

Type Z™ Rotary Unions

For thermal oil service



JOHNSON-FLUITEN

Compact double carbon supported bearing union.



Engineered reliability and performance.

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Overview

Type Z rotary unions are designed for thermal oil applications. The union is supported by two internal carbon guides (bearings) and can run up to 500 RPM and 300°C.

The proprietary antimony impregnated carbon seal ring is in compression sealing against the stainless steel nipple and seal plate. This seal package combination provides for a long-lasting and low maintenance rotary union.

The type Z rotary union is available in sizes from 19 mm to 102 mm with both flanged and threaded connections.



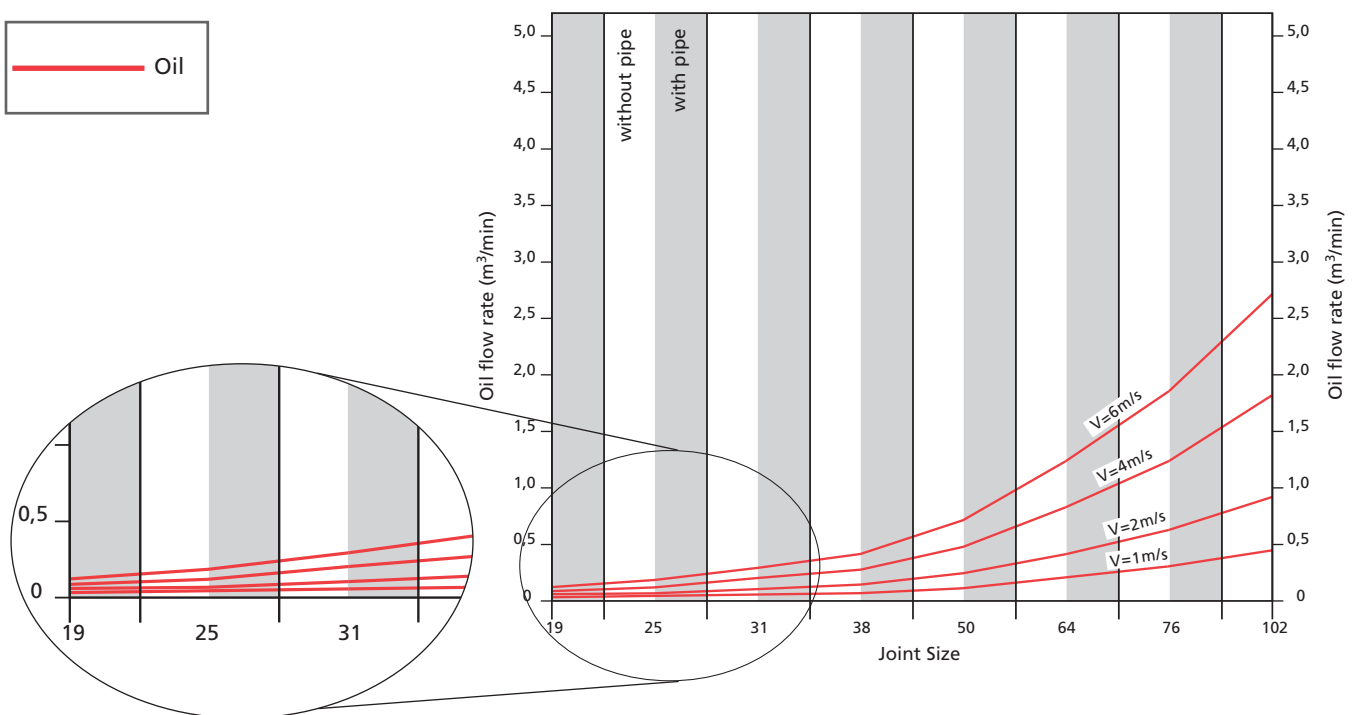
Type Z rotary unions are designed for high temperature thermal oil applications.

