

*Serie/Series*

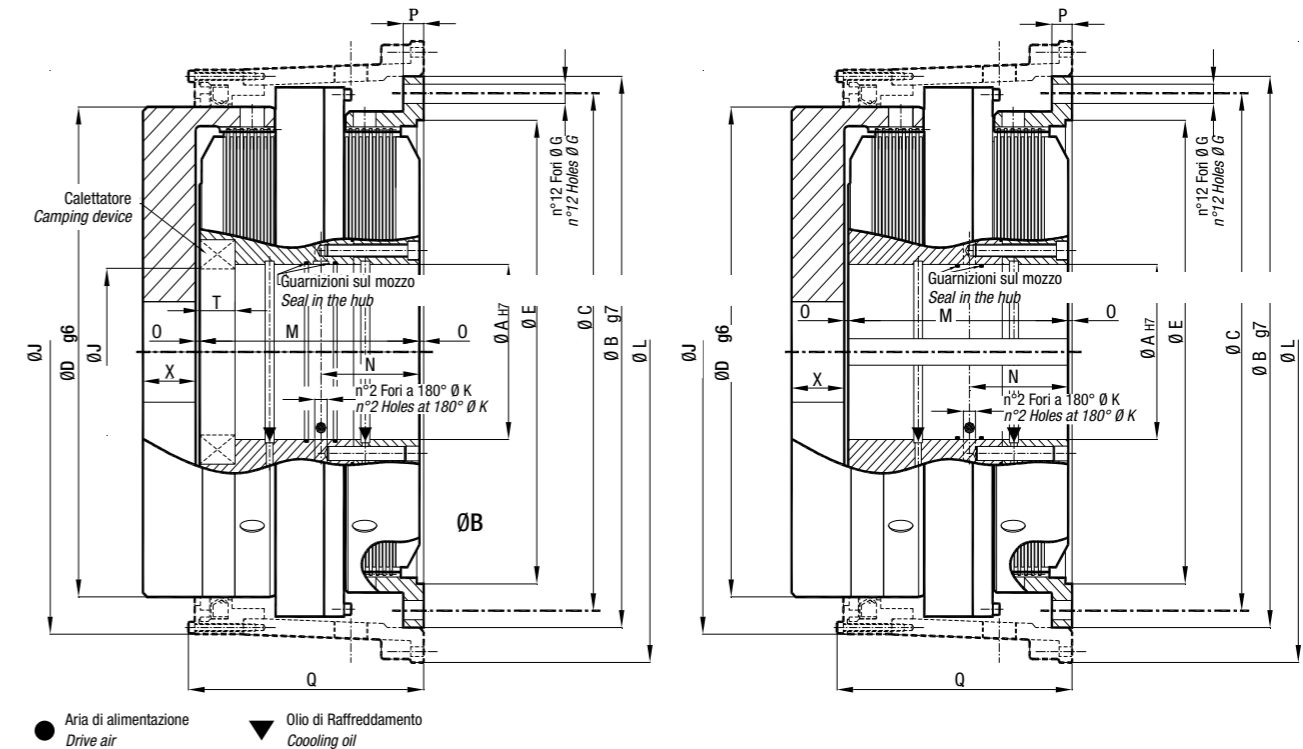
# WA

**Gruppo Frizione-Freno a comando  
pneumatico multidisco in bagno d'olio**

