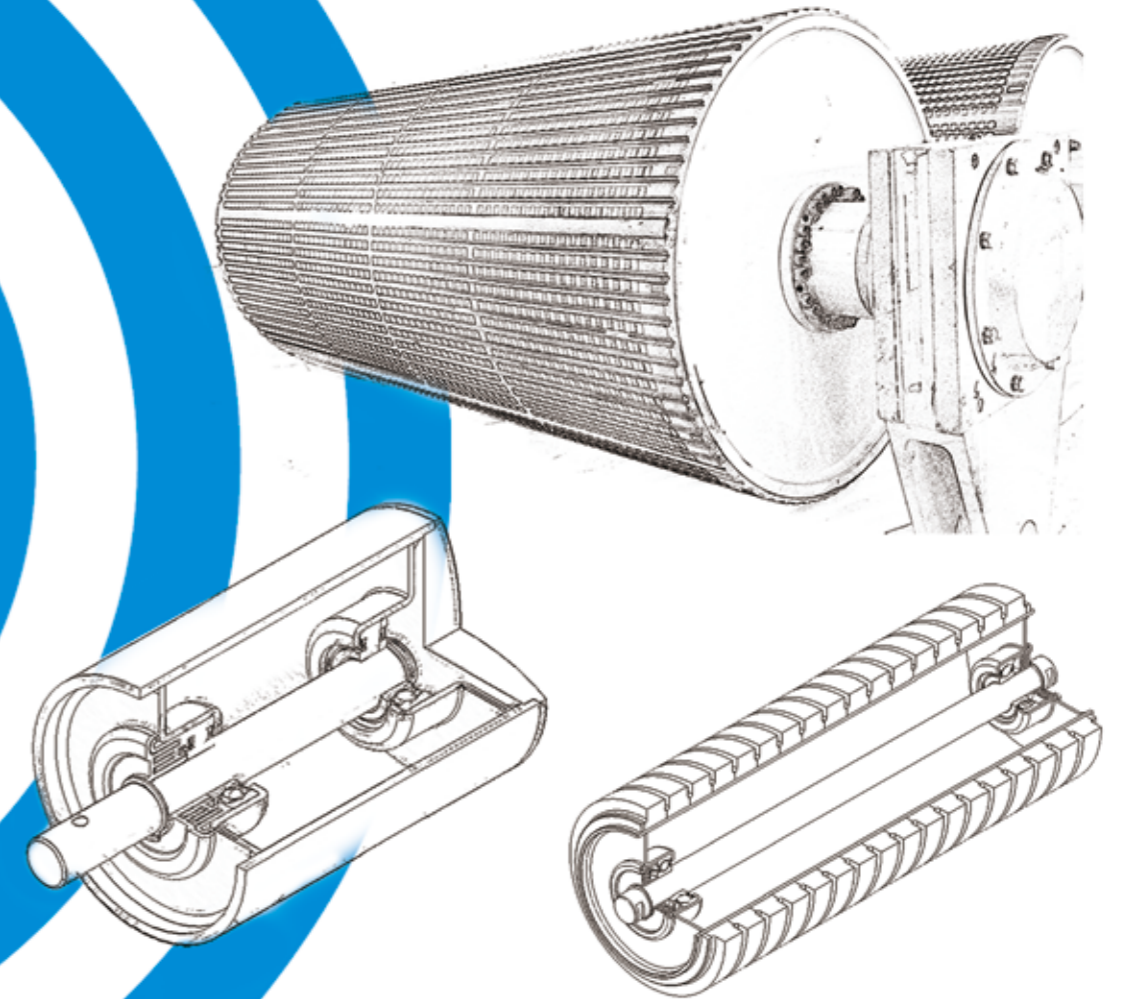


Rollers & Pulleys

for Bulk Material Handling Systems



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Company Introduction



JZCREATION.

JZCREATION is dedicated to researching, engineering, and fabricating the Rollers, Pulleys and Components of global bulk material handling systems. Their products combine the innovations of both materials and design, and are widely used in the field of mining, port, power, metallurgy, building materials, chemical, food, etc.

Since 1958, JZCREATION has been working with pulleys & rollers for bulk material handling systems, always keeping at the international leading level, more products have been obtained the patents. Today, as a high-end global supplier in pulleys & rollers, JZCREATION is working internationally with leading OEM's, engineering companies, and end users for troubleshooting in bulk material handling systems.



MILESTONES

1958

Established



1988

First Pulley
Production lines



1978

First Roller
Production lines

2014

- JZCREATION specializes in pulleys & rollers business aiming to provide first-class products and services to customers, while maintaining the customer's core benefits.
- Reinforce and increase technical investment, design and manufacture of high-quality rollers, pulleys and other components. Guaranteeing conveyor device longevity, creating value for customers.
- Fabrication base and sales company in major global countries.
- Accompanying the market requirements, continuing to develop and expand product variety to meet the needs of customers.
- Work closely with our customers to provide consulting services, and facilitate the selection of the appropriate product.



