

Friction type torque limiter

(Safety coupling)

Torque up to 23000 Nm, 140 mm opening

BF



BMOOM
Torque Limiter

Shanghai Bmoom Electromechanical Co.,Ltd
上海宝牧机电设备有限公司

BF - Friction Torque Limiter: Description



- Simple and economical friction type torque limiter.
- It is suitable for working in dusty conditions, and there is no need to adjust the speed between the gear box and the output device.
- No noise or vibration when overloaded.
- Rotation two-way protection.
- Non-asbestos friction disc.
- Through the adjustment of the locking ring, the torque setting is simple and precise.
- According to the size and innovative calibration system, the equipment can be calibrated instantaneously.
- ▲ **On demand**
- Complete transmission gears, all turned and assembled (sprockets, pulleys, gear pairs).
- All kinds of friction plates suitable for specific purposes.
- Multiple connection methods such as keyway, spline, expansion sleeve, etc. can be provided.
- The surface layer is treated with anti-corrosion to meet special requirements.

The sprocket, pulley or other transmission components in the friction torque limiter are installed between the two sliding plates. When the torque is reached, it can ensure continuous transmission without damaging the components. The characteristics of the device are: simple structure, low price, suitable for use in environments where torque accuracy is not very high.




■ Main application

- Forming machinery.
- Conveying machinery.
- Fan.
- Agricultural machinery,
- woodworking machinery.

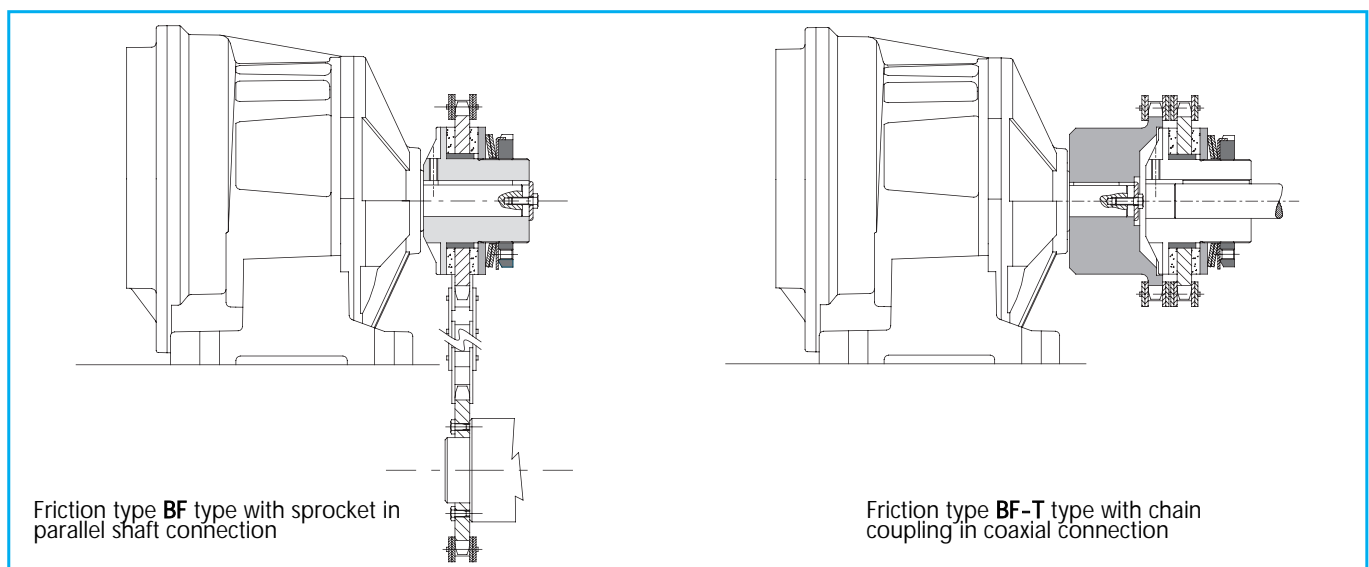
■ Advantages and features

- Protect the motor gearbox in an accidental collision.
- In the case of overload, the conveyor line can be stopped in time.
- Protect the motor and blade when the blade is stuck.
- In the case of short-term blockage of the product, the gear is protected.

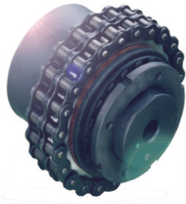
▲ On-demand

	BF : The basic model of parallel shaft transmission, with sprocket, gear pair or pulley.	1-23000 Nm Maximum opening 140 mm	33 pages
	BF-T : Coaxial connection, simple and economical structure.	1- 23000 Nm Maximum opening 160 mm	43 pages
	BF-G : Coaxial connection, with elastic coupling, large compensation range.	1- 23000 Nm Maximum opening 160 mm	53 pages

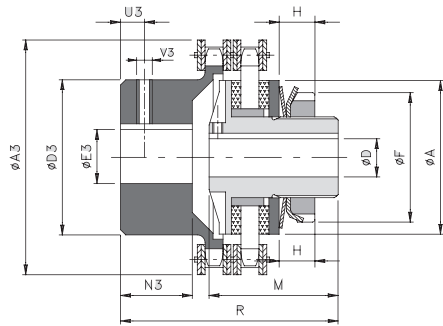
■ Application example



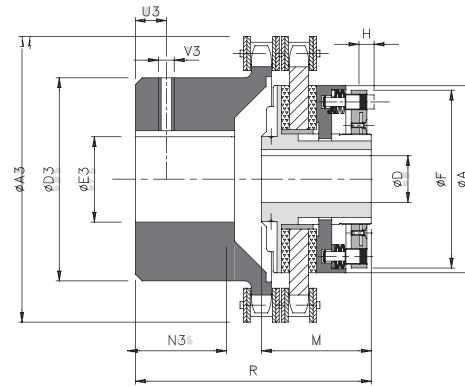
BF-T Version with chain coupling: technical data



- A simple, compact solution for coaxial drives.
- Two-way rotation protection.
- Different types of friction discs can be equipped to meet specific applications.
- This version is equipped with a pair of coil springs, which can accurately adjust the combination: .../CM/T can achieve radial locking adjustment: .../GR.
- Torque range: 1-23.000 Nm; maximum opening: $\varnothing 160$ mm.



0-7



8-12

Dimensions

size	A	D H7		F	M	R	A3	D3	E3 H7		N3	U3	V3
		Prefabricated hole	maximum						Prefabricated hole	maximum			
0	25	-	8	22	26	39	45	23	8	12	9	4	M3
1	38	-	12	32	33	58	57	37	10	20	20	5	M3
2	50	-	20	44	35	58	75	50	12	28	19	8	M4
3	70	-	25	63	55	87	101	70	16	38	29	12	M6
4	90	-	38	82	60	102	126	89	20	55	38	12	M6
5	115	18	45	104	70	131	159	112	20	70	56,5	15	M8
6	140	24	55	130	80	145	184	130	28	80	59,5	15	M8
7	170	28	65	158	95	189	215	130	30	80	88	15	M8
8	205	38	80	193	110	218	291	150	38	90	103	25	M10
9	240	50	100	230	116	245	310	170	50	110	124	25	M10
10	300	60	120	287	123	284	374	200	50	140	147	30	M12
11	340	60	130	325	158	329	423	210	60	150	165	30	M12
12	400	60	140	388	167	364	471	240	60	160	191	30	M16

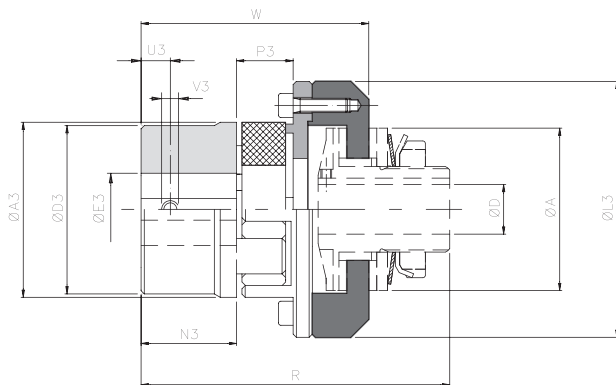
Technical details

size	Torque [Nm]				compensation			Maximum speed [Rpm]	weight [Kg]
	T0	T1	T2	T3	angl ea [°]	Axi al X [mm]	Radi al K [mm]		
0	-	1 - 8	2 - 12	2 - 20	2°	1,50	0,20	5000	0,2
1	-	1 - 14	8 - 22	15 - 34		1,50	0,20	5000	0,6
2	2 - 12	4 - 40	17 - 70	23 - 100		1,50	0,20	3800	1,1
3	6 - 18	17 - 60	34 - 120	60 - 210		2,40	0,25	2800	2,8
4	13 - 105	74 - 140	90 - 280	185 - 450		3,20	0,30	2200	5,9
5	65 - 280	120 - 360	207 - 700	210 - 950		4,50	0,35	1800	11,1
6	-	180 - 550	260 - 950	390 - 1200		4,80	0,40	1500	20,3
7	-	160 - 700	300 - 1450	1000 - 2600		4,80	0,40	1300	31
8	300 - 1200	500 - 2400	1000 - 4800	-		6,30	0,50	1000	54,6
9	500 - 2000	1000 - 4000	2000 - 8000	-		6,30	0,50	900	76,7
10	800 - 3500	1500 - 7000	3000 - 14000	-		6,80	0,55	700	125,5
11	1000 - 4500	2000 - 9000	4000 - 18000	-		6,80	0,55	600	180
12	1500 - 5000	3000 - 11000	5000 - 23000	-	6,80	0,55	550	260	

Description

" This data is related to the entire combination (BF-T).
 "The weight is related to how big the inner hole is (BF-T).

BF-G Models with claw coupling: technical data



Dimensi ons

Size	A	D H7		F	M	R	A3	L3	E3 H7		N3	U3	V3
		Prefabricated hole	maximum						Prefabricated hole	maximum			
0	25	-	8	22	26	56	30	43	-	16	11	5	M4
1	38	-	12	32	33	84.5	40	58	-	25	25	10	M4
2	50	-	20	44	35	58	55	74	-	35	30	10	M5
3	70	-	25	63	55	87	80	107	-	48	45	15	M8
4	90	-	38	82	60	102	95	132	-	55	50	20	M8
5	115	18	45	104	70	131	120	164	-	74	65	20	M10
6	140	24	55	130	80	145	160	208	28	95	85	25	M10
7	170	28	65	158	95	189	200	246	30	110	100	30	M12
8	205	38	80	193	110	218	225	285	38	115	110	30	M12
9	240	50	100	230	116	245	255	330	50	125	120	33	M16

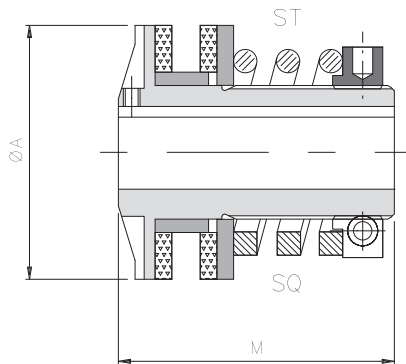
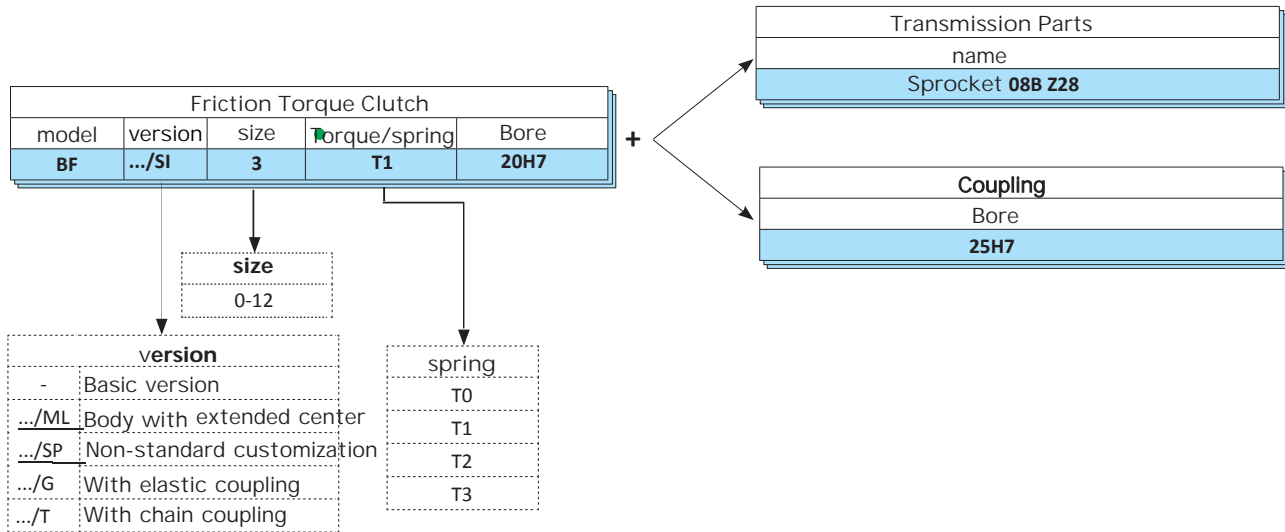
5

