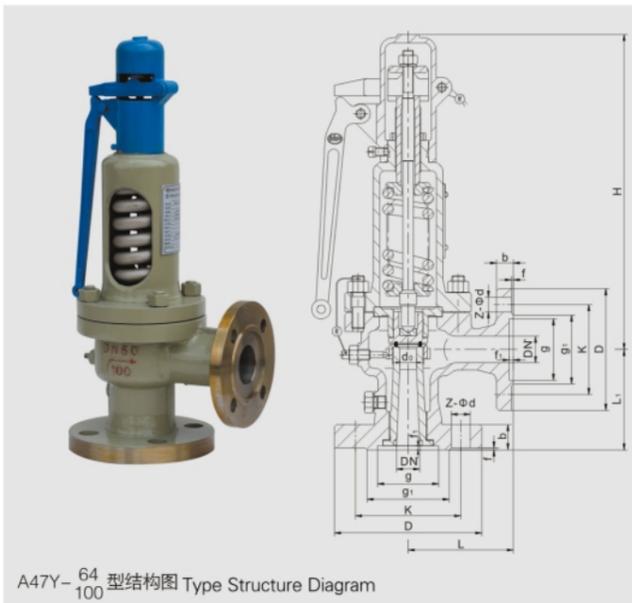


A47Y-⁶⁴/₁₀₀C型 带扳手弹簧微启式安全阀 Spring low lift safety valve with spanner

- 用途: 本阀门适用于工作温度在 $\leq 350^{\circ}\text{C}$ 的蒸汽、空气等介质的设备或管路上, 作为超压保护装置。
- Use: This safety valve is used for the equipment and pipelines with such media as steam and air at a working temperature less than 350°C . It serves as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 DN	Nominal Diameter	do	DN'	L	L ₁	≈ H
20	15	20	100	95	301	
25	20	25	100	95	301	
32	25	32	115	105	312	
40	32	40	135	115	366	
50	40	50	160	130	401	
65	50	65	175	160	570	
80	65	80	175	160	565	
100	80	100	190	180	597	
150	100	150	280	260	738	

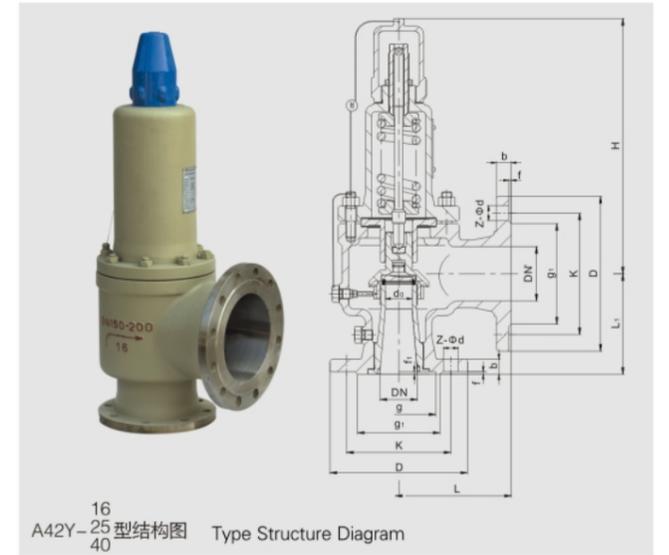


A42Y-¹⁶/₂₅/₄₀C/P/R型 弹簧全启封闭式安全阀 Spring fall lift closed safety valve

- 用途: A42Y-C适用于工作温度 $\leq 300^{\circ}\text{C}$ 的空气、石油气、液体等介质的设备或管路上。A42Y-P/R型适用于工作温度 $\leq 200^{\circ}\text{C}$ 有腐蚀性介质的设备上或管路上, 作为超压保护装置。
- Use: A42Y-C type are used for the equipment and pipelines with such media as air, petroleum gas and liquids at a working temperature less than 300°C . A42Y-P/R type are used for the equipment and pipelines containing corrosive media at a working temperature less than 200°C . They function as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 DN	Nominal Diameter	do	DN'	L	L ₁	≈ H
20	15	25	110	95	281	
25	16	32	110	95	281	
32	20	40	115	100	285	
40	25	50	120	110	295	
50	32	65	135	120	305	
65	40	80	160	140	394	
80	50	100	170	135	406	
100	65	125	205	160	511	
125	80	150	210	190	586	
150	100	175	255	230	601	
200	125	250	305	260	734	
250	150	300	350	320	928	
300	200	400	370	350	1159	
350	250	500	375	415	1314	
400	280	500	395	415	1530	

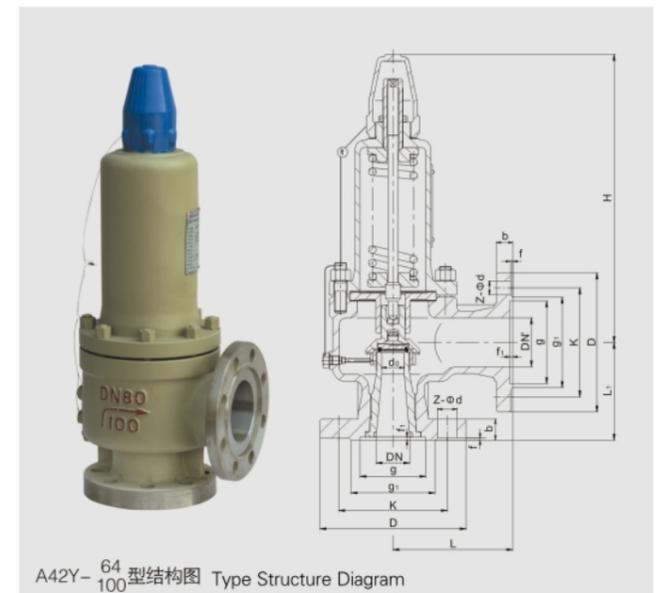


A42Y-⁶⁴/₁₀₀C/P/R型 弹簧全启封闭式安全阀 Spring fall lift closed safety valve

- 用途: A42Y-C适用于工作温度 $\leq 300^{\circ}\text{C}$ 的空气、石油气、液体等介质的设备或管路上。A42Y-P/R型适用于工作温度 $\leq 200^{\circ}\text{C}$ 有腐蚀性介质的设备上或管路上, 作为超压保护装置。
- Use: A42Y-C type are used for the equipment and pipelines with such media as air, petroleum gas and liquids at a working temperature less than 300°C . A42Y-P/R type are used for the equipment and pipelines containing corrosive media at a working temperature less than 200°C . They function as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

型号 Type	公称通径 DN	Nominal Diameter	do	DN'	L	L ₁	≈ H
A42Y-64C A42Y-64P A42Y-64R	20	12	25	110	100	276	
	25	16	32	110	100	276	
	32	20	40	110	110	287	
	40	25	50	135	120	292	
	50	32	65	160	130	383	
A42Y-100C A42Y-100P A42Y-100R	65	40	80	175	160	479	
	80	50	100	175	160	489	
	100	65	125	195	195	562	
	150	100	200	285	260	832	
	20	12	25	110	100	276	
A42Y-100C A42Y-100P A42Y-100R	25	16	32	110	100	276	
	32	20	40	130	110	287	
	40	25	50	135	120	292	
	50	32	65	160	130	383	
	65	40	80	175	160	479	
A42Y-100C A42Y-100P A42Y-100R	80	50	100	175	160	489	
	100	65	125	195	195	562	
	150	100	200	285	260	832	



A48Y-¹⁶/₂₅/₄₀ C型 带扳手弹簧全启式安全阀 Spring fall lift safety valve with spanner

● 用途:

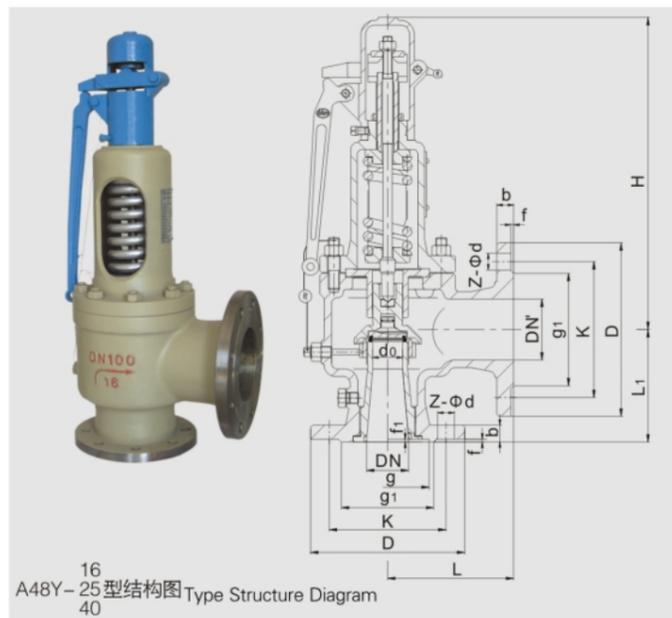
A48Y型适用于工作温度在≤350℃的蒸汽、空气等介质的设备或管路上，作为超压保护装置。

● Use:

A48Y type are used for the equipment and pipelines with such media as steam and air at a working temperature less than 350℃. It functions as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 Nominal DN	公称通径 Diameter	do	DN'	L	L ₁	≈H
20	15	25	110	95	306	
25	16	32	110	95	306	
32	20	40	115	100	309	
40	25	50	120	110	323	
50	32	65	135	120	333	
65	40	80	160	140	420	
80	50	100	170	135	432	
100	65	125	205	160	553	
125	80	150	210	190	639	
150	100	175	255	230	654	
200	125	250	305	260	797	
250	150	300	350	320	998	
300	200	400	370	350	1246	
350	250	500	375	415	1494	
400	280	500	395	415	1780	



A48Y-⁶⁴/₁₀₀ C型 带扳手弹簧全启式安全阀 Spring fall lift safety valve with spanner

● 用途:

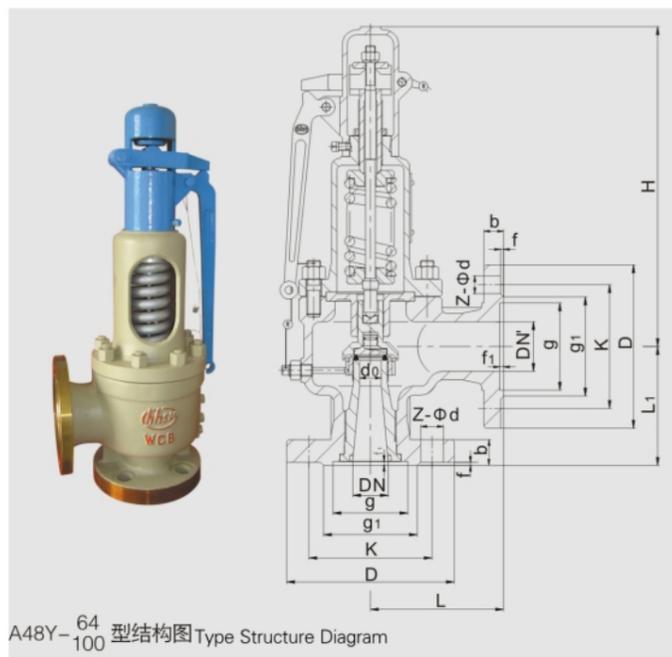
A48Y型适用于工作温度在≤350℃的蒸汽、空气等介质的设备或管路上，作为超压保护装置。

● Use:

A48Y type are used for the equipment and pipelines with such media as steam and air at a working temperature less than 350℃. It functions as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

型号 Type	公称通径 Nominal DN	公称通径 Diameter	do	DN'	L	L ₁	≈H
A48Y-64C	20	12	25	110	100	305	
	25	16	32	110	100	305	
	32	20	40	130	110	318	
	40	25	50	135	120	323	
	50	32	65	160	130	415	
A48Y-100C	65	40	80	175	160	531	
	80	50	100	175	160	541	
	100	65	125	195	195	624	
	150	100	200	285	260	903	
	20	12	25	110	100	305	
A48Y-100C	25	16	32	110	100	305	
	32	20	40	130	110	318	
	40	25	50	135	120	323	
	50	32	65	160	130	415	
	65	40	80	175	160	531	
A48Y-100C	80	50	100	175	160	541	
	100	65	125	195	195	624	
	150	100	200	285	260	903	



A44Y-¹⁶/₂₅/₄₀ C/P/R型 带扳手弹簧全启封闭式安全阀 Spring fall lift enclosed safety valve with spanner

● 用途:

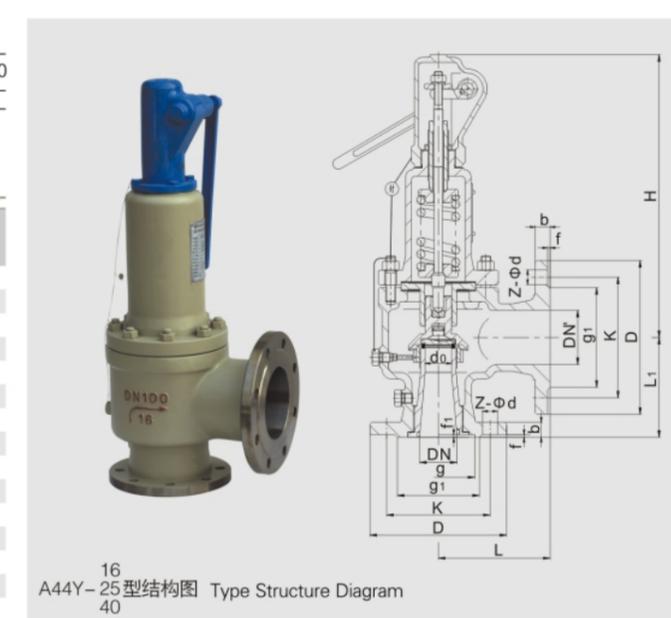
A44Y-C适用于工作温度≤300℃的空气、蒸汽、石油等介质的设备或管路上。A44Y-P/R型适用于工作温度≤200℃有腐蚀性介质的设备上，作为超压保护装置。

● Use:

A44Y-C type are used for the equipment and pipelines with such media as air, steam and petroleum at a working temperature less than 300℃. A44Y-P/R type are used for the equipment containing corrosive media at a working temperature less than 200℃. They function as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 Nominal DN	公称通径 Diameter	do	DN'	L	L ₁	≈H
20	15	25	110	95	307	
25	16	32	110	95	307	
32	20	40	115	100	311	
40	25	50	120	110	330	
50	32	65	135	120	340	
65	40	80	160	140	426	
80	50	100	170	135	438	
100	65	125	205	160	557	
125	80	150	210	190	641	
150	100	175	255	230	656	
200	125	250	305	260	795	
250	150	300	350	320	995	
300	200	400	370	350	1263	
350	250	500	375	415	1711	
400	280	500	395	415	1780	



A44Y-⁶⁴/₁₀₀ C/P/R型 带扳手弹簧全启封闭式安全阀 Spring fall lift enclosed safety valve with spanner

● 用途:

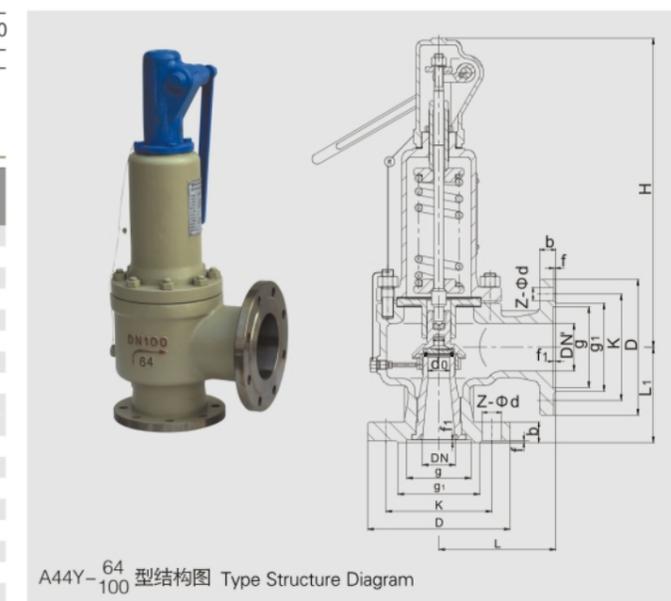
A44Y-C适用于工作温度≤300℃的空气、蒸汽、石油等介质的设备或管路上。A44Y-P/R型适用于工作温度≤200℃有腐蚀性介质的设备上，作为超压保护装置。

● Use:

A44Y-C type are used for the equipment and pipelines with such media as air, steam and petroleum at a working temperature less than 300℃. A44Y-P/R type are used for the equipment containing corrosive media at a working temperature less than 200℃. They function as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

型号	公称通径 Nominal DN	公称通径 Diameter	do	DN'	L	L ₁	≈H
A44Y-64C	20	12	25	110	100	306	
	25	16	32	110	100	306	
	32	20	40	130	110	325	
	40	25	50	135	120	330	
	50	32	65	160	130	421	
A44Y-64P	65	40	80	175	160	535	
	80	50	100	175	160	545	
	100	65	125	195	195	626	
	150	100	200	285	260	899	
	20	12	25	110	100	306	
A44Y-100C	25	16	32	110	100	306	
	32	20	40	130	110	325	
	40	25	50	135	120	330	
	50	32	65	160	130	421	
	65	40	80	175	160	535	
A44Y-100R	80	50	100	175	160	545	
	100	65	125	195	195	626	
	150	100	200	285	260	899	



A37H-¹⁶/₂₅ C, A38Y-¹⁶/₂₅ C, A43H-¹⁶/₄₀ C 双联弹簧式安全阀 Duplex spring safety valve

● 用途:

本阀门适用于工作温度在≤350℃的蒸汽、空气等介质的设备或管路上。当设备和管路内压力升高超过允许值时，阀门自动开启，继而全量排放。当压力降低至规定值时，阀门自动关闭，保证设备和管路的安全进行。

说明:该阀门是在一个Y型接头上装设两个同样型号规格的安全阀，其中公称口径是指Y型接头进口口径，组合情况如下:

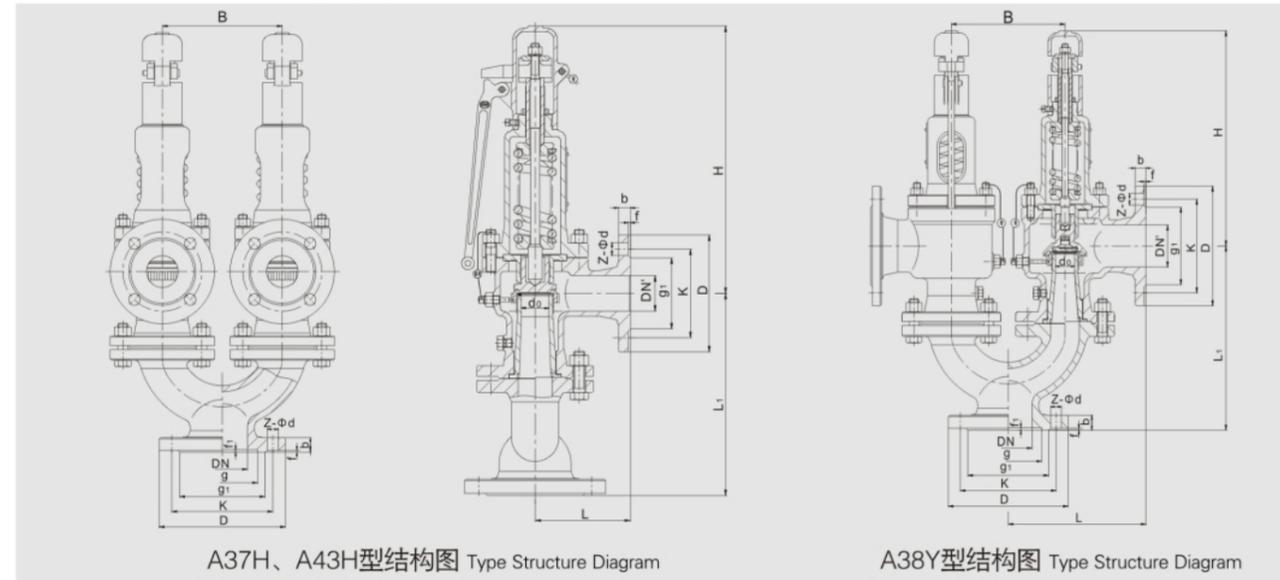
主要部件材料说明:A38Y、A43H、A37H 型安全阀除三通材料为WCB外，其余零件的材料均和A47H、A48Y型弹簧式安全阀相同。

● Use:

This safety valve is used for the equipment and pipelines with such media as steam and air at a working temperature less than 350°C. When the pressure inside equipment and pipelines rises over the allowed pressure, the valve will automatically open and fully discharge, and will automatically close when the pressure lowers to the setting pressure to ensure the safety of equipment and pipelines.

Description: The equipment is made of the same two types of safety valves which are connected by a Y-type joint. The nominal diameter means the Y-type joint's inlet size. Combinations are as below:

Materials description of main parts: Except the teematerial for WCB, the materials of other parts of A38Y/A43H/A37H safety valves are the same as those of A47H/A48Y type spring loaded safety valves.



A37H、A43H型结构图 Type Structure Diagram

A38Y型结构图 Type Structure Diagram

● 主要连接尺寸 Main Connection Dimensions

型号 Type	尺寸 Dimension							
	DN	L	L ₁	B	DN'	do	H	
A37H- ¹⁶ / ₂₅ / ₄₀	50	115	225	165	32	2×25	310	
	80	140	310	205	65	2×50	415	
	100	160	355	255	80	2×65	420	
	125	170	400	275	100	2×80	540	
A38Y- ¹⁶ / ₂₅ / ₄₀	50	198	225	165	40	2×20	310	
	80	230	285	190	65	2×32	335	
	100	275	350	230	80	2×40	420	
	150	343	400	275	125	2×65	555	
A43H- ¹⁶ / ₂₅ / ₄₀	50	115	225	165	32	2×25	310	
	80	135	285	190	50	2×40	380	
	100	160	355	255	80	2×65	420	
	125	170	400	275	100	2×80	540	
A43H- ¹⁶ / ₄₀	150	190	440	300	125	2×100	625	
	A37H型公称口径DN A37H Type Nominal Diameter							50 80 100 125 150
	相应的A47H型公称口径DN Relevant A47H Type Nominal Diameter							32 65 80 100 125
	A38Y型公称口径DN A38Y Type Nominal Diameter							50 80 100 125 150
相应的A47H型公称口径DN Relevant A47H Type Nominal Diameter							32 50 80 100 125	



A38H型公称口径DN A38H Type Nominal Diameter	50	80	100	150
相应的A48H型公称口径DN Relevant A48H Type Nominal Diameter	32	50	65	100
A43H型公称口径DN A43H Type Nominal Diameter	50	80	100	125 150
相应的A47H型公称口径DN Relevant A47H Type Nominal Diameter	32	50	80	100 125

A42Y-¹⁶⁰/₃₂₀ C/P/R型 弹簧全启封闭式高压安全阀 Spring fall lift closed high pressure safety valve

● 用途:

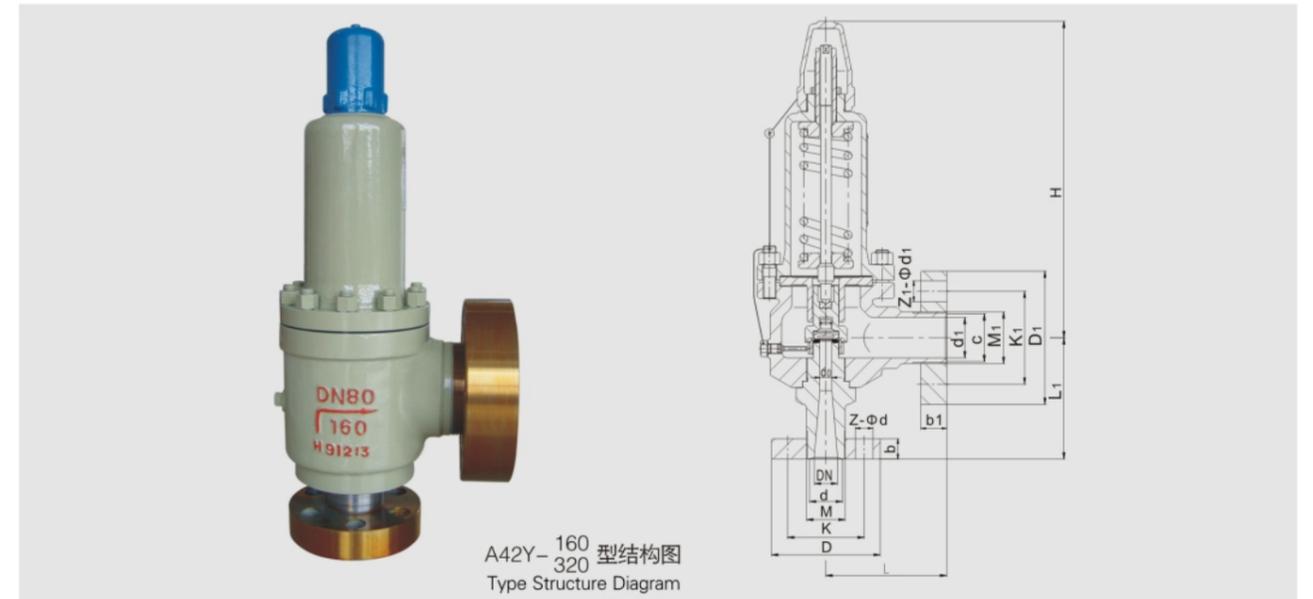
A42Y-160/320 C型适用于工作温度≤200℃空气、氮氢混合气等介质的设备和管路上。A42Y-160P/R、A42Y-320P/R型适用于工作温度≤200℃有腐蚀性气体的设备和管路上，作为超压保护装置。

连接法兰标准按JB/T2769的标准。

● Use:

A42Y-160/320C type are used for the equipment and pipelines with such media as air and N₂-H₂ mixed gas at a working temperature less than 200°C. A42Y-160P/R and A42Y-320P/R type are used for the equipment and pipelines containing corrosive gases at a working temperature less than 200°C as an overpressure protection device.

Flange connecting dimensions comply with Standard of JB/T2769.



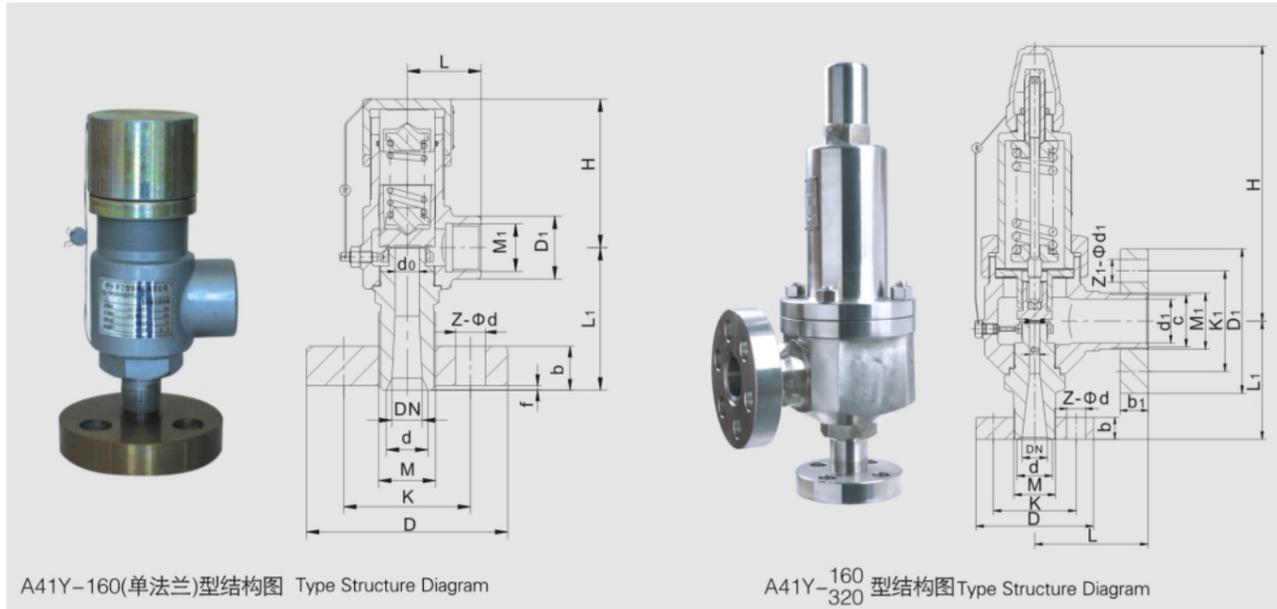
A42Y-¹⁶⁰/₃₂₀ 型结构图
Type Structure Diagram

● 主要连接尺寸 Main Connection Dimensions

型号 Type	公称口径 DN Nominal Diameter	do	d	M	D	K	Z-φd	b	d ₁	C	M ₁	D ₁	K ₁	Z ₁ -φd	b ₁	L	L ₁	H
A42Y-160	15	8	20	M24×2	95	60	3-18	20	29	37	M42×2	115	80	4-18	22	95	100	263
	20	10	27	M33×2	105	68	3-18	20	29	37	M42×2	115	80	4-18	22	95	100	263
	25	12	28	M33×2	105	68	3-18	20	40	47	M52×2	165	115	6-26	28	135	130	314
	32	15	37	M42×2	115	80	4-18	22	50	59	M64×3	165	115	6-26	32	150	150	390
A42Y-320	40	20	47	M52×2	165	115	6-26	28	65	74	M80×3	200	145	6-29	40	180	165	495
	50	25	59	M64×3	165	115	6-26	32	80	94	M100×3	225	170	6-33	45	190	190	510
	15	8	27	M33×2	105	68	3-18	20	29	37	M42×2	115	80	4-18	22	95	100	263
	20	10	32	M36×2	110	75	3-18	22	29	37	M42×2	115	80	4-18	22	95	100	263
A42Y-400	25	12	35	M42×2	115	80	4-18	22	40	47	M52×2	165	115	6-26	28	135	130	314
	32	14	41	M48×2	135	95	4-22	25	50	59	M64×3	165	115	6-26	32	150	150	390
	40	18	58	M64×3	165	115	6-26	32	65	74	M80×3	200	145	6-29	40	180	165	495
	50	23	70	M80×3	200	145	6-29	40	80	94	M100×3	225	170	6-33	45	190	190	510
A42Y-400	32	15	41	M48×2	135	95	4-22	25	50	59	M64×3	165	115	6-26	32	150	150	397

A41Y-160/320 C/P/R型 弹簧微启封闭式高压安全阀 Spring low lift closed high pressure safety valve

- 用途: A41Y-160/320型适用于工作温度 $\leq 200^{\circ}\text{C}$ 空气、氮氢混合气、水等介质的设备和管路上。A41Y-160P/R、A41Y-320P/R型适用于工作温度 $\leq 200^{\circ}\text{C}$ 有腐蚀性气体或液体介质的设备和管路上,作为超压保护装置。连接法兰标准按JB/T2769的标准。
- Use: A41Y-160/320 C type are used for the equipment and pipelines with such media as air and N₂-H₂ mixed gas at a working temperature less than 200°C. A41Y-160P/R and A41Y-320P/R type are used for the equipment and pipelines containing corrosive gases or liquids at a working temperature less than 200°C as an overpressure protection device. Flange connecting dimensions comply with Standard of JB/T2769.



