

9000 S ROTARY JOINTS



STEAM, HOT WATER
 1" (DN25) - 4" (DN100)

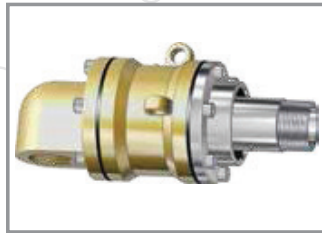
- Mono & duoflow
- Nodular casting body
- Carbon graphite sealing parts
- Stainless steel shaft & flange
- Stationary or rotating siphon system

*** For further information please contact
 Rototech or local representative.

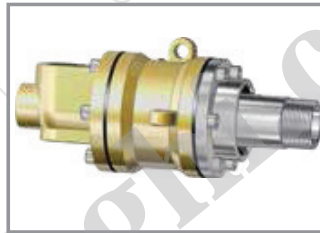
** No dry run!



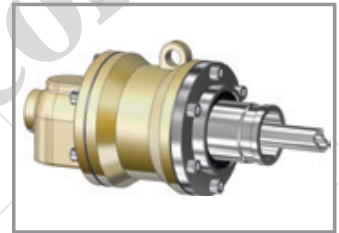
Type 1



Type 2



Type 3



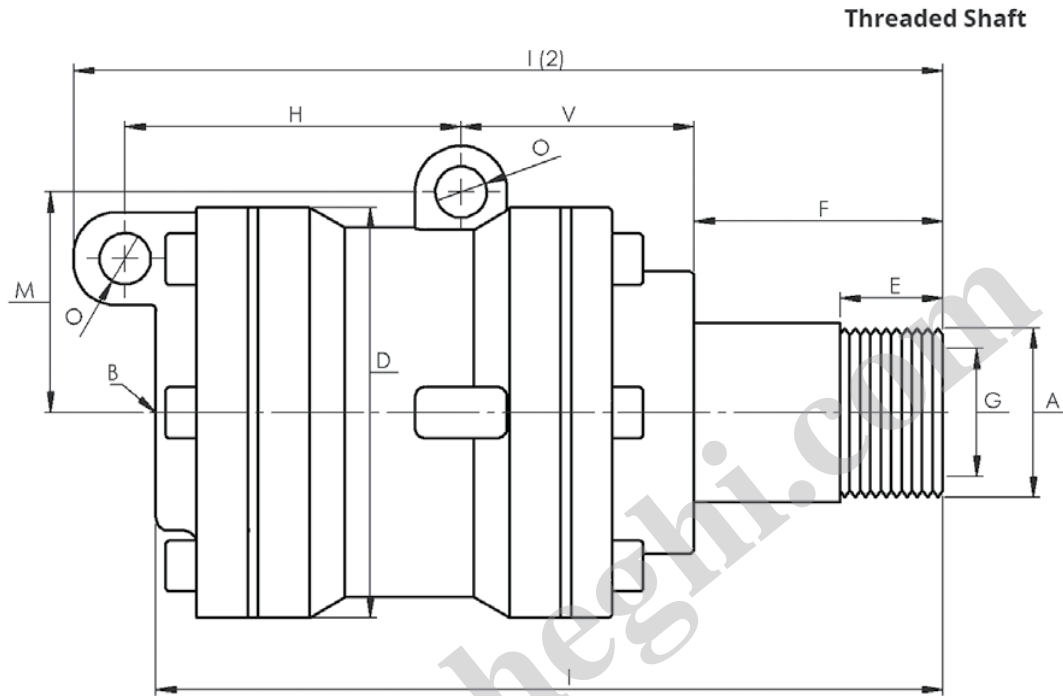
Type 4

Working Conditions

Max. Steam Pressure	:	17 Bar
Max. Steam Temperature	:	200 °C
Max. Speed / RPM	:	250 rpm/min



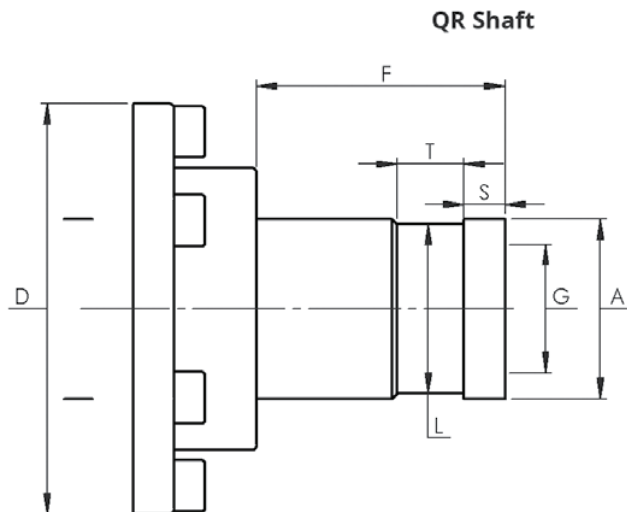
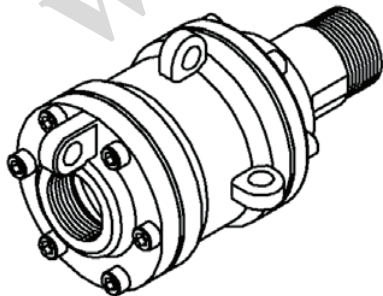
9000 S Series (Type 1) 1" (DN25) - 4" (DN100) Single Flow Rotary Joints



Single Flow Rotary Joints

Single flow joints are used when supply and return lines are connected to opposite sides of the cylinder.

