

D641X 气动法兰蝶阀系列

D641X Pneumatic Flanged Butterfly Valve Series

使
用
说
明
书

Operating instructions



开 维 喜 阀 门 集 团 有 限 公 司
Kaiweixi Valve Group Co., LTD.

D641X 气动法兰蝶阀

D641X Pneumatic Flanged Butterfly Valve

型号: D641X	规格: DN50-DN2000
公称压力: PN10~PN16	适用介质: 水、油品及类似液体、气体。
适用温度: $\leq 80^{\circ}\text{C}$	阀体材质: 铸铁、球铁、不锈钢+衬胶、衬氟
连接方式: 法兰	驱动方式: 气动

Model: D641X
Size: DN50-DN2000
Nominal Pressure: PN10-PN16
Applicable Medium: Water, oil, similar liquids, and gas
Applicable Temperature: $\leq 80^{\circ}\text{C}$
Body Material: Cast iron, ductile iron, stainless steel + rubber lining, fluorine lining
Connection Type: Flange
Actuation Type: Pneumatic

概述

D641X 气动法兰蝶阀是一种以压缩空气为动力源，通过气动执行器驱动蝶板作 90° 旋转运动，从而实现管道介质快速启闭或比例调节的阀门。该阀门采用法兰连接方式，与管道法兰通过螺栓紧固，连接可靠。其核心传动机构将气动执行器的直线或旋转输出扭矩，通过连接件直接传递至阀杆，带动阀杆及与之固定的蝶板在阀体腔内精确转动。蝶板密封面通常包覆有橡胶等弹性材料，与阀体内壁的金属或非金属阀座形成过盈配合，实现双向软密封。D641X 气动蝶阀具有动作迅速、控制方便、远程及自动化集成度高等特点，广泛应用于石油、化工、电力、冶金及环保等工业自动化控制系统中。

Overview

The D641X Pneumatic Flanged Butterfly Valve is a type of valve that uses compressed air as the power source. Driven by a pneumatic actuator, the valve disc performs a 90° rotary motion to achieve rapid on-off operation or proportional control of the pipeline medium. This valve utilizes a flanged connection type, securely fastened to the pipeline flange via bolts for reliable connection. Its core transmission mechanism directly transfers the linear or rotary output torque from the pneumatic actuator to the valve stem through connecting components, driving the valve stem and the attached disc to rotate precisely within the valve body cavity. The sealing surface of the disc is typically lined with elastic materials such as rubber, forming an interference fit with the metal or non-metal seat inside the valve body to achieve bi-directional soft sealing. The D641X Pneumatic Butterfly Valve features rapid actuation, convenient control, and high integration capability for remote and automated operations. It is widely used in industrial automation control systems across sectors such as petroleum, chemical, power, metallurgy, and environmental protection.



D641X 气动法兰蝶阀产品图

Product Diagram of D641X Pneumatic Flanged Butterfly Valve

特点

- 1、气动快速驱动：采用单作用或双作用气动执行器，利用压缩空气驱动，启闭迅速（通常仅需数秒），可实现远距离集中控制或与自动化系统联动，响应灵敏。
- 2、法兰连接稳固：阀体采用标准法兰端面设计，连接强度高，密封性好，便于管道系统的安装与对接，适用于中高压工况。
- 3、优良密封性能：蝶板密封圈采用高品质三元乙丙橡胶（EPDM）、丁腈橡胶（NBR）或氟橡胶（FKM）等，弹性好、耐磨耐蚀，与阀座紧密贴合，确保双向零泄漏或低泄漏密封。
- 4、流阻小、节能：阀门全开时，蝶板厚度为介质流道唯一障碍，流阻系数极小，能有效降低管道系统压力损失，节约能源。
- 5、结构紧凑轻便：相比同口径闸阀、截止阀，其结构长度短、整体重量轻，占用空间小，安装与维护更为便捷。
- 6、耐腐蚀长寿命：阀体内外表面可进行环氧树脂喷涂、镀锌或衬塑等防腐处理，关键部件（如阀杆、蝶板）采用不锈钢或合金钢材质，耐腐蚀性强，适用于多种腐蚀性介质及恶劣环境。
- 7、多种控制模式：可配备电磁阀、限位开关、定位器及过滤减压阀等附件，实现开关两位控制或连续的智能比例调节，满足精确流量控制需求。
- 8、维护简便经济：模块化设计，主要密封件更换容易，维护成本低；部分结构设计允许在线更换阀座密封圈，无需将阀门从管道上拆下。

