

# HANDLING & GRIPPERS

## Production Program



LIGHTWEIGHT



HIGH GRIP



HIGH  
PRECISION

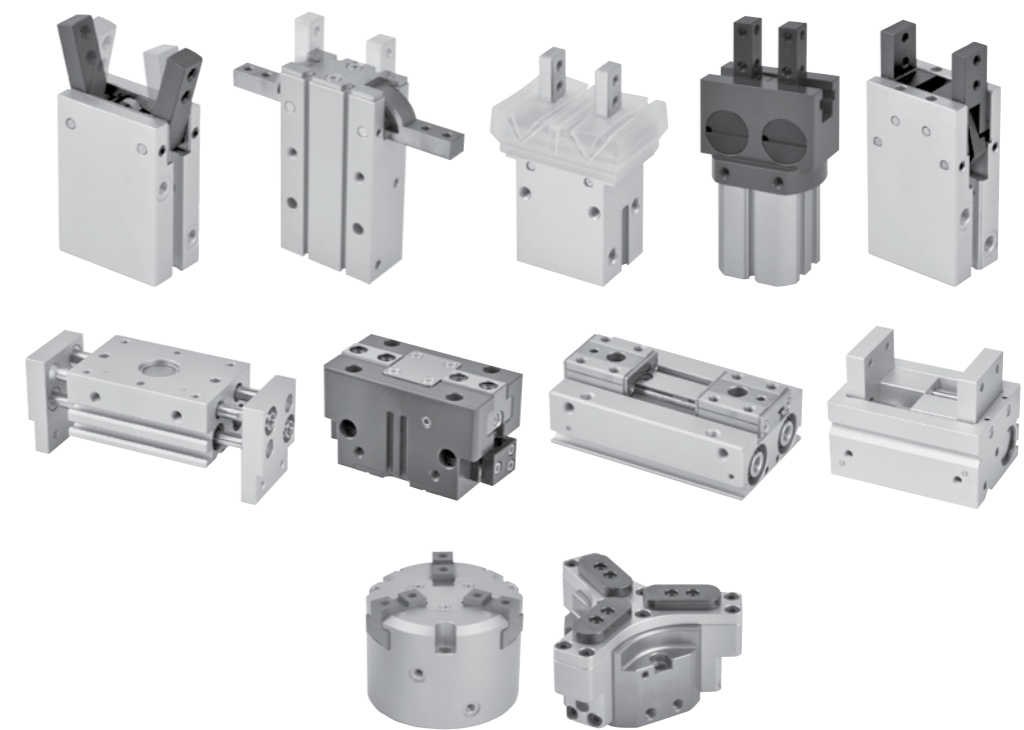


HIGH  
RIGIDITY



LONGEVITY

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EQUIPMENT



FOOD  
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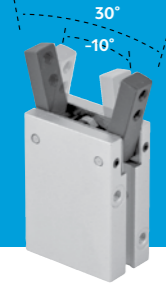
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angular grippers | 30°

### TAS

- 30° Angular grippers
- Simple structure for high stability.

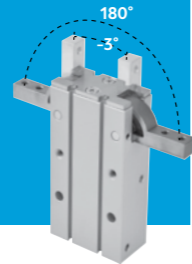


TAS		Values/Description				
Technology		Lever				
Acting type		Double acting / Single acting (N.O.)				
Tube [mm]		12	16	20	25	32
Max arm length [mm]		30	40	60	70	85
Operating pressure range [MPa]/[bar]	Double acting	0.15÷0.7/1.5÷7				
	Single acting	0.3÷0.7/3÷7				
Max effective gripping torque (for the largest bore) [Nm]		0.17				
Clamp/Release angle		-10°÷+30°				
Body		Hard anodized aluminium				
Fingers		Medium carbon steel				
Magnet		Yes				

angular grippers | 180°

### TAP

- 180° Angular grippers
- High gripping forces achieved via internal cams, so required offset is reduced.
  - Reference points on gripping fingers.
  - Compact design.



