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科技化、专业化、国际化 Scientific、Professional and International







郑州孚瑞流体控制技术有限公司

Zhengzhou Free Fluid Control Technology Co., Ltd

双向密封刀闸阀 / Bi-directional knife gate valve



气动 Pneumatic actuated Knife Gate Valve

Knife gate valve

産品優點 / Product Benefits:

- 一体式刀闸阀双向密封、零泄漏、承受高压差和全通径、可达到最大流量的阀门。
- 无凹槽阀座设计, 防止介质在密封面聚积。避免因介质聚积造成密封面漏水或闸板卡阻现象。
- 精密铸造整体式结构阀体。
- 弹性阀座U形设计,嵌入到阀体内部与阀板相互吻合,闸板上下运动。摩擦力小,大大斑长了 阀座使用寿命。并且达到双向密封。
- 橡胶O形置嵌入法兰凹槽内、阀门与管路连接安装方便,密封可靠。
- 产品广泛用于城市污水处理、造纸、矿山排渣这些领域。
- Knife gate valve is BI-directional, Zero Leakage, withstanding high differential pressure and full bore valve with minimal seat cavity for maximun flow capacity.
- No groove is designed on the valve seat, which prevents accumulating media on the sealing surface, and thus avoids sealing surface leakage or disc blockage caused by media accumulation.
- . The integrated body structure with precision casing.
- U-shaped resilient seat is embeded into the body and is well-connected with the gate, and
 the friction force is reduced during the upward and downward movements of the gate. This
 greatly prolongs the using life of the seat and realizes bi-directional sealing.
- The rubber O-ring is embeded into the flange groove, which makes it convenient to connect the valve to pipe and provides reliable sealing.
- knife gate valve is widely used in urban sewage treatment, paper-making, mine slag discharge and the fields alike.

技術參數 / Technical Parameter:

公称通径 /Size	DN50-1200	2"-48"
	0.6 Mpa, 1.0	Mpa, 1.6 Mpa, 2.5 Mpa
压力等级 /Pressure Rating	ASME CLASS 150	DN50~250 10 Bar DN300~400 6 Bar DN450 5 Bar DN500~600 4 Bar DN700~1200 2 Bar
适用温度 /Suitable Temperature	-20°C-+170	or or
泄漏等级 /Leakage Class	零泄漏 /Zero	Leakage



Knife Gate Valve

Knife Gate Valve

Knife Gate Valve

刀闸阀 / Standard Knife Gate Valve





电动 Electric actuated Knife Gate Valve

Knife gate valve

Knife Gate Valve

Knife Gate Valve

産品優點 / Product Benefits:

- 刀闸器是由狭窄的图体和滑动闸板构成。
- 闸板有锋利的刀口。能够将流体介质中的固体颗粒排开或切割。
- 闸板表面抛光处理加强了闸板穿透力,有效保护了填料和阀座的使用寿命。
- 調体底部配置了闸板压紧装置,能够安全地将闸板支撑压紧在阀座上,确保关闭紧密有效。
- 产品广泛用于造纸、水处理、电力、化工、钢铁、采矿等行业。
- . Knife gate valve is composed of narrow body and sliding Gate
- . The gate has sharp blade that can separate or cut the solid particles in the fluid media.
- The polishing treatment on the gate surface strengthens its penetrating power and
 effectively guarantees the service life of both packing and valve seat.
- The bottom of the valve body is provided with the gate hold-down device that can safely
 presses the gate tightly on the valve seat in order to ensure valid tight-seal.
- Products are widely used in water treatment, paper-making, Power industry, Chemical industry, Iron and Steel industry, mining and so on.

技術參數 / Technical Parameter:

公称通径 /Size	DN50-1200 2"~48"			
压力等级 /Pressure Rating	0.6 Mpa, 1.0 M	0.6 Mpa, 1.0 Mpa, 1.6 Mpa, 2.5 Mpa		
	ASME CLASS 150	DN50~250 10 Bar DN300~400 6 Bar DN450 5 Bar DN500~800 4 Bar DN700~1200 2 Bar		
适用温度 /Suitable Temperatur	re -60°C~+1100°C			
泄漏等级 /Leakage Class	最高40ml/min/in s 最高0ml/min/in P 最高0ml/min/in 指	TFE密封阀座 Max. 0ml/min/in PTFE seated		

Knife Gate Valve



產品優點 / Product Benefits:

- 密封面采用高档增韧结构陶瓷,有极高的耐磨损、耐腐蚀性能。
- 刀闸阀是由狭窄的阀体和滑动闸板构成。
- 闸板有锋利的刀口,能够将流体介质中的固体颗粒排开或切割。
- 闸板表面抛光处理加强了闸板穿透力。有效保护了填料和阀座的使用寿命。
- 一個体底部配置了闸板压紧装置,能够安全地将闸板支撑压紧在阀座上,确保关闭紧密有效。
- ◆产品广泛用于煤灰、炉渣、水泥浆、电力、化工、钢铁、采矿等行业。
- . The sealing surface uses high-end ceramics with toughened structure which has exceedingly high - wear and corrosion-resistant performances.
- . Knife gate valve is composed of narrow body and sliding Gate.
- . The gate has sharp blade that can separate or cut the solid particles in the fluid media.
- . The polishing treatment on the gate surface strengthens its penetrating power and effectively guarantees the service life of both packing and valve seat.
- . The bottom of the valve body is provided with the gate hold-down device that can safely presses the gate tightly on the valve seat in order to ensure effective tight-seal.
- · Products are widely used in water treatment, paper-making, Power industry, Chemical industry, Iron and Steel industry, mining and so on.

技術參數 / Technical Parameter:

公称通径 /Size	DN50-600 2"~24"		
	0.6 Mpa, 1.0	O Mpa, 1.6 Mpa, 2.5 Mpa	
压力等級 /Pressure Rating	ASME CLASS 150	DN50~250 10 Bar DN300~400 6 Bar DN450 5 Bar DN500~600 4 Bar	
适用温度 /Suitable Temperature	-29°C-+200°C		
泄漏等级 /Leakage Class		in/in 陶瓷密封资室 nin/in metal seated	









Pneumatic actuated Manual & Pneumatic Electric hydraulic Knife Gate Valve Knife Gate Valve





Chain actuated Knife Gate Valve

産品優點 / Product Benefits:

- 刀闸阀是由狭窄的阀体和滑动闸板构成。
- 闸板有锋利的刀口,能够将流体介质中的固体颗粒排开或切割。
- 闸板表面抛光处理加强了闸板穿透力,有效保护了填料和阀座的使用寿命。
- 國体底部配置了闸板压紧装置、能够安全地将闸板支撑压紧在阀座上、确保关闭紧密
- 产品广泛用于选纸、水处理、电力、化工、钢铁、采矿等行业。
- . Knife gate valve is composed of narrow body and sliding Gate.
- . The gate has sharp blade that can separate or cut the solid particles in the fluid med
- . The polishing treatment on the gate surface strengthens its penetrating power and effectively guarantees the service life of both packing and valve seat.
- . The bottom of the valve body is provided with the gate hold-down device that can sa presses the gate tightly on the valve seat in order to ensure effective tight-seal.
- · Products are widely used in water treatment, paper-making, Power industry, Che industry. Iron and Steel industry, mining and so on.

技術參數 / Technical Parameter:

公称通径 /Size	DN50-1200 2"~48"		
压力等级 /Pressure Rating	0.6 Mpa, 1.0 Mpa, 1.6 Mpa, 2.5 Mpa		
	ASME CLASS 150	DN50~250 10 Bar DN300~400 6 Bar DN450 5 Bar DN500~600 4 Bar DN700~1200 2 Bar	
适用温度 /Suitable Temperature	-60℃~+1100℃		
泄漏等级 /Leakage Class	最高40ml/min/in 最高0ml/min/in F 最高0ml/min/in 相	TFE密封資產 Max. Oml/min/in PTFE:	





Knife Gate Valve

Knife gate valve











Chain act

刀闸阀 / Standard Knife Gate Valve

带阀盖刀闸阀 / Bolted Bonnet Knife Gate Valve



產品優點 / Product Benefits:

- 刀闸器是由狭窄的液体和滑动闸板构成。
- 闸板有锋利的刀口。能够将流体介质中的固体颗粒排开或切割。
- 網板表面塊光处理加强了闸板穿透力,有效保护了填料和阀座的使用寿命。
- 調体底部配置了闸板压紧装置、能够安全地将闸板支撑压紧在阀座上、确保关闭紧密有效。
- 产品广泛用于造纸、水处理、电力、化工、钢铁、采矿等行业。
- . Knife gate valve is composed of narrow body and sliding Gate.
- . The gate has sharp blade that can separate or cut the solid particles in the fluid media.
- . The polishing treatment on the gate surface strengthens its penetrating power and effectively guarantees the service life of both packing and valve seat.
- . The bottom of the valve body is provided with the gate hold-down device that can safely presses the gate tightly on the valve seat in order to ensure effective tight-seal.
- · Products are widely used in water treatment, paper-making, Power industry. Chemical industry, Iron and Steel Industry, mining and so on.

