OVERALL SOLUTIONS FOR ROBOTIC END-EFFECTOR

★ GRIPPING SYSTEMS ROBOTIC GRIPPING SYSTEMS

• PRESS AUTOMATION TOOLING

• TRANSFER GRIPPERS

• HOT STAMPING GRIPPERS

★ PNEUMATIC GRIPPERS

★ AUTOMATIC TOOL CHANGERS

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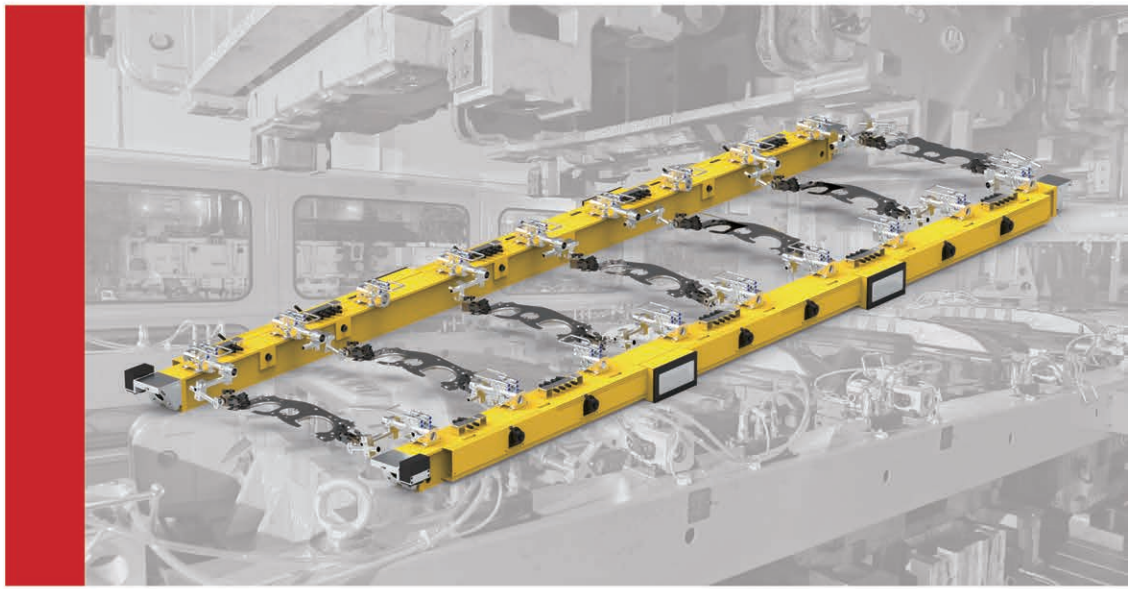
Learn more

Ver. 2024-12

Aovita

TRANSFER GRIPPERS FOR MODELS SELECTION



Jinan Aotto Technologies Co., Ltd.

Since 2000

CONTENTS

Stamping Expert

Professional team with strong technical strength can provide customers with comprehensive and high-quality solutions.

Focused on stamping

Specialized in stamping automation industry, providing customers with high quality EOAT products.

Quality

Manufacturing excellence, superior quality

Versatility

Diversified products with flexible selection and wide applicability, and precise compatibility with existing customer systems.

Pursuit of excellence

Striving for excellence in technology, innovation, appearance and service.

Aesthetics

Sophisticated design with aesthetic appearance.

Aovita

Company Profile

Jinan Aotto Technologies Co., Ltd. was established in 2000 and is a wholly-owned subsidiary of Jinan Aotto Automation Co., Ltd. Adhering to the parent company's philosophy of "committed to innovation and pursuing excellence", adhering to the development strategy of "product leadership", focusing on Aovita robot intelligent gripping and Aosaff safety protection products, and dedicated to serving global automation integrators.

BUSINESS PARTNER & CLIENTS

For the past 20+ years' service of the metal forming industry, we have established strategic partnership with many top industry partners. Together, we provide the comprehensive end to end solution with reliable products, industry-leading experience, and consistent reachable service for the long-term successfulness of our customers.

