

DEUBLIN[®]
Engineered for Performance

RU 124 GB

Main Catalogue



ROTATING UNIONS

water steam air hydraulic hot oil vacuum coolant custom applications



Our aim: "To make every effort toward producing the best product of its kind on the Market".

This tenet serves as an incentive and an obligation in equal measure. Adherence to this policy has been responsible for our growth from a small garage shop to the world's largest manufacturer of Rotating Unions with a world-wide sales and service network.

Wherever water, steam, oil, coolant lubricants or other media have to be conveyed into or through turning machine parts, like rollers, shafts or spindles, rotating unions are employed in a wide range of industrial fields.

Developed in 1945, and continually improved as a result of practical requirements, **DEUBLIN** Rotating Unions are at the cutting edge of technology today.

DEUBLIN Rotating Unions – the industry standard. Our customers can rely on our engineering expertise, R&D capabilities, manufacturing techniques and more than 60 years of knowledge and experience.

Our product range is constantly being developed and expanded. In addition, we offer special solutions, customer specified variations and modular designs which enable us to provide users with the perfect solution for virtually any application.

Direct contact with customers and a close collaboration with the original equipment manufacturers provide the basis for continuous improvement.

Quality encompasses our entire enterprise. At **DEUBLIN**, reliable products at competitive prices and just-on-time deliveries are standards.

This, of course, requires an integrated total quality control system that is practiced in all areas of our organisation.

Quality is the result of teamwork!



DEUBLIN has its Corporate Headquarter in Waukegan, USA. For over 30 years the facilities in Germany and Italy have been producing for the European, African and Near Eastern Market.

Besides sales and warehouse facilities in almost every country in Europe, we also have company owned subsidiaries in Austria, Brazil, Canada, China, France, Germany, Italy, Japan, Mexico, Poland, Russia, Singapore, Spain, South Korea, Sweden and the United Kingdom.

Our customers can rely on our worldwide manufacturing and sales & service network.



Due to its Total Quality Management System **DEUBLIN** was awarded its initial Certification pursuant to DIN EN ISO 9001 in 1996 by the German Standard Institute. In October 2002 the re-certification followed accompanied by the initial Certification for its Environmental Management System pursuant to DIN EN ISO 14001.

Certified as an Authorised Economic Operator (AEO) since March 2009, **DEUBLIN** has established that its supply chain is **secure** and customs-reliable. For its customers, it means faster flow of goods and materials. This is a significant advantage for **DEUBLIN's** partners worldwide.

DEUBLIN sets new standards.



Please unfold for **DEUBLIN** Selection Chart

Selection Chart for *DEUBLIN* Rotating Unions

**Commodity
Tariff No. (HS):
84 87 90 90**

| Size | Series | Max. Operating Data | | | Special Features | Pages |
|---|---|---------------------|---------|------------------------|--|--------------------|
| | | P bar | T °C | n min ⁻¹ | | |
| for Water & Hot Oil up to 120 °C | | | | | | 6 - 22 |
| DN 10 - 50 | 57 | 10 | 90 | 3,500 | bearings lubricated for life | 6 - 11 |
| DN 10 - 50 | 55 | 50 | 120 | 3,500 | general purpose, standard | 7 - 11 |
| DN 40, 50 & 65 | 555, 655, 755 | 50 | 120 | 1,500 | general purpose with flange rotor | 12 - 13 |
| DN 65 | 755 | 14 | 120 | 750 | general purpose, standard | 14 |
| DN 80 | 57 only for water | 10 | 120 | 500 | standard with thread or flange rotor | 15 - 16 |
| DN 10 - 40 | 54 | 120 | 71 | 3,500 | stainless steel | 17 |
| DN 50 - 100 | 6000 | 10 | 120 | 750 | with repair cartridge | 18 - 21 |
| DN 125 | F | 10 | 120 | 750 | for water | 22 |
| for Steam & Hot Oil up to 230 °C | | | | | | 23 - 30 |
| DN 10 & 15 | N Sat. Steam | 17 | 200 | 750 | carbon graphite bearing and spherical seal | 23 |
| DN 10 & 15 | N Hot Oil | 7 | 230 | 750 | carbon graphite bearing and spherical seal | 23 |
| DN 20 - 50 | 9000 Sat. Steam | 10 | 185 | 400 | carbon graphite bearing and spherical seal | 24 - 25 |
| DN 40 | HPS Sat. Steam | 17 | 200 | 400 | for corrugators | 26 |
| DN 20 - 125 | H Sat. Steam | 10 | 185 | 180 | double carbon graphite bearing and spherical seal | 27 - 30 |
| DN 20 - 125 | H Hot Oil | 7 | 230 | 350 | double carbon graphite bearing and spherical seal | 27 - 30 |
| for Air & Hydraulic | | | | | | 31 - 45 |
| DN 10 - 50 | 14000 | 60 | 120 | 1,500 | self-supported or in-the-shaft mounted | 31 |
| DN 6 - 40 | 1005, 1102, 1115 1205, 2200, 250 355, 452 | 70 | 120 | 3,500 | for standard applications individual operating data see page 32 | 32 - 34 32 - 34 |
| DN 6 - 10 | 1005, 1102, 1115 | 70 | 120 | 3,500 | in-the-shaft mounted | 34 |
| DN 8 - 40 | D | 450 | 120 | 20 | for high pressure applications | 35 |
| DN 8 - 25 | AP | 400 | 90 | 1,500 | high pressures & high RPM | 36 |
| DN 8 - 20 | 7100 | 250 | 60 | 500 | high pressure hydraulic | 37 |
| DN 8 - 20 | 1690, 1790, 1890 | 210 | 120 | 250 | DEU-PLEX | 38 - 39 |
| DN 8 & 15 | 17, 21 & 2117 | 210 | 120 | 250 | Tandem design | 40 |
| DN 10 & 15 | 1379, 1479 | 250 | 80 | 250 | multi-purpose | 41 |
| DN 10 | 1500 | 10 | 120 | 1,500 | DEU-PLEX, for lubricated air | 42 |
| DN 15 | 1590, 1579 | 70 | 120 | 1,500 | DEU-PLEX | 43 |
| DN 6 - 10 | 2620 | 140 | 71 | 12,000 | 2-Passages for different media | 44 - 45 |
| for Coolant | | | | | | 46 - 48 |
| DN 6 - 10 | 1116 | 70 | 71 | 12,000 | Closed Seal for continuous coolant application | 46 |
| DN 10 | 1101 | 105 | 71 | 15,000 | Closed Seal for high RPM | 47 |
| DN 6 - 10 | 1109 | 140 | 71 | 20,000 | dry-run (POP-OFF™), self-supported | 48 |
| for Water in Continuous Casting Plants | | | | | | 49 |
| DN 15 - 40 | 2400 | 10 | 120 | 100 | in-the-shaft mounted | 49 |
| Special Editions for Customized Applications | | | | | | 50 - 51 |
| SP0152 | | 8 / 200 | 70 | 500 | 7-Passages for turn tables (compressed air and hydraulic oil) | 50 |
| SP0202 | | 210 / 10 | 80 | 10 | 10-Passages for turrets (hydraulic oil and compressed air) | 50 |
| 7100-1010 + SP0077 | | 100 / 400 | 70 | 450 / 600 | Tandem design for steel grip rewinders (hydraulic and grease) | 50 |
| SP0231 | | 6 / 3 / 1 | 80 | 100 | 4-Passages with slip ring (water, compressed air, helium) | 51 |
| 6506-230-131032 | | 10 | 160 | 1,300 | 2-Passages for hot oil applications | 51 |
| 7000-081 | | 10 | 93 | 1,500 | ATS installation (compressed air) | 51 |

Attention!

For applications exceeding given limits and/or unlisted rotor connections, contact **DEUBLIN** for engineering assistance. Please indicate media, size, speed (RPM), pressure, temperature and requested connection. Please note our "Instructions of Hose Installation and Assembly of **DEUBLIN** Rotating Unions" on page 56. – **Dimensions in mm.**

Subject to both technical and dimensional changes without prior notice.

Sealing

Original rotating unions used the media pressure to maintain seal contact. Logic indicates that as pressure increases, so do the forces holding the seals together - more pressure = tighter, better sealing.

This is why they were called "pressure joints".

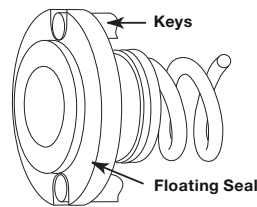
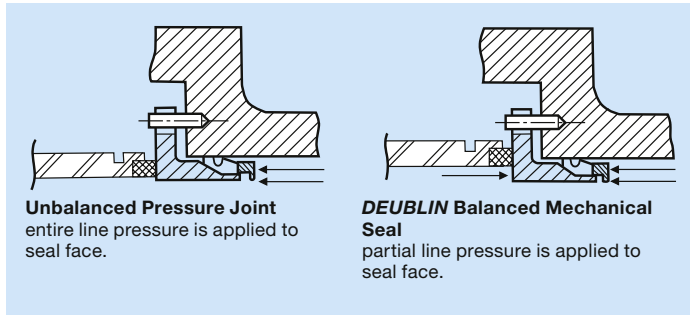
However, more pressure on the rotating seal face also meant more friction, higher torque and more wear. The resulting service life was not satisfactory.

DEUBLIN was aware of the disadvantage and applied "Balanced Mechanical Seal Technology", a decisive improvement.

This simply means the load or pressure on the seal faces is kept to a minimum regardless of media pressure, resulting in a freer turning union and in longer seal life.

Optimal balance ratio allows for a thin film of "lubricating" media between the seal faces.

In order to attain sealing in a non-pressurised system, the floating seal contact is maintained by the spring pressure (refer to sketch).



Keyed Floating Seal

Manufacturing

The entire **DEUBLIN** product range is manufactured at the cutting edge of technology from the very first drawing to the final production. Modern CNC machining centres transform highest quality materials into precision components. Cost-effective production is achieved by applying new technology and the most modern equipment.

Once assembled **EVERY** rotating union is dynamically pressure-tested for leakage as part of the final inspection procedure prior to despatch.

The core of a rotating union is the seal combination. Seal faces manufactured from tool steel, carbon graphite, bronze, ceramic, tungsten carbide or silicon carbide are micro-lapped to a surface finish of 0.025 RMS and an optical flatness of 2 light bands. To ensure the above specifications the near perfect flatness is tested under mono-chromatic light (refer to picture).



Micro-Lapped Seals



CNC Machining Centre

Thread Specifications used in this Catalogue

| Symbol | Description | Symbol | Description |
|------------|---|----------|---|
| 1/2 NPT | (American) National Pipe Thread | G 1/2 | ISO 228 (DIN 259) Straight Pipe Thread |
| 5/8-18 UNF | Unified National Fine Thread | M 22x1,5 | ISO Metric Thread |
| 1-14 UNS | Unified National Special | R 1/8 | ISO 7/1 (DIN 2999) Pipe Thread (tapered external) |
| RH or LH | Right Hand or Left Hand | Rc 3/4 | ISO 7/1 (DIN 2999) Pipe Thread (tapered internal) |
| Rp 1/2 | ISO 7/1 (DIN 2999) Pipe Thread (cylindrical internal) | | |

Reliability

Years of experience, constant dialogues with customers, in-house and supplier innovations have enabled **DEUBLIN** to offer reliable rotating unions at the cutting edge of technology. The right seal combination compatible to the media guarantees the maximum service life for every particular application.

A clean and efficient warehousing and handling of the union is just as much a prerequisite for our customers as the adherence to the **DEUBLIN** specifications.

The market demands more products with a longer service life at more extreme parameters.

Besides new developments and the constant modification of existing products, it is above all better wear-resistant seal combinations that accommodate these market demands. **DEUBLIN** offers these seal combinations under the designation E.L.S. (Extended Life Sealing).



Service

For **DEUBLIN customer-orientated service** means: customisation and/or newly engineered unions for special requirements, an all-encompassing technical consultation by union selection either from the **DEUBLIN** facility or in the field by one of our representatives, short-term delivery of all selected components and, finally, fast troubleshooting of any and all problems.

Lengthy machine breakdowns are a thing of the past.

A broad assortment of unions is produced for stock and can be procured quickly. An automatic warehousing system enables all required components to be localised fast and effectively.

Lead times for special contractual products are only fractionally longer, for a modern and optimised production and assembly guarantee very short process times.

High-performance CAD systems warrant the realisation of special requirements such as the modification of an existing union or newly engineered designs. The customer receives in short notice the quotation including a technical drawing and price. The production of the rotating unions begins at that moment when the drawing has been confirmed by the customer and returned to the **DEUBLIN** facility.

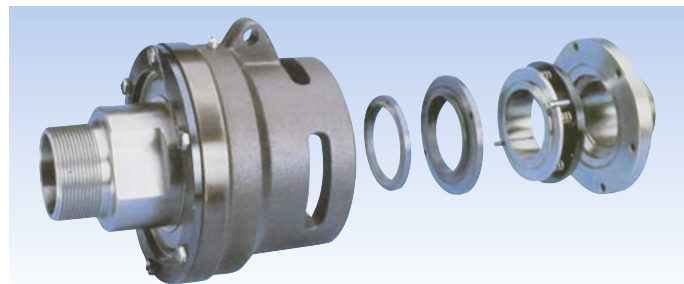
Repair

Basically, all **DEUBLIN** Rotating Unions can be refurbished at the factory.

After they are returned, disassembly and cleaning begins and all worn parts are replaced with new ones. After assembly and testing, the customer receives back unions that are as good as new with an standard warranty.

When taking advantage of a warranty, the union must be returned UNOPENED. The cause of failure will be ascertained and, if so desired, the customer will receive a report for personal perusal. The result of the findings will decide whether the repair is performed on a charge or on a no-charge basis.

Numerous **DEUBLIN** products can be field repaired by the user. For every degree of wear there is a corresponding rebuilding or repair kit available. These kits can be ordered at the **DEUBLIN**



facility complete with their respective repair instructions (refer to comments under number system).

Number System

DEUBLIN ordering numbers for standard rotating unions consist of 2, 3 or 4 number groups. Each group describes a particular characteristic feature such as application, seal combination or rotor connection (refer to ordering example).

Rebuilding and repair kit numbers differ from their respective rotating union numbers by the insertion of a letter (B or C) which describes the extent of repair. The letter B stands for a rebuilding kit and the letter C for a repair kit (refer to ordering example).

All 54, 55 and 57 Series Rotating Unions are available for use in a potentially explosive atmospheres defined by "ATEX". Unions, that match the requirements for ATEX can be identified by an "X" between the first two number groups.

Ordering example:

255-000-284

└─ rotor
└─ seal combination
└─ model / series / size

250-681

└─ elbow for duoflow design
└─ series / size

255-000B284

└─ rebuilding kit

257-000C

└─ repair kit

255X000-284

└─ ATEX series



DEUBLIN

Rotating Unions 57 Series with Silicon Carbide Seals for Water Service, DN 10 - 50

- monoflow and duoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal
- pinned rotor seal
- easy and quick replacement of sealing components (rotor seal, floating seal)
- ball bearings lubricated for life
- for poor water quality
- 3 vent holes
- forged brass housing
- stainless steel rotor
- special options: threaded vent holes, bearings splash proof, nickel-plated versions

Operating Data

| | | | |
|--|---------|-----------|-------------------------|
| Max. Water Pressure | | 150 PSI | 10 bar |
| Max. Speed, Rotor with Straight Threads: | Model | | |
| | 57-257 | 3,500 RPM | 3,500 min ⁻¹ |
| | 357 | 3,000 RPM | 3,000 min ⁻¹ |
| | 527-557 | 2,500 RPM | 2,500 min ⁻¹ |
| | 657 | 750 RPM | 750 min ⁻¹ |
| Max. Temperature | | 90 °C | > 90 °C consult DEUBLIN |

For further information please contact **DEUBLIN** or your local representative.

Torque Ratings 57 Series

| DN | ft.lbs | Nm |
|----|--------|------|
| 10 | 0.18 | 0.25 |
| 15 | 0.37 | 0.50 |
| 20 | 0.74 | 1.00 |
| 25 | 1.48 | 2.00 |
| 32 | 1.62 | 2.20 |
| 40 | 2.14 | 2.90 |
| 50 | 3.32 | 4.50 |

Seal Combination - Standard

- Carbon Graphite/Silicon Carbide
- long service life

Seal Combination - E.L.S. (Extended Life Sealing)

- Silicon Carbide/Silicon Carbide for severe conditions (poor water quality)

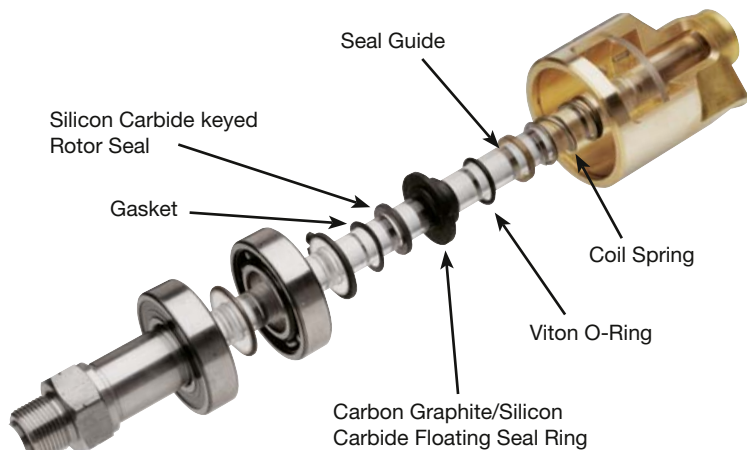
All 54, 55 and 57 Series Rotating Unions are available for use in a potentially explosive atmospheres defined by "ATEX".

Union Repair

The 57 Series is designed for quick, easy replacement of both Floating Seal and the Rotor Seal.

The "57's" seal is seated in a keyed counter bore at the rotor's end. The worn seal simply lifts out and the new one drops right in. Since the entire rotor does not need to be replaced or relapped, the repair is fast, easy and on the spot. As you only replace the seals, the repair cost is very economical.

For Ordering Number of Repair Kit see page 5.



DEUBLIN

Rotating Unions 55 Series for General Purposes, DN 10 - 50



- monoflow and duoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal
- 3 vent holes
- forged brass housing
- stainless steel rotor
- special options:
threaded vent holes,
splash-proof bearings,
nickel-plated
and/or low torque design
- Lubrication Guide page 52

Operating Data

| | | | |
|--|---------------|-----------|-------------------------|
| Max. Water Pressure | Model 55 -555 | 750 PSI | 50 bar |
| Max. Water Pressure | Model 655 | 200 PSI | 14 bar |
| Max. Saturated Steam Pressure (Intermittent) | | 14 PSI | 1 bar |
| Max. Hot Oil Pressure | | 100 PSI | 6,6 bar |
| Max. Speed, Rotors with Straight Threads: | Model 55 -255 | 3,500 RPM | 3,500 min ⁻¹ |
| | 355 | 3,000 RPM | 3,000 min ⁻¹ |
| | 525 -555 | 2,500 RPM | 2,500 min ⁻¹ |
| | 655 | 750 RPM | 750 min ⁻¹ |

Max. Temperature 120 °C > 120 °C consult DEUBLIN

For further information please contact **DEUBLIN** or your local representative.

Torque Ratings 55 Series

| DN | ft.lbs | Nm |
|----|--------|------|
| 10 | 0.25 | 0.34 |
| 15 | 0.35 | 0.50 |
| 20 | 0.50 | 0.68 |
| 25 | 1.25 | 1.80 |
| 32 | 1.25 | 1.80 |
| 40 | 2.50 | 3.40 |
| 50 | 3.00 | 4.07 |

Seal Combinations - Standard

- Carbon Graphite/Bronze for water
- multi-purpose applications

optional:

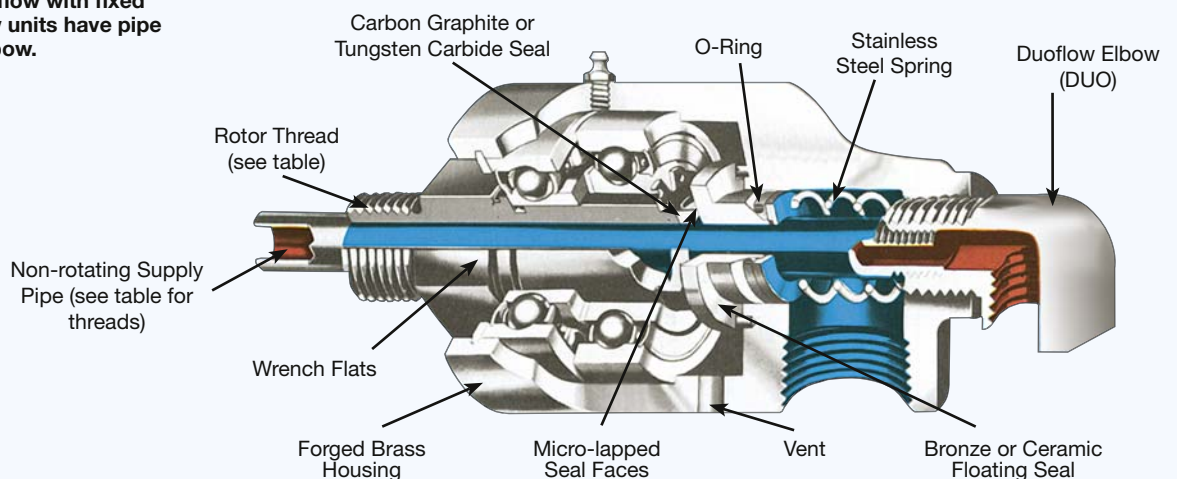
- Carbon Graphite/Ceramic for hot oil, hot water and saturated steam

Seal Combination - E.L.S. (Extended Life Sealing)

- Tungsten Carbide/Ceramic for severe conditions (poor water quality), max. temperature 90°C

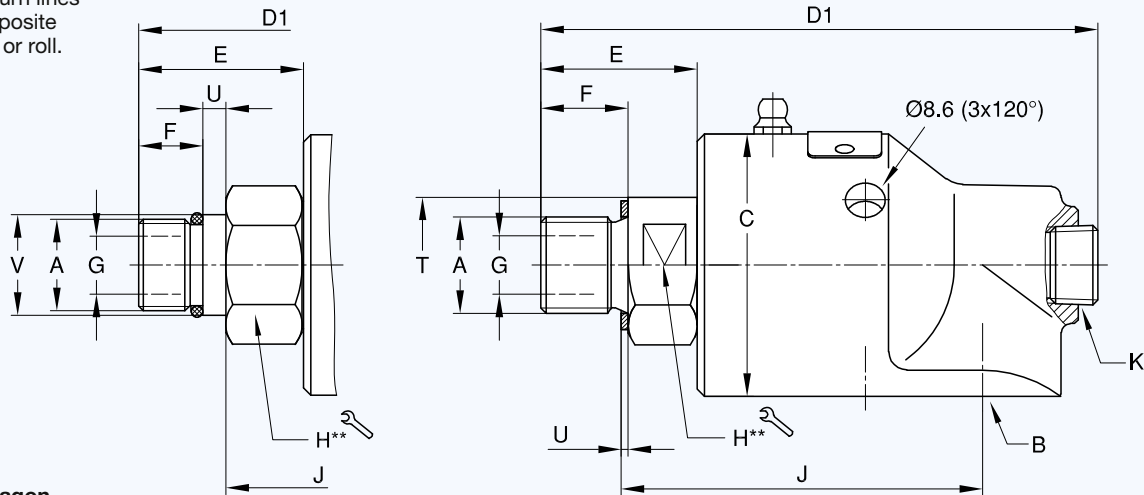
All 54, 55 and 57 Series Rotating Unions are available for use in a potentially explosive atmospheres defined by "ATEX".

Illustration shows duoflow with fixed supply pipe. Monoflow units have pipe plugs instead of an elbow.



57 and 55 Series - Monoflow Rotating Unions DN 10 - 50

Monoflow unions are used when supply and return lines are connected to opposite sides of the cylinder or roll.



Pilot Type Rotor

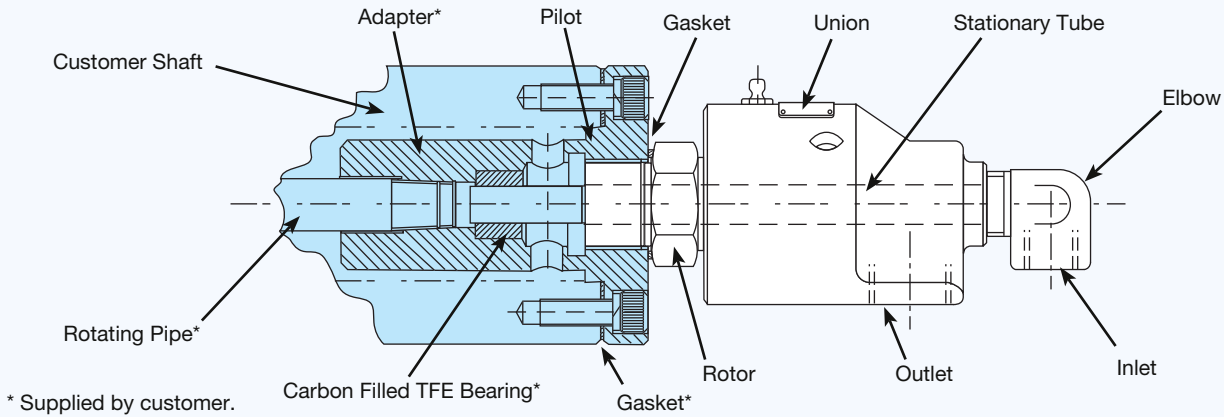
** DN 10 - 20 = hexagon
 DN 25 - 50 = two wrench flats

| DN | B | Ordering No. (Basic Models) | | | | A Rotor Connections | C ø | D1 | E | F | G ø | H ⌀ | J | K NPT | T | U | V ø | kg | |
|----|-----------|-----------------------------|--------------------|-----------------|--------------------|---------------------------|--------|-----|-----|----|--------|--------|----|----------|-------|----|--------|------|-----|
| | | Model 57 STD | Model 57 E.L.S. | Model 55 STD | Model 55 E.L.S. | | | | | | | | | | | | | | |
| 10 | G 3/8 | 57-130-094 | 57-145-094 | 55-655-094 | 55-842-192 | G 3/8 | RH | 45 | 100 | 26 | 16 | 9,5 | 22 | 64 | 1/4 | - | 1,5 | - | 0,6 |
| | G 3/8 | 57-130-095 | 57-145-095 | 55-655-095 | 55-842-193 | G 3/8 | LH | 45 | 100 | 26 | 16 | 9,5 | 22 | 64 | 1/4 | - | 1,5 | - | 0,6 |
| | 3/8 NPT | 57-000-094 | 57-050-094 | 55-000-094 | 55-147-192 | G 3/8 | RH | 45 | 100 | 26 | 16 | 9,5 | 22 | 64 | 1/4 | - | 1,5 | - | 0,6 |
| | 3/8 NPT | 57-000-095 | 57-050-095 | 55-000-095 | 55-147-193 | G 3/8 | LH | 45 | 100 | 26 | 16 | 9,5 | 22 | 64 | 1/4 | - | 1,5 | - | 0,6 |
| 15 | G 1/2 | 157-130-151 | 157-145-151 | 155-122-151 | 155-754-252 | G 1/2 | RH | 57 | 119 | 35 | 19 | 12,7 | 30 | 79 | 3/8 | - | 1,5 | - | 1,2 |
| | G 1/2 | 157-130-152 | 157-145-152 | 155-122-152 | 155-754-253 | G 1/2 | LH | 57 | 119 | 35 | 19 | 12,7 | 30 | 79 | 3/8 | - | 1,5 | - | 1,2 |
| | G 1/2 | 157-130-738 | 157-145-738 | 155-122-738 | 155-754-739 | M 20 x 1,5 | RH | 57 | 121 | 37 | 14 | 12,7 | 30 | 79 | 3/8 | - | 5 | 22g6 | 1,2 |
| | G 1/2 | 157-130-835 | 157-145-835 | 155-122-835 | 155-754-833 | M 20 x 1,5 | LH | 57 | 121 | 37 | 14 | 12,7 | 30 | 79 | 3/8 | - | 5 | 22g6 | 1,2 |
| | 1/2 NPT | 157-000-151 | 157-050-151 | 155-000-151 | 155-208-252 | G 1/2 | RH | 57 | 119 | 35 | 19 | 12,7 | 30 | 79 | 3/8 | - | 1,5 | - | 1,2 |
| | 1/2 NPT | 157-000-152 | 157-050-152 | 155-000-152 | 155-208-253 | G 1/2 | LH | 57 | 119 | 35 | 19 | 12,7 | 30 | 79 | 3/8 | - | 1,5 | - | 1,2 |
| 20 | G 3/4 | 257-130-284 | 257-145-284 | 255-269-284 | 255-421-445 | G 3/4 | RH | 73 | 136 | 34 | 19 | 17,5 | 36 | 95 | 1/2 | - | 2 | - | 2,1 |
| | G 3/4 | 257-130-285 | 257-145-285 | 255-269-285 | 255-421-446 | G 3/4 | LH | 73 | 136 | 34 | 19 | 17,5 | 36 | 95 | 1/2 | - | 2 | - | 2,1 |
| | G 3/4 | 257-130-014 | 257-145-014 | 255-269-014 | 255-421-469 | M 35 x 1,5 | RH | 73 | 140 | 38 | 15 | 17,5 | 41 | 102 | 1/2 | - | 2 | - | 2,2 |
| | G 3/4 | 257-130-015 | 257-145-015 | 255-269-015 | 255-421-470 | M 35 x 1,5 | LH | 73 | 140 | 38 | 15 | 17,5 | 41 | 102 | 1/2 | - | 2 | - | 2,2 |
| | G 3/4 | 257-130-048 | 257-145-048 | 255-269-458 | 255-421-936 | M 27 x 1,5 | RH | 73 | 137 | 35 | 15 | 17,5 | 36 | 92 | 1/2 | - | 6 | 28g6 | 2,1 |
| | G 3/4 | 257-130-104 | 257-145-104 | 255-269-459 | 255-421-937 | M 27 x 1,5 | LH | 73 | 137 | 35 | 15 | 17,5 | 36 | 92 | 1/2 | - | 6 | 28g6 | 2,1 |
| | 3/4 NPT | 257-000-284 | 257-050-284 | 255-000-284 | 255-052-445 | G 3/4 | RH | 73 | 136 | 34 | 19 | 17,5 | 36 | 95 | 1/2 | - | 2 | - | 2,1 |
| | 3/4 NPT | 257-000-285 | 257-050-285 | 255-000-285 | 255-052-446 | G 3/4 | LH | 73 | 136 | 34 | 19 | 17,5 | 36 | 95 | 1/2 | - | 2 | - | 2,1 |
| 25 | G 1 | 357-130-222 | 357-145-222 | 355-204-222 | 355-215-378 | G 1 | RH | 83 | 163 | 42 | 22 | 25 | 36 | 108 | 3/4 | 45 | 2 | - | 3,1 |
| | G 1 | 357-130-223 | 357-145-223 | 355-204-223 | 355-215-379 | G 1 | LH | 83 | 163 | 42 | 22 | 25 | 36 | 108 | 3/4 | 45 | 2 | - | 3,1 |
| | G 1 | 357-130-235 | 357-145-235 | 355-204-235 | 355-215-381 | M 35 x 1,5 | RH | 83 | 157 | 36 | 15 | 25 | 36 | 108 | 3/4 | 45 | 2 | - | 3,1 |
| | G 1 | 357-130-236 | 357-145-236 | 355-204-236 | 355-215-382 | M 35 x 1,5 | LH | 83 | 157 | 36 | 15 | 25 | 36 | 108 | 3/4 | 45 | 2 | - | 3,1 |
| | 1 NPT | 357-000-222 | 357-050-222 | 355-000-222 | 355-064-378 | G 1 | RH | 83 | 163 | 42 | 22 | 25 | 36 | 108 | 3/4 | 45 | 2 | - | 3,1 |
| | 1 NPT | 357-000-223 | 357-050-223 | 355-000-223 | 355-064-379 | G 1 | LH | 83 | 163 | 42 | 22 | 25 | 36 | 108 | 3/4 | 45 | 2 | - | 3,1 |
| 32 | G 1 1/4 | 527-130-054 | 527-145-054 | 525-301-054 | 525-398-122 | G 1 1/4 | RH | 91 | 189 | 54 | 28 | 31,8 | 46 | 119 | 1 | 58 | 2 | - | 4,1 |
| | G 1 1/4 | 527-130-055 | 527-145-055 | 525-301-055 | 525-398-123 | G 1 1/4 | LH | 91 | 189 | 54 | 28 | 31,8 | 46 | 119 | 1 | 58 | 2 | - | 4,1 |
| | 1 1/4 NPT | 527-000-054 | 527-050-054 | 525-000-054 | 525-097-122 | G 1 1/4 | RH | 91 | 189 | 54 | 28 | 31,8 | 46 | 119 | 1 | 58 | 2 | - | 4,1 |
| | 1 1/4 NPT | 527-000-055 | 527-050-055 | 525-000-055 | 525-097-123 | G 1 1/4 | LH | 91 | 189 | 54 | 28 | 31,8 | 46 | 119 | 1 | 58 | 2 | - | 4,1 |
| 40 | G 1 1/2 | 557-130-198 | 557-145-198 | 555-385-198 | 555-378-288 | G 1 1/2 | RH | 108 | 228 | 72 | 29 | 38 | 55 | 149 | 1 1/4 | 65 | 2 | - | 6,7 |
| | G 1 1/2 | 557-130-199 | 557-145-199 | 555-385-199 | 555-378-289 | G 1 1/2 | LH | 108 | 228 | 72 | 29 | 38 | 55 | 149 | 1 1/4 | 65 | 2 | - | 6,7 |
| | G 1 1/2 | 557-130-200 | 557-145-200 | 555-385-200 | 555-378-418 | M 50 x 1,5 | RH | 108 | 222 | 66 | 23 | 38 | 55 | 149 | 1 1/4 | 65 | 2 | - | 6,5 |
| | G 1 1/2 | 557-130-201 | 557-145-201 | 555-385-201 | 555-378-419 | M 50 x 1,5 | LH | 108 | 222 | 66 | 23 | 38 | 55 | 149 | 1 1/4 | 65 | 2 | - | 6,5 |
| | 1 1/2 NPT | 557-000-198 | 557-050-198 | 555-000-198 | 555-033-288 | G 1 1/2 | RH | 108 | 228 | 72 | 29 | 38 | 55 | 149 | 1 1/4 | 65 | 2 | - | 6,7 |
| | 1 1/2 NPT | 557-000-199 | 557-050-199 | 555-000-199 | 555-033-289 | G 1 1/2 | LH | 108 | 228 | 72 | 29 | 38 | 55 | 149 | 1 1/4 | 65 | 2 | - | 6,7 |
| 50 | G 2 | 657-130-124 | 657-145-124 | 655-527-124 | 655-930-124 | G 2 | RH | 118 | 248 | 65 | 29 | 47,6 | 60 | 165 | 1 1/4 | 70 | 2,5 | - | 7,6 |
| | G 2 | 657-130-125 | 657-145-125 | 655-527-125 | 655-930-125 | G 2 | LH | 118 | 248 | 65 | 29 | 47,6 | 60 | 165 | 1 1/4 | 70 | 2,5 | - | 7,6 |
| | 2 NPT | 657-000-124 | 657-050-124 | 655-500-124 | 655-502-124 | G 2 | RH | 118 | 248 | 65 | 29 | 47,6 | 60 | 165 | 1 1/4 | 70 | 2,5 | - | 7,6 |
| | 2 NPT | 657-000-125 | 657-050-125 | 655-500-125 | 655-502-125 | G 2 | LH | 118 | 248 | 65 | 29 | 47,6 | 60 | 165 | 1 1/4 | 70 | 2,5 | - | 7,6 |

Duoflow Supply Pipe Installations

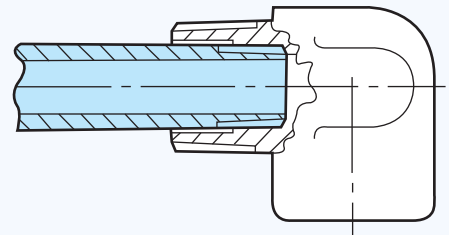
DEUBLIN water service unions can be adapted for Duoflow applications where a single media is circulated through and around the supply pipe. Duoflow elbows are available in 3 styles to accept a variety of different supply systems. The guidelines shown below should be carefully considered. A poorly designed supply system can contribute to premature union failure.

Where long pipes or high speeds are required, an adapter should be used to avoid transmitting stresses from heavy pipes, cascading water or vibrations to the union. A typical adapter is illustrated.



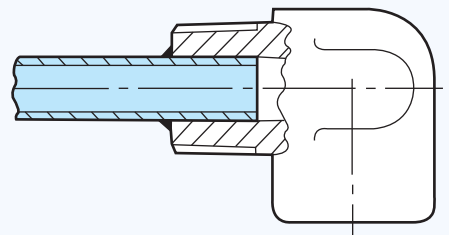
Threaded Pipe

The largest threaded supply pipe achieves the maximum flow rates available for a particular size union. Stresses at the pipe thread can cause breakage allowing the pipe to fall into the roll. For this reason pipe lengths longer than 4 union lengths ($4 \times D1$) and rotational speeds above 1,000 RPM should be avoided.



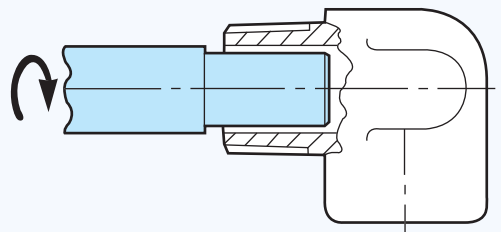
Fixed Tube

Thin wall stainless steel tube silver soldered into the Duoflow elbow produces the strongest, lightest weight assembly. The thinner wall sections allow greater flow rates than the largest tube available for a given size union. Tube lengths is usually limited to 6 union lengths ($6 \times D1$). Speeds to 3,500 RPM are possible.



Rotating Pipe

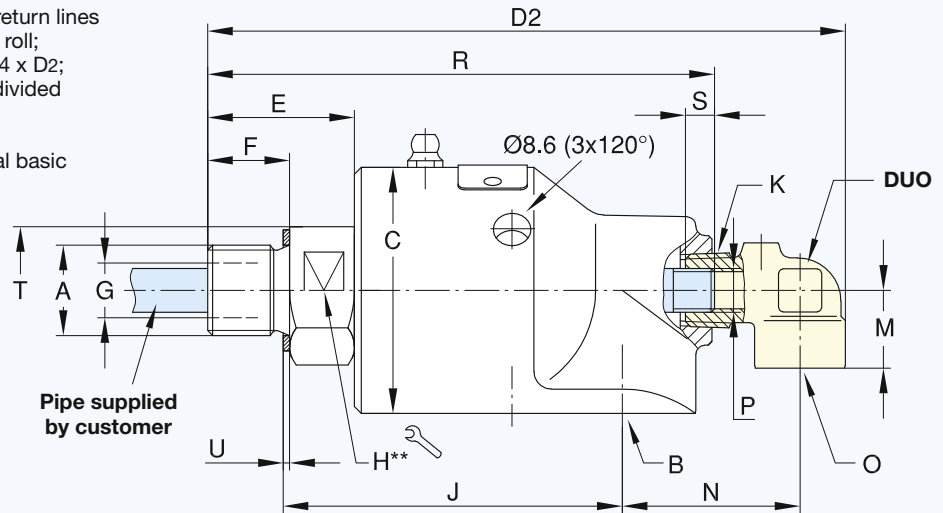
Rotating pipes are fastened internally to rotate with the roll. The Duoflow elbow helps to support the pipe and restrict crosstalk between passages. The pipe must be straight and concentric to the center line to avoid excessive loading of the union. The union must also have a rotor with a straight thread (Example 1" - 14" UNS) rather than a tapered pipe thread to assure concentricity. Rotational speeds above 1,000 RPM should be avoided.



57 and 55 Series – Elbows DN 10 - 50 for Fixed, Threaded Supply Pipe

Duoflow unions are used when supply and return lines are connected to one side of the cylinder or roll; non-supported pipe lengths no longer than 4 x D2; max. speed 1,000 RPM; for higher speeds divided supply pipes must be used.

For rotating unions with pilot rotor, additional basic models and weight refer to page 8.



