

**DEUBLIN**<sup>®</sup>  
*Engineered for Performance*

RU 122 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 <sup>-1</sup>		
<b>for Water &amp; Hot Oil up to 120 °C</b>						<b>6 - 22</b>
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
<b>for Steam &amp; Hot Oil up to 230 °C</b>						<b>23 - 30</b>
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
<b>for Air &amp; Hydraulic</b>						<b>31 - 45</b>
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
<b>for Coolant</b>						<b>46 - 48</b>
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
<b>for Water in Continuous Casting Plants</b>						<b>49</b>
DN 15 - 40	2400	10	120	100	in-the-shaft mounted	49
<b>Special Editions for Customized Applications</b>						<b>50 - 51</b>
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!**

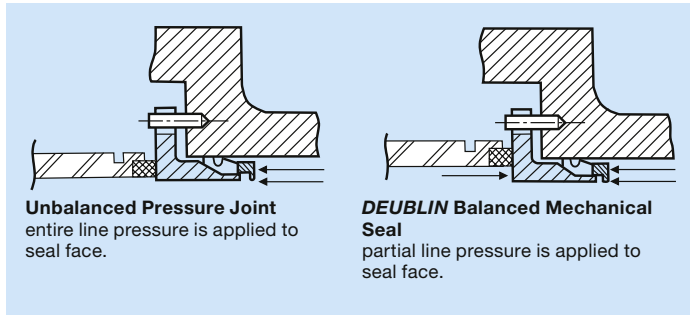
For applications exceeding given limits and/or unlisted rotor connections, contact **DEUBLIN** for engineering assistance. Please indicate media, size, speed (RPM), pressure, temperature and requested connection. Please note our "Instructions of Hose Installation and Assembly of **DEUBLIN** Rotating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

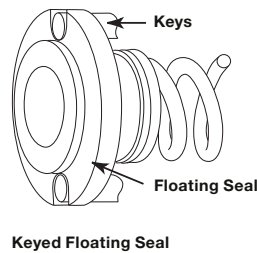
However, more pressure on the rotating seal face also meant more friction, higher torque and more wear. The resulting service life was not satisfactory.



**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).



# 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.

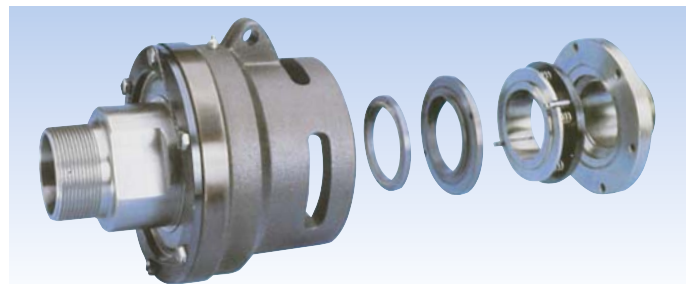
# Repair

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
		357	3,000 RPM
		527-557	2,500 RPM
		657	750 RPM
		3,500 min <sup>-1</sup>	3,000 min <sup>-1</sup>
		2,500 min <sup>-1</sup>	750 min <sup>-1</sup>
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)

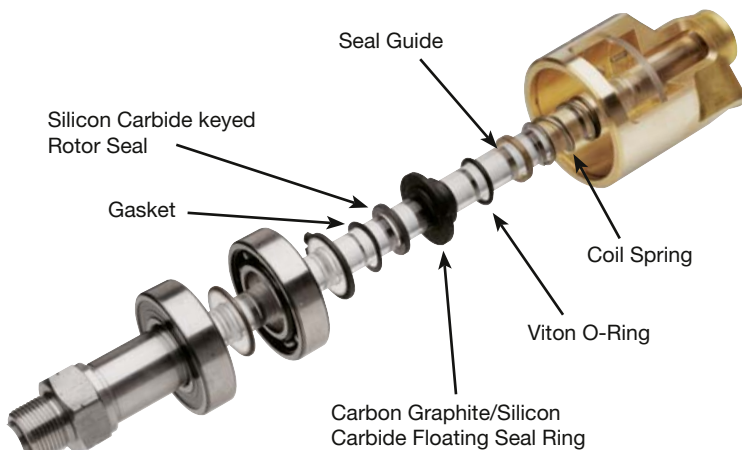
**All 54, 55 and 57 Series Rotating Unions are available for use in a potentially explosive atmospheres defined by "ATEX".**

## 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 <sup>-1</sup>
	355	3,000 RPM	3,000 min <sup>-1</sup>
	525 -555	2,500 RPM	2,500 min <sup>-1</sup>
	655	750 RPM	750 min <sup>-1</sup>

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:

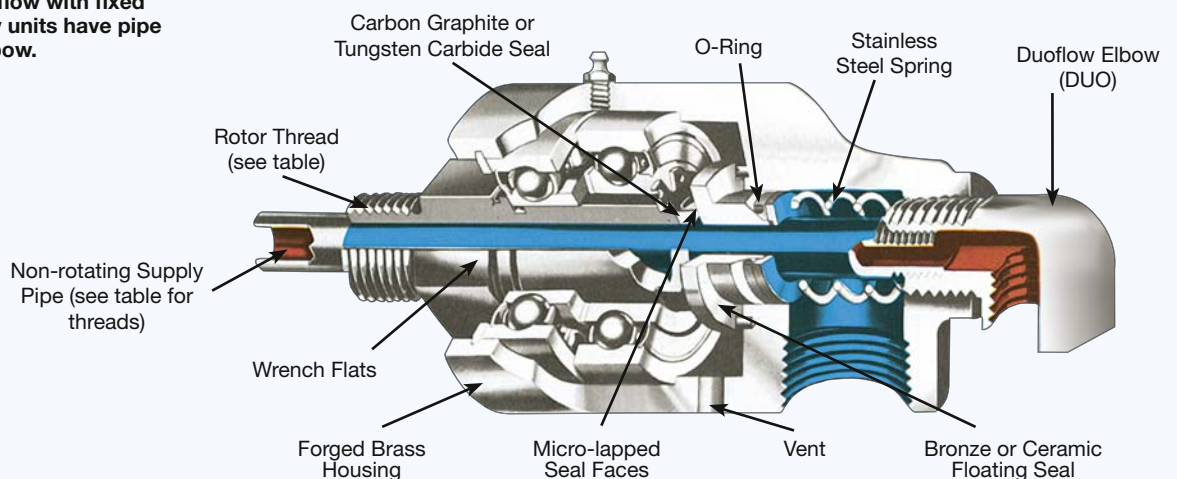
- Carbon Graphite/Ceramic for hot oil, hot water and saturated steam

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

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

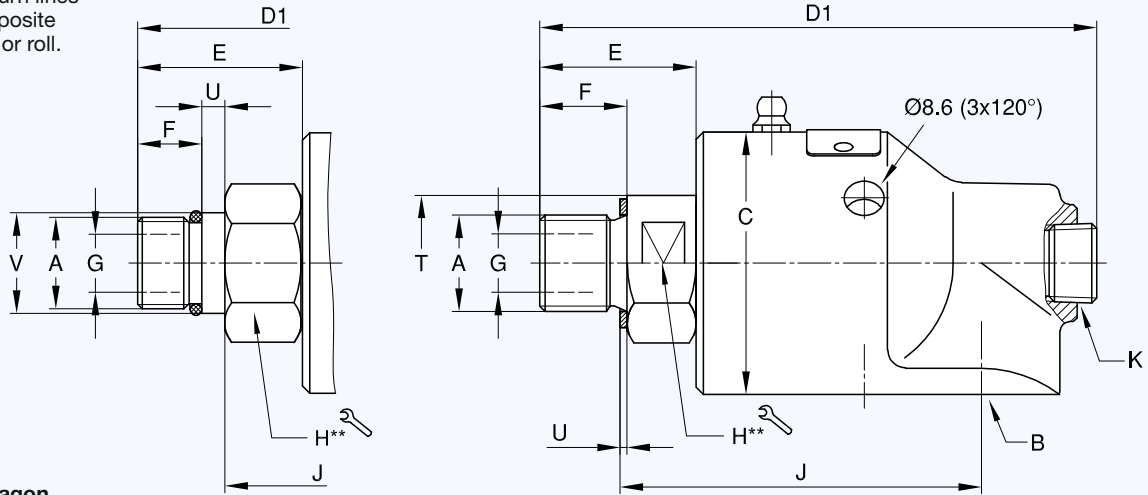
All 54, 55 and 57 Series Rotating Unions are available for use in a potentially explosive atmospheres defined by "ATEX".

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

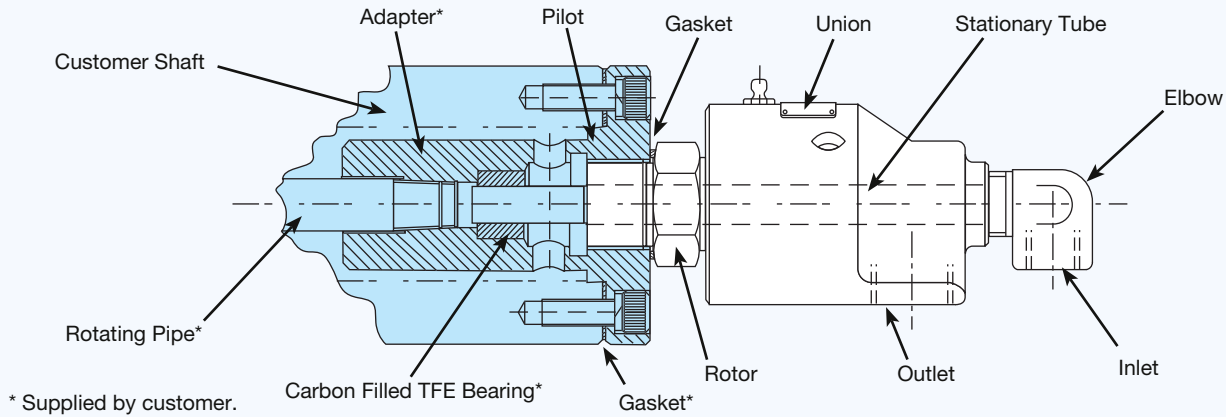
DN	B	Ordering No. (Basic Models)				A Rotor Connections	C Ø	D1	E	F	G Ø	H	J	K NPT	T	U	V Ø	kg
		Model 57 STD	Model 57 E.L.S.	Model 55 STD	Model 55 E.L.S.													
10	G 3/8	57-130-094	57-145-094	55-655-094	55-842-192	G 3/8 RH	45	100	26	16	9,5	22	64	1/4	-	1,5	-	0,6
	G 3/8	57-130-095	57-145-095	55-655-095	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

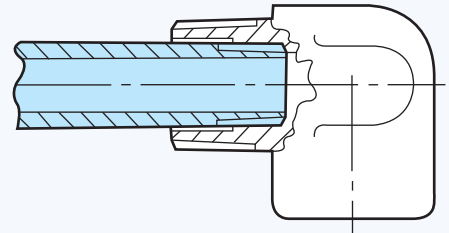
DEUBLIN water service unions can be adapted for Duoflow applications where a single media is circulated through and around the supply pipe. Duoflow elbows are available in 3 styles to accept a variety of different supply systems. The guidelines shown below should be carefully considered. A poorly designed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



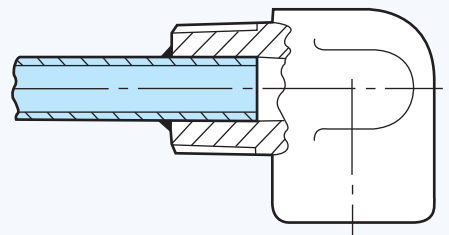
## Threaded Pipe

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.



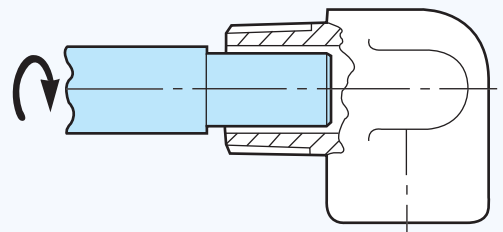
## Fixed Tube

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

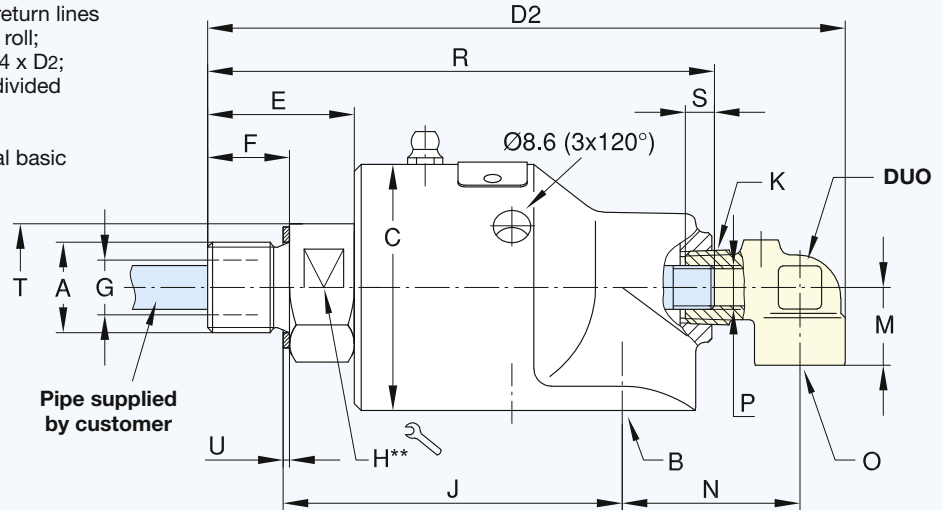
Rotating pipes are fastened internally to rotate with the roll. The Duoflow elbow helps to support the pipe and restrict crosstalk between passages. The pipe must be straight and concentric to the center line to avoid excessive loading of the union. The union must also have a rotor with a straight thread (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 - Duoflow Rotating Unions 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.



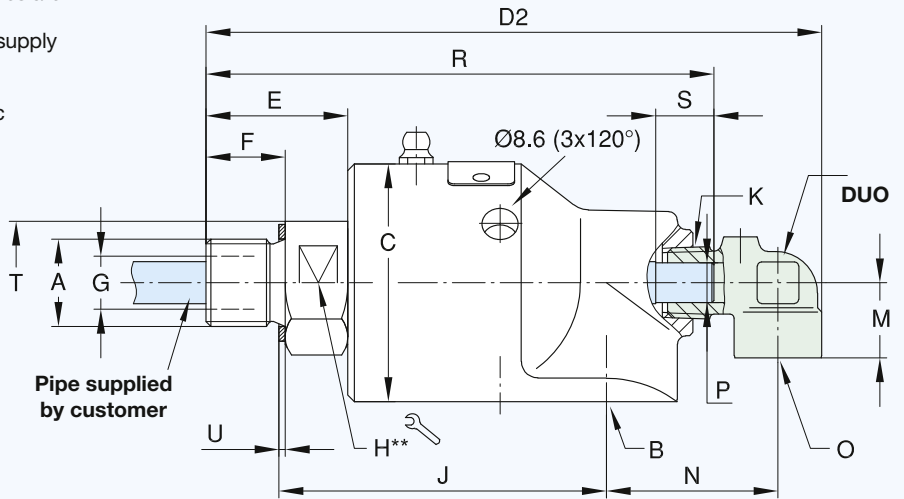
\*\* DN 10 - 20 = hexagon  
 DN 25 - 50 = two wrench flats

DN	O	fixed, threaded				rotating				divided Ordering No. DUO	+ self-centering Ordering No. DUO	L	P Ø H9	Q	S	D <sub>2</sub>	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	31.8	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	31.8	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	32.1	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	32.1	253	50	655-966	655-968	382	34	31	60	312	45	96

### 57 and 55 Series - Duoflow Rotating Unions 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.

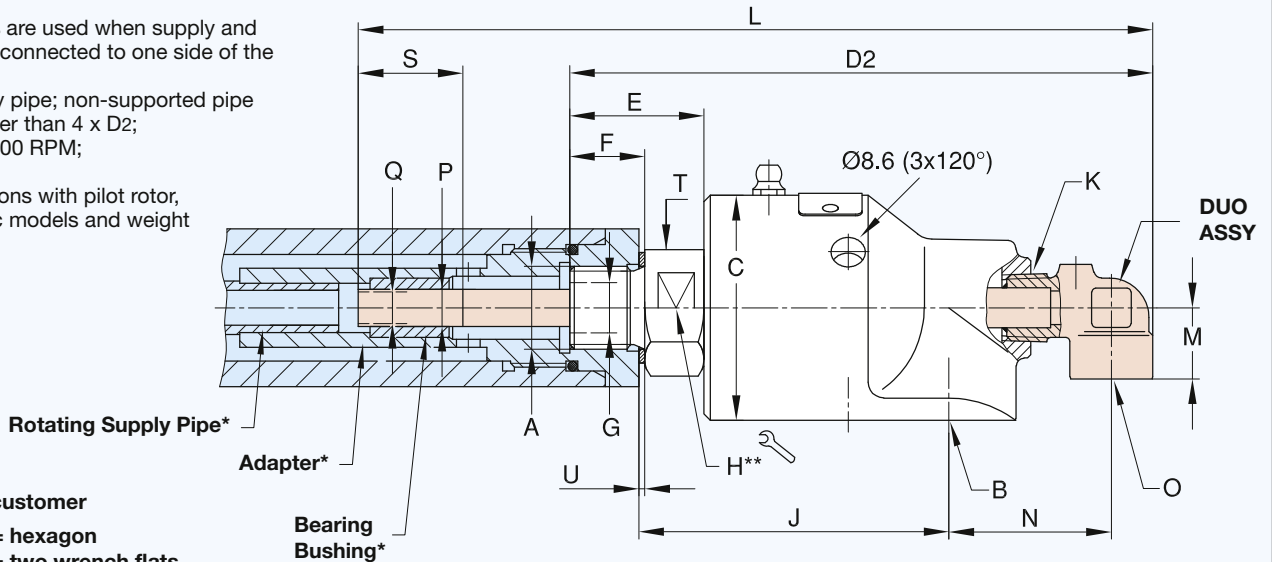


\*\* DN 10 - 20 = hexagon  
 DN 25 - 50 = two wrench flats

### 57 and 55 Series - Duoflow Rotating Unions DN 10 - 50 for Divided Supply Pipe

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.

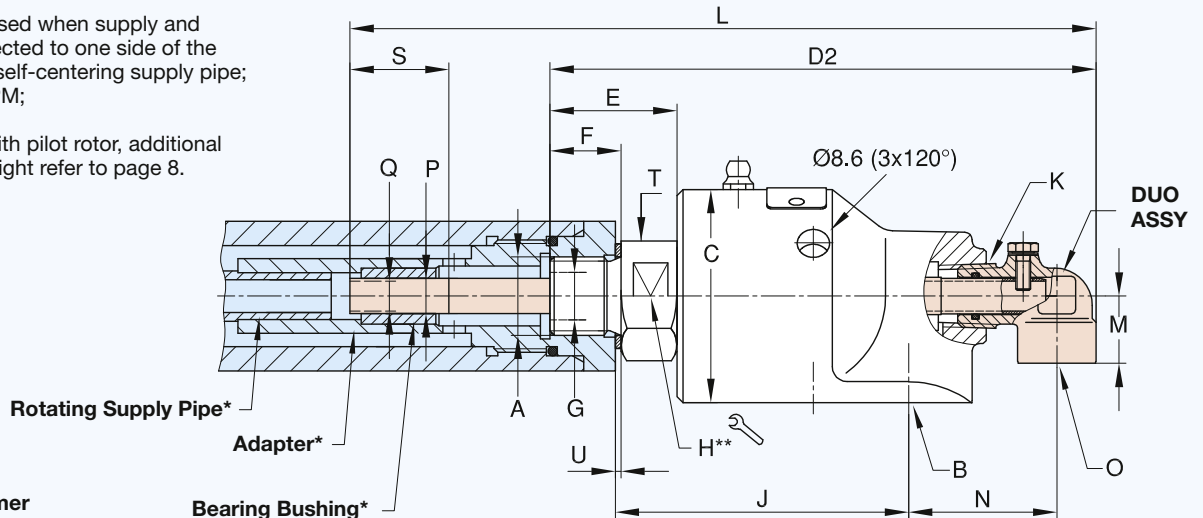


\* supplied by customer  
 \*\* DN 10 - 20 = hexagon  
 DN 25 - 50 = two wrench flats

### 57 and 55 Series - Duoflow Rotating Unions DN 10 - 50 for Divided, 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;

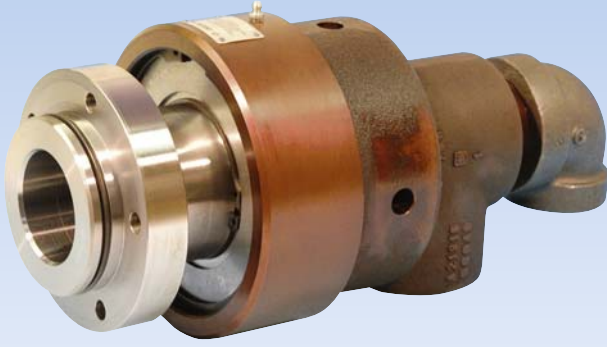
For rotating unions with pilot rotor, additional basic models and weight refer to page 8.



