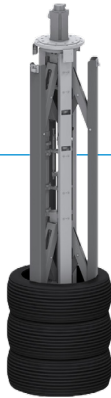


INTERNAL GRIPPER FOR TIRE STACKS

▶ PRODUCT ADVANTAGES



- ▶ Dynamic, strong, robust and ready-to-mount gripper on gantry or robot for tire stack handling
- ▶ Lightweight, modular industry-standard gripper provides flexibility and ease of use
- ▶ Sensor mounting to verify the presence of the tire and height of the stack
- ▶ Self-gripping by force retention through lead screw drive
- ▶ Can handle a wide range of tire diameters
- ▶ Useful for finished tire handling in the intermediate storage area
- ▶ Workpiece contact parts are made of stainless steel

▶ HIGHLIGHTS AND TECHNICAL DATA



Drive AC servo motor



Internal gripping



Gripper jaws are synchronized



Self locking mechanism

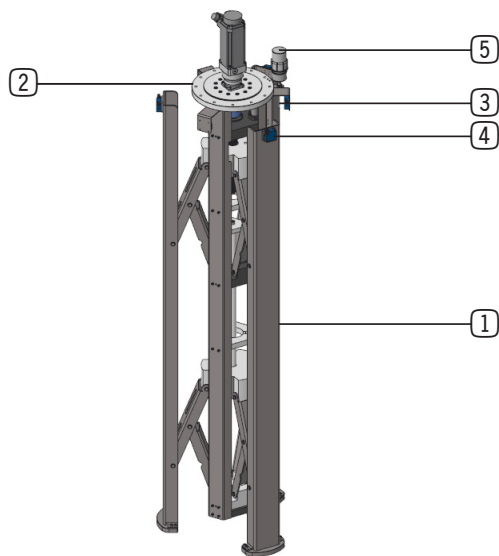
▶ CHALLENGE AND SOLUTION

- ▶ Modular system for gantry and robots with easy-to-use, ready-to-mount solution
- ▶ High dynamics and speed with servo operated linkage mechanism to grip stack
- ▶ Wide range of diameters and weights with linkage mechanism to facilitate jaw opening
- ▶ Suitable for corrosive and humid environments with stainless steel components and coated parts
- ▶ Advanced safety with gripping force retention through lead screw
- ▶ Easy maintenance with easy-to-replace parts
- ▶ Light and readily available, an economical choice for system integrators
- ▶ Low TCO for end users with low cost, high availability and proven design

▶ WORKPIECE PARAMETERS

- ▶ Inner diameter [d]: 9-28 inch
- ▶ Outer diameter [D]: 385-1250 mm
- ▶ Tire height: 60-460 mm
- ▶ Single tire weight: 45 up to 100 kg
- ▶ Stack height max.: 2000 mm
- ▶ Payload: 20-370 kg
- ▶ Opening time: 1.5 s (50 mm radial stroke)
- ▶ Closing time: 1 s (50 mm radial stroke)

► BENEFITS IN DETAIL



- ① Stainless steel jaws
- ② Customized Accessories: Robot and gearbox mounting flange
- ③ Customized Accessories: Clearance laser sensor
- ④ Customized Accessories: Stack present sensor
- ⑤ Accessories: Auto lubrication system

► VARIANTS

► Internal gripper for tire stacks
TW
WTR159916

► Internal gripper for tire stacks
PCR
WTR156384

► Internal gripper for tire stacks
TBR
WTR159917



► TECHNICAL DATA

Order no.	Unit	Workpiece type	Inner workpiece diameter min. [inch]	Inner workpiece diameter max. [inch]	Workpiece weight [kg]
WTR159916	Internal gripper for tire stacks	2/3 Wheeler (TW)	9	19	18
WTR156384	Internal gripper for tire stacks	Passenger Car Radial (PCR)	12	27	45
WTR159917	Internal gripper for tire stacks	Truck Bus Radial (TBR)	18	28	100

► Technical Data			
Order no.	WTR159916	WTR156384	WTR159917
Workpiece type	TW	PCR	TBR
Inner workpiece diameter min. [inch]	9	12	18
Inner workpiece diameter max. [inch]	19	27	28
Insertion diameter of gripper min. [mm]	178	286	433
Stack height max. [mm]	2000	2000	2000
Stack weight max. (Payload) [kg]	100	180	370
Opening time (50 mm radial stroke) [sec]	1,5	1,5	1,5
Closing time (50 mm radial stroke) [sec]	1	1	1
Gripper weight (without motor) [kg]	90	180	250
Gripping concept	3-jaw concentric gripping	3-jaw concentric gripping	3-jaw concentric gripping
Type of drive*	Servo driven lead screw mechanism (on request)	Servo driven lead screw mechanism suitable for 1FK7042 and equivalent motor	Servo driven lead screw mechanism suitable for 1FK7043 and equivalent motor

* Please note that the motor, drive and sensors are not included in the scope of supply and can be ordered separately. For different motors, please contact Zimmer Group sales team.