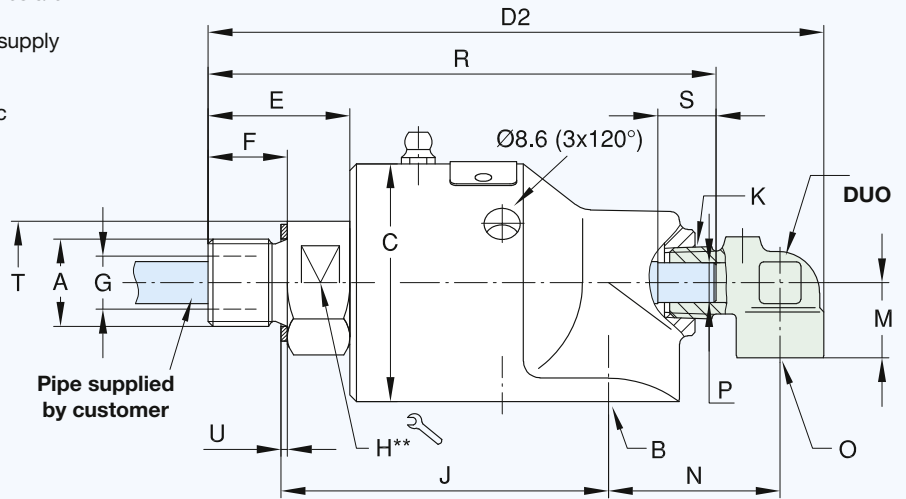
** DN 10 - 20 = hexagon
DN 25 - 50 = two wrench flats

| DN | O | fixed, threaded | | | | rotating | | | | divided Ordering No. DUO | + self-centering Ordering No. DUO | L | P Ø H9 | Q | S | D ₂ | M | N |
|----|-----------|---------------------|-----------|-----|----|---------------------|-------------------|-----|----|--------------------------------|---|-----|-----------|----|----|----------------|----|----|
| | | Ordering No. DUO | P Pipe | R | S | Ordering No. DUO | P Pipe Ød11 | R | S | | | | | | | | | |
| 10 | G 1/4 | 55-121 | M 6 | 99 | 8 | 55-807 | 5.8 | 103 | 20 | 55-843 | --- | 171 | 6 | 5 | 55 | 124 | 18 | 36 |
| | G 1/4 | 55-121 | M 6 | 99 | 8 | 55-807 | 5.8 | 103 | 20 | 55-843 | --- | 171 | 6 | 5 | 55 | 124 | 18 | 36 |
| | 1/4 NPT | 55-120 | M 6 | 99 | 8 | 55-446 | 5.8 | 103 | 20 | 55-445 | --- | 171 | 6 | 5 | 55 | 124 | 18 | 36 |
| | 1/4 NPT | 55-120 | M 6 | 99 | 8 | 55-446 | 5.8 | 103 | 20 | 55-445 | --- | 171 | 6 | 5 | 55 | 124 | 18 | 36 |
| 15 | G 3/8 | 155-581 | G 1/8 | 118 | 8 | 155-709 | 9.8 | 124 | 30 | 150-232 | 155-981 | 201 | 10 | 8 | 60 | 147 | 18 | 40 |
| | G 3/8 | 155-581 | G 1/8 | 118 | 8 | 155-709 | 9.8 | 124 | 30 | 150-232 | 155-981 | 201 | 10 | 8 | 60 | 147 | 18 | 40 |
| | G 3/8 | 155-581 | G 1/8 | 120 | 8 | 155-709 | 9.8 | 124 | 30 | 150-232 | 155-981 | 201 | 10 | 8 | 60 | 149 | 18 | 40 |
| | G 3/8 | 155-581 | G 1/8 | 120 | 8 | 155-709 | 9.8 | 124 | 30 | 150-232 | 155-981 | 201 | 10 | 8 | 60 | 149 | 18 | 40 |
| | 3/8 NPT | 155-199 | G 1/8 | 118 | 8 | 155-471 | 9.8 | 124 | 30 | 155-470 | 155-797 | 201 | 10 | 8 | 60 | 147 | 18 | 40 |
| | 3/8 NPT | 155-199 | G 1/8 | 118 | 8 | 155-471 | 9.8 | 124 | 30 | 155-470 | 155-797 | 201 | 10 | 8 | 60 | 147 | 18 | 40 |
| 20 | G 1/2 | 251-351 | G 1/4 | 137 | 12 | 251-352 | 12.8 | 143 | 32 | 251-551 | 251-371 | 208 | 13 | 11 | 60 | 171 | 26 | 46 |
| | G 1/2 | 251-351 | G 1/4 | 137 | 12 | 251-352 | 12.8 | 143 | 32 | 251-551 | 251-371 | 208 | 13 | 11 | 60 | 171 | 26 | 46 |
| | G 1/2 | 251-351 | G 1/4 | 141 | 12 | 251-352 | 12.8 | 146 | 32 | 251-551 | 251-371 | 208 | 13 | 11 | 60 | 174 | 26 | 46 |
| | G 1/2 | 251-351 | G 1/4 | 141 | 12 | 251-352 | 12.8 | 146 | 32 | 251-551 | 251-371 | 208 | 13 | 11 | 60 | 174 | 26 | 46 |
| | G 1/2 | 251-351 | G 1/4 | 137 | 12 | 251-352 | 12.8 | 143 | 32 | 251-551 | 251-371 | 208 | 13 | 11 | 60 | 172 | 26 | 46 |
| | G 1/2 | 251-351 | G 1/4 | 137 | 12 | 251-352 | 12.8 | 143 | 32 | 251-551 | 251-371 | 208 | 13 | 11 | 60 | 172 | 26 | 46 |
| | 1/2 NPT | 250-368 | G 1/4 | 137 | 12 | 250-681 | 12.8 | 143 | 32 | 250-680 | 250-994 | 208 | 13 | 11 | 60 | 171 | 26 | 46 |
| | 1/2 NPT | 250-368 | G 1/4 | 137 | 12 | 250-681 | 12.8 | 143 | 32 | 250-680 | 250-994 | 208 | 13 | 11 | 60 | 171 | 26 | 46 |
| 25 | G 1/2 | 350-912 | G 3/8 | 161 | 12 | 350-772 | 15.8 | 171 | 35 | 350-990 | 351-173 | 272 | 16 | 14 | 60 | 200 | 28 | 59 |
| | G 1/2 | 350-912 | G 3/8 | 161 | 12 | 350-772 | 15.8 | 171 | 35 | 350-990 | 351-173 | 272 | 16 | 14 | 60 | 200 | 28 | 59 |
| | G 1/2 | 350-912 | G 3/8 | 155 | 12 | 350-772 | 15.8 | 165 | 35 | 350-990 | 351-173 | 272 | 16 | 14 | 60 | 194 | 28 | 59 |
| | G 1/2 | 350-912 | G 3/8 | 155 | 12 | 350-772 | 15.8 | 165 | 35 | 350-990 | 351-173 | 272 | 16 | 14 | 60 | 194 | 28 | 59 |
| | 1/2 NPT | 350-255 | G 3/8 | 161 | 12 | 350-347 | 15.8 | 171 | 35 | 350-366 | 350-974 | 272 | 16 | 14 | 60 | 200 | 28 | 59 |
| | 1/2 NPT | 350-255 | G 3/8 | 161 | 12 | 350-347 | 15.8 | 171 | 35 | 350-366 | 350-974 | 272 | 16 | 14 | 60 | 200 | 28 | 59 |
| 32 | G 3/4 | 525-594 | G 1/2 | 186 | 14 | 525-480 | 21.8 | 196 | 40 | 525-931 | 525-926 | 285 | 22 | 20 | 60 | 234 | 35 | 72 |
| | G 3/4 | 525-594 | G 1/2 | 186 | 14 | 525-480 | 21.8 | 196 | 40 | 525-931 | 525-926 | 285 | 22 | 20 | 60 | 234 | 35 | 72 |
| | 3/4 NPT | 525-079 | G 1/2 | 186 | 14 | 525-237 | 21.8 | 196 | 40 | 525-236 | 525-592 | 285 | 22 | 20 | 60 | 234 | 35 | 72 |
| | 3/4 NPT | 525-079 | G 1/2 | 186 | 14 | 525-237 | 21.8 | 196 | 40 | 525-236 | 525-592 | 285 | 22 | 20 | 60 | 234 | 35 | 72 |
| 40 | G 3/4 | 451-171 | G 3/4 | 223 | 16 | 451-173 | 25.8 | 238 | 44 | 451-274 | 451-175 | 319 | 26 | 24 | 60 | 270 | 38 | 76 |
| | G 3/4 | 451-171 | G 3/4 | 223 | 16 | 451-173 | 25.8 | 238 | 44 | 451-274 | 451-175 | 319 | 26 | 24 | 60 | 270 | 38 | 76 |
| | G 3/4 | 451-171 | G 3/4 | 216 | 16 | 451-173 | 25.8 | 232 | 44 | 451-274 | 451-175 | 319 | 26 | 24 | 60 | 264 | 38 | 76 |
| | G 3/4 | 451-171 | G 3/4 | 216 | 16 | 451-173 | 25.8 | 232 | 44 | 451-274 | 451-175 | 319 | 26 | 24 | 60 | 264 | 38 | 76 |
| | 3/4 NPT | 450-221 | G 3/4 | 223 | 16 | 450-468 | 25.8 | 238 | 44 | 450-467 | 451-162 | 319 | 26 | 24 | 60 | 270 | 38 | 76 |
| | 3/4 NPT | 450-221 | G 3/4 | 223 | 16 | 450-468 | 25.8 | 238 | 44 | 450-467 | 451-162 | 319 | 26 | 24 | 60 | 270 | 38 | 76 |
| 50 | G 1 1/4 | 450-534 | G 1 | 252 | 26 | 450-612 | 32.1 | 253 | 50 | 655-174 | 655-707 | 382 | 34 | 31 | 60 | 312 | 45 | 96 |
| | G 1 1/4 | 450-534 | G 1 | 252 | 26 | 450-612 | 32.1 | 253 | 50 | 655-174 | 655-707 | 382 | 34 | 31 | 60 | 312 | 45 | 96 |
| | 1 1/4 NPT | 451-242 | G 1 | 252 | 26 | 450-625 | 31.8 | 253 | 50 | 655-966 | 655-968 | 382 | 34 | 31 | 60 | 312 | 45 | 96 |
| | 1 1/4 NPT | 451-242 | G 1 | 252 | 26 | 450-625 | 31.8 | 253 | 50 | 655-966 | 655-968 | 382 | 34 | 31 | 60 | 312 | 45 | 96 |

57 and 55 Series – Elbows DN 10 - 50 for Rotating Supply Pipe

Duoflow unions are used when supply and return lines are connected to one side of the cylinder or roll; max. speed 1,000 RPM; for higher speeds divided supply pipes must be used.

For rotating unions with pilot rotor, additional basic models and weight refer to page 8.

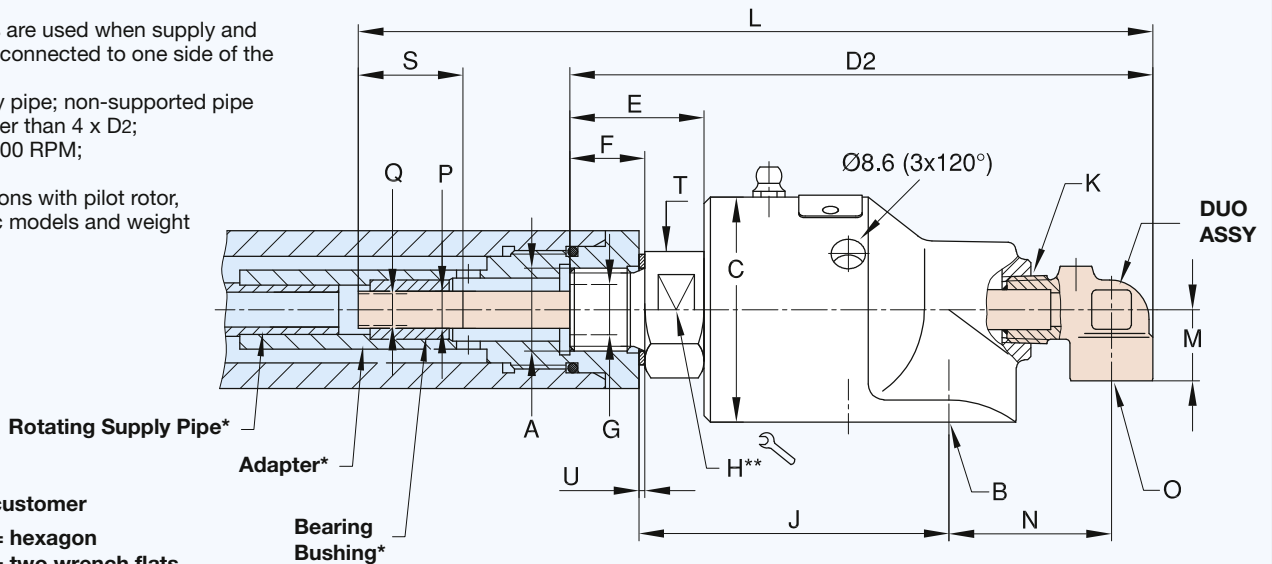


** DN 10 - 20 = hexagon
 DN 25 - 50 = two wrench flats

57 and 55 Series – Elbows DN 10 - 50 with Divided Siphon Pipe (soldered)

Duoflow unions are used when supply and return lines are connected to one side of the cylinder or roll; soldered supply pipe; non-supported pipe lengths no longer than 4 x D2; max. speed 3,500 RPM;

For rotating unions with pilot rotor, additional basic models and weight refer to page 8.

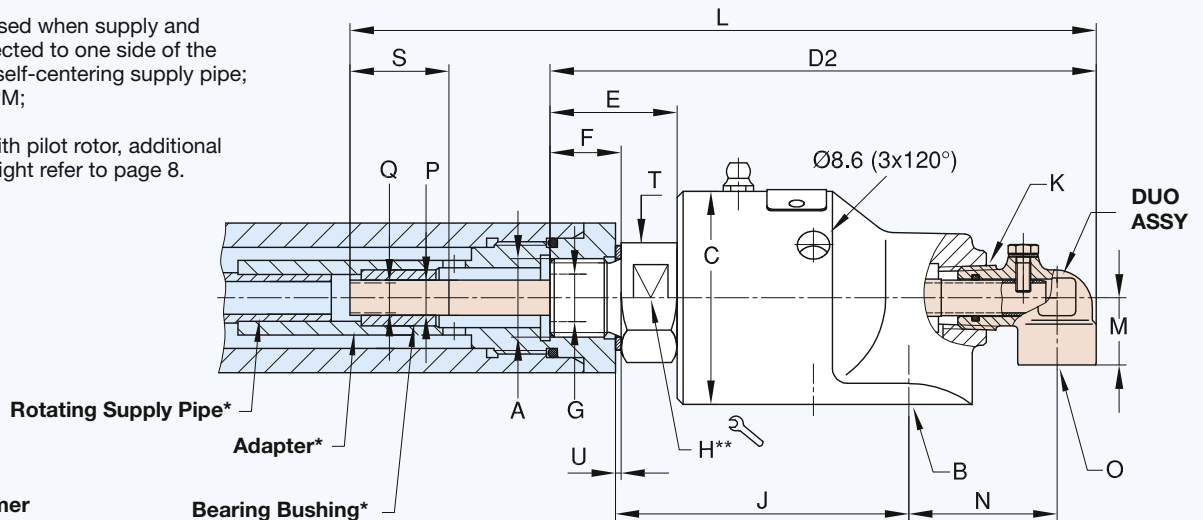


* supplied by customer
 ** DN 10 - 20 = hexagon
 DN 25 - 50 = two wrench flats

57 and 55 Series – Elbows DN 10 - 50 with Flexible, Self-Centering Supply Pipe

Duoflow unions are used when supply and return lines are connected to one side of the cylinder or roll; fixed self-centering supply pipe; max. speed 3,500 RPM;

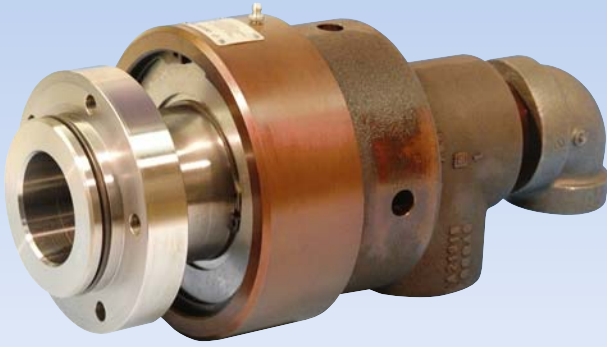
For rotating unions with pilot rotor, additional basic models and weight refer to page 8.



* supplied by customer
 ** DN 10 - 20 = hexagon
 DN 25 - 50 = two wrench flats

DEUBLIN

Rotating Union with Flange Rotor, DN 40, 50 and 65



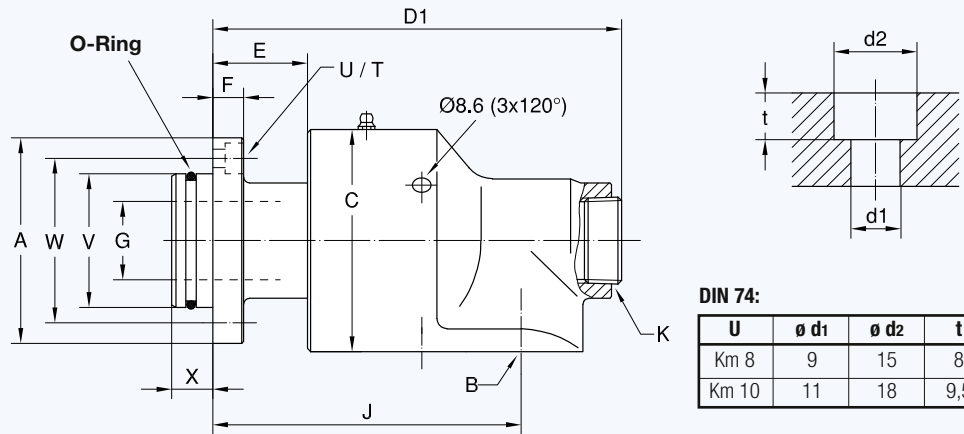
- monoflow and duoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal
Carbon Graphite/Bronze or
Carbon Graphite/Ceramic - standard;
Tungsten Carbide/Ceramic - E.L.S. (Extended Life Sealing)
- 3 or 4 vent holes
- forged brass housing (DN 40 and 50) and cast iron housing (DN 65)
- steel rotor
- Lubrication Guide page 52

Operating Data

| | | | |
|--------------------------------------|-----------|-----------|--------------------------|
| Max. Water Pressure | Model 555 | 730 PSI | 50 bar |
| | 655,755 | 200 PSI | 14 bar |
| Max. Satur. Steam Pressure (Interm.) | | 14 PSI | 1 bar |
| Max. Speed | Model 555 | 1,500 RPM | 1.500 min ⁻¹ |
| | 655-755 | 1,000 RPM | 1.000 min ⁻¹ |
| Max. Temperature | | 120 °C | > 120 °C consult DEUBLIN |

For further information please contact **DEUBLIN** or your local representative.

Monoflow Rotating Unions



Flange O-Ring

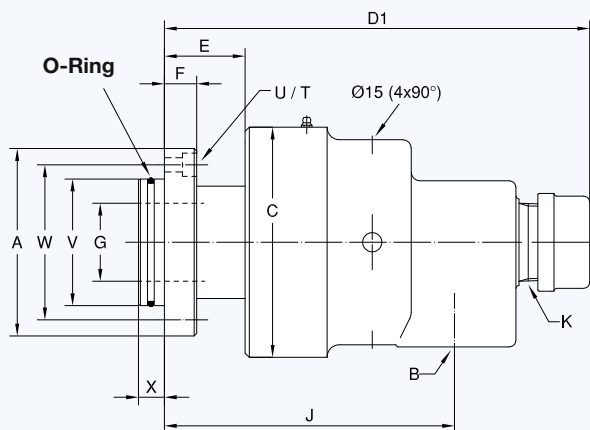
(supplied by DEUBLIN) for:
Model O-Ring Size
555 58 x 4 Viton
655 73 x 4 Viton

DIN 74:

| U | ø d1 | ø d2 | t |
|-------|------|------|-----|
| Km 8 | 9 | 15 | 8 |
| Km 10 | 11 | 18 | 9,5 |

| DN | B | Ordering No. | A ø | C ø | D1 | E | F | G ø | J | K NPT | T | U DIN 74 | V _{f7} ø PT | W ø | X | kg |
|----|---------|--------------|--------|--------|-----|----|------|--------|-----|----------|---------|-------------|-------------------------|--------|----|-----|
| 40 | G 1 1/2 | 555-385-765 | 100 | 108 | 202 | 46 | 15 | 38 | 150 | 1 1/4 | 5 x 72° | Km 8 | 65 | 80 | 20 | 7,3 |
| 50 | G 2 | 655-527-421 | 125 | 118 | 229 | 46 | 15,5 | 47,6 | 172 | 1 1/4 | 5 x 72° | Km 10 | 80 | 100 | 20 | 8,8 |

Monoflow Rotating Unions



Flange O-Ring

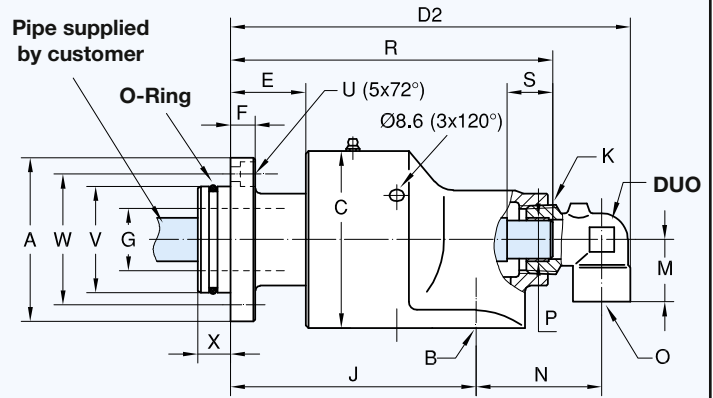
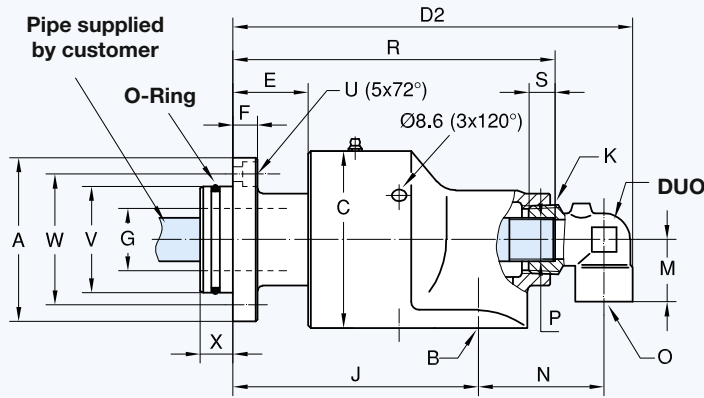
(supplied by DEUBLIN) for:
Modell O-Ring Size
755 90 x 4 Viton

| DN | B NPT | Ordering Nr. | | A ø | C ø | D1 | E | F | G ø | J | K NPT | T | U DIN 74 | V _{f7} ø PT | W ø | X | kg |
|----|----------|--------------|-------------|--------|--------|-----|----|----|--------|-----|----------|---------|-------------|-------------------------|--------|----|----|
| | | STD | E.L.S. | | | | | | | | | | | | | | |
| 65 | 2 1/2 | 755-713-495 | 755-726-495 | 145 | 178 | 317 | 63 | 26 | 60,3 | 225 | 2 | 5 x 72° | Km 10 | 98 | 120 | 20 | 22 |

Duoflow Rotating Union for Threaded Supply Pipe

Duoflow Rotating Union for Rotating Supply Pipe

Flange O-Ring
(supplied by DEUBLIN) for:
Model O-Ring Size
555 58 x 4 Viton
655 73 x 4 Viton

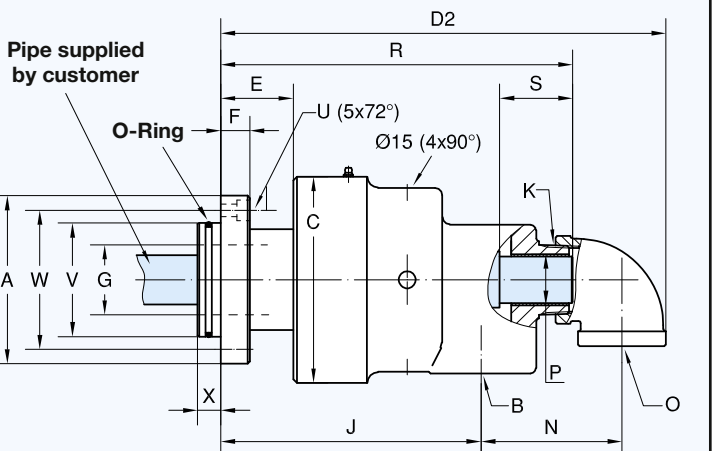
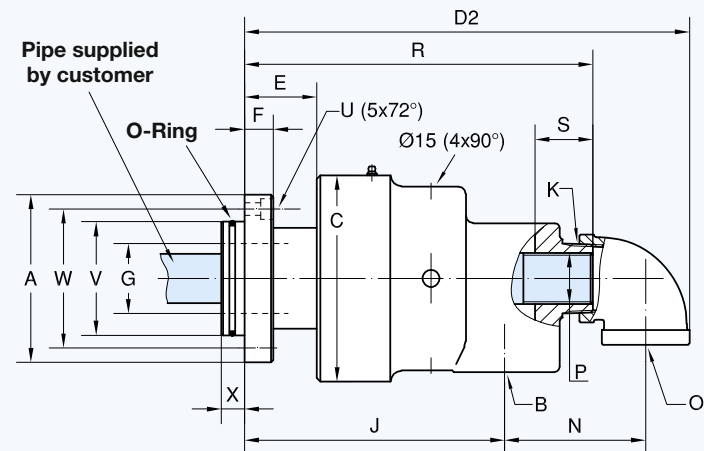


| DN | B | O | Ordering No. | DUO | A ∅ | C ∅ | D ₂ | E | F | G ∅ | J | K NPT | M | N | P Pipe | R | S | U** DIN 74 | V _{F7} ∅PT | W ∅ | X | kg |
|----|---------|---------|--------------|---------|--------|--------|----------------|----|------|--------|-----|----------|----|----|----------------|-----|----|---------------|------------------------|--------|----|-----|
| 40 | G 1 1/2 | G 3/4 | 555-385-765 | 451-171 | 100 | 108 | 244 | 46 | 15 | 38 | 150 | 1 1/4 | 38 | 76 | G 3/4 | 196 | 16 | Km 8 | 65 | 80 | 20 | 7,6 |
| | G 1 1/2 | G 3/4 | 555-385-765 | 451-173 | 100 | 108 | 244 | 46 | 15 | 38 | 150 | 1 1/4 | 38 | 76 | ∅ 25,8 h 13 | 212 | 44 | Km 8 | 65 | 80 | 20 | 7,6 |
| 50 | G 2 | G 3/4 | 655-527-421 | 451-171 | 125 | 118 | 271 | 46 | 15,5 | 47,6 | 172 | 1 1/4 | 38 | 82 | G 3/4 | 223 | 16 | Km 10 | 80 | 100 | 20 | 9 |
| | G 2 | G 3/4 | 655-527-421 | 451-173 | 125 | 118 | 271 | 46 | 15,5 | 47,6 | 172 | 1 1/4 | 38 | 82 | ∅ 25,8 h 13 | 238 | 44 | Km 10 | 80 | 100 | 20 | 9 |
| | G 2 | G 1 1/4 | 655-527-421 | 450-534 | 125 | 118 | 293 | 46 | 15,5 | 47,6 | 172 | 1 1/4 | 45 | 96 | G 1 | 233 | 26 | Km 10 | 80 | 100 | 20 | 9,1 |
| | G 2 | G 1 1/4 | 655-527-421 | 450-612 | 125 | 118 | 293 | 46 | 15,5 | 47,6 | 172 | 1 1/4 | 45 | 96 | ∅ 32,1 h 13 | 234 | 50 | Km 10 | 80 | 100 | 20 | 9,1 |

Duoflow Rotating Union for Threaded Supply Pipe

Duoflow Rotating Union for Rotating Supply Pipe

Flange O-Ring
(supplied by DEUBLIN) for:
Model O-Ring Size
755 90 x 4 Viton



| DN | B NPT | O NPT | Ordering No. | | A ∅ | C ∅ | D ₂ | E | F | G ∅ | J | K NPT | N | P Pipe | R | S | U** DIN 74 | V _{F7} ∅PT | W ∅ | X | kg |
|----|----------|----------|-----------------|-----------------|--------|--------|----------------|----|----|--------|-----|----------|-----|----------------|-----|----|---------------|------------------------|--------|----|----|
| | | | STD | E.L.S. | | | | | | | | | | | | | | | | | |
| 65 | 2 1/2 | 1 1/4 | 755-727-495-117 | 755-728-495-117 | 145 | 178 | 372 | 63 | 26 | 60,3 | 225 | 2 | 109 | 1 NPT | 288 | 13 | Km 10 | 98 | 120 | 20 | 23 |
| | 2 1/2 | 1 1/2 | 755-713-495-139 | 755-726-495-139 | 145 | 178 | 372 | 63 | 26 | 60,3 | 225 | 2 | 112 | G 1 1/2 | 301 | 45 | Km 10 | 98 | 120 | 20 | 23 |
| | 2 1/2 | 1 1/2 | 755-729-495-139 | 755-730-495-139 | 145 | 178 | 372 | 63 | 26 | 60,3 | 225 | 2 | 112 | ∅ 39,9 h 13 | 308 | 70 | Km 10 | 98 | 120 | 20 | 23 |

** See page 12, DIN 74 table

DEUBLIN

Rotating Union

for General Purposes, DN 65

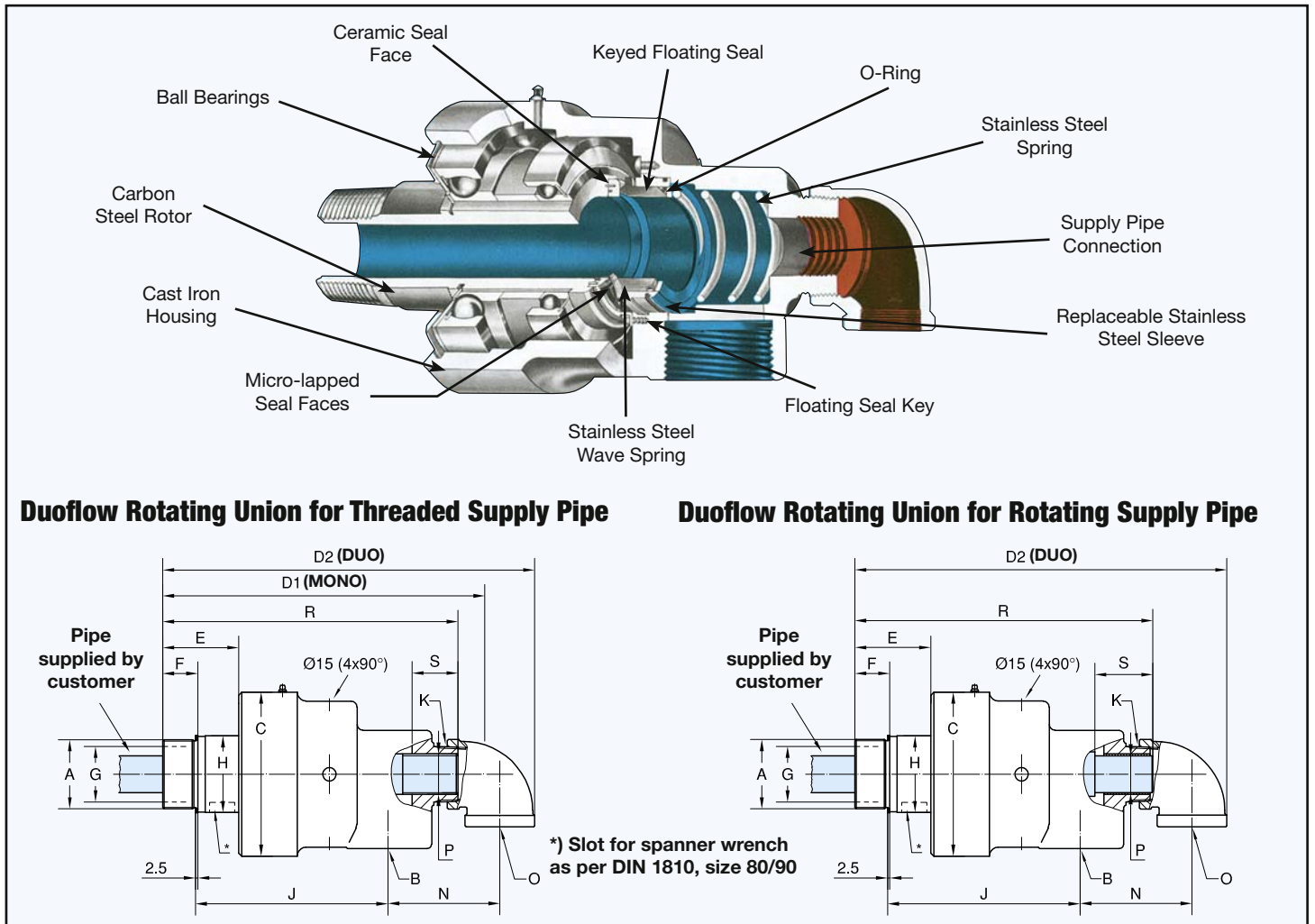


Operating Data

| | | |
|------------------------------------|----------|--------------------------|
| Max. Water Pressure | 200 PSI | 14 bar |
| Max. Sat. Steam Pressure (Interm.) | 14 PSI | 1 bar |
| Max. Speed | 750 RPM | 750 min ⁻¹ |
| Torque at 120 PSI/8 bar | 4 FT.LBS | 5,4 Nm |
| Max. Temperature | 120 °C | > 120 °C consult DEUBLIN |

- monoflow and duoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal:
 - Carbon Graphite/Ceramic - standard;
 - Tungsten Carbide/Ceramic - E.L.S. (Extended Life Sealing)
- 4 vent holes
- cast iron housing
- steel rotor
- special options:
 - nickel-plated design
 - threaded vent holes
- Lubrication Guide page 52

For further information please contact **DEUBLIN** or your local representative.



| DN | B NPT | O NPT | Ordering No. | | A Rotor Connections | C ø | D1 | D2 | E | F | G ø | H ø | J | K NPT | N | P Pipe | R | S | kg |
|----|----------|----------|------------------|------------------|------------------------|--------|-----|-----|----|----|--------|--------|-----|----------|-----|-------------|-----|----|----|
| | | | STD | E.L.S. | | | | | | | | | | | | | | | |
| 65 | 2 1/2 | 1 1/4 | 755-700-330-117+ | 755-701-330-117+ | G 2 1/2 RH | 178 | 336 | 381 | 82 | 38 | 60,3 | 83 | 208 | 2 | 108 | 1 NPT | 308 | 13 | 20 |
| | 2 1/2 | 1 1/4 | 755-700-411-117+ | 755-701-411-117+ | G 2 1/2 LH | 178 | 336 | 381 | 82 | 38 | 60,3 | 83 | 208 | 2 | 108 | 1 NPT | 308 | 13 | 20 |
| | 2 1/2 | 1 1/2 | 755-707-330-139+ | 755-731-330-139+ | G 2 1/2 RH | 178 | 336 | 391 | 82 | 38 | 60,3 | 83 | 208 | 2 | 112 | G 1 1/2 | 320 | 45 | 20 |
| | 2 1/2 | 1 1/2 | 755-707-411-139+ | 755-731-411-139+ | G 2 1/2 LH | 178 | 336 | 391 | 82 | 38 | 60,3 | 83 | 208 | 2 | 112 | G 1 1/2 | 320 | 45 | 20 |
| | 2 1/2 | 1 1/2 | 755-732-330-139+ | 755-733-330-139+ | G 2 1/2 RH | 178 | - | 391 | 82 | 38 | 60,3 | 83 | 208 | 2 | 112 | ø 39,9 h 13 | 328 | 70 | 20 |
| | 2 1/2 | 1 1/2 | 755-732-411-139+ | 755-733-411-139+ | G 2 1/2 LH | 178 | - | 391 | 82 | 38 | 60,3 | 83 | 208 | 2 | 112 | ø 39,9 h 13 | 328 | 70 | 20 |

+ For Monoflow design omit -117 or -139 suffix

DEUBLIN

Rotating Union 57 Series for Water Service, DN 80

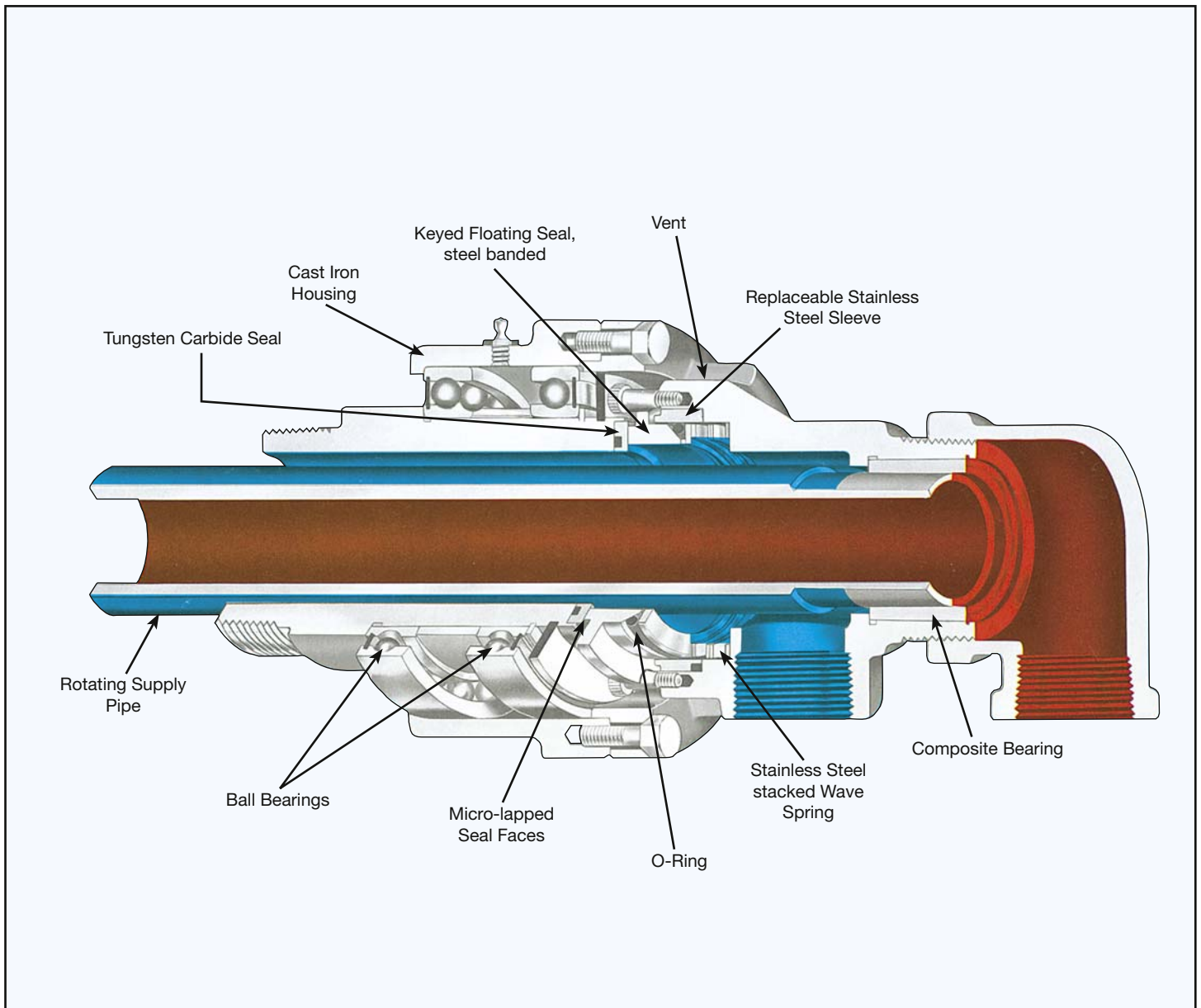


- monoflow and duoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal
Carbon Graphite/Tungsten Carbide
- full-media flow
- easy and quick replacement of sealing components
(rotor seal, floating seal)
- vent holes
- cast iron housing
- steel rotor
- Lubrication Guide page 52

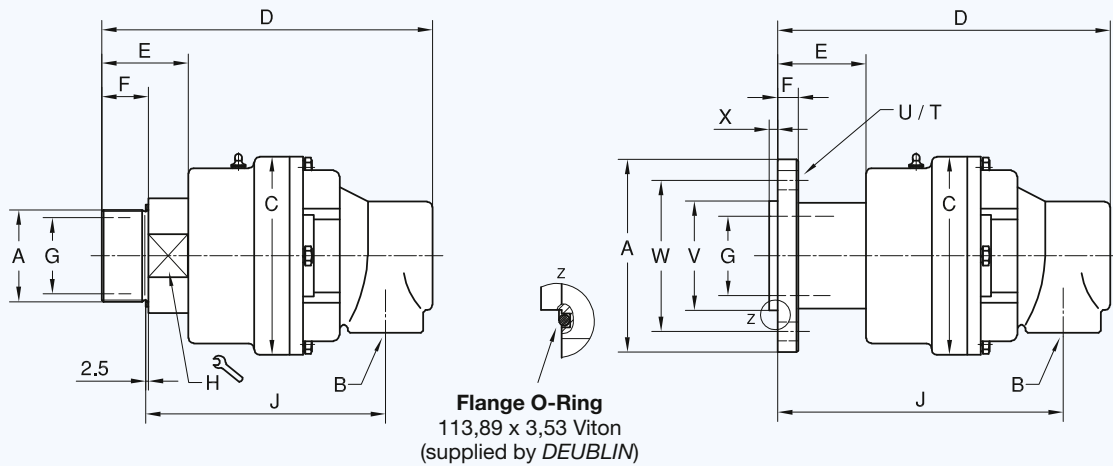
Operating Data

| | | |
|--------------------------------------|----------|---------------------------------|
| Max. Water Pressure | 150 PSI | 10 bar |
| Max. Satur. Steam Pressure (Interm.) | 14 PSI | 1 bar |
| Max. Speed | 500 RPM | 500 min ⁻¹ |
| Torque 150 PSI/10 bar | 6 FT.LBS | 8,2 Nm |
| Max. Temperature | 120 °C | > 120 °C consult DEUBLIN |

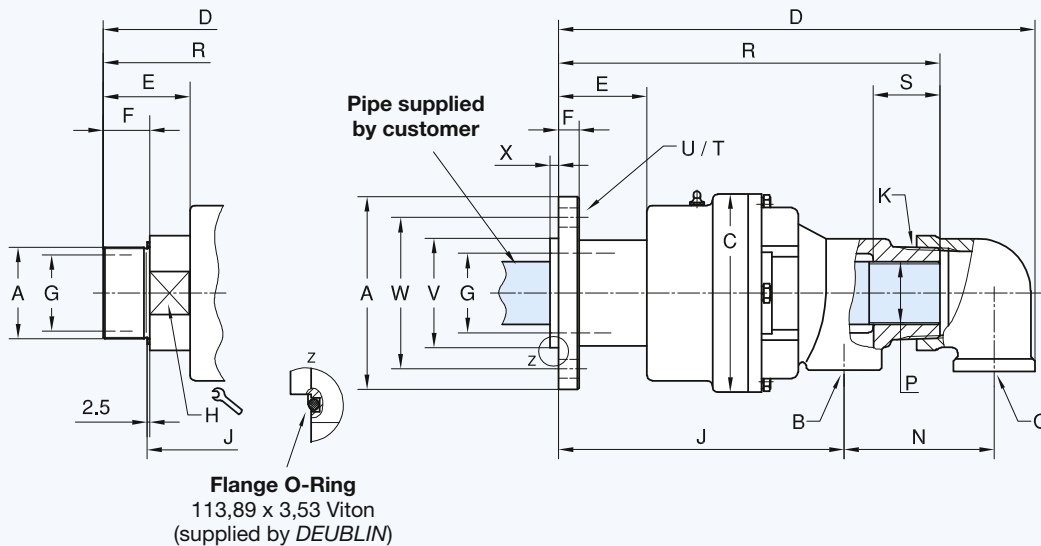
For further information please contact **DEUBLIN** or your local representative.



