

ROTARY UNIONS

water | steam | air | hydraulic | hot oil | vacuum

General Industry



OPERATING PRINCIPLES OF ROTARY UNIONS

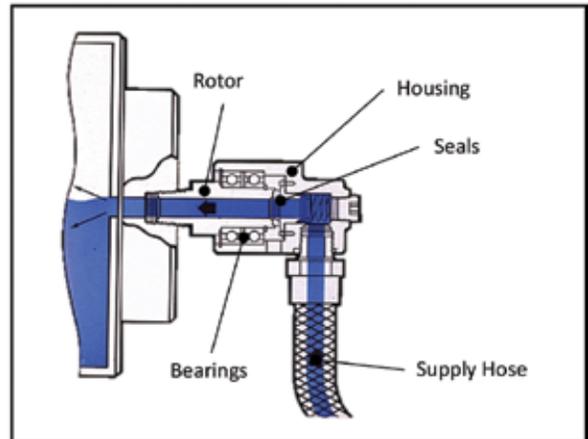
How Rotary Unions Work

A Rotary Union is a precision mechanical device used to transfer fluid or media from a stationary source into rotating machinery. The fluid or media is used for heating, cooling or power (pneumatic or hydraulic), depending on the application. Typical media for General Industry applications are water, hot oil, steam, air, hydraulic oil and vacuum.

A typical Rotary Union consists of a rotor that spins with the machine, a housing that connects the supply hose to the non-rotating element, seals that contain the fluid and bearings to connect the rotor to the housing.

Depending on the application, the design of the Rotary Union may vary (size, material, etc.) for optimal performance.

Parts of a Rotary Union



Sealing Technology

Balanced Mechanical Seal: Mechanical seals are comprised of two precision lapped seals with contacting seal faces to contain the media. One seal is rotating while the other is stationary. Deublin Rotary Unions are designed with balanced mechanical seals to reduce the load on the seals, regardless of media pressure, resulting in longer service life.

Soft Seal: Soft seal Rotary Unions are dynamic seal designs where elastomeric seals are placed between the outer diameter of the rotor and inner diameter of the housing. Due to the material properties, Rotary Unions designed with soft seals will be rated for very low speeds.

Pressure Type Seal: This type of seal technology utilizes a Spherical Carbon Graphite seal under compression from the pressure of the media. Rotary Unions designed with pressure type seals and bushing bearings can be used for applications above 320 F where a ball bearing design is not applicable.

Hydrostatic Seal: Rotary Unions designed with hydrostatic seals contain a small gap between the rotor and a static bushing. Fluid fills the gap acting as lubrication between the two surfaces. Because the fluid is passing through this gap, a drain line is required to collect the fluid and return the fluid to the reservoir.

A Rotary Union for Every Application



SELECTING THE RIGHT UNION FOR YOUR APPLICATION

Water, Hot Oil & Intermittent Steam



Features	57 Series *	755 Series	857 Series	6000 Series *	54 Series
Description	General Purpose	General Purpose	Water Service	Water Service	General Purpose - Stainless Steel
Media	Water, Hot Oil, Intermittent Steam	Water, Hot Oil, Intermittent Steam	Water, Intermittent Steam	Water	Water
Size Range	3/8" thru 2"	2 1/2"	3"	2" thru 4"	3/8" thru 1 1/2"
Max Pressure	750 psi	200 psi	150 psi	150 psi	150 psi
Max Speed	3,500 rpm	750 rpm	500 rpm	750 rpm	1,500 rpm
Max Temp	250 F	250 F	250 F	250 F	160 F
Duoflow Options	Yes (Monoflow with Elbow)	Yes	Yes	Yes	Yes (Monoflow with Elbow)

Operating parameters will vary by media, union size, thread type, and passage. *Models available up to 320 F

Air & Hydraulic



Features	1005 thru 452 Series	1500 Series	1579 and 1590 Series	17, 21, 2117 Series	1690, 1790, 1890 Series
Description	Air or Hydraulic Oil Service	DEU-PLEX Air Service	DEU-PLEX Air and Hydraulic Oil Service	Air or Hydraulic Oil Service	DEU-PLEX Air and Hydraulic Oil Service
Media	Air, Hydraulic Oil, Vacuum	Air, Vacuum	Air, Hydraulic Oil, Vacuum	Air, Hydraulic Oil, Vacuum	Air or Hydraulic Oil
Size Range	1/8" thru 1 1/2"	3/8"	1/2"	1/4" thru 1/2"	1/4" thru 3/4"
Max Pressure	150 psi Air 1,000 psi Hydraulic Oil	150 psi	150 psi Air 1,020 psi Hydraulic Oil	150 psi Air 3,000 psi Hydraulic Oil	150 psi Air 3,050 psi Hydraulic Oil
Max Speed	3,500 rpm	1,500 rpm	1,500 rpm	250 rpm	250 rpm
Max Temp	250 F	250 F	250 F	250 F	240 F

Operating parameters will vary by media, union size, thread type, and passage.

