

# 3-JAW INTERNAL GRIPPER

## ▶ PRODUCT ADVANTAGES



- ▶ Dynamic, strong, robust and ready-to-mount gripper on gantry or robot for finish tire handling
- ▶ Lightweight, modular industry-standard gripper provides flexibility and ease of use
- ▶ A secure and balanced grip reduces the risk of tire deformations
- ▶ Sensor mounting to verify the presence of the tire
- ▶ 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

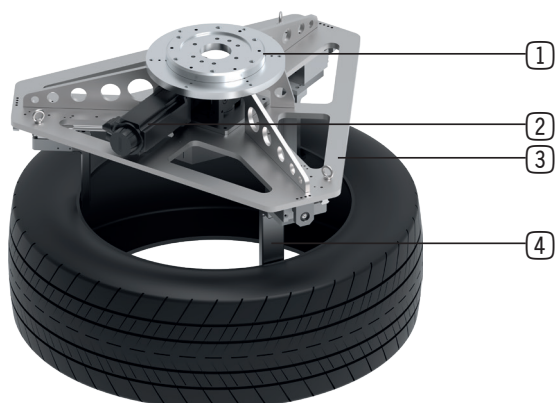
## ▶ CHALLENGE AND SOLUTION

- ▶ Interface flange for standard robots and gantries with ready-to-mount solution
- ▶ High dynamics and speed with servo operated linear guide mechanism to grip tire
- ▶ Wide range of diameters and weights keeping tire centered to prevent misalignment
- ▶ Suitable for corrosive and humid environments with stainless steel touching components
- ▶ 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]: 12-28 inch
- ▶ Outer diameter [D]: 450-1250 mm
- ▶ Tire height: up to 460 mm
- ▶ Single tire weight: up to 100 kg
- ▶ Payload: up to 100 kg
- ▶ Opening time: 1.5 sec (50 mm radial stroke)
- ▶ Closing time: 1 sec (50 mm radial stroke)

## ► BENEFITS IN DETAIL



- ① Robot mounting plate
- ② Servo motor with gearbox
- ③ Screw mechanism
- ④ Stainless steel jaws

## ► VARIANTS

- 3-jaw internal gripper  
PCR  
WTR156381



- 3-jaw internal gripper  
TBR  
WTR165197



## ► TECHNICAL DATA

	Unit	Workpiece type	Inner workpiece diameter min. [inch]	Inner workpiece diameter max. [inch]	Workpiece weight [kg]
Order no.					
<b>WTR156381</b>	3-jaw internal gripper	Passenger Car Radial (PCR)	12	27	45
<b>WTR165197</b>	3-jaw internal gripper	Truck Bus Radial (TBR)	18	28	100

	► Technical Data	
Order no.	<b>WTR156381</b>	<b>WTR165197</b>
Workpiece type	PCR	TBR
Inner workpiece diameter min. [inch]	12	18
Inner workpiece diameter max. [inch]	27	28
Opening time (50 mm radial stroke) [sec]	1	1
Closing time (50 mm radial stroke) [sec]	1.5	1.5
Gripper weight (without motor) [kg]	65	80
Gripping concept	Concentric 3-jaw mechanism	Concentric 3-jaw mechanism
Type of drive*	Servo driven ball screw mechanism suitable for 1FK7043 and equivalent motor	Servo driven ball 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.