HSD Series: High-speed spiral door

– Application –

The products are widely used in equipment manufacturing enterprises, automobile manufacturing enterprises, food processing enterprises, government construction, commercial real estate, fire stations, underground garages, etc. as appearance doors of factory buildings, offline access doors of automobile vehicles, frequent logistics access doors, entrance and exit access doors of large garages, that meets customers' requirements for wind resistance, heat preservation, fast, efficient, dust-proof, energy-saving, etc.

– Parameters –

– Max. size	8000mm×9000mm
– Speed	0.8m/s~2m/s (related to the door size) , adjustable
– Wind resistance	Up to national standard level 3 (Relative deflection under 0.5kp wind pressure < L / 180)
– Water tightness	Δp≥700pa, Up to national standard class 6
– Air permeability	0.62m^3/(m^2 · h), Up to national standard class 8
– Thermal insulation	K≤0.5W/(m^2 · K), Up to national standard class 3

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HSD series high-speed spiral doors---with fast, energy saving, sealing, high efficiency, wind resistance and environmental protection, perform high reliability and practicality. Its operating speed is over 6 times than industrial section doors'.

The door laths are produced by French technology large-scale assembly line. The interior of the door lath is filled with polyurethane industrial insulation material. The design of broken-bridge can effectively block the indoor and outdoor temperature loss, which can effectively save energy. The two ends are connected by hinges, and the door laths are connected by double-sided sealing strips to ensure the sealing and at the same time can effectively resist the strong convection wind pressure.

High-speed spiral doors can prevent the invasion of outsiders and resist the weather change at the same time. It can cut off the indoor and outdoor air convection. It is used in the frequent access and is an ideal choice for industrial energy saving and consumption reduction.

– Parameters

Applicable temp.		-35℃~+40℃
Size	Width	HSD4322：1400mm~6000mm；HSD8022：3000mm~8200mm
	Height	HSD4322：1800mm~6100mm；HSD8022：2300mm~9000mm
Speed	Opening	0.8m/s ~2m/s（depending on the door size），adjustable
	Closing	0.6m/s，adjustable
Performance	Thermal insulation	K≤0.5W（m^2 · K），Up to the national standard class 3
	Air permeability	0.62m^3/（m^2 · h），Up to the national standard class 8
	Water tightness	△p≥700pa，Up to the national standard class 6
	Wind resistance	Up to national standard level 3（Relative deflection under 0.5kp wind pressure < L / 180）

– Drive & Control:

Power	220V/380V
Motor	Servo motor/SEW motor
Control	Servo controller/Frequency converter
Emergency opening	In case of power failure, the control system can turn on the motor brake at any time, and can lift the door with the help of the balance system, which can effectively solve the problem that the door cannot be opened due to power failure or fault.

– Safety Device:

Photo eyes/light curtain	When there is an obstacle under the door, the door remains open; when the door goes down while an object is passing through, the door will go up to the open position, and when there is no obstacle below, the door will delay descent.
Bottom safety airbag	When the door is operating and the object is in the blind area of infrared safety protection, the door can quickly rebound to the original open position when touching the obstacle below, effectively protecting the object below or pedestrians from accidents.

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LEFAST

– Mechanical Structure：

Lifting way		Round spiral, Oval spiral
Guide rail structure	Round spiral	Double spiral guide rail
	Oval spiral	Double spiral guide rail
Guide structure	Hinge shaft	QPQ treatment on the surface can enhance the self lubrication of the shaft and increase the corrosion resistance of the shaft which is 3-5 times of that of the galvanized shaft.
	Shaft sleeve	With special material, there is no molecular change in the temperature range of 200 ℃ to - 60 ℃. The anti-wear degree is 10 times that of copper. It has self-lubricating function and is mainly used in the medical industry.
Door structure	Door lath material	The surface is treated by spraying, and the interior is filled with polyurethane (excluding CFC) industrial thermal insulation materials. The internationally advanced bridge breaking thermal insulation treatment scheme is adopted, which meets the domestic 7-level energy-saving door and window standards, and will not damage the ozone layer.
	Door lath size	Opening width（Length）*220mm（Height）*43mm/80mm（Thickness）
	Door lath color	RAL7045 Grey, RAL9006 Silver, RAL9016 White, Aluminum natural color
Transparent window	Material	Aluminum alloy frame with double-layer polycarbonate plate, double-layer structure design
	Size	Opening width（Length）*220mm（Height）*2mm
Column/Head	Material	Galvanized sheet steel
Bearing Shaft		The automatic core adjustment and double needle roller bearing are adopted. The compressive capacity of the bearing is 3 times of that of the ordinary bearing. In the process of daily application, the poor deformation of the building structure will not affect the normal operation of the door. The bearing has self-adjusting function, which can quickly respond to the eccentric core transmission without abnormal noise.
Transmission Shaft		The transmission shaft adopts the retractable spline transmission shaft, which is mostly used in the automobile transmission power, free of maintenance for life, can effectively reduce the noise and apply to the size deviation caused by the change of metal molecules caused by the temperature change.

– Opening Modes（Optional）：

Motion sensor、Induction loops、Remote control、Bluetooth RF, Pull-cord switch, Interlock

- Airport:

Dalian Airport

Haerbin Airport

- Food Industry:

EVERGRANDE SPRING

JUNLEBAO DAIRY