PARTNER

SIEMENS FANUC ABB KUKA YASKAWA schwartz FAGOR

YADON 天锻 TIAN DUAN DBW Doublewin HFM 合锻智能 BENTELER makes it happen S.G KOREA EXPERTS

PART OF CUSTOMER

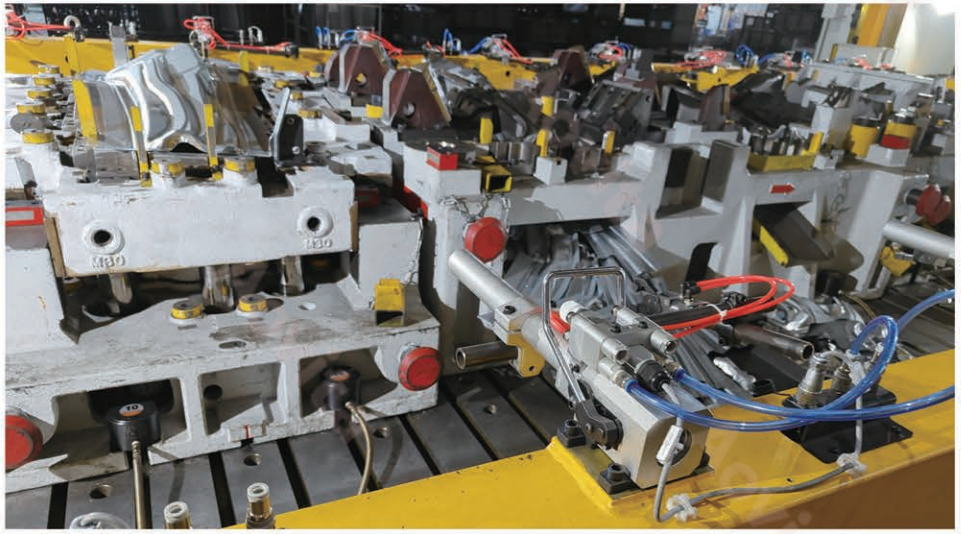
BMW Mercedes-Benz VW Ford STELLANTIS Gestamp MAGNA

BYD Toyota Honda 吉利汽车 GEELY AUTO posco

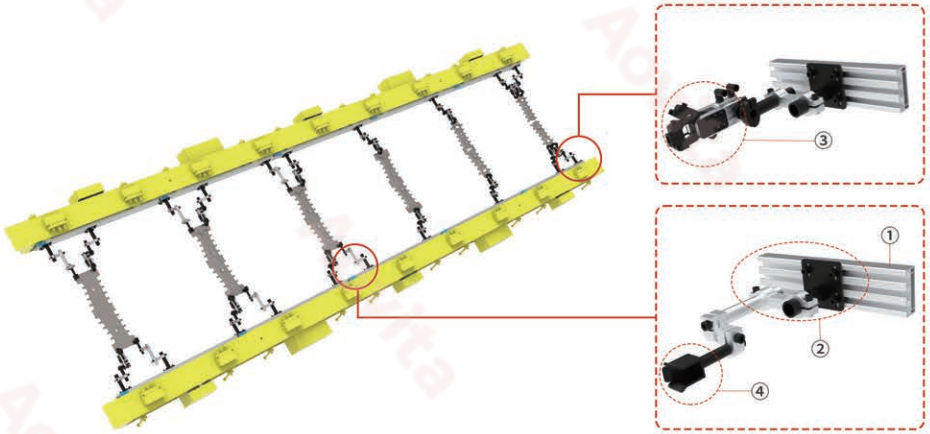
理想 MG SAIC 长安汽车 CHANGAN AUTO

Case Study

Transfer grippers is suitable for transfer line. It features simple structure, excellent rigidity, user-friendly operation, cost-effective, and can adapt to the requirements of transfer line with high stroke.



