

D341W 通风蝶阀系列

D341W Ventilation Butterfly Valve Series

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书



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

D341W 通风蝶阀

D341W ventilation butterfly valve

型号: D341W 规格: DN50-DN2000
公称压力: PN6-PN10 适用介质: 含尘烟气、空气、煤气等
适用温度: -29-425 °C 阀体材质: 碳钢、不锈钢
连接方式: 法兰 驱动方式: 手动、蜗轮、气动、电动
Model: D341W
Size: DN50 - DN2000
Nominal Pressure: PN6-PN10
Applicable Media: Dust-laden flue gas, air, gas, etc.
Applicable Temperature: -29-425 °C
Body Material: Carbon steel, stainless steel
Connection Type: Flange
Drive Mode: Manual, worm gear, pneumatic, electric

概述

D341W 通风蝶阀是一种通过圆盘形蝶板绕其固定轴（阀杆）旋转来开启、关闭和调节气体通道的阀门。其阀杆轴线通常采用垂直板面的中心或偏心设计，蝶板结构根据工况需求而定。阀门采用法兰式连接，即阀体自带法兰，通过螺栓与管道法兰直接对接。蝶板密封通常采用金属密封或非密封设计，阀座可为本体堆焊或镶嵌结构，适用于低压差的气体介质流通控制。该阀门通过手动、电动或气动装置驱动阀杆旋转，通常为 90°，以实现对通风管网中气流通断与流量的控制。

Overview

D341W ventilation butterfly valve is a valve that opens, closes, and regulates gas channels by rotating a disc-shaped butterfly plate around its fixed axis (valve stem). The axis of its valve stem is usually designed with a center or eccentricity perpendicular to the plate surface, and the butterfly plate structure is determined according to the working conditions. The valve adopts a flange connection, which means that the valve body comes with a flange and is directly connected to the pipeline flange through bolts. Butterfly plate sealing usually adopts metal sealing or non sealed design, and the valve seat can be a body welding or embedded structure, suitable for controlling the flow of low-pressure gas media. This valve is driven by a manual, electric, or pneumatic device to rotate the valve stem, typically 90 degrees, to control the flow of air in the ventilation network.



D341W 通风蝶阀产品图

D341W ventilation butterfly valve product diagram

特点

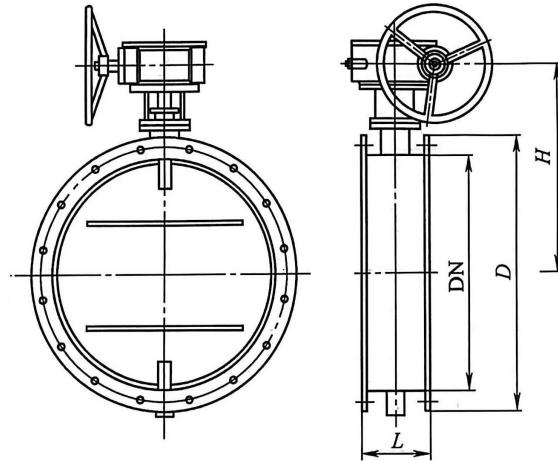
- 1、结构坚固，适用性强：采用法兰式连接，阀体结构相对稳固，能更好地承受管道应力与轻微振动，适用于通风、除尘及环境控制等气体管道系统。
- 2、启闭灵活，调节性能好：蝶板旋转 90° 即可实现快速启闭，操作简便。通过控制蝶板开度，可方便地对气体流量进行线性的或近似线性的调节。
- 3、流体阻力小：全开时，蝶板厚度为介质流道的主要阻力，流道形状近似圆形，因此对气体的流动阻碍小，压降较低，有利于节能。
- 4、密封形式多样：通常采用金属（如不锈钢）密封或非密闭设计。对于要求较低的通风场合，可采用非密闭结构以降低成本；对于需要一定密闭性的场合，可采用特殊设计的金属密封或软硬复合密封结构。
- 5、维护相对简便，耐磨损：阀门结构相对简单，关键部件如阀杆、轴承座等维护更换较为方便。其密封结构设计（特别是金属密封）通常具有较好的耐磨和耐冲刷性，适用于含粉尘或颗粒的气体介质。
- 6、用途专业化：专为气体介质（如空气、烟气、煤气、含尘气体等）的流通控制而设计。阀体材质常为碳钢、不锈钢等，蝶板可采用碳钢、不锈钢或覆以耐磨、耐腐蚀涂层，广泛应用于冶金、建材、化工、电力等行业的通风与环保系统。

