



TORQUE LIMITERS

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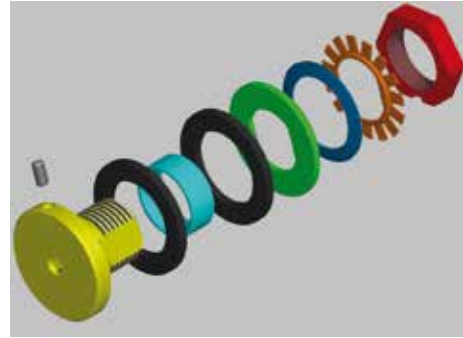


FRICTION TORQUE LIMITERS





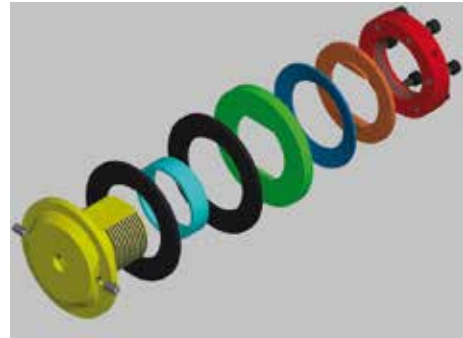
LC 40 - 1



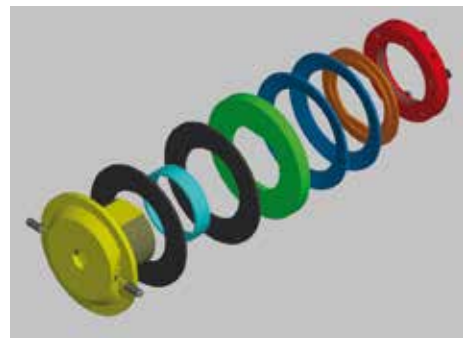
LC 85 - 2



LC 95 - 1



LC 170 - 2

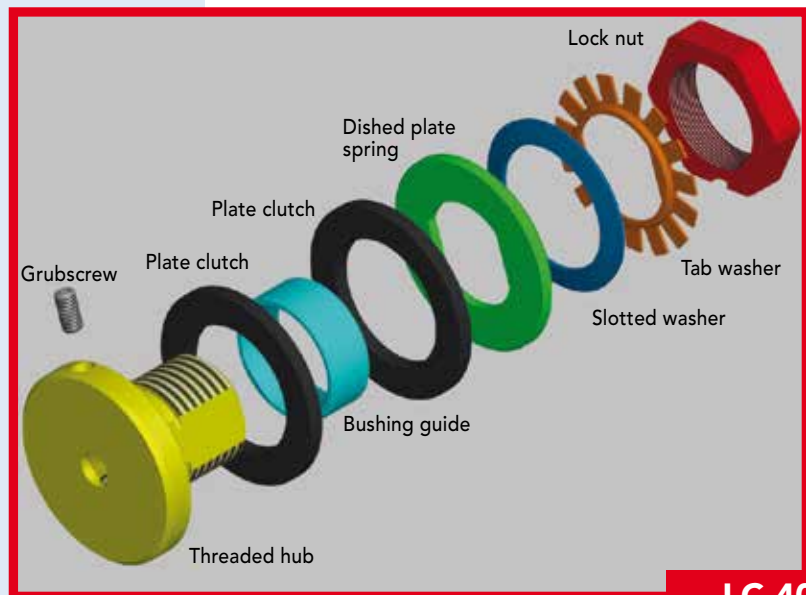
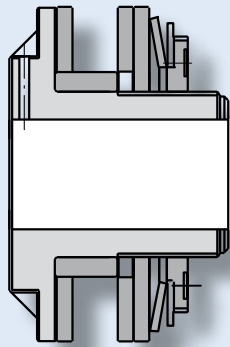




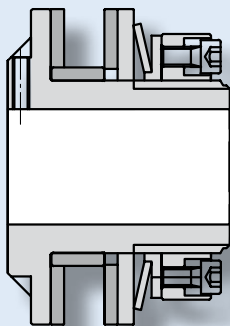
The torque limiter finds employment where an overloaded protection on mechanic transmission components is necessary (kinematics and machines).

