



# **Belt Conveyor Pulley**

**Products Overview** 



# **About Damon Industry**



# GLOBAL LEADING MANUFACTURER OF CONVEYOR ROLLERS

# —Providing European local manufacturing, sales and services

Damon Industry provides millions pieces of rollers all over the world every year for many industries. With decades' professional experience of conveyor roller, Damon Industry provides support for global companies to achieve efficient logistics.

Damon Industry, since its establishment, has always been committed to providing the highest quality conveyor rollers and services for a wide range of industries

Damon Industry has manufacturing bases in Asia, America and Australia, and providing local manufacturing, sales and services. Damon Industry has also set up a manufacturing base in Europe now, and has always been committed to be a high-quality supplier of conveyor rollers.

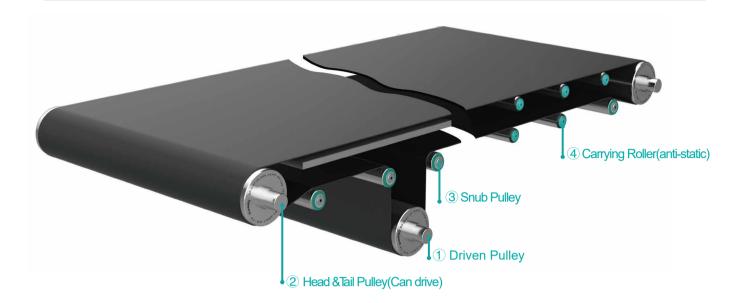
Damon Industry conveyor rollers are used in a variety of industries including food distribution, pharmacy, tobacco, clothing, postal express, logistics and distribution, manufacturing, rubber and airport industries. Damon Industry provides a vast range of reliable and innovative roller solutions. Our dedicated and experienced team of sales people and application engineers' work with our clients to ensure the products are suitable for the application and help users improve efficiency and reduce costs. We will always focus on supplying outstanding conveyor roller solutions to local and global customers.

Globally we have gained the consistent trust of our customers. These customers include influential equipment manufacturing companies and logistics system integrators. We provide customers with over 40 different products covering a variety of specifications to suit user's different requirements. The customers of using Damon Industry rollers are over Europe, Asia, America, Australia and Africa, and this range is gradually expanding.

We not only provide high-quality rollers, but also provide a full range of quality services for customers all over the world. From introducing the complete information based ERP management system to the independent research and development of the online roller dimensional drawing system service, we are viewing our market from a brand new perspective and are pleased to share our ideas of quality and innovation with every customer.

With the mission of "Creating value for customer's logistics systems", Damon Industry will strive for the vision of becoming "The most influential core components supplier and service provider for the global materials handling industry".

# Belt Conveyor Pulley One Station Solution



Through high intensity welding and precise processing craft, Damon Industry devote itself to offer you standardized belt-conveyor roller series with high intensity and quality. We could provide you one-stop solution for belt conveyor rollers, including carrier, head to tail roller, driven roller and tension roller.

# 1 Driven Pulley:

Main driving component for centre drive belt conveyors: Select BP-D series pulley (rotating shaft).

# 2 Head & Tail Pulley:

Installed at each end of a belt conveyor according to the different drive type and structure:

a Centre drive:

Change the belt direction: Select BP-R series pulley (fixed shaft) or DP-D series pulley (rotating shaft)

b、Head or Tail drive:

Drive Pulley: Select BP-D series pulley (rotating shaft)

Idler Pulley: Select BP-R series pulley (fixed shaft) or BP-D series pulley (rotating shaft).

# 3 Snub Pulley:

Used to increase the belt wrap angle for the driven pulley, tension and tracking the belt.

Select BP-R series pulley (fixed shaft) or 1200 series conveyor roller.

Be careful about the belt tensionning and siding focce when using as redirection & tensioning.

### 4 Carrying Roller:

Used to support the belt, simplify structure and reduce friction:

Select 1200 series conveyor roller.