Engineering Data

Operating Parameters

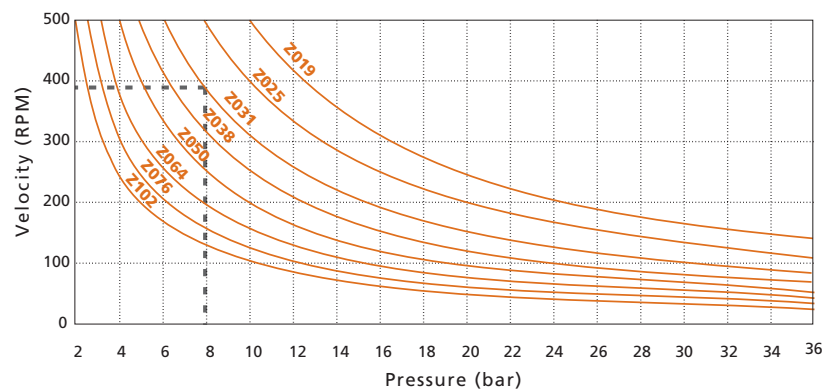
Sizes:	19 mm to 102 mm
Pressure:	Up to 35 bar
Temperature:	Up to 300°C
Speed:	Up to 500 RPM (see curves below)

Flow Rates

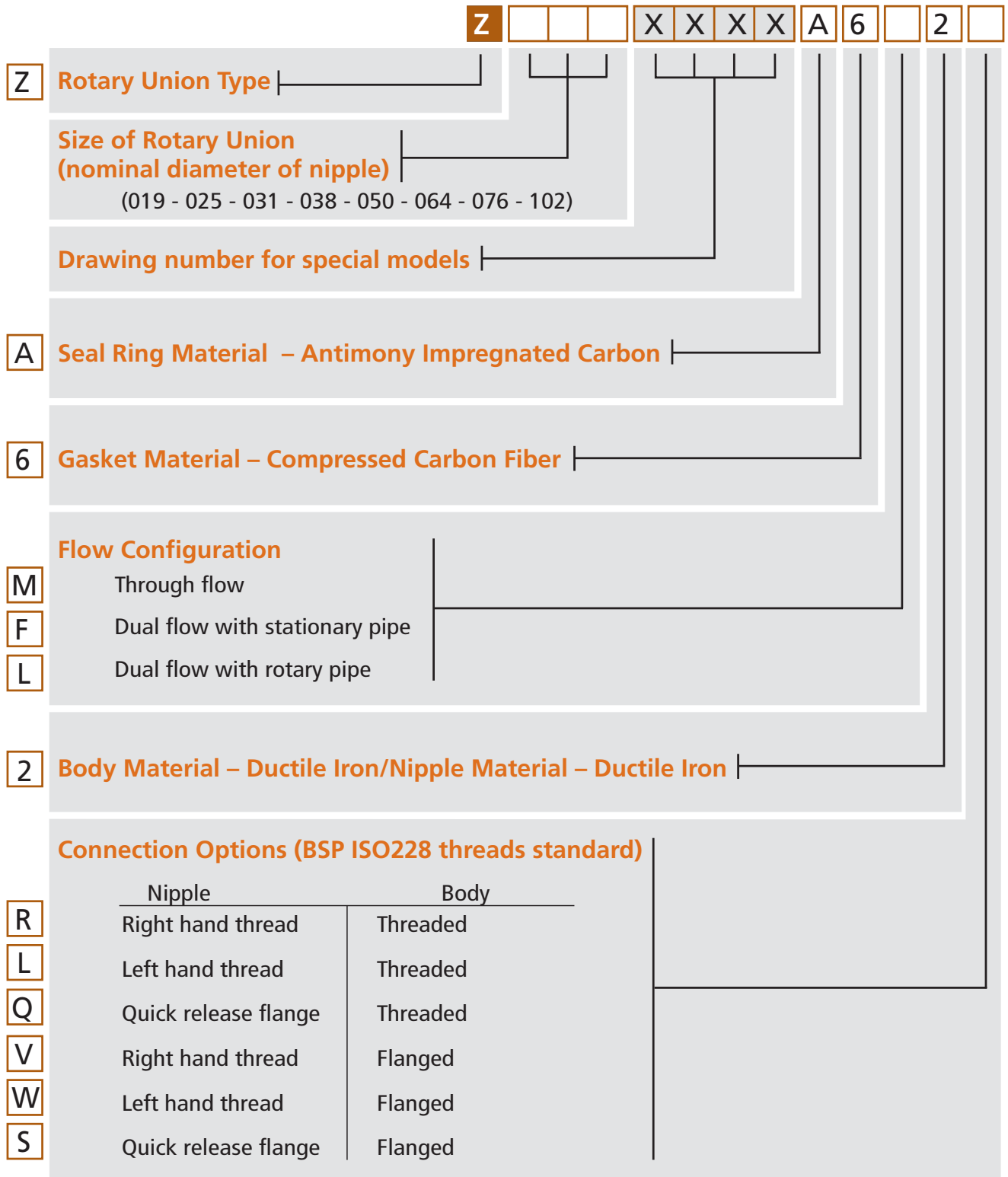


For different flow values V_x apply the formula: $Q_x = Q_{25} * V_x/25$

