

底阀—使用说明书
Bottom Foot Valve
OPERATION MANUAL



郑州孚瑞流体控制技术有限公司
Zhengzhou Free Fluid Control Technology Co.,Ltd

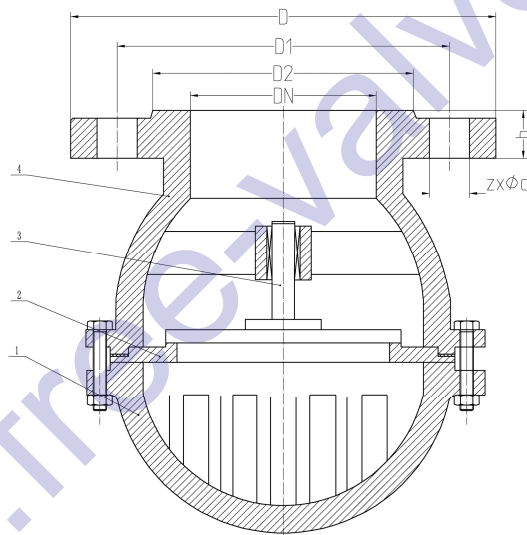
一、概述 General

H42H/X 该阀是一种节约能源的阀,一般安装在水泵水下吸管的底端.限制水泵管内液体返回水源,起着只进不出的功能.阀盖上有多个进水口和加强筋,起到了不易堵塞,主要应用在抽水的管路上.阀瓣为单瓣,连接方式为法兰连接.

FREE-VALVE's foot valve is a kind of energy saving valve, usually installed at the bottom of the suction pipe of pump. The function of foot valve is preventing the water in the pipe flowing back to the water sources and only allow the water flow forward . As many inlet and stiffeners are designed on the valve bonnet , the valve is not easy to clog . The foot valve is usually applied at suction pipe . The valve disc usually designed as signal disc ,and connection method is flange .

结构与原理 Structure and principle

本阀由阀体、阀瓣、阀盖、过滤网、密封圈等零件组成。阀瓣在进出压力作用下，做升降上下移动来实现阀门打开和关闭，即在流体的压力作用下，阀瓣打开；当泵停止工作后，出口管内的压力将阀瓣迅速关闭，液体将不会倒流回水源，起到了既畅通抽水又节约水能损失的作用。



1. 过滤网 Strainer basket 2. 阀座 Seat 3. 阀瓣 Disc 4. 阀体 Body

This valve is composed of valve body, disc, cover, strainer basket, sealing ring and other parts.

The disc is moved up and down under fluid pressure drop between inlet and outlet to realize the valve opening and closing. That is to say , the valve opens under the pressure of the fluid;

When the pump stops working, the valve will be shut off quickly under pressure of outlet pipe , and the liquid will not flow back to the water source, which will help the water suction pump and save water loss.

二、底阀性能规范 Performance

适用介质: 水、油、及腐蚀性介质

Application medium: water,oil and Corrosive medium

适用温度 Application Temperature: $\leq 300^{\circ}\text{C}$

主要部件材料: 铸钢, 不锈钢

Material of main parts: WCB,stainless steel

试验标准: GB/T13927

Test standard: GB/T13927

三、底阀主要外形尺寸 The main dimension-Class150

NPS	D	D1	Dz	b	zx ϕ d
1 1/2	127	98.6	73	14.5	4x16
2	152	121	92	16	4x19
2 1/2	178	140	105	18	4x19
3	190	152.4	127	19.5	4x19
4	229	190.5	157	24	8x19
5	254	216	186	25.5	8x22
6	279	241.3	216	25.5	8x22
8	343	299	270	29	8x22
10	406	362	324	30.5	12x25
12	483	432	381	32	12x25

四、 安装使用与维修保养注意事项：

Installation and maintenance

1. 请置于干燥清洁的室内。长期存放后应先清洁后安装，并检查各螺栓是否有松动现象。

Keep the valve in the dry clean room. After long storage, please clean valve first before installation ,and check whether the bolts are loose or not .

2. 安装前应仔细阅读本说明、并核对阀门技术参数。

Please read the instructions carefully and check the valve technical parameters before installing.

3. 存放期超过 18 个月的在安装前应重新试压，以确保阀门的结构及功能完整性。

To ensure structural and functional integrity of valve, retest pressure before installation for over 18 months storage periods

4. 安装前校对阀门标识（阀门类型、公称通径、压力等级和材料等）是否与使用要求相符。

Check the valve identification (valve type, nominal size, pressure grade and material, etc.) ,ensure that the valve is in accordance with service requirements

5. 安装前应检查阀门内腔和密封面，如有污垢应使用清洁布擦拭干净。

Check the valve cavity and sealing surface before installation. If there is any dirt, clean it with a cleaning cloth.

