



Brake Roller / Speed Controller

Catalogue

www.damonroller.com

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About Damon Industry



One of the global leading manufacturer of brake rollers

Damon Industry provides ten thousands of brake rollers all over the world every year for many industries.

With professional experience for decades, Damon Industry provides support for global companies to achieve efficient logistics.

We provided two series of brake roller products (internal and external) over ten years. Our customers applied our brake rollers (speed controllers) to gravity racks in different projects. We received good feedback of stable and reliable performance from our users for years.

We constantly update and improve the design and components based on customer's feedback and on-site analysis. We can provide not only the medium and heavy models for 200–1500kgs pallets, but also light models for 10–100kgs applications.

Globally we have gained the consistent trust of our customers. Damon industry will strive for meeting more different requirements and supplying good products in future.

Brake rollers in gravity racks, also known as speed reducers / speed controllers, mainly for eliminating acceleration of gravity by sliding loaded pallets, helping pallets' steady and smooth movement on racks, to ensure safety of operators and goods. Self-adaption to different weights, steady braking force, Maintenance-free, Zero energy consumption.

Internal Brake Roller

(BR50/BR60) Internal Brake Roller _____ 03-04



Scope of application	Cartons, work bins, light objects etc
Applicable weight	10~100kgs

(BR80) Internal Brake Roller _____ 05-06



Scope of application	Wooden pallets, plastic pallets
Applicable weight	200~1500kgs

External Brake Roller

(BE120) External Brake Roller _____ 07-08



Scope of application	Wooden pallets, plastic pallets
Applicable weight	200~1000kgs

(BT120) Tandem Brake _____ 09-10



Scope of application	Object
Applicable weight	200~1000kgs

Internal Brake Roller (BR50/BR60)



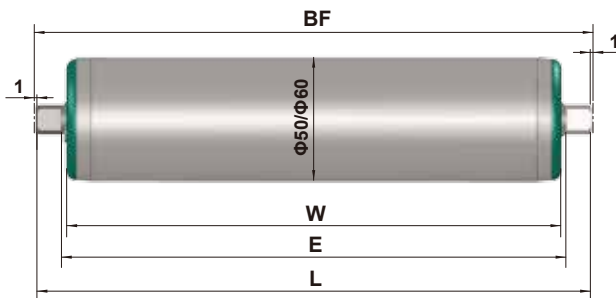
- Suitable for hard and flat bottom object, such as cartons, work bins etc.



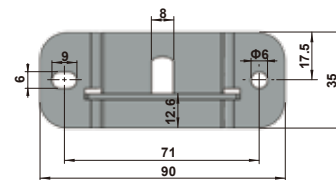
- Environmental Temperature: 0 – 40°C, Humidity: 30% – 70% RH without condensation.

Dimensional Drawing

BR50/60



50/60-35



D*T	L Min length	L Max length			
50x1.5	145	1250	BF=L+2	E=L-20	W=L-24
50x1.5	145	1250	BF=L+2	E=L-20	W=L-24
60x1.5	145	1300	BF=L+2	E=L-20	W=L-24

Specifications

Model	D*T	Shaft	Object Weight	Tube	
				Steel, zinc plated	Stainless steel (304)
BR50/AA	50x1.5	Hexagonal Shaft	10–60kg	√	√
BR50/AA	50x1.5	Milled Flats	10–60kg	√	√
BR60/AA	60x1.5	Milled Flats	20–100kg	√	√

*2mm PVC sleeve lagging providable

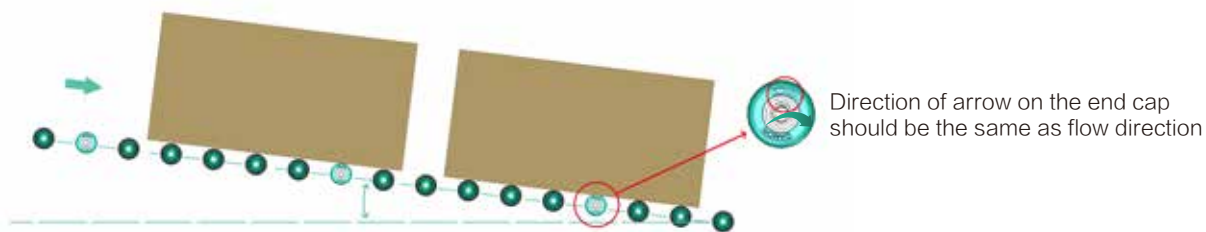
Order Example

BR	50	/	AA	—	12	—	Z	—	550
Model	OD						Tube		L dimension (mm)
BR	50						Z:Zinc plated		
	60						V:Steel, zinc-plated, with PVC sleeve (2mm)		
							S:Stainless steel (304)		