Technical details

Size	Torque[Nm]				compensation			Maximum speed [Rpm]	weight [Kg]
	T0	T1	T2	T3	angle α [°]	Axial X [mm]	Radial K [mm]		
0	-	1 - 8	2 - 12	2 - 20	0.54°	1	0.09	10000	0,2
1	-	1 - 14	8 - 22	15 - 34	2°	1	0.20	10000	0,4
2	2 - 12	4 - 40	17 - 70	23 - 100		1	0.22	7600	0.8
3	6 - 18	17 - 60	34 - 120	60 - 210		1.4	0.28	5450	3.3
4	13 - 105	74 - 140	90 - 280	185 - 450		1.6	0.32	4250	5.4
5	65 - 280	120 - 360	207 - 700	210 - 950		1.8	0.38	3350	10.3
6	-	180 - 550	260 - 950	390 - 1200		2.5	0,48	2750	21.1
7	-	160 - 700	300 - 1450	1000 - 2600		2.8	0,50	2250	36.3
8	300 - 1200	500 - 2400	1000 - 4800	-		3.0	0.52	1900	59.9
9	500 - 2000	1000 - 4000	2000 - 8000	-		3.2	0.55	1600	87.7

BF - Friction torque limiter: additional information

Order example



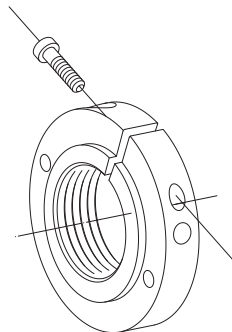
On-demand version

.../CM: minimum torque version

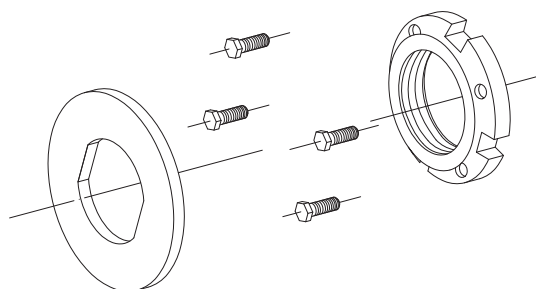
Equipped with spiral spring, it is suitable for a relatively wide torque range and can be accurately calibrated.

size	Torque[Nm]		A	M1
	spring ST	springsQ		
2	1,5 - 9	-	50	57,5
3	2 - 34	2 - 60	70	85
4	5 - 56	3 - 70	90	95
5	10 - 130	25 - 160	115	113

.../GR: Model with radial adjusting nut



The adjusting nut has a radial locking static balance function, which is an alternative to the GT standard groove top nut. Applicable size range: 1-7



GT/DR tool: Two-way matching tool, matching with the nut through the slot GT.

The torque adjustment system is equipped with two-way matching (flange and hexagonal screws) tools to ensure the sensitivity and accuracy of calibration, and is equipped with disc gaskets.

Backlash-free torque limiter

(Safety coupling)

Torque up to 3200 Nm, opening 75 mm


BMA



BMOOM
Torque Limiter

Shanghai Bmoom Electromechanical Co.,ltd
上海宝牧机电设备有限公司

BMA – Backlash-free torque limiter: description



- Precise adjustment is performed by the balance nut.
- The torque limiter is equipped with a scale meter, which is convenient for torque adjustment.
- Re-reset at equal intervals or 360°.
- No maintenance required.
- It can be equipped with a micro mechanical switch/proximity switch to stop the motor drive.
- This type of equipment can only be equipped with holes.
- Assemble the drive components, which are directly supported by ball bearings.
- On demand
- ▲ Assembly of complete transmission components (sprockets, pulleys, gears...).
- It can be connected through 8 holes, and the component can be used in common with other products on the market. It can be equipped with a connecting flange to connect with the most common intermittent drive unit.
- Custom re-engagement stage 30°, 45°, 60°, 90°, ...

The gapless torque limiter has high technology content and high accuracy. It provides backlash-free motion transmission through a highly sensitive response action, which can be released instantly after reaching the set release torque.





■ main application


- Bottle blowing machines, canning machines,
- labeling machines and other packaging
- machinery. CNC tool machinery, indexing table.
- Director, powertrain.

Servo motor, guide rail.

■ Advantages and features

- In the case of overload, protect the product.
- When the transmission is overloaded, the indexing device is protected.
- In the event of a collision, protect the mechanical operating unit.
- In the event of a collision or limit stop, protect the slide rail or servo motor.

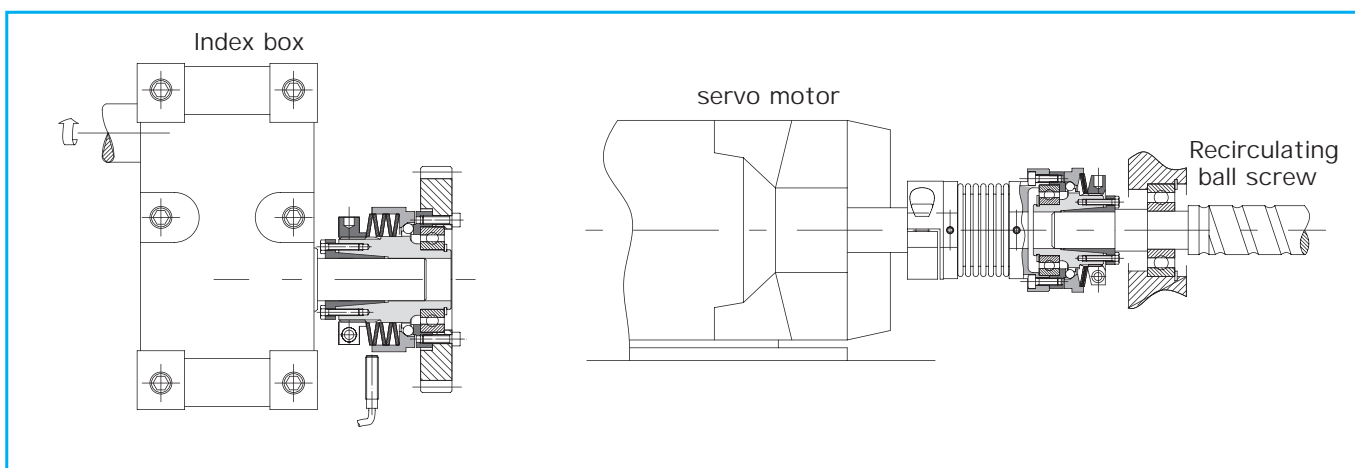
	BMA : Keyway connection.	0.62-3200 Nm Maximum opening 75 mm	9 pages
	BMA4.0: Expansion sleeve connection.	0.62-3200 Nm Maximum opening 50 mm	10 pages
	... + G: Through the flexible coupling connection, higher compensation conditions can be accepted.	0,62-3200 Nm Maximum opening 95mm	11 pages
	BMA/PR-V: Suitable for direct connection between the motor and the hollow shaft reducer.	0,62-3200 Nm Maximum opening 95mm	12 pages



Stainless steel version "BMA/BSP" on request (new)

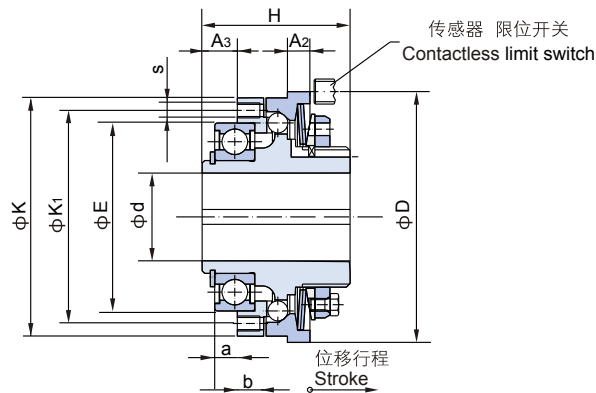
- This model has no gaps.
- The external dimensions are the same as those of the standard model.
- It is made of stainless steel, and the stainless steel has high resistance after proper heat treatment. High corrosion resistance.
- Suitable for working in food and/or pharmaceutical conditions.
- Torque range 0.62 -3200 Nm; maximum opening: ø75 mm

■ Assembly example



... BMA Version with cut-out and keyway: technical data

- No gaps.
- The torque is adjusted by the scale, the operation is very simple.
- Large torque adjustment range.
- The response time is very short.
- It can be equipped with an elongated center body, which can be connected with various drive components: /ML. Torque range: 0.62- 3200Nm; maximum opening: $\varnothing 75$ mm.



Dimensions ■

specification	D	E	K	d H7	K ₁	H	A ₂	A ₃	a	b	s
		h6		maximum							
0	45	30	40	11	35	24	6,5	4.5	2	4	6xM3
1	70	47	65	20	56	40	7	8	5	6	8xM4
2	85	62	80	25	71	48	8	11	7	7	8xM5
3	100	75	95	35	85	59	9	14	9	9	8xM6
4	115	90	110	40	100	64	10	16	10	10	8xM6
5	135	100	130	50	116	75	12	18	10	12	8xM8
6	171	130	166	65	150	115	16	21	12	15	8xM10
7	220	145	220	75	165	140	37	44	14	22	8xM12

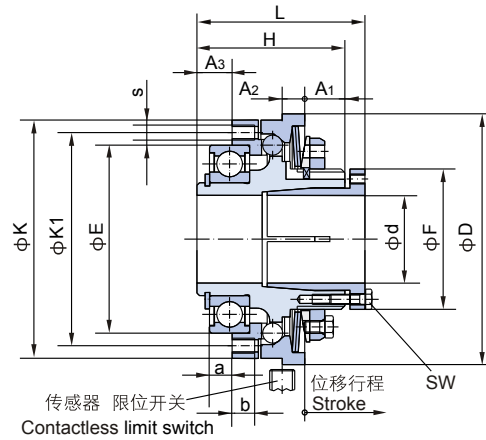
Technical details ■

specification	Torque[Nm]				Overload stroke [mm]	inertia[kgm ²]		Maximum speed [Rpm]	weight [Kg]
	T1	T2	T3	T4		Flange side	Nut side		
0	0.62-1.3	1.3-2.6	2-3.8		0,8	0,000025	0,000043	4000	0.17
1	5-12.5	10-25	20-50	25-62.5	1.2	0,000093	0,000205	4000	0.63
2	10-25	20-50	40-100	50-125	1.5	0,000234	0,000505	3000	1.02
3	20-50	40-100	80-200	100-250	1.8	0,000643	0,001302	2500	1.75
4	40-100	80-200	160-400	200-500	2.0	0,001306	0,002630	2000	2.55
5	70-175	140-350	280-700	380-875	2.2	0,002649	0,006329	1200	4.07
6	120-300	240-600	480-1200	600-1500	2.5	0,006690	0,028443	800	10.06
7	300-600	600-1200	1200-2400	1800-3200	2.8	0,007178	0,03595	400	13.05

Description

- Assembly tolerance: can be processed as required.
- Weight is related to hole formation; inertia refers to the maximum diameter of the torque limiter hole.
- Can be equipped with micro mechanical switch or proximity switch.