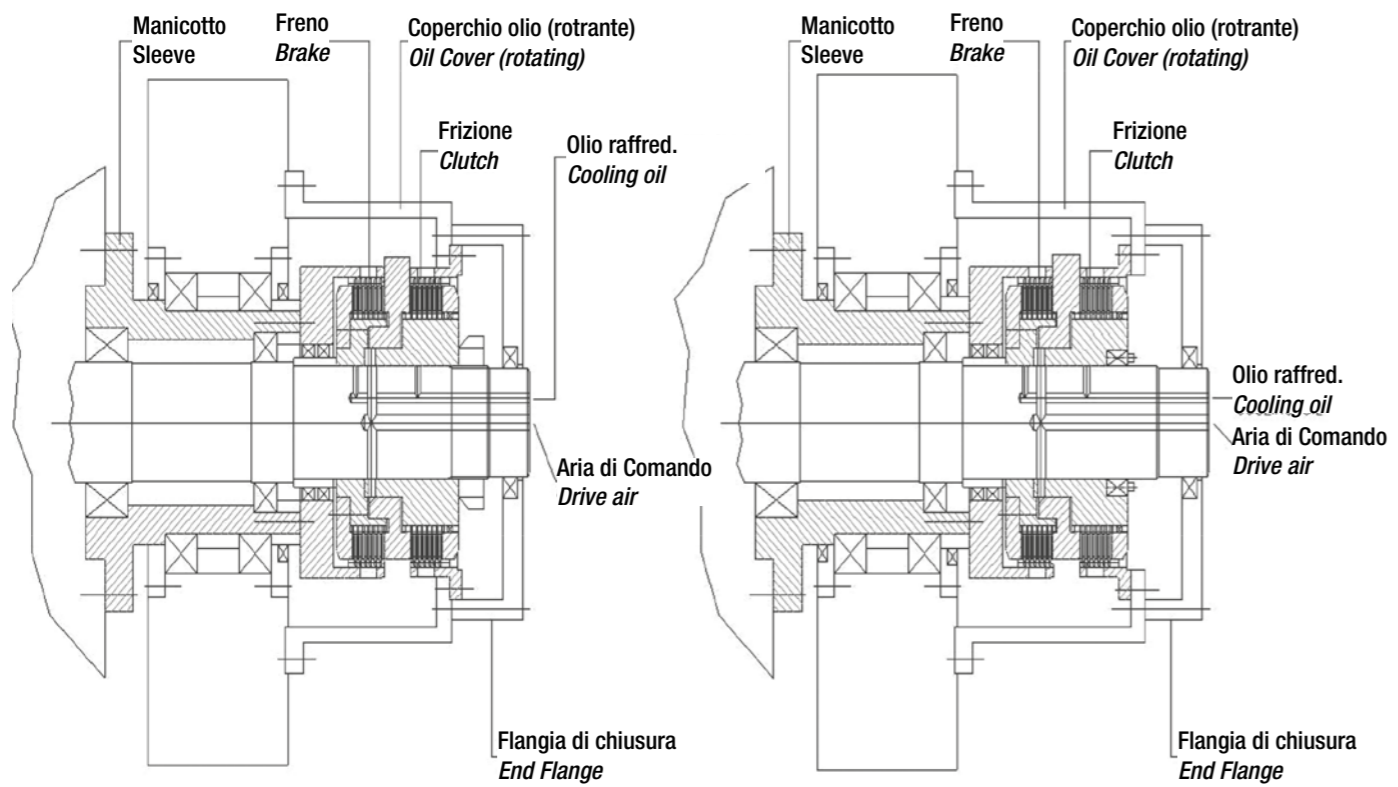
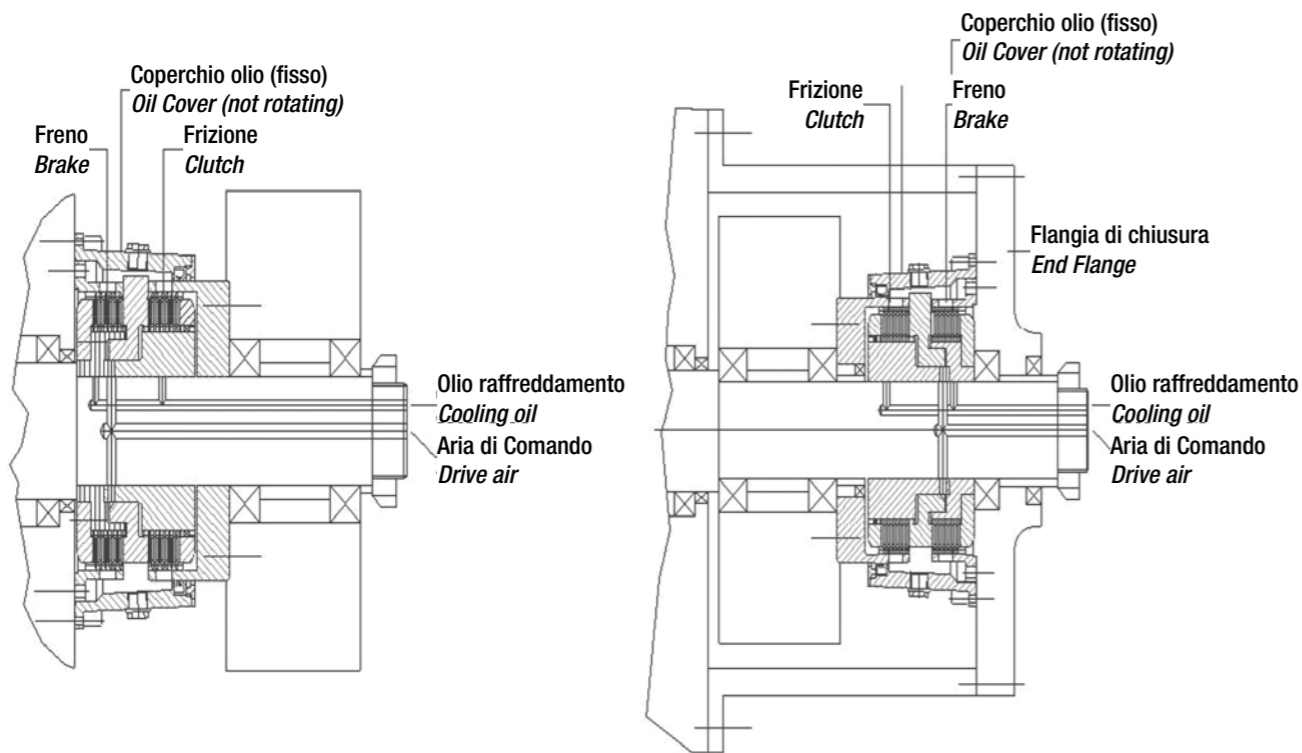
*Air actuated, wet running  
multi-plate clutch-brake unit*