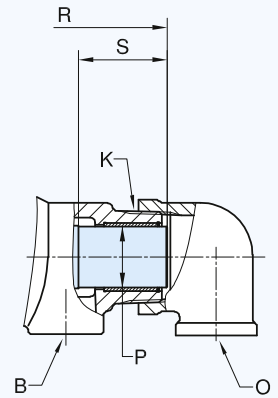
Monoflow Rotating Union



Duoflow Rotating Union for Threaded Supply Pipe



Rotating Supply Pipe Design



Monoflow Rotating Union

| DN | B NPT | Ordering No. | A Rotor Connections | | C ø | D | E | F | G ø | H | J | T | U ø | V øPT | W ø | X | kg |
|----|----------|--------------|------------------------|----|--------|-----|----|----|--------|-----|-----|---------|--------|------------------|--------|---|----|
| 80 | 3 | 857-000-118 | G 3 | RH | 190 | 345 | 84 | 45 | 73 | 102 | 247 | - | - | - | - | - | 23 |
| | 3 | 857-000-119 | G 3 | LH | 190 | 345 | 84 | 45 | 73 | 102 | 247 | - | - | - | - | - | 23 |
| | 3 | 857-000-145 | Flange ø 185 | | 190 | 346 | 85 | 20 | 73 | - | 291 | 4 x 90° | 18 | 105,00 104,95 | 145 | 8 | 27 |

Duoflow Rotating Union

| DN | B + O NPT | Ordering No. | A Rotor Connections | | C ø | D | E | F | G ø | H | J | K NPT | N | P | R | S | T | U ø | V øPT | W ø | X | kg |
|----|--------------|--------------|------------------------|----|--------|-----|----|----|--------|-----|-----|----------|-----|----------|-----|----|---------|--------|------------------|--------|---|----|
| 80 | 2 x 2 | 857-011-118 | G 3 | RH | 190 | 453 | 84 | 45 | 73 | 102 | 228 | 3 | 144 | G 2 | 362 | 28 | - | - | - | - | - | 25 |
| | 2 x 2 | 857-011-119 | G 3 | LH | 190 | 453 | 84 | 45 | 73 | 102 | 228 | 3 | 144 | G 2 | 362 | 28 | - | - | - | - | - | 25 |
| | 2 x 2 | 857-011-145 | Flange ø 185 | | 190 | 454 | 85 | 20 | 73 | - | 271 | 3 | 144 | G 2 | 363 | 28 | 4 x 90° | 18 | 105,00 104,95 | 145 | 8 | 29 |
| | 2 x 2 | 857-002-118 | G 3 | RH | 190 | 453 | 84 | 45 | 73 | 102 | 228 | 3 | 144 | 58,7 h13 | 364 | 85 | - | - | - | - | - | 25 |
| | 2 x 2 | 857-002-119 | G 3 | LH | 190 | 453 | 84 | 45 | 73 | 102 | 228 | 3 | 144 | 58,7 h13 | 364 | 85 | - | - | - | - | - | 25 |
| | 2 x 2 | 857-002-145 | Flange ø 185 | | 190 | 454 | 85 | 20 | 73 | - | 271 | 3 | 144 | 58,7 h13 | 365 | 85 | 4 x 90° | 18 | 105,00 104,95 | 145 | 8 | 29 |

DEUBLIN

Rotating Union 54 Series

Stainless Steel, DN 10 - 40

- monoflow and duoflow design
- self-supported rotating union
- radial or axial housing connection
- media contacting parts made of stainless steel (from 1.4571)
- full-media flow
- available for use in potentially explosive atmosphere defined by "ATEX"

For further information please contact **DEUBLIN** or your local representative.



Operating Data

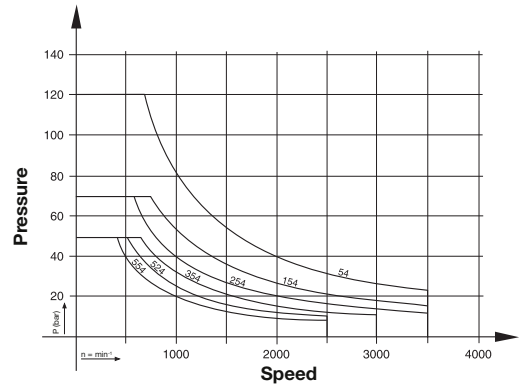
Max. Pressure and max. Speed see Diagram

Max. Temperature 71 °C > 71 °C consult **DEUBLIN**

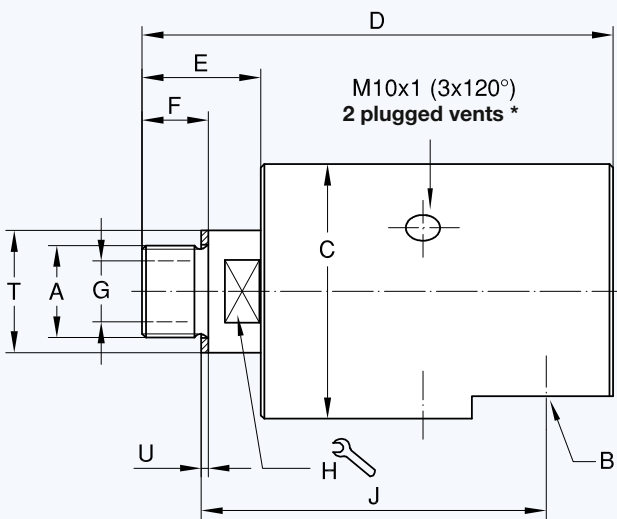
Temperature > 71°C - max. 90 °C only if max. pressure ≤ 10 bar (150 PSI)

At temperatures > 71 °C (160 °F) media must be liquid (not vaporous)

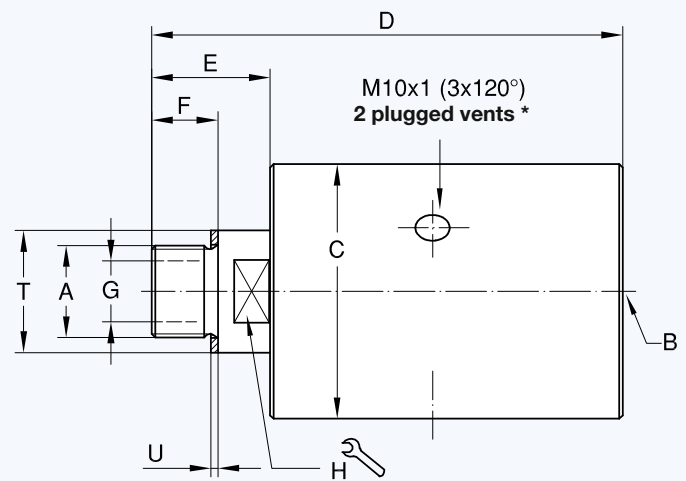
Seals are Tungsten Carbide/Ceramic



Monoflow Rotating Union with Radial Thread



Monoflow Rotating Union with Axial Thread



* Adjust open vent downwards, or change one plug respectively

Monoflow Rotating Union

| DN | B G | Ordering No. | | A Rotor Connections | C ∅ | D | E | F | G ∅ | H ⌀ | J | T ∅ h11 | U | kg |
|----|---------|--------------|-------------|------------------------|--------|-----|----|----|--------|--------|------|------------|-----|-----|
| | | Radial | Axial | | | | | | | | | | | |
| 10 | G 3/8 | 54-000-110 | 54-010-110 | G 3/8 RH | 49 | 101 | 26 | 16 | 9,5 | 19 | 71,5 | 22 | 1,5 | 1,1 |
| | G 3/8 | 54-000-111 | 54-010-111 | G 3/8 LH | 49 | 101 | 26 | 16 | 9,5 | 19 | 71,5 | 22 | 1,5 | 1,1 |
| 15 | G 1/2 | 154-000-110 | 154-010-110 | G 1/2 RH | 64 | 123 | 34 | 19 | 12,7 | 24 | 89 | 30 | 1,5 | 1,8 |
| | G 1/2 | 154-000-111 | 154-010-111 | G 1/2 LH | 64 | 123 | 34 | 19 | 12,7 | 24 | 89 | 30 | 1,5 | 1,8 |
| 20 | G 3/4 | 254-000-110 | 254-010-110 | G 3/4 RH | 73 | 137 | 36 | 19 | 17,5 | 30 | 100 | 35 | 2 | 2,6 |
| | G 3/4 | 254-000-111 | 254-010-111 | G 3/4 LH | 73 | 137 | 36 | 19 | 17,5 | 30 | 100 | 35 | 2 | 2,6 |
| 25 | G 1 | 354-000-110 | 354-010-110 | G 1 RH | 94 | 161 | 43 | 22 | 25 | 36 | 117 | 45 | 2 | 5,1 |
| | G 1 | 354-000-111 | 354-010-111 | G 1 LH | 94 | 161 | 43 | 22 | 25 | 36 | 117 | 45 | 2 | 5,1 |
| 32 | G 1 1/4 | 524-000-110 | 524-010-110 | G 1 1/4 RH | 99 | 182 | 54 | 27 | 31,8 | 41 | 127 | 50 | 2 | 6 |
| | G 1 1/4 | 524-000-111 | 524-010-111 | G 1 1/4 LH | 99 | 182 | 54 | 27 | 31,8 | 41 | 127 | 50 | 2 | 6 |
| 40 | G 1 1/2 | 554-000-110 | 554-010-110 | G 1 1/2 RH | 108 | 200 | 58 | 29 | 38 | 50 | 138 | 60 | 2 | 8,2 |
| | G 1 1/2 | 554-000-111 | 554-010-111 | G 1 1/2 LH | 108 | 200 | 58 | 29 | 38 | 50 | 138 | 60 | 2 | 8,2 |

DEUBLIN

Rotating Union 6000 Series for Water Service, DN 50 - 100



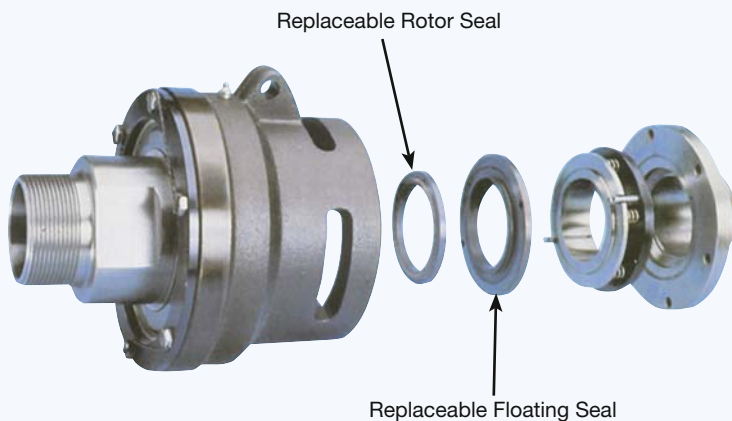
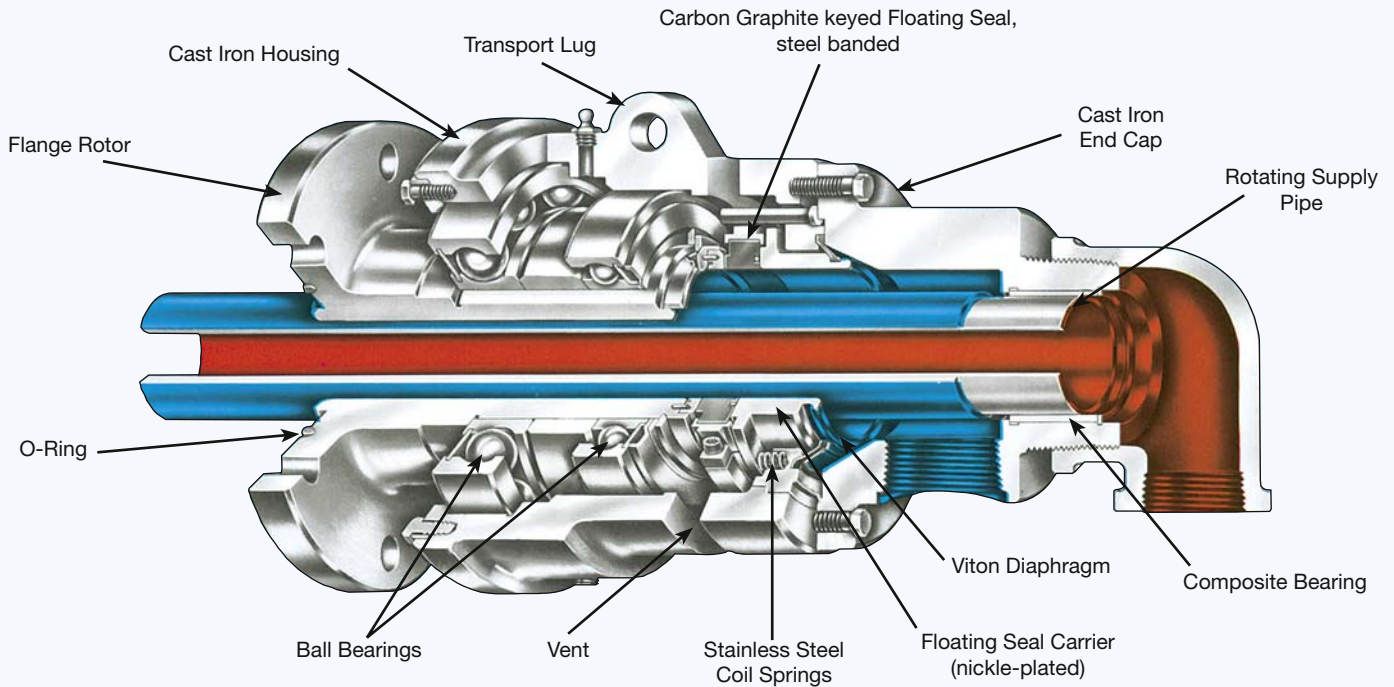
- monoflow and duoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal
 - Carbon Graphite/ Tungsten Carbide - standard and Silicon Carbide/Tungsten Carbide - E.L.S. (Extended Life Sealing)
- steel banded floating seal
- easy and quick replacement of sealing components (rotor seal, floating seal)
- full-media flow
- vent slots
- cast iron housing
- steel rotor
- Lubrication Guide page 52

Operating Data

| | | | |
|---------------------|------------|-----------|--------------------------|
| Max. Water Pressure | | 150 PSI | 10 bar |
| Max. Speed | | 750 RPM | 750 min ⁻¹ |
| Torque for | Model 6200 | 4 FT.LBS | 5,4 Nm |
| | 6250 | 7 FT.LBS | 9,5 Nm |
| | 6300 | 8 FT.LBS | 10,9 Nm |
| | 6400 | 10 FT.LBS | 13,6 Nm |
| Max. Temperature | | 120 °C | > 120 °C consult DEUBLIN |

For applications above 120 °C please ask for information covering models of the series 6005 and the new HT-series.

For further information please contact **DEUBLIN** or your local representative.



DEUBLIN Exclusive On-The-Machine Repair Cartridge

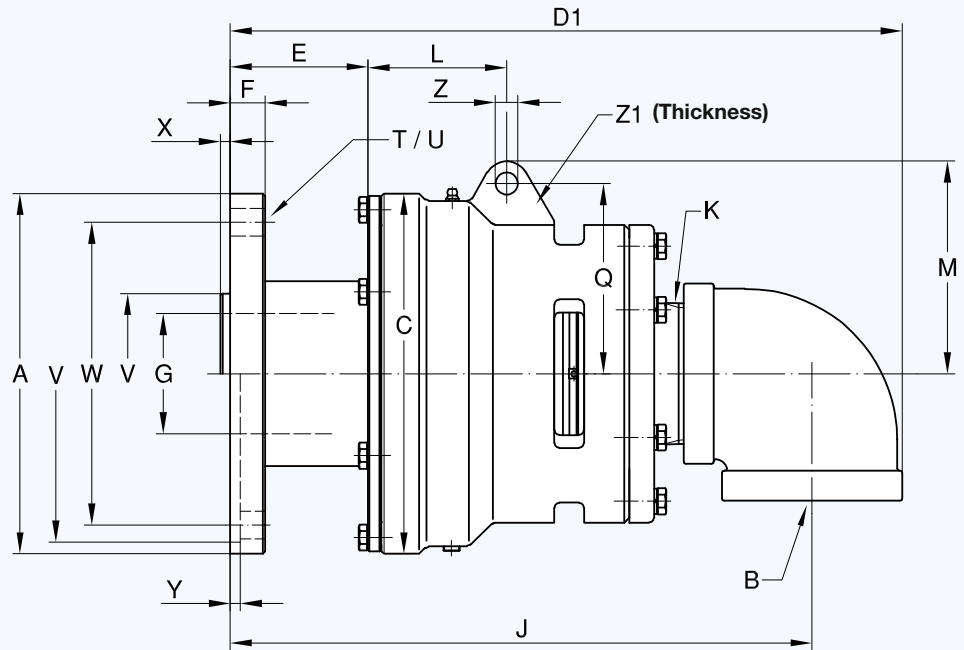
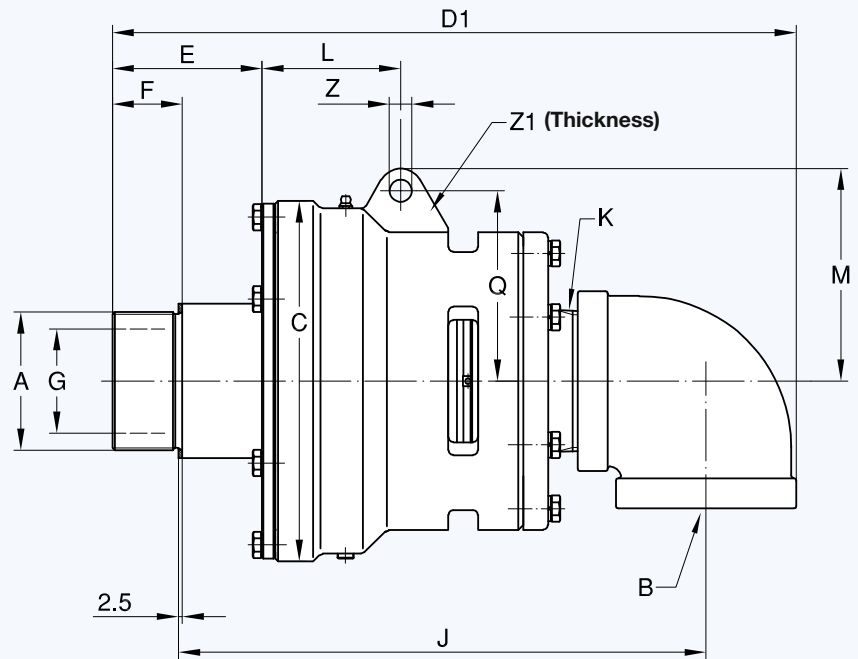
Seals are replaced quickly and easily. There's no need to remove hose connections or use special tools.

Make sure the system is cold and pressureless! Simply remove 6 hex bolts and end cap then remove floating seal cartridge and rotor seal face and replace with new seals.

Rotor seal is keyed and sealed to the rotor with a built-in O-Ring.

Replace end cap, hex bolts and safety wire. Detailed instructions available from **DEUBLIN**.

Monoflow Rotating Union

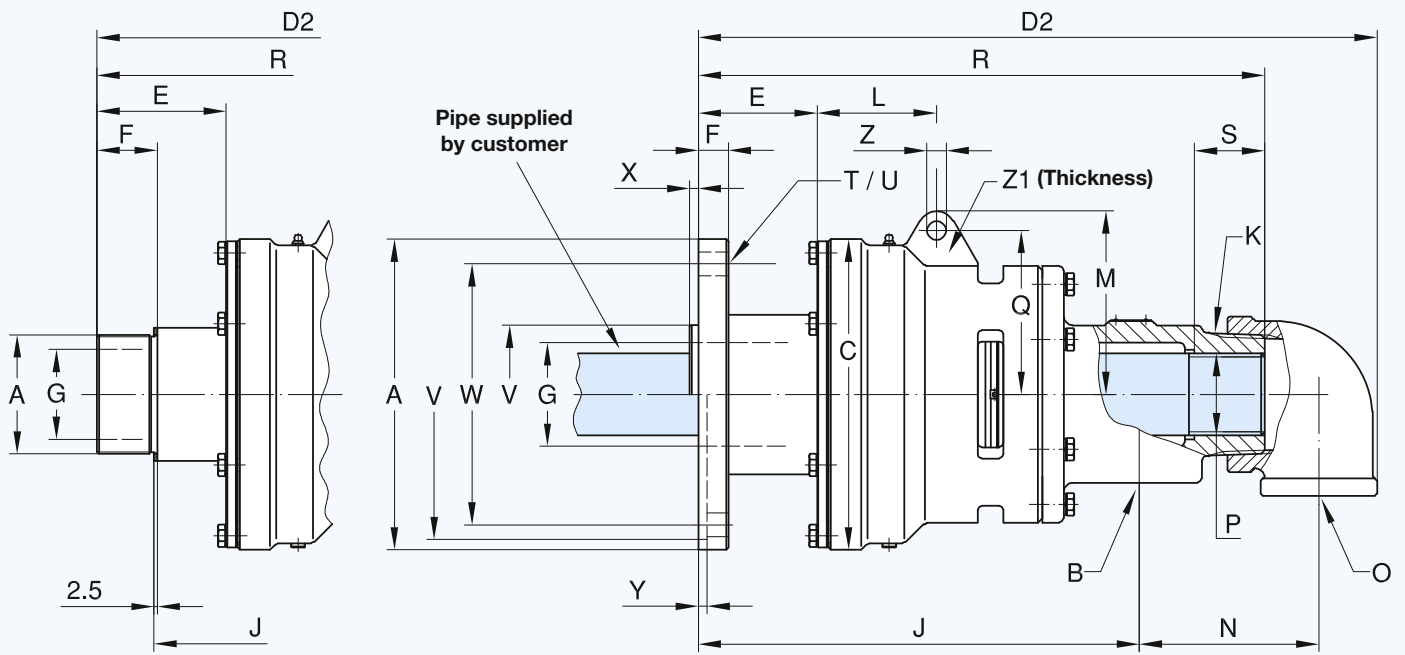


Flange O-Ring

(supplied by DEUBLIN) for:
 Model O-Ring Size
 6200 94,6 x 5,33 Viton
 6250 94,6 x 5,33 Viton
 6300 126,4 x 5,33 Viton
 6400 151,8 x 5,33 Viton

| DN | B NPT | Ordering No. | | A Rotor Connections | C ø | D1 | E | F | G ø | J | K NPT | L | M | Q | T | U ø | V ø PT | W ø | X | Y | Z ø | Z1 | kg | |
|-----|----------|--------------|--------------|------------------------|--------|-----|----|------|--------|-----|----------|----|-----|-----|---------|--------|------------------|--------|-----|-----|--------|------|------|------|
| | | STD | E.L.S. | | | | | | | | | | | | | | | | | | | | | |
| 50 | 2 | 6200-001-137 | 6200-016-137 | G 2 RH | 133 | 292 | 66 | 29 | 47,6 | 228 | 2 | 73 | 90 | 78 | - | - | - | - | - | - | - | 12,7 | 25,4 | 9,5 |
| | 2 | 6200-001-139 | 6200-016-139 | G 2 LH | 133 | 292 | 66 | 29 | 47,6 | 228 | 2 | 73 | 90 | 78 | - | - | - | - | - | - | - | 12,7 | 25,4 | 9,5 |
| | 2 | 6200-001-115 | 6200-016-115 | Flange ø 228,6 | 133 | 308 | 82 | 25,4 | 47,6 | 270 | 2 | 73 | 90 | 78 | 4 x 90° | 17,5 | 211,25 211,20 | 162 | - | 6,4 | 12,7 | 25,4 | 16,5 | |
| 65 | 2 1/2 | 6250-001-121 | 6250-018-121 | G 2 1/2 RH | 178 | 367 | 84 | 38 | 60,3 | 283 | 2 1/2 | 95 | 113 | 98 | - | - | - | - | - | - | - | 14,3 | 25,4 | 23 |
| | 2 1/2 | 6250-001-123 | 6250-018-123 | G 2 1/2 LH | 178 | 367 | 84 | 38 | 60,3 | 283 | 2 1/2 | 95 | 113 | 98 | - | - | - | - | - | - | - | 14,3 | 25,4 | 23 |
| | 2 1/2 | 6250-001-300 | 6250-018-300 | Flange ø 228,6 | 178 | 373 | 90 | 25,4 | 60,3 | 325 | 2 1/2 | 95 | 113 | 98 | 4 x 90° | 17,5 | 211,25 211,20 | 162 | - | 6,4 | 14,3 | 25,4 | 27,7 | |
| 80 | 3 | 6300-001-161 | 6300-015-161 | G 3 RH | 229 | 432 | 96 | 45 | 73 | 336 | 3 | 87 | 135 | 121 | - | - | - | - | - | - | - | 14,3 | 25,4 | 45,5 |
| | 3 | 6300-001-162 | 6300-015-162 | G 3 LH | 229 | 432 | 96 | 45 | 73 | 336 | 3 | 87 | 135 | 121 | - | - | - | - | - | - | - | 14,3 | 25,4 | 45,5 |
| | 3 | 6300-001-103 | 6300-015-103 | Flange ø 228,6 | 229 | 424 | 88 | 22,2 | 76,2 | 370 | 3 | 87 | 135 | 121 | 6 x 60° | 17,5 | 101,70 101,65 | 192 | 6,4 | - | 14,3 | 25,4 | 52 | |
| 100 | 4 | 6400-030-330 | 6400-042-330 | Flange ø 276 | 280 | 483 | 78 | 22,2 | 101,6 | 411 | 4 | 94 | 156 | 133 | 6 x 60° | 20,6 | 120,62 120,55 | 228,6 | 7,5 | - | 16 | 32 | 77 | |

Duoflow Rotating Unions for Threaded Supply Pipe



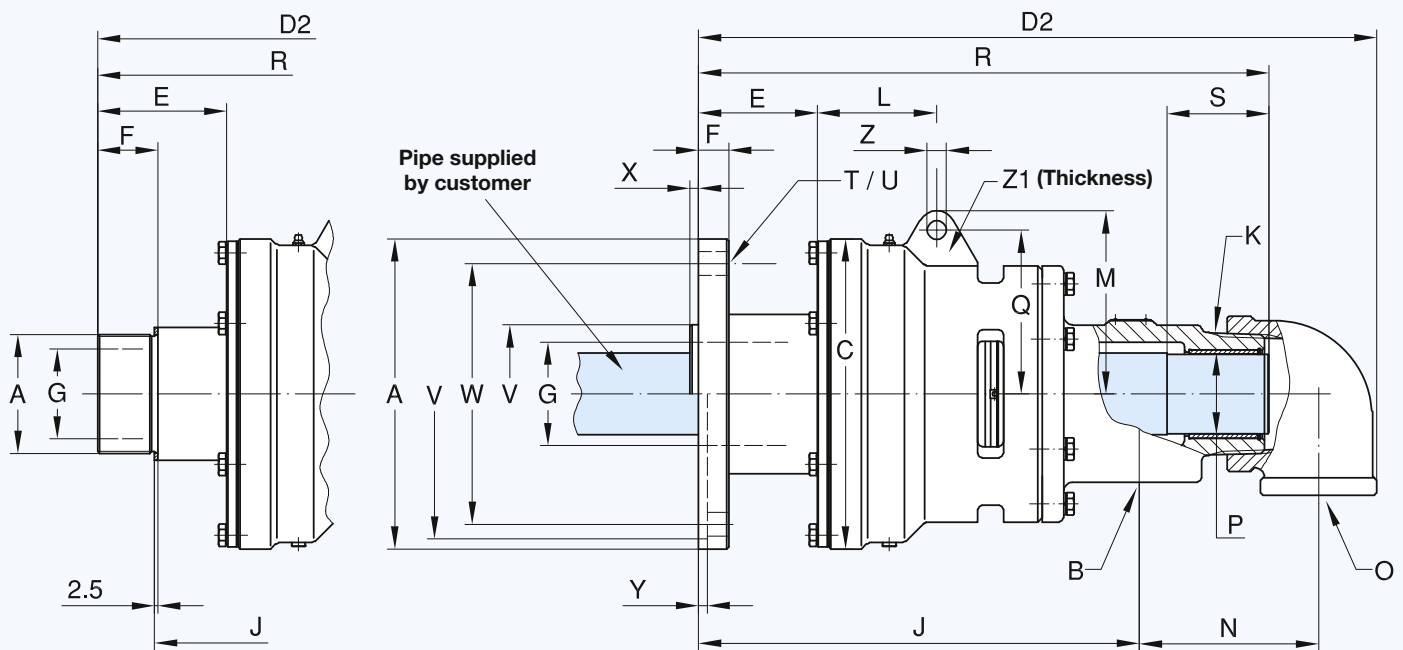
Duoflow Rotating Union for Threaded Supply Pipe

| DN | B + 0 NPT | Ordering No. | | A | | C ∅ | D ₂ | E | F | G ∅ | J | K NPT |
|-----|--------------|--------------|--------------|-------------------|----|--------|----------------|----|------|--------|-----|----------|
| | | STD | E.L.S. | Rotor Connections | | | | | | | | |
| 50 | 2 x 1 | 6200-013-137 | 6200-020-137 | G 2 | RH | 133 | 321 | 66 | 29 | 47,6 | 181 | 2 |
| | 2 x 1 | 6200-013-139 | 6200-020-139 | G 2 | LH | 133 | 321 | 66 | 29 | 47,6 | 181 | 2 |
| | 2 x 1 | 6200-013-115 | 6200-020-115 | Flange ∅ 228,6 | | 133 | 337 | 82 | 25,4 | 47,6 | 223 | 2 |
| 65 | 2 x 1 1/2 | 6250-025-121 | 6250-035-121 | G 2 1/2 | RH | 178 | 412 | 84 | 38 | 60,3 | 233 | 2 1/2 |
| | 2 x 1 1/2 | 6250-025-123 | 6250-035-123 | G 2 1/2 | LH | 178 | 412 | 84 | 38 | 60,3 | 233 | 2 1/2 |
| | 2 x 1 1/2 | 6250-025-300 | 6250-035-300 | Flange ∅ 228,6 | | 178 | 420 | 90 | 25,4 | 60,3 | 275 | 2 1/2 |
| 80 | 2 x 2 | 6300-025-161 | 6300-035-161 | G 3 | RH | 229 | 507 | 96 | 45 | 73 | 289 | 3 |
| | 2 x 2 | 6300-025-162 | 6300-035-162 | G 3 | LH | 229 | 507 | 96 | 45 | 73 | 289 | 3 |
| | 2 x 2 | 6300-025-103 | 6300-035-103 | Flange ∅ 228,6 | | 229 | 499 | 88 | 22,2 | 76,2 | 324 | 3 |
| 100 | 2 x 2 1/2 | 6400-053-330 | 6400-055-330 | Flange ∅ 276 | | 280 | 549 | 78 | 22,2 | 101,6 | 351 | 4 |

Duoflow Rotating Union for Rotating Supply Pipe

| DN | B + 0 NPT | Ordering No. | | A | | C ∅ | D ₂ | E | F | G ∅ | J | K NPT |
|-----|--------------|--------------|--------------|-------------------|----|--------|----------------|----|------|--------|-----|----------|
| | | STD | E.L.S. | Rotor Connections | | | | | | | | |
| 50 | 2 x 1 | 6200-002-137 | 6200-030-137 | G 2 | RH | 133 | 321 | 66 | 29 | 47,6 | 181 | 2 |
| | 2 x 1 | 6200-002-139 | 6200-030-139 | G 2 | LH | 133 | 321 | 66 | 29 | 47,6 | 181 | 2 |
| | 2 x 1 | 6200-002-115 | 6200-030-115 | Flange ∅ 228,6 | | 133 | 337 | 82 | 25,4 | 47,6 | 223 | 2 |
| 65 | 2 x 1 1/2 | 6250-002-121 | 6250-030-121 | G 2 1/2 | RH | 178 | 412 | 84 | 38 | 60,3 | 233 | 2 1/2 |
| | 2 x 1 1/2 | 6250-002-123 | 6250-030-123 | G 2 1/2 | LH | 178 | 412 | 84 | 38 | 60,3 | 233 | 2 1/2 |
| | 2 x 1 1/2 | 6250-002-300 | 6250-030-300 | Flange ∅ 228,6 | | 178 | 420 | 90 | 25,4 | 60,3 | 275 | 2 1/2 |
| 80 | 2 x 2 | 6300-002-161 | 6300-030-161 | G 3 | RH | 229 | 507 | 96 | 45 | 73 | 289 | 3 |
| | 2 x 2 | 6300-002-162 | 6300-030-162 | G 3 | LH | 229 | 507 | 96 | 45 | 73 | 289 | 3 |
| | 2 x 2 | 6300-002-103 | 6300-030-103 | Flange ∅ 228,6 | | 229 | 499 | 88 | 22,2 | 76,2 | 324 | 3 |
| 100 | 2 x 2 1/2 | 6400-040-330 | 6400-052-330 | Flange ∅ 276 | | 280 | 549 | 78 | 22,2 | 101,6 | 351 | 4 |

Duoflow Rotating Unions for Rotating Supply Pipe



| L | M | N | P | Q | R | S | T | U | V | W | X | Y | Z | Z ₁ | kg | DN |
|----|-----|-----|---------|-----|-----|----|---------|------|------------------|-------|-----|-----|------|----------------|------|-----|
| | | | Pipe | | | | | ∅ | ∅ PT | ∅ | | | ∅ | | | |
| 73 | 90 | 95 | G 1 | 78 | 267 | 25 | - | - | - | - | - | - | 12,7 | 25,4 | 13,2 | 50 |
| 73 | 90 | 95 | G 1 | 78 | 267 | 25 | - | - | - | - | - | - | 12,7 | 25,4 | 13,2 | |
| 73 | 90 | 95 | G 1 | 78 | 284 | 25 | 4 x 90° | 17,5 | 211,25 211,20 | 162 | - | 6,4 | 12,7 | 25,4 | 18,2 | |
| 95 | 113 | 103 | G 1 1/2 | 98 | 346 | 25 | - | - | - | - | - | - | 14,3 | 25,4 | 25,2 | 65 |
| 95 | 113 | 103 | G 1 1/2 | 98 | 346 | 25 | - | - | - | - | - | - | 14,3 | 25,4 | 25,2 | |
| 95 | 113 | 103 | G 1 1/2 | 98 | 352 | 25 | 4 x 90° | 17,5 | 211,25 211,20 | 162 | - | 6,4 | 14,3 | 25,4 | 31,8 | |
| 87 | 135 | 135 | G 2 | 121 | 424 | 28 | - | - | - | - | - | - | 14,3 | 25,4 | 47,7 | 80 |
| 87 | 135 | 135 | G 2 | 121 | 424 | 28 | - | - | - | - | - | - | 14,3 | 25,4 | 47,7 | |
| 87 | 135 | 135 | G 2 | 121 | 416 | 28 | 6 x 60° | 17,5 | 101,70 101,65 | 192 | 6,4 | - | 14,3 | 25,4 | 55 | |
| 94 | 156 | 146 | G 2 1/2 | 133 | 446 | 40 | 6 x 60° | 20,6 | 120,62 120,55 | 228,6 | 7,6 | - | 16 | 32 | 77 | 100 |

| L | M | N | P | Q | R | S | T | U | V | W | X | Y | Z | Z ₁ | kg | DN |
|----|-----|-----|------------|-----|-----|-----|---------|------|------------------|-------|-----|-----|------|----------------|------|-----|
| | | | Pipe ∅ h13 | | | | | ∅ | ∅ PT | ∅ | | | ∅ | | | |
| 73 | 90 | 95 | 31,6 | 78 | 267 | 48 | - | - | - | - | - | - | 12,7 | 25,4 | 13,2 | 50 |
| 73 | 90 | 95 | 31,6 | 78 | 267 | 48 | - | - | - | - | - | - | 12,7 | 25,4 | 13,2 | |
| 73 | 90 | 95 | 31,6 | 78 | 284 | 48 | 4 x 90° | 17,5 | 211,25 211,20 | 162 | - | 6,4 | 12,7 | 25,4 | 18,2 | |
| 95 | 113 | 103 | 47,6 | 98 | 346 | 54 | - | - | - | - | - | - | 14,3 | 25,4 | 25,2 | 65 |
| 95 | 113 | 103 | 47,6 | 98 | 346 | 54 | - | - | - | - | - | - | 14,3 | 25,4 | 25,2 | |
| 95 | 113 | 103 | 47,6 | 98 | 352 | 54 | 4 x 90° | 17,5 | 211,25 211,20 | 162 | - | 6,4 | 14,3 | 25,4 | 31,8 | |
| 87 | 135 | 135 | 58,7 | 121 | 424 | 75 | - | - | - | - | - | - | 14,3 | 25,4 | 47,7 | 80 |
| 87 | 135 | 135 | 58,7 | 121 | 424 | 75 | - | - | - | - | - | - | 14,3 | 25,4 | 47,7 | |
| 87 | 135 | 135 | 58,7 | 121 | 416 | 75 | 6 x 60° | 17,5 | 101,70 101,65 | 192 | 6,4 | - | 14,3 | 25,4 | 55 | |
| 94 | 156 | 146 | 74,8 | 133 | 450 | 100 | 6 x 60° | 20,6 | 120,62 120,55 | 228,6 | 7,6 | - | 16 | 32 | 77 | 100 |

DEUBLIN

Rotating Union F Series for Water Service, DN 125



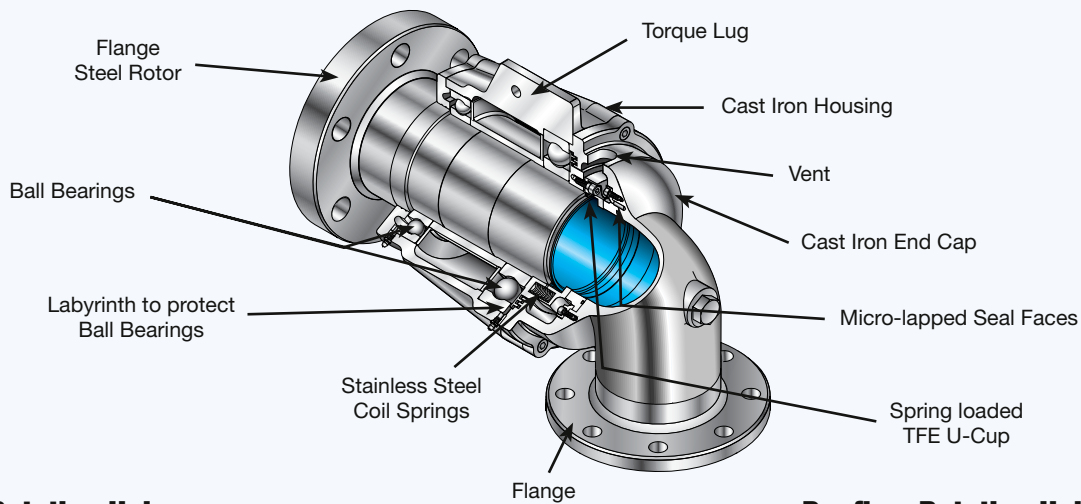
- monoflow and duoflow design
- self-supported rotating union
- balanced mechanical seal:
Carbon Graphite/Tungsten Carbide
- two widely spaced ball bearings
- labyrinth seal protects bearings
- nickel-plated cast iron housing
- high corrosion resistant
- steel flange rotor
- on-the-machine seal replacement capability
- inlet/outlet flange:
standard DIN,
optional ANSI, JIS
- special designs up to **DN 300** upon request

Operating Data

| | | |
|----------------------|---------|---------------------------------|
| Max. Water Pressure* | 150 PSI | 10 bar |
| Max. Speed* | 750 RPM | 750 min ⁻¹ |
| Max. Temperature | 120 °C | > 120 °C consult DEUBLIN |

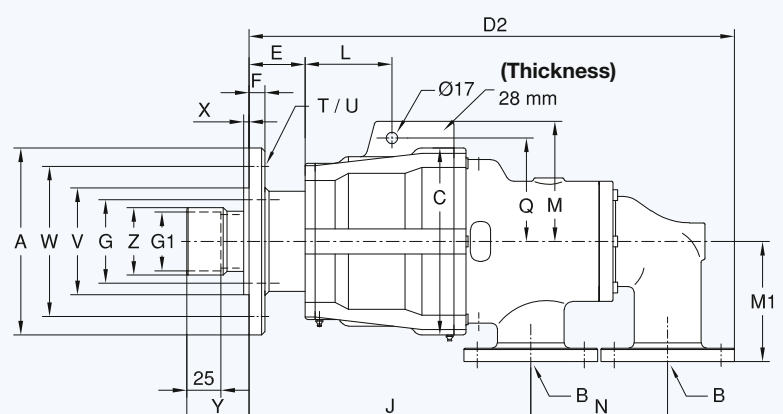
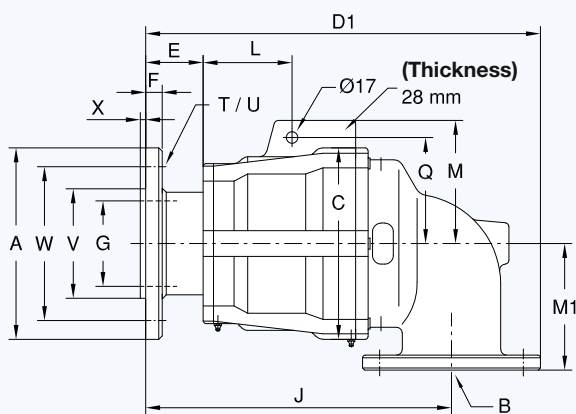
* Operation at max. pressure combined with max. speed is not permissible
If operating conditions are marginal, please consult our Engineering Department

For further information please contact **DEUBLIN** or your local representative.



