

Introduction

Duff-Norton Rotary Union® rotating joints are designed to provide a rotating seal between a stationary fluid supply and a revolving roll or drum.

These joints are available in a wide range of sizes, from 1/8 to six inch nominal pipe sizes, in single and dual flow designs. In most styles, optically flat seal faces and ball bearings reduce torque and friction drag. The quality construction and broad performance characteristics of Duff-Norton joints make them ideal for transmitting liquids and non-toxic industrial gases to and from a wide range of rotating machinery in most industrial applications: dryer drums, extruders, calendars, laminators, press rolls, embossers and similar applications.

Years of service in tough field applications prove these joints give long service, have fewer production down periods and require less maintenance than other types of sealing mechanisms.

Custom-engineered models are available by special order. Please consult your local Duff-Norton Rotary Union® distributor, your local Duff-Norton district sales manager or the factory for further information.

Rotary Union® Selection Information & Guide

Use the Selection Guide on the following page, or completely fill out the application analysis form found on page 6 to ensure selection of the right Rotary Union® for your application.

To select the proper rotating joint for any application requires the following information:

1. Type of fluid or gas to be conveyed
2. Quantity of flow
3. Pressure (PSI)
4. Speed (RPM)
5. Temperature
6. Flow passage - single or dual (if dual, stationary or rotating center syphon pipe or tube)
7. Shaft connection
8. Port connections.

Notice about the information contained in this catalog:

All technical information and illustrations in this catalog have been checked for accuracy; however, changes in the design or specification may occur at any time in Duff-Norton's continuing program of product improvement. As such, Duff-Norton cannot assume responsibility for errors on the production of this catalog.

Warranty

Subject to the conditions stated herein, Duff-Norton will repair or replace, without charge, any parts proven to Duff-Norton's satisfaction to be defective in materials or workmanship. Claims must be made within one year, except Series 9000, 8000, and 4000 Series, 90 days, and 8000T Series, 2 years after date of shipment.












Duff-Norton will not repair or replace any parts that become unusable and show clear evidence of improper maintenance, eccentric loading, overloading, excessive heat, chemical or abrasive wear, tampering or abuse. Equipment and accessories not manufactured by Duff-Norton are warranted only to the extent the manufacturer warrants them, and only if the claimed defect arose during normal use, application and service. Equipment that has been altered or modified by anyone without Duff-Norton's authorization is not warranted by Duff-Norton. Except as stated herein, Duff-Norton makes no other warranties, express or implied including warranties of merchantability and fitness for a particular purpose.

Product Disclaimer

The function of a rotating union is to separate the working media from the environment. Duff-Norton Rotary Union® brand of rotating unions are contacting seal type rotating unions and will allow leakage to some degree, as will all similarly designed and manufactured products. It is important to note the leakage of rotating unions will increase over time as the contacting seals wear. All persons specifying, installing and operating the rotating union must take note of this potential risk. The information in this catalog is supplied upon the condition the persons using Duff-Norton products will make their own determination whether this leakage may be dangerous, unsafe or cause damage of any nature whatsoever.

In no event may Duff-Norton be held responsible for unsafe operating practices of those employing Duff-Norton equipment. Users must be knowledgeable of the rotating union application and the product must never be operated outside the operating parameters given throughout this design guide. Duff-Norton Rotary Unions must not be used on media not specified in this design guide. If one is unsure about the safety of operating a rotating union in a particular application, it is strongly advised to contact Duff-Norton Engineering for assistance in determining suitability in the application.

Rotary Union® Selection Guide

Max Pressure psi/bar	Max RPM Tapered Thread	Max RPM Straight Thread or Flanged	Water	Steam	Hot Oil	Air	Hydraulic	Max Temp. F/C	Sizes	Series		Page
10000/700	90	90	✓	—	✓	✓	✓	248/120	1/4" to 3"	1700/1900		70, 72
5880/400	N/A	3000	✓	—	✓	✓	✓	248/120	1/8" to 1 1/4"	MC		52
5800/400	3000	3000	✓	—	✓	✓	✓	392/200	20mm to 100mm	500		74
5000/350	Swivel	Swivel	✓	✓	✓	✓	✓	392/200	1/4" to 2"	1200/1400		64
3625/250	1500	1500	✓	—	—	✓	✓	250/120	1/4" to 1"	600		24
2900/200	1500	1500	✓	—	✓	✓	✓	250/120	1/4" to 1"	1600/1650		56, 58
1160/80	85	85	✓	✓	✓	✓	✓	392/200	1/4" to 6"	1100/1102		60, 62
1000/68	750	5000	✓	—	—	✓	✓	200/93	1/8" to 1"	4000		26
750/51	1000	3600	✓	✓	✓	✓	✓	395/200	1/4" to 2"	5000		8
435/30	5000	5000	✓	✓	✓	✓	✓	320/160	1/4" to 1"	805		30
290/20	N/A	Swivel	✓	✓	✓	✓	✓	392/200	2" to 12"	1300		68
250/17	700	1500	✓	✓	✓	✓	✓	375/190	1/4" to 5"	9000		14
250/17	700	1500	—	✓	✓	—	—	600/315	1/4" to 5"	9000G		44
250/17	300	300	✓	✓	✓	—	—	650/345	2 1/2" to 4"	8100-RSQ		42
175/11	600	600	—	✓	✓	—	—	450/230	1/2" to 4"	8000		34
175/11	600	600	—	—	✓	—	—	600/315	1/2" to 3"	8000HO		34
150/10	N/A	500	✓	✓	✓	✓	—	550/290	2" to 6"	2000		48
145/10	3500	3500	✓	—	—	✓	—	248/120	1/4"	300		28