

Key factors in selecting rotary unions

Rotary unions are essential components in industrial systems, designed to allow the efficient transfer of mediums, gases, steam, and vacuum between a rotating and a stationary part. Their primary function is to ensure a hermetic seal that prevents leaks and maintains optimal operational performance. Choosing the right rotary union is not only crucial for ensuring the efficiency of your equipment's but also for prolonging its lifespan and minimizing the risk of failure. In this guide, we provide key information to help you make an informed decision and ensure maximum performance for your applications.





Type of fluid:

Select a product that is compatible with the type of medium you will be handling, whether it be water, oil, vacuum, steam, or gases. Corrosive fluids require durable materials like stainless steel, as incompatibility between the fluid and the union material can cause leaks and damage.

Rotational speed:

High-speed rotary unions require materials and seals designed to minimize wear and maintain stability. Make sure that the rotary union can withstand the operating speed of your machinery to avoid premature failures.

Pressure and temperature:

Choose a rotary union that can handle specific pressures and temperatures of your application to maintain optimal performance. Unions with the right pressure and temperature range will prevent performance issues and extend the component's lifespan.

Environmental conditions:

Las Rotary unions should be suited to the environment in which they will operate, whether it's dusty, humid, or exposed to chemicals. Unions with additional protective features, such as special coatings, are ideal for these environments.

Compatibility with existing equipment:

Verify that the rotary union fits your equipment without requiring costly modifications, this will facilitate integration and optimize system performance.

Type of connection and piping:

The rotary union must be compatible with your system's connection type and piping. Always verify the dimensions and coupling type to ensure proper installation.



Ideal for simple applications, such as transferring water in cooling systems. They are effective for applications where only one type of medium is handled.

Types of rotary unions

Multi-passage unions:

Designed to handle multiple mediums simultaneously, they are useful in more complex applications like the textile industry, where multiple transfer routes are required.

Unions with advanced sealing technology:

Designed for high durability and resistance to extreme temperatures, they are used in heavy machinery and critical industrial processes where a high level of performance and reliability is required.



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Selecting the right rotating union is critical to maximizing operational efficiency and extending the life of your equipment. It is essential to accurately evaluate factors such as fluid type, operating speed, pressure, temperature, and environmental conditions to ensure optimal performance.

Maier America, we offer rotary union solutions designed to the highest quality standards, adapted to a wide variety of industrial applications.

