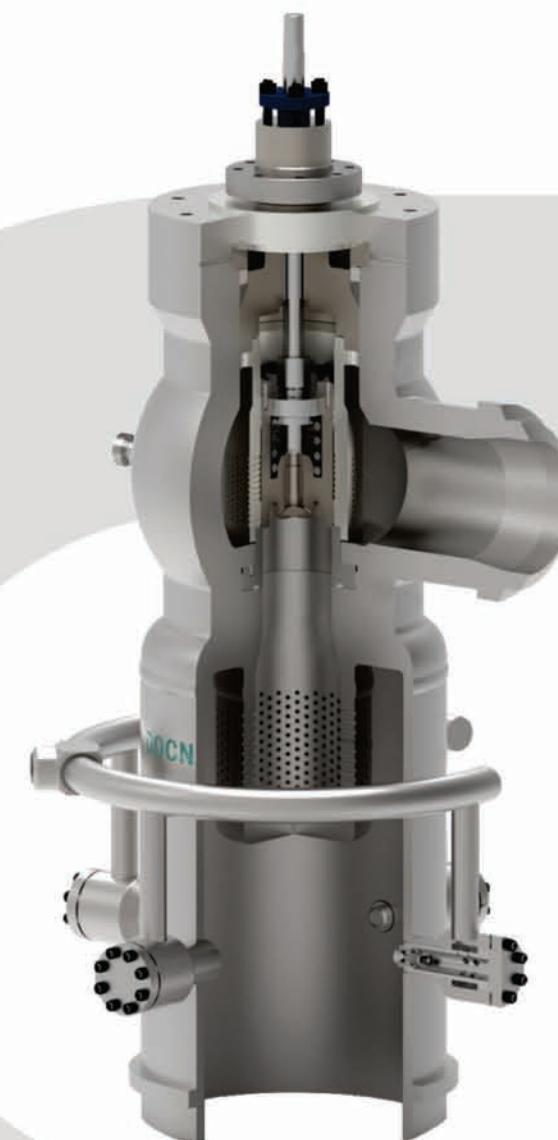




## DC3700 旁路阀 Bypass valve

专业提供过程控制阀门解决方案  
Professionally provide process control valve solutions  
Rev.2020



### 浙江东辰阀门科技有限公司

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## DC3700系列旁路阀

### DC3700 Bypass valve

#### ◆主要特点 Main features

DC3700系列旁路阀为汽轮机旁路系统最通用和最紧凑型的蒸汽减温减压方案，包括高压及低压旁路。

锻造球形阀体及高质量的结构和材质，拥有比传统型更均匀的壁厚，高性能的焊接阀体，压力温度疲劳效应小。

蒸汽减压主要由两级实现：第一级，钻孔套筒阀芯调节流量；第二级设计为固定的调节区域，有双重作用：一，降低流速及噪音声压等级，对第一级产生背压；二，控制混合腔内的蒸汽速度及分布，优化降温过程。

第二级可作为消音器具有吸收声能的功能，减小第一级产生的噪音。

旁路阀通常配用DOCN气动薄膜多弹簧执行机构，气缸式单双作用执行机构，电动或液动执行机构也可根据要求选配。

DC3700 series by-pass valve is the most common and compact steam temperature and pressure reduction scheme for turbine by-pass system, including HP and LP by-pass.

Forged spherical valve body and high-quality structure and material, with more uniform wall thickness than the traditional type, high-performance welded valve body, with less pressure and temperature fatigue effect.

The steam decompression is mainly realized by two stages: the first stage is to adjust the flow by drilling sleeve valve core; the second stage is designed as a fixed regulating area, which has dual functions: first, reduce the flow rate and noise sound pressure level, and generate back pressure to the first stage; second, control the steam speed and distribution in the mixing chamber, and optimize the cooling process.

The second stage can be used as a muffler to absorb the sound energy and reduce the noise produced by the first stage.

The bypass desuperheating and reducing valve is usually equipped with docn pneumatic film multi spring actuator, cylinder type single and double acting actuator, electric or hydraulic actuator can also be selected according to the requirements.

#### ◆标准规格 Standard specification

##### 本体部 Body

型式 Type	平衡先导式阀芯型，角式阀体 Pilot Balanced plug, Angle valve
阀座通径 Body size	NPS 2" -17"
阀芯形状 Plug form	先导式平衡结构 (本体部构造结构图见图1) Pilot type balance structure (see Figure 1 for the structure diagram of the main body)
流量系数 Rated CV	阀门CV对照表 valve CV comparison table
流量特性 Characteristics	线性或修正线性 Linear or modified linear
阀体上盖材质 Body&Bonnet material	标准材质组合 standard material combinations
阀内件材质 Trim material 阀内件处理 Trim treatment	标准材质组合 standard material combinations
公称压力 Body ratings	符合GB/T12224、NB/T47044、EN 12516-1及ASME B16.34， 压力等级尺寸对照表 comparison table of pressure class dimensions for details
连接方式 Body connections	GB/T12224、ANSI B16.25 BW 对焊连接（BW）UNI EN 12627 对焊连接（BW）
上阀盖型式 Bonnet type (上盖结构图参见图1) (refer to figure 1 for the structural drawing of the upper cover)	法兰阀体-阀盖型 Flanged body bonnet type ANSI150~600 压力自密封型 Pressure self sealing type ANSI600~2500
填料 Packing (填料使用压力温度范围) (Packing pressure and temperature range)	柔性石墨填料组合，无实际温度限制 Flexible graphite packing combination, no actual temperature limit
垫圈 Gasket	标准材质组合 standard material combinations
泄漏等级 Leakage class	V级，符合GB/T4213或IEC60534-4 Class V, in accordance with GB / t4213 or Iec60534-4
可选特殊结构 Options	经过认证的低排放型填料、防砂型结构，特殊规格 Certified low emission packing, sand proof structure, special specification
表面涂层色 Painting color	阀本体标准色为灰色，执行机构为绿色或红色，具体可根据客户要求 The standard color of the valve body is gray, and the actuator is green or red, which can be specified according to the customer's requirements

## 企业简介

### Company profile

浙江东辰阀门科技有限公司（原杭州东辰热力辅机有限公司）成立于2006年，专业设计、制造特种阀门，各种高中压调节阀、减温减压器、汽机旁路阀、锅炉给水调节阀、最小流量阀、闸阀、球阀、蝶阀、截止阀、止回阀、排污阀等阀门及相关的汽轮机辅机、锅炉辅机。产品广泛应用于各种参数的燃煤火电机组，燃机热电联产项目以及炼油、化工、冶金、集中供热等领域。

公司拥有一批专业从事阀门设计和开发的技术人员，掌握着国内外领先的阀门专业技术，有着丰富的设计、制造和现场调试经验。产品最高压力等级为PN76MPa，最高温度620℃，应用于最大单机容量为1030MW超超临界机组。

公司目前有40多项发明专利和实用新型专利，经过多年发展建立了一套完整的符合《特种设备生产和充装单位许可规则》的压力管道元件制造管理体系，并取得国家市场监管总局颁发的TS特种设备制造许可A1级证书，许可项目为电动调节阀、气动调节阀、闸阀、截止阀、止回阀、球阀、蝶阀、减温减压装置。取得中国质量认证中心CQC颁发的ISO9001质量管理体系认证，ISO14001&45001环境与职业健康安全体系认证。

公司被评为国家高新技术企业，浙江省科技型企业，浙江省守合同重信用AAA单位，浙江省阀门研发中心，浙江省信用管理示范单位，安全生产标准化单位，同时也是中国阀门协会会员单位，中国石油化工热工协会理事单位；现已成为中石油、中石化、中海油、中国神华、中核集团、华能、华电、国电、大唐、中电投、浙能集团等合格供应商。

结合市场特点，公司在技术创新、产品选型、投标、合同签订、产品设计、工艺制造、检验试验，供货安装、运行调试、售后服务、以及用户回访等各个环节，都严格遵循质量管理体系程序。

Zhejiang Dongchen Valve Technology Co., Ltd. (formerly Hangzhou Dongchen Heating Auxiliary Machinery Co., Ltd.) was established in 2006. It specializes in designing and manufacturing special valves, various high and medium pressure regulating valves, temperature reducing and reducing devices, steam turbine bypass valves, and boiler feed water. Regulating valve, minimum flow valve, gate valve, ball valve, butterfly valve, globe valve, check valve, blowdown valve and other valves and related steam turbine auxiliary equipment, boiler auxiliary equipment. The products are widely used in various parameters of coal-fired thermal power units, gas-fired combined heat and power projects, as well as in the fields of oil refining, chemical industry, metallurgy, and central heating.

