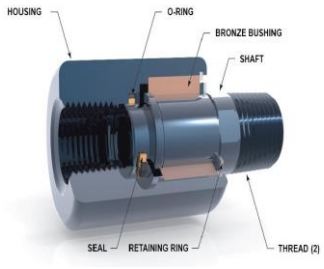
Rotary joints.

TISTAM provide different types of a rotary joint depend on mechanism used to transfer liquids and/or gases while rotating / swiveling from one connection to another. Rotary unions are engineered to endure a large range of temperature and pressure for a variety of conditions and environments. In addition, rotary unions may integrate multi plepassages and handle different types of media concurrently.

Rotary unions function by connecting to an input and securing onto another mechanism while allowing a moving connection to be preserved. They are utilized in a variety of applications; from miniature rotary unions for the semiconductor industry to large, heavy-duty rotary unions for industrial applications. Additionally, numerous materials, seals, and bearing types can be incorporated.



Housing.

The housing is the component that holds all of the other elements of the rotary union together. The housing has an inlet port, which is a threaded port to which the hose supplying the medium will be attached. The rotary union may also have an outlet port, if the same joint is being used both to supply fluid to a roll and to remove fluid from the roll. In smaller rotary unions the housing is stationary. In larger rotary unions the housing is usually bolted to the drum or roll using a flange. In these cases the housing rotates at the same speed as the drum.

Shaft.

The shaft is the component that carries the medium through the rotary union into the drum or roll. In many cases the shaft will turn with the drum or roll. In some cases, like in larger flanged rotary unions, the shaft may be stationary while the housing rotates. The bearings and seal are typically assembled around the shaft.

Bearing.

The second most important part of the rotary union is the bearing. A rotary union may have only one bearing, but multiple bearing are much more common. Roller bearings; such as ball bearings and tapered roller bearings; or non-roller bearings, like graphite bearings and bronze brushings, may be used in a rotary union. The bearings are always used to allow a part of the joint, either the shaft or the housing, to rotate

Mechanical seal.

The heart of the rotary union is the seal. The seal prevents the medium from leaking outside the rotary union while in operation. Seal types can vary from pusher-type end face mechanical seal, non-pusher type end face mechanical seal, lip seals, and o-ring seals. Most rotary unions have more than one seal.


Mining.

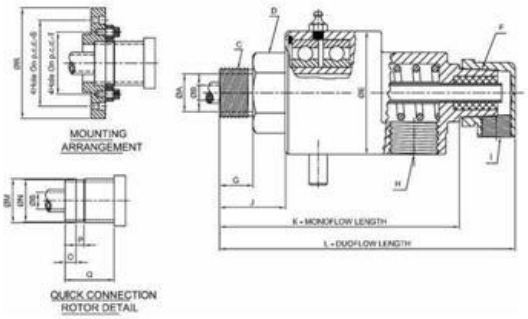

Gas & Oil.


Pulp & Paper.


Textile & Dyeing.

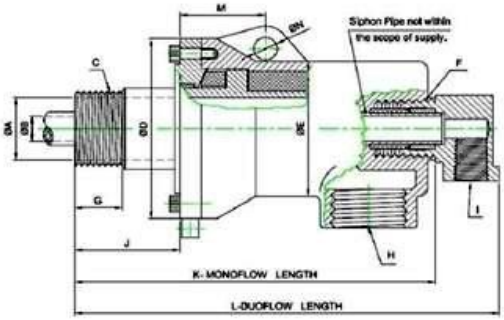
Double ball bearings.

balanced face sealing. lapped to optical, flatness, secondary sealing of Nitrite / Viton / PTFE. Available in MONO FLOW, DUO FLOW with fixed siphon and rotating siphon.
Max - RPM 1500 Max: Pr. 35 Kg/cm2
Max - temperature 100 °C Media-Water.



Rotary Pressure Joint.

with best quality carbon graphite guide bush and sealing ring, Rotor one piece carbon steel Available in MONO FLOW, DUO FLOW with fixed siphon or rotating siphon
Max - RPM 600 Max Pr.17 Kg/cm2
Max – to 350 °C Media- steam.

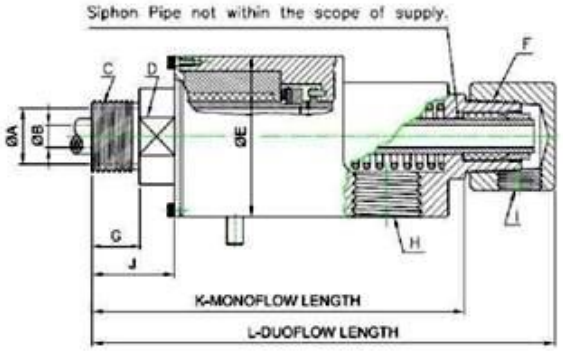


Rotor resting between one ball bearing and carbon graphite.

Bush bearing enabling thermal expansion. Balanced face seal lapped to optical flatness, available in MONO FLOW. DUO FLOW with fixed siphon and rotating siphon.
Max.-RPM 1500 Max:Pr.17Kg/CM2
Max temperature 160 °C
Media- Water, Steam and Thermal Fluid.

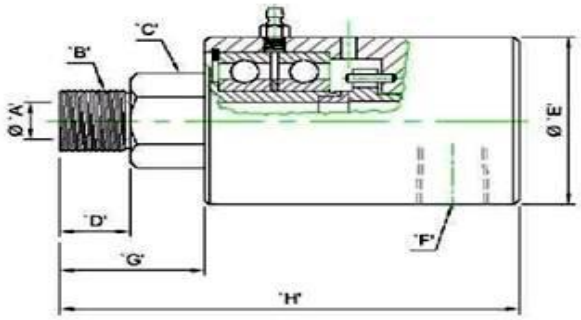
High Temperature.

Rotor and Outer body made of temperature resisting Steels. Optically flat lapped Tungsten Carbide seals are held by 99.99% pure graphite bushing to withstand very high temperature of Thermal Fluids.
Max RPM: 250.
Max Temp.: 350° C.
Max Pr. 5 kg/cm2.



Rotor resting between two ball bearing.

Ensuring long life to sealing faces which are micro-lapped to optical flatness.
Max RPM 3500.
Media- Air and Hydraulic senice.
Max;Pr. Air 10 Kg/cm2 Hydraulic 35 Kg/cm2.



Carbon seals for steam head seals. (Steam header seals)

The steam header seal, or in more general terms the feeder head seal, represents a special from of Mechanical seal.
Usually the running speed with values of <0.1m/sec The load however can exceed 150 N/cm2 .
Spring load: 1-3 N/ cm2

30 Years of sealing solutions.

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