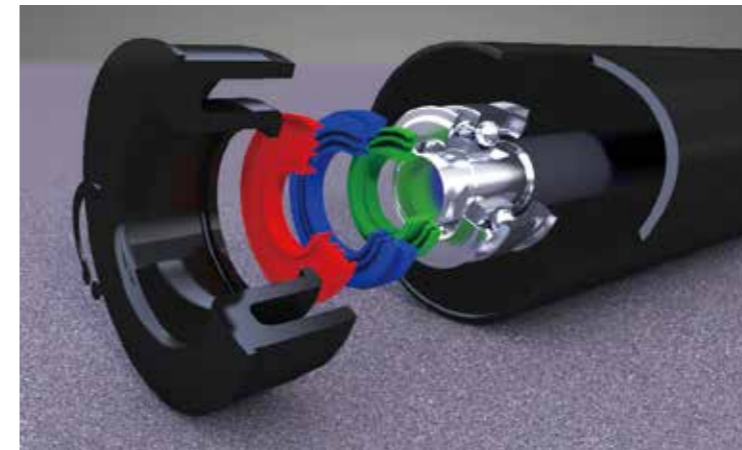
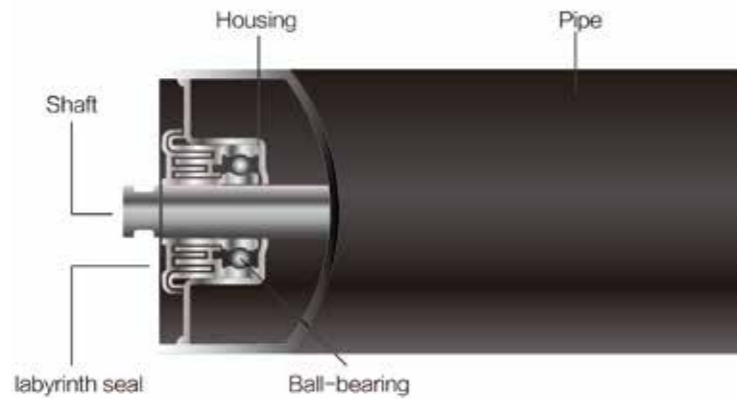
TOPST Series Structure Features & Advantages



Product Advantages:

- Out-round radial jump $\leq 0.35\text{mm}$
- Running resistance factor $\leq 0.010n$
- Extremely super dustproof & waterproof properties
- One life lubricated
- Roller life $\geq 50000\text{h}$

Use Double Labyrinth lacunars type seal: Double labyrinth lacunars type seal has a non-contact structure. The unique structure not only effectively reduces the rotational resistance, but also maintains a good sealing effect, extending the roller's life.



Material Specification

Shell

Welded shell according to DIN2394, Materials 235JRG2(EN10027-1); ST37(DIN17100); E24(AFNOR NFA355501)

Shaft

Cold Draw Steel S235JRG2(EN10027-1); ST37(DIN17100); E24(AFNOR NFA355501)

Bearing Housing

Cold pressed & calibrated according to ISOM7 tolerance, Material: Deep drawing steel EU10111-DD13. Shell thickness 2.5mm-5mm,

Inner Sealing

Three curve sealing patented technology, Material: ISOPA6 POM(Polyoxymethylene)

Outer Sealing

Three curve sealing patented technology material: ISOPA6 PBT-G poly resin

Bearing

JZCREATION special bearing, assembly SKF,FAG etc brand bearing as per customers request.

Lubrication

Assembly with water proof, anti-dust, long life lithium grease NLGL2 grade

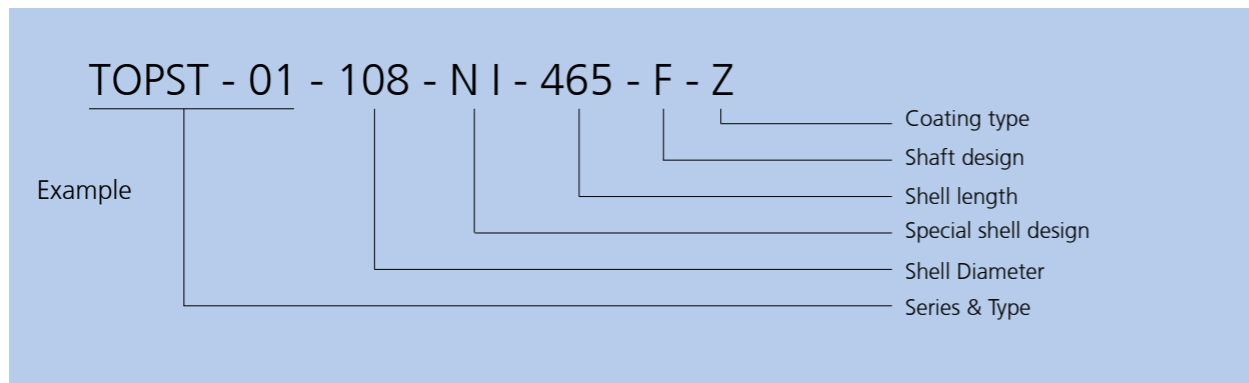
or 3 on request, type: Shell Retinax WB2.

Roller body protection

Various protection types are available depending on the market and application. Typical types of protections are:

- zinc plating
- various types of rubber lagging
- various types of paint
- anti-rust oil
- electrostatic epoxy polyester powder coating

Roller Series Ordering Codes



Roller Series

Form 1: Roller Series

	TOPST	TOPHL	TOPPT	TOPRG	TOPGU
Roller Series	Normal roller	Heavy duty high speed roller	Anticorrosive roller	Regreaseable roller	Guide roller

