JINGBANG
晶邦密封

Sealing Solution For

Wind Power Industry

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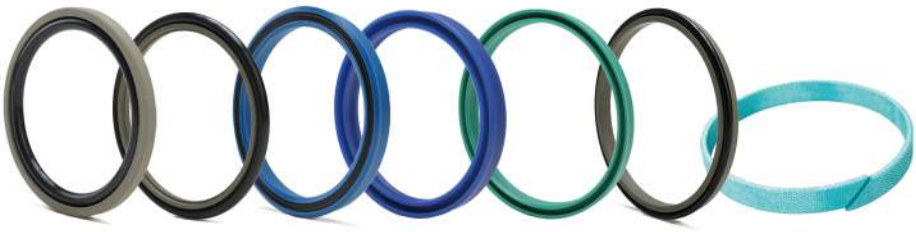
ABOUT US

Guangzhou Jingbang Hydraulic Seal Technology Co., Ltd. is the standing director unit of China Fluoroplastics Processing Association, specializing in the research and development, production and sales of hydraulic and pneumatic seals.

JBS was established in 2003. We have a registered capital of 45 million and a 20,000 square meters of self-owned production base, annual output of 30 million pieces of various seals. JBS has been committed to the construction of informatization and standardized quality system, established the OA, ERP, MES information management system with Jingbang characteristics and passed the IATF16949 certification and China High-tech Enterprise certification.

JBS attaches great importance to the construction of laboratories, and has built an advanced product research and development, production process control testing laboratory and in-depth cooperation with raw material manufacturers and customers, provides complete solutions for the seal industry chain.



