

BELT CONVEYOR ROLLER

Ecoron Roller™

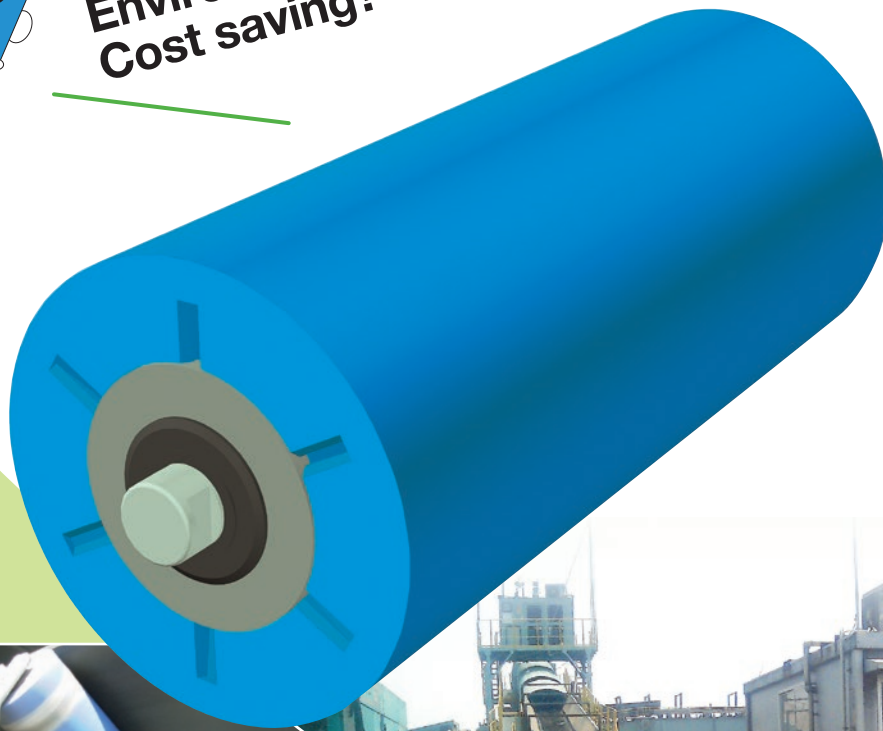
**Corrosion-resistant & lightweight
belt conveyor rollers**

Ecoron Roller™

Carrier Roller

Return Roller

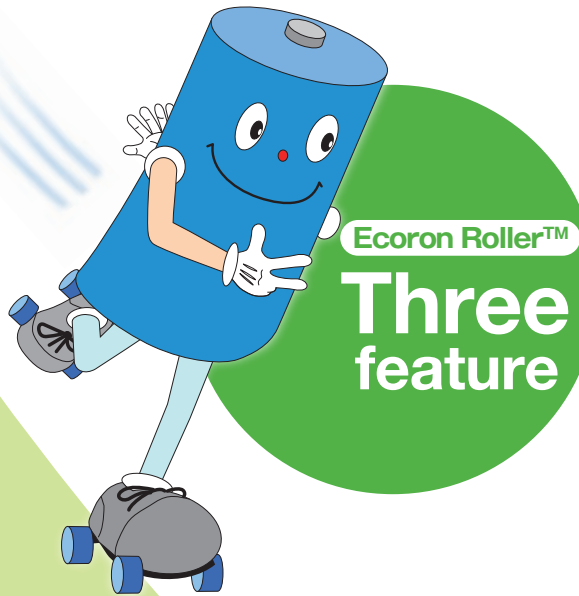
Improvement of
Environmental!
Cost saving!



Resin rollers terrific points of **Ecoron Roller™**

Ecoron Roller uses high density polyethylene (HDPE) for the roller pipe and housing. It is an epoch-making product that solves various problems of conventional rollers at once, having both flexibility and strength, which is different from steel rollers. It has a variety of effects depending on the environment in which it is used. Please give it a try.

Improvement of
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1 Light

About half in weight of steel roller

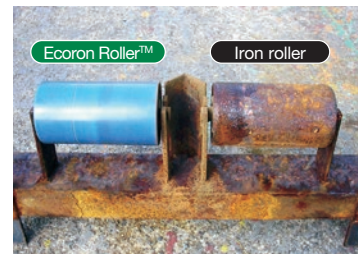
Ecoron Roller is about half-lighter in weight than those standard steel ones available from the market. Its lightness could be felt further by comparing it with spiral rollers and /or rollers with rubber on. Outstandingly flexible despite its lightweight and excellent against shock.