QCN Hanging plate type EOAT structure



Suggested solutions for blank handling

Blank			EOAT	
L*W (mm)	Thickness(mm)	Weight (Kg)	Solution description (Single side)	Diagram
L<1200 W<300	1<D<4	W<5	1 set of clamp	
L<1200 300<W<600	1<D<4	W<8	1 set of clamp + 1 set of shovel	
L<2000 W<800	0.5<D<4	W<15	2 sets of clamp	
2 parts output one time(not connected at middle)			2 sets of clamp	
Note: For any questions, please contact us.				

Automatic tool changer (ATC)

①

Configuration

No.	Item	Quantity	Details
1	Aluminum profile hanging plate	/	P11
2	Air circuit quick connector	/	/
3	Electrical quick-connector	/	/
Note: Connect with robotic upper arm. Determine the model according to the existing upper arm, with options to install multiple ATC components as needed.			

Base

②

Configuration

No.	Item	Quantity	Details
1	F8030 Fixed base	1	P13
2	Parallel collet 30-25	1	P13
Note: The height difference between the clamping points of the blank should be less than 225mm, corresponding to the clamper component and shovel component exactly.			

Clamp

③

Configuration

No.	Item	Quantity	Details
1	Pneumatic clamp	1	P18
2	Jaws	2	P25
3	Blank detection sensor	1	P26
4	Clamp ball joint mount	1	P16
5	Ball joint extension arm	1	P16
6	Air connector	2	P17
7	Air tube	/	/
Note: Pneumatic clamp provides stable clamping force to ensure the handling of blank. We provide various types of clamps to meet various working conditions, which can be integrated with blank detection sensors and double blank detection sensors. More information in pneumatic clamp selection page.			

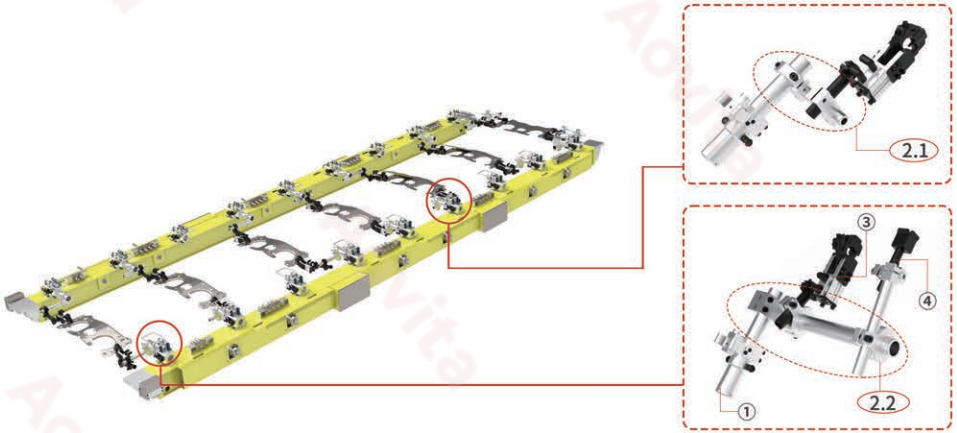
Support shovel

④

Configuration

No.	Item	Quantity	Details
1	19-25 Extension arm	1	P15
2	19 Collet	1	P15
3	SH-D Metal shovel	1	P15
4	PS-C Probe rod detection switch	1	P16

◆ QCA Quick-plug gripping structure



◆ Suggested solutions for blank handling

Blank			EOAT	
L*W (mm)	Thickness(mm)	Weight (Kg)	Solution description (Single side)	Diagram
L<1200 W<300	1<D<4	W<5	1 set of clamp	
L<1200 300<W<600	1<D<4	W<8	1 set of clamp + 1 set of shovel	
L<2000 W<800	0.5<D<4	W<15	2 sets of clamp	
2 parts output one time(not connected at middle)			2 sets of clamp	
Note: For any questions, please contact us.				

□ Automatic tool changer (ATC)

①

◆ Configuration

No.	Item	Quantity	Details
1	Tool changer fitting	1	P11
2	Aluminum tube	1	P14
Note: Connect with robotic upper arm. Determine the model according to the existing upper arm, with options to install multiple ATC components as needed.			

