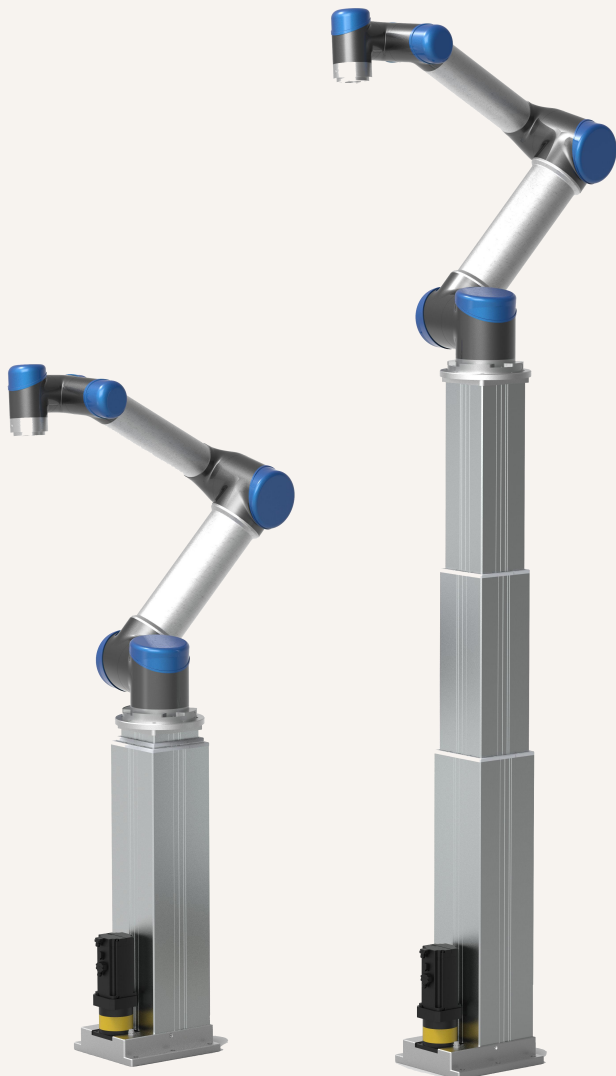




## Robot seventh axis any collaborative robot

Fully automated solutions become the new standard in packaging handling. Standard collaborative robots do not have such a large vertical working range. With the help of GeMinG's lifting system, the base of the robot can be raised or lowered so that it is in the best working position. Stacking on pallets starts from floor height, and the stacking height can reach 3 M. The GeMinG lifting system improves the work efficiency of packaging stacking. The GeMinG lifting system ensures accuracy and reliability, thereby maximizing work efficiency. Speed and efficiency. GeMinG provides an effective solution for vertical lift adjustment in a smart way. We design for different applications to truly realize Industry 4.0, providing your robots with a greater operating range.



# Palletizing Solutions

Fully automated palletizing solutions are becoming the new standard in packaging stations. The main challenge for packaging system manufacturers is how to design multi-axis systems in a simple and economical way. Palletizing of cartons is a typical application that benefits from additional linear axes. Pallet stacking can start from the ground and extend to a height of more than two meters; therefore, standard collaborative robots will be limited in their ability to work under such a large height range. The seventh axis of the GeMinG chrome transmission robot provides an efficient and intelligent solution for vertical height adjustment.

## Features

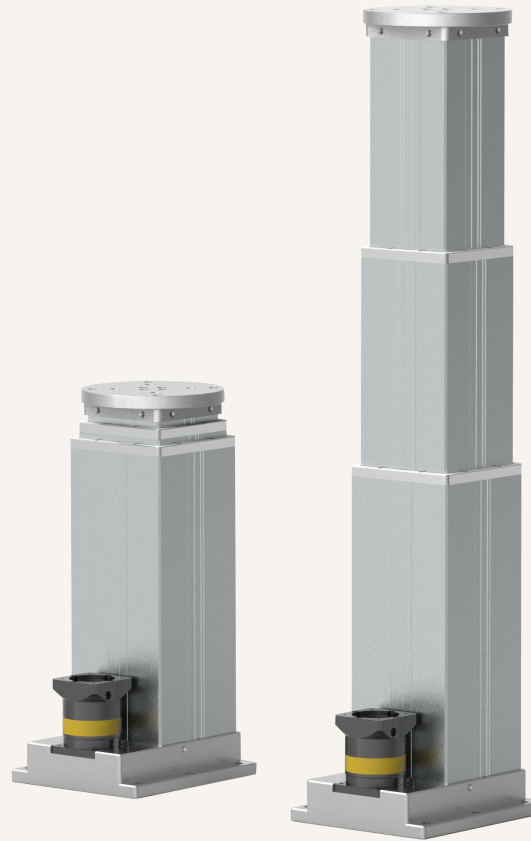
- The longest possible height travel can extend the robot's operating range by up to 10 times.
- Rugged design, high strength, suitable for industrial use
- Quiet and smooth operation
- Extends the robot's working range, cost-effective
- Effectively improves the working environment
- Easy to integrate into existing production lines





# TB3-18W

Series model  
Actuator



## ProductCategories

- 1、 Industrial Applications
- 2、 Automotive Applications
- 3、 Warehousing Applications

