Technology, Information & Service ROCKY

Rotary Joints

ROCKY JOINT

High-speed Rotary *LC* Series

RIX RIX CORPORATION

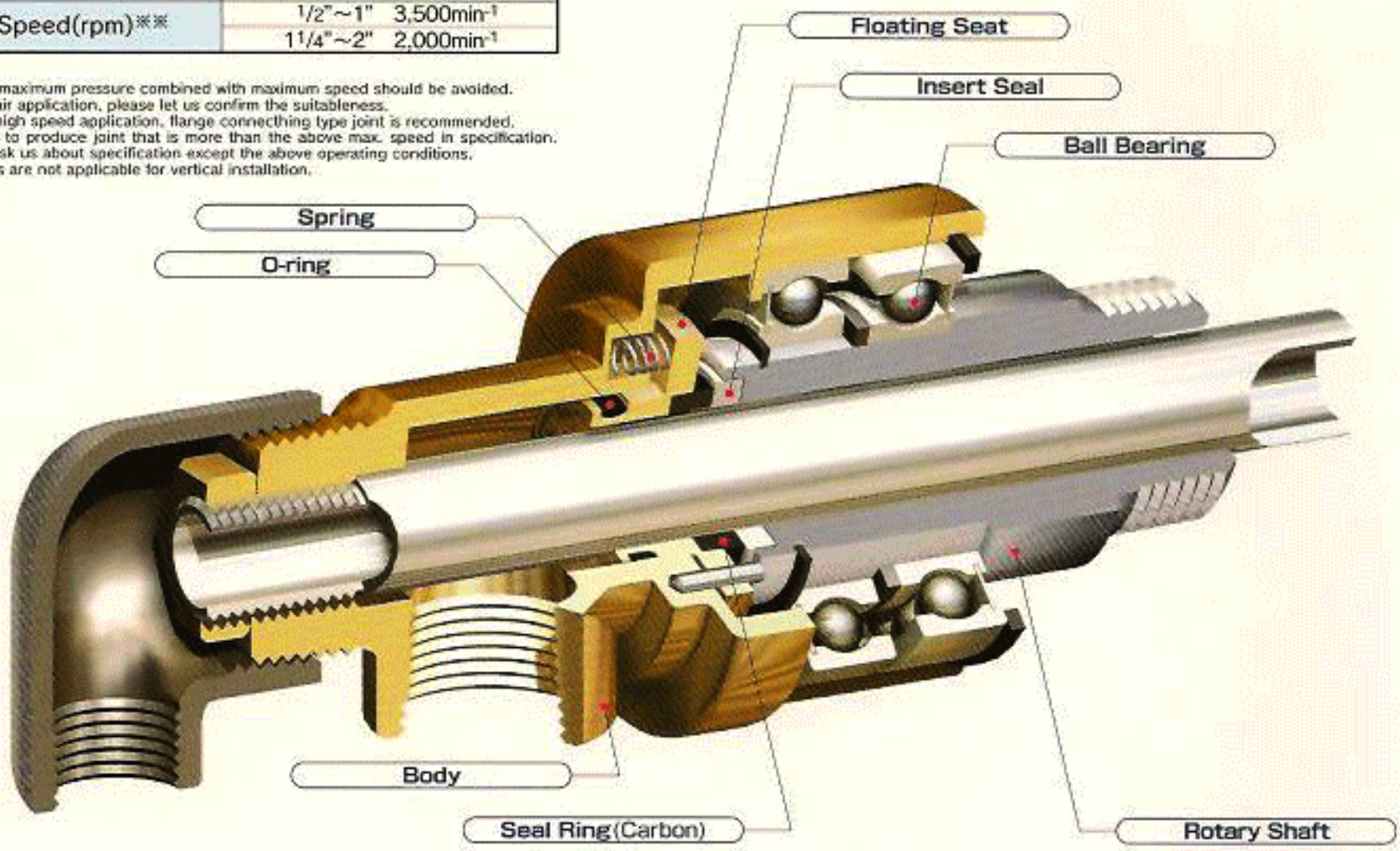
ROCKY JOINT LC Type

Rocky Joint LC type is designed to be used for high speed application, even under bad water condition.