A41Y-160(单法兰)型结构图 Type Structure Diagram

A41Y-160/320型结构图 Type Structure Diagram

● 主要连接尺寸 Main Connection Dimensions

型号 Type	公称通径DN Nominal Diameter	do	d	M	D	K	Z-φd	b	d ₁	C	M ₁	D ₁	K ₁	Z ₁ -φd	b ₁	L	L ₁	≈H
A41Y-160 (单法兰)	15	8	20	M24×2	95	60	3-18	20	--	--	M33×2	36	--	--	--	50	80	85
	20	10	25	M27×2	95	60	3-18	20	--	--	M33×2	48	--	--	--	50	80	85
	25	12	28	M33×2	105	68	3-18	20	--	--	M33×2	48	--	--	--	50	80	85
A41Y-160	15	8	20	M24×2	95	60	3-18	20	29	37	M42×2	115	80	4-18	22	95	100	263
	20	10	27	M33×2	105	68	3-18	20	29	37	M42×2	115	80	4-18	22	95	100	263
	25	12	28	M33×2	105	68	3-18	20	40	47	M52×2	165	115	6-26	28	135	130	285
	32	15	37	M42×2	115	80	4-18	22	50	59	M64×3	165	115	6-26	32	130	135	285
	40	20	47	M52×2	165	115	6-26	28	65	74	M80×3	200	145	6-29	40	180	165	495
A41Y-320	15	8	27	M33×2	105	68	3-18	20	29	37	M42×2	115	80	4-18	22	95	100	263
	20	10	32	M36×2	110	75	3-18	20	29	37	M42×2	115	80	4-18	22	95	100	263
	25	12	35	M42×2	115	80	4-18	22	40	47	M52×2	165	115	6-26	28	135	130	285
	32	14	41	M48×2	135	95	4-22	25	50	59	M64×3	165	115	6-26	32	130	135	285
	40	18	58	M64×3	165	115	6-26	32	65	74	M80×3	200	145	6-29	40	180	165	495
	50	23	70	M80×3	200	145	6-29	40	80	94	M100×3	225	170	6-33	45	190	190	510

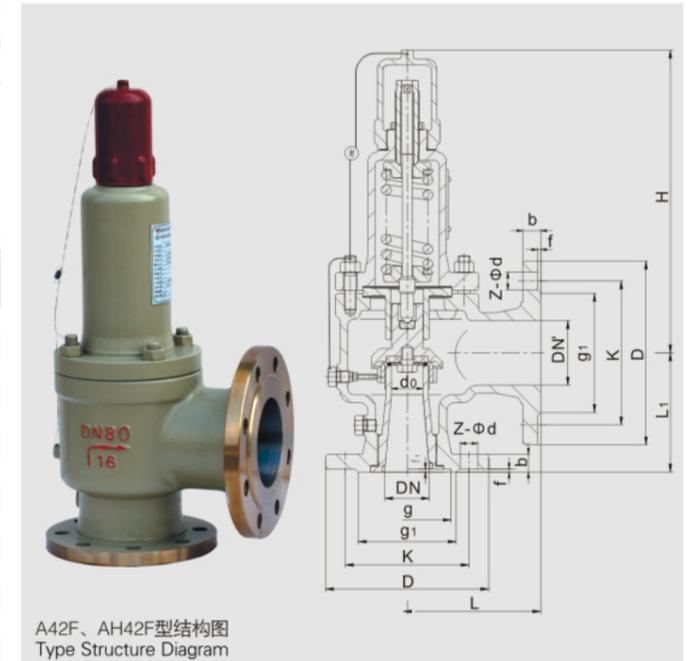
A42F-16/25/40 C型 液化石油气安全阀 LPG safety valve

AH42F-16/25/40 C型 安全回流阀 AH42F safety reflux valve

- 用途: A42F型适用于工作温度-29~+80°C的液化石油气和类似非腐蚀性介质的设备和管路上。AH42F型安全回流阀适用于液化石油气罐泵出口的液相回流管道上。当设备和管路内压力超过允许值时,阀门自动开启,继而全量排放,当压力降低到规定值时,阀门自动关闭,保证设备安全运行。
- Use: A42F type are used for the equipment and pipelines with such media as liquefied petroleum gas and similar non-corrosive at a working temperature between -29~+80°C. AH42F type safety reflux valve is mounted on the liquid-phase reflux pipeline of the pump outlet of the liquefied petroleum gas station. When the pressure inside equipment and pipelines rises over the allowed pressure, the valve will automatically open and fully discharge, and will automatically close when the pressure lowers to the setting pressure to ensure the safety of equipment.

● 主要连接尺寸 Main Connection Dimensions

公称通径 DN	Nominal Diameter	do	DN'	L	L ₁	≈H
20	15	25	110	95	281	
25	16	32	110	95	281	
32	20	40	115	100	285	
40	25	50	120	110	295	
50	32	65	135	120	305	
65	40	80	160	140	394	
80	50	100	170	135	406	
100	65	125	205	160	511	
125	80	150	210	190	586	
150	100	175	255	230	601	
200	125	250	305	260	734	
250	150	300	350	320	928	
300	200	400	370	350	1159	
350	250	500	375	415	1314	



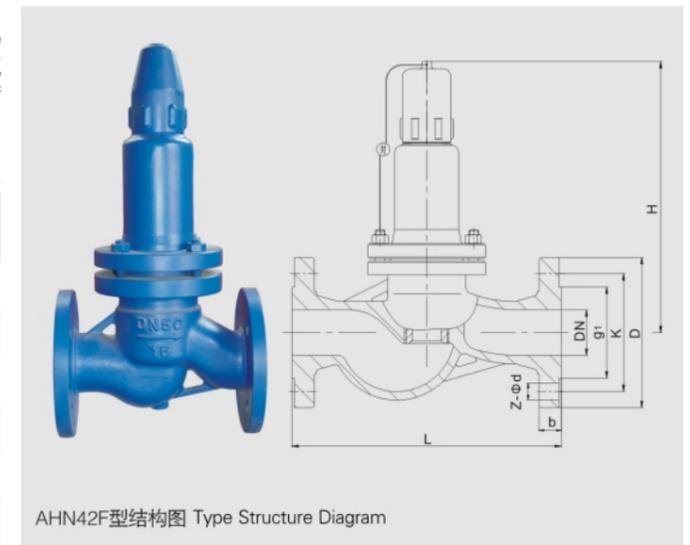
A42F、AH42F型结构图 Type Structure Diagram

AHN42F-P18型 平行式安全回流阀 AHN42F-P18型 Parallel safety reflux valve

- 用途: AHN42F型安全回流阀适用于液化石油气罐泵出口的液相回流管道上。当泵前压力超过规定值时,阀门自动开启并起安全回流作用,保证设备和管路的安全运行。
- Use: AHN42F type is mounted on the liquid-phase reflux pipeline of the pump outlet of the liquefied petroleum gas station, when the pressure before the pump exceeds the stated value, the valve will open automatically and lead to safe return of the liquid so as to ensure the safe operation of equipment and pipelines.

● 主要连接尺寸 Main Connection Dimensions

公称通径 DN	Nominal Diameter	尺寸 Dimension						
		D	K	g ₁	b	Z-φd	L	≈H
40	150	110	85	16	4-18	200	346	
50	160	125	100	16	4-18	230	346	
65	180	145	120	20	4-18	290	440	
80	195	160	135	20	8-18	310	537	
100	215	180	155	22	8-18	350	548	
150	280	240	210	24	8-23	480	706	



AHN42F型结构图 Type Structure Diagram

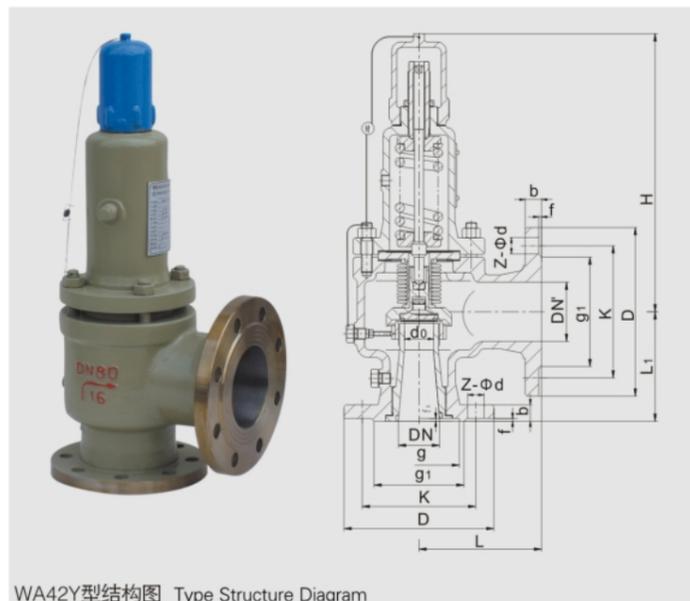
WA42Y-¹⁶/₂₅/₄₀ C/P/R型 波纹管背压平衡全启式安全阀 Bellows back pressure balanced fall lift safety valve

● 用途：
本阀门适用于工作温度≤300℃存在变动背压或有毒易燃、腐蚀性介质的设备或管路上，作为超压保护装置。

● Use:
This safety valve is used for the equipment and pipelines with instable back pressure or containing poisonous or corrosive media at a working temperature less than 300℃ as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 DN	Nominal Diameter	do	DN'	L	L ₁	≈H
20	15	25	110	95	281	
25	16	32	110	95	281	
32	20	40	115	100	285	
40	25	50	120	110	295	
50	32	65	135	120	305	
65	40	80	160	140	394	
80	50	100	170	135	406	
100	65	125	205	160	511	
125	80	150	210	190	586	
150	100	175	255	230	601	
200	125	250	305	260	734	
250	150	300	350	320	928	
300	200	400	370	350	1159	
350	250	500	375	415	1314	



WA42Y型结构图 Type Structure Diagram

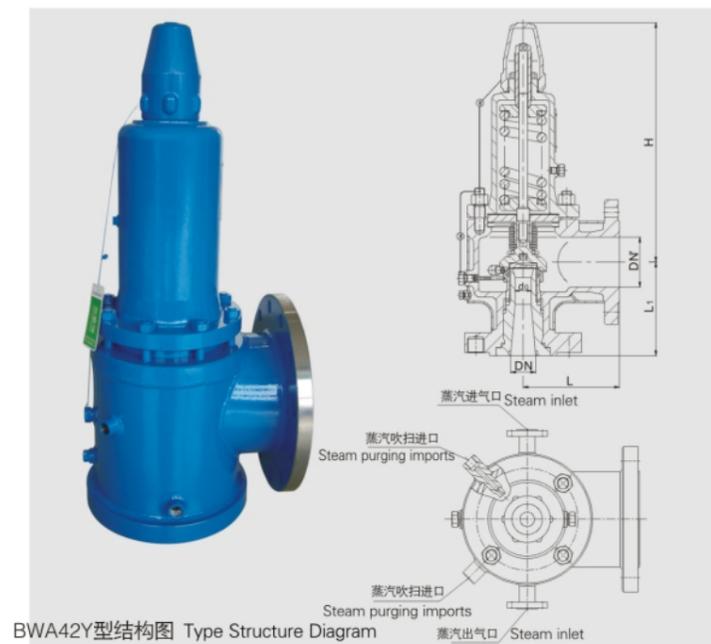
BWA42Y-¹⁶/₂₅/₄₀ C/P/R型 保温波纹管背压平衡全启式安全阀 Thermal insulation bellows back pressure balanced fall lift safety valve

● 用途：
BWA42型安全阀用作聚脂、乙烯及尿素等装置，安全阀配备保温夹套，蒸汽吹扫接头，确保系统安全运行。

● Use:
BWA42 type safety valve is used for equipment of polyester, ethylene, urea and so on. The safety valve is equipped with a heating jacket and steam purging connectors to ensure safe operation of the system.

● 主要连接尺寸 Main Connection Dimensions

公称通径 DN	Nominal Diameter	do	DN'	L	L ₁	≈H
20	15	25	110	95	281	
25	16	32	110	95	281	
32	20	40	115	100	285	
40	25	50	120	110	295	
50	32	65	135	120	305	
65	40	80	160	140	394	
80	50	100	170	135	406	
100	65	125	205	160	511	
125	80	150	210	190	586	
150	100	175	255	230	601	
200	125	250	305	260	734	
250	150	300	350	320	928	
300	200	400	370	350	1159	
350	250	500	375	415	1314	



BWA42Y型结构图 Type Structure Diagram

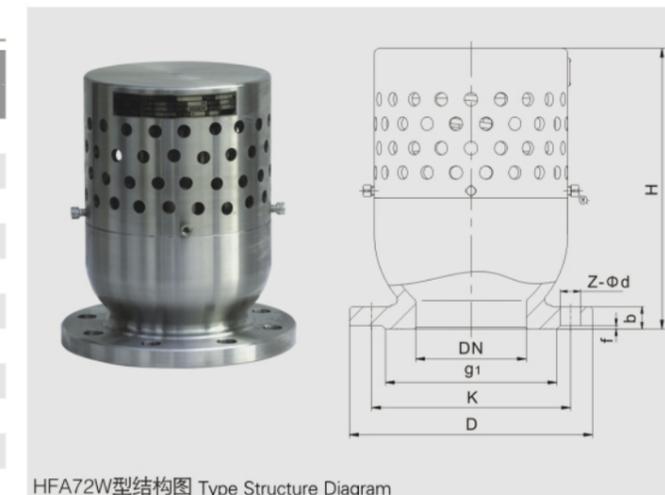
HFA72W-10P/R型 真空负压安全阀 Vacuum negative pressure safety valve

● 用途：
1 用于负压系统：当负压容器系统内负压超过允许值时，该阀自动开启，吸入空气；当负压降低到规定值时，该阀自动关闭，从而保护设备容器及系统的安全运行。
2 用于正常非负压系统：各种腐蚀性介质容器，如吸收塔，蒸馏塔，贮槽，罐等，当通入蒸汽清洗后，如放散阀未打开，蒸汽冷凝，产生负压时，安装设备即确保安全。

● Use:
1. Used for negative pressure systems: When the negative pressure in the container exceeds allowable values, the valve will open automatically and absorb air. When the negative pressure in the container reaches the allowable values, the valve will close automatically so as to protect the equipment and the system.
2. Used for normal non negative pressure systems: containers of all kinds of corrosive media, such as the absorption tower, distillation tower, storage tank, tank, etc. If the radiation valve does not open after cleaning with steam inside, steam will condensate and produce negative pressure, while the equipment installed can ensure safety.

● 主要连接尺寸 Main Connection Dimensions

公称通径 DN	Nominal Diameter	D	K	g ₁	Z-φd	b	f	≈H
15	95	65	45	4-14	14	2	110	
20	105	75	55	4-14	16	2	130	
25	115	85	65	4-14	16	2	150	
32	140	100	78	4-18	18	2	180	
40	150	110	85	4-18	18	3	200	
50	165	125	100	4-18	20	3	221	
80	200	160	135	4-18	22	3	245	
100	220	180	155	8-18	22	3	253	
125	250	210	185	8-18	24	3	280	
150	285	240	210	8-23	24	3	329	
200	340	295	265	8-23	26	3	377	



HFA72W型结构图 Type Structure Diagram

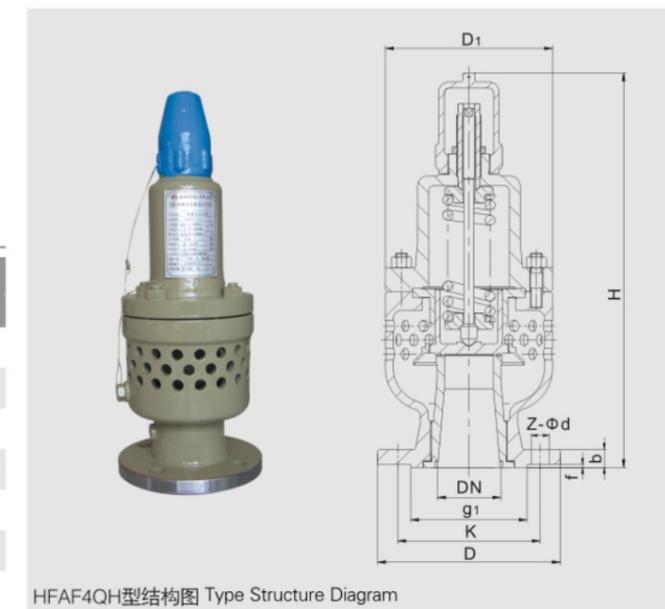
HFAF4QH-10C 安全阀 Safety Valve

● 用途：
HFAF4QH型安全阀主要用于风机系统，作为设备超压保持装置。

● Use:
HFAF4QH type safety valve is used for the fan system. It serves as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 DN	Nominal Diameter	D	K	g ₁	b	f	Z-φd	D1	≈H
40	145	110	85	16	3	4-18	100	250	
50	160	125	100	16	3	4-18	115	272	
65	180	145	120	18	3	4-18	140	285	
80	195	160	135	20	3	4-18	172	296	
100	215	180	155	20	3	8-18	212	425	
125	245	210	185	22	3	8-18	254	450	
150	280	240	210	22	3	8-23	280	480	



HFAF4QH型结构图 Type Structure Diagram

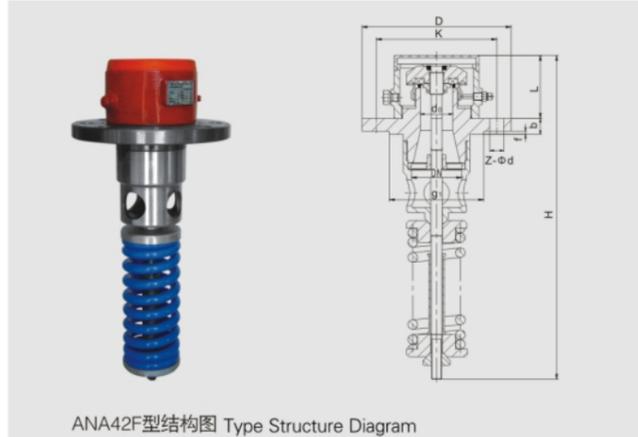
ANA42F-25型 内装式安全阀 Built-in safety valve

● 用途:
ANA42F内装式安全阀主要用于铁路和汽车石油液化气槽车或地面液化气储罐上使用, 作为超压安全保护装置。

● Use:
ANA42F built-in safety valve is to be applied to liquefied gas tank lorries or ground liquefied gas tanks in railways and automobiles for overpressure protection.

● 主要连接尺寸 Main Connection Dimensions

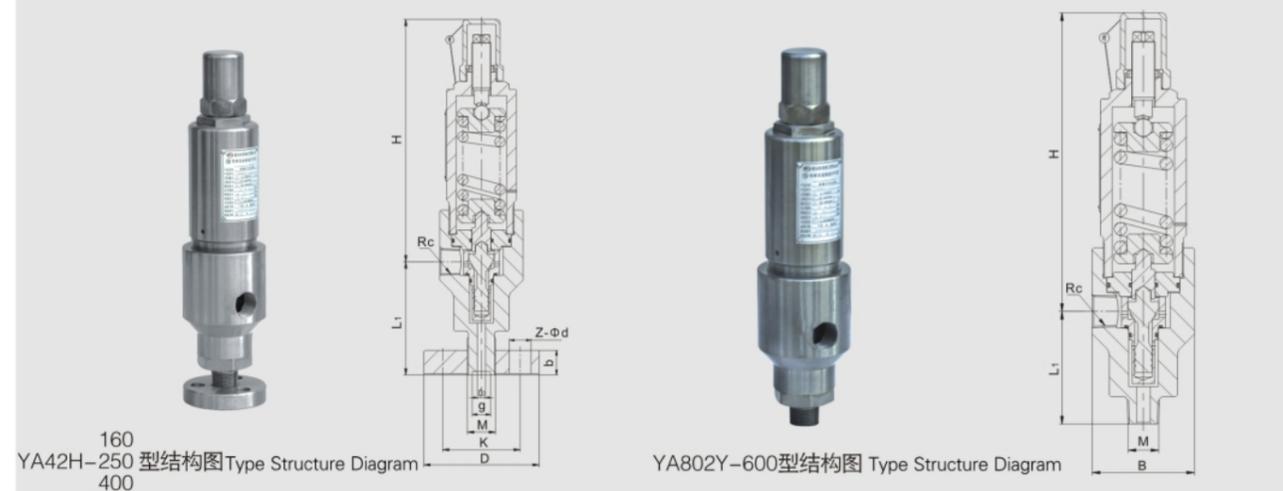
公称直径 Nominal DN	尺寸 Dimension	L	D	K	g'	do	b	f	Z-φd	≈H
50		95	160	125	100	34	20	3	4-18	376
80		99	235	190	149	52	25	4.5	8-22	512



YA42H-160/250/400、YA802Y-600型 安全溢流阀 Safety overflow valve

● 用途:
A42H、YA802Y型安全溢流阀适用于工作温度≤200℃的石油、化工及其它液压输送管路中, 作为设备的超压保护装置。

● Use:
A42H and YA802Y type overflow valves are used for petroleum, chemistry and other hydraulic conveyor pipelines at a working temperature less than 200°C. It serves as an overpressure protection device.



● 主要连接尺寸 Main Connection Dimensions

型号 Type	公称直径 Nominal DN	尺寸 Dimension	B	D	Z-φd	M	do	K	L ₁	Rc	b	g	≈H
YA42H-160	10		95	105	4-18	M33×3	10	88	117	3/4"	25	20	248
YA42H-250	15		105	135	6-26	M48×3	15	95	140	1"	25	25	290
YA42H-400	20		135	200	6-29	M56×3	20	145	170	1 1/2"	40	30	356
	25		140	200	6-29	M64×3	25	145	173	2"	40	38	440
	32		160	210	6-29	M64×3	32	155	181	2 1/2"	40	40	520

型号 Type	公称直径 DN	M	Rc	B	L ₁	≈H
YA802Y-600	15	1/2"	1/2"	105	90	280
	25	1"	1"	105	115	305

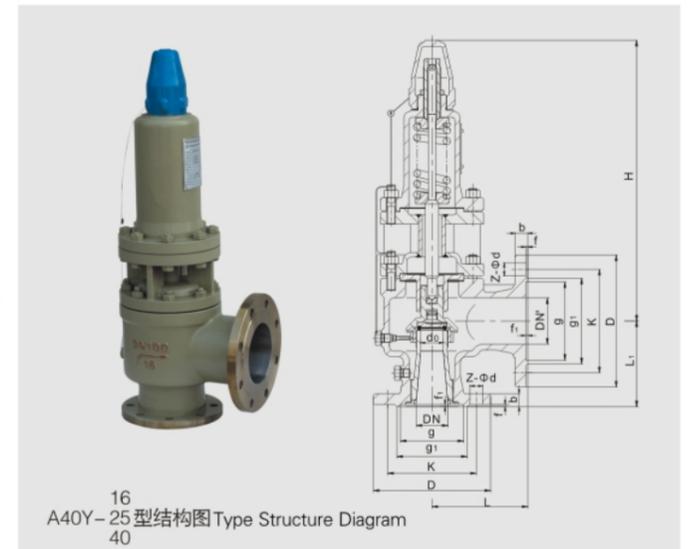
A40Y-16/25/40 C/I型 带封闭散热器弹簧全启式安全阀 Spring fall lift safety valve with radiator

● 用途:
A40Y-C 型适用于工作温度≤400℃、A40Y-I 型适用于工作温度≤450℃的空气、石油气、氨氢混合气等介质的设备和管路上, 作为超压保护装置。

● Use:
A40Y-C type, at a working temperature less than 400°C, and A40Y-I type, at a working temperature less than 450°C, are used for the equipment and pipelines with such media as air, petroleum gas and N₂-H₂ mixed gas as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称直径 Nominal DN	尺寸 Dimension	do	DN'	L	L ₁	≈H
20		15	25	110	95	360
25		16	32	110	95	360
32		20	40	115	100	365
40		25	50	120	110	380
50		32	65	135	120	400
65		40	80	160	140	500
80		50	100	170	135	512
100		65	125	205	160	635
125		80	150	210	190	710
150		100	175	255	230	725
200		125	250	305	260	880



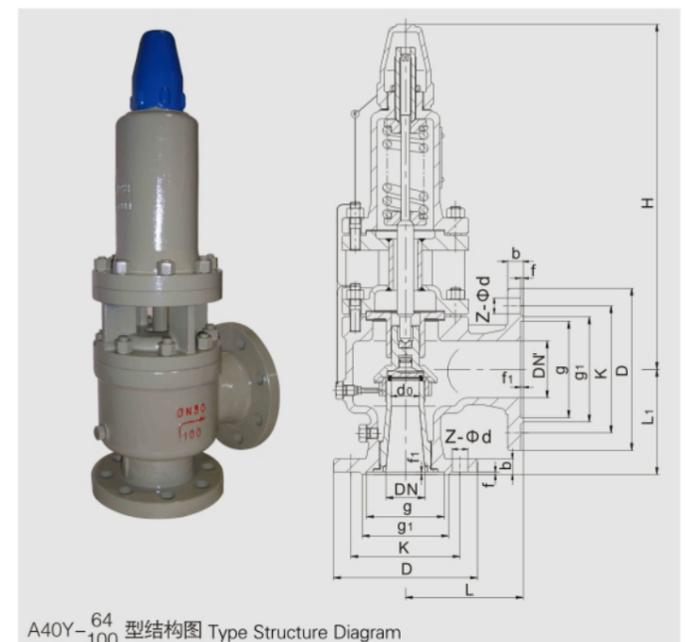
A40Y-64/100 C/I型 带封闭散热器弹簧全启式安全阀 Spring fall lift safety valve with radiator

● 用途:
A40Y-C 型适用于工作温度≤400℃、A40Y-I 型适用于工作温度≤450℃的空气、石油气、氨氢混合气等介质的设备和管路上, 作为超压保护装置。

● Use:
A40Y-C type, at a working temperature less than 400°C, and A40Y-I type, at a working temperature less than 450°C, are used for the equipment and pipelines with such media as air, petroleum gas and N₂-H₂ mixed gas as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

型号 Type	公称直径 Nominal DN	尺寸 Dimension	do	DN'	L	L ₁	≈H
A40Y-64C	20		12	25	110	100	355
A40Y-64I	25		16	32	110	100	355
	32		20	40	130	110	375
	40		25	50	135	120	390
	50		32	65	160	130	495
	65		40	80	175	160	605
	80		50	100	175	160	615
	100		65	125	195	195	695
	150		100	200	285	260	995
A40Y-100C	20		12	25	110	100	355
A40Y-100I	25		16	32	110	100	355
	32		20	40	130	110	375
	40		25	50	135	120	390
	50		32	65	160	130	495
	65		40	80	175	160	605
	80		50	100	175	160	615
	100		65	125	195	195	695
	150		100	200	285	260	995



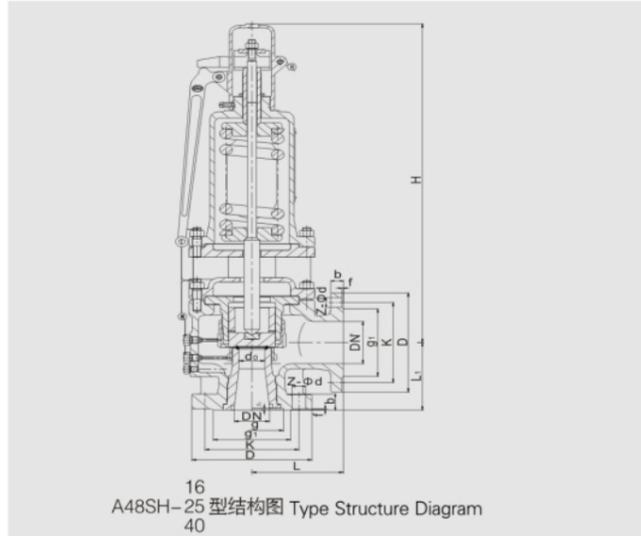
A48SH-¹⁶/₂₅C/I/V型 高温弹簧全启式安全阀 High temperature spring full lift safety valve

● 用途: A48SH-C型适用于工作温度≤425℃, A48SH-I型适用于工作温度≤510℃, A48SH-V型适用于工作温度≤550℃的蒸汽等介质的设备和管路上, 作为超压保护装置。

● Use: A48SH-C, at a working temperature less than 425℃, A48SH-I, at a working temperature less than 510℃, and A48SH-V, at a working temperature less than 550℃, are used for the equipment and pipelines with such media as steam as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 Nominal DN Diameter		尺寸 Dimension				
DN	Diameter	do	L	L ₁	DN'	≈H
25	15	110	95	32	395	
40	25	120	110	50	418	
50	32	135	120	65	525	
50	32	135	120	80	525	
80	50	170	135	100	675	
100	65	205	160	125	748	
100	65	205	160	150	748	
150	100	230	210	200	1135	
200	125	290	310	250	1230	
250	150	350	320	300	1285	



A48SB-⁶⁴/₁₀₀C/I/V型 高温高压弹簧全启式安全阀 High temperature and high pressure spring full lift safety valve

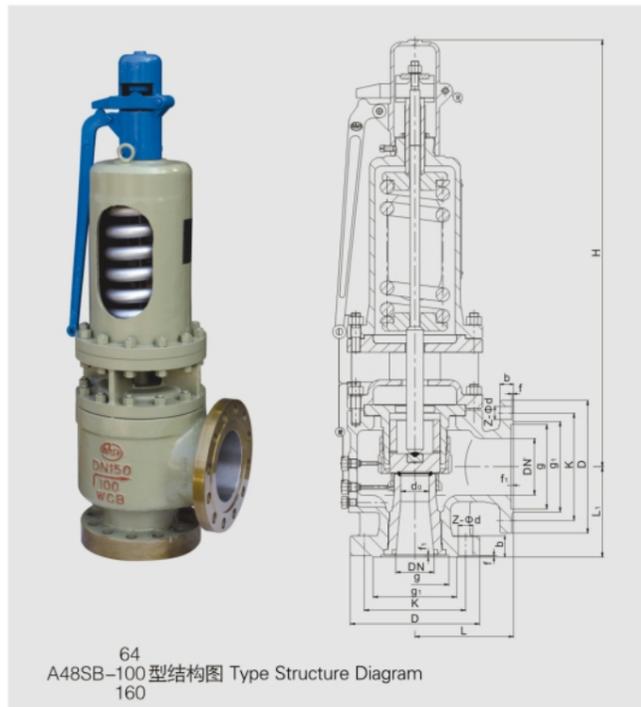
● 用途: A48SB-C型适用于工作温度≤425℃, A48SB-I型适用于工作温度≤510℃, A48SB-V型适用于工作温度≤550℃的蒸汽等介质的设备和管路上, 作为超压保护装置。

● Use: A48SB-C, at a working temperature less than 425℃, A48SB-I, at a working temperature less than 510℃, and A48SB-V, at a working temperature less than 550℃, are used for the equipment and pipelines with such media as steam as an overpressure protection device.