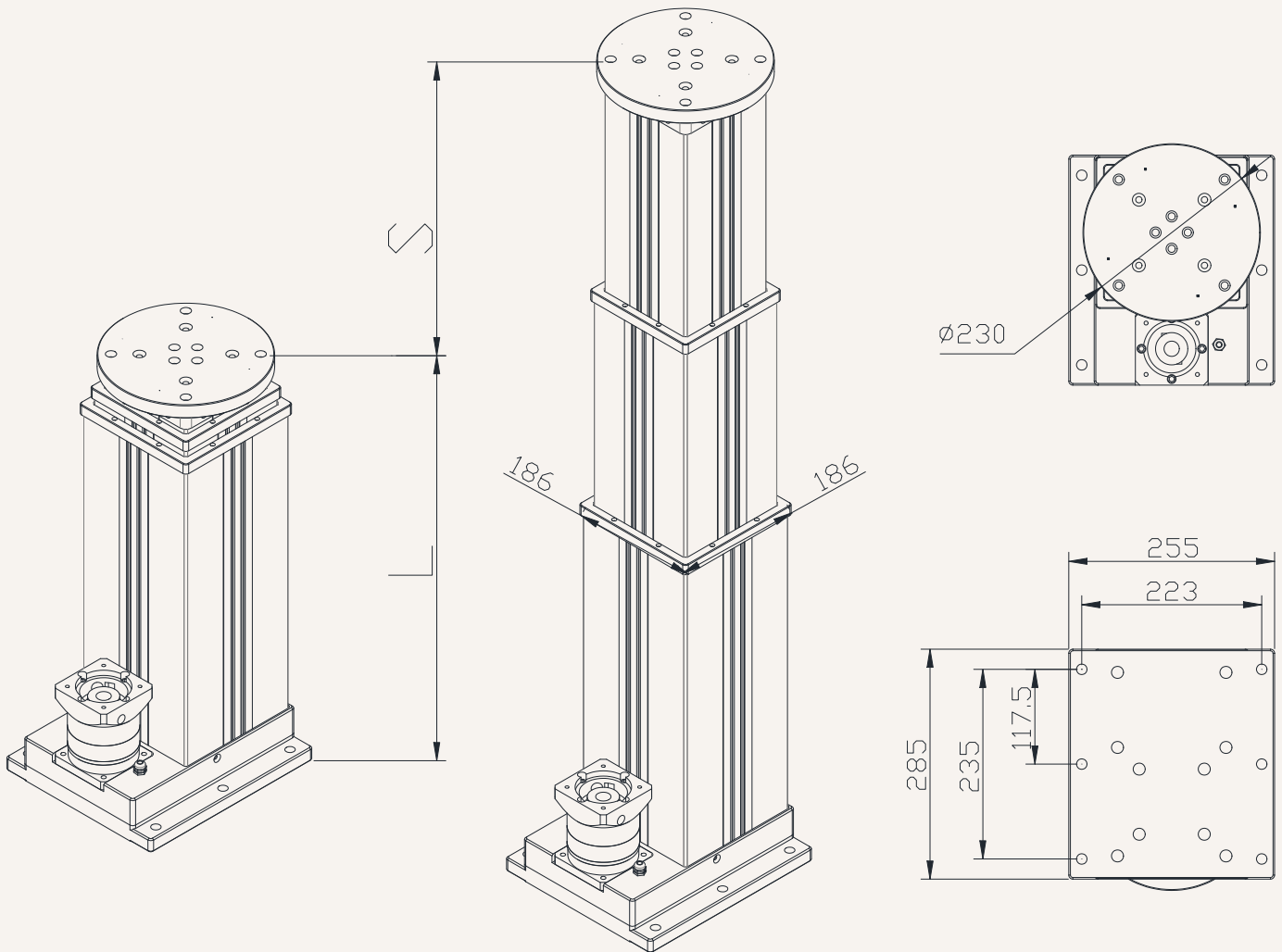
Extended working range, collaborative robot vertical lift up to 3000 mm, compact retraction height, sturdy column design for industrial use, vibration-free movement and virtually maintenance-free plug-and-play solution, hardware interface compatible with any robot, Controlling CAN via TCP/IP, saving costs and increasing productivity, the collaborative robot combined with the GeMinG lifting system provides a cost-effective solution to upgrade existing assembly workshops from manual operations to fully automated production lines.

### Functional Overview

Voltage range:	48V DC or 220V or 380V AC
Maximum push force (maximum pull force):	3000N (maximum pulling force 500N)
Speed at full load:	0-200mm / s (load 3000N-500N)
Travel range:	500 - 3000 MM
Retract to initial height:	Stroke /2+ 300MM
Dynamic lateral moment:	250 Nm
Static lateral moment:	3500 Nm
Positioning repeatability:	±0.2~1 MM
Robot compatibility:	Any robot
Body weight:	0 stroke 25KG, @500MM stroke weight +2.5KG
Security certification:	Comply with ISO9001-2008,
Operating temperature range:	-35 ° C ~ + 75 ° C
Full performance temperature range:	+5 ° C ~ + 45 ° C
Protection level:	IP54
Screw selection:	Default trapezoidal screw, optional ball screw
Other options:	Feedback - position and status - barrier-free position
Control options:	Soft start and stop - for smooth operation
Communication protocol:	EtherCAN/modbus rtu, (customized)

## HTD3 Built-in motor-engineering drawing

Standard size(MM)