Monoflow Rotating Union

Duoflow Rotating Union



Monoflow Rotating Union

| DN | B Flange | Ordering No. | A Ø | C Ø | D1 | E | F | G Ø | J | L | M | M ₁ | Q | T | U Ø | V Ø PT 1/8 | W Ø | X | kg |
|-----|----------|--------------|-----|-----|-----|----|----|-----|-----|-----|-----|----------------|-----|---------|-----|------------|-----|---|-----|
| 125 | DN 125 | F127-055-200 | 280 | 280 | 577 | 84 | 25 | 125 | 447 | 130 | 180 | 185 | 155 | 6 x 60° | 18 | 160 | 225 | 8 | 100 |

Duoflow Rotating Union

| DN | B Flange | Ordering No. | A Ø | C Ø | D2 | E | F | G Ø | G ₁ Ø | J | L | M | M ₁ | N | Q | T | U Ø | V Ø PT 1/8 | W Ø | X | Y | Z Ø | kg |
|-----|-----------|-----------------|-----|-----|-----|----|----|-----|------------------|-----|-----|-----|----------------|-----|-----|---------|-----|------------|-----|---|----|-----|-----|
| 125 | 2 x DN 80 | F127-053-204701 | 280 | 280 | 727 | 84 | 25 | 125 | 88,3 +0,1 | 422 | 130 | 180 | 180 | 205 | 155 | 6 x 60° | 18 | 160 | 225 | 8 | 93 | 101 | 120 |



DEUBLIN

Rotating Union N Series for Steam or Hot Oil Service, DN 10 and 15

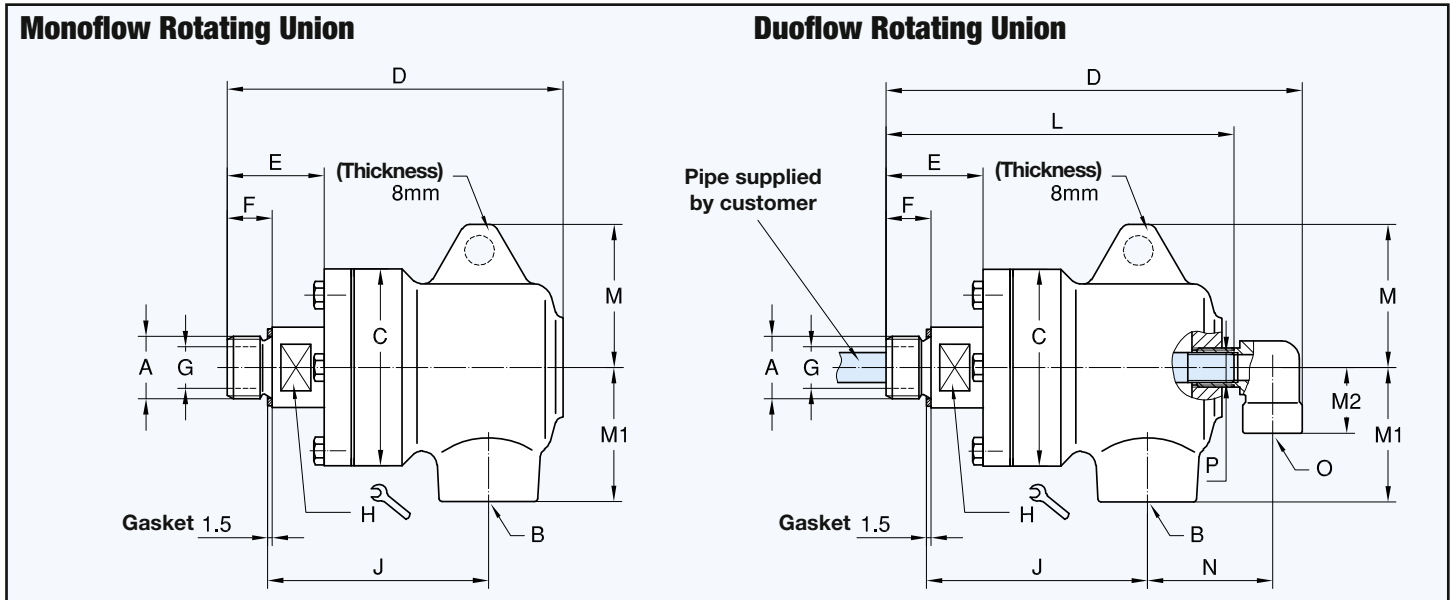
- monoflow design: N10
- monoflow and duoflow design: N12
- self-supported rotating union
- large carbon graphite bearing
- pressurised spherical carbon graphite seal
- cast iron housing
- stainless steel rotor

For further information please contact **DEUBLIN** or your local representative.

Operating Data

| | | |
|--------------------------------|---------|-----------------------|
| Max. Saturated Steam Pressure* | 250 PSI | 17 bar |
| Max. Temperature | 400 °F | 200 °C |
| Max. Hot Oil Pressure* | 100 PSI | 7 bar |
| Max. Temperature | 446 °F | 230 °C |
| Max. Speed* | 750 RPM | 750 min ⁻¹ |

* Operation at max. pressure combined with max. speed is not permissible



Monoflow Rotating Union

| DN | B | Ordering No. | | A Rotor Connections | C ∅ | D | E | F* | G ∅ | H ⌀ | J | M | M ₁ | kg |
|----|-----|--------------|-------------|---------------------------|--------|-------|------|----|--------|--------|------|----|----------------|-----|
| | | Steam | Hot Oil | | | | | | | | | | | |
| 10 | 3/8 | N10-020-210 | N10-021-210 | G 3/8 RH | 60 | 105 | 31 | 15 | 10 | 17 | 68,5 | 42 | 40 | 1,1 |
| | | N10-020-211 | N10-021-211 | G 3/8 LH | 60 | 105 | 31 | 15 | 10 | 17 | 68,5 | 42 | 40 | 1,1 |
| | | N10-020-214 | N10-021-214 | 3/8 NPT RH | 60 | 105 | 31 | 6 | 10 | 17 | 76 | 42 | 40 | 1,1 |
| | | N10-020-215 | N10-021-215 | 3/8 NPT LH | 60 | 105 | 31 | 6 | 10 | 17 | 76 | 42 | 40 | 1,1 |
| 15 | 1/2 | N12-020-210 | N12-021-210 | G 1/2 RH | 66 | 112,5 | 32,5 | 15 | 14 | 22 | 74 | 48 | 45 | 1,4 |
| | | N12-020-211 | N12-021-211 | G 1/2 LH | 66 | 112,5 | 32,5 | 15 | 14 | 22 | 74 | 48 | 45 | 1,4 |
| | | N12-020-214 | N12-021-214 | 1/2 NPT RH | 66 | 112,5 | 32,5 | 8 | 14 | 22 | 79,5 | 48 | 45 | 1,4 |
| | | N12-020-215 | N12-021-215 | 1/2 NPT LH | 66 | 112,5 | 32,5 | 8 | 14 | 22 | 79,5 | 48 | 45 | 1,4 |

Duoflow Rotating Union

| DN | B | O | Ordering No. | | A Rotor Connections | C ∅ | D | E | F* | G ∅ | H ⌀ | J | L | M | M ₁ | M ₂ | N | P NPT | kg |
|----|-----|-----|----------------|----------------|---------------------------|--------|-------|------|----|--------|--------|------|-------|----|----------------|----------------|----|----------|-----|
| | | | Steam | Hot Oil | | | | | | | | | | | | | | | |
| 15 | 1/2 | 1/4 | N12-022-210701 | N12-023-210701 | G 1/2 RH | 66 | 139,5 | 32,5 | 15 | 14 | 22 | 74 | 116,5 | 48 | 45 | 22 | 42 | 1/8 | 1,5 |
| | | | N12-022-211701 | N12-023-211701 | G 1/2 LH | 66 | 139,5 | 32,5 | 15 | 14 | 22 | 74 | 116,5 | 48 | 45 | 22 | 42 | 1/8 | 1,5 |
| | | | N12-022-214701 | N12-023-214701 | 1/2 NPT RH | 66 | 139,5 | 32,5 | 8 | 14 | 22 | 79,5 | 116,5 | 48 | 45 | 22 | 42 | 1/8 | 1,5 |
| | | | N12-022-215701 | N12-023-215701 | 1/2 NPT LH | 66 | 139,5 | 32,5 | 8 | 14 | 22 | 79,5 | 116,5 | 48 | 45 | 22 | 42 | 1/8 | 1,5 |

*F-dimension on NPT rotor threads = engagement depth (wrench tight)



DEUBLIN

Rotating Union 9000 Series for Steam, DN 20 - 50

- monoflow and duoflow design
- self-supported rotating union
- spherical seal; lapped Carbon Graphite Rings
- seal wear indicator allows preventive maintenance
- 2 torque lugs on the housing
- nickel-plated cast iron housing
- steel rotor, nickel-plated for steam service

For hot oil applications please refer to models of our H-series on pages 27 - 30; Models with threaded rotor optionally available.

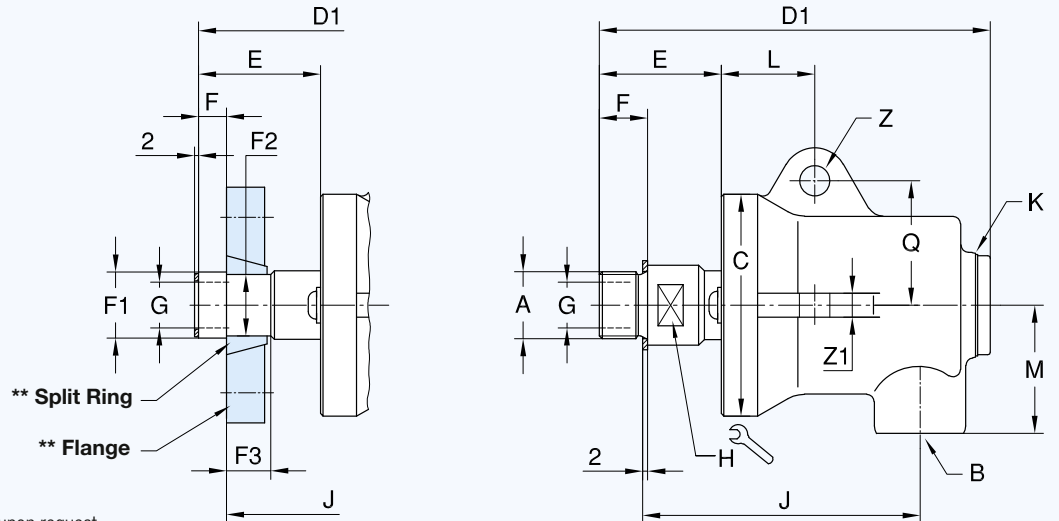
For further information please contact **DEUBLIN** or your local representative.

Operating Data

| | | |
|--------------------------------|---------|---------------------------------|
| Max. Saturated Steam Pressure* | 150 PSI | 10 bar |
| Max. Speed* | 400 RPM | 400 min ⁻¹ |
| Max. Temperature | 185 °C | > 185 °C consult DEUBLIN |

* Operation at max. pressure combined with max. speed is not permissible

Monoflow Rotating Union for Steam

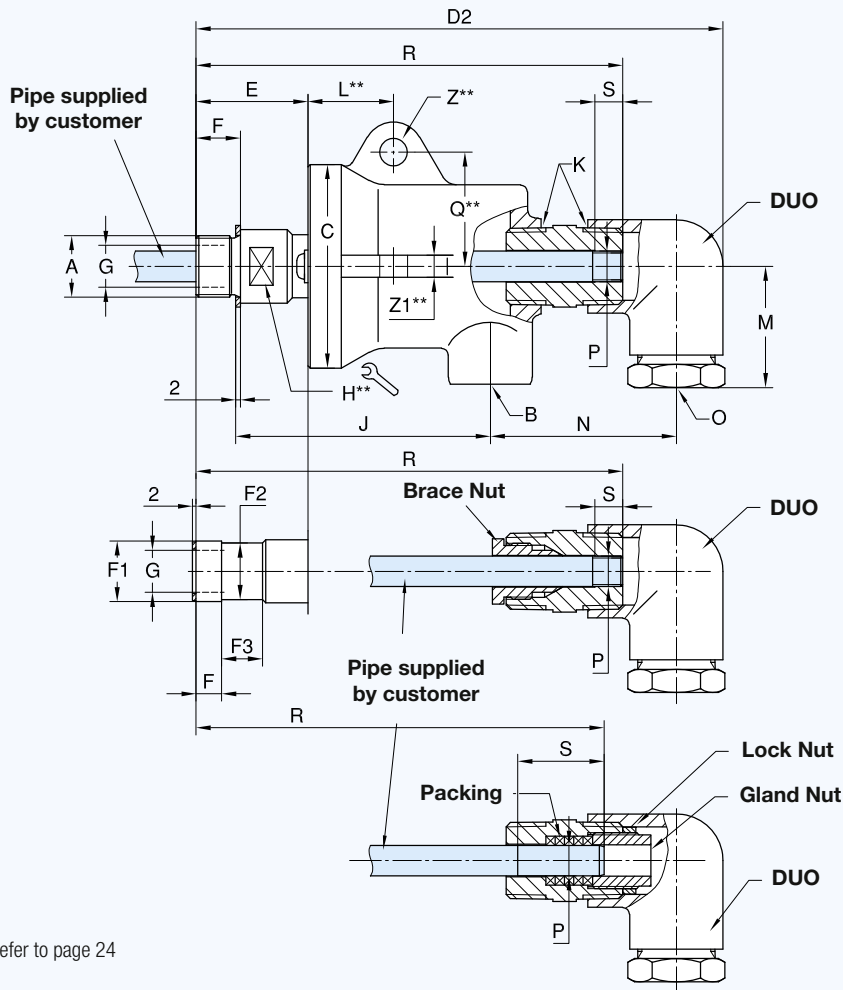


** supplied by customer, data sheet available upon request

Monoflow Rotating Union

| DN | B | Ordering No. | A | | C | D1 | E | F | F1 | F2 | F3 | G | H | J | K | L | M | Q | Z | Z1 | kg |
|----|---------|--------------|--------------------------|----|-----|-----|----|------|----------------|----------------|------|------|----|-----|---------|----|----|----|------|------|------|
| | | | Rotor Connections | | | | | | | | | | | | | | | | | | |
| 20 | G 3/4 | 9075-008-110 | G 3/4 | RH | 87 | 155 | 48 | 19 | - | - | - | 18 | 27 | 109 | G 1 | 37 | 51 | 49 | 12 | 13 | 2.4 |
| | G 3/4 | 9075-008-111 | G 3/4 | LH | 87 | 155 | 48 | 19 | - | - | - | 18 | 27 | 109 | G 1 | 37 | 51 | 49 | 12 | 13 | 2.4 |
| | G 3/4 | 9075-008-117 | For Quick Connect Flange | | 87 | 155 | 48 | 11.1 | 26.0 25.9 | 24.25 24.15 | 17.5 | 18 | - | 115 | G 1 | 37 | 51 | 49 | 12 | 13 | 2.4 |
| 25 | G 1 | 9100-008-113 | G 1 | RH | 97 | 184 | 60 | 22 | - | - | - | 25.4 | 32 | 129 | G 1 | 38 | 54 | 54 | 13 | 13 | 3.7 |
| | G 1 | 9100-008-112 | G 1 | LH | 97 | 184 | 60 | 22 | - | - | - | 25.4 | 32 | 129 | G 1 | 38 | 54 | 54 | 13 | 13 | 3.7 |
| | G 1 | 9100-008-121 | For Quick Connect Flange | | 97 | 184 | 60 | 11.1 | 32.36 32.23 | 30.89 30.76 | 17.5 | 25.4 | - | 138 | G 1 | 38 | 54 | 54 | 13 | 13 | 3.7 |
| 32 | G 1 1/4 | 9125-008-118 | G 1 1/4 | RH | 112 | 206 | 65 | 25.4 | - | - | - | 32 | 41 | 140 | G 1 1/2 | 42 | 66 | 60 | 13.5 | 13 | 6.3 |
| | G 1 1/4 | 9125-008-119 | G 1 1/4 | LH | 112 | 206 | 65 | 25.4 | - | - | - | 32 | 41 | 140 | G 1 1/2 | 42 | 66 | 60 | 13.5 | 13 | 6.3 |
| | G 1 1/4 | 9125-008-126 | For Quick Connect Flange | | 112 | 206 | 65 | 12.7 | 41.0 40.9 | 39.65 39.55 | 19 | 32 | - | 150 | G 1 1/2 | 42 | 66 | 60 | 13.5 | 13 | 6.3 |
| 40 | G 1 1/2 | 9150-008-113 | G 1 1/2 | RH | 136 | 230 | 62 | 28.5 | - | - | - | 38 | 46 | 153 | G 1 1/2 | 55 | 79 | 73 | 16 | 19 | 8.7 |
| | G 1 1/2 | 9150-008-114 | G 1 1/2 | LH | 136 | 230 | 62 | 28.5 | - | - | - | 38 | 46 | 153 | G 1 1/2 | 55 | 79 | 73 | 16 | 19 | 8.7 |
| | G 1 1/2 | 9150-008-117 | For Quick Connect Flange | | 136 | 230 | 62 | 12.7 | 47.37 47.27 | 45.09 44.99 | 22.2 | 38 | - | 167 | G 1 1/2 | 55 | 79 | 73 | 16 | 19 | 8.7 |
| 50 | G 2 | 9200-008-117 | G 2 | RH | 155 | 252 | 68 | 30 | - | - | - | 49 | 60 | 168 | G 1 1/2 | 62 | 86 | 87 | 16 | 25.4 | 13.5 |
| | G 2 | 9200-008-118 | G 2 | LH | 155 | 252 | 68 | 30 | - | - | - | 49 | 60 | 168 | G 1 1/2 | 62 | 86 | 87 | 16 | 25.4 | 13.5 |
| | G 2 | 9200-008-121 | For Quick Connect Flange | | 155 | 252 | 77 | 15.9 | 58.93 58.80 | 56.64 56.51 | 28.5 | 49 | - | 189 | G 1 1/2 | 62 | 86 | 87 | 16 | 25.4 | 13.5 |

Duoflow Rotating Union for Steam



Type A
for short threaded supply pipe

Type B
for long threaded supply pipe
With additional brace nut for supply pipe. Use pipes as per DIN 2440 only.

Type C
for rotating supply pipe with packing seals to avoid interpassage leakage.

** Dimensions refer to page 24

Duoflow Rotating Union with Elbow for Steam

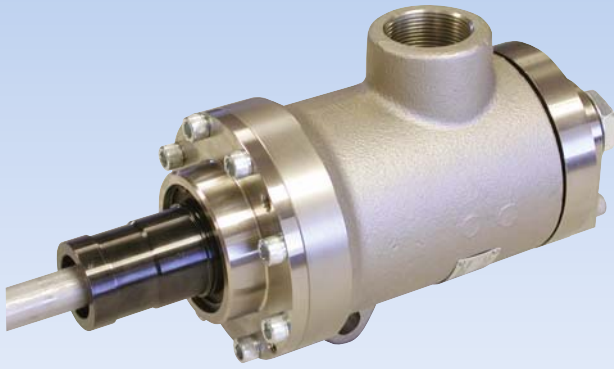
| DN | B | O | Ordering No. | DUO * | Type | A Rotor Connections | C | D2 | E | F | F1 | F2 | F3 | G | J | K | M | N | P Pipe | Pipe DIN 2440 | R | S | kg |
|----|---------|--------|--------------|-------|------|--------------------------|-----|-----|----|------------|----------------|----------------|------|------|-----|---------|----|-----|---------|---------------|-------|-----|------|
| 20 | G 3/4 | Rp 1/2 | 9075-008-110 | -600 | A | G 3/4 RH | 87 | 220 | 48 | 19 | - | - | - | 18 | 109 | R 1 | 51 | 75 | G 1/4 | DN 8 | 181 | 12 | 2,8 |
| | | | 9075-008-111 | -610 | B | G 3/4 LH | | | | 19 | - | - | - | | | | | | G 1/4 | DN 8 | 181 | 12 | |
| | | | 9075-008-117 | -620 | C | For Quick Connect Flange | | | | 11,1 | 26,0 25,9 | 24,25 24,15 | 17,5 | | | | | | ø 13 h9 | DN 8 | 175 | 37 | |
| 25 | G 1 | Rp 1/2 | 9100-008-113 | -600 | A | G 1 RH | 97 | 251 | 60 | 22 | - | - | - | 25,4 | 129 | R 1 | 54 | 82 | G 1/4 | DN 8 | 210 | 12 | 4,1 |
| | | | 9100-008-112 | -610 | B | | | | | G 1 LH | 22 | - | - | | | | | | - | G 3/8 | DN 10 | 210 | |
| | | | | -611 | B | | | | | | | | | | | | | | G 1/4 | DN 8 | 210 | 12 | |
| | | | | -611 | B | | | | | | | | | | | | | | G 3/8 | DN 10 | 210 | 12 | |
| | | | 9100-008-121 | -621 | C | For Quick Connect Flange | | | | 11,1 | 32,36 32,23 | 30,89 30,76 | 17,5 | | | | | | ø 16 h9 | DN 10 | 206 | 32 | |
| 32 | G 1 1/4 | Rp 3/4 | 9125-008-118 | -600 | A | G 1 1/4 RH | 112 | 298 | 65 | 25,4 | - | - | - | 32 | 140 | R 1 1/2 | 66 | 107 | G 1/2 | DN 15 | 238 | 14 | 7 |
| | | | 9125-008-119 | -601 | A | | | | | G 1 1/4 LH | 25,4 | - | - | | | | | | - | G 3/4 | DN 20 | 238 | |
| | | | | -610 | B | | | | | | | | | | | | | | G 1/2 | DN 15 | 238 | 14 | |
| | | | | -611 | B | | | | | | | | | | | | | | G 3/4 | DN 20 | 238 | 16 | |
| | | | 9125-008-126 | -621 | C | For Quick Connect Flange | | | | 12,7 | 41,0 40,9 | 39,65 39,55 | 19 | | | | | | ø 20 h9 | DN 15 | 230 | 40 | |
| 40 | G 1 1/2 | Rp 3/4 | 9150-008-113 | -600 | A | G 1 1/2 RH | 136 | 322 | 62 | 28,5 | - | - | - | 38 | 153 | R 1 1/2 | 79 | 114 | G 1/2 | DN 15 | 262 | 14 | 9,5 |
| | | | 9150-008-114 | -601 | A | | | | | G 1 1/2 LH | 28,5 | - | - | | | | | | - | G 3/4 | DN 20 | 262 | |
| | | | | -610 | B | | | | | | | | | | | | | | G 1/2 | DN 15 | 262 | 14 | |
| | | | | -611 | B | | | | | | | | | | | | | | G 3/4 | DN 20 | 262 | 16 | |
| | | | 9150-008-117 | -621 | C | For Quick Connect Flange | | | | 12,7 | 47,37 47,27 | 45,09 44,97 | 22,5 | | | | | | ø 26 h9 | DN 20 | 255 | 35 | |
| 50 | G 2 | Rp 3/4 | 9200-008-117 | -600 | A | G 2 RH | 155 | 345 | 68 | 30 | - | - | - | 49 | 168 | R 1 1/2 | 87 | 121 | G 1/2 | DN 15 | 284 | 14 | 14,3 |
| | | | 9200-008-118 | -601 | A | | | | | G 2 LH | 30 | - | - | | | | | | - | G 3/4 | DN 20 | 284 | |
| | | | | -610 | B | | | | | | | | | | | | | | G 1/2 | DN 15 | 284 | 14 | |
| | | | | -611 | B | | | | | | | | | | | | | | G 3/4 | DN 20 | 284 | 16 | |
| | | | 9200-008-121 | -621 | C | For Quick Connect Flange | | | | 15,9 | 58,93 58,80 | 56,64 56,51 | 22,2 | | | | | | ø 26 h9 | DN 20 | 276 | 35 | |

* Adhering to the same DN size, all unions can be combined with their respective elbows

** R dimension add 9 mm each

DEUBLIN

Rotating Union HPS Series for Steam Service in Corrugators, DN 40

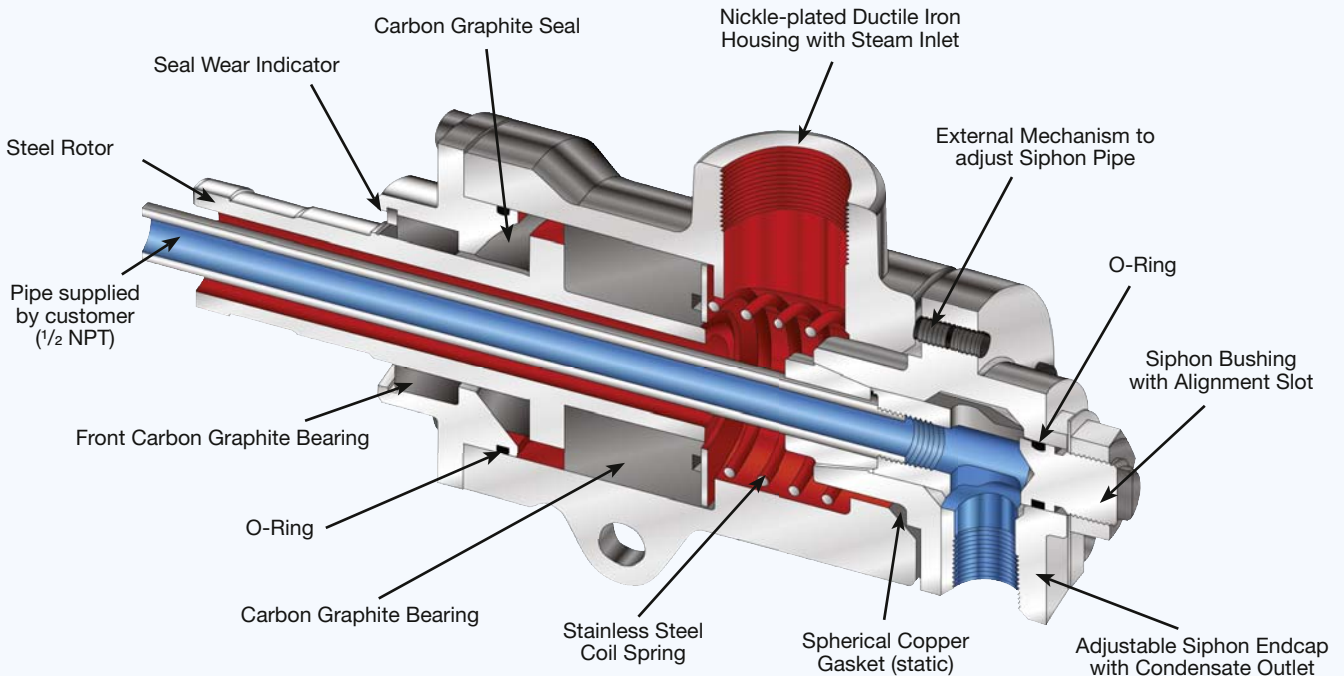


Operating Data

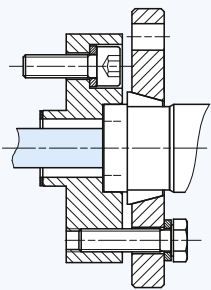
| | | |
|-------------------------------|---------|-----------------------|
| Max. Saturated Steam Pressure | 250 PSI | 17 bar |
| Max. Temperature | 400 °F | 200 °C |
| Max. Speed | 400 RPM | 400 min ⁻¹ |

- monoflow and duoflow design
- self-supported rotating union
- seals and outboard bearing made of impregnated Carbon Graphite
- convex seal ring reduces compression on Carbon ring; better suited to handle mechanical and thermal shock
- external mechanism to adjust siphon pipe through end cap
- nickel plated front and rear end cap
- nickel-plated ductile iron housing
- stainless steel spring
- heavy duty steel rotor design

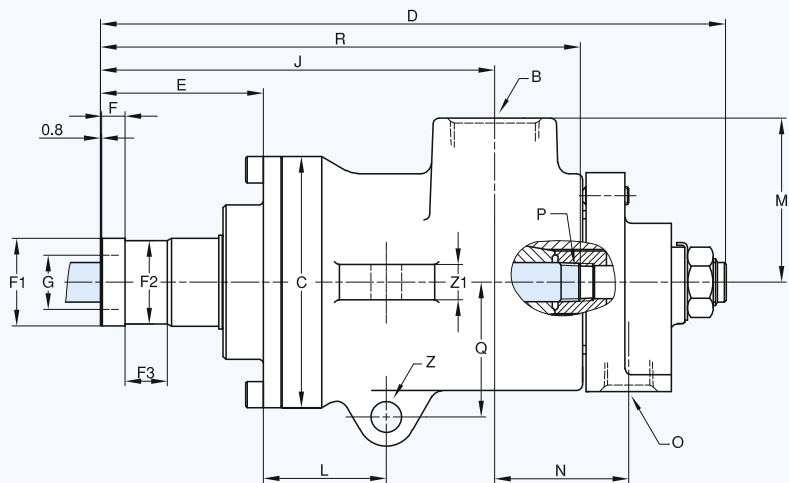
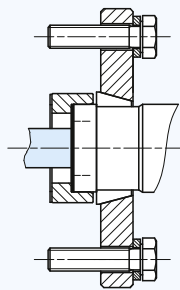
For further information please contact **DEUBLIN** or your local representative.



Flange adapter DN 32



DN 50



| DN | B | O | Ordering No. | C ∅ | D | E | F | F1 ∅ | F2 ∅ | F3 | G ∅ | J | L | M | N | P | Q | R | Z ∅ | Z1 |
|----|----------|--------|----------------|--------|-----|----|------|----------------|----------------|----|--------|-----|----|----|----|---------|----|-----|--------|----|
| 40 | Rc 1 1/2 | Rc 3/4 | C15D-005-02-3A | 136 | 340 | 88 | 12,7 | 47,50 47,45 | 45,19 45,11 | 23 | 33,4 | 215 | 69 | 90 | 73 | 1/2 NPT | 73 | 258 | 16,7 | 21 |



DEUBLIN

Rotating Union H Series for Steam or Hot Oil Service, DN 20 - 125

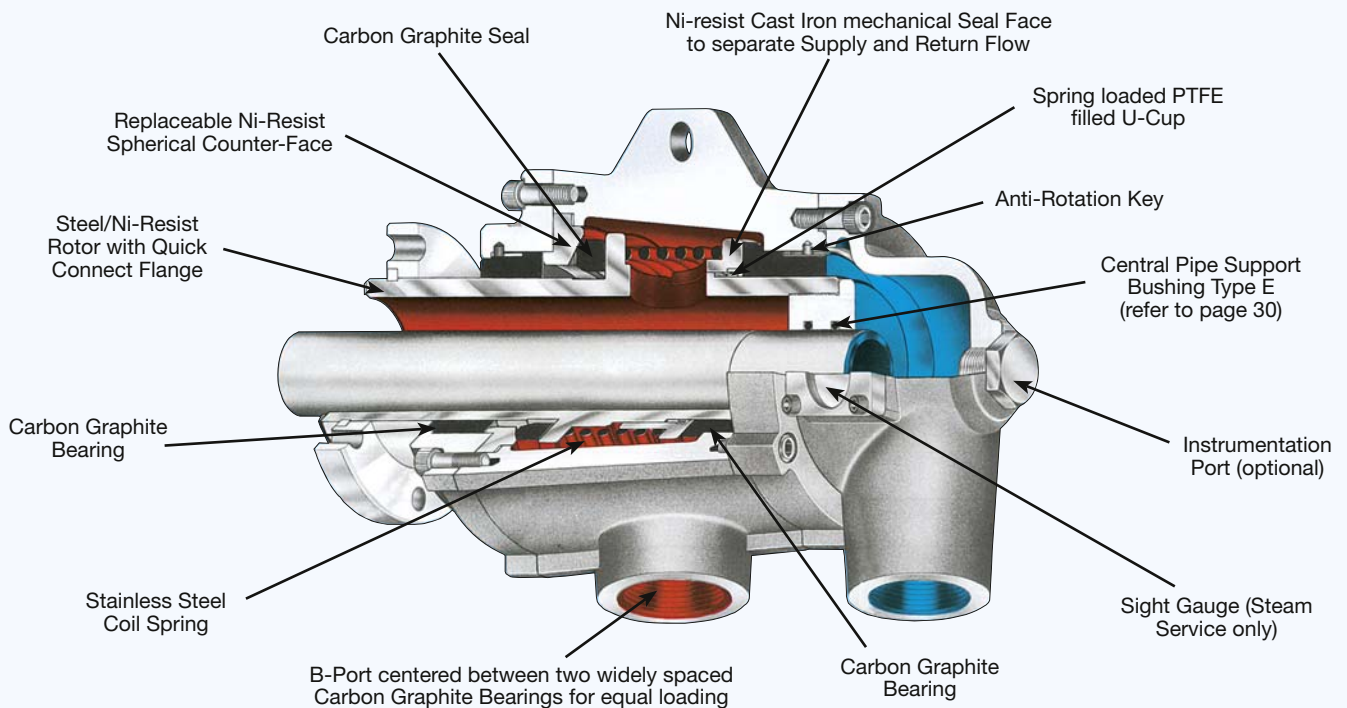
- monoflow and duoflow design
- self-supported rotating union
- designed for steam and hot oil applications in paper, plastics and textile industries
- effective on a variety of applications, especially on open gear paper machines
- pressurised spherical carbon graphite seal
- Ni-Resist counterface
- two widely spaced graphite bearings
- H57 – H127 optional with sight glasses in the end cap for visual inspection of condensate removal
- seal wear indicator allows preventive maintenance
- flanged or threaded rotor available
- cast iron housing
- steel rotor

Operating Data

| | | |
|------------------------|---------|-----------------------|
| Saturated Steam | | |
| Max. Pressure* | 150 PSI | 10 bar |
| Max. Temperature | 365 °F | 185 °C |
| Max. Speed* | 180 RPM | 180 min ⁻¹ |
| Hot Oil | | |
| Max. Pressure* | 100 PSI | 7 bar |
| Max. Temperature | 446 °F | 230 °C |
| Max. Speed* | 350 RPM | 350 min ⁻¹ |

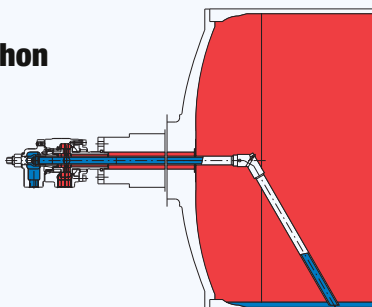
* Operation at max. pressure combined with max. speed is not permissible

For further information please contact **DEUBLIN** or your local representative.

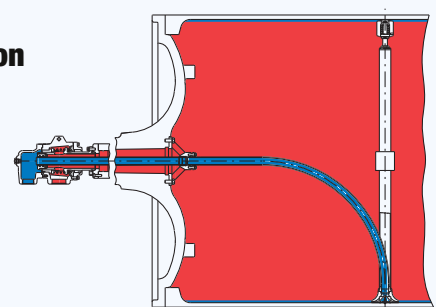


The rotating unions of the H Series can be used with the **DEUBLIN** Siphon Systems. Rotating and non-rotating siphon systems can be customised to meet any/all requirements. For further information please refer to our catalogue "Rotating Joints and Siphon Systems for the Paper Industry" or contact **DEUBLIN** directly.