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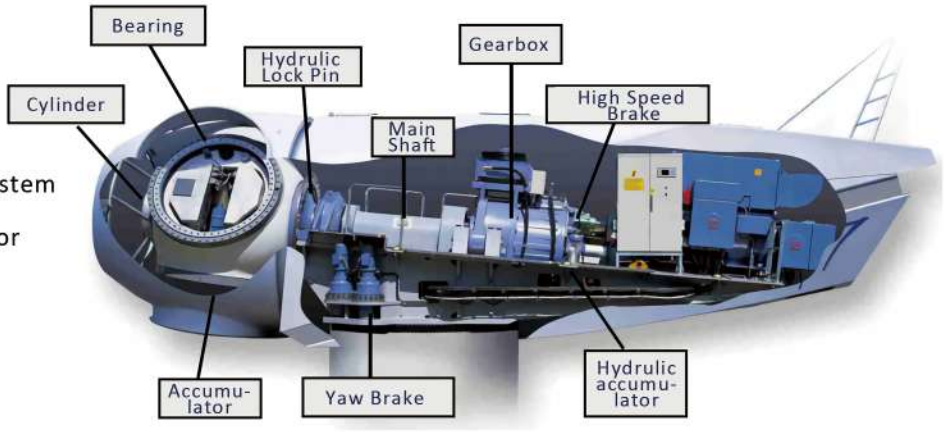
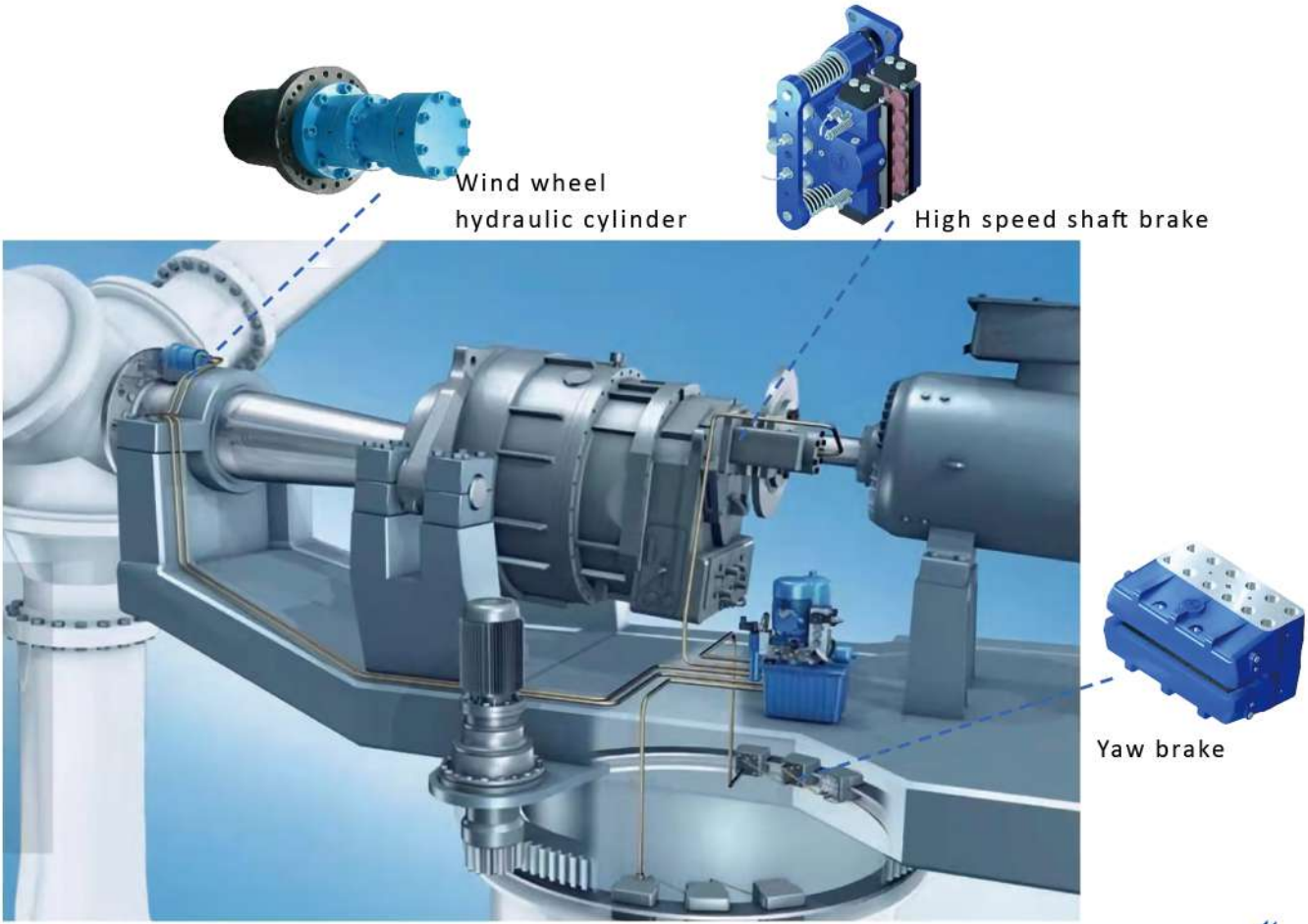
Wind Power Sealing Application System

- Hydraulic System
- Braking System
- Variable Propeller System
- Hydraulic Accumulator
- Main Shaft
- Gearbox