6. 升降式阀瓣底阀应安装在垂直管道上。

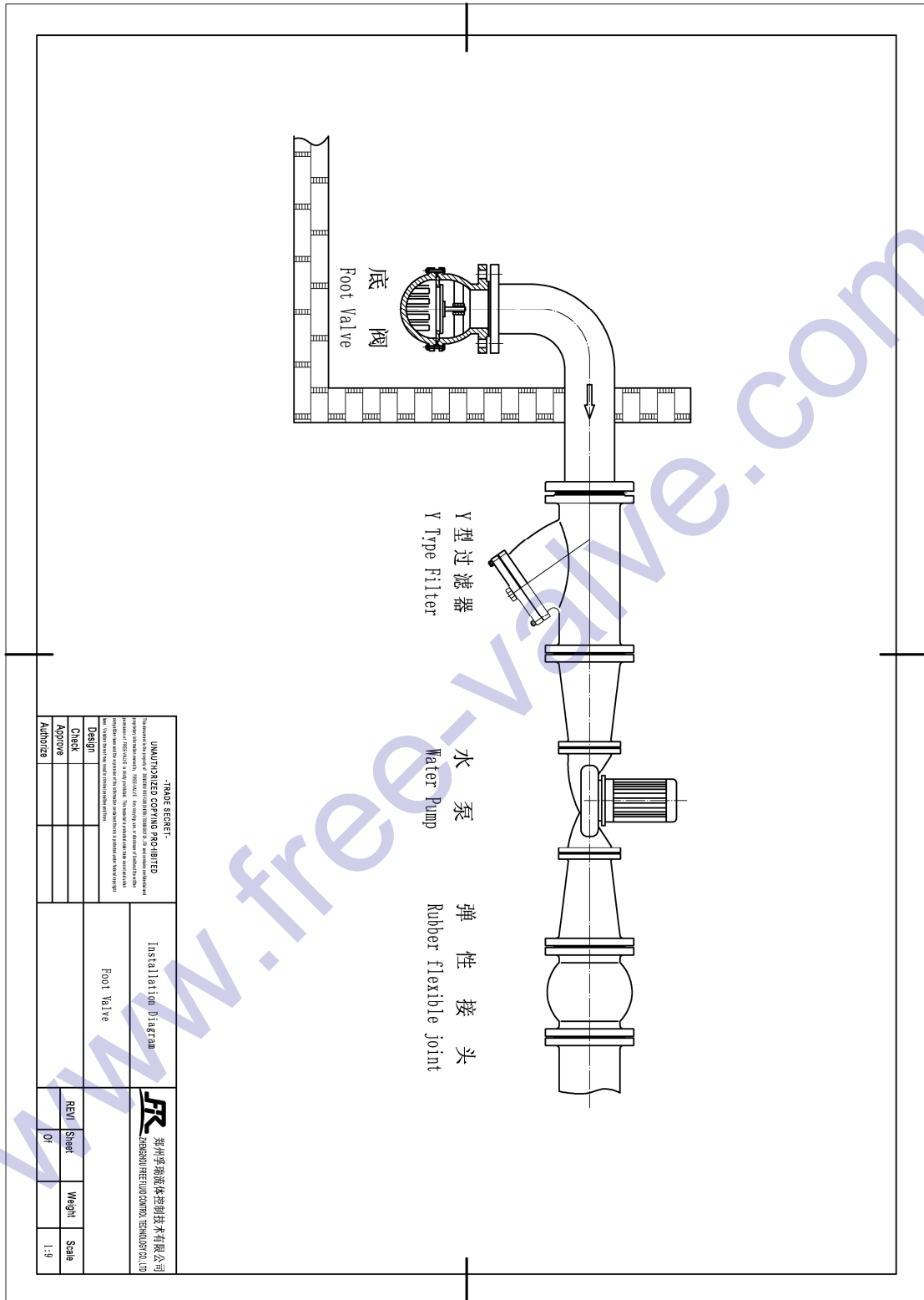
Foot valve with lift vertical disc should be installed on the vertical pipe.

五、底阀可能发生的故障、原因及消除方法

Trouble shooting and Solutions

可能发生的故障 Possible failure	发生故障的原因 Causes	消除方法 Solutions
阀体与过滤网处发生渗漏 Leakage between valve body and Strainer basket	1. 连接螺栓紧固不均匀； 2. 法兰密封面损坏； 3. 垫片破裂或有污物 1. The nut is not tight on the valve body or is not equably tightened . 2. Sealing surface is damaged. 3. Gaskets are damaged or contaminated.	1. 均匀拧紧 2. 重新修整 3. 更换新垫片 1. Adjusting nut 2. Repair sealing surface 3. Replace the gaskets
阀门声音响、有振动 Valve sound, vibration	1. 阀门安装位置距离泵太近 2. 管道内介质流动压力不稳 1. The valve installation position is close to the pump. 2. The medium pressure is unstable in the pipeline	1. 重新安装合适位置 2. 消除压力波动 1. Reinstall the valve in the appropriate location 2. Eliminate pressure wave
阀门不动作或开关不到位 The valve does not move or the disc is not in fully position	1. 阀腔内卡有污垢物 2. 阀瓣轴与孔配合太紧 1. There are dirty in valve body . 2. The disc shaft fits too tightly with the hole	1. 检查配合情况 2. 消除异物 1. Check the fit 2. Remove the dirty.

六、安装示意图 Installation Diagram





郑州孚瑞流体控制技术有限公司

Zhengzhou Free Fluid Control Technology Co.,Ltd

地址：郑州高新技术产业开发区紫竹路 93 号

ADD: No.93 Zizhu Road, High-Tech Development Zone, Zhengzhou City, Henan, China

邮编 (Zip):450000

Tel:0086 371 55019379/ 0086 13523029957

[Http://www.free-valve.com](http://www.free-valve.com)

Email:sales@free-valve.com