* Using see page 36

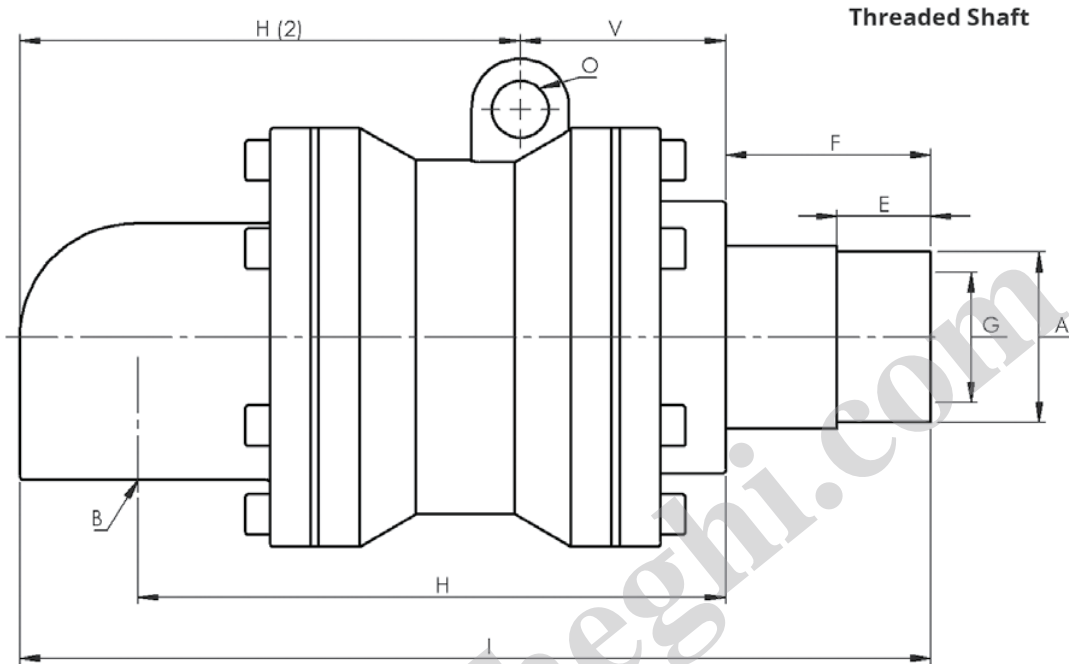


* Custom sized manufacturing are available.

9000 SERIES TYPE 1 SINGLE FLOW

Size DN	B	A	Model No	G	D	E	F	V	H	M	S	T	L	O	I(1)	I(2)	Kg
25	1"	1" NPT - RH	S9100-1110-0000-10	25	80	20	48	46	66	43				10	153	169	2,50
		1" NPT - LH	S9100-1110-0000-20														
		1" QR	S9100-1110-0000-70	25	80	20	48	46	66	43	8	13	33	10	153	169	2,50
		1" BSP - RH	S9100-1210-0000-30														
		1" BSP - LH	S9100-1210-0000-40														
		1" QR	S9100-1210-0000-70														
32	1 1/4"	1 1/4" NPT - RH	S9120-1112-0000-10	32	103	23	66	51	78	56				14	172	190	4,00
		1 1/4" NPT - LH	S9120-1112-0000-20														
		1 1/4" QR	S9120-1112-0000-70	32	103	23	66	51	78	56	8	13	43	14	172	190	4,00
		1 1/4" BSP - RH	S9120-1212-0000-30														
		1 1/4" BSP - LH	S9120-1212-0000-40														
		1 1/4" QR	S9120-1212-0000-70														
40	1 1/2"	1 1/2" NPT - RH	S9150-1115-0000-10	40	112	23	72	52	89	64				18	185	208	4,80
		1 1/2" NPT - LH	S9150-1115-0000-20														
		1 1/2" QR	S9150-1115-0000-70	40	112	23	72	52	89	64	10	16	48	18	185	208	4,80
		1 1/2" BSP - RH	S9150-1215-0000-30														
		1 1/2" BSP - LH	S9150-1215-0000-40														
		1 1/2" QR	S9150-1215-0000-70														
50	2"	2" NPT - RH	S9200-1120-0000-10	50	124	25	56	56	101	69				18	199	225	6,10
		2" NPT - LH	S9200-1120-0000-20														
		2" QR	S9200-1120-0000-70	50	124	25	56	56	101	69	10	16	63	18	199	225	6,10
		2" BSP - RH	S9200-1220-0000-30														
		2" BSP - LH	S9200-1220-0000-40														
		2" QR	S9200-1220-0000-70														
65	2 1/2"	2 1/2" NPT - RH	S9250-1125-0000-10	62	170	25	69	70	129	88				22	255	286	16,00
		2 1/2" NPT - LH	S9250-1125-0000-20														
		2 1/2" QR	S9250-1125-0000-70	62	170	25	69	70	129	88	19	29	69	22	255	286	16,00
		2 1/2" BSP - RH	S9250-1225-0000-30														
		2 1/2" BSP - LH	S9250-1225-0000-40														
		2 1/2" QR	S9250-1225-0000-70														
80	3"	3" NPT - RH	S9300-1130-0000-10	75	190	30	79	87	130	105				28	278	308	21,10
		3" NPT - LH	S9300-1130-0000-20														
		3" QR	S9300-1130-0000-70	75	190	30	79	87	130	105	22	31	84	28	278	308	21,10
		3" BSP - RH	S9300-1230-0000-30														
		3" BSP - LH	S9300-1230-0000-40														
		3" QR	S9300-1230-0000-70														
100	4"	4" NPT - RH	S9400-1140-0000-10	100	240	35	123	94	166	131				28	366	398	40,00
		4" NPT - LH	S9400-1140-0000-20														
		4" QR	S9400-1140-0000-70	100	240	35	123	94	166	131	12	22	110	28	366	398	40,00
		4" BSP - RH	S9400-1240-0000-30														
		4" BSP - LH	S9400-1240-0000-40														
		4" QR	S9400-1240-0000-70														

