POSITIONAL TORQUE LIMITER
DETECTABLE DESYNCHRONIZATION
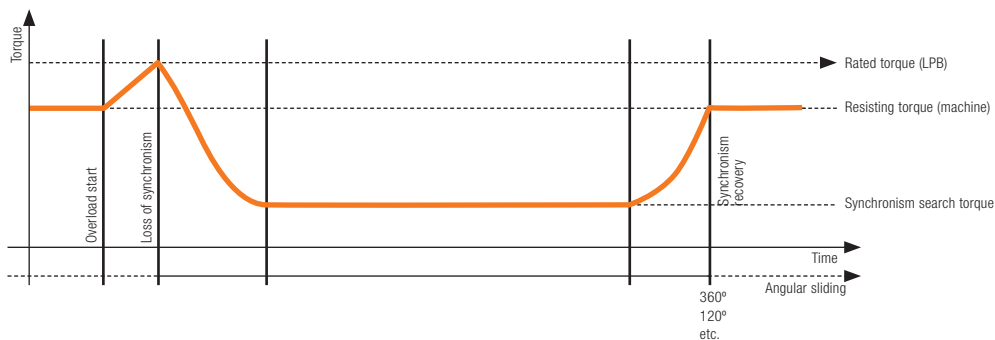Ball system · Type LPB

Features

The EIDE LPB torque limiters are mechanisms designed to absorb the overload of work on any type of machine. When the predetermined torque is exceeded, slip occurs and one of his pieces is displaced. This displacement is indicated by the dimension n. In these cases, the loss of synchronization can be detected through a micro switch and the transmission be stopped by an electrical signal.

Once detected and fixed the problem, and started the movement, the limiter LPB allows us to recover the mechanical synchronism for which it is built. This normally consists of 360 (other configurations, such as 60, 90, 120 and 180, on request).

Structure 1 is suitable for transmitting motion between parallel axes. **Structure 2** incorporates a flexible coupling that allows joining shafts with small misalignments.

CHARACTERISTIC CURVE

Torque in relation to angular sliding between parts B and C

Torque
Overload start
Loss of synchronism
Synchronism recovery
Rated torque (LPB)
Resisting torque (machine)
Synchronism search torque
Time
Angular sliding
360º
120º
etc.

ASSEMBLY EXAMPLES

Assembly example in structure 1
to transmit movement between parallel shafts.

Above: adaptation to chain sprocket.
Below: adaptation to pulley.

Micro switch to detection synchronism losses
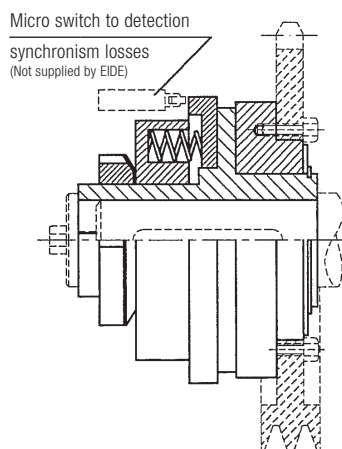(Not supplied by EIDE)

Image 1

Assembly example in structure 2
Adaptation between two shafts aligned with elastic coupling. This procedure allows to absorb small misalignments (angular, linear or a combination of both).
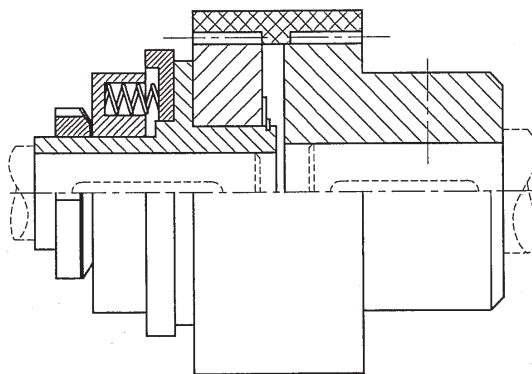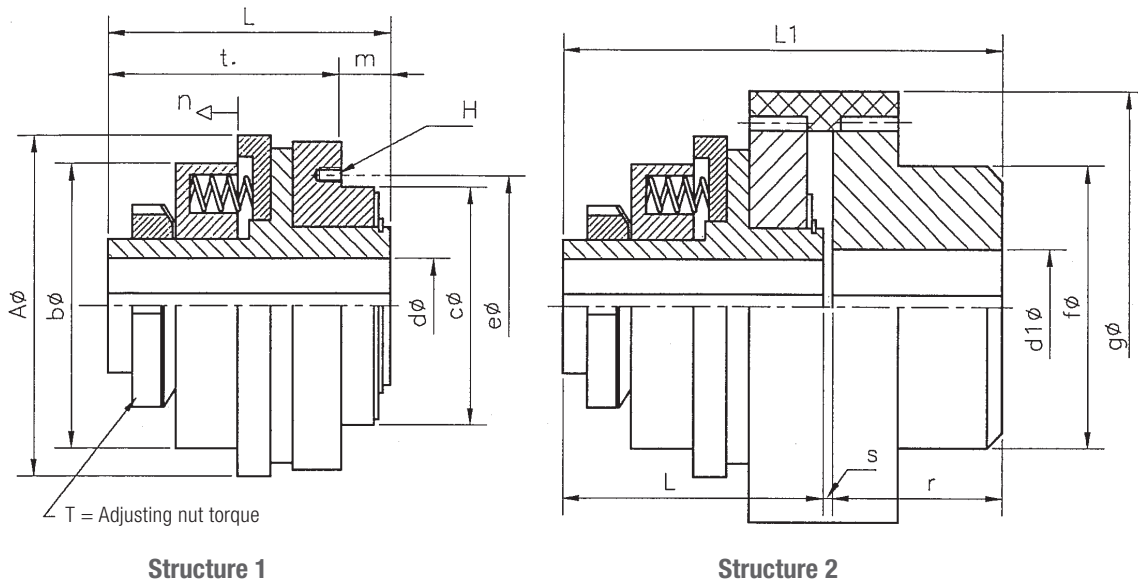
Image 2

QMS-Quality Management Systems
REGISTERED FIRM
ISO · 9001

Characteristics and measurements

Structure 1

T = Adjusting nut torque

Structure 2

SIZE		98	113	166
Max torque	**Nm**	150	250	600
Min torque	**Nm**	10	20	50
Max rpm	**n**	1.500	1.250	1.000
J = momentum of inertia (structure 1)	**kg cm²**	25	48	350
Mass (structure 1)	**kg**	2,2	3,1	8,5
Mass (structure 2)	**kg**	6,25	10	25

		98	113	166
	A	98	113	166
	b	82	98	148
	c	68	75	115
Ø máx	**d**	25	35	60
Ø máx	**d₁**	50	60	85
	e	80	90	140
	f	92	108	150
	g	135	155	210
	H	6 x M5	6 x M6	6 x M8
	L	72	82	122
	L₁	153	171	252
	m	12	14,6	22
	n	1,7	1,7	2
	r	80	100	130
	s	1	5	5
	t	60	67,4	100