2 Not corrosion

No problem even if leftover outdoors or along the sea

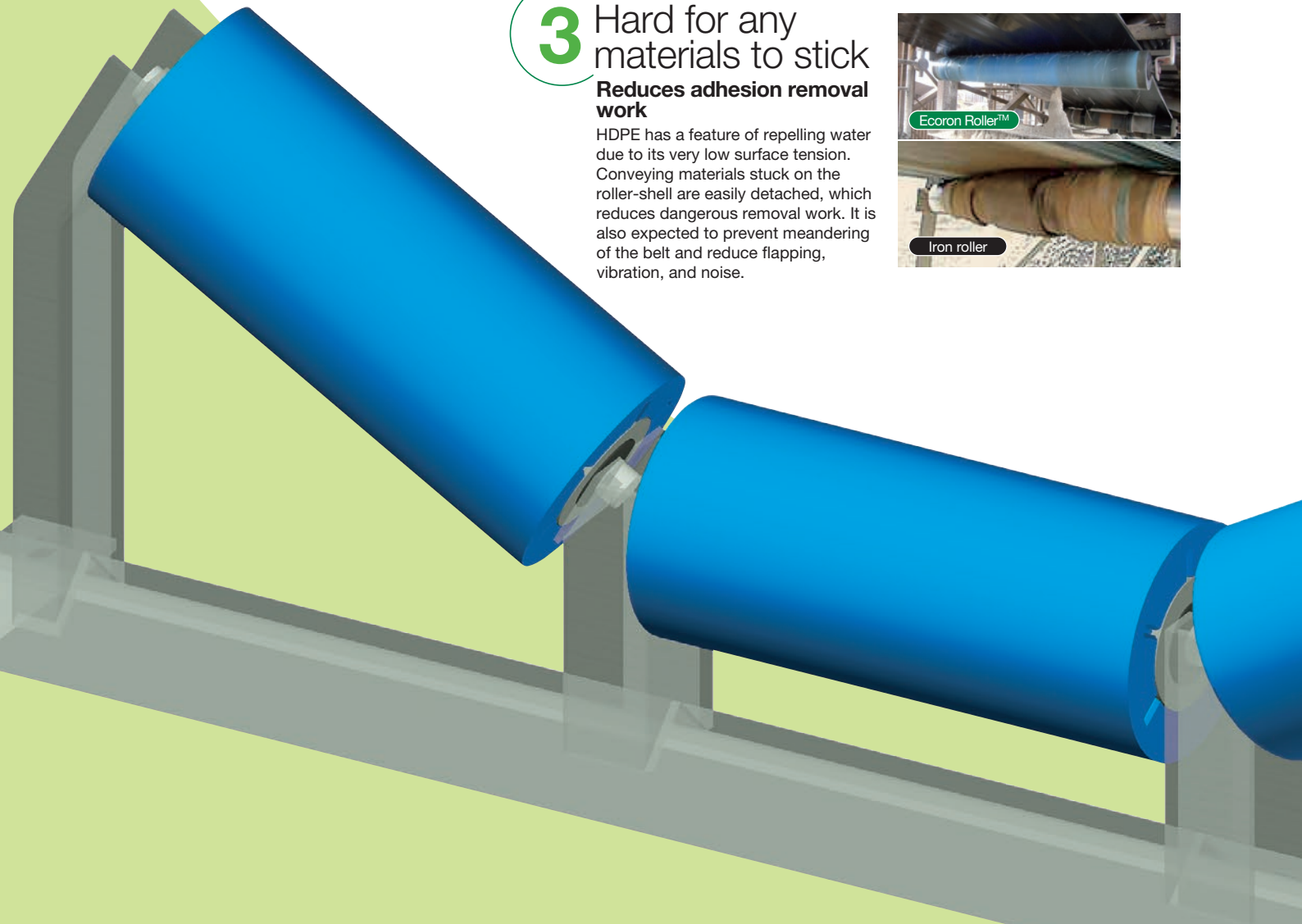
It is stronger against corrosion by water, acid, alkali etc. than metal, and demonstrates excellent durability even at hard task sites like outdoors, beaches and so on.



3 Hard for any materials to stick

Reduces adhesion removal work

HDPE has a feature of repelling water due to its very low surface tension. Conveying materials stuck on the roller-shell are easily detached, which reduces dangerous removal work. It is also expected to prevent meandering of the belt and reduce flapping, vibration, and noise.



There is a lot of conveyance materials adhering to the rollers, and the belt meanders.