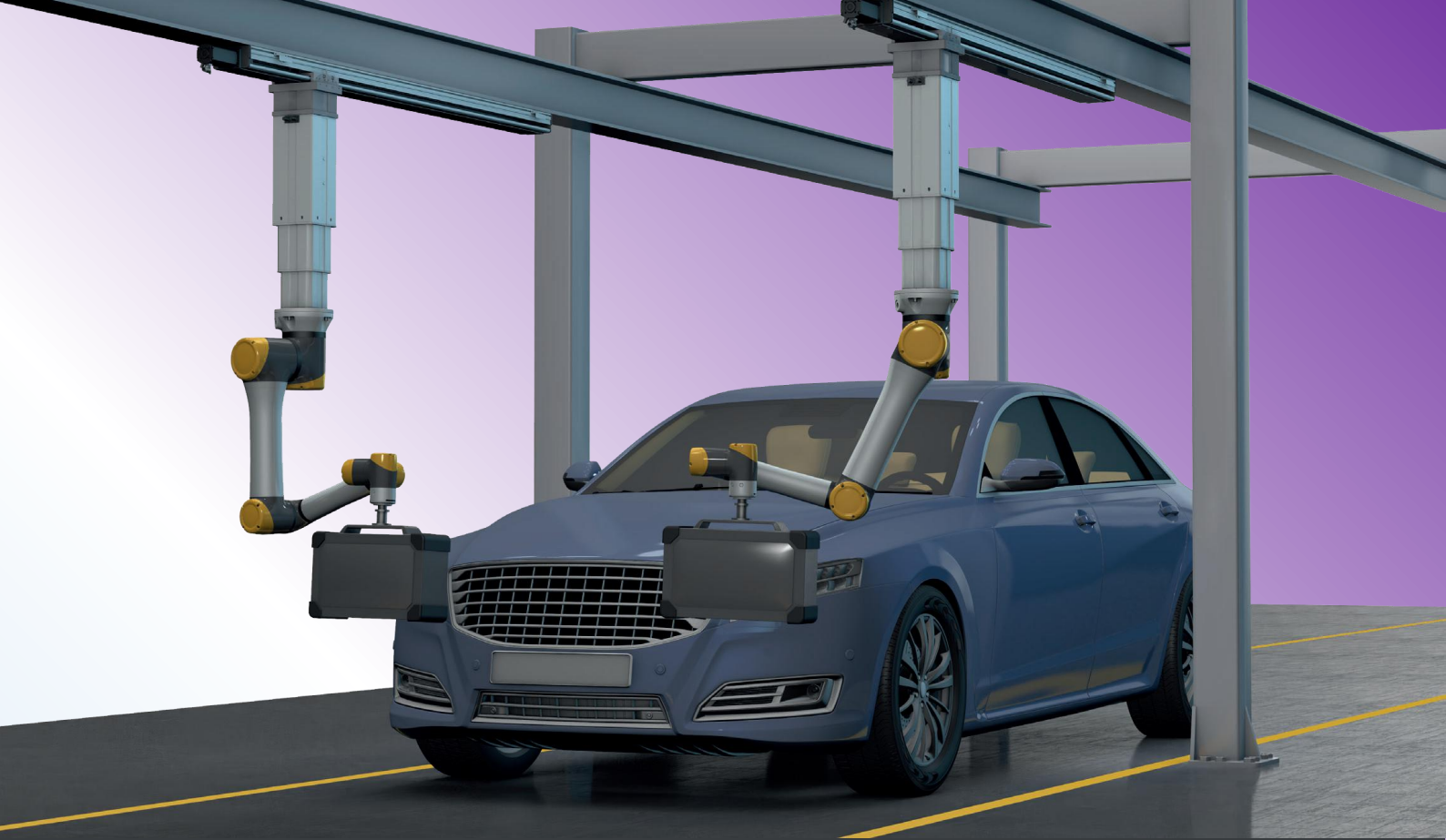


S: Stroke

L: Minimum height Retracted length

L=stroke Stroke +350 MM

For a stroke greater than 900 mm, the installation dimension L = stroke + 400 mm.