Example for Stationary Siphon System

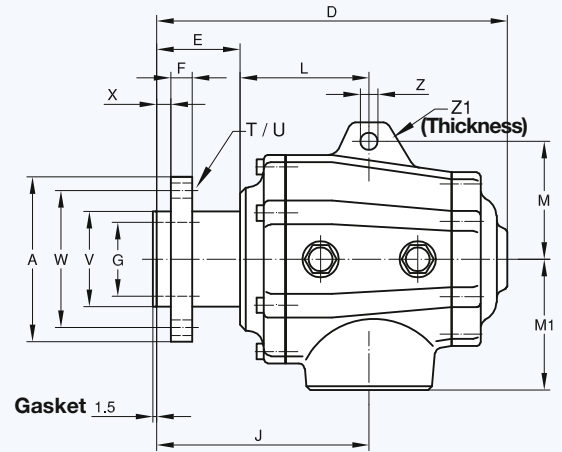
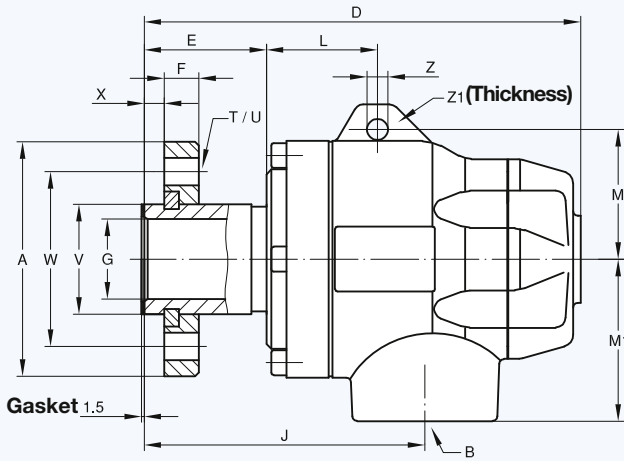


Example for Rotating Siphon System

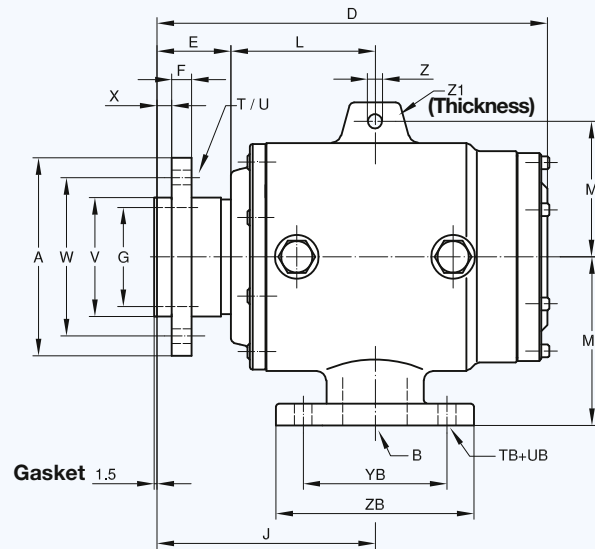


Monoflow Rotating Union, Models Size H20 - H40 and

H57 - H87



Models Size H107 and H127



Monoflow Rotating Union

| DN | B | Model M | A ∅ | D | E | F | G ∅ | J | L | M | M ₁ |
|-----|---------|---------|--------|-----|------|----|--------|-------|-------|-----|----------------|
| 20 | G 3/4 | H20 | 69 | 140 | 40 | 12 | 18 | 95 | 59 | 45 | 50 |
| 25 | G 1 | H25 | 78 | 165 | 47 | 12 | 24,5 | 101 | 44 | 50 | 60 |
| 32 | G 1 1/4 | H32 | 94 | 175 | 49 | 14 | 32 | 112,5 | 44,5 | 52 | 65 |
| 40 | G 1 1/2 | H40 | 99 | 204 | 61 | 14 | 38 | 136,5 | 51 | 70 | 75 |
| 50 | G 2 | H57 | 120 | 258 | 60,5 | 14 | 47 | 151 | 90,5 | 83 | 95 |
| 65 | G 2 1/2 | H67 | 138,5 | 300 | 70 | 18 | 62 | 178,5 | 108,5 | 99 | 110 |
| 80 | G 3 | H87 | 150 | 326 | 67,5 | 18 | 76,5 | 188 | 120,5 | 115 | 120 |
| 100 | DN 100 | H107 | 200 | 394 | 76,5 | 20 | 100 | 220 | 143,5 | 137 | 170 |
| 125 | DN 125 | H127 | 280 | 465 | 85 | 24 | 125 | 275 | 190 | 158 | 220 |

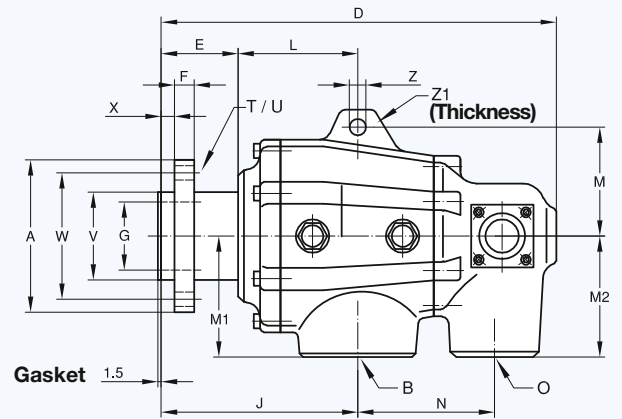
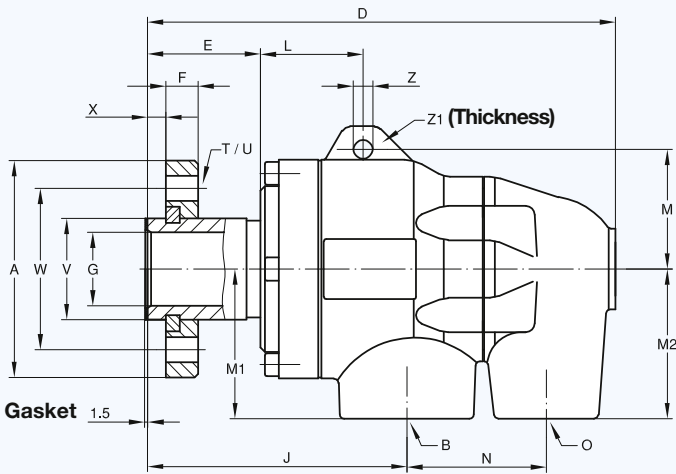
Duoflow Rotating Union

| DN | B | O | Model E-R-S | A ∅ | D | E | F | G ∅ | J | L | M | M ₁ | M ₂ | N |
|-----|---------|---------|-------------|--------|-------|------|----|--------|-------|-------|-----|----------------|----------------|-------|
| 20 | G 3/4 | G 1/2 | H20 | 69 | 195 | 40 | 12 | 18 | 95 | 59 | 45 | 50 | 30 | 86 |
| 25 | G 1 | G 1/2 | H25 | 78 | 220 | 47 | 12 | 24,5 | 101 | 44 | 50 | 60 | 30 | 104 |
| 32 | G 1 | G 3/4 | H32 | 94 | 203 | 49 | 14 | 32 | 112,5 | 44,5 | 52 | 65 | 65 | 60,5 |
| 40 | G 1 1/4 | G 1 | H40 | 99 | 245 | 61 | 14 | 38 | 136,5 | 51 | 70 | 75 | 75 | 71,5 |
| 50 | G 1 1/2 | G 1 1/4 | H57 | 120 | 303 | 60,5 | 14 | 47 | 151 | 90,5 | 83 | 95 | 95 | 97 |
| 65 | G 2 | G 1 1/2 | H67 | 138,5 | 359 | 70 | 18 | 62 | 178,5 | 108,5 | 99 | 110 | 110 | 124,5 |
| 80 | G 2 1/2 | G 2 | H87 | 150 | 396 | 67,5 | 18 | 76,5 | 188 | 120,5 | 115 | 120 | 120 | 146 |
| 100 | DN 80 | DN 65 | H107 | 200 | 562,5 | 76,5 | 20 | 100 | 220 | 143,5 | 137 | 170 | 170 | 251 |
| | DN 65 | DN 65 | H107 * | 200 | 563,5 | 76,5 | 20 | 100 | 220 | 143,5 | 137 | 170 | 170 | 251 |
| 125 | DN 100 | DN 65 | H127 | 280 | 617,5 | 85 | 24 | 125 | 275 | 190 | 158 | 220 | 220 | 250 |
| | DN 80 | DN 80 | H127 * | 280 | 625 | 85 | 24 | 125 | 275 | 190 | 158 | 220 | 220 | 250 |

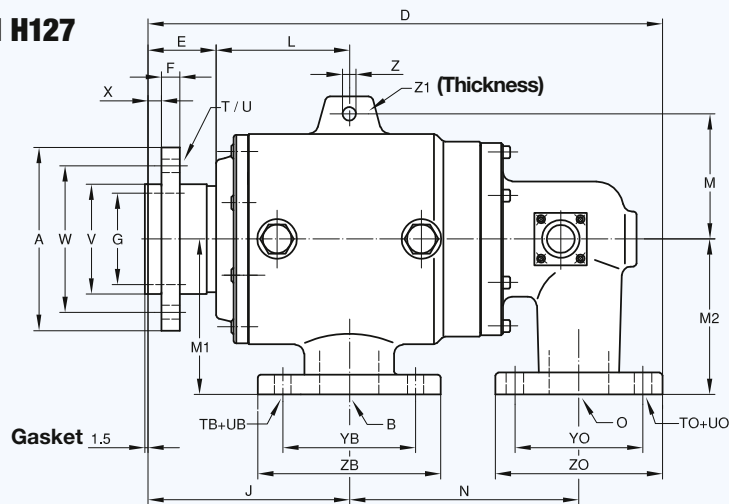
* Hot Oil Design

Duoflow Rotating Union, Models Size H20 - H40 and

H57 - H87



Models Size H107 and H127



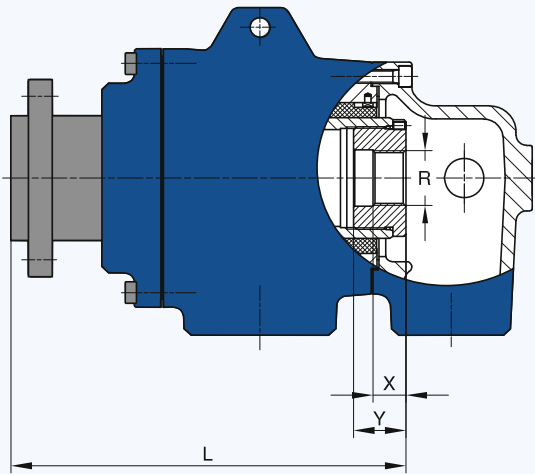
| T | U | TB | UB | V | W | X | YB | ZB | Z | Z ₁ | DN |
|---------|----|---------|----|------|-----|----|-----|-----|------|----------------|-----|
| | ∅ | | ∅ | ∅ h7 | ∅ | | ∅ | ∅ | ∅ | | |
| 4 x 90° | 9 | - | - | 30 | 50 | 6 | - | - | 7 | 8 | 20 |
| 4 x 90° | 9 | - | - | 36 | 60 | 7 | - | - | 7 | 11 | 25 |
| 4 x 90° | 11 | - | - | 44 | 70 | 8 | - | - | 8,5 | 8 | 32 |
| 4 x 90° | 11 | - | - | 52 | 78 | 10 | - | - | 11,5 | 10 | 40 |
| 4 x 90° | 11 | - | - | 65 | 95 | 10 | - | - | 13 | 15 | 50 |
| 4 x 90° | 13 | - | - | 80 | 115 | 12 | - | - | 15 | 20 | 65 |
| 4 x 90° | 13 | - | - | 95 | 125 | 12 | - | - | 15 | 25 | 80 |
| 6 x 60° | 15 | 8 x 45° | 18 | 120 | 160 | 15 | 180 | 220 | 15 | 25 | 100 |
| 6 x 60° | 18 | 8 x 45° | 18 | 160 | 225 | 15 | 210 | 250 | 15 | 25 | 125 |

| T | U | TB | UB | TO | UO | V | W | X | YB | ZB | YO | ZO | Z | Z ₁ | DN |
|---------|----|---------|----|---------|----|------|-----|----|-----|-----|-----|-----|------|----------------|-----|
| | ∅ | | ∅ | | ∅ | ∅ h7 | ∅ | | ∅ | ∅ | ∅ | ∅ | ∅ | | |
| 4 x 90° | 9 | - | - | - | - | 30 | 50 | 6 | - | - | - | - | 7 | 8 | 20 |
| 4 x 90° | 9 | - | - | - | - | 36 | 60 | 7 | - | - | - | - | 7 | 11 | 25 |
| 4 x 90° | 11 | - | - | - | - | 44 | 70 | 8 | - | - | - | - | 8,5 | 8 | 32 |
| 4 x 90° | 11 | - | - | - | - | 52 | 78 | 10 | - | - | - | - | 11,5 | 10 | 40 |
| 4 x 90° | 11 | - | - | - | - | 65 | 95 | 10 | - | - | - | - | 13 | 15 | 50 |
| 4 x 90° | 13 | - | - | - | - | 80 | 115 | 12 | - | - | - | - | 15 | 20 | 65 |
| 4 x 90° | 13 | - | - | - | - | 95 | 125 | 12 | - | - | - | - | 15 | 25 | 80 |
| 6 x 60° | 15 | 8 x 45° | 18 | 4 x 90° | 18 | 120 | 160 | 15 | 160 | 200 | 145 | 185 | 15 | 25 | 100 |
| 6 x 60° | 15 | 4 x 90° | 18 | 4 x 90° | 18 | 120 | 160 | 15 | 145 | 185 | 145 | 185 | 15 | 25 | |
| 6 x 60° | 18 | 8 x 45° | 18 | 4 x 90° | 18 | 160 | 225 | 15 | 180 | 220 | 145 | 185 | 15 | 25 | 125 |
| 6 x 60° | 18 | 8 x 45° | 18 | 8 x 45° | 18 | 160 | 225 | 15 | 160 | 200 | 160 | 200 | 15 | 25 | |

Duoflow Central Pipe Specifications

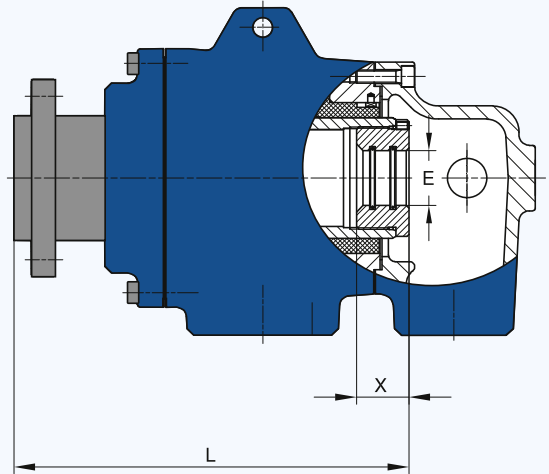
Rotating Central Pipe

R For rotating siphon (steam inlet pipe) the inner pipe is connected by means of a threaded bushing that screws into the rotor.



Rotating Central Pipe axial Movement

E For a rotating siphon capable of axial movement a sliding connection is made between the bushing and the central pipe to allow for the thermal expansion of the central pipe.

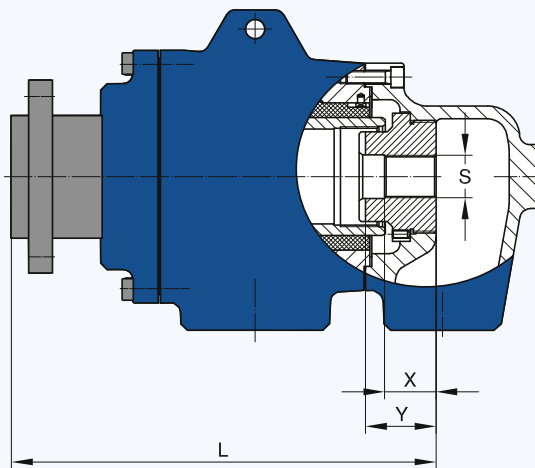


| Model | L | X | Y | Design | | | | | | |
|-------|-----|----|----|---------|---------|---------|---------|---------|---------|-----|
| | | | | Ra | Rb | Rc | Rd | Re | Rf | Rg |
| H20 | 117 | 15 | 20 | - | G 1/8 | G 1/4 | - | - | - | - |
| H25 | 133 | 15 | 20 | - | G 1/4 | G 3/8 | - | - | - | - |
| H32 | 147 | 20 | 25 | - | G 3/8 | G 1/2 | - | - | - | - |
| H40 | 175 | 25 | 30 | G 1/2 | G 3/4 | G 1 | - | - | - | - |
| H57 | 233 | 25 | 35 | - | G 3/4 | G 1 | - | G 1 1/4 | - | - |
| H67 | 273 | 25 | 35 | G 1/2 | G 3/4 | G 1 | - | G 1 1/4 | G 1 1/2 | - |
| H87 | 300 | 25 | 40 | G 1 | - | G 1 1/4 | G 1 1/2 | G 2 | - | - |
| H107 | 375 | 45 | 60 | G 1 | - | G 1 1/4 | G 1 1/2 | G 2 | G 2 1/2 | G 3 |
| H127 | 460 | 45 | 60 | G 1 1/4 | G 1 1/2 | G 2 | G 2 1/2 | G 3 | G 4 | - |

| Model | L | X | Design | | | | | | |
|-------|-----|----|--------|------|------|------|------|-------|------|
| | | | Ea | Eb | Ec | Ed | Ee | Ef | Eg |
| H20 | 117 | 20 | - | 9,5 | 13 | - | - | - | - |
| H25 | 133 | 20 | - | 13 | 17 | - | - | - | - |
| H32 | 147 | 25 | - | 17 | 21 | - | - | - | - |
| H40 | 175 | 30 | 21 | 26,6 | 31 | - | - | - | - |
| H57 | 233 | 35 | 21 | 26,6 | 33,3 | 37,6 | 42 | - | - |
| H67 | 273 | 35 | 21 | 26,6 | 33,3 | 37,6 | 42 | 48 | - |
| H87 | 300 | 40 | 33,3 | 37,6 | 42 | 47,9 | 59,8 | - | - |
| H107 | 375 | 60 | 33,7 | 38 | 42,4 | 48,3 | 60,3 | 76,1 | 88,9 |
| H127 | 460 | 60 | 42,4 | 48,3 | 60,3 | 76,1 | 88,9 | 101,6 | - |

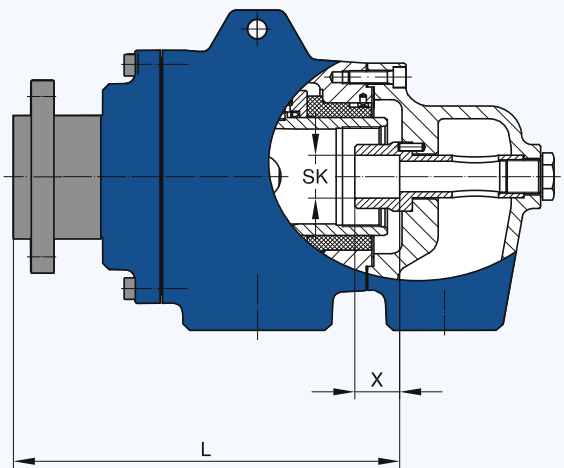
Stationary Central Pipe

S For fixed siphons the pipe is connected by means of a threaded bushing that screws into the end cap.



Stationary Central Pipe

SK For stationary fixed siphons where the central pipe is supported in the end cap and connected by means of an external bolt to the end cap.



| Model | L | X | Y | Design | | | | | |
|-------|-------|----|----|--------|-------|---------|---------|---------|---------|
| | | | | Sa | Sb | Sc | Sd | Se | Sf |
| H20 | 137 | 11 | 16 | - | G 1/8 | G 1/4 | - | - | - |
| H25 | 160 | 11 | 20 | - | G 1/4 | G 3/8 | - | - | - |
| H32 | 172 | 15 | 25 | - | G 3/8 | G 1/2 | - | - | - |
| H40 | 206 | 20 | 30 | G 1/2 | G 3/4 | G 1 | - | - | - |
| H57 | 250,5 | 25 | 40 | G 1/2 | G 3/4 | G 1 | - | G 1 1/4 | - |
| H67 | 303 | 30 | 40 | G 1/2 | G 3/4 | G 1 | - | G 1 1/4 | G 1 1/2 |
| H87 | 330 | 35 | 50 | G 1 | - | G 1 1/4 | G 1 1/2 | G 2 | - |
| H107 | - | - | - | - | - | - | - | - | - |
| H127 | - | - | - | - | - | - | - | - | - |

| Model | L | X | Design | |
|-------|-------|----|--------|------|
| | | | SKa | SKb |
| H57 | 227,5 | 30 | 21 | 26,6 |
| H67 | 276,5 | 30 | 26,6 | 33 |
| H87 | 294,5 | 30 | 33 | 42 |
| H107 | 375 | 60 | 33,7 | 38 |
| H127 | 460 | 60 | 42,4 | 48,3 |

Adjustable Siphon available

Consult DEUBLIN Engineering!

DEUBLIN

Rotating Union 14000 Series for Air and Hydraulic Oil Service, DN 10 - 50



Operating Data

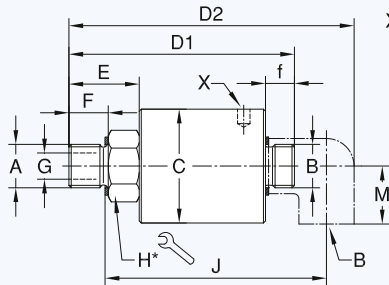
| | | |
|-------------------------------------|-----------|--------------------------|
| Max. Air Pressure | 150 PSI | 10 bar |
| Max. Vacuum | 2" Hg | 7 kPa |
| Max. Hydraulic Pressure* (DN 10-20) | 870 PSI | 60 bar |
| (DN 25-40) | 580 PSI | 40 bar |
| Max. Speed* (DN 10-40) | 1,500 RPM | 1.500 min ⁻¹ |
| (DN 50) | 750 RPM | 750 min ⁻¹ |
| Max. Temperature | 120 °C | > 120 °C consult DEUBLIN |

Recommended filtration of Hydraulic Oil: 5 µm
* Operation at max. pressure combined with max. speed is not permissible

- monoflow design
- self-supported rotating union or in-the-shaft mounted
- balanced mechanical seal
Carbon Graphite/Ceramic - for air service;
Tungsten Carbide/Ceramic - for hydraulic service
- axial or radial housing connection by means of elbow
- lubrication storage within the seal cavity for air service
- heavy-duty design
- steel housing
- stainless steel rotor
- full-media flow

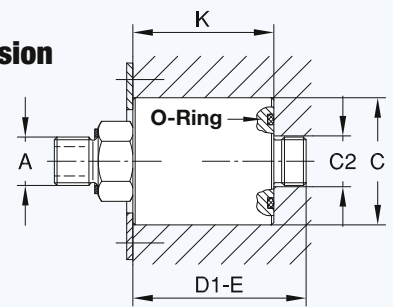
For further information please contact **DEUBLIN** or your local representative.

Axial Version



X: Hole for Spanner Wrench as per DIN 1810, for sizes see table below.

In-the-Shaft Mounted Version



How to Order: Type a: 14037-03-094, straight-through version
Type b: 14037-03-094-118, with elbow

Type c: 14037-03-094-120, in-the-shaft mounted version
Type d: 14037-03-094-121, with elbow and O-ring.

* DN 10 - 20 = hexagon
DN 25 - 50 = two wrench flats

| DN | B | Ordering No. | | Type | | | A | C _{R9} ^E | C ₂ | D ₁ | D ₂ | E | F | f | G | H | J | K | M | X | kg | |
|----|---------|-------------------------------------|---------------------------|------|------|------|------------|------------------------------|----------------|----------------|----------------|-----|----|----|----|------|----|-----|-------|----|---------|-------------------|
| | | Type a for Air CG/C with lubricator | Type a for Hydr. Oil TC/C | b | c | d | | | | | | | | | | | | | | | | Rotor Connections |
| 10 | G 3/8 | 14037-03-094 | 14037-04-192 | -118 | -120 | -121 | G 3/8 | RH | 42 | 18 | 93 | 119 | 26 | 16 | 12 | 9,5 | 22 | 93 | 54,5 | 25 | 40/42 | 0,5 |
| | G 3/8 | 14037-03-095 | 14037-04-193 | | | | G 3/8 | LH | 42 | 18 | 93 | 119 | 26 | 16 | 12 | 9,5 | 22 | 93 | 54,5 | 25 | 40/42 | 0,5 |
| 15 | G 1/2 | 14050-03-151 | 14050-04-154 | -118 | -120 | -121 | G 1/2 | RH | 55 | 22 | 109 | 138 | 34 | 19 | 14 | 12,7 | 30 | 107 | 60,5 | 28 | 52/55 | 1 |
| | G 1/2 | 14050-03-152 | 14050-04-160 | | | | G 1/2 | LH | 55 | 22 | 109 | 138 | 34 | 19 | 14 | 12,7 | 30 | 107 | 60,5 | 28 | 52/55 | 1 |
| 20 | G 3/4 | 14075-03-284 | 14075-04-447 | -118 | -120 | -121 | G 3/4 | RH | 63 | 28 | 122 | 158 | 34 | 19 | 16 | 17,5 | 36 | 124 | 71,5 | 33 | 58/62 | 1,7 |
| | G 3/4 | 14075-03-285 | 14075-04-448 | | | | G 3/4 | LH | 63 | 28 | 122 | 158 | 34 | 19 | 16 | 17,5 | 36 | 124 | 71,5 | 33 | 58/62 | 1,7 |
| | G 3/4 | 14075-03-458 | 14075-04-936 | | | | M27 x 1,5 | RH | 63 | 28 | 123 | 159 | 35 | 15 | 16 | 17,5 | 36 | 121 | 71,5 | 33 | 58/62 | 1,7 |
| | G 3/4 | 14075-03-459 | 14075-04-937 | | | | M27 x 1,5 | LH | 63 | 28 | 123 | 159 | 35 | 15 | 16 | 17,5 | 36 | 121 | 71,5 | 33 | 58/62 | 1,7 |
| | G 3/4 | 14075-03-014 | 14075-04-451 | | | | M 35 x 1,5 | RH | 63 | 28 | 126 | 161 | 38 | 15 | 16 | 17,5 | 41 | 131 | 71,5 | 33 | 58/62 | 1,7 |
| | G 3/4 | 14075-03-015 | 14075-04-452 | | | | M 35 x 1,5 | LH | 63 | 28 | 126 | 161 | 38 | 15 | 16 | 17,5 | 41 | 131 | 71,5 | 33 | 58/62 | 1,7 |
| 25 | G 1 | 14100-03-222 | 14100-04-378 | -118 | -120 | -121 | G 1 | RH | 80 | 35 | 138 | 181 | 41 | 22 | 18 | 25 | 36 | 140 | 78,5 | 38 | 80/90 | 2,4 |
| | G 1 | 14100-03-223 | 14100-04-379 | | | | G 1 | LH | 80 | 35 | 138 | 181 | 41 | 22 | 18 | 25 | 36 | 140 | 78,5 | 38 | 80/90 | 2,4 |
| | G 1 | 14100-03-235 | 14100-04-381 | | | | M 35 x 1,5 | RH | 80 | 35 | 132 | 175 | 35 | 15 | 18 | 25 | 36 | 141 | 78,5 | 38 | 80/90 | 2,4 |
| | G 1 | 14100-03-236 | 14100-04-382 | | | | M 35 x 1,5 | LH | 80 | 35 | 132 | 175 | 35 | 15 | 18 | 25 | 36 | 141 | 78,5 | 38 | 80/90 | 2,4 |
| 32 | G 1 1/4 | 14125-03-054 | 14125-04-128 | -118 | -120 | -121 | G 1 1/4 | RH | 90 | 43 | 153 | 205 | 55 | 28 | 20 | 31,8 | 46 | 155 | 77,5 | 45 | 80/90 | 3,3 |
| | G 1 1/4 | 14125-03-055 | 14125-04-129 | | | | G 1 1/4 | LH | 90 | 43 | 153 | 205 | 55 | 28 | 20 | 31,8 | 46 | 155 | 77,5 | 45 | 80/90 | 3,3 |
| 40 | G 1 1/2 | 14150-03-198 | 14150-04-288 | -118 | -120 | -121 | G 1 1/2 | RH | 90 | 49 | 184 | 243 | 72 | 29 | 22 | 38 | 55 | 187 | 89,5 | 50 | 80/90 | 4 |
| | G 1 1/2 | 14150-03-199 | 14150-04-289 | | | | G 1 1/2 | LH | 90 | 49 | 184 | 243 | 72 | 29 | 22 | 38 | 55 | 187 | 89,5 | 50 | 80/90 | 4 |
| | G 1 1/2 | 14150-03-200 | 14150-04-418 | | | | M 50 x 1,5 | RH | 90 | 49 | 177 | 236 | 65 | 23 | 22 | 38 | 55 | 187 | 89,5 | 50 | 80/90 | 4 |
| | G 1 1/2 | 14150-03-201 | 14150-04-419 | | | | M 50 x 1,5 | LH | 90 | 49 | 177 | 236 | 65 | 23 | 22 | 38 | 55 | 187 | 89,5 | 50 | 80/90 | 4 |
| 50 | G 2 | 14200-03-124 | --- | -118 | -120 | -121 | G 2 | RH | 110 | 61 | 205 | 275 | 65 | 29 | 25 | 47,6 | 60 | 213 | 114,5 | 58 | 110/115 | 6 |
| | G 2 | 14200-03-125 | --- | | | | G 2 | LH | 110 | 61 | 205 | 275 | 65 | 29 | 25 | 47,6 | 60 | 213 | 114,5 | 58 | 110/115 | 6 |



DEUBLIN

Rotating Union for Air and Hydraulic Oil Service, DN 6 - 40

- monoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal
Carbon Graphite/hardened Tool Steel or
Carbon Graphite/Ceramic
- felt oiler in seal cavity for air service
- oiler for relubrication (3 - 5 drops/month)
- low torque
- weight optimised design
- aluminium housing
- stainless steel or steel rotor (respective of model)
- Lubrication guide see Instruction Manual

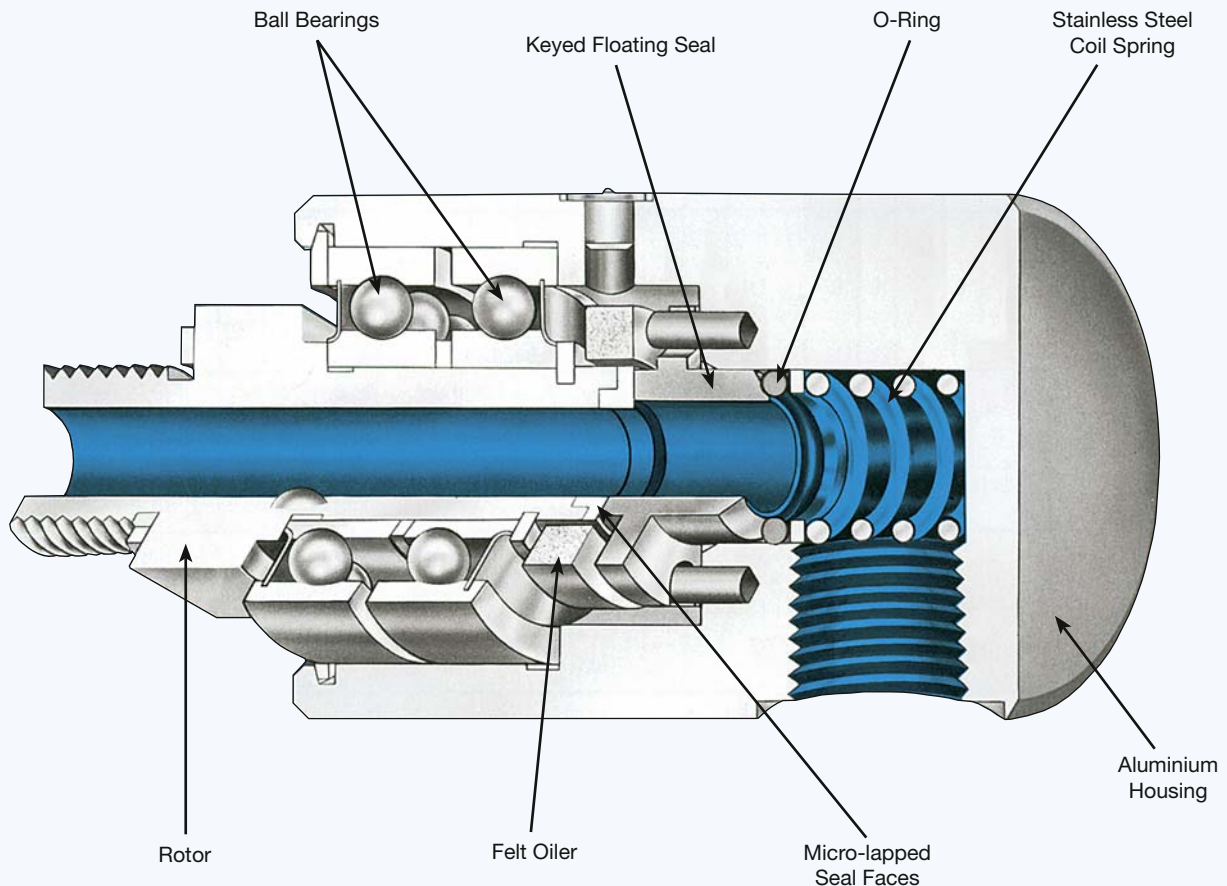
Operating Data

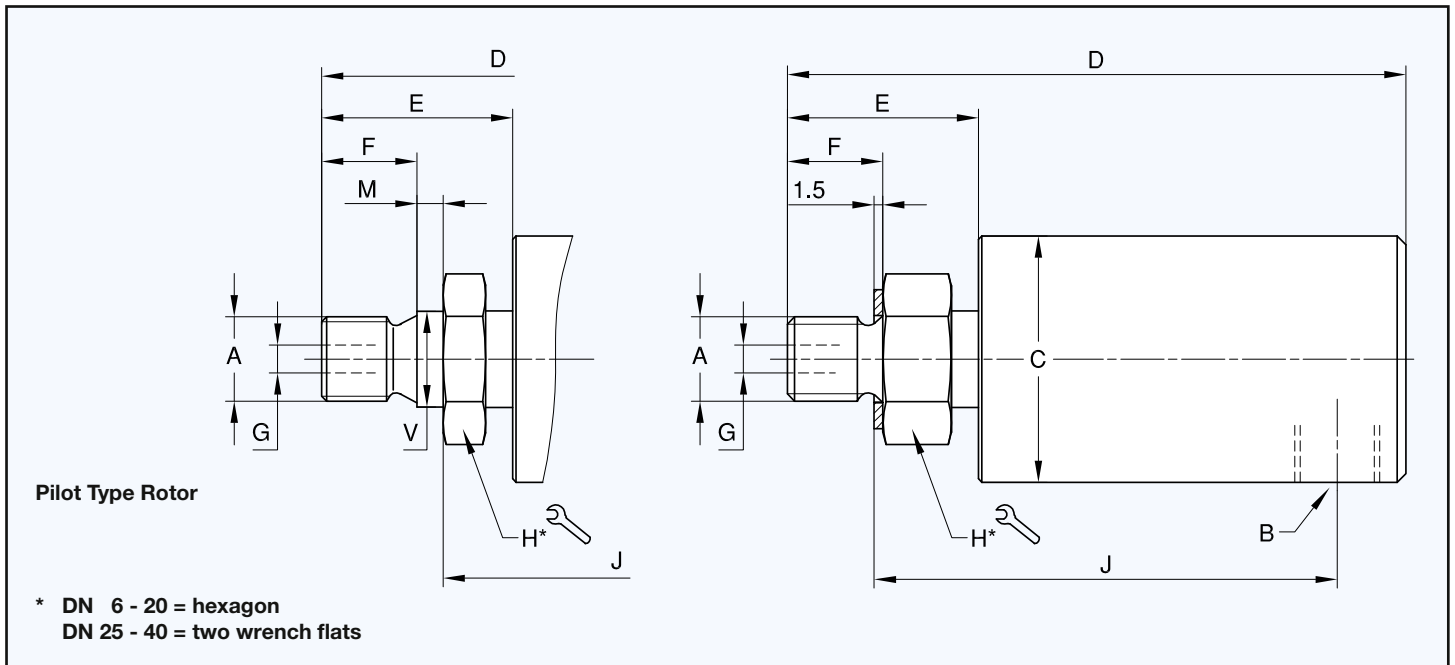
| | | |
|------------------------------|-----------|-------------------------|
| Max. Air Pressure | 150 PSI | 10 bar |
| Max. Vacuum | 2" Hg | 7 kPa |
| Max. Hydraulic Pressure* | | |
| Model 1005 | 1,020 PSI | 70 bar |
| 1102 | 1,020 PSI | 70 bar |
| 1115 | 510 PSI | 35 bar |
| 1205 | 730 PSI | 50 bar |
| 2200 | 1,020 PSI | 70 bar |
| 250-094 | 1,020 PSI | 70 bar |
| 355-021 | 1,020 PSI | 70 bar |
| 452-000 | 730 PSI | 50 bar |
| Max. Speed Straight Threads* | 3,500 RPM | 3.500 min ⁻¹ |
| Model 250-094 | 3,500 RPM | 3.500 min ⁻¹ |
| 355-021 | 3,000 RPM | 3.000 min ⁻¹ |
| 452-000 | 2,500 RPM | 2.500 min ⁻¹ |

Max. Temperature 120 °C > 120 °C consult **DEUBLIN**

* Operation at max. pressure combined with max. speed is not permissible

For further information please contact **DEUBLIN** or your local representative.





Monoflow Rotating Union

| DN | B NPT | Ordering No. | A Rotor Connections | | C ∅ | D | E | F | G ∅ | H* | J | M | V ∅ | kg |
|----|----------|--------------|------------------------|----|--------|-----|----|----|--------|--------|-----|----|--------|-----|
| 6 | 1/8 | 1005-020-037 | M 10 x 1 | RH | 28,5 | 71 | 22 | 11 | 3,2 | 17 | 54 | - | - | 0,2 |
| | 1/8 | 1005-020-045 | M 10 x 1 | RH | 28,5 | 71 | 22 | 11 | 3,2 | 17 | 50 | 3 | 11 h6 | 0,2 |
| | 1/8 | 1005-020-049 | G 1/4 | RH | 28,5 | 71 | 22 | 13 | 3,2 | 17 | 52 | - | - | 0,2 |
| 8 | 1/4 | 1102-070-103 | G 1/4 | RH | 41 | 81 | 28 | 13 | 6,4 | 22 | 58 | - | - | 0,4 |
| | 1/4 | 1102-070-104 | G 1/4 | LH | 41 | 81 | 28 | 13 | 6,4 | 22 | 58 | - | - | 0,4 |
| 10 | 3/8 | 1115-000-205 | G 3/8 | RH | 44 | 99 | 26 | 16 | 8,7 | 24 | 71 | - | - | 0,7 |
| | 3/8 | 1115-000-200 | M 16 x 2 | RH | 44 | 99 | 26 | 16 | 8,7 | 24 | 71 | - | - | 0,7 |
| 15 | 1/2 | 1205-000-151 | G 1/2 | RH | 57 | 114 | 35 | 19 | 12,7 | 30 | 79 | - | - | 0,7 |
| | 1/2 | 1205-000-152 | G 1/2 | LH | 57 | 114 | 35 | 19 | 12,7 | 30 | 79 | - | - | 0,7 |
| | 1/2 | 1205-000-170 | M 20 x 1,5 | RH | 57 | 116 | 37 | 14 | 12,7 | 30 | 78 | 5 | 22 g6 | 0,7 |
| | 1/2 | 1205-000-171 | M 20 x 1,5 | LH | 57 | 116 | 37 | 14 | 12,7 | 30 | 78 | 5 | 22 g6 | 0,7 |
| | 1/2 | 2200-000-458 | M 27 x 1,5 | RH | 73 | 123 | 35 | 15 | 17,5 | 36 | 85 | 6 | 28 g6 | 1,4 |
| | 1/2 | 2200-000-459 | M 27 x 1,5 | LH | 73 | 123 | 35 | 15 | 17,5 | 36 | 85 | 6 | 28 g6 | 1,4 |
| | 1/2 | 2200-000-081 | M 35 x 1,5 | RH | 73 | 125 | 38 | 15 | 17,5 | 41 | 96 | - | - | 1,6 |
| | 1/2 | 2200-000-082 | M 35 x 1,5 | LH | 73 | 125 | 38 | 15 | 17,5 | 41 | 96 | - | - | 1,6 |
| | 1/2 | 2200-000-102 | G 3/4 | RH | 73 | 122 | 34 | 19 | 17,5 | 36 | 88 | - | - | 1,4 |
| 20 | 3/4 | 250-094-284 | G 3/4 | RH | 73 | 128 | 34 | 19 | 17,5 | 36 | 94 | - | - | 1,6 |
| | 3/4 | 250-094-285 | G 3/4 | LH | 73 | 128 | 34 | 19 | 17,5 | 36 | 94 | - | - | 1,6 |
| | 3/4 | 250-094-458 | M 27 x 1,5 | RH | 73 | 129 | 35 | 15 | 17,5 | 36 | 91 | 6 | 28 g6 | 1,6 |
| | 3/4 | 250-094-459 | M 27 x 1,5 | LH | 73 | 129 | 35 | 15 | 17,5 | 36 | 91 | 6 | 28 g6 | 1,6 |
| | 3/4 | 250-094-014 | M 35 x 1,5 | RH | 73 | 131 | 38 | 15 | 17,5 | 41 | 101 | - | - | 1,6 |
| | 3/4 | 250-094-015 | M 35 x 1,5 | LH | 73 | 131 | 38 | 15 | 17,5 | 41 | 101 | - | - | 1,6 |
| 25 | 1 | 355-021-222 | G 1 | RH | 83 | 150 | 42 | 22 | 25 | 36 | 108 | - | - | 2,1 |
| | 1 | 355-021-223 | G 1 | LH | 83 | 150 | 42 | 22 | 25 | 36 | 108 | - | - | 2,1 |
| | 1 | 355-021-235 | M 35 X 1,5 | RH | 83 | 144 | 35 | 15 | 25 | 36 | 108 | - | - | 2,1 |
| | 1 | 355-021-236 | M 35 X 1,5 | LH | 83 | 144 | 35 | 15 | 25 | 36 | 108 | - | - | 2,1 |
| | 1 | 355-021-315 | M 35 x 1,5 | RH | 83 | 167 | 59 | 29 | 25 | 36 | 103 | 12 | 40 g6 | 2,1 |
| | 1 | 355-021-316 | M 35 x 1,5 | LH | 83 | 167 | 59 | 29 | 25 | 36 | 103 | 12 | 40 g6 | 2,1 |
| 40 | 1 1/2 | 452-000-198 | G 1 1/2 | RH | 108 | 206 | 71 | 29 | 38 | 55 | 147 | - | - | 4,5 |
| | 1 1/2 | 452-000-199 | G 1 1/2 | LH | 108 | 206 | 71 | 29 | 38 | 55 | 147 | - | - | 4,5 |
| | 1 1/2 | 452-000-200 | M 50 x 1,5 | RH | 108 | 200 | 66 | 23 | 38 | 55 | 147 | - | - | 4,5 |
| | 1 1/2 | 452-000-201 | M 50 x 1,5 | LH | 108 | 200 | 66 | 23 | 38 | 55 | 147 | - | - | 4,5 |

DEUBLIN Rotating Unions In-the-Shaft Mounted

To meet the specifications of engineering designs requiring minimum overhang, **DEUBLIN** can provide unions which can be mounted in the shaft. With these models the only extensions beyond the end of the shaft are the supply line connections.

Detailed drawings suggesting the application of these **DEUBLIN** Unions to your installation will be submitted on request and without obligation.

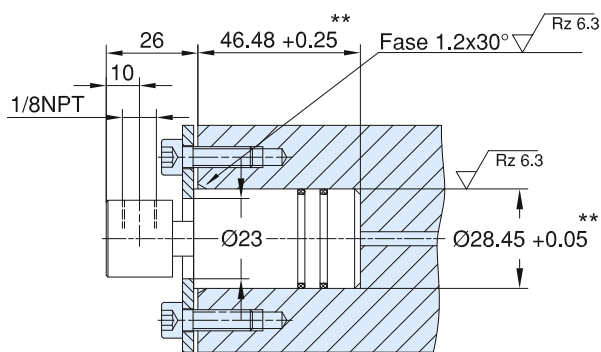
For additional models of In-the-Shaft Mounted Rotating Unions refer to page 31.

Model 1005-000-001, DN 6

Operating Data

| | | |
|-------------------------|-----------|-------------------------|
| Max. Air Pressure | 150 PSI | 10 bar |
| Max. Hydraulic Pressure | 1,020 PSI | 70 bar |
| Max. Temperature | 250 °F | 120 °C |
| Max. Speed | 3,500 RPM | 3.500 min ⁻¹ |

Available with all 1005 rotors shown on page 33.

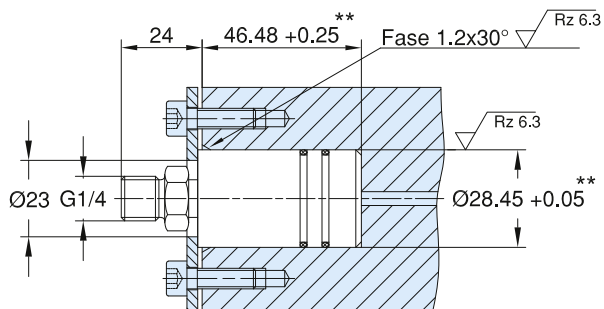


Model 1005-000-049, DN 6

Operating Data

| | | |
|-------------------------|-----------|-------------------------|
| Max. Air Pressure | 150 PSI | 10 bar |
| Max. Hydraulic Pressure | 1,020 PSI | 70 bar |
| Max. Temperature | 250 °F | 120 °C |
| Max. Speed | 3,500 RPM | 3.500 min ⁻¹ |

Available with all 1005 rotors shown on page 33.

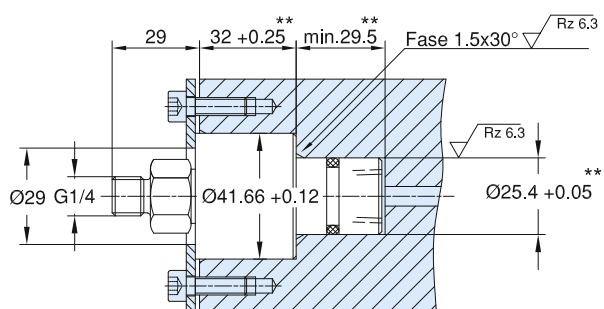


Model 1102-025-103, DN 8

Operating Data

| | | |
|-------------------------|-----------|-------------------------|
| Max. Air Pressure | 150 PSI | 10 bar |
| Max. Hydraulic Pressure | 1,020 PSI | 70 bar |
| Max. Temperature | 250 °F | 120 °C |
| Max. Speed | 3,500 RPM | 3.500 min ⁻¹ |

Available with all 1102 rotors shown on page 33.

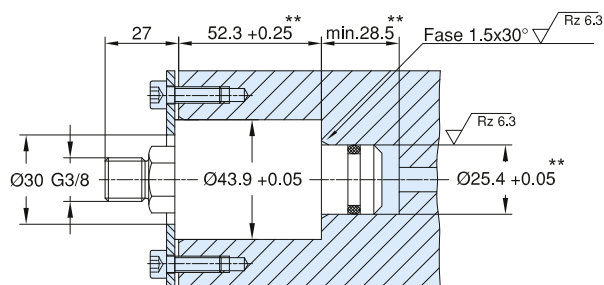


Model 1115-130-205, DN 10

Operating Data

| | | |
|-------------------------|-----------|-------------------------|
| Max. Air Pressure | 150 PSI | 10 bar |
| Max. Hydraulic Pressure | 510 PSI | 35 bar |
| Max. Temperature | 250 °F | 120 °C |
| Max. Speed | 3,500 RPM | 3.500 min ⁻¹ |

Available with all 1115 rotors shown on page 33.



