

# FRICTION TORQUE LIMITERS

The torque limiter is adopted where there is a need to provide efficient protection against overloads on mechanical parts (kinematic motions or machines). The easy-to-use and efficient device ensures complete operating reliability, the torque limiter device slips when the torque required exceeds the pre-set value and automatically restores the operating mode when the overload condition no longer applies.

The component selected from the pulleys, chain sprockets and gears is positioned between the friction discs, which develop a friction force generated by tightening the ring nut, anchored by compressing the cup springs.

## Torque limiter selection:

$T_{kw}$  = Power output expressed in kW       $n$  = r.p.m.

$M_t$  = Twisting moment (Nm)

The twisting moment is given by the following relationship:

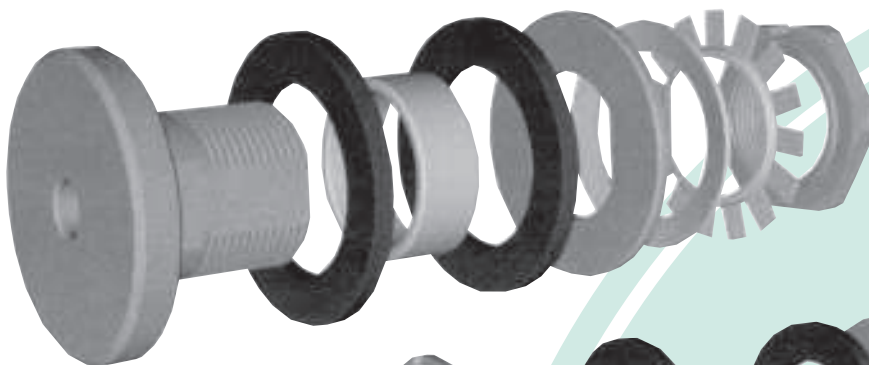
$$M_t = \frac{9550 \cdot T_{kw}}{n}$$

Example: Assuming a motor with the following characteristics is operated:

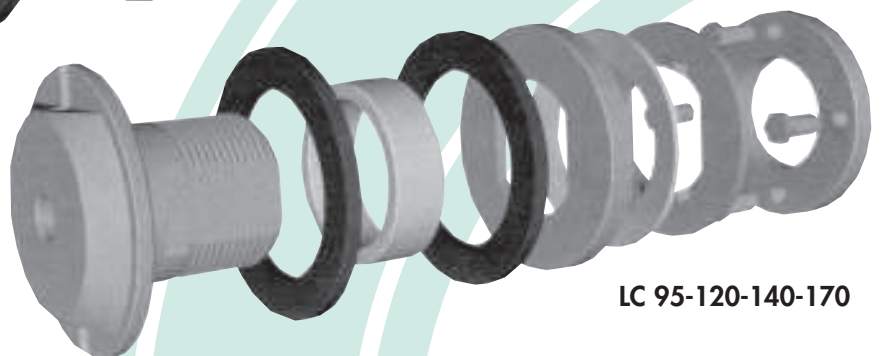
Power output 4 kW and  $n = 1.550$  r.p.m.

$$M_t = \frac{9550 \cdot 4}{1550} = 24.64 \text{ Nm.}$$

We will therefore select a limiter with a torque value equal to or greater than 24.64 Nm.

