

ROTATING JOINTS  
SWIVEL JOINTS

WATER STEAM HOT OIL HYDRAULIC PNEUMATIC VACUUM SPECIAL APPLICATIONS

# ROTOTECH ROTATING & SWIVEL JOINTS

## APPLICATION & INSTALLATION & SERVICE & MAINTENANCE

ROTOTECH rotating and swivel joints are used to transfer steam, water, hot oil, hydraulic, etc. from a stationary supply line to a rotating machine part such as shafts, drums or rolls. ROTOTECH manufactures reliable and economic rotating and swivel joints for the needs and requests of its customers for years.

ROTOTECH adapted customer-orientated service to all departments and representatives. ROTOTECH offers fast and reliable solutions for standard and for special products, most of the standard products are shipped from stock, fast troubleshooting for all problems, product selection and application trainings in ROTOTECH facility or in the field by one of our sales representatives.



As customers demand more reliable products for more extreme conditions, ROTOTECH pays attention to research & development of its rotating and swivel joints.

ROTOTECH improve its product quality day by day. Beyond standard products, ROTOTECH manufactures special products and solutions for all applications and fluids. In need of a special rotating and swivel joint; modifications will be made to standard rotating and swivel joint or a special new joint will be manufactured. When in need of special product, customer receives quotation with a technical drawing in a short period . When confirmed technical drawing is received by our application department, manufacturing process starts immediately.

By using CAD systems and CNC machining; products are manufactured in close tolerances. Special rotating joints for special applications are manufactured in a short period. All rotating and swivel joints and their spare parts are stocked in our factory and can be shipped very shortly.

All products manufactured by ROTOTECH are warranted. In order to take advantage of the warranty, joint must be returned to our factory unopened. After necessary investigations are made, customer will have a report about the cause of the failure and results will decide whether the repair will be made on a charge or with no charge.



For customers, that do not want to repair joints, can send the joints to our facility. After joints are returned to our company, they are disassembled, cleaned and worn out parts are replaced, all required sealing tests are made and joints are sent back as good as a new joint with a repair report.

All ROTOTECH rotating joints can be repaired at the field. According to customer needs, ROTOTECH can supply parts as only worn out part (carbon graphite, ceramic, etc.) or as a spare parts kit. Mechanics make the repairs easily at the field with these spare parts





ROTOTECH manufactures swivel joints for applications in iron&steel chemical, petrochemical, paint refining, etc. With the help of ROTOTECH swivel joints; for loading and unloading fluids and dry bulk, rigid piping can easily be used instead of expensive hoses and systems.

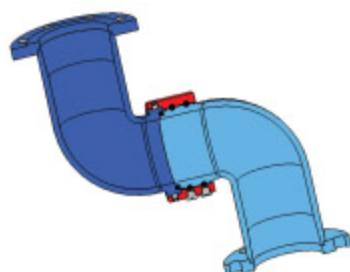
ROTOTECH swivel joints are used in

- hose reels
- flexible piping systems
- loading arms
- wastewater treatment equipment
- filling machines
- fluid and dry-bulk transfer applications

## FEATURES

### — Seals

- Many alternative seal types for covering all kinds of applications
- Seal grooves are manufactured in close tolerances for minimum seal wear
- 3 piece design allows seals to be changed without disassembling the bearings



### — Ball Races

- Housing and shaft are assembled together with double or triple row ball bearings
- Widely spaced ball races
- Ball races are manufactured with close tolerances
- Double or triple raceways assure proper alignment

### — Protected Bearing Chamber

- Outer o-ring / or dust seal protects bearings from dust, rain or etc.
- Inner o-ring / or seal protects bearings from inter passing fluid to enter the chamber
- Both inner and outer seals hold lubrication in chamber



### — Long Life Bearings

- Ball bearings are precision machined and hardened to optimum quality
- Stainless models have stainless bearings
- Ball bearing plugs do not need be adjusted for bearing performance

### — Lubrication

- All swivels are pre-lubricated before shipment
- All swivels that have a grease ring have to be lubricated periodically
- All swivels that do not have a grease ring are lubricated before shipment and do not need lubrication
- To prevent over-greasing, swivels can be manufactured with a relief fitting



### — Specials

- Special designs for submerged applications
- Spring balanced design
- With counter weight design
- With handle or chain assembled types

# Rotating Joints

4000

4000 HO



Medium : Steam, Hot Oil, Water  
 Size : 1/2" (DN15) - 4" (DN100)  
 Max. Temp. : (-30°C) - (200°C) ] 4000  
 (-22°F) - (392°F)  
 (-30°C) - (315°C) ] 4000 HO  
 (-22°F) - (600°F)  
 Max. Steam Pressure : 17 bar (250 psi)  
 Max. Hot Oil Pressure : 10 bar (145 psi)  
 Max. Speed : 400 RPM

