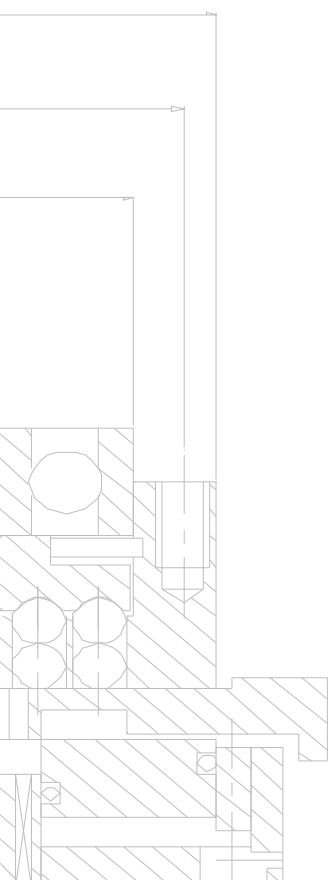
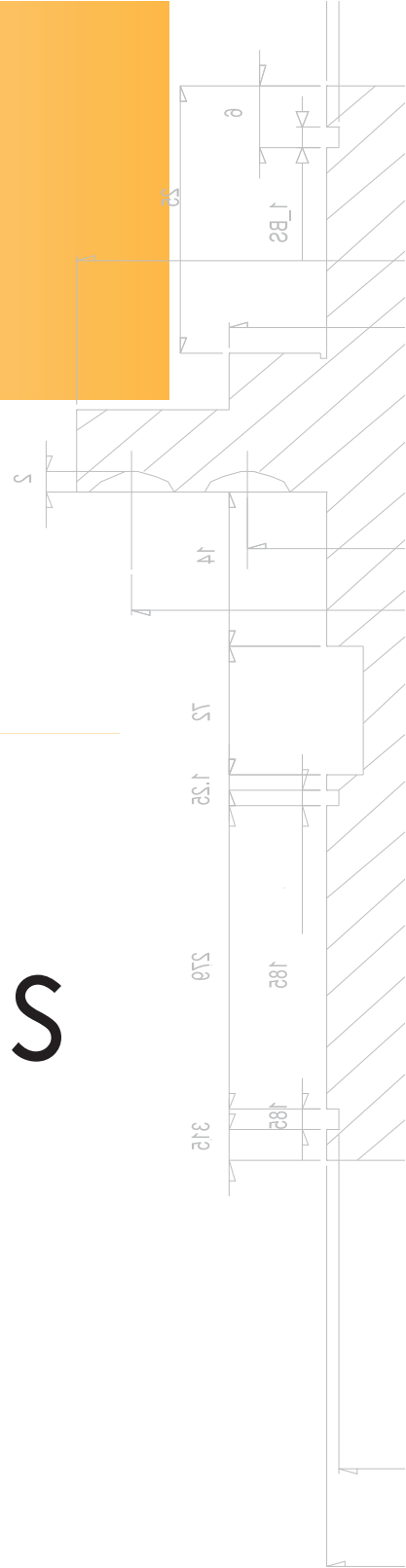


Limitadores de par fricción

Friction torque limiters





FUCTION

From RULITRANS and RULISA we want to thank you for the confidence placed in our products. We are specialists in the design and manufacture of transmission elements with more than 40 years of experience. Our objective is to provide the best solution to our client, improving the quality of our products and continuously investigating their development

RULISA Friction-free torque limiters have been designed keeping in mind the safety level required by modern facilities and machines, which are more automatized and sophisticated every day.

Faults and lack of productivity, and the subsequent operation costs, caused by handling or programming errors, are dramatically reduced when using these safety devices.

These are simple and safe mechanical elements which additionally can activate a signal to stop the operation of a plant.

We have also developed solutions satisfactory for our customers, with designs specific to meet their requirements. Some examples are listed in this catalogue. Our technical staff is at your entire disposal to consider any special application. Giving complete satisfaction to our customers is our prime target.

