

注意：用户在使用本产品之前，请先仔细阅读本说明书。

NOTICE: The user must read this operation instruction carefully, Before Use this product.

500X-16C 型

500X-16C Type

泄压阀

Pressure Relief Valve

使用说明书

operation instruction



上海沪工阀门厂（集团）有限公司

SHANGHAI HUGONG VALVE FACTORY (GROUP) CO., LTD.



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CAUTION!

This operation instruction has to be read and observed carefully before unpacking and commissioning of the product! The product may only be used and serviced by persons familiar with the operation instruction. Without the authorization, changes are not permissible. Before any work on the product, precautions have to be taken to protect personnel and equipment against all sources of danger resulting from chemical composition, pressure and temperature of the medium as well as from all operating powers.

注意！

开箱及交付使用前必须仔细阅读该说明书，该产品只允许在规定参数下使用，未经允许，不允许对该产品做任何改动。

对该产品做任何处理之前，应采取安全措施保护人员和设备，例如：化学腐蚀、介质温度及压力伤害及动力源等。



泄压阀 使用说明书

Pressure Relief Valve Operation Instruction

1. 主要用途与适用范围

Main application and applicable scope

1. 本系列阀门为水利控制阀的一种连接使用形式之一，主要用于消防或其他供水系统中，以防止系统超压或维持消防供水系统的压力之用。消防泵关闭后还可以减小水锤的冲击。也用于大型供水系统的水锤装置。

This series use form a connection valve for hydraulic control valves, one of the main used in fire or other water supply system, in order to prevent the system from overpressure or maintain the pressure of fire water system. Fire pump is turned off can also reduce the impact of water hammer. Also used in large water supply system water hammer apparatus.

2. 适用范围：污水处理、水处理、造纸、制药等行业。

The scope of application: wastewater treatment, water treatment, paper making, pharmaceutical and other industries.

2. 结构和作用原理

Structure and principle

1. 本系列阀门为法兰连接。主要由阀体、阀板、阀杆、阀盖、膜片、弹簧、控制阀、控制管件等零部件组成（详见附图）。



This series valve is flange connection. Mainly by the valve body, valve plate, stem, bonnet, diaphragm, spring, control valve, control of pipe fittings and other components (see chart).

2. 作泄压阀：当泄压/持压导阀调整为泄压状态时，水通过针阀、主阀控制室、球阀、泄压/持压导阀、球阀流向出口，此时主阀处于开启状态。当进口压力超过泄压/持压导阀设定的安全值时，泄压导阀会自动开启，通过球阀放出部分水，使管路泄压。当压力恢复到安全值时，泄压阀自动关闭。作泄压阀时，各球阀常开。

As a pressure relief valve: when the pressure relief/holding pressure pilot valve is adjusted for pressure condition, water through the needle valve, the main valve control room, ball valves, pressure relief/holding pressure pilot valve, ball valve of exports, at this time the main valve is fully open. When the inlet pressure exceeds the pressure relief/holding pressure pilot valve set TVC, pressure pilot valve will automatically open, channelled through ball valve part water, make the line pressure. When the pressure recovery to TVC, pressure relief valve automatically shut down. As a pressure relief valve, ball valve normally open.

3. 作持压阀：当泄压/持压导阀调整为持压状态时，只要主阀进口水压低于导阀设定值，导阀即关闭。主要控制室升压，主阀关闭。当主阀上游供水压力超过导阀设定压力时，持压导阀才能打开，控制室的水经球阀排至出口，控制室降压主阀开启，开始供水，即保持了上游水压。

For holding pressure valve: when the pressure relief/holding pressure pilot valve adjustment for the state, as long as the main



valve import water pressure is lower than the pilot valve set point, pilot valve is closed. The main control room booster, the main valve closed. When the main valve upstream water supply pressure exceeds pilot valve set pressure, holding pressure pilot valve to open, the control room of water through the ball valve to the export, the control room main reducing valve open, began to water supply, that maintain the upstream water pressure.