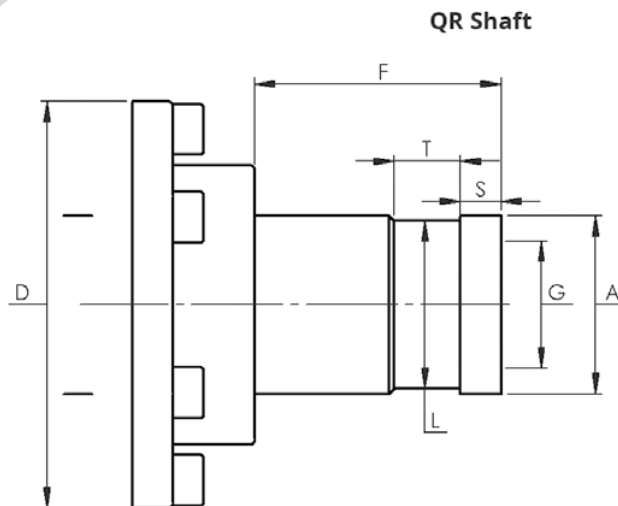
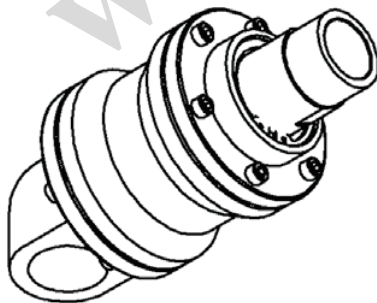
9000 S Series (Type 2) 1" (DN25) - 4" (DN100) Single Flow Rotary Joints



Single Flow Rotary Joints

Single flow joints are used when supply and return lines are connected to opposite sides of the cylinder.

* Using see page 36

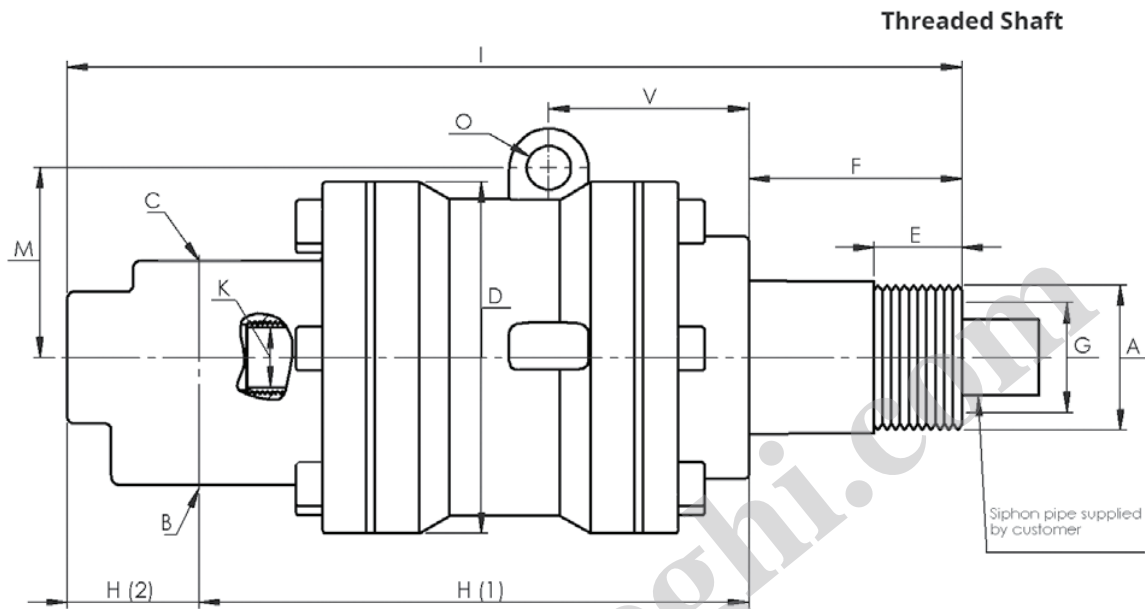


* Custom sized manufacturing are available.