CARACTERISTICAS PRINCIPALES

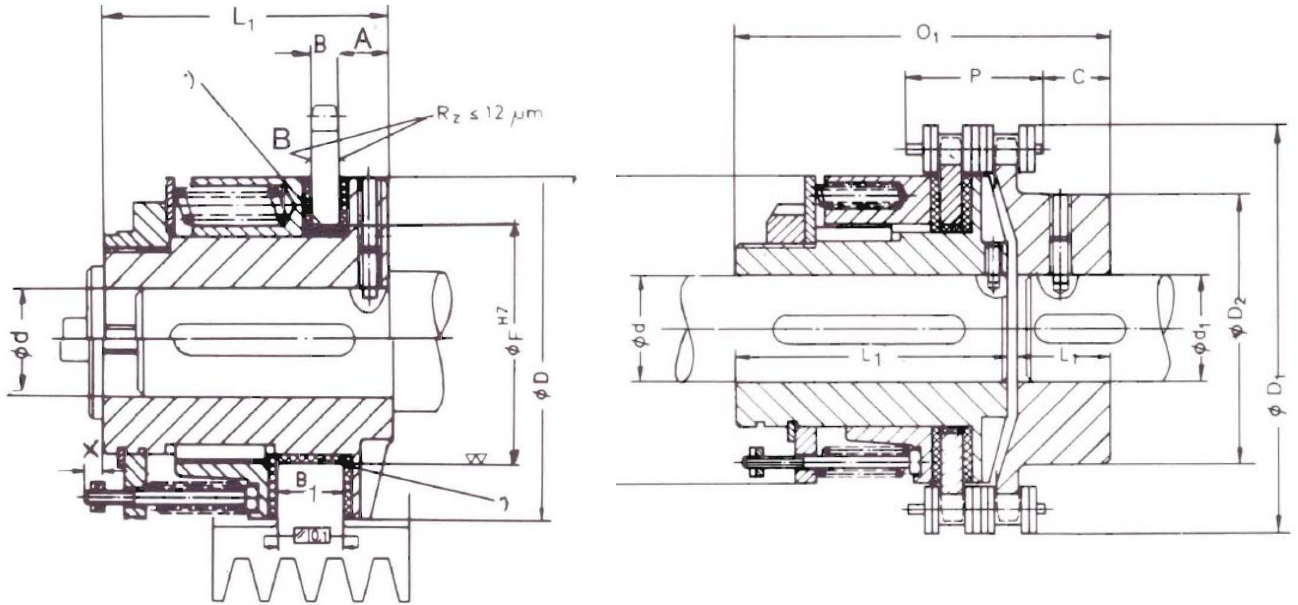
- In case of exceeding the safety torque the limiter will skid.
- Torque proportional to the number of springs.
- Helical springs
- Constant torque despite wear
- Possibility of output to shaft, pinion, pulley
- Easy thermal evacuation
- Easy torque regulation
- The pre-adjusted torque cannot be modified unless springs are extracted
- Easy assembly

USES

These devices have many applications in fields such as: machine-tools, robotics, packing machines, food processing machinery, graphic arts machines, rolling machines, quarry machinery, papermaking machines, textile machinery, belt conveyors, bottling machines, industrial furnaces, indexing tables, assembly and screwing stations, gears and gearboxes, etc. They are designed to transmit the required torque through pinions, gears, pulleys of ALL KINDS, etc.