If the belt meanders, the material to be transported will fall and cannot be transported efficiently.

The environment is highly corrosive, so they are replaced frequently.

Rust causes premature wear and adhesion, which quickly damages the rollers.

Concerned about vibration and noise while the conveyor belt is running.

Consideration must be needed to the work environment and neighborhoods.

It is difficult and dangerous to remove roller adhesion.

This may lead to accidents such as worker entrapment and occurrence of a disaster.

Rollers are worn out and damage the belt.

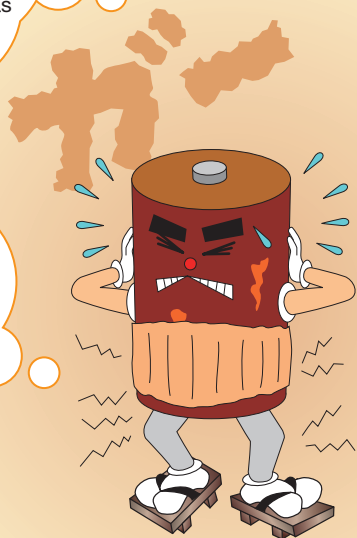
As the steel pipe rollers wear, their surface becomes knife-like and damages the belt.

It is difficult to carry when replacing rollers.

Replacing rollers by just one person can be difficult and dangerous.

Noisy roller rotation.

Vibration and bearing damage due to adhesion can cause noise.



Do you have any of these problems with rollers ?

For steel pipe rollers...

Until now, most rollers have been made of steel, which has been subject to corrosion by acids and alkalis and salt damage along the seashore. In addition, the adhesion on the belts were prone to stick to the iron rollers, making a removal task dangerous. The heavy weight of the rollers made replacement work very burdensome.



Solve everything with **Ecoron Roller™**

Easy replacement work

Lightweight greatly improves replacement work efficiency.

Long life

It is durable and long-lasting even in harsh environments where corrosions are concerned, such as outdoors and coastal equipment.

Reduce power usage

When the belt runs smoothly and the rollers rotate smoothly, less electricity is used, which reduces costs.

Noise reduction

Because there is little corrosion and adhesion, belt running noise and roller rotation noise are surprisingly quiet.

Belt friendly

There is less sticking and less friction, extending the life of the belt.

6 secrets of Ecoron Roller™

Structure of Ecoron Roller™

① Roller Shell

Extrusion molding of HDPE. High percentage of roundness and making excellent moving balance.

② Labyrinth seal

Three layer labyrinth structure raising sealing performance.

③ Housing

Hollow-rib structure keeps it light and strong, and prevents it from bending.

④ Bearing

Deep groove ball bearings with steel plate shields on both sides are included as standard equipment.

⑤ Rubber seal

Rubber seal protects the inside.

⑥ Drain

Designed to prevent flooding from going inside.

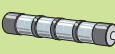
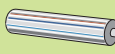
Secret of "Eco"

The "Eco" of "Ecoron Roller" means "ecology (environmental conservation)" and "economy (cost saving)."

It is not only friendly to the work environment on site, but it also has a long lifespan, saves resources, and is kind to the global environment. What's more, it reduces the frequency of replacement and saves on electricity bills, so it's truly "Eco". This roller is good for the environment and your wallet.

Please compare with the roller you are using.

Function comparison table with other rollers

	Ecoron Roller™ 	General purpose STK400 	Spiral 	Rubber wrap 	With sleeve 	Prevention of falling cargo 	Stainless 	PVC FULL 
Weight	1	2	2.3	2.4	2.3	2	2	1.1
Corrosion resistant	◎	×	×	△	×	×	○	◎
Strippable	◎	×	△	◎	△	△	△	○
Falling load under the roller*	Many	Middle	Many	Many	Few	Extremely Few	Middle	Many

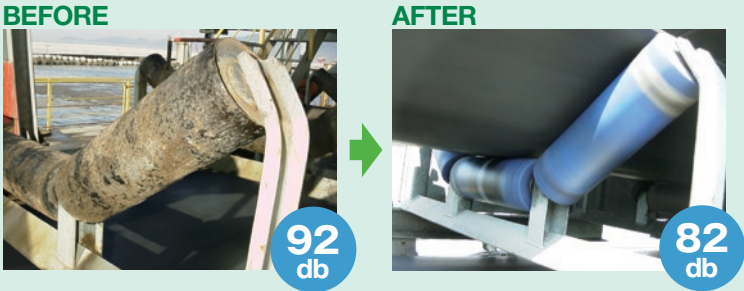
*If the belt cleaner does not work and there is a lot of adhesion.
(Note) Data differences may occur depending on the usage environment, usage conditions, and transported items.