技術參數 / Technical Parameter:

公称通径 /Size	DN50-1200 2	DN50-1200 2"~48"	
	0.6 Mpa, 1.0 N	lpa, 1.6 Mpa, 2.5 Mpa	
压力等级 /Pressure Rating	ASME CLASS 150	DN50~250 10 Ber DN300~400 6 Bar DN450 5 Bar DN500~600 4 Bar DN700~1200 2 Ber	
适用温度 /Suitable Temperatu	re -60°C~+1100°C		
泄漏等级 /Leakage Class	最高40ml/min/in 最高0ml/min/in 最高0ml/min/in	PTFE密封简度 Max. 0ml/min/in PTFE seated	



电液动 Electric hydraulic Knife Gate Valve

產品優點 / Product Benefits:

- ◆ 全封闭式刀闸阀、闸板埋在阀体内腔、完全与外界环境隔绝、阀盖上设有圆形填料桶、能有 效的避免流体介质外泄漏。
- 闸板上端和阀体底部配置了闸板压紧装置。由阀杆垂直推力转换成侧向力来实现闸板贴紧阀
- 本产品特别适用于开启关闭频繁,环保要求较高的食品、酸造、煤炭液化、污水处理、化 工、钢铁等工业部门的自动控制系统中。
- . The gate of the fully closed knife gate valve is embedded inside the valve body, totally isolated from exterior environment. The valve cap is provided with round stuffing box which can effectively avoid the leakage of fluid media.
- . Both top part of the gate and bottom part of the valve body are provided with hold-down devices. Effective seal may be achieved by changing the vertical pushing force of the valve rod into lateral force so that the gate presses tightly against the valve seat.
- . This product is extremely suitable for being applied in automation control systems that call for frequent startups and shutdowns, and high environment requirements, including food, brewing, coal liquefaction, sewage treatment, petrochemical, steel and other industries.

技術參數 / Technical Parameter:

公称通径 /Size	DN50-1600 2	DN50-1600 2"~64"	
	0.6 Mpa, 1.0 M	dpa, 1.6 Mpa, 2.5 Mpa	
压力等级 /Pressure Rating	ASME CLASS 150	DN50~250 10 Bar DN300~400 6 Bar DN450 5 Bar DN500~600 4 Bar DN700~1600 2 Bar	
适用温度 /Suitable Temperatu	re -60°C~+1100°	3	
泄漏等级 /Leakage Class	最高40ml/min/in 最高0ml/min/in 最高0ml/min/in	PTFE密射阀座 Max. 0ml/min/in PTFE seated	



手、气动双用

Knife gate valve

Knife Gate Valve

Knife Gate Valve





Knife Gate Valve

Knife Gate Valve

Knife Gate Valve

带阀盖刀闸阀 / Bolted Bonnet Knife Gate Valve

產品優點 / Product Benefits:

- 全封闭式刀闸阀、闸板埋在阀体内腔、完全与外界环境隔绝、阀盖上设有圆形填料桶、能有
- 闸板上端和阀体底部配置了闸板压紧装置,由阀杆垂直推力转换成侧向力来实现闸板贴紧阀
- 本产品特别适用于开启关闭频繁,环保要求较高的食品、酿造、煤炭液化、污水处理、化 工、钢铁等工业部门的自动控制系统中。
- . The gate of the fully closed knife gate valve is embedded inside the valve body, totally isolated from exterior environment. The valve cap is provided with round stuffing box which can effectively avoid the leakage of fluid media.
- . Both top part of the gate and bottom part of the valve body are provided with hold-down devices. Effective seal may be achieved by changing the vertical pushing force of the valve rod into lateral force so that the gate presses tightly against the valve seat.
- . This product is extremely suitable for being applied in automation control systems that call for frequent startups and shutdowns, and high environment requirements, including food, brewing, coal liquefaction, sewage treatment, petrochemical, steel and other industries.