The company has a group of technical personnel who are specialized in valve design and development, mastering the leading valve technology at home and abroad, and has rich experience in design, manufacturing and field commissioning. The highest pressure level of the product is PN76MPa, the highest temperature is 620 ° C, and it is used in ultra-supercritical units with a maximum single-unit capacity of 1030MW.

The company currently has more than 40 invention patents and utility model patents. After many years of development, it has established a complete set of pressure pipeline component manufacturing management system that complies with the "Special Equipment Production and Filling Unit Licensing Rules" and has been issued by the State Administration of Market Supervision. TS special equipment manufacturing license A1 certificate, the approved items are electric regulating valve, pneumatic regulating valve, gate valve, globe valve, check valve, ball valve, butterfly valve, temperature reducing and reducing device. Obtained ISO9001 quality management system certification, ISO14001 & 45001 environmental and occupational health and safety system certification issued by China Quality Certification Center CQC.

The company has been rated as a national high-tech enterprise, a science and technology enterprise in Zhejiang Province, an AAA unit in Zhejiang Province that abides by its contract, and is a AAA unit in Zhejiang Province. Member of China Petrochemical Thermal Engineering Association; has now become a qualified supplier of PetroChina, Sinopec, CNOOC, China Shenhua, China Nuclear Group, Huaneng, Huadian, Guodian, Datang, China Power Investment Corporation, Zhejiang Energy Group.

Combining market characteristics, the company strictly follows the quality management system in all aspects of technological innovation, product selection, bidding, contract signing, product design, process manufacturing, inspection and testing, supply and installation, commissioning, after-sales service, and customer return visits. program.



# DC3700系列旁路阀

DC3700 Bypass valve

◆ 压力等级与尺寸应用 Pressure ratings



◆ 应用 Application

DC3700系列旁路阀是蒸汽调节领域最佳的解决方案，它整合了高性能流量控制及高效一体式蒸汽减温性能。

DC3700系列最主要的应用场合是汽轮机旁路系统，其应用不受实际的压力、温度和流量限制。

大量的应用经验铸就了所采用的阀内件能够很好的减小磨损，更能够满足需要极少维护的连续运行场合。

东辰公司的各种减温器都可以装配在合适的蒸汽调节场合，为不同的蒸汽流量工况提供足够的雾化喷水，且拥有极高的可调比。

东辰公司有各种不同的降噪音解决方案（包括Limiphon迷宫式盘片组合），因此可满足任何适当的噪音要求。

对于需要大量减温水的连续蒸汽降温场合，可以装配各种不同的混合管道，混合管道的内置保护管可以防止管路损坏。详情请见东辰公司的《蒸汽调节手册—安装使用指导》。

DC3700系列旁路阀最适合现场不能布置直通管路的情况。标准配置的执行机构为单作用、弹簧复位、气动薄膜执行机构，可配置气缸执行机构、定位器和其它用于快速动作或紧急动作的相关附件。

液动执行机构或电动执行机构也可以按照要求配置。

DC3700 series bypass valve is the best solution in the field of steam regulation, which integrates high-performance flow control and high-efficiency integrated steam temperature reduction performance.

The main application of dc3700 series is turbine bypass system, which is not limited by actual pressure, temperature and flow.

A large number of application experience has made the valve trim used can reduce the wear well, and can meet the continuous operation occasions requiring little maintenance.

All kinds of Desuperheater of Dongchen company can be assembled in suitable steam regulation occasions to provide sufficient atomization and water spray for different steam flow conditions, and have a very high adjustable ratio.

Dongchen has a variety of noise reduction solutions (including the limiphon labyrinth disc combination), so it can meet any appropriate noise requirements.

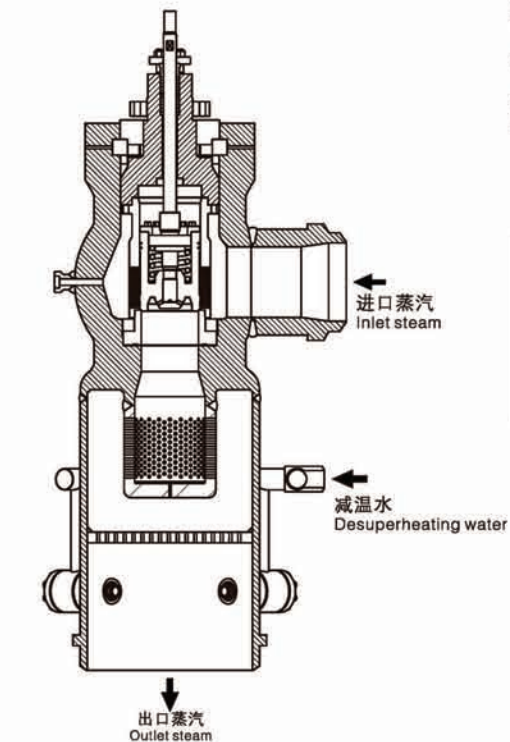
For continuous steam cooling occasions requiring a large amount of desuperheating water, various mixing pipes can be assembled, and the built-in protection pipe of the mixing pipe can prevent the pipe from damage. For details, please refer to Dongchen company's steam regulation manual - installation and operation instructions.

DC3700 series bypass valve is most suitable for the situation where the through pipeline cannot be arranged on site.

The standard actuator is single acting, spring return, pneumatic diaphragm actuator, which can be equipped with cylinder actuator, positioner and other relevant accessories for quick action or emergency action.

Hydraulic actuator or electric actuator can also be configured as required.

HP高压至IP中压旁路阀  
DC3745  
- 阀体材质: A182 F91  
- 减温: DC4121环形喷嘴  
HP HP to IP MP bypass valve  
DC3745  
- Valve body material: A182 F91  
- Desuperheating: dc4121 annular nozzle



# DC3700系列旁路阀

DC3700 Bypass valve

◆ 设计特点 Design features

阀体 valve body

- 1、锻造阀体，阀体焊接连接入口段及下游一体式减温器混合管。
- 2、阀体尺寸根据实际工况计算选定。
- 3、压力等级：ANSI Class150 ~ 4500或 特定压力等级。
- 1、Forged valve body is welded with inlet section and downstream integrated desuperheater mixing pipe.
- 2、The size of the valve body is selected according to the calculation of the actual working condition.
- 3、Pressure rating: ANSI Class150 ~ four thousand and five hundred Or a specific pressure level.

阀盖 Bonnet

- 1、≤ ANSI Class 600：螺栓连接法兰阀盖 Bolted flanged bonnet.
- 2、> ANSI Class 600：压力自密封阀盖 Pressure self sealing valve cover.