Features

- 1、Pneumatic Rapid Actuation:
Utilizes single-acting or double-acting pneumatic actuators driven by compressed air, enabling swift opening and closing (typically within seconds). It allows for centralized remote control or integration with automated systems, offering highly responsive operation.
- 2、Stable Flanged Connection:
Designed with standard flanged ends, the valve body ensures high connection strength and excellent sealing performance. It facilitates easy installation and alignment within piping systems, making it suitable for medium- to high-pressure applications.
- 3、Superior Sealing Performance:
The valve disc seal is made of high-quality materials such as EPDM, NBR, or FKM rubber, providing excellent elasticity, wear resistance, and corrosion resistance. Tightly fitted with the valve

seat, it ensures bidirectional zero-leakage or low-leakage sealing.

4、Low Flow Resistance and Energy Efficiency:

When fully open, the disc thickness is the only obstruction in the flow path, resulting in minimal flow resistance. This effectively reduces pressure loss in the piping system and contributes to energy savings.

5、Compact and Lightweight Design:

Compared to gate valves and globe valves of the same nominal diameter, this valve features a shorter face-to-face length and lighter overall weight. Its compact design saves space and simplifies installation and maintenance.

6、Corrosion Resistance and Long Service Life:

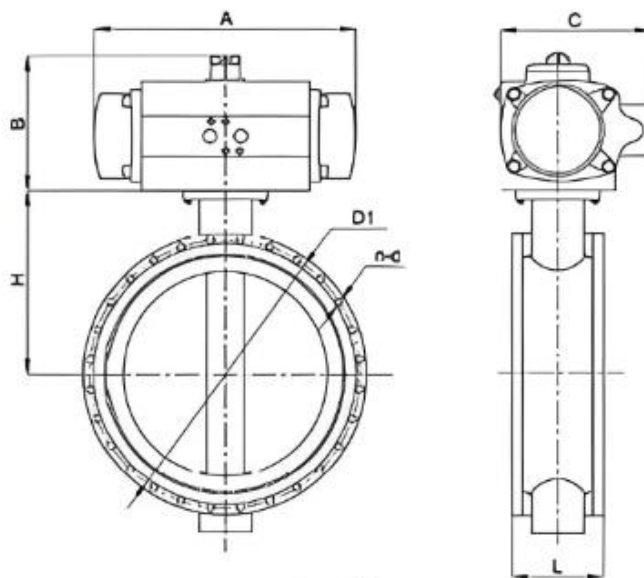
The valve body can be treated internally and externally with epoxy coating, galvanization, or plastic lining for enhanced corrosion protection. Key components such as the valve stem and disc are made of stainless steel or alloy steel, ensuring durability and suitability for various corrosive media and harsh environments.

7、Versatile Control Options:

Can be equipped with accessories such as solenoid valves, limit switches, positioners, and filter regulators. This enables on-off control or continuous intelligent proportional regulation to meet precise flow control requirements.

8、Easy and Cost-Effective Maintenance:

Designed with modularity, key sealing components can be replaced easily and economically. Some structural designs even allow for in-line replacement of seat seals without removing the valve from the pipeline.



D641X 气动法兰蝶阀结构图

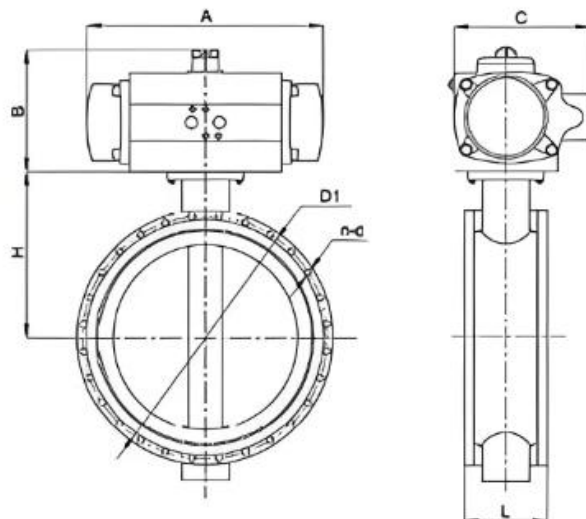
Structural Diagram of D641X Pneumatic Flanged Butterfly Valve