9000 S SERIES TYPE 2 DUAL FLOW

Size DN	B	A	Model No	G	D	E	F	V	H	H(2)	M	S	T	L	O	I	Kg	
25	1"	1" NPT - RH	S9100-2110-0000-10	25	80	20	48	46	125	30	43				10	197	2,50	
		1" NPT - LH	S9100-2110-0000-20															
		1" QR	S9100-2110-0000-70	25	80		48	46	125	30	43	8	13	33	10	197	2,50	
		1" BSP - RH	S9100-2210-0000-30	25	80	20	48	46	125	30	43					10	197	2,50
		1" BSP - LH	S9100-2210-0000-40															
		1" QR	S9100-2210-0000-70	25	80		48	46	125	30	43	8	13	33	10	197	2,50	
32	1 1/4"	1 1/4" NPT - RH	S9120-2112-0000-10	32	103	23	66	51	145	35	56				14	224	4,00	
		1 1/4" NPT - LH	S9120-2112-0000-20															
		1 1/4" QR	S9120-2112-0000-70	32	103		66	51	145	35	56	8	13	43	14	224	4,00	
		1 1/4" BSP - RH	S9120-2212-0000-30	32	103	23	66	51	145	35	56					14	224	4,00
		1 1/4" BSP - LH	S9120-2212-0000-40															
		1 1/4" QR	S9120-2212-0000-70	32	103		66	51	145	35	56	8	13	43	14	224	4,00	
40	1 1/2"	1 1/2" NPT - RH	S9150-2115-0000-10	40	112	23	72	52	154	42	64				18	243	5,00	
		1 1/2" NPT - LH	S9150-2115-0000-20															
		1 1/2" QR	S9150-2115-0000-70	40	112		72	52	154	42	64	10	16	48	18	243	5,00	
		1 1/2" BSP - RH	S9150-2215-0000-30	40	112	23	72	52	154	42	64					18	243	5,00
		1 1/2" BSP - LH	S9150-2215-0000-40															
		1 1/2" QR	S9150-2215-0000-70	40	112		72	52	154	42	64	10	16	48	18	243	5,00	
50	2"	2" NPT - RH	S9200-2120-0000-10	50	124	25	56	56	173	45	69				18	271	7,00	
		2" NPT - LH	S9200-2120-0000-20															
		2" QR	S9200-2120-0000-70	50	124		56	56	173	45	69	10	16	63	18	271	7,00	
		2" BSP - RH	S9200-2220-0000-30	50	124	25	56	56	173	45	69					18	271	7,00
		2" BSP - LH	S9200-2220-0000-40															
		2" QR	S9200-2220-0000-70	50	124		56	56	173	45	69	10	16	63	18	271	7,00	
65	2 1/2"	2 1/2" NPT - RH	S9250-2125-0000-10	62	170	25	69	70	231	50	88				22	348	18,00	
		2 1/2" NPT - LH	S9250-2125-0000-20															
		2 1/2" QR	S9250-2125-0000-70	62	170		69	70	231	50	88	19	29	69	22	348	18,00	
		2 1/2" BSP - RH	S9250-2225-0000-30	62	170	25	69	70	231	50	88					22	348	18,00
		2 1/2" BSP - LH	S9250-2225-0000-40															
		2 1/2" QR	S9250-2225-0000-70	62	170		69	70	231	50	88	19	29	69	22	348	18,00	
80	3"	3" NPT - RH	S9300-2130-0000-10	75	190	30	79	87	246	60	105				28	405	24,50	
		3" NPT - LH	S9300-2130-0000-20															
		3" QR	S9300-2130-0000-70	75	190		79	87	246	60	105	22	31	84	28	405	24,50	
		3" BSP - RH	S9300-2230-0000-30	75	190	30	79	87	246	60	105					28	405	24,50
		3" BSP - LH	S9300-2230-0000-40															
		3" QR	S9300-2230-0000-70	75	190		79	87	246	60	105	22	31	84	28	405	24,50	
100	4"	4" NPT - RH	S9400-2140-0000-10	100	240	35	123	94	309	70	131				28	508	45,50	
		4" NPT - LH	S9400-2140-0000-20															
		4" QR	S9400-2140-0000-70	100	240		123	94	309	70	131	12	22	110	28	508	45,50	
		4" BSP - RH	S9400-2240-0000-30	100	240	35	123	94	309	70	131					28	508	45,50
		4" BSP - LH	S9400-2240-0000-40															
		4" QR	S9400-2240-0000-70	100	240		123	94	309	70	131	12	22	110	28	508	45,50	

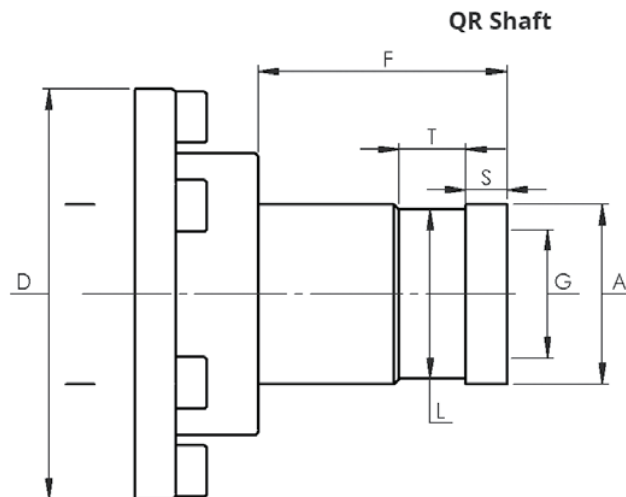
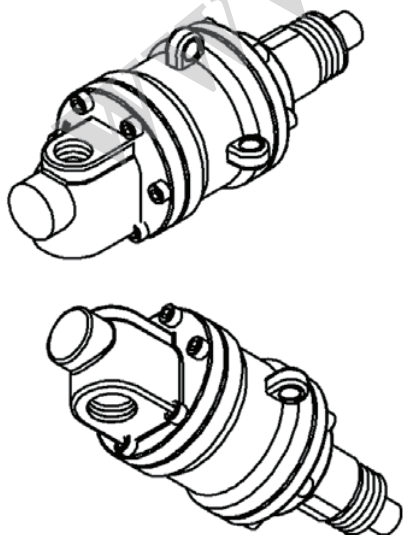
9000 S Series (Type 3) 1" (DN25) - 4" (DN100) Duo Flow Rotary Joints



Duo Flow Rotary Joints

Dual flow joints are used when supply and return lines are connected to same sides of the cylinder.