〈LC type : Operating Conditions〉

Media(fluid)	Water, Hot water, Oil, Air ※	
Max. Temperature	100℃	
Max. Pressure	1/2"~1"	2.3MPa
	1 1/4"~2"	1.7MPa
Max. Speed(rpm)※※	1/2"~1"	3,500min^{-1}
	1 1/4"~2"	2,000min^{-1}

Note:
※Operation at maximum pressure combined with maximum speed should be avoided.
※※In case of air application, please let us confirm the suitableness.
※※In case of high speed application, flange connecthing type joint is recommended.
● It is possible to produce joint that is more than the above max. speed in specification. Please also ask us about specification except the above operating conditions.
● LC type joints are not applicable for vertical installation.



Features

Longer Seal Life

The seal is made by combination of fine ceramics and special carbon.

- This seal enables reduction of seal face chapping and wear due to seal by combination of fine ceramics and special carbon, thus assuring longer seal life.

Pressure Balance Function

- Pressure balanced type mechanical seal enables stable sealing and extensive reduction of wear.

Adoption of Corrosion Resistance Materials

- Corrosion resistant materials such as bronze and atainless steel are used in the part of coolant flow passage.

Lower Rotating Torque

- Lower rotating torque is actualized due to pressure balanced type mechanical seal and adoption of ball bearing.

Consideration to the Environment

- Material for joint body is used brass alloy excluding lead for environment.

Main parts does not contact liquid

- Since a liquid does not contact the spring parts of a seal control mechanism, foreign substance in the liquid, scale etc collect on a spring part, and there is no trouble to which seal control mechanism become week.

Multi-Spring

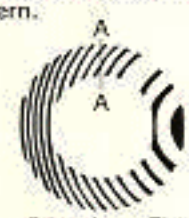
- Multi-spring are located outside of the coolant flow passage by which initial seal loading is assured.

Seal performance

Seal side is wrapped precisely.

- As a seal side is wrapped precisely within 3 light band, stable sealing can be obtained.

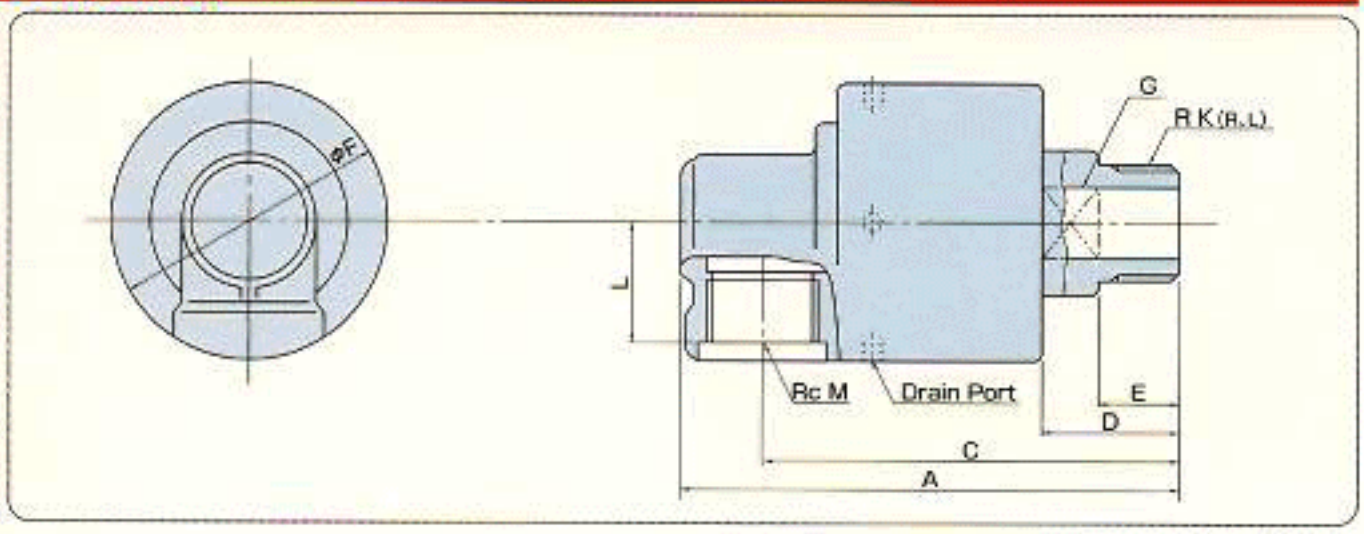
- Seal side is wrapped within 3 bands (Flatness : 0.885μ)of optical interference fringe pattern.