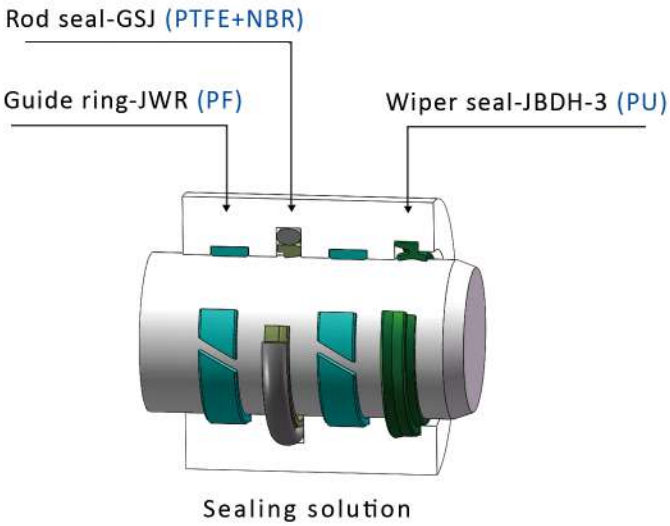


Brake System



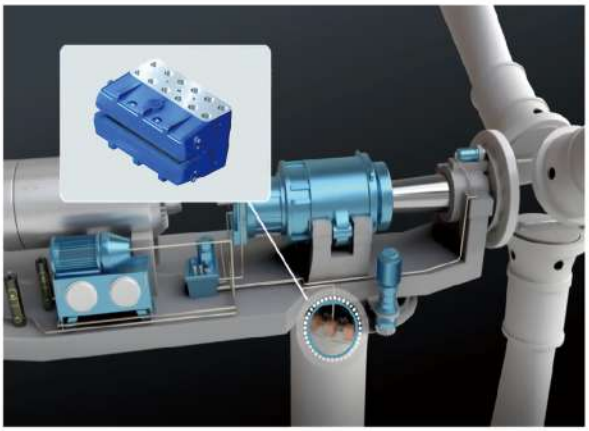
1. High Speed Shaft Brake System

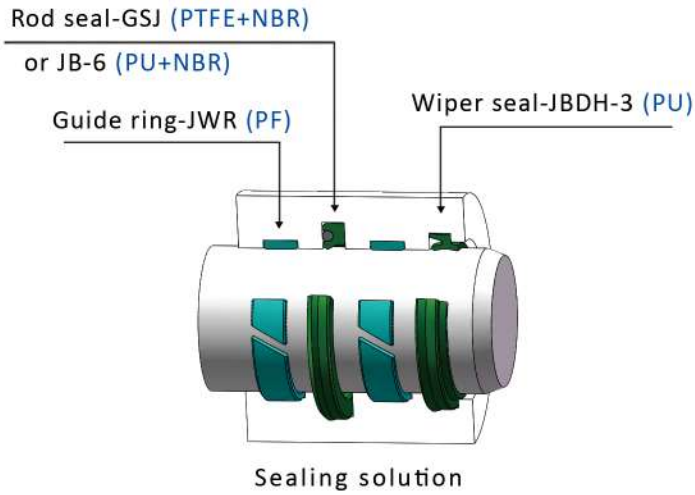
The main shaft brake is used to stop the wind engine when the system fails, or if the rotation speed is close to the critical speed of the blade, or when repairing the wind engine, together with the locking system, keep the main shaft in a fixed position.



2. Yaw brake

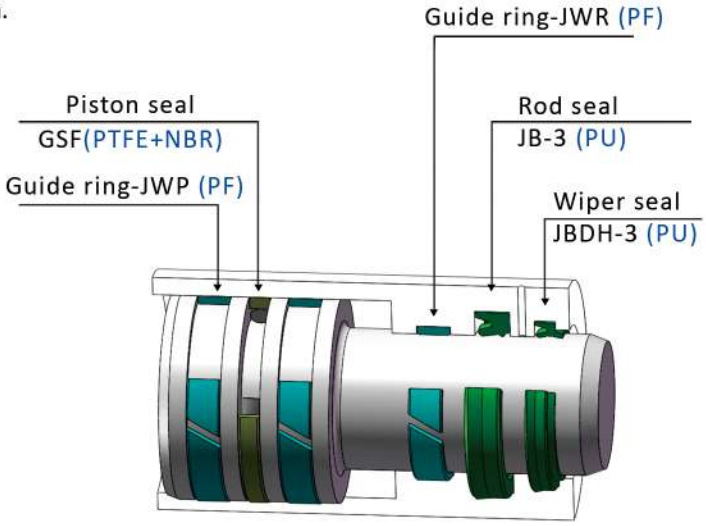
The yaw brake is used to maintain the correct alignment of the wind wheel and the wind direction.