# **Drum Motor**



- Space-saving and easy installation
- Frequent starts and stops, up to 2000 cycles per hour
- Up to 95% efficiency, save energy consumption
- · Cooling oiless design, no risk of oil leakage
- Direct drive motor technology, high dynamic response, high precision positioning

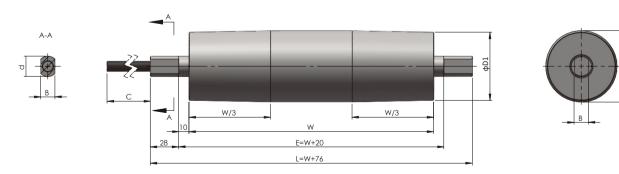
# **Basic Parameters**

Roller Model	DMR67	DMR100					
Tube Dia.	67mm	100mm					
Rated Power	0.4kW	0.75kW	1.1kW				
Rated Torque	4N·m	10N·m	15N·m				
Rated Voltage	AC	1X220V (±10%) / 50	0Hz				
Length Range	300-1000mm	400-1400mm	500-1400mm				
Speed Range	30~150m/min						
Working Method	Start-stop frequency ≤2000 cycles per hour,continuous running						



Drum motor roller must be used with a driver and cannot be directly connected to the AC power supply.

# **Dimensions**



Model	Tube Dia.(D)	Drum Shape(D1)	Shaft Dia.(d)	Milled Flat width(B)	Cable Length(C)
DMR 67	70mm	67mm	20mm	14~17mm	1000mm
DMR100	103mm	100mm	30mm	20~25mm	800mm

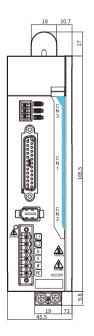


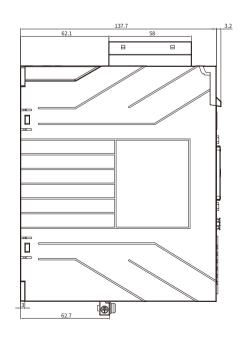
- Rapid response, precise position control
- Supports RS485,CANOPEN and EtherCAT bus protocols
- Adjustable parameter panel for real-time monitoring of Roller running status
- Meets long-distance roller cable

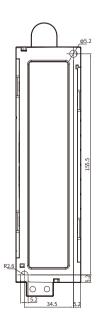
# **Drive Technical Data**

Rated Voltage	AC 1X220V(±10%)
Rated Power	0.4kW / 0.75kW / 1.1kW
Start-stop Frequency	≤ 2000 cycles per hour
Control Mode	I/O & Bus
Bus Communication	RS485 / CANopen / EtherCAT
Maximum Extention Cable	15m

# **Dimensions**







# **Drum Motor**



- High starting torque and excellent dynamic Ensure stable and reliable operation of the equipment
- No cooling oil, no risk of oil leakage
- 95% first-class energy efficiency, no-load current is 10% of the rated current, saves on electricity consumption

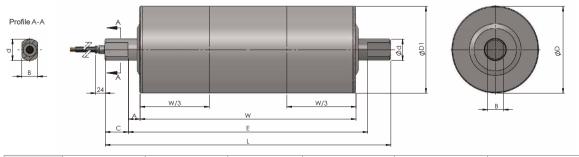
# **Basic Parameters**

Roller Model	DMR138	DMR165 DMR21				
Rated Voltage	AC 3X380V(±	10%) / 50Hz				
Rated Power	1.82kW	2.55kW				
Rated Current	3.6A	4.9A				
Length Range	500~1100mm	800~1300mm				
Working Temperature	-5~40	0℃				
Ambient Humidity	10~90%RH(Non-condensation)					
IP Rating	IP54					