阀内件 Valve trim

- 1、套筒导向，先导平衡式阀芯。
- 2、第一级减压由特制钻孔套筒实现。
- 3、阀座由特制的压圈螺纹压紧。
- 4、带消音器的阀座也可特殊定做。
- 1、Sleeve guide, pilot balanced spool.
- 2、The first stage of decompression is realized by a special drilling sleeve.
- 3、The valve seat is pressed by a special pressing ring thread.
- 4、Seats with silencers can also be specially customized.

消音器 Silencer

有三种不同的设计方案：

- 1、1~3级低噪音笼式结构(消音器)；
- 2、消音器和降噪孔板组合结构
- 3、Limiphon 迷宫式盘片组合结构

消音器通常与阀体焊接连接。当使用快换阀座时，消音器对夹在阀体和阀座之间，可以通过阀体中腔拆卸。

There are three different designs:

- 1、One ~ Three Low noise cage structure (muffler);
- 2、muffler and noise reduction orifice combination structure;
- 3、Limiphon Labyrinth disc combination structure

The silencer is usually welded to the valve body. When the quick change valve seat is used, the silencer is clamped between the valve body and the valve seat and can be removed through the middle cavity of the valve body.

材质 Texture of material

- 1、根据管道等级，阀体和阀盖通常由碳钢和Cr-Mo合金钢制成。
- 2、阀内件通常由渗氮或堆焊司太莱合金的F6NM制成。
- 3、消音器一般由Cr-Mo合金钢制成，使用温度大于400℃的Limiphon盘片组合一般由AISI 430 或 12Cr 特种不锈钢制成。
- 1、Depending on the piping class, the body and bonnet are usually made of carbon steel and Cr-Mo Made of alloy steel.
- 2、Valve trim is usually made of stellite F6NM make.
- 3、Silencers are generally made of Cr-Mo Made of alloy steel with service temperature greater than 400℃ Limiphon Disc combination is generally composed of AISI Four hundred and thirty Or 12Cr Made of special stainless steel.

泄漏等级 Leakage level: (符合 according to IEC 60534-4)

V级，平衡式或非平衡式阀芯。  
Class V, balanced or unbalanced trim.

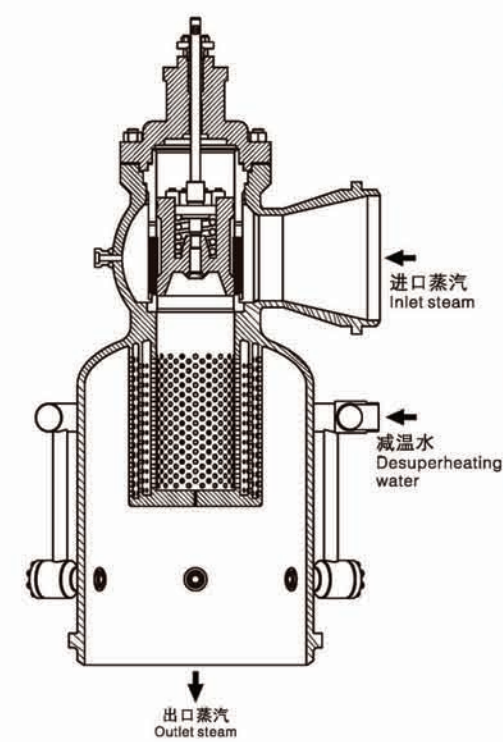
填料 Filler

对于ANSI Class 150-4500或特定压力等级,使用东辰公司的DCT型特制纯石墨填料系统，能够实现双向密封，并且适用于真空密封的场合。

For ANSI class 150-4500 or specific pressure class, DCT type special pure graphite acking system of Dongchen company can be used to realize bidirectional sealing, and it is suitable for vacuum sealing.

IP 中压旁路阀 (至凝汽器)  
DC3745  
阀体材质: A182 F91 / A182 F22  
减温: DC4121环形喷嘴

IP IP bypass valve (to condenser)  
DC3745  
Valve body material: A182 F91/A182 F22  
Desuperheating: DC4121 Annular nozzle





DC3700系列旁路阀  
DC3700 Bypass valve

◆ 压力等级与外形尺寸对照表 Comparison of pressure grade and boundary dimension  
ANSI 150~600

阀座直径 Valve seat diameter	入口尺寸 Entrance size	A	B	C	H	L1	L2
2"	3"	180	600	250	1070	180	540
	4"	190					
3"	3"	280	650	250	1080	200	570
	4"	300					
	6"	300					
4"	4"	280	770	250	1130	200	600
	6"	300					
	8"	400					
5"	6"	310	820	250	1140	200	630
	8"	370					
	10"	470					
6"	6"	320	865	450	2055	200	650
	8"	360					
	10"	460					
7"	8"	350	920	450	2060	200	680
	10"	430					
	12"	520					
8"	10"	350	1000	450	2085	220	710
	12"	410					
	14"	520					
9"	10"	400	1100	450	2105	250	780
	12"	470					
	14"	520					
10"	10"	430	1210	500	2505	270	840
	12"	460					
	14"	500					
12"	12"	480	1280	500	2510	270	850
	14"	500					
	16"	560					
13"	14"	500	1370	500	2605	300	900
	16"	550					
	18"	610					
14"	14"	520	1470	500	2615	320	950
	16"	550					
	18"	610					
15"	20"	690	1590	350	3505	350	1100
	16"	600					
	18"	650					
16"	20"	700	1670	350	3515	370	1200
	16"	650					
	18"	700					
17"	20"	750	1780	400	3535	400	1300
	22"	800					
	24"	850					

ANSI 900~1500

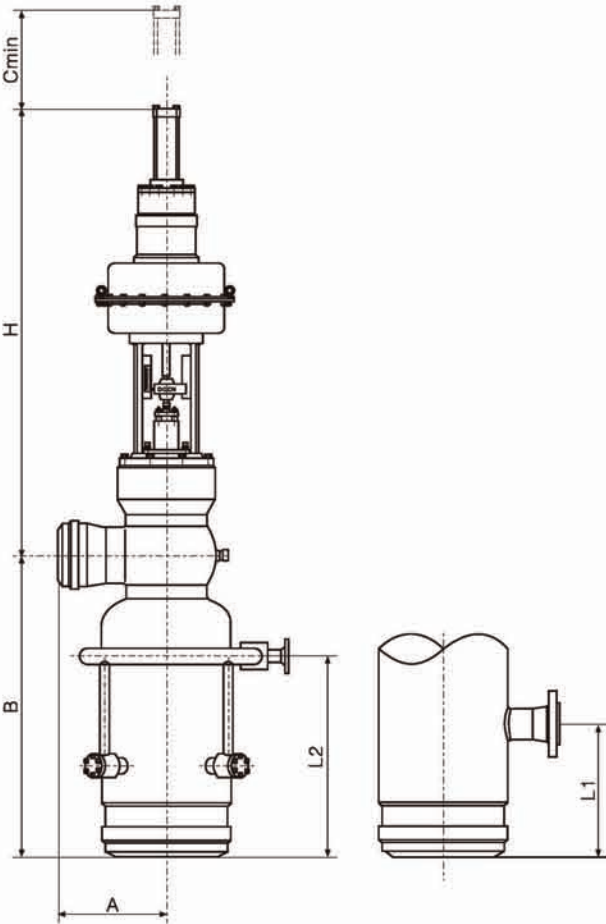
阀座直径 Valve seat diameter	入口尺寸 Entrance size	A	B	C	H	L1	L2
2"	3"	190	620	250	1080	180	590
	4"	200					
3"	3"	280	690	250	1120	200	630
	4"	300					
	6"	300					
4"	4"	300	790	450	1930	200	620
	6"	380					
	8"	480					
5"	6"	320	840	450	1945	200	650
	8"	380					
	10"	480					
6"	6"	330	885	450	2055	200	670
	8"	380					
	10"	480					
7"	8"	370	935	450	2075	200	695
	10"	430					
	12"	520					
8"	8"	400	1010	450	2115	220	720
	10"	430					
	12"	500					
9"	10"	450	1105	450	2120	250	785
	12"	480					
	14"	540					
10"	10"	500	1210	500	2570	270	840
	12"	500					
	14"	530					
12"	16"	610	1285	500	2580	270	855
	12"	520					
	14"	530					
13"	16"	580	1390	500	2700	300	920
	14"	600					
	18"	680					
14"	14"	600	1500	500	2705	320	980
	16"	600					
	18"	640					
15"	20"	720	1690	350	3610	350	1200
	16"	730					
	18"	750					
16"	20"	850	1800	350	3650	370	1330
	16"	730					
	18"	750					
17"	22"	950	1920	400	3700	400	1440
	20"	850					
	22"	1000					

