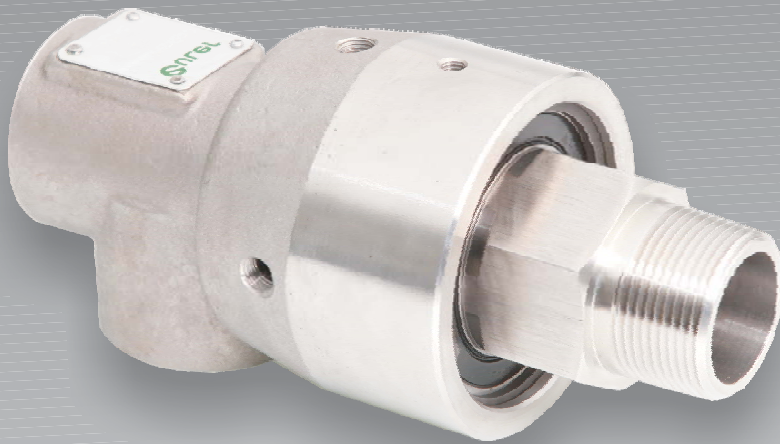
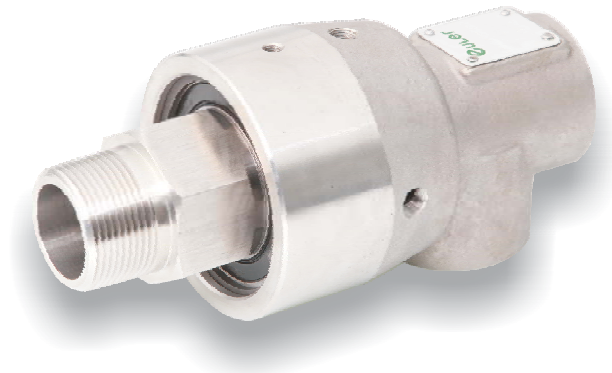


# WS/WSX Rotary Unions

## For Water



The **EULER WS/WSX Rotary Unions** have premium features not found in other unions such as low torque, seals for filtered and unfiltered media and is RoHS compliant. Typical applications include printing, can labeling, rubber, plastics, food and steel processing equipment and other industries that require water heating or cooling.



## Design Features

- 304 Stainless components provide the ultimate in corrosion resistance.
- Two different seal combinations available. Carbon graphite to silicon carbide seals for filtered media. Silicon carbide to silicon carbide seals for abrasive media.
- Stainless steel elbows in a variety of styles for in and out flow.
- Seals can easily be replaced with an inexpensive repair kit.
- Low turning torque for Web driven rolls.

### Torque Ratings @ 1MPa (150PSI)

Size	lb-in	N-m
3/8"	1.77	0.20
1/2"	3.81	0.43
3/4"	6.30	0.71
1"	13.28	1.50
1-1/4"	16.82	1.90
1-1/2"	12.48	1.41
2"	19.91	2.25

