

# 宝蒂阀门安装使用说明——隔膜阀

Installation and operation manual——BAODI diaphragm valve


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本说明包含对正确安装使用宝蒂产品的重要信息。 请将本手册存放在易于访问的位置。

This user's guide contains information important to the proper installation, maintenance and safe use of an BAODI Product. Please store this manual in an easily accessible location.

标志说明:

 警告	此符号提醒用户, 可能对宝蒂阀门产生严重损害, 甚至对使用者造成伤害。 This symbol reminds the user to take caution due to the potential for damage to the BAODI valve if used in such a manner. This symbol reminds the user to take caution due to the potential for injury.
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## (1) 保修条款- Warranty terms

- 请务必遵守使用宝蒂产品的注意事项和使用说明。

Always observe the specifications of and the precautions and instructions on using BAODI product

- 宝蒂公司始终致力于提高产品质量和可靠性，但不能保证完美。因此，如果您打算将本产品与可能造成严重甚至致命伤害或财产损失风险的任何设备或机器一起使用，请确保采取适当的安全设计或采取其他措施，并充分考虑可能出现的问题。未经规定或其他书面批准形式的合约，我们对您的任何行动所造成的任何不便不承担任何责任。

- BAODI always strive to improve product quality and reliability, but cannot guarantee perfection. Therefore, should you intend to use this product with any equipment or machinery that may pose the risk of serious or even fatal injury, or property damage, ensure an appropriate safety design or take other measures with sufficient consideration given to possible problems. We shall assume no responsibility for any inconvenience stemming from any action on your part without our written consent in the form of specifications or other documented approval.

- 产品保修期为从我们的工厂发货一年半之内或安装产品一年之内，以先到者为准。保修期内发生的任何产品异常，我们将立即进行调查，以确定原因。如果我们的产品被视为有缺陷，我们将承担免费维修或更换的责任。

- Our product warranty extends for one years and a half after the product is shipped from our factory or one year after the product is installed, whichever comes first. Any product abnormality that occurs during the warranty period or which is reported to us will be investigated immediately to identify its cause. Should our product be deemed defective, we shall assume the responsibility to repair or replace it free of charge.

- 保修范围不包括以下情况：

- (1) 在我们规定的保修范围之外的任何条件下使用我们的产品。
- (2) 未遵守我们定义的预防措施或有关产品的安装，处理，维护或维修的说明。
- (3) 由我们以外的任何产品造成的任何不良影响。
- (4) 由我们以外的任何人重新构建或以其他方式修改我们的产品。
- (5) 将产品的任何部分用于产品的预期用途以外的任何其他部分。
- (6) 由于自然灾害，事故或其他不是由我们产品内部产生的事故而发生的任何异常。

-The warranty does not cover the following cases:

- (1) Using our product under any condition not covered by our defined scope of warranty.
- (2) Failure to observe our defined precautions or instructions regarding the construction, installation, handling, maintenance, or servicing of our product.
- (3) Any inconvenience caused by any product other than ours.
- (4) Remodeling or otherwise modifying our product by anyone other than us.
- (5) Using any part of our product for anything other than the intended use of the product.
- (6) Any abnormality that occurs due to a natural disaster, accident, or other incident not stemming from something inside our product.

## (2) 一般操作说明- General operating instructions

- 在塑料管道中通高压气体可能会造成危险情况，即使在类似液体的压力条件下也有可能。



因此，请务必采取必要的安全预防措施，例如用保护材料覆盖管道。如有疑问，请联系我们。对于新安装的管道进行泄漏测试时，务必检查水压下的泄漏情况。如果在测试中绝对需要使用气体，请事先咨询我们。

Using a positive-pressure gas with our plastic piping may pose a dangerous condition due to the repellent force particular to compressible fluids even when the gas is under similar pressures used for liquids. Therefore, be sure to take the necessary safety precautions such as covering the piping with protective material. For inquiries, please contact us. For conducting a leak test on newly installed piping, be sure to check for leaks under water pressure. If absolutely necessary to use a gas in testing, please consult your nearest service station beforehand.