DC3700系列旁路阀  
DC3700 Bypass valve

ANSI 2500

阀座直径 Valve seat diameter	入口尺寸 Entrance size	A	B	C	H	L1	L2
2"	3"	200	640	250	1110	180	600
	4"	210					
3"	3"	300	690	250	1120	200	630
	4"	320					
4"	6"	320	810	450	1970	200	640
	8"	390					
	10"	480					
5"	6"	360	855	450	1980	200	655
	8"	390					
	10"	480					
6"	6"	380	895	450	2085	200	680
	8"	400					
	10"	470					
7"	12"	550	955	450	2100	200	715
	8"	420					
	10"	470					
8"	12"	550	1030	450	2145	220	740
	8"	450					
	10"	450					
9"	14"	580	1140	450	2160	250	820
	10"	500					
	12"	520					
10"	14"	560	1270	500	2615	270	900
	10"	550					
	12"	550					
12"	16"	650	1330	500	2630	270	930
	14"	600					
	18"	700					
13"	14"	650	1440	500	2770	300	970
	16"	650					
	18"	750					
14"	20"	850	1560	500	2800	320	1040
	14"	700					
	16"	700					
15"	18"	800	1710	350	3700	350	1220
	20"	850					
	22"	950					
16"	18"	780	1820	350	3570	370	1350
	20"	800					
	22"	900					
17"	24"	1000	1940	400	3800	400	1460
	20"	850					
	22"	900					

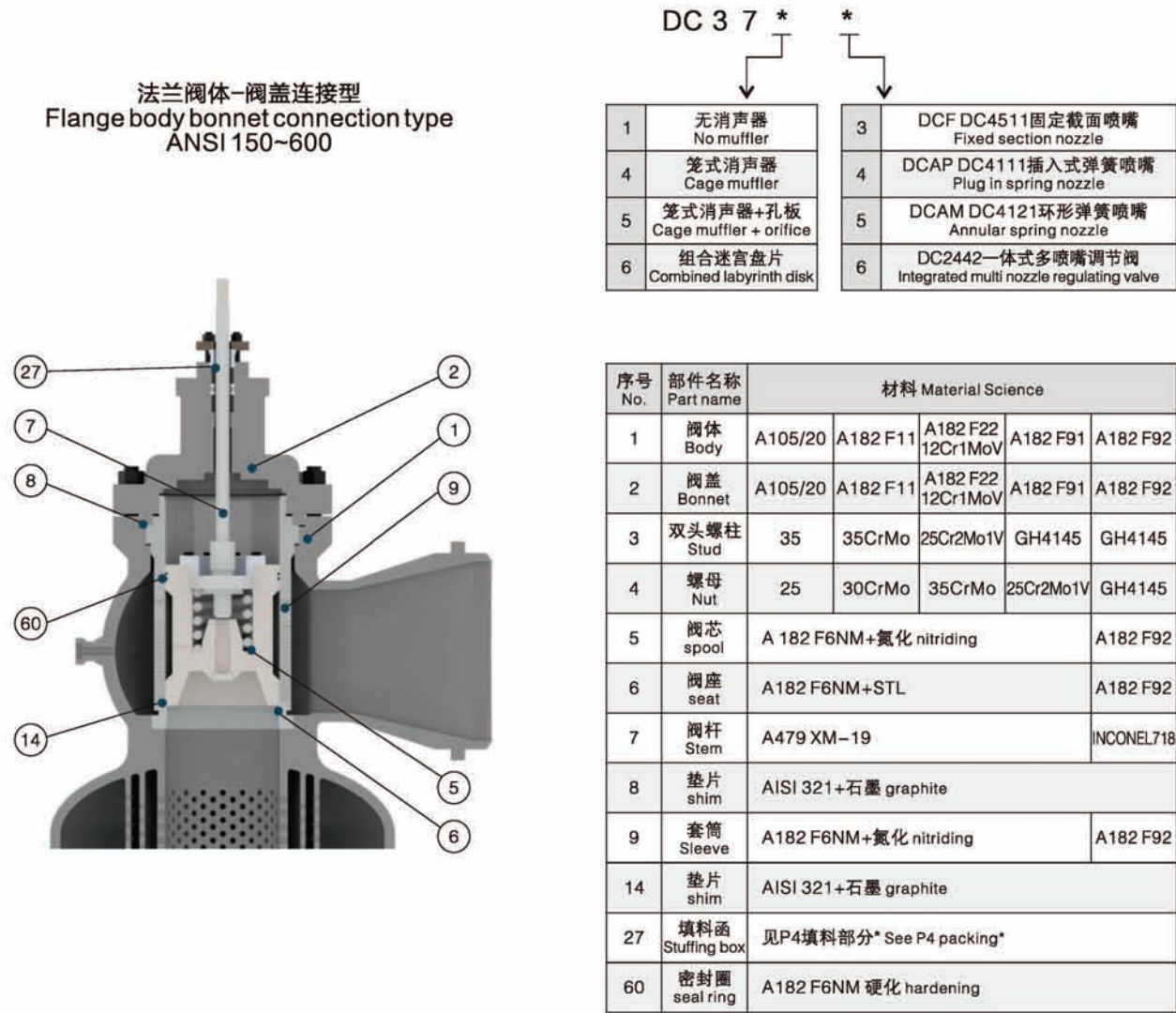
尺寸B可以根据下游管径和消声器配置进行修改。  
Dimension B can be modified according to the downstream pipe diameter and muffler configuration.