Form 2: Shell Material

	N	L	P
Shell Material	Normal tube	Stainless Steel shell	PVC, HDPE

Form 3: Shell Coating Type

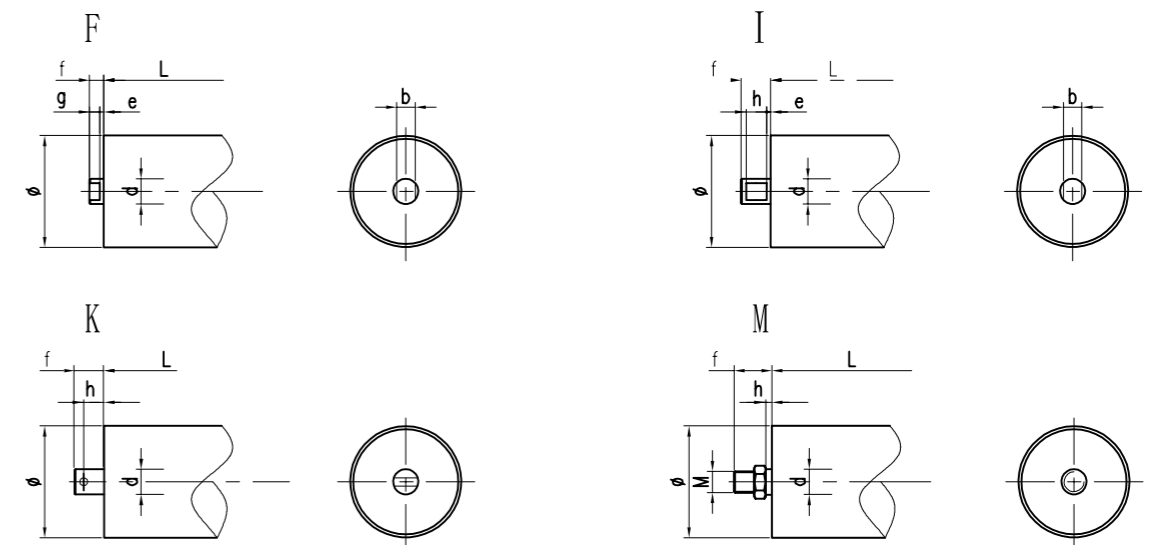
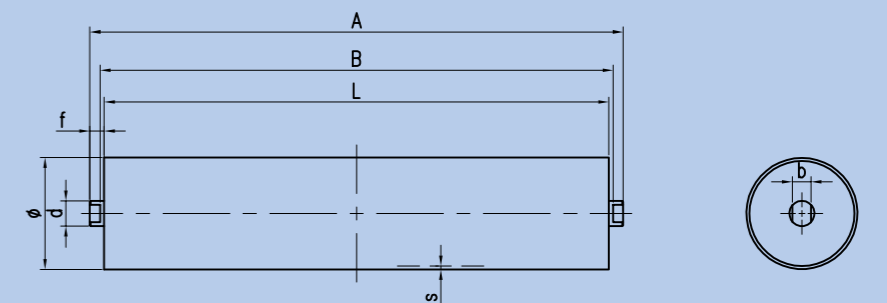
	Z	E	O	T
Shell Coating Type	Zinc plating	Electrostatic epoxy polyester powder coating	Various types of paint	Anti-rust oil

Form 4: Shell Design

	I	C	S
Shell Design	Impact roller	Disc roller	Spiral roller

Shaft Design

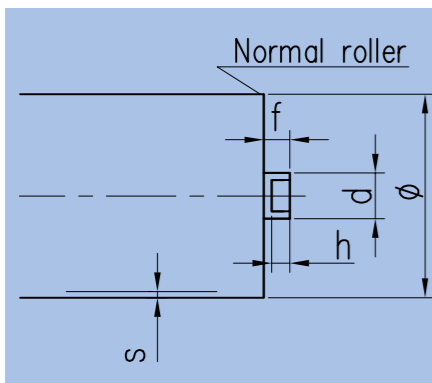
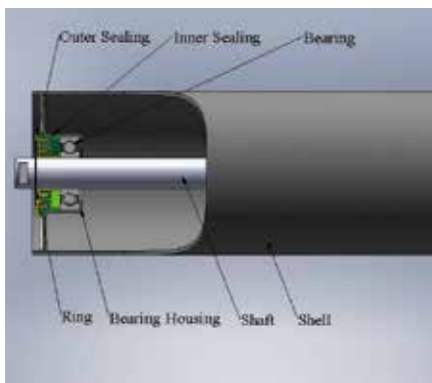
The following is a standard shaft and design, we can custom-make according to customer requirements for other types of shaft end.



TOPST Normal Roller Series



Roller's type and diameter parameter are specified according to DIN15207-ISO1537 which is listed in the below sheets, as per customer request, supply difference shell thickness and diameter according to CEMA, BS, JIS, AFNOR.



TOPST (normalroller) series

Roller type	Roller Diameter Metric System (mm)	Roller Diameter British System (inch)	Roller Design	Shell Thickness (mm)	Bearing Housing Shell Thickness (mm)	Shaft Diameter	Bearing
TOPST-01	63		N	3	2.5	20	6204 C3
	76	3"	N	3	2.5		
	89		N	3	2.5		
	102	4"	N	3	2.5		
	108		N	3.5	2.5		
	114	4.5"	N	3.5	2.5		
	127	5"	N	4	2.5		
	133		N	4	2.5		
TOPST-02	140	5.5"	N	4	2.5	25	6205 C3
	76	3"	N	3	3		
	89		N	3	3		
	102	4"	N	3	3		
	108		N	3.5	3		
	114	4.5"	N	3.5	3		
	127	5"	N	4	3		
	133		N	4	3		
	140	5.5"	N	4	3		
	152	6"	N	4	3		
TOPST-03	159		N	4.5	3	25	6305 C3
	168		N	4.5	3		
	89		N	3	3.5		
	102	4"	N	3	3.5		
	108		N	3.5	3.5		
	127	5"	N	4	3.5		
	133		N	4	3.5		
	140	5.5"	N	4	3.5		
TOPST-04	152	6"	N	4	3.5	30	6206C3
	159		N	4.5	3.5		
	168		N	4.5	3.5		
	89		N	3	3.5		
	102	4"	N	3	3.5		
	108		N	3.5	3.5		
	127	5"	N	4	3.5		
	133		N	4	3.5		
TOPST-05	140	5.5"	N	4	3.5	30	6306C3
	152	6"	N	4	3.5		
	159		N	4.5	3.5		
	168		N	4.5	3.5		
	89		N	3	4		
	102	4"	N	3	4		
	108		N	3.5	4		
	127	5"	N	4	4		
	133		N	4	4		
	140	5.5"	N	4	4		
TOPST-06	152	6"	N	4	4	35	6307C3
	159		N	4.5	4		
	168		N	4.5	4		
TOPST-07	194		N	4.5-6	5	40	6308C3
	159		N	4.5	4		
	168		N	4.5	4		
TOPST-09	194		N	4.5-6	5	50	6310C3
	168		N	4.5	4		
	219		N	4.5-6	5		

TOPST Impact Roller Series

Impact roller is a carrying roller, often assembled at the loading point of the conveyor. It may absorb the impact force upon material drop off, to protect the conveyor belt and carried material. JZCREATION impact roller consists of a normal steel roller and absorption rubber ring, a simple and durable structure.