TAP		Values/Description				
Technology		Lever				
Acting type		Double acting				
Tube [mm]		10	16	20	25	
Effective torque (at 5 MPa) [Nm]		0.16	0.54	1.1	2.28	
Operating pressure range [MPa]/[bar]		0.2÷0.6/2÷6				
Operating angle (both sides)	Opened side	180°÷182°				
	Closed side	-3°				
Body		Hard anodized aluminium				
Fingers		Stainless steel				
Magnet		Yes				

parallel grippers | 2-finger

### TPE

- 2-finger parallel grippers
- Flat profile design saves space and reduces bending moments.
  - Using linear ball bearing.
  - Dual-piston for higher gripping force.

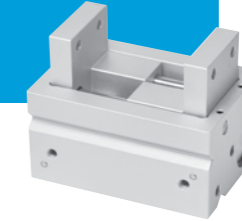


TPE		Values/Description											
Technology		Linear guide, Pinion, Rack, Dual-piston											
Acting type		Double acting											
Tube [mm]		8	12	16	20								
Stroke [mm]		8	16	32	12	24	48	16	32	64	20	40	80
Operating pressure range [MPa]/[bar]		0.15÷0.7/1.5÷7					0.1÷0.7/1÷7						
Max external effective gripping force [N]		140											
Body		Hard anodized aluminium											
Fingers / Jaws		Stainless steel											
Magnet		Yes											

parallel grippers | 2-finger

### TPF

- 2-finger parallel grippers
- Compact design, light weight and rugged construction.
  - SCM cam
  - Optimized positioning bottom hole for accurate installation.
  - Designed for long soft-jaws installation.



TPF		Values/Description		
Technology		Dual-piston with cams		
Acting type		Double acting		
Tube [mm]		12	16	20
Stroke [mm]		15	20	25
Operating pressure range [MPa]/[bar]		0.2÷0.7/2÷7		
Max external effective gripping force [N]		60		
Body		Hard anodized aluminium		
Fingers / Jaws		Aluminium		
Magnet		Yes		

parallel grippers | 2-finger

### TPA

2-finger parallel grippers



TPA		Values/Description				
Technology		Lever				
Acting type		Double acting / Single acting				
Tube [mm]		12	16	20	25	32
Max arm length [mm]		30	40	60	70	85
Stroke [mm]		6	8	12	14	16
Operating pressure range [MPa]/[bar]	Double acting	0.15÷0.7/1.5÷7				
	Single acting	0.2÷0.7/2÷7				
Max external effective gripping force [N]		120				
Body		Hard anodized aluminium				
Fingers		Carbon steel				
Magnet		Yes				

parallel grippers | 2-finger

### TPB

- 2-finger parallel grippers
- High rigidity, high precision.
  - Bottom pin holes for accurate repositioning.
  - Bottom, side, front fixing hole.

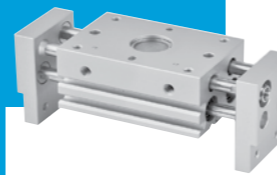


TPB		Values/Description									
Technology		Linear guide									
Acting type		Double acting / Single acting									
Tube [mm]		6	10	16	20	25	32	40			
Stroke (long version)		4	4 (8)	6 (12)	10 (18)	14 (22)	22	30			
Operating pressure range [MPa]/[bar]	Double acting	0.15÷0.7/1.5÷7		0.2÷0.7/2÷7		0.1÷0.7/1÷7					
	Single acting	---		0.35÷0.7/3.5÷7		0.25÷0.7/2.5÷7					
Max external effective gripping force [N]		254									
Body		Hard anodized aluminium									
Fingers		Martensitic stainless steel									
Fingers range		Standard, Standard-side tapped, Standard-through hole, Flat, Narrow, Narrow-side tapped, Narrow-through hole									
Magnet		Yes									

parallel grippers | 2-finger

### TPH

- 2-finger parallel grippers
- Wide range of strokes.
  - Dual-piston for higher gripping force.
  - Synchronized jaw movement.
  - Dust-proof design.