feature

1. Sturdy structure and strong applicability: adopting flange connection, the valve body structure is relatively stable, which can better withstand pipeline stress and slight vibration, suitable for gas pipeline systems such as ventilation, dust removal, and environmental control.
2. Flexible opening and closing, good adjustment performance: the butterfly plate can be quickly opened and closed by rotating 90 ° , and the operation is simple. By controlling the opening of the butterfly plate, it is easy to adjust the gas flow rate linearly or approximately linearly.
3. Low fluid resistance: When fully open, the thickness of the butterfly plate is the main resistance of the medium flow channel, and the shape of the channel is approximately circular, so it has less obstruction to gas flow and lower pressure drop, which is conducive to energy conservation.
4. There are various forms of sealing: usually using metal (such as stainless steel) sealing or non sealed design. For ventilation environments with lower requirements, non sealed structures can be used to reduce costs; For situations that require a certain degree of sealing, specially designed metal seals or soft hard composite sealing structures can be used.
5. Relatively easy to maintain and wear-resistant: The valve structure is relatively simple, and

key components such as valve stem and bearing seat are easy to maintain and replace. Its sealing structure design (especially metal sealing) usually has good wear resistance and erosion resistance, and is suitable for gas media containing dust or particles.

6. Specialized use: Designed specifically for the flow control of gas media such as air, flue gas, coal gas, dusty gases, etc. The valve body material is often carbon steel, stainless steel, etc. The butterfly plate can be made of carbon steel, stainless steel, or coated with wear-resistant and corrosion-resistant coatings, and is widely used in ventilation and environmental protection systems in industries such as metallurgy, building materials, chemical engineering, and power.



D341W 通风蝶阀结构图

D341W ventilation butterfly valve structure diagram

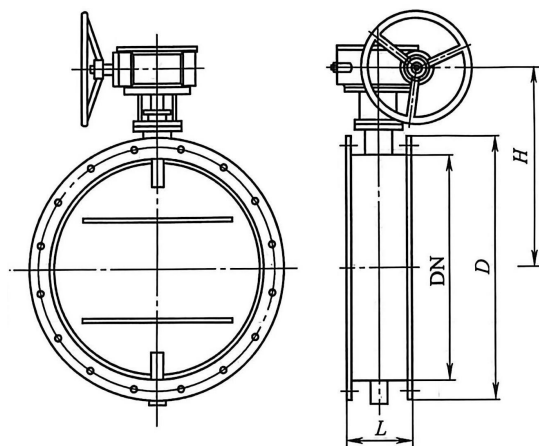
零部件名称材料表

Parts Name and Material List

零件名称 Part Name	材料 Material
阀体 Valve Body	碳钢、不锈钢 Carbon steel, stainless steel
阀板 Valve Disc	碳钢 Carbon Steel
阀轴 Valve Stem	碳钢、不锈钢 Carbon Steel, Stainless Steel

性能规范表 Performance Specification Sheet

性能规范表 Performance Specification Sheet		
公称压力 Nominal Pressure	0.6/1.0	MPa
强度试验压力 Strength test pressure	0.9/1.5	
密封试验压力 Sealing test pressure	0.66/1.1	
适用温度 Applicable Temperature	-29~425	℃



D341W 通风蝶阀外形尺寸图

D341W Ventilation Butterfly Valve Outline Dimensional Drawing

D341W 通风蝶阀外形尺寸表

D341W Ventilation Butterfly Valve Overall Dimension Table

型号 model	尺寸 size	公称尺寸 Nominal size D N										
		50	65	80	100	150	200	250	300	350	400	450
D341W=0.5C~6C D341H=0.5C~6C	L	108	112	114	127	140	152	165	178	190	216	222
	D	140	160	190	210	265	320	375	440	490	540	595
	H	216	226	239	249	277	433	463	495	569	593	621
型号 model	尺寸 size	公称尺寸 Nominal size D N										
		500	600	700	800	900	1000	1200	1400	1600	1800	2000
D341W=0.5C~6C D341H=0.5C~6C	L	229	267	292	318	330	410	630	710	790	870	950
	D	645	755	860	975	1075	1175	1405	1630	1830	2045	2265
	H	694	751	803	857	1023	1073	1203	1488	1615	1825	1925

D341W 通风蝶阀安装与维护须知

一、安装说明

安装前检查:

核对阀门型号、口径、压力等级及适用介质（空气、烟气、含尘气体等）是否与管路设计要求一致。

检查阀门外观，确保运输过程中阀体、法兰密封面、蝶板及阀杆无损伤。清除阀腔内及流道内的保护物、油污和杂物。

手动旋转手柄或驱动装置输入轴，确认蝶板启闭灵活、无卡阻。安装前建议将蝶板调整至方便安装的微开位置。

安装位置与方向：

阀门通常可安装于水平或垂直管道上。对于垂直安装，建议考虑介质的重力流向，并确保安装位置稳固，便于操作与维护。

注意阀体或法兰上的箭头指示方向，确保其与介质设计流向一致。部分工况无严格流向要求，但建议按标识安装。

管道对接要求：

阀门采用法兰式连接，需使用与阀门法兰标准、压力等级匹配的管道法兰，并配用合适的密封垫片（如石棉橡胶垫、石墨金属缠绕垫等）。

安装时，使阀门法兰与管道法兰对中。严禁通过强行拧紧螺栓来校正管道法兰间的错位或间隙，以免阀体承受过大安装应力，导致变形或密封失效。应逐次、对角、均匀地分步拧紧螺栓，确保法兰面均匀受压。

