For more than 50 years Rulmeca has been producing rollers for material handling systems. These rollers are light, sturdy, self-lubricated, shock resistant and can be constructed using aluminium, mild steel, stainless steel and high resistance technopolymers.
ROLLERS FOR UNIT HANDLING

Advanced systems design coupled with continued investment in technology, machinery, production process and materials optimization, enables our manufacturing companies to maintain the highest standards.

The use of stringent quality control procedures during all stages of manufacture in accordance with quality system UNI EN ISO 9001:2008 norms, guarantees a product manufactured to give a long service life, even under extremely severe conditions. Our products provide customised solutions to meet all handling needs with gravity and driven conveyors.

The 111 series Rollers in technopolymer are lightweight, quiet and smooth running, capable of handling the lightest of packages. They are available in diameters 16, 20, 30, 40 and 50mm, ideally suited for the transport of light loads in food environments.

The 117 series Rollers with end-caps in technopolymer, and radial 6202 precision ball bearings have diameters 40, 50, 60, 63 and 80mm. They are very versatile having various application possibilities thanks to the special characteristics of being extremely quiet and particularly smooth running. Made with PVC, zinc-plated steel or Aisi 304 tube, they can be ideally applied in corrosive and food environments.

The GL/GM series Rollers handling light and medium loads are completely in zinc-plated steel with pre-lubricated radial ball bearings, making them smooth running and quiet with a high load capacity for different applications. They are available in diameters 18, 24, 30, 40, 50, 60 and 76mm, with shafts from 6 to 15 mm, with load capacity from 30 to 240 Kg.

RTL/MPR/MPS/PS series Rollers: idle rollers for the handling of medium and heavy loads in internal, external, dusty, humid or normal environments. They are equipped with radial precision bearings, with shaft diameters from 15 to 40mm and tube diameters from 38 to 194mm. The load capacity ranges between 250 and 2200 Kg.

Tapered Rollers KRF-KRO-KRM series for gravity curves and driven curves with chain loops, round belt and Poly-V belt for different applications.

Tapered Rollers KRM/S3 series are designed for driven curves transporting heavy loads, especially pallets. They are constructed completely in steel with zinc-plated shell and perfect tapered execution, ensuring regular precise pallet flow.

The 135 series Driven Rollers have the same general characteristics of the 117 series. With options of Polyamide and steel pinion sprockets or Poly-V / HTD belt head. Available in diameters 40, 50, 60 and 63mm, with zinc-plated mild steel, Aisi 304 or shock resistant PVC tubes.

These roller are ideally applied for the handling of light and medium loads in the fields of packaging, food and automation in general.

The friction driven 138 series Rollers for light and medium loads have the same features and options as the 135 series driven rollers. Friction driven rollers being applied in applications that require the low pressure accumulation of the load. The pinions are interchangeable and easily replaced by the ones of 135 series. The two series of rollers 135 and 138, along with the 138D and 138P series, double friction and adjustable friction, allow different combinations with maximum flexibility and system modularity.

The pinion sprocket and crown sprocket driven rollers for chain transmission are used for the controlled handling of a wide range of loads, with regular and irregular shape, with light or heavy, sturdy or fragile unit loads. They are available in diameters 32, 40, 50, 60, 63, 76, 89, 102, 108, 133 and 159 mm with shafts ranging from 8 to 40 mm diameter.

Components for unit handling

For more than 45 years RULMECA has been producing polymeric and steel wheels for the materials handling industry, as well as omnidirectional wheels and ball transfer units. Products used worldwide, as single components or pre-assembled in special zinc-plated profiles: Minimal, Medialrail and Heavyrail.

Wheels in technopolymer or in steel, diameter 48mm with or without flanges or covered with rubber rings. They have application for example in flow storage for light goods.

Omnidirectional OW wheels in high quality technopolymers, diameter 48, 80 and 120mm, used to handle goods in different directions. The OW wheels can also be driven.

Ball transfer units can handle goods with a flat and sufficiently smooth surface. They are in technopolymer for light applications (up to 50 Kg) and in steel for heavy applications (up to 2200 Kg), which are available in different executions.