TPH		Values/Description															
Technology		Dual-piston															
Acting type		Double acting															
Tube [mm]		10	16	20	25	32	40										
Stroke [mm]		20	40	60	30	60	80	100	50	100	120	70	120	160	100	160	200
Operating pressure range [MPa]/[bar]		0.2÷0.6/2÷6															
Max external effective gripping force [N]		410															
Body		Hard anodized aluminium															
Fingers / Jaws		Aluminium															
Magnet		Yes															

parallel grippers | 2-finger

### TPG

- 2-finger parallel grippers
- Compact design.
  - Robust T-rail guide construction.
  - Can reach high torques suitable for long jaws design.
  - Oval piston-driven design ensures maximum gripping force.
  - Dust-proof module can prevent foreign matters (>0.5 mm) entering the gripper.
  - Sensor switch or proximity sensor are available.



TPG		Values/Description									
Technology		Wedge hook, Oval piston									
Acting type		Double acting									
Size		50	66	80	100	125	160	200	300		
Stroke [mm]		4	6	8	10	12	16	20	30		
Operating pressure range [MPa]/[bar]		0.3÷0.8/3÷8									
Max external effective gripping force [N]		3411									
Body		Hard anodized aluminium alloy									
Fingers / Jaws		Carbon steel, Hard anodized									
Magnet		Yes									

parallel grippers | 2-finger

### TPD

- 2-finger parallel grippers
- Rack and pinion mechanism.
  - Extra-stroke compared to standard grippers.
  - 3 mounting directions available.



TPD		Values/Description		
Technology		Pinion, Rack		
Acting type		Double acting		
Tube [mm]		20	25	40
Stroke [mm]		16	26	41
Operating pressure range [MPa]/[bar]		0.3÷0.7/3÷7		
Max external effective gripping force [N]		125		
Body		Steel alloy		
Fingers		Hard anodized aluminium		
Magnet		Yes		

parallel grippers | 2-finger

### TPC

- 2-finger parallel grippers
- High rigidity, high precision.
  - Bottom pin holes for accurate repositioning.
  - Bottom, side, front fixing hole.
  - Silicon dust cover



TPC		Values/Description		
Acting type		Double acting / Single acting		
Tube [mm]		16		
Stroke [mm]		6		
Operating pressure range [MPa]/[bar]		0.1÷0.7/1÷7		0.25÷0.7/2.5÷7
Max external effective gripping force [N]		30		
Body		Hard anodized aluminium		
Fingers		Martensitic stainless steel		
Cover		Food-grade silicon		
Magnet		Yes		

parallel grippers | 3-finger

### TPL

- 3-finger parallel grippers
- Wedge hook mechanism for accurate centering.



TPL		Values/Description											
Technology		Wedge hook											
Acting type		Double acting											
Tube [mm]		16	20	25	32	40	50	63	80	100	125		
Stroke [mm]		4	4	6	8	8	12	16	20	24	32		
Operating pressure range [MPa]/[bar]		0.2÷0.6/2÷6						0.1÷0.6/1÷6					
Max external effective gripping force [N]		1270											
Body		Anodized aluminium											
Fingers / Jaws		Carbon steel											
Magnet		Yes											

parallel grippers | 3-finger

### TPM

- 3-finger parallel grippers
- Compact design.
  - Robust T-rail.
  - Can reach maximum torque suitable for long jaws design.
  - Dust-proof module can prevent foreign matters (>0.5 mm) entering the gripper.



TPM		Values/Description					
Technology		Wedge hook					
Acting type		Double acting					
Tube [mm]		50	66	80	100	125	160
Stroke [mm]		4	6	8	10	12	16
Operating pressure range [MPa]/[bar]		0.2÷0.8/2÷8					
Max external effective gripping force [N]		1747					
Body		Hard anodized aluminium alloy					
Fingers / Jaws		Carbon steel					
Magnet		Yes					

Max external effective gripping force measured for the largest bore, gripping length 20 mm, at 5 MPa