## Operating Parameters

**Max. Pressure**  
150 PSI / 10.3 BAR

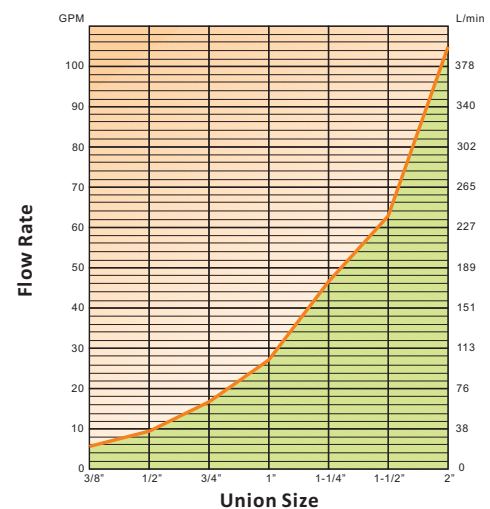
**Temperature**  
+225°F / +107°C

**For higher temperature fluids, contact Euler Engineering.**

**Max. Speed**

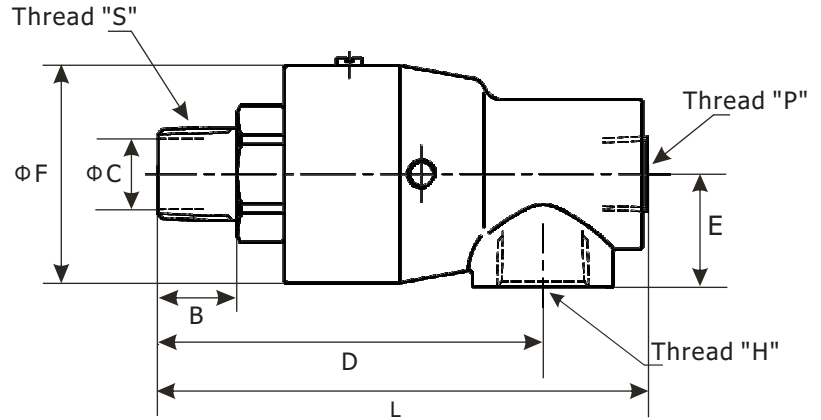
3/8" - 3,500 RPM	1-1/4" - 2,500 RPM
1/2" - 3,500 RPM	1-1/2" - 2,500 RPM
3/4" - 3,500 RPM	2" - 750 RPM
1" - 3,000 RPM	

### Union Flow Rates



Note: Water flow in Green area is acceptable.  
Avoid water flow in Orange area.

## Mono-Flow Unions NPT Hose Connection



WS-Silicon carbide to carbon graphite mechanical seals.

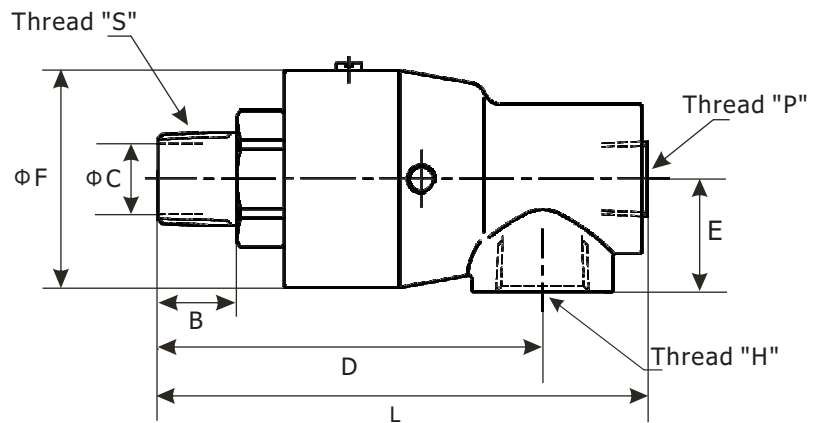
WSX-For abrasive applications, silicon carbide to silicon carbide mechanical seals.