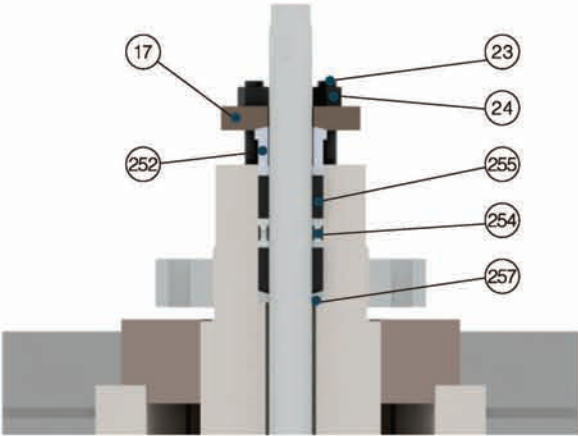


DC3700系列旁路阀  
DC3700 Bypass valve

◆图1 本体部结构图 Fig. 1 Structure of main body

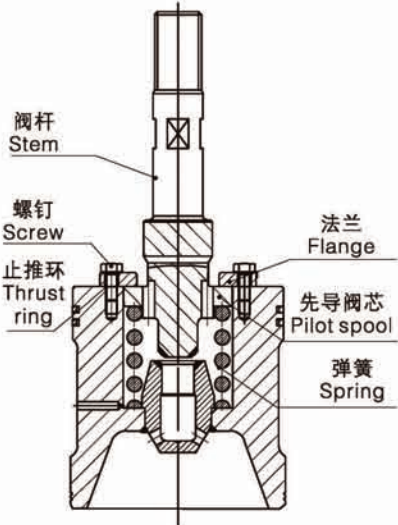
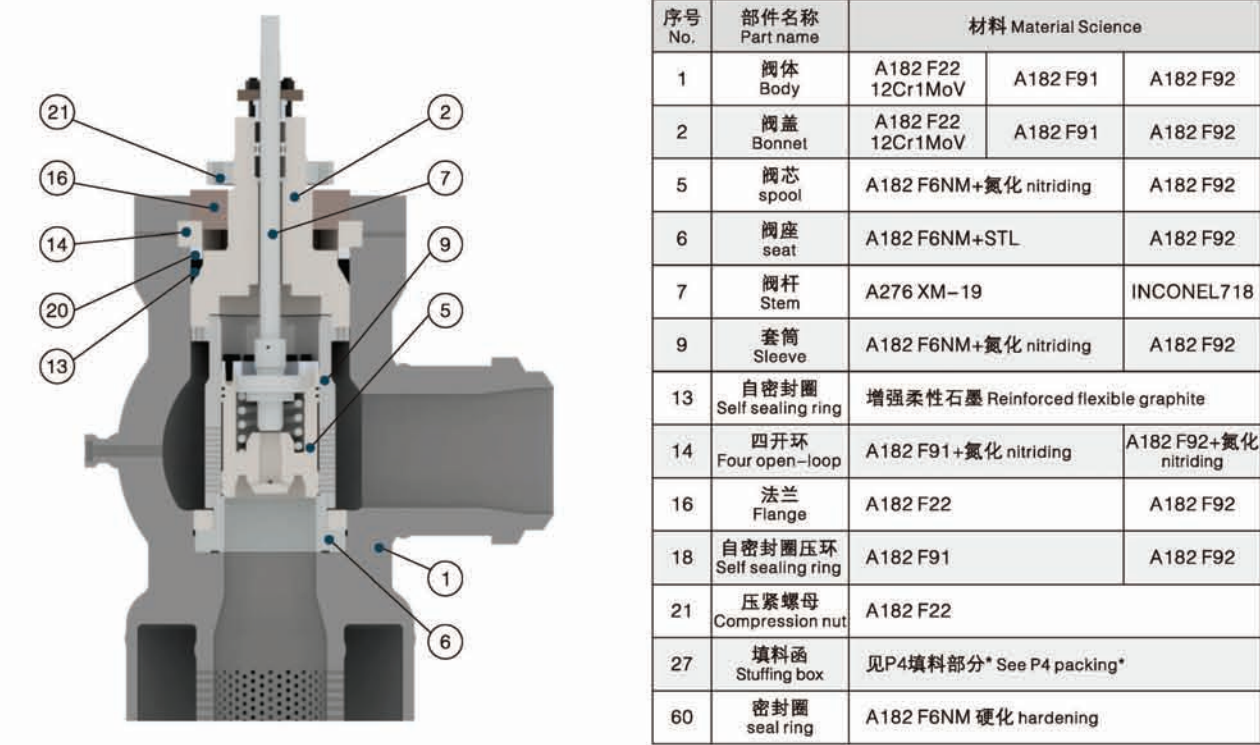


序号 No.	部件名称 Part name	材料 Material Science
17	填料压盖 Packing gland	AISI 316
23	螺栓 Stud	AISI 304
24	螺母 Nut	AISI 304
252	填料压套 Packing sleeve	AISI 316
254	隔环 Septal ring	AISI 316
255	填料 filler	柔性石墨 Flexible graphite
257	填料垫 Packing pad	AISI 316



DC3700系列旁路阀  
DC3700 Bypass valve

◆压力自密封型ANSI 600~2500 Pressure self sealing ANSI 600 ~ 2500

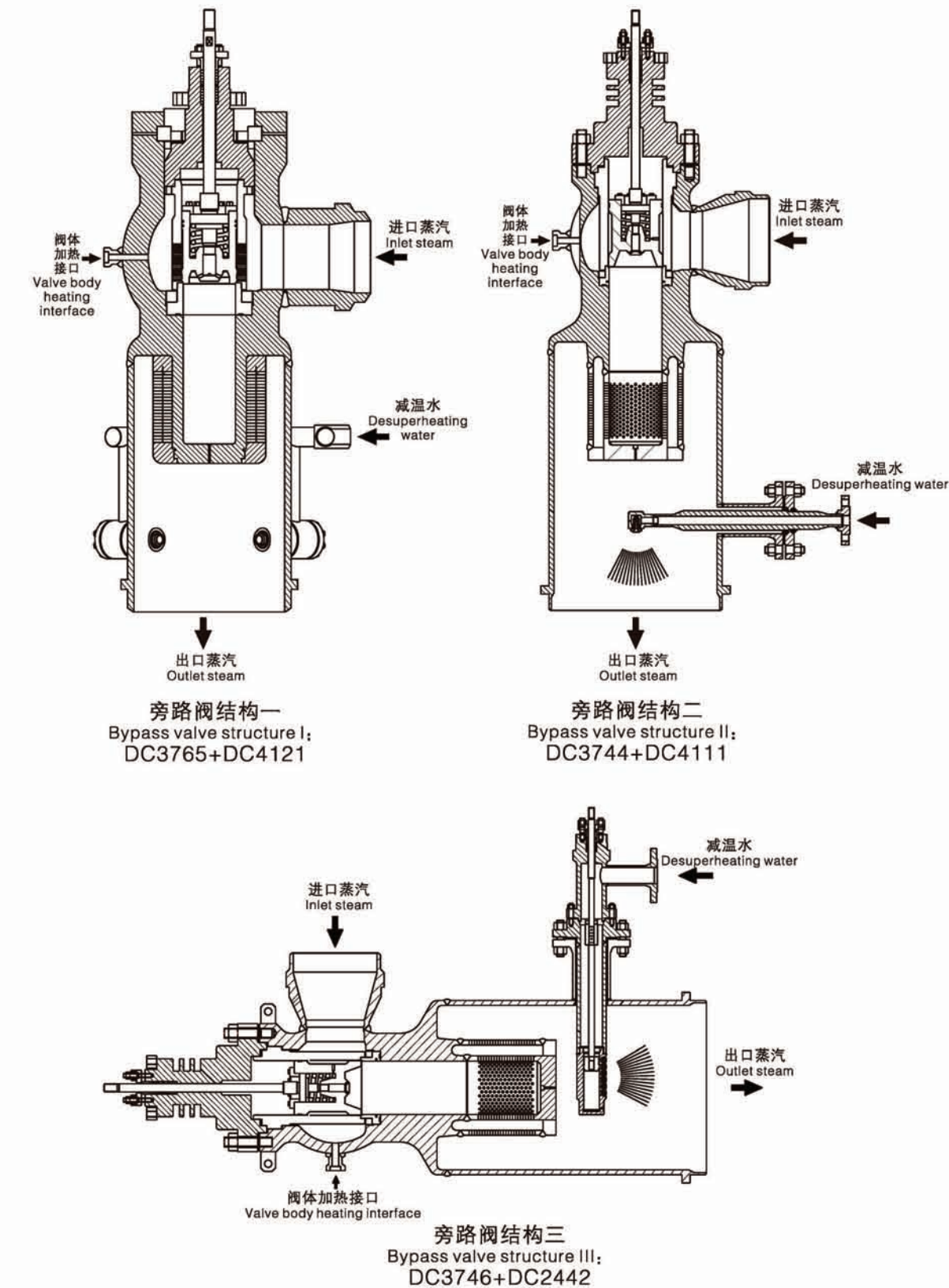


先导式阀芯组件 Cartridge as-pilot  
( ANSI150~2500 )