- 不要踩踏或在宝蒂阀门上施加过重的重量。（可能会损坏。）

Do not step on or apply excessive weight on BAODI valve. (It can be damaged.)

- 在流体可能结晶的介质或含有颗粒的介质中使用阀门可能会损坏。

Do not step on or apply excessive weight on valve. (It can be damaged.)

- 保持阀门远离热源。（它可能被损坏。）



Always operate the valve within the pressure vs. temperature range.

- 始终在压力与温度范围内操作宝蒂阀门。（超出允许范围，阀门可能会损坏或变形。）

Always operate BAODI valve within the pressure vs. temperature range.

(The valve can be damaged or deformed by operating beyond the allowable range.)

- 留出足够的空间进行维护和检查。

Allow sufficient space for maintenance and inspection.

- 选择与介质兼容的阀门材料。有关耐化学性的信息，请参阅“宝蒂塑料阀门的耐化学性”。

(某些化学品可能会损坏不相容的阀门材料。)



Select a valve material that is compatible with the media. For chemical resistance information, refer to “CHEMICAL RESISTANCE ON BAODI PLASTIC VALVE”. (Some chemicals may damage incompatible valve materials.)

- 保持阀门不受阳光直射，水和灰尘的影响。使用盖子来屏蔽阀门。（阀门不能正常工作。）

Keep the valve out of direct sunlight, water and dust. Use cover to shield the valve.

(The valve will not operate properly.)

- 执行定期维护。（由于温度变化或长期储存，休息或操作的时间，可能会发生泄漏。）

Perform periodic maintenance. (Leakage may develop due to temperature changes or periods of prolonged storage, rest, or operation.)

- 安装前应检查阀盖螺栓扭矩，因为长期存放后它们可能会松动。定期检查阀门状况以及阀盖和



法兰螺栓扭矩应作为预防性维护程序的一部分，必要时正确地重新拧紧螺栓。在第一次停机时重新拧紧所有螺栓尤为重要。

Bonnet bolt torque should be checked before installation, as they may become loose after long-term storage. A periodic check of the valve condition as well as bonnet & flange bolt torque should be made part of preventative maintenance program properly re-tightening the bolts as necessary.

It is especially important to re-tighten all bolts during the first shutdown.

### (3) 运输，拆包和储存的一般说明- General instructions

#### for transportation, unpacking and storage



- 悬挂和支撑阀门时，请注意不要站在阀门下。

When suspending and supporting a valve, take care and do not stand under a suspended valve.

- 该阀门不适用于应对任何类型的冲击。避免投掷或掉落阀门。

This valve is not designed to handle impacts of any kind. Avoid throwing or dropping the valve.

- 避免用任何尖锐物体刮伤宝蒂阀门。

Avoid scratching BAODI valve with any sharp object.

- 避免接触任何煤焦油杂酚油，杀虫剂，杀虫剂或油漆。（这些化学物质可能会导致宝蒂塑料阀门损坏。）

Avoid contact with any coal tar creosote, insecticides, vermicides or paint.

(These chemicals may cause damage to the BAODI plastic valve.)

- 将产品存放在瓦楞纸箱中。避免将产品暴露在直射阳光下，将其存放在室内（室温下）。还要避免将产品存放在温度过高的地方。（瓦楞纸板包装接触水或其他液体会变湿损坏。请注意储存和处理。）

Store products in their corrugated cardboard boxes. Avoid exposing products to direct sunlight, and store them indoors (at room temperature). Also avoid storing products in areas with excessive temperatures. (Corrugated cardboard packages become weaker as they become wet with water or other liquid. Take care in storage and handling.)