SIZE	WS Part Number	WSX Part Number	Thread "S"	B	Φ C	D	E	Φ F	L	"H" N.P.T.	"P" N.P.T.
3/8"	EU-12106-06-00	EU-13106-06-00	5/8"-18 UNF R.H.	.50"	.38"	3.32"	.91"	1.81"	3.99"	3/8"	1/4"
	EU-12106-07-00	EU-13106-07-00	5/8"-18 UNF L.H.	(12.7)	(9.6)	(84)	(23)	(46)	(101)		
	EU-12106-00-00	EU-13106-00-00	3/8"-18 NPT R.H.	.56"	.38"	3.32"	.91"	1.81"	3.99"		
	EU-12106-01-00	EU-13106-01-00	3/8"-18 NPT L.H.	(14.2)	(9.6)	(84)	(23)	(46)	(101)		
1/2"	EU-12108-08-00	EU-13108-08-00	3/4"-16 UNF R.H.	.69"	.50"	3.90"	1.13"	2.25"	4.69"	1/2"	3/8"
	EU-12108-09-00	EU-13108-09-00	3/4"-16 UNF L.H.	(17.5)	(12.7)	(99)	(29)	(57)	(119)		
	EU-12108-00-00	EU-13108-00-00	1/2" NPT R.H.	1.00"	.50"	4.19"	1.13"	2.25"	4.98"		
	EU-12108-01-00	EU-13108-01-00	1/2" NPT L.H.	(25.4)	(12.7)	(106)	(29)	(57)	(126)		
3/4"	EU-12112-10-00	EU-13112-10-00	1"-14 UNS R.H.	.69"	.66"	4.44"	1.44"	2.88"	5.44"	3/4"	1/2"
	EU-12112-11-00	EU-13112-11-00	1"-14 UNS L.H.	(17.5)	(16.7)	(113)	(37)	(73)	(138)		
	EU-12112-00-00	EU-13112-00-00	3/4" NPT R.H.	1.00"	.66"	4.75"	1.44"	2.88"	5.75"		
	EU-12112-01-00	EU-13112-01-00	3/4" NPT L.H.	(25.4)	(16.7)	(121)	(37)	(73)	(146)		
1"	EU-12116-12-00	EU-13116-12-00	1-1/2"-12 UNF R.H.	1.12"	1.00"	5.46"	1.62"	3.25"	6.89"		
	EU-12116-13-00	EU-13116-13-00	1-1/2"-12 UNF L.H.	(28.4)	(25.4)	(139)	(41)	(82)	(175)		
	EU-12116-00-00	EU-13116-00-00	1" NPT R.H.	1.12"	1.00"	5.46"	1.62"	3.25"	6.89"		
	EU-12116-01-00	EU-13116-01-00	1" NPT L.H.	(28.4)	(25.4)	(139)	(41)	(82)	(175)		
1-1/4"	EU-12120-24-00	EU-13120-24-00	1-3/4"-12 UN R.H.	1.13"	1.25"	6.00"	1.78"	3.56"	7.69"	1-1/4"	1"
	EU-12120-25-00	EU-13120-25-00	1-3/4"-12 UN L.H.	(28.7)	(31.7)	(152)	(45)	(90)	(195)		
	EU-12120-00-00	EU-13120-00-00	1-1/4" NPT R.H.	1.13"	1.25"	6.00"	1.78"	3.56"	7.69"		
	EU-12120-01-00	EU-13120-01-00	1-1/4" NPT L.H.	(28.7)	(31.7)	(152)	(45)	(90)	(195)		
1-1/2"	EU-12124-14-00	EU-13124-14-00	2"-12 UN R.H.	1.06"	1.50"	6.48"	1.84"	3.68"	8.01"	1-1/2"	1-1/4"
	EU-12124-15-00	EU-13124-15-00	2"-12 UN L.H.	(26.9)	(38.1)	(164)	(47)	(93)	(203)		
	EU-12124-00-00	EU-13124-00-00	1-1/2" NPT R.H.	1.13"	1.50"	6.54"	1.84"	3.68"	8.07"		
	EU-12124-01-00	EU-13124-01-00	1-1/2" NPT L.H.	(28.7)	(38.1)	(166)	(47)	(93)	(205)		
2"	EU-12132-00-00	EU-13132-00-00	2" NPT R.H.	1.19"	1.75"	7.73"	2.31"	4.62"	9.97"	2"	1-1/4"
	EU-12132-01-00	EU-13132-01-00	2" NPT L.H.	(30.2)	(44.4)	(196)	(59)	(117)	(253)		

Other sleeve connections available. Contact Euler.

## Mono-Flow Unions

### BSPP Hose Connection



WS-Silicon carbide to carbon graphite mechanical seals.

WSX-For abrasive applications, silicon carbide to silicon carbide mechanical seals.