Pressure-Velocity (PV) Curves



Ordering Information and Specifications



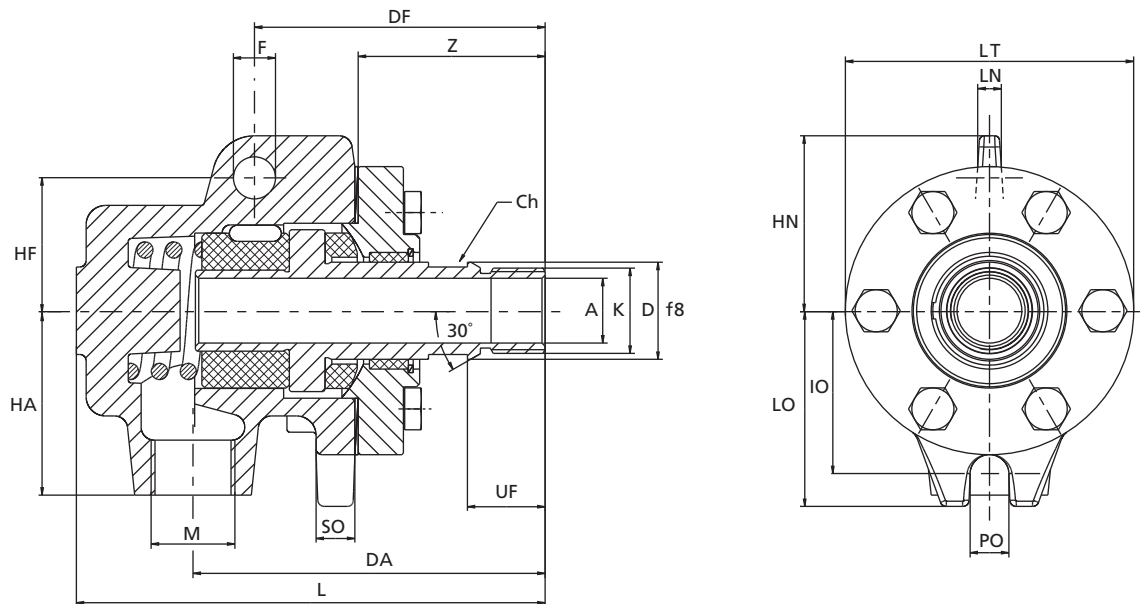
EXAMPLES

Z031A6F2L 1 1/4" Rotary Union, Dual Flow for Stationary Pipe, Threaded Body, LH Threaded Nipple

Z031A6F2R 1 1/4" Rotary Union, Dual Flow for Stationary Pipe, Threaded Body, RH Threaded Nipple