# **Performance Parameters**

Product Model	DMR138	DMR165	DMR216		
Rated Torque	61N·m	174N·m	278N·m		
Belt Pull	884N	2109N	2574N		
Current Range	30~90m/min	30~60m/min			
Load Capacity	43kg/m	60kg/m			
Belt Conveyor Length	≤6m	≤9m ≤12m			
Maximum Belt Tension	800kg				

# **Product Dimensions (Zinc Plated)**



Model	Roller Dia.(D)	Drum-Shaped(D1)	Shaft Dia.(d)	Milled Flat Width(B)	Milled Flat Length(C)	Milled Flat Distance(A)	E	L
DMR138	138mm	136mm	30mm	25mm	25mm	8.5mm	W+17	W+67
DMR165	165mm	163mm	40mm	30mm	43.5mm	21.5mm	W+43	W+130
DMR216	217mm	215mm	40mm	30mm	43.5mm	21.5mm	W+43	W+130



- Easy setting of direction, speed, acceleration, and deceleration
- Standard equipped with an assistant-type intelligent LCD keyboard
- Comprehensive protection functions including short circuit, phase loss, overload, overheat, etc.
- Detachable LCD keyboard for flexible and convenient external use
- Digital IO, bus communication (RS485, CANOPEN)
   And other control methods

# **Drive Technical Data**

Model	DMR138	DMR165	DMR216			
Rated Voltage	AC 3X380V 50~60Hz					
Rated Power	1.5kW	2.2kW				
Rated Current	4A 5.6A					
Noise Level	40dB					

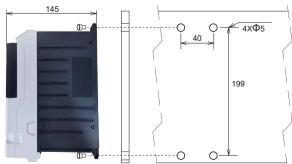
# **Drive Application Environment**

Operating Temperature	-15~55℃
Relative Humidity	5~95%RH (non-condensation)
Vibration	Maximum 1mm (0.04in.) (5-13.2Hz), Maximum 7m/s2 (23ft/s2) (13.2-100Hz) sinusoidal
Altitude	0-2000m (for TN, TT, IT grounding systems)
Installation Method	Thread Fixed Installation

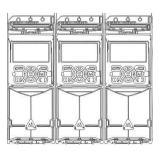
# **Dimensions**

# 210

# Electrical Mounting Board Opening Dimensions



# **Drive Installation Example**



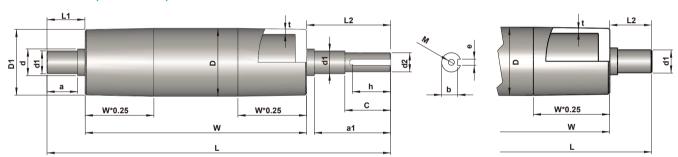
For optimal heat dissipation, side by side installation is preferred.

# **BP-D Series Pulley (Rotating Shaft)**



- · Thermal refining shaft
- Special welding equipment and technology
- New structure, strong and reliable

# Dimensions(Steel Z/P)



# **Specifications**

		Standard		Optional	Length			
Series	Tube dia. (D)	Tube (t)	shaft dia. (d1)	Drum (D1)	Optional shaft dia.(d1)	W	L	L1/L2
06C	Ф59	(4.5)	Ф25	Ф58	Ф20	250~1300	≤1500	≤280
0017	Ф75	(4.5)	400	Ф74	Ф25	250 4200	<1500	≤280
08K	Ψ/5	(4.5)	Ф30	Ψ/4	Ф35	250~1300	≤1500	≤185
00.1	ф07	(4.5)	400	<b>405.0</b>	Ф25	050 4000	<4F00	≤280
08J	Ф87	(4.5)	Ф30	Ф85.6	Ф35	250~1300	≤1500	≤185
40D	<b>\$400</b>	(0.0)	Ф30	400	Ф25	050 4400	≤1600	≤280
10B	Ф100	(6.0)	Ψ30	Ф98	Ф35	250~1400		≤185
440	Ф112	(0.0)		<b>ф440</b>	Ф30	050 4400	<1000	≤280
11D	ΨΠΖ	(6.0)	Ф35	Ф110	Ф40	250~1400	≤1600	≤185,When≥Φ40, ≤140
12A	Ф119	(6.0)	Ф35	Ф117	Ф40	250~1400	≤1600	≤185,When≥Φ40, ≤140
13C	Ф130	(6.5)	Ф35	Ф127	Ф40	70~1800	≤2400	≤300
14K	Ф137	(6.5)	Ф35	Ф135	Ф40	70~1800	≤2400	≤300
15J	Ф156	(6.5)	Ф35	Ф153	Ф40	70~1800	≤2400	≤300
18K	Ф176	(8.0)	Ф40	Ф173	Ф45	70~1800	≤2400	≤300
20C	Ф200	(6.5)	Ф45	Ф196	Ф50/55	70~1800	≤2400	≤300
21J	Ф216	(8.5)	Ф50	Ф212	Ф55	70~1800	≤2400	≤300