High Temperature



Features	BC-54000 Series	BC-54100 Series	BC-54205 Series
Description	Duoflow, Fixed Siphon	Monoflow	Duoflow, Rotating Siphon
Media	Water, Steam, Hot Oil	Water, Steam, Hot Oil	Water, Steam, Hot Oil
Size Range	1/2" thru 3"	1/2" thru 3"	1/2" thru 3"
Max Pressure	250 psi Water and Steam 100 psi Hot Oil	250 psi Water and Steam 100 psi Hot Oil	250 psi Water and Steam 100 psi Hot Oil
Max Speed	400 rpm	400 rpm	400 rpm
Max Temp	550 F	550 F	550 F

Operating parameters will vary by media, union size, thread type, and passage.

Since its founding in 1945 as a small, family-owned business, Deublin consistently has adhered to a policy of designing and building the best products of their kind in the world. The result of this policy has been continuous growth through the years, and for this we are grateful to our many loyal customers.

Today, Deublin is the world's largest manufacturer of Rotary Unions, with state-of-the-art factories, technical sales and services, and local stocking in 13 countries on four continents, as well as a worldwide distribution network operating in more than 60 countries. Our global organization and extensive catalog of field-tested products ensure a precise match between each customer's requirements and an engineered solution. Deublin has been part of the HOERBIGER Group since 2019 and forms the core of the Rotary Solution division.

We cordially invite you to visit our modern manufacturing facilities in Waukegan, Illinois, USA; Mainz, Germany; Monteveglio, Italy; Dalian, China; and Diadema, Brazil.



Our Global Headquarters in Waukegan, Illinois, U.S.A.



Mainz, Germany



Bologna, Italy



Dalian, China



Diadema, Brazil

AMERICA

DEUBLIN USA

2050 Norman Drive
Waukegan, IL 60085-6747 U.S.A.
Phone: +1 847 689 8600
Fax: +1 847 689 8690
E-mail: Info-US@deublin.com

DEUBLIN Brazil

Juntas Rotativas de Precisão Ltda.
Av. Fagundes de Oliveira, 538 - A11 - Piraporinha
CEP: 09950-300 - Diadema - SP - Brasil
Tel: +55 11-2455 3245
Fax: +55 11-2455 2358
E-mail: info-BR@deublin.com

ASIA

DEUBLIN Asia Pacific

7 Temasek Boulevard #21-05,
Suntec Tower One, Singapore 038987
Phone: +65 6259-9225
Fax: +65 6259-9723
E-mail: deublin@singnet.com.sg

DEUBLIN Japan

2-13-1, Minamihanayashiki, Kawanishi City
Hyogo 666-0026, Japan
Phone: +81 72-757 0099
Fax: +81 72-757 0120
E-mail: Info-JP@deublin.com

2-6-1-B25092, Nakase, Mihama-ku
Chiba City 261-0023, Japan
Phone: +81 43-307-5163
Fax: +81 43-307-5164
E-Mail: info-JP@deublin.com

2-14-4-907, Marunouchi, Naka-ku
Nagoya City, Aichi 460-0002, Japan
Phone: +81 52-201-0222
Fax: +81 52-201-0223
E-mail: info-JP@deublin.com

HOERBIGER Precision Rotary Union (Dalian) Co., Ltd.

No. 2, 6th DD Street,
DD Port, Dalian, 116620, China
Phone: +86 411-8754 9678
Fax: +86 411-8754 9679
E-mail: Info-CN@deublin.com

Room 15A07, Wangjiao Plaza
No. 175 East Yan'an Road, Huangpu District
Shanghai 200002
Phone: +86 21-5298 0791
Fax: +86 21-5298 0790
E-Mail: Info-CN@deublin.com

DEUBLIN Korea

Star Tower #1003, Sangdaewon-dong 223-25,
Jungwon-gu, Seongnam-si, Gyeonggi-do,
South Korea
Phone: +82-31-8018 5777
Fax: +82-31-8018 5780
E-mail: Info-KR@deublin.com

EUROPE

DEUBLIN Germany

Florenz - Allee 1
55129 Mainz, Germany
Phone: +49 6131-49980
E-mail: Info-DE@deublin.com

DEUBLIN Italy

Via Guido Rossa, 9 - Loc. Monteveglio 40053
Comune di Valsamoggia (BO), Italy
Phone: +39 051-835611
Fax: +39 051-832091
E-mail: Info-IT@deublin.com

DEUBLIN Austria

Lainzer Straße 35
1130 Wien, Austria
Phone: +43 1-8768450
Fax: +43 1-876845030
E-mail: Info-AT@deublin.com

DEUBLIN France

61 Bis, Avenue de l'Europe
Z.A.C de la Malnoue
77184 Emerainville, France
Phone: +33 1-64616161
Fax: +33 1-64616364
E-mail: Info-FR@deublin.com

DEUBLIN Poland

ul. Bierutowska 57-59
51-317 Wrocław, Poland
Phone: +48 71-3528152
Fax: +48 71-3207306
E-mail: Info-PL@deublin.com

DEUBLIN Spain

CLola Anglada, 20
08228 Les Fonts (Terrassa), Spain
Phone: +34 93-221 1223
E-mail: Info-ES@deublin.com

DEUBLIN United Kingdom

6 Sopwith Park, Royce Close, West Portway
Andover SP10 3TS, UK
Phone: +44 1264-33 3355
Fax: +44 1264-33 3304
E-mail: Info-UK@deublin.com

www.deublin.com



**SERVICE AND STOCK ARE AVAILABLE
THROUGHOUT THE WORLD**