## (4) 球阀工作压力与材料温度- Working pressure &

### temperature

- 宝蒂隔膜阀常温下最大工作压力如下表所示。  
The maximum working pressure of BAODI diaphragm valve at room temperature is shown in the table below
- 标准：GB/T 27726-2011 《热塑性塑料阀门压力试验方法及要求》  
standard : ISO 9393 《Thermoplastics valves for industrial applications - Pressure test methods and requirements》。

### BAODI BALL VALVE

DN	宝蒂法兰球阀 (Mpa) Flange ball valve			宝蒂高强球阀 (Mpa) Strong Flange ball valve			活接球阀/三通球阀 (Mpa) Union Ball Valve		
	FRPP/ PPH	UPVC/ CPVC	PVDF	FRPP/ PPH	UPVC/ CPVC	PVDF	FRPP/ PPH	UPVC/ CPVC	PVDF
15	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.6	1.6
20	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.6	1.6
25	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.6	1.6
32	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
40	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
50	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
65	0.7	1.0	1.0	1.0	1.0	1.0	0.7	1.0	1.0
80	0.7	1.0	1.0	0.7	0.7	1.0	0.7	1.0	1.0
100	0.7	1.0	1.0	0.7	0.7	1.0	0.7	1.0	1.0
125	0.4	0.6	0.8	0.7	0.7	1.0			
150	0.4	0.6	0.6	0.7	0.7	1.0			
200	0.3	0.4	0.6						
250	0.2	0.3	0.5						
300	0.2								

- 阀门材料的长期使用温度范围如下表所示。



The long-term use temperature range of the material is shown in the table below

### BAODI DIAPHRAGM VALVE

材料 Material	FRPP	PPH	UPVC	CPVC	PVDF	PTFE	PFA	FEP	EPDM	FPM
工作温度 working temperature (°C)	-20- 80°C	-20- 80°C	0-50°C	0-90°C	-40- 120°C	Under 260°C	Under 240°C	Under 180°C	Under 90°C	Under 180°C

## (5) 安装程序- Installation procedure

- 悬挂和支撑阀门时，请注意不要站在阀门下面。

When suspending and supporting a valve, take care and do not stand under a suspended valve.

- 即使管道是空的，也要在阀门中留有液体时戴防护手套和护目镜。



Wear protective gloves and safety goggles as fluid remain in the valve even if the pipeline is empty. (You may be injured.)

- 通过U型管或类似装置安装管道支架时，请注意不要过度拧紧。

When installing a pipe support by means of a U-band or something similar, take care not to over-tighten.

- 安装管道和阀门时，确保它们不会受到拉伸，压缩，弯曲，撞击或其他过度的压力。

When installing pipes and valves, ensure that they are not subjected to tension, compression, bending, impact, or other excessive stress.

- 在管道末端安装活接阀门时，确保阀门流出方向的活接螺帽和活接头安装在阀门上。

When installing a piece of equipment at the end of the piping line, be sure to keep the secondary (Downstream) End Connector and Union Nut installed on the valve.

- 在进行水压试验之前，确保活接螺帽紧固。

Before a water test, be sure that the Union Nut is tightly fastened.

- 将宝蒂阀门连接到金属管道时，注意不要让宝蒂阀门承受管道应力。

When connecting an BAODI Valve to metal piping, take care not to let the pipe stress on the BAODI Valve.

- 固定活接螺母，同时避免法兰表面的平行度和轴向错位。

Fasten the Union Nut while avoiding the parallelism and axial misalignment of the flange surface.

- 不要使用管钳（阀门可能损坏）。

Do not use the pipe wrench. (The valve can be damaged.)


- 注意不要过度拧紧活接螺帽。（阀门可能已损坏。）



Take care not to over-tighten the Union Nut. (The valve can be damaged.)

## 5.1 法兰连接-Flanged End (FRPP、PPH、UPVC、CPVC、PVDF)

- 使用平面法兰连接宝蒂阀门。

 Use flat faced flanges for connection to BAODI Valves.

- 确保配对法兰具有相同的标准。

Ensure that the mating flanges are of the same standards.

- 务必使用密封垫片，螺栓，螺母和垫片，

Be sure to use sealing gaskets, bolts, nuts, and washers.