SIZE	WS Part Number	WSX Part Number	Thread "S"	B	Φ C	D	E	Φ F	L	"H"	"P" N.P.T.
3/8"	EU-12106-02-01	EU-13106-02-01	G 3/8" R.H.	.56"	.38"	3.32"	.91"	1.81"	3.99"	G 3/8"	1/4"
	EU-12106-03-01	EU-13106-03-01	G 3/8" L.H.	(14.2)	(9.6)	(84)	(23)	(46)	(101)		
	EU-12106-04-01	EU-13106-04-01	R 3/8" R.H.	.56"	.38"	3.32"	.91"	1.81"	3.99"		
	EU-12106-05-01	EU-13106-05-01	R 3/8" L.H.	(14.2)	(9.6)	(84)	(23)	(46)	(101)		
1/2"	EU-12108-02-01	EU-13108-02-01	G 1/2" R.H.	.75"	.50"	3.96"	1.13"	2.25"	4.75"	G 1/2"	3/8"
	EU-12108-03-01	EU-13108-03-01	G 1/2" L.H.	(19.1)	(12.7)	(101)	(29)	(57)	(121)		
	EU-12108-04-01	EU-13108-04-01	R 1/2" R.H.	.75"	.50"	3.96"	1.13"	2.25"	4.75"		
	EU-12108-05-01	EU-13108-05-01	R 1/2" L.H.	(19.1)	(12.7)	(101)	(29)	(57)	(121)		
3/4"	EU-12112-02-01	EU-13112-02-01	G 3/4" R.H.	.75"	.66"	4.50"	1.44"	2.88"	5.50"	G 3/4"	1/2"
	EU-12112-03-01	EU-13112-03-01	G 3/4" L.H.	(19.1)	(16.7)	(114)	(37)	(73)	(140)		
	EU-12112-04-01	EU-13112-04-01	R 3/4" R.H.	.75"	.66"	4.50"	1.44"	2.88"	5.50"		
	EU-12112-05-01	EU-13112-05-01	R 3/4" L.H.	(19.1)	(16.7)	(114)	(37)	(73)	(140)		
1"	EU-12116-02-01	EU-13116-02-01	G 1" R.H.	.87"	.88"	5.46"	1.62"	3.25"	6.89"	G 1"	3/4"
	EU-12116-03-01	EU-13116-03-01	G 1" L.H.	(22.1)	(22.4)	(139)	(41)	(82)	(175)		
	EU-12116-04-01	EU-13116-04-01	R 1" R.H.	.87"	.88"	5.46"	1.62"	3.25"	6.89"		
	EU-12116-05-01	EU-13116-05-01	R 1" L.H.	(22.1)	(22.4)	(139)	(41)	(82)	(175)		
1-1/4"	EU-12120-02-01	EU-13120-02-01	G 1-1/4" R.H.	1.13"	1.25"	6.00"	1.78"	3.56"	7.69"	G 1-1/4"	1"
	EU-12120-03-01	EU-13120-03-01	G 1-1/4" L.H.	(28.7)	(31.7)	(152)	(45)	(90)	(195)		
	EU-12120-04-01	EU-13120-04-01	R 1-1/4" R.H.	1.13"	1.25"	6.00"	1.78"	3.56"	7.69"		
	EU-12120-05-01	EU-13120-05-01	R 1-1/4" L.H.	(28.7)	(31.7)	(152)	(45)	(90)	(195)		
1-1/2"	EU-12124-02-01	EU-13124-02-01	G 1-1/2" R.H.	1.14"	1.38"	6.48"	1.84"	3.68"	8.01"	G 1-1/2"	1-1/4"
	EU-12124-03-01	EU-13124-03-01	G 1-1/2" L.H.	(28.9)	(35.1)	(164)	(47)	(93)	(203)		
	EU-12124-04-01	EU-13124-04-01	R 1-1/2" R.H.	1.14"	1.38"	6.54"	1.84"	3.68"	8.07"		
	EU-12124-05-01	EU-13124-05-01	R 1-1/2" L.H.	(28.9)	(35.1)	(166)	(47)	(93)	(205)		
2"	EU-12132-02-01	EU-13132-02-01	G 2" R.H.	1.14"	1.75"	7.66"	2.29"	4.62"	9.95"	G 2"	1-1/4"
	EU-12132-03-01	EU-13132-03-01	G 2" L.H.	(29)	(44.4)	(195)	(58)	(117)	(253)		