Installation Instructions (brackets 2pcs, bolts & nuts 4 sets)



1. Fix one bracket with bolts and nuts at the inner side of rack.
2. Put the milled flat in the opening of fixed bracket, put the other end into another bracket, fix it at the inner side of rack with bolts and nuts.
3. Brake roller's surface should be above gravity rollers' surface 1–2mm to ensure the speed controlling effect.
4. The installation pitch of brake rollers should be as the length of the object, no impact or accelerated speed during objects' sliding.



Precautions for Use (BR50/60)

1. Gravity roller rack's slope range as 3~12° . Object weight please check Specifications table.
2. When object entering roller racks with speed, 2~3 pcs extra brake rollers are necessary at the entrance.
3. Please use sample brake rollers in small quantity for test to confirm its effect before bulk purchasing.
4. When you meet special application (heavy weight big slope or light weight small slope), please contact us for consultation.

Internal Brake Roller (BR80)

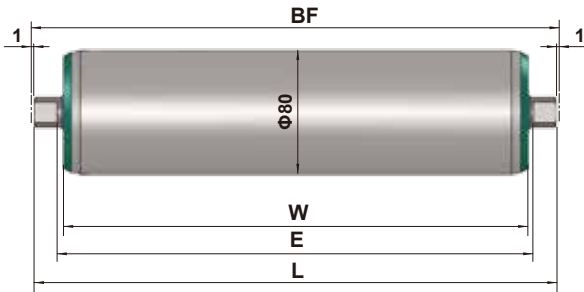
- Suitable for wooden pallets, plastic pallet.



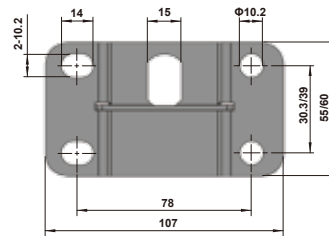
- Environmental Temperature: 0 – 40°C, Humidity: 30% – 70% RH without condensation.

Dimensional Drawing

BR80



80-55/80-60



D*T	L Min length	L Max length			
80x2.5	265	1350	BF=L+2	E=L-30	W=L-38
80x2.5	340	1350	BF=L+2	E=L-30	W=L-38
80x2.5	265	1350	BF=L+2	E=L-30	W=L-38
80x2.5	340	1350	BF=L+2	E=L-30	W=L-38

Specifications

Model	D*T	Shaft	Object Weight	Tube
				Steel, zinc plated
BR80/AA	80x2.5	Milled Flats	200-1000kg	√
BR80/BA			1000-1500kg	√
BR80/AS			200-1000kg	√
BR80/BS			1000-1500kg	√

Order Example

BR	80	/	A	A	—	20	—	Z	—	1248
Model	OD		Object Weight	Direction of Rotation		Shaft Dia.		Tube		L dimension (mm)
BR	80		A : 200~1000kgs B : 1000~1500kgs	A:Standard B:Single Direction		20:Milled Flats		Z:Steel, zinc plated		

Installation Instructions (brackets 2pcs, bolts & nuts 8 sets)



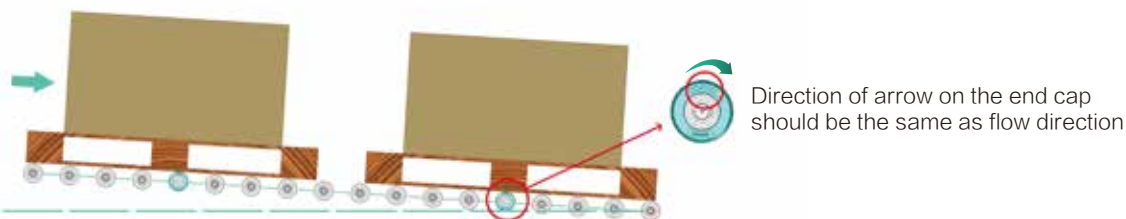
1. Fix one bracket (opening upward) with bolts and nuts at the inner side of rack.



2. Put the milled flat in the opening of fixed bracket, put the other end into another bracket, fix it at the inner side of rack with bolts and nuts.

3. Brake roller's surface should be above gravity rollers' surface 1–3mm to ensure the speed controlling effect.

4. The installation pitch of brake rollers should be as the length of the pallet, no impact or accelerated speed during pallets' sliding.



