

ECONOMIC BALL TORQUE LIMITER

(SAFETY COUPLINGS)

Up to 1.450 Nm of torque and 55 mm bore

EDF





ComInTec[®]
Technology for Safety

EDF/F - economic ball torque limiter: introduction



- ⦿ Reduced torsional backlash by ball drive.
 - ⦿ Maintenance free for long lasting, high reliability.
 - ⦿ Version with 360° phase re-engagement available.
 - ⦿ Model available only with plate wheel or other transmission component.
 - ⦿ Innovative calibration system by “H dimension” for an immediate calibration of the device.
 - ⦿ Possibility of combining a microswitch / proximity to stop the drive.
 - ⦿ Suitable for use in damp and oily environments.
- ON REQUEST
- ⦿ Complete with drive component or personalized plate wheel.
 - ⦿ Possibility of connections with locking assembly or other types of locking.
 - ⦿ Possibility of surface treatments for corrosion-specific needs.
 - ⦿ Personalized version with re-engagement in phase at 30°, 45°, 60°, 90°..

Safety coupling with the transmission of motion by means of hardened balls inserted directly in the drive element, obtaining a simple, compact and competitive device. The disengagement occurs quickly and safely allowing the stop of the transmission if the calibrated torque is exceeded.

	EDF/F: basic model for drive with platewheel or pulley, with parallel shafts	from 7,5 to 1450 Nm 55 mm max. bore	Page 19
	EDF/F/TAC: in-line shaft connection, simple and economic	from 7,5 to 1450 Nm 80 mm max. bore	Page 20

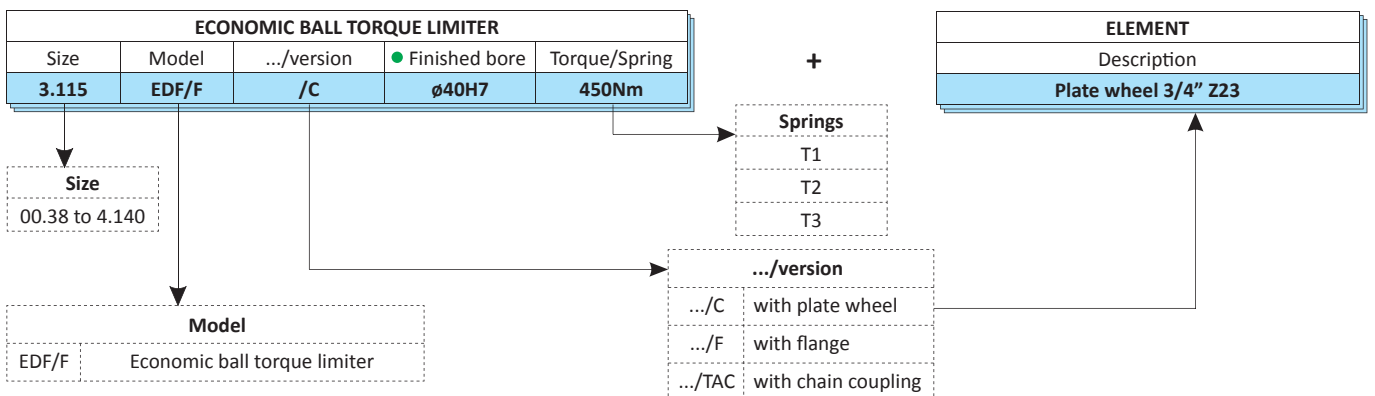
MAIN APPLICATION

- ⦿ Filling machines.
- ⦿ Metal chip conveyors.
- ⦿ Automatic conveyor belts.
- ⦿ Winches.