... BMA4.0 Version with cut-out and expansion sleeve: technical data



■ Dimensions

specification	D	F	E h6	K	d H7 maximum	K ₁	L	H	A ₁	A ₂	A ₃	a	b	s	SW
1	70	38	47	65	20	56	47	40	12	7	8	5	6	8xM4	7
2	85	44	62	80	25	71	56	48	13.5	8	11	7	7	8xM5	7
3	100	56	75	95	35	85	67	59	16	9	14	9	9	8xM6	7
4	115	70	90	110	40	100	73	64	17	10	16	10	10	8xM6	8
5	135	84	100	130	50	116	86	75	20.5	12	18	10	12	8xM8	10
6	171	100	130	166	65	150	130	115	46	16	21	12	15	8xM10	13
7	220	123	145	220	75	165	138	140	50.5	37	44	14	22	8xM12	15

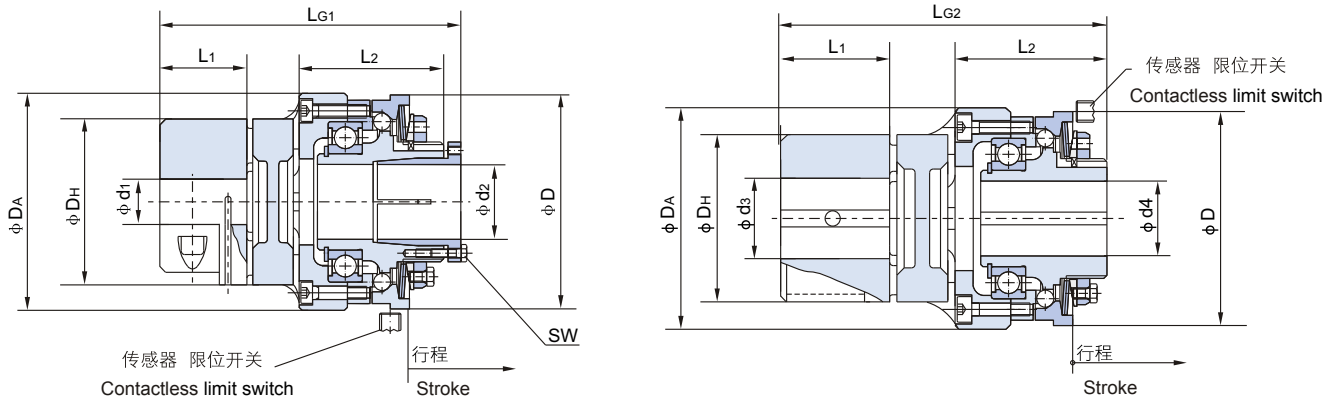
■ Technical details

specification	Torque[Nm]				stroke [mm]	inertia[Kgm ²]		Maximum speed [Rpm]	weight [Kg]
	T1	T2	T3	T4		Flange side	Nut side		
0	0.62-1.3	1.3-2.6	2-3.8		0,8	0,000025	0,000049	4000	0.26
1	5 - 12.5	10-25	20-50	25-62.5	1.2	0,000093	0,000211	4000	0.68
2	10-25	20-50	40-100	50-125	1.5	0,000234	0,000531	3000	1.14
3	25-50	40-100	80-200	100-250	1.8	0.000643	0,001388	2500	1.98
4	40-100	80-200	160-400	200-500	2.0	0,001306	0,002846	2000	2.88
5	70-175	140-350	280-700	380-875	2.2	0,002649	0,006858	1200	4.59
6	120-300	240-600	480-1200	600-1500	2.5	0.006690	0,029432	800	8.81
7	300-600	600-1200	1200-2400	1800-3200	2,8	0,007178	0,03961	400	13.98

■ Description

- Assembly tolerance: According to customer requirements.
- The weight is related to the hole formation.
- It can be a micro mechanical switch or proximity switch.

... + /G Equipped with claw coupling: technical data



Dimensions

specification	d 1 (H8)	d 2 (H8)	d 3 (H7)	d 4 (H7)	D _A	D _H	D	L _{G1}	L _{G2}	L ₁	L ₂
	maximum	maximum	maximum	maximum							
1	28	20	28	20	70	55	70	102	95	30	47
2	35	25	38	25	85	65	85	120	112	35	57
3	45	35	45	35	100	80	100	146	138	45	69
4	45	45	55	40	115	95	115	159	150	50	74
5	55	55	60	50	135	105	135	182	171	56	87
6	80	65	80	65	175	135	171	255	240	75	130

Technical details

specification	Torque[Nm]				stroke [mm]	Maximum speed [Rpm]
	T1	T2	T3	T4		
1	5 - 12.5	10-25	20-50	25-62.5	1.2	4000
2	10-25	20-50	40-100	50-125	1.5	3000
3	20-50	40-100	80-200	100-250	1.8	2500
4	40-100	80-200	160-400	200-500	2.0	2000
5	70-175	140-350	280-700	380-875	2.2	1200
6	120-300	240-600	480-1200	600-1500	2.5	800

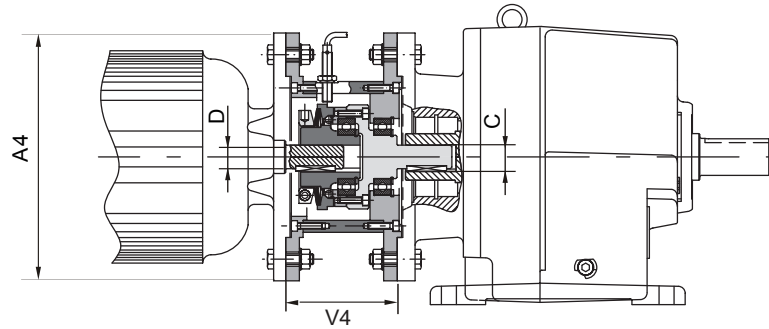
Description

- If the inner hole of the coupling end needs to be enlarged, the standard torque limiter can be equipped with a larger coupling.
- Assembly tolerance: can be processed according to customer requirements.
- The weight is only related to the hole formation, and the inertia only needs to refer to the coupling with the largest opening.
- Can be equipped with micro mechanical switch or proximity switch.

BMA/PR-V- Backlash-free torque limiter with over-flange: technical data



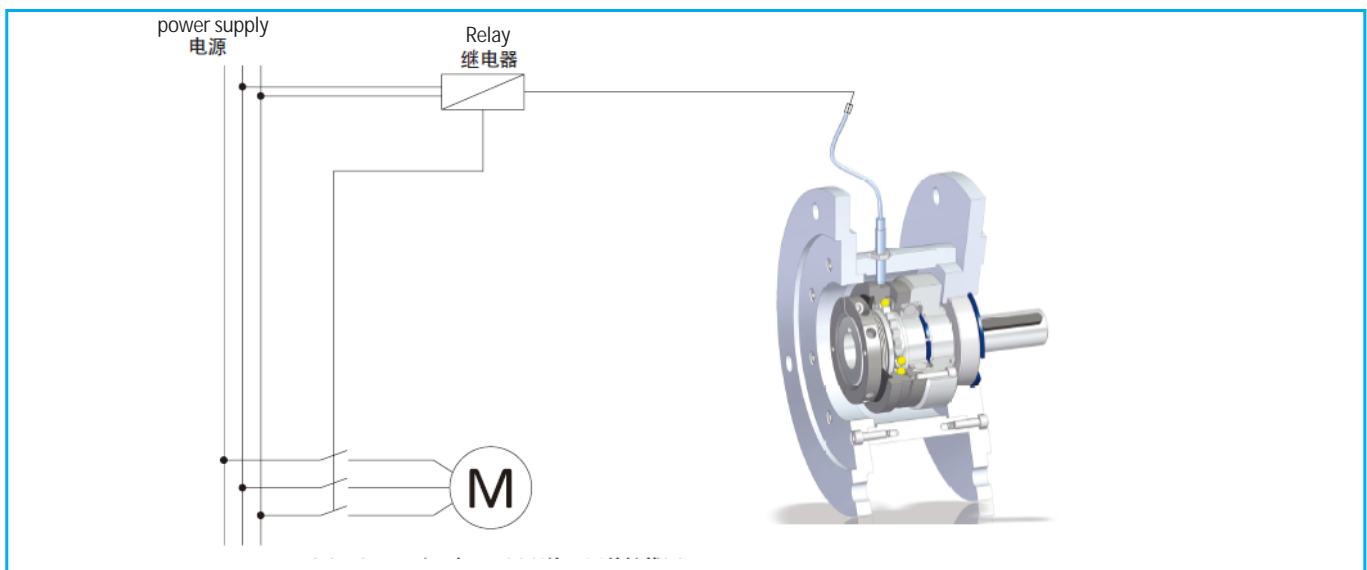
- ⦿ It is suitable for installation between gearboxes, motors and hollow shaft reducers.
- ⦿ Adjust the torque according to the scale, which is convenient to adjust.
- ⦿ Reset after overload can be reset at 15°, 30°, 60°, etc. upon request.
- ⦿ Equipped with a connecting flange, it is a complete solution for IEC motors.
- ⦿ Can be equipped with sensors, output signals after overload.
- ⦿ Torque range: 0.62-3200 Nm; maximum opening/shaft: $\varnothing 75$ mm.



Technical details

specification	Torque[Nm]				stroke [mm]	Maximum speed [Rpm]	A4	V4	DH7-Ch7
	T1	T2	T3	T4					
0	0.62-1.3	1.3-2.6	2-3.8		0,8	4000	According to working conditions		
1	5 – 12.5	10-25	20-50	25-62.5	1.2	4000			
2	10-25	20-50	40-100	50-125	1.5	3000			
3	25-50	40-100	80-200	100-250	1.8	2500			
4	40-100	80-200	160-400	200-500	2.0	2000			
5	70-175	140-350	280-700	380-875	2.2	1200			
6	120-300	240-600	480-1200	600-1500	2.5	800			
7	300-600	600-1200	1200-2400	1800-3200	2,8	400			

Assembly example

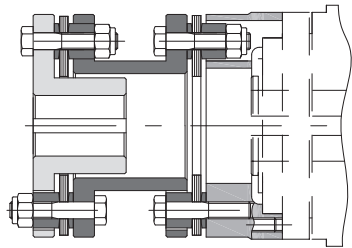


Description

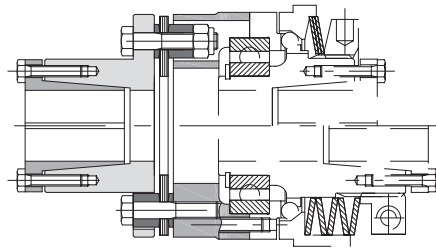
- Please contact our company for specific over-flange dimensions.
- The weight refers to the prefabricated hole of the torque limiter.

BMA -Backlash-free torque limiter: additional information

Other couplings on request ■

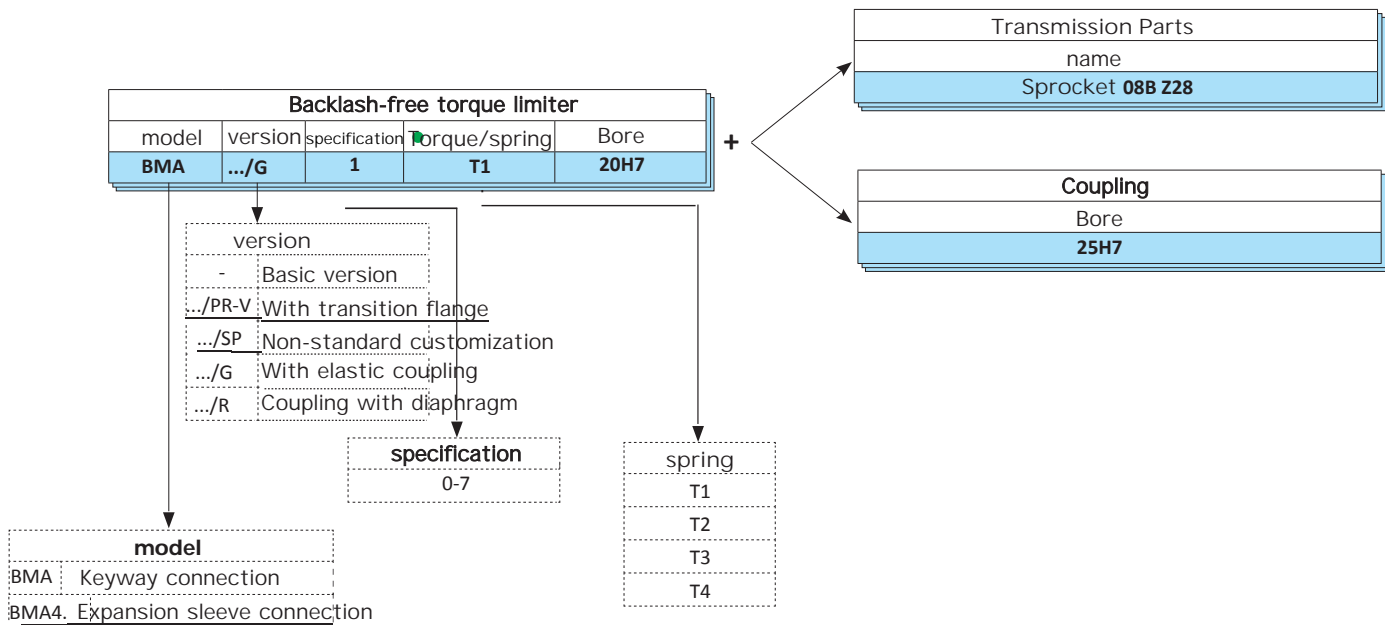


Model BMA is equipped with dual flexible torsional rigid metal disc coupling/SR when it is required to be equipped with torsional strength and compatibility with radial non-coincidence.