Minimal wheel tracks, made of a zinc-plated profiled steel with polyamide wheels assembled with a 27mm or multiple of pitch.

These wheel tracks are ideal to handle light to medium weight loads and to be used in warehouse and picking areas. They are excellent when applied as sliding and containing guides in packaging processes, to produce rest and transfer surfaces when combined with machines for glass and wood panel production and for many other industries.

Medialrail wheels in galvanized steel or in Polyamide, diameter 48mm, inserted in special profiled tracks in galvanized steel. It is the ideal solution for medium and light gravity lanes or for lateral containment of handling systems. Furthermore it is particularly suited for picking and storage applications.

Heavyrail track profile is ideal to handle medium-heavy loads (pallets). It is the combination of rollers made with a rugged and compact structure in technopolymer held within a zinc-plated steel U profiled track.
The smart solution for handling items in industrial transport.

The Rulmeca Drive Rollers have been designed to provide optimum handling and control functions, in the most complex logistics. You can select the optimum RDR Drive Roller specification to best suit the application, to provide maximum efficiency and reliability. Thanks to the built-in technology it is ideal to handle from light weight fragile items to medium or heavy loads, at variable and accurate speeds. If driven by Drive Rollers, handling systems require no additional drive unit, drive chain or expensive guarding to enable the conveyor to work safely and quietly. The 24V DC Drive Rollers are designed to handle the load and the transfer speed required. Transmission can be passed from the RDR Drive Roller to matching idler rollers via drive bands or belts. Poly-V belts provide the most versatile solution for a wide range of applications in automated conveyor systems.

**RDR Drive Roller Flexibility of use**

- Installation made easier by the absence of external components.
- Perfectly suitable to replace traditional drive systems.
- Possibility of enhancing functions thanks to the Rulmeca Motion Control board (RMCE 1310).
- Directly interfaceable with the PLC.

**Applications**

- Conveyors for picking zones.
- Transfer devices between machines.
- Working and assembling zones.
- Conveyors for storage without pressure between items.
- Drive curves.
- Conveyors in corrosive environments.
- Conveyors for food environments.
- Vertical lifts.

**Features**

- Simple and quick installation.
- Adjustable speeds.
- Adjustable acceleration/ deceleration speed ramps.
- Trigger function coordinated with the protocol.
- Easy control of the handled item.
- High efficiency, low energy consumption.
- Low noise level of the installation.
- Wide range of speeds and torques.
- Tube configurations and lengths to required specification.

**Guarantee**

Drive Rollers are guaranteed against material and/or manufacturing defects, for 2 years from the date of the invoice, within the scope of proper use, as it is recommended by Rulmeca.

**RDR BL1**

The brand-new RDR BL1 model, a newly conceived Drive Roller, is originated by the high reliability and performance of the Brushless motor with internal drive and control, along with versatility and a wide range of speeds and torques that can be achieved with the reduction gear. The high performance and configuration flexibility of the RDR BL1 Drive Roller provide for use within a wide range of conditions and work loads:

- Conveyors at low, medium and high speed, kept constant with load change;
- suitable for frequent start-stop cycles;
- handling requiring high torques thanks to optimized heat management;
- handling requiring the possibility of changing speed;

**TECHNICAL CHARACTERISTICS AND ADVANTAGES**

- Brushless motor 24V DC;
- Control and drive electronics integrated in the motor.
- Totally safe operation even without using the external electronic board thanks to the electronics protected against polarity reversal;
- In-built diagnostic functions with Fault signal.
- Optimised torque drive system from the motor to the shell patent pending;
- Dynamic braking system (Dynamic Brake Assistant);
- Speed rates from 0.09 to 0.6 m/s at the various reduction ratios.

**Polu-V belts**

Thanks to the V belt drive head developed specifically to be used with RDR Drive Rollers and matching 135 series slave rollers, it is possible to construct highly efficient conveyor systems with transmission by Poly-V belts. An innovative and reliable method of transmission using flexible narrow belts easily guarded in minimum space, giving maximum safety.

