

宝蒂阀门安装使用说明——蝶阀

Installation and operation manual——BAODI butterfly valve


目录

(1) 保修条款- Warranty terms	2
(2) 一般操作说明- General operating instructions	3
(3) 运输, 拆包和储存的一般说明- General instructions for transportation, unpacking and storage	4
(4) 蝶阀工作压力与材料温度- Working pressure & temperature	5
(5) 安装程序- Installation procedure	6
(6) 操作程序- Operating procedure	9
(7) 检查项目- Inspection items	11
(8) 故障排除-Troubleshooting	12

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:

	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。
警告	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.

(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.

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

- 在高温流体的情况下，如果阀门中心与法兰之间存在偏差，则会损坏阀座。小心安装。

In the case of high temperature fluids, if there is a misalignment between the center of the valve and the flanges, it will damage the seat. Take care in their installation.

(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) 蝶阀工作压力与材料温度- Working pressure &

temperature

- 宝蒂蝶阀常温下最大工作压力如下表所示。
The maximum working pressure of BAODI butterfly 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》。



- 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

BUTTERFLY VALVE

BAODI BUTTERFLY VALVE

规格-size	宝蒂阀门工作压力 working press (MPa)		
材料 Material	FRPP/ PPH	UPVC/ CPVC	PVDF
DN 40	1.0	1.0	1.0
DN 50	1.0	1.0	1.0
DN 65	1.0	1.0	1.0
DN 80	1.0	1.0	1.0
DN 100	1.0	1.0	1.0
DN 125	1.0	1.0	1.0
DN 150	1.0	1.0	1.0
DN 200	1.0	1.0	1.0
DN 250	0.8	0.8	0.8
DN 300	0.7	0.7	0.7
DN 350	0.6	0.6	0.6
DN 400	0.5	0.5	0.5
DN 450	0.4	0.4	0.4
DN 500	0.3	0.3	0.3
DN 600	0.3	0.3	0.3
DN 700	0.2	0.2	0.2
DN 800	0.2	0.2	0.2

材料 material	宝蒂阀门工作温度 working temperature (°C)
FRPP	-20-80°C
PPH	-20-80°C
UPVC	0-50°C
CPVC	0-90°C
PVDF	-40-120°C
FRP/UPVC	-10-60°C
FRP/CPVC	-10-90°C
PTFE	Under 260°C
PFA	Under 260°C
FEP	Under 200°C
EPDM	Under 90°C
FPM	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.



- 不要在阀瓣完全关闭的情况下安装宝蒂阀门。（阀瓣可能会被阀座卡住，导致高操作扭矩并阻止阀门正常运行。）

Do not install the BAODI valve with the disc fully closed. (The disc may pinch into the seat, resulting in a high operating torque and preventing the valve from operating properly.)



- 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。

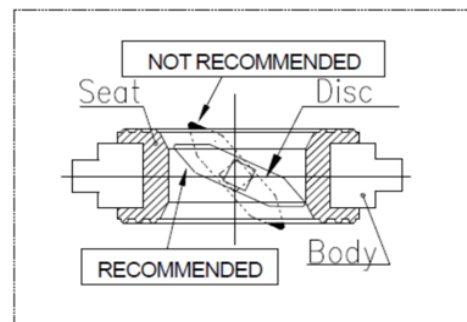
Ensure that the mating flanges are of the same standards.

- 垫片是不必要的。（阀门阀座承担了垫片的功能。）

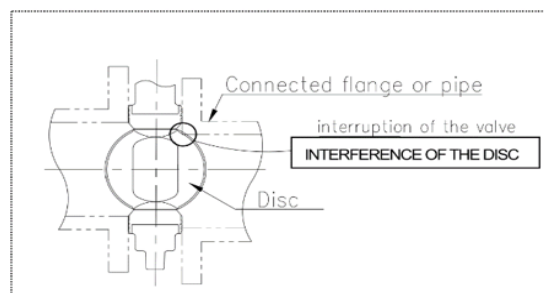
The gasket is unnecessary. (The seat carries out the role of the gasket.)