For model BMA, when the torsional strength function is required, a single A flexible disc coupling/R.

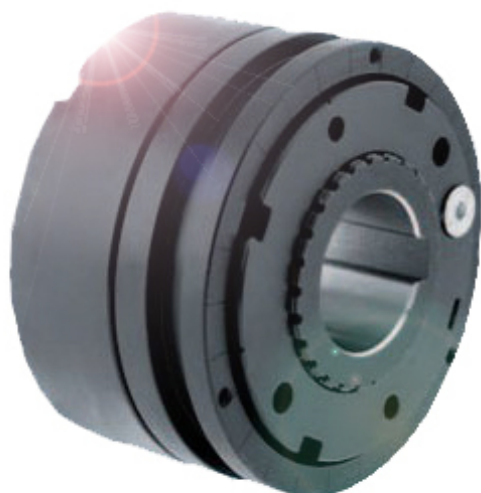
Order example ■



Ball, roller type torque limiter

(Precision roller or ball torque limiter) Torque up to 8200 Nm, opening 100 mm

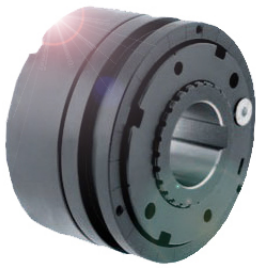
BMR



BMOOM
Torque Limiter

Shanghai Bmoom Electromechanical Co.,ltd
上海宝牧机电设备有限公司

BMR – Roller, ball type torque limiter: description



- The precise setting of the torque is achieved by adjusting the radial balance nut.
- The "H size" innovative calibration system can perform instantaneous calibration of the equipment.
- It can be reset at a single point or re-engaged at 360° equidistant intervals.
- The transmission can be disconnected by an electromechanical switch/proximity switch.
- Compared with the electronic system, the device can directly intervene, and the response ability is improved.
- No maintenance, long service life and high stability.
- ▲ Suitable for working in humid and oily environment.
- On demand
- Equipped with a complete set of transmission gears, all turned and installed (sprockets, pulleys, gear pairs). For low intervention torques, coil springs can be used.
- Connect through openings and keyways or tents tight sleeves.
- The customized version can be re-engaged at 15°, 30°, 45°, 60°, 90° and other angles.



The safety coupling uses rollers to achieve motion transmission, allowing complete separation when the calibrated torque is reached, and quickly stopping the transmission through a micro-mechanical switch. It is suitable for working under high torque conditions, with high stability and compact structure.

■ Main application

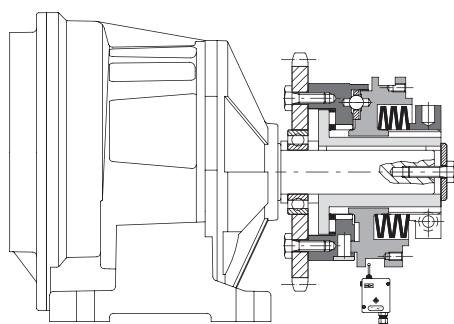
- Packaging and packaging machinery
- Labeling machinery
- Bottling machinery
- Conveyor

■ Advantages and features

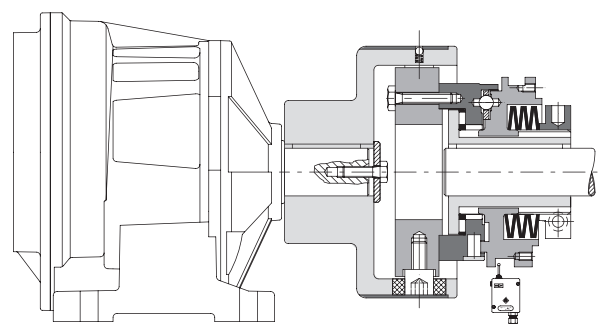
- Protect the gearbox when foreign matter causes jamming.
- Protect the packaging from breakage and deformation.
- When accumulation occurs, protect the product hoisting components.
- In the event of an overload, keep the driving and driven devices.

	BMR: Basic model.	2,5-8200 Nm maximum opening 100 mm	18pages
	BMR-G: Connect with elastic coupling.	2,5-8200 Nm maximum opening 90 mm	19pages

■ Assembly example

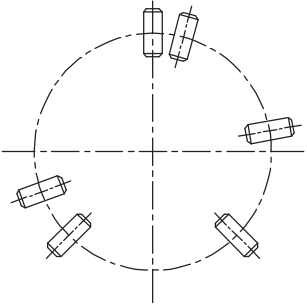


Model BMR Parallel shaft drive with bearing support parts



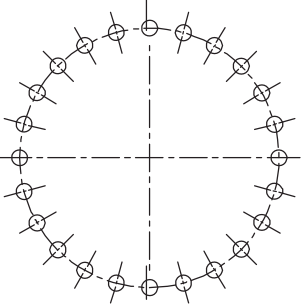
Coaxial transmission with elastic coupling BMR-G

BMR – Roller Torque Limiter: Model



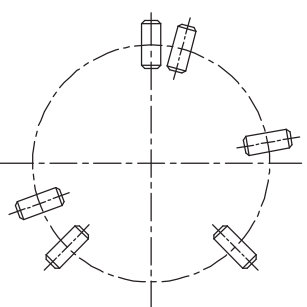
Type BK: Roller-type torque limiter suitable for stable transmission with high torque and vibration.

- ⦿ Roller drive.
- ⦿ Automatic re-engagement at equal intervals or 360°.
- ⦿ Compact size and high torque setting.
- ⦿ The intervention torque is the same in both directions.
- ⦿ Torque range: 5-8200 Nm; maximum opening: \varnothing 100 mm.



Type BZ: Ball-type torque limiter, with higher sensitivity when there is a sudden change in torque.

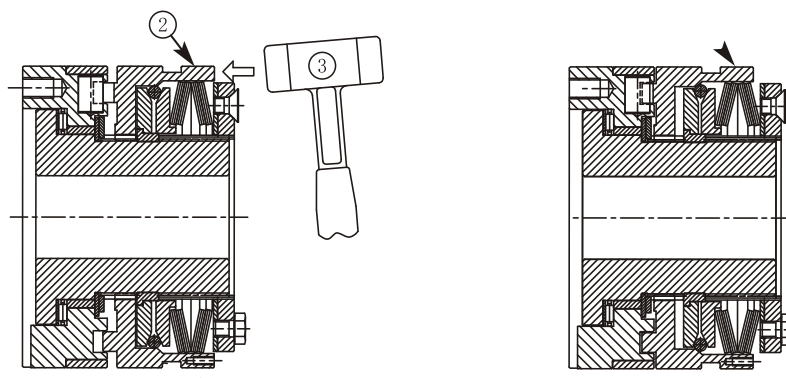
- ⦿ Ball drive.
- ⦿ High sensitivity and direct intervention are guaranteed in the minimum torque change.
- ⦿ Automatic re-engagement at equal intervals.
- ⦿ The intervention torque is the same in both directions.
- ⦿ Torque range: 2.5-3600Nm; maximum opening: \varnothing 100mm.



BZL type: manual reset structure of roller type torque limiter.

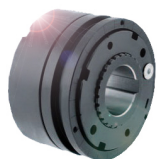
- ⦿ Roller drive.
- ⦿ After overload, the driving end and the transmission end are completely disconnected.
- ⦿ To reset manually, use a hammer or other tools to hit the moving ring.
- ⦿ Compact size and high torque setting.
- ⦿ Torque range: 5-8000Nm; maximum opening: \varnothing 100 mm.

The BMOOM safety equipment has a "in-phase" internal re-engagement function, and the roller arrangement meets the requirements of the mathematically best solution. Requirement, all positions of 360° can provide safe support balance. When the limiter is disengaged, ensure that at least three equally spaced rollers are located on the rolling surface.

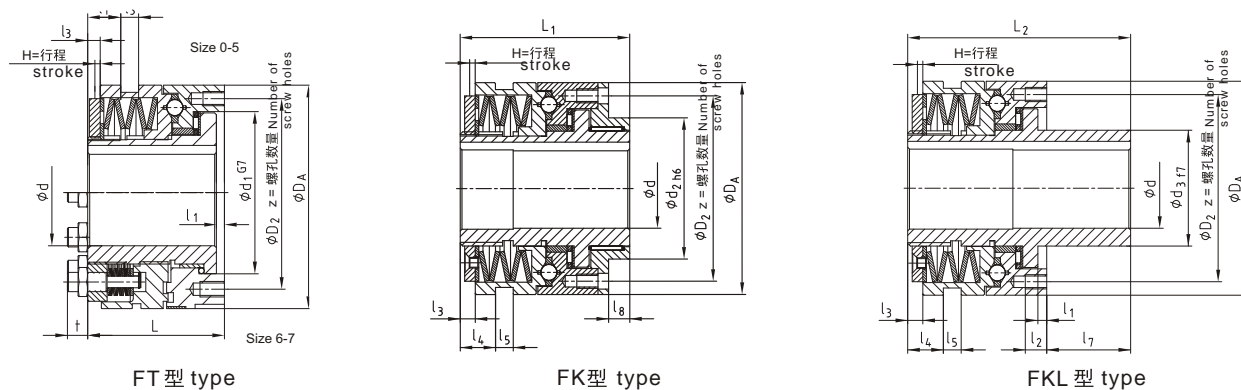


Manual reset diagram ■

BMR Ball and roller torque limiter: technical data



- Torque limiter with classic structure.
- Can be equipped with coil springs, with higher sensitivity to torque setting.
- Surface anti-corrosion treatment can be carried out.
- High stability.
- Standard single-point reset, 15°, 30°, 45°, 60°, and other multi-point resets are available upon request. Torque range: 2.5-8200 Nm; maximum opening: ø100 mm.



■ Dimensions

specification	d ₁	D ₂	D _A	d H7	d ₂	d ₃	l ₁	l ₂	l ₃	l ₄	l ₅	l ₇	l ₈	L	L ₁	L ₂	Z	H(stroke)	
				maximum														BZ	BK
0	41	48	55	20	38	28	4	6.5	3	7.5	9	27.5	8	38.5	51	66	6xM5	1.4	1.2
1	60	70	82	25	50	38	4	8	6	11.5	9	33	10	52	70	85	6xM5	2.3	1.8
2	78	89	100	35	60	52	5	10	5	12	9	39	12	61	78	100	6xM6	2.4	2
3	90.5	105	120	45	80	65	5	12	8.5	21	10	47	12	78	96	125	6xM8	2.7	2.2
4	105	125	146	55	100	78	6.5	15	11	27	9	52	16	100	124	152	6xM10	3.7	2.5
5	120	155	176	65	120	90	6.5	17	12	33	9	57	18	113	140	171	6xM12	4.6	3
6	136	160	200	80	130	108	7	20	14	39	9	64	20	119	150	183	6xM12	5	3.5
7	168	200	240	100	160	135	8	25	15	46	9	72	25	141	175	213	6xM16	5.5	4

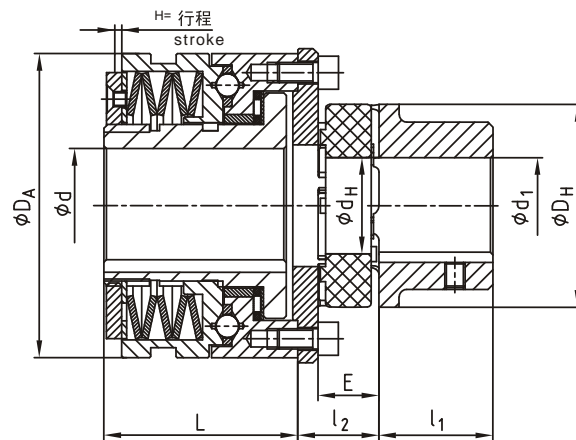
■ Technical details

specification	BZ type torque (Nm)				BK, BZL type torque (Nm)				weight (Kg)
	T1	T2	T3	T4	T1	T2	T3	T4	
0	2.5-5	5-20		20-40	5-10	10-40			0.41
1	6-12	12-25	25-55	55-100	12-25	25-50	50-100		1.30
2	12-25	25-50	50-120	120-200	25-50	50-100	100-200		2.27
3	25-50	50-100	100-250	200-450	50-100	100-200	200-450		3.88
4	50-100	100-200	200-500	500-1000	100-200	200-400	400-800	800-2000	8.34
5	85-250	230-600	300-1000	600-2000	170-450	350-900	600-1800	1200-3400	13.51
6	180-480	360-960	720-1950	1600-3300	300-750	600-150	1200-3000	2900-5800	21
7	250-520	500-1050	1000-2100	2000-3600	550-1100	1100-2200	2200-4000	3000-8200	37

■ Description

- The weight is related to the enlarged aperture.
- Can be equipped with micro mechanical switch or proximity switch.