### 程序 **Procedure**

#### 必要工具

- 扭力扳手 Torque Wrench
- 普通扳手 Spanner Wrench
- 法兰垫片 Gasket
- 螺栓螺母扳手 Bolt, Nut, Washer

(1) 将宝蒂阀门安装在法兰之间。

Install the BAODI valve between flanges.

(2) 在法兰之间放置垫圈。。

Set the gasket between the flanges.

(3) 从管道侧插入垫圈和螺栓，从阀门侧插入垫圈和螺母，然后用手暂时拧紧。

Insert washers and bolts from the pipe side, insert washers and nuts from the valve side, then temporarily tighten them by hand.

(4) 用扭矩扳手逐渐将螺栓和螺母以对角线方式拧紧到规定的扭矩。（扭矩仅供参考）

Tighten the bolts and nuts gradually with torque wrench to the specified torque in a diagonal manner. (For informational purposes only)

(5) 用规定的扭矩顺时针拧紧2圈以上。

Tighten it more than 2 turns clockwise with specified torque.


- 宝蒂阀门建议扭矩(仅供参考)。避免过度拧紧（阀门可能损坏）。

Recommended torque value for BAODI valve (For informational purposes only)。 Avoid excessive tightening. (The valve can be damaged.)

Recommended torque value for BAODI valve

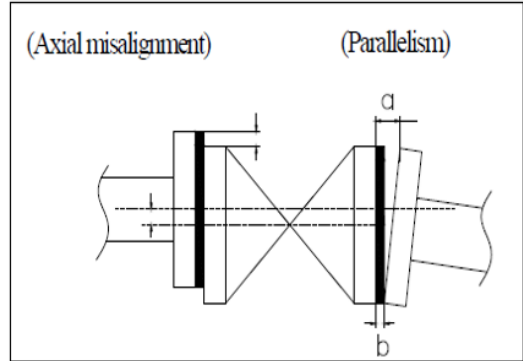
Size	15-20	25-40	50,65	80,100	125,150	200,250
PTFE	17.5	20	22.5	30	40	55
Rubber	10	20	22.5	30	40	55

- 法兰表面的平行度和轴向偏差应低于下表所示的值，以防止损坏宝蒂阀门。（未能观察到它们

 会因应用于管道而导致破坏)

The parallelism and axial misalignment of the flange surface should be under the values shown in the following table to prevent damage the BAODI valve. (A failure to observe them can cause destruction due to stress application to the pipe)


规格 Size	轴偏差 Axial Misalignment	平行偏离 Parallelism (a-b)
15-32mm	1.0	0.5
40-80mm	1.0	0.8
100-150mm	1.0	1.0
200-250mm	1.5	1.0






## 5.2 螺纹连接- Threaded End (FRPP、PPH、UPVC、CPVC、PVDF)

- 避免过度紧固。（宝蒂阀门可能损坏）

 Avoid excessive tightening. (The BAODI valve can be damaged.)

- 确保螺纹连接为塑料与塑料之间的连接。（金属螺纹会造成损坏。）

 Make sure that the threaded connections are plastic x plastic. (Metallic thread can cause damage.)

- 用密封胶带缠绕塑料管道上的螺纹接头。使用液体密封剂或液体垫圈可能会导致应力裂纹（环境应力开裂）。即使上述使用不可避免，我们的产品保修也不适用于上述使用情况。

Wrap the threaded joints on our plastic piping with sealing tape. Using a liquid sealing agent or liquid gasket may cause stress cracks (Environmental Stress Cracking). Our product warranty shall not apply in case of said use, even when said use is unavoidable.

### 程序 Procedure

#### 必要工具

- 带式扳手 Strap Wrench
- 普通扳手 Spanner Wrench
- 生料带 Sealing tape

(1) 在配套接头的外螺纹周围缠绕密封带，保留端部（约3mm）不缠绕。

Wind a sealing tape around the external thread of joint, leaving the end (about 3mm) free.