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

# DEUBLIN

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



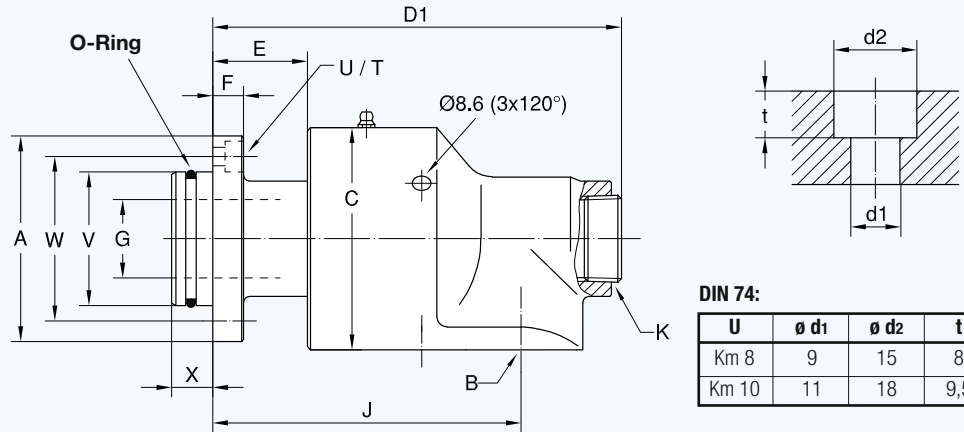
- monoflow and duoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal  
Carbon Graphite/Bronze or  
Carbon Graphite/Ceramic - standard;  
Tungsten Carbide/Ceramic - E.L.S. (Extended Life Sealing)
- 3 or 4 vent holes
- forged brass housing (DN 40 and 50) 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 <sup>-1</sup>
	655-755	1,000 RPM	1.000 min <sup>-1</sup>
Max. Temperature		120 °C	> 120 °C consult <b>DEUBLIN</b>

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

### Monoflow Rotating Unions



#### Flange O-Ring

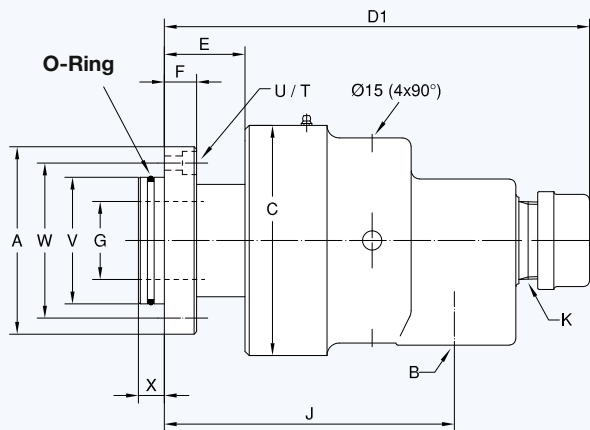
(supplied by **DEUBLIN**) for:  
Model O-Ring Size  
555 58 x 4 Viton  
655 73 x 4 Viton

#### 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 <sub>f7</sub> 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

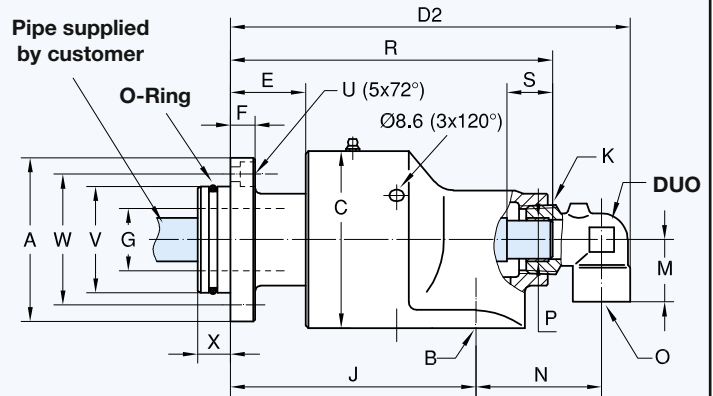
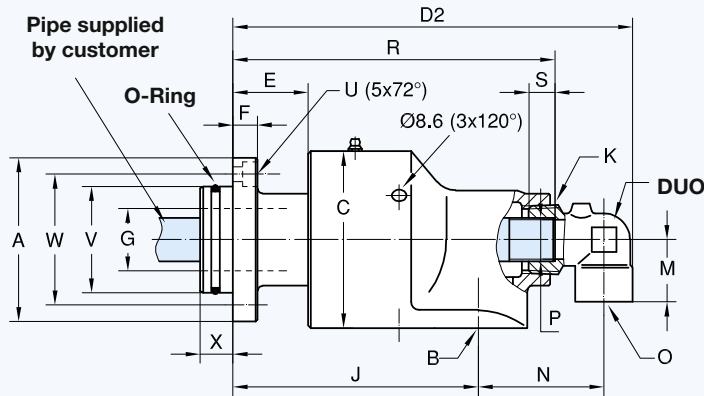
(supplied by **DEUBLIN**) for:  
Modell O-Ring Size  
755 90 x 4 Viton

DN	B NPT	Ordering Nr.		A ø	C ø	D1	E	F	G ø	J	K NPT	T	U DIN 74	V <sub>f7</sub> 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

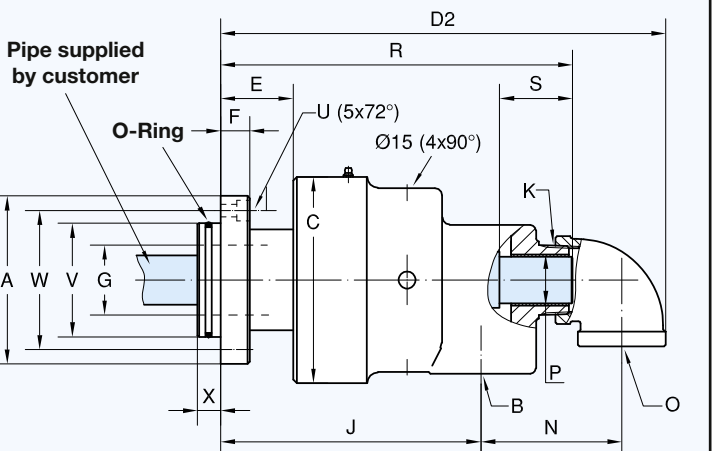
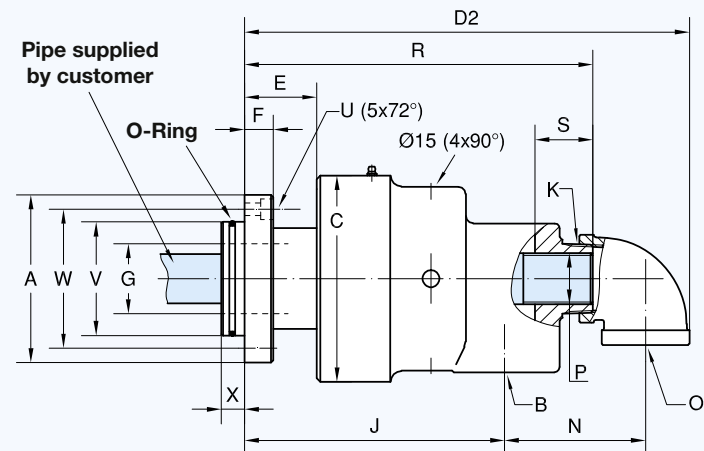


DN	B	O	Ordering No.	DUO	A ø	C ø	D <sub>2</sub>	E	F	G ø	J	K NPT	M	N	P Pipe	R	S	U** DIN 74	V <sub>f7</sub> øPT	W ø	X	kg
40	G 1 1/2	G 3/4	555-385-765	451-171	100	108	244	46	15	38	150	1 1/4	38	76	G 3/4	196	16	Km 8	65	80	20	7,6
	G 1 1/2	G 3/4	555-385-765	451-173	100	108	244	46	15	38	150	1 1/4	38	76	ø 25,8 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	ø 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	ø 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 ø	C ø	D <sub>2</sub>	E	F	G ø	J	K NPT	N	P Pipe	R	S	U** DIN 74	V <sub>f7</sub> øPT	W ø	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	ø 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

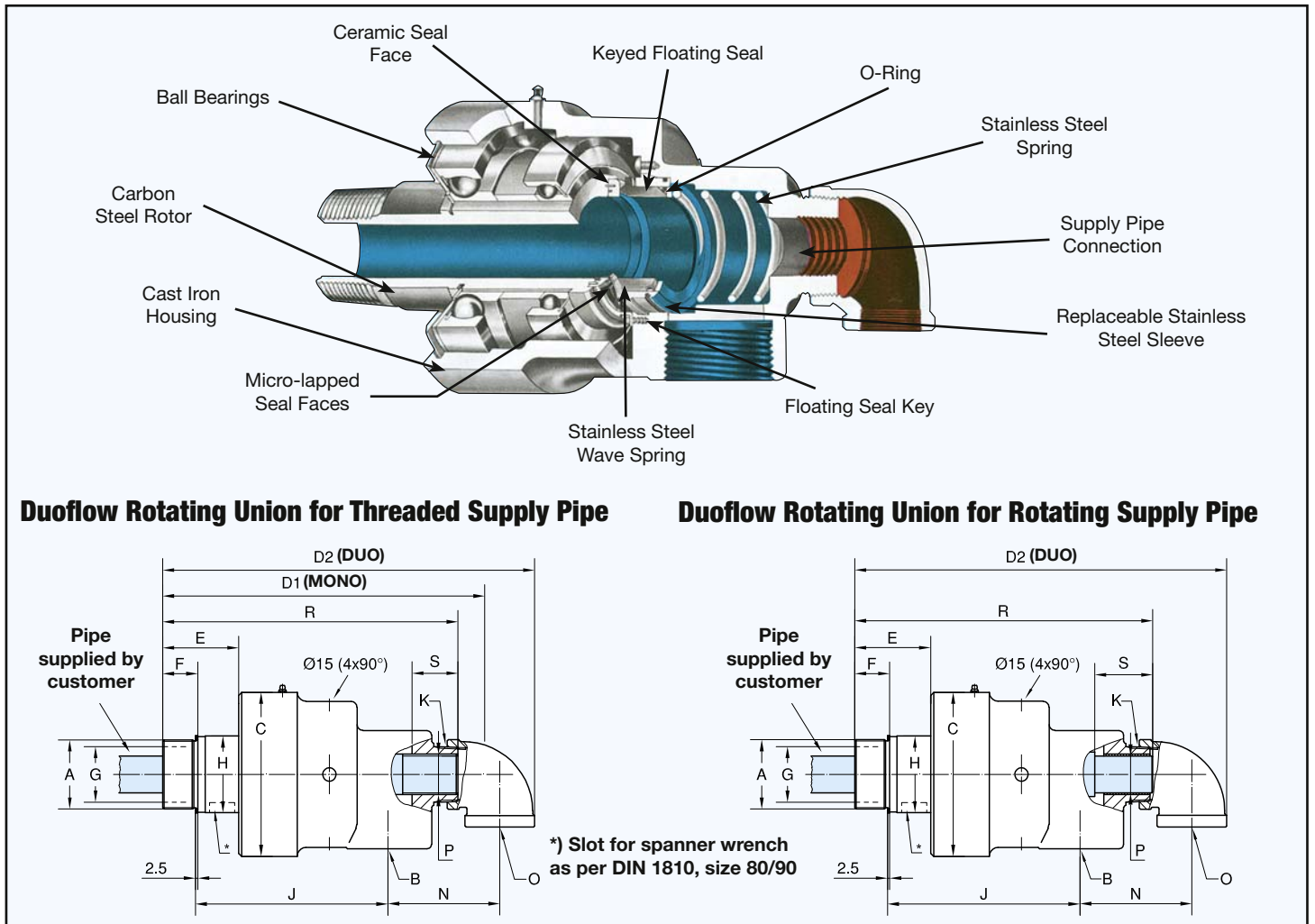


#### Operating Data

Max. Water Pressure	200 PSI	14 bar
Max. Sat. Steam Pressure (Interm.)	14 PSI	1 bar
Max. Speed	750 RPM	750 min <sup>-1</sup>
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	D <sub>1</sub>	D <sub>2</sub>	E	F	G ø	H ø	J	K NPT	N Pipe	P	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

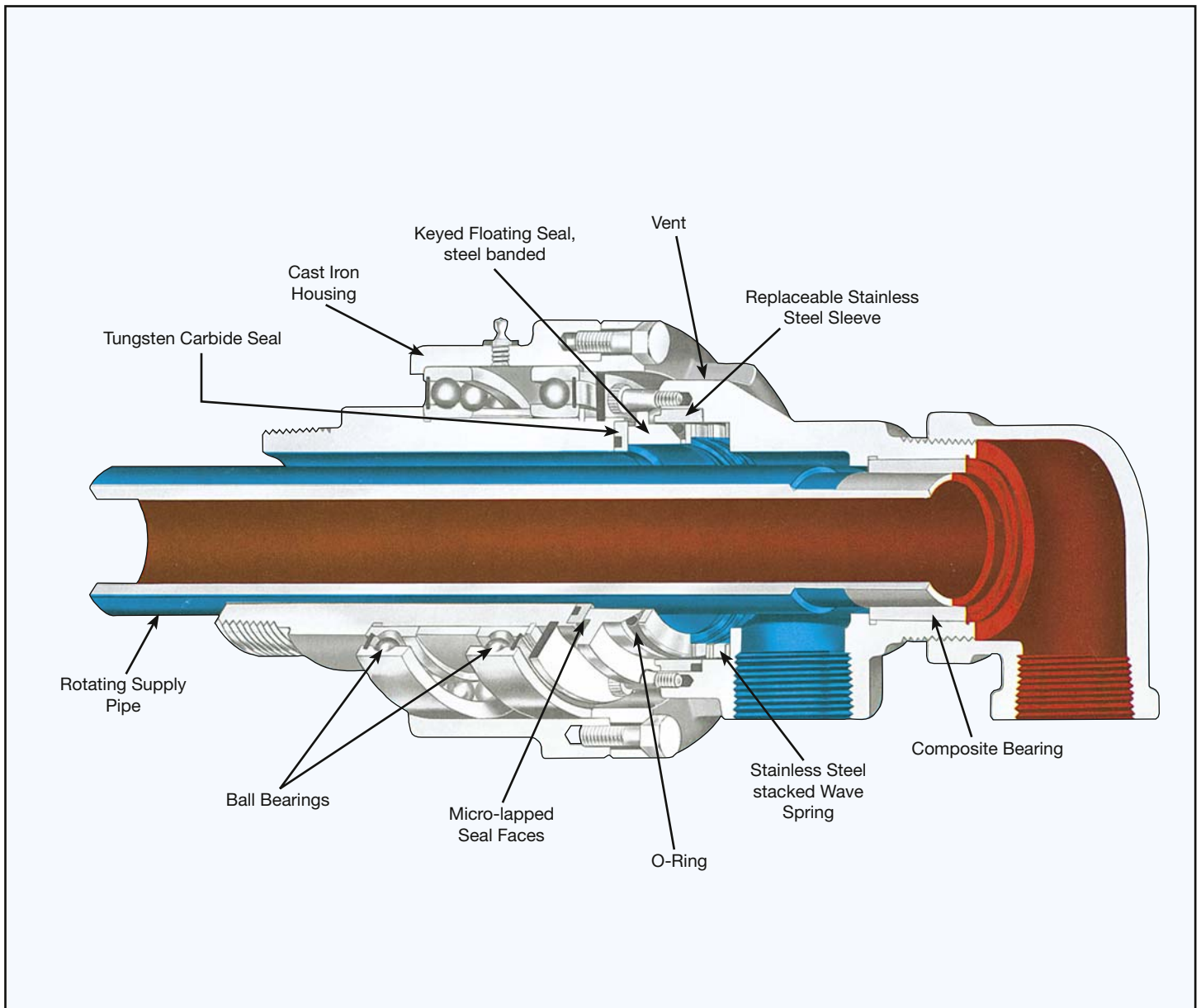


- monoflow and duoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal  
Carbon Graphite/Tungsten Carbide
- full-media flow
- easy and quick replacement of sealing components  
(rotor seal, floating seal)
- vent holes
- cast iron housing
- steel rotor
- Lubrication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

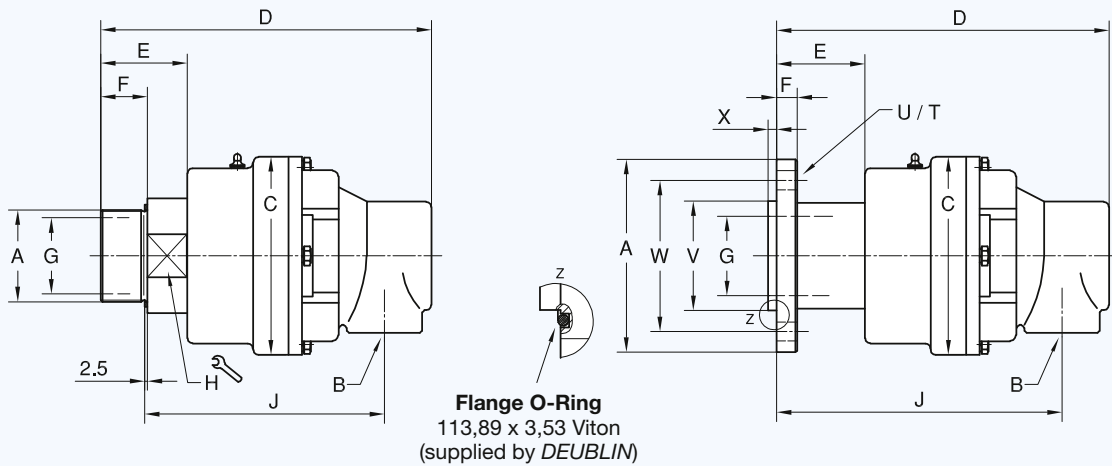
### Operating Data

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

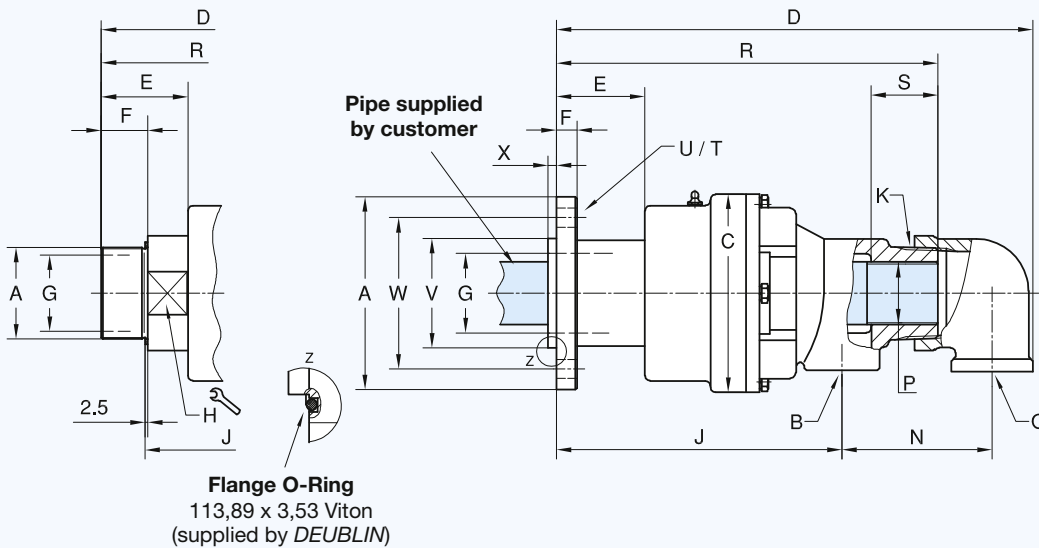
For further information please contact **DEUBLIN** or your local representative.



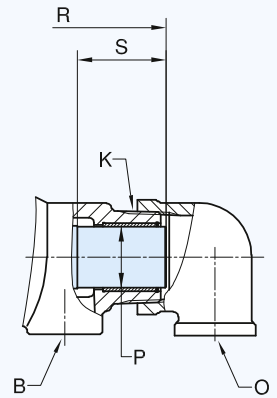
**Monoflow Rotating Union**



**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

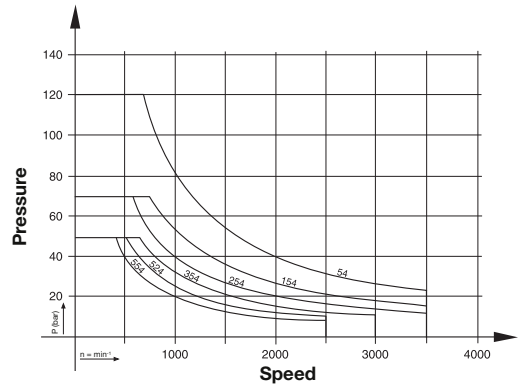
Max. Pressure and max. Speed see Diagram

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

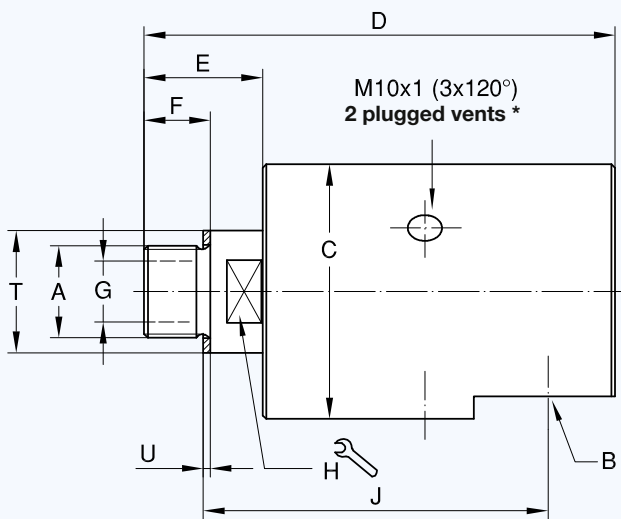
Temperature > 71°C - max. 90 °C only if max. pressure ≤ 10 bar (150 PSI)