□ Crosses

②

◆ Configuration

No.	Item	Quantity	Details
1	CP-G type connector	1	P14
2	Aluminum tube(25mm)	1	P14
3	CP-A type connector	1	P13
Note: 2.1 General crosses, suitable for the installation of a single clamp or shovel while the cantilever distance of a single side should be less than 350mm.			
4	CP-A type connector	1	P13
5	Aluminum tube(40mm)	1	P14
6	CP-G type connector	2	P14
Note: 2.2 Heavy duty type crosses, suitable for the installation of two or more clamp or shovel, with cantilever distance for single side should be less than 650mm.			

□ Clamp

③

◆ Configuration

No.	Item	Quantity	Details
1	Pneumatic clamp	1	P18
2	Jaws	2	P25
3	Blank detection sensor	1	P26
4	Clamp ball joint mount	1	P16
5	Ball joint extension arm	1	P16
6	Air connector	2	P17
7	Air tube	/	/
Note: Pneumatic clamp provides stable clamping force to ensure the handling of blank. We provide various types of clamps to meet various working conditions, which can be integrated with blank detection sensors and double blank detection sensors. More information in pneumatic clamp selection page.			

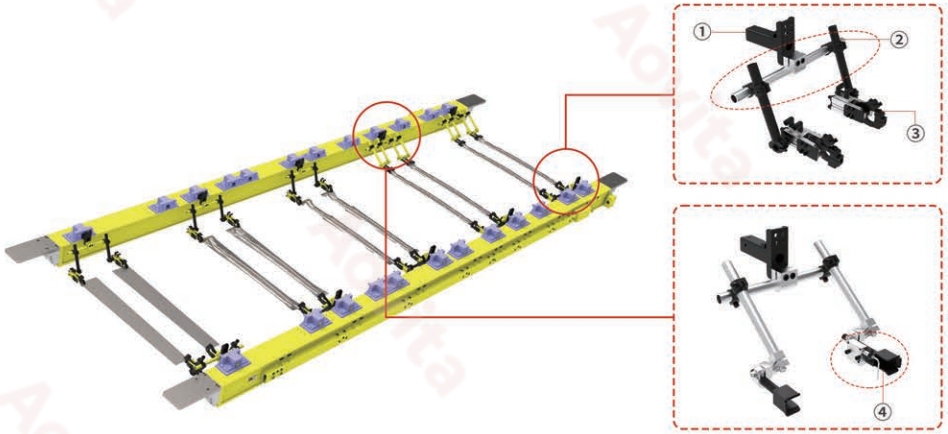
□ Support shovel

④

◆ Configuration

No.	Item	Quantity	Details
1	19-25 Extension arm	1	P15
2	19 Collet	1	P15
3	SH-D Metal shovel	1	P15
4	PS-C Probe rod detection switch	1	P16

◆ QCQ Quick-plug gripping structure



◆ Suggested solutions for blank handling

Blank			EOAT	
L*W (mm)	Thickness(mm)	Weight(Kg)	Solution description (Single side)	Diagram
L<1200 W<300	1<D<4	W<5	1 set of clamp	
L<1200 300<W<600	1<D<4	W<8	1 set of clamp + 1 set of shovel	
L<2000 W<800	0.5<D<4	W<15	2 sets of clamp	
2 parts output one time(not connected at middle)			2 sets of clamp	
Note: For any questions, please contact us.				

□ Automatic tool changer (ATC)

①

◆ Configuration

No	Item	Quantity	Details
1	Quick connector	1	P12
Note: Connect with robotic upper arm. Determine the model according to the existing upper arm, with options to install multiple ATC components as needed.			

□ Crosses

②

◆ Configuration

No	Item	Quantity	Details
1	Aluminum tube(25mm)	1	P14
2	CP-A type connector	/	P13
Note: CP-A type connectors are selected based on the quantity of clamp or shovels; the length of the aluminum tube should be ⩽500mm.			