Optical fringe : 3 bands Flatness : 0.885μ

Flatness is measured by monochromatic optical source and optical flat.

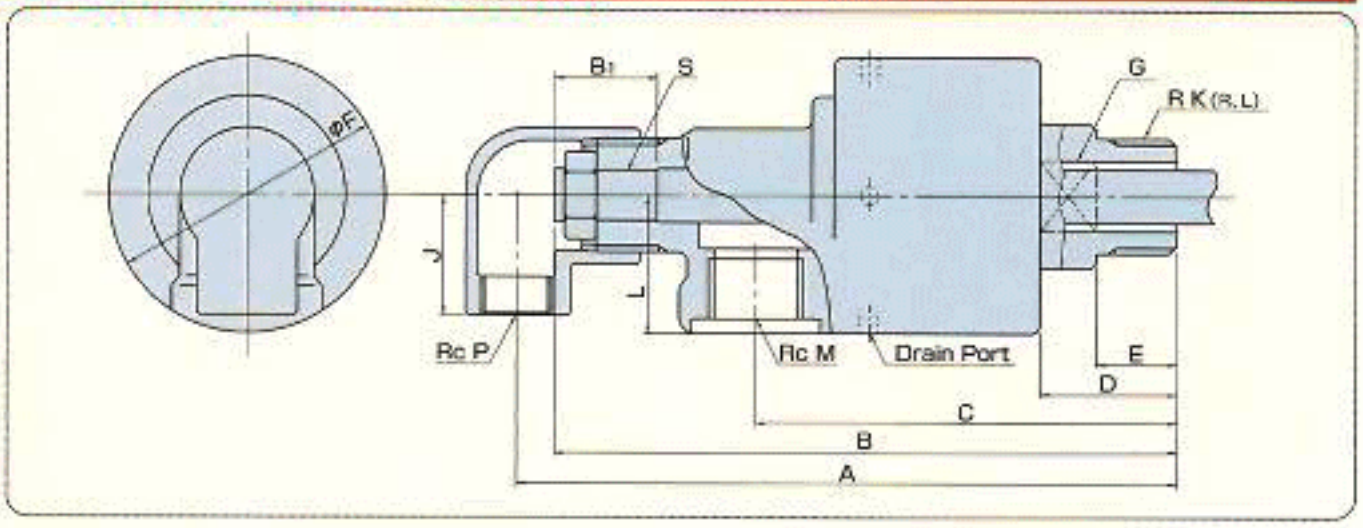
LCT-S Through Flow／Screw Connection



〈LCT-S Dimensions〉

Model	K	M	A	C	D	E	F	G	L	Net Wt.kg
LCT1/2S	R1/2	Rc1/2	107	91	28	18	53	24	24	0.7
LCT3/4S	R3/4	Rc3/4	117	98	32	19	65	30	29	1.2
LCT1S	R1	Rc1	134	112	34	22	72	36	31	1.7
LCT1 1/4S	R1 1/4	Rc1 1/4	161	134	43	25	85	41	41	2.7
LCT1 1/2S	R1 1/2	Rc1 1/2	171	141	44	25	90	46	44	3.1
LCT2S	R2	Rc2	219	183	55	30	110	65	54	5.1