零部件名称材料表 List of Parts and Materials

名称 Part Name	材料 Material
气动执行器 Pneumatic Actuator	铝合金（缸体）+ 碳钢（附件） Aluminum alloy (cylinder body)+carbon steel (attachment)
阀杆 Valve Stem	不锈钢（304）Stainless Steel (304)
蝶板 Disc / Butterfly Disc	球墨铸铁（表面包覆橡胶） Ductile Iron (rubber-coated surface)
密封件 Sealing Component / Element	橡胶（丁腈胶 NBR / 三元乙丙胶 EPDM） Rubber (Nitrile rubber NBR/Ethylene propylene diene monomer EPDM)
阀座 Valve Seat	橡胶（与密封件材质匹配） Rubber (matching the material of the Seal Kit)
螺栓 / 螺母 Bolt / Nut	碳钢（或不锈钢） Carbon Steel (or Stainless Steel)
阀体 Valve Body	铸铁、球铁、不锈钢+衬胶、衬氟 Cast iron, ductile iron, stainless steel + rubber lining, fluorine lining

性能规范表 Performance Specification Table

性能规范表 Performance Specification Table		
公称压力 Nominal Pressure	1.0/1.6	MPa
强度试验压力 Strength Test Pressure	1.5/2.4	
密封试验压力 Sealing Test Pressure	1.1/1.76	
适用温度 Applicable Temperature	≤80	℃



D641X 气动法兰蝶阀外形尺寸图

D641X Pneumatic Flanged Butterfly Valve Overall Dimension Drawing

D641X 气动法兰蝶阀外形尺寸表

D641X Pneumatic Flanged Butterfly Valve overall dimension table

DN	主要外形连接尺寸 Main external connection dimensions					法兰尺寸和螺栓孔尺寸 flange dimensions, and bolt hole dimensions											
	L	H	H1	A	B	0.6MPa				1.0MPa				1.6MPa			
						D	D1	D2	n-d	D	D1	D2	n-d	D	D1	D2	n-d
50	108	82.5	306	80	80	140	110	88	4-14	185	125	99	4-18	165	125	99	4-18
65	112	92.5	321	80	80	160	130	108	4-14	185	145	118	4-18	185	145	118	4-18
80	114	100	346	80	80	190	150	124	4-18	200	160	132	8-18	200	160	132	8-18
100	127	110	387	95	95	210	170	144	4-18	220	180	156	8-18	220	180	156	8-18
125	140	125	411	95	95	240	20	174	8-18	250	210	184	8-18	250	210	184	8-18
150	140	142.5	447	95	95	265	225	199	8-18	285	240	211	8-22	285	240	211	8-22
200	152	170	607	190	308	320	280	254	8-18	340	295	266	8-22	340	295	266	12-22
250	165	192.5	688	190	308	375	335	309	12-18	395	350	319	12-22	405	355	319	12-26
300	178	222.5	742	190	308	440	395	363	12-22	445	400	370	12-22	460	410	370	12-26
350	190	252.5	797	190	308	490	445	413	12-22	505	460	429	16-22	520	470	429	16-26
400	216	282.5	930	270	466	540	495	463	16-22	565	515	480	16-26	580	525	480	16-30
450	222	307.5	975	270	466	595	550	518	16-22	615	565	530	20-26	640	585	548	20-30
500	229	335	1065	270	466	645	600	568	20-22	670	620	582	20-26	715	650	609	20-33
600	267	390	1225	457	625	755	705	667	20-26	780	725	682	20-30	840	770	720	20-36
700	292	447.5	1343	457	625	860	810	772	24-26	895	840	794	24-30	910	840	794	24-36
800	318	507.5	1436	457	625	975	920	878	24-30	1015	950	901	24-33	1025	950	901	24-39
900	330	557.5	1616	598	853	1075	1020	978	24-30	1115	1050	1001	28-33	1125	1050	1001	28-39
1000	410	615	1711	598	853	1175	1120	1078	28-30	1230	1160	1112	28-36	1255	1170	1112	28-42
1200	470	727.5	1971	598	853	1405	1340	1295	32-33	1455	1380	1328	32-39	1485	1390	1328	32-48