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

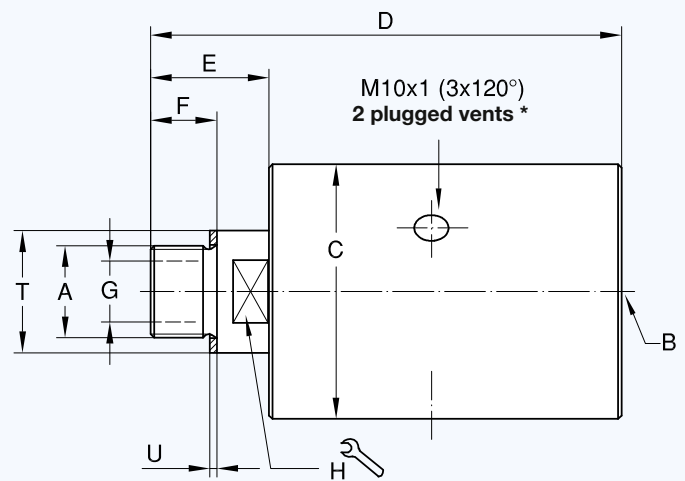
Seals are Tungsten Carbide/Ceramic



### 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



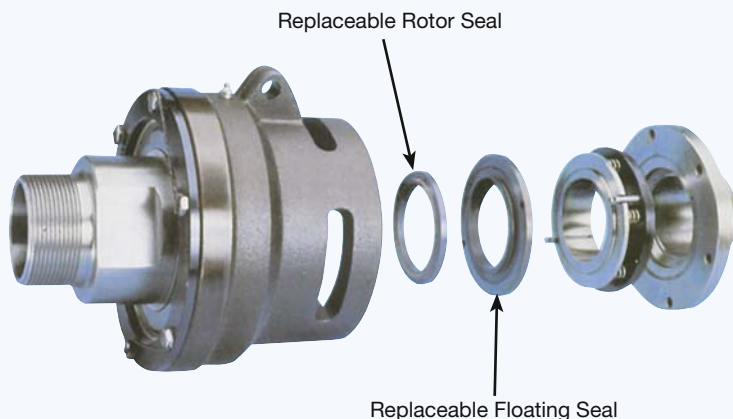
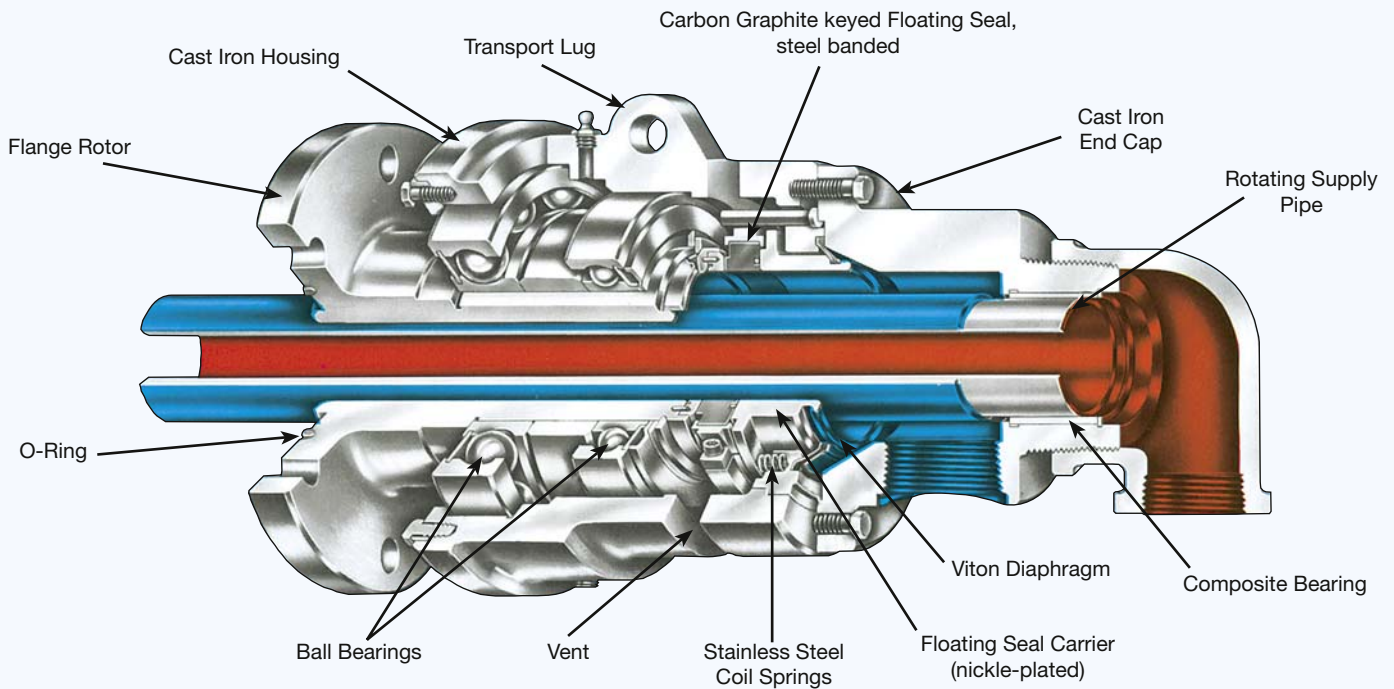
- monoflow and duoflow design
- self-supported rotating union
- radial housing connection
- balanced mechanical seal  
Carbon Graphite/ Tungsten Carbide - standard and Silicon Carbide/Tungsten Carbide - E.L.S. (Extended Life Sealing)
- steel banded floating seal
- easy and quick replacement of sealing 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 <sup>-1</sup>
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.

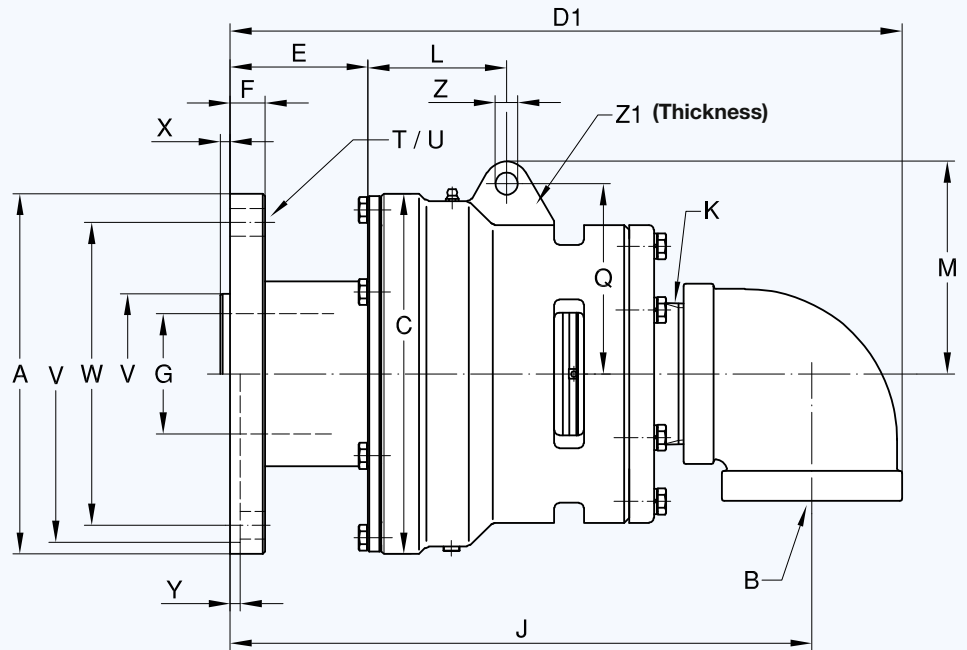
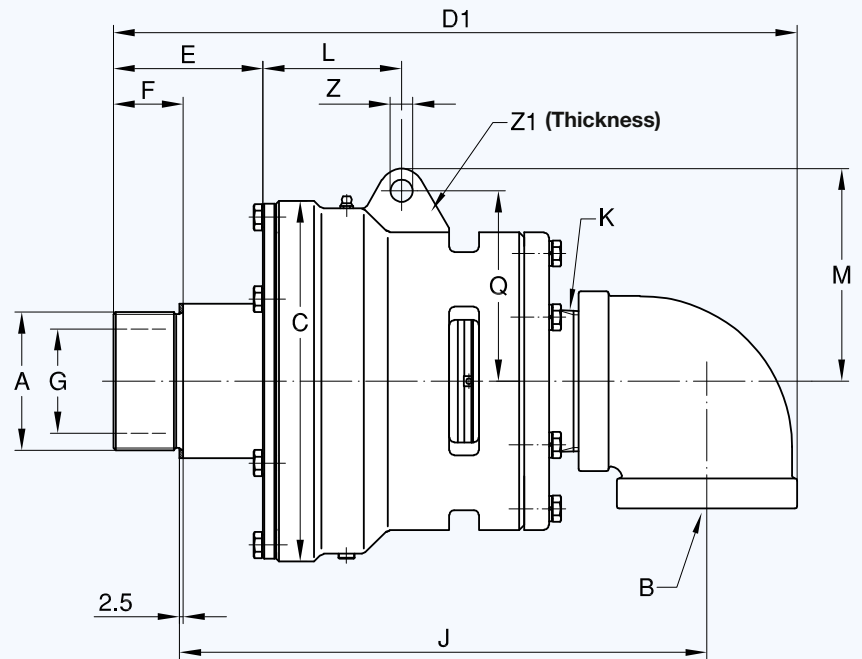
For further information please contact **DEUBLIN** or your local representative.



### 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**

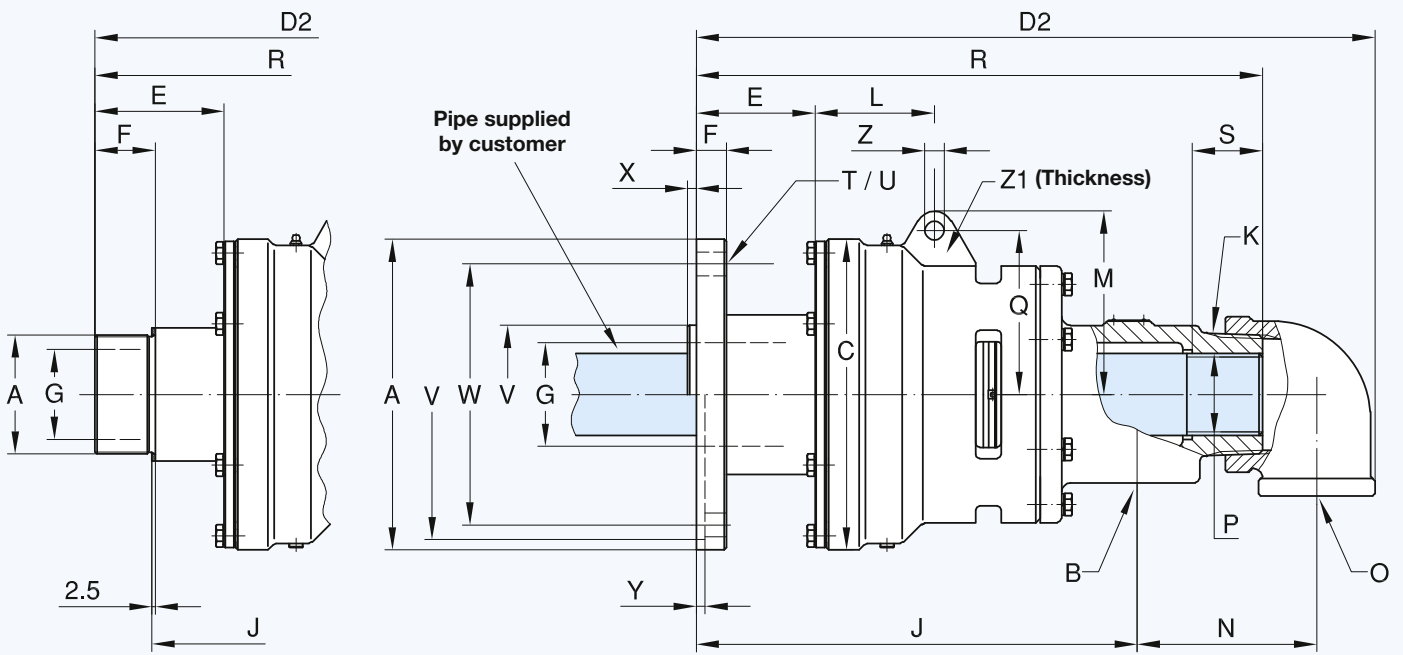


**Flange O-Ring**

(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**



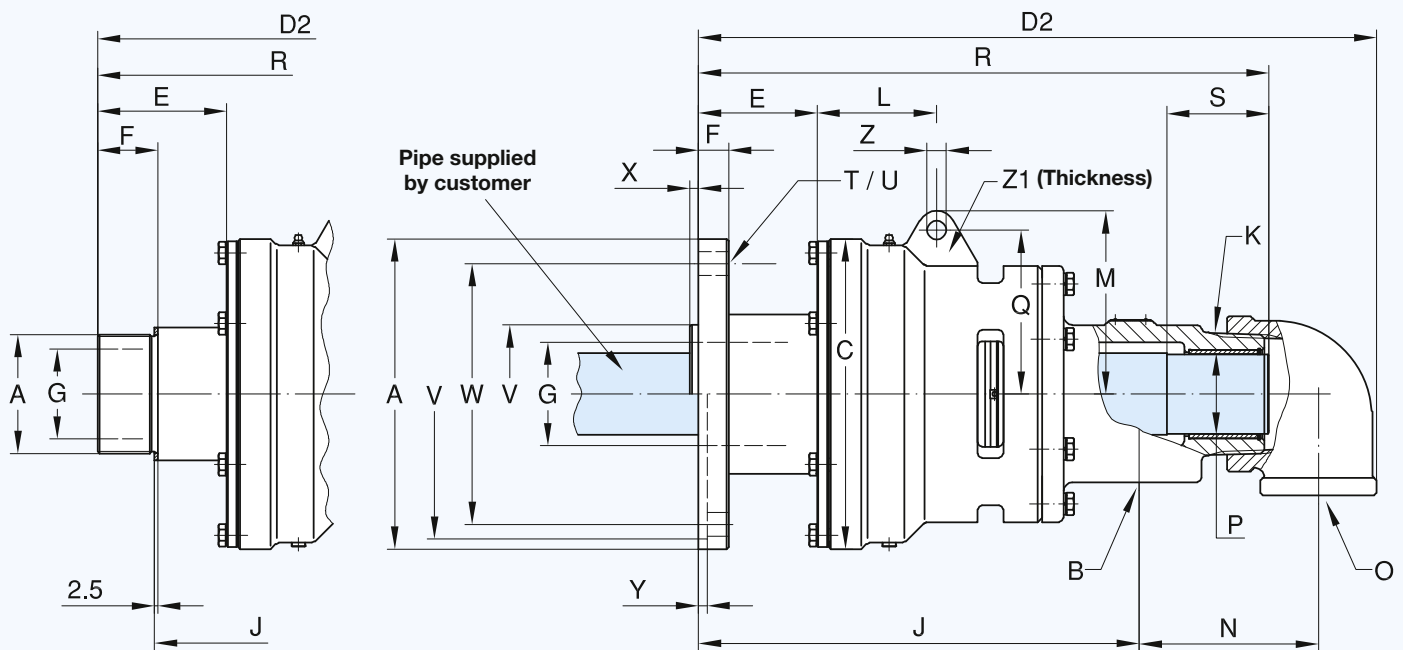
**Duoflow Rotating Union for Threaded Supply Pipe**

DN	B + 0 NPT	Ordering No.		A		C ∅	D <sub>2</sub>	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 <sub>2</sub>	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

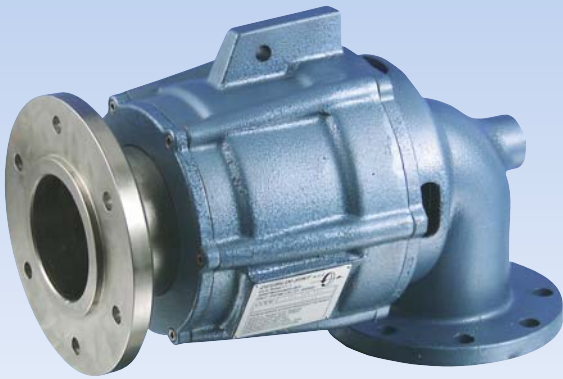


L	M	N	P Pipe	Q	R	S	T	U ∅	V ∅ PT	W ∅	X	Y	Z ∅	Z <sub>1</sub>	kg	DN
73	90	95	G 1	78	267	25	-	-	-	-	-	-	12,7	25,4	13,2	50
73	90	95	G 1	78	267	25	-	-	-	-	-	-	12,7	25,4	13,2	
73	90	95	G 1	78	284	25	4 x 90°	17,5	211,25 211,20	162	-	6,4	12,7	25,4	18,2	
95	113	103	G 1 1/2	98	346	25	-	-	-	-	-	-	14,3	25,4	25,2	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 Pipe ∅ h13	Q	R	S	T	U ∅	V ∅ PT	W ∅	X	Y	Z ∅	Z <sub>1</sub>	kg	DN
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



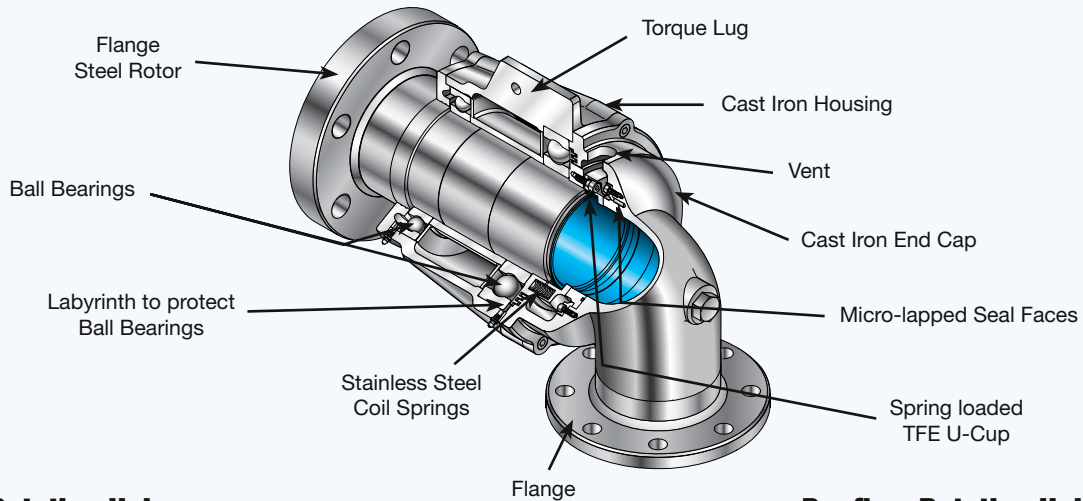
- monoflow and duoflow design
- self-supported rotating union
- balanced mechanical seal:  
Carbon Graphite/Tungsten Carbide
- two widely spaced ball bearings
- labyrinth seal protects bearings
- nickel-plated cast iron housing
- high corrosion resistant
- steel flange rotor
- on-the-machine seal replacement 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 <sup>-1</sup>
Max. Temperature	120 °C	> 120 °C consult <b>DEUBLIN</b>

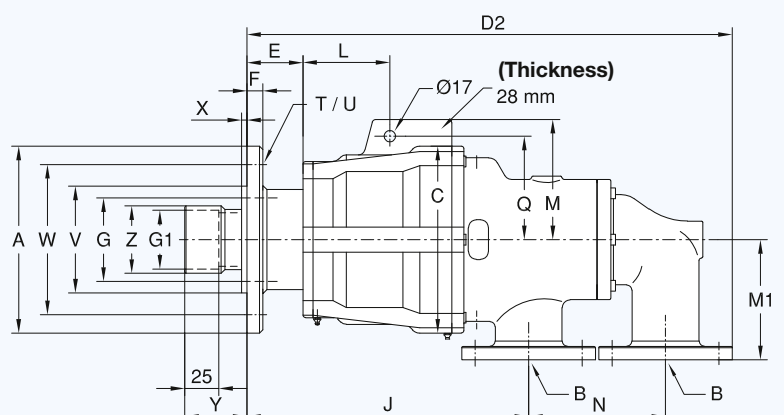
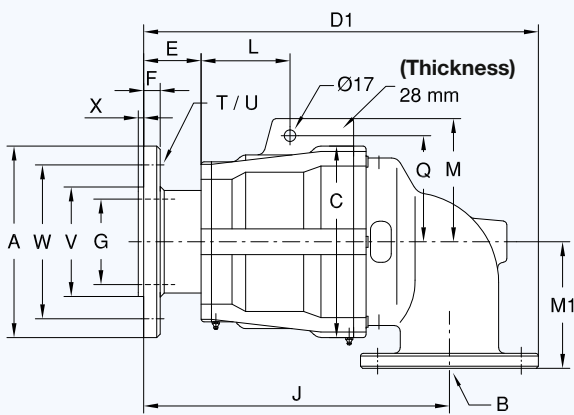
\* Operation at max. pressure combined with max. speed is not permissible  
If operating conditions are marginal, please consult our Engineering Department

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 ∅	C ∅	D1	E	F	G ∅	J	L	M	M <sub>1</sub>	Q	T	U ∅	V ∅ PT 1/8	W ∅	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

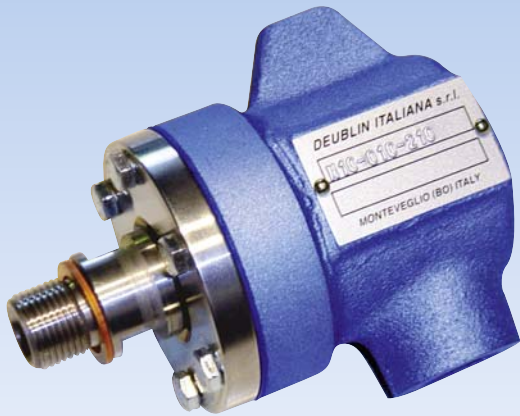
DN	B Flange	Ordering No.	A ∅	C ∅	D2	E	F	G ∅	G <sub>1</sub> ∅	J	L	M	M <sub>1</sub>	N	Q	T	U ∅	V ∅ PT 1/8	W ∅	X	Y	Z ∅	kg
125	2 x DN 80	F127-053-204701	280	280	727	84	25	125	88,3 +0,1	422	130	180	180	205	155	6 x 60°	18	160	225	8	93	101	120

# 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.

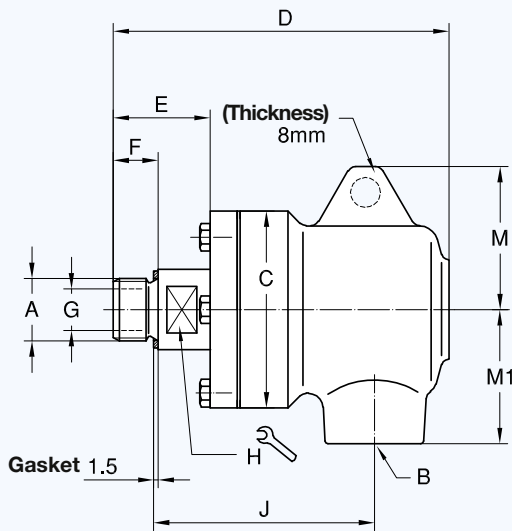


### Operating Data

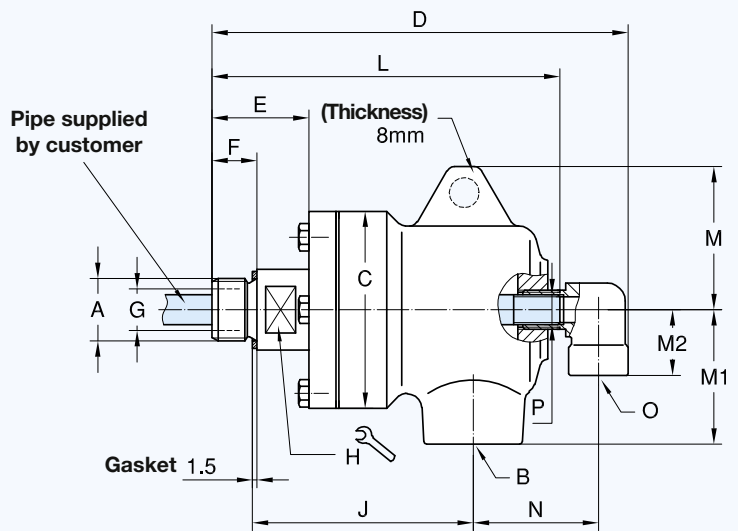
Max. Saturated Steam Pressure*	250 PSI	17 bar
Max. Temperature	400 °F	200 °C
Max. Hot Oil Pressure*	100 PSI	7 bar
Max. Temperature	446 °F	230 °C
Max. Speed*	750 RPM	750 min <sup>-1</sup>

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

### Monoflow Rotating Union



### Duoflow Rotating Union



### Monoflow Rotating Union

DN	B	Ordering No.		A Rotor Connections	C ∅	D	E	F*	G ∅	H	J	M	M <sub>1</sub>	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 <sub>1</sub>	M <sub>2</sub>	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.

