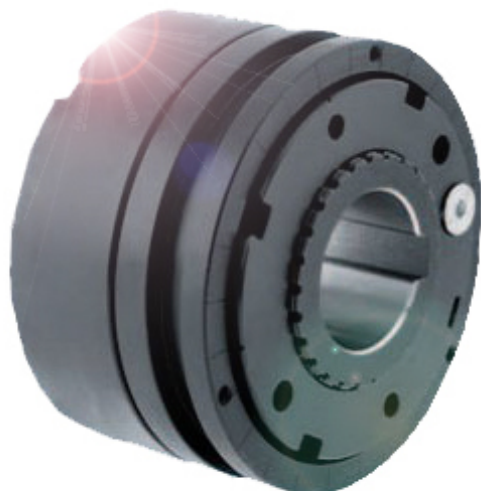


# Ball, roller type torque limiter

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

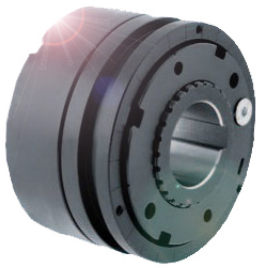
## BMR



**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

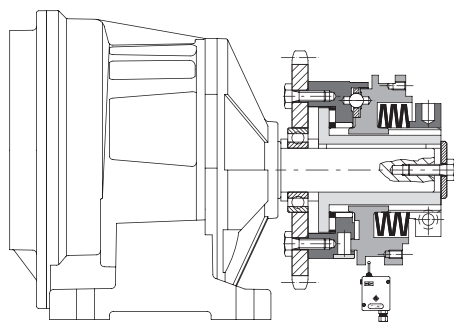
- Packaging and packaging machinery
- Labeling machinery
- Bottling machinery
- Conveyor

### ■ Advantages and features

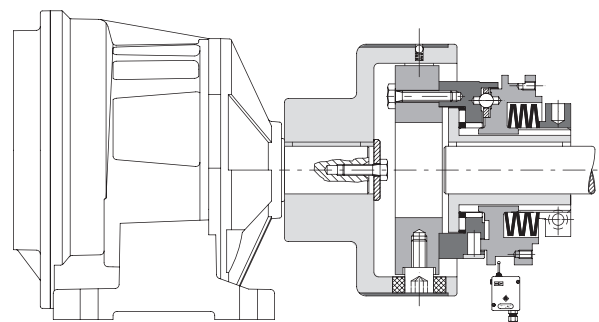
- Protect the gearbox when foreign matter causes jamming.
- Protect the packaging from breakage and deformation.
- When accumulation occurs, protect the product hoisting components.
- In the event of an overload, keep the driving and driven devices.

	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

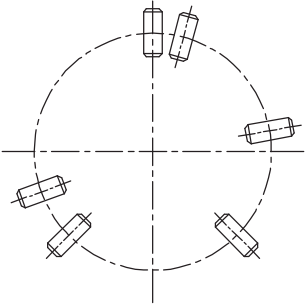


Model BMR Parallel shaft drive with bearing support parts



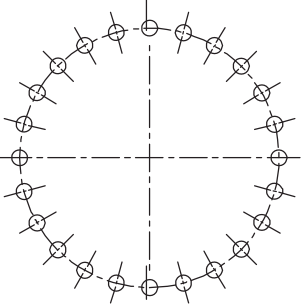
Coaxial transmission with elastic coupling BMR-G

## BMR – Roller Torque Limiter: Model



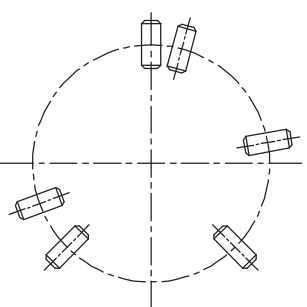
Type BK: Roller-type torque limiter suitable for stable transmission with high torque and vibration.

- ⦿ 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.