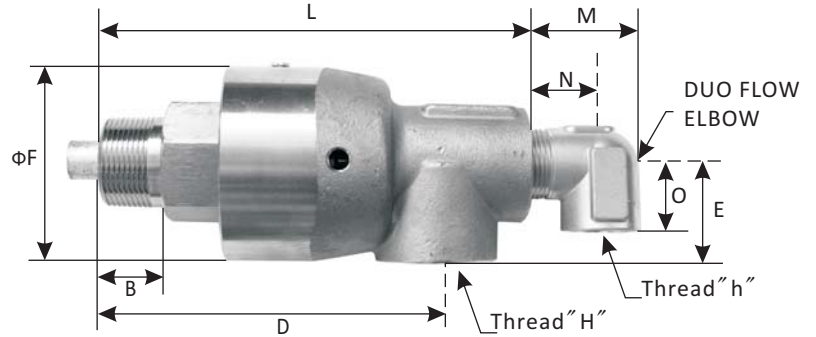
Other sleeve connections available. Contact Euler.

### Duo-Flow Application Order Info

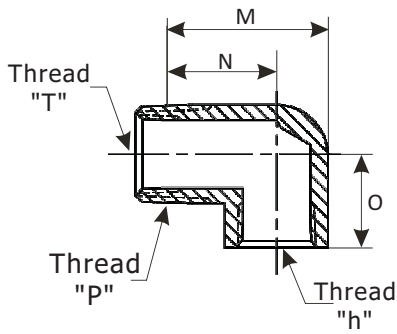
Mono-Flow Union + Duo-Flow Elbow = Duo-Flow Union

1. Order Mono-Flow Union part number.
2. Order Duo-Flow Elbow part number.

Note: For special Duo-Flow elbows, contact Euler.



### Thread Pipe Connection Elbows



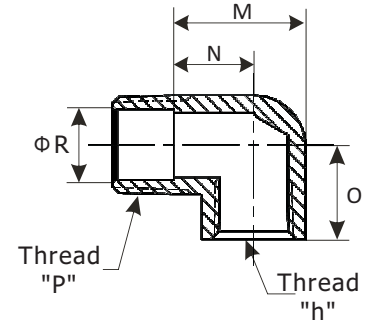
Union Size	Part Number	T Thread	h Thread	M	N	O
1/2"	49-100-08-20	1/8" NPT	3/8" NPT	1.12"	.76"	.50"
	49-102-08-20	G 1/8"	G 3/8"	(28)	(19)	(13)
3/4"	49-100-12-20	1/4" NPT	1/2" NPT	1.67"	1.07"	1.04"
	49-102-12-20	G 1/4"	G 1/2"	(42)	(27)	(26)
1"	49-100-16-20	3/8" NPT	1/2" NPT	1.88"	1.28"	.94"
	49-102-16-20	G 3/8"	G 1/2"	(48)	(33)	(24)
1-1/4"	49-100-20-20	1/2" NPT	3/4" NPT	2.17"	1.48"	1.25"
	49-102-20-20	G 1/2"	G 3/4"	(55)	(38)	(32)
1-1/2"	49-100-24-20	3/4" NPT	1" NPT	2.71"	1.83"	1.62"
	49-102-24-20	G 3/4"	G 1"	(69)	(46)	(41)
2"	49-100-32-20	1" NPT	1" NPT	2.71"	1.83"	1.62"
	49-102-32-20	G 1"	G 1"	(69)	(46)	(41)

Note: 1. Listed sizes provide the maximum flow rate for the union.  
 2. Addition sizes are available. Contact Euler.