The employment system easy and efficient, offers full operative reliability when the required torque exceeds the preloaded value and automatically restores the transmission when the overloaded ceases.

The transmission mechanical component, between pulleys, chain wheels and gears is within clutch that elements that tighten through the compression of the Bauer springs develops a friction force defined by the clamping of the sleeve.



LC 40-50



LC 65-85-95-120-140-170



CHOICE OF THE TORQUE LIMITER:

Tkw = Power in kW

n = revolutions per minut

Mt = torque (Nm)

The torque is given by the relation:

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

Example:

To use an electrical motor with the following features:

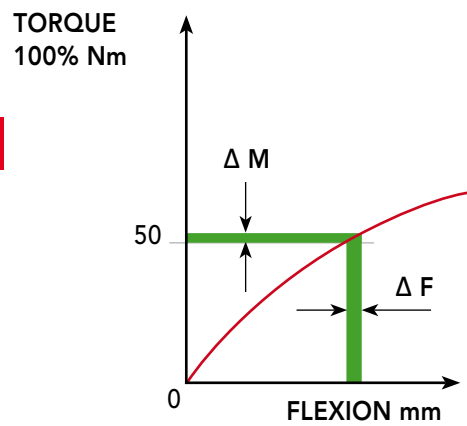
Power 4 kW e n = 1.550 g/1'

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

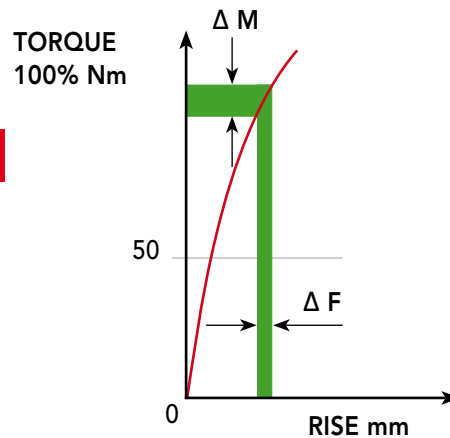
So we will choose a limiter with a torque equal to or higher than 24,64 Nm



1 spring



2 springs



Scheme of the Belleville springs DIN 2093

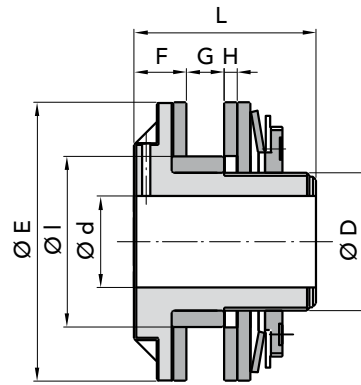


DIMENSIONS AND SETTINGS

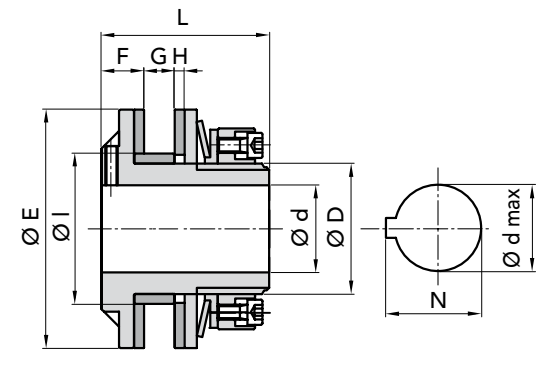
EXAMPLE:

LC 85-1 with 1 spring

LC 85-2 with 2 springs



LC 40-50



LC 65-85-95-120-140-170

TYPE	Limiter part number	Dished plate spring part number	Disk Friction part number	Part number bushing	ØE	ØIh8	Ød	F	G	H	ØD	L	max. bore keyway DIN 6885/1 on request		Max torque N/m	N° of springs	sprockets for chain (u) = 1,6 : 2		Weight Kg.
													Ød max	N			Ø pitch for roller	N° teeth	
LC 40-1	08040000	08040050	08040020	08040030	40	26	7	9	6	3	22	30	14	16,3	15	1	3/8" x 6,65	18-21	0,190
LC 40-2	08040002																1/2" x 8,51	15	0,195
LC 50-1	08050000	08050050	08050020	08050030	50	35	7	10	6	3	32	35,5	20	22,8	30	1	3/8" x 6,65	19-23	0,365
LC 50-2	08050002																1/2" x 8,51	17	0,370
LC 65-1	08065000	08065050	08065020	08065030	65	45	10	16	9	4	36	53	22	24,8	70	1	3/8" x 6,65	27	0,750
LC 65-2	08065002																1/2" x 8,51	21	0,800
																	5/8" x 10,16	19	
LC 85-1	08085000	08085050	08085020	08085030	85	52	15	16	11	4	45	59	25	28,3	130	1	3/8" x 6,65	38	1,470
LC 85-2	08085002																1/2" x 8,51	25	1,480
																	5/8" x 10,16	21	
																	3/4" x 12,07	18	
LC 95-1	08095000	08095050	08095020	08095030	95	60	15	17	11	4	52	67	35	38,3	190	1	1/2" x 8,51	30	2,160
LC 95-2	08095002																5/8" x 10,16	25	2,170
																	3/4" x 12,07	19	
LC 120-1	08120000	08120050	08120020	08120030	120	73	20	19	16	4	64	78	45	48,8	350	1	1/2" x 8,51	38	4,000
LC 120-2	08120002																5/8" x 10,16	32	4,100
																	3/4" x 12,07	25	
																	1" x 15,88	21	
LC 140-1	08140000	08140050	08140020	08140030	140	90	20	22	17	4	85	86,5	60	64,4	650	1	3/4" x 12,07	35	5,900
LC 140-2	08140002																1" x 15,88	21	6,000
LC 170-1	08170000	08170050	08170020	08170030	170	100	28	25,5	18,5	4,5	90	94	65	69,4	1000	1	3/4" x 12,07	35	9,200
LC 170-2	08170002																1" x 15,88	25	9,400
																	1" x 15,88	22	
																	1" 1/4 x 19,05	22	

Pay attention. You are strongly advised to use the torque limiters of the series LC Cleaning, checking carefully that products or oily liquids in general do not reach in any way the friction materials in order to not cause a sudden and inevitable performance degradation. Adjust the guide bush according to their needs. The clutch plates are constituted by a structure that is absolutely free of asbestos.

CAD drawings available on our site
www.chiaravalli.com

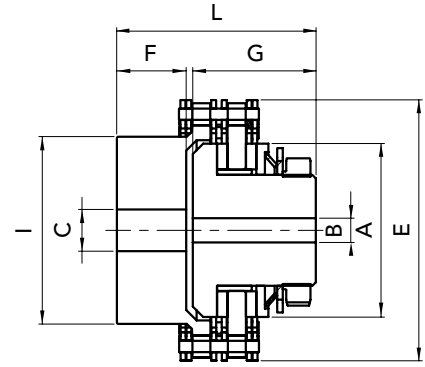
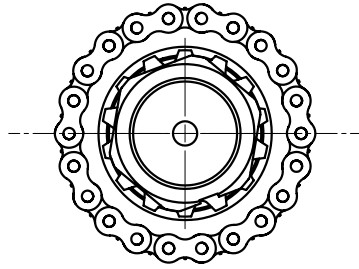
Quantity, availability and prices
 on B2B Chiaravalli





TORQUE LIMITERS WITH CHAIN COUPLING LCG

- LC Torque limiter connected to the coaxial pinion hub through a double chain.
- Easy adjustment of desired torque through lock nut.
- The two friction elements dished clutch are burnished.



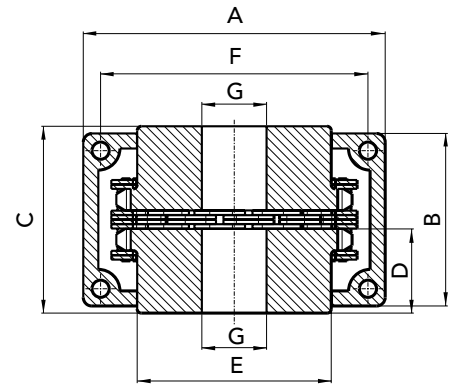
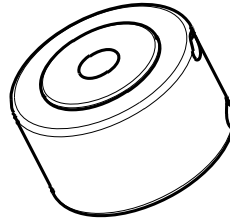
TORQUE LIMITERS WITH CHAIN COUPLING LCG