(2) 用带式扳手松开活接螺帽。

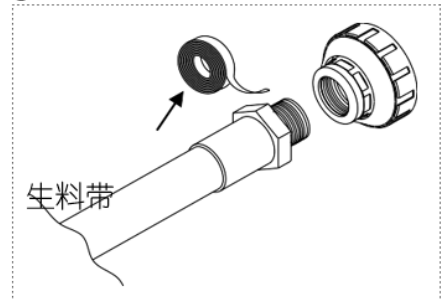
Loosen the union nut with a strap wrench.

(3) 拆下活接螺帽和活接头。

Remove the union nut and the end connector.

(4) 用手将活接头拧到配套接头外螺纹上，不要拧太紧。

Tighten the external thread of the joint and the end connector hardly with hand.



(5) 使用扳手，小心旋转180°-360°，拧紧活接头，不要损坏它。

Using a spanner wrench, screw in the end connector by turning 180°-360° carefully without damaging it.

(6) 确保宝蒂阀门安装了O形圈。

Make sure that the O-ring is mounted.

(7) 将活接头和活接螺帽压在阀体侧边，不要让O形圈脱落。

Set the end connector and union nut on the body without allowing the O-ring to come off.

(8) 用手拧紧每个宝蒂阀门上的活接螺帽。


Tighten union nuts on each BAODI valve until hand tight.

(9) 使用带式扳手在每侧均匀地拧紧活接螺帽约90°-180°。


Using a strap wrench tighten union nuts uniformly on each side approx. 90°-180° turns.

### 5.3 承插连接-胶水- Socked End (CPVC、UPVC)


-使用胶水时，请充分通风，禁止在附近使用火，不要直接吸入胶水蒸气。

 When using an adhesive, ventilate the space sufficiently, prohibit the use of a fire in the vicinity, and do not inhale adhesive vapors directly.


-如果胶水与皮肤接触，请立即将其清洗干净。如果您感到不适或发现任何异常，请立即接受医生诊断并采取适当措施。

 If an adhesive gets into contact with your skin, wash it off immediately. If you feel sick or find any anomaly, receive a physician's diagnosis and take appropriate measures promptly.

- 注意在低温下工作时，溶剂蒸气很难蒸发，很可能会残留下来。（可能会发生溶剂裂缝，损坏设备。）组装管道系统后，打开管道的两端，使用风扇（低压型）或类似的东西对空间进行通风，从而清除溶剂蒸汽。

 Take care in doing work at low temperatures. Solvent vapors are hard to evaporate and are likely to remain. (Solvent cracks may occur, damaging the equipment.) After assembling the piping system, open both ends of the piping and use a fan (of the Low-Voltage Type) or something similar to ventilate the space, thus removing the solvent vapors.

- 在用粘合剂/胶水连接管道后至少24小时后再进行水试验。

 Conduct a water test at least 24 hours after joining the pipes with an adhesive/cement.

- 使用宝蒂提供的胶水。

Use the appropriate BAODI cement.

- 更多关于胶水的使用方法请咨询宝蒂公司。

For more information on how to use cement, please contact BAODI.

#### 程序 **Procedure**

##### 必要工具

- 带式扳手 Strap Wrench
- 胶水 Adhesive for hard vinyl chloride pipes

- (1) 用带式扳手松开活接螺帽。  
Loosen the union nut with a strap wrench.
- (2) 拆下活接螺帽和活接头。  
Remove the union nut and the end connector.
- (3) 将活接螺帽穿过管道。  
Lead the union nut through the pipe.
- (4) 用布擦拭擦拭，清洁活接头的待粘接部分。  
Clean the hub part of the end connector by wiping the waste cloth.
- (5) 将粘合剂均匀涂抹在活接头的带粘接部分和管道承插部分。  
Apply adhesive evenly to the hub part of the end connector and the pipe spigot..
- (6) 涂上胶水后，将管道快速插入活接头并将其单独放置至少60秒。  
After applying adhesive, insert the pipe quickly to the end connector [4c] and leave it alone for at least 60 seconds.

