

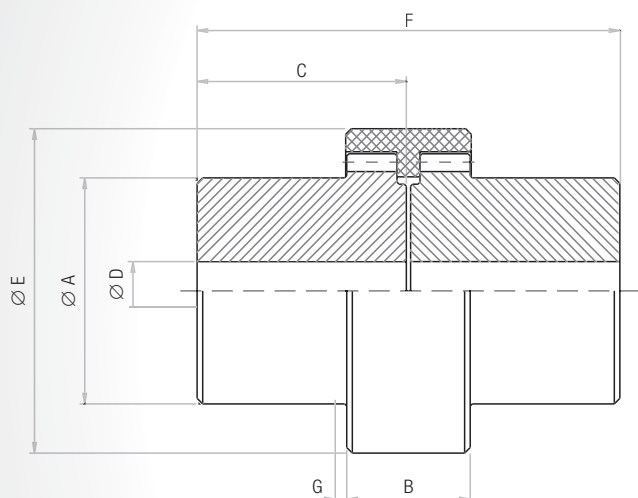
# ELASTIC COUPLINGS

## Model 1

- **Great vibration absorption**
- **High mechanical resistance**
- **Economical**
- **No maintenance required**



### ASSEMBLY EXAMPLE



### Description

Elastic couplings **nil-uni3n model 1** are very suitable for reducer's input and output, machines and devices subjected to a high effort, and machines fully loaded that must start and stop frequently.

This part consists of metallic pinions and nylon crowns. Contact areas in the surface of crowns don't suffer any wear due to the characteristics of nylon used in their manufacture. In fact, they possess great vibration absorption and a high mechanical resistance.

**Crown's shear torque:** 40 times the nominal torque indicated in the tables. Those parts isolate electrically the driving machine from the driven machine because there is no metal contact between them.

Type	A mm	B mm	C mm	D mm		E mm	F mm	G mm <sup>(1)</sup>	TORQUE Nm <sup>(2)</sup>	Max V. (rpm)	WEIGHT kg <sup>(3)</sup>	Z	
				min	max								
12	27	20	25	0	12	40	51	1	3,6	10.000	0.250	20	STEEL
16	30	25	30	0	16	50	61	1	10,5	8.200	0.375	18	
22	36	35	35	0	22	60	71	1	21,5	7.500	0.580	22	
28	45	38	40	0	28	75	81	1	47,5	7.100	0.850	22	
34	55	40	50	0	34	95	101	1	100	6.600	1.950	20	
42	78	50	65	21	42	120	131,5	1,5	180	5.500	5.300	22	CAST
50	92	55	80	28	50	135	161,5	1,5	250	4.200	8.500	26	
60	108	60	100	33	60	155	201,5	1,5	360	3.550	14.000	27	
70	123	60	110	44	70	173	221,2	1,5	720	3.100	18.000	27	
85	150	70	130	55	85	210	261,5	1,5	1440	2.400	33.000	34	
100	170	80	150	65	100	240	301,5	1,5	2380	2.100	50.500	40	

Z = number of teeth.

(1) Assembly set between pinions and crown. (2) Maximum permissible torque at peak is 40 times higher than indicated.

(3) The weight indicated in this column is for the coupling with minimum bottom diameter.



**nil-uni3n**  
elastic couplings

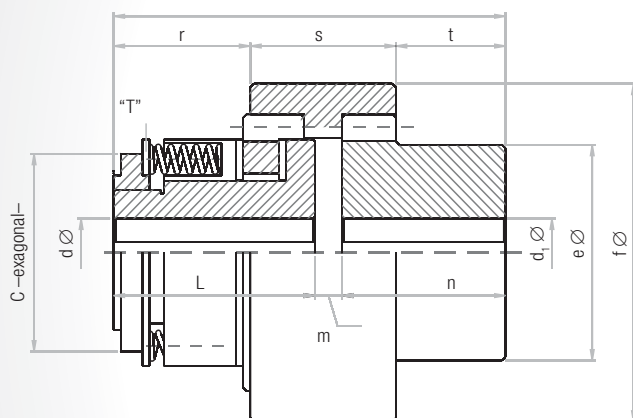
# TORQUE LIMITING

## ELASTIC COUPLING

### Type LPC

- High sensitivity adjustment
- Continuous sliding
- Winding and unwinding machines
- Mechanical fuse

#### ASSEMBLY EXAMPLE



## Description

Elastic couplings **nil-uni3n model 1** can be supplied with a **torque limiter (LPC type)** forming a **compact group**.