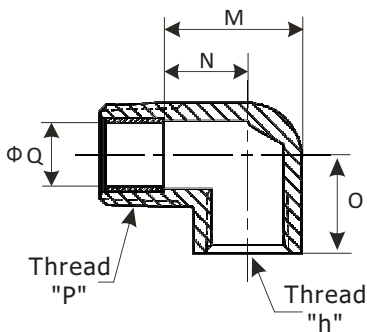
Union Size	Part Number	$\phi R$	h Thread	M	N	O
3/8"	49-200-06-20	.25"	1/4" NPT	1.10"	.68"	.45"
	49-202-06-20	(6.4)	G 1/4"	(28)	(17)	(11)
1/2"	49-200-08-20	.38"	3/8" NPT	1.12"	.76"	.50"
	49-202-08-20	(9.7)	G 3/8"	(28)	(19)	(13)
3/4"	49-200-12-20	.50"	1/2" NPT	1.67"	1.07"	1.04"
	49-202-12-20	(12.7)	G 1/2"	(42)	(27)	(26)
1"	49-200-16-20	.63"	1/2" NPT	1.88"	1.28"	.94"
	49-202-16-20	(16)	G 1/2"	(48)	(33)	(24)
1-1/4"	49-200-20-20	.75"	3/4" NPT	2.17"	1.48"	1.25"
	49-202-20-20	(19)	G 3/4"	(55)	(38)	(32)
1-1/2"	49-200-24-20	1.00"	1" NPT	2.71"	1.83"	1.62"
	49-202-24-20	(25.4)	G 1"	(69)	(46)	(41)
2"	49-200-32-20	1.25"	1" NPT	2.71"	1.83"	1.62"
	49-202-32-20	(31.8)	G 1"	(69)	(46)	(41)

Note: 1. Listed sizes provide the maximum flow rate for the union.  
 2. Addition sizes are available. Contact Euler.

## Brazed Tube Elbows



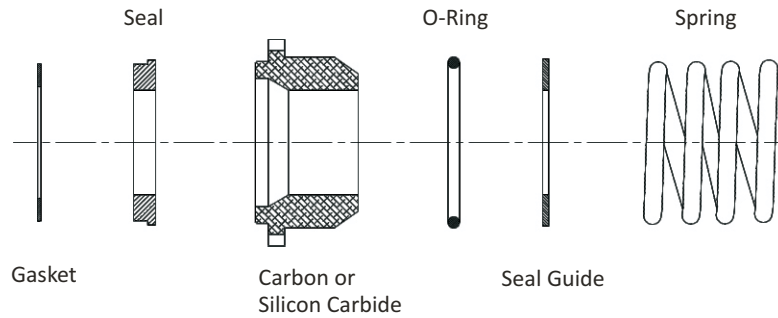
## Rotating Pipe Elbows



Union Size	Part Number	$\phi Q$	h Thread	M	N	O
1/2"	49-300-08-00	.372" (9.45)	3/8" NPT	1.12"	.76"	.50"
	49-302-08-00	.371" (9.42)	G 3/8"	(28)	(19)	(13)
3/4"	49-300-12-00	.497" (12.62)	1/2" NPT	1.67"	1.07"	1.04"
	49-302-12-00	.496" (12.60)	G 1/2"	(42)	(27)	(26)
1"	49-300-16-00	.622" (15.80)	1/2" NPT	1.88"	1.28"	.94"
	49-302-16-00	.621" (15.77)	G 1/2"	(48)	(33)	(24)
1-1/4"	49-300-20-00	.810" (20.57)	3/4" NPT	2.17"	1.48"	1.25"
	49-302-20-00	.808" (20.52)	G 3/4"	(55)	(38)	(32)
1-1/2"	49-300-24-00	1.000" (25.40)	1" NPT	2.71"	1.83"	1.62"
	49-302-24-00	.998" (25.35)	G 1"	(69)	(46)	(41)
2"	49-300-32-00	1.247" (31.67)	1" NPT	2.71"	1.83"	1.62"
	49-302-32-00	1.245" (31.62)	G 1"	(69)	(46)	(41)

