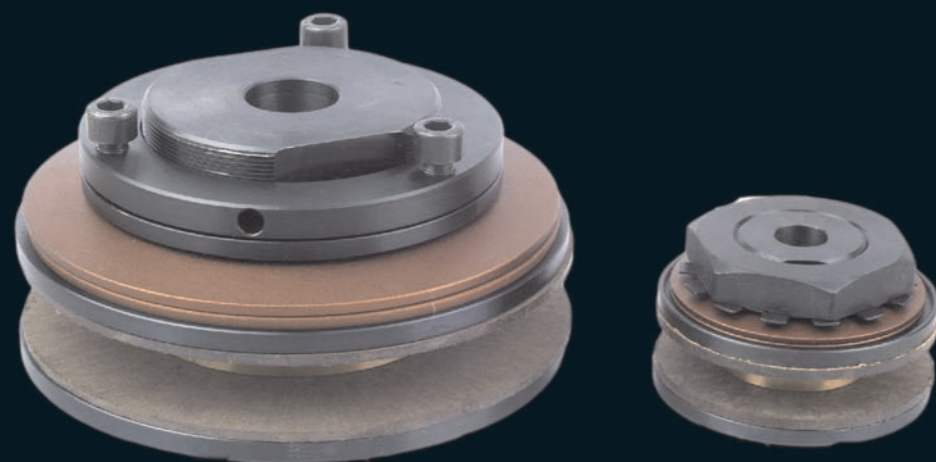




限扭装置 | Torque Limiter

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价值源于核心技术

From Premium Technology
Comes
Exceptional Quality

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ADEPTRANS CADENAS Y TRANSMISIONES



瑞迪限扭装置 REACH TORQUE LIMITER



RTL50-1 RTL50-2

单螺母调节 Single nut adjustment
止退垫片, 防止螺母松动 Use gasket to protect the nut from loosen



RTL65-1 RTL65-2 RTL89-1 RTL89-2

单螺母调节 Single nut adjustment
止退垫片, 防止螺母松动 Use gasket to protect the nut from loosen



RTL127-1 RTL127-2 RTL178-1 RTL178-2

3个螺栓调节 Use 3 bolts to adjust
3个螺栓设定扭矩, 调节螺母固定导向压板。
Use 3 bolts to set torque and adjusting nut to fix the pilot plate.

限扭装置是一种很好的过载保护装置, 其功能是在突然负载过载或停机引起扭矩超过预设值时, 通过打滑来限制传动系统中的扭矩。当过载消除后, 其能够自动回位, 不用重新调试设定。瑞迪限扭装置可以防止设备损坏和杜绝停机浪费。

瑞迪限扭装置是通过利用装在摩擦面上的弹簧来起作用, 打滑扭矩可以通过调节螺母或螺栓来调节预设。

瑞迪限扭装置可以与其两个摩擦面间夹紧的中心元件: 链轮、齿轮、皮带轮或法兰盘配合使用。

瑞迪限扭装置的功能与最适宜的弹簧负荷和表面压力相一致结合, 保证了较长的打滑时间, 维持预定扭矩的回位, 提供长时间的持续保护。而与一次性补救的安全销系统相比, 最大的优势就在于此。

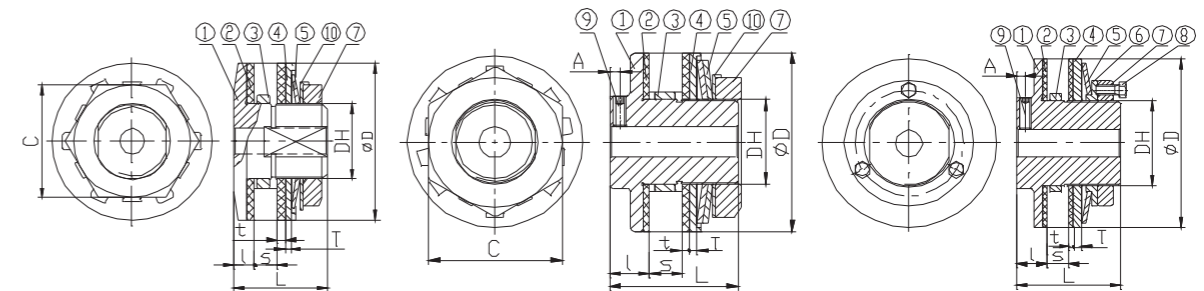
As a protective device, REACH Torque Limiter is used to limit the torque in the transmission system by sliding when the torque exceeds the pre-set value in sudden loading, over-loading or power off. Once the over-loading disappears, the device will back to normal automatically without any adjusting or setting. The device is applied to stop damaging the equipment and waste caused by shutdown. REACH Torque Limiter operates through the spring mounted upon the friction facing. The sliding torque can be pre-set by adjusting nut or bolt. REACH Torque Limiter can be used matching with the center parts clamped closely between two friction faces, such as sprockets, gears, pulleys or flanges, etc. Comparing with one-time safety pin system, REACH Torque Limiter operates in line with the most appropriate spring loading and surface pressure to ensure the relative longer sliding time, recover the pre-set torque, as well as providing longer and continual protection.