LPC torque limiters are mechanisms designed to absorb overloads in any type of machine. They are therefore mechanics "fuses". When the regulated torque is exceeded, a sliding between the coupling pinion and friction discs occurs.

The structure with coil springs gives it great regulation sensitivity and allows it to absorb wears without a significant alteration of the regulated torque.

Other applications, such as constant load elements (retainers) or single winding shafts, are possible if the heat generated is determined. Usually low speed mechanisms allow such economical solution.

SIZE		12	25	50	100	200	400
Maximum torque	Nm.	12	25	50	100	200	400
Minimum torque	Nm.	1	2	5	12	25	50
Maximum rpm	n	7.500	7.100	6.600	5.500	3.500	3.100
Weight	Kg	0,6	1,10	2,30	4,25	10,5	15,5
	Between sides C	36	46	55	70	80	6a Ø 10
	Maximum d	16	20	25	32	40	60
	Maximum d1	22	28	34	42	60	80
	e	36	45	55	78	108	123
	f	60	75	95	120	155	170
	L	35,5	48	56	76	100	105
	L1	71,5	90	108	145	207	220
	m	1	2	6	4	7	5
	n	35	40	46	65	100	110
	r	18	31	38	54,5	75	78
	s	35	38	40	50	60	60
	t	18,5	21	30	40,5	72	82
	Coupling ny	22	28	34	42	60	70



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**nil-uni3n**  
elastic couplings

# ELASTIC COUPLINGS

## Models O and L

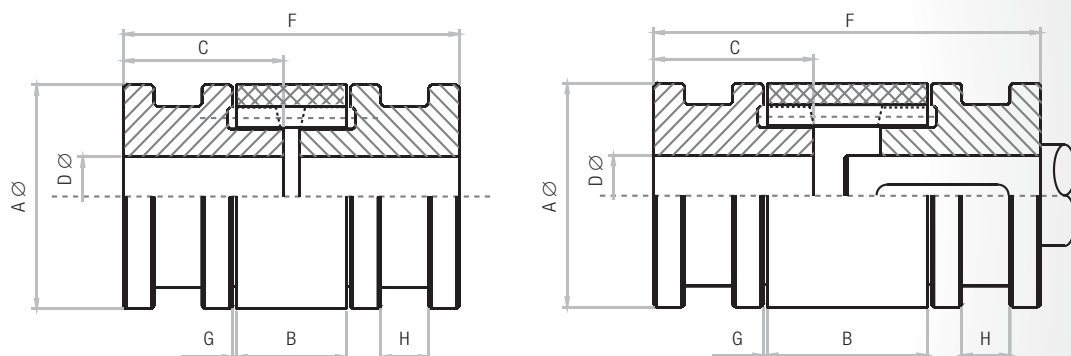
- Economical
- Easy to install and align
- Strong and silent
- No maintenance required
- Elastic



## Description

Elastic couplings **nil-uni3n O and L models** differ in the length of the crown. L model has the longest crown and is especially suitable for use between any receiving machine and an electric engine. A coupling pin can be mounted on the engine shaft without putting in a supplementary cap. Thanks to the coupling length, the engine shaft is about 2 mm of the second coupling pin. The trench (H) can be used to support the legs of an extractor.