- 阀瓣在出厂前处于右图中实线所示的位置，如果阀门位置不对，则必须在安装前将其重置在此位置。否则可能导致在操作和安装过程中阀座表面损坏。

The valve disc is in the position indicated by solidlines in figure to the right prior to shipment from the factory. It must be reset in this position before installation. Failure to do so will result in damage to the surface of the valve seat during handling and installation.



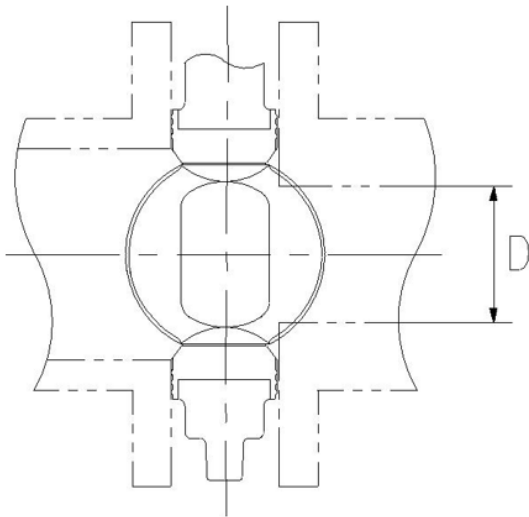
在管道安装过程中必须小心，以确保管道或法兰正确对齐，以便阀盘在任何设置下都不会接触它们。如下图所示的不对中将导致宝蒂阀门损坏。Care must be used during piping installation to ensure that the pipes or flanges are properly aligned so that the valve disc does not contact them in any setting. Misalignment as in figure below will result in damage to BAODI valve.





如果是连接的是厚壁法兰和管道，则刮削法兰或管道内径，以避免管道和阀瓣接触。如果宝蒂阀门连接管的内径大于下面的尺寸D，则不需要刮。

In case of an abutting thick walled flange and pipe, shave the flange or the pipe inner diameter in order to avoid contact of pipe and disc. If the inside diameter of the connecting pipe is larger than dimension D below, shaving is not necessary.



Unit: mm

Nominal Size DN	Diameter D
40	48mm
50	56mm
65	71mm
80	85mm
100	108mm
125	133mm
150	155mm
200	210mm
250	260mm
300	310mm
350	362 mm
400	388 mm
500	498 mm
600	590 mm
700	677 mm
800	775 mm

必要工具

- 扭力扳手 Torque Wrench
- 普通扳手 Spanner Wrench

程序 Procedure

- (1) 将宝蒂阀门安装在法兰之间并稍微打开阀门。
Install the BAODI valve between flanges and open the valve slightly.
- (2) 插入螺栓，固定螺母和垫圈，并用手暂时拧紧螺栓和螺母。
Insert bolts, set nuts and washer and tighten the bolts and nuts temporarily by hand.
- (3) 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)
- (4) 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		Unit: N·m {kgf·cm} [lb·inch]	
Nom. Size	40mm (1 1/2")	50, 65mm (2", 2 1/2")	80, 100 mm (3", 4")
Torque value	20.0 {204} [177]	22.5 {230} [200]	30.0 {306} [266]

Nom. Size	125, 150 mm (5", 6")	200, 250 mm (8", 10")	300, 350 mm (12", 14")
Torque value	40.0 {408} [355]	55.0 {561} [488]	60.0 {612} [532]

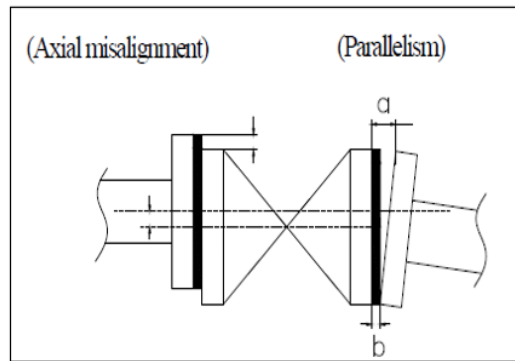
Caution : Avoid excessive tightening. (The valve can be damaged.)