**Rulmeca DRIVE ROLLER**

**THE SMART DRIVE SYSTEM**

The RDR Rulmeca Drive Roller products have been designed to provide optimum handling and control functions, in the most complex logistics. You can select the optimum RDR Drive Roller specification to best suit the application, to provide maximum efficiency and reliability. Thanks to the built-in technology it is ideal to handle from light weight fragile items to medium or heavy loads, at variable and accurate speeds. If driven by Drive Rollers, handling systems require no additional drive unit, drive chain or expensive guarding to enable the conveyor to work safely and quietly. The 24V DC Drive Rollers represent an extremely safe, silent, compact, efficient and durable solution. Rulmeca Drive Rollers are highly tested components, technologically advanced, perfectly suitable for engineering automated systems, with high performance and reliability. The Drive Roller consists of a variable speed motor with integral drive control, coupled to a planetary steel gearbox, running within a 50 mm diameter shell, configured to suit each application. To choose the Drive Roller model correctly, please consider the weight and size of the load and the transfer speed required. Transmission can be passed from the RDR Drive Roller to matching idler rollers via drive bands or belts. Poly-V belts providing the most versatile solution for a wide range of applications in automated conveyor systems.

**APPLICATIONS**

- Vertical lifts.
- Conveyors for food environments.
- Conveyors in corrosive environments.
- Conveyors for storage without pressure.
- Working and assembling zones.
- Transfer devices between machines.

**FEATURES**

- Directly interfaceable with the PLC.
- Perfectly suitable to replace traditional drive systems.
- Possibility of enhancing functions thanks to the Rulmeca Motion Control board (RMCE 1310).
- Possibility of remote controlling the speed setup, direction of rotation, Timer function and Fault signal.
- Possibility of remote controlling with voltage values other than 24V DC.

**ENERGY SAVING FUNCTION**

The Motion Control electronic board optimizes the power delivery to the Drive Roller so as to refine the actual energy need. The installation consumption can be further reduced by totally deactivating the motor as soon as the start signal is removed.

**MOTOR PROTECTIONS**

The Drive Roller is protected by the electronics built in the motor, which prevents incorrect wiring from damaging the motor. The Motion Control electronic board can extend safety limits. Moreover, it can protect the Drive Roller with a timed system against stall, overrun and slowdown, compared to Dip-Switch or remote settings.
MOTORIZED PULLEYS FOR BELT CONVEYORS

Rulmeca Motorized Pulleys are the ideal method of driving conveyor belts. A totally enclosed unit, with the motor, gearbox and all working parts hermetically sealed within the outer shell. With all integral parts, bearings, seals and gearing protected and constantly lubricated in operation. Rulmeca Motorized Pulleys require less space and grant more safety when compared to traditional multiple component motor transmissions systems. They have a higher efficiency and are much faster and easier to install. With fewer parts to consider, conveyor design and assembly is easier and quicker, procurement is also simplified reducing overall costs.

High quality design and precision engineering make the Rulmeca Motorized Pulley perfect for operating in all applications such as packaging, dynamic weighing, distribution, airport and logistics. Coupled with an IP66 protection rating as standard also enables for use in the most aggressive environmental conditions.

The range of Rulmeca Motorized Pulleys in complete stainless steel, are ideal in wet and wash-down applications. Designed for use in meat, vegetable, fruit and food processing conveyor systems where hygiene regimes are maintained.

**Applications and options**

Rulmeca Motorized Pulleys can be used to drive different types of conveyor belt. Motorized Pulleys have a crowned shell as standard to aid belt tracking and are used to drive traditional PVC and Polyurethane belts. With totally stainless steel versions and being hermetically sealed, Motorized Pulleys are ideally applied into the food industry, for hygiene and easy cleaning and used to drive plastic modular or positively driven belts.

For these belts the shell is cylindrical with:
- stainless steel sprockets fixed by a key welded along the shell;
- white or blue hot vulcanized rubber lagging; FDA approved, with linear grooves profiled to suit the most popular brands of modular belt.

Motorized Pulleys can also be used in non-belt applications, utilizing de-rated motors or Inverter drives.

Rulmeca Motorized Pulleys have many options such as: rubber lagging, backstop, integrated encoders, electromagnetic brakes and frequency converters. They are certified according to EC directive and have a guarantee of 2 years.