Straight tube is available-not tapered; "(t)"is not accurate data.

If there is dynamic balance requirement for products, please contact us.

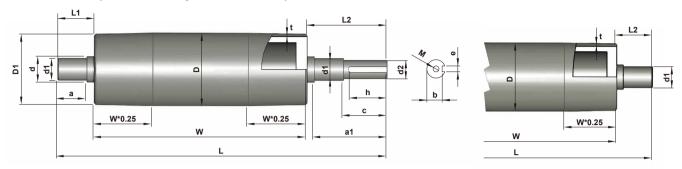
Surface treatment:zinc plated or anti-rust oil

Precaution of broken shaft: when installed by shaft through the motor, the torque that the shaft takes is quite big, please pay attention to the actual torque output and installation detail, otherwise, the shaft will break. Please contact us for details.

Prcaution of abrasion of the shaft: 1, please install the bearier with frame, and make sure the screw is fastened.

2, Machine flat surfaces on both sides of the shaft, so as that the screws can reach the surfaces and thus be fastened.

# Dimensions(Surface Polyurethane-PU)



# **Specifications**

	Standa	Optional		Length				
Series	After PU coating (D)	PU layer thickness (t)	shaft dia. (d1)	Drum (D1)	Optional shaft dia.(d1)	W	L	L1/L2
08J	Ф87	(6.0)	Ф30	Ф85.6	Ф25	250~1400	≤1600	≤280
	Ψοί	(0.0)	Ψ30	Ψ65.0	Ф35	200 1400	_1000	≤185
10B	Ф100	(6.5)	Ф30	Ф98	Ф25	250~1400	≤1600	≤280
106	Ψ100	(6.5)	Ψ30	Ψ98	Ф35	230 1400	_1000	≤185
110	<b>4110</b>	(6.0)	Φ25	<b>ф110</b>	Ф30	250~1400	≤1600	≤280
11D	Ф112	(6.0)	Ф35	Ф110	Ф40	230 1400	31000	≤185,When≥Φ40, ≤140
12A	Ф122	(5.0)	Ф35	Ф120	Ф40	250~1400	≤1600	≤185,When≥Φ40, ≤140
13C	Ф130	(5.5)	Ф35	Ф127	Ф40	250~1400	≤1600	≤185,When≥Φ40, ≤140
15J	Ф156	(6.0)	Ф35	Ф153	Ф40	70~1800	≤2400	≤300
18K	Ф176	(5.0)	Ф40	Ф173	Ф45	70~1800	≤2400	≤300
20C	Ф202	(5.0)	Ф45	Ф199	Ф50/55	70~1800	≤2400	≤300
21J	Ф216	(7.5)	Ф50	Ф212	Ф55	70~1800	≤2400	≤300

Straight tube is available-not tapered; "(t)"is not accurate data.

Polyurethane (PU)color-yellow

(If the pulley length is out of above, please contact us.)