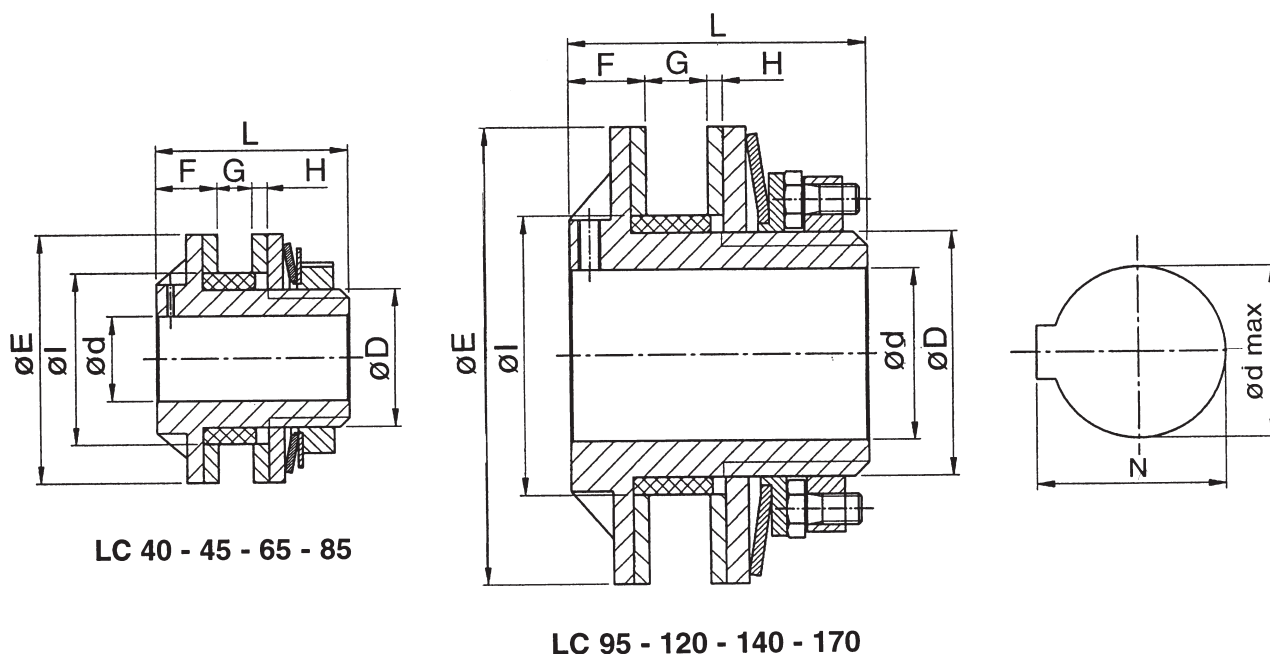


LC 40-45-65-85



LC 95-120-140-170

# FR ICTION TORQUE LIMITERS



LC 40 - 45 - 65 - 85

LC 95 - 120 - 140 - 170

EXAMPLE:

LC 85-1 with 1 spring

LC 85-2 with 2 springs

## TECHNICAL DATA

TYPE	ØE	ØIh8	Ød	F	G max	H	ØD	L	Max bore - key DIN 6885/1		Torque Max N/m	No. of springs	Gears for standard chain	
									on request Ø d max	N			Pitch for roller Ø	No. of teeth
LC 40-1	40	26	7	10	6	3	22	30	14	16.3	15	1	3/8" x 6.35	18-21
LC 40-2													1/2" x 8.51	15
LC 45-1	45	35	7	11	6	3	32	35.5	20	22.8	30	1	3/8" x 6.35	19-23
LC 45-2													1/2" x 8.51	17
LC 65-1	65	45	10	16	9	4	36	50.5	22	24.8	70	1	3/8" x 6.35	27
LC 65-2													1/2" x 8.51	21
											120	2	5/8" x 10.16	19
LC 85-1	85	52	15	17	11	4	42	55.5	25	28.3	130	1	3/8" x 6.35	38
LC 85-2													1/2" x 8.51	25
											240	2	5/8" x 10.16	21
												2	3/4 x 12.07	18
LC 95-1	95	60	15	18	11	4	52	67	35	38.3	190	1	1/2" x 8.51	30
LC 95-2													5/8" x 10.16	25
											340	2	3/4 x 12.07	19
LC 120-1	120	73	20	20	16	4	64	78	45	48.8	350	1	1/2" x 8.51	38
LC 120-2													5/8" x 10.16	32
											650	2	3/4 x 12.07	25
												2	1" x 15.88	21
LC 140-1	140	90	20	23	17	4	85	86.5	60	64.4	650	1	3/4 x 12.07	35
LC 140-2													1" x 15.88	21
LC 170-1	170	100	28	27.5	18.5	4.5	90	95	65	69.4	1000	1	3/4 x 12.07	35
LC 170-2													1" x 15.88	25
											1800	2	1"1/4 x 19.05	22

**N.B.** We strongly recommend the LC range of limiters to be used dry, checking very carefully that greasy product or liquids in general do not come into contact with the friction materials to avoid a sudden and inevitable deterioration in performance. The driving bush is to be adjusted according to the own requirements. **Friction discs are absolutely asbestos-free.**