□ Clamp

③

◆ Configuration

No.	Item	Quantity	Details
1	Pneumatic clamp	1	P18
2	Jaws	2	P25
3	Blank detection sensor	1	P26
4	Clamp ball joint mount	1	P16
5	Ball joint extension arm	1	P16
6	Air connector	2	P17
7	Air tube	/	/
Note: Pneumatic clamp provides stable clamping force to ensure the handling of blank. We provide various types of clamps to meet various working conditions, which can be integrated with blank detection sensors and double blank detection sensors. More information in pneumatic clamp selection page.			

□ Support shovel

④

◆ Configuration

No.	Item	Quantity	Details
1	19-25 Extension arm	1	P15
2	19 Collet	1	P15
3	SH-D Metal shovel	1	P15
4	PS-C Probe rod detection switch	1	P16

◆ QCJ Quick-plug gripping structure

◆ Suggested solutions for blank handling

Blank			EOAT	
L*W (mm)	Thickness(mm)	Weight (Kg)	Solution description (Single side)	Diagram
L<1200 W<300	1<D<4	W<5	1 set of clamp	
L<1200 300<W<600	1<D<4	W<8	1 set of clamp + 1 set of shovel	
L<2000 W<800	0.5<D<4	W<15	2 sets of clamp	
2 parts output one time(not connected at middle)			2 sets of clamp	
Note: For any questions, please contact us.				

□ Automatic tool changer (ATC)

①

◆ Configuration

No.	Item	Quantity	Details
1	Quick connector	1	P12
Note: Connect with robotic upper arm. Determine the model according to the existing upper arm, with options to install multiple ATC components as needed.			

□ Crosses

②

◆ Configuration

No.	Item	Quantity	Details
1	Aluminum tube(25mm)	1	P14
2	CP-A type connector	/	P13
Note: CP-A type connectors are selected based on the quantity of clamp or shovels; the length of the aluminum tube should be ⩽500mm.			

□ Clamp

③

◆ Configuration

No.	Item	Quantity	Details
1	Pneumatic clamp	1	P18
2	Jaws	2	P25
3	Blank detection sensor	1	P26
4	Clamp ball joint mount	1	P16
5	Ball joint extension arm	1	P16
6	Air connector	2	P17
7	Air tube	/	/
Note: Pneumatic clamp provides stable clamping force to ensure the handling of blank. We provide various types of clamps to meet various working conditions, which can be integrated with blank detection sensors and double blank detection sensors. More information in pneumatic clamp selection page.			

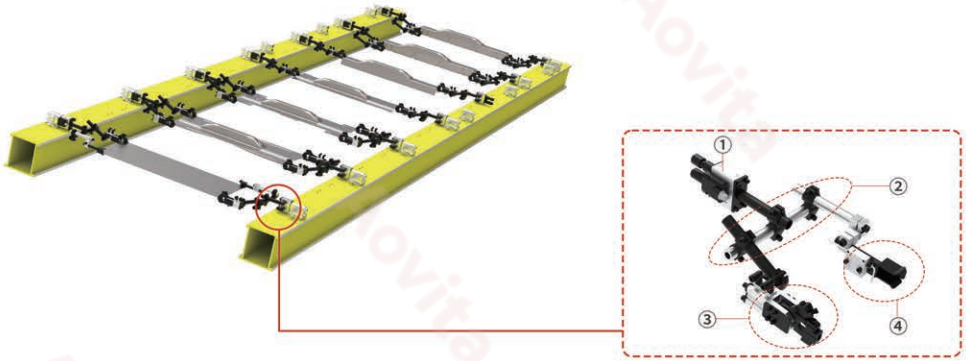
□ Support shovel

④

◆ Configuration

No.	Item	Quantity	Details
1	19-25 Extension arm	1	P15
2	19 Collet	1	P15
3	SH-D Metal shovel	1	P15
4	PS-C Probe rod detection switch	1	P16

◆ QCSP Quick-plug gripping structure



◆ Suggested solutions for blank handling

Blank			EOAT	
L*W (mm)	Thickness(mm)	Weight(Kg)	Solution description (Single side)	Illustration
L<1200 W<300	1<D<4	W<5	1 set of clamp	
L<1200 300<W<600	1<D<4	W<8	1 set of clamp + 1 set of shovel	
L<2000 W<800	0.5<D<4	W<15	2 sets of clamp	
2 parts output one time(not connected at middle)			2 sets of clamp	
Note: For any questions, please contact us.				

