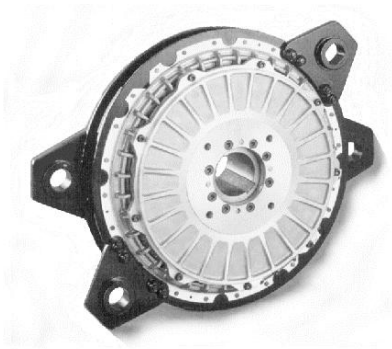


AIR ACTUATED CLUTCH-BRAKE UNIT

Characteristics

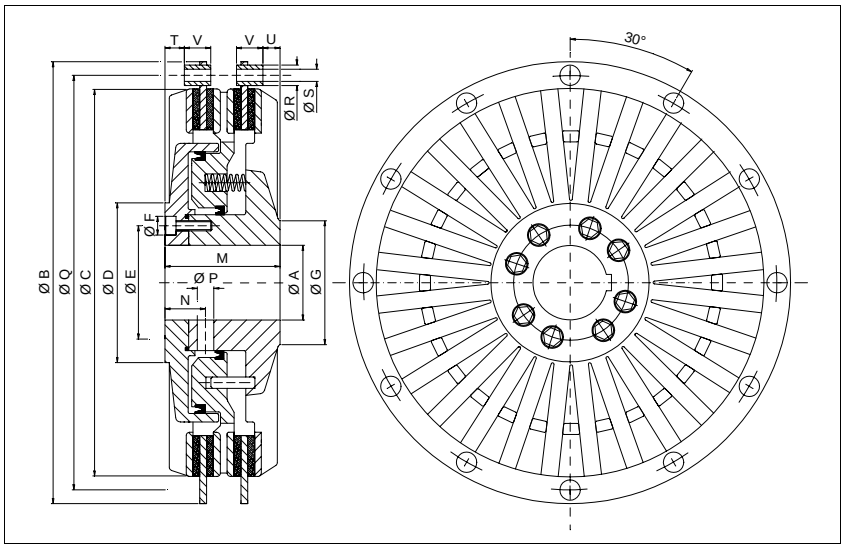
These units are composed of a brake with negative actuation by spring pressure and of a clutch with air actuation. The air pressure actuates a piston, which together with the central disks forms a unit, so that it moves and compresses the brake lining friction surfaces of the clutch disk. In this way ,the simultaneous operation of brake and clutch is avoided
These units are particularly suitable for applications, which require high torques to be transmitted and, since there is only one disk, high work speeds.
During design, special attention was directed to heat dissipation by means of millings and ventilation channels, without neglecting the reduction of inertias of the rotating parts.
These features make them suitable for applications requiring heavy work cycles such as presses, shears, etc.

Adjustment

These units are self-adjusting. The wear increase of the friction pads prolongs the coupling times and decreases the braking torque.
Thus it is advised the periodical check of these elements and replacement when their performance is not compliant with the requirements.

Feeding

The pressure required is 6 atm max.
Lubricated air is usable but nor required.
Hoses shall not have too sharp bends to avoid restrictions, which could compromise the good operation of the unit.
In order to have quick couplings, make the feeding solenoid valve closer to the unit, use more inlets and assemble a quick relief valves



PNEUMATIC BRAKE-CLUTCH UNITS Model GEM

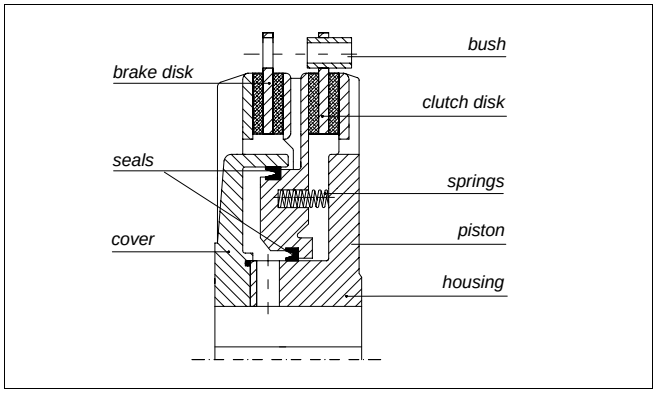
PERFORMANCES (5,5 bar)