height adjustment

Positioning adjustment

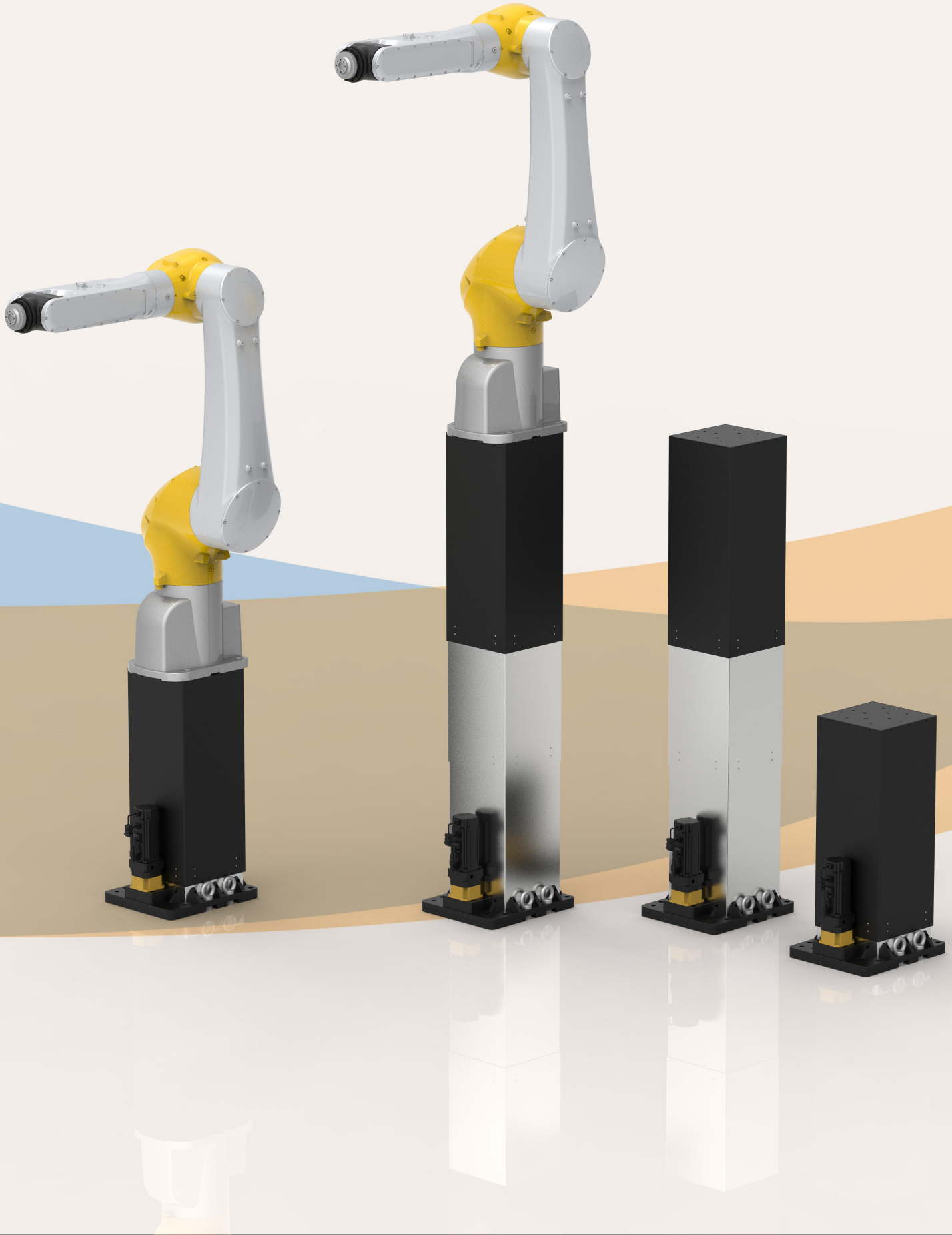
More compact design,

making it easier to install in small spaces,

Very suitable for designing different types of automation equipment,

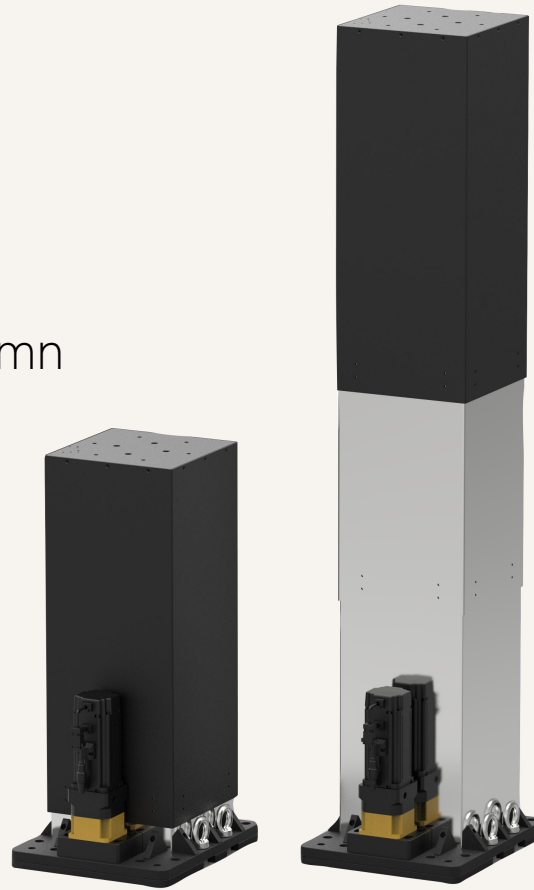
unmanned trucks and lifting equipment,

All while retaining many of the benefits that make it so popular!



# HTB3-G

Series model  
Industrial machine lifting column



## ProductCategories

- 1、 Industrial Applications
- 2、 Automotive Applications
- 3、 Warehousing Applications

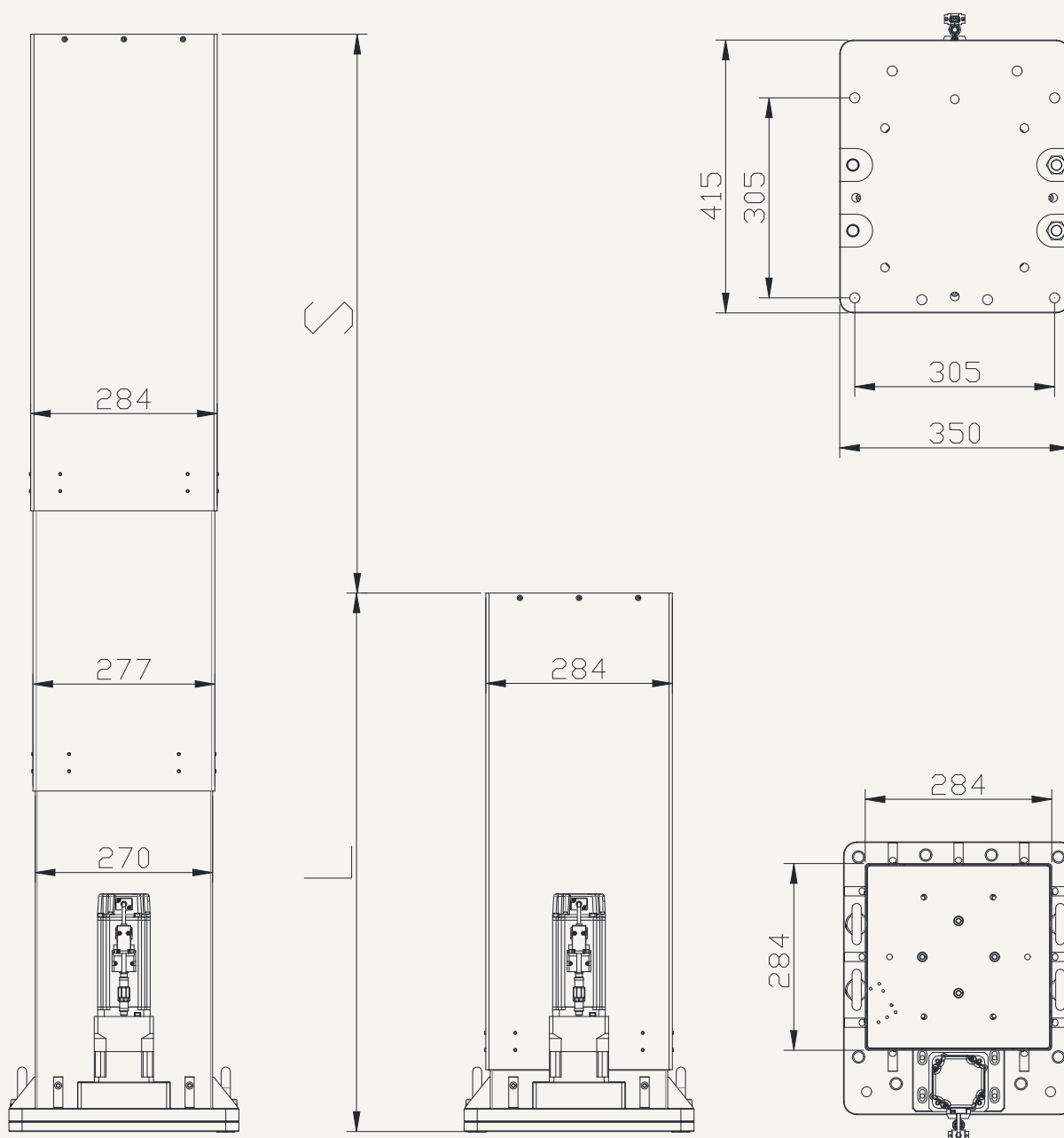
The HTG3 series is designed specifically for industrial robotic arms, offering vertical lifting up to 3000 mm and a compact retracted height. Its robust column design, vibration-free movement, and near-maintenance-free plug-and-play functionality make it suitable for industrial applications. With a hardware interface compatible with any robot and CAN control via TCP/IP, it saves costs and increases productivity. Combined with the GeMinG lifting system, this collaborative robot provides a cost-effective solution for upgrading existing assembly lines, transitioning from manual operation to fully automated production lines.