● 主要连接尺寸 Main Connection Dimensions

公称通径 Nominal DN Diameter		尺寸 Dimension				
DN	Diameter	do	L	L ₁	DN'	≈H
40	25	135	120	50	518	
50	32	160	130	65	625	
50	32	160	145	80	600	
80	50	175	160	100	740	
100	65	220	200	125	920	
100	65	220	200	150	920	
150	90	280	280	200	1128	
200	125	300	295	250	1350	
250	150	370	390	350	1430	

型号 Type	公称通径 Nominal DN Diameter	do	L	L ₁	DN'	≈H
HFA48TH-100	50	32	160	145	80	580
HFA48SB-160	80	40	215	210	150	820



A46^Y/_F-¹⁶/₂₅C/P/R、A46^Y/_F-⁶⁴/₁₆₀C/P/R型 先导式安全阀 Pilot operated safety valve

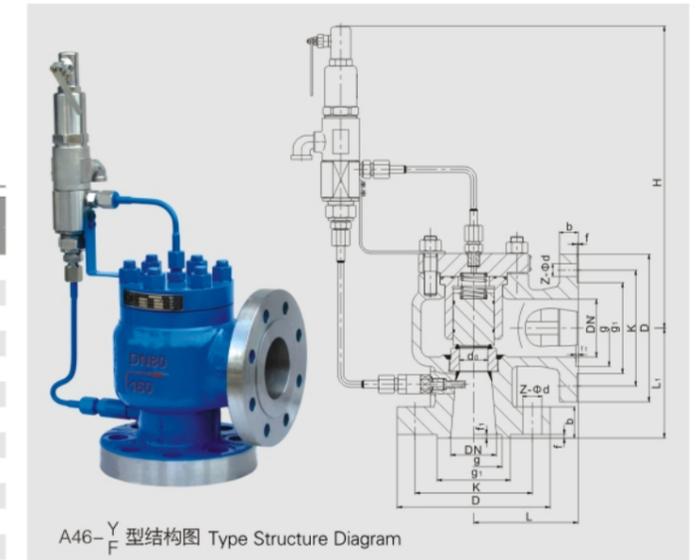
● 用途: 先导式安全泄压阀是一种新颖结构的安全阀。主要用于石油天然气、化工、电力、冶金和城市燃气等领域, 是受压设备、容器或管路上的最佳超压保护装置。其主要优点是变弹簧直接作用为导阀间接作用, 提高了动作的灵敏度, 而且主阀采用套筒活塞式, 动作精度高、重复性好、回座压力高、密封性能好、能带高背压排放、工作稳定可靠, 可在线调校, 操作维护方便。

● Use: The pilot operated safety pressure relieve valve, newly-structured, is mainly applied in such fields as petroleum & natural gas, chemistry, electric, metallurgy & city gas. It is the best overpressure protecting equipment for pressure equipment, containers or pipelines. It is mainly characterized by shifting direct action of spring to indirect action of guide valve, thus improving action sensitivity. What's more, the main valve, applying sleeve piston, is characterized by high precision of action, good repetition, high reseating pressure, zero leakage, discharge with high back pressure, stable and reliable operation, online calibration, and convenience in operating and maintaining.

● A46^Y/_F-¹⁶/₂₅C/P/R型主要连接尺寸

● Main Connection Dimensions

公称通径 Nominal DN Diameter		尺寸 Dimension				
DN	Diameter	DN''	do	L	L ₁	≈H
25	32	16	115	105	385	
25	50	16	115	105	385	
32	40	16	115	105	385	
40	50	16	121	124	390	
50	65	32.5	124	137	405	
50	80	32.5	124	137	405	
65	80	48	162	156	425	
80	100	48	162	156	425	
100	125	59	210	197	455	
100	150	59	210	197	455	
150	200	96	241	240	490	
200	250	146	279	276	525	



● A46^Y/_F-⁶⁴/₁₆₀C/P/R型主要连接尺寸 Main Connection Dimensions

PN64 ~ 100						
DN	DN'	do	L	L ₁	≈H	
25	32	16	115	111	385	
25	50	16	115	111	385	
32	40	16	121	124	390	
40	50	16	121	124	390	
50	65	32.5	124	137	405	
50	80	32.5	124	137	405	
65	80	48	162	162	425	
80	100	48	162	156	425	
100	125	59	210	197	460	
100	150	59	210	197	460	
150	200	96	241	246	490	
200	250	146	279	297	550	

PN160						
DN	DN'	do	L	L ₁	≈H	
25	50	13	121	126	460	
40	50	16	140	149	460	
50	80	32	171	167	485	
80	100	48	181	191	500	
100	150	60	233	249	540	



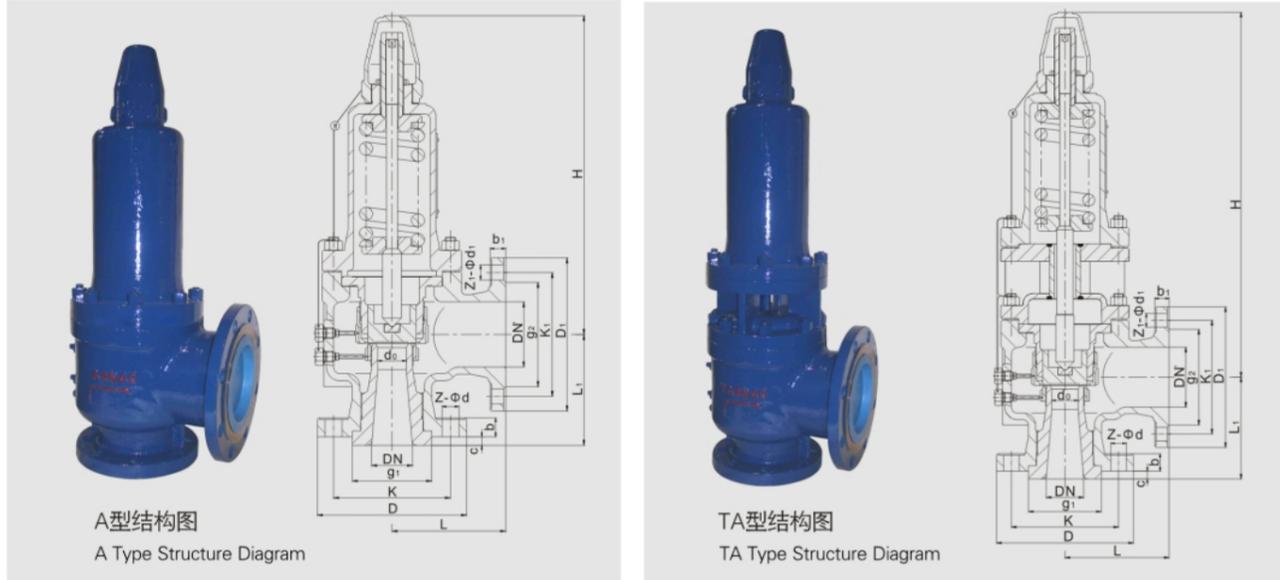
炼油安全阀系列 HF oil refining safety valve series

● 用途:

炼油专用安全阀是石油化工受压容器的主要附件之一,用于控制容器压力,保证容器安全。本系列安全阀为密闭全开型弹簧安全阀,即当气体介质压力高于整定压力3%时,阀门自动开启,继而全量排放。本系列安全阀可在具有稳定背压、无腐蚀或含轻微硫腐蚀的气体、液体下使用。

● Use:

HF oil refining safety valves are used as a main accessory for petrochemical pressure vessels to control the vessel pressure and ensure the safety of the container. This series valve is enclosed fully-open spring safety valve, that is, when the gas medium pressure is 3% higher than the setting, the valve will automatically open and then discharge fully. This series can be used for gases or liquids with stable back pressure and no or slight corrosion.



● 主要连接尺寸 Main Connection Dimensions

型号 Type	L	L ₁	D	K	g ₁	D ₁	K ₁	g ₂	C	b	b ₁	Z-φd	Z ₁ -φd ₁	≈H
A1D40	100	99	115	85	57	160	125	100	9	19	16	4-14	4-18	327
TA1D40														424.5
A1.5F40	120	107	145	110	75	160	125	100	13	20	16	4-18	4-18	363.6
TA1.5F40														443.5
A2J16	150	139	160	125	92	195	160	135	14	22	20	4-18	8-18	409
TA2J16														539.5
A2H40	150	139	160	125	87	195	160	135	14	22	20	4-18	8-18	409
TA2H40														539.5
A3L16	160	147	195	160	133	215	180	155	12	22	20	8-18	8-18	487
TA3L16														652
A3K40	160	149	195	160	120	215	180	155	14	24	20	8-18	8-18	489
TA3K40														654
A4P16	200	176	215	180	153	280	240	210	13	22	24	8-18	8-23	596
TA4P16														789
A4N40	200	182.5	230	190	149	280	240	210	17.5	26	24	8-23	8-23	639.5
TA4N40														832.5
A6R5.5	230	228	280	240	195	335	295	265	18	24	26	8-23	12-23	757
TA6R5.5														976
A6Q16	230	228	280	240	189	335	295	265	18	24	26	8-23	12-23	775
TA6Q16														986

炼油安全阀系列 HF oil refining safety valve series

● 型号系列 Type & Series

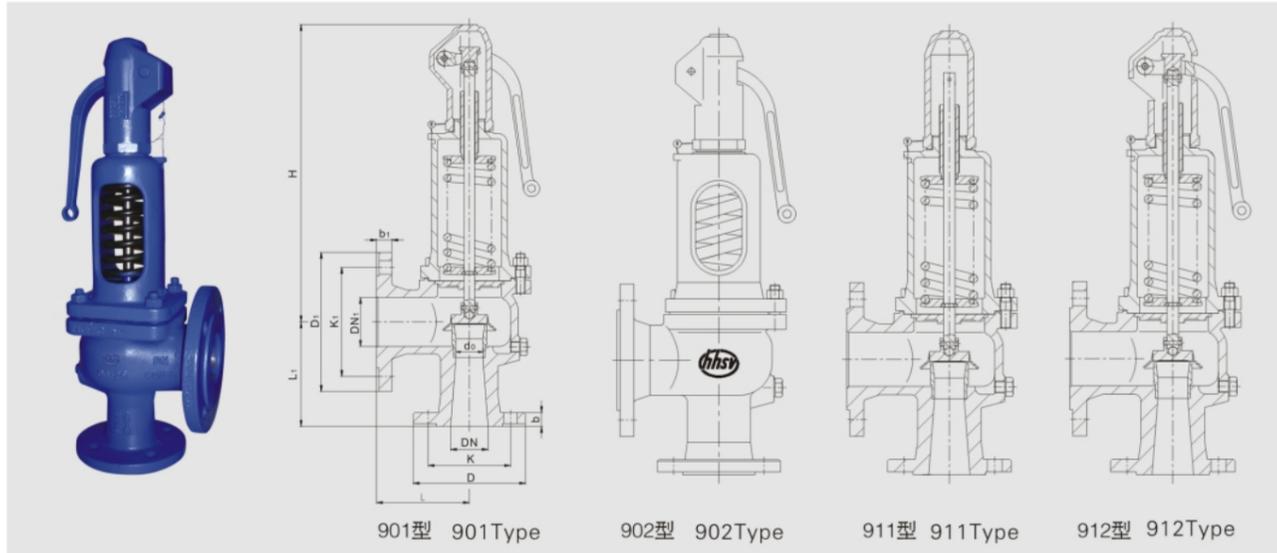
系列 Series	型号 Type	进口法兰 Inlet flange		定压范围Mpa Range of const pressure	代号 Code	流道尺寸 Size		使用温度℃ Operating Temperature
		公称通径DN Nominal Diameter	公称压力PN(MPa) Nominal Pressure			流道直径d ₀ Diameter	流道面积cm ² Area	
A型 A Type	A1D40	25	4.0	0.03~4.2	D	10	0.78	-25 ~ 300
	A1.5F40	40	4.0	0.03~4.2	F	16	2.0	-25 ~ 300
	A2J16	50	1.6	0.03~<1.3	J	33	8.54	-25 ~ 300
	A2H40	50	4.0	1.30~4.2	H	26	5.31	-25 ~ 300
	A3L16	80	1.6	0.03~<1.6	L	50	19.62	-25 ~ 300
	A3K40	80	4.0	1.60~4.2	K	40	12.56	-25 ~ 300
	A4P16	100	1.6	0.03~<1.6	P	72	40.69	-25 ~ 300
	A4N40	100	4.0	1.60~4.2	N	60	28.26	-25 ~ 300
	A6R5.5	150	1.6	0.03~<0.55	R	115	103.82	-25 ~ 300
	A6Q16	150	1.6	0.55~1.6	Q	96	72.35	-25 ~ 300
TA型 TA Type	TA1D40	25	4.0	0.03~4.2	D	10	0.78	>300 ~ 550
	TA1.5F40	40	4.0	0.03~4.2	F	16	2.0	>300 ~ 550
	TA2J16	50	1.6	0.03~<1.3	J	33	8.54	>300 ~ 550
	TA2H40	50	4.0	1.30~4.2	H	26	5.31	>300 ~ 550
	TA3L16	80	1.6	0.03~<1.6	L	50	19.62	>300 ~ 550
	TA3K40	80	4.0	1.60~4.2	K	40	12.56	>300 ~ 550
	TA4P16	100	1.6	0.03~<1.6	P	72	40.69	>300 ~ 550
	TA4N40	100	4.0	1.60~4.2	N	60	28.26	>300 ~ 550
	TA6R5.5	150	1.6	0.03~<0.55	R	115	103.82	>300 ~ 550
	TA6Q16	150	1.6	0.55~1.6	Q	96	72.35	>300 ~ 550

● 主要连接尺寸 Main Connection Dimensions

公称压力 PN(MPa) Nominal Pressure	阀体进出口直径 (进口直径代号) Body inlet and outlet Diameter Flow-through Diameter Code 流通直径代号 Flow-through Area (cm ²) 压力范围MPa Pressure Range Mpa	25x50(1)	40x50(1.5)	50x80(2)	80x100(3)	100x150(4)	150x200(6)				
		D	F	J	H	L	K	P	N	R	Q
1.6	0.03 ~ <0.1	101	201	301	--	401	--	501	--	601	601
	0.1 ~ <0.2	102	202	302	--	402	--	502	--	602	602
	0.2 ~ <0.3	103	203	303	--	403	--	503	--	603	603
	0.3 ~ <0.4	104	204	304	--	404	--	504	--	604	604
	0.4 ~ <0.55	105	205	305	--	405	--	505	--	605	605
	0.55 ~ <0.7	106	206	306	--	406	--	506	--	606	606
	0.7 ~ <0.9	107	207	307	--	407	--	507	--	607	607
	0.9 ~ <1.1	108	208	308	--	408	--	508	--	608	608
	1.1 ~ <1.35	109	209	309	--	409	--	509	--	609	609
	1.35 ~ <1.6	110	210	310	310	410	--	510	--	610	610
4.0	1.6 ~ <1.9	111	211	--	311	--	411	--	511	--	--
	1.9 ~ <2.2	112	212	--	312	--	412	--	512	--	--
	2.2 ~ <2.55	113	213	--	313	--	413	--	513	--	--
	2.55 ~ <2.9	114	214	--	314	--	414	--	514	--	--
	2.9 ~ <3.3	115	215	--	315	--	415	--	515	--	--
	3.3 ~ <3.7	116	216	--	316	--	416	--	516	--	--
	3.7 ~ <4.2	117	217	--	317	--	417	--	517	--	--

900系列德标安全阀 HF900 series DIN safety valve

- 用途: 900系列德标安全阀主要用于石油、天然气、化工、电力、城市燃气等领域, 作为超压保护装置。具有动作精度高, 重复性好, 回座准确, 操作维护方便。
- Use: 900 series DIN safety valves are used for oil, natural gas, chemical, electric power, city gas, and other fields as an overpressure protection device. It has high precision of action, good repeatability, accurate return and convenient operation and maintenance.



型号 Type	公称压力 Nominal Pressure	阀体材质 Body Material	公称通径 Nominal Diameter	工作温度 Operating Temperature
35.901/902/911/912	PN40/16	铸钢 1.0619+N Cast Steel 1.0619+N	DN20/32 ~ DN150/250	-10°C ~ +450°C
55.901/911	PN40/16	不锈钢 1.4408 Stainless Steel 1.4408	DN20/32 ~ DN100/150	-60°C ~ +400°C

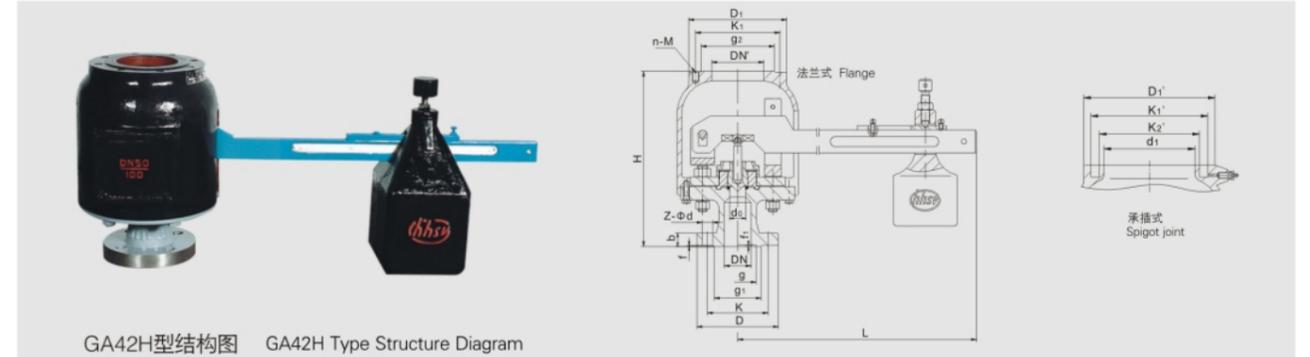
公称通径 DN	20/32	25/40	32/50	40/65	50/80	65/100	80/125	100/150	125/200	150/250
流通孔径 do(mm) Flow-through Hole Diameter	16	20	24	30	38	47	63	74	95	115
流通面积 A0(mm²) Flow-through Area	254	398	661	1018	1590	2688	4072	6362	8825	12266
重量(Kg) weight(kg)	8.5	10	14	20	28	40	53	80	125	165

● 主要连接尺寸 Main Connection Dimensions

DN × DN1		901、902、911、912型安全阀 Safety Valve									
DN × DN1		20 × 32	25 × 40	32 × 50	40 × 65	50 × 80	65 × 100	80 × 125	100 × 150	125 × 200	150 × 250
D	PN16	105	115	140	150	165	185	200	220	250	285
	PN40								235	220	300
K	PN16	75	85	100	110	125	145	160	180	210	240
	PN40								190	220	250
b		20	20	20	21	22	24	26	28	31	34
D ₁	PN16	140	150	165	185	200	220	250	285	340	405
K ₁		100	110	125	145	160	180	210	240	295	355
b ₁		19	19	20	20	20	22	22	22	27	29
L		85	100	110	115	120	140	160	180	200	225
L ₁		95	105	115	140	150	170	195	220	250	285
≈H		298	311	315	355	405	555	580	690	845	890
排污孔 (带螺塞) Sewage Hole (with Plug)		G3/8"					G1/2"				

GA42H-16/25/40 GA42H-64/100 C型 单杠杆安全阀 Single-lever Safety Valve

- 用途: GA42H型安全阀适用于温度 ≤ 450°C 的空气、蒸汽等介质的设备和管路上, 作为超压保护装置。
- Use: GA42H safety valves are used for the equipment and pipelines of air and steam media with a working temperature less than 450°C as an overpressure protection device.

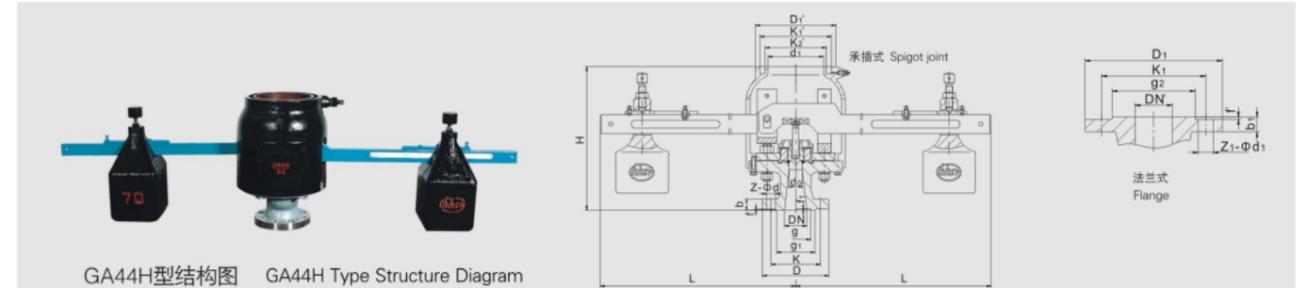


● 主要连接尺寸 Main Connection Dimensions

型号 Type	公称通径 DN	尺寸 Dimension											出口法兰式 Outlet Flange Type				出口承插式 Outlet Socket Type				
		do	D	K	g ₁	g	f	f ₁	b	Z-φd	L	≈H	DN'	g ₂	K ₁	D ₁	n-M	d ₁	K ₂ '	K ₁ '	D ₁ '
GA42H-16	50	40	165	125	100	--	3	--	18	4-18	900	412	125	175	200	235	8-M16	120	145	162	190
GA42H-25	50	40	165	125	100	--	3	--	20	4-18	900	412	125	175	200	235	8-M16	120	145	162	190
GA42H-40	50	40	165	125	100	88	3	4	20	4-18	900	412	125	175	200	235	8-M16	120	145	162	190
GA42H-64	50	40	180	135	105	88	3	4	26	4-23	900	420	125	175	200	235	8-M16	120	145	162	190
GA42H-100	50	40	195	145	112	88	3	4	28	4-25	900	420	125	175	200	235	8-M16	120	145	162	190

GA44H-16/25/40 GA44H-64 C型 双杠杆安全阀 Double-lever Safety Valve

- 用途: GA44H型安全阀适用于温度 ≤ 450°C 的空气、蒸汽等介质的设备和管路上, 作为超压保护装置。
- Use: GA44H safety valves are used for the equipment and pipelines of air and steam media with a working temperature less than 450°C as an overpressure protection device.



● 主要连接尺寸 Main Connection Dimensions

型号 Type	公称通径 DN	尺寸 Dimension											出口承插式 Outlet Socket Type				出口法兰式 Outlet Flange Type						
		do-z	D	K	g ₁	g	f	f ₁	b	Z-φd	≈H	L	d ₁	K ₂ '	K ₁ '	D ₁ '	DN'	g ₂	K ₁	D ₁	b ₁	f'	Z ₁ -φd ₁
GA44H-16	80	50×2	200	160	135	--	3	--	20	8-18	410	900	120	145	162	190	150	210	240	280	24	3	8-23
GA44H-25	80	50×2	200	160	135	--	3	--	22	8-18	410	900	120	145	162	190	150	210	240	280	24	3	8-23
GA44H-40	80	50×2	200	160	135	121	3	4	22	8-18	410	900	120	145	162	190	150	210	240	280	24	3	8-23
GA44H-64	80	40×2	210	170	140	121	3	4	30	8-23	475	900	200	218	253	285	200	255	280	315	24	3	8-M16

A68系列高温高压蒸汽安全阀 A68 Series high temperature safety valve for steam

● 用途:

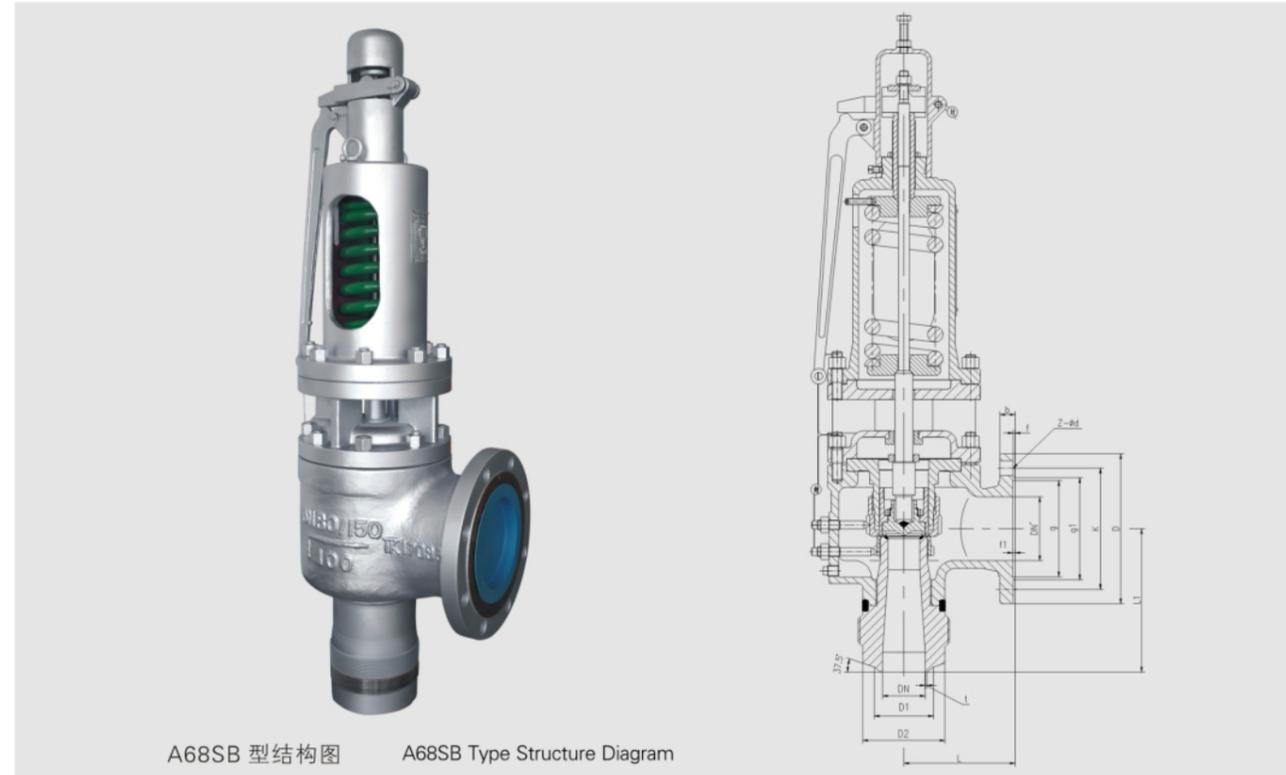
A68SB-C型适用于工作温度≤425℃, A68SB-I型适用于工作温度≤510℃, A68SB-V型适用于工作温度≤550℃的蒸汽等介质的设备和管路上, 作为超压保护装置。

● Use:

A68SB-C, at a working temperature less than 425℃, A68SB-I, at a working temperature less than 510℃, A68SB-V, at a working temperature less than 550℃, are used for the equipment and pipelines with such media as steam as an overpressure protection device.

特点: Characteristics:

- 1 采用背压套来调节回座压力, 以达到极小的启闭压差。
Adjusting the reseating pressure with a back pressure jacket, to achieve the minimum blowdown
- 2 高性能高温材料作弹性阀瓣材料, 以保证高温下的密封性。
High-performance and high-temperature materials are used for disc to ensure its tightness in high temperature.
- 3 密封付表面堆焊钴基硬质合金, 以防护高温蒸汽的气蚀。
The sealing pair surface adopts overlay welding of Co-based Stellite to avoid cavitation caused by high-temperature steam.
- 4 一定的热态测试, 使安全阀更接近工况条件。
A thermal state test can make the safety valve closer to working conditions.



A68SB 型结构图 A68SB Type Structure Diagram

● 主要连接尺寸 Main Connection Dimensions

型号 Type	公称 通径 Nominal DN Diameter	D ₂	D ₁	DN'	t	L	L ₁
A68SB- 100 160 210 550 C/I/V	DN 50/100	100	88	50	1.6	180	250
	DN 65/150	140	110	65	1.6	220	300
	DN 80/150	140	117	80	1.6	215	310
	DN 100/200	170	117	100	1.6	270	380
	DN 150/250	225	172	150	1.6	320	420

GA49H-16型 冲量安全阀 Impulse safety valve

● 用途:

GA49H-16C型DN 40/50冲量安全阀, 主要用于电站锅炉或蒸汽压力管道上, 该阀门可配套或单独使用。当压力容器内介质超过允许值时, 阀瓣开启排除超压蒸汽, 当压力下降到一定值时, 阀瓣靠杠杆上的重锤将阀门迅速关闭, 保证设备安全运行。

● 结构简述

1. 冲量安全阀主要由阀体、阀瓣、阀座、杠杆、重锤等组成, 其结构如右图:

2. 性能范围

公称压力: 1.6MPa
壳体强度: 2.4MPa
工作温度: ≤350℃

公称通径: 40/50mm
开启高度: ≥9mm
适用介质: 蒸汽、空气

● Use:

GA49H-16CDN 40/50 impulse safety valves are mainly used for power plant boilers or steam pressure piping. It can be used as a part or alone. When the medium in the pressure container exceeds the allowable value, the disc will open to discharge the overpressure steam, and when the pressure drops to a certain value, the disc will quickly close the valve by the heavy hammer on the lever to ensure the safe operation of the equipment.

● Structure Descriptions:

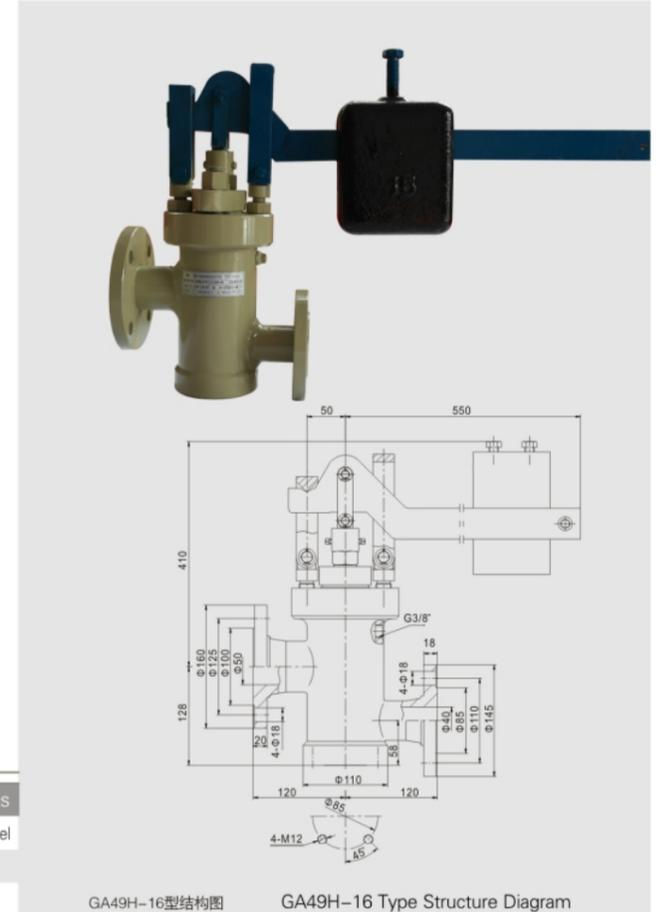
1. The impulse safety valve mainly consists of body, disc, seat, lever, weight and so on, whose structure is shown in the right figure:
2. Performance range:

Nominal Pressure: 1.6MPa
Shell Strength: 2.4MPa
Operating Temperature: ≤350℃

Nominal Diameter: 40/50mm
Lift Height: ≥9mm
Applicable Medium: Steam, Air

● 主要零件材料 Materials of main parts

零件名称 Part Name	材质 Materials	零件名称 Part Name	材质 Materials
阀体 Body	WCB	杠杆 Lever	碳钢 Carbon Steel
阀瓣 Disc	不锈钢 Stainless steel	重锤 Weight	铸铁 Cast Iron
阀座 Seat	不锈钢 Stainless steel		



GA49H-16型结构图 GA49H-16 Type Structure Diagram

F2-250/400型 主安全阀 Main safety valve

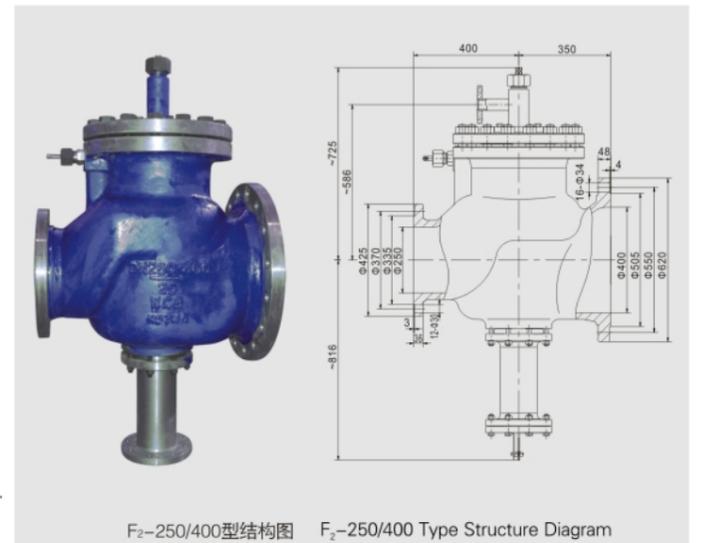
● 用途:

HFF2-250/400型主安全阀和冲量安全阀GA49H-16C DN40/50配套使用于电站汽轮机的管线上, 当管线压力超过允许值时, 冲量安全阀先开启, 主阀随之开启; 压力降至安全值时, 冲量关闭, 主安全阀同步关闭, 对管线和汽轮机起到安全保护作用。
该阀适用温度: ≤425℃

● Use:

HFF2-250/400 main safety valves and GA49H-16C DN40/50 impulse safety valves are used for pipelines of power station steam turbines. When the pipeline pressure exceeds the allowable value, the impulse safety valve will open first and then the main valve will open accordingly; when the pressure drops a safe value, the impulse safety valve will shut and the main safety valve will close simultaneously for safety protection of the pipelines and steam turbines.