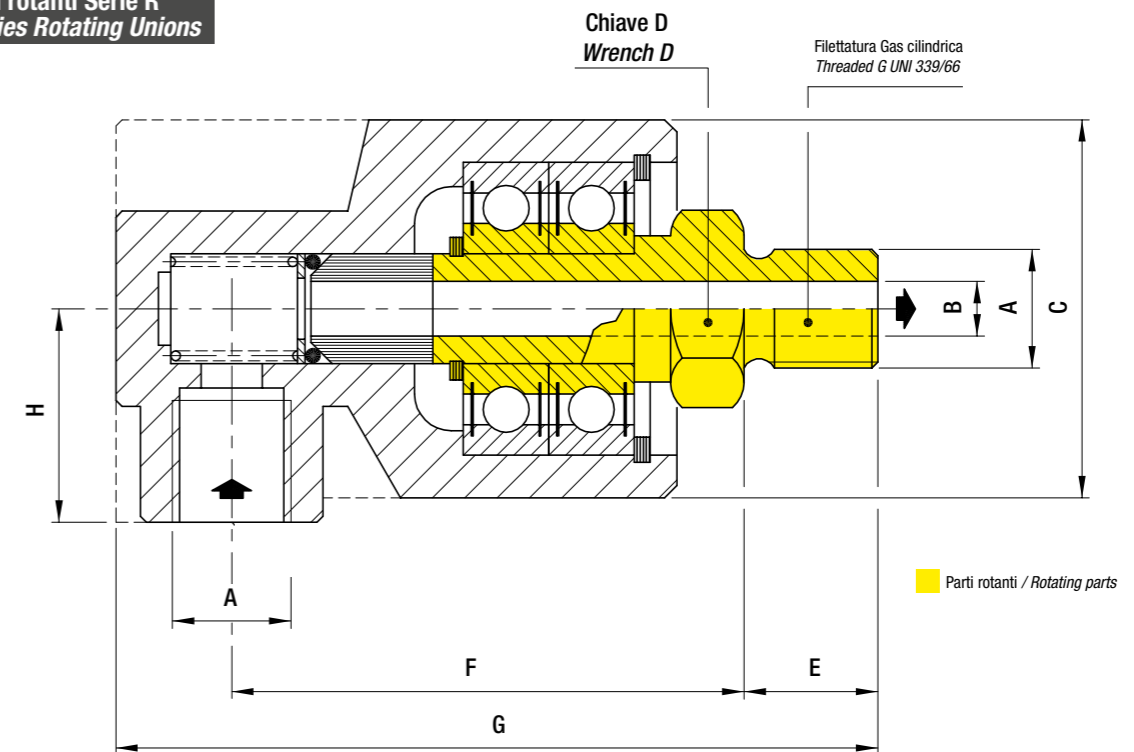
Grandezza Size	Molle Springs	Coppia freno Brake torque	Pressione apertura freno Opening pressure	Coppia frizione [Nm] alle pressioni [bar] Clutch torque [Nm] at pressures [bar]					Inerzia Inertia
				6	5,5	5	4,5	4	
				bar	bar	bar	bar	bar	
WA 017-009	18	900	2,80	2.090	1.760	1.435	1.110	783	0,16
	15	750	2,33	2.400	2.070	1.740	1.420	1.090	
	12	600	1,87	2.700	2.370	2.050	1.720	1.400	
	9	450	1,40	3.000	2.680	2.350	2.020	1.700	
WA 024-009	18	900	2,80	2.990	2.520	2.050	1.590	1.120	0,17
	15	750	2,33	3.420	2.950	2.490	2.020	1.550	
	12	600	1,87	3.850	3.390	2.920	2.460	1.990	
	9	450	1,40	4.290	3.820	3.360	2.900	2.420	
WA 040-020	18	2.000	2,73	3.960	3.360	2.750	2.150	1.540	0,49
	15	1.660	2,70	4.520	3.900	3.300	2.700	2.090	
	12	1.330	2,67	5.070	4.460	3.850	3.250	2.640	
	9	1.000	2,65	5.620	5.010	4.400	3.800	3.190	
WA 050-020	18	2.000	2,73	5.670	4.800	3.930	3.070	2.200	0,53
	15	1.660	2,70	6.450	5.590	4.720	3.850	2.990	
	12	1.330	2,67	7.250	6.380	5.520	4.650	3.780	
	9	1.000	2,65	8.030	7.160	6.290	5.430	4.560	
WA 070-040	18	4.000	2,76	7.630	6.450	5.270	4.090	2.920	1,54
	15	3.330	2,74	8.710	7.530	6.360	5.180	4.000	
	12	2.660	2,72	9.800	8.620	7.440	6.260	5.080	
	9	2.000	2,70	10.880	9.700	8.520	7.350	6.170	
WA 100-040	18	4.000	2,76	11.440	9.680	7.910	6.140	4.380	1,66
	15	3.330	2,74	13.070	11.300	9.540	7.770	6.000	
	12	2.660	2,72	14.700	12.930	11.160	9.390	7.630	
	9	2.000	2,70	16.320	14.550	12.790	11.020	9.250	
WA 120-080	18	8.100	3,05	12.670	10.520	8.370	6.220	4.070	3,52
	15	6.750	3,03	14.850	12.700	10.550	8.410	6.260	
	12	5.400	3,01	17.040	14.890	12.740	10.590	8.440	
	9	4.050	2,99	19.220	17.070	14.920	12.780	10.630	
WA 170-080	18	8.100	3,05	18.100	15.030	11.960	8.890	5.820	3,75
	15	6.750	3,03	21.220	18.150	15.080	12.015	8.940	
	12	5.400	3,01	24.340	21.270	18.200	15.130	12.060	
	9	4.050	2,99	27.460	24.390	21.320	18.250	15.180	
WA 200-160	18	16.500	3,03	26.020	21.640	17.260	12.880	8.500	9,78
	15	13.750	3,01	30.440	26.060	21.680	17.300	12.920	
	12	11.000	3,00	34.860	30.480	26.100	21.720	17.340	
	9	8.250	3,98	39.280	34.900	30.520	26.140	21.760	
WA 300-160	18	16.500	3,03	37.170	30.910	24.660	18.400	12.150	10,44
	15	13.750	3,01	43.480	37.230	30.970	24.720	18.460	
	12	11.000	3,00	49.800	43.540	37.290	31.030	24.780	
	9	8.250	2,98	56.110	49.860	43.600	37.350	31.090	