BMR-G Models equipped with claw couplings: technical data



Dimensions

specification	D_A	d H7		D_H	d_H	E	l_1	l_2	L	H(stroke)	
		maximum	maximum							BZ	BK
0	55	20	38	65	30	20	35	28.5	38.5	1.4	1.2
1	82	25	45	80	38	24	45	32.5	52	2.3	1.8
2	100	35	60	105	51	28	56	38	61	2.4	2
3	120	45	70	120	60	30	65	43	78	2.7	2.2
4	146	55	95	160	80	40	85	56.5	100	3.7	2.5
5	176	65	110	200	100	45	100	62	113.5	4.6	3
6	200	80	115	225	113	50	110	72	119	5	3.5
7	240	100	125	225	127	55	120	78	141	5.5	4

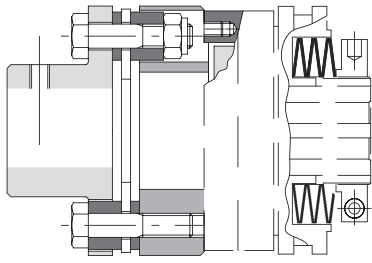
Technical details

specification	BZ type torque (Nm)				BK, BZL type torque (Nm)				weight
	T1	T2	T3	T4	T1	T2	T3	T4	[Kg]
0	2.5-5	5-20		20-40	5-10	10-40			0.83
1	6-12	12-25	25-55	55-100	12-25	25-50	50-100		2.11
2	12-25	25-50	50-120	120-200	25-50	50-100	100-200		3.17
3	25-50	50-100	100-250	200-450	50-100	100-200	200-450		5.10
4	50-100	100-200	200-500	500-1000	100-200	200-400	400-800	800-2000	11.31
5	85-250	230-600	300-1000	600-2000	170-450	350-900	600-1800	1200-3400	18.56
6	180-480	360-960	720-1950	1600-3300	300-750	600-150	1200-3000	2900-5800	28.6
7	250-520	500-1050	1000-2100	2000-3600	550-1100	1100-2200	2200-4000	3000-8200	46.1

Description

- The weight is related to the actual reaming.
- If you need more torque or enlarge the inner hole, please contact our company.
- Can be equipped with micro-mechanical switch or proximity switch.

BMR - Ball, roller type torque limiter: additional information

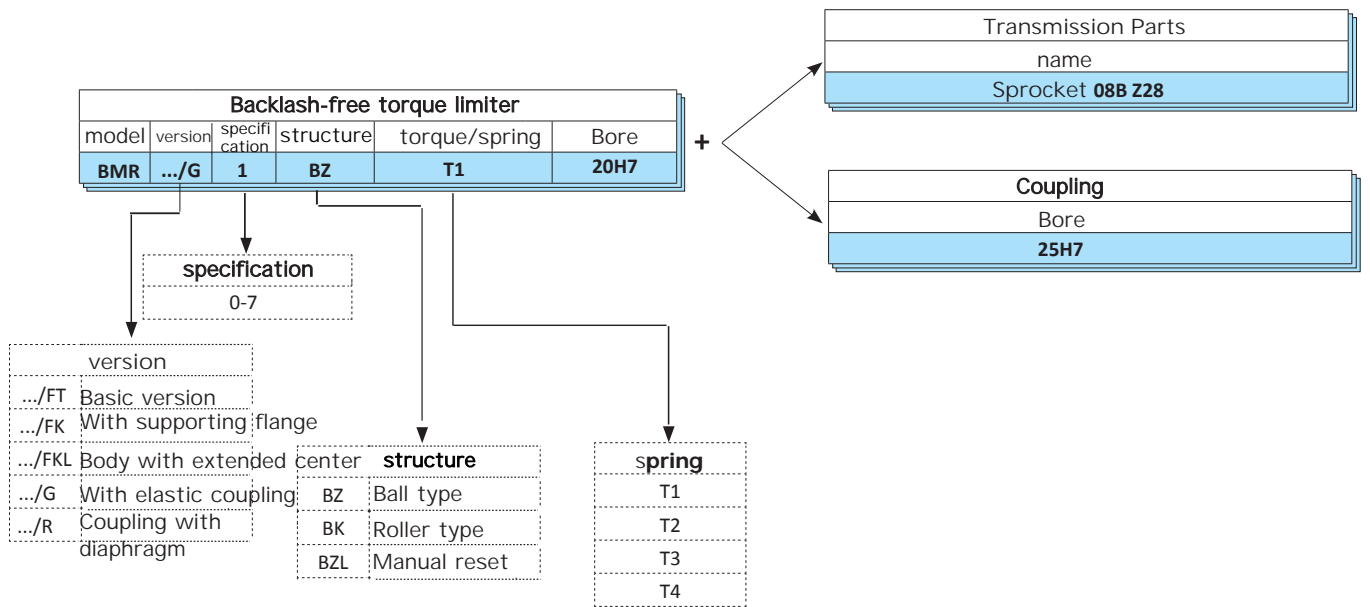


R

.../R

It can be equipped with a diaphragm coupling as required, which has a certain degree of rigidity and a small amount of eccentricity compensation.

■ Order example



Roller type torque limiter

(High wear-resistant roller torque limiter) Torque up to 5000 Nm, opening 110 mm

BMF



BMOOM
Torque Limiter

Shanghai Bmoom Electromechanical Co.,Ltd
上海宝牧机电设备有限公司

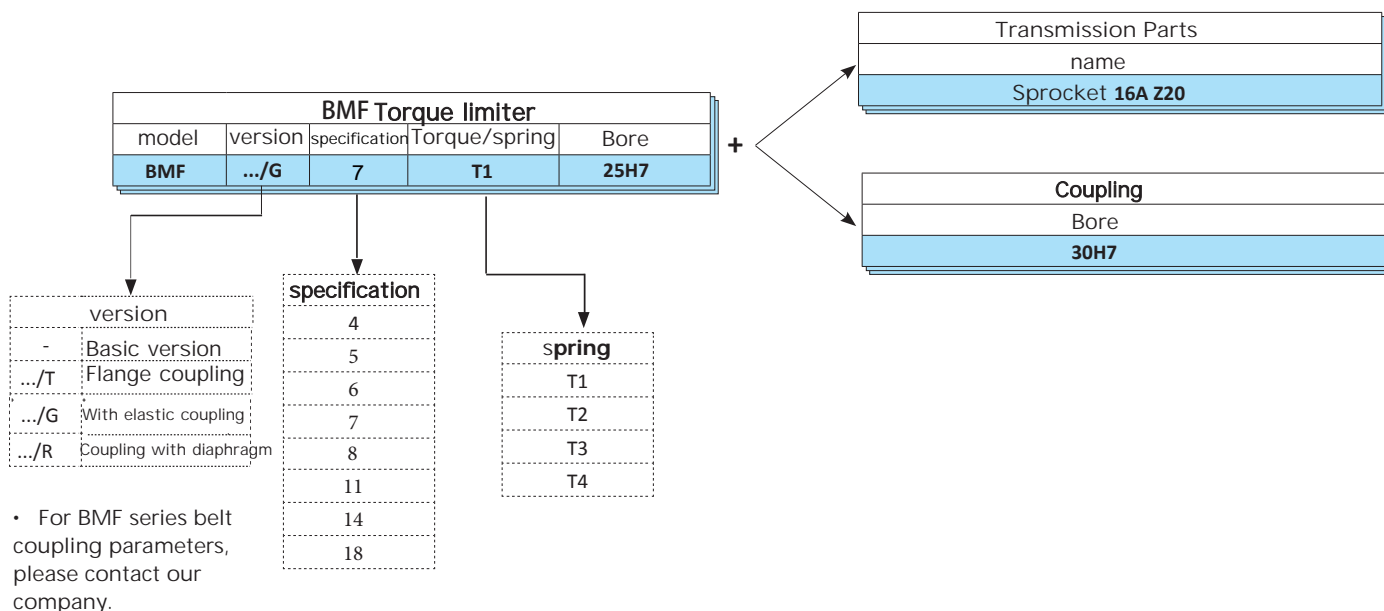
BMF – Roller Torque Limiter: Description



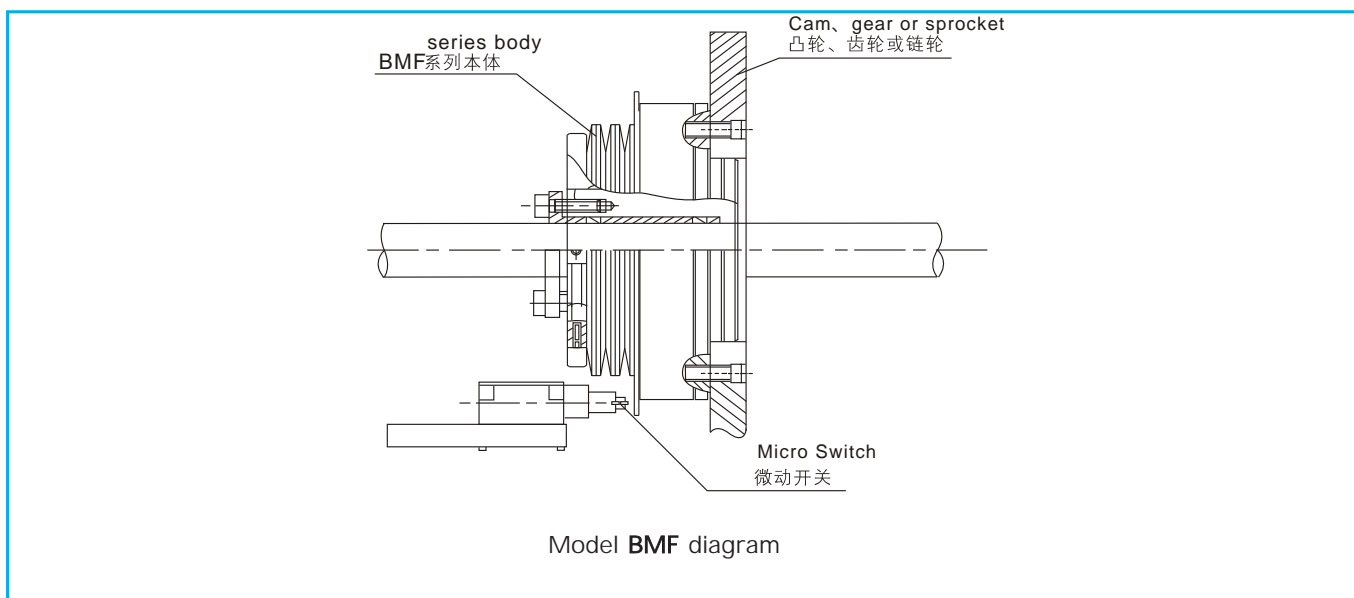
- Roller drive.
- This specification belongs to the super wear-resistant limiter, which is suitable for the working conditions that require frequent disengagement.
- It can be re-engaged with a single point reset or 360° equidistant 30°, 45°, 60°, etc.
- The transmission can be disconnected by electromechanical switch/proximity switch.
- Compared with the electronic system, the device can directly intervene, and the response ability is improved. No maintenance, long service life and high stability.
- Suitable for working in humid and oily environment.
- On demand
- ▲ Equipped with a complete set of transmission gears, all turned and installed (sprockets, pulleys, gear pairs).
- For low intervention torques, coil springs can be used.
- Connect through openings and keyways or tents tight sleeves.
- A half coupling can be added to realize the transmission between the shaft and the shaft (for this specification, if you need to add the coupling parameters, please contact our company).