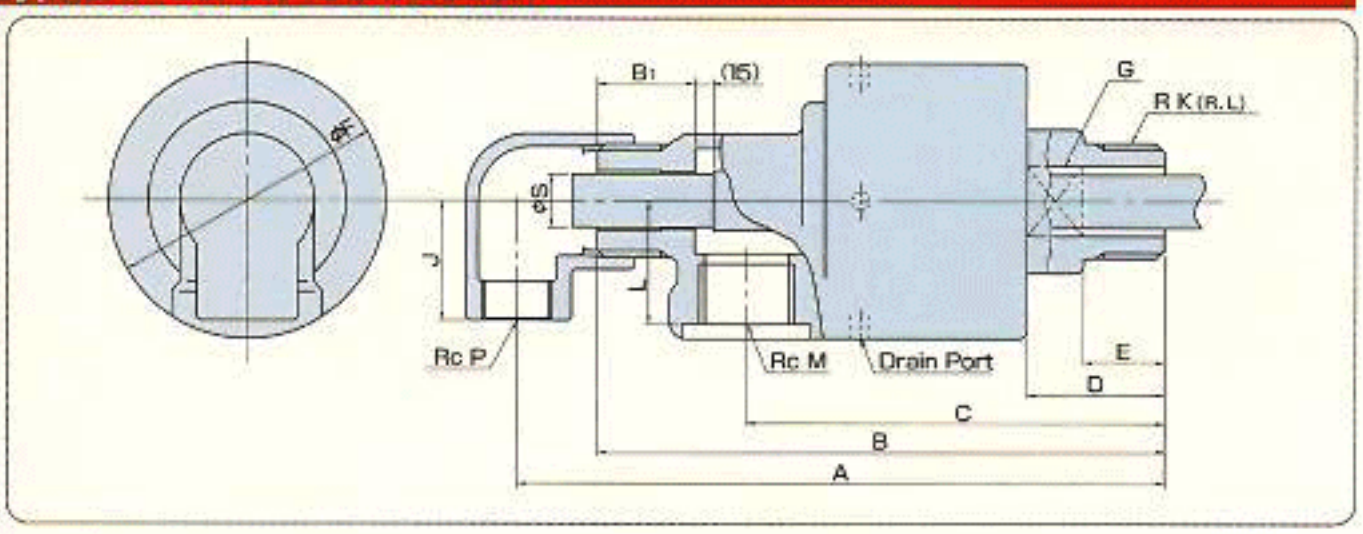
LCP-S Double Flow／Stationany Syphon／Screw Connection



〈LCP-S Dimensions〉

Model	K	M	P	S	A	B	B1	C	D	E	F	G	J	L	Net Wt.kg
LCP1/2S	R1/2	Rc1/2	Rc3/8	G1/8	141	133	22	91	28	18	53	24	25	24	0.9
LCP3/4S	R3/4	Rc1/2	Rc3/8	G1/4	153	144	23	98	32	19	65	30	28	29	1.4
LCP1S	R1	Rc3/4	Rc1/2	G3/8	176	165	26	112	34	22	72	36	33	33	2.0
LCP1 1/4S	R1 1/4	Rc1	Rc3/4	G1/2	202	189	30	132	43	25	85	41	40	36	3.0
LCP1 1/2S	R1 1/2	Rc1	Rc3/4	G3/4	209	196	32	137	44	25	90	46	43	39	3.4
LCP2S	R2	Rc1 1/2	Rc1	G1	261	245.5	34	175	55	30	110	65	51	50	5.6