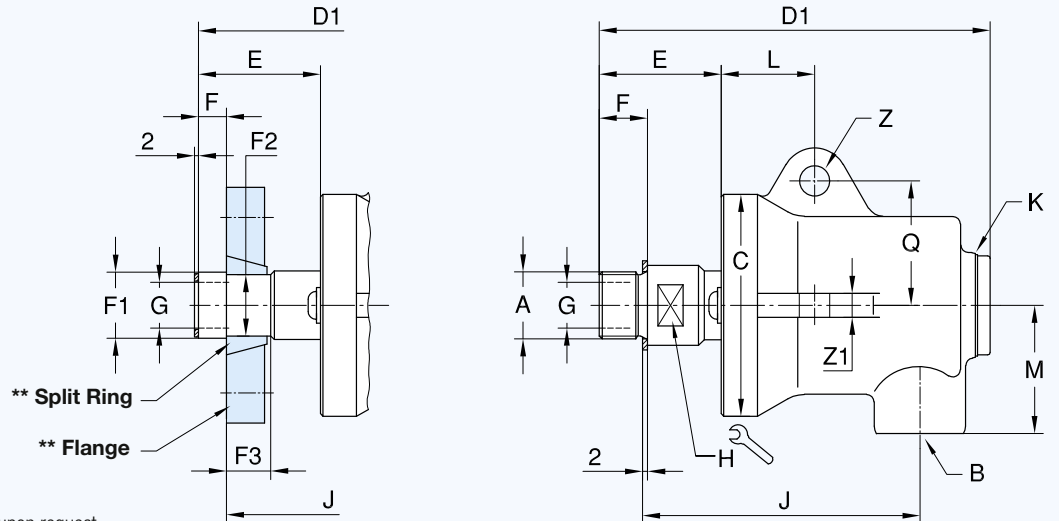
For further information please contact **DEUBLIN** or your local representative.

### Operating Data

Max. Saturated Steam Pressure*	150 PSI	10 bar
Max. Speed*	400 RPM	400 min <sup>-1</sup>
Max. Temperature	185 °C	> 185 °C consult <b>DEUBLIN</b>

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

### Monoflow Rotating Union for Steam



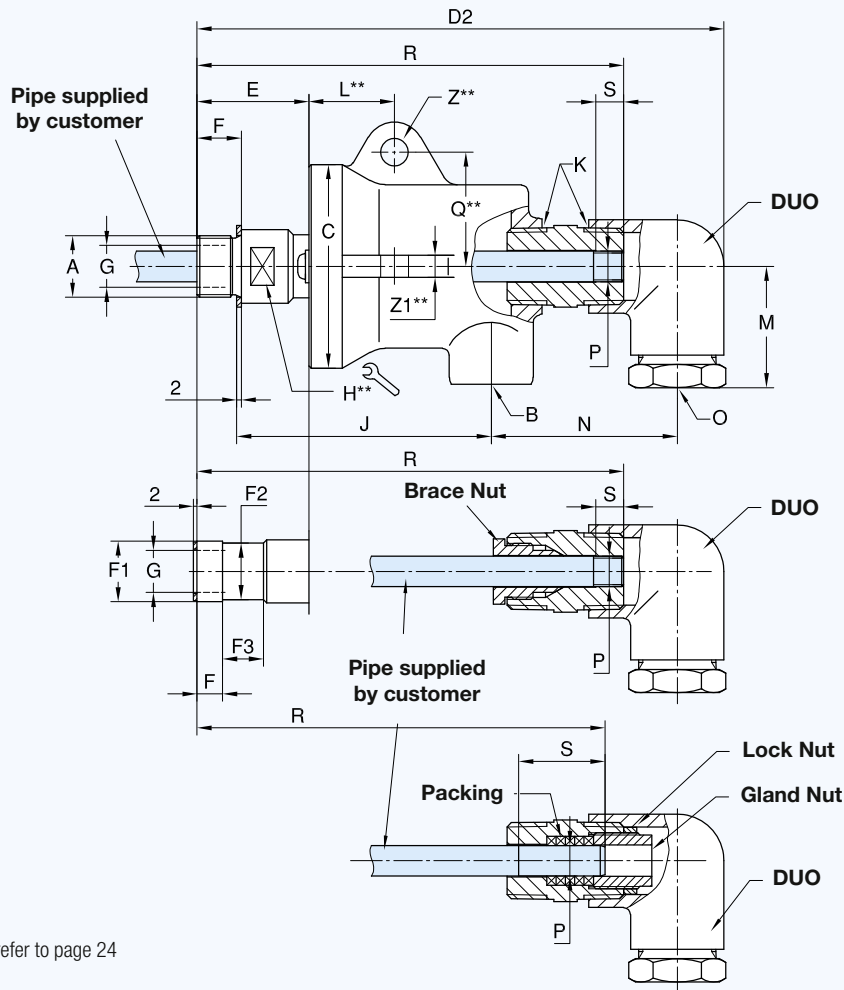
\*\* supplied by customer, data sheet available upon request

### 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	D <sub>2</sub>	E	F	F <sub>1</sub>	F <sub>2</sub>	F <sub>3</sub>	G	J	K	M	N	P Pipe	Pipe DIN 2440	R	S	kg
							∅				∅ PT	∅		∅									
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	-	-	-						109	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						115	∅ 13 h9	DN 8	175	
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	-	-						-	129	DN 8	210	
				-611	B															DN 10	210	12	
				-611	B															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						138	∅ 16 h9	DN 10	206	
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	-	-						-	140	DN 20	238	
				-610	B															DN 15	238	14	
				-611	B															DN 20	238	16	
			9125-008-126	-621	C	For Quick Connect Flange				12,7	41,0 40,9	39,65 39,55	19						150	∅ 20 h9	DN 15	230	
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	-	-						-	153	DN 20	262	
				-610	B															DN 15	262	14	
				-611	B															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						167	∅ 26 h9	DN 20	255	
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	-	-						-	168	DN 20	284	
				-610	B															DN 15	284	14	
				-611	B															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						189	∅ 26 h9	DN 20	276	

\* 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

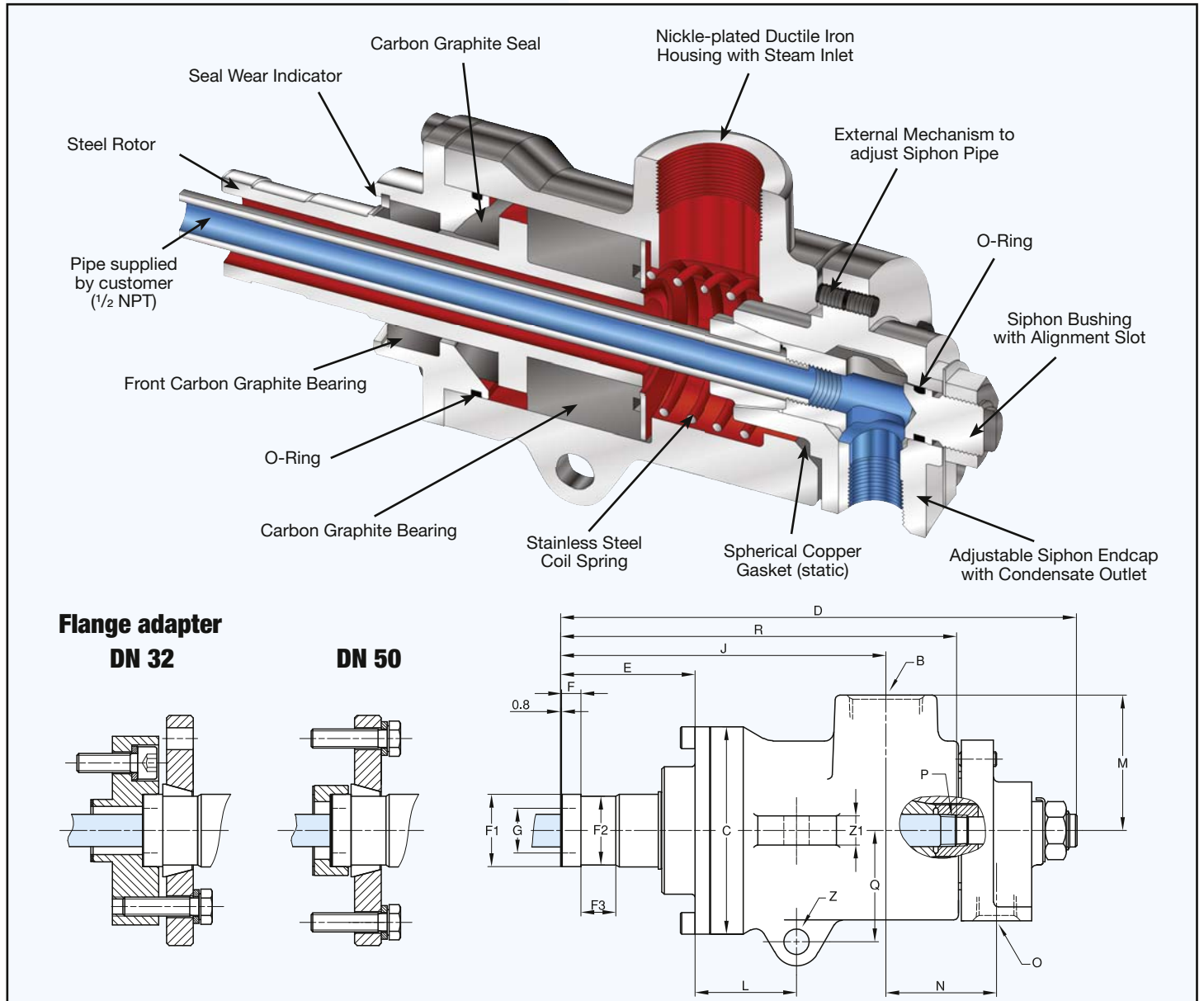


### Operating Data

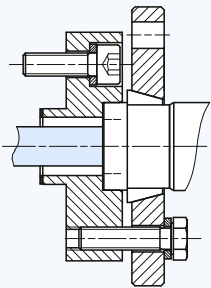
Max. Saturated Steam Pressure	250 PSI	17 bar
Max. Temperature	400 °F	200 °C
Max. Speed	400 RPM	400 min <sup>-1</sup>

- 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

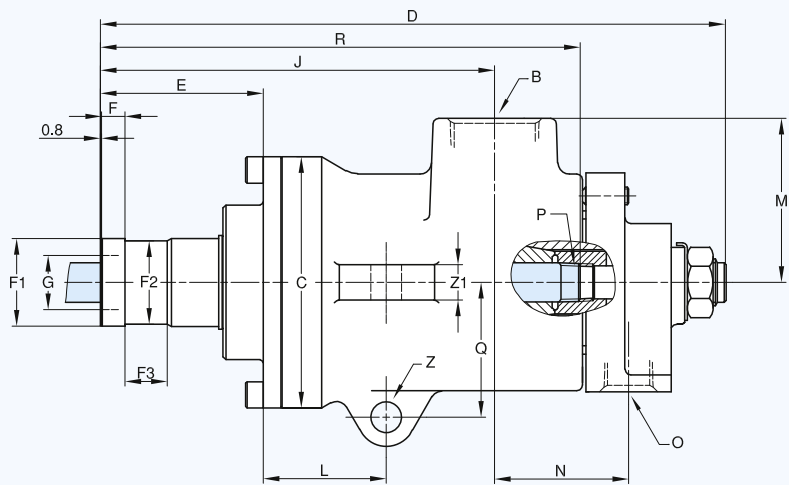
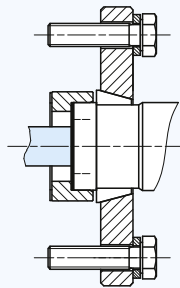
For further information please contact **DEUBLIN** or your local representative.



### 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

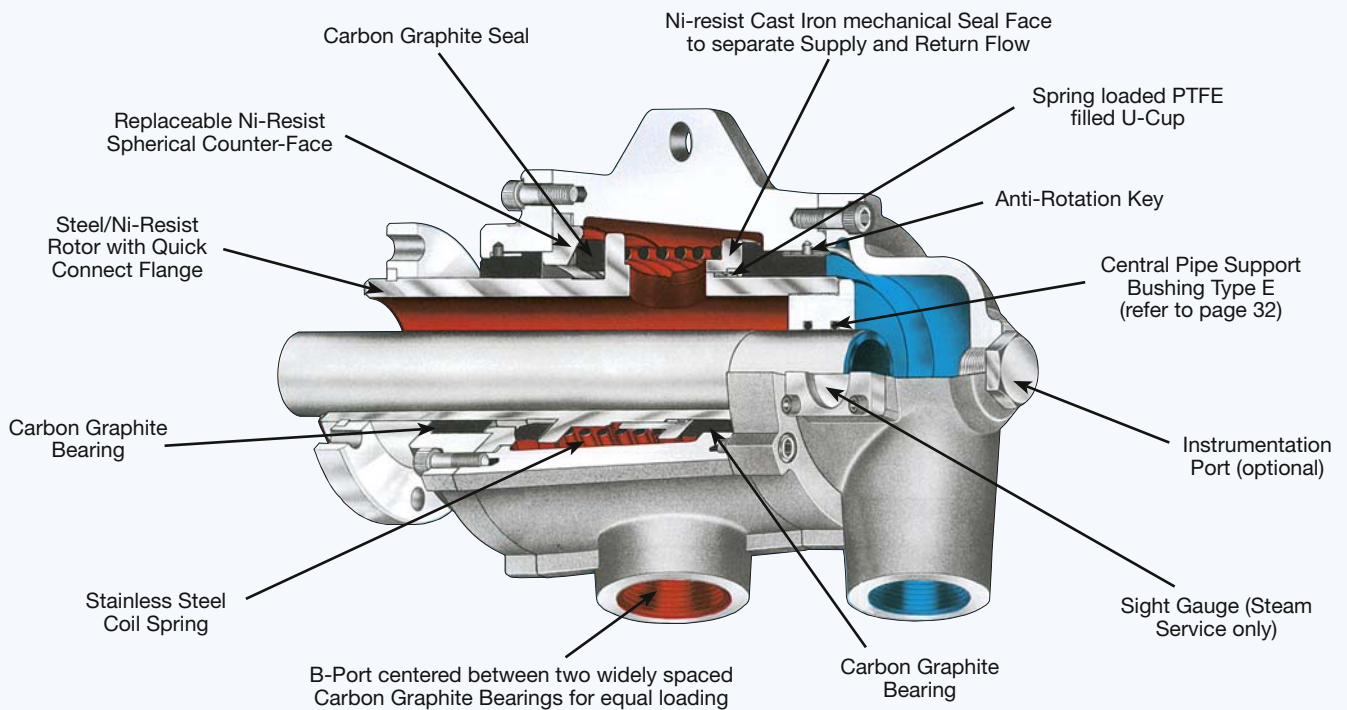
- monoflow and duoflow design
- self-supported rotating union
- designed for steam and hot oil applications in paper, plastics and textile industries
- effective on a variety of applications, especially on open gear paper machines
- pressurised spherical carbon graphite seal
- Ni-Resist counterface
- 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

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

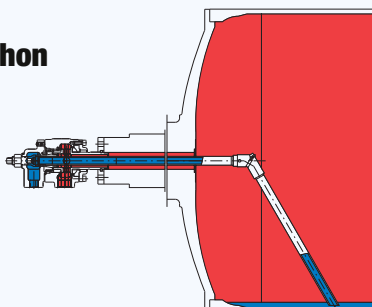
\* Operation at max. pressure combined with max. speed is not permissible

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

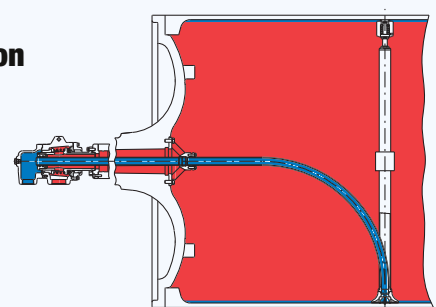


The rotating unions of the H Series can be used with the **DEUBLIN** Siphon Systems. Rotating and non-rotating siphon systems can be customised to meet any/all requirements. For further information please refer to our catalogue "Rotating Joints and Siphon Systems for the Paper Industry" or contact **DEUBLIN**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

### Example for Stationary Siphon System

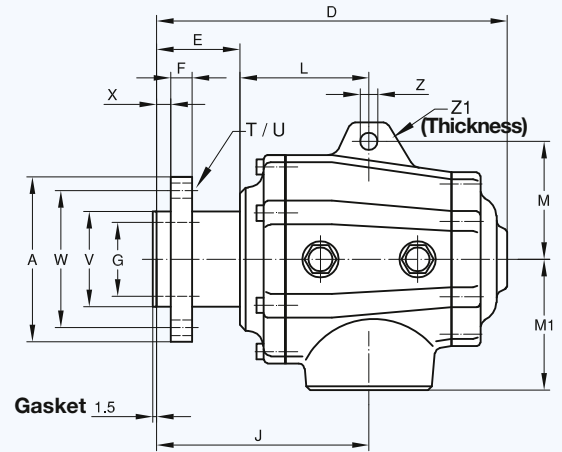
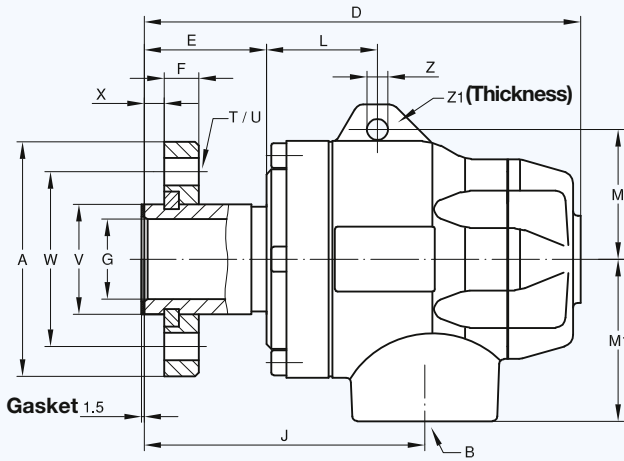


### Example for Rotating Siphon System

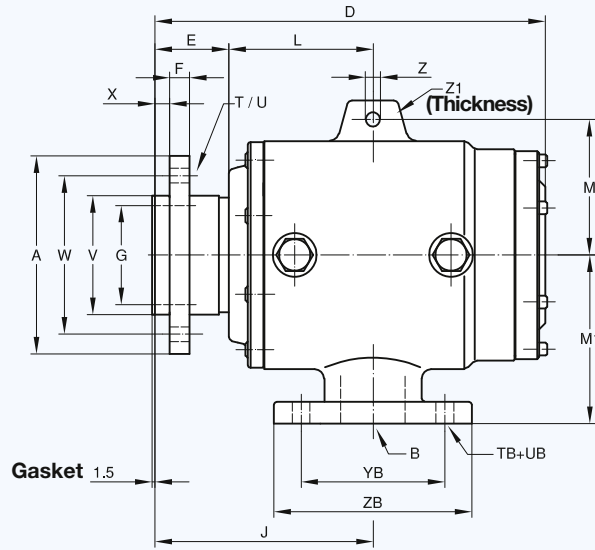


**Monoflow Rotating Union, Models Size H20 - H40 and**

**H57 - H87**



**Models Size H107 and H127**



**Monoflow Rotating Union**

DN	B	Model M	A ∅	D	E	F	G ∅	J	L	M	M <sub>1</sub>
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

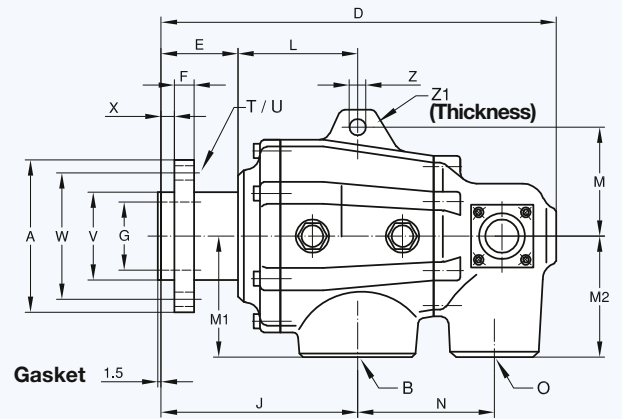
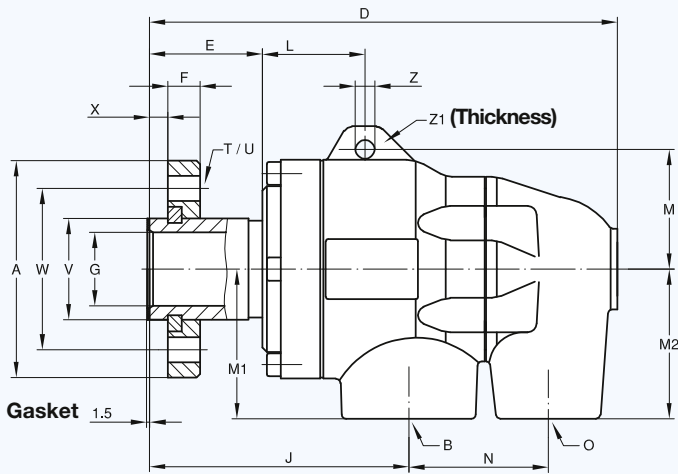
**Duoflow Rotating Union**