** Dimensions of Shaft Bore

DEUBLIN

Rotating Union D Series for Water and Hydraulic Oil Service, DN 8 - 40

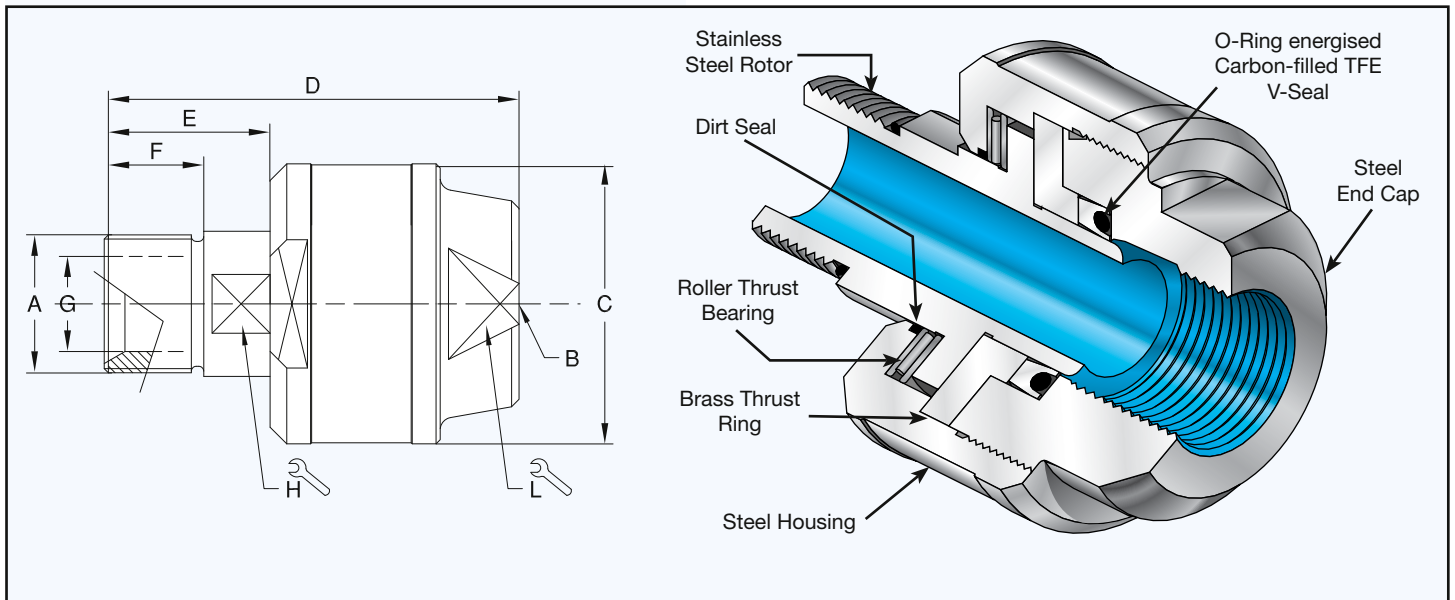



- monoflow design
- self-supported rotating union
- for hydraulic oil and water
- for swivel applications and high media pressure
e.g. for power steering applications on earth moving equipment or hose reels
- steel housing and end cap
- stainless steel rotor
- can be adapted for other media upon request

For further information please contact **DEUBLIN** or your local representative.

Operating Data

| | | |
|-------------------------------|-----------|---------------------------------|
| Max. Hydraulic/Water Pressure | 6,530 PSI | 450 bar |
| Max. Speed | 20 RPM | 20 min ⁻¹ |
| Max. Temperature | 120 °C | > 120 °C consult DEUBLIN |



| DN | B | Ordering No. | A Rotor Connections | C Ø | D | E | F | G Ø | H | L |  |
|----|---------|--------------|------------------------|--------|-----|----|----|--------|----|----|---|
| 8 | G 1/4 | D8-003-210 | G 1/4 RH | 40 | 68 | 25 | 15 | 7 | 12 | 24 | 0.3 |
| | | D8-003-211 | G 1/4 LH | | | | | | | | |
| 10 | G 3/8 | D10-003-210 | G 3/8 RH | 44 | 70 | 25 | 15 | 10 | 14 | 28 | 0.4 |
| | | D10-003-211 | G 3/8 LH | | | | | | | | |
| 15 | G 1/2 | D12-003-210 | G 1/2 RH | 56 | 85 | 32 | 20 | 12 | 22 | 38 | 0.8 |
| | | D12-003-211 | G 1/2 LH | | | | | | | | |
| 20 | G 3/4 | D20-003-210 | G 3/4 RH | 62 | 90 | 34 | 20 | 18 | 27 | 42 | 1.0 |
| | | D20-003-211 | G 3/4 LH | | | | | | | | |
| 25 | G 1 | D25-003-210 | G 1 RH | 68 | 100 | 40 | 24 | 23 | 32 | 48 | 1.3 |
| | | D25-003-211 | G 1 LH | | | | | | | | |
| 32 | G 1 1/4 | D32-003-210 | G 1 1/4 RH | 80 | 108 | 43 | 25 | 30 | 42 | 58 | 1.9 |
| | | D32-003-211 | G 1 1/4 LH | | | | | | | | |
| 40 | G 1 1/2 | D40-003-210 | G 1 1/2 RH | 88 | 114 | 44 | 26 | 38 | 46 | 62 | 3.0 |
| | | D40-003-211 | G 1 1/2 LH | | | | | | | | |



DEUBLIN

Rotating Union AP Series for Water or Hydraulic Oil Service, DN 8 - 25

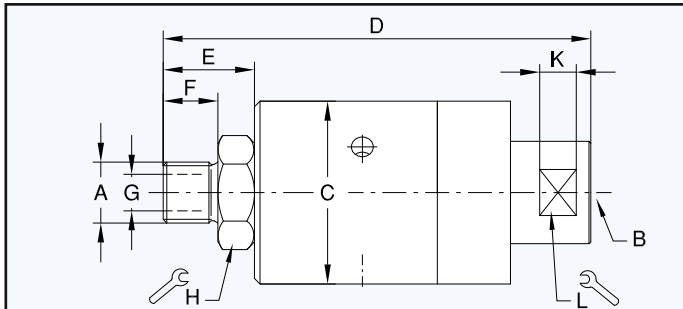
- monoflow design
- self supported rotating union
- designed for high media pressure and high RPM
- seals made of Tungsten Carbide
- double row ball bearing, lubricated for life (excluding ZAP)
- vent holes
- steel housing
- stainless steel end cap and rotor
- all parts in media contact are stainless steel and corrosion resistant

Operating Data

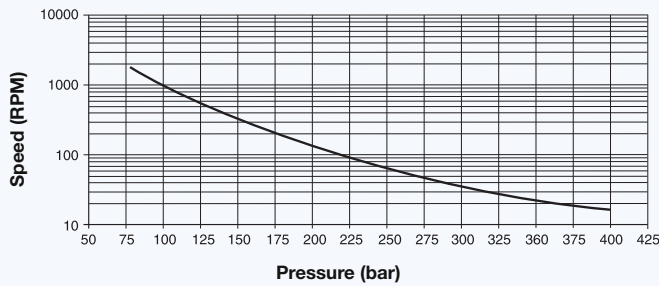
| | | |
|--------------------------------|-----------|-------------------------|
| Max. Hydraulic/Water Pressure* | 5,800 PSI | 400 bar |
| Max. Speed* | 1,500 RPM | 1.500 min ⁻¹ |
| Max. Temperature | 90 °C | > 90 °C consult DEUBLIN |

* Operation at max. pressure combined with max. speed is not permissible

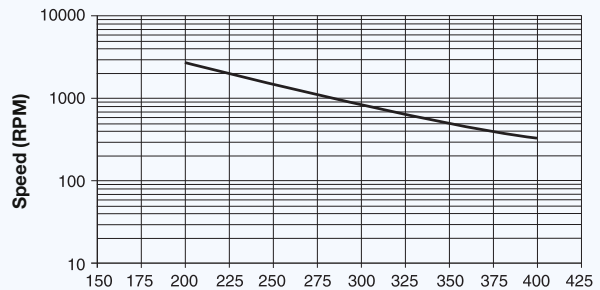
For further information please contact **DEUBLIN** or your local representative.



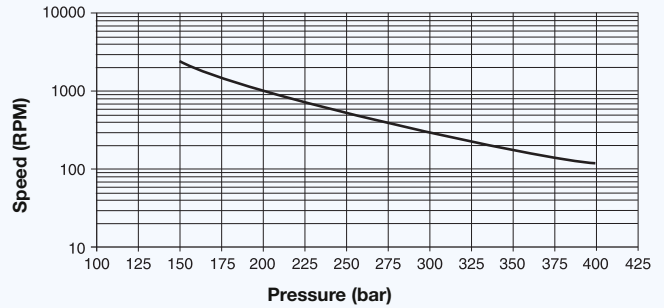
AP8 - AP12



AP20 - AP25



ZAP



| DN | B | Ordering No. | A Rotor Connections | C ∅ | D | E | F | G ∅ | H | K | L | kg |
|----|-------|---------------|------------------------|--------|-------|----|----|--------|----|----|----|-----|
| 8 | G 1/4 | AP8-010-210 | G 1/4 BSP RH | 50 | 117 | 25 | 15 | 7 | 27 | 10 | 25 | 0,8 |
| | | AP8-010-211 | G 1/4 BSP LH | | | | | | | | | |
| 10 | G 3/8 | AP10-010-210 | G 3/8 BSP RH | 50 | 117 | 25 | 15 | 10 | 27 | 10 | 25 | 0,8 |
| | | AP10-010-211 | G 3/8 BSP LH | | | | | | | | | |
| 15 | G 1/2 | AP12-010-210 | G 1/2 BSP RH | 50 | 122 | 30 | 20 | 12 | 27 | 10 | 25 | 1 |
| | | AP12-010-211 | G 1/2 BSP LH | | | | | | | | | |
| | G 1/2 | ZAP12-001-200 | G 1/2 BSP RH | 74 | 132 | 30 | 15 | 11 | 30 | 10 | 25 | 2 |
| | | ZAP12-001-201 | G 1/2 BSP LH | | | | | | | | | |
| 20 | G 3/4 | AP20-001-200 | G 3/4 BSP RH | 96 | 162,5 | 44 | 24 | 18 | 48 | 10 | 41 | 4,2 |
| | | AP20-001-201 | G 3/4 BSP LH | | | | | | | | | |
| 25 | G 1 | AP25-001-200 | G 1 BSP RH | 96 | 162,5 | 44 | 24 | 24 | 48 | 10 | 41 | 4,2 |
| | | AP25-001-201 | G 1 BSP LH | | | | | | | | | |



DEUBLIN

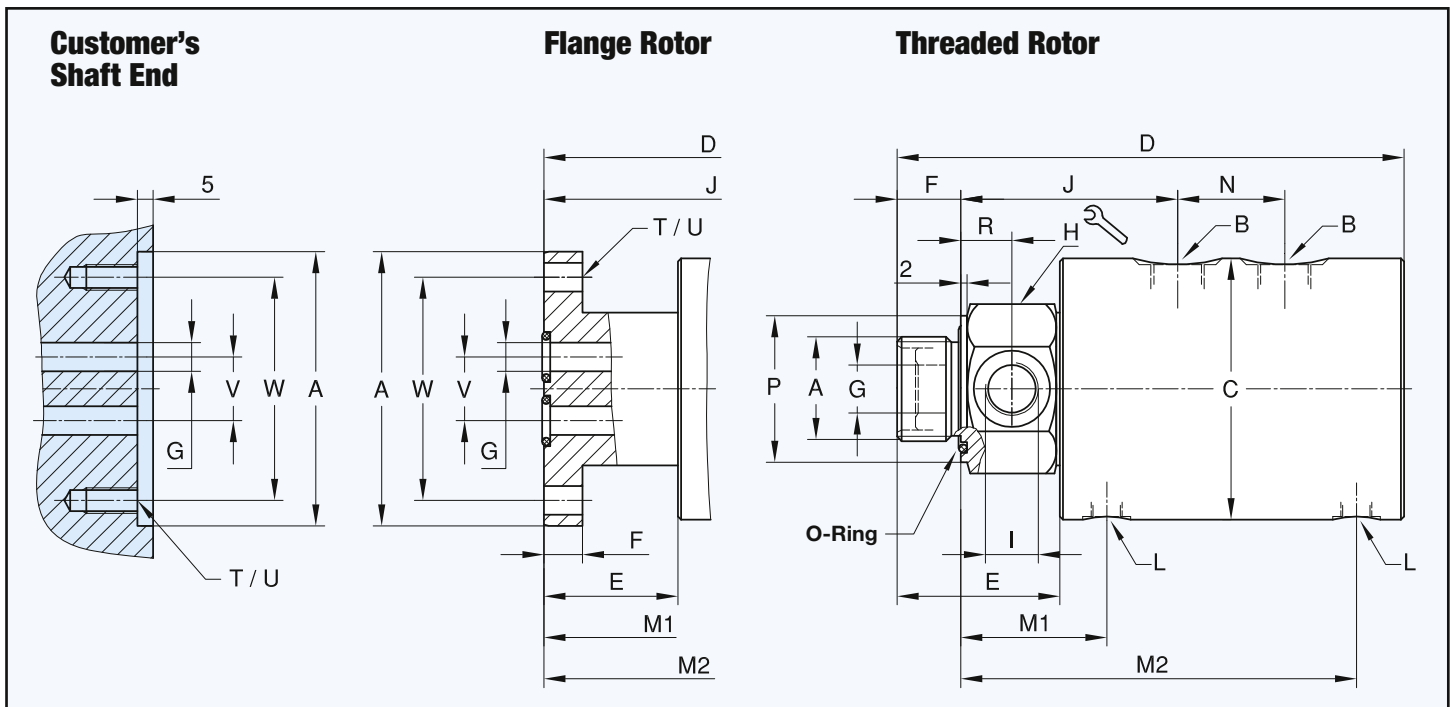
Rotating Union 7100 Series for High Pressure Hydraulic Service, DN 8 - 20, Duoflow

- duoflow design
- self-supported rotating union
- hydrostatic bearing design
- wear-resistant bearing
- vent for controlled drainage, depending on pressure
- shaft seal for secondary sealing
- stainless steel housing
- hardened steel rotor

For further information please contact **DEUBLIN** or your local representative.

Operating Data

| | | |
|--|-----------|--------------------------------|
| Max. Hydraulic Pressure | 3,630 PSI | 250 bar |
| Min. Hydraulic Pressure | 40 PSI | 3 bar |
| Max. Speed | 500 RPM | 500 min ⁻¹ |
| Max. Temperature | 60 °C | > 60 °C consult DEUBLIN |
| Required Oil Cleanliness: class 17/15/12, ISO 4406 | | |



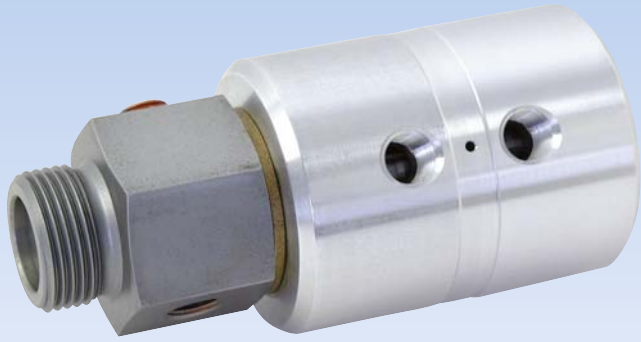
Duoflow Rotating Union

| DN | B | Ordering No. | A Rotor Connections | C ∅ | D | E | F | G ∅ | H | I | J | L | M1/M2 | N | P ∅ | R | T | U ∅ | V ∅ | W ∅ | kg |
|--------|-----------|--------------|------------------------|--------|-----|----|----|--------|----|-------|-----|----------|------------|----|--------|----|-------|-------------|--------|--------|-----|
| 2 x 8 | 2 x G 1/4 | 7100-773 | G 3/4 RH | 82 | 176 | 46 | 17 | 6,4 | 46 | G 1/4 | 76 | G 1/8 | 49,5/137,5 | 36 | 46 | 15 | - | - | - | - | 4,5 |
| 2 x 8 | 2 x G 1/4 | 7100-852 | Flange ∅ 86 g6/H7 | 82 | 172 | 42 | 12 | 9 | - | - | 89 | G 1/8 | 63/151 | 36 | - | - | 4x90° | 9 M8 | 20 | 70 | 4,5 |
| 2 x 10 | 2 x G 3/8 | 7100-777 | G 1 RH | 82 | 181 | 51 | 20 | 8 | 46 | G 3/8 | 78 | G 1/8 | 52/140 | 36 | 46 | 16 | - | - | - | - | 4,4 |
| 2 x 10 | 2 x G 3/8 | 7100-853 | Flange ∅ 86 g6/H7 | 82 | 172 | 42 | 12 | 9 | - | - | 89 | G 1/8 | 63/151 | 36 | - | - | 4x90° | 9 M8 | 20 | 70 | 4,4 |
| 2 x 15 | 2 x G 1/2 | 7100-711 | G 1 1/4 RH | 109 | 244 | 70 | 26 | 15 | 55 | G 1/2 | 101 | G 1/4 | 70,5/180,5 | 50 | 55 | 18 | - | - | - | - | 11 |
| 2 x 15 | 2 x G 1/2 | 7100-854 | Flange ∅ 108 g6/H7 | 109 | 230 | 56 | 16 | 12,5 | - | - | 113 | G 1/4 | 82,5/192,5 | 50 | - | - | 4x90° | 11 M10 | 20,5 | 88 | 11 |
| 2 x 20 | 2 x G 3/4 | 7100-713 | G 1 1/2 RH | 109 | 249 | 75 | 28 | 17,5 | 65 | G 3/4 | 106 | G 1/4 | 73,5/183,5 | 50 | 65 | 20 | - | - | - | - | 12 |
| 2 x 20 | 2 x G 3/4 | 7100-855 | Flange ∅ 148 g6/H7 | 148 | 288 | 78 | 25 | 19 | - | - | 153 | 2x G 1/2 | 110,5/253 | 60 | - | - | 6x60° | 13,5 M12 | 33 | 126 | 28 |

DEUBLIN

Rotating Union

DEU-PLEX for Air and Hydraulic Service, DN 8 - 20



- duoflow design
- Tandem model as triple passage design
- self-supported rotating union
- composite bearing
- vent holes between passages
- carbon-filled teflon seals
- hardened sealing surface
- aluminium housing
- steel rotor

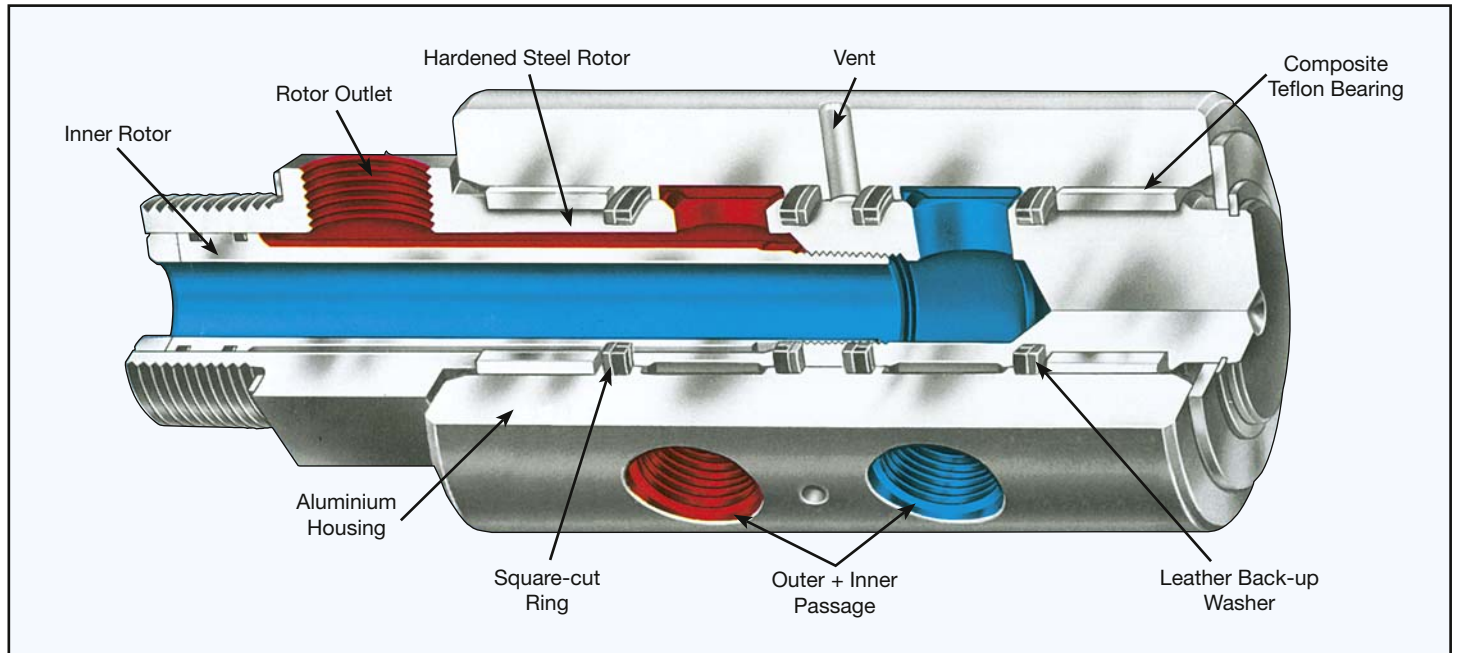
Operating Data

| | | |
|--------------------------|-----------|---------------------------------|
| Max. Air Pressure | 150 PSI | 10 bar |
| Max. Vacuum | 2 "Hg | 7 kPa |
| Max. Hydraulic Pressure* | 3,050 PSI | 210 bar |
| Max. Speed (short-term)* | 250 RPM | 250 min ⁻¹ |
| Max. Temperature | 120 °C | > 120 °C consult DEUBLIN |

* Operation at max. pressure combined with max. speed is not permissible

For further information please contact **DEUBLIN** or your local representative.

Additional models are available see catalogue high pressure hydraulic applications page 57.



Models without inner rotors can be used for coaxial feed applications as shown below.

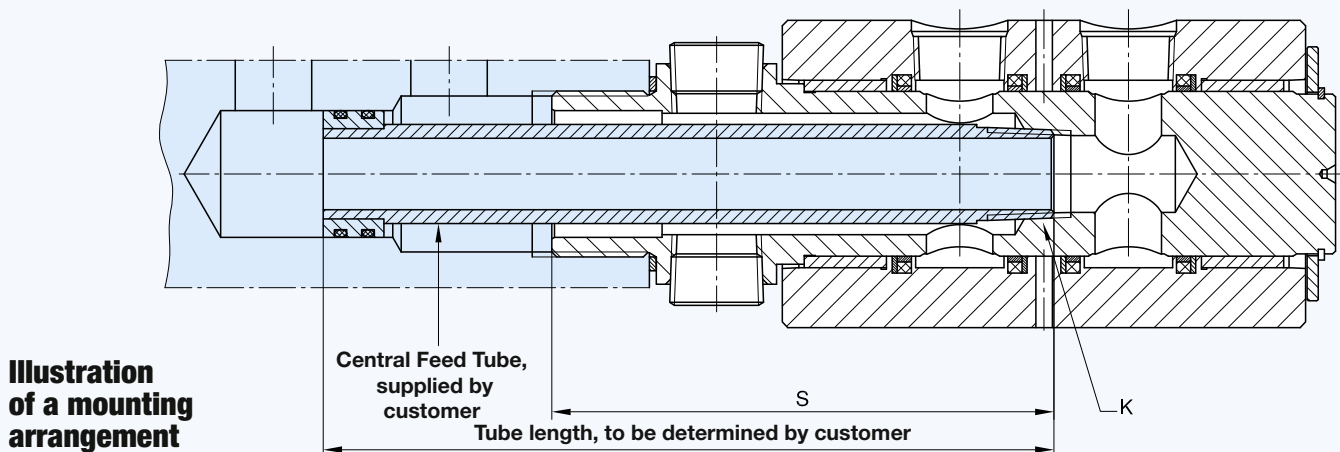
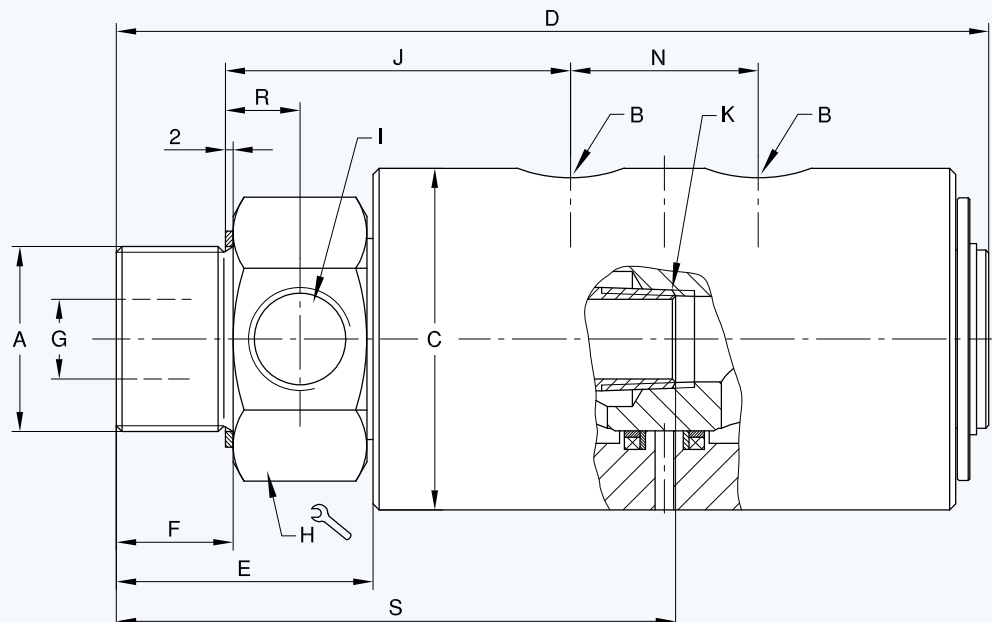


Illustration of a mounting arrangement

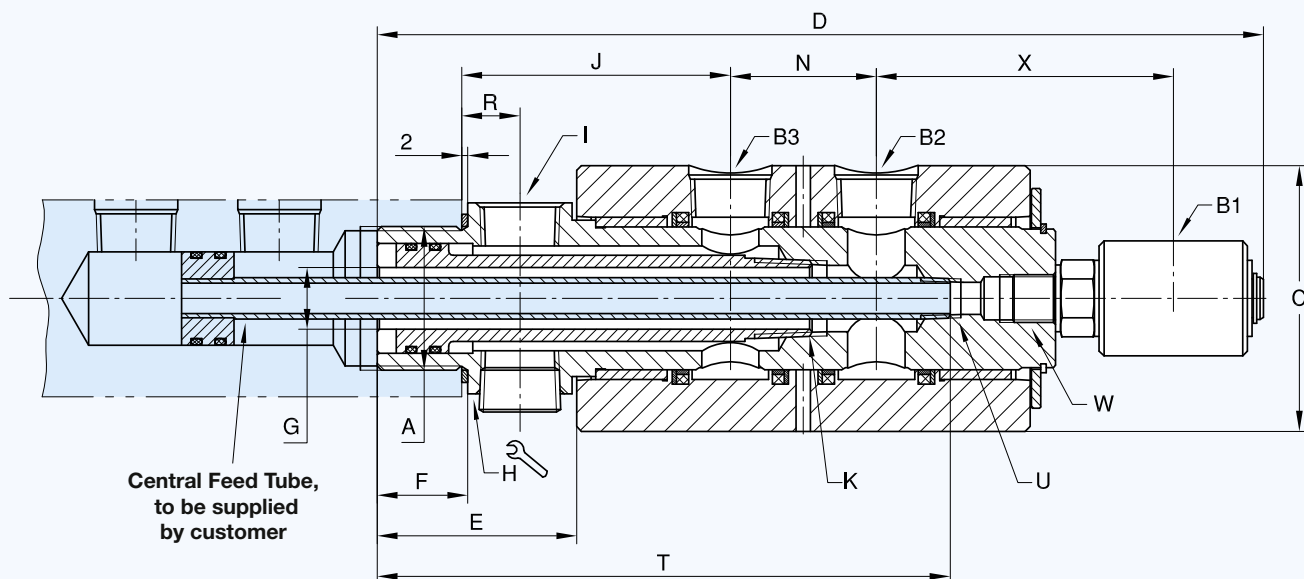
Duoflow Rotating Union



| DN | B NPT | Ordering No. | A Rotor Connections | | C ∅ | D | E | F | G ∅ | H ⌀ | I NPT | J | K NPT | N | R | S | kg |
|--------|----------|---------------|------------------------|----|--------|-----|------|----|--------|--------|----------|----|----------|------|------|-------|-----|
| 2 x 8 | 2 x 1/4 | 1690-000-168 | G 1 | RH | 66,4 | 150 | 55,5 | 18 | 8 | 46 | 1/4 | 68 | 1/4 | 29,5 | 19 | - | 1,6 |
| | 2 x 1/4 | 1690-000-105* | G 1 | RH | 66,4 | 150 | 55,5 | 18 | 17,5 | 46 | 1/4 | 68 | 1/4 | 29,5 | 19 | 97,4 | 1,6 |
| 2 x 15 | 2 x 1/2 | 1790-001-114 | G 1 1/4 | RH | 76 | 208 | 63 | 28 | 16 | 55 | 1/2 | 85 | 1/2 | 42 | 18 | - | 3,1 |
| | 2 x 1/2 | 1790-001-112* | G 1 1/4 | RH | 76 | 208 | 63 | 28 | 27 | 55 | 1/2 | 85 | 1/2 | 42 | 18 | 133,2 | 3,1 |
| 2 x 20 | 2 x 3/4 | 1890-060 | G 1 1/2 | RH | 88,5 | 226 | 66 | 30 | 20,6 | 65 | 3/4 | 89 | 3/4 | 49 | 19,5 | - | 4,4 |
| | 2 x 3/4 | 1890-063* | G 1 1/2 | RH | 88,5 | 226 | 66 | 30 | 34,9 | 65 | 3/4 | 89 | 3/4 | 49 | 19,5 | 149,4 | 4,2 |

* These models are delivered without inner rotors.

Triple Passage Rotating Union



| DN | B1 x B2 x B3 NPT | Ordering No. | A Rotor Connect. | | C ∅ | D | E | F | G ∅ | H ⌀ | I NPT | J | K NPT | N | R | T | U NPT | W | X | kg |
|---------|---------------------|--------------|---------------------|----|--------|-----|----|----|--------|--------|----------|----|----------|------|------|-----|----------|---------------|----|-----|
| 8/15/20 | 1/4 x 3/4 x 3/4 | 1890-064 | G 1 1/2 | RH | 88,5 | 293 | 67 | 30 | 20,6 | 65 | 3/4 | 89 | 3/4 | 48,5 | 19,5 | 190 | 1/4 | 5/8-18 UNF RH | 98 | 4,7 |

DEUBLIN

Rotating Union

for Air, Hydraulic Oil, Brake Fluid and Vacuum Service, DN 8 and 15



Operating Data

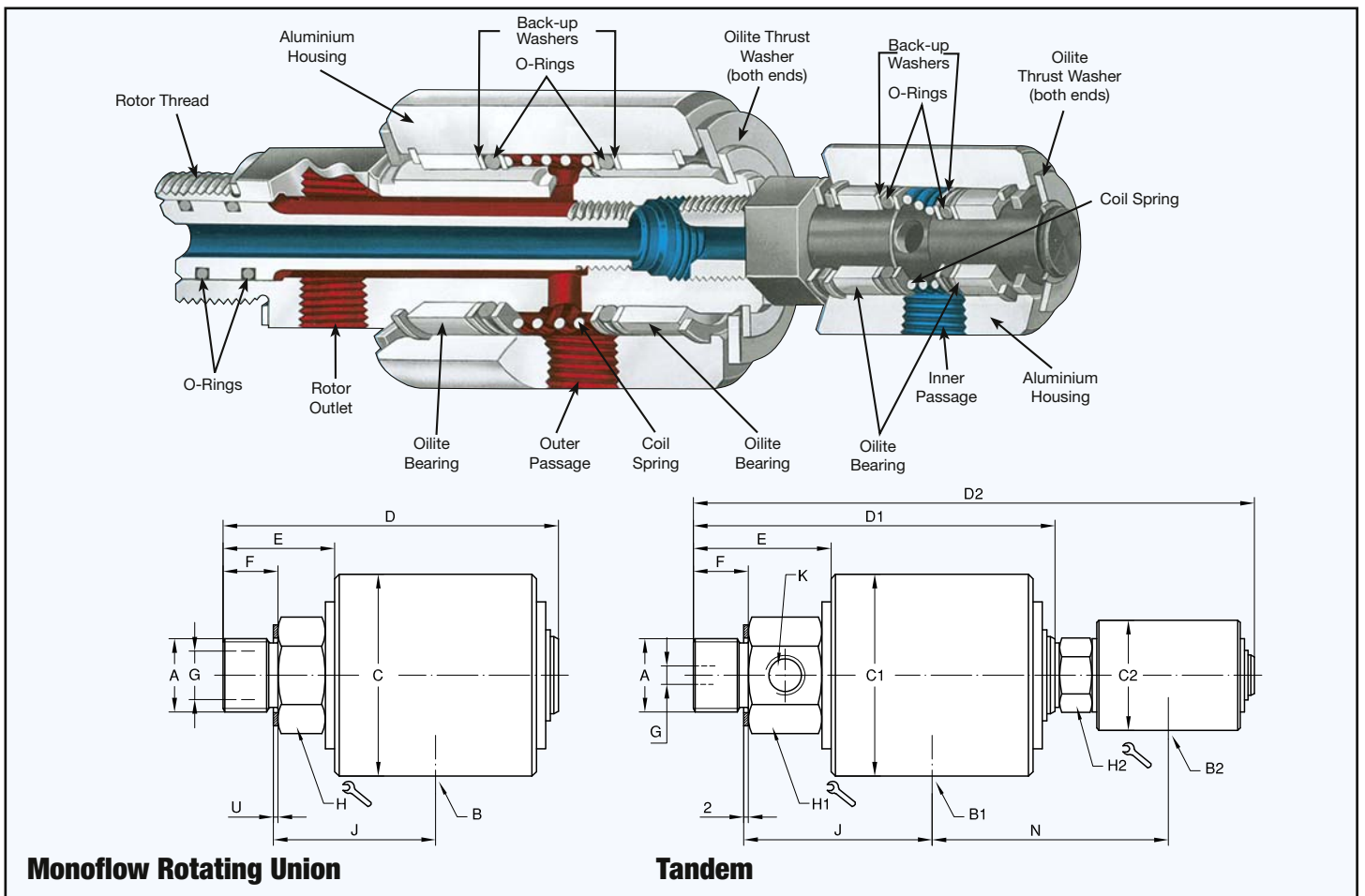
| | | |
|--------------------------|-----------|-----------------------|
| Max. Air Pressure | 150 PSI | 10 bar |
| Max. Vacuum | 2 "Hg | 7 kPa |
| Max. Hydraulic Pressure* | 3,050 PSI | 210 bar |
| Max. Speed (short-term)* | 250 RPM | 250 min ⁻¹ |

Max. Temperature 120 °C > 120 °C consult DEUBLIN

* Operation at max. pressure combined with max. speed is not permissible

- monoflow and duoflow (Tandem) design
- self-supported rotating union
- no interpassage leakage on the duoflow design
- hardened sealing surface
- oilite bearing
- aluminium housing
- steel rotor
- optional models for swivel movements

For further information please contact **DEUBLIN** or your local representative.



