Rollers

Rollers for bulk handling

Rollers, very often, represent a high investment in the overall requirements of the project design of a belt conveyor installation.

The choice of high quality rollers that guarantee an adequate working life with the result that equipment may function without the business of the plant being interrupted.

It has been well proven that considering the overall economies in today's modern conveyors, their life and efficiency depends to a great deal on the choice of quality rollers, accurately manufactured using highly selected materials.

Of particular importance in the search for efficiency is the sealing system that protects the roller bearings.

Rulmeca, keenly aware of this requirement, has subjected and examined their design of manufactured rollers to severe laboratory tests.

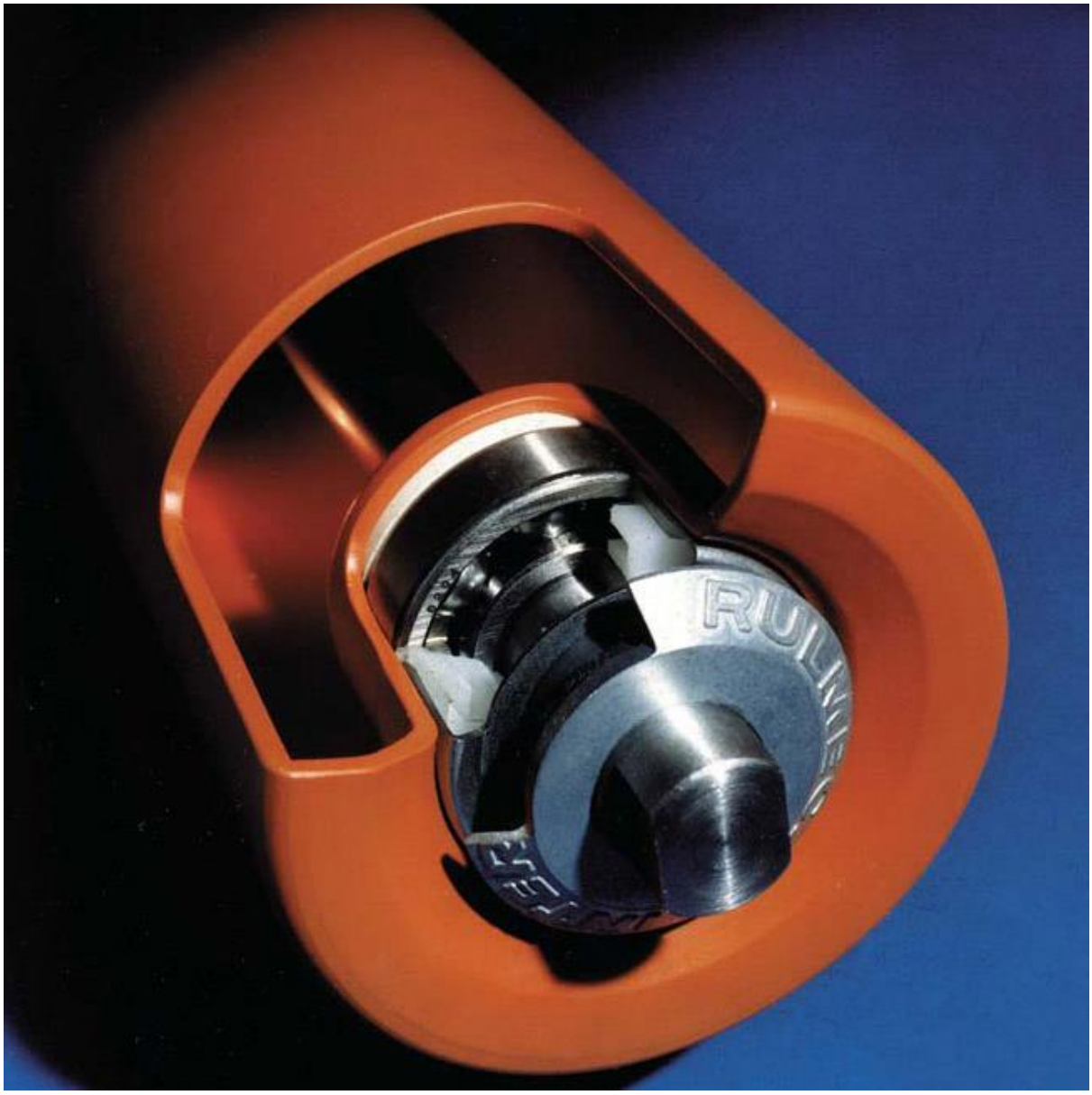
Numerous examples of plant and equipment used in material handling, all over the world, operating in the most severe environmental conditions, have used Rulmeca rollers of various types for many years.

Rollers produced by Rulmeca are manufactured according to all known national and international standards: ISO, UNI, DIN, AFNOR, FEM, BS, JIS, SANS and CEMA.

Products list

Series PSV

Rulmeca Group standard Bulk Handling rollers/Idlers suitable for all Bulk handling applications. Shaft diameter: from 20 to 40 mm - tube diameter: from 63 to 194 mm. Applications: mines, quarries, cement works, coal-fired power plant and dock installations.



Rollers PSV are particularly suited to conveyors that operate in very difficult conditions, where working loads are high, and large lump size material is conveyed; and yet, despite these characteristics, they require minimal maintenance.

Typical types of application are: mines, caves, cement works, coal-fired electric utilities and dock installations.

The effectiveness of the PSV roller sealing system provides the solution to the environmental challenges of dust, dirt, water, low and high temperatures or applications where there is a large temperature imbalance between day and night. The working temperature, with standard greased components is defined as between -20°C and + 100°C. It is possible to reach temperatures outside of this range using special grease, bearings and seals.

Impact Rollers with Rubber Rings

Impact rollers consist of the basic steel PSV rollers design, on which are fitted rings, designed to resist and absorb the pressure given by the impact of materials onto the belt.

The shock absorbing rollers, more often known as “impact rollers” consist of a base steel roller design, on which are fitted rings, designed to resist and absorb the pressures given by the impact of materials onto the belt.
These rollers are positioned in the carrying section of the belt, corresponding to the point of loading where the material falls onto it.

Return Rollers with Rubber Rings

These return rollers contribute to eliminating the build-up of material which particularly is present in the belt centre.