JZCREATION impact roller rubber is an SBR type rubber absorption rubber ring material, shore hard 75 ± 5.

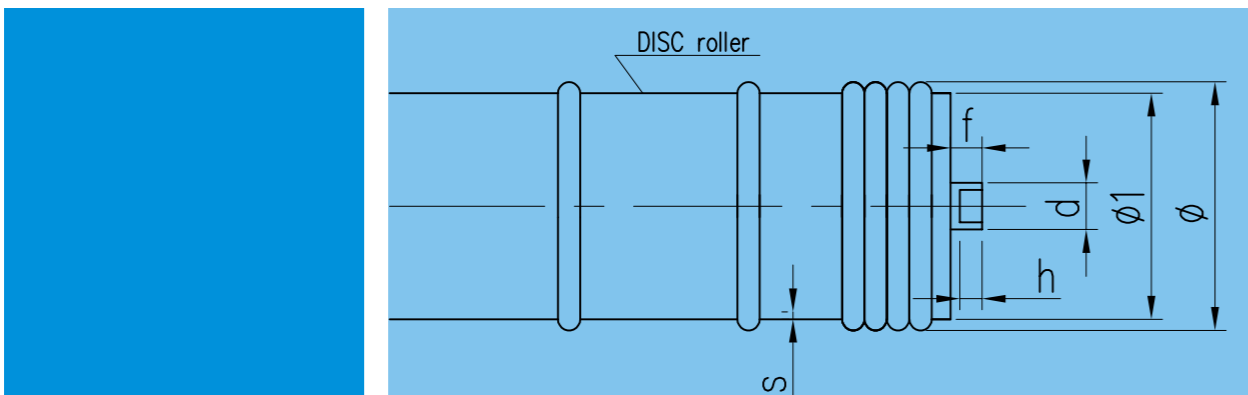
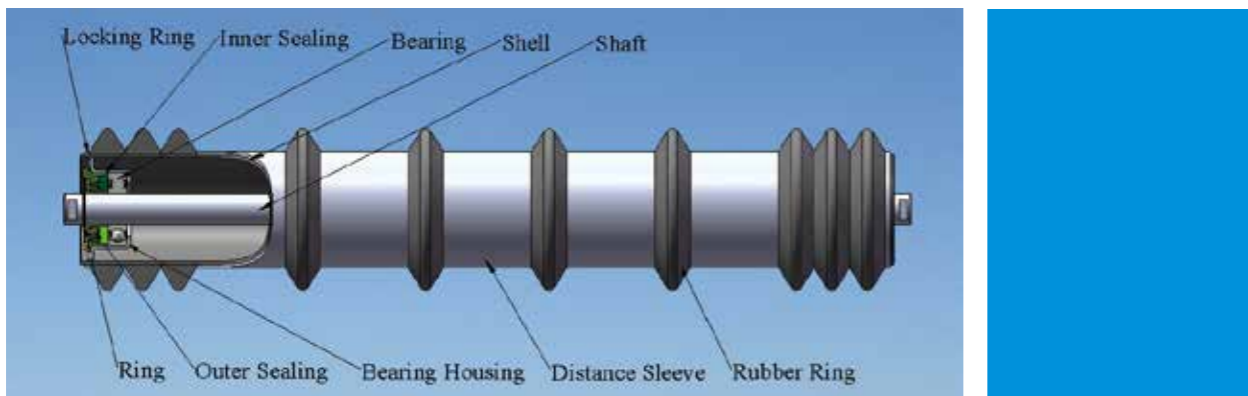


Impact Roller

Roller type	Inner diameter(mm)	Outer diameter(mm)	Shell Thickness (mm)	Roller design	Shaft diameter(mm)	Bearing	Remark
TOPST-01	60	89	3	NI	20	6204C3	
	76	108	3	NI			
TOPST-02	76	108	3	NI	25	6205C3	
	89	133	3	NI			
	108	159	4	NI			
TOPST-03	76	108	3	NI	25	6305C3	
	89	133	3	NI			
TOPST-04	108	159	4	NI	30	6206C3	
	89	133	3	NI			
TOPST-05	108	159	4	NI	30	6306C3	
	89	133	4	NI			
TOPST-07	108	159	5	NI	40	6308C3	
	159	194	5-6	NI			

Note: Various engineered rollers are available on request

TOPST Disc Roller Series



Disc roller is a return roller with rubber rings, to remove the adhesive material under the belt surface, ensuring a straight running track for the conveyor belt, and to prevent wearing and tearing caused by belt deviation.

JZCREATION disc rollers consist of a normal steel roller, distance sleeve & rubber ring. The rubber ring is designed to form a sharp edge. Spaced rollers mounted on the intermediate portion help to remove the adhesive material

under the belt surface, also at both ends of the rubber ring supporting the belt ends to prevent the belt deviation.

JZCREATION disc roller material's SBR type rubber used in assembling absorption rubber ring material, shore hard 60 ± 5 .

JZCREATION may supply the Oil resistance, acid and alkali resistant rubber ring as per customer request.

Disc Roller

Roller Type	Inner Diameter (mm)	Outer Diameter (mm)	Shell Thickness (mm)	Roller Design	Shaft Diameter (mm)	Bearing	Remark
TOPST-01	60	89	3	NC	20	6204C3	
	76	108	3	NC			
TOPST-02	89	133	3	NC	25	6204C3	
	108	159	4	NC			
TOPST-03	89	133	3	NC	25	6205C3	
	108	159	4	NC			
TOPST-04	89	133	3	NC	30	6206C3	
	108	159	4	NC			
TOPST-05	89	133	4	NC	30	6306C3	
	108	159	4	NC			
TOPST-06	159	194	4	NC	30	6307C3	
TOPST-07	108	159	5	NC	40	6308C3	
	159	194	5-6	NC			
TOPST-09	168	194	6	NC	50	6310C3	

