

PENLINK

Rotary Transmission for Production Lines

Our strength is to produce customized rotary transmission solutions for production lines where reliability is key. We know what technical specifications are important and use the latest technologies for increased performance and reliability. All in order to minimize downtime for your systems. We can offer modified solutions based on standard components or a completely customized solution if you need it.

It is also possible to integrate swivels with slip rings for transmission of different kinds of medias such as fluids or air. Contact us to start your next project or for more information on design and manufacturing.

PRODUCTION LINE APPLICATIONS

From steam to shampoo, honey to motor oil, our integrated rotary transmission solutions are modified to meet your specific requirements.

We offer only the best solutions that makes for clean, efficient and reliable fluid transfer to maximize production. Together with our suppliers we can make sure that the design is specialized, custom-tailored for direct integration into packaging and processing equipment for applications in food and beverage, dairy, cosmetics, distilled spirits and wine, pharmaceutical, and personal care.

To maintain the highest quality standards and to meet all industry requirements, we guarantee you our products are designed for Clean-In-Place (CIP) systems and FDA compliances.

Common Applications

- Bottle Washing & Cleaning Systems
- Rotary Filling Systems
- Bottle Capping Systems
- Flowpack
- Pharmaceutical Blending & Mixing Systems





PIN TERMINAL SLIP RING

The PST X Series is developed specifically for the packaging industries and is mostly used by flow pack machines. The slip rings allow high current circuits, combined with signals for sensors, and are suited for high operation speed with a long lifetime. The terminals pins are connected on the slip ring, allowing a smooth installation.

PST-X32 has 2 or 3 high currents circuits and can be combined with two circuits for sensors. The PST X32 is also available in an IP65 version, suitable for machines that need regular cleaning with water. The PST-X45 Series has 6 power circuits and a model with additional 2 circuits for signals.

Their compact size and connectors allows for quick installation even into small systems, maintaining high reliability and performance.

Technical Specifications

Rated Voltage 240 VAC
Current 2A + 14A
No. Of Rings 6, 8
Max. Operating Speed 0~400 rpm
Diameter Ø45 mm
Temp. Range -20°C to 80°C



ELECTRICAL SLIP RING WITH INTEGRATED AIR/WATER SWIVEL

Penlink can design a specialized solution intended to be seamlessly integrated to your assembly system. We are experts in helping our customers defining and executing the design of the rotary interface.

Many automation lines have a need for transfer of different media – not just electricity. Often the case is that space is limited, and temperatures and rotational speeds are outside normal boundaries. To achieve the best possible solution for the customer, slip rings and rotary unions of different medias are combined within a compact unit in order to save space and facilitate easy installation.

The optimal design of every rotary unit is different. To achieve this and still hit the cost efficiency sweet spot is why Penlink has many successfully projects within the assembly line area.

Electric Options

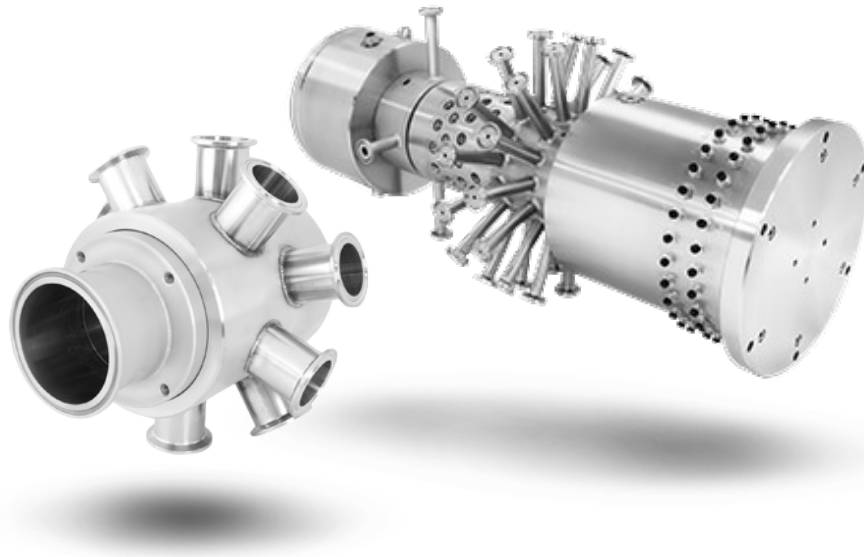
Circuits for Power & Signals.
Ideal for Video & Digital signals.
Adaptable for numerous data transfer BUS systems.
Minimum resistance & distortion.

Pneumatic Options

From vacuum to high pressure systems.
All connections adaptable.
Corrosion resistance.
Hygienic design.

Hydraulic Options

All connections adaptable.
Designed for corrosive medias.
Completely separated channels without crosstalk.
Hygienic design.



POWER AND PRESSURE TO GET THE MOST OF LIMITED SPACING

By combining a hydraulic rotary union for pressurized media with a slip ring, the whole system can be reduced in size. Due to the swivel being carefully designed into the slip rings hollow shaft. This makes for a great solution with reduced costs.

Our hydraulic unions can be design with multiple passages, and up to 2,5" passages for 350 Bar hydraulic pressure with x1,5 test pressure. The combined slip ring solution can transfer up to 1GB data or video and be used for remote control of any automation system.

We understand that not all of our standard products will integrate directly into your equipment. We've designed them to be as universal as possible but sometimes that just isn't enough. We will work fast to find a solution that better suits your mounting and connection needs.