The straight tracking of the belt may be compromised by the type of conveyed material, specially when this material is sticky and thereby adheres easily to the belt surface.
In this case, material is also deposited on the return rollers that support the belt, adding an irregular addition of scale to the roller itself.
As a consequence, not only wear and tear of the belt occurs, but forces are brought into play to move the belt away from its correct track.
Return rollers with spaced rubber rings contribute largely to eliminating the build up of scale that forms in certain conditions on the belt surface.
The rings are pointed, assembled at intervals, in the central part of the roller, where they have the scope to break up the scale which normally is present at the belt centre; meanwhile flat rings mounted in groups at the extremities of the belt, support and protect the belt edges, also in cases of limited belt wandering.
Return rollers with rings should not be used as belt tensioning devices.
The rubber rings may function in the temperature range between – 20°C + 80 °C.

Arrangement G
Return rollers with pointed rings spaced in the central part and positioned in sets at the side. Used on belt conveyors of medium capacity.

Arrangement L
Return rollers used on belt conveyors in high duty plant. They are provided with sets of fl at rings, positioned at the roller extremities, and with pointed rings spaced in the central part of the roller.

Arrangement C
Return rollers for return transom sets of "V" design format with base rolllers from series PSV, with characteristic proportional dimensions to the requirements designed into large belt conveyors.

Arrangement with special flat rubber ring type B for pulp and paper and other industries.

Return self-cleaning rollers with helical rubber rings

Return rollers employed to reduce the deposit of material by operating on the surface of the dirty side of the belt in order to support the belt when the material being conveyed is very viscous.

Used on the return transom to support the belt when the material being conveyed, even if only a little sticky, is very viscous.
The helical spiral form of the non-abrasive rings, assembled onto the base roller shell, performs a cleaning action and reduces the tendency of material to deposit itself and stick to the surface of the dirty side of the belt.
They may be employed on any part of the return belt section in the case of short conveyors.
On long sections it is satisfactory to employ these rollers only up to the point where the material does not adhere any more to the belt surface.
These rollers should not be employed as snub rollers adjacent to the drive or return drums.

Guide Rollers

For various reasons, the conveyor belt may at times, tend to drift laterally.
In these cases it is possible to utilise vertical rollers with cantilevered spindles, these are generally known as belt guide rollers.
It is necessary however to pay particular attention to the use to which these rollers are put, so that the forces on the guide roller by the belt do not damage the belt edge.
In other words, guiding does not eliminate the true reason for the belt tracking off.
Consequently, the belt may ride over the guide roller or become distorted against it.
For these reasons it is advisable to always use guide rollers on the most suitable transom, the self-centralising, transom which rotates automatically whenever the belt tracks off conveyor centre and self-corrects.

Belt Tracking Rollers

Idle rollers for medium and heavy weight conveyor systems in internal, external, normal, dusty and humid environments.

Widely used in the mining industry and other conveyor related industries, the Rulmeca belt tracking roller responds instantly to the misalignment of the belt and does so without special modifications to the structure. The Rulmeca belt tracking roller accommodates belts ranging from 450 - 2300 mm.
Frame and guide rollers are often the cause of belt damage, which reduces the lifetime of the belt. The Rulmeca belt tracking roller requires no maintenance and fits into a standard drop bracket. The Rulmeca Centralising Return Pulley can be manufactured to suit all belt sizes in operation, in any country. Special design requirements, such as specific shaft dimensions and lengths, are possible at little or no additional charge.

Design and manufacture:

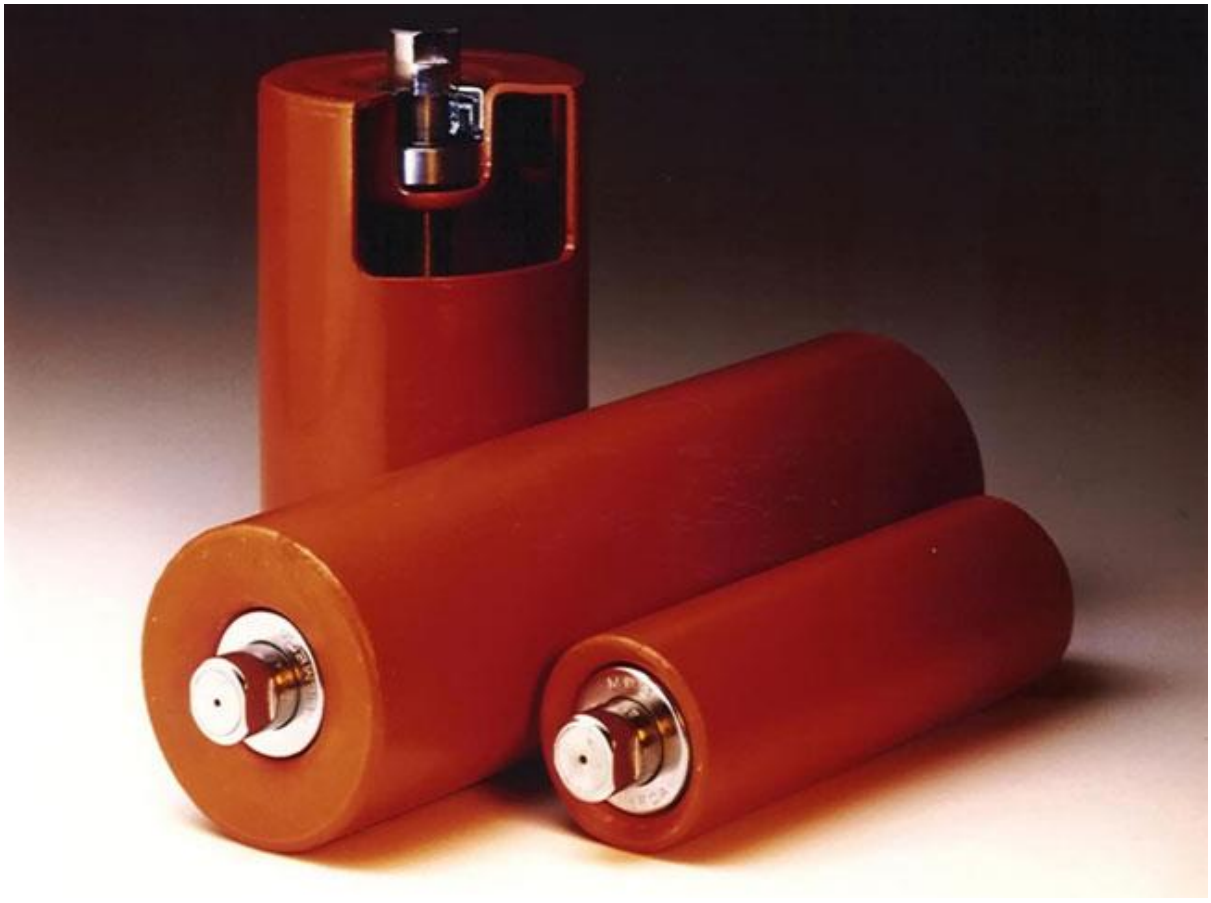
The Rulmeca belt tracking roller is a quality product that is made of precision-turned C.N.C. components. Special hardened steels and other alloys ensure that the Rulmeca belt tracking roller performs optimally over an extended period of time, in the toughest conditions. The bearings in the Rulmeca belt tracking roller continuously run in oil thus prolonging its life span.
The Rulmeca belt tracking roller is a fully serviceable product and carries a 2-year warranty!
It does not need to be discarded but can be reconditioned. (Please apply for terms and conditions).