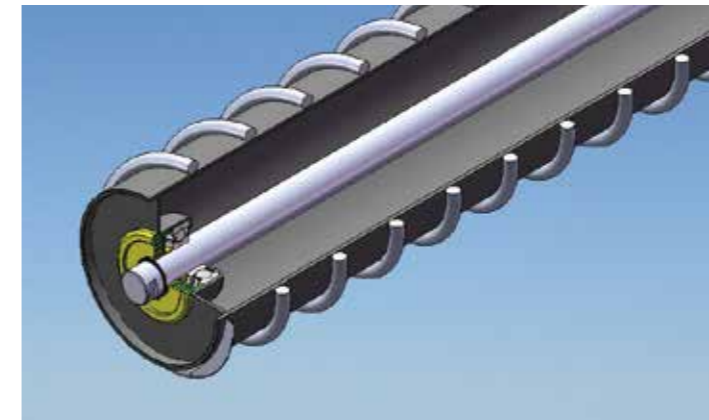
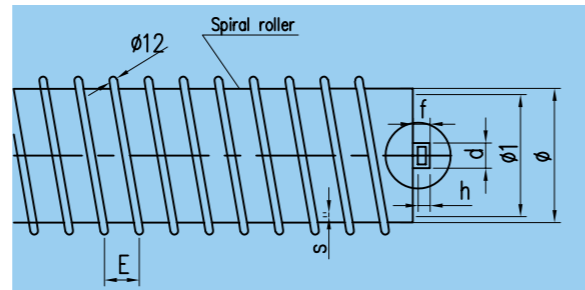
Note: Various engineered rollers are available on request.

TOPST Spiral Roller Series



JZCREATION Spiral Roller is a kind of return roller, to remove the adhesive material under the belt surface, ensuring a straight running track for the conveyor belt, and to prevent wearing and tearing caused by belt deviation.

JZCREATION Spiral Roller consists of normal steel roller, wear-resistant steel bars. At the middle of the steel roller surface, wear-resistant steel bars are divided into left and right direction. Spin welded after winding start, may remove the adhesive material on the belt surface, extending the service life of the roller, and preventing any belt deviation.



Spiral Roller

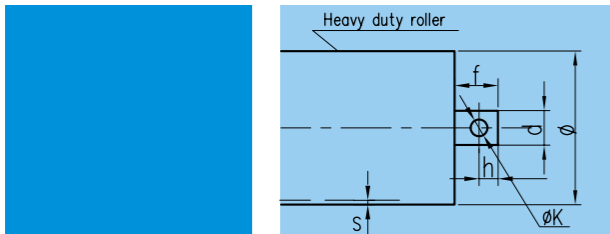
Roller type	Inner Diameter (mm)	Outer Diameter (mm)	Shell Thickness (mm)	Roller Design	Shaft Diameter (mm)	Bearing	Remark
TOPST-01	108	+24	3.5	NS		6204C3	
TOPST-02	108	+24	4	NS	25	6205C3	
	133	+24	4	NS			
TOPST-03	133	+24	4	NS	25	6305C3	
	159	+24	4	NS			
TOPST-04	133	+24	4	NS	30	6206C3	
	159	+24	4	NS			
TOPST-05	133	+24	4	NS	30	6306C3	
	159	+24	4.5	NS			
TOPST-06	159	+24	5	NS	35	6307C3	
TOPST-07	159	+24	5	NS	40	6308C3	
	194	+24	6	NS			
TOPST-09	194	+24	6	NS	50	6310C3	

Note: Various engineered rollers are available on request.

TOPHL Heavy Duty High Speed Roller Series



TOPHL Heavy Duty High Speed Roller designed for large carrying capacity, heavy-duty and high rotating speed. The unique design of the roller can meet the requirements of volume up to 9000t/h-25000t/h in an open-pit coal mine and metal mines. The solid structure and mechanics, extended minimal radial jump, and high grade dynamic balance effectively reduce shock, in order for the belt speed to reach 11m/s. As well as reducing noise and energy consumption.



Heavy Duty High Speed Roller Series

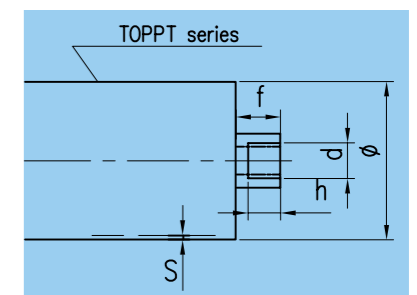
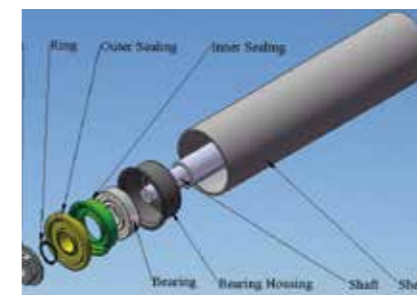
Roller type	Roller Diameter Metric System (mm)	Roller Diameter British System (inch)	Roller Design	Shell Thickness (mm)	Bearing Housing	Shaft Diameter (mm)	Bearing
TOPHL-07	133		N	4.5	Cast steel	40	6308C3
	159		N	4.5			
	168		N	4.5			
	194		N	4.5-6			
TOPHL-09	159		N	4.5	Cast steel	50	6310C3
	168		N	4.5			
	194		N	4.5-6			
	219		N	4.5-6			
TOPHL-10	159		N	4.5	Cast steel	60	6312C3 21312
	168		N	4.5			
	194		N	6			
	219		N	6			

Note: Various engineered rollers are available on request.

TOPPT Corrosion Resistant Series

It is easy for corrosive chemical substances, acid, alkali, salt, etc, to seriously corrode the tradition steel roller. JZCREATION developed and produces the HDPE corrosion resistance roller for the above situation. The roller has high abrasion resistance, a low friction coefficient, strong

anti-adhesion, strong mechanical strength, can withstand repeated impacts and vibrations, superior sealing performance, low noise, small rotational drag force, smooth running, lower weight, convenient installation, and long service life.