* Using see page 36

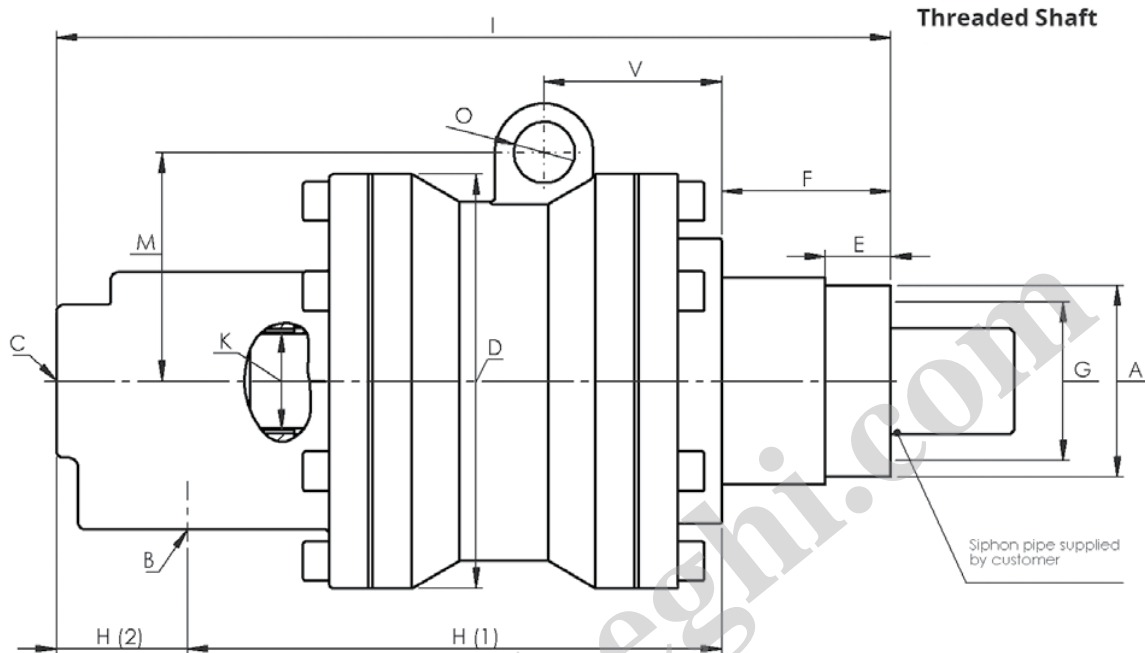


* Custom sized manufacturing are available.

9000 S SERIES TYPE 3 DUAL FLOW

Size DN	B	A	Model No	C	K	G	D	E	F	V	H	H(2)	M	S	T	L	O	I	Kg	
25	3/4"	1" NPT - RH	S9100-3107-0504-10	1/2"	3/8"	25	80	20	48	46	125	104	43				10	203	3,20	
		1" NPT - LH	S9100-3107-0504-20																	
		1" QR	S9100-3107-0504-70	1/2"	3/8"	25	80		48	46	125	104	43	8	13	33	10	203	3,20	
		1" BSP - RH	S9100-3207-0504-30	1/2"	3/8"	25	80	20	48	46	125	104	43					10	203	3,20
		1" BSP - LH	S9100-3207-0504-40																	
		1" QR	S9100-3207-0504-70	1/2"	3/8"	25	80		48	46	125	104	43	8	13	33	10	203	3,20	
32	1"	1 1/4" NPT - RH	S9120-3110-0705-10	3/4"	3/4"	32	103	23	66	51	145	123	56				14	227	4,50	
		1 1/4" NPT - LH	S9120-3110-0705-20																	
		1 1/4" QR	S9120-3110-0705-70	3/4"	3/4"	32	103	23	66	51	145	123	56	8	13	43	14	227	4,50	
		1 1/4" BSP - RH	S9120-3210-0705-30	3/4"	3/4"	32	103	23	66	51	145	123	56					14	227	4,50
		1 1/4" BSP - LH	S9120-3210-0705-40																	
		1 1/4" QR	S9120-3210-0705-70	3/4"	3/4"	32	103		66	51	145	123	56	8	13	43	14	227	4,50	
40	1 1/4"	1 1/2" NPT - RH	S9150-3112-0707-10	3/4"	3/4"	40	112	23	72	52	154	137	64				18	256	6,50	
		1 1/2" NPT - LH	S9150-3112-0707-20																	
		1 1/2" QR	S9150-3112-0707-70	3/4"	3/4"	40	112	23	72	52	154	137	64	10	16	48	18	256	6,50	
		1 1/2" BSP - RH	S9150-3212-0707-30	3/4"	3/4"	40	112	23	72	52	154	137	64					18	256	6,50
		1 1/2" BSP - LH	S9150-3212-0707-40																	
		1 1/2" QR	S9150-3212-0707-70	3/4"	3/4"	40	112		72	52	154	137	64	10	16	48	18	256	6,50	
50	1 1/2"	2" NPT - RH	S9200-3115-1010-10	1"	1"	50	124	25	56	56	173	118	69				18	290	7,50	
		2" NPT - LH	S9200-3115-1010-20																	
		2" QR	S9200-3115-1010-70	1"	1"	50	124		56	56	173	118	69	10	16	63	18	290	7,50	
		2" BSP - RH	S9200-3215-1010-30	1"	1"	50	124	25	56	56	173	118	69					18	290	7,50
		2" BSP - LH	S9200-3215-1010-40																	
		2" QR	S9200-3215-1010-70	1"	1"	50	124		56	56	173	118	69	10	16	63	18	290	7,50	
65	2"	2 1/2" NPT - RH	S9250-3120-1010-10	1"	1"	62	170	25	69	70	231	212	88				22	346	18,00	
		2 1/2" NPT - LH	S9250-3120-1010-20																	
		2 1/2" QR	S9250-3120-1010-70	1"	1"	62	170		69	70	231	212	88	19	29	69	22	346	18,00	
		2 1/2" BSP - RH	S9250-3220-1010-30	1"	1"	62	170	25	69	70	231	212	88					22	346	18,00
		2 1/2" BSP - LH	S9250-3220-1010-40																	
		2 1/2" QR	S9250-3220-1010-70	1"	1"	62	170		69	70	231	212	88	19	29	69	22	346	18,00	
80	2 1/2"	3" NPT - RH	S9300-3125-1212-10	1 1/4"	1 1/4"	75	190	30	79	87	246	226	105				28	382	25,50	
		3" NPT - LH	S9300-3125-1212-20																	
		3" QR	S9300-3125-1212-70	1 1/4"	1 1/4"	75	190		79	87	246	226	105	22	31	84	28	382	25,50	
		3" BSP - RH	S9300-3225-1212-30	1 1/4"	1 1/4"	75	190	30	79	87	246	226	105					28	382	25,50
		3" BSP - LH	S9300-3225-1212-40																	
		3" QR	S9300-3225-1212-70	1 1/4"	1 1/4"	75	190		79	87	246	226	105	22	31	84	28	382	25,50	
100	3"	4" NPT - RH	S9400-3140-1515-10	1 1/2"	1 1/2"	100	240	35	123	94	309	295	131				28	508	50,00	
		4" NPT - LH	S9400-3140-1515-20																	
		4" QR	S9400-3140-1515-70	1 1/2"	1 1/2"	100	240		123	94	309	295	131	12	22	110	28	508	50,00	
		4" BSP - RH	S9400-3240-1515-30	1 1/2"	1 1/2"	100	240	35	123	94	309	295	131					28	508	50,00
		4" BSP - LH	S9400-3240-1515-40																	
		4" QR	S9400-3240-1515-70	1 1/2"	1 1/2"	100	240		123	94	309	295	131	12	22	110	28	508	50,00	