3000

3000 HO



Medium : Water, Air, Steam,  
 Hot Oil, Hydraulic, Vacuum  
 Size : 1/4" (DN08) - 2" (DN50)  
 Max. Water Pressure : 50 bar (750 psi)  
 Max. Water Temperature : 150°C (300°F)  
 Max. Steam Pressure : 1 bar (14 psi)  
 Max. Hot Oil Pressure : 7 bar (100 psi)  
 Max. Hot Oil Temperature : 150°C (300°F) (3000)  
 200°C (395°F) (3000HO)  
 Max. Speed : 3500 RPM

5000



Medium : Hydraulic, Air, Coolant  
 Brake Fluid, Vacuum  
 Size : 1/8" (DN06) - 1 1/2" (DN40)  
 Max. Air Pressure : 10 bar (150 psi)  
 Max. Vacuum : 94 kPa (700 mmHg)  
 Max. Hydraulic Pressure: 70 bar (1000 psi)  
 Max. Temperature : 120°C (250°F)  
 Max. Speed : 250 RPM

6000



Medium : Hydraulic, Air, Coolant  
 Brake Fluid, Vacuum  
 Size : 1/2" (DN15) - 1/8" (DN06)  
 1" (DN25) - 3/8" (DN10)  
 Max. Air Pressure : 10 bar (150 psi)  
 Max. Vacuum : 94 kPa (700 mmHg)  
 Max. Hydraulic Pressure: 70 bar (1000 psi)  
 Max. Temperature : 120°C (250°F)  
 Max. Speed : 250 RPM

7000



Medium : Hydraulic, Air, Coolant  
 Brake Fluid, Vacuum  
 Size : 2x1/4" (2xDN08)  
 2X3/4" (2xDN20)  
 Max. Air Pressure : 10 bar (150 psi)  
 Max. Vacuum : 94 kPa (700 mmHg)  
 Max. Hydraulic Pressure: 70 bar (1000 psi)  
 Max. Temperature : 120°C (250°F)  
 Max. Speed : 250 RPM

1000A



1000B



1000C



Medium : Water  
 Size : 1/2" (DN15) - 1" (DN25)  
 Max. Pressure : 10.5 bar (150 psi)  
 Max. Temperature : 120°C (250°F)  
 Max. Speed : 100 RPM

700



Medium : Air, Hydraulic  
 Size : 3/8" (DN10) - 2" (DN50)  
 Max. Air Pressure : 10 bar (150 psi)  
 Max. Vacuum : 7 kPa (60 mmHg)  
 Max. Hydraulic Pressure : 60 bar (870 psi)  
 Max. Temperature : 120°C (250°F)  
 Max. Speed : 1500 RPM

M1/M2/M3 Multiport



Medium : Air, Hydraulic, Water,  
 Steam, Liquids, Gas  
 Size : 1/8" (DN06) - 1 1/2" (DN40)  
 Max. Pressure : M1 - 400 bar - 10 RPM  
 M2 - 250 bar - 20 RPM  
 M3 - 12 bar - 3000 RPM  
 Max. Temperature : 120°C

3000 PAS



Medium : Steam, Water, Hot Oil, Air  
 Size : 1/4" (DN08) - 2" (DN50)  
 Max. Water Pressure : 50 bar (750 psi)  
 Max. Water Temperature : 150°C (300°F)  
 Max. Steam Pressure : 1 bar (14 psi)  
 Max. Hot Oil Pressure : 7 bar (120 psi)  
 Max. Hot Oil Temperature : 160°C (320°F)  
 Max. Speed : 3500 RPM

8000



Medium : Water  
 Size : 2" (DN50) - 4" (DN100)  
 Max. Water Pressure : 10 bar (150 psi)  
 Max. Water Temperature : 120°C (250°F)  
 Max. Speed : 3500 RPM

2000



Medium : Air, Hydraulic, Vacuum  
 Size : 1/8" (DN06) - 1 1/2" (DN40)  
 Max. Air Pressure : 10 bar (150 psi)  
 Max. Vacuum : 94 kPa (700 mmHG)  
 Max. Hydraulic Pressure : 70 bar (1000 psi)  
 Max. Temperature : 120°C (250°F)

7500



Medium : Air, Hydraulic  
 Size : 2x1/4" (2xDN08)  
           2x3/4" (2xDN20)  
 Max. Air Pressure : 10 bar (150 psi)  
 Max. Hyd. Pressure : 250 bar (3600 psi)  
 Max. Temperature : 120°C (250°F)  
 Max. Speed : 500 RPM