Type Z

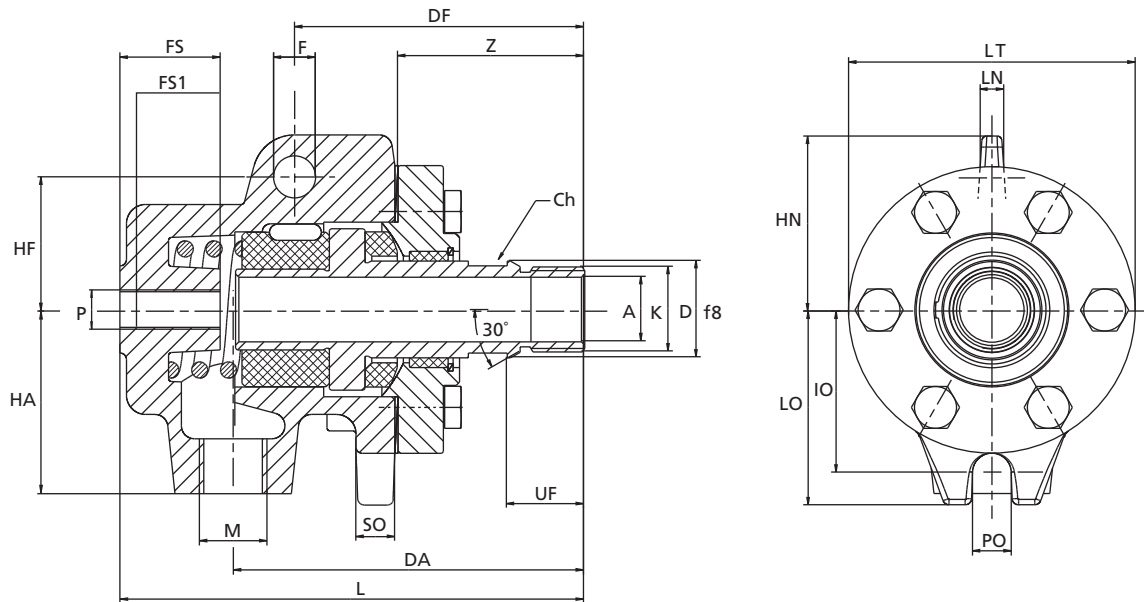
Through flow rotary union



Z	019	025	031	038	050	064	076	102
K ISO228/1	G 3/4 A	G 1 A	G 1 1/4 A	G 1 1/2 A	G 2 A	G 2 1/2 A	G 3 1/2 A	G 4 A
RH	Z019008000	Z025008001	Z031008002	Z038008003	Z050008004	Z064008005	Z076008006	CF
LH	Z019008010	Z025008011	Z031008012	Z038008013	Z050008014	Z064008015	Z076008016	CF
Q	Z019008020	Z025008021	Z031008022	Z038008023	Z050008024	Z064008025	Z076008026	CF
M ISO228/1	G 3/4	G 1	G 1 1/4	G 1 1/2	G 2	G 2 1/2	G 3	G 4
A	20	25	32	38	50	66	81	98
L	145	172	200,5	222	272	316	378	451
DA	109	132	153,5	170	204	234	280	331
DF	90	98	108,5	120	144	169	210	238
LT	89	98	115	125	145	185	222	262
D	30	35	45	52	65	85	107	118
HF	41	45	55	60	72	85	110	130
HA	57	63	75	85	100	125	155	180
Z	59	66	75,5	80	99	109	144	171
HN	54	60	72	77	94	105	130	150
F	13	15	16	17	18	20	22	26
LN	8	9	12	11	12,5	15	20	22
UF	23	28	34	37	43	48	54	66
Ch	27	30	41	46	60	75	95	110
LO	60,5	68	77,5	85,5	101,5	121	146	170
PO	12	14	16	16	18	20	22	28
SO	12	12	15	17	17	18	18	25
IO	50,5	56	65,5	70,5	81,5	101	122	144