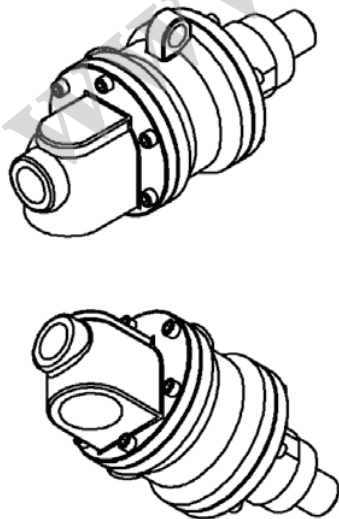
9000 S Series (Type 4) 1" (DN25) - 4" (DN100) Duo Flow Rotary Joints



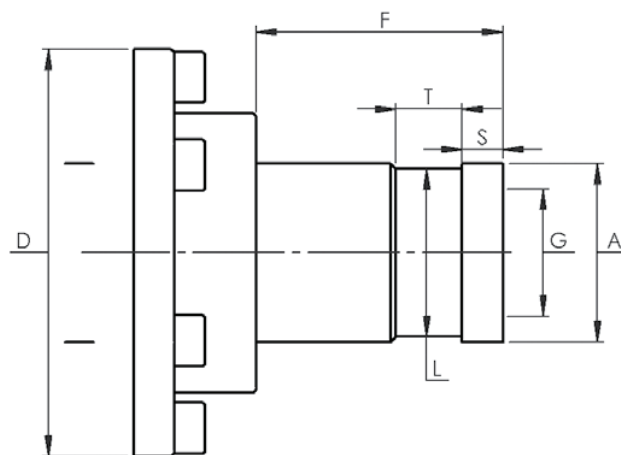
Duo Flow Rotary Joints

Dual flow joints are used when supply and return lines are connected to same sides of the cylinder.

* Using see page 36



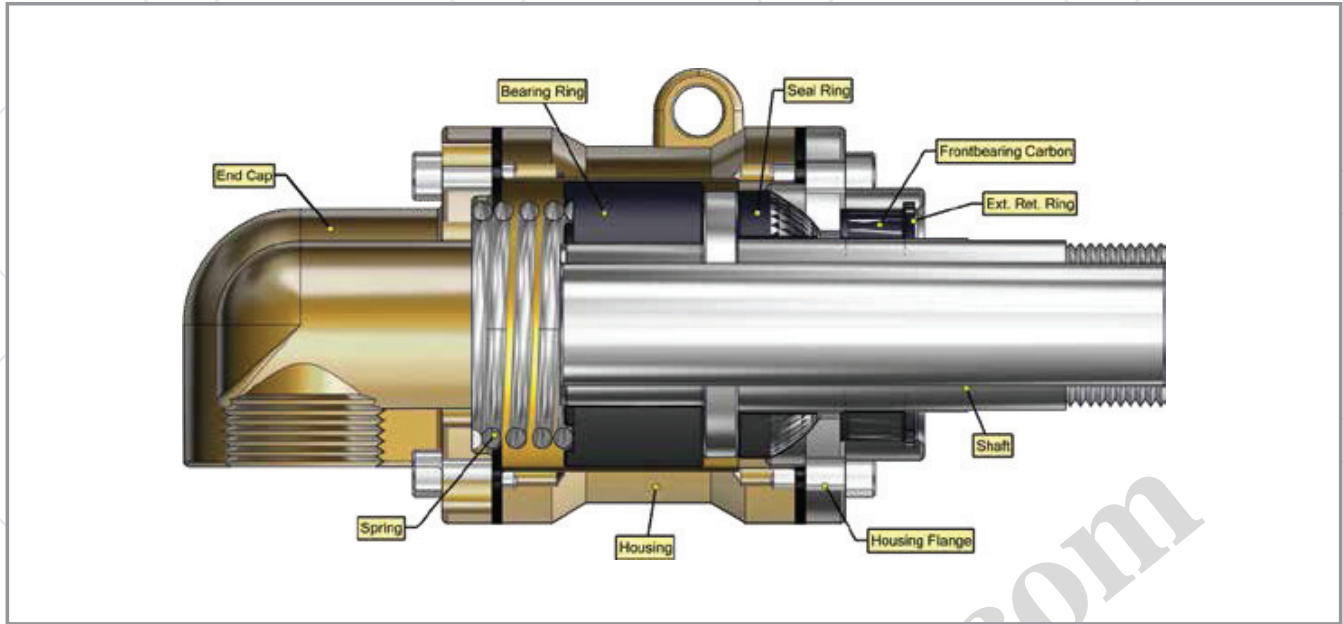
QR Shaft



* Custom sized manufacturing are available.