Monoflow Rotating Union

| DN | B NPT | Ordering No. | | A Rotor Connections | C ∅ | D | E | F | G ∅ | H | J | U | kg | |
|----|----------|----------------------|-------------|------------------------|--------|----|------|----|--------|----|----|----|-----|-----|
| | | Air/Hydraulic/Vacuum | Brake Fluid | | | | | | | | | | | |
| 8 | 1/4 | 17-025-039 | 17-086-039 | G 3/8 | RH | 38 | 83,3 | 29 | 16 | 8 | 22 | 39 | 1,5 | 0,3 |
| | 1/4 | 17-025-046 | 17-086-046 | M16 x 2 | RH | 38 | 83,3 | 29 | 16 | 8 | 22 | 39 | 1,5 | 0,3 |
| 15 | 1/2 | 21-001-122 | 21-063-122 | G 3/4 | RH | 70 | 116 | 39 | 19 | 16 | 36 | 57 | 2 | 1,2 |
| | 1/2 | 21-001-121 | 21-063-121 | M22 x 1,5 | RH | 70 | 111 | 34 | 14 | 13 | 36 | 57 | 1,5 | 1,2 |

Duoflow Rotating Union (Tandem)

| DN | B1 x B2 NPT | Ordering No. | | A Rotor Connections | C1 ∅ | C2 ∅ | D1 | D2 | E | F | G ∅ | H1 | H2 | J | K NPT | N | kg | |
|-------|----------------|----------------------|--------------|------------------------|---------|---------|----|-----|-----|----|--------|-----|----|----|----------|-----|----|-----|
| | | Air/Hydraulic/Vacuum | Brake Fluid | | | | | | | | | | | | | | | |
| 2 x 8 | 1/4 x 1/2 | 2117-001-105 | 2117-018-137 | G 3/4 | RH | 70 | 38 | 125 | 194 | 48 | 19 | 6,4 | 36 | 22 | 66 | 1/4 | 81 | 1,5 |

DEUBLIN

Rotating Union 1379 and 1479 Series 4-Passage for Various Media

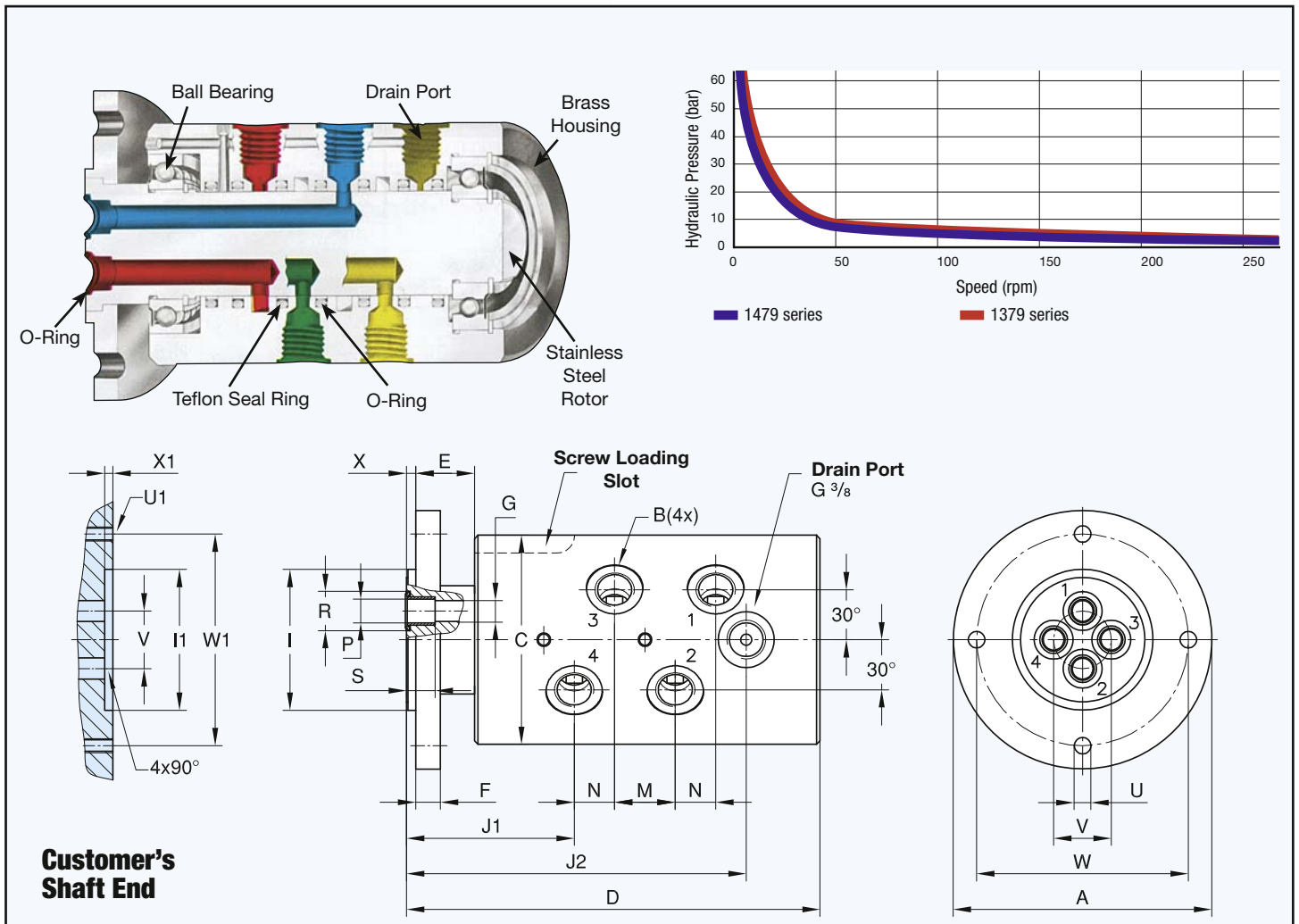


Operating Data

| | | |
|--|---|--------------------------------|
| Max. Air Pressure | 145 PSI | 10 bar |
| Max. Hydraulic Pressure (rotating) | 870 PSI | 60 bar |
| Max. Hydraulic Pressure (very slow rotating) | 3.626 PSI | 250 bar |
| Max. Vacuum | 2 "Hg | 7 kPa |
| Max. Speed | 250 RPM | 250 min ⁻¹ |
| Max. Flow per Passage | | |
| 1379 series | 14 GPM | 53 l/min |
| 1479 series | 28.5 GPM | 108 l/min |
| Max. Temperature | 80 °C | > 80 °C consult DEUBLIN |
| Filtration | ISO 4406 Class 17/15/12, max. 60 micron | |

- four independent passages for applications such as clamping and unclamping, work piece or tool sensing, and spindle cooling
- vent between passages 2 and 3 allows use of two different media without cross contamination. For example, air in passages 1 and 2 and hydraulic oil in passages 3 and 4
- stainless steel and brass components resist corrosion
- hardened chrome sealing surface and elastomer-energized seals
- dual, widely spaced ball bearings absorb large side loads

For further information please contact **DEUBLIN** or your local representative.



| DN | B | Ordering No. | A | C | D | E | F | G | I | I1 | J1 | J2 | M | N | P | R | S | U | U1 | V | W | X | X1 | W1 | kg |
|-------------------------|----------|--------------|-----|-----|-----|----|------|----|------------------|------------------|----|-------|----|----|----------------|------|----|-----|-------------|------|-----|---|-----|-----|------|
| | | | ∅ | ∅ | | | | ∅ | ∅ PT | ∅ PT | | | | | ∅ | ∅ | | ∅ | ∅ | ∅ | | | ∅ | | |
| 4x 10 | 4x G 3/8 | 1379-160 | 110 | 88 | 176 | 25 | 10,5 | 9 | 60,000 59,981 | 60,060 60,030 | 72 | 144,5 | 26 | 17 | 12,05 12,00 | 16,7 | 12 | 7,2 | M6 4x90° | 24,5 | 90 | 4 | 3,5 | 90 | 7,6 |
| 4x 10 + centr. pass. | 4x G 3/8 | 1379-860 | 110 | 88 | 176 | 25 | 10,5 | 9 | 60,000 59,981 | 60,060 60,030 | 72 | 144,5 | 26 | 17 | 12,05 12,00 | 16,7 | 12 | 7,2 | M6 4x90° | 24,5 | 90 | 4 | 3,5 | 90 | 7,6 |
| 4x 15 | 4x G 1/2 | 1479-100 | 130 | 108 | 202 | 25 | 13,5 | 13 | 75,000 74,981 | 75,060 75,030 | 81 | 172 | 31 | 23 | 15,05 15,00 | 19,7 | 15 | 9 | M8 4x90° | 29 | 110 | 4 | 3,5 | 110 | 12,7 |
| 4x 15 + centr. pass. | 4x G 1/2 | 1479-800 | 130 | 108 | 202 | 25 | 13,5 | 13 | 75,000 74,981 | 75,060 75,030 | 81 | 172 | 31 | 23 | 15,05 15,00 | 19,7 | 15 | 9 | M8 4x90° | 29 | 110 | 4 | 3,5 | 110 | 12,7 |



DEUBLIN

Rotating Union

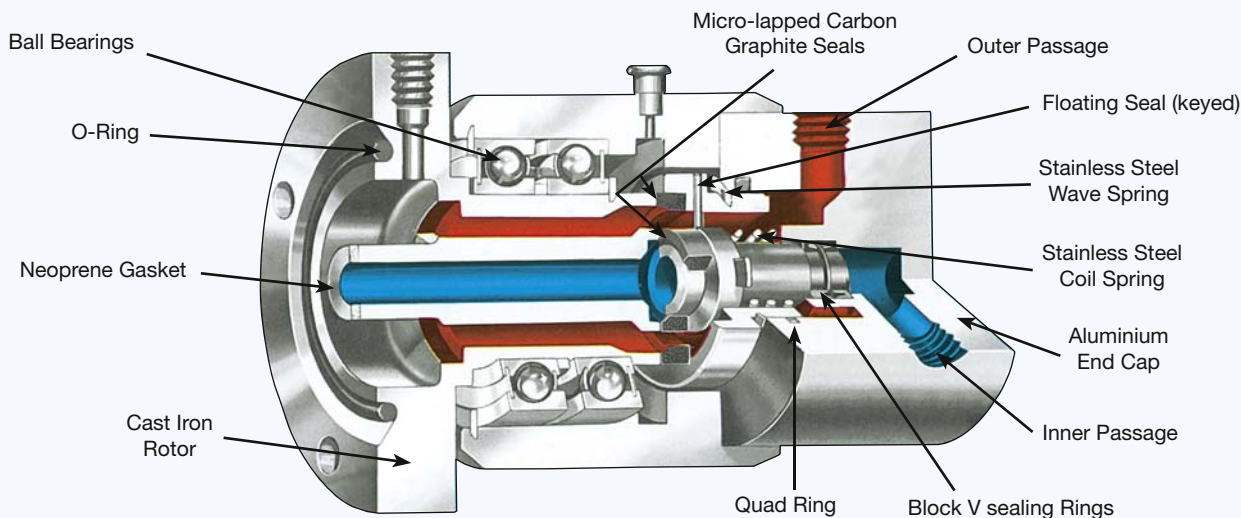
DEU-PLEX for Air Service, DN 10

- duoflow design
- self-supported rotating union
- flange rotor
- radial housing connections
- low torque
- double-balanced mechanical seal
- full-media flow
- oiler for relubrication (3 - 5 drops/month)
- aluminium housing
- cast iron rotor
- Lubrication Guide page 52

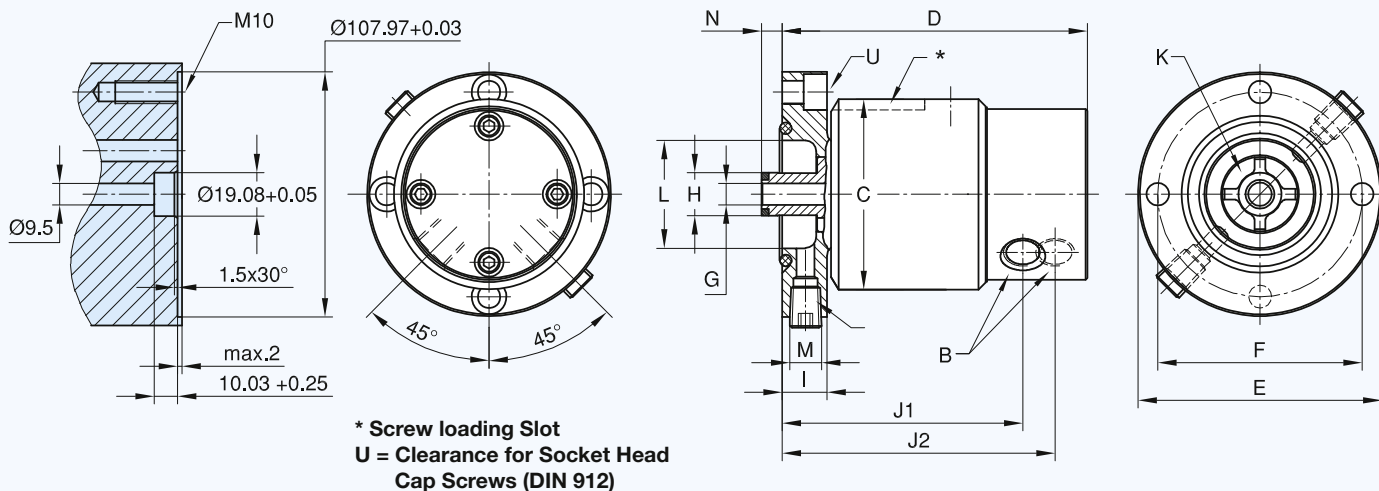
For further information please contact **DEUBLIN** or your local representative.

Operating Data

| | | |
|-------------------|-----------|---------------------------------|
| Max. Air Pressure | 150 PSI | 10 bar |
| Max. Vacuum | 2 "Hg | 7 kPa |
| Max. Speed | 1,500 RPM | 1,500 min ⁻¹ |
| Max. Temperature | 120 °C | > 120 °C consult DEUBLIN |



Customer's Shaft End



| DN | B NPT | Ordering No. | C ø | D | E ø PT | F ø | G mm ² | H ø | I | J1 | J2 | K mm ² | L ø | M NPT | N | U Screws DIN 912 | |
|--------|----------|--------------|--------|-----|------------------|--------|----------------------|----------------|----|-----|-----|----------------------|--------|----------|------|------------------------|---|
| 2 x 10 | 2 x 3/8 | 1500-250 | 84 | 135 | 107,95 107,92 | 90,5 | 71 | 19,05 19,00 | 20 | 106 | 121 | 150 | 48 | 2 x 1/4 | 11,2 | M10 | 3 |

DEUBLIN

Rotating Union

DEU-PLEX for Air and Hydraulic Oil Service, DN 15

- duoflow design
- self-supported rotating union
- radial and axial housing connections
- double-balanced mechanical seal
Carbon Graphite/Ceramic - standard,
Tungsten Carbide/Ceramic - E.L.S. (Extended Life Sealing)
- full-media flow
- oiler for relubrication (3 - 5 drops/month)
- aluminium housing
- cast iron flange rotor
- Lubrication Guide page 52

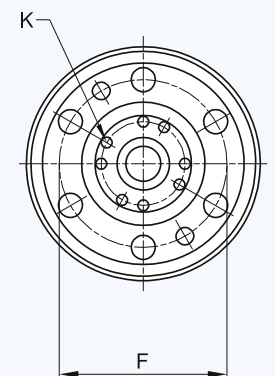
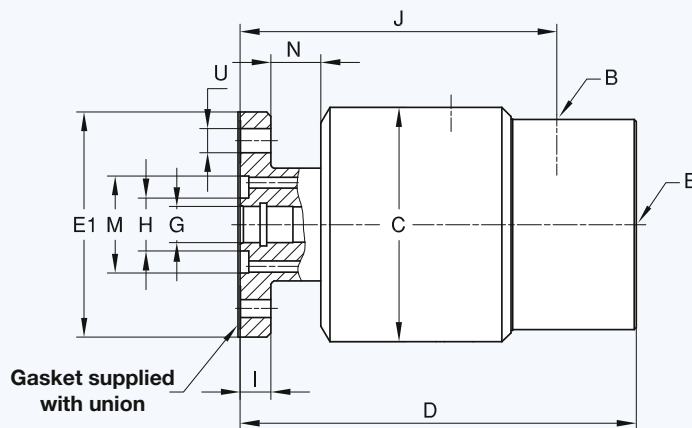
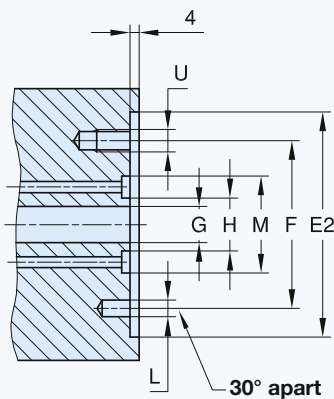
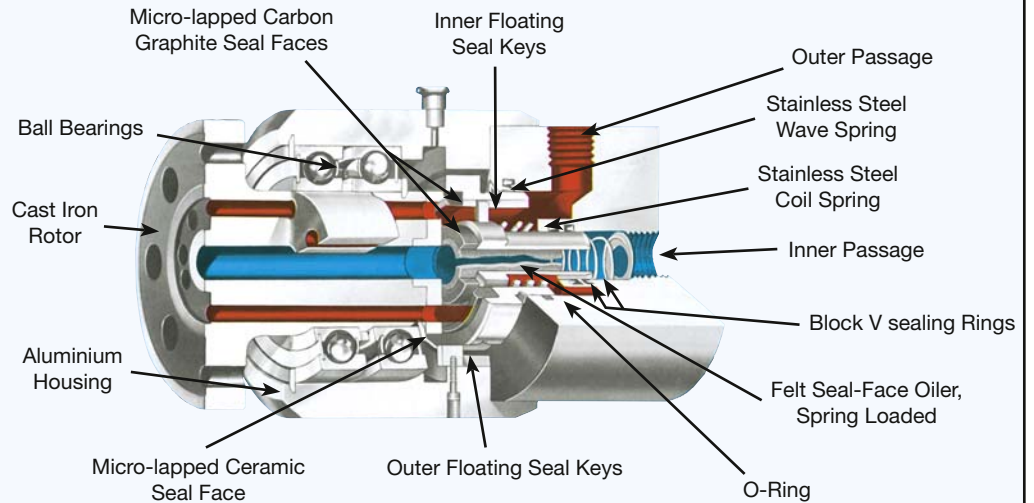
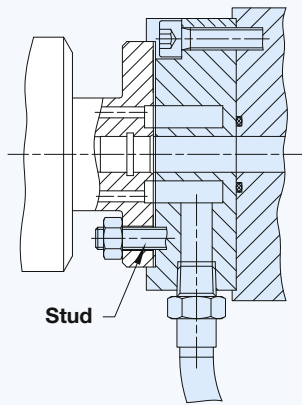
Operating Data

| | | |
|---------------------------------|-----------|---------------------------------|
| Max. Air Pressure (1590) | 150 PSI | 10 bar |
| Max. Hydraulic Pressure* (1579) | | |
| outer passage | 510 PSI | 35 bar |
| inner passage | 1,020 PSI | 70 bar |
| Max. Speed* | 1,500 RPM | 1.500 min ⁻¹ |
| Max. Temperature | 120 °C | > 120 °C consult DEUBLIN |

* Operation at max. pressure combined with max. speed is not permissible
For the higher pressure use inner passage only

For further information please contact **DEUBLIN** or your local representative.

Typical Adapter Mounting Arrangement



| DN | B NPT | Ordering No. | Media | C ∅ | D | E1 ∅ PT | E2 ∅ | F ∅ | G mm ² | H ∅ | I | J | K mm ² | L Dowel Pin ∅ | M ∅ | N | U ∅ | kg |
|-------|----------|--------------|---------------|--------|-----|------------------|------------------|--------|----------------------|--------|----|-----|----------------------|---------------------|--------|----|-----------|-----|
| 2x 15 | 2 x 1/2 | 1590-000 STD | Air | 84 | 143 | 81,000 80,985 | 81,050 81,020 | 60,3 | 126 | 19 | 11 | 114 | 100 | 6 | 35 | 19 | 8,7 M8 | 2,5 |
| | 2 x 1/2 | 1579-000 STD | Hydraulic Oil | 84 | 143 | 81,000 80,985 | 81,050 81,020 | 60,3 | 126 | 19 | 11 | 114 | 100 | 6 | 35 | 19 | 8,7 M8 | 2,5 |
| | 2 x 1/2 | 1579-074 ELS | Hydraulic Oil | 96 | 142 | 81,000 80,985 | 81,050 81,020 | 60,3 | 126 | 19 | 11 | 113 | 100 | 6 | 35 | 12 | 8,7 M8 | 3,1 |



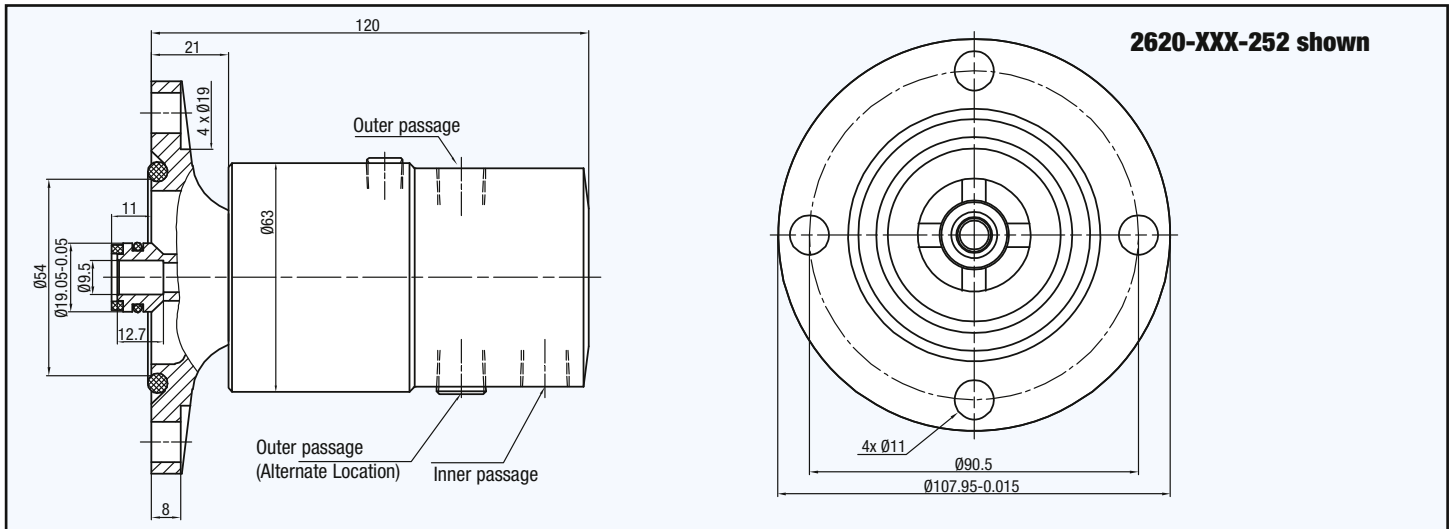
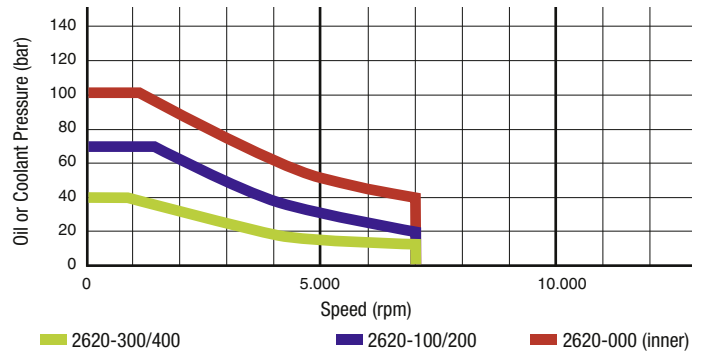
DEUBLIN

2620 Series 2-Passage Rotating Unions for Various Media

- two independent passages for applications such as clamping and unclamping
- balanced mechanical seals for each passage provide long life and reduced torque even at maximum pressure
- closed seals provide continuous containment of media
- dual precision ball bearings for smooth operation
- labyrinth protection for ball bearings
- mountings options are compatible with **DEUBLIN** 1579 series unions (see page 43)

Operating Data

| | | | |
|-------------------------|---|--------------------------------|-------------------------|
| Max. Pressure | see chart/table | | |
| Max. Flow (per passage) | see chart/table | | |
| 2620-XXX-157, -940 | Coolant | 18.2 GPM | 69 l/min |
| | Hydraulic oil | 6.1 GPM | 23 l/min |
| | Compressed air | 9.2 GPS | 35 l/sec |
| 2620-XXX-252 | Coolant | 10.3 GPM | 39 l/min |
| | Hydraulic oil | 3.4 GPM | 13 l/min |
| | Compressed air | 5.3 GPS | 20 l/sec |
| Max. Speed | | 7,000 RPM | 7.000 min ⁻¹ |
| Max. Temperature | 71 °C | > 71 °C consult DEUBLIN | |
| Filtering | ISO 4406 Class 17/15/12, max. 60 micron | | |

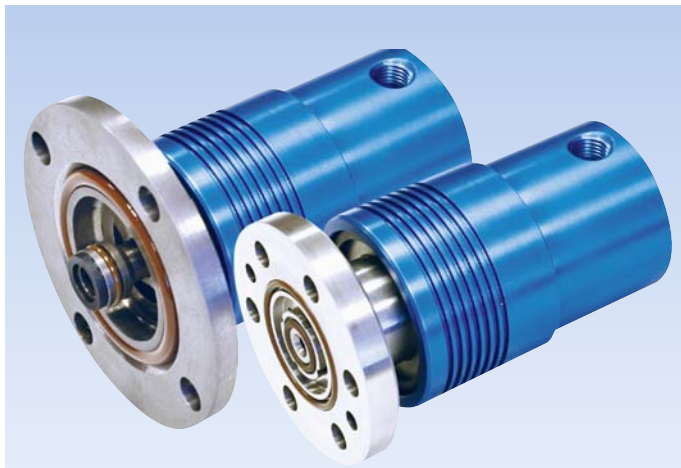


| With Ø 108 mm flanged rotor | | With Ø 88 mm flanged rotor | | With Ø 81 mm flanged rotor | | Inner Passage | | Outer Passage | | Notes | |
|-----------------------------|-------------------------|----------------------------|--------------------|----------------------------|-----------------|--------------------|----------------|---------------------|----------------|-------|---------------------|
| Ordering Number | Supply Connections | Ordering Number | Supply Connections | | Ordering Number | Supply Connections | Media | Max. Pressure [bar] | Media | | Max. Pressure [bar] |
| | Inner and outer Passage | | Inner Passage | Outer Passage | | | | | | | |
| 2620-000-252 | 1/4 NPT | 2620-002-940 | G 1/4 | G 1/4 | 2620-000-157 | 1/4 NPT | Hydraulic oil | 100 | Hydraulic oil | 30 | |
| 2620-100-252 | 1/4 NPT | 2620-102-940 | G 3/8 | G 1/8 | 2620-100-157 | 1/4 NPT | Hydraulic oil | 70 | Compressed air | 6 | |
| 2620-120-252 | 1/4 NPT | 2620-122-940 | G 3/8 | G 1/8 | 2620-120-157 | 1/4 NPT | Hydraulic oil | 70 | Compressed air | 10 | |
| 2620-200-252 | 1/4 NPT | 2620-202-940 | G 3/8 | G 1/8 | 2620-200-157 | 1/4 NPT | Coolant | 70 | Compressed air | 6 | |
| 2620-220-252 | 1/4 NPT | 2620-222-940 | G 3/8 | G 1/8 | 2620-220-157 | 1/4 NPT | Coolant | 70 | Compressed air | 10 | |
| 2620-300-252 | 1/4 NPT | 2620-302-940 | G 1/4 | G 1/4 | 2620-300-157 | 1/4 NPT | Compressed air | 6 | Hydraulic oil | 40 | |
| 2620-320-252 | 1/4 NPT | 2620-322-940 | G 1/4 | G 1/4 | 2620-320-157 | 1/4 NPT | Compressed air | 10 | Hydraulic oil | 40 | |
| 2620-400-252 | 1/4 NPT | 2620-402-940 | G 1/4 | G 1/4 | 2620-400-157 | 1/4 NPT | Compressed air | 6 | Coolant | 40 | |
| 2620-420-252 | 1/4 NPT | 2620-422-940 | G 1/4 | G 1/4 | 2620-420-157 | 1/4 NPT | Compressed air | 10 | Coolant | 40 | |
| 2620-500-252 | 1/4 NPT | 2620-502-940 | G 3/8 | G 1/8 | 2620-500-157 | 1/4 NPT | Compressed air | 6 | Compressed air | 6 | |
| 2620-520-252 | 1/4 NPT | 2620-522-940 | G 3/8 | G 1/8 | 2620-520-157 | 1/4 NPT | Compressed air | 10 | Compressed air | 10 | |

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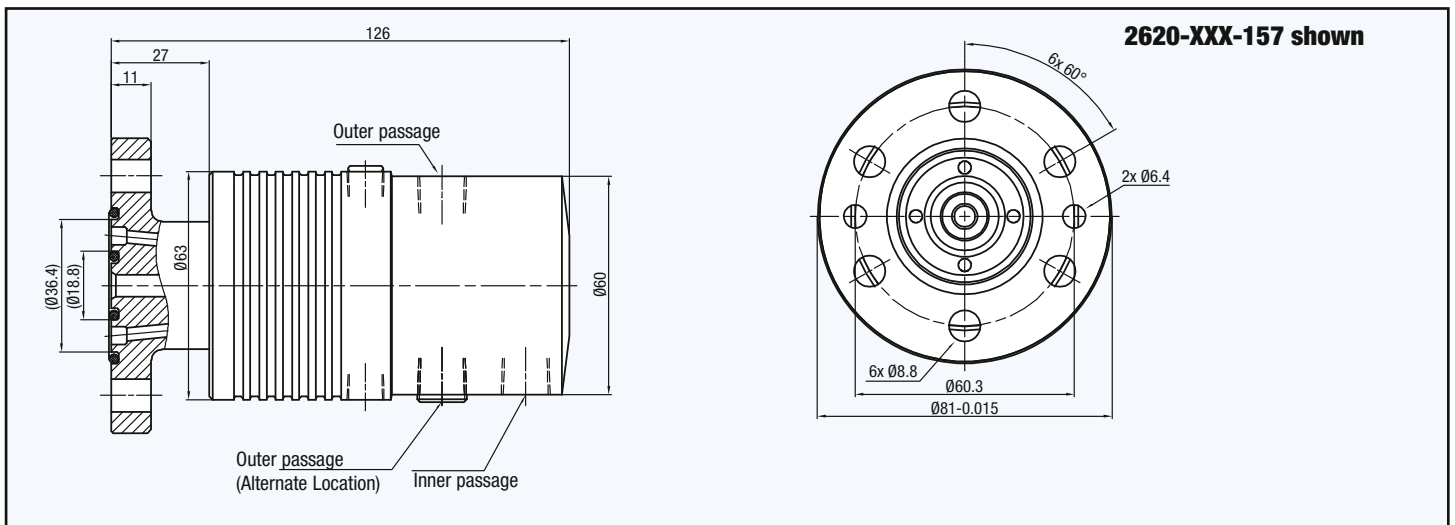
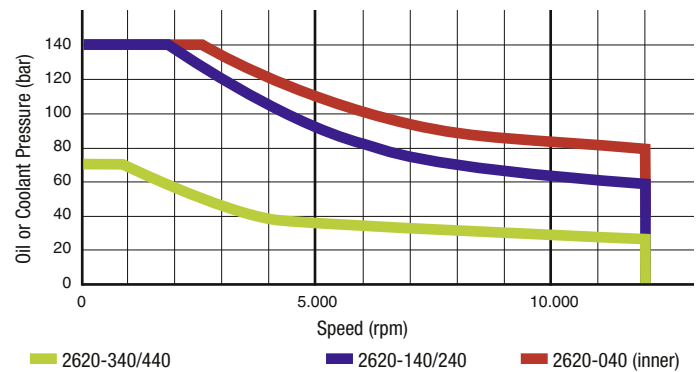
2620 Series 2-Passage Rotating Unions for Various Media

- two independent passages for applications such as clamping and unclamping, work piece sensing, and cooling
- balanced mechanical seals for each passage provide long life and reduced torque even at maximum pressure
- closed seals provide continuous containment of media
- dual precision ball bearings for smooth operation
- labyrinth protection for ball bearings
- mountings options are compatible with **DEUBLIN** 1579 series unions (see page 43)



Operating Data

| | | | |
|-------------------------|---|--------------------------------|----------|
| Max. Pressure | see chart/table | | |
| Max. Flow (per passage) | see chart/table | | |
| 2620-XXX-157, -940 | Coolant | 18.2 GPM | 69 l/min |
| | Hydraulic oil | 6.1 GPM | 23 l/min |
| | Compressed air | 9.2 GPS | 35 l/sec |
| 2620-XXX-252 | Coolant | 10.3 GPM | 39 l/min |
| | Hydraulic oil | 3.4 GPM | 13 l/min |
| | Compressed air | 5.3 GPS | 20 l/sec |
| Max. Speed | 12,000 RPM | 12.000 min ⁻¹ | |
| Max. Temperature | 71 °C | > 71 °C consult DEUBLIN | |
| Filtering | ISO 4406 Class 17/15/12, max. 60 micron | | |



| With Ø 108 mm flanged rotor | | With Ø 88 mm flanged rotor | | With Ø 81 mm flanged rotor | | Inner Passage | | Outer Passage | | Notes | |
|-----------------------------|-------------------------|----------------------------|--------------------|----------------------------|-----------------|-------------------------|----------------|---------------|---------------------|---------------------|--|
| Ordering Number | Supply Connections | Ordering Number | Supply Connections | | Ordering Number | Supply Connections | | Media | Max. Pressure [bar] | | |
| | Inner and outer Passage | | Inner Passage | Outer Passage | | Inner and outer Passage | Media | | | Max. Pressure [bar] | |
| 2620-040-252 | 1/4 NPT | 2620-042-940 | G 1/4 | G 1/4 | 2620-040-157 | 1/4 NPT | Hydraulic oil | 140 | Hydraulic oil | 70 | |
| 2620-140-252 | 1/4 NPT | 2620-142-940 | G 3/8 | G 1/8 | 2620-140-157 | 1/4 NPT | Hydraulic oil | 140 | Compressed air | 6 | Air seals may be lubricated through oil cup or by using oiled air. |
| 2620-160-252 | 1/4 NPT | 2620-162-940 | G 3/8 | G 1/8 | 2620-160-157 | 1/4 NPT | Hydraulic oil | 140 | Compressed air | 10 | |
| 2620-240-252 | 1/4 NPT | 2620-242-940 | G 3/8 | G 1/8 | 2620-240-157 | 1/4 NPT | Coolant | 140 | Compressed air | 6 | |
| 2620-260-252 | 1/4 NPT | 2620-262-940 | G 3/8 | G 1/8 | 2620-260-157 | 1/4 NPT | Coolant | 140 | Compressed air | 10 | |
| 2620-340-252 | 1/4 NPT | 2620-342-940 | G 1/4 | G 1/4 | 2620-340-157 | 1/4 NPT | Compressed air | 6 | Hydraulic oil | 70 | Air seals require no external lubrication. |
| 2620-360-252 | 1/4 NPT | 2620-362-940 | G 1/4 | G 1/4 | 2620-360-157 | 1/4 NPT | Compressed air | 10 | Hydraulic oil | 70 | |
| 2620-440-252 | 1/4 NPT | 2620-442-940 | G 1/4 | G 1/4 | 2620-440-157 | 1/4 NPT | Compressed air | 6 | Coolant | 70 | |
| 2620-460-252 | 1/4 NPT | 2620-462-940 | G 1/4 | G 1/4 | 2620-460-157 | 1/4 NPT | Compressed air | 10 | Coolant | 70 | |



DEUBLIN

1116 Series "Closed Seal" Rotating Unions for Continuous Coolant Service

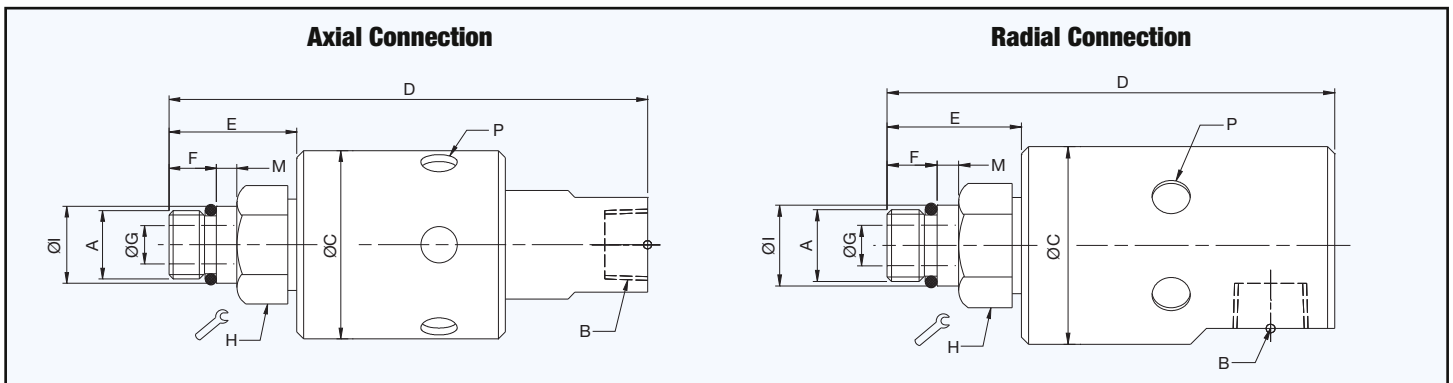
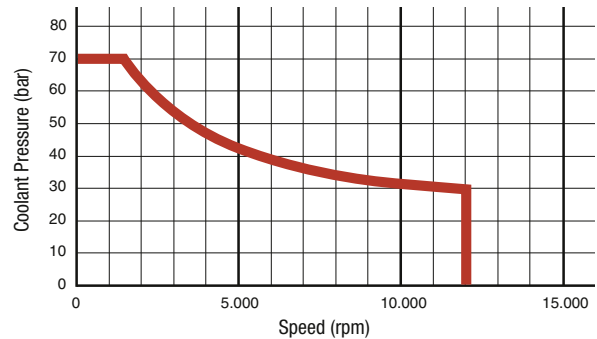
- single passage for coolant or MQL
- closed seals for transfer line and similar applications
- full-flow design has no obstructions to trap swarf or debris
- bearing-supported with threaded rotor for easy installation
- deep groove radial ball bearings for smooth operation
- labyrinth system and large vents to protect ball bearings
- balanced mechanical seals made from silicon carbide for long life even under difficult operating conditions
- anodised aluminium housing resists corrosion

Operating Data

| | | | |
|---------------------|---|--------------------------|--|
| Max. Pressure | | | |
| Water-based Coolant | 1,015 PSI | 70 bar | |
| MQL (oil mist) | 145 PSI | 10 bar | |
| Max. Speed | 12,000 RPM | 12.000 min ⁻¹ | |
| Max. Flow Rate | 21.6 GPM | 82 l/min | |
| Max. Temperature | 71 °C | > 71 °C consult DEUBLIN | |
| Filtration | ISO 4406 Class 17/15/12, max. 60 micron | | |



DO NOT RUN DRY



| | Ordering Number | B Supply Connection | C Overall Diameter | D Overall Length | P Vent Size Ø (6 x 60°) | A Rotor Connection | E Rotor Length | F Thread Length | G Bore Diameter | H Across Flats | I Pilot Diameter | M Pilot Length |
|-------------------|-----------------|---------------------|--------------------|------------------|-------------------------|--------------------|----------------|-----------------|-----------------|----------------|-------------------|----------------|
| Axial Connection | 1116-048-064 | 1/4 NPT | 44 | 115 | 9 | 5/8-18 UNF RH | 33 | 14 | 9 | 15/16" | 0.6555" / 0.6553" | 5 |
| | 1116-048-463 | 1/4 NPT | 44 | 112 | 9 | M16 x 1.5 LH | 30 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| | 1116-485-463 | G 1/4 | 44 | 112 | 9 | M16 x 1.5 LH | 30 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| | 1116-580-343 | 3/8 PT | 44 | 112 | 9 | M12 x 1.25 LH | 30 | 11 | 6 | 24 | 13.994 / 13.989 | 5 |
| | 1116-600-059 | 3/8 NPT | 44 | 115 | 9 | 5/8-18 UNF LH | 33 | 14 | 9 | 15/16" | 0.6555" / 0.6550" | 5 |
| | 1116-600-463 | 3/8 NPT | 44 | 112 | 9 | M16 x 1.5 LH | 30 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| | 1116-610-463 | G 3/8 | 44 | 112 | 9 | M16 x 1.5 LH | 30 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| Radial Connection | 1116-090-059 | 3/8 NPT | 44 | 106 | 9 | 5/8-18 UNF LH | 33 | 14 | 9 | 15/16" | 0.6555" / 0.6553" | 5 |
| | 1116-090-064 | 3/8 NPT | 44 | 106 | 9 | 5/8-18 UNF RH | 33 | 14 | 9 | 15/16" | 0.6555" / 0.6553" | 5 |
| | 1116-090-463 | 3/8 NPT | 44 | 102 | 9 | M16 x 1.5 LH | 30 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| | 1116-516-463* | G 3/8 | 44 | 102 | 9 | M16 x 1.5 LH | 29 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| | 1116-555-463 | G 3/8 | 44 | 102 | 9 | M16 x 1.5 LH | 29 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |

* Also suitable for Cutting Oil and Air by reduced operating data. For further information please contact DEUBLIN.

DEUBLIN

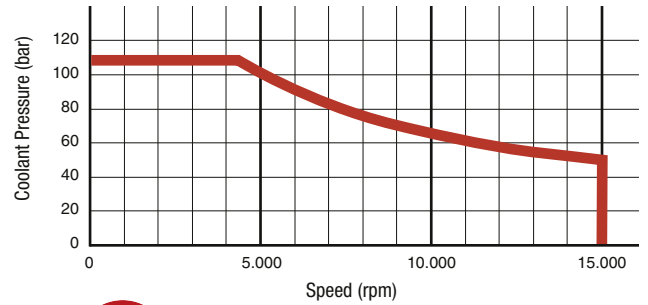
1101 Series "Closed Seal" Rotating Unions for Continuous Coolant Service

- single passage for coolant or MQL
- closed seals for transfer line and similar applications
- full-flow design has no obstructions to trap swarf or debris
- bearing-supported with threaded rotor for easy installation
- deep groove radial ball bearings for smooth operation
- labyrinth system and large vents to protect ball bearings
- balanced mechanical seals made from silicon carbide for long life even under difficult operating conditions
- anodised aluminium components resist corrosion



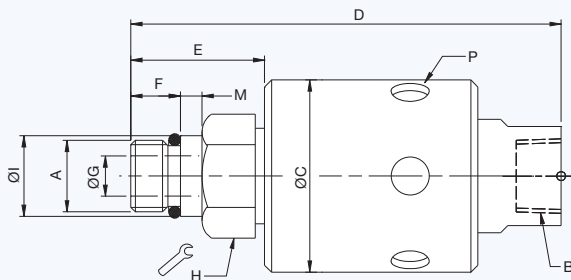
Operating Data

| | | | |
|---------------------|---|--------------------------|--|
| Max. Pressure | | | |
| Water-based Coolant | 1,523 PSI | 105 bar | |
| MQL (oil mist) | 145 PSI | 10 bar | |
| Max. Speed | 15,000 RPM | 15,000 min ⁻¹ | |
| Max. Flow Rate | 5.3 GPM | 20 l/min | |
| Max. Temperature | 71 °C | > 71 °C consult DEUBLIN | |
| Filtration | ISO 4406 Class 17/15/12, max. 60 micron | | |

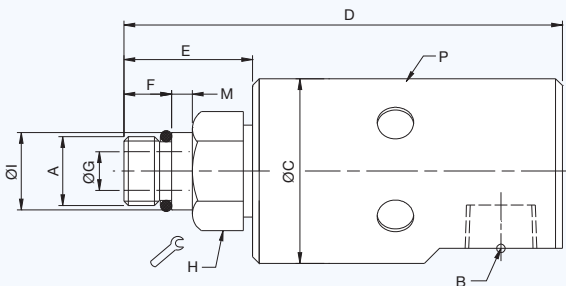


DO NOT RUN DRY

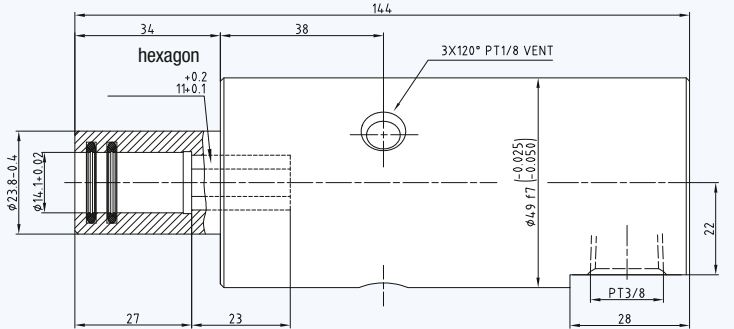
Axial Connection



Radial Connection



Bore Mounted



| | Ordering Number | B Supply Connection | C Overall Diameter | D Overall Length | P Vent Size Ø (6 x 60°) | A Rotor Connection | E Rotor Length | F Thread Length | G Bore Diameter | H Across Flats | I Pilot Diameter | M Pilot Length |
|------------------|---------------------------|---------------------|--------------------|------------------|-------------------------|--------------------|----------------|-----------------|-----------------|----------------|-------------------|----------------|
| Axial Connection | 1101-235-238 | 3/8 NPT | 43 | 100 | 9 | 5/8-18 UNF LH | 33 | 14 | 6 | 15/16" | 0.6555" / 0.6553" | 5 |
| | 1101-235-239 | 3/8 NPT | 43 | 100 | 9 | 5/8-18 UNF RH | 33 | 14 | 6 | 15/16" | 0.6555" / 0.6553" | 5 |
| | 1101-235-343 | 3/8 NPT | 43 | 96 | 9 | M16 x 1.5 LH | 30 | 11 | 6 | 24 | 17.993 / 17.988 | 5 |
| | 1101-235-424 | 3/8 NPT | 43 | 93 | 9 | M10 x 1 LH | 27 | 11 | 3.2 | 24 | 10.994 / 10.989 | 3 |
| | 1101-359-343 | G 3/8 | 43 | 96 | 9 | M16 x 1.5 LH | 30 | 11 | 6 | 24 | 17.993 / 17.988 | 5 |
| | 1101-620-343 | 3/8 NPT | 43 | 96 | 9 | M16 x 1.5 LH | 30 | 11 | 6 | 24 | 17.993 / 17.988 | 5 |
| Radial | 1101-195-343 | G 3/8 | 43 | 102 | 9 | M16 x 1.5 LH | 30 | 11 | 6 | 24 | 17.993 / 17.988 | 5 |
| | 1101-615-598 ^A | 3/8 PT | 49 | 143.5 | 3 x 1/8 PT | 14 mm female hex | 34 | - | 6 | - | 14.122 / 14.097 | 27 |

Note A: Bore-mounted design.