size	*brake torque* (Nm)	*clutch torque* (Nm)	*RPM* max	*air volume* (l)	*J body* (kgm^2)	*J discs* (kgm^2)	*weight* (kg)
GEM 006	35	80	3.200	0,02	0,007	0,003	5,5
GEM 012	80	130	2.800	0,05	0,010	0,004	7
GEM 025	160	240	2.500	0,07	0,019	0,008	9
GEM 050	330	570	2.300	0,15	0,055	0,025	16
GEM 100	650	1.050	1.700	0,24	0,175	0,063	32
GEM 200	1.400	2.100	1.400	0,40	0,525	0,200	58
GEM 400	2.800	4.500	1.150	0,60	1,500	0,575	85
GEM 500	3.400	5.400	1.100	0,70	2,100	0,825	120
GEM 600	4.400	6.700	950	0,90	3,250	1,175	135

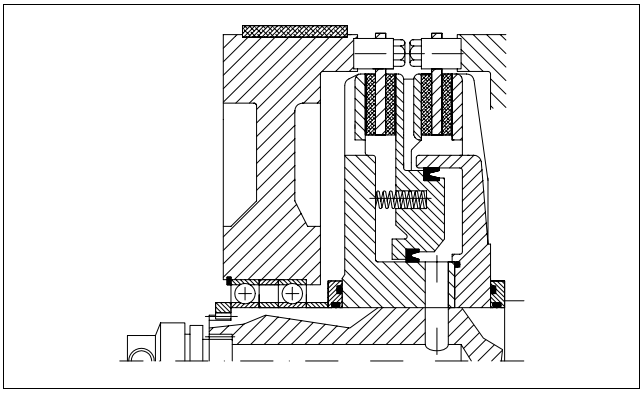
DIMENSIONS (mm)

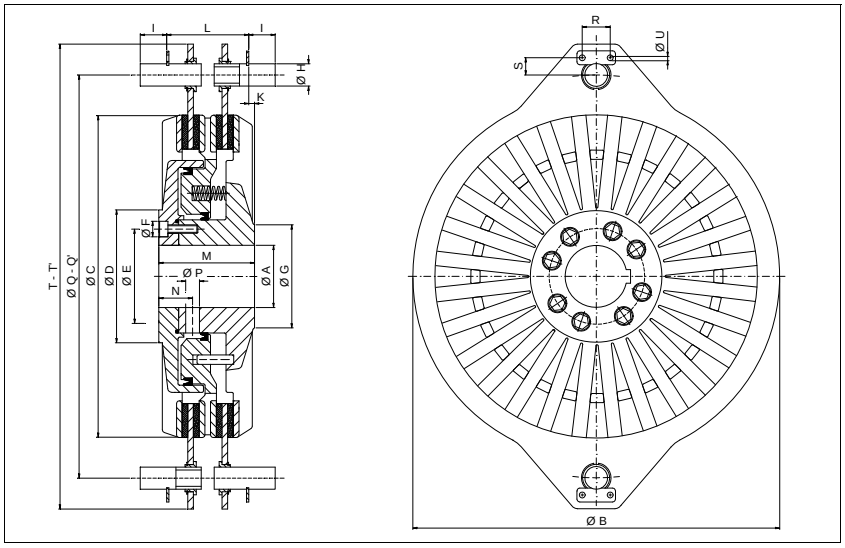
size	A max	B	C	D	E	F	G	M	N	nr x P	Q	R	S	T	U	V
GEM 006	25	150	122	67	43	11	122	48	9,4	2 x 4	136	10	5	10	3	12
GEM 012	35	188	156	70	48	9	70	50	14	2 x 5	173	10	5	9	6	12
GEM 025	38	220	188	85	51	9	85	58	17	2 x 6	205	10	5	14	8	12
GEM 050	45	275	236	110	63	11	104	66	19	2 x 7	255	12	6	14	8	14
GEM 100	60	352	304	136	85	14	115	83	22	2 x 10	325	15	8	14	11	21
GEM 200	80	437	380	165	105	17	150	100	27	2 x 12	408	18	10	16	15	25
GEM 400	90	535	465	182	115	19	160	125	32	2 x 15	500	25	14	21	26	28
GEM 500	100	570	497	210	130	19	190	140	37	2 x 18	536	25	14	22	28	32
GEM 600	105	620	543	214	135	19	198	145	36,5	2 x 18	584	25	14	31	20	33