□ Automatic tool changer (ATC)

①

◆ Configuration

No.	Item	Quantity	Details
1	Quick connector	1	P12
Note: Connect with robotic upper arm. Determine the model according to the existing upper arm, with options to install multiple ATC components as needed.			

□ Crosses

②

◆ Configuration

No.	Item	Quantity	Details
1	Aluminum tube(25mm)	1	P14
2	CP-A type connector	/	P13
Note: CP-A type connectors are selected based on the quantity of clamp or shovels; the length of the aluminum tube should be ⩽500mm.			

□ Clamp

③

◆ Configuration

No.	Item	Quantity	Details
1	Pneumatic clamp	1	P18
2	Jaws	2	P25
3	Blank detection sensor	1	P26
4	Clamp ball joint mount	1	P16
5	Ball joint extension arm	1	P16
6	Air connector	2	P17
7	Air tube	/	/
Note: Pneumatic clamp provides stable clamping force to ensure the handling of blank. We provide various types of clamps to meet various working conditions, which can be integrated with blank detection sensors and double blank detection sensors. More information in pneumatic clamp selection page.			

□ Support shovel

④

◆ Configuration

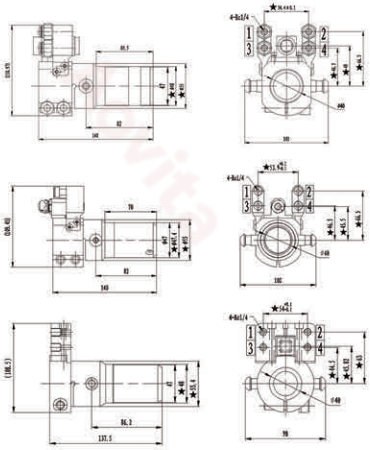
No.	Item	Quantity	Details
1	19-25 Extension arm	1	P15
2	19 Collet	1	P15
3	SH-D Metal shovel	1	P15
4	PS-C Probe rod detection switch	1	P16

QCA-40-MP Quick connector

I

II

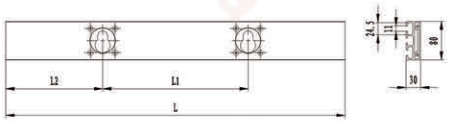
III



Dimension

Configuration						
Name	Model	Air circuit	Electrical circuits	Max. static load (N·m)	Weight (kg)	Material
Quick connector	QCA-40-MP-4-0- I	4	0	305	0.65	High-strength aluminum alloy body,Steel pin
	QCA-40-MP-4-5- I		5		0.70	
	QCA-40-MP-4-0- II		0		0.55	
	QCA-40-MP-4-5- II		5		0.60	
	QCA-40-MP-4-0-III		0		0.50	
	QCA-40-MP-4-4-III		4		0.55	
Note: It doesn't include the pneumatic connector, please purchase it separately according to the actual situation. Please confirm the model based on the "☆" marking in the key dimension drawing, or contact us if you need other models.						

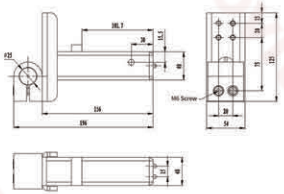
QCN-8030-MP Quick connector



Dimension

Configuration						
Name	Model				Weight (kg/m)	Material
Quick connector	QCN-8030-MP	L (mm)	L1 (mm)	L2 (mm)	2.13	High-strength aluminum alloy body, with steel locking block
		As required	As required	As required		
Example: QCN-8030-MP-1200-800-200						

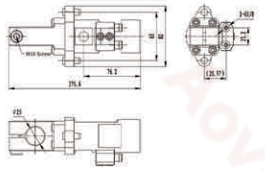
QCQ-25-MP Quick connector



Dimension

Configuration				
Name	Model	Electrical circuits	Weight (kg)	Material
Quick connector	QCQ-25-MP-2	2	1.45	Steel body, with high strength aluminum alloy collet
Note: The position of 25 collets can be changed according to the requirement				