DEUBLIN

1109 Series Pop-Off™

Rotor-Mounted Rotating Unions for Coolant Service with Dry Running

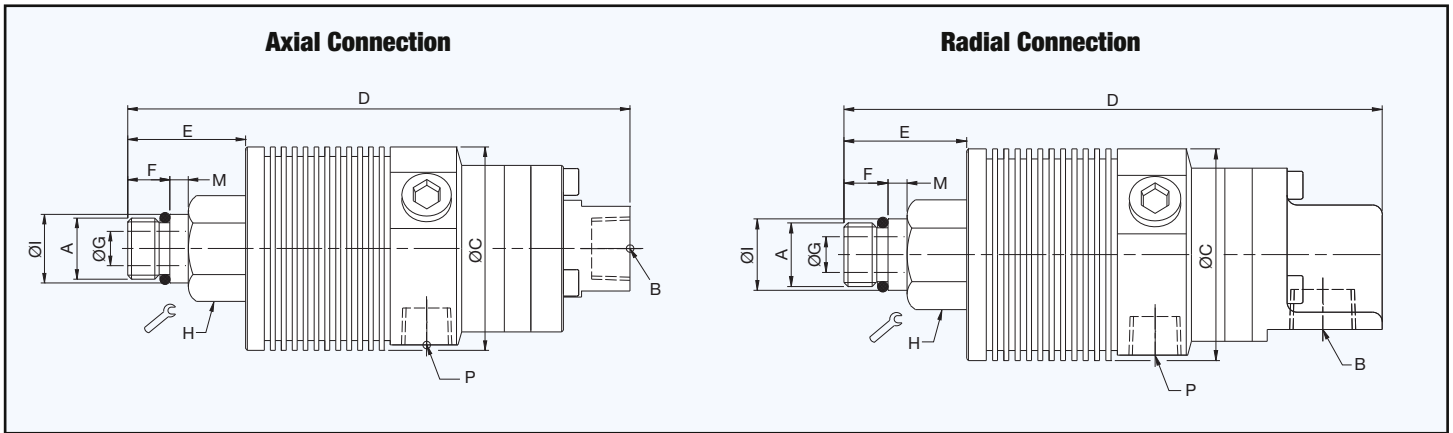
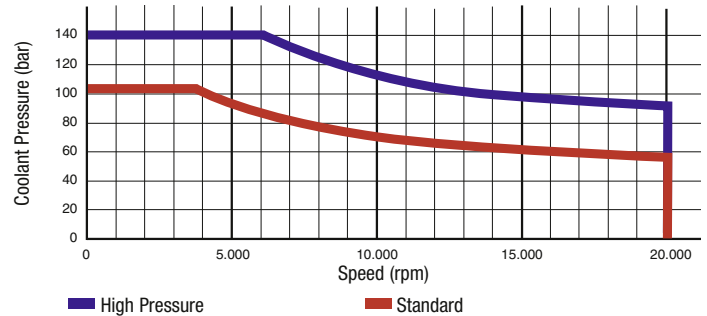
- single passage for coolant or MQL
- Pop-Off™ technology allows unlimited dry running without media pressure
- full-flow design has no obstructions to trap swarf or debris
- bearing-supported with threaded rotor for easy installation
- dual ABEC 7 (ISO class P4) angular contact ball bearings
- labyrinth system and large vents to protect ball bearings
- balanced mechanical seals made from silicon carbide for long life even under difficult operating conditions
- aluminium housing, endcap anodised resists corrosion

Operating Data

| | | |
|---------------------|---|--------------------------|
| Max. Pressure | see chart | |
| Water-based Coolant | 145 PSI | 10 bar |
| MQL (oil mist) | 20,000 RPM | 20,000 min ⁻¹ |
| Max. Speed | 21.6 GPM | 82 l/min |
| Max. Flow Rate | Standard | High Pressure |
| | 6.4 GPM | 24,3 l/min |
| Max. Temperature | 71 °C | > 71 °C consult DEUBLIN |
| Filtration | ISO 4406 Class 17/15/12, max. 60 micron | |



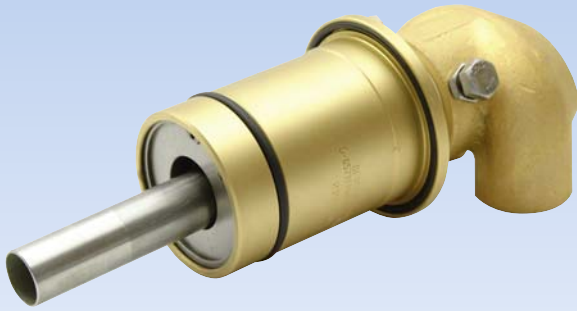
NO AIR PRESSURE WITH ROTATION



| | Ordering Number | B Supply Connection | C Overall Diameter | D Overall Length | P Drain Size Ø (3 x 120°) | A Rotor Connection | E Rotor Length | F Thread Length | G Bore Diameter | H Across Flats | I Pilot Diameter | M Pilot Length |
|---------------|-----------------|---------------------|--------------------|------------------|---------------------------|--------------------|----------------|-----------------|-----------------|----------------|-------------------|----------------|
| Standard | 1109-011-165 | 3/8 NPT Axial | 53 | 132 | 1/4 NPT | 5/8-18 UNF LH | 34 | 14 | 9 | 15/16" | 0.6555" / 0.6553" | 5 |
| | 1109-021-188 | G 3/8 Axial | 53 | 129 | G 1/4 | M16 x 1.5 LH | 31 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| | 1109-041-188 | 3/8 PT Axial | 53 | 129 | 1/4 PT | M16 x 1.5 LH | 31 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| | 1109-010-165 | 3/8 NPT Radial | 53 | 138 | 1/4 NPT | 5/8-18 UNF LH | 34 | 14 | 9 | 15/16" | 0.6555" / 0.6553" | 5 |
| | 1109-020-188 | G 3/8 Radial | 53 | 135 | G 1/4 | M16 x 1.5 LH | 31 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| | 1109-040-188 | 3/8 PT Radial | 53 | 135 | 1/4 PT | M16 x 1.5 LH | 31 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| High Pressure | 1109-014-196 | 1/4 NPT Axial | 53 | 132 | 1/4 NPT | 5/8-18 UNF LH | 34 | 14 | 9 | 15/16" | 0.6555" / 0.6553" | 5 |
| | 1109-024-212 | G 1/4 Axial | 53 | 129 | G 1/4 | M16 x 1.5 LH | 31 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| | 1109-044-212 | 1/4 PT Axial | 53 | 129 | 1/4 PT | M16 x 1.5 LH | 31 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| | 1109-013-196 | 1/4 NPT Radial | 53 | 138 | 1/4 NPT | 5/8-18 UNF LH | 34 | 14 | 9 | 15/16" | 0.6555" / 0.6553" | 5 |
| | 1109-023-212 | G 1/4 Radial | 53 | 135 | G 1/4 | M16 x 1.5 LH | 31 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |
| | 1109-043-212 | 1/4 PT Radial | 53 | 135 | 1/4 PT | M16 x 1.5 LH | 31 | 11 | 9 | 24 | 17.993 / 17.988 | 5 |

DEUBLIN

Rotating Union 2400 Series for Water Service at Continuous Casting Steel Plants, DN 15 - 40



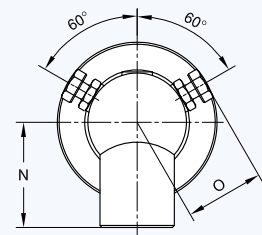
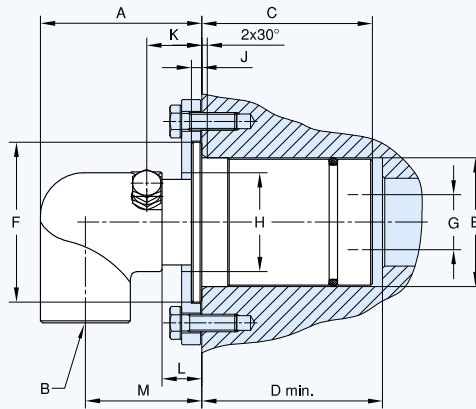
Operating Data

| | | |
|---------------------|---------|---------------------------------|
| Max. Water Pressure | 150 PSI | 10 bar |
| Max. Speed | 100 RPM | 100 min ⁻¹ |
| Max. Temperature | 120 °C | > 120 °C consult DEUBLIN |

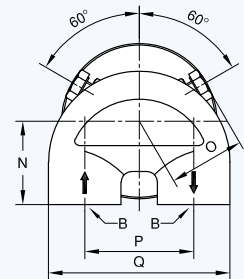
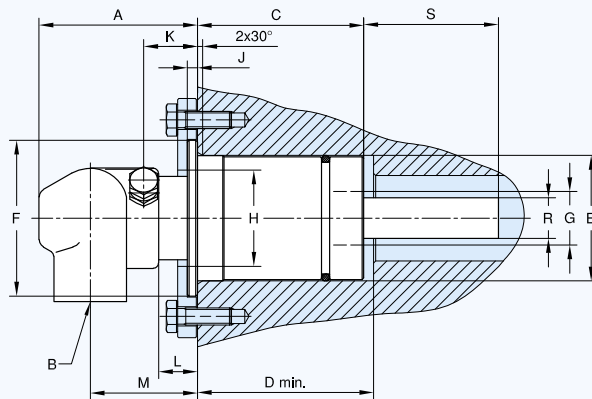
- monoflow and duoflow design
- in-the-shaft mounted rotating union
- flanged housing or mounted with retaining plates
- high-wear resistant balanced mechanical seal Silicon Carbide/Silicon Carbide
- brass housings and elbows
- stainless steel rotors and supply pipes
- for poor water quality
- long composite bearing
- bearing protected by O-ring
- full-media flow

For further information please contact **DEUBLIN** or your local representative.

Monoflow Rotating Union



Duoflow Rotating Union

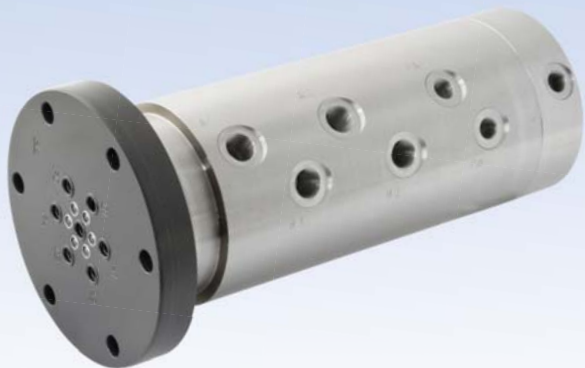


| DN | Type | B | Ordering No. | A | C | D | E ∅ | F ∅ | G ∅ | H ∅ | J | K | L | M | N | O | P | Q | R ∅ | S | kg |
|----|----------|-------|------------------|----|----|----|----------------|--------|--------|--------|-----|------|------|------|----|------|----|-----|------------------|------|-----|
| 15 | Monoflow | G 1/2 | 2412-002-100 | 50 | 42 | 43 | 40,08 40,33 | 52,1 | 12,7 | 40 | 5 | 22 | 15 | 36 | 41 | 35 | - | - | - | - | 0,8 |
| 20 | | G 3/4 | 2420-001-139 | 59 | 59 | 60 | 46,10 46,35 | 59 | 17,5 | 47 | 4,7 | 26,5 | 19,5 | 42 | 48 | 37 | - | - | - | - | 1,2 |
| 25 | | G 1 | 2425-001-172 | 74 | 78 | 83 | 58,50 58,75 | 73 | 25 | 35 | 4,7 | 25,5 | 18,5 | 53,5 | 46 | 36,5 | - | - | - | - | 1,3 |
| 20 | Duoflow | G 3/4 | 2420-001-141-180 | 75 | 59 | 60 | 46,10 46,35 | 59 | 17,5 | 47 | 4,7 | 26 | 19 | 51 | 39 | 37 | 51 | 85 | 12,941 12,984 | 49 | 1,6 |
| 25 | | G 3/4 | 2425-001-177-180 | 75 | 78 | 83 | 58,50 58,75 | 73 | 25 | 35 | 4,7 | 25,5 | 18,5 | 50,5 | 39 | 36,5 | 51 | 85 | 18,948 19,000 | 63 | 2,4 |
| 40 | | G 1 | 2440-001-306-254 | 98 | 87 | 94 | 71,00 71,25 | 86 | 38 | 51 | 4,7 | 26 | 19 | 68 | 43 | 49,5 | 64 | 105 | 28,45 28,70 | 48,5 | 4 |

DEUBLIN

Special Models for Customized Applications

Model SP0152



Rotating Union 7-Passages for Compressed Air (3 Passages) and Hydraulic Oil (4 Passages)

- ball bearing supported version
- all passages capable of dry running
- combination of three sealing technologies
- flange version

Possible applications:
Turn tables in machine tools

Operating Data

| | | |
|------------------|--------------------------------|-----------|
| Media | Compressed Air / Hydraulic Oil | |
| Max. Speed | 500 min ⁻¹ | 500 RPM |
| Max. Pressure | | |
| Compressed Air | 8 bar | 116 PSI |
| Hydraulic Oil | 200 bar | 2,900 PSI |
| Max. Temperature | 70 °C | 158 °F |

Model SP0202



Rotating Union 10-Passages for Hydraulic Oil and Compressed Air

- central bore for further connections
- ball bearing supported version
- flange version
- radial housing ports G^{3/4}

Possible applications:
Turrets in steel plants

Operating Data

| | | |
|------------------|--------------------------------|----------|
| Media | Hydraulic Oil / Compressed Air | |
| Max. Speed | 10 min ⁻¹ | 10 RPM |
| Max. Pressure | | |
| Hydraulic Oil | 210 bar | 3045 PSI |
| Compressed Air | 10 bar | 145 PSI |
| Max. Temperature | 80 °C | 176 °F |

Model 7100-1010 + SP0077



Rotating Union 3-Passages with hydrostatic seal

- for spraying-clamping-unclamping applications at steel strip rewinders

in Combination with SP0077 (2-Pass.)

- the winding mandrel gets supplied with grease, to lubricate the moving elements of the rewriter
- housing ports G^{3/8}

Possible applications:
Steel industry, e.g. rewinders

| Operating Data | 7100-1010 | | SP0077 | |
|------------------|-----------------------|-----------|-----------------------|-----------|
| Media | Hydraulic | | Grease | |
| Max. Speed | 450 min ⁻¹ | 450 RPM | 600 min ⁻¹ | 600 RPM |
| Max. Pressure | 100 bar | 1,450 PSI | 400 bar | 5,800 PSI |
| Max. Flow | 300 l/min | 80 GPM | 20 l/min | 5.3 GPM |
| Max. Temperature | 70 °C | 158 °F | 70 °C | 158 °F |

DEUBLIN

Special Models for Customized Applications

Model SP0231



Rotating Union 4-Passages for Water, gaseous Media and additional Slip Ring

- compact design
- open central passage for feed-through of electrical wires of a slip ring with max. 12 pins
- flange version
- combination of different seal technologies

Possible applications:

Thin-layer technology, Photovoltaics, Modular Process Systems

Operating Data

| | | |
|----------------------|---------------------------------|----------|
| Media | Water / Compressed Air / Helium | |
| Max. Speed | 100 min ⁻¹ | 100 RPM |
| Max. Pressure | | |
| Water | 6 bar | 87 PSI |
| Compressed Air | 3 bar | 43.5 PSI |
| Helium | 1 bar | 14.5 PSI |
| Max. Flow | | |
| Water/Compressed Air | 13 l/min | 3.5 GPM |
| Helium | 227 NI/min | 8 SCFM |
| Max. Temperature | 80 °C | 175 °F |

Model 6506-230-131032



Rotating Union 2-Passages for Hot Oil Applications in the Plastics Industry

- ball bearing supported version
- utilization of heat stabilized ball bearings lubricated with high temperature grease
- easy to install due to housing ports for SAE flanges and flange rotor

Possible applications:

Hot oil application up to 160 °C and high speeds, e.g. foil production

Operating Data

| | | |
|------------------|-------------------------|-----------|
| Media | Hot Oil | |
| Max. Speed | 1.300 min ⁻¹ | 1,300 RPM |
| Max. Pressure | 10 bar | 145 PSI |
| Max. Flow | 135 l/min | 36.5 GPM |
| Max. Temperature | 160 °C | 320 °F |

Model 7000-081



Rotating Union 1-Passage ATS – Around The Shaft Installation

- high speed application
- designed for dry air

Possible applications:

Packaging and textile industry

Operating Data

| | | |
|------------------|-------------------------|-----------|
| Media | Compressed Air | |
| Max. Speed | 1.500 min ⁻¹ | 1,500 RPM |
| Max. Pressure | 10 bar | 145 PSI |
| Max. Temperature | 93 °C | 200 °F |

Relubrication Guide for DEUBLIN Rotating Unions

All **DEUBLIN** Rotating Unions are factory lubricated and tested, ready for installation. Unions not equipped with grease fittings are lubricated for the life of the union and require no further maintenance. Rotating unions, which are equipped with grease fittings, may require periodic lubrication to replace the grease which has dissipated. Overgreasing can be as damaging to the union as undergreasing, particularly in high-speed applications. Relubrication frequency and amounts of grease vary greatly depending on union size, operating temperature, rotation speed, moisture, etc. The following charts and table provide approximate lubrication frequency and amounts of grease for light and moderate service conditions.

When relubricating **DEUBLIN** Rotating Unions, use CHEVRON SRI GREASE NLGI 2. Only low-pressure grease equipment should be used to prevent damage to the bearings and seals. This is a general guide that should be used judiciously. The user must make adjustments as experience dictates. For more specific information, contact your local lubricant supplier.

| Relubrication | | | |
|---------------|----------------------|-----------|----------------------|
| Model | Amount of Grease (g) | Model | Amount of Grease (g) |
| 55 | 3,5 | 655 | 18 |
| 155 | 5,5 | 755 / 857 | 42 |
| 255 | 10 | 6200 | 18 |
| 355 | 10 | 6250 | 42 |
| 525 | 12 | 6300 | 68 |
| 555 | 18 | 6400 | 90 |

For further information please request our separate Lubrication Guide.

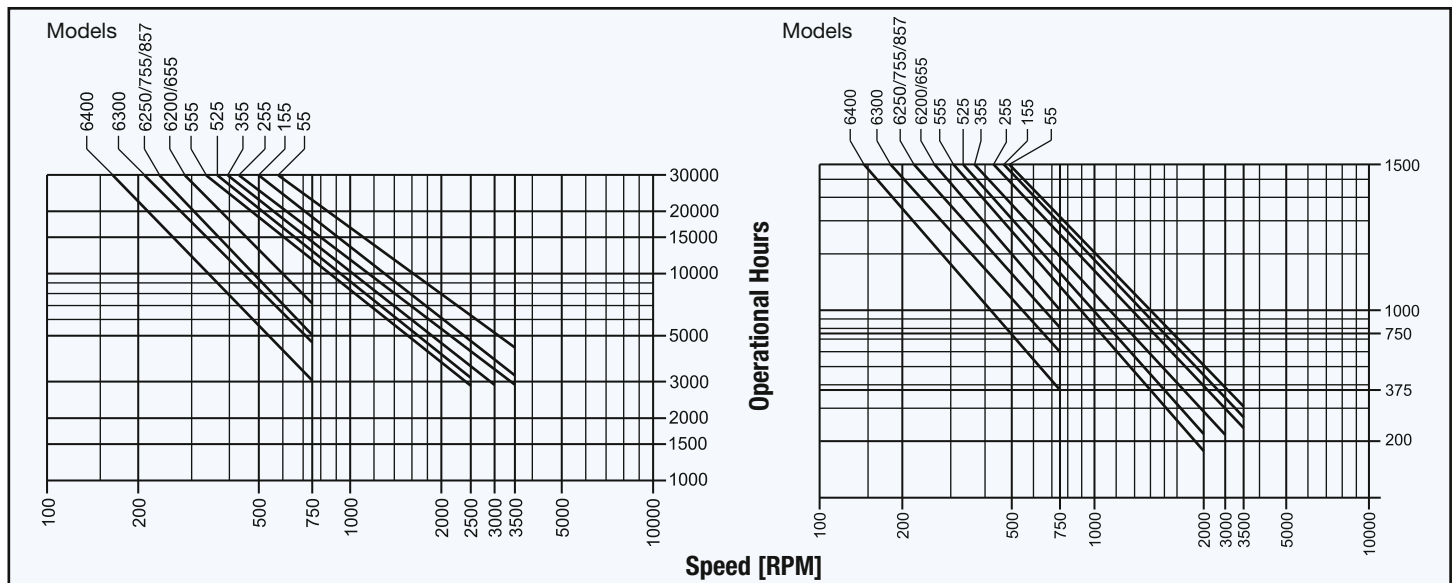
Relubrication Interval

Light Service

Temperatures up to 75 °C
little, if any, vibration or moisture (humidity)

Moderate Service

Temperatures 75 °C - 120 °C
some vibration and moisture present



Important Information

A DEUBLIN Union is a precision-made piece of equipment and must be handled accordingly. Sealing between the rotating device - rotor - and the static device - stator - is mainly accomplished via floating seals. Improper use could result in premature leakage or failure.

Although DEUBLIN Unions are of the highest quality and precision they are, by their very nature, a “wear and tear” product. It’s important that they should be inspected periodically. Moreover, when seals wear out, the rotating union must be replaced or repaired to avoid subsequent leakage. Once a union begins to leak, it is paramount that the union be repaired immediately. Never work with leaking unions!

DEUBLIN Unions must never be used for applications other than those specified in the catalogue. It is strictly prohibited to use DEUBLIN Unions with hydrocarbons or other flammable media as leakage may result in a fire or explosion. The use of our product on exotic or corrosive media is strictly prohibited without our prior approval. For applications other than those stated in the catalogue, the DEUBLIN Engineering Department should be contacted for proper instructions. These instructions are provided by DEUBLIN as general guidelines and do not contain exhaustive information about the installation, use or maintenance of unions.

Operating instructions and installation manuals are available in the German and English languages for the greater part of DEUBLIN products. Buyers and users of DEUBLIN Unions should be certain that they have reviewed all of DEUBLIN’s product information. The operating and installation instructions must be strictly adhered to when installing DEUBLIN unions.

Factory Testing

All DEUBLIN Unions are factory-tested under pressure prior to shipment. This thorough check ensures that each single DEUBLIN Union is completely operational when you receive it and can - in most cases - be installed with no further consideration.

Warranty

The buyer’s warranty rights assume that the product shipped be inspected upon receipt and all defects reported to DEUBLIN in writing immediately or for no longer than a period of 2 weeks. Hidden defects must be reported to DEUBLIN in writing immediately upon detection. The warranty is void when the DEUBLIN Rotating Union is tampered with or misused in any way. Otherwise, our General Terms of Sale and Delivery are valid. It cannot be emphasised enough that all dynamic seal components are wear parts.

DEUBLIN will not be held liable for damage resulting from improper use, incorrect warehousing, incorrect transport, faulty assembly, faulty operation, insufficient maintenance, incorrect handling, improper installation by the customer, the use of inappropriate accessories or spare parts and natural abrasion. Please request our General Terms of Sale and Delivery.

Lubrication and Maintenance

Depending on the DEUBLIN product series and the operating parameters all DEUBLIN Unions are lubricated for life or have to be relubricated or serviced according to specially defined intervals. Please follow the respective operating instructions or the general “Relubrication Guide” for DEUBLIN Rotating Unions.

Filtering

The service life of the seal is largely determined by filter quality and thus of vital importance for the perfect operation of the rotating union. We recommend a filtering of min. 60 µm. It goes without saying that all installation and operating instructions must be carefully reviewed and strictly adhered to.

Repair Service and Maintenance of DEUBLIN Unions by DEUBLIN

Use only DEUBLIN spare parts for repair of the DEUBLIN Rotating Unions. Prior to repair contact DEUBLIN or any authorised DEUBLIN representative. You can find a local DEUBLIN representative at the following internet site: www.deublin.com.

Most unions can be reconditioned in the field by use of DEUBLIN Repair or Rebuilding Kits (see page 5). Generally, we recommend having the DEUBLIN Rotating Unions repaired by DEUBLIN. Repair Service is available at all DEUBLIN factories. Factory rebuilt unions carry a “New-Union-Warranty”.

Tension-free Installation

When installing rotating unions, special attention has to be paid to a flexible and tension-free hose connection. For further suggestions please refer to our installation instructions.

| | Units SI | Units of Measure in Common Use: | | | | | | | Conversion Factors |
|-------------|-------------|---------------------------------|-------------------|--------|-------|-------|-------------------|-------------------|---|
| | | USA | D | E | F | I | NL | S | |
| Speed | 1/s | RPM | min ⁻¹ | r.p.m. | t/min | g/min | min ⁻¹ | min ⁻¹ | 1 RPM = min ⁻¹ = 1/60 h |
| Temperature | K (Kelvin) | °F | °C | °C | °C | °C | °C | °C | (°F-32) 5/9 ± °C ± K+273 |
| Pressure | Pa | PSI | bar | bar | bar | bar | bar | bar | 14.5 PSI ± 1 bar ± 1.02 kg/cm ² ± 100 kPa |
| Vacuum | Pa | "Hg | kPa | cmHg | cmHg | kPa | bara | kPa | 28" Hg (Vac) ± 2" Hg ± 5.08 cmHg ± 6.75 kPa ≈ 0.07 bara |
| Weight | kg | # (lbs) | kg | kg | kg | kg | kg | kg | 2.2 # ± 1.0 kg |

Tightening Torque for Rotors

| Rotor Thread | Tightening Torque [Nm] | Operating Pressure [bar] |
|----------------|------------------------|--------------------------|
| 5/16 - 24 UNF | 5 | 70 |
| 3/8 - 24 UNF | 7 | 70 |
| 7/16 - 20 UNF | 10 | 70 |
| 9/16 - 20 UNF | 20 | 70 |
| 5/8 - 18 UNF | 35 | 70 |
| 3/4 - 16 UNF | 40 | 50 |
| 1 - 14 UNS | 90 | 50 |
| 1 1/4 - 12 UNF | 170 | 50 |
| | | |
| | | |
| | | |
| G 1/8 A | 10 | 105 |
| G 1/4 A | 15 | 105 |
| G 3/8 A | 25 | 50 |
| G 1/2 A | 50 | 50 |
| G 3/4 A | 100 | 50 |
| G 1 A | 150 | 50 |
| G 1 1/4 A | 200 | 50 |
| G 1 1/2 A | 250 | 50 |
| G 2 A | 300 | 14 |
| G 2 1/2 A | 350 | 14 |
| G 3 A | 400 | 10 |

| Rotor Thread | Tightening Torque [Nm] | Operating Pressure [bar] |
|--------------|------------------------|--------------------------|
| M 8x1 | 4 | 140 |
| M 10x1 | 10 | 105 |
| M 12x1 | 15 | 140 |
| M 12x1.25 | 15 | 140 |
| M 12x1.5 | 15 | 140 |
| M 12x1.75 | 15 | 70 |
| M 14x1.5 | 25 | 70 |
| M 15x1 | 30 | 140 |
| M 16x2 | 35 | 70 |
| M 16x1.5 | 35 | 140 |
| M 18x1 | 40 | 70 |
| M 20x2.5 | 50 | 10 |
| M 20x1.5 | 50 | 50 |
| M 22x1.5 | 80 | 70 |
| M 27x1.5 | 115 | 50 |
| M 35x1.5 | 250 | 50 |
| M 50x1.5 | 350 | 50 |
| M 65x1.5 | 350 | 10 |
| | | |
| | | |
| | | |
| | | |

Note: Tightening torques correspond to shaft made from steel and apply for elastomer sealed rotors.

Exception: Rotors with British Standard Pipe Thread (G 1/8 A thru G 3A), normally sealed with gaskets per DIN 7603.

Tightening Torque for Housings

| B Port Thread | Material of Housing or Endcap | | |
|---------------|-------------------------------|-----------------|-----------------|
| | Brass | Aluminium Alloy | Stainless Steel |
| | Tightening Torque [Nm] | | |
| G 1/8 | 5 | 10 | 15 |
| G 1/4 | 10 | 15 | 25 |
| G 3/8 | 25 | 30 | 50 |
| G 1/2 | 50 | 80 | 125 |
| G 3/4 | 100 | 120 | 200 |
| G 1 | 150 | 300 | 400 |
| G 1 1/4 | 200 | 350 | 500 |
| G 1 1/2 | 250 | 400 | 600 |
| G 2 | 300 | 400 | 400 |
| G 2 1/2 | 400 | 400 | 400 |

Note: The tightening torques correspond to fittings sealed with gaskets per DIN 7603.

Tightening of fittings with NPT thread using the FFFT method

- Wrap the thread of the fitting in clockwise direction, beginning from thread end, with 1½ to 2 turns of Teflon tape. If any sealing compound is used, the first one or two thread pitches, beginning thread end, must remain untreated.
- Screw in the fitting firmly, finger-tight.
- Apply, with a waterproof marker a longitudinal marking onto any flat of the hexagon. Continue the marking on housing or endcap surface.
- Tighten the fitting further with a wrench by using the FFFT method (= Flats From Finger Tight) for the necessary number of flats (see table on the right).

| Thread Size NPT | Number of Flats (FFFT) |
|-----------------|------------------------|
| 1/8 – 27 | 2.0 – 3.0 |
| 1/4 – 18 | 2.0 – 3.0 |
| 3/8 – 18 | 2.0 – 3.0 |
| 1/2 – 14 | 2.0 – 3.0 |
| 3/4 – 14 | 2.0 – 3.0 |
| 1 – 11½ | 1.5 – 2.5 |
| 1¼ – 11½ | 1.5 – 2.5 |
| 1½ – 11½ | 1.5 – 2.5 |
| 2 – 11½ | 1.5 – 2.5 |

Attention! Never untighten the pipe fitting to achieve any adjustment!

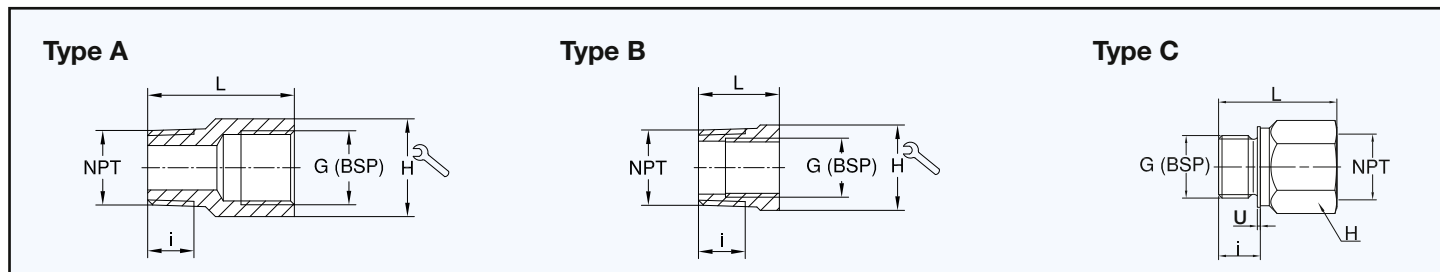
Between 3½ to 6 thread pitches must be engaged.

Any deviation indicates too lighter tightening or overtightened screw joint or thread beyond allowed tolerance limits.

In case of too light thightened screw joints, retightening up to maximum one turn is permissible.

NPT → G (BSP) Stainless Steel Adapters

DEUBLIN Rotating Unions are equipped with G (BSP) and NPT hose connections. Due to worldwide interchangeability our adapters allow the fitting of hoses with the appropriate NPT or G (BSP) threads.



NPT → G (BSP)

| Ordering No. | NPT | G (BSP) | L | i | H | Type | Ordering No. | NPT | G (BSP) | L | i | H | Type |
|--------------|-----|---------|----|------|----|------|--------------|-----|---------|----|------|----|------|
| 6301-012 | 1/8 | 1/4 | 28 | 6,7 | 17 | A | 6301-065 | 1 | 3/4 | 31 | 17,3 | 36 | B |
| 6301-022 | 1/4 | 1/4 | 31 | 10,2 | 17 | A | 6301-066 | 1 | 1 | 48 | 17,3 | 41 | A |
| 6301-032 | 3/8 | 1/4 | 18 | 10,4 | 19 | B | 6301-075 | 1¼ | 3/4 | 30 | 18 | 46 | B |
| 6301-033 | 3/8 | 3/8 | 33 | 10,4 | 22 | A | 6301-077 | 1¼ | 1¼ | 51 | 18 | 50 | A |
| 6301-042 | 1/2 | 1/4 | 24 | 13,6 | 22 | B | 6301-085 | 1½ | 3/4 | 34 | 18,4 | 50 | B |
| 6301-043 | 1/2 | 3/8 | 28 | 13,6 | 22 | B | 6301-088 | 1½ | 1½ | 53 | 18,4 | 55 | A |
| 6301-044 | 1/2 | 1/2 | 37 | 13,6 | 27 | A | 6301-097 | 2 | 1¼ | 50 | 19,2 | 65 | B |
| 6301-054 | 3/4 | 1/2 | 26 | 13,9 | 27 | B | 6301-099 | 2 | 2 | 70 | 19,2 | 65 | A |
| 6301-055 | 3/4 | 3/4 | 41 | 13,9 | 32 | A | 6301-108 | 2½ | 1½ | 80 | 22,5 | 75 | B |
| 6301-064 | 1 | 1/2 | 31 | 17,3 | 36 | B | 6301-1010 | 2½ | 2½ | 80 | 22,5 | 90 | A |

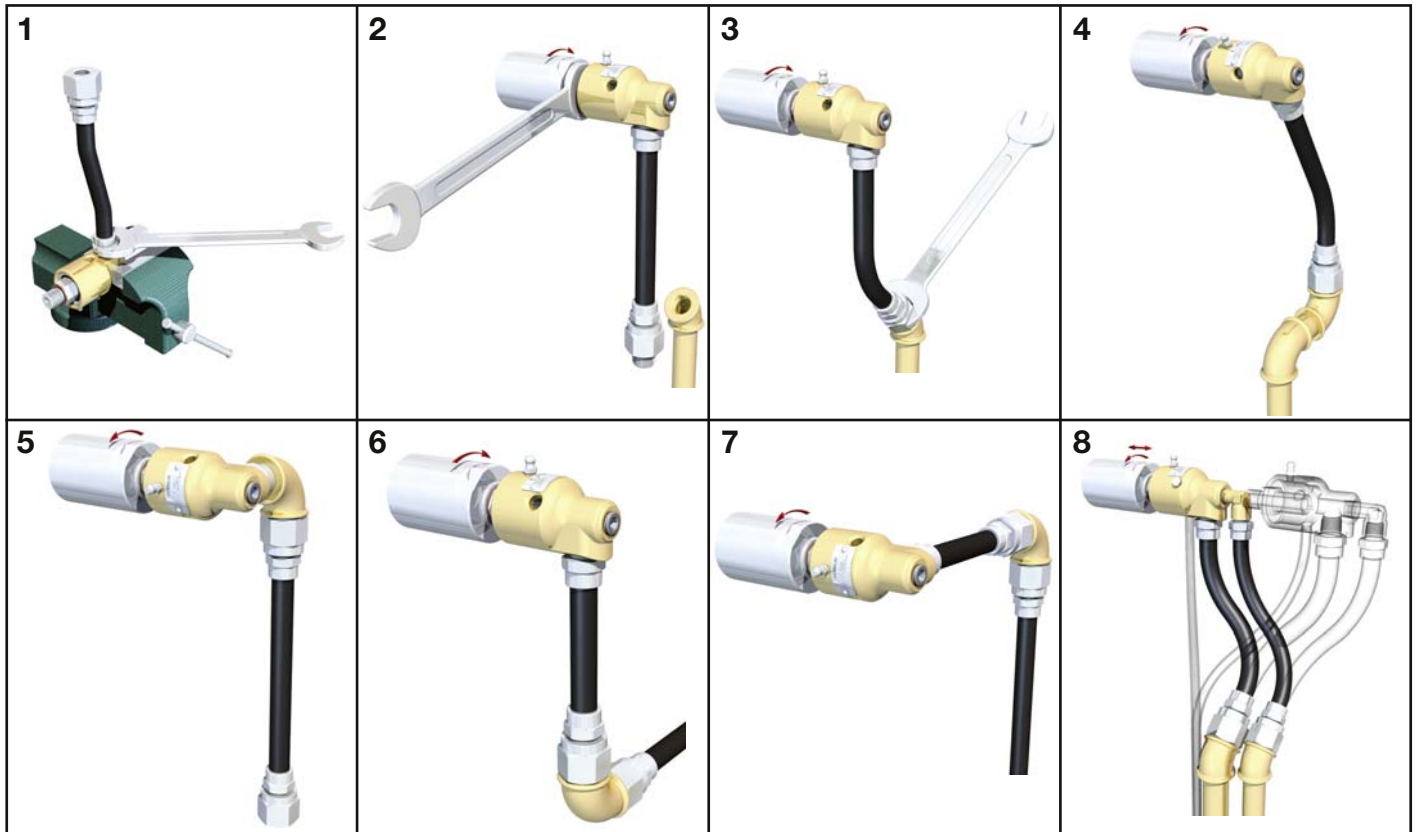
G (BSP) → NPT

| Ordering No. | G (BSP) | NPT | L | i | H | U |
|--------------|---------|-----|----|----|----|-----|
| 6301-133 | 3/8 | 3/8 | 33 | 12 | 22 | 1.5 |
| 6301-144 | 1/2 | 1/2 | 40 | 14 | 27 | 1.5 |
| 6301-155 | 3/4 | 3/4 | 42 | 16 | 32 | 2 |
| 6301-166 | 1 | 1 | 48 | 18 | 41 | 2 |
| 6301-177 | 1¼ | 1¼ | 51 | 20 | 50 | 2 |
| 6301-188 | 1½ | 1½ | 54 | 22 | 55 | 2 |
| 6301-199* | 2 | 2 | 58 | 24 | 70 | 2.5 |

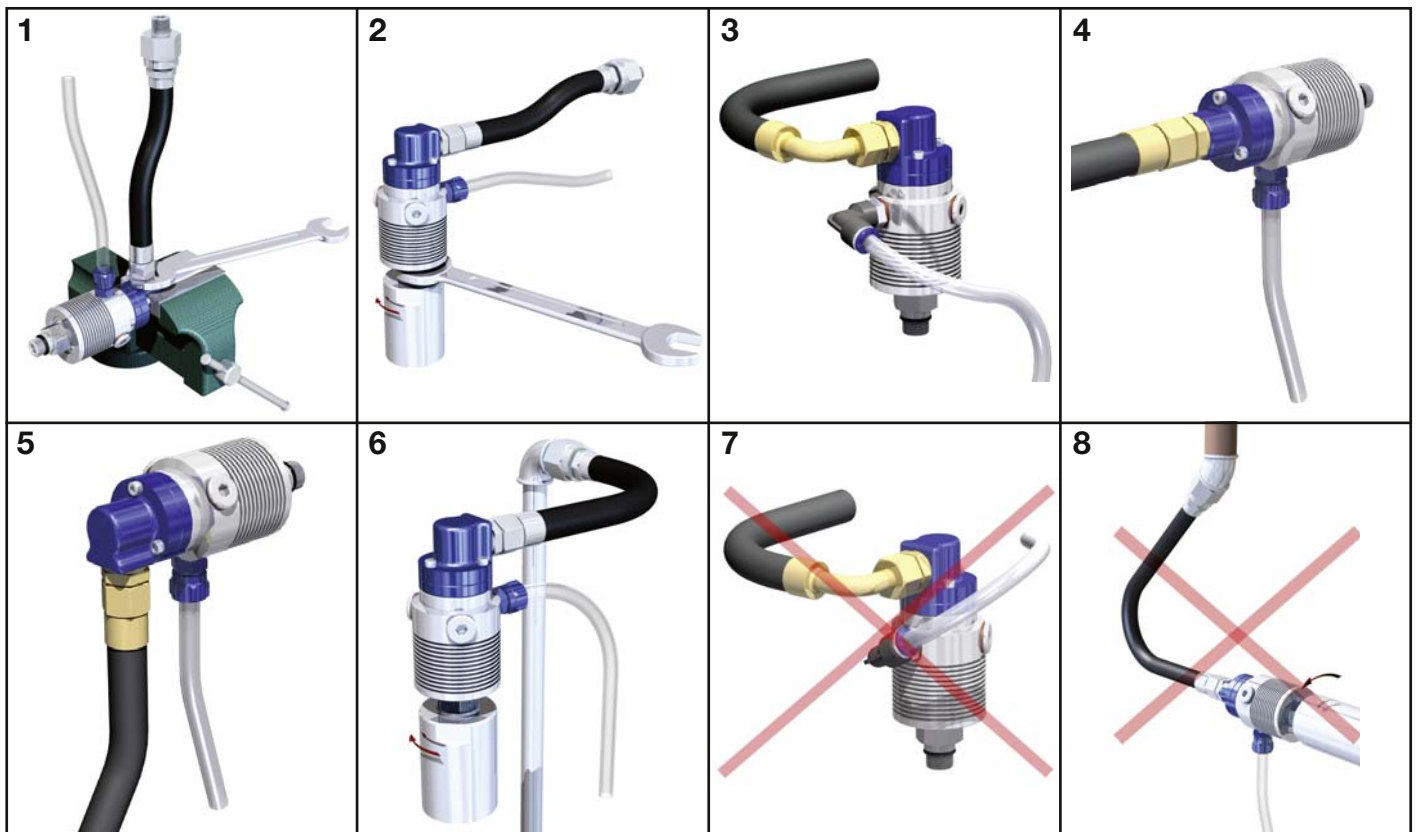
* Material: Brass

Instructions of Hose Installation and Assembly of *DEUBLIN* Rotating Unions

Example Rotating Union 55/57 Series



Example Rotating Union 1109 Series



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Sincerely,

Donald L. Deubler
Chairman of the Board



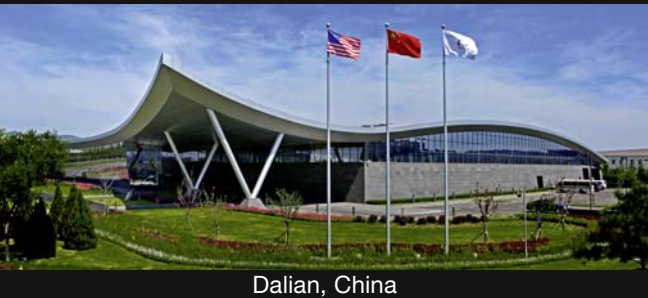
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