PARTS NAME



MOUNTING EXAMPLE





PNEUMATIC
BRAKE-CLUTCH UNITS
Model GEM - S

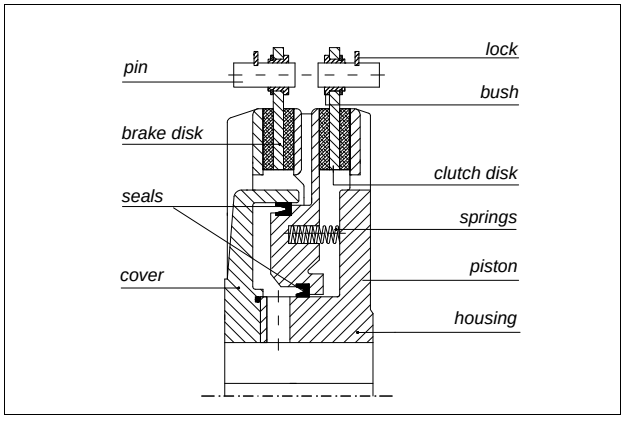
PERFORMANCES (*5,5 bar*)

size	*brake torque* (Nm)	*clutch torque* (Nm)	*RPM* max	*air volume* (l)	*J body* (kgm^2)	*J discs* (kgm^2)	*weight* (kg)
GEM 025-S	160	240	2.500	0,07	0,019	0,008	9
GEM 050-S	330	570	2.300	0,15	0,055	0,025	16
GEM 100-S	650	1.050	1.700	0,24	0,175	0,063	32
GEM 200-S	1.400	2.100	1.400	0,40	0,525	0,200	58
GEM 400-S	2.800	4.500	1.150	0,60	1,500	0,575	85
GEM 500-S	3.400	5.400	1.100	0,70	2,100	0,825	120
GEM 600-S	4.400	6.700	950	0,90	3,250	1,175	135

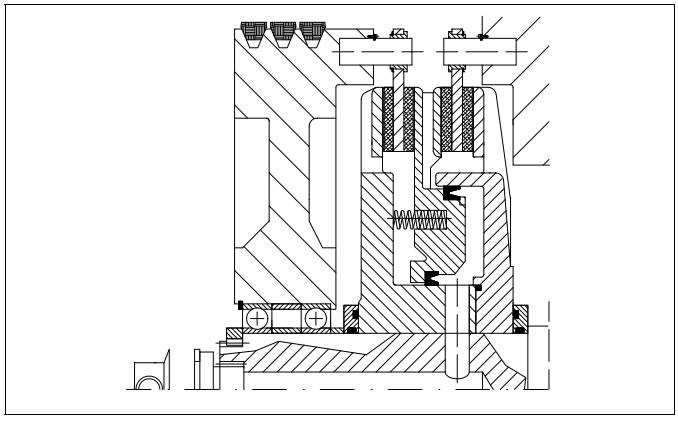
DIMENSIONS (*mm*)