1400	530	837.5	2218	860	1345	1630	1560	1510	36-36	1675	1590	1530	36-42	1685	1590	1530	36-48
1600	600	957.5	2578	860	1345	1830	1760	1710	40-36	1915	1820	1750	40-48	1930	1820	1750	40-56
1800	670	1057.5	2689	860	1345	2045	1970	1918	44-39	2115	2020	1950	44-48	2130	2020	1950	44-56
2000	760	1162.5	3022	952	1592	2265	2180	2125	48-42	2325	2230	2150	48-48	2345	2230	2150	48-62

安装与维护须知

一、 安装说明

安装前检查：

核对验证：仔细核对阀门铭牌上的型号、公称通径（DN）、压力等级（PN）、执行器型号及阀体上的箭头方向，确保与管路设计参数、介质流向一致。

外观检查：检查阀门及气动执行机构外观，确认在运输过程中无碰撞损伤。清除阀腔内及密封面的所有防护物、油脂和杂物。

手动测试：将气动执行机构上的 手动操作机构（如手轮或手柄）切换至“手动”模式，手动操作确认蝶板启闭灵活、无卡阻。操作完毕后，建议将蝶板置于微开状态（约 10%开度），以便安装对准。切换回“自动”模式。

安装位置与方向：

阀门可安装于水平或垂直管道上。安装位置必须确保有足够的空间，便于气源管路连接、执行机构的操作、维护以及位置反馈器等附件的查看。

必须 确保阀体上铸造或标示的箭头方向与管道中介质的预定流向一致。

管道对接要求：

本阀门采用法兰连接。安装时，请使用与阀门法兰相匹配的标准管道法兰、垫片及连接螺栓。

严禁 通过强行拧紧螺栓来校正管道法兰与阀门法兰之间的错位、不平行或过大的间隙。安装前应确保管道法兰面清洁、对齐且平行，间隙均匀。

将阀门平稳放入管道法兰之间，插入全部螺栓并用手初步拧紧螺母。

分步均匀拧紧：使用合适的扳手，采用对角、交叉、逐次的方式（建议分 2-3 轮）均匀拧紧所有法兰螺栓，直至达到推荐的扭矩值，确保阀门均匀受力，防止阀体变形导致密封泄漏。

气动执行机构安装与调试：

气动执行机构通常在出厂前已与阀门本体组装并经过基本调试。阀门在管道上安装就位后，再进行气路连接和最终调试。

气源连接：按照执行机构气路接口标识（通常“IN”或“SUPPLY”为进气口）连接洁净、干燥、稳定的气源管。气源压力需符合执行器铭牌规定。建议在气源入口安装过滤减压阀。

手动操作：在通气前，务必确认执行机构上的 手动/自动切换机构 处于“手动”位置，防止意外动作。

初步通气测试：缓慢开启气源，观察执行机构有无漏气。通过手动机构操作阀门至中间位置。

- 切换至“自动”模式。通气操作，使阀门 关闭。
- 调节执行机构上的关向限位螺钉（通常标记为“CLOSE”或“L”），使蝶板达到预期的全关位置，并确保关到位。
- 通气操作，使阀门开启。
- 调节执行机构上的开向限位螺钉（通常标记为“OPEN”或“R”），使蝶板达到预期的全开位置（通常为 90°）。
- 反复进行数次开-关-开循环，观察动作是否平稳，终点位置是否准确、稳定。

附件调试：如配备定位器、限位开关、电磁阀等附件，请严格按照其各自说明书进行接线、参数设定和功能测试。

二、 使用与操作说明

开启与关闭操作：

首次或长期停用后启用：建议在系统压力较低或介质未完全充满管道时，通过手动机构或缓慢控制气源信号，使阀门进行数次轻柔的全行程开关操作，以磨合密封面并排出可能存在的异物。

正常自动操作：通过控制系统（如电磁阀、定位器）发送气动信号进行控制。阀门启闭应平稳。

手动操作：在气源故障或调试时，使用执行器上的手动机构进行操作。操作前必须将切换手柄扳至“手动”位置，操作完毕需切回“自动”。手动操作时力量应均匀，到达全开或全关位置有阻力感时即停止，切勿强行超限操作。