Specified torque value		Unit: N·m {kgf·cm} [lb·inch]	
Nom. Size	400, 450mm (16", 18")	500, 600mm (20", 24")	
Torque value	80 {816} [710]	100 {1020} [887]	

-  - 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)
40-80mm	1.0	0.8
100-150mm	1.0	1.0
200-350mm	1.5	1.0
400-600mm	1.5	1.0



(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.)

程序 Procedure

(1) 通过平稳地转动手柄来打开和关闭宝蒂阀门。（顺时针旋转关闭，逆时针旋转打开。）

Open and close the BAODI valve by turning handle smoothly. (Turn clockwise to close and counterclockwise to open.)

(2) 如果宝蒂阀门是手柄式（40-150 mm），手柄的方向与阀瓣相同，如图所示。

对于完全关闭（关闭）位置，手柄垂直于管道轴线方向。

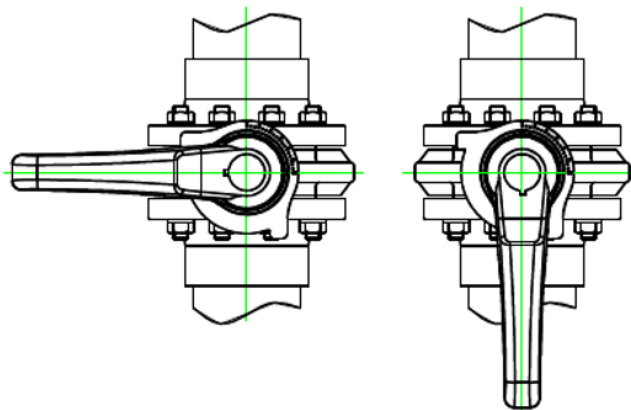
对于全开位置，手柄平行于管道轴线方向。

In case of lever type (40-200 mm), the direction of handle is same as the disc as shown in the Fig.

For the full-shut (Close) position, the handle is perpendicular to the piping axis direction.

For the full-opened position, the handle is parallel to the piping axis direction.

Full-Shut (Close) Position Full-Open Position



(3) 如果宝蒂阀门是蜗轮类型（40-350 mm），指示器会显示阀瓣位于齿轮箱顶部的位罝。

对于完全关闭（关闭）位置，指示显示关闭（SHUT/CLOSE）。

对于完全打开的位置，指示显示打开（OPEN）

In case of gear type (40-350 mm {1 1/2"-14"}), the indicator shows the position of the disc on the top of gear box.

For the full-shut (close) position, the indication shows Shut (S).

For the full-opened position, the indication shows Open (O).

宝蒂蝶阀阀杆安全扭矩表- Safe stem torque for BAODI butterfly valve

规格 mm Size	40	50	65	80	100	125	150	200
安全阀杆扭矩 N·m Safe stem torque	30	35	40	45	55	80	130	200
规格 mm Size	250	300	350	400	450	500	600	
安全阀杆扭矩 N·m Safe stem torque	400	600	800	1000	1100	1500	2000	

(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.