- (7) 擦去溢出的粘合剂。  
Wipe away overflowing adhesive.
- (8) 确保宝蒂阀门安装了O形圈。  
Make sure that the O-ring is mounted.
- (9) 将活接头和活接螺帽压在阀体侧边，不要让O形圈脱落。  
Set the end connector and union nut on the body without allowing the O-ring to come off.
- (10) 用手拧紧每个宝蒂阀门上的活接螺帽。  
Tighten union nuts on each BAODI valve until hand tight.
- (11) 使用带式扳手在每侧均匀地拧紧活接螺帽约90°-180°。  
Using a strap wrench tighten union nuts uniformly on each side approx. 90°-180° turns.



在任何情况下都不要试图通过撞击将管道插入另一个配件或阀门中，可能会破坏管道。  
Do not apply more adhesive than necessary. (The valve can be damaged due to solvent cracking.)



不要使用超过必要的粘合剂。（由于溶剂开裂，阀门可能会损坏。）  
Do not under any circumstances try to insert a pipe into another fitting or valve by striking it, which may break the piping.

胶水用量（建议） Adhesive quantity (Recommend)

尺寸mm Size	15	20	25	32	40	50	65	80	100
用量g Quantity	1.0	1.3	2.0	2.4	3.5	4.8	6.9	9.0	13.0

## 5.4 承插/热熔焊接 Socked End (FRPP、PPH、PVDF)

**程序 Procedure****必要工具**

- 带式扳手 Strap Wrench
- 套筒焊机或自动焊接机 Sleeve welder or automatic welding machine chloride pipes
- 套筒焊机或自动焊接机用户手册程序
- User's manual for sleeve welder or automatic welding machine.

- (1) 用带式扳手松开活接螺帽。  
Loosen the union nut with a strap wrench.
- (2) 拆下活接螺帽和活接头。  
Remove the union nut and the end connector.
- (3) 将活接螺帽穿过管道。  
Lead the union nut through the pipe.
- (4) 有关下一步，请参阅套筒焊机或自动焊接机的用户手册。  
For the next step, refer to the user's manual for the sleeve welder or the automatic welding machine.
- (5) 焊接后，确保宝蒂阀门安装了O形圈。  
After welding, make sure that the O-ring is mounted.
- (6) 将活接头和活接螺帽压在阀体侧边，不要让O形圈脱落。  
Set the end connector and union nut on the body without allowing the O-ring to come off.
- (7) 用手拧紧每个宝蒂阀门上的活接螺帽。  
Tighten union nuts on each BAODI valve until hand tight.
- (8) 使用带式扳手在每侧均匀地拧紧活接螺帽约90°-180°。  
Using a strap wrench tighten union nuts uniformly on each side approx. 90°-180° turns.

## 5.4 对焊接- Spigot End (FRPP、PPH、PVDF)

**程序 Procedure****必要工具**

- 带式扳手 Strap Wrench
- 自动焊接机
- 自动焊接机用户手册程序
- Automatic welding machine chloride pipes
- User's manual for automatic welding machine.

- (1) 用带式扳手松开活接螺帽。  
Loosen the union nut with a strap wrench.
- (2) 拆下活接螺帽和活接头。  
Remove the union nut and the end connector.
- (3) 将活接螺帽穿过管道。  
Lead the union nut through the pipe.
- (4) 有关下一步, 请参阅自动焊接机的用户手册。  
For the next step, refer to the user's manual for the automatic welding machine.
- (5) 将粘合剂均匀涂抹在活接头的带粘接部分和管道承插部分。  
Apply adhesive evenly to the hub part of the end connector and the pipe spigot.  
Wipe away overflowing adhesive.
- (6) 焊接后, 确保宝蒂阀门安装了O形圈。  
After welding, make sure that the O-ring is mounted.
- (7) 将活接头和活接螺帽压在阀体侧边, 不要让O形圈脱落。  
Set the end connector and union nut on the body without allowing the O-ring to come off.
- (8) 用手拧紧每个宝蒂阀门上的活接螺帽。  
Tighten union nuts on each BAODI valve until hand tight.
- (9) 使用带式扳手在每侧均匀地拧紧活接螺帽约90°-180°。  
Using a strap wrench tighten union nuts uniformly on each side approx. 90°-180° turns.