### 功能概述

Voltage Range:	48V DC or 220V or 380V AC
Maximum Load:	15KN
Speed at Full Load:	0-200mm / s (load 15KN-5KN)
Stroke Range:	600 - 3000 MM
Initial Retraction Height:	Stroke /2 + 350MM (stroke >2000 MM + 400MM)
Dynamic Lateral Torque:	5500 Nm
Static Lateral Torque:	8000 Nm
Positioning Repeatability:	±0.2~1 MM
Robot Compatibility:	Suitable for any robot
Body Weight:	0 stroke 460KG, @100MM stroke weight + 25KG
Leader Selection:	High precision ball screw
Leader Lead:	20MM or 40MM
Limit Function:	Upper and lower origin mechanical self-locking limit switches
Control Options:	
Communication Protocol:	Soft start and stop - for smooth operation EtherCAN/Modbus RTU, (customizable)

# HTG3-Built-in motor-engineering drawing

Standard size(MM)



S: Stroke

L: Retracted length

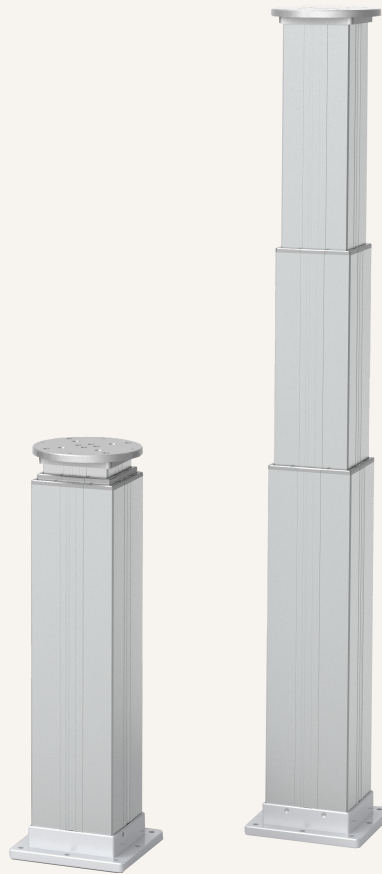
$L = \text{Stroke} + 350 \text{ MM}$

For a stroke greater than 900 mm, the installation dimension  $L = \text{stroke} + 400 \text{ mm}$ .



# TB3- 18N

Series model  
Actuator



## ProductCategories

- 1、 Industrial Applications
- 2、 Automotive Applications
- 3、 Warehousing Applications