This safety valve is used for temperature are less than 425℃.



F2-250/400型结构图 F2-250/400 Type Structure Diagram

冲量安全装置说明

● 用途:

冲量安全装置用在电站锅炉或受压容器上,防止介质压力超过允许值,以保证锅炉或受压容器的安全。

● 特点

冲量安全装置为脉冲安全阀、主安全阀配套使用,具有排放能力大,调整方便,机械与电器双保护,安装维护方便等特点。

● 工作原理

当介质压力低于整定压力时,脉冲安全阀在弹簧力(或重锤)的作用下密封,主安全阀在介质压力作用下密封;当介质压力超过整定压力时,脉冲安全阀开启,蒸汽进入主安全阀活塞室,使主安全阀开启,对外排汽;当压力降到回座值时,脉冲安全阀关闭,切断进入主安全阀活塞室的蒸汽,主安全阀在弹簧和介质作用力下自行关闭。

● 结构简述

- 1、冲量安全装置如图所示,主要由脉冲安全阀、主安全阀、截止阀、节流阀等所组成。
- 2、脉冲安全阀为弹簧式或重锤杠杆式,通过调节弹簧压缩量或调整重锤在杠杆上的位置来调节安全装置的开启压力。脉冲安全阀还分别带有用来开启或关闭用的电磁铁,机械和电器动作互不干扰。
- 3、主安全阀结构如图所示,排汽端为法兰连接形式,它主要由阀体、缓冲阀、活塞室、阀瓣等零件组成。阀门采用压力自紧式密封结构,介质压力越高,密封性能越好,缓冲阀在主安全阀动作过程中起缓冲作用,避免密封面或阀瓣损坏。
- 4、脉冲安全阀上部带有开启和关闭电磁铁,关闭用电磁铁平时可以不通电,但当阀门密封面泄漏时,可长期通电使阀门密封,或当机械调整回座压力过低时,接通电源促使阀瓣回座,以获得较高的回座压力。

● 安装说明

- 1、主安全阀应与冲量安全阀配套安装使用。冲量安全阀引出管与主安全阀的入口管之间应保持一段较长的距离,电接点压力表和主安全阀入口管之间的距离不得小于5倍主安全阀入口径,以免主安全阀动作时,因排汽影响电接点压力表和冲量安全阀工作稳定性。
- 2、冲量安全阀安装前,必须将管路冲洗干净。
- 3、主安全阀与冲量安全阀必须垂直安装,主安全阀在安装焊接后,要进行局部热处理。
- 4、主安全阀应紧固在构架上,该构架应能承受主安全阀排汽时产生的反作用力,主安全阀的排气管应有专门的吊架,避免排汽管的重量与其它作用力作用在主安全阀上及主安全阀与排气管之间的连接法兰上,在排气管的最低点,应考虑疏水,以免主安全阀排汽时产生水击。主安全阀活塞室上部的三圈填料必须压紧,要压缩到填料压盖下平面与活塞上平面接触为止,然后用细铁丝固定好压紧螺栓,以免泄漏而造成主阀拒跳。
- 5、冲量安全阀与电磁铁一起装在一个专门的支架上,阀门上杠杆与电磁铁连接要灵活,不得有卡涩现象。冲量阀应装在便于维修和调试,灰尘少、空气干燥、无振动的地方,其环境温度不应高于70℃,相对湿度不应超过80%。
- 6、为了保证弹簧式冲量安全阀动作自如,冲量安全阀回座杠杆头部的圆弧部分与冲量安全阀阀杆端部的距离应调到:冲量安全阀实际行程+1mm(用护罩顶部M10紧固螺钉调之)。

Descriptions of impulse safety device

● Use:

The impulse safety device is used for power station boilers or pressure vessels to prevent the medium pressure from exceeding the allowable value to ensure their safety.

● Characteristics

The impulse safety device works with an impulse safety valve and a main safety valve. This device has a large discharge ability with convenient adjustment, double mechanical and electrical protection and user-friendly installation and maintenance.

● Operation Principle

When the medium pressure is lower than the setting, the impulse safety valve will be enclosed under the spring force, while the main safety valve will be enclosed under the medium pressure; when the medium pressure is higher than the setting, the impulse safety valve will open and steam will enter into the main safety valve's piston chamber to open the main safety valve and discharge steam to the outside; when the pressure drops to the reseating value, the impulse safety valve will be closed to cut off steam going into the safety valve's piston chamber, and the main safety valve will be closed automatically as acted by the spring and the medium.

● Structure Briefing

- 1 The impulse safety device is as shown in the figure, mainly consisting of impulse safety valve, main safety valve, stop valve and throttle valve.
- 2 The impulse safety valve is a kind of spring or heavy hammer lever. The safety device's opening pressure can be adjusted by adjusting the spring compression or the heavy hammer position on the lever. Also the impulse safety valve contains an electromagnet to open or close the valve, with no interference between mechanical and electrical actions.
- 3 The main safety valve is as shown in the figure. Its steam exhaust end adopts a flange connection form, and it mainly consists of body, cushion valve, piston chamber, disc and other parts. The valve adopts the pressure self tightening and sealed structure. The higher the medium pressure is, the better the sealability will be. The cushion valve serves as a buffer in the working process of the main safety valve to avoid the damage of the sealed surface and the disc.
- 4 The upper part of the impulse safety valve contains an electromagnet to open or close. At ordinary times, the close-off electromagnet may not be electrified, but when the sealed surface of the valve leaks, it can be electrified continuously to make the valve sealed; or when the mechanical adjusting reseating pressure is excessively low, it can be electrified to help the disc return and procure a higher reseating pressure.

● Installation Instruction

- 1 The main safety valve and the impulse safety valve should be installed together. The distance between the outlet pipe of the impulse safety valve and the inlet pipe of the main safety valve should be maintained as relatively long and the distance between the electric contact pressure meter and the inlet pipe of the main safety valve should be no less than 5 times of the diameter of the inlet pipe, for fear that the precision of the meter and the impulse safety valve may be affected by the steam discharging process of the main safety valve.
- 2 Before the installation of the main safety valve, the pipeline shall be cleaned first.
- 3 The main safety valve and the impulse safety valve must be positioned vertically. After the installation and the welding of the main safety valve, it shall be under partial heat treatment.
- 4 The main safety valve shall be fastened upon the framework, which sustains the counter-reaction force produced in the steam discharging process of the main safety valve. The exhaust pipe of the main safety valve shall be supported with a special gallow lest the force of its weight and action would be directly apply to both the main safety valve and the flange that is connecting them. At the lowest point of the exhaust pipe, water drainage shall be taken into consideration to avoid producing water hammer when the main safety valve is discharging steam. The three loops of filling above the main safety valve's piston chamber shall be deeply compressed until the lower surface of the filling gland touches the upper surface of the piston, and a fine wire shall be used to fasten the pressure bolt to avoid leakage and refusing release of the main safety valve.
- 5 The impulse safety valve and the electromagnets shall be placed together on a special gallow. The juncture of the upper lever of the valve and the electromagnets shall be flexible, with no phenomenon of seizure. The impulse safety valve shall be installed in a place with little dust, dry air and convenient maintenance and debugging and where no vibration occurs. Its ambient temperature shall not be higher than 70℃, and its relative humidity not more than 80%.
- 6 To ensure the agile working of the impulse safety valve, the distance between the circular arc part of the head of the seat returning lever and the end of the pressure bar of the valve shall be adjusted to such a length as the actual travel of the valve plus 1mm (adjusted by the M10 fastening screw at the top of the cap).

A49Y-10型 高压冲量安全装置(H) High pressure impulse safety device (H)

- 用途: 本装置供蒸汽工作压力为 $P=3.92\text{MPa}$; $t \leq 450^\circ\text{C}$ 的电站锅炉上使用, 防止锅炉内介质压力超过允许值, 以保证锅炉安全运行。主安全阀A49Y-10 DN150应与冲量安全阀A49Y-10 DN25配套安装使用。

- Use: This device is used for power plant boilers with steam working conditions as: $p=3.92\text{MPa}$ and $t \leq 450^\circ\text{C}$, to avoid the medium pressure inside the boiler exceeding the allowable value to ensure that the boiler runs safely. The main safety valve A49Y-10 DN150 and the impulse safety valve A49Y-10 DN25 should be installed together.

● 性能规范

公称压力 Mpa	公称通径 DN	试验压力Mpa 强度 密封		最大工 作压力 Mpa	最大工 作温度 ℃
10.0	150	15.0	4.0	4.0	≤ 450

● Performance specifications

Nominal Pressure (Mpa)	Nominal Diameter (DN)	Test Pressure MPa Strength Seal		Maximum working pressure MPa	Maximum working temperature °C
10.0	150	15.0	4.0	4.0	≤ 450

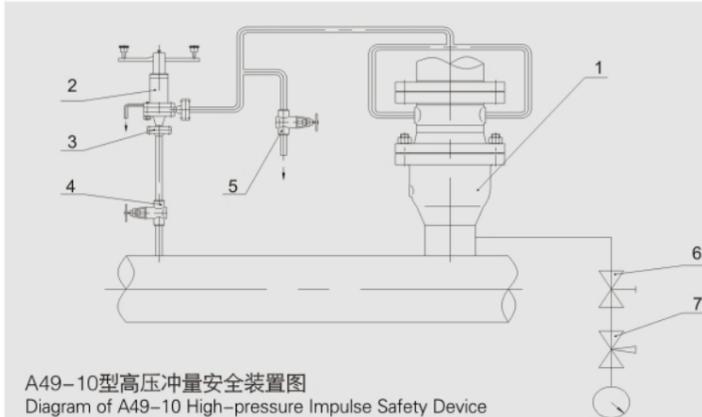
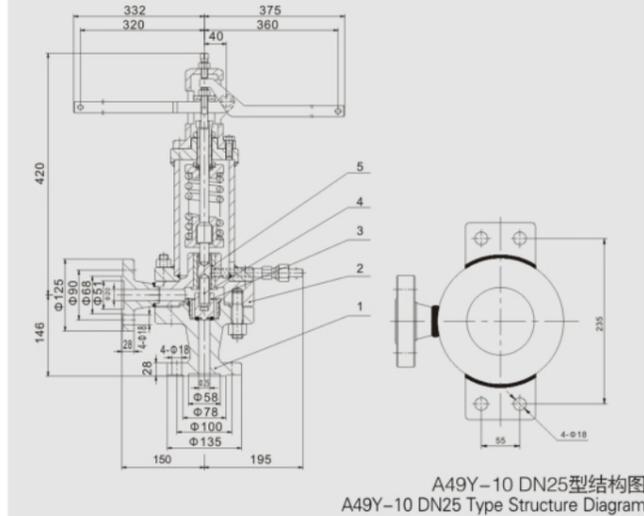
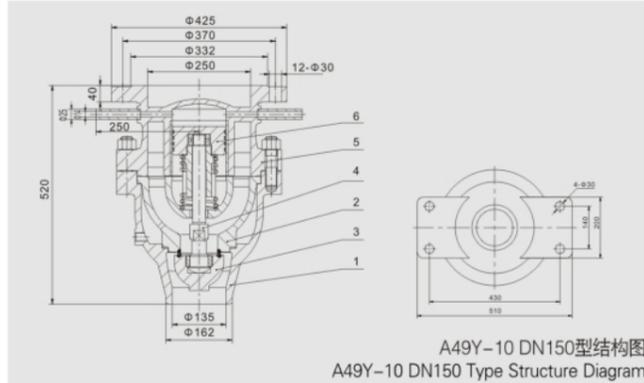
● 主要零件材料 Materials of main parts

1.主安全阀 The main safety valve

序号 No.	零件名称 Part Name	材料 Materials
1	阀体 Body	碳钢 Carbon steel
2	阀座 Seat	碳钢+钴基硬质合金 Cobalt-based hard alloy
3	阀瓣 Disc	碳钢+钴基硬质合金 Cobalt-based hard alloy
4	阀杆 Stem	渗氮钢 Nitriding steel
5	阀盖 Bonnet	碳钢 Carbon steel
6	活塞 Piston	不锈钢 Stainless steel

2.冲量安全阀 Impulse safety valve

序号 No.	零件名称 Part Name	材料 Materials
1	阀体 Body	碳钢 Carbon steel
2	阀盖 Bonnet	碳钢 Carbon steel
3	阀瓣 Disc	不锈钢+钴基硬质合金 Cobalt-based hard alloy
4	阀杆 Stem	不锈钢 Stainless steel
5	导向套 Guide Sleeve	不锈钢 Stainless steel



- 1.主安全阀 Main safety valve DN150;PN10
- 2.冲量安全阀 Impulse safety valve DN25;PN10
- 3.法兰、螺栓、螺母 Flange/bolt/nut
- 4.节流阀 Throttle valve DN10;PN32
- 5.截止阀 Globe valve DN32;PN32
- 6.截止阀 Globe valve DN10;PN32
- 7.三通阀 Tee valve DN4;PN32

A49Y-PW5410V 型 高压冲量安全装置(H) High pressure impulse safety device (H)

- 用途: 本装置供蒸汽工作压力为 $P=9.81\text{MPa}$; $t \leq 540^\circ\text{C}$ 的电站锅炉上使用, 防止锅炉内介质压力超过允许值, 以保证锅炉安全运行。主安全阀A49Y-P_{W54}10V DN125应与冲量安全阀A49Y-P_{W54}10V DN20配套安装使用。

- Use: This device is used for power plant boilers with steam working conditions as: $p=9.81\text{MPa}$ and $t \leq 540^\circ\text{C}$, to avoid the medium pressure inside the boiler exceeding the allowable value to ensure that the boiler runs safely. The main safety valve A49Y-P_{W54}10V DN125 and the impulse safety valve A49Y-P_{W54}10V DN20 should be installed together.

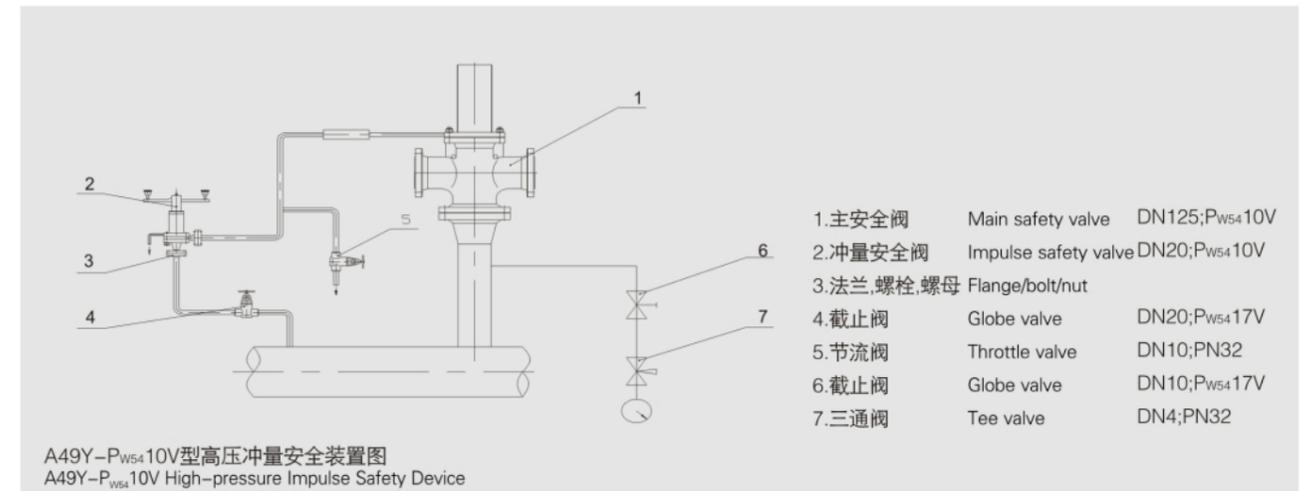
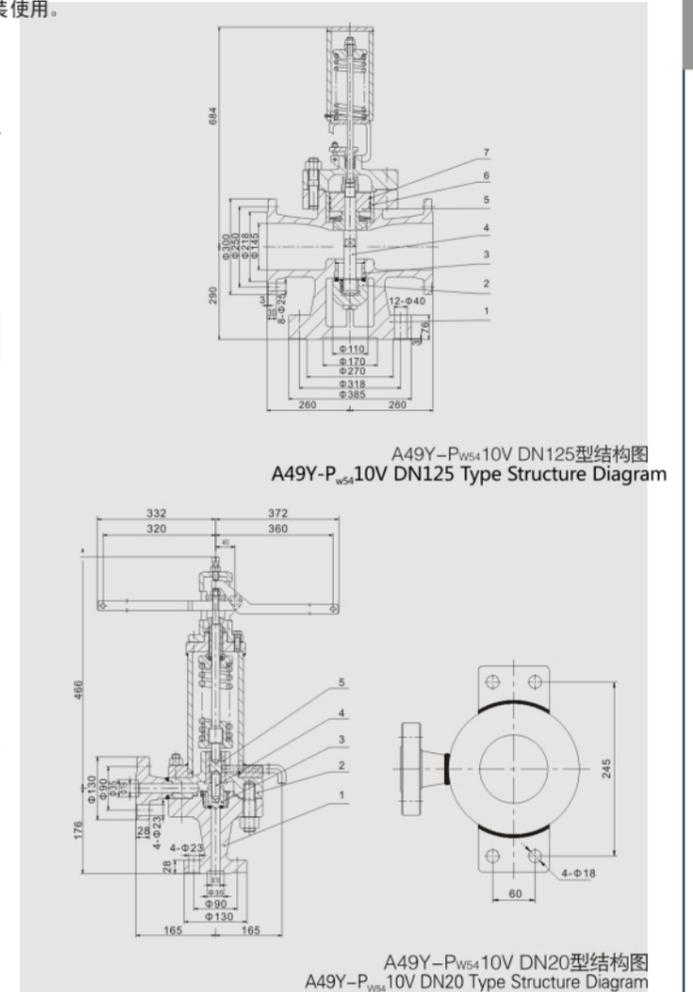
● 主要零件材料 Materials of main parts

1.主安全阀 The main safety valve

序号 No.	零件名称 Part Name	材料 Materials
1	阀体 Body	铬钼钒钢 Molybdenum chrome vanadium steel
2	阀瓣 Disc	铬钼钒钢+钴基硬质合金 Molybdenum chrome vanadium steel + Cobalt-based hard alloy
3	阀座 Seat	铬钼钒钢+钴基硬质合金 Molybdenum chrome vanadium steel + Cobalt-based hard alloy
4	阀杆 Stem	渗氮钢 Nitriding steel
5	活塞 Piston	不锈钢 Stainless steel
6	活塞套 Piston set	不锈钢 Stainless steel
7	活塞环 Piston ring	不锈钢 Stainless steel

2.冲量安全阀 Impulse safety valve

序号 No.	零件名称 Part Name	材料 Materials
1	阀体 Body	铬钼钒钢 Molybdenum chrome vanadium steel
2	阀盖 Bonnet	铬钼钒钢 Molybdenum chrome vanadium steel
3	阀瓣 Disc	不锈钢+钴基硬质合金 Cobalt-based hard alloy
4	阀杆 Stem	不锈钢 Stainless steel
5	导向套 Guide Sleeve	不锈钢 Stainless steel



- 1.主安全阀 Main safety valve DN125;PW5410V
- 2.冲量安全阀 Impulse safety valve DN20;PW5410V
- 3.法兰、螺栓、螺母 Flange/bolt/nut
- 4.截止阀 Globe valve DN20;PW5417V
- 5.节流阀 Throttle valve DN10;PN32
- 6.截止阀 Globe valve DN10;PW5417V
- 7.三通阀 Tee valve DN4;PN32

A49Y-Pw5414V 型 高压冲量安全装置(H) High pressure impulse safety device (H)

● 用途:

本装置供蒸汽工作压力为 $P \leq 13.72\text{MPa}$; $t \leq 540^\circ\text{C}$ 的电站锅炉上使用,防止锅炉内介质压力超过允许值,以保证锅炉安全运行。

主安全阀A49Y-P₅₄14V DN100应与冲量安全阀A49Y-P₅₄14V DN20配套安装使用。

● Use:

This device is used for power plant boilers with steam working conditions as: $p=13.72\text{MPa}$; $t \leq 540^\circ\text{C}$. Its main function is to avoid the medium pressure inside the boiler exceeding the allowable value to ensure that the boiler runs safely.

The main safety valve A49Y-P₅₄14V DN100 should work with the impulse safety valve A49Y-P₅₄14V DN20.

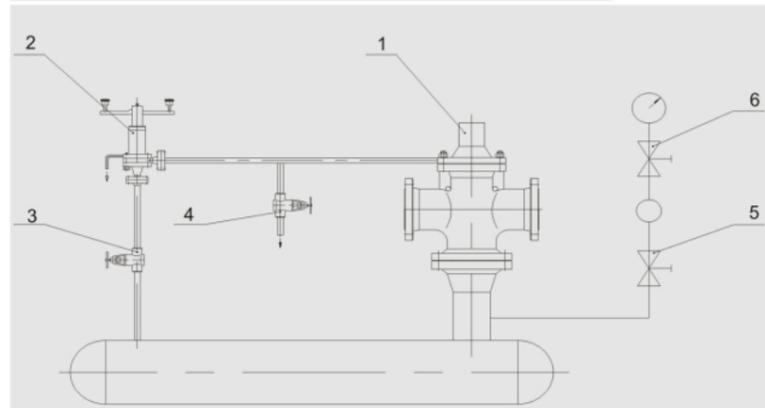
● 主要零件材料 Materials of main parts

1.主安全阀 The main safety valve

序号 No.	零件名称 Part Name	材料 Materials
1	下阀体 Lower body	铬钼钒钢 Molybdenum chrome vanadium steel
2	阀瓣 Disc	铬钼钒钢+钴基硬质合金 Molybdenum chrome vanadium steel + Cobalt-based hard alloy
3	阀座 Upper body	铬钼钒钢+钴基硬质合金 Molybdenum chrome vanadium steel + Cobalt-based hard alloy
4	上阀体 Body	铬钼钒钢 Molybdenum chrome vanadium steel
5	阀杆 Stem	铬钼钒钢 Molybdenum chrome vanadium steel
6	活塞 Piston	不锈钢 Stainless steel
7	阀盖 Bonnet	铬钼钒钢 Molybdenum chrome vanadium steel

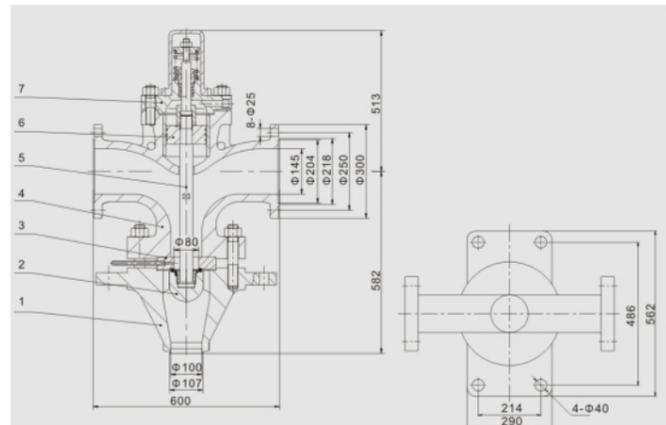
2.冲量安全阀 Impulse safety valve

序号 No.	零件名称 Part Name	材料 Materials
1	阀体 Body	铬钼钒钢 Molybdenum chrome vanadium steel
2	阀盖 Bonnet	铬钼钒钢 Molybdenum chrome vanadium steel
3	阀瓣 Disc	铬钼钒钢+钴基硬质合金 Molybdenum chrome vanadium steel + Cobalt-based hard alloy
4	阀杆 Stem	不锈钢 Stainless steel
5	导向套 Guide Sleeve	不锈钢 Stainless steel

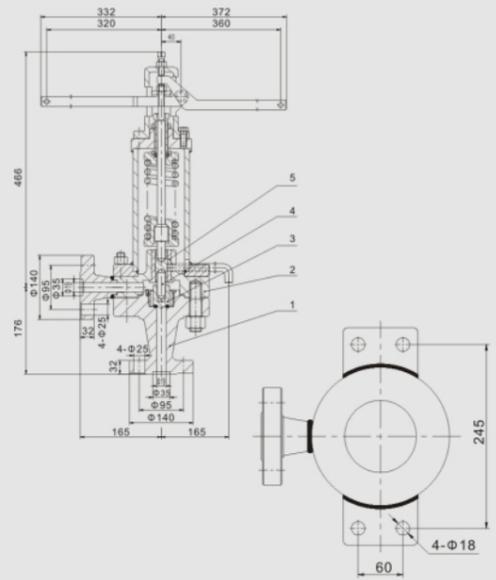


1.主安全阀 Main safety valve DN100;P₅₄14V
2.冲量安全阀 Impulse safety valve DN20;P₅₄14V
3.截止阀 Globe valve DN20;P₅₄17V
4.节流阀 Throttle valve DN10;PN32
5.截止阀 Globe valve DN10;P₅₄17V
6.三通阀 Tee valve DN4;PN32

A49Y-P₅₄14V型高压冲量安全装置图
A49Y-P₅₄14V High-pressure Impulse Safety Device



A49Y-P₅₄14V DN100型结构图
A49Y-P₅₄14V DN100 Type Structure Diagram



A49Y-P₅₄14V DN20型结构图
A49Y-P₅₄14V DN20 Type Structure Diagram

A69Y-P5414V DN100 型 高压主安全阀(W) High pressure main safety valve (W)

● 用途:

本型号安全阀主要用于电站锅炉、压力容器、减温减压装置等设备,防止压力超过允许最高压力值,保证设备安全运行。A69Y-P₅₄14V DN100主安全阀与A49Y-P₅₄14V DN20脉冲安全阀配套使用。

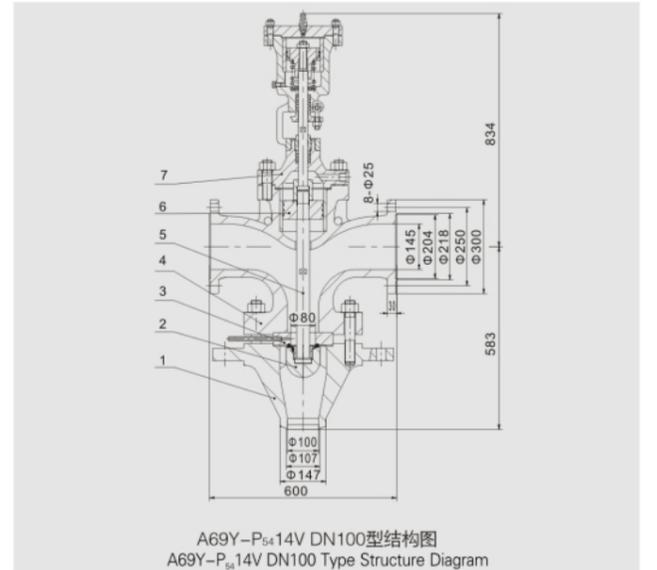
● Use:

This type of safety valves is used for power plant boilers, pressure containers, pressure and temperature reducing devices and other facilities. It serves to prevent the pressure from exceeding the highest allowable pressure value and ensures the safety of the device when working.

The main safety valve A69Y-P₅₄14V DN100 should work with the impulse safety valve A49Y-P₅₄14V DN20.

● 主要零件材料 Materials of main parts

序号 No.	零件名称 Part Name	材料 Materials
1	下阀体 Lower body	铬钼钒钢 Molybdenum chrome vanadium steel
2	阀瓣 Disc	铬钼钒钢+钴基硬质合金 Molybdenum chrome vanadium steel + Cobalt-based hard alloy
3	阀座 Seat	铬钼钒钢+钴基硬质合金 Molybdenum chrome vanadium steel + Cobalt-based hard alloy
4	上阀体 Upper body	铬钼钒钢 Molybdenum chrome vanadium steel
5	阀杆 Stem	铬钼钒钢 Molybdenum chrome vanadium steel
6	活塞 Piston	不锈钢 Stainless steel
7	阀盖 Bonnet	铬钼钒钢 Molybdenum chrome vanadium steel



A69Y-P₅₄14V DN100型结构图
A69Y-P₅₄14V DN100 Type Structure Diagram

A49Y-P5414V DN20 型 弹簧脉冲式安全阀(W) Spring impulse safety valve (W)

● 用途:

本型号安全阀主要用于电站锅炉、压力容器、减温减压装置等设备,防止压力超过允许最高压力值,保证设备安全运行。A49Y-P₅₄14V DN20安全阀与A69Y-P₅₄14V DN100主安全阀配套使用。

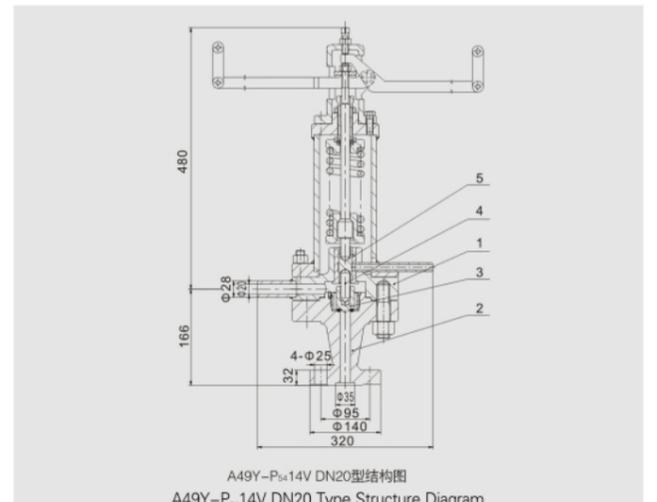
● Use:

This type of safety valves is used for power plant boilers, pressure containers, pressure and temperature reducing devices and other facilities. It serves to prevent the pressure from exceeding the highest allowable pressure value and ensures the safety of the device when working.

The safety valve A49Y-P₅₄14V DN20 should work with the main safety valve A69Y-P₅₄14V DN100.