DN	B	O	Model E-R-S	A ∅	D	E	F	G ∅	J	L	M	M <sub>1</sub>	M <sub>2</sub>	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

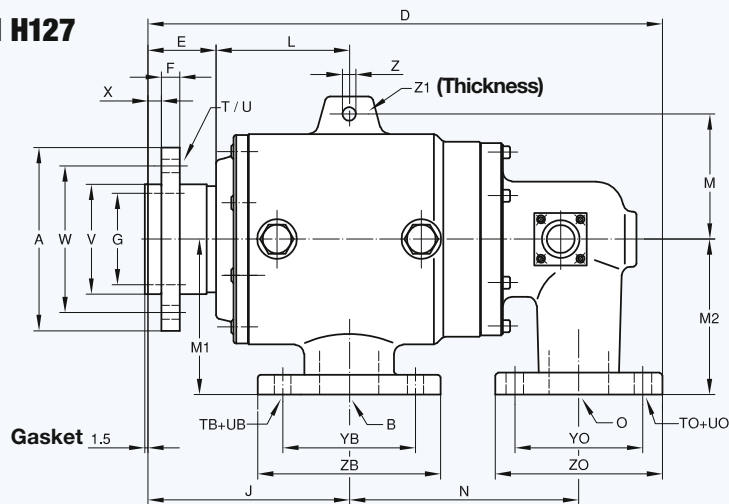
\* Hot Oil Design

**Duoflow Rotating Union, Models Size H20 - H40 and**

**H57 - H87**



**Models Size H107 and H127**



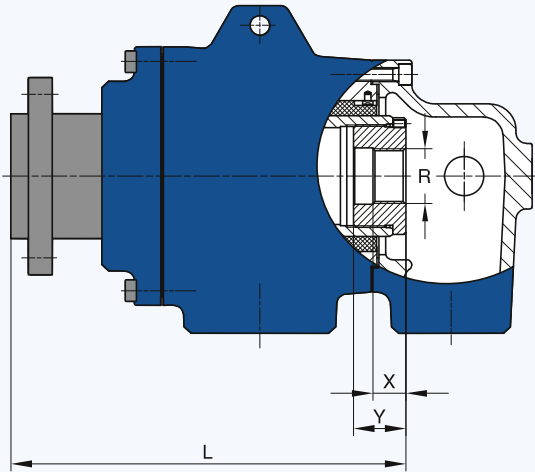
T	U ∅	TB	UB ∅	V ∅ h7	W ∅	X	YB ∅	ZB ∅	Z ∅	Z <sub>1</sub>	DN
4 x 90°	9	-	-	30	50	6	-	-	7	8	20
4 x 90°	9	-	-	36	60	7	-	-	7	11	25
4 x 90°	11	-	-	44	70	8	-	-	8,5	8	32
4 x 90°	11	-	-	52	78	10	-	-	11,5	10	40
4 x 90°	11	-	-	65	95	10	-	-	13	15	50
4 x 90°	13	-	-	80	115	12	-	-	15	20	65
4 x 90°	13	-	-	95	125	12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

### Duoflow Central Pipe Specifications

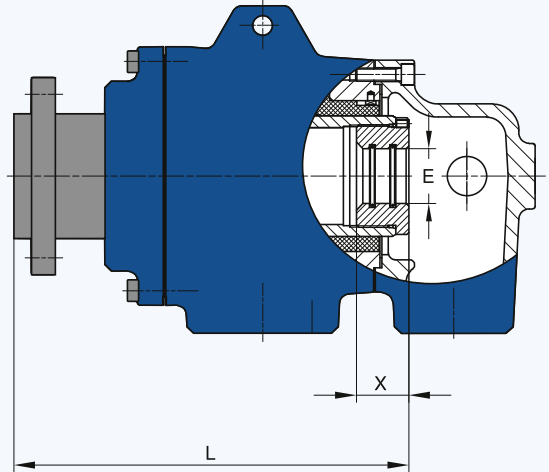
#### Rotating Central Pipe

**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.

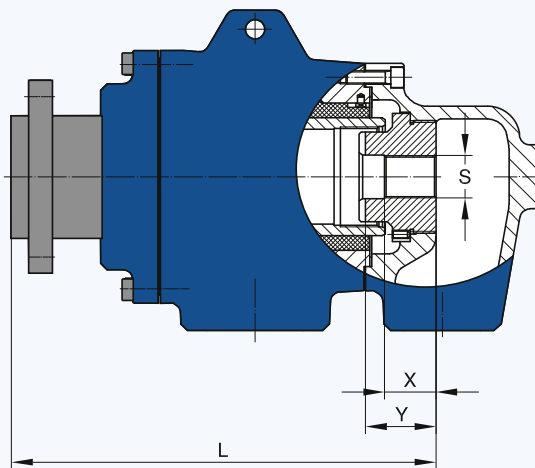


Model	L	X	Y	Design						
				Ra	Rb	Rc	Rd	Re	Rf	Rg
H20	117	15	20	-	G 1/8	G 1/4	-	-	-	-
H25	133	15	20	-	G 1/4	G 3/8	-	-	-	-
H32	147	20	25	-	G 3/8	G 1/2	-	-	-	-
H40	175	25	30	G 1/2	G 3/4	G 1	-	-	-	-
H57	233	25	35	-	G 3/4	G 1	-	G 1 1/4	-	-
H67	273	25	35	G 1/2	G 3/4	G 1	-	G 1 1/4	G 1 1/2	-
H87	300	25	40	G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

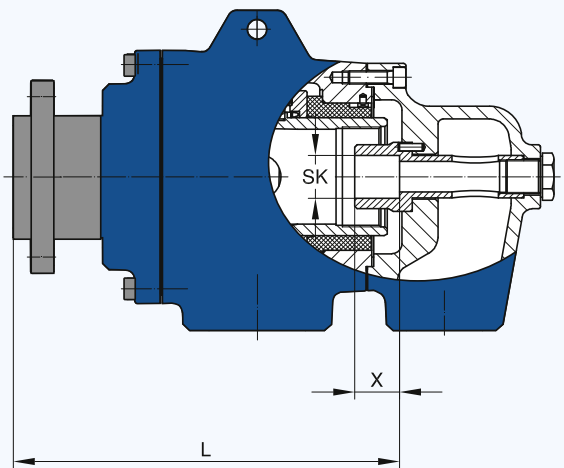
#### Stationary Central Pipe

**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

- 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.

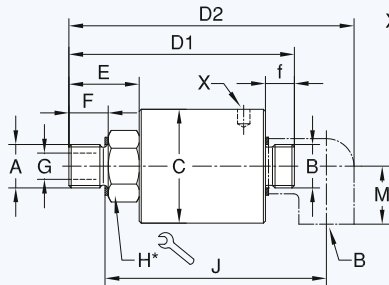


### Operating Data

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 <sup>-1</sup>
(DN 50)	750 RPM	750 min <sup>-1</sup>
Max. Temperature	120 °C	> 120 °C consult <b>DEUBLIN</b>

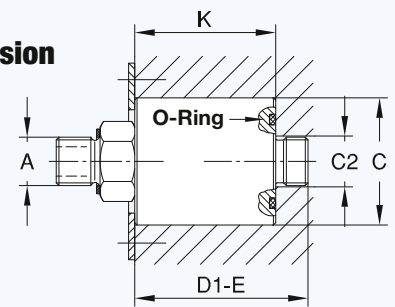
Recommended filtration of Hydraulic Oil: 5 µm  
\* Operation at max. pressure combined with max. speed is not permissible

### 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 <sub>R9</sub> <sup>E</sup>	C <sub>2</sub>	D <sub>1</sub>	D <sub>2</sub>	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															
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	4	0,5
		14037-03-095	14037-04-193				G 3/8 LH	42	18	93	119	26	16	12	9,5	22	93	54,5	25	4	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	6	1
		14050-03-152	14050-04-160				G 1/2 LH	55	22	109	138	34	19	14	12,7	30	107	60,5	28	6	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	6	1,7
		14075-03-285	14075-04-448				G 3/4 LH	63	28	122	158	34	19	16	17,5	36	124	71,5	33	6	1,7
		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	6	1,7
		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	6	1,7
		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	6	1,7
		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	6	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	6	2,4
		14100-03-223	14100-04-379				G 1 LH	80	35	138	181	41	22	18	25	36	140	78,5	38	6	2,4
		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	6	2,4
		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	6	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	6	3,3
		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	6	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	6	4
		14150-03-199	14150-04-289				G 1 1/2 LH	90	49	184	243	72	29	22	38	55	187	89,5	50	6	4
		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	6	4
		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	6	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	10	6
		14200-03-125	---				G 2 LH	110	61	205	275	65	29	25	47,6	60	213	114,5	58	10	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

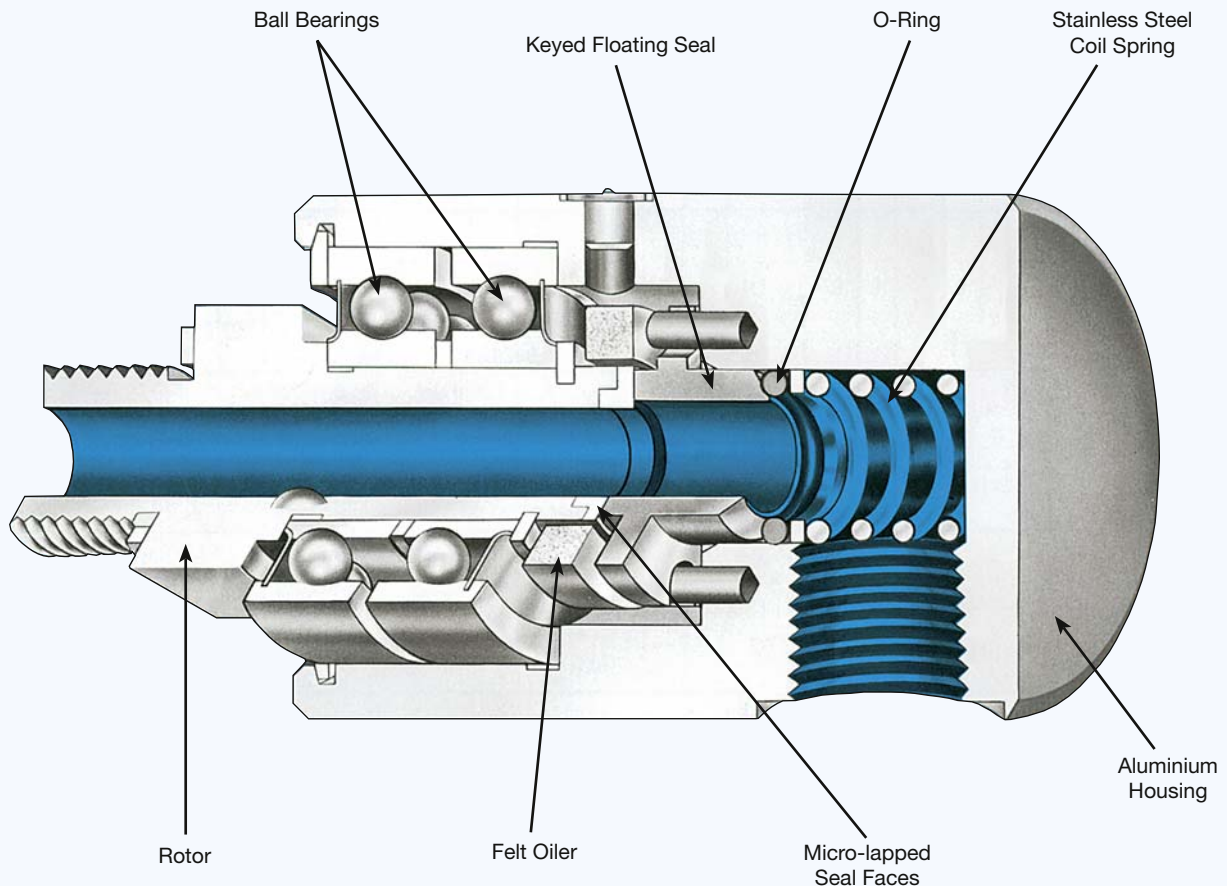
### Operating Data

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 <sup>-1</sup>
Model 250-094	3,500 RPM	3.500 min <sup>-1</sup>
355-021	3,000 RPM	3.000 min <sup>-1</sup>
452-000	2,500 RPM	2.500 min <sup>-1</sup>

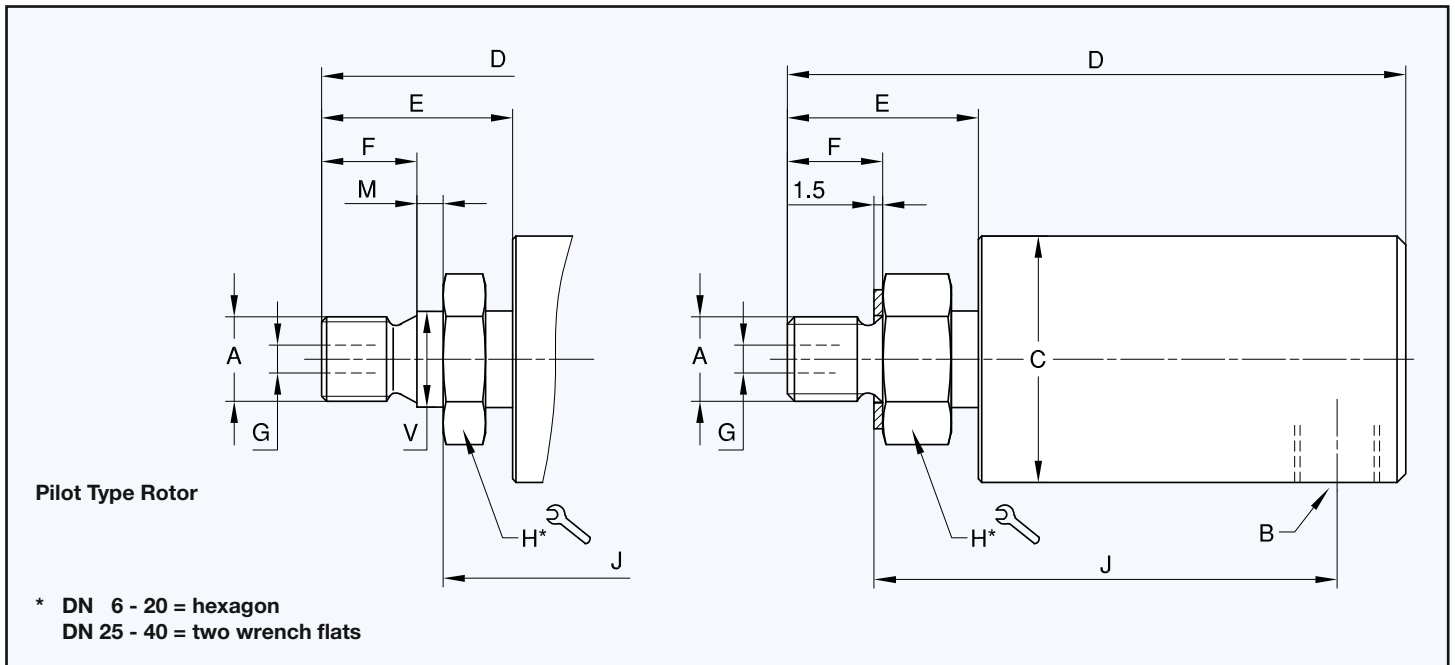
Max. Temperature 120 °C > 120 °C consult **DEUBLIN**

\* 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.

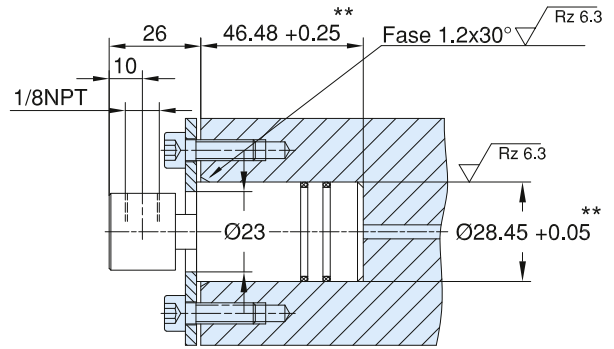
For additional models of In-the-Shaft Mounted Rotating Unions refer to page 31.

## 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 <sup>-1</sup>

Available with all 1005 rotors shown on page 33.

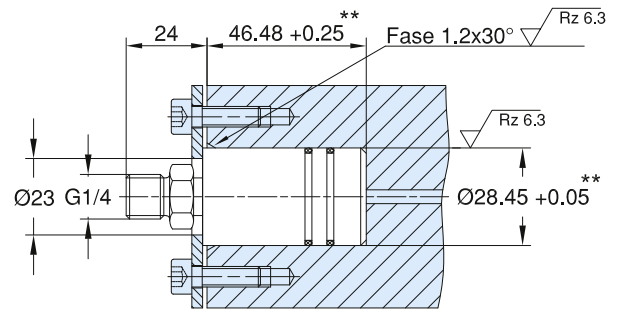


## Model 1005-000-049, DN 6

### 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 <sup>-1</sup>

Available with all 1005 rotors shown on page 33.

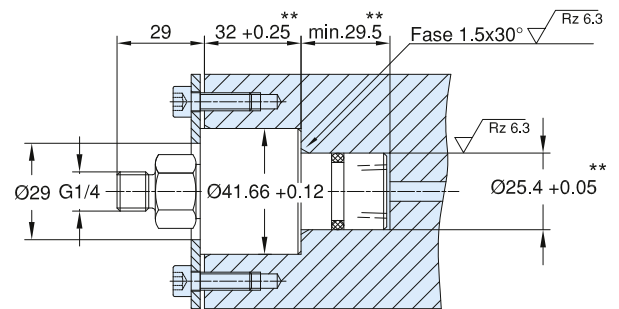


## Model 1102-025-103, DN 8

### 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 <sup>-1</sup>

Available with all 1102 rotors shown on page 33.

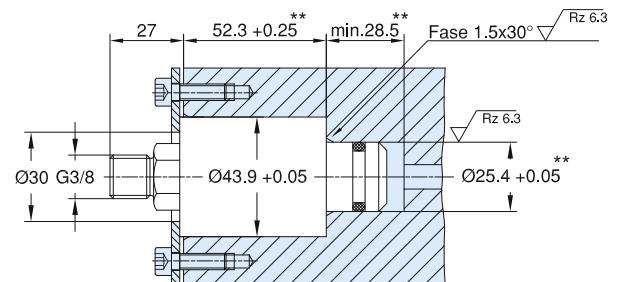


## Model 1115-130-205, DN 10

### 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 <sup>-1</sup>

Available with all 1115 rotors shown on page 33.



\*\* Dimensions of Shaft Bore



# DEUBLIN

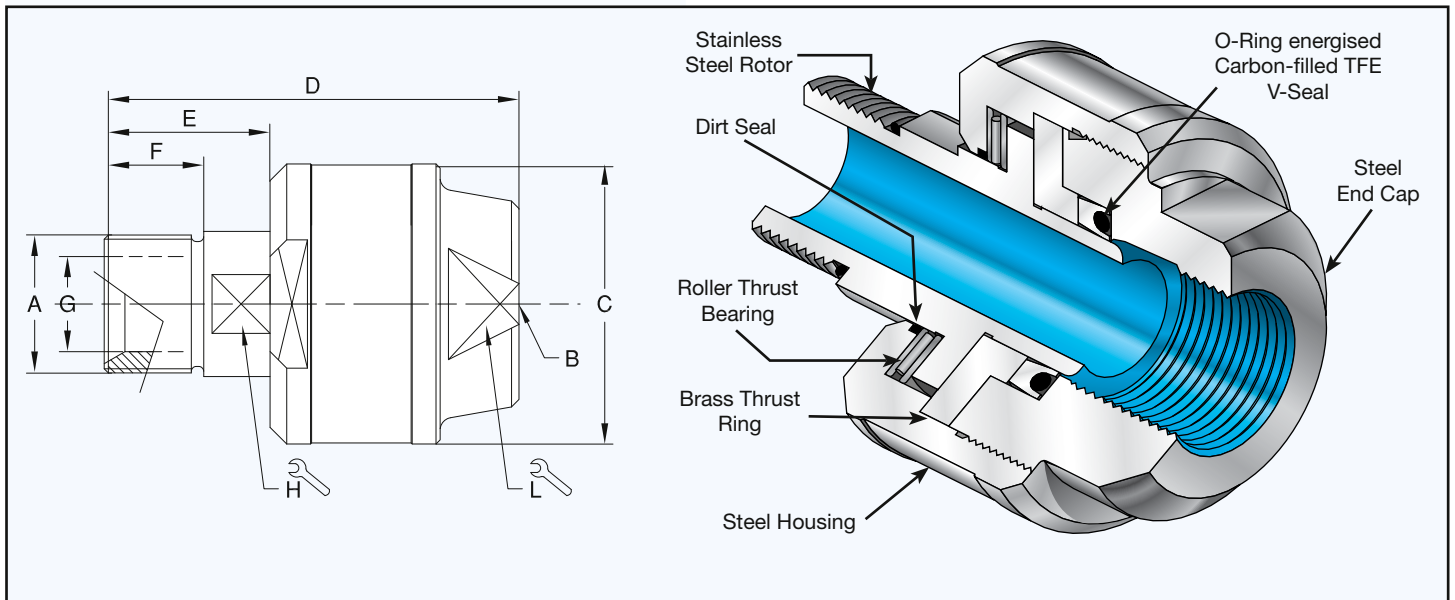
## Rotating Union D Series for Water and Hydraulic Oil Service, DN 8 - 40


- 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 <sup>-1</sup>
Max. Temperature	120 °C	> 120 °C consult <b>DEUBLIN</b>



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



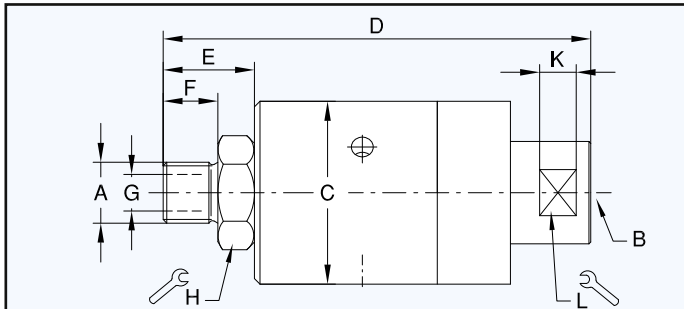
- monoflow design
- self supported rotating union
- designed for high media pressure and high RPM
- seals made of Tungsten Carbide
- double row ball bearing, lubricated for life (excluding ZAP)
- vent holes
- steel housing
- stainless steel end cap and rotor
- all parts in media contact are stainless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

### Operating Data

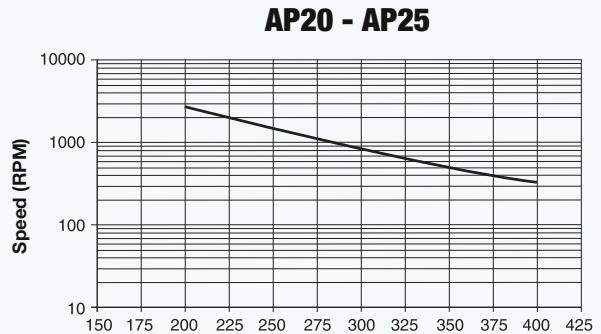
Max. Hydraulic/Water Pressure*	5,800 PSI	400 bar
Max. Speed*	1,500 RPM	1.500 min <sup>-1</sup>
Max. Temperature	90 °C	> 90 °C consult DEUBLIN

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

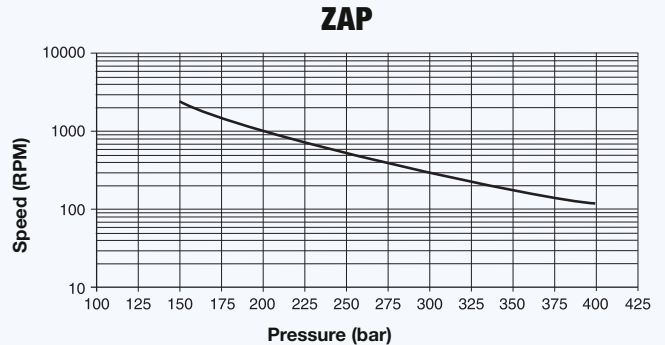
For further information please contact **DEUBLIN** or your local representative.



