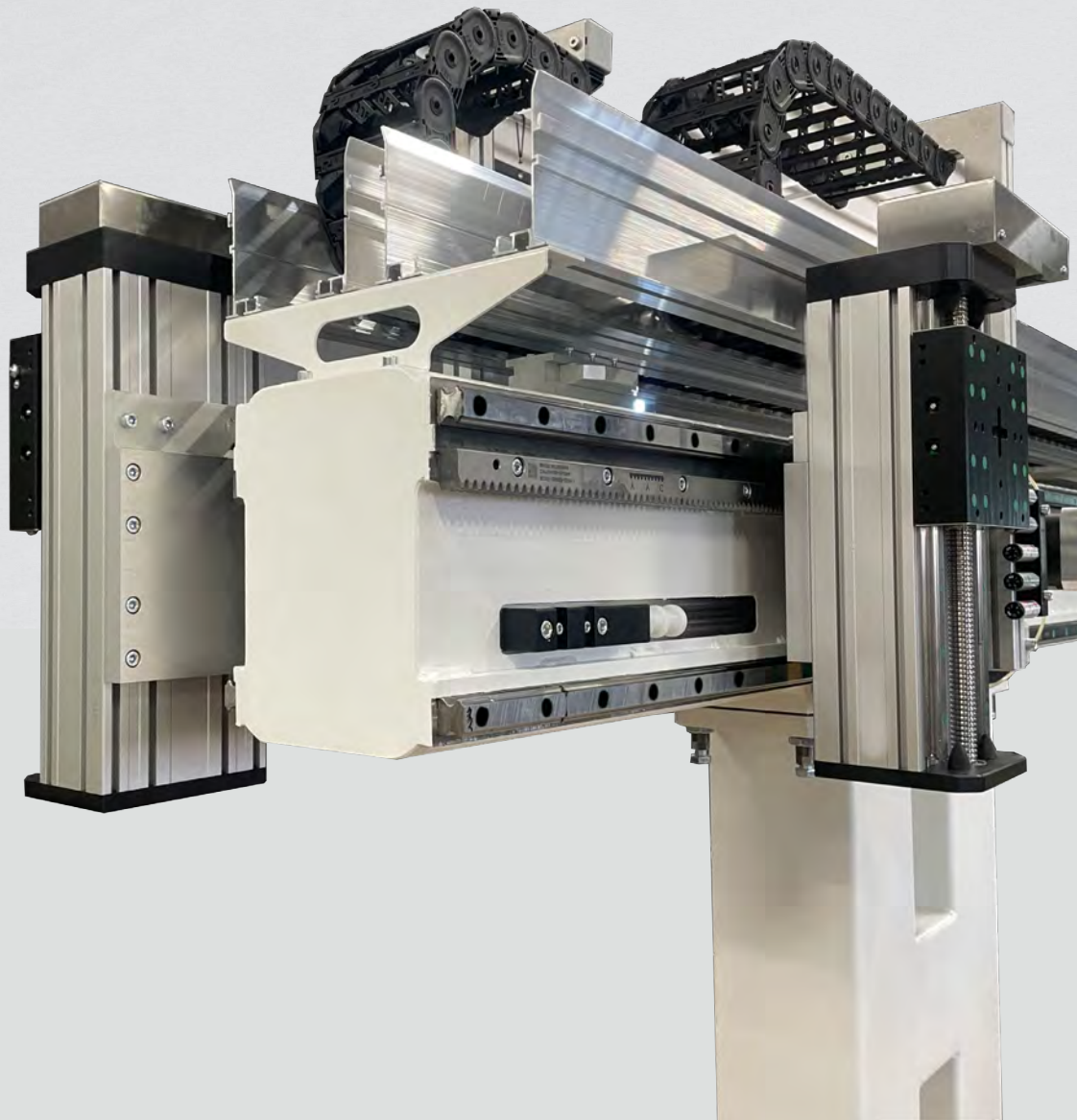


THE SPECIALIST  
FOR MOTION  
TECHNOLOGY

# NADELLA SYSTEMS



# MULTI-AXIS CARTESIAN SYSTEMS

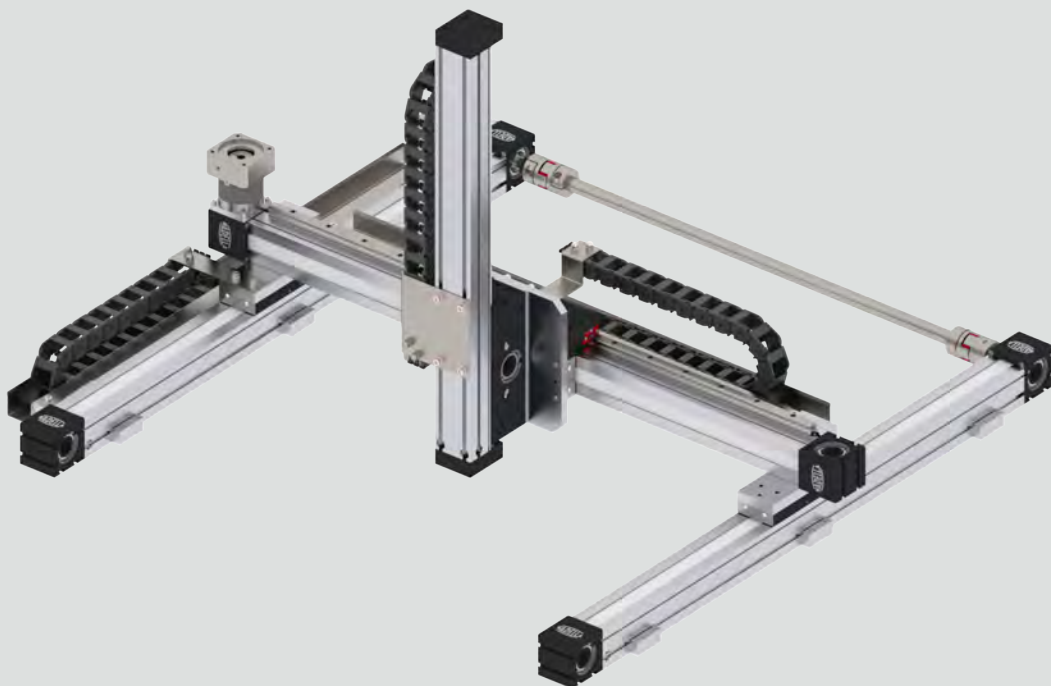
## MANIPULATORS 2D-3D AND GANTRY

Multi-axis Cartesian manipulators, consisting of Nadella linear units and rotating axes, for the following systems:

- | Palletization on lines and end of lines for packaging
- | Feeding and handling on machine tools, assembly machines, warehouses and automatic systems
- | Tightening and dispensing for resining, gluing and spreading
- | Positioning of appropriate tools for mechanical processing, removal, marking, welding, spot welding and riveting