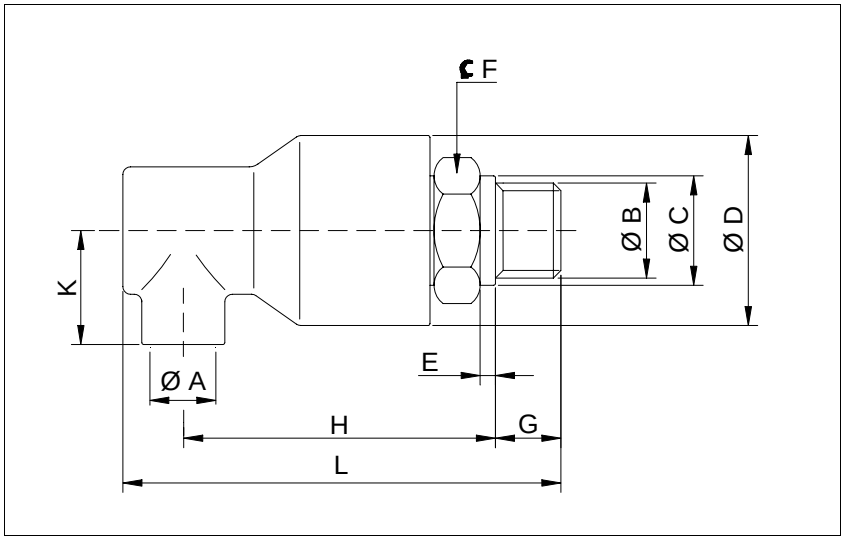
size	A max	B	C	D	E	F	G	H	K	I	L	M	N	n x P	Q	Q'	R	S	T	T'	U
GEM 025-S	38	220	188	85	51	9	85	16	-5	28	61	58	17	2 x 6	232	250	20	11	280	296	4,5
GEM 050-S	45	275	236	110	63	11	104	22	-6	45	70	66	19	2 x 7	296	315	20	11	352	371	5,5
GEM 100-S	60	352	304	136	85	14	115	22	5	45	70	83	22	2 x 10	364	390	20	11	418	445	5,5
GEM 200-S	80	437	380	165	105	17	150	30	0	60	102	100	27	2 x 12	445	495	25	16	525	570	5,5
GEM 400-S	90	535	465	182	115	19	160	40	6	80	119	125	32	2 x 15	550	610	25	20	640	700	5,5
GEM 500-S	100	570	497	210	130	19	190	40	11	80	125	140	37	2 x 18	575	645	25	20	670	740	5,5
GEM 600-S	105	620	543	214	135	19	198	40	4	80	126	145	36,5	2 x 18	640	695	25	20	740	790	5,5

PARTS NAME



MOUNTING EXAMPLE





ROTATING JOINT FOR AIR
SINGLE FLOW
Model GRA

DIMENSIONS (*mm*)

size	A	B	C f8	D	E	F	G	H	K	L
GRA 012	1/8“ G	1/8“ G	13	31	2,5	14	8,5	47	17,5	65
GRA 025	1/4“ G	1/4“ G	16	35	3	17	11,5	54	21	77
GRA 037	3/8“ G	3/8“ G	20	43	3,5	22	12,5	67	25	94
GRA 050	1/2“ G	1/2“ G	25	50	4	27	14	80	30	111
GRA 075	3/4“ G	3/4“ G	30	56	4,5	32	15	86	36	122
GRA 100	1“ G	1“ G	35	65	5	41	17	98	40	138

PERFORMANCES

size	*RPM* max	*max temperature* (°C)	*max pressure* (bar)	*weight* (kg)
GRA 012	3,000	80	10,5	0,23
GRA 025	2,500	80	10,5	0,30
GRA 037	2,000	80	10,5	0,43
GRA 050	1,500	80	10,5	0,75
GRA 075	1.000	80	10,5	0,96
GRA 100	500	80	10,5	1,4

Simbologia - *Symbology*


mechanically actuated


electromagnetically actuated


hydraulically actuated


pneumatically actuated


springs loaded


permanent magnet


with rotating magnet


with stationary magnet


with steel plates


with steel plates E


with sintered discs M


with linings


toothed


accessories


powder