ADVANTAGES AND BENEFITS

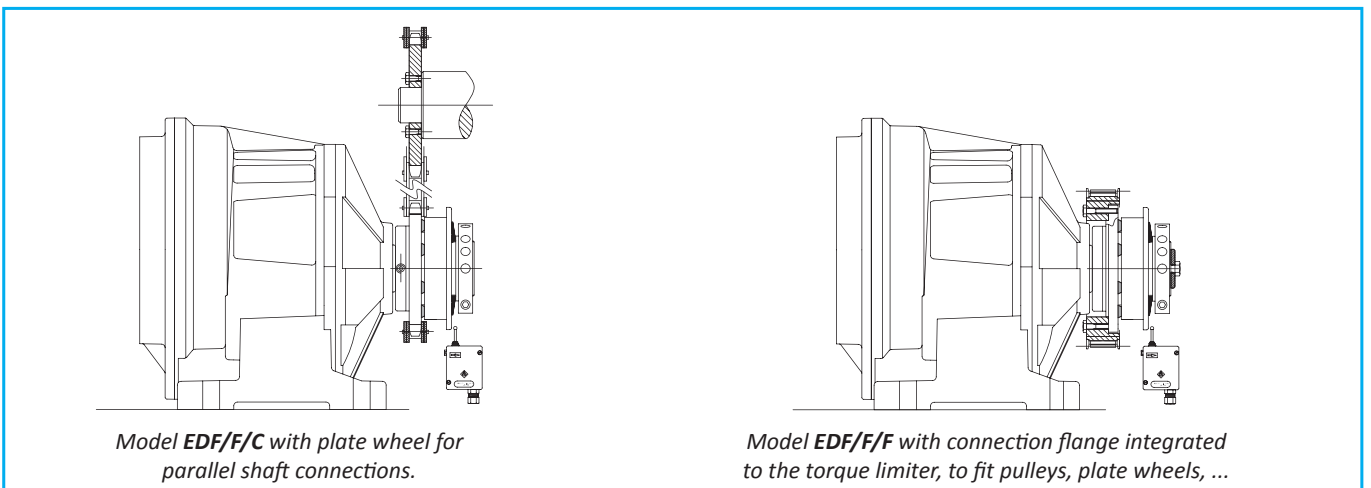
- ⦿ Protects the product from damage or wrong positioning.
- ⦿ Protect the gear motor from accidental product collisions.
- ⦿ Protect the drive against bumps or limit.
- ⦿ Protects conveyor belts in case of product collisions.

ORDER EXAMPLE



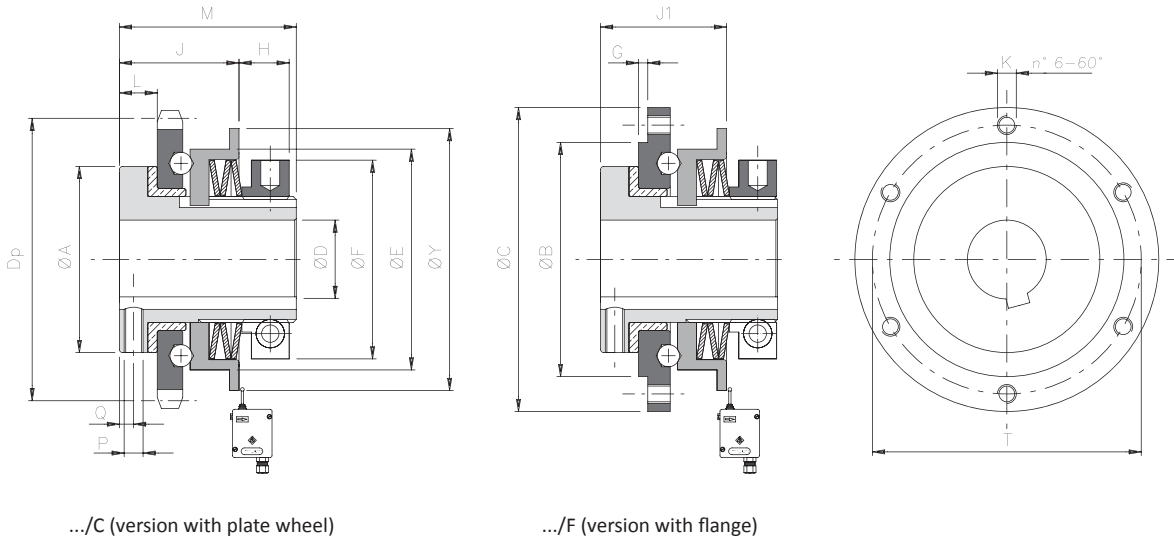
● If the version EDF/F/TAC state both finished bores (on the limiter and pinion TAC).
Torque limiter available only with finished bore.

APPLICATION EXAMPLE



EDF/F - economic ball torque limiter: technical data

- Mounting of the drive organ within the device similar to the friction series.
- Automatic re-engagement after the restoration of transmission.
- Available with radial ring statically balanced
- Model with flange for custom links: EDF/F/F.
- Model available only with finished bore.
- Torque range from 7.5 to 1.450 Nm; max. bore $\varnothing 55$ mm.