开度调节：

当配置气动定位器时，本阀门可用于精确的流量或压力调节。通过输入连续的模拟信号（如 4-20mA），可控制蝶板停留在 0° 至 90° 间的任何角度。

若阀门长期在部分开度下进行调节运行，应每周或每月定期进行一次全行程开关操作，以防止蝶板或阀座局部堆积沉积物导致卡涩或影响密封。

重要注意事项：

避免长期微开节流：严禁将本阀门长期用作节流阀并停留在极小开度（通常指 $<10^{\circ}$ ），以避免高速流体对密封副造成严重的冲蚀和气蚀损坏。

高温工况处理：用于高温介质时，在冷态安装紧固后，系统首次通入热介质达到工作温度时，必须在热态下对所有法兰连接螺栓进行再次均匀紧固，以补偿热膨胀差异，防止泄漏。

气源质量：保证供给执行机构的压缩空气清洁、干燥，并保持稳定的压力，这是阀门可靠工作的前提。

故障安全模式：了解执行机构的故障安全模式（故障开 FO、故障关 FC、故障保持 FL），并确保其符合工艺安全要求。

三、 维护与保养说明

日常维护：

定期巡检阀门外部、法兰连接处及气路接头有无泄漏（介质泄漏或空气泄漏）。

保持阀门、执行机构及附件的清洁，尤其是阀杆伸出部位。

定期检查气源处理三联件（过滤器、减压阀、油雾器），及时排放冷凝水，保证油雾器有适量润滑油。

观察阀门在自动操作下的启闭是否顺畅，位置是否准确。

定期检查：

根据使用频率和工况条件，建议每 6 个月至 1 年进行一次全面的预防性检查和维护。

阀门部分：检查阀杆转动是否灵活；通过检查口（如有）或拆卸检查密封面磨损情况；检查法兰螺栓紧固状态；检查阀体内部有无异常腐蚀或沉积。

执行机构部分：检查气动执行器有无外部损伤或腐蚀；检查手动操作机构功能是否正常；检查所有紧固件；对需要润滑的传动部件加注指定润滑脂。

附件部分：检查定位器、限位开关、电磁阀等附件的工作状态和接线可靠性。

存放要求：

阀门长期存放时，应处于微开状态（蝶板开启约 5° - 10° ），使密封面不长期受压粘连。

关闭阀门通道两端的法兰保护盖。

将执行机构切换至“手动”模式，并置于关闭或打开的安全位置。

断开气源连接，并对执行机构进气口进行防尘保护。

存放于干燥、通风的室内，避免潮湿、极端温度和腐蚀性环境。

常见故障与处理：

阀门泄漏：

关闭不严：检查气源压力是否足够；检查并重新调整关向限位；检查密封面是否损坏或有异物。

阀体法兰处泄漏：检查并均匀紧固法兰螺栓；检查垫片是否损坏。

阀杆处泄漏：轻微均匀拧紧填料压盖螺栓或联系厂家更换填料。

阀门不动作或动作缓慢：

检查气源压力是否正常、气路是否畅通。

检查电磁阀、定位器是否正常工作。

切换至手动模式，检查阀门是否因内部卡涩导致扭矩过大。

检查执行机构是否内部泄漏。

操作扭矩过大/卡阻：

检查阀门内部是否有异物或沉积物卡住蝶板。

检查管道应力是否传递到阀门上。

检查执行机构输出扭矩是否与阀门所需扭矩匹配。

对于阀座、蝶板密封圈等核心部件的更换，或涉及执行机构内部、定位器的复杂故障，强烈建议联系专业技术人员或阀门制造商进行处理，以确保安全与性能。

重要提示：本说明书为 D641X 气动法兰蝶阀的通用性指导。对于应用于特殊工况（如超高温、超低温、强腐蚀、剧毒、易燃易爆等），用户必须严格遵守相关行业标准、项目具体技术规范及安全操作规程，并参考制造商提供的专项技术文件。操作和维护人员应具备相应资质。

Installation and Maintenance Instructions

I. Installation Instructions

Pre-installation Inspection:

Verification: Carefully verify that the model, nominal diameter (DN), pressure rating (PN), actuator model on the valve nameplate, and the arrow direction on the valve body correspond to the pipeline design parameters and the intended medium flow direction.

Visual Inspection: Inspect the valve and pneumatic actuator for any impact damage incurred during transportation. Remove all protective materials, grease, and debris from the valve cavity and sealing surfaces.