The torque limiter uses rollers to achieve motion transmission, and when the set torque is reached, the overload slips. At the same time, it can be equipped with a proximity switch or a mechanical switch to detect the overload displacement and output an electrical signal. It is suitable for use in environments that require frequent disengagement, such as automatic screwing machines, capping machines, etc.

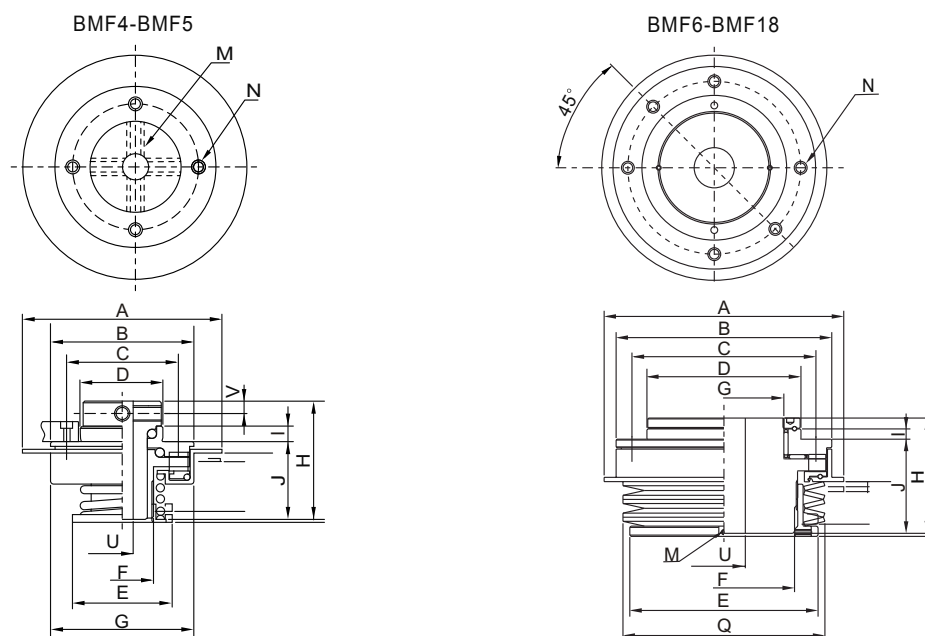
Order example



Assembly example



BMF Roller type torque limiter: technical data



Dimensions

specification	A	B	C	U H7(Bore)	D	E	F	G	H	I	J	M	N	Q	S	V
				maximum												
4	64	46	36	12	26	32	M20	46	38	4.7	25	M5x4	M4x4	-	7	4
5	82	63	50	20	35	45	M30	63	50	4.7	34	M6x4	M4x4	-	9	6
6	88	88	75	30	60	58	M40	M40	60	5	48	M5x2	M6x6	-	12.5	-
7	128	113	95	40	75	88	M55	M52	70	6.6	55	M5x2	M6x6	102	16.5	-
8	164	138	120	52	100	108	M75	M72	82	7.6	65	M5x2	M8x6	130	16.5	-
11	198	170	148	68	120	134	M96	M90	95	9.6	75	M5x2	M10x6	160	27	-
14	236	206	180	90	150	158	M120	M120	105	10.4	85	M6x2	M12x6	186	27	-
18	280	252	215	110	180	220	M165	M140	135	12	110	M6x2	M16x6	236	50	-

Technical details

specification	Torque[Nm]				stroke (mm)	inertia (Kg.m ²)	Maximum speed (Rpm)	weight (Kg)
	T1	T2	T3	T4				
4	0.3-0.7	0.4-1	1-3	1.5-4.5	1.2	0.00005	2000	0.25
5	0.8-3	1.5-6	2-10	4-18	1.2	0.00024	1600	0.50
6	2-7	3-10	10-30	15-50	1.6	0.0013	800	1.5
7	22-70	40-120	80-250	120-400	2.0	0.0048	600	3.4
8	50-120	70-200	120-400	200-600	2.0	0.015	400	6.2
11	80-250	120-350	220-850	350-1200	2.5	0.035	300	11.4
14	110-300	150-450	420-1200	600-1800	2.8	0.085	250	20
18	400-1300	800-1800	1500-3000	3000-5000	3.9	0.3	180	42

Description

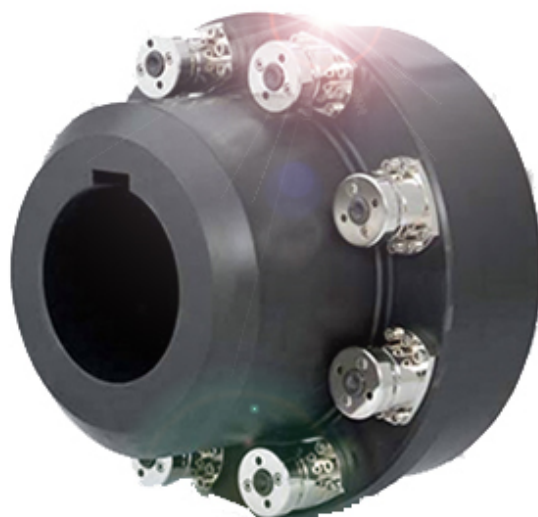
- If it is not required, the keyway is produced in accordance with "the national standard".
- Assembly tolerance can be processed according to requirements.
- The weight is related to how big the inner hole is.
- Can be equipped with micro mechanical switch or proximity switch.

Thimble, Jaw Torque Limiter

(Manual reset safety coupling)

Torque up to 160000 Nm, opening 290mm

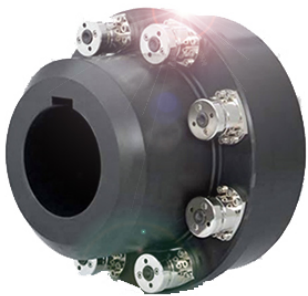
BMM



BMOOM
Torque Limiter

Shanghai Bmoom Electromechanical Co.,Ltd
上海宝牧机电设备有限公司

BMM -Thimble type torque limiter (manual reset): description



- ⦿ It is made of high-performance steel with high mechanical strength.
- ⦿ After being separated, it can rotate freely without residual torque.
- ⦿ Assume
- ⦿ The equipment is safe and reliable without maintenance.
- ⦿ Protect the equipment from external substances.
- ⦿ It is suitable for working under high speed and high inertia conditions.
- ⦿ The calibration system has a simple structure and can be re-engaged.
- ⦿ Compact structure and stable design.
- ▲ On demand
- ⦿ Overload signal friction plate (.../SI).
- ⦿ Can be assembled into holes and keyways or locking components.
- ⦿ Solutions can be customized for specific applications.
- ⦿ The surface can be treated with special anti-corrosion to meet special requirements.




A torque limiter equipped with a combined torque adjustment device. It can be completely disengaged after overload, suitable for high speed conditions, higher torque setting, and larger diameter drive shaft can be assembled. The torque module can be adjusted individually, and the re-engagement of the equipment unit requires manual reset.

■ Application

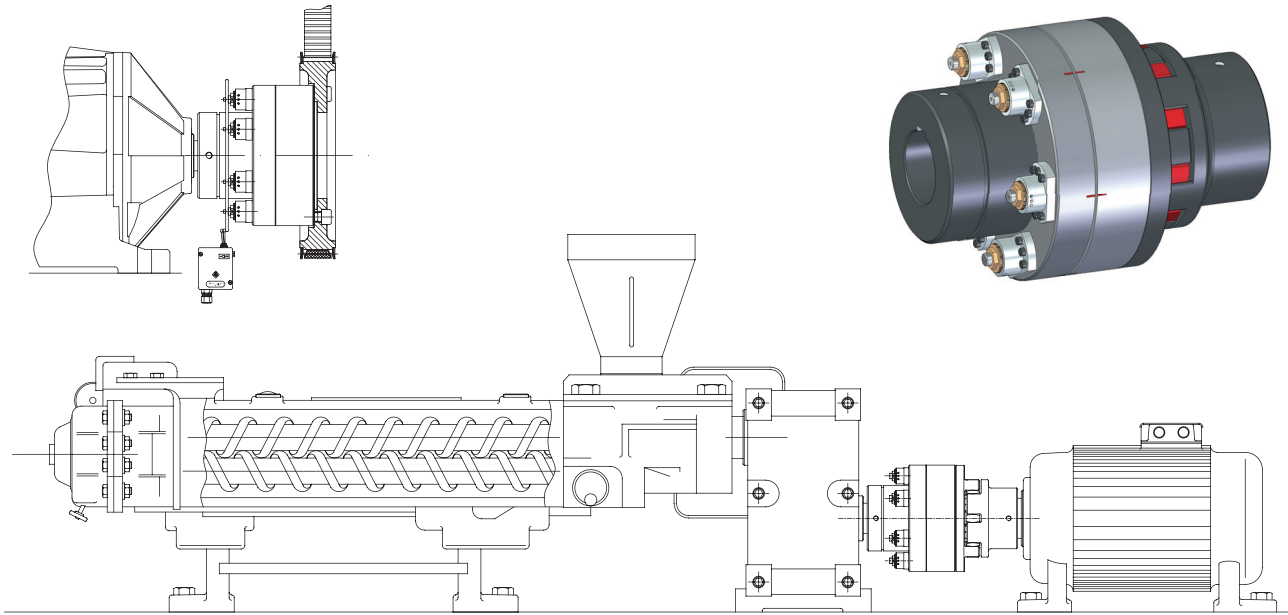
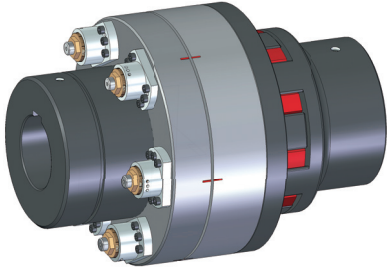
- ⦿ Extruder.
- ⦿ Mining industry and conveyors.
- ⦿ Heavy industry.
- ⦿ Earth-moving machinery and crushing/crushing machinery.

■ Advantages and features

- ⦿ Protect the product in the event of an overload.
- ⦿ In the event of a collision, protect the operating unit of the machine.
- ⦿ When an external overload occurs, protect the drive device. Protect the belt conveyor stop device.

	BMM: The basic model of parallel shaft transmission, equipped with sprockets, gears or pulleys.	1000 -160000 Nm Torque Maximum opening 290mm	27pages
	.../G: Coaxial connection is made by elastic coupling to absorb starting torque and vibration.	1000-160000 Nm Torque Maximum opening 290 mm	Please consult our company
	.../R: Coaxial connection is made through a diaphragm coupling, which is suitable for backlash-free transmission.	1000-160000Nm torque Maximum opening 290 mm	Please consult our company

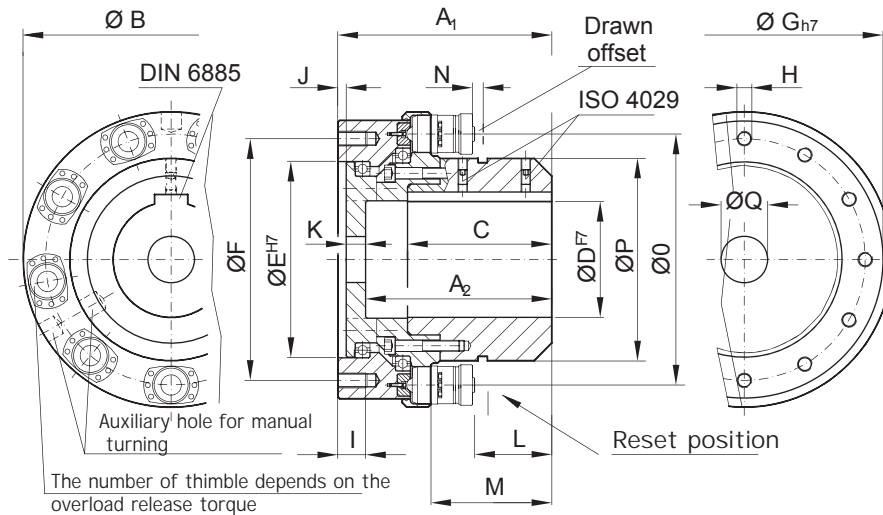
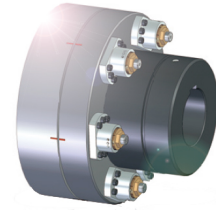
■ Application example

BMM The torque limiter is equipped with a coupling between the motor and the gear box when it is applied to the extruder.