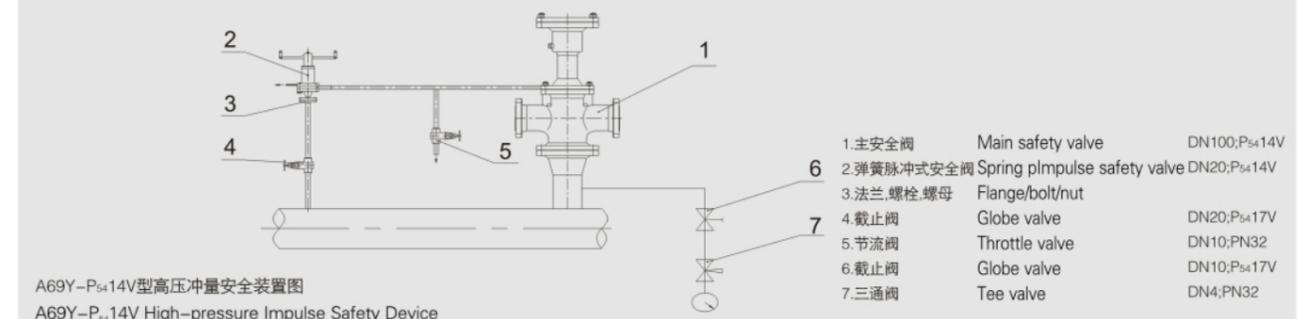
● 主要零件材料 Materials of main parts

序号 No.	零件名称 Part Name	材料 Materials
1	阀体 Body	铬钼钒钢 Molybdenum chrome vanadium steel
2	阀座 Seat	铬钼钒钢 Molybdenum chrome vanadium steel
3	阀瓣 Disc	铬钼钒钢+钴基硬质合金 Molybdenum chrome vanadium steel + Cobalt-based hard alloy
4	阀杆 Stem	不锈钢 Stainless steel
5	导向套 Guide Sleeve	不锈钢 Stainless steel



A49Y-P₅₄14V DN20型结构图
A49Y-P₅₄14V DN20 Type Structure Diagram

● 说明: 本装置供蒸汽工作压力为14MPa;使用温度 $\leq 540^\circ\text{C}$ 的情况(200MW锅炉汽包或过热器出口)使用,防止锅炉内介质压力超过允许值,以保证设备安全运行。
● Descriptions: The device is applicable for a steam working pressure being 14MPa and a working temperature $\leq 540^\circ\text{C}$ (200MW boiler drum or overheater outlet) to prevent the medium pressure inside boilers from exceeding the allowable value to ensure safe operation of equipment.



A69Y-P₅₄14V型高压冲量安全装置图
A69Y-P₅₄14V High-pressure Impulse Safety Device

1.主安全阀 Main safety valve DN100;P₅₄14V
2.弹簧脉冲式安全阀 Spring impulse safety valve DN20;P₅₄14V
3.法兰、螺栓、螺母 Flange/bolt/nut
4.截止阀 Globe valve DN20;P₅₄17V
5.节流阀 Throttle valve DN10;PN32
6.截止阀 Globe valve DN10;P₅₄17V
7.三通阀 Tee valve DN4;PN32

A69Y-P₅₄10V DN150 型 高压主安全阀(W) High pressure main safety valve (W)

● 用途:

本型号安全阀主要用于电站锅炉、压力容器、减温减压装置等设备上,防止压力超过允许最高压力值,保证设备安全运行。A69Y-P₅₄10V DN150主安全阀与GA49H-P₅₄10V DN20脉冲安全阀配套使用。

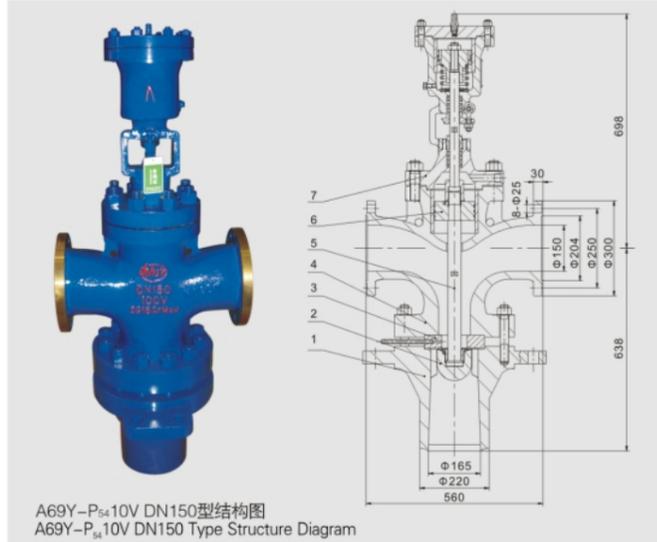
● Use:

This type of safety valves is used for power plant boilers, pressure containers, pressure and temperature reducing devices and other facilities. It serves to prevent the pressure from exceeding the highest allowable pressure value and ensures the safety of the device when working.

The main safety valve A69Y-P₅₄10V DN150 should work with the impulse safety valve GA49H-P₅₄10V DN20 should.

● 主要零件材料 Materials of main parts

序号 No.	零件名称 Part Name	材料 Materials
1	下阀体 Body	铬钼钒钢 Molybdenum chrome vanadium steel
2	阀瓣 Disc	铬钼钒钢+钴基硬质合金 Molybdenum chrome vanadium steel + Cobalt-based hard alloy
3	阀座 Seat	铬钼钒钢+钴基硬质合金 Molybdenum chrome vanadium steel + Cobalt-based hard alloy
4	上阀体 Body	铬钼钒钢 Molybdenum chrome vanadium steel
5	阀杆 Stem	铬钼钒钢 Molybdenum chrome vanadium steel
6	活塞 Piston	不锈钢 Stainless steel
7	阀盖 Bonnet	铬钼钒钢 Molybdenum chrome vanadium steel



GA49H-P₅₄10V DN20 型脉冲式安全阀(W) Impulse safety valve (W)

● 用途:

本型号安全阀主要用于电站锅炉、压力容器、减温减压装置等设备上,防止压力超过允许最高压力值,保证设备安全运行。GA49H-P₅₄10V DN20脉冲式安全阀与A69Y-P₅₄10V DN150主安全阀配套使用。

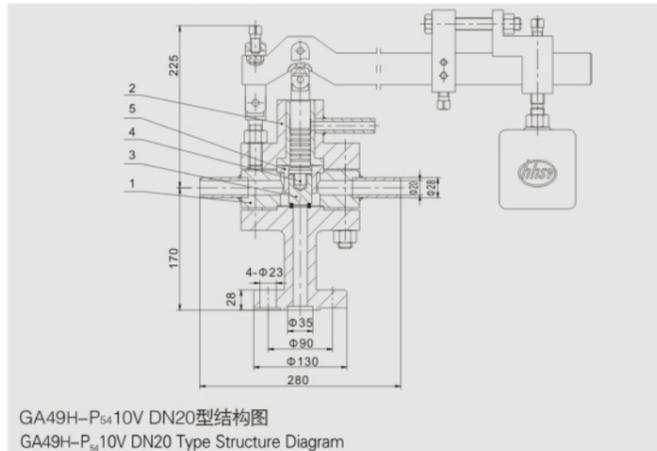
● Use:

This type of safety valves is used for power plant boilers, pressure containers, pressure and temperature reducing devices and other facilities. It serves to prevent the pressure from exceeding the highest allowable pressure value and ensures the safety of the device when working.

The impulse safety valve GA49H-P₅₄10V DN20 should work with the main safety valve A69Y-P₅₄10V DN150.

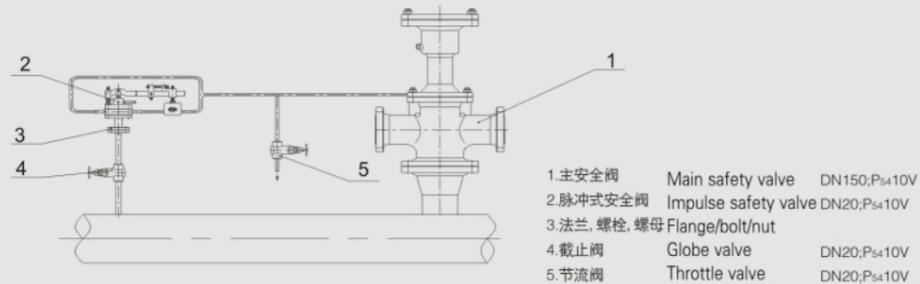
● 主要零件材料 Materials of main parts

序号 No.	零件名称 Part Name	材料 Materials
1	阀体 Body	铬钼钒钢 Molybdenum chrome vanadium steel
2	阀盖 Bonnet	铬钼钒钢 Molybdenum chrome vanadium steel
3	阀瓣 Disc	不锈钢+钴基硬质合金 Stainless steel + Cobalt-based hard alloy
4	阀杆 Stem	不锈钢 Stainless steel
5	导向套 Guide Sleeve	不锈钢 Stainless steel



● 说明: 本装置供蒸汽工作压力为11.4MPa;使用温度≤540℃的情况(50MW-100MW锅炉汽包或过热器出口)使用,防止锅炉内介质压力超过允许值,以保证设备安全运行。

● Descriptions: The device is applicable for a steam working pressure being 11.4MPa and a working temperature ≤540℃ (50MW-100MW boiler drum or overheater outlet) to prevent the medium pressure inside boilers from exceeding the allowable value to ensure safe operation of equipment.



A69Y-P₅₄10V 型高压冲量安全装置图
A69Y-P₅₄10V High-pressure Impulse Safety Device

A69Y-10 DN150 型 高压主安全阀(W) High pressure main safety valve (W)

● 用途:

本型号安全阀主要用于电站锅炉、压力容器、减温减压装置等设备上,防止压力超过允许最高压力值,保证设备安全运行。A69Y-10 DN150型主安全阀与GA49H-10 DN20型脉冲式安全阀配套安装。

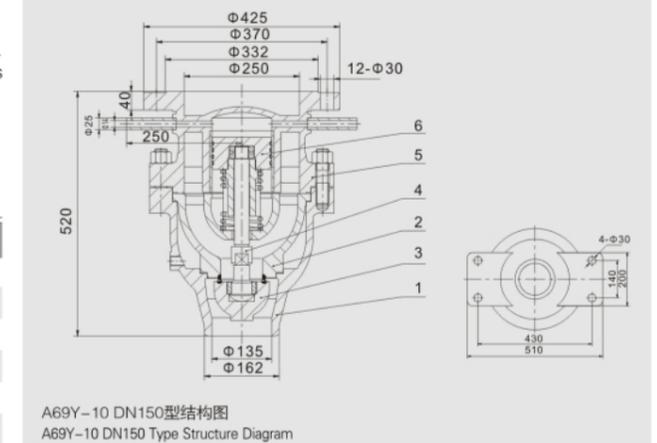
● Use:

This type of safety valves is used for power plant boilers, pressure containers, pressure and temperature reducing devices and other facilities. It serves to prevent the pressure from exceeding the highest allowable pressure value and ensures the safety of the device when working.

The main safety valve A69Y-10 DN150 should work with the impulse safety valve GA49H-10 DN20.

● 主要零件材料 Materials of main parts

序号 No.	零件名称 Part Name	材料 Materials
1	阀体 Body	碳钢 Carbon steel
2	阀座 Seat	碳钢+钴基硬质合金 Carbon steel + Cobalt-based hard alloy
3	阀瓣 Disc	碳钢+钴基硬质合金 Carbon steel + Cobalt-based hard alloy
4	阀杆 Stem	弹簧钢 Spring steel
5	阀盖 Bonnet	碳钢 Carbon steel
6	活塞 Piston	不锈钢 Stainless steel



GA49H-10 DN20 型 脉冲式安全阀(W) Impulse safety valve (W)

● 用途:

本型号安全阀主要用于电站锅炉、压力容器、减温减压装置等设备上,防止压力超过允许最高压力值,保证设备安全运行。GA49H-10 DN20脉冲式安全阀与A69Y-10 DN150主安全阀配套安装使用。

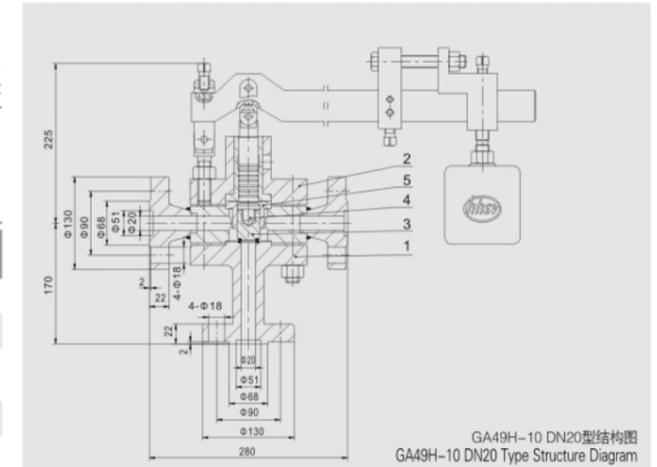
● Use:

This type of safety valves is used for power plant boilers, pressure containers, pressure and temperature reducing devices and other facilities. It serves to prevent the pressure from exceeding the highest allowable pressure value and ensures the safety of the device when working.

The impulse safety valve GA49H-10 DN20 should work with the main safety valve A69Y-10 DN150.

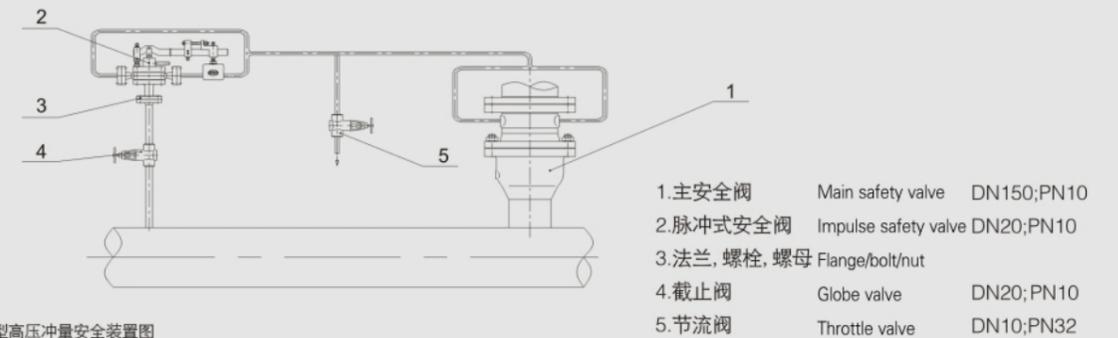
● 主要零件材料 Materials of main parts

序号 No.	零件名称 Part Name	材料 Materials
1	阀体 Body	碳钢 Carbon steel
2	阀盖 Bonnet	碳钢 Carbon steel
3	阀瓣 Disc	不锈钢+钴基硬质合金 Stainless steel + Cobalt-based hard alloy
4	阀杆 Stem	不锈钢 Stainless steel
5	导向套 Guide sleeve	不锈钢 Stainless steel



● 说明: 本装置供蒸汽工作压力为4.3MPa;使用温度≤450℃的电站锅炉、压力容器等设备使用,防止锅炉内介质压力超过允许值,以保证设备安全运行。

● Descriptions: The device is applicable for such equipment as power station boilers and pressure containers with a steam working pressure being 4.3MPa and a working temperature ≤450℃ to prevent the medium pressure inside boilers from exceeding the allowable value to ensure safe operation of equipment.



A69Y-10 DN150 型高压冲量安全装置图
A69Y-10 DN150 High-pressure Impulse Safety Device

SVL488型 洁净系统不锈钢安全阀

Stainless steel safety valve for cleaning system

● 用途:

SVL488 安全阀适用于低压蒸汽设备、管道、压力容器的超压保护, 尤其适用于酿酒和饮料工业, 对卫生和洁净标准的要求极高, 以保持高质的产品和使用工艺介质的污染降至最小。适用介质为蒸汽、气体和液体。

● Use:

SVL 488 safety valves are used for low pressure steam equipment, pipes, pressure vessels of overpressure protection, especially suitable for wine and beverage industry, with high standard requirements for health and cleanness, to maintain high quality products and minimum contamination to the working medium. The suitable medium can be steam, gas or liquid.

● 可供型号: Models available:

提供两种主要的型号:
Two major models are available:

SVL488-B 密闭阀帽, 适用于液体系统
Enclosed valve cap, applicable for liquid systems

SVL488-C 填料密封微升杆, 适用于蒸汽 (或其它需要扳手的) 系统
Packing seal slight rising stem, applicable for steam systems (or others requiring a wrench)

注: 两种型号都为封闭式阀盖。
Note: Both types adopt enclosed bonnets.

● 主要连接尺寸 Main Connection Dimensions

进口 Inlet	出口 Outlet	do	L	L ₁	≈H	卡箍连接 Clamp connection	
						进口 Inlet	出口 Outlet
25	40	23	64	65	203	1"	1 1/2"
40	65	37	80	90	230	1 1/2"	2 1/2"
50	80	46	95	100	350	2"	3"

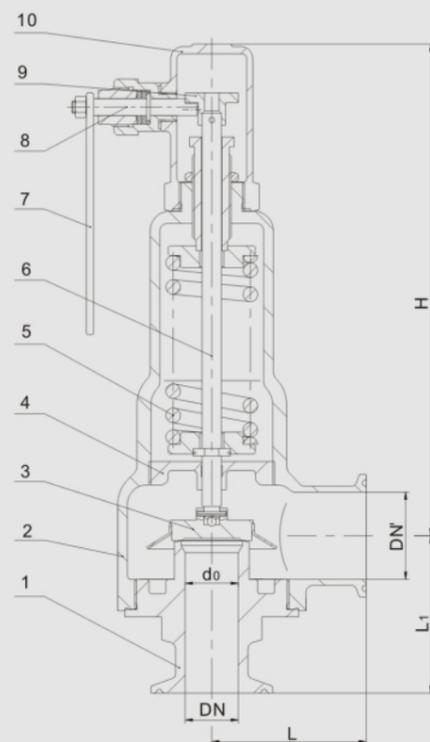
管道连接: 按DIN 2633 PN16 法兰标准连接。
Pipeline connection: as per the flange connection DIN 2633 PN 16

卡箍连接: 按ISO 2852卫生级卡箍标准连接。
Clamp connection: as per the sanitary standard ISO 2852

客户订单时应注明连接形式
Note: please clarify the connection type when place order.

● 主要零件材料选用表 Bill of Materials for Main Parts

序号 No.	零件名称 Part Name	材料 Materials
1	阀座 Seat	不锈钢 Stainless steel 1.4404
2	阀体 Body	不锈钢 Stainless steel 1.4404
3	阀瓣 Disc	不锈钢 +EPDM Stainless steel +EPDM 1.4404
4	导向套 Guide Sleeve	不锈钢 Stainless steel 1.4404
5	弹簧 Spring	不锈钢 Stainless steel 17-7
6	阀杆 Stem	不锈钢 Stainless steel 1.4404
7	扳手 Spanner	不锈钢 Stainless steel 1.4404
8	提升杆 Lift link	不锈钢 Stainless steel 1.4404
9	提升块 Lift Stop	不锈钢 Stainless steel 1.4404
10	阀帽 Bonnet	不锈钢 Stainless steel 1.4404



SVL488型结构图
SVL 488 Type Structure Diagram

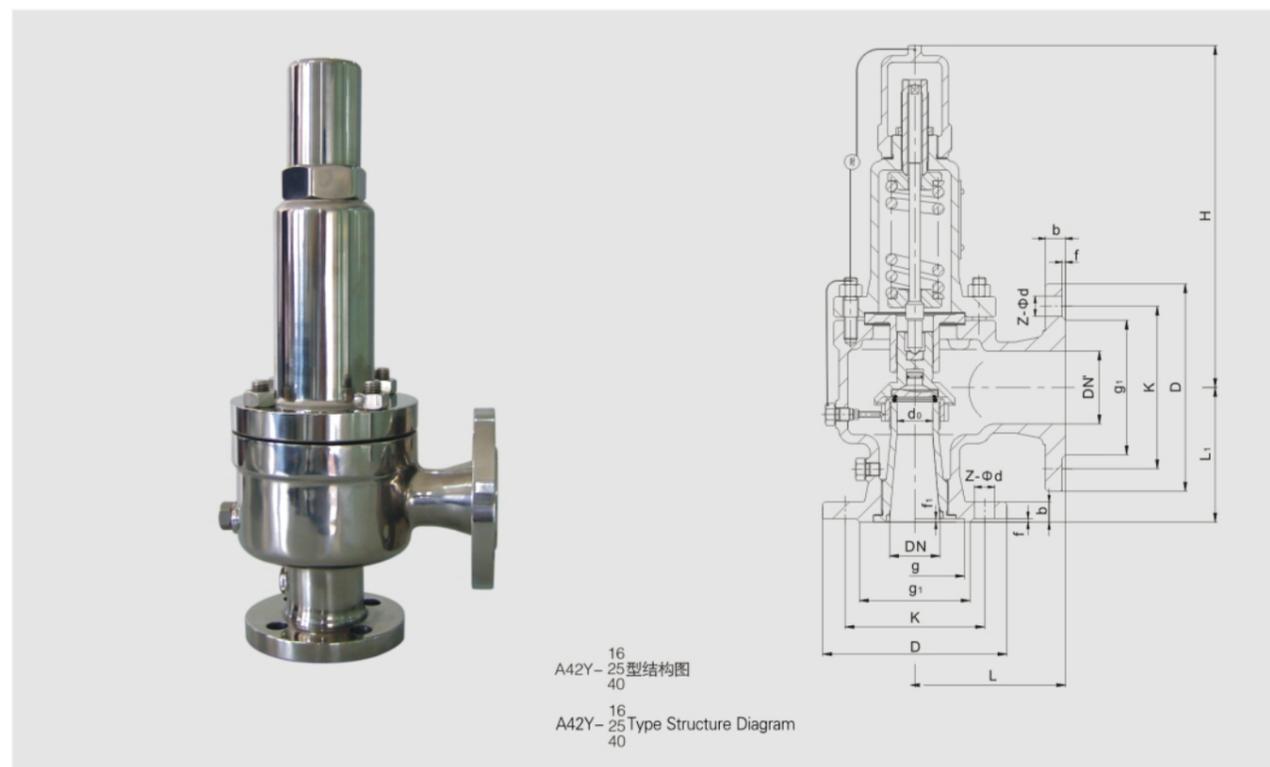
A42Y-¹⁶/₂₅/₄₀ P/R型 洁净系统不锈钢安全阀 Stainless steel safety valve for cleaning system

● 用途:

A42Y型安全阀适用于低压蒸汽设备、管道、压力容器的超压保护, 尤其适用于酿酒和饮料工业, 对卫生和洁净标准的要求极高, 以保持高质的产品和使用工艺介质的污染降至最小。适用介质为蒸汽、气体和液体。

● Use:

A42Y type safety valves are used for low pressure steam equipment, pipes, pressure vessels of overpressure protection, especially suitable for wine and beverage industry, with high standard requirements for health and cleanness, to maintain high quality products and minimum contamination to the working medium. The suitable medium can be steam, gas or liquid.



● 主要连接尺寸 Main Connection Dimensions

公称通径 DN	Nominal Diameter	do	DN'	L	L ₁	≈H
20		15	25	110	95	281
25		16	32	110	95	281
32		20	40	115	100	285
40		25	50	120	110	295
50		32	65	135	120	305
65		40	80	160	140	394
80		50	100	170	135	406
100		65	125	205	160	511
125		80	150	210	190	586
150		100	175	255	230	601



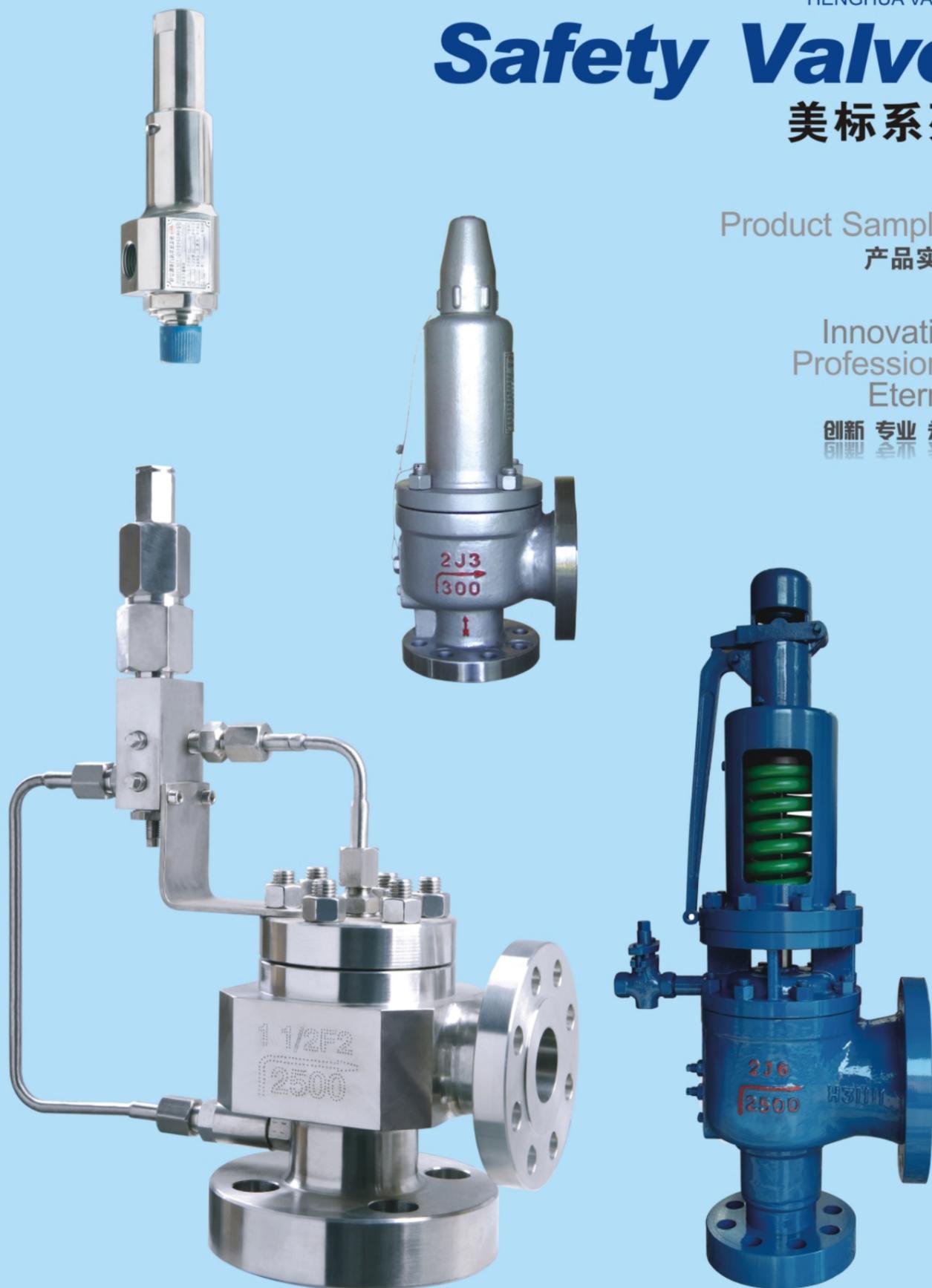
HENGHUA VALVE

Safety Valve

美标系列

Product Samples
产品实样

Innovative
Professional
Eternal
创新 专业 永恒



恒华阀门 HENGHUA VALVE

美标安全阀

HF 磅级系列安全阀简介

HF Pound-Grade series safety valve's introduction

● 性能特点:

- 整定压力偏差: $\leq \pm 3\%$
- 超过压力: $\leq \pm 10\%$
- 启闭压差: $\leq \pm 15\%$
- 密封性能: 符合API527标准规定的密封要求

Performance features:

- Set pressure tolerance: $\leq \pm 3\%$
- Over-pressure: $\leq \pm 10\%$
- Blowdown: $\leq \pm 15\%$
- Sealing performance: accord the sealing request of API 527 standard

● 结构特点:

1. 结构紧凑, 造型美观, 铸件多数采用精密铸造, 表面光洁。
2. 阀座和阀体采用分体式, 阀座易于加工, 密封面易研磨成镜面, 保证密封, 且便于装拆维修。
3. 设计合理的反冲盘与调节圈相匹配, 调整方便, 使安全阀开启迅速, 回座及时, 可得到理想的启闭压差。
4. 阀座和阀瓣均堆焊钴基硬质合金, 耐磨, 耐冲蚀, 密封有保证, 延长了使用寿命。
5. 背压平衡式安全阀采用军品波纹管制作, 能有效地消除背压对起跳压力的影响, 还能对有蚀有毒介质起严密的隔离作用, 防止介质腐蚀阀门内件和污染环境。
6. 弹簧作为关键零件均作两次24小时恒温处理, 确保其在工作状态中刚度稳定, 起跳动作正确。
7. 对阀体、阀座等受压件都作严格的耐压试验, 确保了使用时的安全、可靠。

Structure features:

1. As foundry goods have been founded precisely, it has tight structure, graceful appearance, smooth and cleaning surface.
2. The seat and the body have been adopted the subsection design, the seat is easy to process, the sealing face is rubbed into mirror face, which ensures sealing, and is convenient to dismantle, install and maintain.
3. The reasonable design of disc holder with the adjusting ring so that safety valves can be turned on quickly in the respect of adjust and obtain a perfect blow down difference.
4. Both the seat and body that are made of welding stellite are wear-resistant and erosive-resistant so as to ensure sealing and to prolong the life of use.
5. The back pressure balance safety valve which is made of bellows is effective to eliminate the back pressure influence on set pressure, and have tightly segregant function for erosive and poison materials in order to prevent medium from eroding inner parts of valves and polluting environment.
6. The spring as a key part is treated for 24 hours under the constant temperature twice so as to ensure the stable firmness at work and the proper skip.
7. The parts of the seat and the body have been tested press-resistance so as to ensure the safety and reliability at work.

● 安全阀型号编制方法

Method of compiling the types safety valve

类别 Valve types	进口法兰磅级 Flange Class	阀体材料 Material of Body	内件材料 (注) Material of Trim	阀帽型式 Cap Types
HFO:普通式安全阀 Conventional A42C Type A44C Type A48C Type HFB:波纹管平衡式安全阀 Balanced Bellows WA42C Type WA44C Type	编号 No.: 01:150Lb 03:300Lb 03a:300Lb 06:600Lb 09:900Lb 15:1500Lb 25:2500Lb	C:WCB P:CF8 R:CF8M R3:CF3M CL:LCB/LC2 C6/C9:WC6/WC9 M:Monel H:Hastelloy N:SPECIAL Material 特殊材料	P:304 R:316 R3:316L M:Monel H:Hastelloy	A:螺纹式Screwed B:带螺塞的螺纹式 Screwed with plug C:杠杠式 Lifting Leved D:封闭杠杠式 Close Lifting Leved E:带螺塞的封闭杠杠式 Close Lifting Leved With plug G:带螺塞的杠杠式 Lifting Leved With plug

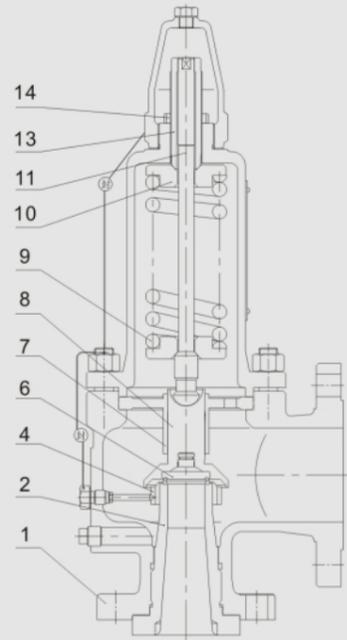
注: 阀体材料碳钢内件材料304、阀体材料内件材料相同可以省略内件代号。

Remarks: Body material is WCB, internals material is 304, When the body material and the internals material is same, Code can be omitted.