CF = Consult Factory

Dual flow rotary union, stationary pipe

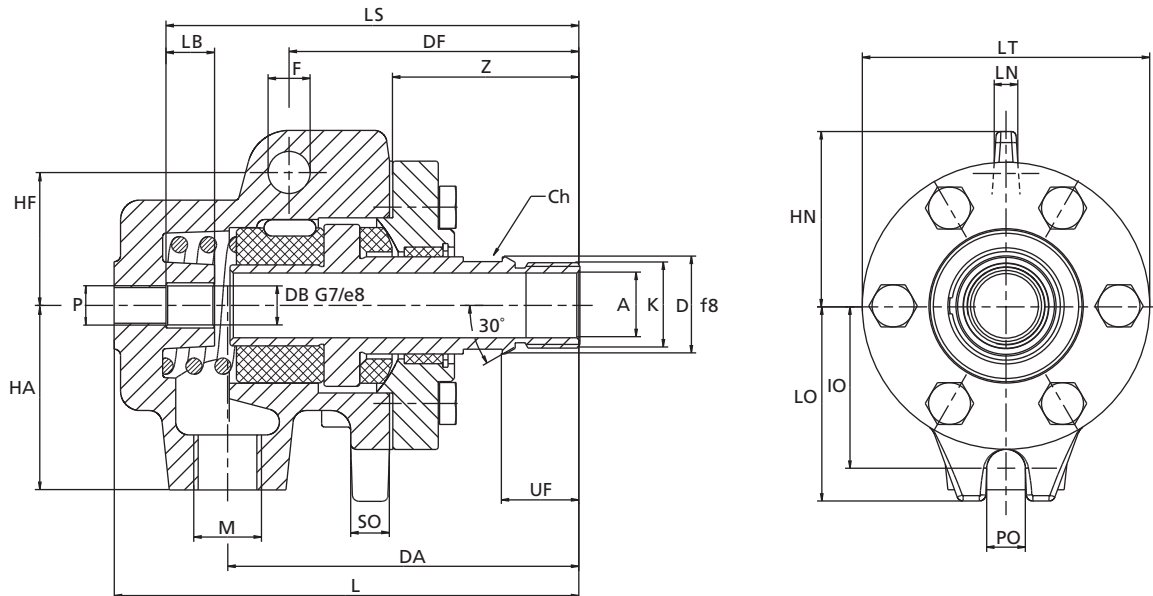


Z	019	025	031	038	050	064	076	102
K ISO228/1	G 3/4 A	G 1 A	G 1 1/4 A	G 1 1/2 A	G 2 A	G 2 1/2 A	G 3 1/2 A	G 4 A
RH	Z019008040	Z025008041	Z031008042	Z038008043	Z050008044	Z064008045	Z076008046	CF
LH	Z019008050	Z025008051	Z031008052	Z038008053	Z050008054	Z064008055	Z076008056	CF
Q	Z019008060	Z025008061	Z031008062	Z038008063	Z050008064	Z064008065	Z076008066	CF
M ISO228/1	G 1 1/2	G 3/4	G 1	G 1 1/4	G 1 1/2	G 2	G 2 1/2	G 3
P ISO228/1	G 1/4	G 3/8	G 1/2	G 3/4	G 1	G 1 1/2	G 1 1/2	G 2
A	20	25	32	38	50	66	81	98
L	145	172	200,5	222	272	316	378	451
DA	109	132	153,5	170	204	234	280	331
DF	90	98	108,5	120	144	169	210	238
LT	89	98	115	125	145	185	222	262
D	30	35	45	52	65	85	107	118
HF	41	45	55	60	72	85	110	130
HA	57	63	75	85	100	125	155	180
Z	59	66	75,5	80	99	118	144	170
HN	54	60	72	77	94	105	130	150
F	13	15	16	17	18	20	22	26
LN	8	9	12	11	12,5	15	20	22
UF	23	28	34	37	43	48	54	66
FS	31	33	44	49	59	70	80	85
Ch	27	30	41	46	60	75	95	110
LO	60,5	68	77,5	85,5	101,5	121	146	170
PO	12	14	16	16	18	20	22	28
SO	12	12	15	17	17	18	18	25
IO	50,5	56	65,5	70,5	81,5	101	121	144
FSI	19	21	24	34	39	45	50	55