BMM - Thimble torque limiter (manual reset): technical data

- Equipped with symmetrical modules to ensure static balance.
- Torsional stiffness.
- The module can be shifted without moving the equipment or other transmission components. After the disengagement action, the driving end and the transmission end are completely disengaged.
- It adopts integrated bearing to support the transmission.
- Torque range: 1000-160000 Nm; maximum opening: $\varnothing 290$ mm.



Dimensions ■

specification	DH7(mm)	A1	A2	B	C	E	F	G	I	J	K	L	M	O	P	H
	Maximum inner hole															
1	110	183	158	270	120	170	220	259	25	6	17	45	95	220	170	12×M16
2	140	230	200	318	155	210	260	298	30	8	20	83	130	270	218	12×M16
3	200	320	275	459	220	300	360	418	35	8	30	96	165	376	295	12×M20
4	290	410	360	648	290	450	570	618	40	10	38	136	225	532	418	12×M24

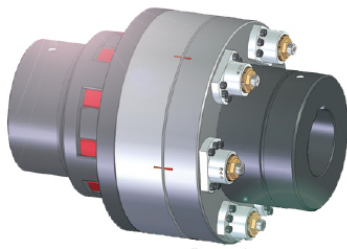
Technical details ■

specification	Torque (Nm)			stroke (mm)	inertia (kg.m ²)	Maximum speed (Rpm)	weight (Kg)
	T1	T2	T3				
1	1000-6000	2000-10000	6000-18000	4	0.37	4200	40
2	2000-8000	4000-15000	10000-25000	4	0.78	3800	63
3	8000-18000	15000-35000	30000-60000	7.5	4.6	2500	179
4	20000-50000	40000-100000	80000-160000	10	24.6	2000	463

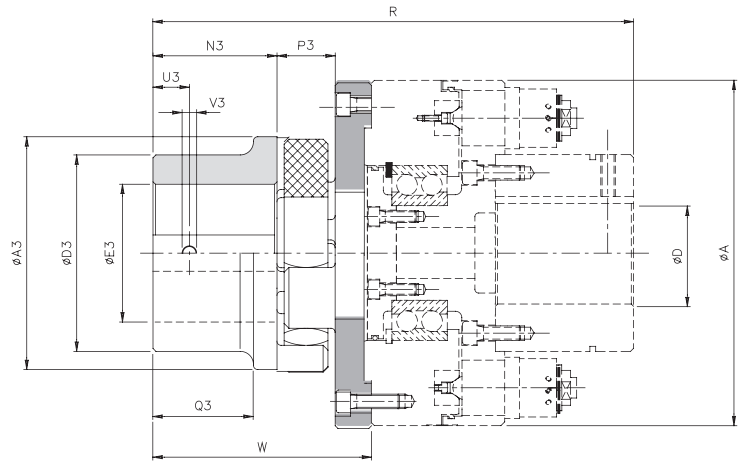
■ Description

- The weight and inertia refer to the maximum number of openings and modules.
- Can be equipped with micro mechanical switch or proximity switch.

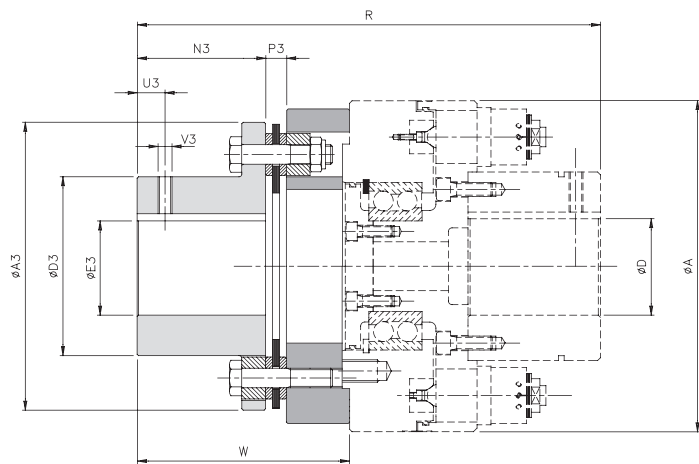
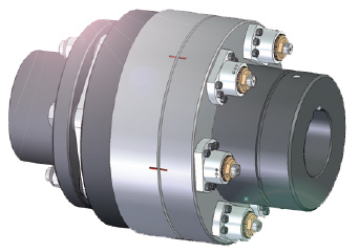
BMM- Thimble, Jaw Type Torque Limiter: Additional Information



R

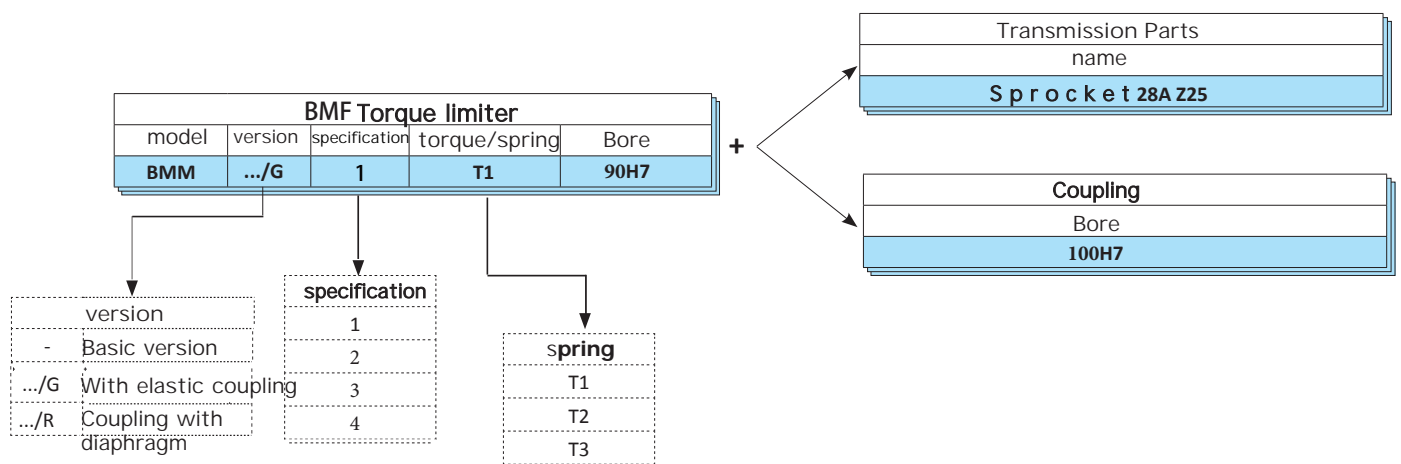


.../G Equipped with claw-shaped elastic coupling



.../G Equipped with claw-shaped elastic coupling

Order example



• For BMF series belt coupling parameters, please contact our company.

Multi-plate friction type torque limiter

(Safety coupling)

Torque up to 100,000 Nm, opening 320mm

BMD



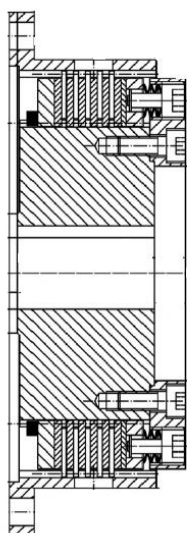
BMOOM
Torque Limiter

Shanghai Bmoom Electromechanical Co.,ltd
上海宝牧机电设备有限公司

... BMD Multi-disk torque limiter: technical data



- ⦿ Friction plate material iron-based powder metallurgy.
 - ⦿ High wear resistance.
 - ⦿ Large torque adjustment range.
 - ⦿ The surface can be treated with anti-corrosion.
 - ⦿ It can be equipped with various types of couplings to facilitate the connection between the shaft and the shaft.
- It is suitable for heavy industry applications such as fans, coal mining machinery industry, and large-scale assembly lines.

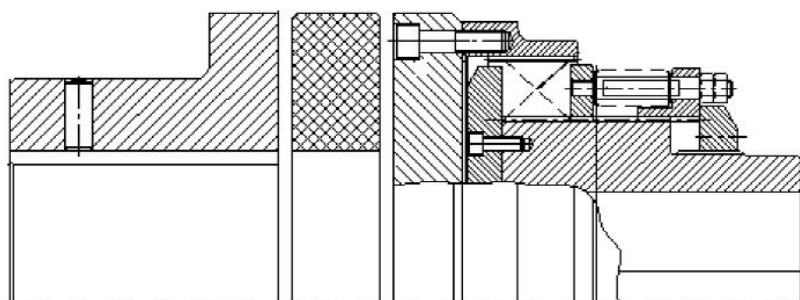


... BMD : Standard structure

- . The body can be lengthened according to actual requirements
- . Special anti-rust and anti-corrosion treatment can be carried out on request.
- . It can be connected with keyway, expansion sleeve or other locking devices upon request. . The friction plate can be replaced separately.

If you need parameters or selection, please contact our sales staff

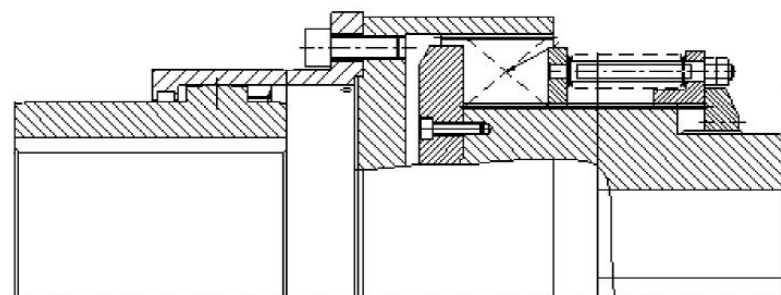
30



... BMD/G : With elastic coupling

- . The coupling end can be lengthened according to the working conditions.
- . The body can be lengthened according to actual working conditions.
- . It can be connected with keyway, expansion sleeve or other locking devices upon request.
- . The friction plate can be replaced separately.

If you need parameters or selection, please contact our sales staff



... BMD/G : With rigid coupling

- . Various rigid couplings can be equipped according to the working conditions.
- . The body can be lengthened according to actual working conditions.
- . It can be connected with keyway, expansion sleeve or other locking devices upon request.
- . The friction plate can be replaced separately.

If you need parameters or selection, please contact our sales staff

Economical ball torque limiter

(Safety coupling)

Torque up to 100,000 Nm, opening 320mm

BMK



BMOOM
Torque Limiter

Shanghai Bmoom Electromechanical Co.,ltd
上海宝牧机电设备有限公司

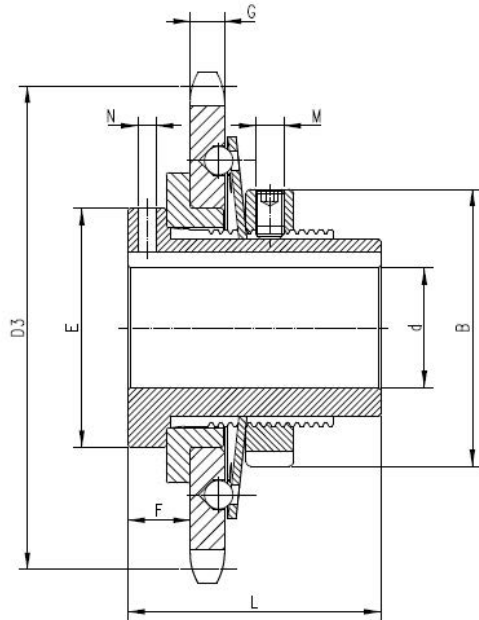
BMK-Economic ball form: technical parameters



- ⦿ Ball structure.
- ⦿ Adjusting the torque through the scale label, the operation is very simple.
- ⦿ Large torque adjustment range.
- ⦿ Cost-effective.
- ⦿ Can be equipped with sprocket coupling/T.
- ⦿ This model is suitable for use in working conditions that do not require signal output, but require relatively high torque stability.

... /BMK : Standard structure

- . The sprocket can be replaced on the basis of the standard.
- . Special anti-rust and anti-corrosion treatment can be carried out on request.
- . It can be connected with expansion sleeve or other locking devices upon request.
- . Such a structure requires larger specifications, please contact our company.