FEATURES & BENEFITS:

- Prevent Belt Damage
- Prevent Structural Damage
- Prevent Spillage
- Decrease downtime
- Decrease maintenance
- Extend Belt Life
- Save Money!!!

Series MPS

Light duty economical rollers.



These rollers, particularly advantageous in the economic sense, use rigid radial precision 6202 ball bearings.

Their use is in medium duty conveyors, but also at high speeds and even in dirty external environment.

The functioning temperatures with standard components and grease are comprised between -20 °C and +100 °C. It is possible to reach temperatures outside this range by using special grease, bearings and sealing elements.

Series RTL

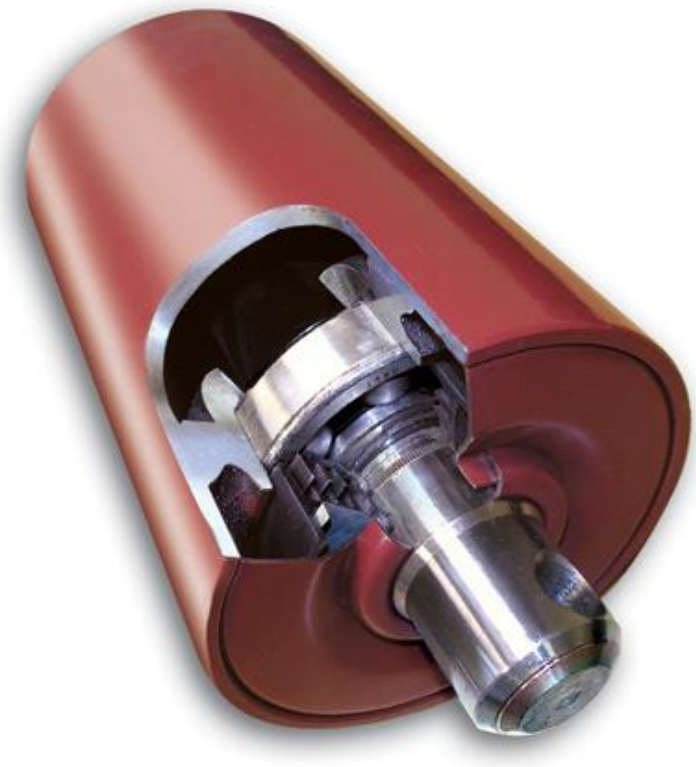
Rollers used in the movement of small or light loads even in medium severe environmental conditions.

The roller series RTL has been designed to be used in the movement of small or light loads.
The roller consists of a special steel tube swaged over the bearing housings which are made from technopolymers which have high elastic properties, and resistance to mechanical forces and to corrosion.
The standard design utilises bearings of type 6202 rigid radial ball race, a spindle of Ø15 mm with locking bush with spanner flats ch = 17 mm.
A double radial labyrinth protects the bearing to allow use in medium severe environmental conditions.

The functioning temperatures recommended are: – 10°C a + 70 °C.

DSK Rollers Extra Heavy Duty

PRECISMECA / RULMECA GROUP Heavy Duty Rollers are designed for heavy duty open mining applications. The heavy duty PRECISMECA / RULMECA GROUP rollers are assembled with bearing sizes 6308-6312.



PRECISMECA / RULMECA GROUP Heavy Duty Rollers are designed for heavy duty open mining applications. Thanks to the high quality machined parts and a non contacting multi-chamber labyrinth seal, the rollers run with a whisper. The high quality machining process is a guarantee for a long service life of the PRECISMECA rollers - 8 years in operation 24 hours a day is not a rarity.
Return rollers with rings should not be used as belt tensioning devices.

MATERIAL SPECIFICATION

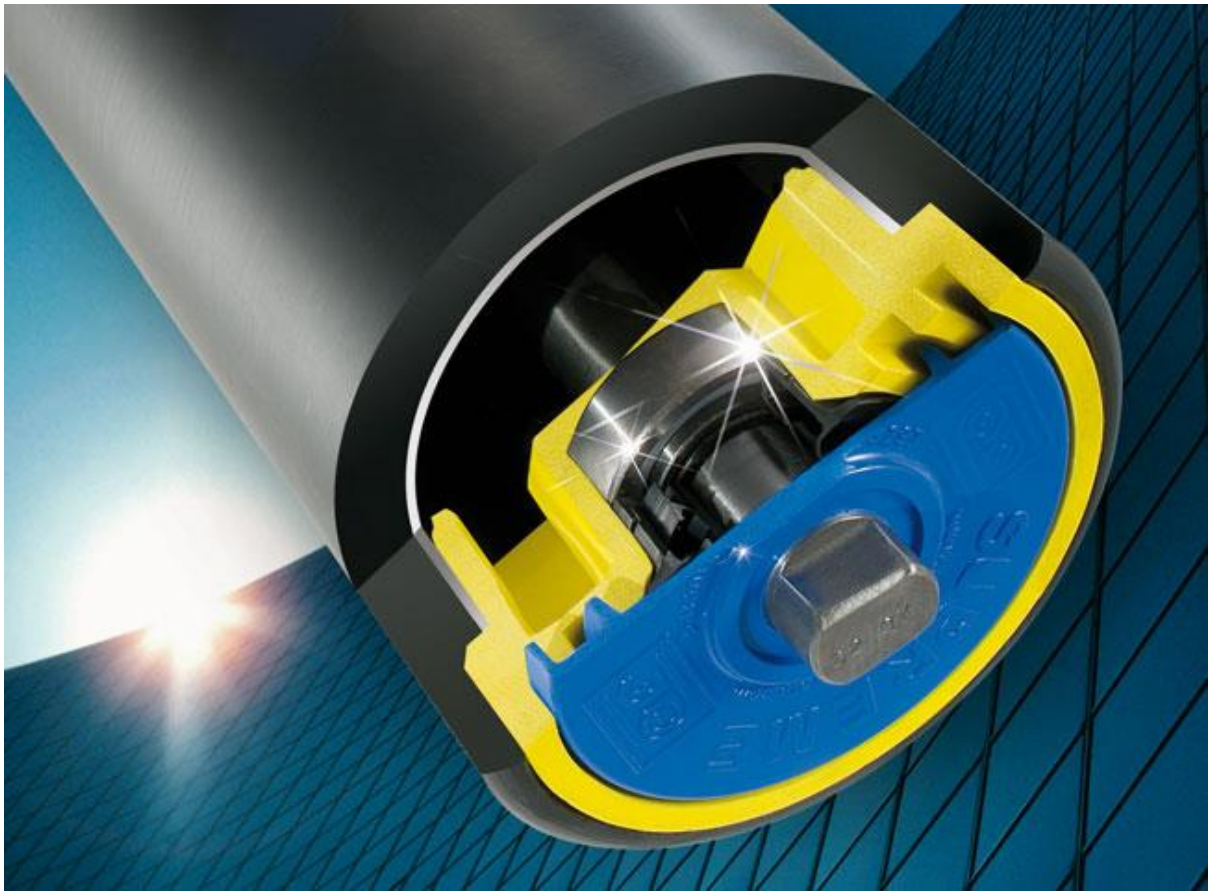
Tubes:	To DIN 2458 with tight tolerances, electrically welded; ST37 to DIN 17100
Shafts:	ST37
Housings:	massive housing made of forged steel
Bearing/Sealing:	deep groove precision ball bearings, (21310 / 21312 / 6310 / 6312 / 6316 / 6318); to DIN 625, triple lip labyrinth seal, heavy duty circlip cover cap - cold pressed deep drawn steel to DIN 1623/1624 and zinc plated
Lubrication:	permanent for roller life; lithium grease NLGI 2
Corrosion protection:	wax oil, type resost 7-3; colour painting on request