## (6) 操作程序- Operating procedure

- 不要将阀门用于含有浆液的介质。



Do not use the valve to fluid containing slurry. (The valve will not operate properly.)

- 管道中存在沙子等异物时，切勿打开或关闭安装的阀门

The installed valve must never be opened or closed when foreign matter such as sand is present in the pipeline

- 关闭宝蒂阀门时不要用力过猛。



Do not exert excessive force in closing BAODI valve.

- 操作手柄时，请务必用手操作。（使用工具可能会损坏手柄）

When operating the handle, be sure to do so with your hand. (Using a tool may damage the handle.)

- 在打开或关闭无润滑产品之前，请务必加水。

Before opening or closing a lubricant free product, be sure to apply water.

### 程序 Procedure


(1) 通过旋转手轮来打开和关闭宝蒂阀门。

Open and close the BAODI valve by rotating handle wheel.

(2) 当宝蒂阀门接近全开或全关时，缓慢转动手轮，至扭矩突然增大时停止。不要用力过猛。

When BAODI valve is close to full-opened position or full-shut position, please operate the handle slowly until the torque suddenly increases. Do not exert excessive force.

## (7) 膜片更换程序- Diaphragm replacement procedure

 如果您在已安装的管道上操作，请排出所有介质。一些介质将留在阀门中，因此要戴护目镜和防护手套。（否则可能受伤）。

If you do work with the piping installed, drain the piping of all its fluid. Some fluid will remain in the valve. Therefore, wear protective goggles and protective gloves.

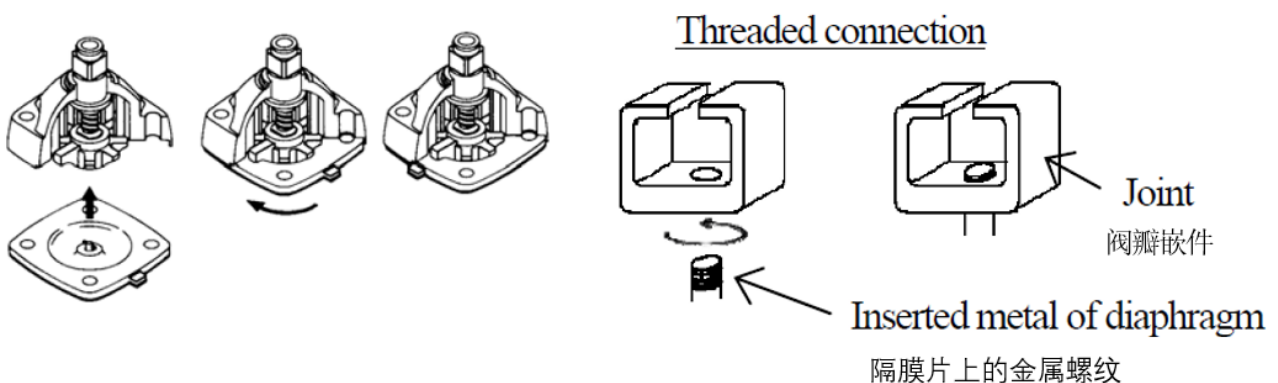
(You may otherwise get injured.)