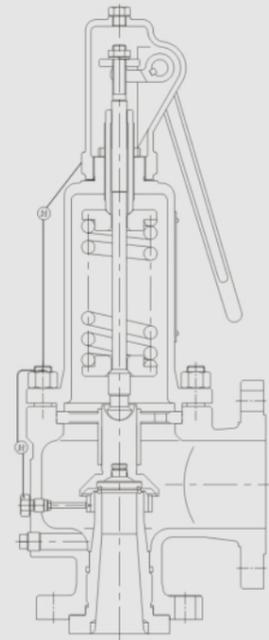
HF 磅级系列安全阀简介

HF Pound-Grade series safety valve's introduction

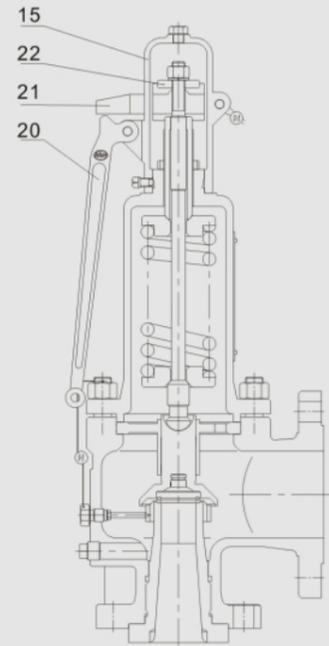
● 尺寸规格 Dimension & Specification



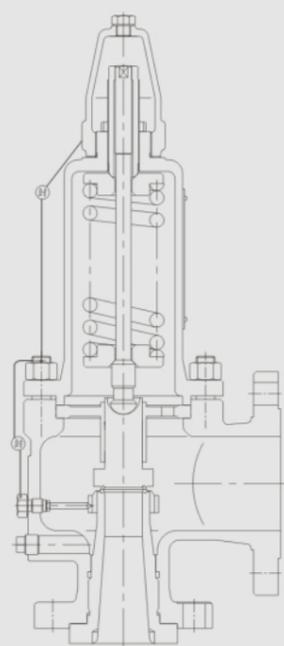
普通型 (TYPE)
HFO-XXXB (HFA42C)



普通型 (TYPE)
HFO-XXXE (HFA44C)



普通型 (TYPE)
HFO-XXXG (HFA48C)

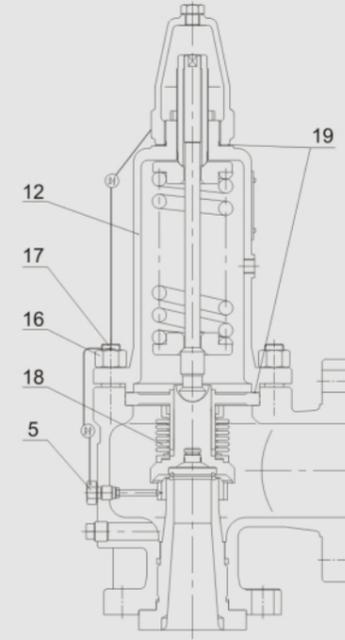


普通型 (TYPE)
HFL-XXXB (HFA41C)

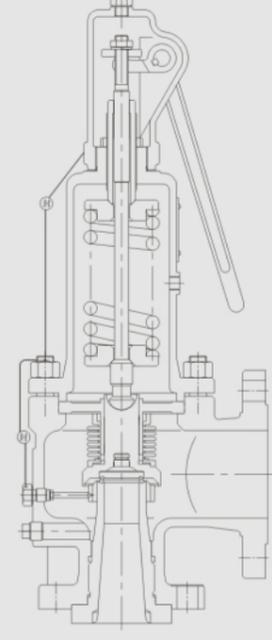
HF 磅级系列安全阀简介

HF Pound-Grade series safety valve's introduction

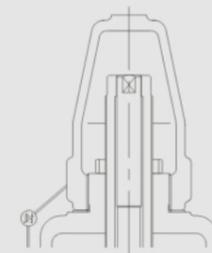
● 尺寸规格 Dimension & Specification



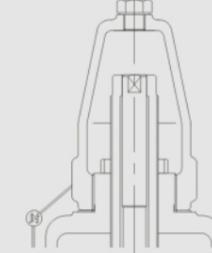
波纹管平衡型 (TYPE)
HFB-XXXB (HFWA42C)



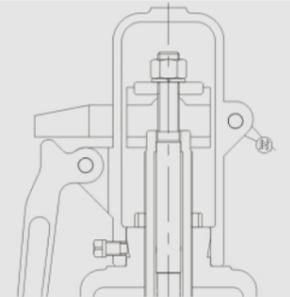
波纹管平衡型 (TYPE)
HFB-XXXE (HFWA44C)



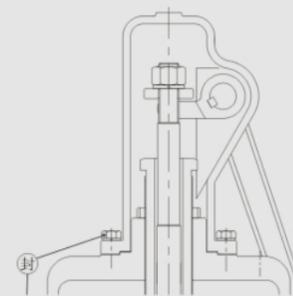
A: 螺纹式
Screwed Cap



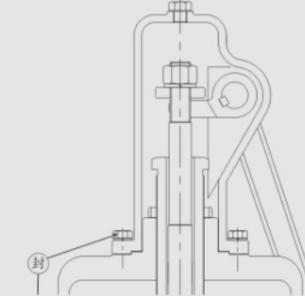
B: 带螺塞的螺纹式
Screwed Cap with Plug



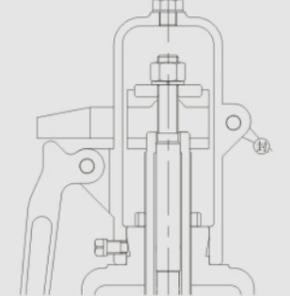
C: 杠杆式
Lifting Lever



D: 封闭杠杆式
Packed Lifting Lever



E: 带螺塞的封闭杠杆式
Packed Lifting Lever with Plug



G: 带螺塞的杠杆式
Lifting Lever with Plug

HF 系列安全阀材料表

HF Series safety valve materials

序号 No.	零件名称 Part Name	阀门材料 Valve Materials									
		C	P	R	R3	C6/C9	M	H			
1	阀体 Body	WCB	CF8	CF8M	CF3M	WC6.WC9	Monel	Hastl.c			
2	阀座 Nozzle	304	316	316L	316L	316	Monel	Hastl.c			
3	螺塞 Plug	碳钢 C.St	420	420	420	420	420	420			
4	调节圈 Nozzle Ring	CF8	CF8M	CF8M	CF3M	CF8	Monel	Hastl.c			
5	支头螺帽 Set Screw	416	304	304	316	304	316L	316L			
6	阀瓣 Disc	304	316	316	316L	17-4PH	Monel	Hastl.c			
7	导向套 Guide	304	304	316	316L	304	Monel	Hastl.c			
8	反冲盘 Disc Holder	304	304	316	316L	304	Monel	Hastl.c			
9	弹簧 Spring	合金钢 Alloy St	合金钢涂氟四 Alloy St Spread Teflon								
10	弹簧座 Spring Washer	碳钢 C.St	420	420	420	420	420	420			
11	阀杆 Stem	420	304	316	316	431	416	416			
12	阀盖 Bonnet	WCB	CF8	CF8M	CF3M	WC6	CF8M	Hastl.c			
13	调整螺杆 Adjusting Bolt	420	416	416	416	420	420	420			
14	锁紧螺母 Adj. Bolt Nut	碳钢 C.St	420	420	420	420	420	420			
15	保护罩 Cap	碳钢 C.St	CF8	CF8M	CF3M	碳钢 C.St	CF8M	Hastl.c			
16	螺母 Nut	钢 Steel	304	304	304	钢 Steel	304	304			
17	螺栓 Bolt	钢 Steel	304	304	304	钢 Steel	304	304			
18	波纹管 Bellows	304	316	316	316L	316L	316L	316L			
19	垫片 Gaskets	石棉板 Asbestos	氟四 Teflon	氟四 Teflon	氟四 Teflon	V1500	V1500	V1500			
20	扳手 Lifting Level	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St			
21	横杆 Rail	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St			
22	提升螺母 Upgrade Nut	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St	碳钢 C.St			
304			316L	416	420	CF8M	CF8M	17-4PH			
OCr19Ni9			00Cr17Ni14Mo2	Y1Cr13	2Cr13	ZG0Cr17Ni12Mo2	ZG0Cr17Ni14Mo2	0Cr17Ni14Cu4			

材料对照 Material Contrast

HF 系列安全阀标准参数

HF Series safety valves standard parameter

D 口径、压力——温度界限 Size、Pressure——Temperature Limits

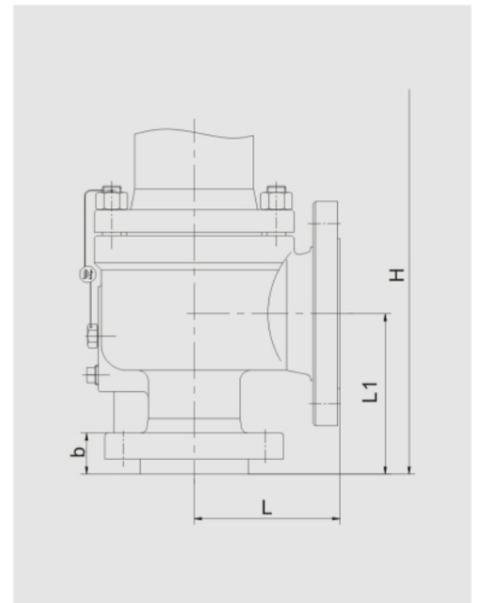
● 流通面积/喉径 Orifice Area/Diameter 0.710cm²/9.5mm

型号 Type	口径(英寸) Size(inch)	ANSI 法兰等级 Flange Class		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit 38℃(MPa)		材质 Material		
		进口 × 流道代号 × 出口 Inlet × Orifice × Outlet		进口温度(℃) Inlet Temperature					阀体 Body	弹簧 Spring	
		进口 Inlet	出口 Outlet	-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃	HFO (HFA42C)	HFB (HFWA42C)			
HFO (HFA42C, HFA44C, HFA48C)	01 (150)	1D2	150	150	1.96	1.27	0.55	1.96	1.58	碳钢 C.St	合金钢 Alloy St.
	03 (300)	1D2	300	150	1.96	1.96	1.96	1.96	1.58		
	03a(300a)	1D2	300	150	5.10	4.24	2.82	1.96	1.58		
HFB (HFWA42C, HFWA44C)	06 (600)	1D2	600	150	10.20	8.51	5.68	1.96	1.58	不锈钢 St.St.	合金钢 Alloy St. 涂四氟 Spread Teflon
	09 (900)	11/2D2	900	300	15.30	12.72	8.51	4.13	3.45		
	15(1500)	11/2D2	1500	300	25.54	21.23	14.20	4.13	3.45		
	25(2500)	11/2D3	2500	300	41.37	35.40	23.65	5.10	3.45		

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁		A	C	D		
HFO (HFA42C, HFA44C, HFA48C)	01(150)	115	105	40	350	380	380	15
	03(300)	115	105	40	350	380	380	15
	03a(300a)	115	105	40	350	380	380	16
	06(600)	115	105	40	350	380	380	16
HFB (HFWA42C, HFWA44C)	09(900)	140	105	51	460	480	500	28
	15(1500)	140	105	51	460	480	500	30
	25(2500)	178	140	64	490	520	540	32





HF 系列安全阀标准参数

HF Series safety valves standard parameter

E 口径、压力——温度界限 Size、Pressure——Temperature Limits

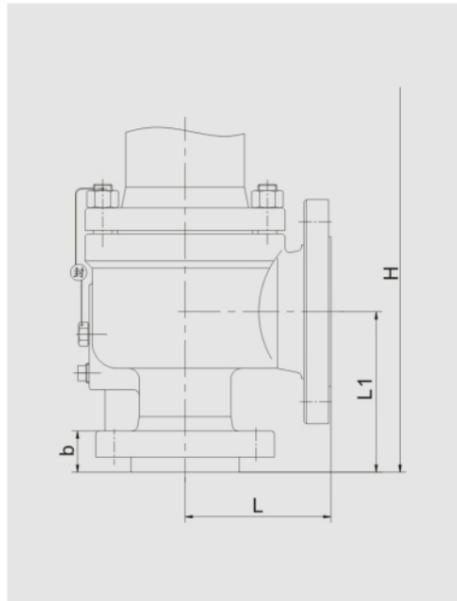
● 流通面积/喉径 Orifice Area/Diameter 1.265cm²/12.7mm

型号 Type	口径(英寸) Size(inch)		ANSI 法兰等级 Flange Class		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit38℃ (MPa)		材质Material	
	进口 × 流道代号 × 出口		进口 Inlet	出口 Outlet	-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃	HFO (HFA42C)	HFB (HFWA42C)	阀体 Body	弹簧 Spring
	Inlet × Orifice × Outlet	进口 Inlet									
HFO (HFA42C HFA44C HFA48C)	01 (150)	1E2	150	150	1.96	1.27	0.55	1.96	1.58	碳钢 C.St	合金钢 Alloy St.
	03 (300)	1E2	300	150	1.96	1.96	1.96	1.96	1.58		
	03a(300a)	1E2	300	150	5.10	4.24	2.82	1.96	1.58		
	06 (600)	1E2	600	150	10.20	8.51	5.68	1.96	1.58		
HFB (HFWA42C HFWA44C)	09 (900)	11/2E2	900	300	15.30	12.72	8.51	4.13	3.45	不锈钢 St.St.	合金钢 涂四氟 Alloy St. Spread Teflon
	15(1500)	11/2E2	1500	300	25.54	21.23	14.20	4.13	3.45		
	25(2500)	11/2E3	2500	300	41.37	35.40	23.65	5.10	3.45		

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
HFO (HFA42C HFA44C HFA48C)	01(150)	115	105	40	350	380	380	15
	03(300)	115	105	40	350	380	380	15
	03a(300a)	115	105	40	350	380	380	16
	06(600)	115	105	40	350	380	380	16
HFB (HFWA42C HFWA44C)	09(900)	140	105	51	460	480	500	28
	15(1500)	140	105	51	460	480	500	30
	25(2500)	178	140	64	490	520	540	32



HF 系列安全阀标准参数

HF Series safety valves standard parameter

F 口径、压力——温度界限 Size、Pressure——Temperature Limits

● 流通面积/喉径 Orifice Area/Diameter 1.981cm²/16mm

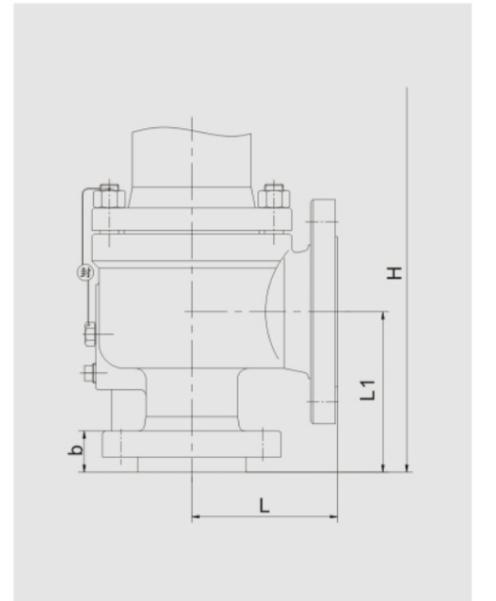
型号 Type	口径(英寸) Size(inch)		ANSI 法兰等级 Flange Class		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit38℃ (MPa)		材质Material	
	进口 × 流道代号 × 出口		进口 Inlet	出口 Outlet	-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃	HFO (HFA42C)	HFB (HFWA42C)	阀体 Body	弹簧 Spring
	Inlet × Orifice × Outlet	进口 Inlet									
HFO (HFA42C HFA44C HFA48C)	01 (150)	1 1/2F2	150	150	1.96	1.27	0.55	1.96	1.58	碳钢 C.St	合金钢 Alloy St.
	03 (300)	1 1/2F2	300	150	1.96	1.96	1.96	1.96	1.58		
	03a(300a)	1 1/2F2	300	150	5.10	4.24	2.82	1.96	1.58		
	06 (600)	1 1/2F2	600	150	10.20	8.51	5.68	1.96	1.58		
HFB (HFWA42C HFWA44C)	09 (900)	1 1/2F3	900	300	15.30	12.72	8.51	5.10	3.45	不锈钢 St.St.	合金钢 涂四氟 Alloy St. Spread Teflon
	15(1500)	1 1/2F3	1500	300	25.54	21.23	14.20	5.10	3.45		
	25(2500)	1 1/2F3	2500	300	34.47	34.47	23.65	5.10	3.45		
	09*(900*)	11/2F2 1/2*	900	300	15.30	12.72	8.51	5.10	3.45		
	15*(1500*)	11/2F21/2*	1500	300	25.54	21.23	14.20	5.10	3.45		

注: *是1995年6月API Std 526 第四版之前的规格
Note: * is specifications before API Standard 526 Fourth Edition, June 1995

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
HFO (HFA42C HFA44C HFA48C)	01(150)	121	124	44	350	380	380	22
	03(300)	121	124	44	350	380	380	22
	03a(300a)	152	124	44	350	380	380	24
	06(600)	152	124	44	350	380	380	28
HFB (HFWA42C HFWA44C)	09(900)	165	124	51	460	480	500	32
	15(1500)	165	124	51	460	480	500	34
	25(2500)	178	140	64	490	480	500	38
	09*(900*)	152	124	51	470	500	520	32
	15*(1500*)	152	124	51	420	500	520	34



HF 系列安全阀标准参数

HF Series safety valves standard parameter

G 口径、压力——温度界限 Size、Pressure——Temperature Limits

● 流道面积/喉径 Orifice Area/Diameter 3.245cm²/20.3mm

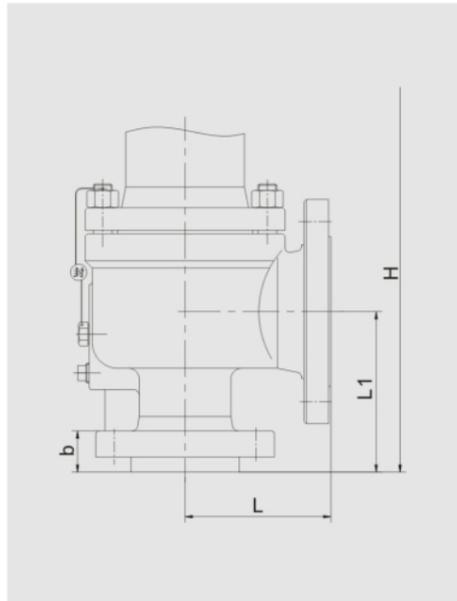
型号 Type	口径(英寸) Size(inch)		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit 38℃(MPa)		材质Material			
	进口 × 流道代号 × 出口	ANSI 法兰磅级 Flange Class	进口温度(℃) Inlet Temperature			HFO (HFA42C) HFB (HFWA42C)	HFO (HFA42C) HFB (HFWA42C)	阀体 Body	弹簧 Spring		
			-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃					进口 Inlet	出口 Outlet
HFO (HFA42C HFA44C HFA48C)	01 (150)	11/2G3	150	150	1.96	1.27	0.55	1.96	1.58	碳钢 C.St	合金钢 Alloy St.
	03 (300)	11/2G3	300	150	1.96	1.96	1.96	1.96	1.58		
	03a(300a)	11/2G3	300	150	5.10	4.24	2.82	1.96	1.58		
	06 (600)	11/2G3	600	150	10.20	8.51	5.68	1.96	1.58		
	09 (900)	11/2G3	900	300	15.30	12.72	8.51	5.10	3.24		
HFB (HFWA42C HFWA44C)	15(1500)	2G3	1500	300	25.54	21.23	14.20	5.10	3.24	不锈钢 St.St.	合金钢 涂四氟 Alloy St. Spread Teflon
	25(2500)	2G3	2500	300	25.54	25.54	23.65	5.10	3.24		
	01*(150*)	11/2G21/2*	150	150	1.96	1.27	0.55	1.96	1.58		
	03*(300*)	11/2G21/2*	300	150	1.96	1.96	1.96	1.96	1.58		
	03a(300a*)	11/2G21/2*	300	150	5.10	4.24	2.82	1.96	1.58		
	06*(600*)	11/2G21/2*	600	150	10.20	8.51	5.68	1.96	1.58		
	09(900)	11/2G21/2*	900	300	15.30	12.72	8.51	5.10	3.24		

注: *是1995年6月API Std 526 第四版之前的规格
Note: * is specifications before API Standard 526 Fourth Edition, June 1995

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座 总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
HFO (HFA42C HFA44C HFA48C)	01(150)	121	124	44	460	480	500	24
	03(300)	121	124	44	460	480	500	24
	03a(300a)	152	124	44	460	480	500	30
	06(600)	152	124	44	460	480	500	30
	09(900)	165	124	51	460	480	500	34
HFB (HFWA42C HFWA44C)	15(1500)	171	156	70	710	740	755	58
	25(2500)	171	156	70	710	740	755	62
	01*(150*)	121	124	44	470	490	520	28
	03*(300*)	121	124	44	470	490	520	28
	03a*(300a*)	152	124	44	470	490	520	30
	06*(600*)	152	124	44	480	500	530	34
	09*(900*)	152	124	51	480	500	530	34



HF 系列安全阀标准参数

HF Series safety valves standard parameter

H 口径、压力——温度界限 Size、Pressure——Temperature Limits

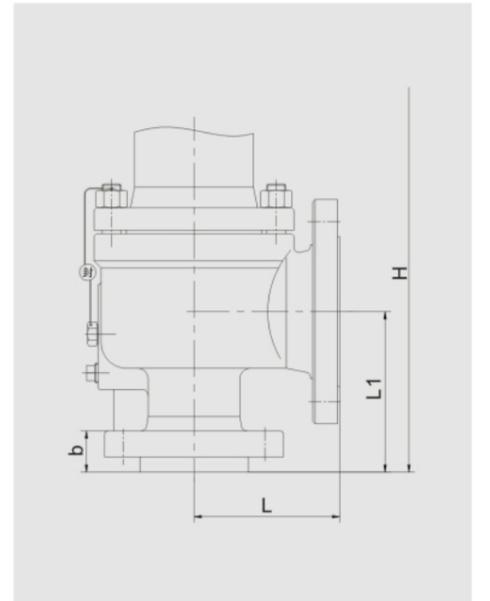
● 流道面积/喉径 Orifice Area/Diameter 5.065cm²/25.4mm

型号 Type	口径(英寸) Size(inch)		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit 38℃(MPa)		材质Material			
	进口 × 流道代号 × 出口	ANSI 法兰磅级 Flange Class	进口温度(℃) Inlet Temperature			HFO (HFA42C) HFB (HFWA42C)	HFO (HFA42C) HFB (HFWA42C)	阀体 Body	弹簧 Spring		
			-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃					进口 Inlet	出口 Outlet
HFO (HFA42C HFA44C HFA48C)	01 (150)	1 1/2H3	150	150	1.96	1.27	0.55	1.96	1.58	碳钢 C.St	合金钢 Alloy St.
	03 (300)	1 1/2H3	300	150	1.96	1.96	1.96	1.96	1.58		
	03a(300a)	2H3	300	150	5.10	4.24	2.82	1.96	1.58		
HFB (HFWA42C HFWA44C)	06 (600)	2H3	600	150	10.20	8.51	5.68	1.96	1.58	不锈钢 St.St.	合金钢 涂四氟 Alloy St. Spread Teflon
	09 (900)	2H3	900	150	15.30	12.72	8.51	1.96	1.58		
	15(1500)	2H3	1500	300	18.96	18.96	14.20	5.10	2.86		

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座 总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
HFO (HFA42C HFA44C HFA48C)	01(150)	124	130	43	420	430	450	25
	03(300)	124	130	43	420	430	450	25
	03a(300a)	124	130	46	510	520	580	30
HFB (HFWA42C HFWA44C)	06(600)	162	154	46	510	520	580	34
	09(900)	162	154	59	540	560	580	46
	15(1500)	162	154	59	540	560	580	50



HF 系列安全阀标准参数

HF Series safety valves standard parameter

J 口径、压力——温度界限 Size、Pressure——Temperature Limits

● 流通面积/喉径 Orifice Area/Diameter 8.303cm²/32.5mm

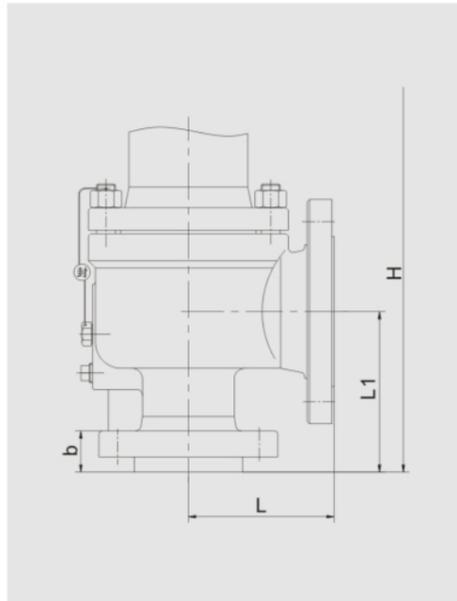
型号 Type	口径(英寸) Size(inch)		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit38℃(MPa)		材质Material		
	进口 × 流道代号 × 出口	ANSI 法兰等级 Flange Class	进口温度(℃) Inlet Temperature			HFO (HFA42C)	HFB (HFWA42C)	阀体 Body	弹簧 Spring	
			-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃					进口 Inlet
HFO (HFA42C HFA44C HFA48C)	01 (150)	2J3	150	150	1.96	1.27	0.55	1.96	1.58	合金钢 Alloy St.
	03 (300)	2J3	300	150	1.96	1.96	1.96	1.96	1.58	
	03a(300a)	3J4	300	150	5.10	4.24	2.82	1.96	1.58	
HFB (HFWA42C HFWA44C)	06 (600)	3J4	600	150	10.20	8.51	5.68	1.96	1.58	碳钢 C.St
	09 (900)	3J4	900	150	15.30	12.72	8.51	1.96	1.58	
	15(1500)	3J4	1500	300	18.61	18.61	14.20	4.13	1.58	
	03*(300*)	2 1/2J4*	300	150	5.10	4.24	2.82	1.96	1.58	
	06*(600*)	2 1/2J4*	600	150	10.20	8.51	5.68	1.96	1.58	不锈钢 St.St.

注: *是1995年6月API Std 526 第四版之前的规格
Note: * is specifications before API Standard 526 Fourth Edition. June 1995

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
HFO (HFA42C HFA44C HFA48C)	01(150)	124	136	43	460	480	500	30
	03(300)	124	136	43	460	480	500	30
	03a(300a)	181	184	55	510	520	580	42
HFB (HFWA42C HFWA44C)	06(600)	181	184	57	650	680	695	56
	09(900)	181	184	68	650	680	695	68
	15(1500)	181	184	68	650	680	695	70
	03a*(300a*)	143	136	52	510	520	580	48
	06*(600*)	171	156	54	710	740	755	62



HF 系列安全阀标准参数

HF Series safety valves standard parameter

K 口径、压力——温度界限 Size、Pressure——Temperature Limits

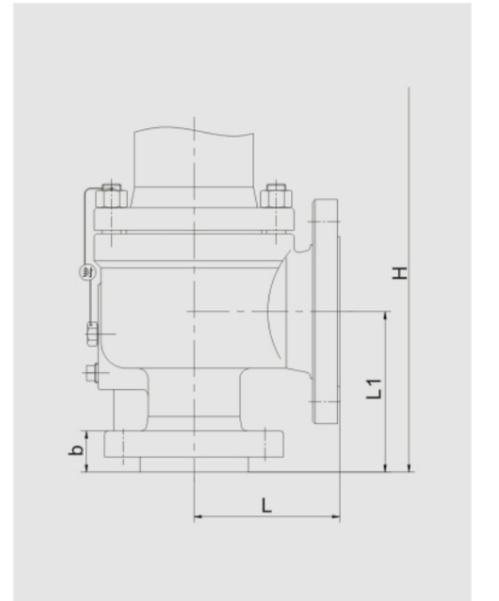
● 流通面积/喉径 Orifice Area/Diameter 11.858cm²/38.9mm

型号 Type	口径(英寸) Size(inch)		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit38℃(MPa)		材质Material		
	进口 × 流道代号 × 出口	ANSI 法兰等级 Flange Class	进口温度(℃) Inlet Temperature			HFO (HFA42C)	HFB (HFWA42C)	阀体 Body	弹簧 Spring	
			-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃					进口 Inlet
HFO (HFA42C HFA44C HFA48C)	01 (150)	3K4	150	150	1.96	1.27	0.55	1.96	1.03	合金钢 Alloy St.
	03 (300)	3K4	300	150	1.96	1.96	1.96	1.96	1.03	
	03a(300a)	3K4	300	150	5.10	4.24	2.82	1.96	1.03	
HFB (HFWA42C HFWA44C)	06 (600)	3K4	600	150	10.20	8.51	5.68	1.96	1.38	碳钢 C.St
	09 (900)	3K6	900	150	15.30	12.72	8.51	1.96	1.38	
	15(1500)	3K6	1500	300	15.30	15.30	14.20	4.13	1.38	

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
HFO (HFA42C HFA44C HFA48C)	01(150)	162	156	54	510	520	580	42
	03(300)	162	156	54	510	520	580	42
	03a(300a)	162	156	54	510	520	580	42
HFB (HFWA42C HFWA44C)	06(600)	181	184	54	650	680	695	88
	09(900)	216	198	68	685	710	725	89
	15(1500)	216	197	68	685	710	725	90



HF 系列安全阀标准参数

HF Series safety valves standard parameter

L 口径、压力——温度界限 Size、Pressure——Temperature Limits

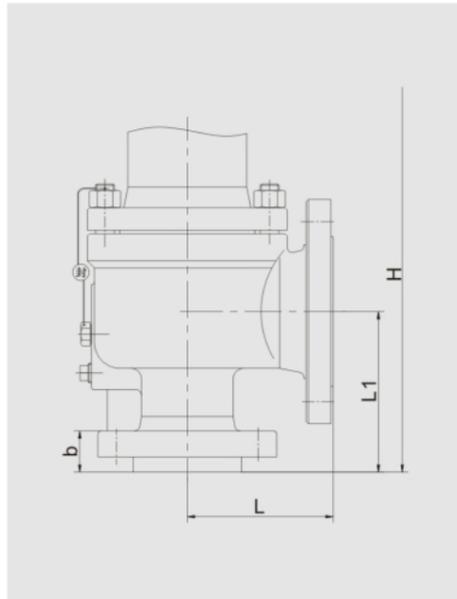
● 流通面积/喉径 Orifice Area/Diameter 18.406cm²/48.5mm

型号 Type	口径(英寸) Size(inch)		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit38℃(MPa)		材质Material			
	进口 × 流道代号 × 出口		进口温度(℃) Inlet Temperature					阀体 Body	弹簧 Spring		
	Inlet × Orifice × Outlet	进口 Inlet	出口 Outlet	-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃	HFO (HFA42C)			HFB (HFWA42C)	
	01 (150)	3L4	150	150	1.96	1.27	0.55	1.96	0.69	碳钢 C.St	合金钢 Alloy St.
HFO (HFA42C HFA44C HFA48C)	03 (300)	3L4	300	150	1.96	1.96	1.96	1.96	0.69		
	03a(300a)	4L6	300	150	5.10	4.24	2.82	1.96	1.17		
HFB (HFWA42C HFWA44C)	06 (600)	4L6	600	150	6.89	6.89	5.68	1.96	1.17	不锈钢 St.St.	合金钢 涂四氟 Alloy St. Spread Teflon
	09 (900)	4L6	900	150	10.34	10.34	8.51	1.96	1.17		
	15(1500)	4L6	1500	150	-	10.34	10.34	1.96	1.17		

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
	01(150)	165	156	51	510	520	580	48
HFO (HFA42C HFA44C HFA48C)	03(300)	165	156	51	510	520	580	48
	03a(300a)	181	179	54	650	680	695	56
HFB (HFWA42C HFWA44C)	06(600)	203	179	60	650	680	695	110
	09(900)	222	197	75	670	700	715	124
	15(1500)	222	197	75	670	700	715	130