LCD-S Double Flow／Rotary Syphon／Screw Connection



〈LCD-S Dimensions〉

Model	K	M	P	S	A	B	B1	C	D	E	F	G	J	L	Net Wt.kg
LCD1/2S	R1/2	Rc1/2	Rc3/8	10	141	123	21.5	91	28	18	53	24	25	24	0.9
LCD3/4S	R3/4	Rc1/2	Rc3/8	13	153	134.5	23.5	98	32	19	65	30	28	29	1.4
LCD1S	R1	Rc3/4	Rc1/2	16	176	154.5	26	112	34	22	72	36	33	33	2.0
LCD1 1/4S	R1 1/4	Rc1	Rc3/4	20	202	177	27	132	43	25	85	41	40	36	3.0
LCD1 1/2S	R1 1/2	Rc1	Rc3/4	26	209	183.5	28.5	137	44	25	90	46	43	39	3.4
LCD2S	R2	Rc1 1/2	Rc1	32	261	233	35	175	55	30	110	65	51	50	5.6

Installation and Maintenance

Caution in Handling

- Handle carefully not to damage internal parts.
- In stocking spare parts, keep them from moisture and dust by wrapping them by vinyl envelop.
- Deformation should be avoided, especially heavy objections on the joints.

Caution in Installation

- Enough flushing should be done for piping of inlet/outlet port and roll to avoid enter of dust into seal part of joint. If the dust enters into seal part, some problems such as leak and wear of seal ring in earlier may be caused.
- Flexible tube or equivalents should be used for piping of inlet / outlet port of joint. Taut, twisted and bent of flexible tube are not allowable in connecting because it is influential on performance and useful life of joint. The suitable length of flexible tube is as follows;

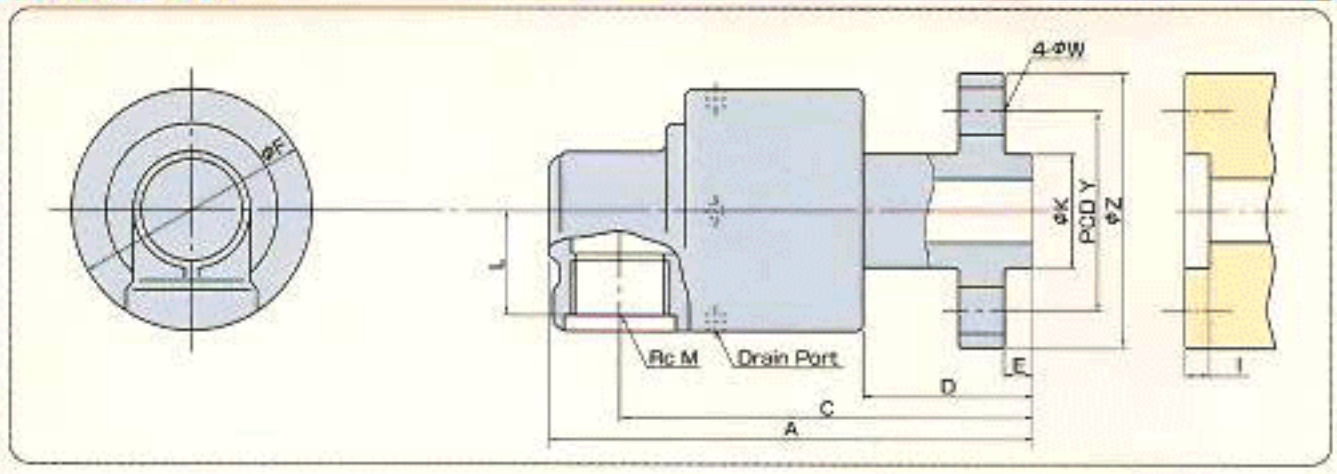
Joint connecting size: 1/2"～1"…about 300mm
1-1/4"～2"…about 500mm

- Joints should be avoided to install in eccentric and slant to axial center of rotator.

Maintenance

- Seal of Rocky joint is used abrasion resistance material such as carbon and ceramics and designed to lubricate seal part by media flew for coolant, so non-flow operation should be avoided.