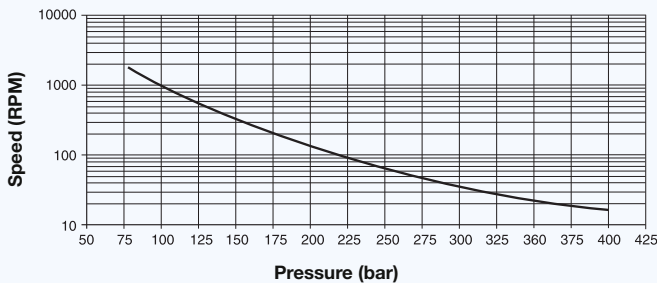
**AP8 - AP12**



**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

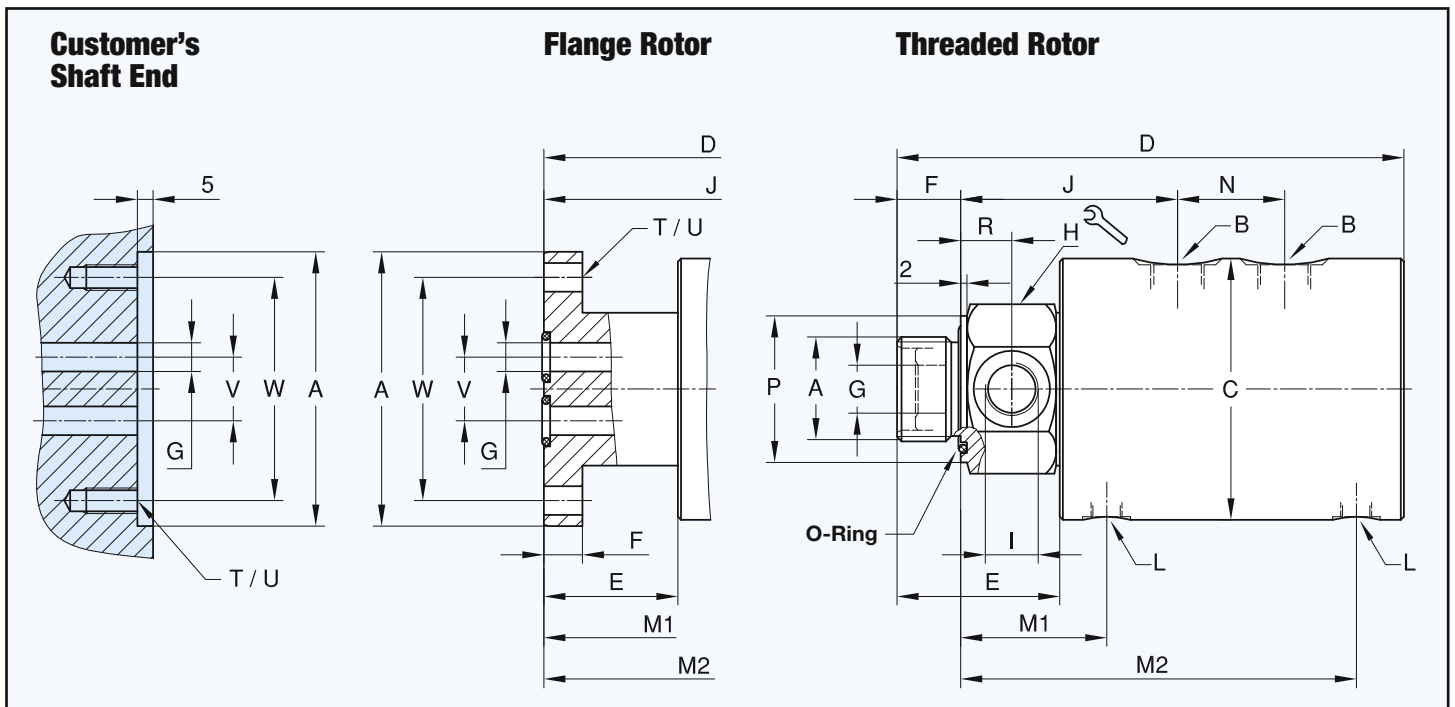
## Rotating Union 7100 Series for High Pressure Hydraulic Service, DN 8 - 20, Duoflow

- 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 <sup>-1</sup>
Max. Temperature	60 °C	> 60 °C consult <b>DEUBLIN</b>
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

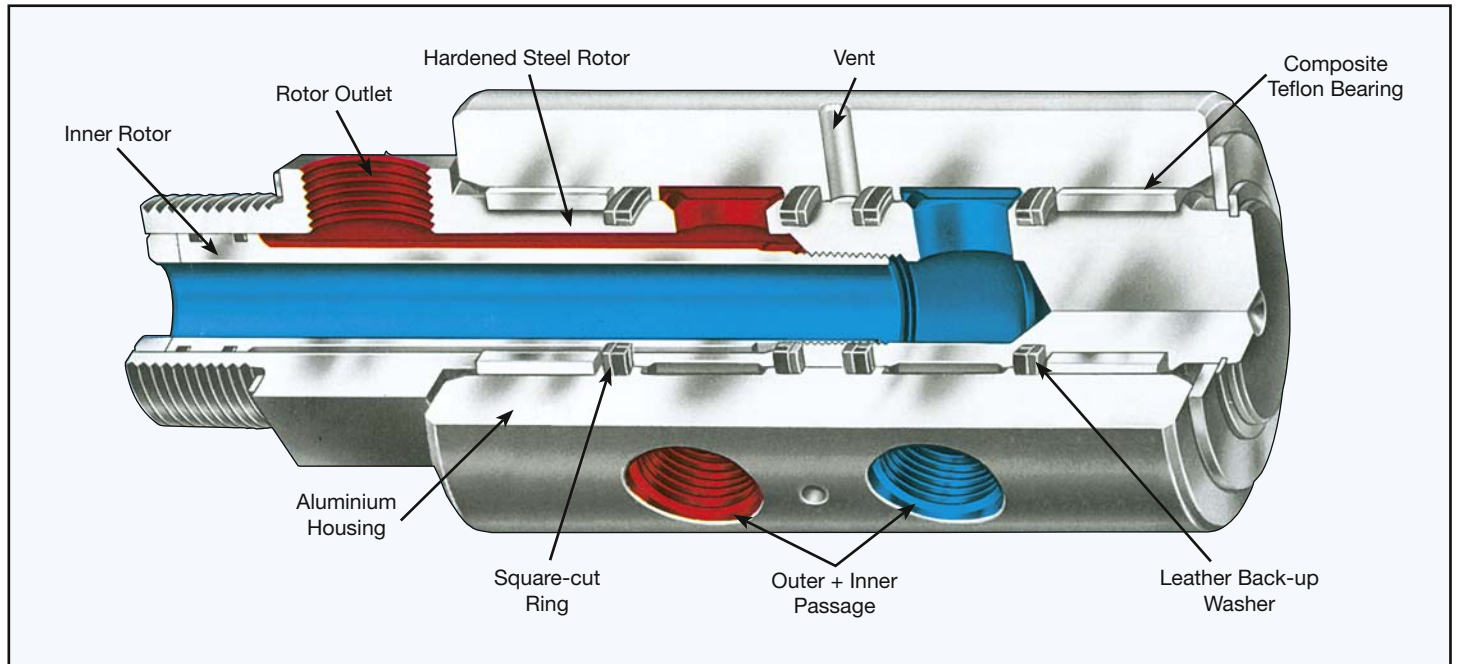
For further information please contact **DEUBLIN** or your local representative.

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

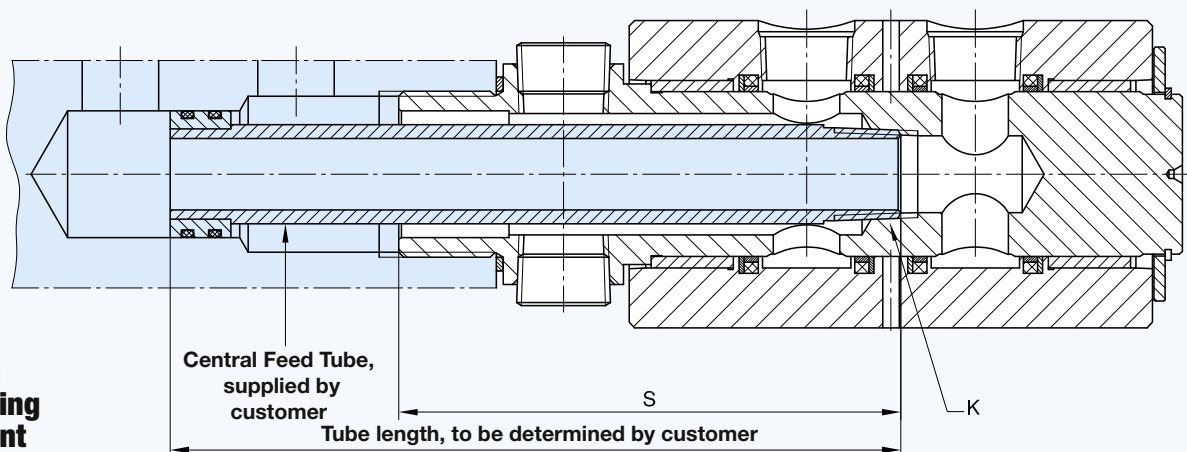
#### Operating Data

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 <sup>-1</sup>
Max. Temperature	120 °C	> 120 °C consult <b>DEUBLIN</b>

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

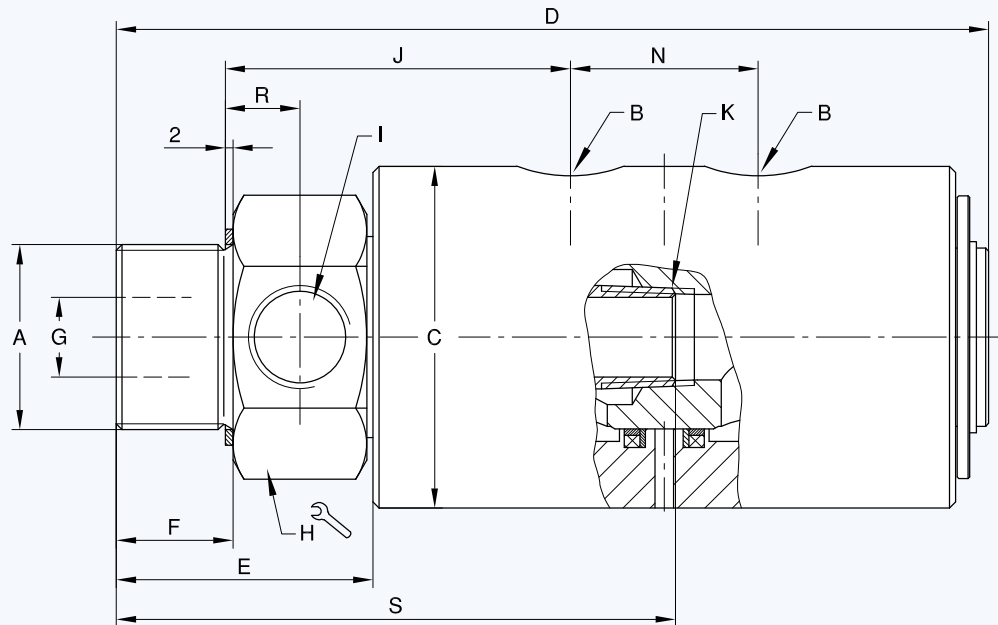


**Models without inner rotors can be used for coaxial feed applications as shown below.**



**Illustration of a mounting arrangement**

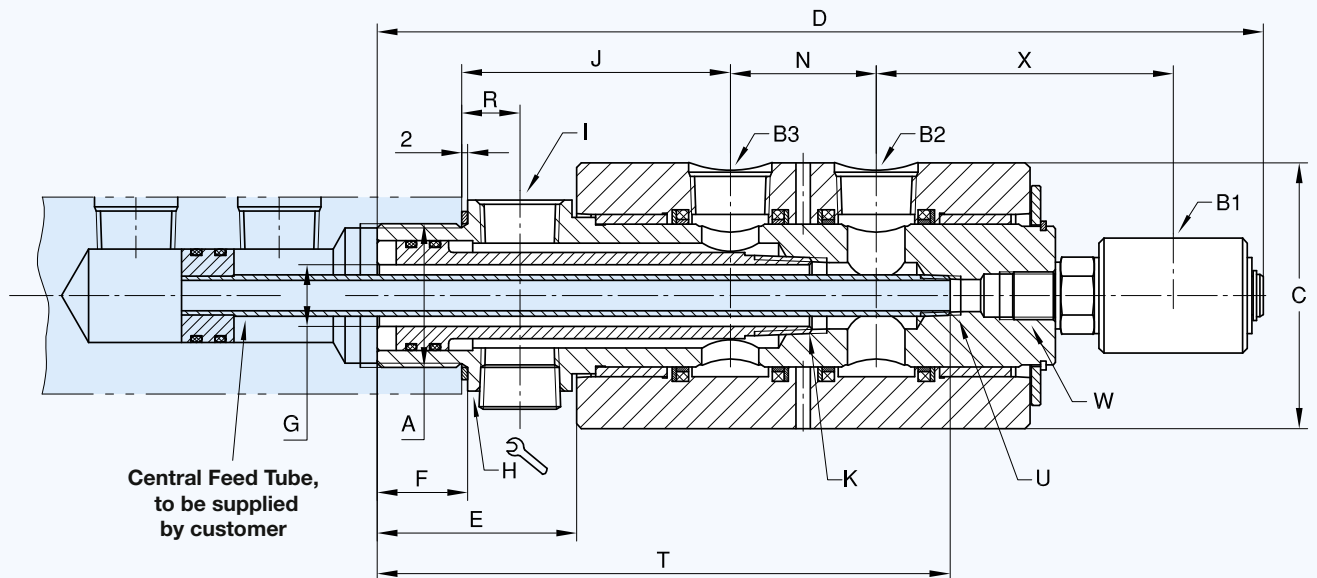
### Duoflow Rotating Union



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

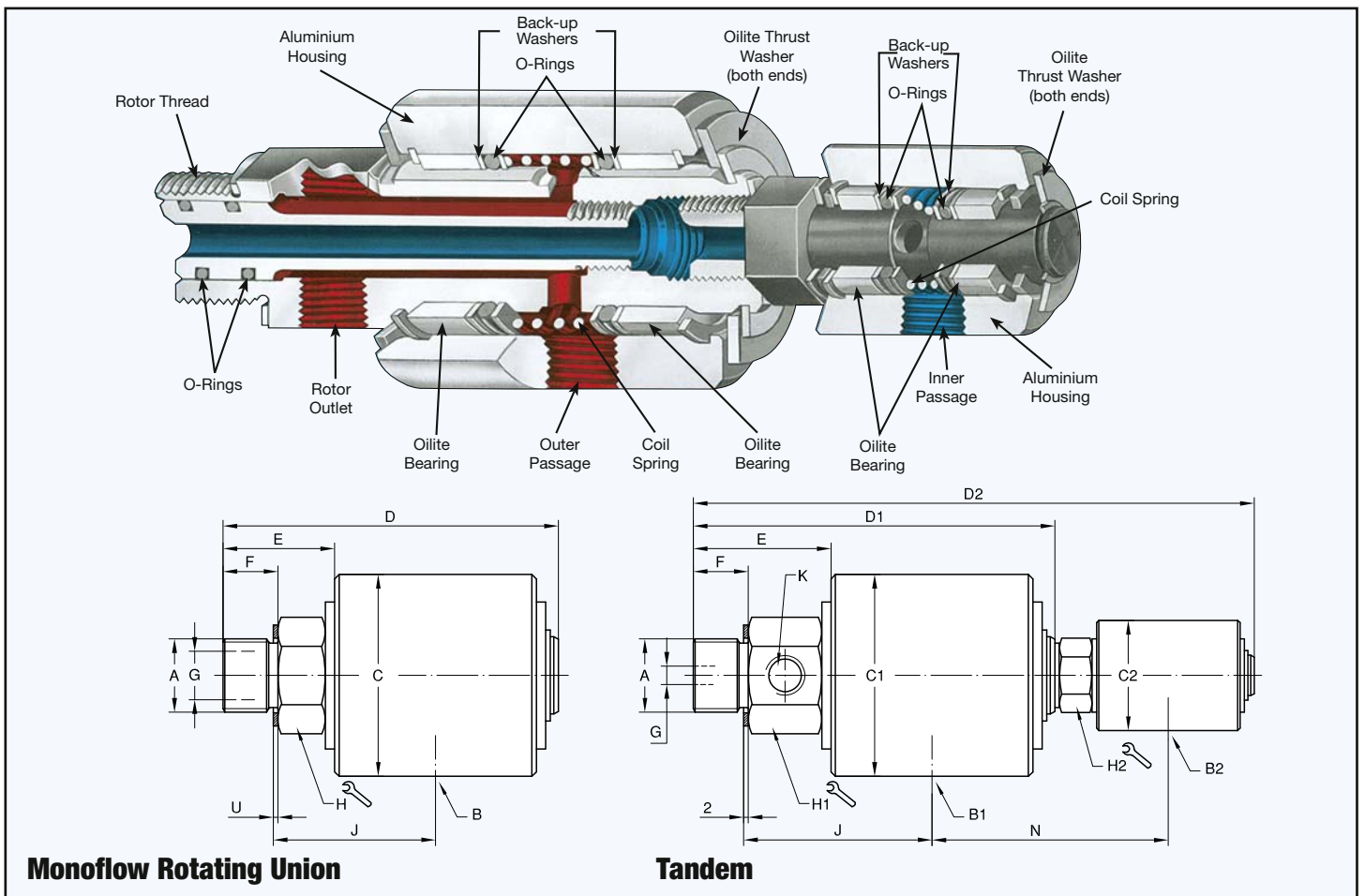
Max. Air Pressure	150 PSI	10 bar
Max. Vacuum	2 "Hg	7 kPa
Max. Hydraulic Pressure*	3,050 PSI	210 bar
Max. Speed (short-term)*	250 RPM	250 min <sup>-1</sup>

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

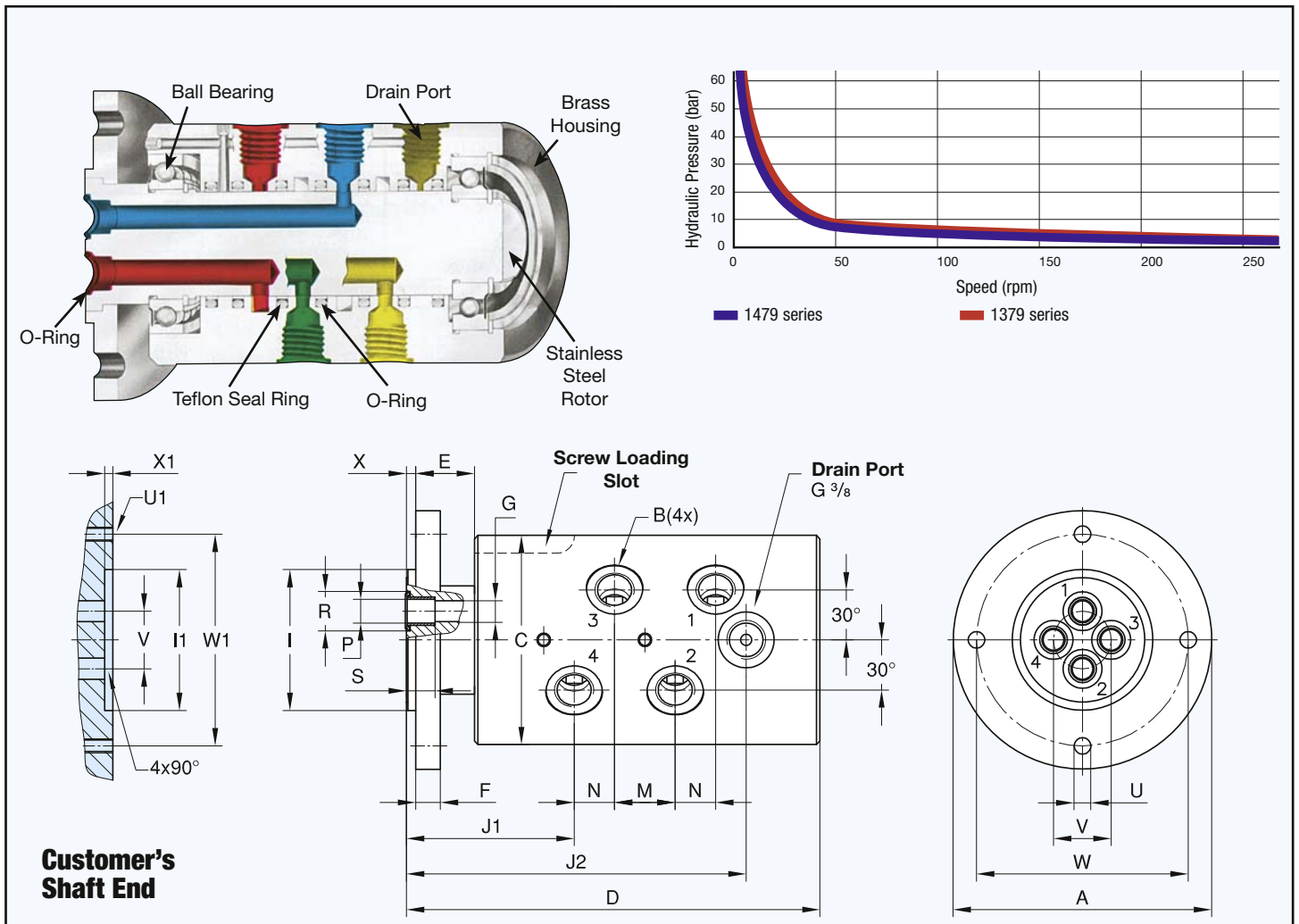


### Operating Data

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 <sup>-1</sup>
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 <b>DEUBLIN</b>
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 ø	C ø	D	E	F	G ø	I ø PT	I1 ø PT	J1	J2	M	N	P ø	R ø	S	U ø	U1 ø	V ø	W ø	X	X1	W1 ø	kg
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