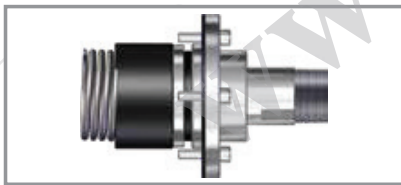
9000 S SERIES TYPE 4 DUAL FLOW

Size DN	B	A	Model No	C	K	G	D	E	F	V	H	H(2)	M	S	T	L	O	I	Kg	
25	3/4"	1" NPT - RH	S9100-4107-0504-10	1/2"	3/8"	25	80	20	48	46	125	30	43				10	203	3,20	
		1" NPT - LH	S9100-4107-0504-20																	
		1" QR	S9100-4107-0504-70	1/2"	3/8"	25	80		48	46	125	30	43	8	13	33	10	203	3,20	
		1" BSP - RH	S9100-4207-0504-30	1/2"	3/8"	25	80	20	48	46	125	30	43					10	203	3,20
		1" BSP - LH	S9100-4207-0504-40																	
		1" QR	S9100-4207-0504-70	1/2"	3/8"	25	80		48	46	125	30	43	8	13	33	10	203	3,20	
32	1"	1 1/4" NPT - RH	S9120-4110-0705-10	3/4"	1/2"	32	103	23	66	51	145	35	56				14	227	4,50	
		1 1/4" NPT - LH	S9120-4110-0705-20																	
		1 1/4" QR	S9120-4110-0705-70	3/4"	1/2"	32	103	23	66	51	145	35	56	8	13	43	14	227	4,50	
		1 1/4" BSP - RH	S9120-4210-0705-30	3/4"	1/2"	32	103	23	66	51	145	35	56					14	227	4,50
		1 1/4" BSP - LH	S9120-4210-0705-40																	
		1 1/4" QR	S9120-4210-0705-70	3/4"	1/2"	32	103		66	51	145	35	56	8	13	43	14	227	4,50	
40	1 1/4"	1 1/2" NPT - RH	S9150-4112-0707-10	3/4"	3/4"	40	112	23	72	52	154	42	64				18	256	6,50	
		1 1/2" NPT - LH	S9150-4112-0707-20																	
		1 1/2" QR	S9150-4112-0707-70	3/4"	3/4"	40	112	23	72	52	154	42	64	10	16	48	18	256	6,50	
		1 1/2" BSP - RH	S9150-4212-0707-30	3/4"	3/4"	40	112	23	72	52	154	42	64					18	256	6,50
		1 1/2" BSP - LH	S9150-4212-0707-40																	
		1 1/2" QR	S9150-4212-0707-70	3/4"	3/4"	40	112		72	52	154	42	64	10	16	48	18	256	6,50	
50	1 1/2"	2" NPT - RH	S9200-4115-1010-10	1"	1"	50	124	25	56	56	173	45	69				18	290	7,50	
		2" NPT - LH	S9200-4115-1010-20																	
		2" QR	S9200-4115-1010-70	1"	1"	50	124		56	56	173	45	69	10	16	63	18	290	7,50	
		2" BSP - RH	S9200-4215-1010-30	1"	1"	50	124	25	56	56	173	45	69					18	290	7,50
		2" BSP - LH	S9200-4215-1010-40																	
		2" QR	S9200-4215-1010-70	1"	1"	50	124		56	56	173	45	69	10	16	63	18	290	7,50	
65	2"	2 1/2" NPT - RH	S9250-4120-1010-10	1"	1"	62	170	25	69	70	231	50	88				22	346	18,00	
		2 1/2" NPT - LH	S9250-4120-1010-20																	
		2 1/2" QR	S9250-4120-1010-70	1"	1"	62	170		69	70	231	50	88	19	29	69	22	346	18,00	
		2 1/2" BSP - RH	S9250-4220-1010-30	1"	1"	62	170	25	69	70	231	50	88					22	346	18,00
		2 1/2" BSP - LH	S9250-4220-1010-40																	
		2 1/2" QR	S9250-4220-1010-70	1"	1"	62	170		69	70	231	50	88	19	29	69	22	346	18,00	
80	2 1/2"	3" NPT - RH	S9300-4125-1212-10	1 1/4"	1 1/4"	75	190	30	79	87	246	60	105				28	382	25,50	
		3" NPT - LH	S9300-4125-1212-20																	
		3" QR	S9300-4125-1212-70	1 1/4"	1 1/4"	75	190		79	87	246	60	105	22	31	84	28	382	25,50	
		3" BSP - RH	S9300-4225-1212-30	1 1/4"	1 1/4"	75	190	30	79	87	246	60	105					28	382	25,50
		3" BSP - LH	S9300-4225-1212-40																	
		3" QR	S9300-4225-1212-70	1 1/4"	1 1/4"	75	190		79	87	246	60	105	22	31	84	28	382	25,50	
100	3"	4" NPT - RH	S9400-4140-1515-10	1 1/2"	1 1/2"	100	240	35	123	94	309	70	131				28	508	50,00	
		4" NPT - LH	S9400-4140-1515-20																	
		4" QR	S9400-4140-1515-70	1 1/2"	1 1/2"	100	240		123	94	309	70	131	12	22	110	28	508	50,00	
		4" BSP - RH	S9400-4240-1515-30	1 1/2"	1 1/2"	100	240	35	123	94	309	70	131					28	508	50,00
		4" BSP - LH	S9400-4240-1515-40																	
		4" QR	S9400-4240-1515-70	1 1/2"	1 1/2"	100	240		123	94	309	70	131	12	22	110	28	508	50,00	