驱动装置安装：

若配备电动、气动或蜗轮执行机构，应在阀门管道安装就位并确认对中后再行安装。确保执行机构输出轴与阀杆对中，连接牢固可靠。

手动操作阀门至中间或便于调试的位置，再安装执行机构，并严格依据其说明书进行行程、扭矩及限位的调试与设定。

二、 使用与操作说明

开启与关闭：

首次通入介质前，建议再次手动操作阀门数次，确保全程动作顺畅无阻。

操作时应平稳启闭，避免急速冲击。手动操作到达机械限位后请勿继续强行旋转。使用执行机构时，应确保其电气、气动或机械限位调整正确并有效。

开度调节：

本阀门主要用于气体介质的通断与流量调节，通过控制蝶板旋转角度（通常为 0° - 90° ）可实现相应的流量控制。

若长期用于调节或部分开启状态，建议定期进行数次全行程开关操作，以防粉尘沉积、结垢或机构卡滞。

注意事项：

本阀门通常不适用于高压差、高速或要求零泄漏的严密切断场合。

用于高温气体或含腐蚀性、磨损性颗粒的烟气介质时，应关注蝶板、阀座（密封面）的耐温、耐磨及耐腐

蚀性能，避免超工况使用。通入高温介质后，必要时应按规定对法兰螺栓进行热态紧固。

如介质中含有大颗粒或易凝结物，建议在阀门上游加装过滤或清灰装置。

三、 维护与保养说明

日常维护：

定期检查阀门法兰连接处有无气体泄漏现象。

保持外部清洁，特别是阀杆、轴承座及执行机构外部。对于暴露在外的阀杆和手动装置，定期清除积灰，并按需对轴承、传动部位加注适量耐温润滑脂。

检查配套执行机构（如有）的气源、电源及运行状态是否正常。

定期检查：

根据使用环境（如粉尘浓度、温度、腐蚀性）及操作频率，建议每半年至一年进行一次停机全面检查。

检查内容包括：蝶板与阀座密封面的磨损、冲蚀或结垢情况；阀杆转动是否灵活、有无弯曲或腐蚀；法兰连接螺栓是否松动；轴端密封及填料是否老化失效。

对于含尘气体工况，应特别注意停机时清除阀腔内、蝶板表面及轴套部位的积灰。

存放要求：

阀门长期存放时，建议蝶板处于微开状态（利于通风防潮），并装好两端法兰保护盖。

存放于干燥、通风的室内环境中，避免与腐蚀性化学物质共同存放。

故障与处理：

泄漏量过大：检查蝶板是否关闭到位；检查密封面是否严重磨损、腐蚀或有异物卡阻；检查法兰垫片是否损坏或失效。

操作扭矩过大或卡涩：检查阀腔内是否有异物堆积或粉尘板结；检查阀杆与轴承是否缺油、锈蚀或损坏；检查执行机构是否匹配或存在故障。

如需更换阀座、阀杆、轴承等内部零件，或遇到无法自行排除的故障，建议联系专业技术人员或生产厂家处理。

重要提示：

本说明为通用性技术指导，适用于常规通风、除尘及环境控制气体管路。若用于高温、有毒有害、易燃易爆介质，或作为关键工艺设备及安全保护系统的一部分，必须严格遵循相关行业安全规范及制造商提供的专项技术协议进行操作与维护。

D341W Ventilation Butterfly Valve Installation and Maintenance Instructions

1、 Installation instructions

Pre installation inspection:

Check whether the valve model, diameter, pressure rating, and applicable medium (air, flue gas, dusty gas, etc.) are consistent with the pipeline design requirements.

Check the appearance of the valve to ensure that the valve body, flange sealing surface, butterfly plate, and valve stem are not damaged during transportation. Remove protective materials, oil stains, and debris from the valve chamber and flow channel.

Manually rotate the handle or drive device input shaft to confirm that the butterfly plate opens and closes flexibly without any obstruction. It is recommended to adjust the butterfly plate to a slightly open position for easy installation before installation.

Installation position and direction:

Valves can usually be installed on horizontal or vertical pipelines. For vertical installation, it is recommended to consider the gravity flow direction of the medium and ensure a stable installation position for easy operation and maintenance.