3. Wind Wheel Hydraulic Pin Lock

When working, the hub and blades are kept in the correct position, and the locking cylinder can keep rotating through the positioning pin. The system is equipped with sensors, detection and discovery holes, and works with the main brake and electrical system.



Sealing solution

Brake System

The three pitch cylinders are used to control the angle of the blades so that the wind pressure is converted into rotation as much as possible. The position of the piston of the oil cylinder is equipped with a sensor for the electronic control system to record the angle of the blade. Each hydraulic cylinder is equipped with an accumulator, and each hydraulic cylinder is controlled to turn the blades to the braking position when an emergency failure occurs.

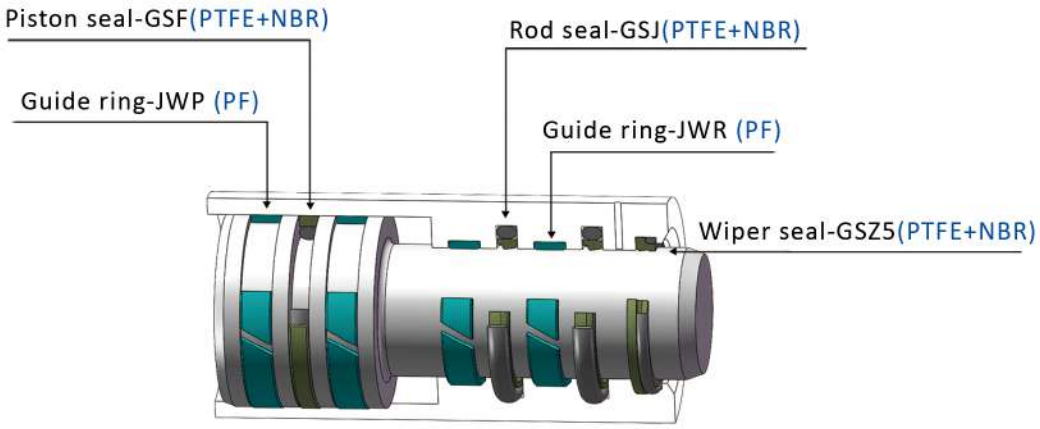
Variable Propeller System

The piston rod side of the pitch cylinder bears a pressure of more than 20 MPa, and the adjustment pressure on the piston side is 0-20 MPa. This pressure difference causes the hydraulic cylinder to change position, and the accumulator adjusts the flow of oil.

A thorough understanding of the application can select the best sealing solution. The movement of the pitch cylinder is characterized by short stroke and high frequency, which can cause oil return to the piston rod sealing system, and it is also easy to generate heat and shorten the life of the oil. In addition, the seal must prevent heat transmission through the oil flow.

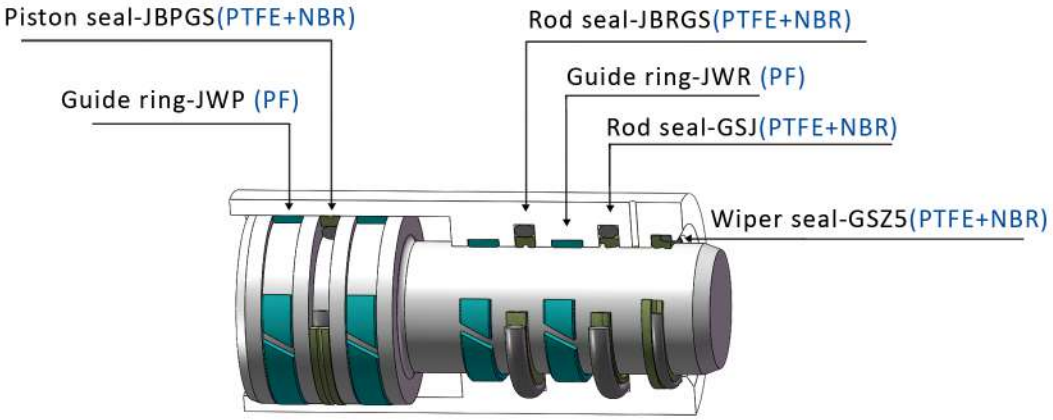
Sealing solution 1

Relative to the wind speed, the blades are in a fixed position, and the pitch cylinder constrains this position.