部件名称 Part name	材料 Material Science
螺钉 screw	AISI 304
止退垫 Backstop pad	AISI 304
法兰 flange	A182 F6NM
先导阀芯 Pilot valve element	A182 F6NM+STL
弹簧 Spring	Inconel X750

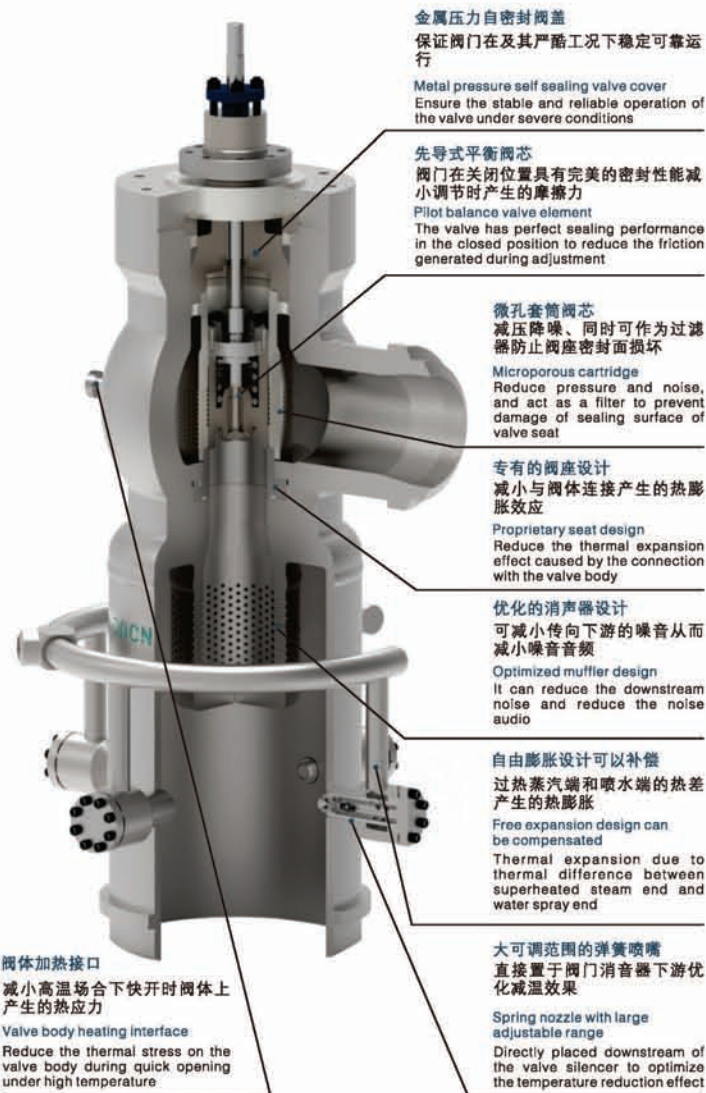


DC3700系列旁路阀  
DC3700 Bypass valve



DC3700系列旁路阀  
DC3700 Bypass valve

◆适用工况 Applicable conditions



东辰公司的DC3700系列蒸汽旁路阀为汽轮机旁路系统最通用和最紧凑型的蒸汽减温减压方案，包括高压及低压旁路。

锻造球形阀体及高质量的构造材质，拥有比传统型更均匀的壁厚，高质量的阀体焊接，压力温度疲劳效应小。

东辰公司所有旁路阀的检测符合TRD 301规范，并满足至少2000次冷启动和10000次热启动循环。

蒸汽减压主要由两级实现：第一级，钻孔套筒阀芯调节流量；第二级设计为固定的调节区域，有双重作用：

- 一、降低流速及噪音声压等级，对第一级产生背压；
- 二、控制减温器混合管内的蒸汽速度及分布，优化降温过程。

第二级可作为消音器具有吸收声能的功能，减小第一级产生的噪音。多级笼式消音器的间隙优化到可以将噪音频率降到1kHz-4kHz，或使用Limiphon盘片组合作为消音器时，可产生更显著的吸声性能。减温段直接集成布置于第二级的下游，由蒸汽混合管装配喷嘴或东辰公司不同的喷水减温器构成。减温段的选择必须按照运行工况、工厂布局和过程控制需求来进行。消音器的设计可使其下游减温混合管内的蒸汽产生一定的速度保证减温效率，下游一体式喷水减温可以防止由于热冲击对阀芯和主阀体的破坏。

DC3700 series steam bypass valve of Dongchen company is the most common and compact steam temperature and pressure reduction scheme for steam turbine bypass system, including HP and LP Bypass.

Forged spherical valve body and high-quality structural material, with more uniform wall thickness than the traditional model, high-quality valve body welding, pressure and temperature fatigue effect is small.

All by-pass valves of Dongchen company are tested in accordance with TRD 301, and at least 2000 cold starts and 10000 hot start cycles are met.

The steam decompression is mainly realized by two stages: the first stage is to adjust the flow by drilling sleeve valve core; the second stage is designed as a fixed regulating area, which has dual functions:

- 1、Reduce the flow rate and noise pressure level, and generate back pressure for the first level;
- 2、Control the steam velocity and distribution in the desuperheater mixing pipe, optimize the cooling process.

The second stage can be used as a muffler to absorb the sound energy and reduce the noise produced by the first stage. The gap of multistage cage muffler is optimized to reduce the noise frequency to 1kHz-4kHz, or the combination of limiphon discs can produce more significant sound absorption performance. The desuperheating section is directly integrated and arranged at the downstream of the second stage, and is composed of a steam mixing pipe assembly nozzle or a different spray Desuperheater of Dongchen company. The selection of desuperheating section must be based on the operation conditions, plant layout and process control requirements. The design of silencer can make the steam in the downstream desuperheating mixing pipe generate a certain speed to ensure the desuperheating efficiency. The downstream integrated spray desuperheating can prevent the damage of valve core and main valve body due to thermal shock.