3. 规格及技术参数

Specifications and technical parameters

阀门 Valve	公称口径 DN Nominal diameter	50mm--600mm
	公称压力 PN Nominal pressure	1.6MPa
	适用温度 Applicable temperature	≤ 80℃
	启闭压差 Opening and closing the differential	1.6MPa
	适用介质 Suitable medium	水 water

4. 产品特点

Product features

- 1、 利用水力自动操作，即可以作泄压阀用又可作持压阀用。作泄压阀用时，可维持供水路压力在设定的安全值之下；做持压阀用，可维持主阀上游水压在设定值之上，保持主阀上游供水压力。

Use of hydraulic automatic operation, can make the pressure



release valve and can be used for holding pressure valve. As a pressure relief valve, it can maintain water supply way pressure under the TVC of set; For holding pressure valve, can maintain the main valve upstream water pressure above the set value, maintain the main valve upstream water supply pressure.

- 2、防止水锤效果好，将缓开、止回速闭、缓闭等消除水锤的技术一体化，防止开泵不锤和停泵倒流与水锤对供水管路和水泵的损害。

To prevent water hammer effect is good, will slow to open, check quick closing, slowly-closing eliminate water hammer technology integration, to prevent the reverse drive pump not hammer and stop the pump and the damage to the water supply pipe and pump water hammer.

- 3、本产品利用水力自力控制，不需要其它装置和能源，保养简便，一阀多用。

This product use hydraulic self control, do not need other devices and energy, maintenance is simple, one valve is multi-purpose.

- 4、阀体采用了全通道、直流式、流线型设计。水力损失小，节能效果好。

Body adopts the whole passage, once-through, streamlined design. Hydraulic loss is small, energy-saving effect is good.

- 5、本系列阀门产品广泛用于高层建筑、生活区等供水管网系统及城市供水工程。

This series valve products are widely used in high-rise buildings, living quarters and other water supply pipe network system and urban water supply engineering.

5. 主要零件材质

Material for main parts

零件名称 Part name	材质 Material
阀体 阀盖 body, bonnet,	WCB
阀板 plate	WCB
密封圈 Sealing ring	NBR
弹簧 Spring	304
阀杆 Stem	2Cr13
膜片 diaphragm	NBR
调节阀、球阀 Control valve, ball valve	铜合金 Copper alloy
过滤器 filter	304

6. 保管、安装、使用与注意事项

Safekeeping, installation, use and the matters needing attention

1. 本产品应保存在干燥的仓库内，严禁露天存放。

This product should be stored in dry warehouse, it is strictly prohibited in open air.

2. 长期存放，要定期检查。加工表面每隔 6 个月应清除表面污垢一次。

Long stored, check regularly. Machining surface every six months should be cleared surface dirt again.

3. 本阀应安装在水平管路上。

This valve should be installed in a horizontal pipeline.



4. 安装时应仔细核对使用情况是否与本阀性能规范相符。

When installation should be carefully check whether usage is consistent with this valve performance specifications.

5. 本阀不允许作调节流量之用。

This valve is not allowed to adjust flow.

6. 安装时注意以下事项：

When installation, pay attention to the following items:

- a. 安装前应清洗管道、阀门内腔、密封面和全部外露传动副表面的污垢和泥砂，但注意不得碰伤密封面。

Before installation should clean pipe, valves, inner cavity, seal face and all the leakage transmission vice dirt and mud on the surface of the sand, but do not touch seal face.

- b. 检查各处螺栓是否均匀拧紧。

Check all bolts evenly on tight.

- c. 起重吊索不许系结在阀杆上，应置于阀门腰部。

Lifting sling is not allowed to tie knot on the valve stem and valve should be placed on the waist.

- d. 阀门安装好后，应进行试运行，然后再正式运行。

After installation of valve, should carry on the trial run, then run formally.

- e. 本系列阀门具有介质的流向性，安装时注意阀体铸造箭头应与介质流向相同。

This series valves have the property of medium flow, pay attention to the body casting arrow when installation should be the same as



the medium flow direction.

7. 阀门装好后，管路试压时，必须全部开启。

When valve is installed, pipeline pressure test, must be fully open.