Operational dimensions, capacities and dynamics required for the manipulator are fully met thanks to the careful integration of adequate linear units.

The linear unit composing the vertical actuator can be a single linear module or, based on loads, also a telescopic linear module.



## SHEET METAL MACHINERY FEEDERS

Cartesian systems for sheet metal processing machinery feeding.

Main systems manufactured:

- | Feeder
- | Dual bar
- | Destacker
- | Transfer shuttle

Operational dimensions, capacities and dynamics required for the system are fully achieved thanks to the careful integration of adequate linear units.

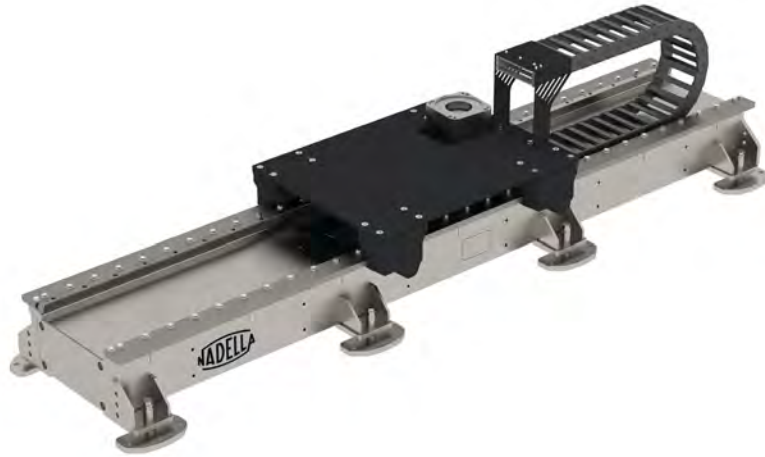


# HEAVY DUTY SYSTEMS WITH STEEL FRAME

## 7<sup>th</sup> AXIS

Linear track for robots with the following characteristics:

- | Payload up to 15.000 N
- | Electro-welded steel frame and machined using machine tools
- | Track transmission with hardened and ground helix teeth
- | Motorized carriage
- | Automatic lubrication control unit
- | Cable chain included
- | Energy absorption bumper



## HEAVY DUTY CARTESIAN UNITS

Linear units in steel with the following characteristics:

- | Electro-welded steel frame and machined using machine tools
- | Track transmission with hardened and ground helix teeth/or toothed belt reinforced with steel strands
- | Payload up to 13.000 N
- | Repeatability  $\pm 0,045$  mm
- | Maximum feed force 7.500 N
- | Speed up to 3 m/s



## HEAVY DUTY CARTESIAN SYSTEMS

Linear track for robots with the following characteristics:

- | Electro-welded steel frame and machined using machine tools
- | Track transmission with hardened and ground helix teeth
- | Automatic lubrication control unit
- | Cable chain included
- | Energy absorption bumper

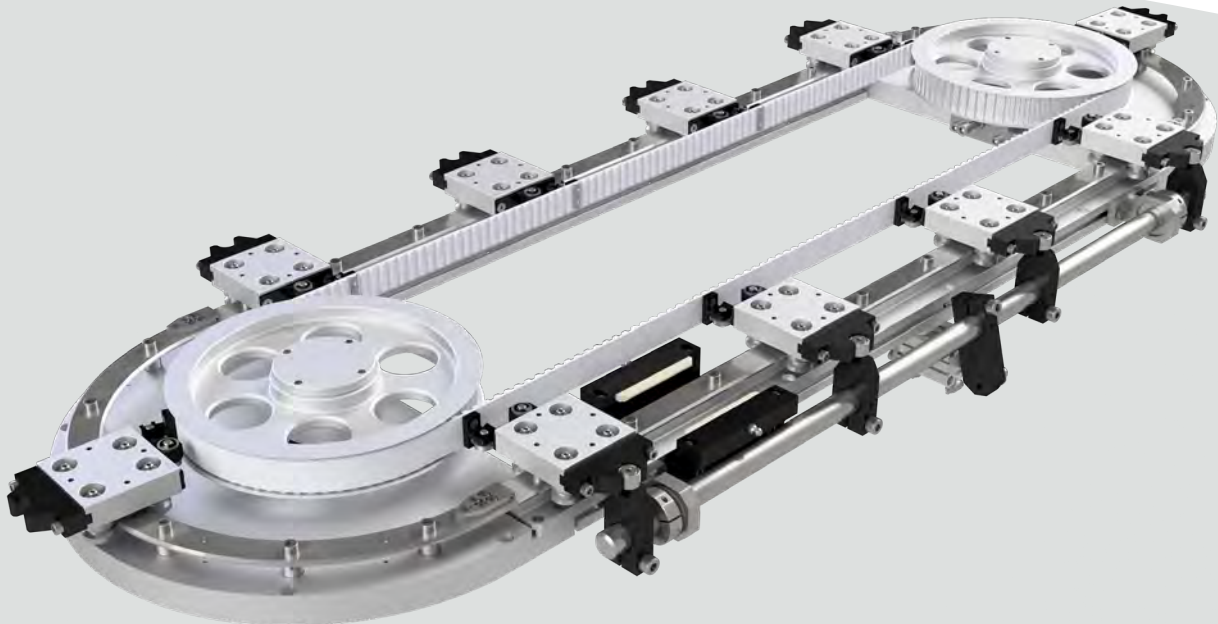




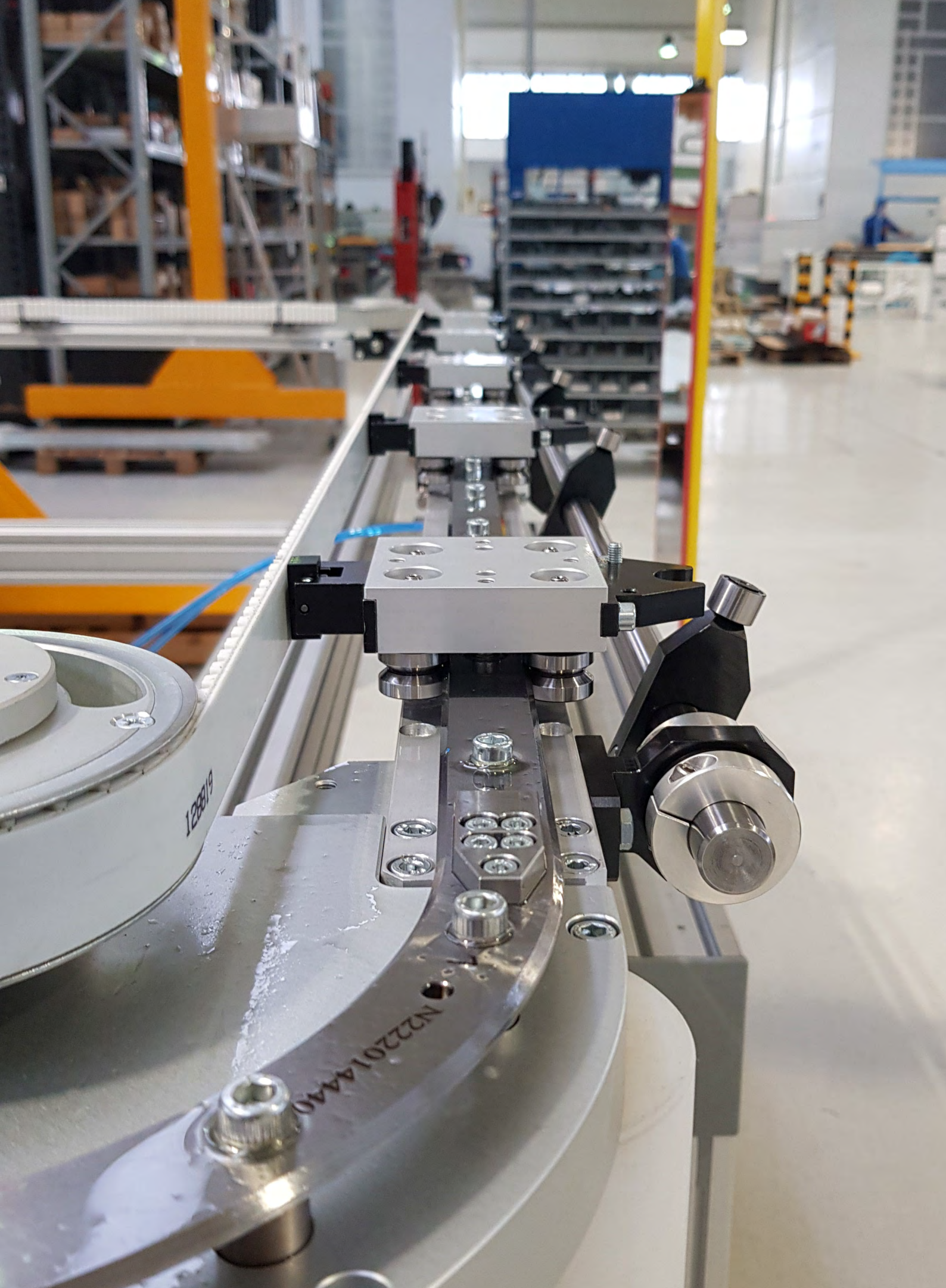
# CIRCULAR SYSTEMS

## CIRCULAR SYSTEM

- | Aluminum frame with high stiffness and compact design
- | Oval or square circuit based on Nadella FSRO and FSRQ rails
- | Toothed belt driven systems
- | FR..EU rollers to withstand heavy load capacity and high dynamics
- | Belt connector engineered to guarantee a rigid transmission and shock absorption
- | Indexing system to ensure a carriage positioning and repeatability of  $\pm 0,05$  mm
- | Modular systems can be customized according to customer requirements
- | Reduced maintenance thanks to LUBR system and roller lubricated for life