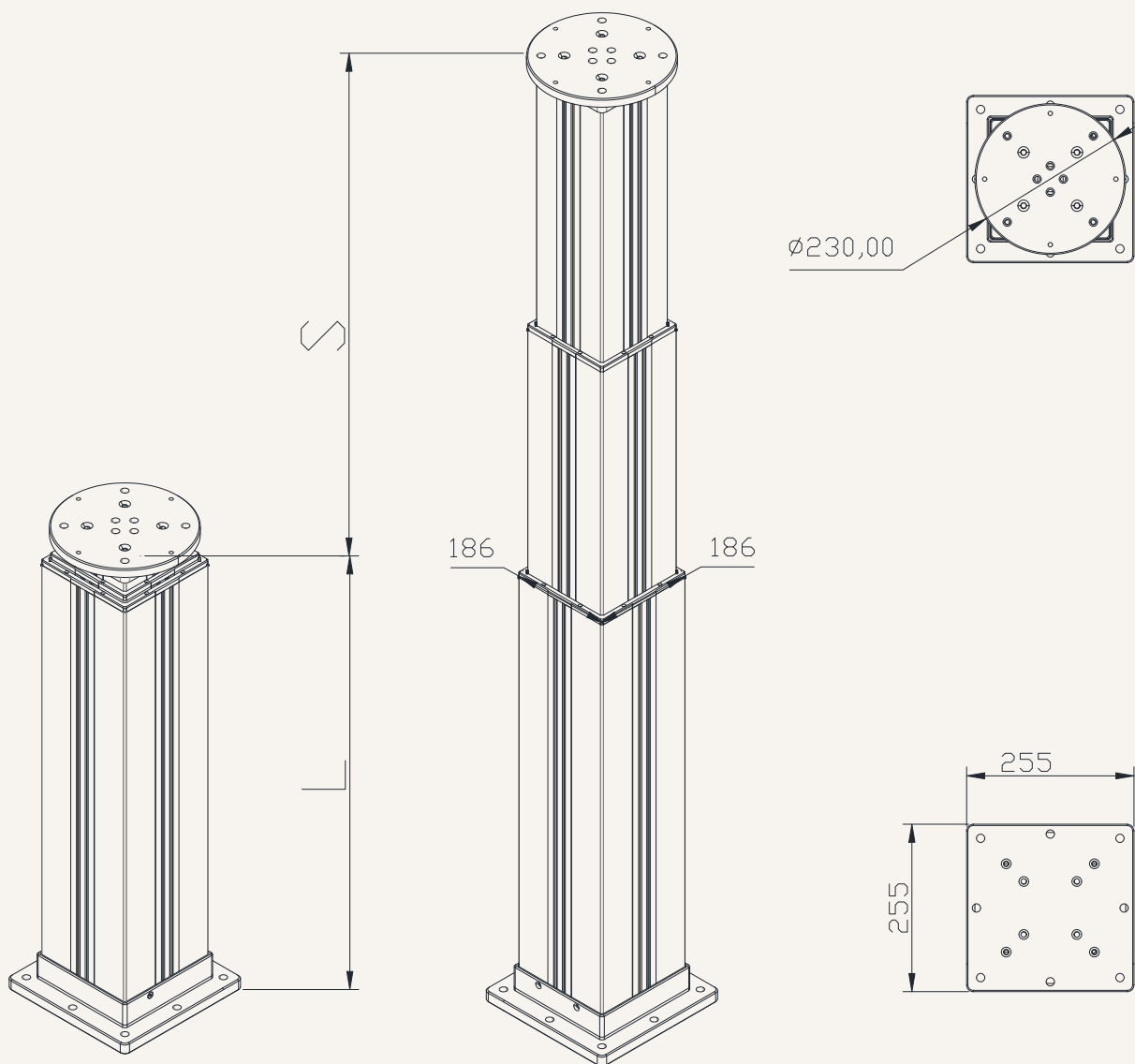
Extended working range, collaborative robot vertical lift up to 3000 mm, compact retraction height, sturdy column design for industrial use, vibration-free movement and virtually maintenance-free plug-and-play solution, hardware interface compatible with any robot, Controlling CAN via TCP/IP, saving costs and increasing productivity, the collaborative robot combined with the GeMinG lifting system provides a cost-effective solution to upgrade existing assembly workshops from manual operations to fully automated production lines.

### Functional Overview

Voltage range:	48V DC or 220V or 380V AC
Maximum push force (maximum pull force):	3000N (maximum pulling force 500N) 0-200mm / s (load 3000N-500N)
Speed at full load:	500 - 3000 MM
Travel range:	Stroke /2+ 300MM
Retract to initial height:	250 Nm
Dynamic lateral moment:	3500 Nm
Static lateral moment:	±0.2~1 MM
Positioning repeatability:	Any robot
Robot compatibility:	0 stroke 25KG, @500MM stroke weight +2.5KG
Body weight:	Comply with ISO9001-2008,
Security certification:	-35 ° C ~ + 75 ° C
Operating temperature range:	+5 ° C ~ + 45 ° C
Full performance temperature range:	IP54
Protection level:	Default trapezoidal screw, optional ball screw
Screw selection:	Feedback - position and status - barrier-free position
Other options:	
Control options:	Soft start and stop - for smooth operation
Communication protocol:	EtherCAN/modbus rtu, (customized)

# HTD3 Built-in motor-engineering drawing

Standard size(MM)



S: Stroke

L: Minimum height Retracted length

$L = \text{stroke} + 300 \text{ MM}$

Greater than 2000MM stroke, installation size  $L = \text{stroke} + 350 \text{ MM}$

# TBModel Description Selection Code Table

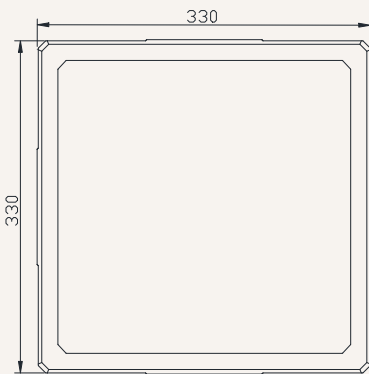
TB - 3 18 S10 W 22 - A - 800 - 1200 - 01 - 01 - 1 - 0 - T - N D 30  
 ① ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯

①	Model Preface	2= Two-stage 5= Five-stage	3= Three-stage 6= Six-stage	4= Four-stage 7= Seven-stage
②	Pipe diameter	10= 106X106 tube 16= 163X163 tube 27= 270X270 tube	12= 125X125 tube 18= 182X182 tube	14= 144X144 tube 25= 252X252 tube
③	Motor Type	S04= 40100W Servo Motor S10= 101000WServo Motor 0F = 60F Motor	S06= 60400W Servo Motor S12= 121800W Servo Motor A3= A3Motor	S08= 80750 Servo Motor S13= 132500WServo Motor SK= Provided by the customer
④	Motor placement	W = External motor	N = Built-in motor	
⑤	Voltage	12= 12V DC 48= 48V DC	24= 24V DC 22= 220V AC	36= 36V DC 38= 380V AC
⑥	Loading(n)@speed(m/s)			
⑦	stroke(mm)			
⑧	Installation dimensions(mm)	NOTE: Please refer to the valid parameter sheet before selecting a size! See page 05		
⑨	upper type	O1 = Conventional pipe type, installation screw M8 sinking 30MM K = Customization	O2 = Conventional pipe type, mounting screw M8 sinking 30MM, internal wiring	
⑩	lower type	O1 = Conventional pipe type, installation screw M8 sinking 30MM K = Customization	O2 = Conventional pipe type, mounting screw M8 sinking 30MM, internal wiring	
⑪	Outgoing method	0 = Side, top outlet	1 = Side, bottom outlet (default)	
⑫	Outlet type	1 =bare wire 4 =Four-pin straight plug 7 =Waterproof plug	2 = 01Straight plug 6 = Six-pin straight plug K = Customization	0=Servo conventional drive cable
⑬	Lead screw options	T = Trapezoidal screw	G=Ball screw (default preferred)	
⑭	Control method	N= No Control	NC = CAN bus	K= Customization
⑮	Signal output options	N = 无	D = Limit switch	
⑯	Line length	07 = 700mm 30 = 300mm	10 = 1000mm 40 = 4000mm	15 = 1500mm 70 = 7000mm 20= 2000mm 00 =Customization

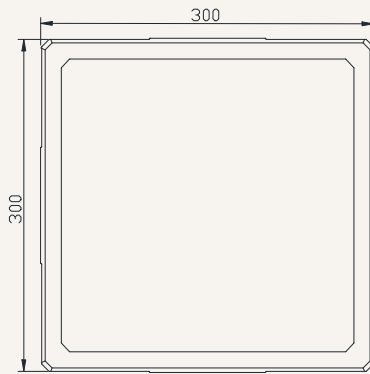
# TD Outer tube size selection code table

Maximum pipe diameter table:

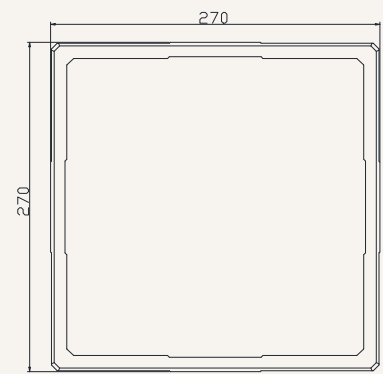
33 = 330X330MM



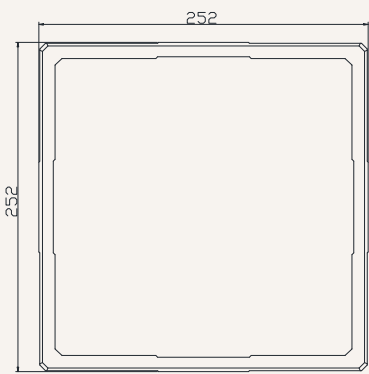
30 = 300X300MM



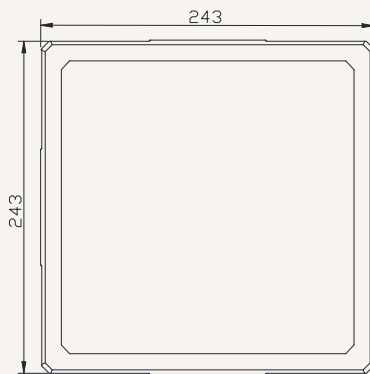
27 = 270X270MM



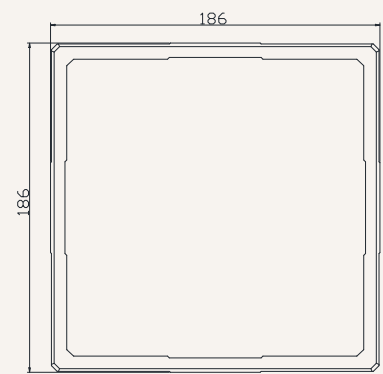
25 = 252X252MM



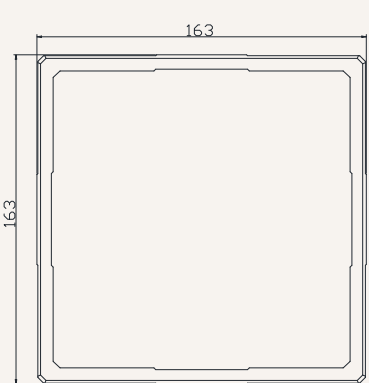
23 = 234X234MM



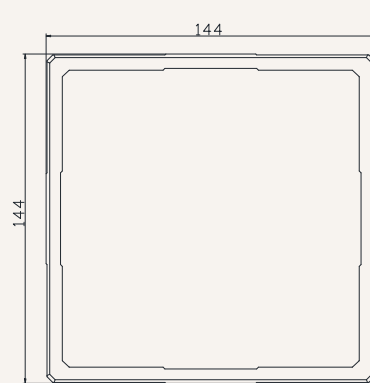
18 = 186X186MM



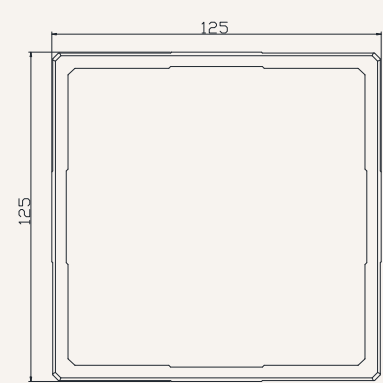
16 = 163X163MM



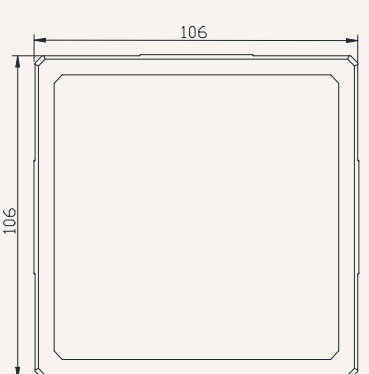
14 = 144X144MM



12 = 125X125MM



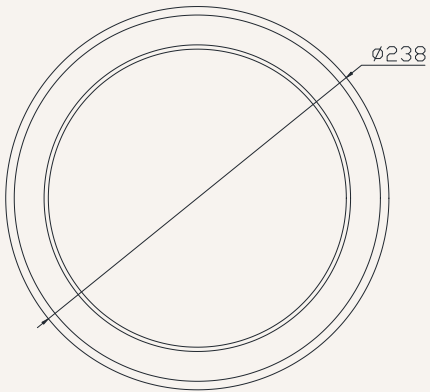
10 = 106X106MM



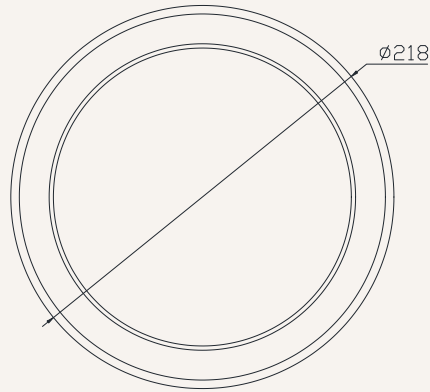
# TL Outer tube size selection code table

Maximum pipe diameter table:

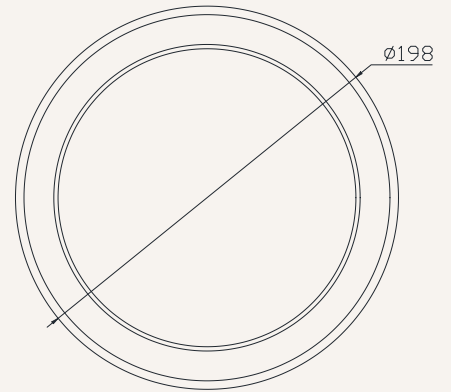
23 = 238MM



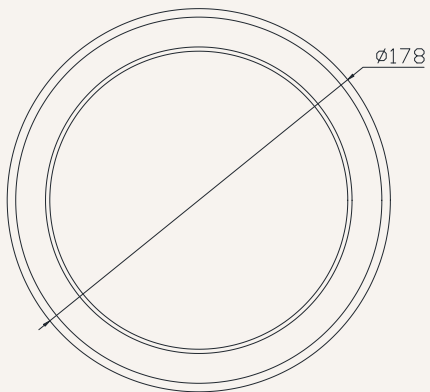
21 = 218MM



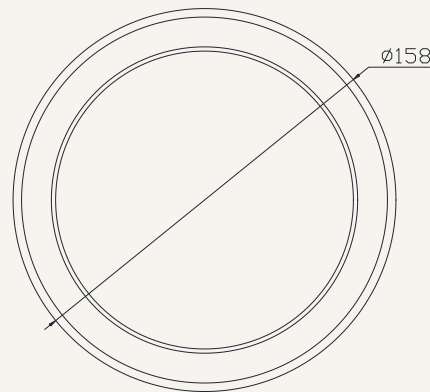
19 = 198MM



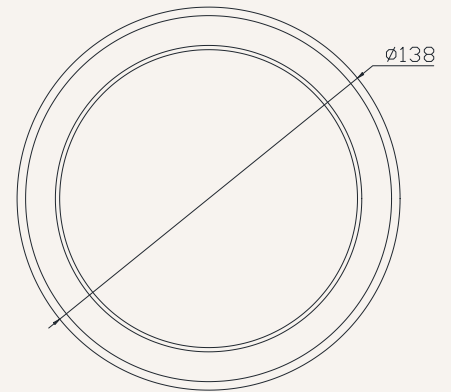
17 = 178MM



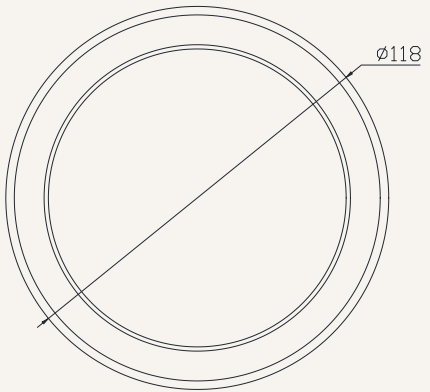
15 = 158MM



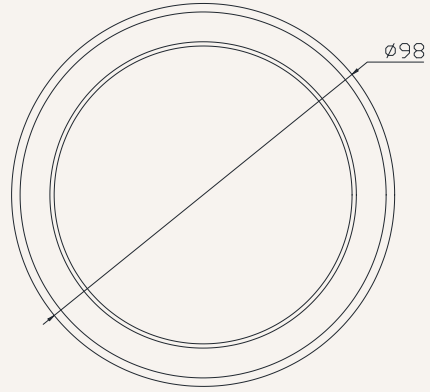
13 = 138MM



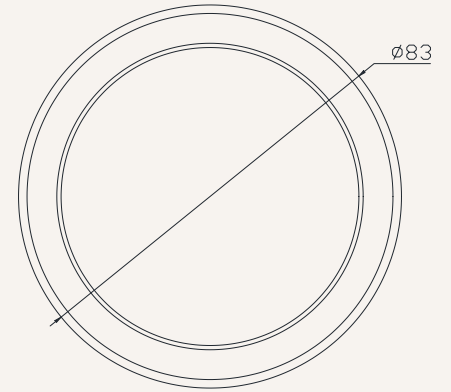
11 = 118MM



98 = 98MM



83 = 83MM



68 = 68MM