DC3700系列旁路阀  
DC3700 Bypass valve

◆ 旁路阀CV-行程对照表  
CV stroke comparison table of bypass valve

阀座 Seat		行程 Trip	带消音器最大CV Max CV with silencer					
			线性特性 Linear characteristic			修正线性特性 Correction of linear characteristics		
Inch	mm	mm	1级	2级	3级	1级	2级	3级
2"	65.5	45	100	100	105	84	85	88
3"	83.5	60	180	170	185	155	145	155
4"	95.5	60	215	200	210	180	170	180
5"	112.5	76	320	280	305	275	245	265
6"	126.5	100	470	380	420	405	345	370
7"	146.5	100	555	455	485	465	400	420
8"	161.5	120	730	570	605	620	515	540
9"	186.5	120	875	695	715	730	615	630
10"	216.5	150	1250	940	950	1050	850	855
12"	244.5	150	1450	1100	1100	1200	995	985
13"	266.5	200	2050	1450	1400	1750	1350	1300
14"	294.5	200	2350	1700	1600	1950	1550	1450
15"	324.5	250	3150	2150	2000	2700	1950	1850
16"	344.5	250	3350	2300	2150	2900	2150	2000
17"	364.5	300	4150	2700	2450	3600	2500	2300

DC3700系列旁路阀  
DC3700 Bypass valve

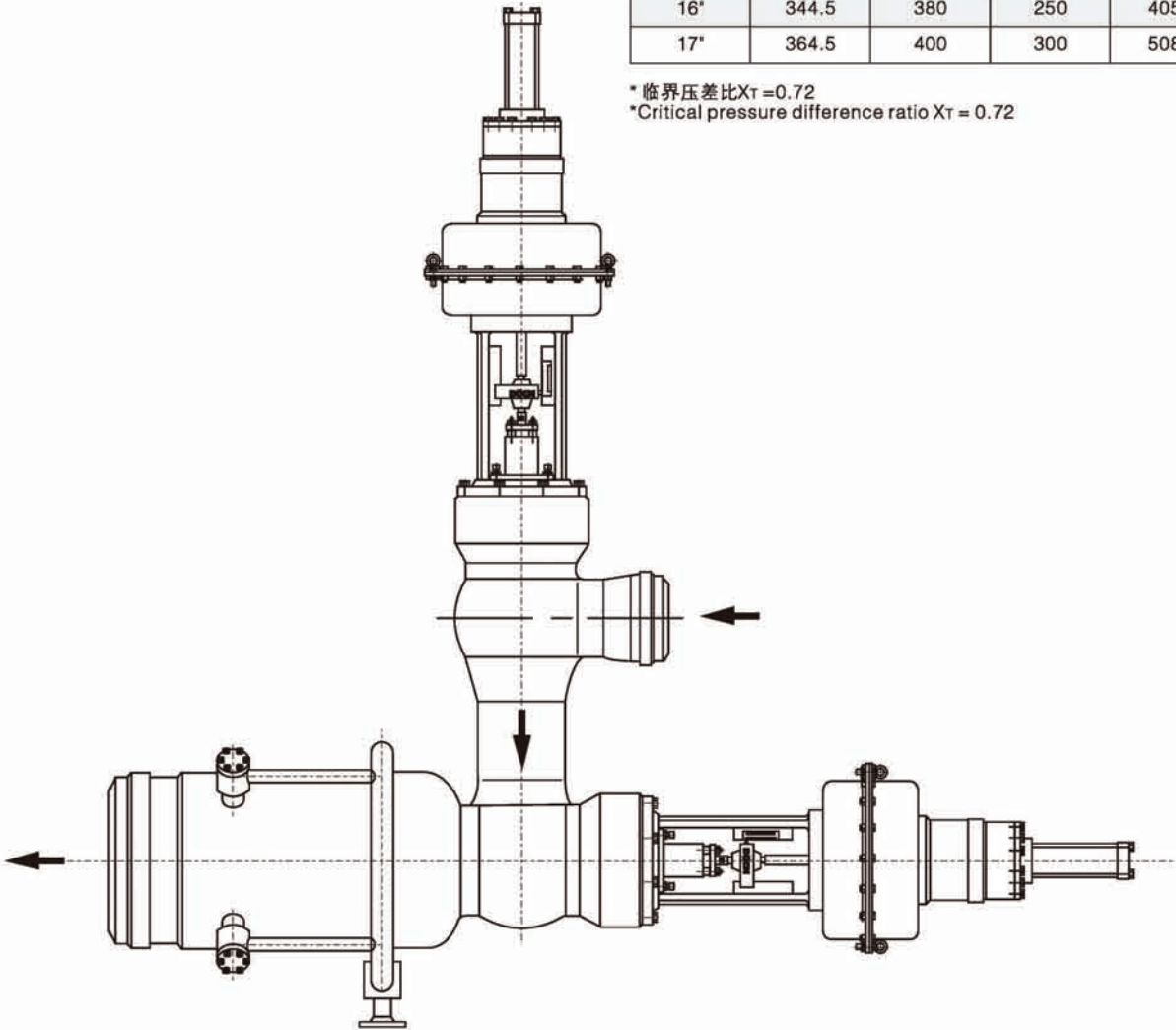
◆ 汽轮机旁路截止阀 Turbine bypass globe valve

当管路设计非常紧凑时，DC3710（无消音器）系列带先导平衡阀芯的流关型调节阀，可直接安装于DC3700系列旁路阀的上游，组合用作截止阀功能。

When the pipeline design is very compact, the dc3710 (no silencer) series flow-off regulating valve with pilot balance valve core can be directly installed upstream of the dc3700 series by-pass valve, which can be combined as a stop valve function.

通径 Drift diameter		阀体 Body	行程 Trip	Cv gpm
Inch	mm			
2"	65.5	73	45	120
3"	83.5	93	60	220
4"	95.5	106	60	250
5"	112.5	124	76	380
6"	126.5	140	100	575
7"	146.5	162	100	660
8"	161.5	178	120	880
9"	186.5	206	120	1030
10"	216.5	238	150	1460
12"	244.5	270	150	1670
13"	266.5	294	200	2450
14"	294.5	324	200	2770
15"	324.5	358	250	3800
16"	344.5	380	250	4050
17"	364.5	400	300	5080

\* 临界压差比X<sub>T</sub> = 0.72  
\*Critical pressure difference ratio X<sub>T</sub> = 0.72