RTL 89 - 1

碟型弹簧数量 Quantities of Disc Spring

规格 Size

瑞迪限扭装置的简写 Abbreviation for REACH Torque Limiter



RTL50

RTL65 RTL89

RTL127 RTL178

零件名称 Parts:

- ① 主体 Hub
- ② 摩擦片 Friction Plate
- ③ 衬环 Lining Ring
- ④ 压板 Pressure Plate
- ⑤ 碟型弹簧 Disc Spring
- ⑥ 导向压板 Pilot Plate
- ⑦ 调节螺母 Adjusting Nut
- ⑧ 调节螺栓 Adjusting Bolt
- ⑨ 锁紧螺钉 Locking Screw
- ⑩ 止退垫片 Gasket

RTL50 至 RTL178 的尺寸表 Dimensions from RTL50 to RTL178																					
规格 Size	扭矩范围 Torque Range (Nm)	内孔 Inner Bore	最大 孔径 Max. Bore	衬环 长度 Length of Bush	衬环外径 Outer Diameter of Bush	中心元件 配合孔径 Aperture Matches Center Parts	D	DH	L	l	T	t	S (Max)	A	C	调节 螺母 Adjusting Nut	调节 螺栓 Adjusting Bolts	锁紧 螺钉 Locking Screw	重量 Weight (kg)		
RTL50-1	2.94 ~ 9.8	8	14	3.8 4.5 6	30	-0.020 -0.041	30	+0.033 0	50	M24	29	6.5	1.6	2.5	7	-	36	M24 P1.0	-	-	0.248
RTL50-2	6.86 ~ 19.6																				0.256
RTL65-1	6.86 ~ 27.44	10	22	4.5 6 8	41	-0.025 -0.050	41	+0.039 0	65	M35	48	16	4	3.2	9	4	50	M35 P1.5	-	M5	0.721
RTL65-2	13.72 ~ 53.9																				0.739
RTL89-1	19.6 ~ 74.48	17	25	6 8 9.5 14.5	49	-0.025 -0.050	49	+0.039 0	89	M42	62	19	4	3.2	16	5	65	M42 P1.5	-	M6	2.417
RTL89-2	34.3 ~ 148.96																				2.477
RTL127-1	46.08 ~ 209.72	20	42	6 8 8.5 9.5 14.5	74	-0.030 -0.060	74	+0.046 0	127	M65	76	22	6	3.2	16	6	-	M65 P1.5	M8 P1.0 3pcs	M8	3.692
RTL127-2	88.2 ~ 420.42																				3.858
RTL178-1	115.64 ~ 569.38	30	64	8 9.5 12 14.5 17 22	105	-0.036 -0.071	105	+0.054 0	178	M95	98	24	7	3.2	29	6.5	-	M95 P1.5	M10 P1.0 3pcs	M10	9.033
RTL178-2	223.4 ~ 1087.8																				9.436



选型SELECTION

1. 依据负载条件或设备本身的力的大小来决定所需打滑扭矩。如果设备负载条件不清楚，请将打滑扭矩设为马达产生在承载限扭装置的轴上扭矩的1.5~2倍。
2. 选用限扭装置时，应选择有足够大的扭矩范围和孔径范围。
3. 根据两个摩擦片中间夹的中心元件的厚度来决定选择最合适的衬环宽度。

The required sliding torque is set depends upon the loading or the force of the equipment. If the loading conditions are not clear, please set the sliding torque as 1.5 - 2 times of one upon the shaft that carries the Torque Limiter.
Please select the Torque Limiter with sufficient torque and aperture ranges.
Select optimum lining ring length according to the center part thickness clamped between the two friction discs.