Manual Test: Switch the manual override mechanism (e.g., handwheel or lever) on the pneumatic actuator to "Manual" mode. Operate manually to confirm that the disc opens and closes smoothly without sticking. After operation, it is recommended to set the disc to a slightly open position (approximately 10% open) to facilitate alignment during installation. Switch back to "Automatic" mode.

Installation Position and Orientation:

The valve can be installed on horizontal or vertical pipelines. The installation location must provide sufficient space for air supply piping connection, actuator operation, maintenance, and viewing of accessories such as positioners.

Ensure the arrow direction cast or marked on the valve body aligns with the intended flow direction of the medium in the pipeline.

Pipeline Connection Requirements:

This valve employs flange connections. During installation, use standard pipeline flanges, gaskets, and connecting bolts compatible with the valve flanges.

Do not forcibly tighten bolts to correct misalignment, non-parallelism, or excessive gaps between the pipeline flanges and the valve flanges. Ensure the pipeline flange faces are clean, aligned, parallel, and have uniform spacing before installation.

Place the valve evenly between the pipeline flanges, insert all bolts, and hand-tighten the nuts initially.

Tighten Evenly in Steps: Using an appropriate wrench, evenly tighten all flange bolts using a crosswise, alternating, and incremental method (recommended in 2-3 rounds) until the recommended torque value is reached. This ensures the valve is evenly loaded, preventing valve body deformation that could lead to seal leakage.

Pneumatic Actuator Installation and Commissioning:

The pneumatic actuator is typically pre-assembled to the valve body and undergoes basic commissioning at the factory. Final air circuit connection and commissioning should be performed after the valve is installed and secured in the pipeline.

Air Supply Connection: Connect clean, dry, and stable air supply piping to the actuator's air port per the identification (typically "IN" or "SUPPLY" for the inlet port). The air supply pressure

must comply with the actuator nameplate specifications. Installing a filter regulator at the air supply inlet is recommended.

Manual Operation: Before supplying air, ensure the manual/automatic override mechanism on the actuator is in the "Manual" position to prevent unintended movement.

Initial Air Supply Test: Slowly open the air supply and check for air leaks at the actuator. Use the manual override to operate the valve to a mid-stroke position.

Travel and Limit Adjustment (Critical Step):

- a. Switch to "Automatic" mode. Supply air to operate the valve to the closed position.
- b. Adjust the close direction limit screw (typically marked "CLOSE" or "L") on the actuator so that the disc reaches the desired full closed position, ensuring it is fully seated.
- c. Supply air to operate the valve to the open position.
- d. Adjust the open direction limit screw (typically marked "OPEN" or "R") on the actuator so that the disc reaches the desired full open position (typically 90°).
- e. Perform several open-close-open cycles repeatedly, observing whether the action is smooth and the end positions are accurate and stable.

Accessory Commissioning: For accessories such as positioners, limit switches, or solenoid valves, strictly follow their respective manuals for wiring, parameter setting, and functional testing.

II. Operation and Use Instructions

Opening and Closing Operations:

Initial Start-up or After Prolonged Shutdown: It is advisable to perform several gentle full-stroke opening and closing operations via the manual override or by slowly controlling the air signal, preferably under low system pressure or before the pipeline is completely filled with medium. This helps seat the sealing surfaces and expel any potential debris.

Normal Automatic Operation: Control is achieved via pneumatic signals sent from the control system (e.g., solenoid valve, positioner). Valve opening and closing should be smooth.

Manual Operation: Use the actuator's manual override mechanism in case of air supply failure or during commissioning. The override handle must be switched to "Manual" before operation and returned to "Automatic" afterwards. Apply force evenly during manual operation; stop when resistance is felt at the full open or full closed position. Do not force operation beyond the limits.

Opening Adjustment:

When equipped with a pneumatic positioner, this valve can be used for precise flow or pressure regulation. By inputting a continuous analog signal (e.g., 4-20mA), the disc can be positioned at any angle between 0° and 90°.

If the valve operates in a modulating (partial open) mode for extended periods, conduct a periodic full-stroke open-close operation weekly or monthly to prevent debris accumulation on the disc or seat, which could cause sticking or affect sealing.

Important Precautions:

Avoid Prolonged Throttling at Low Openings: Do not use this valve as a throttle valve for extended periods at very low openings (typically $<10^\circ$) to prevent severe erosion and cavitation damage to the sealing surfaces caused by high-velocity fluid.