Grandezza/Size	STANDARD						RINFORZATE / INCREASED					
	017-009	040-020	070-040	120-080	200-160	500-350	024-009	050-020	100-040	170-080	300-160	700-350
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
A max	75	95	130	160	200	250	75	95	130	160	200	250
preforo-prebore	45	60	70	100	115	150	45	60	70	100	115	150
B	260	330	425	500	630	800	260	330	425	500	630	800
C	245	310	400	470	590	750	245	310	400	470	590	750
D	230	300	380	440	560	710	230	300	380	440	560	710
E	215	275	350	415	530	670	215	275	350	415	530	670
G	9	11	14	18	22	30	9	11	14	18	22	30
H	-	95	120	150	190	240	-	95	120	150	190	240
J	280	360	449	515,5	645	801,5	280	360	449	515,5	645	801,5
K	7	8	10	13	15	19	7	8	10	13	15	19
L	325	410	505	580	710	941	325	410	505	580	710	941
M	145,7	176	203	248	272	408	162,2	195,5	225,2	273,2	297,2	451,5
N	64,7	81,5	93	113,5	122	192	64,7	81,5	93	113,5	122	192
O	5	3	5	5	5	5	5	3	5	5	5	5
P	11	12	16	20	25	30	11	12	16	20	25	30
Q	180	199,5	235	271	303	462	193	219,5	260,5	303	334	504
T	-	40	48	53	61	56	-	40	48	53	61	56
X max	35	40	45	55	65	80	35	40	45	55	65	80
Velocità Massima / Max speed	rpm	rpm	rpm	rpm	rpm	rpm	rpm	rpm	rpm	rpm	rpm	rpm
	1700	1300	1000	850	700	500	27,50	1300	1000	850	700	500
Peso / Weight kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg	kg
	25	92	167	276	490	813,5	27,50	101	182	299	529	882
Inerzia Corpo / Inertia Body	Kg m <sup>2</sup>	Kg m <sup>2</sup>	Kg m <sup>2</sup>	Kg m <sup>2</sup>	Kg m <sup>2</sup>	Kg m <sup>2</sup>	Kg m <sup>2</sup>	Kg m <sup>2</sup>	Kg m <sup>2</sup>	Kg m <sup>2</sup>	Kg m <sup>2</sup>	Kg m <sup>2</sup>
	0,16	0,49	1,5	3,5	9,8	43,85	0,17	0,53	1,7	3,8	10,4	47,2
Volume cilindro / Cylinder cap.	lt	lt	lt	lt	lt	lt	lt	lt	lt	lt	lt	lt
	0,127	0,16	0,39	0,61	1,1	2,91	0,127	0,16	0,39	0,61	1,1	2,91
Mom. Freno / Brake Torque	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm	Nm
5,5 bar Mom. Friz. / Clutch Tor.	900	2.000	4.000	8.100	16.500	35.000	900	2.000	4.000	8.100	16.500	35.000
6 bar Mom. Friz. / Clutch Tor.	1.760	3.360	6.450	10.520	21.640	50.055	2.520	4.800	9.680	15.030	30.910	71.505
	2.090	3.950	7.600	12.670	26.020	59.740	2.990	5.670	11.400	18.100	37.150	85.345