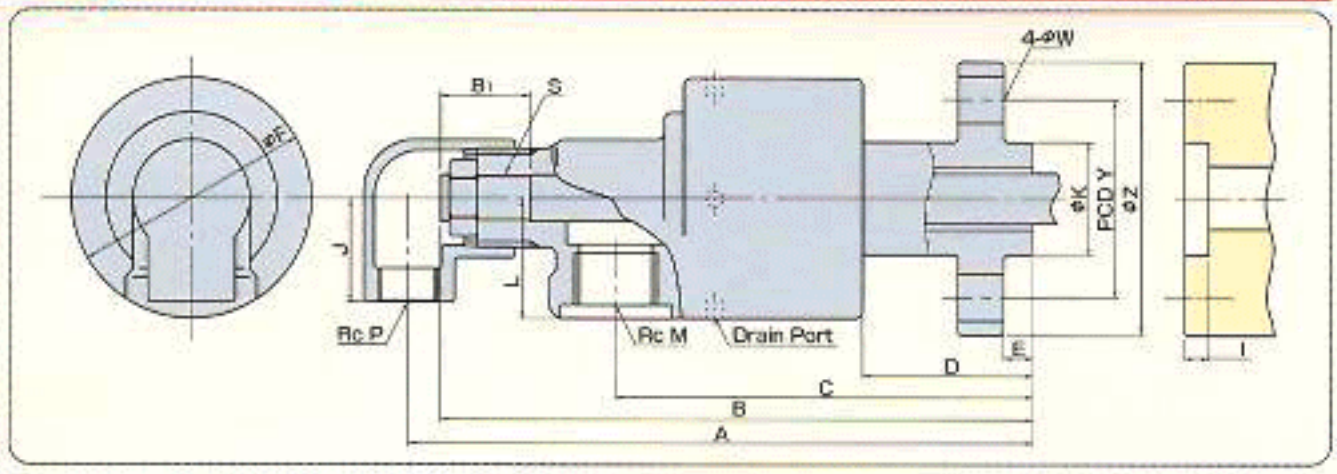
LCT-F Through Flow/Flange Connection



〈LCT-F Dimensions〉

Model	K H8e7	M	A	C	D	E	F	I	L	W	Y	Z	Net Wt.kg
LCT1/2F	25	Rc1/2	117	101	38	8	53	7	24	9	45	62	0.9
LCT3/4F	30	Rc3/4	130	111	45	8	65	7	29	12	54	74	1.6
LCT1F	35	Rc1	145	123	45	9	72	8	31	12	60	80	2.1
LCT1 1/4F	50	Rc1 1/4	166	139	48	9	85	8	41	12	75	96	3.4
LCT1 1/2F	50	Rc1 1/2	174	144	47	9	90	8	44	12	75	96	3.8
LCT2F	65	Rc2	221	185	57	10	110	9	54	14	95	120	5.8

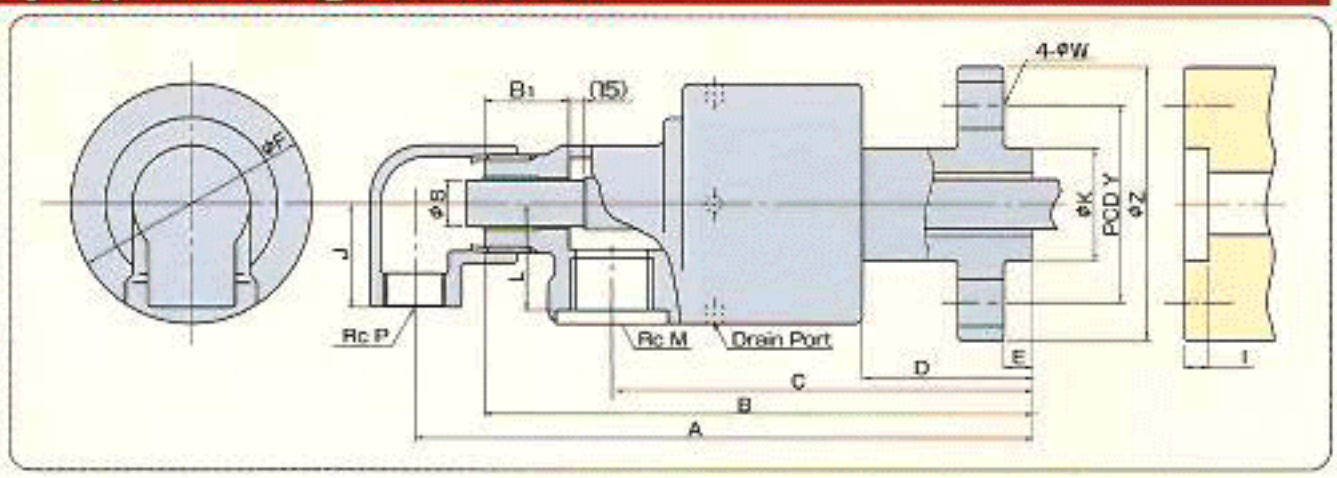
LCP-F Double Flow/Stationany Syphon/Flange Connection