◎ : High ○ : Middle △ : Low × : Nothing (Reference value)

Supply records

Reduce noise and make your work environment more comfortable!

There is a conveyor facility on the sea. When we used steel rollers, the adhesion and rust were severe. Because adhesion and rust cause vibration and noise, we couldn't have a normal conversation over the radio in the operator room adjacent to the conveyor. However, by changing to Ecoron Roller, noise has been reduced and the working environment in the operator's room has become more comfortable.



Reduces adhesion and reduces dangerous work!

When installed on the waste plastic transport line, almost no sticking of conveyed items to the rollers was found. When we used steel pipe rollers, sticking was accelerated, and the shape of the roller was no longer recognized. Although we used to do remove-work regularly, after using Ecoron Roller, there is almost no sticking.



Dimension sheet (Standard SIZE)

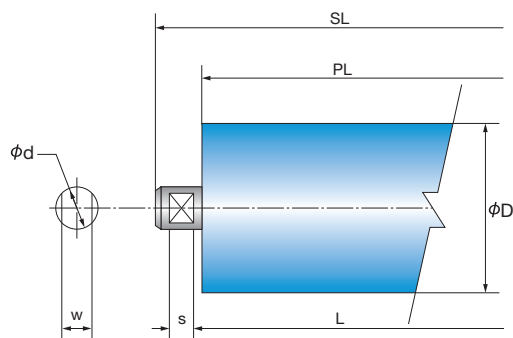
Only the roller can be replaced and used as it is in accordance with JIS standard.

*In principle, the specifications in the table are stock items.

*New JIS sizes and other sizes can be manufactured.

Please consult or request us about the delivery date, etc.

*Weight is for reference only.



Carrier Roller

Model YCR	BW	D	PL	L	SL	s	w	d	Bearing	Weight (kg) Reference comparison	
										Yoshino	Steel roller
-40	400	φ89.1	145	153	175	8	14	φ20	6204ZZ	1.2	2.1
-45	450	φ89.1	165	173	195	8	14	φ20	6204ZZ	1.3	2.4
-50	500	φ89.1	180	188	210	8	14	φ20	6204ZZ	1.4	2.5
-60	600	φ89.1	210	218	240	8	14	φ20	6204ZZ	1.5	2.8
-75	750	φ114.3	265	273	295	8	14	φ20	6204ZZ	2.1	3.8
-90	900	φ114.3	315	323	345	8	14	φ20	6204ZZ	2.3	4.4
-105	1050	φ139.8	370	380	410	11.2	18	φ25	6205ZZ	3.8	7.9
-120	1200	φ139.8	420	430	460	11.2	18	φ25	6205ZZ	4.2	8.6
-140	1400	φ165.2	500	510	540	11.2	22	φ30	6306ZZ	8.5	13.4
-160	1600	φ165.2	580	590	620	11.2	22	φ30	6306ZZ	9.6	14.0

(Unit: mm)

Return Roller

Model YRR	BW	D	PL	L	SL	s	w	d	Bearing	Weight (kg) Reference comparison	
										Yoshino	Steel roller
-40	400	φ89.1	460	480	505	8	14	φ20	6204ZZ	2.6	4.8
-45	450	φ89.1	510	530	555	8	14	φ20	6204ZZ	3.0	5.4
-50	500	φ89.1	560	580	605	8	14	φ20	6204ZZ	3.2	5.7
-60	600	φ89.1	660	680	705	8	14	φ20	6204ZZ	3.6	6.5
-75	750	φ114.3	850	880	905	8	14	φ20	6204ZZ	5.4	9.8
-90	900	φ114.3	1000	1030	1055	8	14	φ20	6204ZZ	6.4	11.4
-105	1050	φ139.8	1150	1180	1215	11.2	18	φ25	6205ZZ	10.5	20.2
-120	1200	φ139.8	1300	1330	1365	11.2	18	φ25	6205ZZ	11.7	22.5
-140	1400	φ165.2	1530	1550	1585	11.2	22	φ30 ^(Note)	6207ZZ	25.8	34.3
-160	1600	φ165.2	1730	1750	1785	11.2	22	φ30 ^(Note)	6207ZZ	28.7	38.3

(Note): The shaft diameter inside the YRR-140・160 rollers is φ35 and the bearing model 6207.

(Unit: mm)

Manufacturer



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