Sealing solution 1

In order to optimize the power output of the wind engine, the position of the blades needs to be adjusted as the wind speed changes. At this time, the pitch cylinder needs short stroke and high frequency movement.

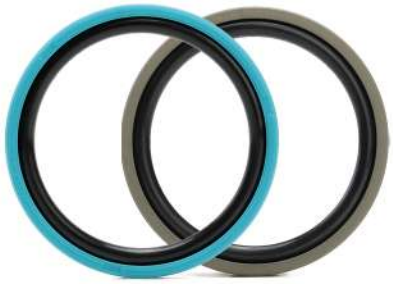


Seals - Wind Brake Variable Propeller

Piston Seal - GSF

Used in hydraulic reciprocating motion system. It is excellent in sealing occasions under high, medium, low pressure and heavy load conditions. It is suitable for long and short strokes, and for larger fluid and high temperature occasions, and can be applied to larger piston clearances.

- Good dynamic and static sealing performance
- Large extrusion gap allowed, cost-effectively
- Can be used safely in dirty media
- Small friction, no creeping
- Simple struction, easy assembling
- Strong adaptability to working conditions
- Suitable for new environmentally friendly hydraulic fluid (biological oil)



Rod Seal - GSJ

Used in hydraulic reciprocating motion system. It is excellent in sealing occasions under high, medium, low pressure and heavy load conditions. It is suitable for various strokes and a wide range of fluids and high temperature occasions, and can be applied to larger piston clearances.

- Good dynamic and static sealing performance
- Corrosion resistance
- Simple groove structure, easy to install
- Works also
- Good extrusion resistance
- Dimensional stability, not affected by temperature

Seals - Wind Brake Variable Propeller

Rod Seal JB-6 / JB-3

JB-6 used for sealing injection plugs, piston rods, pneumatic drills, telescopic cylinders, forging presses and hydraulic equipment for walking equipment.

JB-3 used for the sealing of piston rods and pistons in heavy-duty walking machinery and static pressure.

JB-6

- Great wear resistance
- Superior anti-extrusion performance
- Easy to install
- Ideal sealing effect under no-load and low-temperature conditions
- Suitable for harsh working conditions

JB-3

- Excellent wear resistance
- Extrusion resistance, small compression deformation
- Suitable for harsh working conditions
- Excellent sealing performance under zero pressure
- Prevents external air from entering
- Easy to install

Wiper Seal JBDH-3 / GSZ5

JBDH-3 is used in hydraulic and pneumatic reciprocating motion environment.

GSZ5 is a double-lip dustproof ring, suitable for dusty or severe cold environments and high-frequency reciprocating motion.

JBDH-3

- Excellent wiping effect
- Abrasion resistance, long life
- With the function of storing & reversing the residual oil
- Adopt elastic material to reduce friction
- Standard groove size

GSZ5

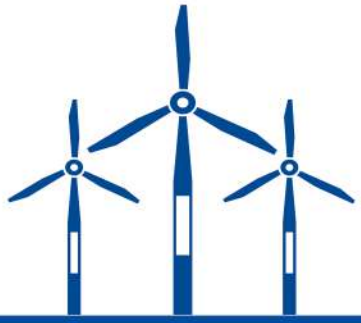
- Excellent sliding properties
- No stickiness and creeping phenomenon when starting
- Can compensate the piston rod or plunger deformation
- Great wiping effect
- Good effect of scraping out contaminants
- Very good compatibility with hydraulic media

Seals - Wind Brake Variable Propeller

Guide ring JWP / JWR

The guide ring is processed from a polyester fiber composite material containing a solid lubricant, and has high compressive strength, good sliding performance and high wear resistance.

- Good dimensional stability
- Vibration absorbable
- Uniform radial load
- High compressive strength,
- Good sliding performance
- High wear resistance



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