〈LCP-F Dimensions〉

Model	K H8e7	M	P	S	A	B	B1	C	D	E	F	I	J	L	W	Y	Z	Net Wt.kg
LCP1/2F	25	Rc1/2	Rc3/8	G1/8	151	143	22	101	38	8	53	7	25	24	9	45	62	1.1
LCP3/4F	30	Rc1/2	Rc3/8	G1/4	166	157	23	111	45	8	65	7	28	29	12	54	74	1.8
LCP1F	35	Rc3/4	Rc1/2	G3/8	187	176	26	123	45	9	72	8	33	33	12	60	80	2.3
LCP1 1/4F	50	Rc1	Rc3/4	G1/2	207	194	30	137	48	9	85	8	40	36	12	75	96	3.7
LCP1 1/2F	50	Rc1	Rc3/4	G3/4	212	199	32	140	47	9	90	8	43	39	12	75	96	4.1
LCP2F	65	Rc1 1/2	Rc1	G1	263	247.5	34	177	57	10	110	9	51	50	14	95	120	6.3

LCD-F Double Flow/Stationany Syphon/Flange Connection



〈LCD-F Dimensions〉

Model	K H8e7	M	P	S e8	A	B	B1	C	D	E	F	I	J	L	W	Y	Z	Net Wt.kg
LCD1/2F	25	Rc1/2	Rc3/8	10	151	133	21.5	101	38	8	53	7	25	24	9	45	62	1.1
LCD3/4F	30	Rc1/2	Rc3/8	13	166	147.5	23.5	111	45	8	65	7	28	29	12	54	74	1.8
LCD1F	35	Rc3/4	Rc1/2	16	187	165.5	26	123	45	9	72	8	33	33	12	60	80	2.3
LCD1 1/4F	50	Rc1	Rc3/4	20	207	182	27	137	48	9	85	8	40	36	12	75	96	3.7
LCD1 1/2F	50	Rc1	Rc3/4	26	212	186.5	28.5	140	47	9	90	8	43	39	12	75	96	4.1
LCD2F	65	Rc1 1/2	Rc1	32	263	235	35	177	57	10	110	9	51	50	14	95	120	6.3

■All specifications subject to change without notice

CAT.No.0207

RIX RIX CORPORATION

For details of the rotary joints, please contact the following.
RIX CORPORATION

Head office
1-15-15 SANNO HAKATA-KU FUKUOKA JAPAN Tel : 81-92-472-7311 Fax : 81-92-474-3399

Manufacturing Department
1321-10 UEKI SUE-TOWN KASUYA-GUN FUKUOKA JAPAN Tel : 81-92-935-1394 Fax : 81-92-936-5027

Sales Department
1-14 SHIN-OGAWAMACHI SHINJUKU-KU TOKYO JAPAN Tel : 81-3-3269-7891 Fax : 81-3-3269-7678

International Business Dept
-15-15 SANNO HAKATA-KU FUKUOKA JAPAN Tel : 81-92-472-7312 Fax : 81-92-475-2983