技術參數 / Technical Parameter:

公称通径 /Size	DN50-1600 2	'~64"
	0.6 Mpa, 1.0 M	Гра, 1.6 Mpa, 2.5 Mpa
压力等级 /Pressure Rating	ASME CLASS 150	DN50~250 10 Bar DN300~400 6 Bar DN450 5 Bar DN500~600 4 Bar DN700~1600 2 Bar
适用温度 /Sultable Temperatu	re -60°C-+1100°	
泄漏等级 /Leakage Class	最高40ml/min/in 最高0ml/min/in 最高0ml/min/in	PTFE密封资度 Max. 0ml/min/in PTFE seated



Handle Wheel Knife gate valve



Electric actuated Knife Gate Valve

Pneumatic actuated Knife Gate Valve





Manual & Pneumatic Electric hydraulic Knife Gate Valve

Hydraulic Knife Gate Valve

Bevel Gear Knife Gate Valve

Chain actuated

浆液阀 / Slurry Valve



産品優點 / Product Benefits:

- 基本结构类似于双向密封刀闸阀。不同之处。网络由两片组合并用螺丝连接形成一体。
- 双向密封、等泄漏、承受高压差工况使用。
- 无凹槽阀座设计,防止介质在密封面聚积,避免因介质聚积造成密封面漏水或闸板卡阻现
- 弹性阀座U形设计,嵌入到阀体内部与闸板相互吻合。闸板上下运动。摩擦力小,大大延长了阀 座使用寿命,并且达到双向密封。
- 产品广泛用于城市污水处理、造纸、矿山排渣这些领域。
- Basical Structure is similar to bi-directional sealing. Knife gate valve, The differences is that body is tow pieces constitution and integrate with bolts.
- . Used under conditions of Bi-directional sealing. Zero Leakage and withstanding high differential pressure.
- . No groove is designed on the valve seat, which prevents accumulating media on the sealing surface, and thus avoids sealing surface leakage or disc blockage caused by media
- . U-shaped resilient seat is embeded into the body and is well-connected with the gate, and the friction force is reduced during the upward and downward movements of the gate. This greatly prolongs the using life of the seat and realizes bi-directional sealing.
- · Products are widely used in urban sewage treatment, paper-making, mine stag discharge and the fields alike.

技術參數 / Technical Parameter:

公称通径 /Size	DN50-1200 2"~48"	
	0.6 Mpa, 1.0 M	ра, 1.6 Мра, 2.5 Мра
压力等数 /Pressure Rading	ASME CLASS 150	DN50~250 10 Bar DN300~400 6 Bar DN450 5 Bar DN500~600 4 Bar DN700~1200 2 Bar
适用温度 /Suitable Temperature	-20°C-+170°C	
泄漏等级 /Leakage Class	零泄漏 /Zero Le	akaga



Chain actuated Knife Gate Valve



Handle Wheel



手、气动双用 Knife Gate Valve

Manual & Pneumatic Pneumatic actuated Knife Gate Valve

Electric hydraulic Knife Gate Valve



Bevel Gear

Hydraulic Knife Gate Valve

刀闸阀 (聚胺脂衬里) / Polyurethane Lining Knife Gate Valve

矿浆阀 / Slurry Valve



產品優點 / Product Benefits:

- 介质过流部件整体采用聚氨酯衬里。具备耐磨损、寿命长。
- 填料采用整体模压橡胶体, 使上密封实现零泄露。
- 可更换的整体式聚氮酯固衬和不锈钢闸板、节约了阀门的维护成本。
- 产品广泛用于矿山排渣、电力、造纸、城市污水处理这些领域。
- . The entire media overflow parts generally adopts polyurethane lining which is wearresistant and has a long service life.
- . Full Port, Zero Leakag .
- . Packing uses one-piece moided rubber to achieve zero leakage in the upper seal.
- . Replaceable one-piece polyurethane lining and stainless steel gate that saves the maintenance cost of the gate.
- . This product is widely used in mine discharge, electric power, paper making, and urban sewage treatment industries.

技術參數 / Technical Parameter:

公称通径 /Size	DN50-600 2"~	DN50-600 2"~24"	
	0.6 Mpa, 1.0 M	0.6 Mpa, 1.0 Mpa, 1.6 Mpa	
压力等級 /Pressure Rating	ASME CLASS 150	DN50-250 10 Bar DN300-400 6 Bar DN450 5 Bar DN500-600 4 Bar	
适用温度 /Suitable Temperatur	e -20°C~+100°C		
泄漏等级 /Leakage Class	零泄漏 /Zero Leakage		



Electric actuated Pneumatic actuated Manual & Pneumatic Knife Gate Valve Knife Gate Valve

手、气动双用 Knife Gate Valve

Electric hydraulic Knife Gate Valve

Hydraulic Knife Gate Valve

Bevel Gear Knife Gate Valve Chain actuated

產品優點 / Product Benefits:

- 嵌入式加强环的橡胶阀座可以保证在恶劣工况下安全使用、具备耐磨损、寿命长。
- 可更换的橡胶调座和不锈钢闸板,节约了调门的维修成本。
- 产品广泛用于矿渣、砂浆、泥浆、煤浆、造纸、城市污水处理这些领域。
- . Rubber valve seat of embedded reinforcing ring may guarantee safe usage under poor working environment. It is wear resistant and has long service life.
- . Replaceable rubber valve seat and stainless steel gate that save the repair cost of the
- . This product is widely used in mine waste, mortar, slurry, coal slurry, paper making and urban sewage treatment industries.

技術參數 / Technical Parameter:

公称通径/Size	DN50-600 2"~24"		
	0.25 Mpa	10=	
压力等級/Pressure Rating	ASME CLASS 150	DN50~600 2.5 Bar	
适用温度/Suitable Temperature	-10℃~+120℃	4	
泄漏等级/Leakage Class	零泄漏(闸板全启或全闭时) /Zero Leakage		





Electric actuated Knife Gate Valve 手、气动双用 Manual & Pneumatic Knife Gate Valve

Knife Gate Valve

Electric hydraulic

Hydraulic Knife Gate Valve

Pneumatic actuated Knife Gate Valve



穿透式刀闸阀 / Through conduit knife gate valve

産品優點 / Product Benefits:

- 取向密封, 帯两个阅座封層, 此兩板更长且底部伸出阅体,需要两个密封填料装置。
- 闸板形成一个孔状通径、其作用是、闸板开启时、介质能全部流走、没有滞留、闸板关闭时能完全密封。
- ◆ 在介质浓度较高条件下,也能保持阀座密封,由于没有滞留区,闸板底部无介质堆积。
- 该产品适用于制糖、化学设备(干燥器、反应器)的装卸和造纸厂的菜料出口处,用于回收混 有大量杂质的旧纸张。
- Two-way sealing with two seal rings on the valve seat, this gate is longer and the bottom extends out of the valve body and requires two packing glands.
- The gate forms a cavernous Port whose role is that when the gate opens, medium may flow away completely without any detention; when the gate closes, it may be completely sealed.
- When the media are of high concentration, it may also keep the valve seat sealed. As there
 is no detention area, the bottom of the gate without medium accumulation.
- This product is suitable for the loading and unloading of suger-making and chemical equipment (dryer and reactor) and the outlet of sizing agent in paper making plants. It may also be used for the recycling of old paper mingled with a large amount of impurities.

技術參數 / Technical Parameter:

公称通径 / Size	DN50-600 2"~24"	
	0.8 Mpa, 1.0 Mpa,	1.6 Mpa, 2.5 Mpa
压力等级 / Pressure Rating	ASME CLASS 150	DN50~250 10 Bar DN300~400 6 Bar DN450 5 Bar DN500~600 4 Ber
适用温度 / Sultable Temperature	-60℃-++1100℃	
₩淵等級 / Leakage Class	最高40ml/min/in 金属 最高0ml/min/in PTFE	The state of the s



Hydraulic

Knife Gate Valve

Bevel Gear

Knife Gate Valve

Chain actuated

手、气动双用

Electric actuated Manual & Pneumatic Electric hydraulic

Knife Gate Valve Knife Gate Valve

Handle Wheel

Knife gate valve

Knife Gate Valve

方形闸门 \ Square knife gate valve



產品優點 / Product Benefits:

- 结构和标准刀闸器相似。
- 阀体成方形或长方形。
- 驱动装置、探测仪及附件和标准刀闸阀相同。
- 外杆密封系列。
- 方形法兰连接。
- Same construction as standard knife gate valve.
- . Body and gate in rectangular valve shape.
- . Same actuators and accessories as standard.
- Rising stem tight model.
- · Square flange ends.

技術參數 / Technical Parameter:

公称通径 / Size	DN200 × 200 DN1000 × 1000 8" × 8"40" × 40"	
压力等级 / Pressure Rating	0.6 Mpa、1.0 Mpa、1.6 Mpa	
适用温度 / Suitable Temperature	-20°C~+200°C	
主体材料 / Main Material	Q235A, 304, 316, 304L, 316L	
密封形式 / Seal Type	金属密封阀座 / Metal Seated	
	橡胶密封阀座 / Rubber Seated	



平成 Pneumatic actuated Knife Gate Valve