Main Features and Benefits:

- All DSK rollers available with different shell thicknesses
- All DSK rollers available in mass limited version
- Massive bearing housings
- The use of precision steel tubes guarantees best radial run-out
- DSK rollers and garlands are available for belt speed up to 10 m/sec.
- Best suitable for impact roller
- Different laggings for hard and aggressive applications available
- Additional sealing for extreme environments deliverable

Series Supreme

HDPE roller for mining and aggressive applications.



The SUPREME roller boasts a wide range of superior advantages, features & benefits:

- Steel tube ensures adequate mechanical strength for heavy duty loads
- Ultra thick abrasion and corrosion resistant 12mm thick HDPE sleeve
- HDPE contains carbon black increasing ultra violet resistance
- Steel and HDPE tube combination provides significantly reduced weight
- The bearing housing effectively locks the HDPE tube in position preventing movement along the steel tube
- Minimum “C dimension” decreases load induced shaft deflection

- Unique large diameter stoneguard with integral labyrinth design minimises possibility of being jammed by spilt material, and provides additional protection from water and dust
- Multi part labyrinth seal protects the bearing from ingress of contaminants
- Ultra low running resistance and break away mass reduces power consumption for start up and continuous operation
- Machined finish ensures LOW run-out, minimizing vibration and noise emission
- Castellated HDPE tube is a tight interference fit on the steel tube

Series TOP

HDPE rollers for light to medium duty applications: a light, strong, eco-friendly solution.

Rulmeca is proud to introduce the new TOP roller, a totally thermoplastic roller with the exception of the steel in the ball bearing and the shaft.

The new TOP roller has a lower weight with respect to a steel roller (about 50%), which means a lower power consumption during start/stop operation of the belt conveyor and therefore reduction of power requirements on the plant, easier mounting/maintenance operations, preventing back injuries of the operator and guaranteeing a safer intervention, especially in application where roller mounting or replacement might be critical (suspended belt conveyor, difficult access, long conveyors…), easier/cheaper transportation.

Furthermore the low level of abrasion and corrosion of this roller (wear resistant) guarantees a longer life of the roller and a lower maintenance of the whole plant.

The TOP is belt friendly, since HDPE tube will not wear the belt high resistance to chemical agents. It doesn't rust, it is suitable for a wide variety of applications and it has a low noise emission (due to thermoplastic noise absorption).

Thanks to the self-cleaning roller surface, there is a prevention of build up of material, main cause of belt mis-tracking and less spillage from the belt.

The roller low running resistance sealing system means a lower motor torque need in conveyor starts, a lower motor power size, a reduction of energy consumption of the belt conveyor (added effect to that of the lower weight) and a lower belt consumption.

Series PL

Anti-corrosion rollers - series PL for belt conveyors handling corrosive materials. Shaft diameter: 20 mm - PVC or steel tube with diameter from 89 to 140 mm.

Series PL
In conveyors used to transport very corrosive materials and where difficult working conditions prevail: the extraction industries and in the mining of salt, chemical industries, fertiliser manufacture and in marine environments which require corrosion resistant rollers.

These rollers demonstrate particular resistance to the presence of high humidity and water, and also to corrosive elements present in the environment or in the conveyed material itself.

The design of the rollers utilises plastic materials for the most critical parts, which, excellently and economically, substitute for traditional materials such as stainless steel, bronze and aluminium.

Testing and actual plant trials have well demonstrated the efficiency and versatility of these rollers. The characteristics designed into them provide a long working life even in the most severe environment, and
when one considers their low purchasing and maintenance cost, PL rollers provide the ideal solution for severe applications.

The functioning temperatures recommended are:

10° to +50°C for PL rollers

Low Noise Rollers

RULMECA solution for low noise according to the Directive RL 2000/14/EC

RULMECA carried out an extensive testing campaign, both in the in-house laboratory and in real application on the field and is now proud to present a new solution for low noise rollers.
RULMECA takes very seriously the issues related to roller noise with:

- The best equipment available;

- A specific Test room designed and prepared to meet the highest standards;

- Strong partnerships with engineering companies with specific experience in noise issues;

FEATURES AND BENEFITS:

• The RULMECA low noise roller has been specially machined to achieve very precise values of TIR and MIS. This allows high running smoothness and a reduction of noise emissions up to 12 dB (A) Lwa, compared to standard rolls.

• The high reductions in vibrations are also achieved by an accurate dynamic balancing procedure of class G12 according to DIN1940.

• With additional internal damping elements and the above actions, a whole noise reduction of 14 dB (A) Lwa is achievable. (registered design BRD 202010007189.5)

• These HIGH QUALITY RULMECA ROLLERS are recommended in high speed conveying applications where very low noise levels are required.