High-Temperature Service Handling: For high-temperature media applications, after initial cold installation and tightening, perform a secondary uniform tightening of all flange connection bolts when the system reaches operating temperature with hot medium for the first time. This compensates for thermal expansion differences and prevents leakage.

Air Supply Quality: Ensure the compressed air supplied to the actuator is clean, dry, and maintained at a stable pressure, which is essential for reliable valve operation.

Fail-Safe Mode: Understand the actuator's fail-safe mode (Fail-Open FO, Fail-Close FC, Fail-Lock FL) and ensure it complies with process safety requirements.

III. Maintenance and Care Instructions**Routine Maintenance:**

Periodically inspect the valve exterior, flange connections, and air circuit joints for any leaks (medium or air).

Keep the valve, actuator, and accessories clean, especially the valve stem extension area.

Regularly check the air preparation unit (filter, regulator, lubricator); drain condensate promptly and ensure the lubricator contains an adequate amount of lubricant.

Observe whether the valve opens and closes smoothly and positions accurately during automatic operation.

Periodic Inspection:

Depending on usage frequency and service conditions, a comprehensive preventive inspection and maintenance is recommended every 6 months to 1 year.

Valve Section: Check for smooth rotation of the valve stem; inspect seal face wear via inspection port (if available) or disassembly; check the tightness of flange bolts; inspect the valve interior for abnormal corrosion or deposits.

Actuator Section: Inspect the pneumatic actuator for external damage or corrosion; verify the manual override functions correctly; check all fasteners; lubricate transmission components requiring grease with the specified lubricant.

Accessories Section: Check the operational status and wiring reliability of accessories such as positioners, limit switches, and solenoid valves.

Storage Requirements:

For long-term storage, the valve should be in a slightly open position (disc open approximately $5^\circ - 10^\circ$) to prevent the sealing surfaces from sticking under constant pressure.

Install flange protective covers on both ends of the valve ports.

Switch the actuator to "Manual" mode and place it in a safe position (closed or open).

Disconnect the air supply and protect the actuator air inlet ports from dust.

Store in a dry, ventilated indoor environment, avoiding dampness, extreme temperatures, and corrosive atmospheres.

Common Troubleshooting:

Valve Leakage:

Leakage when closed: Check if air supply pressure is sufficient; check and readjust the close limit; inspect the seal faces for damage or debris.

Leakage at valve body flanges: Check and uniformly tighten flange bolts; inspect the gasket for damage.

Leakage at valve stem: Gently and evenly tighten the gland follower bolts, or contact the manufacturer for packing replacement.

Valve Does Not Operate or Operates Slowly:

Check if air supply pressure is normal and the air circuit is unobstructed.

Check if solenoid valves or positioners are functioning correctly.

Switch to manual mode to check if the valve is stuck internally, causing excessive torque.

Check the actuator for internal leakage.

Excessive Operating Torque / Sticking:

Check for internal debris or deposits jamming the disc.

Check if pipeline stress is transmitted to the valve.

Verify if the actuator output torque matches the valve's required torque.

For replacement of core components like seat rings and disc seals, or for complex faults involving the actuator internals or positioner, it is strongly recommended to contact qualified technicians or the valve manufacturer for handling to ensure safety and performance.

Important Notice: This manual provides general guidance for the D641X Pneumatic Flanged Butterfly Valve. For applications in special service conditions (e.g., extremely high/low temperatures, strong corrosion, highly toxic, flammable, explosive media, etc.), users must strictly adhere to relevant industry standards, specific project technical specifications, safety operating procedures, and refer to specialized technical documents provided by the manufacturer. Operating and maintenance personnel should possess appropriate qualifications.

非常感谢您的阅读！

Thank you very much for reading!

开维喜阀门集团有限公司

地址：浙江省温州市永嘉县瓯北街道三桥工业区林下路 1 号

电话：+86 18967796392

网址：<https://www.kaiweixi.com>

mail: karrie@kaiweixi.com

Kaiweixi Valve Group Co., Ltd

Address: No.1 Linxia Road, Sanqiao Industrial Zone, Oubei Street, Yongjia County, Wenzhou City,
Zhejiang Province

Phone: +86 18967796392

URL: <https://www.kaiweixi.com>

E-mail: karrie@kaiweixi.com