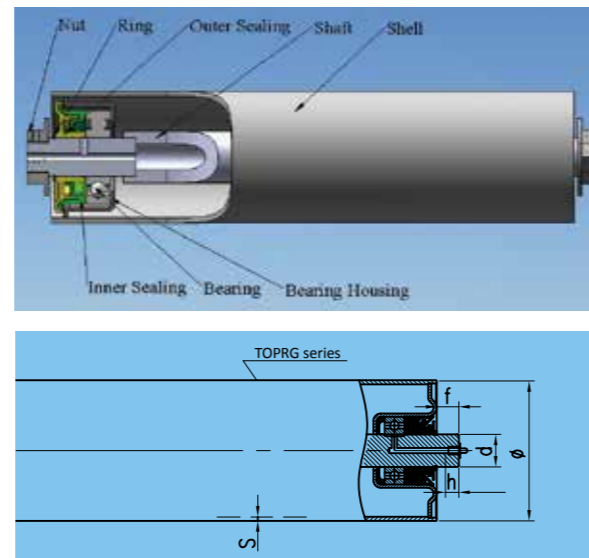
TOPPT Corrosion Resistant Series

Roller type & series		The Metric System (mm)	The British System (Inch)	Roller Design	Tube Shell (mm)	Shaft diameter (mm)	Remark
TOPPT-01	With sealing cover	76	3"	P	4-10	20 30	Hard HDPE tube, Shaft Steel Material S235JR
		89		P	4-10		
		108			4-10		
	No sealing cover	76	3"	P	4-10	20 14	
		89		P	4-10		
		108			4-10		
TOPPT-02	With sealing cover	108		P	4-10	25 35	
		114	4.5"	P	4-10		
		127	5"	P	4-10		
		133		P	4-10		
	No sealing cover	108		P	4-10	25 18	
		114	4.5"	P	4-10		
		127	5"	P	4-10		
		133		P	4-10		

Note: Various engineered rollers are available on request.

TOPRG Regreaseable Roller Series

The Regreaseable Roller uses unique TOPROLL technology for sealing, quintuplet lip sealing & adjustable bolt screws to block the dust outside. Roller shaft processing, and a unique bearing lubricating device repeat the lubrication to ensure the sealing, to prolong the roller's service life. As well as use of automatic welding to ensure the roller concentricity.



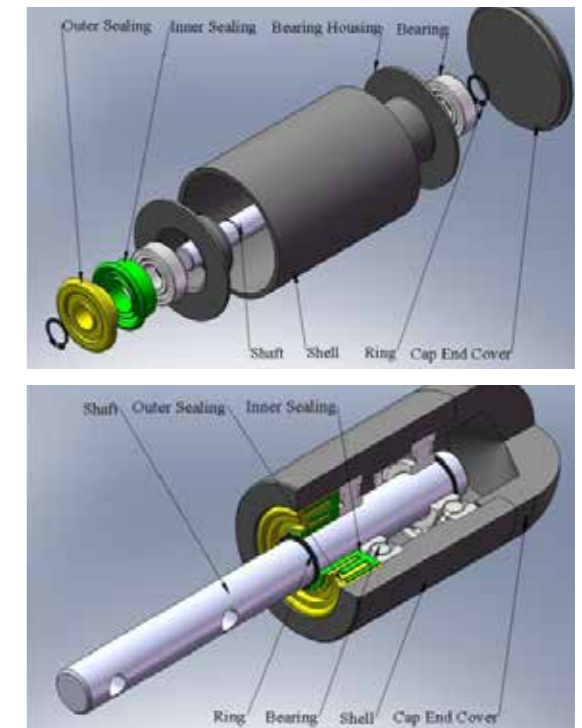
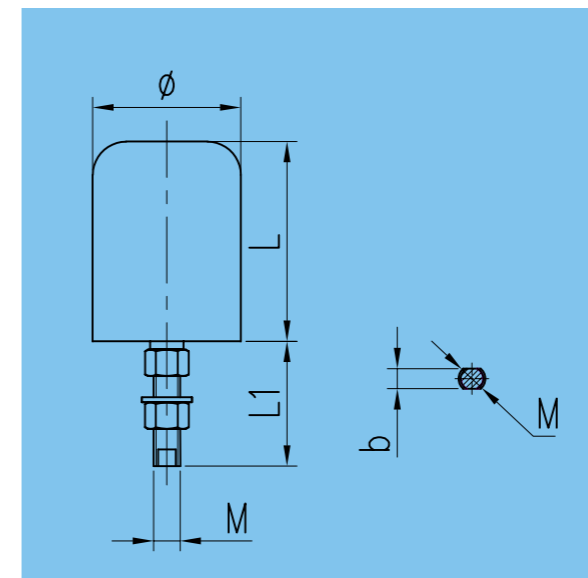
TOPRG Regreaseable Roller Series

Roller type	Roller Diameter Metric System (mm)	Roller Diameter British System (inch)	Roller Design	Shell Thickness (mm)	Bearing Housing Shell Thickness (mm)	Shaft Diameter (mm)	Bearing
TOPST-05	152	6"	N	4	4	30	6306C3
	159		N	4.5	4		
	165	6.5"	N	4.5	4		
	194		N	4.5-6	5		
TOPST-06	159		N	4.5	4	35	6307C3
	165		N	4.5	4		
	194		N	4.5-6	5		
TOPST-07	159		N	4.5	4	40	6308C3
	165	6.5"	N	4.5	4		
	194		N	4.5-6	5		
TOPST-09	194		N	4.5-6	5	50	6310C3
	219		N	4.5-6	5		

Note: Various engineered roller are available on request.

TOPGU (Guide Roller) Series

According to customer needs, TOPROLL can provide various customized types of guide roller.



TOPGU (Guide Roller) Series Specification Sheet

Roller type		Roller Diameter Metric System (mm)	Roller Diameter British System (in)	Shell Thickness (mm)	Shaft Diameter (mm)	Remark
TOPGU-01	with screw thread	60		10	20	
		89		3-6		
	no screw thread	108		3.5-6		
		89		3-6		
TOPGU-02	with screw thread	108		3.5-6	25	
		133		3.5-6		
	no screw thread	108		3.5-6		
		133		3.5-6		
TOPGU-05	with screw thread	108		3.5-6	30	
		133		3.5-6		
	no screw thread	108		3.5-6		
		133		3.5-6		

Note: Various engineered rollers are available on request.