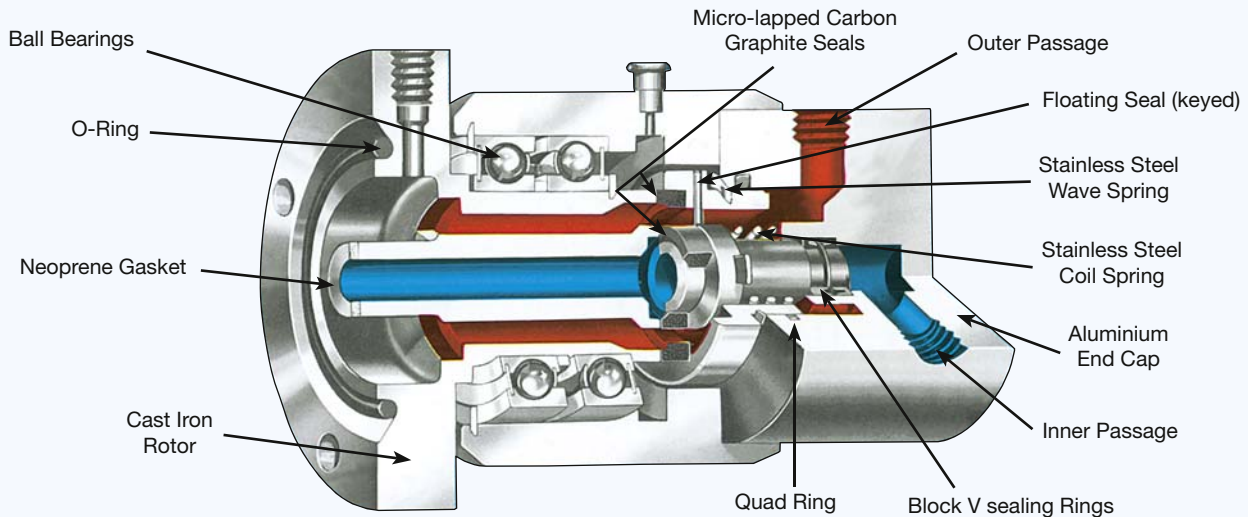
### DEU-PLEX for Air Service, DN 10

- 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

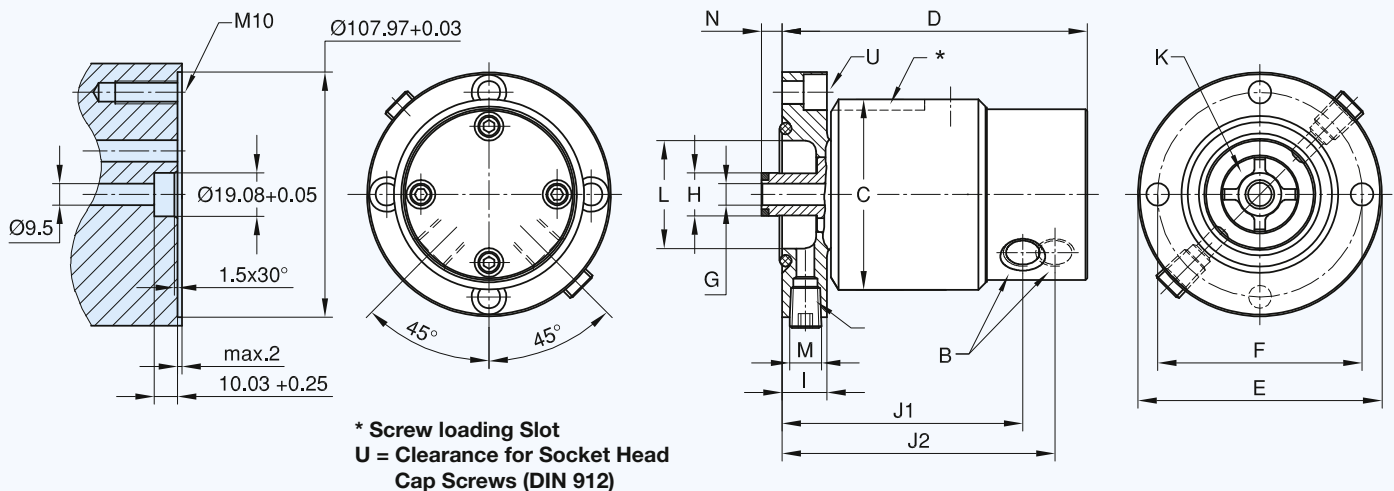
For further information please contact **DEUBLIN** or your local representative.


#### Operating Data

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



#### Customer's Shaft End



DN	B NPT	Ordering No.	C ø	D	E ø PT	F ø	G mm <sup>2</sup>	H ø	I	J1	J2	K mm <sup>2</sup>	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

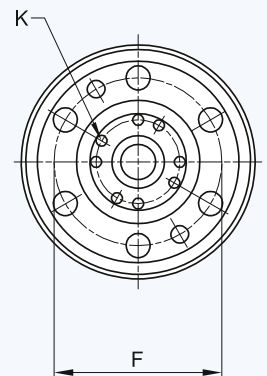
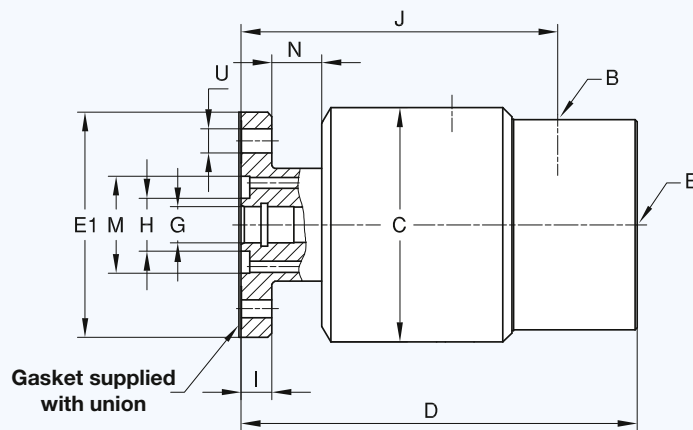
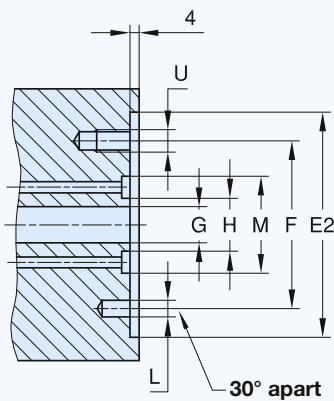
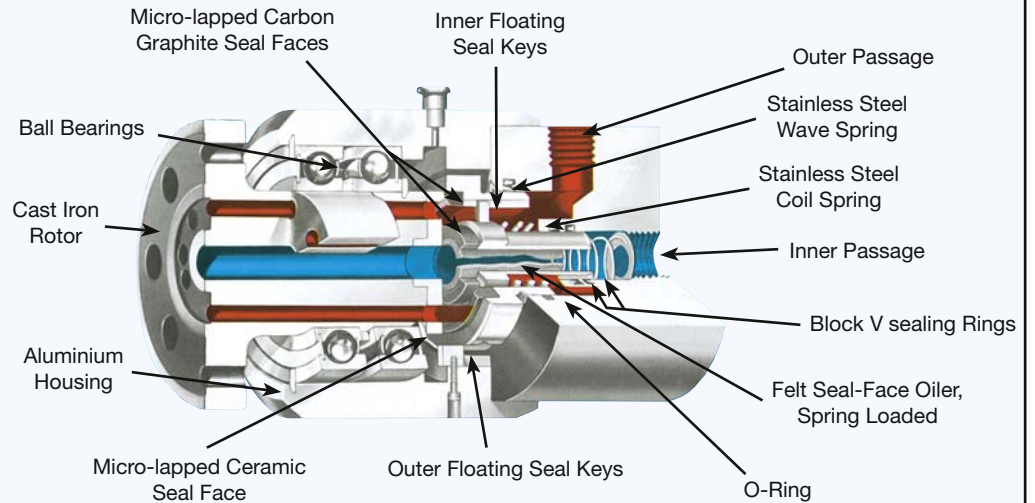
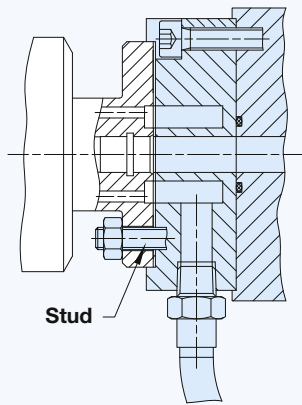
For further information please contact **DEUBLIN** or your local representative.

#### 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 <sup>-1</sup>
Max. Temperature	120 °C	> 120 °C consult <b>DEUBLIN</b>

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

#### Typical Adapter Mounting Arrangement



DN	B NPT	Ordering No.	Media	C ∅	D ∅	E1 ∅ PT	E2 ∅	F ∅	G mm <sup>2</sup>	H ∅	I ∅	J	K mm <sup>2</sup>	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

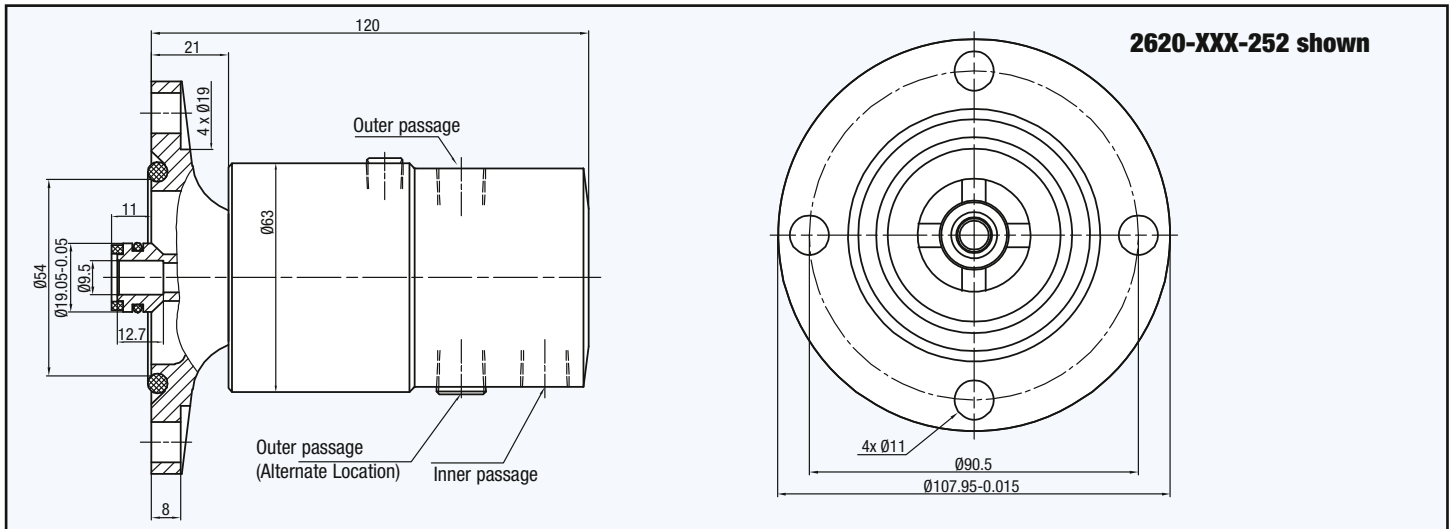
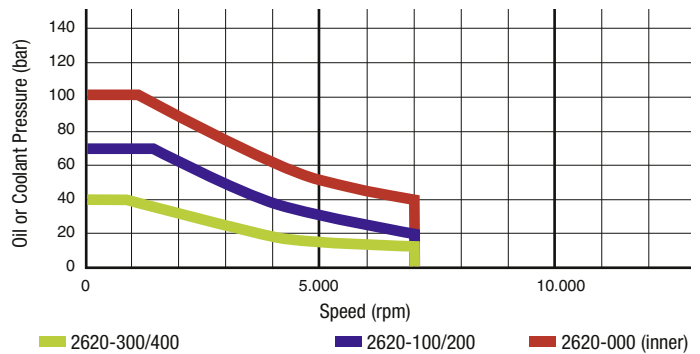
## 2620 Series 2-Passage Rotating Unions for Various Media



- 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)			
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 <sup>-1</sup>
Max. Temperature	71 °C	> 71 °C consult DEUBLIN	
Filtering	ISO 4406 Class 17/15/12, max. 60 micron		

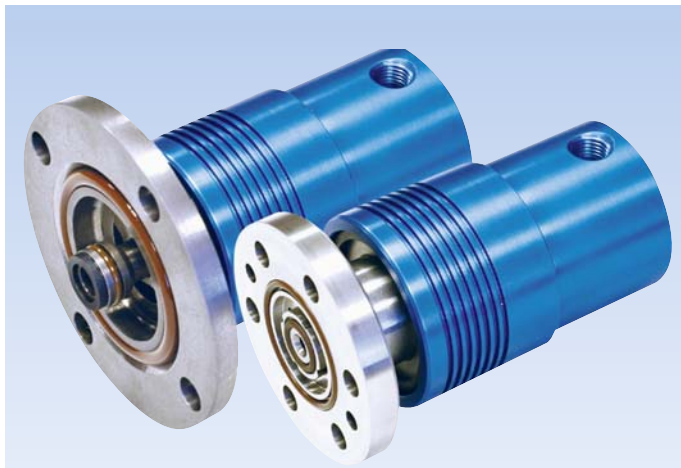


With Ø 108 mm flanged rotor		With Ø 88 mm flanged rotor		With Ø 81 mm flanged rotor		Inner Passage		Outer Passage		Notes	
Ordering Number	Supply Connections	Ordering Number	Supply Connections		Ordering Number	Supply Connections	Media	Max. Pressure [bar]	Media		Max. Pressure [bar]
	Inner and outer Passage		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	Air seals may be lubricated through oil cup or by using oiled air.
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	Air seals require no external lubrication.
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	Consult DEUBLIN regarding maximum speed.
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	

# DEUBLIN

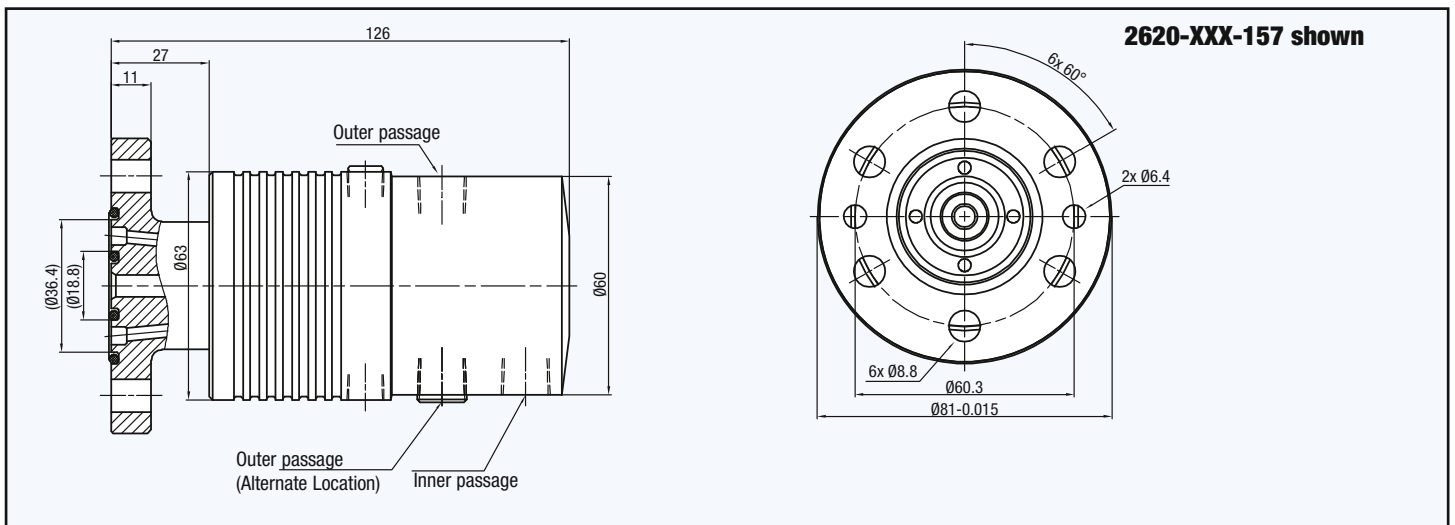
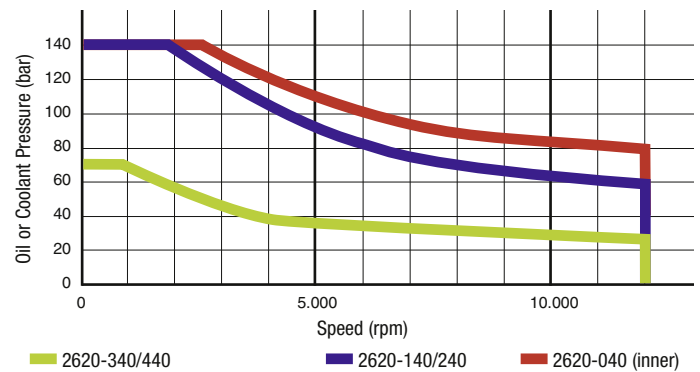
## 2620 Series 2-Passage Rotating Unions for Various Media

- 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		7,000 RPM	7.000 min <sup>-1</sup>
Max. Temperature	71 °C	> 71 °C consult <b>DEUBLIN</b>	
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

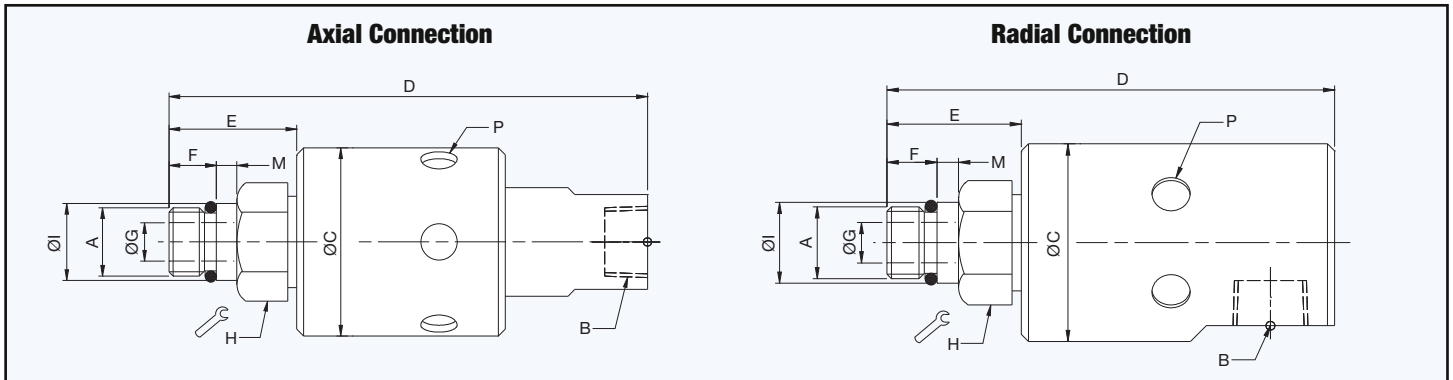
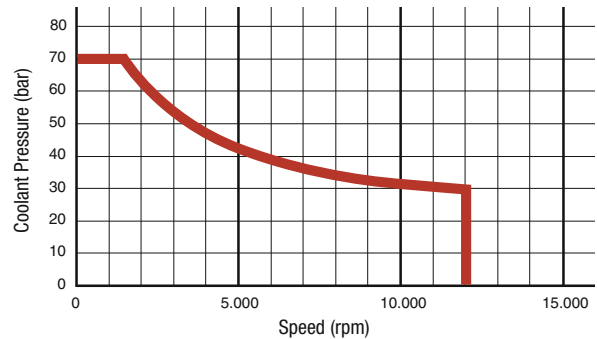
- single passage for coolant or MQL
- closed seals for transfer line and similar applications
- full-flow design has no obstructions to trap swarf or debris
- bearing-supported with threaded rotor for easy installation
- deep groove radial ball bearings for smooth operation
- labyrinth system and large 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 <sup>-1</sup>	
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

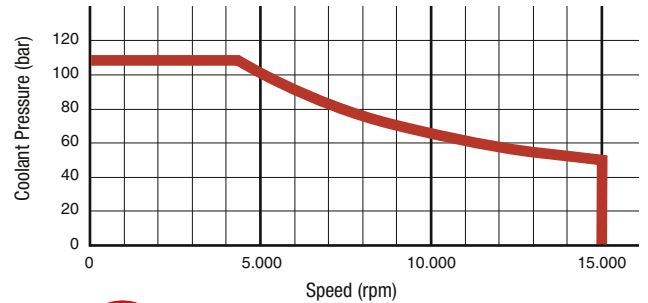
## 1101 Series "Closed Seal" Rotating Unions for Continuous Coolant Service