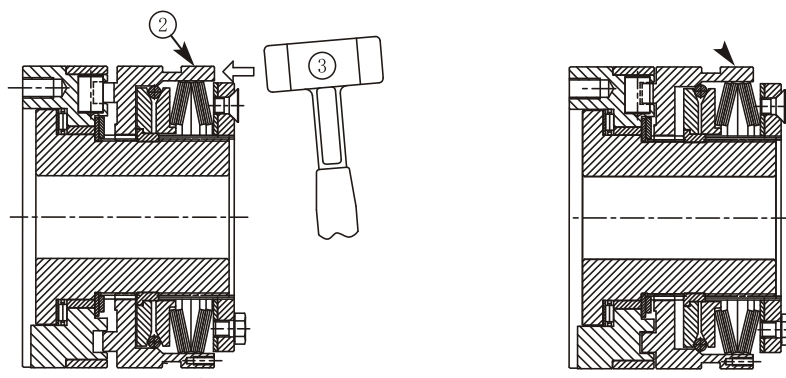
- ⦿ Ball drive.
- ⦿ High sensitivity and direct intervention are guaranteed in the minimum torque change.
- ⦿ Automatic re-engagement at equal intervals.
- ⦿ The intervention torque is the same in both directions.
- ⦿ Torque range: 2.5-3600Nm; maximum opening:  $\varnothing$ 100mm.



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

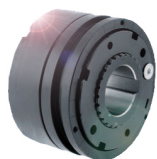
- ⦿ Roller drive.
- ⦿ After overload, the driving end and the transmission end are completely disconnected.
- ⦿ To reset manually, use a hammer or other tools to hit the moving ring.
- ⦿ Compact size and high torque setting.
- ⦿ Torque range: 5-8000Nm; maximum opening:  $\varnothing$ 100 mm.

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.

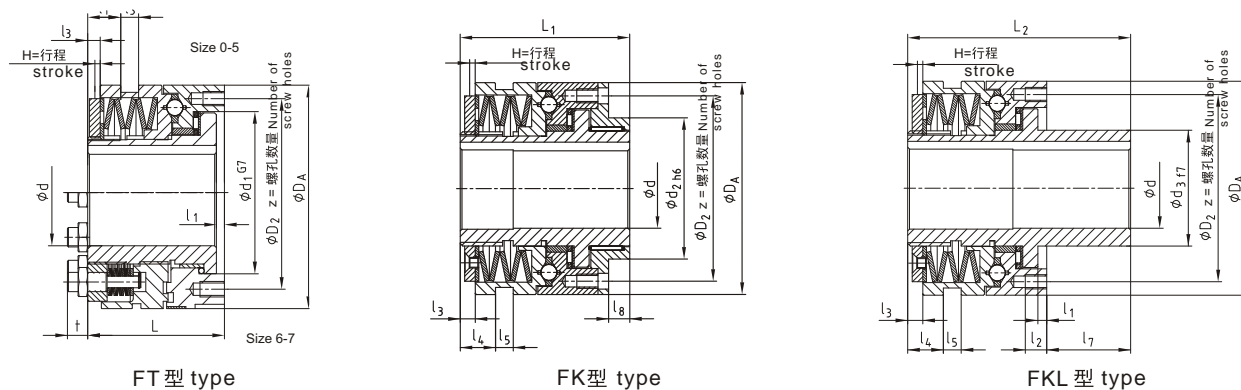


Manual reset diagram ■

# 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:  $\varnothing 100$  mm.



## ■ Dimensions

specification	d <sub>1</sub>	D <sub>2</sub>	D <sub>A</sub>	d H7	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>	l <sub>5</sub>	l <sub>7</sub>	l <sub>8</sub>	L	L <sub>1</sub>	L <sub>2</sub>	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

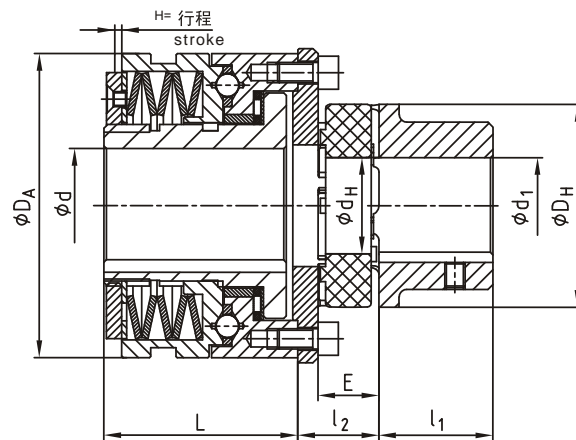
## ■ Technical details

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

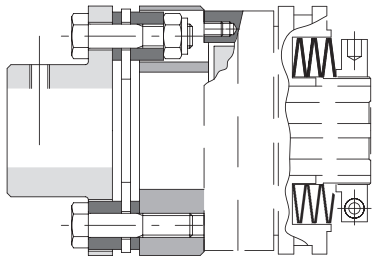
### Technical details

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