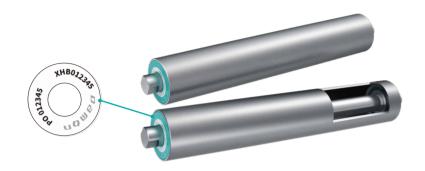
Precaution of broken shaft: when installed by shaft through the motor, the torque that the shaft takes is quite big, please pay attention to the actual torque output and installation detail, otherwise, the shaft will break. Please contact us for details.

Prcaution of abrasion of the shaft: 1, please install the bearier with frame, and make sure the screw is fastened.

2, Machine flat surfaces on both sides of the shaft, so as that the screws can reach the surfaces and thus be fastened.

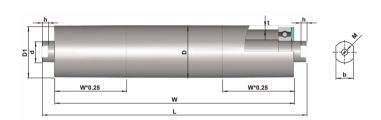


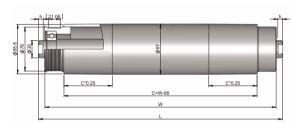
# **BP-R Series Pulley (Fixed Shaft)**



- · Configured with precision bearings
- Precision machining, smooth rotation
- · High load capacity, reliable and durable.

# Dimensions(Steel Z/P)





Usually used for climbing belt conveyor

# **Specifications**

	Standard				Length				
Series	Tube dia. (D)	Tube (t)	shaft dia. (d)	Bearing type	Drum (D1)	W	L	Shaft unilateral outcrop	Remarks
05D	Ф51	(3.0)	Ф20	6204	1	450~1300	≤1500	≤100	
06C	Ф59	(4.5)	Ф25	6205	Ф58	70~1300	≤1500	≤100	
07C	Ф69	(6.0)	Ф30	6206	Ф68	70~1300	≤1600	≤150	
08K	Ф75	(4.5)	Ф25	6005	Ф74	120~1300	≤1500	≤100	
08C	Ф79	(4.5)	Ф25	6005	Ф77.6	120~1300	≤1500	≤100	
08J	Ф87	(4.5)	Ф25	6205	Ф85.6	120~1300	≤1500	≤100	
10B	Ф100	(6.0)	Ф30	6306	Ф98	120~1800	≤2100	≤150	
11D	Ф112	(6.0)	Ф30	6306	<b>D</b> 110	120~1800	<b>-2100</b>	<150	
ווט	ΨΠΖ	(6.0)	Ф35	6307	Ф110	120~1800	≤2100	≤150	
12A	Ф119	(6.0)	Ф30	6306	Ф117	120~1800	≤2100	≤150	
08J	Ф87	(4.5)	Ф30	6206	Ф85.6	180~1300	≤1600	≤150	Steel Poly-vee

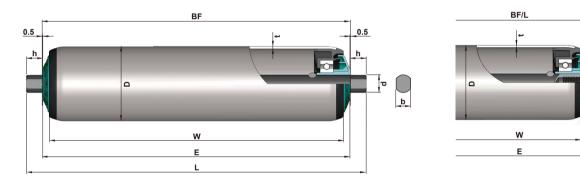
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# 1200 Series Conveyor Roller



# **Dimensions**



# **Specifications**

Tube dia. Standard		Dimensio	n relation	Surface	Recommended	
(D)	Shaft Dia(d)	BF	L	treatment	application location	
Ф50	Ф12/15	BF=W+10	L=W+31	Steel Z/P	4	
Ψ50	Ф17	BF=W+10	L=W+31	SS	4	
фео	Ф12/15	BF=W+10	L=W+31	Steel Z/P	4	
Ф60	Ф17	BF=W+10	L=W+31	SS	3&4	
Ф76	Ф20	BF=W+12	L=W+41	Steel Z/P	3&4	
Ф80	Ф20	BF=W+12	L=W+41	Steel Z/P	3&4	



⚠ Be careful about the belt tensionning and siding focce when using as redirection & tensioning.



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