• Additional possibilities are:

- Use of RULMECA 'TOP' or 'SUPREME' rollers for special applications, (see separate flyer)

- Decoupling from conveyor steel structure with special damping solutions

- Special roller coatings (HDPE/LDPE/PU/Rubber)

- Special connecting elements, etc.

We have the knowledge and the best options to find the right solution for your material handling applications.

Transoms And Frames

Troughing sets for bulk handling

In a belt conveyor one may identify two types of troughing sets: the upper carrying sets, that have the function to support the loaded sections of the belt and to move the material; and the lower sets that support the unloaded belt on its return section.

The upper troughing sets may basically be in two arrangements: flat, with a single horizontal roller generally supported by two fixed brackets from the conveyor structure; troughed, generally with 3 rollers supported within a frame which is itself fixed to the conveyor structure.

There may be then, in the loaded sections, impact troughing sets that have rollers with rubber rings or suspended "garland" sets.

Products list

Cantilevered Sets

Stations designed for the use on light or medium load capacity belt conveyors with small lump size material.

The development of this troughing set is the result of long practical experience in the field.
The two rollers that comprise the set are assembled onto a single shaft of 15 mm diameter, and their external end caps hermetically sealed. Together with the central support the unitary assembly is extremely
strong.
Cantilevered sets are available with rollers from series RTL and MPS and their use is applicable to light or medium load capacity belt conveyors with small material piece size.
The support positions the two rollers in amanner that minimises the gap between them, without affecting their free rotation.
In this manner the belt is perfectly supported and no damage results even to a flexible belt due to the proximity of the two supportrollers.
The cantilevered sets may be located by their support fixing with screws or onto an appropriate base plate part number SPT1316.
The support brackets of the set have been designed with longitudinal “fixing” slots to allow for perfect belt alignment.

Pipe Conveyor Brackets

The Pipe Conveyor is open as a conventional belt conveyor, then it closes up into a pipe shape containing the conveyed material and returns to open at the discharge point.

The pipe conveyor is a system conceived to solve many of the problems existing with conventional conveyor systems. At the loading point of the material, the Pipe Conveyor is open as a conventional belt conveyor, then it closes up into a pipe shape containing the conveyed material and returns to open at the discharge point. As the material is wrapped around by the belt, there is no spillage or training problems and this keeps pollution under control. Pipe conveyors are available in horizontal curves as well as vertical curves.

What do Rulmeca supply within Pipe Conveyors?

- Rulmeca produces the rollers and roller supporting brackets for every diameter of Pipe, with its own moulds for standard dimensions and execution, and under customer drawings for non standard executions.
- Rulmeca's long term experience in these products grants technical support to the pipe conveyor designers and engineering companies in the roller and bracket selection.
- Thanks to the product research and development in previous years, Rulmeca can propose a new advantageous execution of roller disposal onto the frame and a new locking system to the brackets – an alternative to the standard riveted plate locking system.

See drawings examples of our products for Pipe Conveyors.

Contact your local Rulmeca office for more detailed information and for enquires.

BASIC INFORMATION

Main points of the system:

- Forming the conveyor belt into a tubular cross-section
- Arrangement of conveyor idlers to maintain a tubular cross-section
- Maintaining stability of the tubular section during travel

Six features

- Completely enclosed and dust-free transport of material
- No spillage or scattering of material from loaded belt
- No dropping of material from return belt
- Conveyor can be curved both horizontally and vertically
- Conveyor can rise at steep angles
- Return belt can also be used to convey material.

CHARACTERISTICS OF THE PIPE CONVEYOR

It is capable of conveyance closing up into a pipe shape.
Therefore the enclosed materials cannot scatter, drop, pollute the environment, as well as it prevents from dropping on the pipe shaped return side

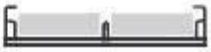
It is capable of curved transportation.
Therefore the lay-out can be rationalized into smaller areas.

It is capable of inclined transportation.
Therefore since the pipe shape increases friction between material and inside of the belt, the conveyor length becomes shorter.

Return Sets

Sets used for sustaining the empty belt in the return section.

The lower or return sets may also be chosen from varying arrangements according to the requirement: fixed sets with plain steel roller or with spacer rings and suspended sets “garland” with plain rollers and with rings.
Transoms and brackets

SPT 1478 SPT 243 SPT 1495		Lower return brackets for plain roller
R2 S 10°		Transoms for two return rollers "V"
R2 SP		Transoms for two flat return rollers

Self-Centralising Sets

The self-centralising troughing sets are used for correcting the belt tracking and maintain it constantly in central position.

Sometimes the difficult working conditions of the plant results in a lateral movement of the belt. In this case a self-centralising troughing set is used which acts in a way that corrects the belt tracking and maintains it constantly in the central position.
The self-centralising troughing set is designed as a series of rollers arranged in a trough positioned onto the supporting transom which itself is fixed to a slewing ring which permits rotation.
The slewing ring (a large ball bearing) permits a rotation limited to 5-8 degrees and is sized in proportion to the vertical loading; a tapered roller bearing assembled to the shaft of the slewing ring, absorbs any side forces or overturning pressures.
The installation of the self-centralising troughing sets is advised to be positioned on the upper strand rather than the return section, and used only when the working conditions require.

Supports

Support brackets in cold pressed sheet steel.

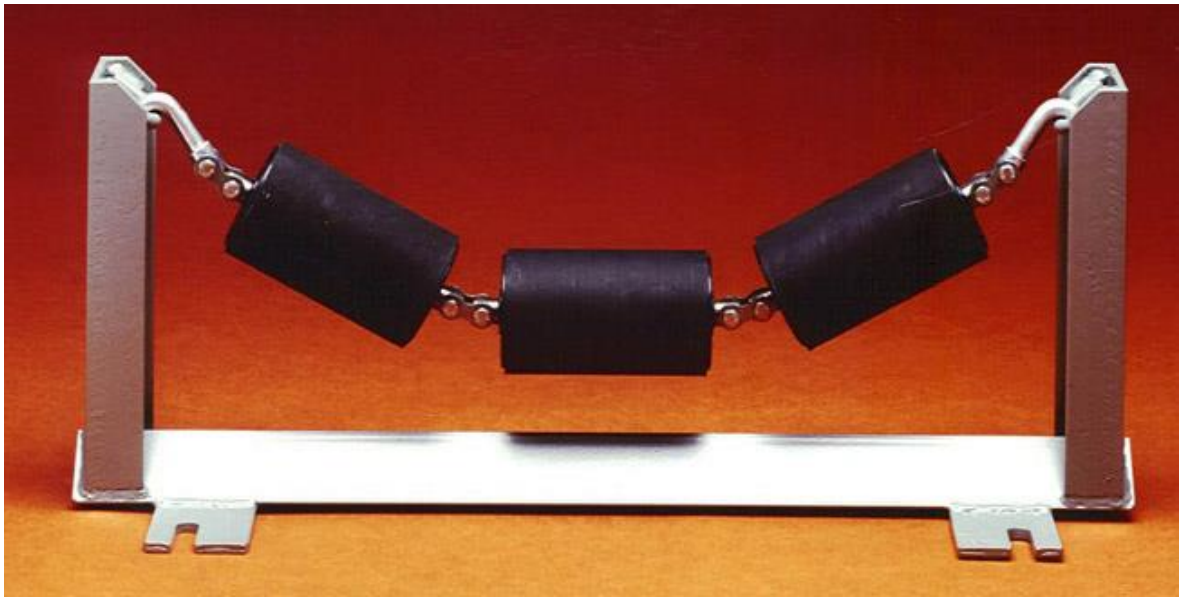
Suggested for many starts/stops, 5÷10/min or higher (if approved by Rulmeca).
Recommended for reversible belts.
Max. torque for the two supports: 40 Nm