### 程序 Procedure

#### 必要工具

- 扭力扳手 Torque Wrench
- 普通扳手 Spanner Wrench
- 防护手套 Protective gloves
- 护目镜 Goggles

- (1) 从管道中完全排出介质。  
Drain fluid completely from the pipe line.
- (2) 从阀门上拆下阀盖。  
Remove valve bonnet from the body.
- (3) 顺时针转动阀门手柄，直到它停止为止（不要用力）。阀瓣嵌件应完全伸出阀盖。  
Turn handle of valve clockwise until it stops. (Do not force it) . The compressor should be fully extended out of the bonnet.
- (4) 转动隔膜片，将隔膜片取下，然后反向步骤安装新隔膜片。  
Turn the diaphragm to remove the diaphragm and mount the new diaphragm by reversing step.
- (5) 将阀盖安装到阀门上，手动拧紧阀盖螺母。（必须手动）  
Mount the bonnet to the valve by reversing step 2. Tighten bonnet bolts by hand only.
- (6) 逆时针旋转手柄360°。  
Rotate the handle 360° counter-clockwise.
- (7) 使用扭矩扳手，以对角线，十字交叉方式拧紧阀盖螺母。  
Using a torque wrench, tighten the bonnet bolts in a diagonal, cross-cross pattern.



- 宝蒂隔膜阀建议阀盖扭矩(仅供参考)。避免过度拧紧(阀门可能损坏)。

Recommended bonnet torque value for BAODI diaphragm valve (For informational purposes only)。 Avoid excessive tightening. (The valve can be damaged.)

Recommended torque value for BAODI valve

Size	15-20	25-32	40-80	100	125,150	200,250
PTFE/PFA/FEP	5-8	10-12	15-20	40-50	45-55	35-45
Rubber	4-7	8-10	13-18	35-45	40-50	35-45



## (7) 检查项目 - Inspection items

- 定期维护。（温度变化，长期存放、使用可能导致阀门泄露。）



Perform periodic maintenance. (Leakage may develop due to temperature changes or over periods of prolonged storage, rest or operation.)

检查以下项目。

Inspect the following items.

(1)	检查宝蒂阀门是否有瑕疵，裂缝或变形。 Check for flaw, crack, or deformation on BAODI valve
(2)	检查外面是否有泄漏。 Check for leaks to the outside.
(3)	检查阀体和阀盖之间的连接螺母的紧密度（松动与否）。 Check the tightness of coupled bolt nut between the body and the bonnet (loose or not).
(4)	检查活接螺帽是否松动（仅活接隔膜阀）。 Check whether the cap nut has been loosened. (only true union diaphragm valve.)
(5)	检查手柄操作的平稳性。 Check for the smoothness of handle operation..

## (8) 故障排除-Troubleshooting

现象 Phenomenon	原因 Cause	处理方法 Treatment
即使宝蒂阀门完全关闭， 介质也会从阀门泄漏。 Fluid leaks from BAODI valve even when the valve is fully closed.	阀门关闭位置不正确。 The travel stop is not set correctly..	缓慢调整手轮位置。 Adjust the travel stop.
	固体颗粒滞留在阀门中。 Solid particles have lodged in the valve.	清除阀门上的固体颗粒。 Clear the solid particles from the valve.
	介质已经磨损了膜片或阀体。 Media has worn diaphragm and / or weir.	更换。 Replace.
介质在阀体和阀盖 之间泄漏 Valve leaks between body and bonnet.	阀盖螺母已松动。 Bonnet bolts have loosened.	重新拧紧。 Re-tighten.
	介质在隔膜上结晶。 Media has crystallized on the diaphragm.	定期拆卸和清洁。如有必要，更换 失效隔膜。 Disassemble and clean on a regular basis. Replace failed diaphragm, if necessary
	隔膜由于疲劳而失效。 The diaphragm has failed due to fatigue.	更换。 Replace.
阀盖变形或破损 Valve bonnet deform or broke.	关闭用力过猛导致阀盖损坏。 Bonnet has broken because of the exert excessive force.	更换阀盖。 Replace bonnet.
手轮转动无反应 The handle spins freely.。	阀杆坏了。 The stem is broken.	更换阀杆。 Replace the stem.
	阀瓣连接处损坏。 The metal joint failed.	更换膜片/阀瓣结构。 Remove diaphragm & compressor and replace joint.



隔膜阀安装和使用说明书  
Installation and operation manual for diaphragm valve



宝蒂-塑料阀门专家  
BAODI-Plastic Valve Expert

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