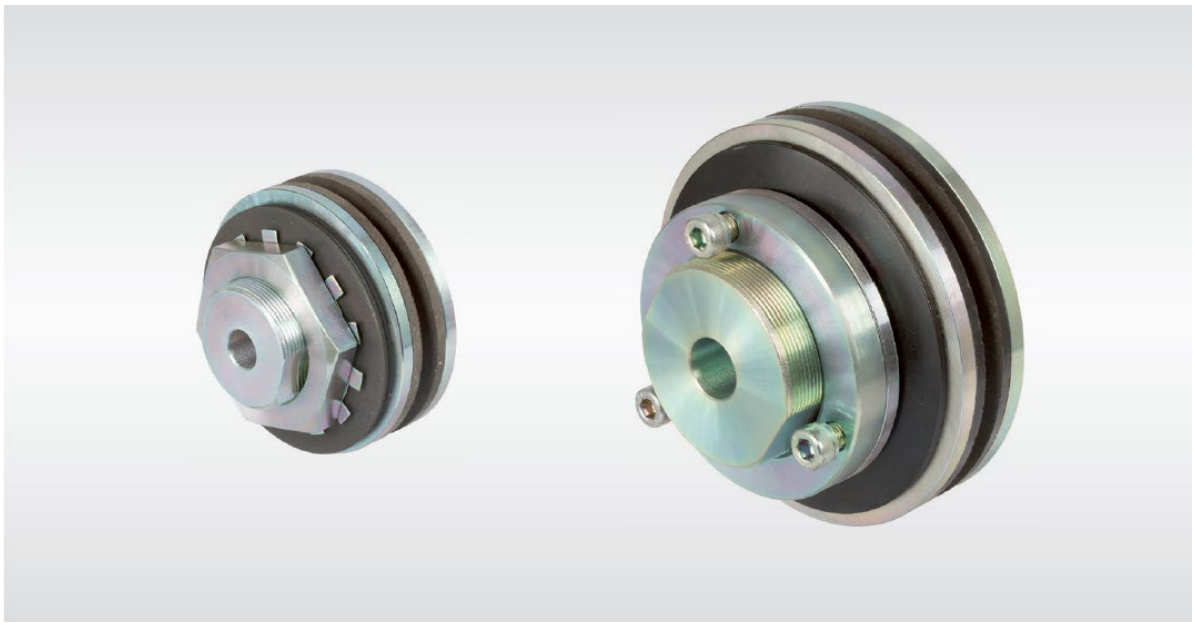




Installation and Maintenance instructions

Torque Limiters FS



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1. General
Before assembly the pressure plate, the friction facings as well as the center member (sprocket, sheave plate etc.) must be cleaned of oil, grease, dirt and rust. The center member should be ground on both sides to assure that both sides are parallel.

2. Assembly
A on the torque limiter hub the following: the bushing, one friction facing, the center member, another friction facing, the pressure plate, the spring, either the pilot plate (on round nut model only), or the lockwasher (on hex nut model only), the adjustment hex nut or the three bolt adjustment nut.

Note: The correct bush length depends on the thickness of the center member and can calculated by adding to its thickness 1.5 times the thickness of the friction facing.

3. Torque Setting for Torque Limiters
Torque limiters with hexagonal clamping, or selfsecuring nuts will have the torque adjusted in accordance with the number of 60° increments as shown in the table. The disk spring must not be completely flattened. Torque limiters with round nuts and adjustment bolts will have the torque set by first screwing back the three adjustment belts and then hand tightening the nut, now the three adjustment bolts have to be fully screwed into the nut, The maximum torque has now been set. When a lesser torque setting is desired the three adjustment screws have to be turned back into the nut to allow the nut to be turned counterclockwise In 60° increments in accordance with the table. Then the three screws have to be screwed completely into the nut again.

4. Locking after Torque Setting
The sizes 120 and 180 have only a simple, round lock washer. After adjusting, this metal sheet has to be deformed. The sizes 250 and 350 have a crowned lock washer. After adjusting, several edges must be bent to the nut. The sizes 500 and 700 have not a lock washer, but adjustment bolts. After adjusting, these bolts must be tightened by hand.

5. Running-in
Torque limiters should be run-in for the most consistent results. For this run-in period adjust the torque limiter to 70 to 80% of the maximum single spring capacity and let the center member slip for about 4 minutes at 60 RPM.

6. Torque Testing
If it is necessary to obtain a precise torque setting the following procedure is suggested. The torque limiter should be mounted, prior to installation, in a vice held by the outer diameter of the center member. With a short piece of shaft with key in the bore the torque can now be set by the use of a torque wrench. This procedure can of course only be used in small size torque limiters.

7. Running
It should be observed that the torque limiter is protected against oil, dirt, dampness and rust to assure its proper function.

8. Regular torque adjustment
From time to time the torque setting should be checked and, if necessary, it should be adjusted.

Table of Torque Limiter Adjustment (in Nm) [1]													
Limiter Type	*HEX NUTS – CLOCKWISE MOVEMENTS IN 60° INCREMENTS*												
Art.-No.	0 [2]	1	2	3	4	5	6	7	8				
612 000 00	0,5	1,5	2,5	3,4	4,0	4,6	5,0						
612 001 00	1	3	5	6,8	8	9,2	10						
612 005 00	1	2	4	6	7	9	10						
612 006 00	2	4	8	12	14	18	20						
612 010 00	7	13	23	30	34	35	36						
612 020 00	14	26	46	60	68	70	72						
612 030 00	20	26	48	59	70	79	84	87	90				
612 040 00	40	52	96	118	140	159	168	174	180				
Limiter Type	*NUT-COUNTERCLOCKWISE MOVEMENTS in 60° INCREMENTS*												
Art.-No.	0	1	2	3	4	5	6	7	8	9	10	11	12
612 050 00	300	280	253	218	176	126	69	50					
612 060 00	600	560	506	436	352	252	138	100					
612 070 00	690	673	664	635	606	560	515	450	387	302	217	144	115
612 080 00	1380	1346	1328	1270	1212	1120	1030	900	774	604	434	288	230

1) Smallest torque adjustable is between 0° and 60°.
2) These torque settings have been developed theoretically and may vary in practical application.