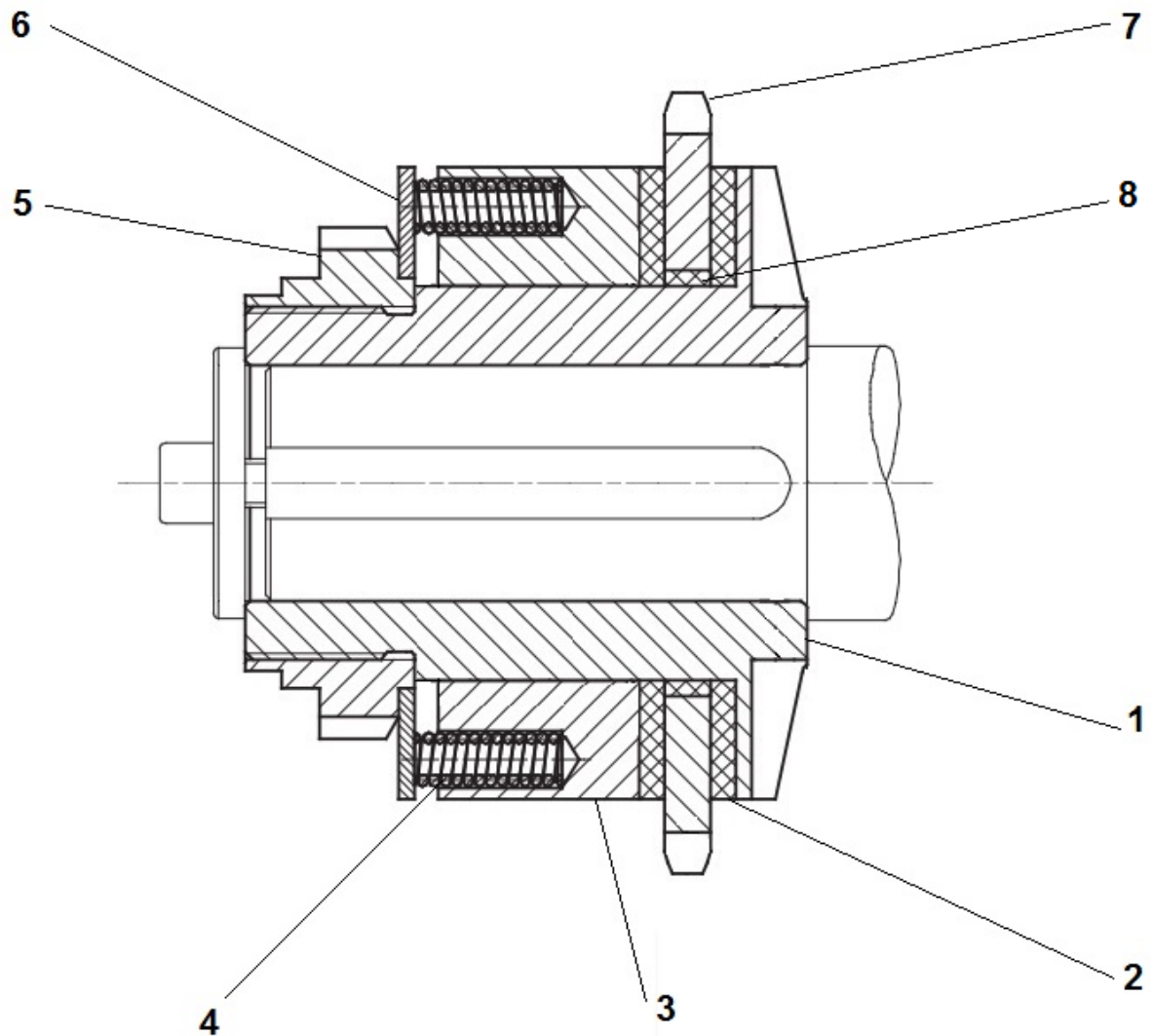
FRICITION TORQUE LIMITER RX – RXM

Limiters prepared for outputs **pinions, gears, pulleys...**



SIZE	Torque Nm		Φd H ₇		Φd1 H ₇		ΦD	ΦD ₁	ΦD ₂	A	B	B1	C	F	L ₁	L ₂	O ₁	P
	min	max	min	max	min	max												
25	4	25	8	16	10	24	40	61	35	7,5	4,4	7	15	28	35,5	19	55	23
32	8	50	10	20	13	30	50	70	45	8	5,2	8,7	16	36	45	21,5	68	25
40	16	100	10	25	17	44	63	94	60	10	5,8	10,5	17	44	56	25,5	83	33
50	20	200	19	32	17	50	80	106	70	12	5,8	15,3	19	55	71	25	97	33
65	40	370	25	40	17	68	100	137	80	15	8,7	18	25	70	90	30	123	38

COMPONENTS LIST



COMPONENTS LIST *(Only original spare parts RULISA - RULITRANS should be used)*

1	Limiter Core	5	Safety nut
2	Friction lining (ferodo)	6	Platen
3	Pressure ring	7	Pinion, pulley, gear ...
4	Coil springs	8	Friction bush

CHOICE OF THE ADEQUATE PAR LIMITER

For a correct choice and dimensioning of a torque limiter there are several aspects to consider. The torque / torque of the torque limiter without friction or balls must be regulated as close as possible to the limit value of the machine or application overload.

At the same time, both the torque and the maximum torque must be adapted to a series of safety factors to ensure proper operation of our application. We talk about acceleration moments, load peaks during the work cycle or starting torques...

Works Torque calculations

$$Mn_2 \text{ (Nm)} = 9550 \times Pot \text{ (KW)} \times F \text{ (Shock Coef.)} / n_2 \text{ (rpm)}$$

Where:

- Mn_2 = Torque on the shaft where the limiter is located (Nm)
- Pot (KW) = Installed motor power
- F = Shock coefficient (according to the attached table)
- n_2 = Angular velocity in the torque limiter actuation axis (rpm ó min^{-1})

Shock coefficient F

Type of dragged machine	Electric Motors	Internal combustion Motors (4-6 cylinders)	Internal combustion Motors (2-3 cylinders)	Single cylinder combustion Motors
Transmission, small generators, fans, pumps, compressors, rotary	1,5	1,7	1,9	2,2
Small elevators, large fans, small machines for wood, metals or textiles, escalators	1,8	2,0	2,2	2,5
Elevator, ropeway conveyors, monorails, agitators, large-scale textile machinery	2,0	2,2	2,4	2,7
Presses shears, cutting press, piston pump, compressors, crushers, hammers	2,5	2,7	2,9	3,2

In this way we will obtain the work torque, and our torque, that is, the torque value from which our transmission will be disengaged, must be a value always greater than Mn_2 .

$$Mn_{\text{ADJUSTMENT}} > Mn_2$$

In many occasions, the value that will determine the choice of the size of torque limiter is not the torque (Nm), but the range of axle diameters (mm) to which we can machine them. A dimensional requirement can therefore be given.