Furthermore RULMECA also manufacture Motorized Pulleys with bigger diameters up to 1000mm and higher powers up to 250 kW for the handling of minerals, aggregates, concrete and other bulk materials.

**Type 80LP – Ø95,5**
For light loads, with gearbox in polymer or polymer/stainless combination, used for small conveyors, packaging machines, transfer conveyors and in supermarket check-outs.

- **Power**: 0,06 - 0,12 kW
- **Speed**: 0,10 - 0,77 m/s

**Type 80LS – Ø91,5**
For light loads, with steel gearbox it is the ideal Motorized Pulley for high torque applications in reduced space in conveyors with frequent cycles, for dynamic weighing and metal detectors, pharmaceuticals, industry, for food processing with modular belts.

- **Power**: 0,02 - 0,12 kW
- **Speed**: 0,05 - 1,00 m/s

**Type 113LP – Ø113,5**
For light loads, with gearbox in polymer or polymer/stainless combination it is used for light and medium duty conveyors, packaging machines, plastic moulding, X-ray inspection systems, food processing and in supermarket check-outs.

- **Power**: 0,06 - 0,37 kW
- **Speed**: 0,06 - 1,50 m/s

**Type 113LS – Ø113**
For light / medium loads, with steel gearbox it is the ideal Motorized Pulley for applications that require a strong drive in heavy and frequent use conveyors, for check-in at airports, pallet drives, dynamic weighing and metal detectors, packaging food processing with modular belts.

- **Power**: 0,035 - 0,37 kW
- **Speed**: 0,05 - 1,50 m/s

**Type 138LS – Ø138,5**
For medium light loads, with steel gearbox, it is a very flexible component thanks to the wide range of powers and speeds.

- **Power**: 0,10 - 1,00 kW
- **Speed**: 0,04 - 1,90 m/s

**Type 169LS – Ø166**
For medium loads and with steel gearbox, it is very robust and able to provide high torques and withstand high radial loads. It is the ideal Motorized Pulley for conveyors for heavy and frequent use, in logistics and sorting centers, for check-in desks and luggage handling at airports, for packaging, telescopic conveyors, food processing.

- **Power**: 0,10 - 1,00 kW
- **Speed**: 0,04 - 1,90 m/s

**Type 220M-L-H – Ø216**
For heavy loads with steel gearbox, it is very robust and able to provide high torques and withstand high radial loads. It is the ideal Motorized Pulley for conveyors for heavy and frequent use, in logistics and sorting centers, for automotive industry, for luggage handling at airports, for warehouses and telescopic conveyors, for batching plants, in farms and agricultural plants.

- **Power**: 0,37 - 2,20 kW
- **Speed**: 0,13 - 1,51 m/s

**Type 220L-M-H – Ø216**
For heavy loads with steel gearbox, it is very robust and able to provide high torques and withstand high radial loads. It is the ideal Motorized Pulley for conveyors for heavy and frequent use, in logistics and sorting centers, for automotive industry, for luggage handling at airports, for warehouses and telescopic conveyors, for batching plants, in farms and agricultural plants.

- **Power**: 0,37 - 2,50 kW
- **Speed**: 0,13 - 2,50 m/s

For heavy loads with steel gearbox, it is very robust and able to provide high torques and withstand high radial loads. It is the ideal Motorized Pulley for conveyors for heavy and frequent use, in logistics and sorting centers, for automotive industry, for luggage handling at airports, for warehouses and telescopic conveyors, for batching plants, in farms and agricultural plants.

- **Power**: 0,75 - 7,50 kW
- **Speed**: 0,13 - 2,50 m/s

Motorized Pulleys service centers

We are close to you, whenever you need us. The global network of Rulmeca Service Centers for the service and repair of Rulmeca motorized pulleys are staffed by specialists at the disposal of our customers to grant quick repairs, always using Rulmeca original components, and to assemble small quantities of Motorized Pulleys on short lead times.

Contact your local Rulmeca Company: www.rulmeca.com to verify the quantity and the range of executions that can be produced with fast deliveries.