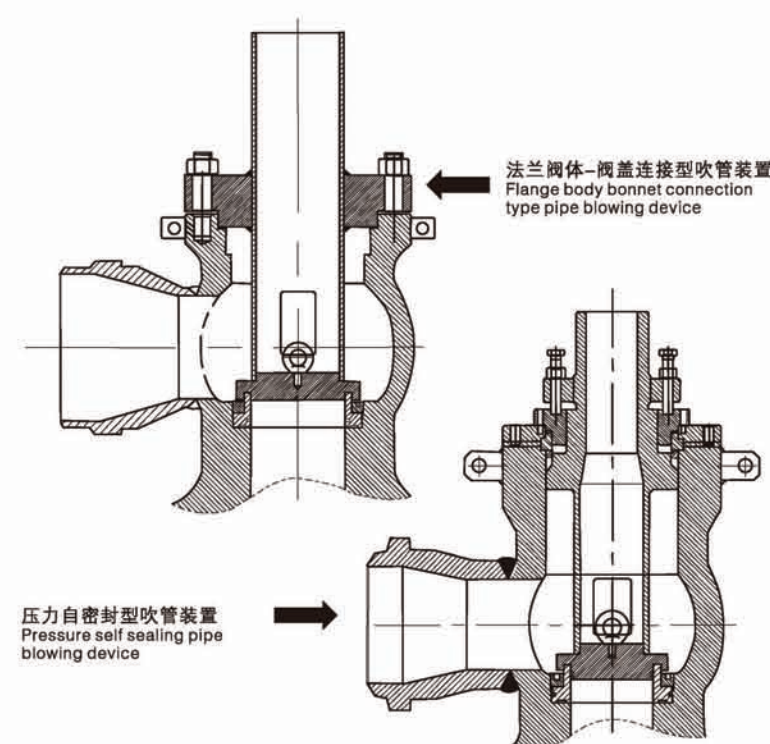




## DC3700系列旁路阀

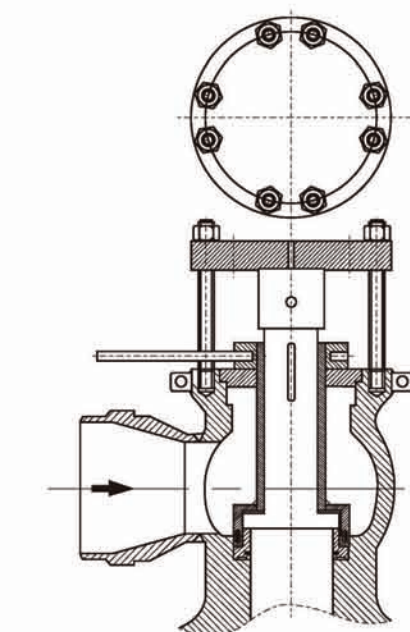
### DC3700 Bypass valve

#### ◆ 常用维护装置 Common maintenance devices



压力自密封型吹管装置  
Pressure self sealing pipe  
blowing device

法兰阀体-阀盖连接型吹管装置  
Flange body bonnet connection  
type pipe blowing device



法兰阀体-阀盖连接型阀座压紧装置  
Flange valve body bonnet connection type seat pressing device

#### 1、吹管装置 Blowpipe device

部分DC3700系列旁路阀的阀座通过钻孔型套筒实现自保护。在阀门运行之前，为了避免阀芯卡死和内件的损坏，强烈建议对管线进行清理。

吹管装置，带典型的吹出功能，可以按照要求提供，在阀门使用之前，进行管路清理。

当配有快换阀座和消音器时，通常需要通过吹管装置清理管路。

The valve seat of some dc3700 series bypass valves is self protected by drilling sleeve. Before the operation of the valve, it is strongly recommended to clean the pipeline in order to avoid the valve core sticking and internal parts damage.

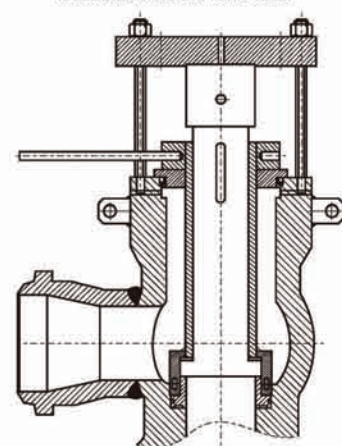
Pipe blowing device, with typical blowing out function, can be provided as required, and pipeline cleaning shall be carried out before using the valve.

When equipped with quick change valve seat and silencer, it is usually necessary to clean the pipeline through pipe blowing device.

#### 2、阀座拆装置 Valve seat disassembling device

部分DC3700系列旁路阀的阀座是通过带有螺纹的阀座压环与阀体压紧安装，这种情况下维护人员需要专用阀座拆装置来拆卸阀座。

The valve seat of some dc3700 series by-pass valves is installed by pressing the valve seat ring with thread and the valve body. In this case, the maintenance personnel need special valve seat disassembling device to disassemble the valve seat.



压力自密封型阀座压紧装置  
Pressure self sealing valve seat pressing device

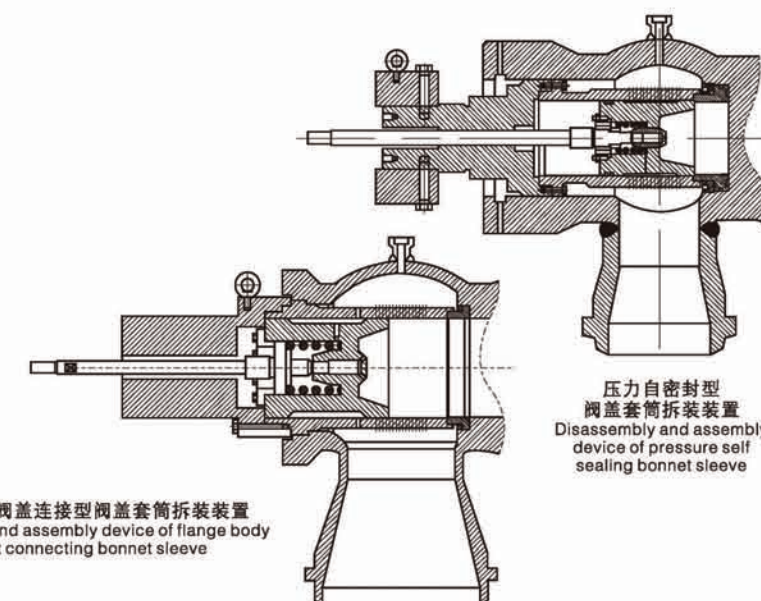
## DC3700系列旁路阀

### DC3700 Bypass valve

#### 3、阀内件拆装置 Valve trim disassembly device

DC3700蒸汽减温减压站经常与执行机构以水平轴线的方式安装。对于这种安装，可以按照要求提供特殊工具，以简化组装和拆卸。

DC3700 steam desuperheating and reducing station is often installed with the actuator in the way of horizontal axis. For this installation, special tools can be provided as required to simplify assembly and disassembly.



法兰阀体-阀盖连接型阀盖套筒拆装置  
Disassembly and assembly device of flange body  
bonnet connecting bonnet sleeve

压力自密封型  
阀盖套筒拆装置  
Disassembly and assembly  
device of pressure self  
sealing bonnet sleeve

#### 4、静水试压装置 Hydrostatic test device

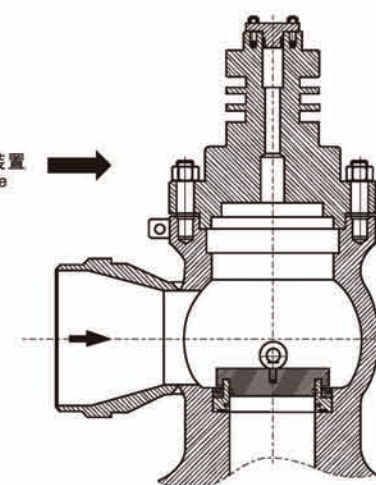
对于上下游有不同工况条件的阀门，上游段可以在关闭阀芯、不带任何特殊装置的情况下进行静水压测试。

对于高测试压力或下游段必须与上游段分开单独测试时，需要用压力测试装置。

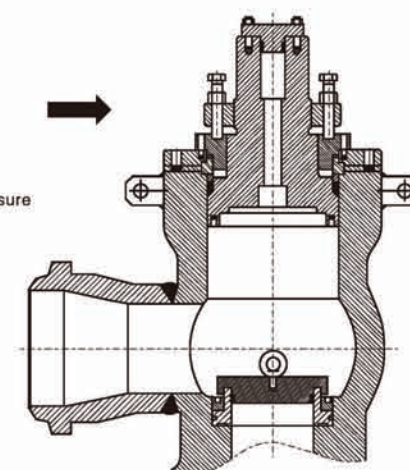
For the upstream and downstream valves with different working conditions, the upstream section can carry out hydrostatic test with the valve core closed and without any special device.

For high test pressure or when the downstream section must be tested separately from the upstream section, a pressure test device is required.

法兰阀体-阀盖连接型试压装置  
Pressure test device with flange  
body bonnet connection



压力自密封型试压装置  
Pressure self sealing pressure  
test device



#### ◆ 特殊规格 Special specifications

- 异径管
- 电动或液动执行机构
- 特殊材质
- 阀体疏水接口
- 专业工具
- Reducing pipe
- Electric or hydraulic actuator
- Special material
- Drain connection of valve body
- Professional tools

#### ◆ 推荐性备品备件 Recommended spare parts

- 推荐性安装及试运行用备品备件
- 阀体垫片
- 阀杆填料
- Recommended spare parts for installation and commissioning
- Body gasket
- Stem packing