Technical details

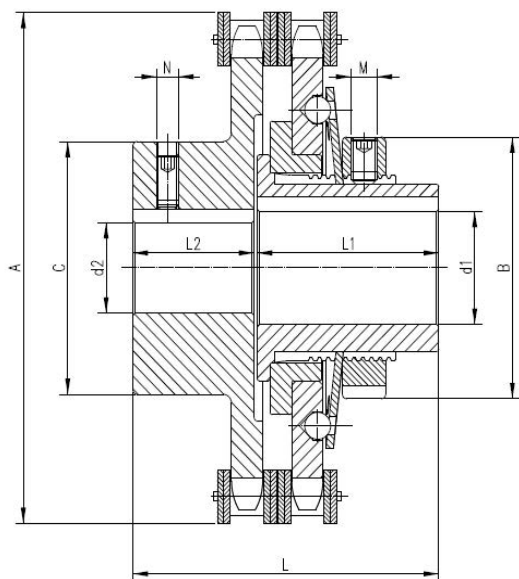
model	Torque (Nm)		Sprocket	Rotating speed (Rpm)	weight (Kg)
	T1	T2			
BMK	35-130	90-280	08B Z25	2000	1.3

Dimensions

model	B	dH7	D3	E	F	G	L	M	N
		maximum							
BMK	58	25	101.33	50	13	7.2	53	M4	M6

... /BMK/T : Coupling with sprocket

- . The sprocket coupling can be replaced with other structure couplings upon request.
- . Special anti-rust and anti-corrosion treatment can be carried out on request.
- . It can be connected with expansion sleeve or other locking devices upon request.
- . Such a structure requires larger specifications, please contact our company.



Technical details

model	Torque (Nm)		Sprocket	Rotating speed (Rpm)	wright (Kg)
	T1	T2			
BMK/T	35-130	90-280	08B Z25	2000	1.3

Dimensions

model	A	B	C	d1H7	d2H7	L	L1	L2	M	N
				maximum	maximum					
BMK/T	114	58	56	25	30	71	42	28	M5	M6

Standard coupling

Roller chain coupling, star elastic coupling, diaphragm coupling

GL、XL、DJM



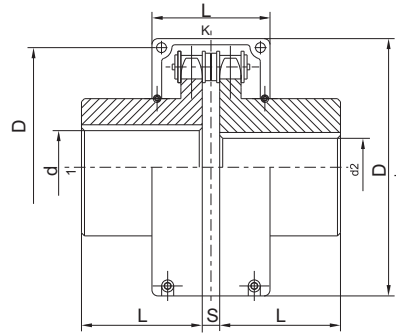
BMOOM
Torque Limiter

Shanghai Bmoom Electromechanical Co.,Ltd
上海宝牧机电设备有限公司

GL Roller chain couplings: technical data



- Simple structure, easy to disassemble and assemble.
- Can be equipped with a cover.
- Surface anti-corrosion treatment can be carried out.
- The form and size of the keyway of the shaft hole meet the requirements of GB/T3852-1997. It is not suitable for transmission with great shock and vibration.
- It has a high eccentricity compensation function.



GL type roller chain coupling

Technical details

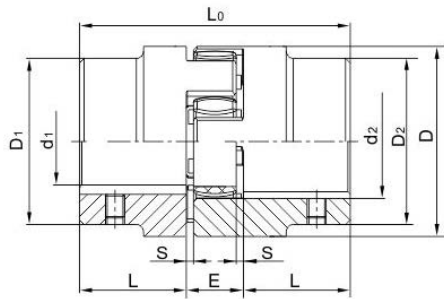
specification	Nominal torque Ba	Maximum speed		X/X& maximum (mm)	@ aa	Chain number	Number of teeth	S	G	S ₁	S ₂	weight	Moment of inertia ?["a*	Allowable compensation		
		Without shell	With cover											Radial	Axial	Angle
1	40	1400	4500	20	38-52	06B	14	51.06	4.9	70	70	0.40	0.00010	0.19	1.4	1°
2	63	1250	4500	24	38-52	06B	16	57.08	4.9	75	75	0.70	0.00020	0.19	1.4	1°
3	100	1000	4000	25	38-62	08B	14	68.88	6.7	85	80	1.1	0.00038	0.25	1.9	1°
4	160	1000	4000	32	44-82	08B	16	76.91	6.7	95	88	1.8	0.00086	0.25	1.9	1°
5	250	800	3150	40	60-112	10A	16	94.46	9.2	112	100	3.2	0.0025	0.32	2.3	1°
6	400	630	2500	50	60-112	10A	20	116.5	9.2	140	105	5.0	0.0058	0.32	2.3	1°
7	400	630	2500	60	84-142	12A	18	127.7	10.9	150	122	7.4	0.012	0.38	2.8	1°
8	1000	500	2240	70	84-142	16A	16	154.3	14.3	180	135	11.1	0.025	0.50	3.8	1°
9	1600	500	2000	80	84-172	16A	20	186.5	14.3	215	145	20.0	0.061	0.50	3.8	1°
10	2500	315	1600	90	107-172	20A	18	213.0	17.8	245	165	26.1	0.079	0.63	4.7	1°
11	4000	250	1500	100	107-212	24A	16	231.4	21.5	270	195	39.2	0.188	0.76	5.7	1°
12	6300	250	1250	120	132-212	28A	16	270.0	24.9	310	205	59.4	0.380	0.88	6.6	1°
13	10000	200	1120	140	167-252	32A	18	340.8	28.6	380	230	86.5	0.860	1.0	7.6	1°
14	16000	200	1000	160	167-302	32A	22	405.2	28.6	450	250	150.8	2.06	1.0	7.6	1°
15	25000	200	900	190	202-352	40A	20	466.2	35.6	510	285	234.4	4.37	1.27	9.5	1°

Description

- The weight is related to the enlarged aperture.
- It can be equipped with a cover upon request.

XL Star flexible coupling: technical data

- Simple structure, easy to disassemble and assemble.
- The elastomer can be imported or solid upon request.
- Surface anti-corrosion treatment can be carried out.
- The form and size of the keyway of the shaft hole meet the requirements of GB/T3852-1997. Has high shock absorption.
- Has a certain eccentricity compensation function.



XL 型星形弹性联轴器
XL type star elastic coupling

Dimensions ■

specification	Nominal torque	Maximum speed	d1/d2	L	L0	D	D1/D2	E	S	Moment of inertia	weight
	Ba	Rpm	maximum(H7)	Length of shaft hole	aa'			?	?"a*	?"	
0	12.5	19000	16	18	50	30	30	13	1.5	0.00005	0.10
1	17	19000	19	25	66	40	32	16	2	0.00008	0.30
2	60	14000	24	30	78	55	40	18	2	0.0002	0.61
3	160	11800	28	35	90	65	48	20	2.5	0.0007	1.00
4	325	9500	38	45	114	80	66	24	3	0.002	2.08
5	450	8000	42	50	126	95	75	26	3	0.004	3.21
6	525	7100	48	56	140	105	85	28	3.5	0.006	4.41
7	685	6300	55	65	160	120	98	30	4	0.012	6.64
8	940	5600	65	75	185	135	115	35	4.5	0.025	10.31
9	1920	4750	75	85	210	160	135	40	5	0.054	16.03
10	3600	3750	90	100	245	200	160	45	5.5	0.139	27.50
11	4950	3350	100	110	270	225	180	50	6	0.245	38.50
12	7200	3000	110	120	295	255	200	50	6.5	0.435	54.0
13	10000	2650	125	140	340	290	230	60	7	0.85	81.8
14	12800	2380	140	155	375	320	255	65	7.5	1.4	109.7
15	19200	2000	160	175	425	370	290	75	9	2.72	162.7
16	28000	1800	180	195	475	420	325	85	10.5	4.95	230.8

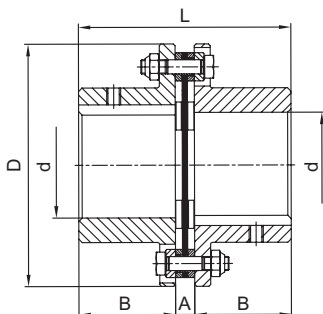
■ Description

- The weight is related to the actual reaming.
- If you have special requirements, please contact our company.

DJM diaphragm coupling: technical data



- One more diaphragm can be added to become a double diaphragm.
- Zero backlash transmission.
- Surface anti-corrosion treatment can be carried out.
- Rigid connection but with less eccentricity compensation function.
- Suitable for use under operating conditions.
- According to the requirements, there are many ways of holding tightly, such as keyway and expansion sleeve.



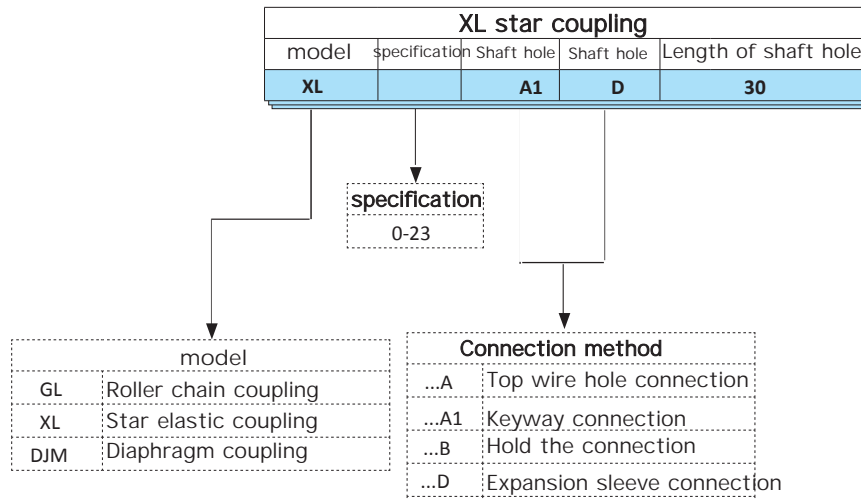
DJM type single elastic diaphragm coupling

■ Technical details

specification	Nominal torque	Maximum speed	d	D	L	A	B	Compensation		Moment of inertia	weight
	Ba	Rpm						Axial	Angle		
0	9.8	20000	20	57	44.9	4.9	20	0.8	1°	1.74	0.14
1	33	20000	22	68	58.1	6.1	26	0.8	1°	8	0.6
2	90	20000	32	81	58.6	6.6	26	1.0	1°	24	1.1
3	173	18000	35	93	66.4	8.4	29	1.2	1°	48	1.7
4	245	15000	42	104	79.2	11.2	34	1.4	1°	80	2.5
5	420	13000	50	128	95.7	11.7	42	1.6	45'	224	4.3
6	772	12000	60	143	107.7	11.7	48	1.8	45'	440	6.9
7	1270	10000	75	168	130	14	58	2.0	45'	1080	11.3
8	2080	10000	82	200	143	15	64	2.2	45'	2080	16.7
9	3328	9000	95	215	175	21	77	2.4	45'	3520	22.7
10	4900	8000	108	246	200.6	22.6	89	2.6	45'	7200	35.4
11	6368	8000	110	276	227.8	23.8	102	2.8	45'	12800	52
12	8900	6300	118	296	273.5	17.5	128	1.8	30'	14400	57.2
13	15280	5000	135	308	339	19	160	2.0	30'	22200	77.3
14	25410	4700	155	346	385.5	21.5	182	2.0	30'	40800	123
15	37130	4300	165	375	420	24	198	2.0	30'	64800	156
16	47120	3900	180	410	456	28	214	2.2	30'	100200	191
17	57000	3500	190	445	479.5	29.5	225	2.2	30'	150000	245
18	63186	3500	205	470	527	31	248	2.4	30'	186600	329
19	82590	3200	230	512	588	32	278	2.4	30'	288000	394
20	102100	2800	255	556	642.5	32.5	305	2.5	30'	448200	530
21	126070	2450	265	588	670	34	318	2.7	30'	609600	619
22	146350	2150	275	630	698.5	34.5	332	2.8	30'	831600	683
23	173830	2000	290	655	731.5	35.5	348	3.0	30'	1070400	791

Couplings: additional information

Order example ■

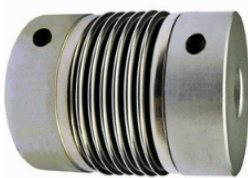


Coupling: other structures



...BLR

The aluminum double diaphragm coupling is suitable for use under small torque conditions.



...BLB

Bellows coupling, rigid transmission has a certain axial and eccentric compensation function at the same time.



...BLT

Flange coupling, simple structure, pure rigid connection.