Supports for Belt Drives:
S1DD60 (DJC 113) - steel with yellow tropic-proofing zinc-plating
S1DD6K (DJC113I) - AISI 304 stainless steel

Supports only for idle pulleys (not to be used with belt drives!):
S1DD61 (DJC 113T) - steel with yellow tropic-proofing zinc-plating
S1DD6M (DJC113TI) - AISI 304 stainless steel.

Suspended Sets

Garland suspended sets used in applications like mining for the conveying of large lump size material.



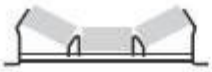
Increased activities of the bulk handling industry world wide necessitate conveying even greater quantities of bulk and large lump materials. This demand has accelerated the development of realistic solutions for belt
conveyor that couple robust strength with working flexibility, resulting in even higher belt speeds.
In particular, research into solutions for the most critical area of the conveyor, that of the loading zone, has resulted in the RULMECA development of the suspended "garland" troughing sets.
These suspended sets are quickly and simply installed, and allow maintenance to be performed on them without shutting down the plant.
For these reasons, the "garland" suspended system has been the subject of substantial research and development, resulting in their increasing use in the most diverse applications.

Upper Carrying Troughing Set

Troughing sets used for sustaining the belt on the loaded section and the section where it is loaded with material.

The drawings illustrate the arrangements of fixed carrying troughing sets with plain or impact rollers,l and the suspended troughing set “garland”.
The carrying troughing sets of three rollers are designed as standard for unidirectional belts, and for this reason have a slight forward inclination of two degrees in the position of the side rollers. This assists the
belt tracking by an autocentralising effect.
For reversible belts the version R is required, which is without the above two degrees.

Transoms and brackets

A2 S 20°		Upper transoms for two rollers
A3 L 30° A3 M 30° A3 P 30° A3 S 35°		Upper transoms for three rollers
SPT 1657 SPT 070 SPT 1795		Upper brackets for one roller

Pulleys

For 50 years Rulmeca has designed and manufactured pulleys, using materials of the highest quality in a production process employing advanced technology. This together with the application of the Quality Assurance system certified to ISO 9001:2008, contributes to the production of high quality products offering dependable, long life performance in the field and appreciably reducing maintenance costs. Rulmeca pulleys have been developed using a high degree of security in the dimensioning of the flanges, in the sizing and penetration of the welding and in the assembly between the shell, flange and hub.

Products list

Pulleys (Machined and Discs)

Drive pulleys ATN-ATS - Idler pulleys UTN-UTS-UTI

Pulleys are dimensioned according to the characteristics of each conveyor and may be designed to meet a great variety of construction methods.

According to the position that they occupy in a belt conveyor, the pulleys must withstand the forces imposed by both belt tension and conveyed load.

To meet the duties of the severest working conditions they may be supplied rubber lagged.

Lagging prevents belt slippage (in particular when water is present) and increases the drive traction of the pulley.

- drive pulley;
- return pulley;
- return pulley;
- bend pulley;
- tensioning pulley;
- snub pulley.

Accessories

Cleaners

Conveyor belt cleaning systems are considered more intensely these days, since they reduce the maintenance services on conveyors handling wet or sticky material and they allow higher or maximum productivity.
There are several types of cleaning equipment. The most used for ease of application are those with scraper blades mounted on rubber flexible supports.

Covers

Conveyor covers have primary importance when it is necessary to protect the material conveyed from bad weather conditions and therefore improve the functionality of the plant but importantly, to protect the environment from possible polluting elements due to the dispersion of dust in respect of the latest health and safety regulations in force.

Impact bars

Impact bars are used at the loading point of the conveyor under the hopper.

Products list

Belt Cleaners

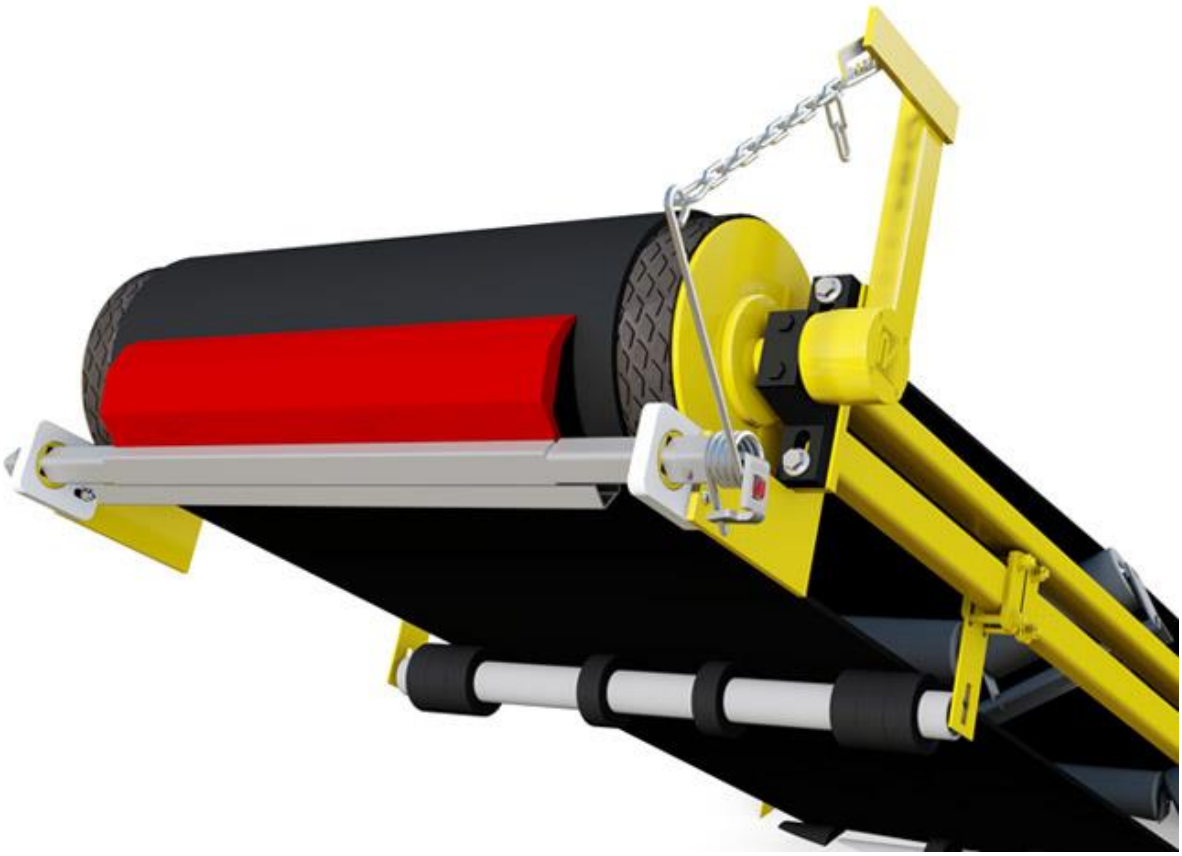
The cleaning equipment is used to assure the general plant efficiency and to reduce the periods of service needed for maintenance.