Pulley Series Introduction

TOPROLL Conveyor Pulleys are produced generally according to customers demand & the application condition, in general, it is built according to customer's drawing. TOPROLL pulley design is based on the finite element analysis and experience, each pulley will pass through precision tests before fabrication. Tests are based on pressure, tension, deformation, thermal load, vibration, and noise within a simulated work environment.

TOPROLL Conveyor Pulleys have a wide range of high-quality standard laggings to increase the friction coefficient between pulley and belt. In the humid, sultry or freezing conditions, choose the correct lagging to improve conveyor efficiency, improve guidance and

prolong the service life of the pulley and belt. TOPROLL lagging has a full range of designs, patterns, and materials which can improve almost all conveyor system operation.

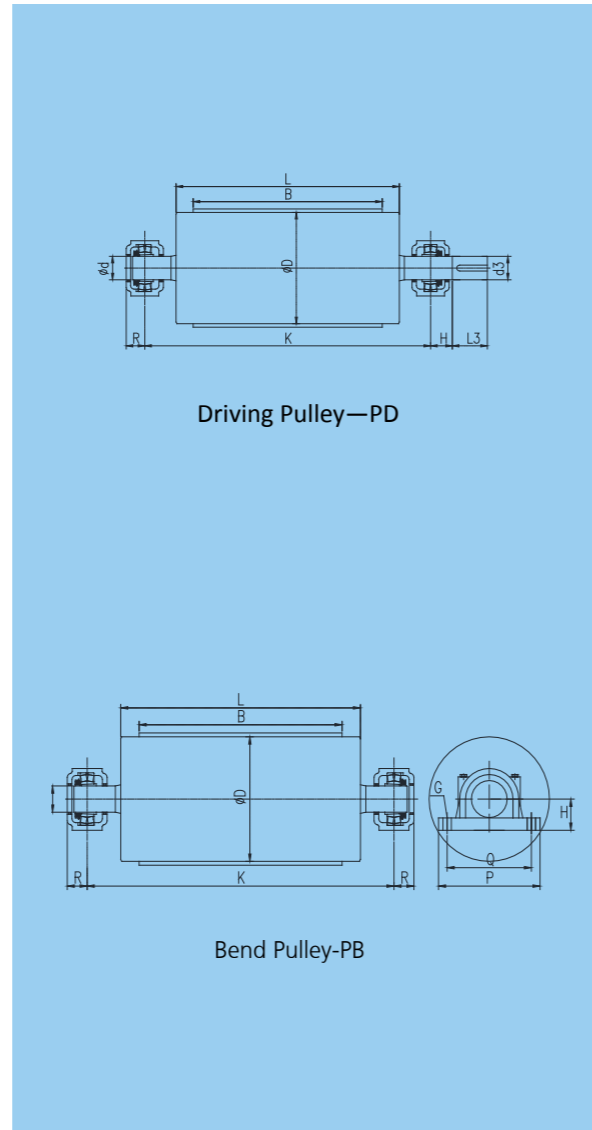
All TOPROLL Pulleys can achieve static balance G40, and can design dynamic balance according to customer demand. Dynamic balance can reach G6.3.

JZCREATION also has the ability to provide the pulley with special structure, such as a heavy buffer pulley, drum type pulley, etc. Also can accommodate special designs and processing according to application occasion and function.



PD and PB Series Conveyor Pulley

PD and PB series pulleys are normal conveyor types, driving pulley (PD) shaft dimensions (L3 and D3) can be designed according to customer request; specify the pulley type and shaft dimensions when ordering. All dimensions can also be processed according to the customer's order diagram.



Order diagram example:

PD 100-500 PU - 1200

Pulley Type

PD Driving Pulley PB Bend Pulley

Shaft Diameter

Pulley Shell Diameter

Lagging Type

T No Rubber Lagging X Cold Rubber Lagging
 PU Polyurethane PU lagging K Heat Vulcanization Rubber Lagging
 S Ceramic Rubber Lagging L(mm)