8. 阀杆外露部分应定期涂润滑油。

The valve stem leakage parts should be coated lubricating oil regularly.

9. 本阀在使用中应定期检查：

This valve in use should be checked regularly:

(1)密封面的磨损情况。

Sealing surface wear.

(2) 阀体密封面与闸板密封面间是否有污物堆积。

The valve sealing surface between the disc sealing surface and if there is dirt accumulation.

10. 阀门检修后必须进行密封试验。

The valve must be sealed test after repair.

7. 可能发生故障及消除方法

May be down and eliminating methods

可能发生的故障 Possibility of failure	发生故障的原因 Cause of the failure	消除办法 Eliminate the way
连接法兰密封面 渗漏 Leakage of flange sealing surface	1. 法兰连接螺栓未拧紧。 The flange bolts not tight. 2. 法兰密封面损坏。 The flange sealing surface damage. 3. 垫片破裂或失效。 The gasket fracture or failure.	1. 均匀对称拧紧螺栓。 The homogeneous symmetric screw down the bolt. 2. 重新修理法兰密封面。 To repair the flange sealing surface. 3. 更换垫片。 Replace the gasket.
密封渗漏 Seal leakage	1. 密封面间夹有杂物。 Have sundry between sealing surface. 2. 密封面损伤或损坏。 The sealing surface damage or damage.	1. 清洗密封面。 Cleaning the sealing surface. 2. 重新加工密封面或更换零件。 The reprocessed seal face or replacement parts.



8. 附图
Drawing

<p>500-091-X005</p>	<p>性能规范表</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>公称压力</td> <td>1.6</td> </tr> <tr> <td>强度试验</td> <td>2.4 MPa</td> </tr> <tr> <td>密封试验</td> <td>1.76</td> </tr> <tr> <td>气密封试验</td> <td>0.6</td> </tr> <tr> <td>工作压力</td> <td>0.8</td> </tr> <tr> <td>最高工作温度</td> <td>80 °C</td> </tr> </table> <p>适用范围: 水, 气等</p>	公称压力	1.6	强度试验	2.4 MPa	密封试验	1.76	气密封试验	0.6	工作压力	0.8	最高工作温度	80 °C	<p>performance specification</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>公称压力</td> <td>1.6</td> </tr> <tr> <td>Strength test</td> <td>2.4 MPa</td> </tr> <tr> <td>Sealing test</td> <td>1.75</td> </tr> <tr> <td>Air seal test</td> <td>0.6</td> </tr> <tr> <td>Max working temperature</td> <td>80 °C</td> </tr> </table> <p>Applicable medium: Water, Steam etc.</p>	公称压力	1.6	Strength test	2.4 MPa	Sealing test	1.75	Air seal test	0.6	Max working temperature	80 °C	<p>技术要求</p> <p>1. 阀门设计与制造技术要求按JB/T167-2002的规定 2. 阀门强度和密封按GB/T13927的规定 3. 阀门的结构长度按GB/T12221的规定 4. 阀门的法兰尺寸按JB/T79.1的规定 5. 阀门试验结束后应排放积水, 擦净内腔, 并在两端用盲盖盖住。</p>	<p>Technical requirements</p> <p>1. The valve design and manufacturing technical requirements according to the provisions of JB/T167-2002 2. The check valve and test according to the provisions of GB/T13927, etc. according to the provisions of GB/T12221 3. The length of the valve according to the provisions of GB/T12221 4. The valve flange dimensions according to the provisions of JB/T79.1 5. The valve test after the clear water, wipe lumen, and cover with blank cap size at both ends.</p>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>借通用件登记</td> <td></td> </tr> <tr> <td>插图</td> <td></td> </tr> <tr> <td>校核</td> <td></td> </tr> <tr> <td>旧底图代号</td> <td></td> </tr> <tr> <td>签字</td> <td></td> </tr> <tr> <td>日期</td> <td></td> </tr> </table>	借通用件登记		插图		校核		旧底图代号		签字		日期																																																																																																																																																																																																															
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