TYPE	PART NUMBER	max. torque	N° springs	A	B	B max	C	C max	E	F	G	I	L	DIS. mm	ang.	chain pitch	Z teeth	weight Kg
LCG 50-1	08050100	30	1	50	7	20	12	30	75,19	20	35	45	57	0,20	30°	3/8 X 7/32"	22	1,000
LCG 50-2	08050200	55	2	50	7	20	12	30	75,19	20	35	45	57	0,20	30°	3/8 X 7/32"	22	1,005
LCG 65-1	08065100	70	1	65	10	22	16	35	97,03	33	50	65	85	0,25	30°	1/2" X 5/16"	21	2,500
LCG 65-2	08065200	120	2	65	10	22	16	35	97,03	33	50	65	85	0,25	30°	1/2" X 5/16"	21	2,550
LCG 85-1	08085100	130	1	85	15	25	20	45	121,25	36	55	85	94	0,30	30°	5/8" X 3/8"	21	4,300
LCG 85-2	08085200	240	2	85	15	25	20	45	121,25	36	55	85	94	0,30	30°	5/8" X 3/8"	21	4,300
LCG 95-1	08095100	190	1	95	15	35	20	55	131,88	38	67	95	108	0,35	30°	3/4" X 7/16"	19	6,000
LCG 95-2	08095200	340	2	95	15	35	20	55	131,88	38	67	95	108	0,35	30°	3/4" X 7/16"	19	6,010
LCG 120-1	08120100	350	1	120	20	45	20	60	168,13	47	78	120	128	0,35	30°	3/4" X 7/16"	25	11,000
LCG 120-2	08120200	650	2	120	20	45	20	60	168,13	47	78	120	128	0,35	30°	3/4" X 7/16"	25	11,100
LCG 140-1	08140100	650	1	140	20	60	30	65	191,51	54	86	130	145	0,40	30°	1" X 17 mm	21	18,000
LCG 140-2	08140200	1200	2	140	20	60	30	65	191,51	54	86	130	145	0,40	30°	1" X 17 mm	21	18,100
LCG 170-1	08170100	1000	1	170	28	65	30	75	223,74	84	95	130	184	0,50	30°	1" X 17 mm	25	27,000
LCG 170-2	08170200	1800	2	170	28	65	30	75	223,74	84	95	130	184	0,50	30°	1" X 17 mm	25	27,200





- Suitable to connect two shafts in axis
- With hardened sprockets
- Provided with full cover, seals and O-ring for the protection from external contamination and also for an eventual lubrication of the coupling with grease.



TYPE	PART NUMBER	CHAIN PITCH	A	B	C	D	E	F	G Min	G Max	Nm	Weight Kg.
KC 3012	KC3012	35-2	70	62	65	28	25	57	12	15	150	0,50
KC 4012	KC4012	40-2	78	72	78	36	31	61	12	20	210	1,00
KC 4014	KC4014	40-2	85	75	80	36	43	72	12	25	300	1,40
KC 4016	KC4016	40-2	92	75	80	36	50	77	14	30	380	1,80
KC 5014	KC5014	50-2	101	84	100	45	53	82	14	35	550	2,50
KC 5016	KC5016	50-2	111	85	100	45	60	92	16	40	725	3,20
KC 5018	KC5018	50-2	123	85	100	45	70	106	16	45	925	4,00
KC 6018	KC6018	60-2	144	106	122	54	85	122	20	55	1750	7,20
KC 6020	KC6020	60-2	160	108	123	54	98	132	20	70	2050	9,50
KC 6022	KC6022	60-2	168	116	123	54	110	145	25	75	2400	11,3
KC 8018	KC8018	80-2	190	128	140	67	110	160	30	75	3800	14,7
KC 8020	KC8020	80-2	211	138	144	67	120	184	30	85	4700	18,2
KC 8022	KC8022	80-2	226	138	155	67	140	196	35	95	5500	23,3
KC 10020	KC10020	100-2	280	152	176	80	160	250	40	110	8700	36,0
KC 12018	KC12018	120-2	305	180	196	90	170	280	40	120	13250	49,0
KC 12022	KC12022	120-2	355	180	220	100	210	335	40	150	17800	77,0