CF = Consult Factory

Type Z

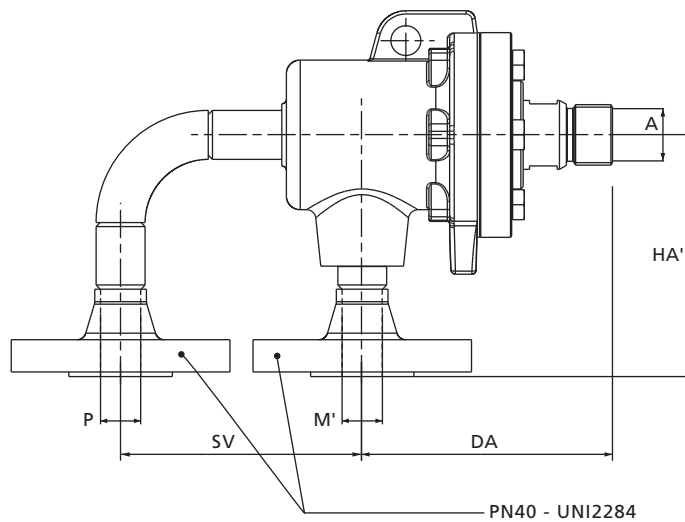
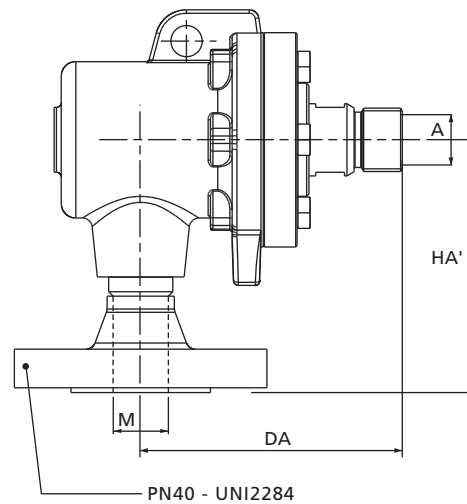
Dual flow rotary union, rotary pipe



Z	019	025	031	038	050	064	076	102
K ISO228/1	G 3/4 A	G 1 A	G 1 1/4 A	G 1 1/2 A	G 2 A	G 2 1/2 A	G 3 1/2 A	G 4 A
RH	Z019008080	Z025008081	Z031008082	Z038008083	Z050008084	Z064008085	Z076008086	CF
LH	Z019008090	Z025008091	Z031008092	Z038008093	Z050008094	Z064008095	Z076008096	CF
Q	Z019008100	Z025008101	Z031008102	Z038008103	Z050008104	Z064008105	Z076008106	CF
M ISO228/1	G 1/2	G 3/4	G 1	G 1 1/4	G 1 1/2	G 2	G 2 1/2	G 3
P ISO228/1	G 1/4	G 3/8	G 1/2	G 3/4	G 1	G 1 1/2	G 1 1/2	G 2
A	20	25	32	38	50	66	81	98
L	145	172	200,5	222	272	316	378	451
DA	109	132	153,5	170	204	234	280	331
DF	90	98	108,5	120	144	169	210	238
LT	89	98	115	125	145	185	222	262
D	30	35	45	52	65	85	107	118
HF	41	45	55	60	72	85	110	130
HA	57	63	75	85	100	125	155	180
Z	59	66	75,5	80	99	109	144	171
HN	54	60	72	77	94	105	130	150
F	13	15	16	17	18	20	22	26
LN	8	9	12	11	12,5	15	20	22
UF	23	28	34	37	43	48	54	66
DB	12	16	20	25	32	45	45	60
LB	15	15	15	25	25	30	30	40
LS	128	153	170,5	197	237	276	328	406
Ch	27	30	41	46	60	75	95	110
LO	60,5	68	77,5	85,5	101,5	121	146	170
PO	12	14	16	16	18	20	22	28
SO	12	12	15	17	17	18	18	25
IO	50,5	56	65,5	70,5	81,5	101	121	144