500



Medium : Hydraulic, Water  
 Size : 1/4" (DN08) - 1" (DN25)  
 Max. Pressure : 400 bar (5800 psi)  
 Max. Temperature : 120°C (250°F)  
 Max. Speed : 1500 RPM

600



Medium : Hydraulic, Water  
 Size : 1/4" (DN08) - 1 1/2" (DN40)  
 Max. Pressure : 450 bar (6500 psi)  
 Max. Temperature : 120°C (250°F)  
 Max. Speed : 20 RPM

900



Medium : Water, Air, Hydraulic  
 Size : Ø 20 mm - Ø 100 mm  
 Max. Pressure & Speed : 400 bar  
   (5800 psi) - 10 RPM  
 Max. Pressure & Speed : 12 bar  
   (175 psi) - 3000 RPM  
 Max. Temperature : 120°C (250°F)

9000

SELF SUPPORTED



ROD SUPPORTED



Medium : Steam, Water, Hot Oil  
 Size : 1/2" (DN15) - 8" (DN200)  
 Max. Pressure : 17 bar (250 psi)  
 Max. Temperature : 200°C (392°F) - 9000  
                                   343°C (650°F) - 9000 HO  
 Max. Speed : 300 RPM

100



Medium : Hydraulic, Coolant  
 Size : 5/8" - 18" UNF  
           M16 x 1,5  
 Max. Temperature : 120°C (250°F)  
 Max. Speed : 10,000 RPM

105



Medium : Hydraulic, Coolant  
 Size : 5/8" - 18" UNF  
           M16 x 1,5  
 Max Temperature : 120°C (250°F)  
 Max Speed : 20 000 RPM



# TYPE 1



# TYPE 2



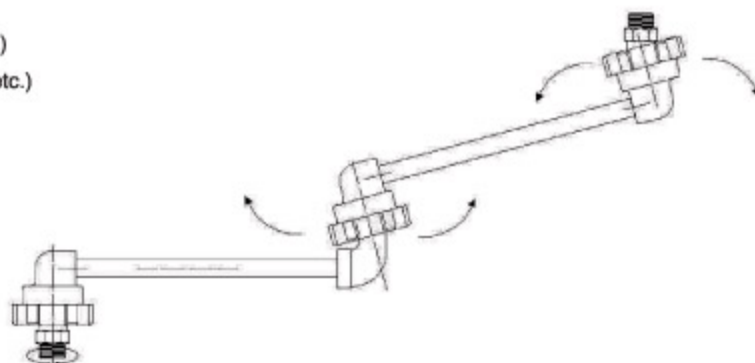
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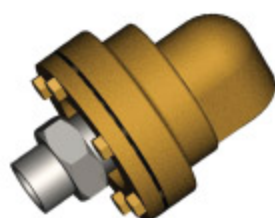
# TYPE 4



- Size : 1/8" (DN06) - 72" (DN1800)
- Medium : Water, Hydraulic, Air, Vacuum, Gas, Chemicals, Fuels, Oilfield Fluids, All Kinds of Liquids, Dry Bunks
- Body Materials : Cast Steel, Fabricated Steel, Stainless Steel, Aluminium, Bronze, Forged Brass, Special Materials Upon Request
- Specials : —Lined  
—Coated
- Connection Styles : Male - Threaded ( BSP, NPT, BSPP, etc.)  
Female - Threaded ( BSP, NPT, BSPP, etc.)  
Socket  
Weld ends  
Flanged ( DIN, ANSI, JIS, SAE, etc.)
- Max Pressure : 1400 bar (20,000 psi)
- Max Temperature : 315°C (600°F)



# C Series



# D Series



# E Series



- Medium : Steam, Water, Hot Oil, Air, Vacuum
- Size : 3/8" (DN10) - 2" (DN50)
- Max. Pressure : 23 bar (325 psi)
- Max. Temperature : 225°C (437°F)

- Medium : Water, Air, Chemicals
- Size : 2" (DN50) - 12" (DN300)
- Max. Pressure : 20 bar (290 psi)
- Max. Temperature : 120°C (250°F)
- Max. Speed : Articulated Motion

- Medium : Hydraulic, Air
- Size : 1/4" (DN08) - 2 1/2" (DN65)
- Max Pressure : 400 bar (5800 psi)
- Max Temperature : 120°C (250°F)
- Max Speed : Articulated Motion



TYPE 5



TYPE 6



TYPE 7



TYPE 8



Sealing Material : — NBR

— PTFE

— Grafitte filled TFE

— VITON

— EPDM

— SILICONE

Loading Arms

Drain Systems For Floating  
Roof Storage Tanks

# Swivel Joints



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