CENTER PARTS 中心元件

1. 中心元件的摩擦表面应加工，以保证额定转矩，以及平面度、平行度、与孔一致和防锈、防油污。推荐表面粗糙度为 Ra1.6。如果中心元件不能满足以上技术要求，打滑扭矩将不稳定。
2. 请按下表来加工中心元件的孔，和选择最小链轮齿数和衬环宽度。

Process the friction face of center parts to ensure the rated torque, planeness and parallelism in line with the bore and protect the parts from the rust and oil. The recommended surface roughness (Ra) is 1.6. The sliding torque will be not stable if the center part is defected.

Please process the bore of center parts according to the following Table and, select sprocket with min. teeth number and lining ring length.

最小链轮齿数和衬环宽度 Min. Teeth Number of Sprockets and Lining Ring Width															
规格 Size	中心元件孔径 (mm) Aperture of Center Parts	链轮节距和齿数 Sprocket Pitch and Teeth													
		9.525-06B		12.7-08B		15.875-10B		19.05-12B		25.4-16B		31.75-20B		38.1-24B	
		链轮最小齿数 Min. Teeth Number of Sprockets	衬环宽度 (mm) Lining Ring Width	链轮最小齿数 Min. Teeth Number of Sprockets	衬环宽度 (mm) Lining Ring Width	链轮最小齿数 Min. Teeth Number of Sprockets	衬环宽度 (mm) Lining Ring Width	链轮最小齿数 Min. Teeth Number of Sprockets	衬环宽度 (mm) Lining Ring Width	链轮最小齿数 Min. Teeth Number of Sprockets	衬环宽度 (mm) Lining Ring Width	链轮最小齿数 Min. Teeth Number of Sprockets	衬环宽度 (mm) Lining Ring Width	链轮最小齿数 Min. Teeth Number of Sprockets	衬环宽度 (mm) Lining Ring Width
RTL50	30	20	3.8	16	6										
RTL65	41			20	6	17	8								
RTL89	49			26	6	21	8	18	9.5	15	14.5				
RTL127	74			35	6	29	8	25	9.5	19	14.5				
RTL178	105					39	8	33	9.5	26	14.5	21	17	18	22

扭矩的设定TORQUE SETTING

限扭装置扭矩的设定是依靠上紧和松开调节螺栓和/或调节螺母来实现的。针对RTL50到RTL89，依靠调节螺母；针对RTL127和RTL178，依靠调节螺栓。
Tight and loose the adjusting bolts and/or nuts to set the torque of the Torque Limiter. The Limiter from size RTL50 to RTL89 depend upon the adjusting nuts, whereas RTL127 and RTL178 depends upon the adjusting bolts.
扭矩的设定可以在将限扭装置安装在轴上进行，过程是：

Set the torque after mounting the Limiter upon the shaft as follow:

RTL50到RTL89的规格

For sizes from RTL50 to RLT89

首先，用手旋转上紧调节螺母，以至固定碟型弹簧和压板；

Rotate to tight the adjusting nuts by hands to fix the disc spring and plate

然后，试着用扳手将螺母上紧，约60度。

Then, try to tight the nuts (about 60°C) by wrench

RTL127到RTL178的规格

For sizes from RTL127 to RTL178

首先，旋转螺母，固定碟型弹簧和压板，再上紧每一个调节螺栓，约60度。

First, rotate the nuts to tight the disc spring and pressure plate. Then tighten all the adjusting bolts (about 60°C)

然后，如果限扭装置在正常负载条件下能够打滑，请逐渐上紧螺母（RTL50到RTL89）或螺栓（RTL127到RTL178），直到限扭装置停止打滑。请务必保证均匀上紧（或松开）每个螺栓。

If the Limiter slide under normal loading, please tight the nuts (for sizes from RTL50 to RTL89) or bolts (from RTL 127 to RTL178) generally until the Limiters stop sliding. Please ensure that each bolt is tightened or loosened averagely.

通过这样的几次测试，来找到适合设备的扭矩设定。下表显示有效旋转角度和扭矩设定的关系，供参考。

Set the setting torque appropriate for the equipments after tests. Please refer the following Table that shows the relationship between the effective rotation angle and torque setting.

为了精确扭矩设定，推荐试运行一次限扭装置，比如，在当转速50~60rpm，500转时，旋转调节螺母或螺栓45度。

To make torque setting precisely, we recommend you to use Torque Limiter for trial once. For example, while the rotation speed is 50~60 rpm with 500 circles, rotate the adjusting nuts or bolts around 45°C

旋转角度和扭矩设定 Set the Rotation Angle and Torque