The problem of conveyed material adhering to the conveyor belt, occurs frequently with wet or sticky material, resulting in frequent downtime for maintenance, and clean up, with consequent loss of production.
The problems of belt cleaning have increased in parallel with the development of conveyors of ever increasing lengths, speed and belts widths, necessary to satisfy the need to maximise load capacities.
Therefore, the use of cleaning equipment has become an indispensable requirement to assure general plant efficiency and to reduce the periods of service needed for maintenance.
There has been a notable development of this equipment in recent time for differing reasons: prolonging the life of the conveyor limiting the deterioration of the belt, improving the energy efficiency of the installation,
reducing loss of material thereby increasing the load capacity, eliminating a major cause of wear on the return rollers.

- Belt cleaners series P for uni-directional belts
- Belt cleaners series R for reversible belts
- Belt cleaners series H for reversible and uni-directional belts for tangential applications
- Belt cleaners series D patented for single directional belts
- Simple plough cleaners

PU Scrapers

Rulmeca scrapers with blades in Polyurethane



Type PU-83 Simple Pre-scraper with single polyurethane blade
Position: Tangential for pulleys Ø 220-1000 mm
For BW 400-2000, max speed 3.5 m/s, also reversible
For easy to medium cleaning
Typically a fi rst scraper for an end user
Also used by many OEM as a standard scraper
Easy to replace the scraper blade without tools
The scraper must not be fitted to chevron belts or belts with mechanical joints
For materials: Sand, Gravel, Stone, Saw dust, garbage, soil

Type PU-89 Heavy Pre-scraper single strong and thick polyurethane blade
Position: Tangential for big pulleys Ø 400-1000 mm
For BW 650-1400, max speed 3.5 m/s, also reversible
For heavy cleaning
Easy to replace the scraper blade without tools
The scraper must not be fitted to chevron belts or belts with mechanical joints
For materials: Gravel, limestone, crushed stone, iron ore, cement

Type PU-91 Pre-scraper with segment polyurethane blades

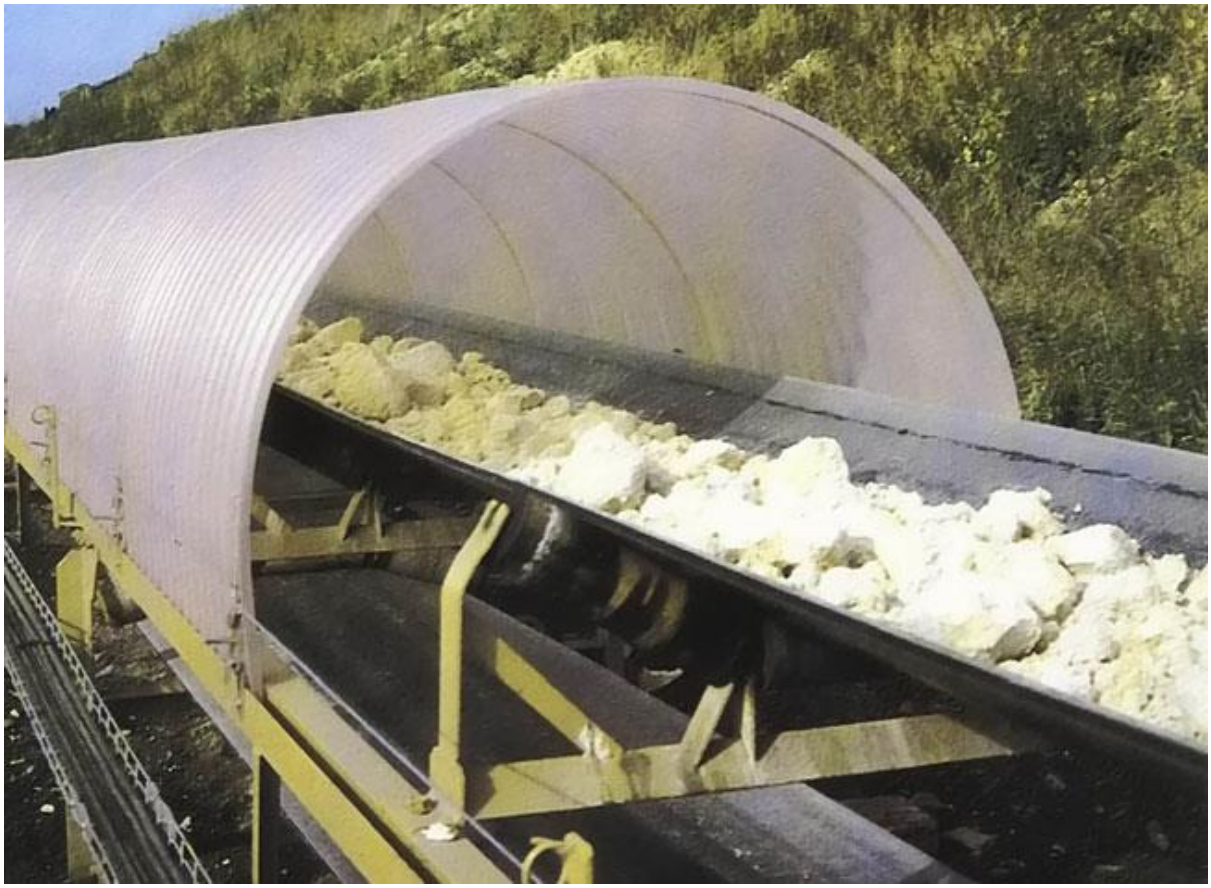
Position: Tangential for pulleys Ø 200-630 mm
For BW 400-2000, max speed 3.5 m/s, also reversible
Medium to heavy cleaning
Accurate cleaning due to flexible multi sectored blades
Easy to service and maintain
The scraper must not be fitted to chevron belts or belts with mechanical joints
For materials: Sand, Gravel, crushed stone, wet and sticky material