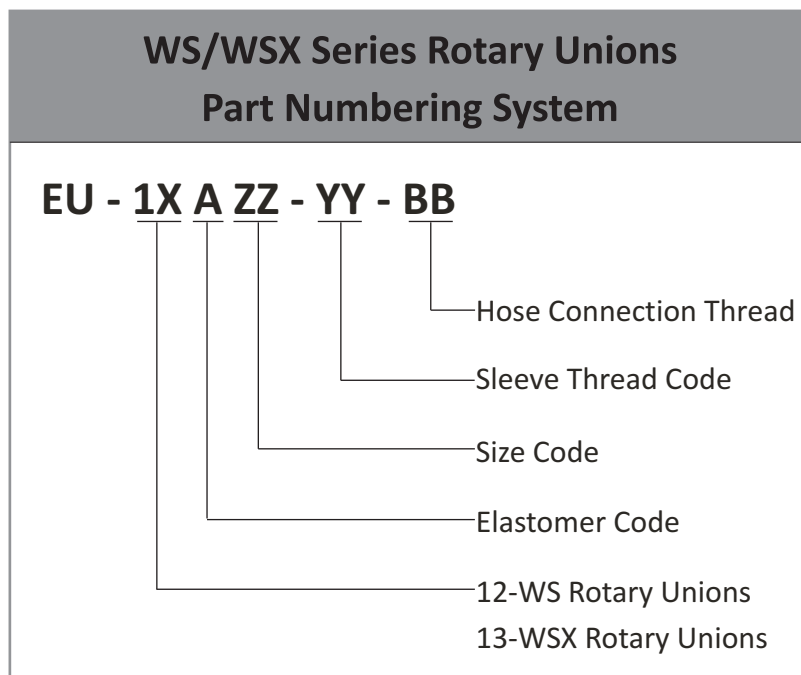
Note: 1. Listed sizes provide the maximum flow rate for the union.  
 2. Addition sizes are available. Contact Euler.

## Repair Kits



Union	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"
<b>WS</b>	48-100-06-AA	48-100-08-AA	48-100-12-AA	48-100-16-AA	48-100-20-AA	48-100-24-AA	48-100-32-AA
<b>WSX</b>	48-101-06-AA	48-101-08-AA	48-101-12-AA	48-101-16-AA	48-101-20-AA	48-101-24-AA	48-101-32-AA

-AA Elastomer Suffix, Specify: -01=Viton (Standard), -02=EPDM(Special), -03=HNBR(Special).



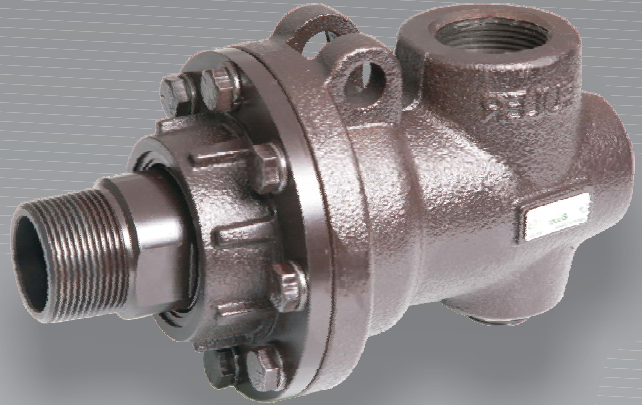
## EULER MISSION STATEMENT

The goal of the EULER Company is to supply our customers the highest quality rotary unions and joints that are competitively priced and offer the best delivery in the industry.

EULER will work to partner with our customers to initiate new products and applications, along with internal programs for continuous product improvements and cost containment.

## ADDITIONAL

## EULER ENGINEERED PRODUCTS



The **EULER SS Steam Rotary Joint** is a flexible design offered in monoflow and duoflow in both fixed and rotating pipe styles. Request Bulletin 1001 or visit [www.eulerinc.com](http://www.eulerinc.com) for complete information.



Email: [info@eulerinc.com](mailto:info@eulerinc.com)  
[www.eulerinc.com](http://www.eulerinc.com)

### **EULER Canada**

6A-170 The Donway West,  
Suite #815, Toronto, ON  
Canada M3C 2E8  
Tel.: (416)786-7053

### **EULER USA**

180 S. Western Ave.,  
Suite #145  
Carpentersville, IL 60110  
Tel.: (815)669-3702

### **EULER China**

55 Zhanwang Road, Yingzhou  
Economic Development Zone,  
Ningbo, China 315145  
Tel.: +86 15306616728