Pay attention to the direction indicated by the arrow on the valve body or flange to ensure that it is consistent with the designed flow direction of the medium. Some working conditions do not have strict flow requirements, but it is recommended to install according to the markings.

Pipeline docking requirements:

The valve adopts a flange connection, which requires the use of a pipeline flange that matches the valve flange standard and pressure rating, and is equipped with suitable sealing gaskets (such as asbestos rubber gaskets, graphite metal winding gaskets, etc.).

During installation, align the valve flange with the pipeline flange. It is strictly prohibited to correct the misalignment or gap between pipeline flanges by forcibly tightening bolts, in order to avoid excessive installation stress on the valve body, which may cause deformation or seal failure. The bolts should be tightened step by step, diagonally, and evenly to ensure that the flange surface is uniformly compressed.

Installation of Drive Device:

If equipped with electric, pneumatic or worm gear actuators, they should be installed in place and confirmed to be aligned before installation. Ensure that the output shaft of the actuator is aligned with the valve stem, and the connection is firm and reliable.

Manually operate the valve to the middle or easily adjustable position, then install the actuator, and strictly follow its instructions for adjusting and setting the stroke, torque, and limit.

2、Instructions for use and operation

Opening and closing:

Before introducing the medium for the first time, it is recommended to manually operate the valve several times to ensure smooth and unobstructed operation throughout the entire process.

During operation, it should be smoothly opened and closed to avoid rapid impact. Do not continue

to forcefully rotate after manually reaching the mechanical limit. When using actuators, ensure that their electrical, pneumatic, or mechanical limit adjustments are correct and effective.

Opening adjustment:

This valve is mainly used for on/off and flow regulation of gas media. By controlling the rotation angle of the butterfly plate (usually 0 ° -90 °), corresponding flow control can be achieved. If used for long-term adjustment or partial opening, it is recommended to perform several full stroke switch operations regularly to prevent dust deposition, scaling, or mechanism jamming.

Notes:

This valve is generally not suitable for high-pressure, high-speed, or tight shut-off applications that require zero leakage.

When used for high-temperature gases or flue gas media containing corrosive and abrasive particles, attention should be paid to the temperature resistance, wear resistance, and corrosion resistance of the butterfly plate and valve seat (sealing surface) to avoid excessive use. After introducing the high-temperature medium, if necessary, the flange bolts should be tightened in a hot state according to the regulations.

If the medium contains large particles or easily condensable substances, it is recommended to install a filtering or cleaning device upstream of the valve.

3、 Maintenance and upkeep instructions

Daily maintenance:

Regularly check for gas leakage at the flange connection of the valve.

Keep the exterior clean, especially the valve stem, bearing seat, and actuator exterior. For exposed valve stems and manual devices, regularly remove accumulated dust and add an appropriate amount of heat-resistant grease to bearings and transmission parts as needed.

Check whether the gas source, power supply, and operating status of the supporting actuator (if any) are normal.

Regular inspection:

Based on the usage environment (such as dust concentration, temperature, corrosiveness) and operating frequency, it is recommended to conduct a comprehensive shutdown inspection every six months to one year.

The inspection includes: wear, erosion or scaling of the sealing surface between the butterfly plate and the valve seat; Whether the valve stem rotates flexibly, whether it is bent or corroded; Are the flange connection bolts loose; Whether the shaft end seal and packing have aged or failed. For dusty gas conditions, special attention should be paid to removing the accumulated dust in the valve chamber, butterfly plate surface, and shaft sleeve during shutdown.

Storage requirements:

When storing the valve for a long time, it is recommended to keep the butterfly plate slightly open (for ventilation and moisture prevention) and install flange protection covers at both ends. Store in a dry and ventilated indoor environment, avoiding co storage with corrosive chemicals.

Fault and handling:

Excessive leakage: Check if the butterfly plate is closed properly; Check whether the sealing surface is severely worn, corroded, or obstructed by foreign objects; Check whether the flange gasket is damaged or ineffective.

Excessive or stuck operating torque: Check if there are foreign objects or dust accumulation in the valve chamber; Check whether the valve stem and bearings are lacking oil, corroded or damaged; Check if the actuator matches or if there is a malfunction.

If it is necessary to replace internal parts such as valve seats, valve stems, bearings, or encounter faults that cannot be resolved by oneself, it is recommended to contact professional technicians or manufacturers for handling.

Important Notice:

This instruction is a general technical guidance applicable to conventional ventilation, dust removal, and environmental control gas pipelines. If used for high temperature, toxic and harmful, flammable and explosive media, or as part of key process equipment and safety protection systems, it must be strictly operated and maintained in accordance with relevant industry safety regulations and special technical agreements provided by manufacturers.

非常感谢您的阅读！

Thank you very much for reading!

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