HF 系列安全阀标准参数

HF Series safety valves standard parameter

M 口径、压力——温度界限 Size、Pressure——Temperature Limits

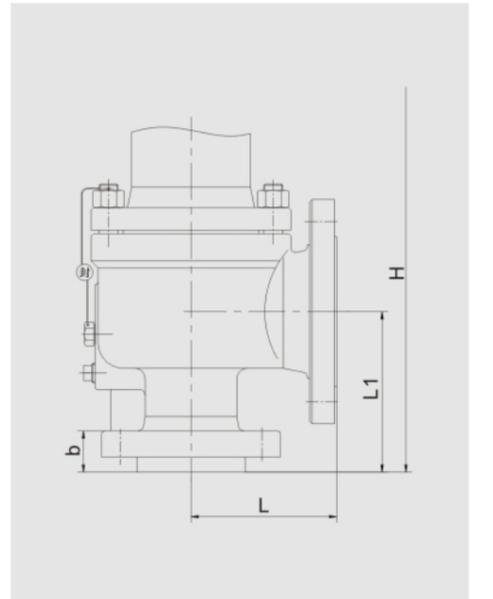
● 流通面积/喉径 Orifice Area/Diameter 23.22cm²/54.5mm

型号 Type	口径(英寸) Size(inch)		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit38℃(MPa)		材质Material			
	进口 × 流道代号 × 出口		进口温度(℃) Inlet Temperature					阀体 Body	弹簧 Spring		
	Inlet × Orifice × Outlet	进口 Inlet	出口 Outlet	-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃	HFO (HFA42C)			HFB (HFWA42C)	
	01 (150)	4M6	150	150	1.96	1.27	0.55	1.96	0.55	碳钢 C.St	合金钢 Alloy St.
HFO (HFA42C HFA44C HFA48C)	03 (300)	4M6	300	150	1.96	1.96	1.96	1.96	0.55		
	03a(300a)	4M6	300	150	5.10	4.24	2.82	1.96	1.10		
HFB (HFWA42C HFWA44C)	06 (600)	4M6	600	150	7.58	7.58	5.68	1.96	1.10	不锈钢 St.St.	合金钢 涂四氟 Alloy St. Spread Teflon
	09 (900)	4M6	900	150	-	7.58	7.58	1.96	1.10		

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
	01(150)	184	178	54	755	790	805	90
HFO (HFA42C HFA44C HFA48C)	03(300)	184	178	54	755	790	805	92
	03a(300a)	184	178	54	755	790	805	106
HFB (HFWA42C HFWA44C)	06(600)	203	178	62	755	790	805	116
	09(900)	222	197	65	755	790	805	170



HF 系列安全阀标准参数

HF Series safety valves standard parameter

N 口径、压力——温度界限 Size、Pressure——Temperature Limits

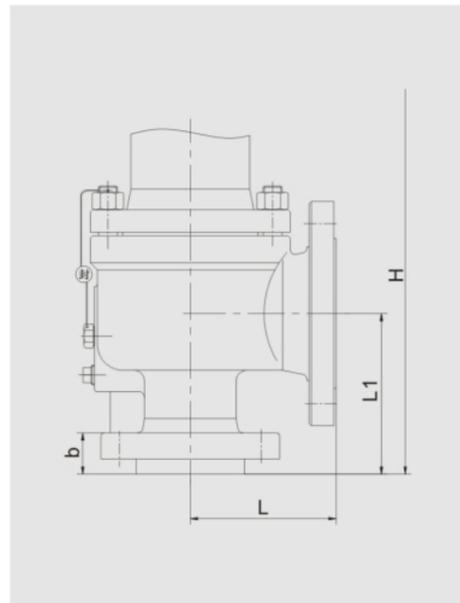
● 流通面积/喉径 Orifice Area/Diameter 28.00cm²/59.7mm

型号 Type	口径(英寸) Size(inch)		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit38℃(MPa)		材质Material			
	进口 × 流道代号 × 出口	ANSI 法兰磅级 Flange Class	进口温度(℃) Inlet Temperature			HFO (HFA42C) HFB (HFWA42C)	HFB (HFWA42C)	阀体 Body	弹簧 Spring		
			Inlet × Orifice × Outlet	进口 Inlet	出口 Outlet					-29℃~38℃	38℃~232℃
	01 (150)	4N6	150	150	1.96	1.27	0.55	1.96	0.55	碳钢 C.St	合金钢 Alloy St.
HFO (HFA42C HFA44C HFA48C)	03 (300)	4N6	300	150	1.96	1.96	1.96	1.96	0.55		
	03a(300a)	4N6	300	150	5.10	4.24	2.82	1.96	1.10	不锈钢 St.St.	合金钢 涂四氟 Alloy St. Spread Teflon
HFB (HFWA42C HFWA44C)	06(600)	4N6	600	150	6.89	6.89	5.68	1.96	1.10		
	09(900)	4N6	900	150	-	6.89	6.89	1.96	1.10		

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
	01(150)	210	197	54	755	810	825	96
HFO (HFA42C HFA44C HFA48C)	03(300)	210	197	54	755	810	825	98
	03a(300a)	210	197	54	755	810	825	105
HFB (HFWA42C HFWA44C)	06(600)	222	197	60	755	810	825	140
	09(900)	222	197	60	755	810	825	180



HF 系列安全阀标准参数

HF Series safety valves standard parameter

P 口径、压力——温度界限 Size、Pressure——Temperature Limits

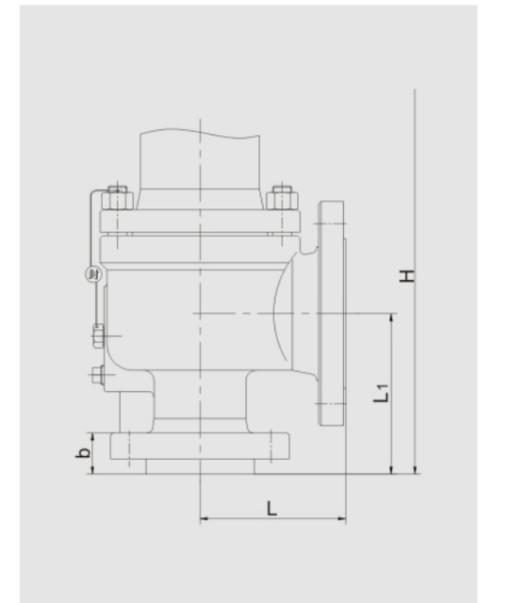
● 流通面积/喉径 Orifice Area/Diameter 41.161cm²/72.4mm

型号 Type	口径(英寸) Size(inch)		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit38℃(MPa)		材质Material			
	进口 × 流道代号 × 出口	ANSI 法兰磅级 Flange Class	进口温度(℃) Inlet Temperature			HFO (HFA42C) HFB (HFWA42C)	HFB (HFWA42C)	阀体 Body	弹簧 Spring		
			Inlet × Orifice × Outlet	进口 Inlet	出口 Outlet					-29℃~38℃	38℃~232℃
	01 (150)	4P6	150	150	1.96	1.27	0.55	1.96	0.55	碳钢 C.St	合金钢 Alloy St.
HFO (HFA42C HFA44C HFA48C)	03 (300)	4P6	300	150	1.96	1.96	1.96	1.96	0.55		
	03a(300a)	4P6	300	150	3.62	3.62	2.82	1.96	1.03	不锈钢 St.St.	合金钢 涂四氟 Alloy St. Spread Teflon
HFB (HFWA42C HFWA44C)	06 (600)	4P6	600	150	6.89	6.89	5.68	1.96	1.03		
	09 (900)	4P6	900	150	-	6.89	6.89	1.96	1.03		

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
	01(150)	229	181	54	800	835	850	115
HFO (HFA42C HFA44C HFA48C)	03(300)	229	181	54	800	835	850	115
	03a(300a)	254	225	54	825	915	935	140
HFB (HFWA42C HFWA44C)	06(600)	254	225	65	825	915	935	190
	09(900)	254	225	65	825	915	935	220



HF 系列安全阀标准参数

HF Series safety valves standard parameter

Q 口径、压力——温度界限 Size、Pressure——Temperature Limits

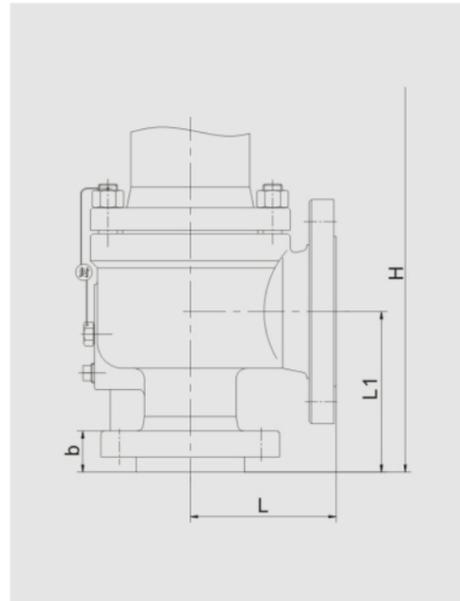
● 流通面积/喉径 Orifice Area/Diameter 71.290cm²/95.3mm

型号 Type	口径(英寸) Size(inch)		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit38℃ (MPa)		材质Material			
	进口 x 流道代号 x 出口		进口温度(℃) Inlet Temperature					阀体 Body	弹簧 Spring		
	Inlet x Orifice x Outlet	ANSI 法兰等级 Flange Class	-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃	HFO (HFA42C)	HFB (HFWA42C)				
HFO (HFA42C HFA44C HFA48C)	01 (150)	6Q8	150	150	1.13	1.13	0.55	0.79	0.48	碳钢 C.St	合金钢 Alloy St.
	03 (300)	6Q8	300	150	1.13	1.13	1.13	0.79	0.48	碳钢 C.St	合金钢 Alloy St.
HFB (HFWA42C HFWA44C)	03a(300a)	6Q8	300	150	2.06	2.06	2.06	0.79	0.79	不锈钢 St.St.	合金钢 涂四氟 Alloy St. Spread Teflon
	06 (600)	6Q8	600	150	4.13	4.13	4.13	0.79	0.79		

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
	01(150)	241	240	59	980	1020	1035	180
HFO (HFA42C HFA44C HFA48C)	03(300)	241	240	59	980	1020	1035	185
HFB (HFWA42C HFWA44C)	03a(300a)	241	240	59	980	1020	1035	205
	06(600)	241	240	75	980	1020	1035	220



HF 系列安全阀标准参数

HF Series safety valves standard parameter

R 口径、压力——温度界限 Size、Pressure——Temperature Limits

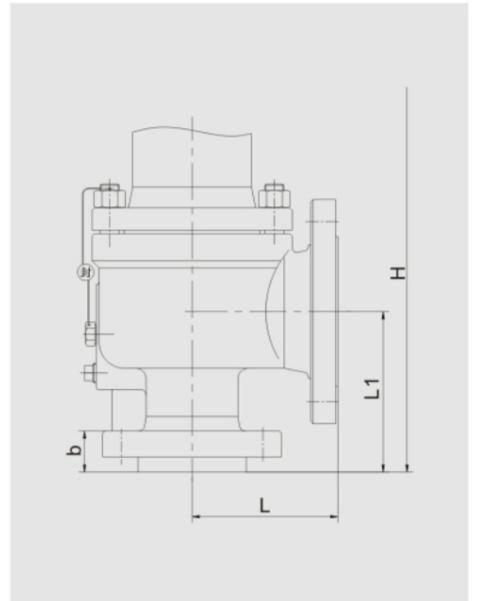
● 流通面积/喉径 Orifice Area/Diameter 103.22cm²/114.6mm

型号 Type	口径(英寸) Size(inch)		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit38℃ (MPa)		材质Material			
	进口 x 流道代号 x 出口		进口温度(℃) Inlet Temperature					阀体 Body	弹簧 Spring		
	Inlet x Orifice x Outlet	ANSI 法兰等级 Flange Class	-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃	HFO (HFA42C)	HFB (HFWA42C)				
HFO (HFA42C HFA44C HFA48C)	01 (150)	6R8	150	150	0.68	0.68	0.55	0.41	0.41	碳钢 C.St	合金钢 Alloy St.
	03 (300)	6R8	300	150	0.68	0.68	0.68	0.41	0.41	碳钢 C.St	合金钢 Alloy St.
HFB (HFWA42C HFWA44C)	03a(300a)	6R10	300	150	1.58	1.58	1.58	0.68	0.68	不锈钢 St.St.	合金钢 涂四氟 Alloy St. Spread Teflon
	06 (600)	6R10	600	150	2.06	2.06	2.06	0.68	0.68		

● 尺寸 Dimensions

mm

型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
	01(150)	241	240	59	980	1020	1035	205
HFO (HFA42C HFA44C HFA48C)	03(300)	241	240	59	980	1020	1035	220
HFB (HFWA42C HFWA44C)	03a(300a)	267	240	59	1020	1060	1075	260
	06(600)	267	240	70	1020	1060	1075	300



HF 系列安全阀标准参数

HF Series safety valves standard parameter

T 口径、压力——温度界限 Size、Pressure——Temperature Limits

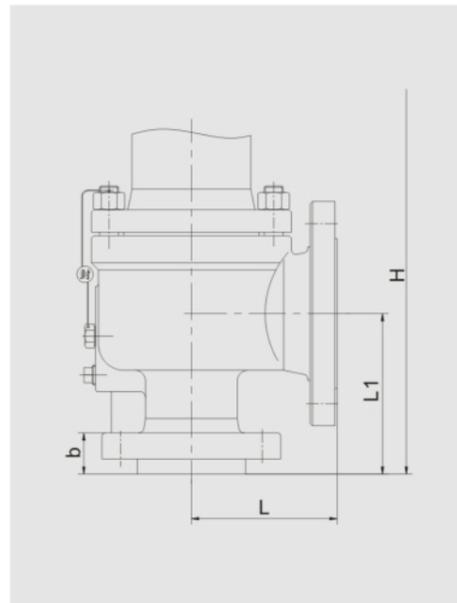
● 流通面积/喉径 Orifice Area/Diameter 167.742cm²/146mm

型号 Type	口径(英寸) Size(inch)		最高整定压力(MPa) Maximum Set Pressure			38℃ 最高背压 Back pressure limit 38℃(MPa)			材质Material		
	进口 × 流道代号 × 出口		ANSI 法兰磅级 Flange Class		进口温度(℃) Inlet Temperature					阀体 Body	弹簧 Spring
	Inlet × Orifice × Outlet	Inlet	出口 Outlet	-29℃~ 38℃	38℃~ 232℃	232℃~ 427℃	HFO (HFA42C)	HFB (HFWA42C)			
HFO (HFA42C HFA44C HFA48C)	01(150)	8T10	150	150	0.44	0.44	0.44	0.20	0.20	碳钢 C.St	合金钢 Alloy St.
HFB (HFWA42C HFWA44C)	03a(300a)	8T10	300	150	0.82	0.82	0.82	0.41	0.41	不锈钢 St.St.	合金钢 Alloy St. 涂四氟 Spread Teflon
	03b(300b)	8T10	300	150	2.06	2.06	2.06	0.68	0.68		

● 尺寸 Dimensions

mm

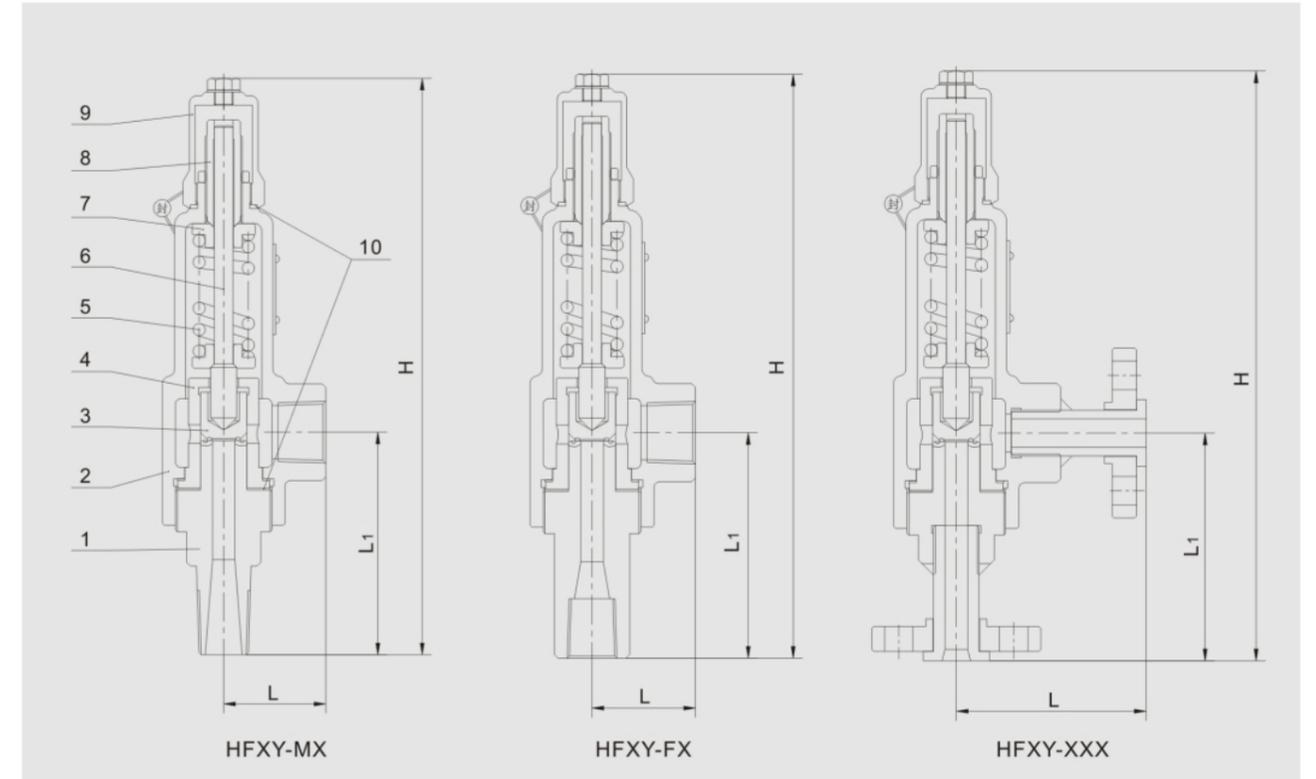
型号 Type	面心距 Center to Face		法兰 阀座总厚 Total Thickness of Flange and Nozzle	近似高度 Approximate Height H			近似重量 Approximate Weight Cap Type B (Kg)	
	出口 Outlet	进口 Inlet		阀帽型式 Cap Type				
	L	L ₁	b	A	C	D		
HFO (HFA42C HFA44C HFA48C)	01(150)	279	276	65	1040	1080	1095	380
	03(300)	279	276	65	1040	1080	1095	400
HFB (HFWA42C HFWA44C)	03a(300a)	279	276	65	1040	1080	1095	460
	03b(300b)	279	276	65	1040	1080	1095	480



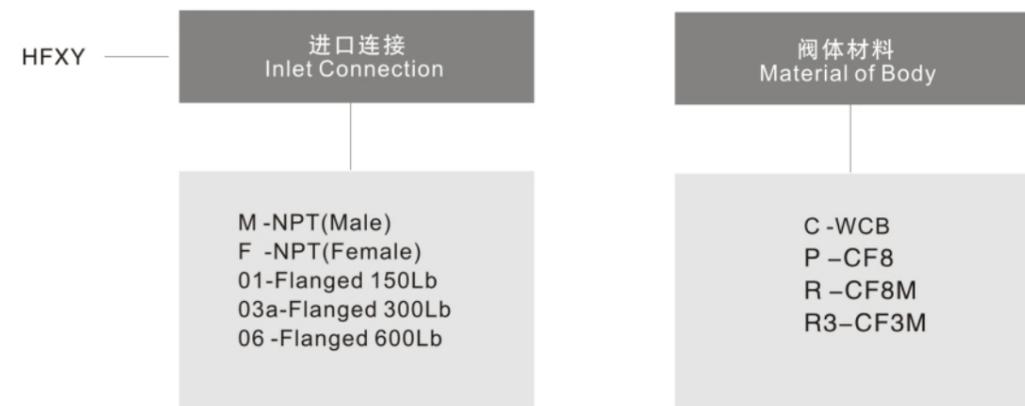
HFX系列螺纹、松套法兰式泄压阀

HFX Series screw, loose knot type flanged pressure relief valve

● HFX系列螺纹、松套法兰式泄压阀 HFX Series screw, loose knot type flanged pressure relief valve



● 型号编制方法 Method of compiling the types



注：进口连接为外螺纹，阀体材料为WCB的泄压阀，其型号代码为：HFX-MC
Example: A pressure relief valve, which the inlet connection is made screwed, the material of body is WCB, is named HFX-MC.



HFXY系列螺纹、松套法兰式泄压阀

HFXY Series screw, loose knot type flanged pressure relief valve

● 材料 Materials

序号 Ref.No	零件名称 Part Name	阀体材料 Valve Materials			
		C	P	R	R3
1	阀座 Nozzle	304	304	316	316L
2	阀体 Body	WCB	CF8	CF8M	CF3M
3	阀瓣 Disc	304	304	316	316L
4	导向套 Guide	304	304	316	316L
5	弹簧 Spring	304	304	316	316
6	阀杆 Stem	420	304	316	316L
7	弹簧座 Spring Washer	420	420	420	420
8	调整螺钉 Adjusting Bolt	420	420	420	420
9	阀帽 Cap	WCB	CF8	CF8M	CF8M
10	垫片 Gaskets	石棉板Asbestors	PTFE	PTFE	PTFE

● 螺纹连接 Screwed Connections

流道面积 Orifice Area (cm ²)	型号 Type	口径(英寸) Size(inch) 进口×出口 Inlet×Outlet	连接 Connections (NPT)		最高整定压力 Maximum Set Pressure (MPa)		尺寸 Dimensions (mm)			近似重量 Approx. Weight (Kg)	
			进口 Inlet	出口 Outlet	-29°C~ 232°C	232°C~ 427°C	L	L ₁	H		
0.28(B)	HFXY-MX	1/4B1/4	外螺纹	F(内螺纹)	8.51	5.68	55	80	280	4	
	HFXY-FX		内螺纹								
	HFXY-MX	1/2B1/2	外螺纹	F(内螺纹)	8.51	5.68	55	80	280		
	HFXY-FX		内螺纹								
0.50(C)	HFXY-MX	1/2C1/2	外螺纹	F(内螺纹)	8.51	5.68	55	80	280	4	
	HFXY-FX		内螺纹								
	HFXY-MX	3/4C3/4	外螺纹	F(内螺纹)	8.51	5.68	55	80	280		4
	HFXY-FX		内螺纹								
	HFXY-MX	1/2C1	外螺纹	F(内螺纹)	8.51	5.68	55	80	280	4	
	HFXY-FX		内螺纹								
	HFXY-MX	3/4C1	外螺纹	F(内螺纹)	8.51	5.68	55	80	280		4
	HFXY-FX		内螺纹								
HFXY-MX	1C1	外螺纹	F(内螺纹)	8.51	5.68	55	80	280	4		
HFXY-FX		内螺纹									
0.71(D)	HFXY-MX	3/4D3/4	外螺纹	F(内螺纹)	8.51	5.68	55	80		280	4
	HFXY-FX		内螺纹								
	HFXY-MX	3/4D1	外螺纹	F(内螺纹)	8.51	5.68	55	80	280	4	
	HFXY-FX		内螺纹								
	HFXY-MX	1D1	外螺纹	F(内螺纹)	8.51	5.68	55	80	280		4
	HFXY-FX		内螺纹								

注: L和L₁可按用户要求定制。
Remark: L and L₁ may be made according to user's requests.



HFXY系列螺纹、松套法兰式泄压阀

HFXY Series screw, loose knot type flanged pressure relief valve

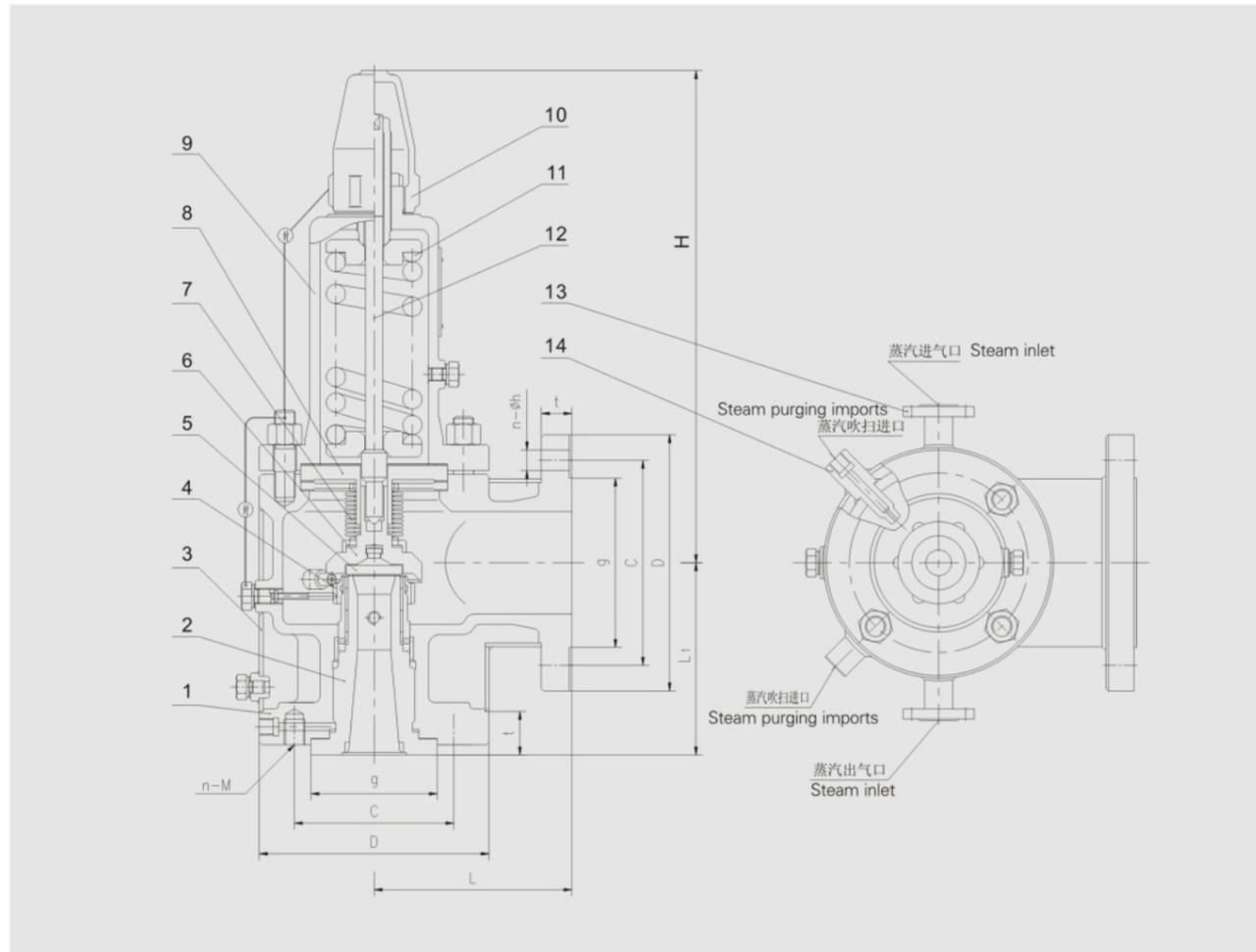
● 法兰连接 Flanged Connections

流道面积 Orifice Area (cm ²)	型号 Type	口径(英寸) Size(inch) 进口×出口 Inlet×Outlet	连接 Connections (NPT)		最高整定压力 Maximum Set Pressure (MPa)		尺寸 Dimensions (mm)			近似重量 Approx. Weight (Kg)
			进口 Inlet	出口 Outlet	-29°C~ 232°C	232°C~ 427°C	L	L ₁	H	
0.28(B)	HFXY-01X	1/4B1/4	150Lb		1.27	0.55	100	118	300	6
	HFXY-03aX		300Lb	150Lb	4.24	2.82				
	HFXY-06X	600Lb		8.51	5.68					
	HFXY-01X	1/2B1/2	150Lb		1.27	0.55	100	118	300	
	HFXY-03aX		300Lb	150Lb	4.24	2.82				
	HFXY-06X	600Lb		8.51	5.68					
0.50(C)	HFXY-01X	1/2C1/2	150Lb		1.27	0.55	100	118	300	6
	HFXY-03aX		300Lb	150Lb	4.24	2.82				
	HFXY-06X	600Lb		8.51	5.68					
	HFXY-01X	3/4C3/4	150Lb		1.27	0.55	100	118	300	
	HFXY-03aX		300Lb	150Lb	4.24	2.82				
	HFXY-06X	600Lb		8.51	5.68					
	HFXY-01X	1/2C1	150Lb		1.27	0.55	100	118	300	6
	HFXY-03aX		300Lb	150Lb	4.24	2.82				
	HFXY-06X	600Lb		8.51	5.68					
	HFXY-01X	3/4C1	150Lb		1.27	0.55	100	118	300	
	HFXY-03aX		300Lb	150Lb	4.24	2.82				
	HFXY-06X	600Lb		8.51	5.68					
0.71(D)	HFXY-01X	1C1	150Lb		1.27	0.55	100	118	300	6
	HFXY-03aX		300Lb	150Lb	4.24	2.82				
	HFXY-06X	600Lb		8.51	5.68					
	HFXY-01X	3/4D3/4	150Lb		1.27	0.55	100	118	300	
	HFXY-03aX		300Lb	150Lb	4.24	2.82				
	HFXY-06X	600Lb		8.51	5.68					
	HFXY-01X	3/4D1	150Lb		1.27	0.55	100	118	300	6
	HFXY-03aX		300Lb	150Lb	4.24	2.82				
	HFXY-06X	600Lb		8.51	5.68					
	HFXY-01X	1D1	150Lb		1.27	0.55	100	118	300	
	HFXY-03aX		300Lb	150Lb	4.24	2.82				
	HFXY-06X	600Lb		8.51	5.68					

注: L和L₁可按用户要求定制。
Remark: L and L₁ may be made according to user's requests.

HFNJ系列保温夹套安全阀 (相当于HFBWA42型)

HFNJ Series safety valve with jacket



● 用途及特点

1. 用作聚酯、乙烯、沥青及尿素化肥等装置中介质需要保温的压力安全泄压阀。
2. 对进、出口法兰在内的阀体均进行保温，因而保温效果好；特殊需要时可以增加蒸汽冲洗功能。
3. 平衡波纹管式结构，变动背压力不影响安全阀的整定压力，且波纹管对弹簧等阀盖内的零件起到保护介质侵蚀作用。
4. 内件（阀瓣、阀座）标准材料均为奥氏体不锈钢，密封面堆焊Stellite硬质合金。
5. 特殊需要时内件可提供尿素级316L、双相不锈钢0Cr25Ni6Mo3CuN、00Cr25Ni6Mo2N及超级双相不锈钢F51（NUS S31803）、F53（UNS S32750）、F55（UNS S32760）。

Application & Features

1. It's serviced in the circumstances where the heat preservation of fluid is needed, such as equipment of polyester, ethylene, pitch, urea, etc.
2. Body including inlet and outlet flanges is heat preserved, so the effect is very well the function of vapor flushing be added, if needed.
3. Balanced bellows construction protects set pressure from being affected by variable back pressure, and the parts in bonnet, such as spring, form being corroded.
4. Trim (nozzle and disc) is normally made with austenitic stainless steel, and faced with stellite alloy.
5. To meet special service, the material of trim can be 316LN, 0Cr25Ni6Mo3CuN, 00Cr25Ni6Mo2N, F51 (NUS S31803), F53 (UNS S32750), F55 (UNS S32760).