Type PU-92 Secondary scraper
Single strong and thick polyurethane blade and pre-tensioning device
Position: under the return belt 30-100 mm away from the head pulley
For BW 400-2000, max speed 3.5 m/s, single direction belts
For medium industry with stringent cleaning requirements
Also in combination with a pre-scraper for a max cleaning effect
Easy to service and maintain
Can be fitted with tungsten-carbide blades
The scraper must not be fitted to chevron belts or belts with mechanical joints
For materials: Gravel, limestone, crushed stone, iron ore, cement and others

Type PU-88 Plough scraper
Self aligning steel frame and 2 exchangeable PU-scraper strips.
Position: on the return belt before the tail pulley For BW 400-1800, max speed 3.5 m/s; the plough can be modified for reversible drive The purpose of the plough is to remove loose material from the return run of the belt.

Covers

The covers are used to protect the conveyed materials and to avoid the dispersion of powders.



In the project design of a belt conveyor, after having defined the components of primary importance, it is important to consider other accessories such as covers for the conveyor.

The necessity to protect belt conveyors may arise from the weather, from the volatile characteristics of the conveyed material, or from the type of works plant, and also from European norms that require the covering
of the total length of a belt conveyor in the open.

For example rain may create a problem of belt slip on the drums causing a tracking problem.

Extreme temperatures may cause the plant to mal-function or stop, whilst very strong wind may move the conveyor belt off its natural position causing serious problems to the business or loss of conveyed material.

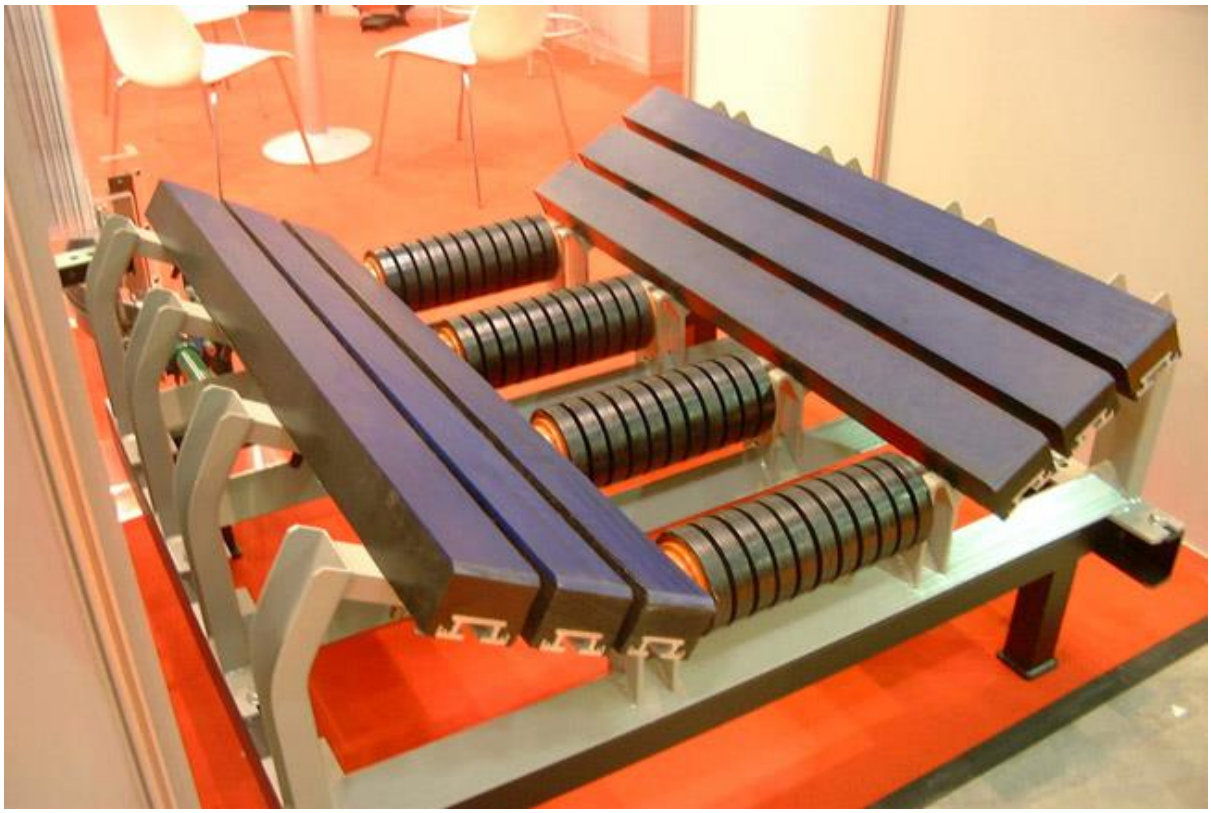
Covers series CPTA in steel

- Half circle with straight side
- Half circle without straight side
- 45° inspection door
- Dual full opening covers
- Removable covers
- Ventilated covers
- Covers "walkway"
- Roof covers

Covers series CPT in PVC

Impact Bars

The impact bars are used to prevent damage to the belt at the loading points, to keep the belt stable and to avoid the spillage of the conveyed material.



The impact bars, positioned under the loading points of the conveyor, prevent damage to the belt, keep the belt stable and avoid the spillage of the conveyed material.
Furthermore they ensure:

- less wear and risk of damage to the belt
- limited extra power consumption as the belt runs on a polyethylene layer with a low friction coefficient
- absorption of the shocks due to the impact of the material falling on the belt conveyor
- More centralising effect and belt alignment
- Easy installation and reduction of maintenance time and costs
- Easy conversion from traditional impact systems
- Availability for any belt type and width and any inclination angle
- The fixing bolts allow an easy and safe installation.