



Test benches are widely used in many contexts, from fundamental lab research to industrial production for quality control or industrial validation purpose. It often consists of putting the tested material or object in real conditions while retrieving the necessary parameters from a set of sensors strategically placed. When it comes to dynamic testing, the rotating movement is often used.

In this particular case, retrieving the information from the set of moving sensors generally requires the use of a slip ring. PES has a large experience in providing slip ring solutions for test benches for many applications. Our large range of standard and custom products allows us to define the exact component needed for a specific test bench (compact size, a large number of circuits, high rotating speed up to 5000rpm).

For high-end test benches that include a climatic chamber, a slip ring can be assembled with a rotary union that can transfer coolant or special gases. Nearly all kind of electrical requirement can be met depending on mechanical and environmental constraints. Thanks to our product catalog we can build the most complex rotary union assemblies including electrical slip ring, fiber optic rotary joint, and multiple passage fluid rotary union while keeping competitive costs.

Electrical Features

- Certified Fieldbus rotary link
- Integration of nearly all sensors (RF, analog, digital)
- Proprietary cables integration available

Mechanical Features

- Low friction torque
- Mounting customization available
- Rotating speed up to 5000rpm

Interesting Options

- Fiber optic or rotary union combination possible
- Frameless design (brush holders and rings components)
- Possible connectors mounting and testing
- Possible customization (fluid, electrical)



Advantages

- Integrated and high-capacity solution available
- Expertise and large product range
- Combination of standard products possible
- Reliable solution



Benefits

- Re-usability
- Development and components cost mitigated
- No maintenance



Facts & Figures

- PES has already supplied rotary union assemblies that transfer up to **8 different fluids, fiber optic along with 100 power and signal circuits**
- Frameless gold-plated**Slip ring can operate in **cryogenic conditions** at temperature down to 4k (-269°C)
- Thermocouples and strain-gauges** signals can be transferred easily on most of ourSlip ring