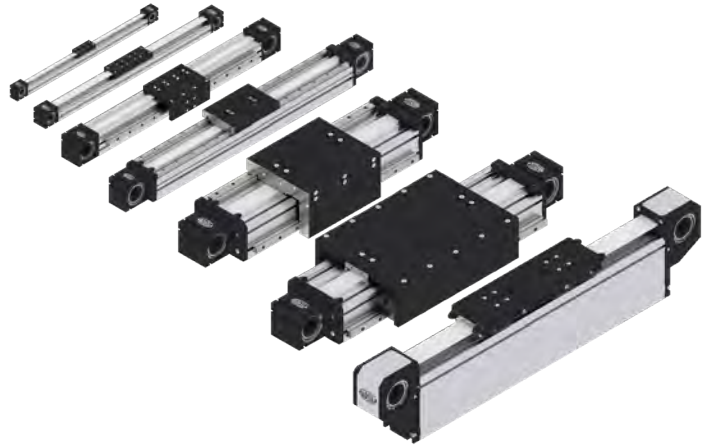




# LINEAR UNITS

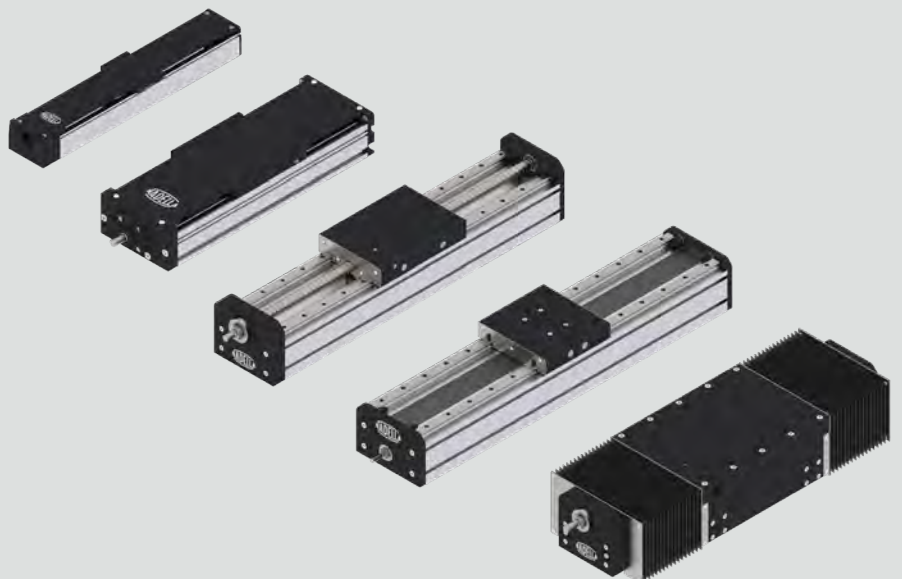
## BELT DRIVEN

- | Toothed belt AT type
- | Ball recirculation / Rollers Guiding system
- | Repeatability  $\pm 0,05$  mm
- | Payload up to 20.000 N
- | Speed up to 10 m/s
- | Covering protection available
- | Strokes up to 6m in single beam
- | Gearbox configurations available



## BALLSCREW DRIVEN

- | Ballscrew ISO5 and ISO7
- | Ball recirculation guiding system
- | Repeatability  $\pm 0,02-0,05$  mm
- | Payload up to 8.000 N
- | Speed up to 1,6 m/s
- | Covering protection available
- | Ballscrew supports for long strokes





## TELESCOPIC

- | Belt or rack driven
- | Ball carriages guide system
- | Repeatability  $\pm 0,15$  mm
- | Payload up to 11.200 N
- | Speed up to 4 m/s
- | Gearbox configurations available



## RACK AND PINION DRIVEN

- | Rack driven
- | Ball recirculation guiding system
- | Repeatability  $\pm 0,1$  mm
- | Payload up to 14.000 N
- | Speed up to 3 m/s
- | Horizontal or Vertical strokes