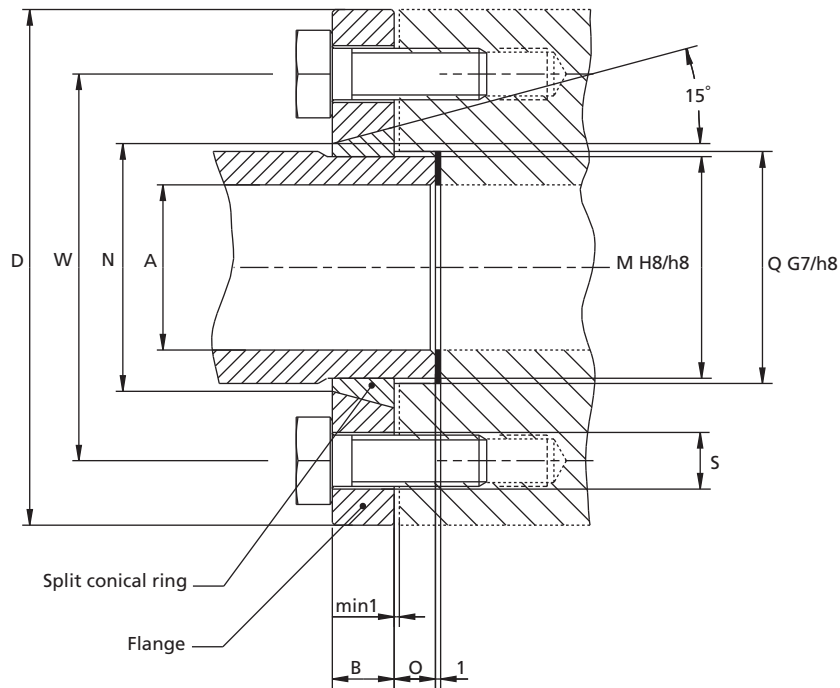
CF = Consult Factory

Flanged connections



Z	019	025	031	038	050	064	076	102
A	20	25	32	38	50	66	81	98
M	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80	DN 100
M'	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80
P	DN 15	DN 20	DN 25	DN 32	DN 40	DN 50	DN 65	DN 80
DA	109	132	153,5	170	204	234	280	331
HA'	105	113	125	145	160	195	225	255
SV	105	110	125	150	160	180	205	245

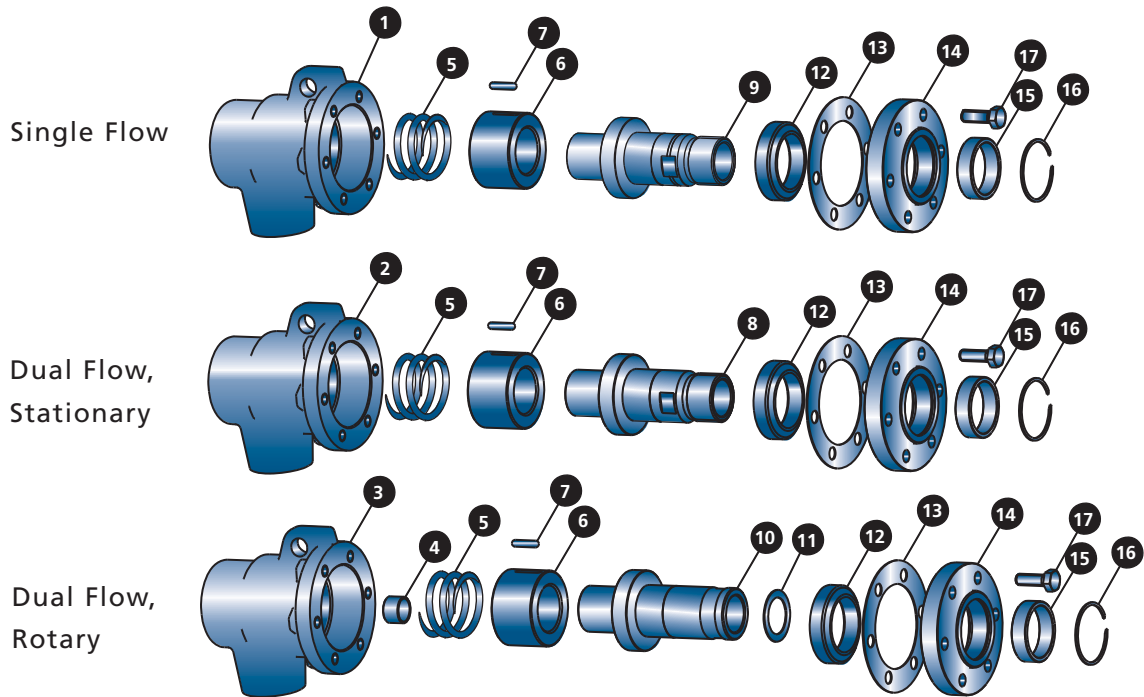
Quick Release Nipple Flange



Z	019	025	031	038	050	064	076	102
A	20	25	32	38	50	66	81	98
Q	30	35	45	50	65	85	105	114
M	28	33	43	48	63	82	102	110
N	32	37	48	53	69	89	109	120
O	8	8	8	10	10	10	12	12
D	75	80	100	105	130	150	180	220
W	55	60	75	80	100	120	145	185
B	12	12	12	15	15	15	18	30
S	9	9	11	11	14	14	18	18
Bolt Size	M8	M8	M10	M10	M12	M12	M16	M16
No. of Holes	4	4	4	4	4	4	4	6