### ASSEMBLY EXAMPLES



Type	A mm	B mm	C mm	D mm		E mm	G mm <sup>(1)</sup>	H mm	PAR Nm <sup>(2)</sup>	Max V. (rpm)	WEIGHT kg <sup>(3)</sup>	Z	
				min	max								
010	28	16	23	5	10	47	1	-	1,5	12.000	0,140	12	ZAMAK
012	32	17	25	6	12	51	1	-	2,4	12.000	0,200	12	
014	36	21	30	7	14	61	1	-	4,7	10.000	0,350	12	
019 L19	46	25 36	35	10	19	71 82	1	8	9,5	8.000	0,600 0,610	14	
024 L24	56	31 52	40	12	24	81 102	1	10	19	7.500	0,920 0,950	16	CAST
030 L30	66	37 51	50	14	30	102 116	1	12	38	7.000	2,080 2,100	16	
038 L38	84	41 60	60	16	38	124 140	1	18	95	6.500	3,300 3,450	16	
042 L42	92	47 87	70	18	42	140 183	1,5	18	118	5.500	4,940 5,090	18	
050 L50	106	51 84	80	24	50	164 193	1,5	20	166	4.000	7,600 7,730	20	
060 L60	122	60 110	90	28	60	181 230	1,5	25	237	3.500	11,250 11,370	24	



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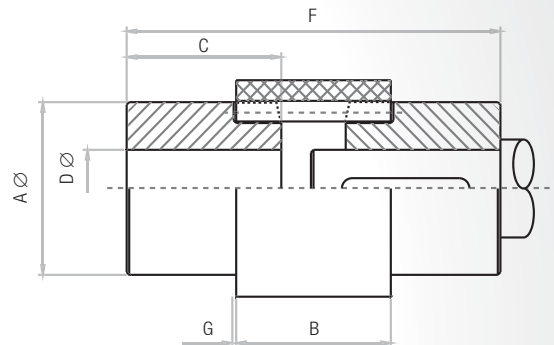
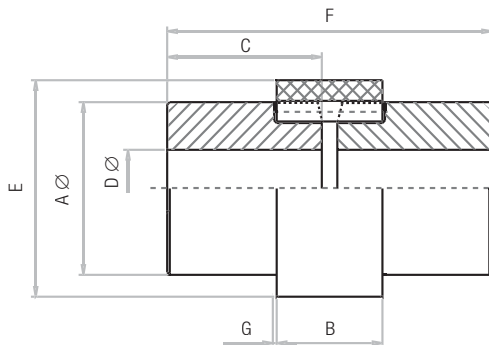
# ELASTIC COUPLINGS

## Models S and LS

- They differ among themselves in the crown length
- The LS model has the crown longer than the model S



### ASSEMBLY EXAMPLE



Type	A mm	B mm	C mm	D mm		E mm	F mm	G mm <sup>(1)</sup>	TORQUE Nm <sup>(2)</sup>	Max V rpm	WEIGHT kg <sup>(3)</sup>	Z
				min	max							
<b>S. 16</b> <b>LS. 16</b>	33	21 31	25	7	16	41	52 62	1	3,6	10,000	0,325	20
<b>S. 19</b> <b>LS. 19</b>	40	25 38	30	8	19	51	62 76	1	10,5	8.200	0,450	18
<b>S. 24</b> <b>LS. 24</b>	48	35 50	35	10	24	61	72 86	1	21,5	7.500	0,775 0,785	22
<b>S. 28</b> <b>LS. 28</b>	52	37 59	38	12	28	67	78 98	1	47,8	7.100	1,010 1,025	24
<b>S. 32</b> <b>LS. 32</b>	60	38 77	40	12	32	75	82 122	1	68	6.800	1,350 1,370	22
<b>S. 38</b> <b>LS. 38</b>	65	41 74	45	14	38	84	92 126	1	100	6.600	2,010 2,035	24

Z = number of teeth.

(1) Assembly set between pinions and crown.

(2) Maximum permissible torque at peak is 40 times higher than indicated.

(3) The weight indicated in this column is for the coupling with minimum bottom diameter.