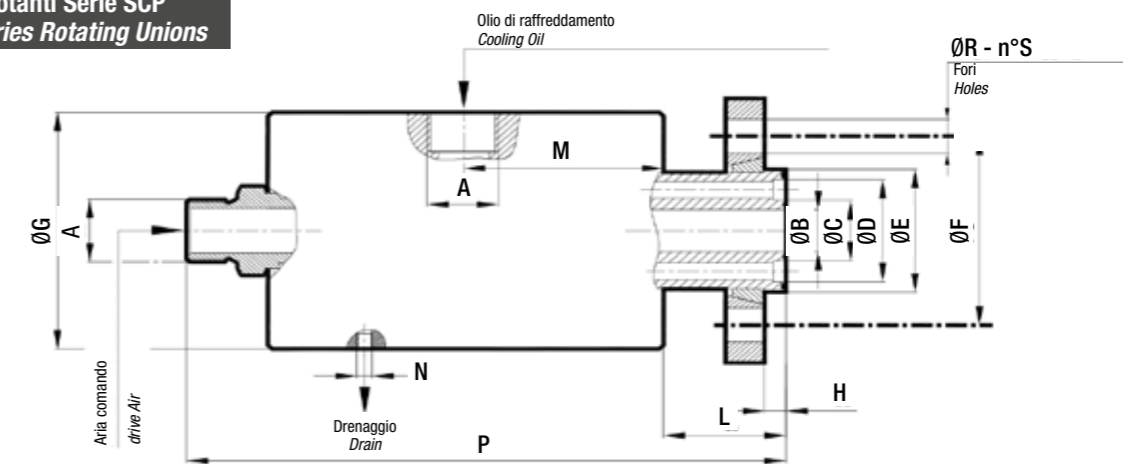


Giunti rotanti Serie R  
R Series Rotating Unions



Tipo/Type ↓	A	B	C	D	E	F	G	H	Peso Weight	Velocità Speed
	inch	mm	mm	mm	mm	mm	mm	mm	kg	rpm
R 050	1/2"	4,5	35	27	18	80	111	30	0,75	1500
R 075	3/4"	17	56	32	20	86	122	36	0,96	1000
R 100	1"	22	65	41	23,5	98	138	40	1,4	700

Giunti rotanti Serie SCP  
SCP Series Rotating Unions



Tipo/Type ↓	A	B	C	D	E	F	G	H	L	M	N	P	R	S
	inch	mm	mm	mm	mm	mm	mm	mm	mm	mm	inch	mm	mm	mm
SCP 050	1/2"	13	22	39	52	85	98	8	42,8	80	1/16"	223	14	4
SCP 075	3/4"	18	27,5	45,5	58	100	110	10	52	79	1/16"	236	18	4
SCP 100	1"	24	32	54	65	100	125	10	57	93	1/16"	279	18	4