Applications with very tight or unique size constraints are often limited on the selection of rotary union options available - therefore, require some form of modification.

Regardless of the scale of complexity of a change, we will work side-by-side with your team to deliver a product that fits your exact requirements.

**LITTLE MORE IN DEPTH:
PLASTIC BLOW MOLDING**

We can offer Blow Extrusion Rotary Unions that is designed to maintain low friction plating on shaft sealing surface, which reduces heat and extend the life of the application.

This means that the production can move forward without any unnecessary stops. What is also great about this solution is that we can make it a direct replacement to existing designs in the application. The swivel does not need any lubricant and has low friction seals for high demand duty cycles.

Integrate this swivel with a slip ring and you have a solid solution for plastic blow molding that transfer hydraulic pressure, power, data and signals.

**YOUR NEEDS**

Long life.
Unique product for air, oil & water.
High pressure.

OUR SOLUTION

Low friction plating on shaft sealing surface to reduce heat and extend the life.
Low friction seal for high demand duty cycle.
No lubrication required.
Pressures up to 517 BAR.

**YOUR NEEDS**

No leakage.
High temperature (100°C).
Electric rotary joint integration.

OUR SOLUTION

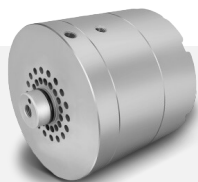
Thru-bore for shaft mounted feature.
Water is fed directly into the customers equipment.
Custom input porting to meet outside diameter constraints.

LITTLE MORE IN DEPTH: STERILIZATION & CLEANING

Our Rotary Timing Valves features a custom timing valve design to supply PAA media to 36 nozzles under a specific degree of rotation.

For cleaning applications it's important to have a safety backup bearing system that prevents equipment shut down during a cycle in the event of a bearing failure. Our Sterilization swivels can do just that! This means that the production can move forward without any unnecessary stops.

The swivels are suitable for washdown environments and are sealed so that they won't be effected by outside contamination. All the components integrated in these solutions have been through a passivation process.



YOUR NEEDS

- Compatible to PAA and other acids.
- Continuous running capabilities.
- All FDA approved materials.

OUR SOLUTION

- Specialized seals for aggressive acidic media.
- No stagnation.
- Timed openings
- High temperature resistance.
- Easy maintenance.



YOUR NEEDS

- CIP / SIP
- Union needs to run dry.
- Food grade lubricant.
- Suitable for washdown environments.

OUR SOLUTION

- Integrated bearing design suitable for wash down environment.
- Sealed from outside contamination.
- All components have been through the passivation process.

LITTLE MORE IN DEPTH: ROTARY FILLING SYSTEMS

For rotary filling systems we can provide multi- and single passage solution, all depending on your needs.

Our swivels for these systems are compatible with CIP and SIP systems and are designed with an inspection port and timed output functions. They have high resistance for abrasive or acidic media and handles temperatures up to 130°C.

For our single passage swivels we have integrated special seals for aggressive media to protect the system. It's possible to have different flow path sizes depending on the requirements. All swivels for rotary filling systems are designed to be sanitary with no stagnation points and can also be designed with ferrule welds.



YOUR NEEDS

- Multiple outputs.
- CIP / SIP compatibility.
- Variety of medias.
- Electrical slip ring integration with options for IP protection rating.

OUR SOLUTION

- High resistance to abrasive / acidic media.
- Full penetration ferrule welds (argon purge).
- Custom design to fit customer requirements.
- Timed outputs when required.



YOUR NEEDS

- Multiple outputs.
- CIP / SIP compatibility.
- Variety of medias.

OUR SOLUTION

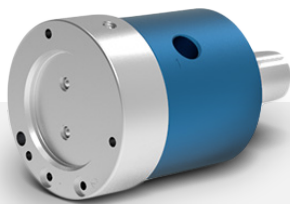
- Special seals for abrasive / aggressive medias.
- Inspection ports.
- Variety of flow path sizes.
- High temperature up to 130°C.
- Sanitary design with no stagnation points.

LITTLE MORE IN DEPTH: BOTTLE CAPPING SYSTEMS

For bottle capping systems we can design an integrated rotary union with a multi passage swivel and slip ring for a complete fluid and electrical solution.

Our products come with high speed data transfer and other transmission of your choice, such as EtherNet, ProfiNet and more. When we design our solutions, we make sure they are reliable, for example adding protective caps or seals to protect the slip ring.

For capping solutions you need the swivel to be able to have many connections for pressure. Our multi passage swivel shaft allows for manifold or hose connection with multiple port configuration options.



YOUR NEEDS

Complete fluid and electrical solution.
Easy maintenance and assembly of fluid and electrical components.

OUR SOLUTION

Convenient mounting features.
High speed data transfer (1000 BaseT).
Sercos III, EtherCAT, Ethernet IP, ProfiNET.
Protective cap to ensure slip ring reliability.



YOUR NEEDS

Specialized sealing system for pneumatic service.
Designs for direct integration into customer equipment.

OUR SOLUTION

Off-the-shelf solution: Rotary unions made by an all-stainless-steel solution .
Shaft allows for manifold or hose connections.
Multiple port configuration options.

Get in touch with us today to start your next project!

WWW.PENLINK.SE



Engineering &
Product design



Inspection &
Quality management



Simulation &
Design verification



Assembly &
Testing



Advanced
Manufacturing



Value-Added
Products & Services

We supply only the best solution for each and every industry, get in touch with us to learn more about your possibilities when working with Penlink.

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