DIMENSIONS

Size	A	B h7	C	D H7		E	F	G	J1	K	L	M	P	Q	T	Y	Standard platewheel		
				pilot bore	max												lead	Dp	J
00.38	30	35	52	-	12	38	35	1	21	M4	6	33	M3	2	44	48	3/8" Z16	48,82	20,5
0.50	40	50	68	-	20	50	42	1,5	26	M5	8	42	M4	3	58	63	3/8" Z20	60,89	24,5
1.70	59	65	90	-	25	70	63	2	36	M5	11	55	M6	4	80	83	1/2" Z22	89,24	34
2.90	72	85	112	-	38	90	82	2	40	M6	12	61	M6	4,5	100	103	3/4" Z18	109,71	40
3.115	89	110	140	18	45	115	104	2	51	M8	14	71	M6	5,5	125	128	1" Z17	138,22	53
4.140	104	135	174	24	55	140	128	2	57,5	M10	15	86	M8	5,5	155	153	1" Z20	162,38	58,5

TECHNICAL DETAILS

Size	Torque [Nm]			Inertia [kgm ²]		Max speed [Rpm]	Weight [kg]	
	T1	T2	T3	Flange side	Nut side		EDF/F	EDF/F/F
00.38	7,5 - 15	14,5 - 30	-	0,000024	0,000032	1900	0,2	0,3
0.50	8 - 24	15 - 40	40 - 65	0,000076	0,000097	1400	0,5	0,7
1.70	12 - 37	30 - 68	53 - 120	0,000331	0,000562	1200	1,3	1,3
2.90	-	60 - 150	140 - 290	0,001001	0,001605	1000	2,4	2,5
3.115	-	145 - 385	215 - 580	0,003302	0,004868	800	4,1	4,1
4.140	-	-	550 - 1450	0,008578	0,012687	650	6,9	7,1

▲ On request

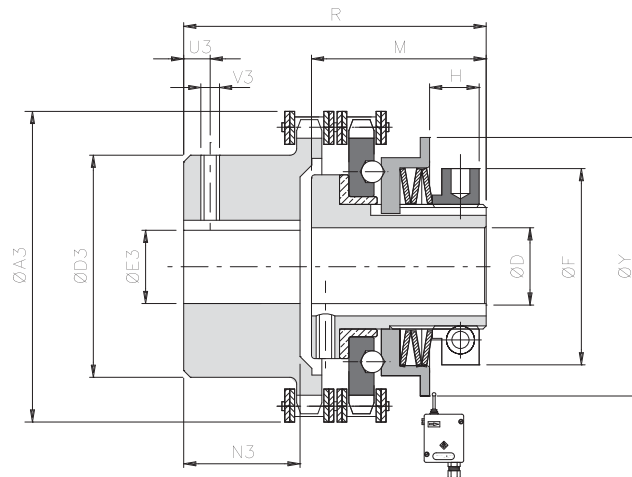
NOTES

- Weights are relevant to the torque limiter with pilot bore (EDF/F/TAC), inertias refer to the torque limiter (EDF/F/TAC) hole max.
- Microswitches EM1 or EM2 and inductive sensor PRX see page 73

.../TAC - version with chain coupling: technical data



- Simple and compact solution for transmission with in-line shafts.
- Automatic re-engagement after the restoration of transmission
- Model EDF/F available only with finished bore (dimension D) .
- Available with radial ring statically balanced
- Possibility of combining a microswitch / proximity to stop the drive.
- Torque range from 7.5 to 1.450 Nm; max. bore $\varnothing 80$ mm.



DIMENSIONS

Size	D H7		F	Y	M	R	A3	D3	E3 H7		N3	U3	V3
	pilot bore	max							pilot bore	max			
00.38	-	12	35	48	33	60	58	37	10	20	20	5	M3
0.50	-	20	42	63	42	67	75	50	12	28	19	8	M4
1.70	-	25	63	83	55	91	101	70	16	38	29	8	M4
2.90	-	38	82	103	61	107	126	89	20	55	38	12	M6
3.115	18	45	104	128	71	136	159	112	20	70	56,5	12	M6
4.140	24	55	128	153	86	156	184	130	28	80	59,5	15	M8

TECHNICAL DETAILS

Size	Torque [Nm]			Misalignments			Max speed [Rpm]	Weight [Kg]
	T1	T2	T3	Angular α [°]	Axial X [mm]	Radial K [mm]		
00.38	7,5 - 15	14,5 - 30	-	2°	1,50	0,20	1900	0,6
0.50	8 - 24	15 - 40	40 - 65		1,50	0,20	1400	1
1.70	12 - 37	30 - 68	53 - 120		2,40	0,25	1200	2,9
2.90	-	60 - 150	140 - 290		3,20	0,30	1000	6,1
3.115	-	145 - 385	215 - 580		4,50	0,35	800	9,5
4.140	-	-	550 - 1450		4,80	0,40	650	20

NOTES

▲ On request

- Weights are relevant to the whole group with pilot bore (EDF/F - EDF/F/TAC).
- Microswitches EM1 or EM2 and inductive sensor PRX see page 73