Precautions for Use (BR80)

1. Gravity roller rack's slope range as $1.8\sim 2.5^\circ$. Speed of pallets' sliding range as $0.2\sim 0.3\text{m/s}$. Pallet weight please check Specifications table.

2. When pallet entering roller racks with speed, 2~3 pcs extra brake rollers are necessary at the entrance.

3. Please use sample brake rollers in small quantity for test to confirm its effect before bulk purchasing.

4. When you meet special application (heavy weight big slope or light weight small slope), please contact us for consultation.

External Brake Roller (BE120)



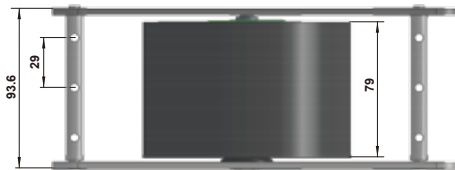
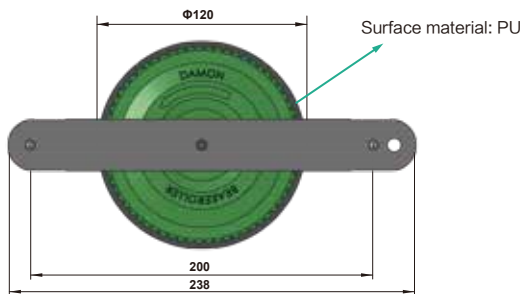
- Suitable for hard and flat bottom object, such as cartons, work bins etc.



- Environmental Temperature: 0 – 40°C, Humidity: 30% – 70% RH without condensation.

Dimensional Drawing

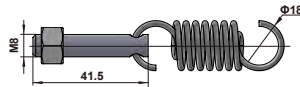
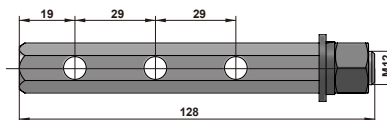
BE120



Specifications

Model	Object Weight
BE120/AA	200~500kg
BE120/BA	500~1000kg

Φ120 Accessories



Order Example

BE	120 /	A	A
Model	OD	Object Weight	Direction of Rotation
BE	120	A : 200~500kgs B : 500~1000kgs	A:Standard

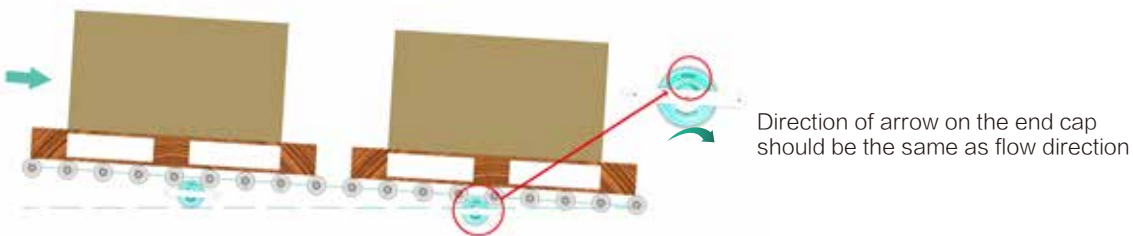
Installation Instructions (hex rods 2pcs, blots with hole 6pcs, springs 6pcs, nuts 8 pcs, washers 4pcs)



1. Fix the hex rod with nut by the side of gravity roller (inner side of rack).
2. Put 3pcs bolts with hole through 3 round holes on the hex rod, fix them with nuts, then install 3pcs spring at the end holes of bolts. The same procedure for another hex rod and 3pcs bolts with hole, 3pcs spring by the other side of gravity roller.



3. Connect 3pcs springs with the side 3 holes axle of brake roller, then the same way for the springs and 3 holes axle at another side.
(You may adjust the tension force between brake roller and gravity rollers by screwing the nuts at the bolts with hole.)
4. The installation pitch of brake rollers should be as the length of the pallet, no impact or accelerated speed during pallets' sliding.



Precautions for Use (BE120)

1. Gravity roller rack' s slope range as 1.8~2.5 ° . Speed of pallets' sliding range as 0.2~0.3m/s. Pallet weight please check Specifications table.
2. When pallet entering roller racks with speed, 2~3 pcs extra brake rollers are necessary at the entrance.
3. Please use sample brake rollers in small quantity for test to confirm its effect before bulk purchasing.
4. When you meet special application (heavy weight big slope or light weight small slope), please contact us for consultation.