- 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



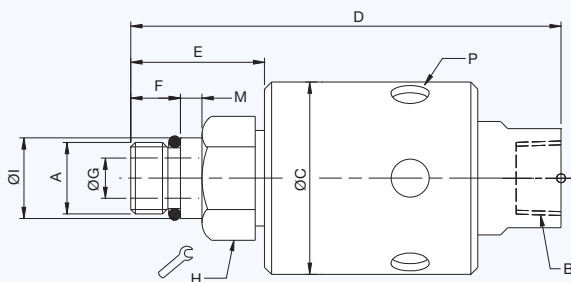
### Operating Data

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 <sup>-1</sup>	
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		

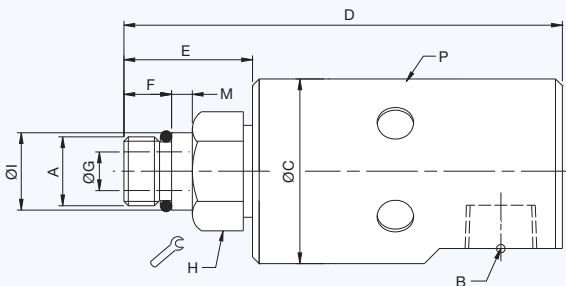


DO NOT RUN DRY

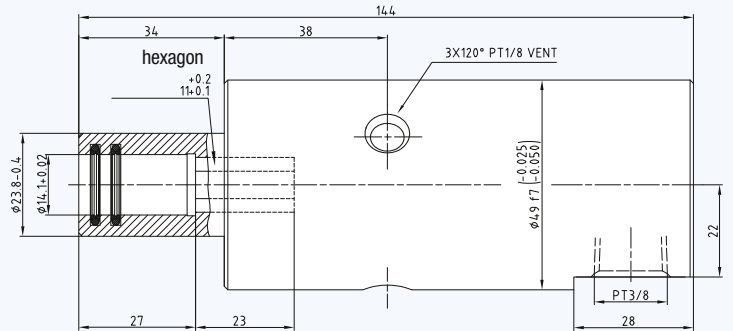
### Axial Connection



### 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 <sup>A</sup>	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

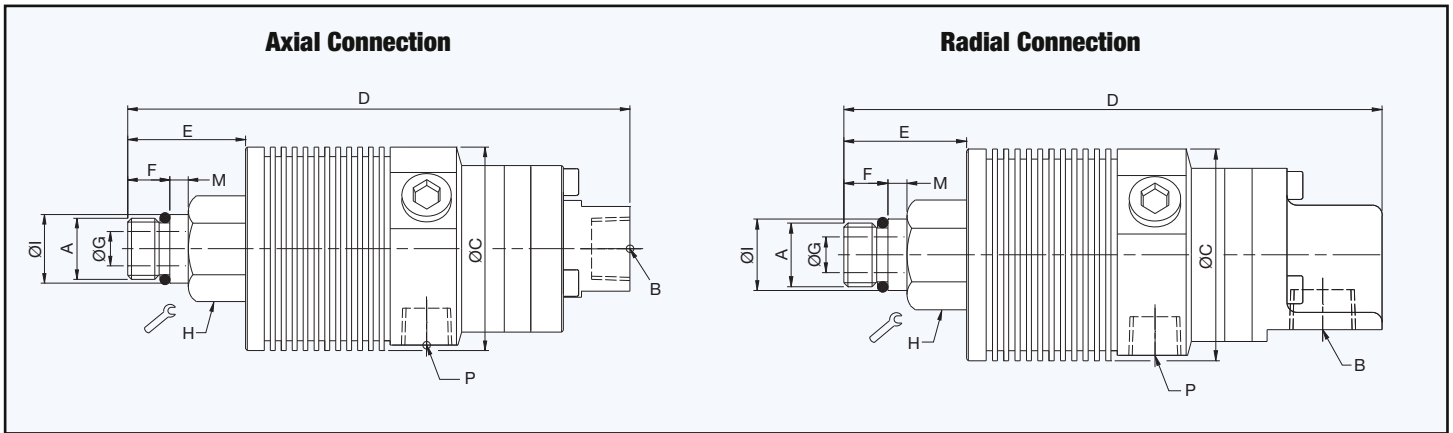
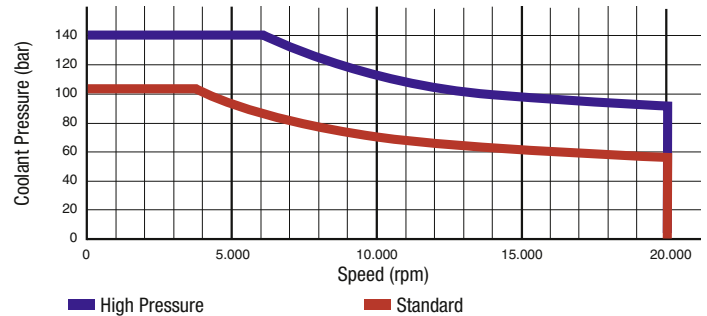
- single passage for coolant or MQL
- Pop-Off™ technology allows unlimited dry running without media pressure
- full-flow design has no obstructions to trap swarf or debris
- bearing-supported with threaded rotor for easy installation
- dual ABEC 7 (ISO class P4) angular contact ball bearings
- labyrinth 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 <sup>-1</sup>
Max. Speed		
Max. Flow Rate		
Standard	21.6 GPM	82 l/min
HighPressure	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



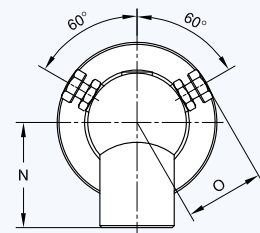
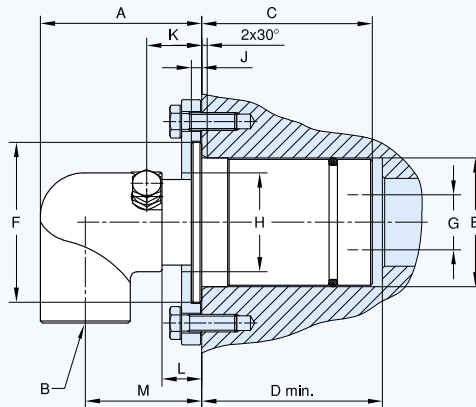
### Operating Data

Max. Water Pressure	150 PSI	10 bar
Max. Speed	100 RPM	100 min <sup>-1</sup>
Max. Temperature	120 °C	> 120 °C consult <b>DEUBLIN</b>

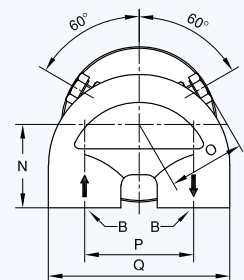
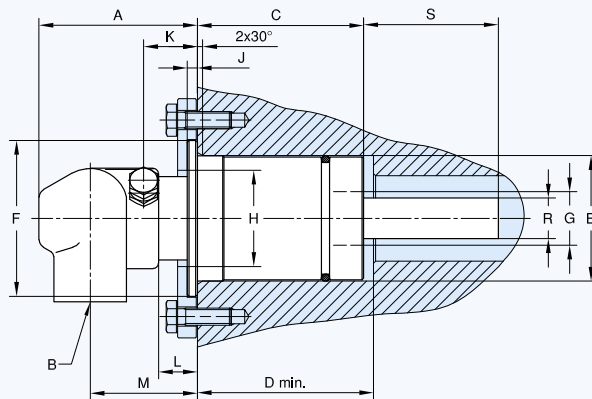
- monoflow and duoflow design
- in-the-shaft mounted rotating union
- flanged housing or mounted with retaining plates
- high-wear resistant balanced mechanical seal  
Silicon Carbide/Silicon Carbide
- brass housings and elbows
- stainless steel rotors and supply pipes
- for poor water quality
- long 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 <sup>-1</sup>	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

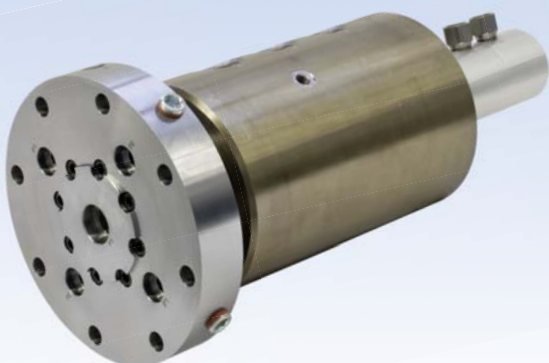
- central bore for further connections
- ball bearing supported version
- flange version
- radial housing ports G<sup>3/4</sup>

**Possible applications:**  
Turrets in steel plants

#### Operating Data

Media	Hydraulic Oil / Compressed Air	
Max. Speed	10 min <sup>-1</sup>	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<sup>3/8</sup>

**Possible applications:**  
Steel industry, e.g. rewinders

#### Operating Data

	7100-1010		SP0077	
Media	Hydraulic		Grease	
Max. Speed	450 min <sup>-1</sup>	450 RPM	600 min <sup>-1</sup>	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 <sup>-1</sup>	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 <sup>-1</sup>	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 <sup>-1</sup>	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.

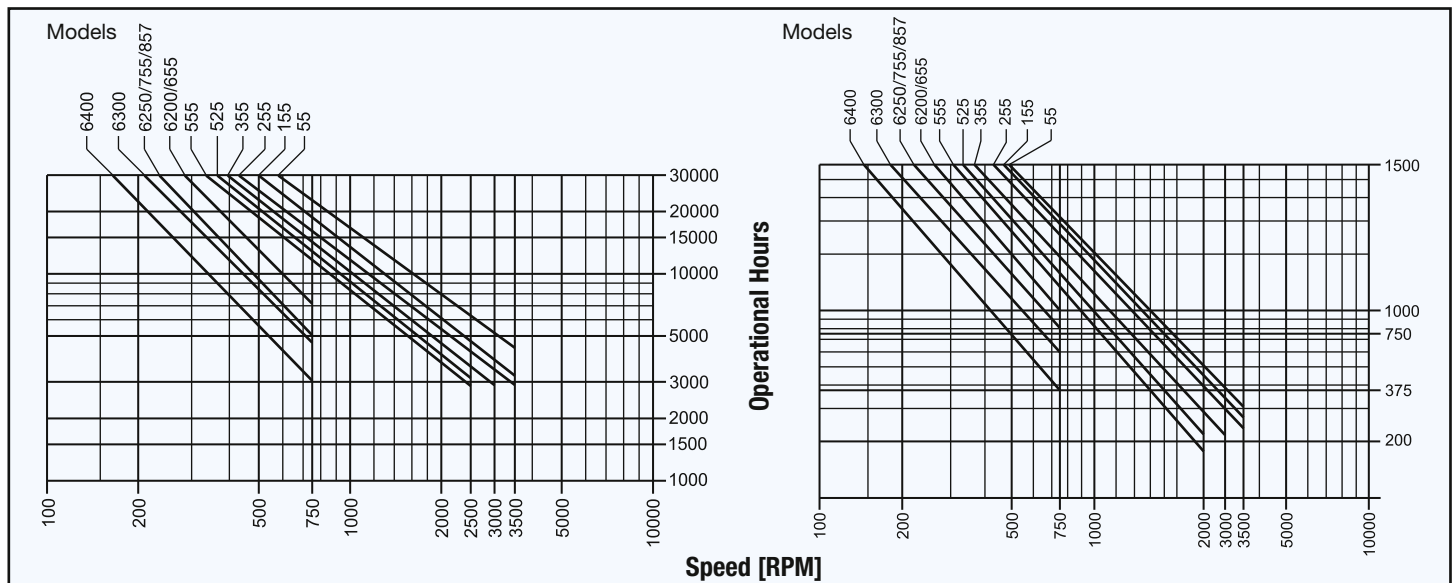
## Relubrication Interval

### 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](http://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 <sup>-1</sup>	r.p.m.	t/min	g/min	min <sup>-1</sup>	min <sup>-1</sup>	1 RPM = min <sup>-1</sup> = 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 <sup>2</sup> ± 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!**

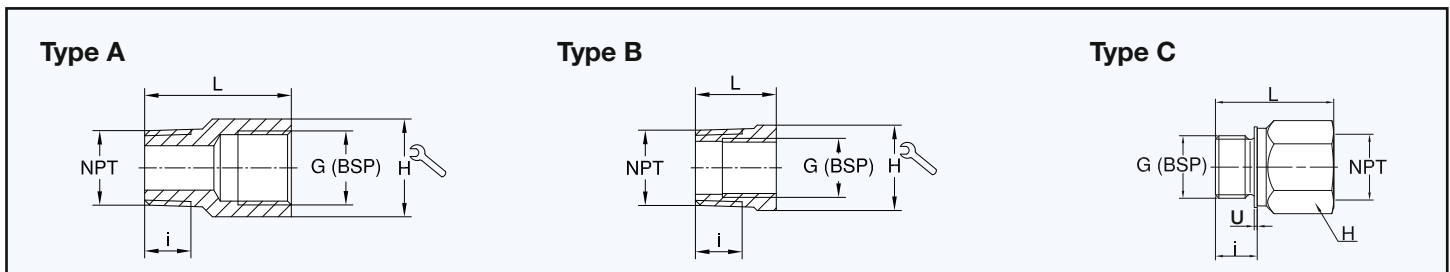
Between 3½ to 6 thread pitches must be engaged.

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

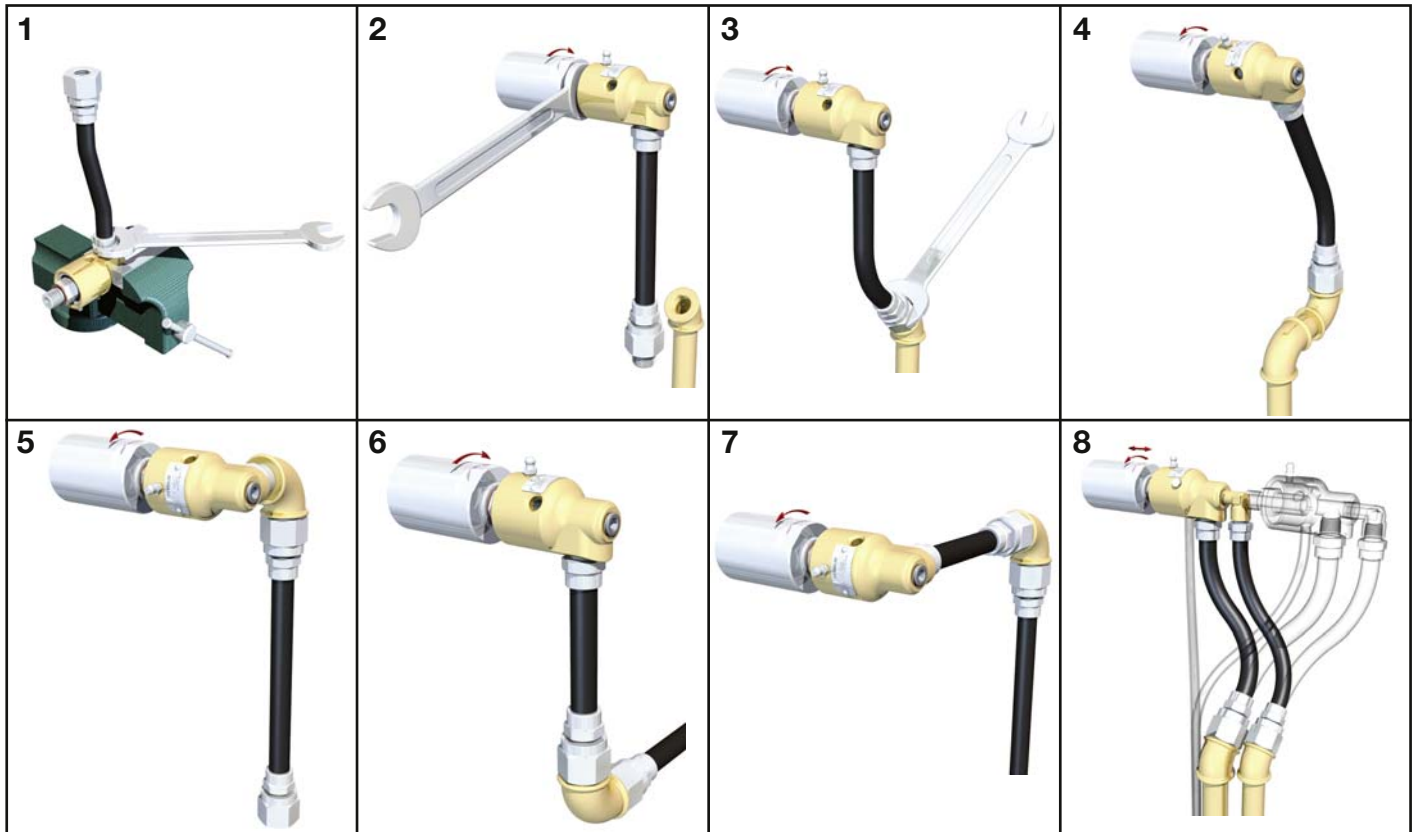
### G (BSP) → NPT

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

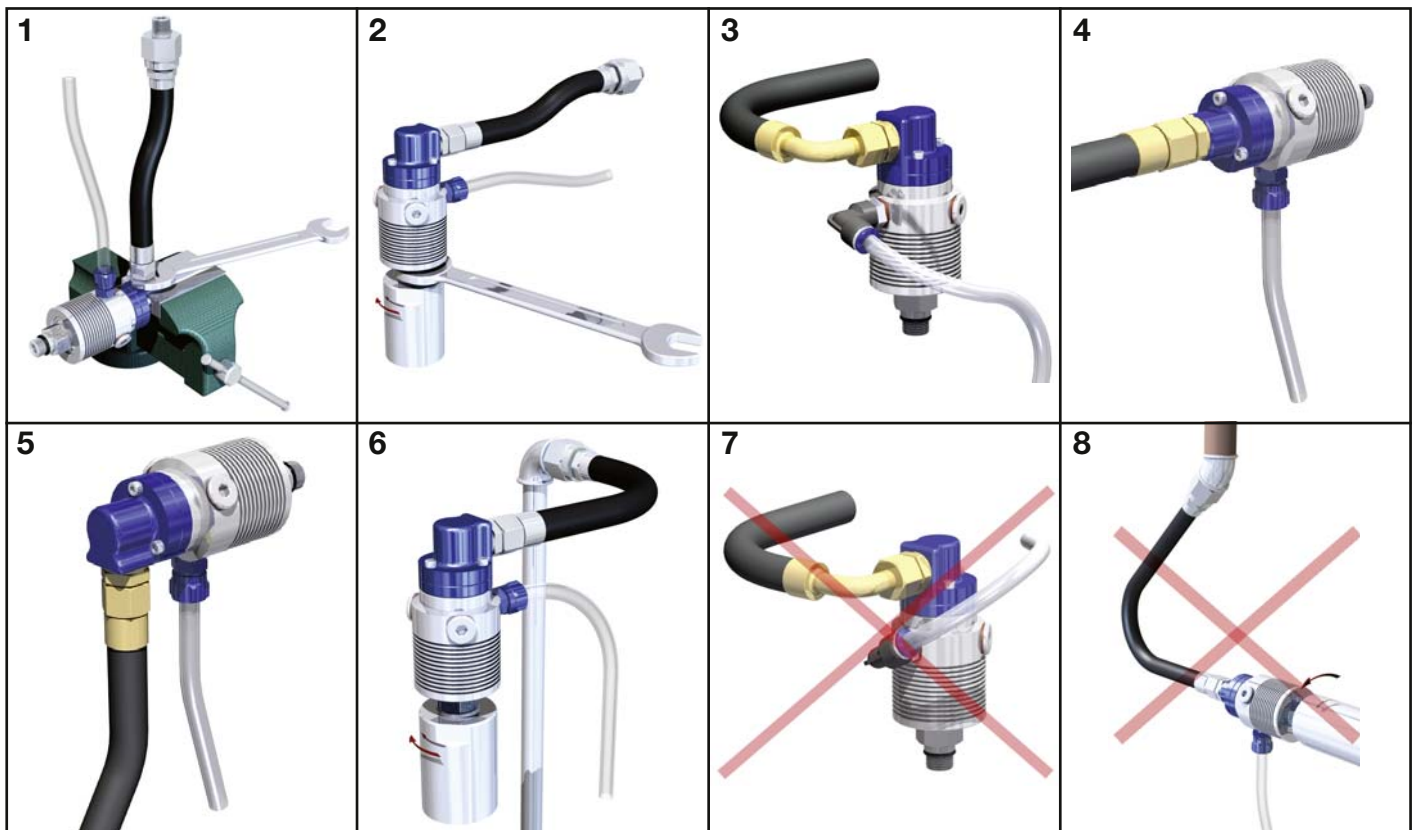
\* Material: Brass

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

## Example Rotating Union 55/57 Series



## Example Rotating Union 1109 Series





# Additional Catalogues with Customised Applications for Special Industries

<h2 style="text-align: center;">Machine Tool</h2>	<h2 style="text-align: center;">High Pressure Hydraulic</h2>
 <p style="text-align: center;"><b>ROTATING UNIONS</b> for Machine Tools, Machining Centres and Transfer Lines www.deublin.com</p>	<p>Rotating unions for air, hydraulic, coolant, cutting oil and oil/air mist lubrication service in machine tools, machining centres, transfer lines and special machines</p>
<h2 style="text-align: center;">Continuous Casting</h2>	<h2 style="text-align: center;">Multipassage</h2>
 <p style="text-align: center;"><b>ROTATING UNIONS</b> For Continuous Casting Machines www.deublin.com</p>	<p>Rotating unions for water service to cool the caster rolls in continuous casting plants and rolling mills; bearingless unions available</p>
<h2 style="text-align: center;">Paper</h2>	<h2 style="text-align: center;">Slip Ring</h2>
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Since its establishment in 1945, **DEUBLIN** has consistently adhered to a policy of producing the best product of its kind in the market. The result of this policy has been constant growth through the years. For this progress we are grateful to our many loyal customers.

We cordially invite you to visit our modern manufacturing facilities in Waukegan, Illinois; Hofheim-Wallau, Germany; Monteveglio, Italy and Dalian, China.

Sincerely,

Donald L. Deubler  
Chairman of the Board



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



Hofheim am Taunus, Germany



Bologna, Italy



Dalian, China

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English	Japanese	Spanish
French	Korean	Turkish
German	Polish	
Hungarian	Portuguese	



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