9000 S Series Spare Part List

Product	S 9250	S 9300	S 9400
Cartridge	S9250-C- BSP RH	S9300-C BSP-RH	S9400-C BSP-RH
	S9250-C BSP-LH	S9300-C BSP-LH	S9400-C BSP-LH
	S9250-C NPT-RH	S9300-C NPT-RH	S9400-C NPT-RH
	S9250-C NPT-LH	S9300-C NPT-LH	S9400-C NPT-LH
	S9250-C QR	S9300-C QR	S9400-C QR
T-1	S9250-T1	S9300-T1	S9400-T1
T-2	S9250-T2	S9300-T2	S9400-T2



Cartridge

- Shaft
- Cover (AISI304)
- Gasket
- Front Bearing Carbon
- Ext.Ret. Ring
- Seal Ring



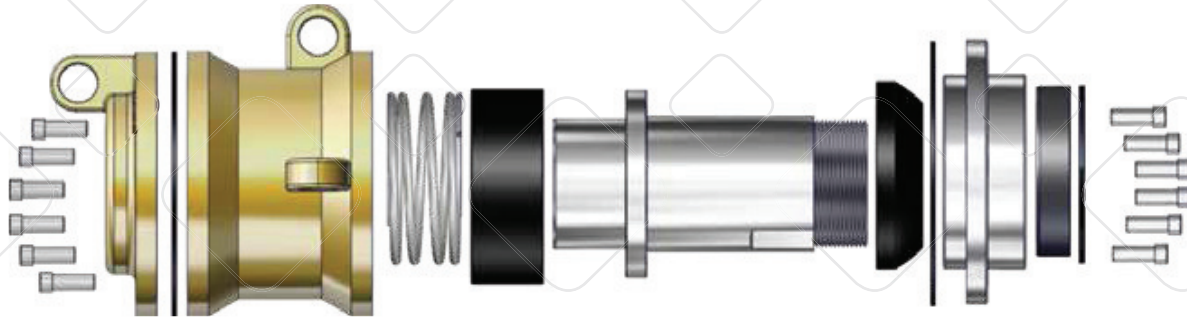
T-1

- Gasket
- Front Bearing Carbon
- Seal Ring
- Bearing Ring
- Spring



T-2

- Front Bearing Carbon
- Seal Ring
- Bearing Ring



9000S Series Rotary Joint Disassembly and Maintenance Instructions.

1. Close outlet and inlet valves and wait for all the medium in the system to be drained completely. If hot medium is used, wait for the rotary joint to cool down to normal temperature.
2. First of all, disconnect the inlet and outlet hoses from the pipes or valves without applying force on the housing.
3. Disconnect the shaft from the machine. Now the joint is ready for maintenance.
4. Hold the housing of the rotary joint with a bench vise.
5. Disconnect the inlet and outlet hoses from the rotary joint.
6. If the joint is dual flow, unthread the siphon pipe from the end cap and take it out.
7. Put the housing on a clean table on to the front housing flange as shown in Figure 1.
8. Remove the end cap hex bolts with the appropriate wrench. Because of the force of the spring, hold the end cap while disassembling the last two hex bolts.
9. Because of the pressurized spring inside, in order not to pop of the internal parts from the housing, take out the end cap slowly and carefully until the force of the spring finishes.
10. After taking out the end cap, clean the internal parts ; seal ring, rear graphite bearing, shaft and the spring from the housing.
11. Turn the housing upside down and place it on a clean table .
12. Remove the front hex bolts and take out the front housing flange.
13. Remove the internal retaining ring with an appropriate tool.
14. Take out the front graphite bearing from the front housing flange.
15. Inspect the shaft and the housing for wear and corrosion, if necessary replace them with the new ones.
16. Inspect the spring, seal ring and the graphite bearing, if necessary replace with the new ones.
17. Inspect the socket for front graphite bearing inside the front housing flange and sealing surface, if necessary replace them with new ones.
18. Place the front graphite bearing inside the front housing flange.
19. Lock the front graphite bearing with appropriate internal retaining ring.
20. Clean the internal part of the housing with a clean material. Pay attention not the leave any dirt, Burr, etc. inside the housing.

9000S Series Rotary Joint Disassembly and Maintenance Instructions.

21. Clean all gasket surfaces of the housing.
22. Place the housing on to the backside on a clean table , and assemble the front housing gasket.
23. Assemble the front housing flange on to the gasket with concave face of the front housing and fix
24. it with appropriate bolts. Rotate the housing upside down onto the front housing flange.
25. Assemble the seal ring inside the housing with concave face of the front housing flange.
26. Be carefull not to damage the internal parts while assembling the shaft inside the housing.
27. Assemble the rear graphite bearing into the housing with spring groove facing upwards.
28. Place the spring onto the spring groove of the graphite bearing.
29. Place the rear housing gasket onto the housing.
30. Assemble the end cap while spring groove facing the spring.
31. Push the end cap from above and bolt the and cap to the housing.
32. If the joint is dual flow, assemble the siphon pipe to the end cap.
33. Hold the housing of the rotary joint with a bench wise.
34. Assamble the inlet and outlet hoses.
35. Pay attention not to assemble the joint eccentricly when assembling the joint to the machine.
36. Install the anti rotation rods into one of the holes on the housing. Never tie more than 2 joints with a singlerod. Fix the rod to one of the holes of the joints and leave the rod to float.
37. The joint is ready to be placed back in service.
 - Don't apply oil or grease to Rototech 9000S rotating joints. 9000S joints are designed to be lubricated with the interpassing fluid.
 - 9000S rotating joints must not be run dry for a long time. Dry run may cause excessive wear.