External Brake Roller (BT120)



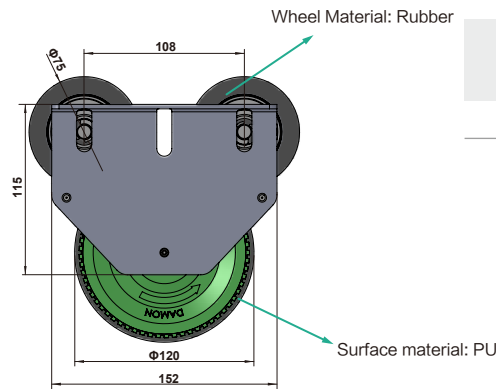
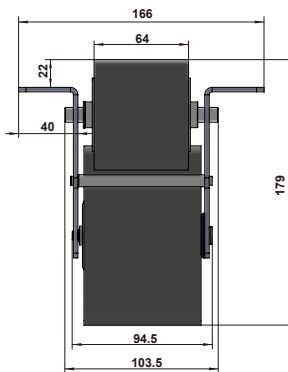
- Suitable for European standard / Australian standard pallets, Nine-foot pallets.



- Environmental Temperature: 0 – 40°C, Humidity: 30% – 70% RH without condensation .

Dimensional Drawing

BT120



Specifications

Model	Object Weight
BT120/AA	200–500kg
BT120/BA	500–1000kg

Order Example

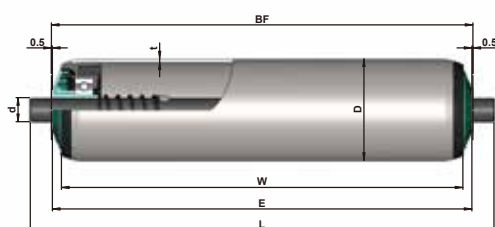
BT	120 /	A	A
Model	OD	Object Weight	Direction of Rotation
BT	120	A : 200~500kgs B : 500~1000kgs	A:Standard

Precautions for Use (BT120)

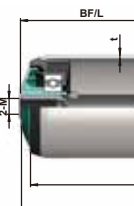
- 1.Gravity wheel flow track' s slope range as 1.8~2.5° . Speed of pallets' sliding range as 0.2~0.3m/s. Pallet weight please check Specifications table.
- 2.When pallet entering roller racks with speed, 2~3 pcs extra brake rollers are necessary at the entrance. The installation pitch of brake rollers should be as the length of the pallet, no impact or accelerated speed during pallets' sliding.
- 3.Please use sample brake rollers in small quantity for test to confirm its effect before bulk purchasing.
- 4.When you meet special application (heavy weight big slope or light weight small slope), please contact us for consultation.

1200 Series

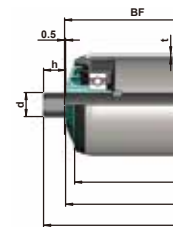
Universal Conveyor Roller



Spring loaded



Internal Thread



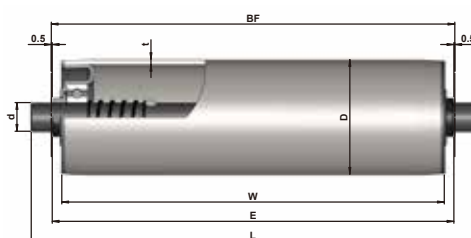
Milled Flats

- Design of polymer bearing housing and end cap
- Beautiful, quiet operation
- Max speed up to 120m/min

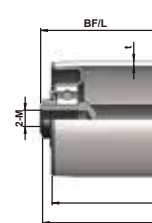
D	t	Shaft	Tube	
			Steel Z/P	SS
Φ48.6	1.5	11hex, Φ10/12/14	√	√
Φ50	1.5	11hex, Φ8/10/12/14	√	√
Φ60	2.0	11hex, Φ10/12/14/15	√	√

1800 Series

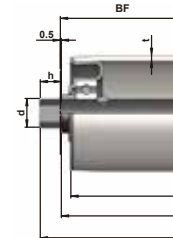
Medium/Heavy Duty Conveyor Roller



Spring loaded



Internal Thread



Milled Flats

- Steel bearing housing, precision bearing, sturdy and durable
- Many options of diameter, wide range of load capacity
- Could apply in conditions of -20~80°C

D	t	Shaft	Tube	
			Steel Z/P	SS
Φ50	1.5	Φ12/15	√	√
Φ60	2.0	Φ12/15/20	√	√



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so for the newest product informations,
pls refer to the official website.