Enter the special code /5195 in the union description for a Kadant Johnson interchangeable Q-nipple.

Replacement Parts



Z	019	025	031	038	050	064	076	102
Kit	KZ019033370	KZ025033371	KZ031033372	KZ038033373	KZ050033374	KZ064033375	KZ076033376	KZ102033388
1 Single flow body, threaded	4982019R2	4982025R2	4982031R2	4982038R2	4982050R2	4982064R2	4982076R2	4982102R2
2 Dual flow body, threaded, stat pipe	4983019R2	4983025R2	4983031R2	4983038R2	4983050R2	4983064R2	4983076R2	4983102R2
3 Dual flow body, threaded, rotary pipe	4984019R2	4984025R2	4984031R2	4984038R2	4984050R2	4984064R2	4984076R2	4984102R2
4 Bushing	4987019B1	4987025B1	4987031B1	4987038B1	4987050B1	4987064B1	4987076B1	4987102B1
8 Nipple, RH thread	4990019Y	4990025Y	4990031Y	4990038Y	4990050Y	4990064Y	4990076Y	4990102Y
9 Nipple, LH thread	4991019Y	4991025Y	4991031Y	4991038Y	4991050Y	4991064Y	4991076Y	4991102Y
10 Nipple, Q-flange	4992019Y	4992025Y	4992031Y	4992038Y	4992050Y	4992064Y	4992076Y	4992102Y
11 Nipple gasket	4993019A3	4993025A3	4993031A3	4993038A3	4993050A3	4993064A3	4993076A3	4993102A3
14 Seal plate	4999019Y	4999025Y	4999031Y	4999038Y	4999050Y	4999064Y	4999076Y	4999102Y
17 Cap screws	V100009209W4	V100009209W4	V100009249W4	V100009249W4	V100009289W4	V100009292W4	V100009292W4	V100009372W4

The kit consists of parts numbered 5, 6, 7, 12, 13, 15, and 16.
 Note: All threads are BSP ISO228.



About Johnson-Fluiten

Johnson-Fluiten, S.r.l. was established nearly two decades ago as a joint venture of Kadant Johnson Europe B.V. and Fluiten, S.r.l. Johnson-Fluiten specialises in precision rotary unions used with rotating components to convey water, air, oil, and coolant. The company's primary product lines include the Type G, Type R, and Type Z rotary unions.

Johnson-Fluiten integrates Kadant Johnson's global sales and service network with Fluiten's mechanical seal expertise, application knowledge, and manufacturing capability. The company markets its products directly to customers in Italy, and utilises Kadant Johnson's global sales network as well as independent agents in markets outside of Italy.



G™ rotary union for coolant, hydraulic oil, and air

G rotary unions are high-performance, high precision unions for coolant, hydraulic oil, and air applications. Type G unions are generally applied to the machine tool industry and are designed for speeds up to 30,000 RPM and pressures up to 250 bar.

Based on more than 40 years of mechanical seal design and application expertise, the type G rotary union line is built to perform under the most demanding conditions. A thorough understanding of seal load optimisation, seal wear characteristics, and application knowledge means the type G union can provide years of reliable service for coolant, air, and hydraulic oil applications.



R™ rotary union for water, thermal oil, and air

The R rotary unions are designed for water, thermal oil, and air service. The product utilises corrosion-resistant materials such as stainless steel and brass. The full-flow design allows for maximum flow rates with minimal restrictions.

Type R unions are available in sizes from 9 mm to 150 mm in both single flow and dual flow configurations. This line of ball bearing unions is designed for tough applications where other rotary unions fail to perform.



JOHNSON-FLUITEN

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