

NEW

**Lenze**  
engineered to win

## Motor driven roller MDR o450

Endless opportunities for designing your conveyor system

### The new active motor driven roller from Lenze

Intralogistics solutions in warehouses or distribution centers benefit from the endless opportunities offered by our new motor driven roller for designing conveyor systems.

- Up to **2x as powerful** as other MDRs thanks to the innovative drive concept
- Upwards of **15% energy savings** compared to conventional MDR due to low friction losses – comparable with efficiency classes IE7 to IE9
- **Pleasantly quiet** during operation thanks to the Vernier principle
- **Reduced number of variants** – one for all speeds and torques
- **Voltage flexibility** with 24 and 48 VDC

#### Accumulating roller, roller and belt conveyors

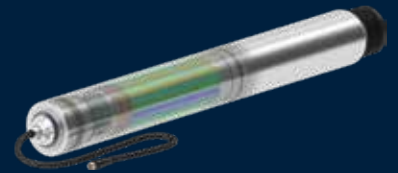
Horizontal transportation of full and empty crates, cartons or sensitive goods in polybags is guaranteed to run smoothly with the motor driven roller.

#### Diverter

The number of parcels shipped each year is set to increase by the billions. Parcel logistics therefore, requires efficient, dynamic and reliable conveyor solutions that evolve with the company.

#### Cross conveyor

Quick changes of direction, sideways movements, and applications in the industry, the motor driven roller is so reliable. Peak torques of up to 5 Nm are possible.



#### Innovative motor design

The so-called Vernier motor combines a three-phase AC motor with a loss-free magnetic gear effect and thus ensures speed.



#### Sustainable savings

- **167 MWh power**  
- **72,5 t CO<sub>2</sub>**  
That's how much less electricity and CO<sub>2</sub> **10,000 motor driven rollers** consume in a logistics center with a **10 km conveyor line.**



#### Super quiet

Regardless of whether you are driving conveyor belts or roller conveyors, the MDR motor driven roller is gearless and pleasantly quiet.

Partner for  
**automation  
solutions  
in intralogistics**

Every automation concept presents unique challenges, whether your priority is decentralized flexibility, energy efficiency, simple configuration or compact size.

Intralogistics conveyor systems can be designed much more precisely with the **new Lenze MDR** than with comparable MDRs, and oversizing with the corresponding energy losses is avoided.

**Powerful Performer**

The new motor driven roller is twice as powerful as conventional motor driven rollers and enables goods to be transported much faster.

The innovative, brushless motor design works according to the Vernier principle: a magnetic gear effect is generated, which makes the o450 motor driven roller powerful and efficient. The power electronics are integrated inside. With a diameter of 50 mm, the roller is extremely compact.

**Application Allrounder**

The gearless design reduces your variants by up to 85%, reducing excess stock and minimizing design variables.

This maximizes your flexibility from an operational and maintenance perspective. With fewer variants in the warehouse, you gain the flexibility to solve the diverse load and speed challenges faced in today's intralogistics operations.

**Efficiency Superstar**

Cost and energy savings are the result of the compact and gearless design. Friction losses are completely eliminated. The efficiency of the motor driven roller is 15% higher than that of conventional motor driven rollers with gears.

The motor design not only uses less active material but is also based on a newly developed type of magnet that requires 30% less rare earths than conventional magnets. In total, >50% less rare earths are used.

**Control of the motor driven roller**

24 V or 48 V, with an analog setpoint specification of 0 - 10 V for speed control and ramp adjustment, such as with the G20 module from Pepperl+Fuchs. One control module can drive up to 4 motor driven rollers.