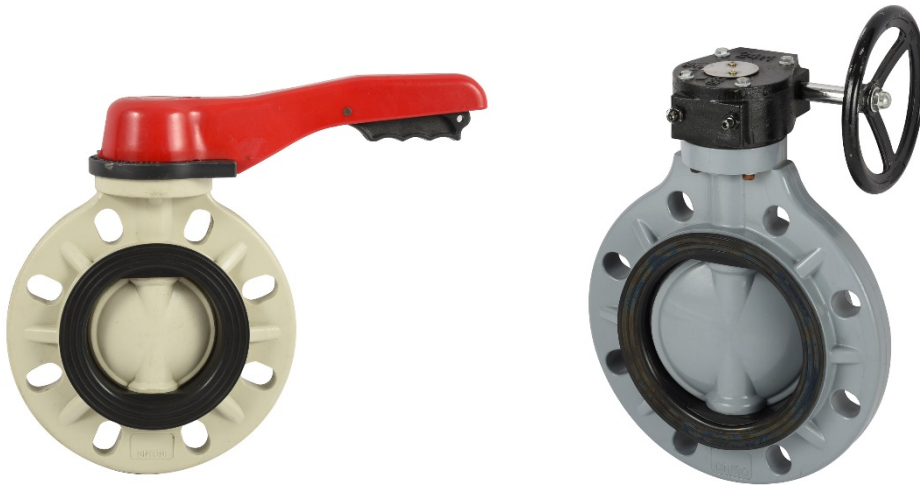
(1)	检查宝蒂阀门是否有瑕疵，裂缝或变形。 Check for flaw, crack, or deformation on BAODI valve
(2)	检查外面是否有泄漏。 Check for leaks to the outside.
(3)	由于阀门安装不当，检查阀座是否变形。 Check for the deformation of seat due to improper installation of valve.
(4)	检查手柄操作的平稳性。 Check for the smoothness of handle operation..

(8) 故障排除-Troubleshooting

现象 Phenomenon	原因 Cause	处理方法 Treatment
<p>即使宝蒂阀门完全关闭, 流体也会从阀门泄漏。 Fluid leaks from BAODI valve even when the valve is fully closed.</p>	<p>1) 蜗轮或手柄设置不正确。 The adjuster is not set correctly.</p> <p>2) 阀座橡胶损坏或磨损。 The seat is damaged or worn.</p> <p>3) 在阀门里有异物。 Foreign materials are caught.</p> <p>4) 阀瓣已损坏或磨损。 The disc is damaged or worn.</p> <p>5) 连接螺栓过紧或拧紧程度不均匀。 The connecting bolts are over tightened or tightened unevenly</p>	<p>调整蜗轮或手柄。 Adjust the adjuster</p> <p>更换阀座。 Replace the seat.</p> <p>清理。 Clean it up.</p> <p>更换阀瓣。 Replace the disc.</p> <p>调整并重新拧紧。 Adjust and retighten</p>
<p>流体泄漏到外面。 Fluid leaks to the outside.</p>	<p>1)→ 阀座损坏或磨损。 The seat is damaged or worn.</p> <p>2)→ 连接螺栓没有以适当的扭矩或均匀地拧紧。 The connecting bolts are not tightened in proper torque or evenly.</p>	<p>更换阀座。 Replace the seat</p> <p>调整并重新拧紧。 Adjust and retighten.</p>
<p>阀门难以扳动, 或扳动手柄无反应。 The handle does not work smoothly.</p>	<p>1)→ 异物已经加入。 Foreign materials have adhered.</p> <p>2)→ 蜗轮箱损坏。 The gear box is damaged.</p> <p>3)→ 连接螺栓过紧。 The connecting bolt is over tightened.</p>	<p>清理。 Clean it up.</p> <p>修理或更换。 Repair or replace.</p> <p>调整并重新拧紧。 Adjust and retighten</p>
<p>阀门不工作。 BAODI valve does not operate</p>	<p>1)→ 蜗轮箱损坏。 The gear box is damaged.</p> <p>2)→ 阀杆受损。 The stem is damaged.</p>	<p>修理或更换。 Repair or replace</p> <p>更换阀杆。 Replace the stem.</p>
<p>如果您无法解决问题, 请联系宝蒂公司或当地宝蒂经销商。 If you cannot resolve the issue, please contact BAODI or your local BAODI dealer.</p>		



蝶阀安装和使用说明书
Installation and operation manual for butterfly valve



宝蒂-塑料阀门专家
BAODI-Plastic Valve Expert

<https://bdsjfm.com>