HFNJ系列保温夹套安全阀 (相当于HFBWA42型)

HFNJ Series safety valve with jacket

● 型号编制方法 Method of compiling the types



● 材料 Materials

序号 Ref.No	零件名称 Part Name	阀门材料 Valve Materials			
		C	P	R	R3
1	阀体 Body	WCB	CF8	CF8M	CF3M
2	阀座 Nozzle	304	316	316	316L
3	夹套 Jacket	304	304	316	316
4	调节圈 Adjusting ring	CF8	CF8	CF8M	CF3M
5	阀瓣 Disc	304	316	316	316L
6	反冲盘 Disc holder	304	304	316	316L
7	波纹管 Bellows	316	316	316L	316L
8	导向套 Guide	CF8	CF8	CF8M	CF3M
9	阀盖 Bonnet	WCB	CF8	CF8M	CF8M
10	阀帽 Cap	WCB	CF8	CF8M	CF8M
11	弹簧 Spring	Alloy st	Alloy st/Spread Teflon	Alloy st/Spread Teflon	Alloy st/Spread Teflon
12	阀杆 Stem	420	304	316	316L
13	法兰 Flange	304	304	304	304
14	吹气管 Huff pipe	304	304	316	316L

HFNJ系列保温夹套安全阀 (相当于HFBWA42型)

HFNJ Series safety valve with jacket

● 型号 (Type) : HFNJ-03a

法兰等级 (ANSI Flange Class) : 300Lb/150Lb (进口/出口 Inlet/Outlet)

口径(英寸) Size(inch)	最高整定压力 Max.Set Pressure(MPa)		进口/流道代号/出口(流道面积cm) Inlet/Orifice/Outlet (Orifice Area)	进口温度(°C) Inlet Temperature	法兰尺寸 Dimensions(mm)					面心距 Center to Face (mm)		近似高度 H App.Height	
	-29°C~ 232°C	232°C~ 427°C			φD	φC	φg	f/t	n-M/n-φh	L	L ₁	B	E
1 D 2(2 1/2) (0.710)	4.24	2.82	进口Inlet		160	89	51	18	4-M16	134	125	470	530
			出口Outlet		178	139.5	105	22.4	4-φ19				
1 E 2 (2 1/2) (1.264)	4.24	2.82	进口Inlet		160	89	51	18	4-M16	134	125	470	530
			出口Outlet		178	139.5	105	22.4	4-φ19				
1/2F2(2 1/2) (1.981)	4.24	2.82	进口Inlet		170	114.5	73	20	4-M20	140	139	485	550
			出口Outlet		178	139.5	105	22.4	4-φ19				
1 1/2G3(4) (3.245)	4.24	2.82	进口Inlet		190	114.5	73	20	4-M20	140	149	535	595
			出口Outlet		229	190.5	157	23.9	8-φ19				
2 H 3(4) (5.064)	4.24	2.82	进口Inlet		200	127	92	20	8-M16	155	150	555	615
			出口Outlet		229	190.5	157	23.9	8-φ19				
3 J 4(6) (8.303)	4.24	2.82	进口Inlet		250	168	127	22	8-M20	185	170	690	760
			出口Outlet		279	241.5	216	25.4	8-φ22				
3 K 4(6) (11.858)	4.24	2.82	进口Inlet		250	168	127	22	8-M20	185	170	690	760
			出口Outlet		279	241.5	216	25.4	8-φ22				
4 L 6(8) (18.406)	4.24	2.82	进口Inlet		320	200	157	22	8-M20	225	200	860	930
			出口Outlet		343	298.5	270	28.4	8-φ22				
4 M 6(8) (23.226)	4.24	2.82	进口Inlet		320	200	157	22	8-M20	225	200	860	930
			出口Outlet		343	298.5	270	28.4	8-φ22				
4 N 6(8) (28.000)	4.24	2.82	进口Inlet		320	200	157	22	8-M20	225	200	860	930
			出口Outlet		343	298.5	270	28.4	8-φ22				
4 P 6(8) (41.161)	3.62	2.82	进口Inlet		320	200	157	22	8-M20	225	200	860	930
			出口Outlet		343	298.5	270	28.4	8-φ22				
6 Q 8(10) (71.290)	2.06	2.06	进口Inlet		370	270	216	22	12-M20	256	239.5	1025	1130
			出口Outlet		406	362	324	30.2	12-φ26				
6 R 10(12) (103.226)	1.58	1.58	进口Inlet		420	270	216	22	12-M20	282	269	1070	1175
			出口Outlet		483	432	381	32	12-φ26				
8 T 10(12) (167.742)	0.82	0.82	进口Inlet		480	330	270	22	12-M24	310	280	1215	1320
			出口Outlet		483	432	381	32	12-φ26				

HFXD型磅级先导式安全泄压阀 (相当于HFA46型)

HFXD Type Pilot-operated pressure relief valve

HFA46C150、HFA46C300
HFA46C600、HFA46C900
HFA46C1500、HFA46C2500

型先导式安全泄压阀
Pilot-operated pressure relief valve

● 主要性能规范 Main property and specification

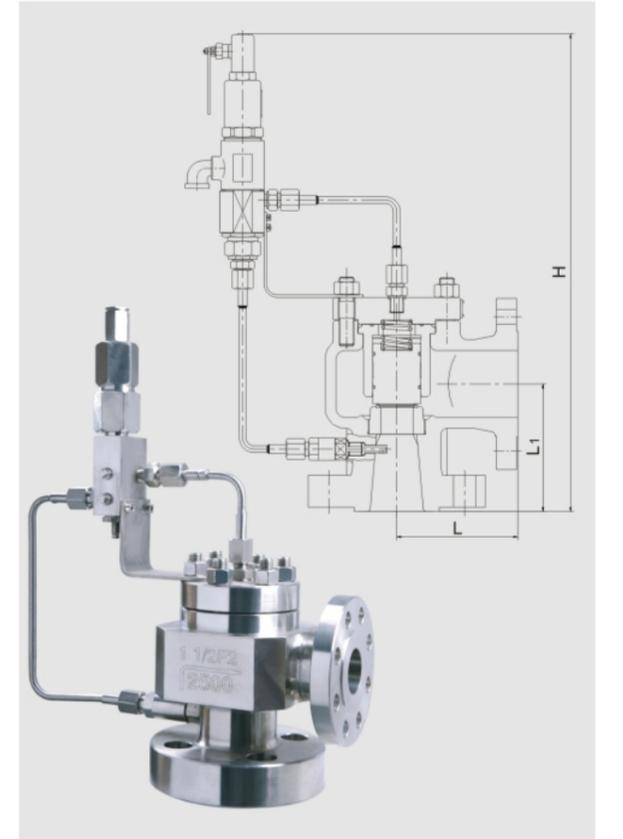
公称压力 Normal pressure	PN(Lb)	150 300 600 900 1500 2500
壳体强度 Body strength	Ps(MPa)	3.0 7.5 15 22.5 37.5 63
最高整定压力 Max Set pressure	Pk(MPa)	2 5.1 10.2 15.3 25.5 42.5
密封压力 Seal pressure	Pm	90% Pk
回座压力 Reseating pressure	Ph	≥90%Pk
排放压力 Rwieving pressure	Pp	≤1.03Pk
开启高度 lift	H(mm)	≥1/4do
适用温度 Appropriat temperature		≤200°C
适用介质 Appropriat Medium		气体、液体、水蒸气、原油、天然气等 Gas, Steam etc. Crude oil, Nature gas

● 喉部直径代号 Code of throat diameter

代号 Code	直径 Diameter mm	代号 Code	直径 Diameter mm
D	10	L	50
E	13	M	55
F	16	N	60
G	20.5	P	72
H	26	Q	96
J	33	R	115
K	40	T	146

● 主要尺寸 Main Dimension

口径 Size (in)	流道直径 Orifice	进口压力级 Inlet Lb	出口压力级 Outlet Lb	结构尺寸 Dimension mm			口径 Size	流道直径 Orifice	进口压力级 Inlet Lb	出口压力级 Outlet Lb	结构尺寸 Dimension mm		
				L	L ₁	H					L	L ₁	H
1×2	D,E,F	150	150	115	105	406	11/2×2	D,E,F	150	150	121	124	432
		300	150	115	111	406			300	150	121	124	432
		600	150	115	111	406			600	150	121	124	432
		900	300	121	125	508			900	300	140	149	533
		1500	300	121	125	508			1500	300	140	149	533
		2500	300	121	125	508			2500	300	140	149	533
1 1/2×3	G,H	150	150	124	130	457	2×3	G,H,J	150	150	124	137	457
		300	150	124	130	457			300	150	124	137	457
		600	150	124	130	457			600	150	124	137	457
		900	300	171	162	559			900	300	171	167	559
		1500	300	171	162	559			1500	300	171	167	559
		2500	300	171	162	559			2500	300	171	178	584
3×4	J,K,L	150	150	162	156	483	4×6	L,M,N,P	150	150	210	197	559
		300	150	162	156	483			300	150	210	197	559
		600	150	162	162	483			600	150	210	197	559
		900	300	181	190	610			900	300	233	249	711
		1500	300	181	190	610			1500	300	233	249	711
									1500	600	264	249	711
6×8	Q,R	150	150	241	240	635	8×10	T	150	150	279	276	711
		300	150	241	240	635			300	150	279	276	711
		600	150	241	246	635			600	150	279	297	737



HFA42C、HFWA42C 大口径安全阀

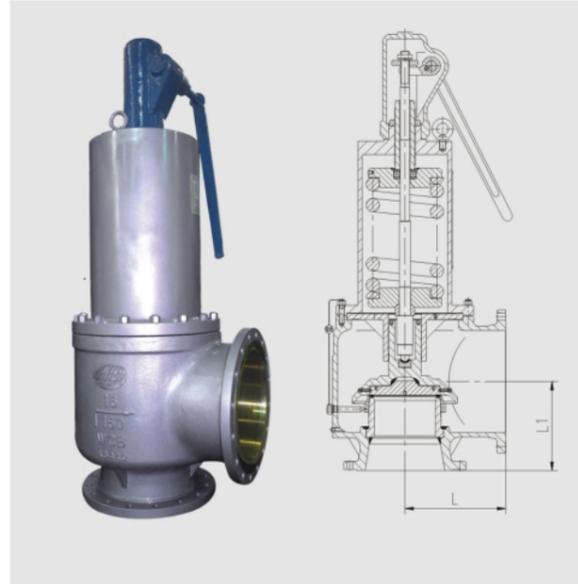
HFA42C、HFWA42C big calibers safety valve

● 用途及特点

1. 适用于炼油连续重整、三十万吨乙烯、尿素化肥、电厂汽轮机等场合，起安全泄压作用。
2. 根据用户介质、温度等特殊需要，分别可以采用不同材料、不同结构的安全阀。有适用于尿素化肥的双相不锈钢安全阀，适用于炼油用的波纹管平衡式安全阀，适用于电厂的合金钢高温安全阀。

Application & Features

1. Applicable to the environment of oil refining continuous reforming, there hundred thousand tons ethere, carbamide manure, power station steam turbine, take care for release pressure safety.
2. According to different medium, temperature and other special. We respective adopt in different material and structure safety valve. Such as ferritic stainless steel safety valve suitable for carbamide manure, balance bellows safety valve suitable for oil refining, alloy steel high temperature safety valve suitable for power station.



● 尺寸规格 Dimension & Specification

进口 × 出口 Inlet × Outlet	150Lb结构尺寸		300Lb结构尺寸		600Lb结构尺寸	
	L	L ₁	L	L ₁	L	L ₁
10T12(250 × 146 × 300)	350	340	350	340	350	340
10V14(250 × 190 × 350)	400	320	360	350	360	350
12W16(300 × 195 × 400)	370	370	370	370	-	-
14X18(350 × 245 × 450)	375	435	375	435	-	-
14X20(350 × 245 × 500)	375	435	500	470	-	-
16Y18(400 × 280 × 450)	495	435	500	470	-	-
16Y20(400 × 300 × 500)	495	435	500	470	-	-

注：有特殊要求的可以协商定制。

Note: If there are special demands, the valve can be custom-made by consulting.

HFGS系列高温蒸汽安全阀 (相当于HFA48SB型)

HFGS Series high temperature safety valve for steam

● 用途 Application

适用于动力锅炉、裂解炉、直流锅炉、再热器及其他设备管道作超压保护 (HFGS is serviced for overpres sure protection of power boiler, decomposition boiler, once-through boiler, reheater and other pressure vessel and pipe)。

● 性能 Performance

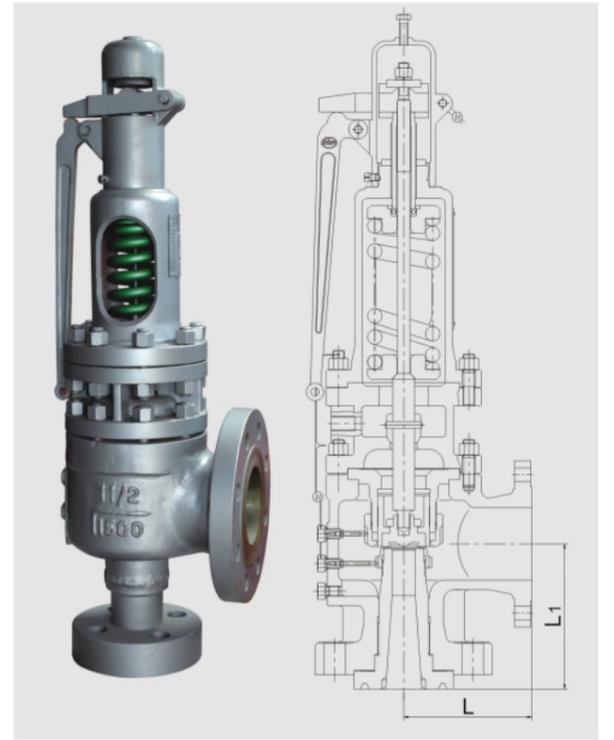
符合ASME《锅炉和压力容器规范》第I卷动力锅炉要求。(HFSH meets the requirements of HFGS Boiler and pressure Vessel Code, Section I, power Boilers)。

● 特点 Features

采用背压套来调节回座压力，以达到极小的启闭压差。(Adjusting back Seat pressure with back pressure Jacket, to arrive minimum Blowdown)。高性能高温材料作弹性阀瓣材料，以保证高温下的密封性 (High performance and temperature material are used for valve, to ensure its tightness in high temperature)。

密封付表面堆焊钴基硬质合金，以防护高温蒸汽的气蚀 (Tightness body is faced with stellite, to prevent from eroding of high temperature gas)。

一定的热态测试，使安全阀更接近工况条件 (Tested under hot position and make the safety valve approach to service condition)。



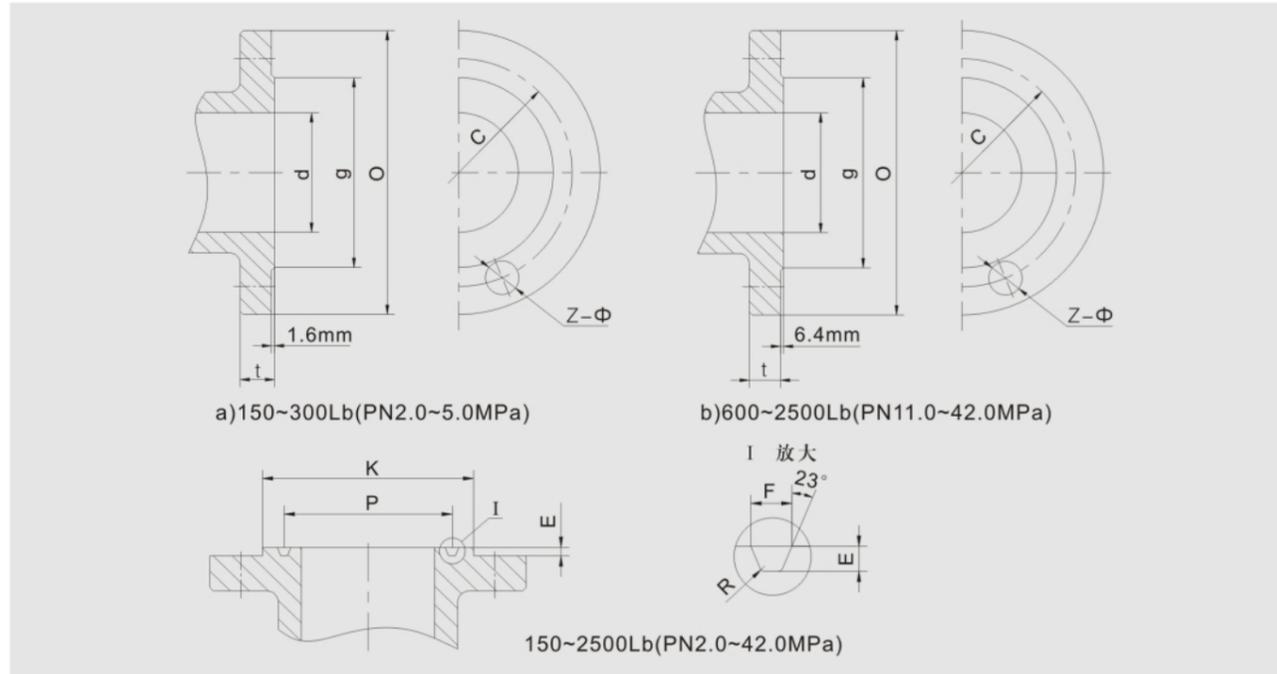
● 尺寸规格 Dimension & Specification

进口 × 出口 Inlet × Outlet	结构尺寸300Lb Construction dim		结构尺寸600Lb Construction dim		结构尺寸900Lb Construction dim		结构尺寸1500Lb Construction dim		结构尺寸2500Lb Construction dim	
	L	L ₁	L	L ₁	L	L ₁	L	L ₁	L	L ₁
1 × 1 1/2	-	-	-	-	-	-	146	170	-	-
1 1/2 × F × 2	152	124	-	-	-	-	-	-	-	-
1 1/2 × F × 2 1/2	-	-	140	130	-	-	-	-	-	-
1 1/2 × G × 2 1/2	152	124	-	-	-	-	-	-	-	-
1 1/2 × F × 3	-	-	-	-	155	140	155	150	155	190
1 1/2 × G × 3	-	-	155	130	155	140	155	150	200	220
1 1/2 × H × 3	152	130	155	140	155	140	155	150	-	-
1 1/2 × H × 4	-	-	-	-	-	-	-	-	200	220
2 × J × 3	152	137	-	-	-	-	-	-	-	-
2 × J × 4	-	-	180	150	180	150	180	160	220	220
2 × J × 6	-	-	-	-	-	-	-	-	220	220
2 1/2 × K × 4	152	165	180	185	180	185	-	-	-	-
2 1/2 × K × 6	-	-	180	185	180	185	240	195	240	270
3 × L × 6	165	178	220	195	220	195	250	210	-	-
3 × M × 6	-	-	220	195	220	195	260	230	260	280
4 × N × 6	-	-	220	215	250	230	265	240	-	-
4 × P × 6	254	225	265	235	265	250	265	260	-	-
4 × P × 8	-	-	265	235	265	250	265	260	-	-
6 × Q × 8	241	240	280	285	-	-	-	-	-	-

ASME/ANSI B16.5a 法兰尺寸

ASME/ANSI B16.5a flange size

● ASME/ANSI B16.5a 法兰尺寸(Flange Size)



磅级 Class	(D) 通径 Size		O	t	g	z	φ	C	K	P	E	F	R
	Inch	mm											
150	1/2	15	89	11.2	35	4	16	60.5	-	-	-	-	-
	3/4	20	99	12.7	43	4	16	70	-	-	-	-	-
	1	25	108	14.2	51	4	16	79.5	63.5	47.63	6.35	8.74	0.8
	1 1/2	40	127	17.5	73	4	16	98.5	83	65.07	6.35	8.74	0.8
	2	50	152	19	92	4	16	120.5	102	82.55	6.35	8.74	0.8
	2 1/2	65	178	22.4	105	4	19	139.5	121	101.60	6.35	8.74	0.8
	3	80	190	23.9	127	4	19	152.5	133	114.30	6.35	8.74	0.8
	4	100	229	23.9	157	8	19	190.5	171.5	149.23	6.35	8.74	0.8
	6	150	279	25.4	216	8	22	241.5	219	193.68	6.35	8.74	0.8
	8	200	343	28.4	270	8	22	298.5	273	247.65	6.35	8.74	0.8
300	1/2	15	95	14.2	35	4	16	66.5	51	34.14	5.56	7.14	0.8
	3/4	20	117	15.9	43	4	19	82.5	63.5	42.88	6.35	8.74	0.8
	1	25	124	17.5	51	4	19	89	70	50.80	6.35	8.74	0.8
	1 1/2	40	156	20.7	73	4	22	114.5	90.5	68.28	6.35	8.74	0.8
	2	50	165	22.3	92	8	19	127	108	82.55	7.92	11.91	0.8
	2 1/2	65	190	25.4	105	8	22	149	127	101.60	7.92	11.91	0.8
	3	80	210	28.4	127	8	22	168	146	123.83	7.92	11.91	0.8
	4	100	254	31.8	157	8	22	200	175	149.23	7.92	11.91	0.8
	6	150	318	36.6	216	12	22	270	241	211.12	7.92	11.91	0.8
	8	200	381	41.3	270	12	26	330	302	269.88	7.92	11.91	0.8
10	250	444	47.7	324	16	29	387.5	356	323.85	7.92	11.91	0.8	

ASME/ANSI B16.5a 法兰尺寸

ASME/ANSI B16.5a flange size

● ASME/ANSI B16.5a 法兰尺寸(Flange Size)

磅级 Class	(D) 通径 Size		O	t	g	z	φ	C	K	P	E	F	R
	Inch	mm											
600	1/2	15	95	14.2	35	4	16	66.5	51	34.14	5.56	7.14	0.8
	3/4	20	117	15.7	43	4	19	82.5	63.5	42.88	6.35	8.74	0.8
	1	25	124	17.5	51	4	19	89	70	50.80	6.35	8.74	0.8
	1 1/2	40	156	22.4	73	4	22	114.5	90	68.28	6.35	8.74	0.8
	2	50	165	25.4	92	8	19	127	108	82.55	7.92	11.91	0.8
	2 1/2	65	190	28.4	105	8	22	149	127	101.60	7.92	11.91	0.8
	3	80	210	31.8	127	8	22	168	146	123.83	7.92	11.91	0.8
	4	100	273	38.1	157	8	26	216	175	149.23	7.92	11.91	0.8
	6	150	356	47.7	216	12	29	292	241	211.12	7.92	11.91	0.8
	8	200	419	55.6	270	12	32	349	302	269.88	7.92	11.91	0.8
900	10	250	508	63.5	324	16	35	432	356	323.85	7.92	11.91	0.8
	1/2	15	121	22.3	35	4	22	82.5	60.5	39.67	6.35	8.74	0.8
	3/4	20	130	25.4	43	4	22	89	66.5	44.45	6.35	8.74	0.8
	1	25	149	28.4	51	4	26	101.5	71	50.80	6.35	8.74	0.8
	1 1/2	40	178	31.8	73	4	29	124	92	68.28	6.35	8.74	0.8
	2	50	216	38.1	92	8	26	165	124	95.25	7.92	11.91	0.8
	2 1/2	65	244	41.3	105	8	29	190.5	137	107.95	7.92	11.91	0.8
	3	80	241	38.1	127	8	26	190.5	168	136.53	7.92	11.91	0.8
	4	100	292	44.5	157	8	32	235	193.5	161.93	7.92	11.91	0.8
	6	150	381	55.6	216	12	32	317.5	248	211.12	9.53	13.49	1.5
1500	8	200	470	63.5	270	12	39	394	317.5	269.88	11.13	16.66	1.5
	10	250	546	69.9	324	16	39	470	371	323.85	11.13	16.66	1.5
	1/2	15	121	22.3	35	4	22	82.5	60.5	39.67	6.35	8.74	0.8
	3/4	20	130	25.4	43	4	22	89	66.5	44.45	6.35	8.74	0.8
	1	25	149	28.4	51	4	26	101.5	71	50.80	6.35	8.74	0.8
	1 1/2	40	178	31.8	73	4	29	124	92	68.28	6.35	8.74	0.8
	2	50	216	38.1	92	8	26	165	124	95.25	7.92	11.91	0.8
	2 1/2	65	244	41.3	105	8	29	190.5	137	107.25	7.92	11.91	0.8
	3	80	267	47.7	127	8	32	203	168	136.53	7.92	11.91	0.8
	4	100	311	54	157	8	35	241.5	193.5	161.93	7.92	11.91	0.8
2500	6	150	394	82.4	216	12	39	317.5	248	211.12	9.53	13.49	1.5
	8	200	483	92.1	270	12	45	394	317.5	269.88	11.13	16.66	1.5
	10	250	584	108	324	12	51	483	371	323.85	11.13	16.66	1.5
	1/2	15	133	30.2	35	4	22	89	65	42.88	6.35	8.74	0.8
	3/4	20	140	32	43	4	22	95	73	50.80	6.35	8.74	0.8
	1	25	159	35	51	4	26	108	82.5	60.33	6.35	8.74	0.8
	1 1/2	40	203	44.5	73	4	32	146	114	82.55	7.92	11.91	0.8
	2	50	235	50.8	92	8	29	171.5	133.5	101.60	7.92	11.91	0.8
	2 1/2	65	267	57.2	105	8	32	197	149	111.13	9.53	13.49	1.5
	3	80	305	66.5	127	8	35	228.5	168	127	9.53	13.49	1.5
3000	4	100	356	76.2	157	8	42	273	203	157.18	11.13	16.66	1.5
	6	150	483	108	216	8	54	368.5	279	228.60	12.70	19.84	1.5
	8	200	553	127	270	12	54	438	340	279.40	14.27	23.01	1.5
	10	250	673	165.1	324	12	67	540	425.5	342.90	17.48	30.18	2.3

安全阀排量计算
Discharge Calculate

● 介质为气体 Gas medium

1、临界条件: Critical conditions: $\frac{P_o}{P_d} \leq (\frac{2}{K+1})^{\frac{K}{K-1}}$

$$W_s = 7.6 \times 10^{-2} CKPdA \sqrt{\frac{M}{ZT}} \text{ Kg/h}$$

2 亚临界条件: Under critical conditions: $\frac{P_o}{P_d} > (\frac{2}{K+1})^{\frac{K}{K-1}}$

$$W_s = 55.84 KPdA \sqrt{\frac{M}{ZT} \left[\frac{2}{K+1} \left(\frac{P_o}{P_d} \right)^{\frac{2}{K}} - \left(\frac{P_o}{P_d} \right)^{\frac{K+1}{K}} \right]} \text{ Kg/h}$$

式中 W_s --- 安全阀的排放能力, kg/h WS - Discharge capacity of the safety valve, kg/h

K --- 排放系数, 与安全阀结构有关, 由制造厂提供; 也可按下述规定选取;

K --- discharge coefficient, which is related with the structure and provided by the manufacturer; It can also be selected by one of the rules below:

全启式安全阀介质气态 Fall lift safety valve of gaseousness $K = 0.75 \sim 0.81$

全启式安全阀介质液态 Fall lift safety valve of gaseousness $K = 0.5 \sim 0.62$

微启式安全阀 Low lift safety valve $K = 0.2 \sim 0.3$

P_d --- 安全阀的排放压力 (绝压) P_d --- Discharge pressure (Absolute pressure) $P_d = 1.1 P_s + 0.1$, MPa

P_s --- 安全阀的整定压力, MPa P_s --- set pressure, Mpa

P_o --- 安全阀的出口侧压力 (绝压), MPa P_o --- pressure of the outlet side, Mpa

A --- 安全阀最小排气截面积, mm^2 Minimum exhaust cross-sectional area, mm^2

全启式安全阀, Fall lift safety valve 即 $h \geq \frac{1}{4} d_1$ 时, $A = \pi \frac{d_1^2}{4}$

微启式安全阀, Low lift safety valve 即 $h < \frac{1}{20} d_1$ 时, 平面密封, $A = \pi Dh$;

式中 h --- 安全阀的开启高度, mm; Type: H --- lift height, mm;

d_1 --- 安全阀最小流道直径 (阀座喉径), mm; d_1 --- minimum flow-through diameter (orifice area of the seat), mm

D --- 安全阀阀座口径, mm; D --- Diameter of the seat, mm;

C --- 气体特性系数, $C = 520 \sqrt{K \left(\frac{2}{K+1} \right)^{\frac{K+1}{K-1}}}$, 见附表1

Characteristic coefficient of the gas, $C = 520 \sqrt{K \left(\frac{2}{K+1} \right)^{\frac{K+1}{K-1}}}$ See the attached chart 1

K --- 气体绝热指数 K --- Adiabatic index of the gas $k = C_p/C_v$

M --- 气体摩尔质量, M --- Molar mass of the gas kg/kmol;

T --- 气体的温度, T --- Temperature of the gas, K;

Z --- 气体在操作温度压力下的压缩系数。 Z --- Compressibility factor of the gas under operating temperature and pressure

● 介质为液体 liquid medium

$$W_s = 5.09 K K_p K_v A \sqrt{\rho \Delta P} \text{ kg/h}$$

式中 K_p --- 超压修正系数 Overpressure coefficient:

超压力25%时 $K_p = 1.0$ Overpressure $K_p = 1.0$ When 25%

超压力20%时 $K_p = 0.8$ Overpressure $K_p = 0.8$ When 20%

超压力10%时 $K_p = 0.6$ Overpressure $K_p = 0.6$ When 10%

安全阀排量计算
Discharge Calculate

K_v --- 粘度修正因素 Viscosity modification factors

$$K_v = \left[0.9935 + \frac{2.878}{R^{0.5}} + \frac{342.75}{R^{1.5}} \right]^{-1.5}$$

$$R = \frac{WS / [(\rho / 1000) \times 60]}{U \sqrt{A}} \times 18800 \times (\rho / 1000)$$

U --- 介质流动温度下的绝对粘度 (厘泊) The absolute viscosity of medium flow temperature.

ρ --- 阀门入口侧温度下的液体密度, Kg/m^3 The safety valve is the entry side under the temperature of the liquid density, kg/m^3

ΔP --- 阀门前后压力降, MPa The safety valve is pressuer drop before and after, MPa

$\Delta P = (1.25 P_s + 0.1) - (P_b + 0.1)$ P_s 整定压力 (表压), P_b 背压力 (表压) P_s Setting pressure, P_b Back pressure

● 介质为饱和蒸气 Saturated stean medium

饱和蒸气中含量不小于98%, 最大过热度为10°C

Content of the saturated steam $\geq 98\%$, maximum over heat temperature should be 10°C

1、当 $P_d \leq 10 \text{MPa}$ 时

$$W_s = 5.25 K A P_d \text{ kg/h}$$

$$P_d = 1.03 P_s + 0.1 \text{ MPa};$$

2、当 $10 \text{MPa} < P_d \leq 22 \text{MPa}$ 时

$$W_s = 5.25 K A P_d \left(\frac{190.6 P_d - 6895}{229.2 P_d - 7315} \right) \text{ kg/h}$$

$$P_d = 1.03 P_s + 0.1 \text{ Mpa}$$

● 不同K值气体特性系数C值 Different Characteristic Coefficient of The Gas (C) Under Different K

K	C	K	C	K	C	K	C
1.00	315	1.20	337	1.40	356	1.60	372
1.02	318	1.22	339	1.42	358	1.62	374
1.04	320	1.24	341	1.44	359	1.64	376
1.06	322	1.26	343	1.46	361	1.66	377
1.08	324	1.28	345	1.48	363	1.68	379
1.10	327	1.30	347	1.50	364	1.70	380
1.12	329	1.32	349	1.52	366	2.00	400
1.14	331	1.34	351	1.54	368	2.20	412
1.16	333	1.36	352	1.56	369		
1.18	335	1.38	354	1.58	371		

● API527标准规定的密封要求 API 1527 Standard of Containment Requirement

整定压力MPa (15.6°C) Setting Pressure MPa	最大允许泄漏 (泡/分) Maximum allowable leakage	
	喉径小于F Throat diameter less than F	喉径大于F Throat diameter greater than F
0.103~6.896	40	20
10.3	60	30
13.2	80	40
17.2	100	50
20.7	100	60
27.6	100	80
38.5	100	100
41.4	100	100