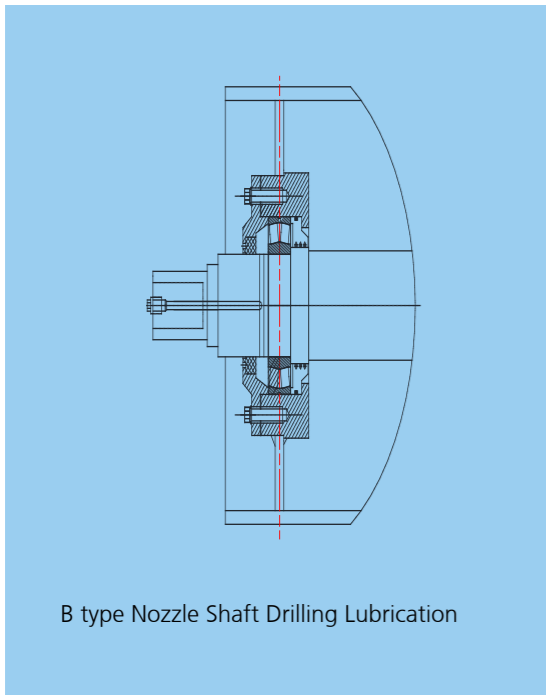
Pulley Shell Length

Types and Dimensions Selection Sheet

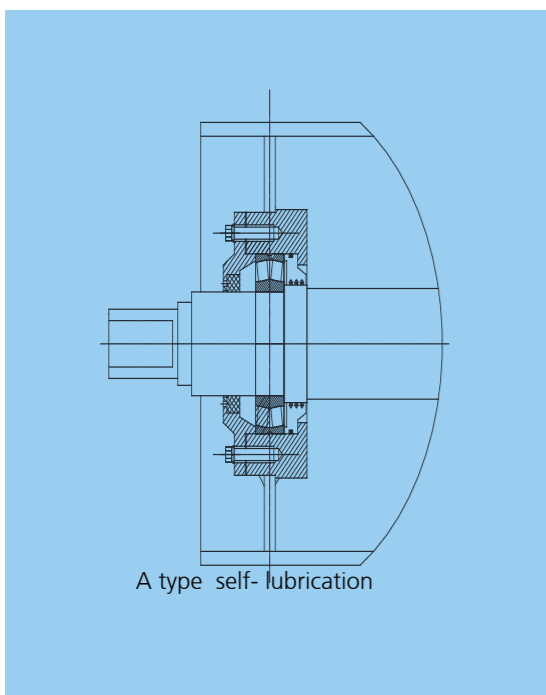
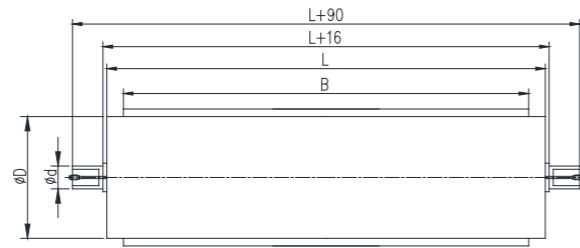
PD,PB d	K	H	R	Q	P	H	G	Bearing house	Bearing
50	L+180	55	48	210	255	70	M16	SN 511	22211EK
60	L+180	60	55	230	275	80	M16	SN 513	22213EK
70	L+180	70	60	260	315	95	M20	SN 516	22216EK
80	L+190	75	70	290	345	100	M20	SN 518	22218EK
90	L+200	85	80	320	380	112	M24	SN 520	22220EK
100	L+210	95	88	350	410	125	M24	SN 522	22222EK
110	L+230	100	93	350	410	140	M24	SN 524	22224EK
115	L+240	105	95	380	445	150	M24	SN 526	22226EK
125	L+250	110	103	420	500	150	M24	SN 528	22228EK

Note: Various engineered pulley are available on request

PC Series Dead Shaft Pulley



In the dead shaft pulley, the bearing housing is on the end plate of the pulley. The pulley rotates together with the belt while running, and the shaft is fixed. The installation and disassembly are convenient, and the installation space requirement is small. Commonly used as changing belt conveyor running state in special position. The loading capacity with the same shaft dimension is higher than other traditional pulleys.



Order diagram example:

PC 40 – 320 X – 1150 – A

Pulley Type

Shaft Diameter (mm)

Pulley Shell Diameter(mm)

Lagging Type

T No Rubber Lagging X Cold Rubber Lagging
K Heat Vulcanization Rubber Lagging

Pulley Shell Length

Lubrication type

A=Self-lubrication B= Nozzle shaft drilling lubrication

Types and Dimensions Selection Sheet

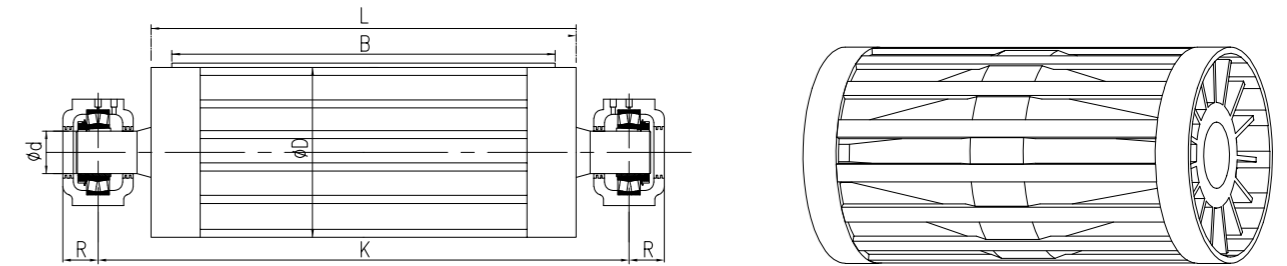
PC d	D	L					
		400	500	600	750	950	1150
		B					
		300	400	500	650	800	1000
40	215	22	25	29	34	41	48
	240	23	27	31	36	44	51
	270	29	35	40	48	58	68
	320	40	47	55	66	81	96
	400	58	69	81	98	121	145
50	215	24	28	32	38	46	54
	240	26	30	34	41	49	58
	270	32	38	43	52	63	75
	320	42	50	58	70	86	102
	400	60	72	85	103	127	151

Note: Various engineered pulley are available on request.

PSC Series Cleaning Pulley



The cleaning pulley prevents carrying material to add pressure and abrasion on the conveyor belt at conveyor bend pulley location. It also improves the belt service life, and has a good cleaning effect on the belt adhesive material. Cleaning pulleys use unique structural design, auto-welding device, and excellent welding quality, eliminating stress force through heat annealing, small residue stress force, and long service life.



Order diagram example:

PSC 100 - 500 - 1200

Pulley Type

PSC Cleaning Pulley

Shaft Diameter (mm)

Pulley Shell Diameter (mm)

Pullet Shell Length (mm)

Types and Dimensions Selection Sheet

PSC d	K	H	R	Q	P	H	G	Bearing house	Bearing
50	L+180	55	48	210	255	70	M16	SN 511	22211EK
60	L+180	60	55	230	275	80	M16	SN 513	22213EK
70	L+180	70	60	260	315	95	M20	SN 516	22216EK
80	L+190	75	70	290	345	100	M20	SN 518	22218EK
90	L+200	85	80	320	380	112	M24	SN 520	22220EK
100	L+210	95	88	350	410	125	M24	SN 522	22222EK
110	L+230	100	93	350	410	140	M24	SN 524	22224EK
115	L+240	105	95	380	445	150	M24	SN 526	22226EK
125	L+250	110	103	420	500	150	M24	SN 528	22228EK

Note: Various engineered pulley are available on request

Typical Customers