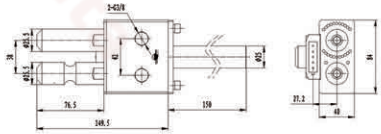
QCJ-25-MP Quick connector



Dimension

Configuration					
Name	Model	Air circuit (Rc1/8)	Electrical circuits	Weight (kg)	Material
Quick connector	QCJ-25-MP-2-4	2	4	0.7	High-strength aluminum alloy
Note: It doesn't nclude pneumatic connectors. Please purchase the pneumatic connector separately according to the actual situation.					

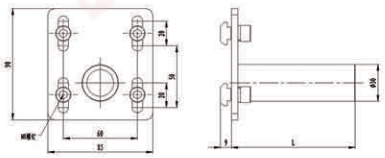
QCSP-25-MP Quick connector



Dimension

Configuration					
Name	Model	Air circuit (Rc1/8)	Electrical circuits	Weight (kg)	Material
Quick connector	QCSP-25-MP-2-5	2	5	1.7	Steel body, with high strength aluminum alloy
Note: It doesn't include the pneumatic connector. Please purchase the pneumatic connector separately according to the actual situation.					

F8030 Wrist extension (Fixed base)

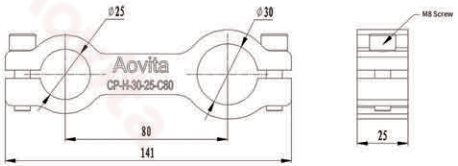


Dimension

Application

Configuration				
No.	Model	L(mm)	Weight(Kg)	Material
1	F8030-100	100	0.48	Steel
2	F8030-150	150	0.61	
3	F8030-200	200	0.74	

CP-H Wrist extension

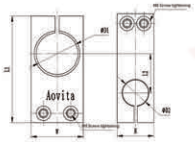


Dimension

Application

Configuration			
No.	Model	Weight(kg)	Material
1	CP-H-30-25-C80	0.45	High strength aluminum alloy

CP-A Wrist extension



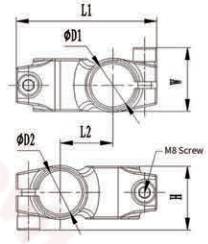
Dimension

Application

Configuration									
No.	Model	D1	D2	L1	L2	W	H	Weight(kg)	Material
1	CP-A-40-40	40	40	121	45	50	50	0.41	High strength aluminum alloy
2	CP-A-30-25	30	25	100	35	44	39	0.32	
3	CP-A-25-25	25	25	91	31	35	35	0.2	

CP-A-FE Wrist extension

Application

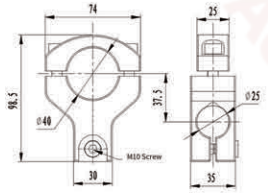


Dimension

Configuration									
No.	Model	D1(mm)	D2(mm)	L1(mm)	L2(mm)	W(mm)	H(mm)	Weight(Kg)	Material
1	CP-A--FE-25-25	25	25	80	30	36.5	36.5	0.23	Steel

CP-G Type Wrist extension

Application



Dimension

Configuration			
No.	Model	Weight(kg)	Material
1	CP-G-40-25	0.3	High strength aluminum alloy

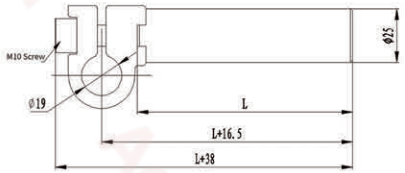
AB-B High-strength aviation aluminum tube

Application

Material: High-strength aluminum alloy			
Model			
AB-B----------XXX----------L			Weight(kg/m)
Aluminum tube	1.Cross-sectional area 40*4	100-500	1.24
	2.Cross-sectional area 25*5	100-500	0.86
	Each 50mm is a customized specification		

EX-E Aluminum alloy extension arm

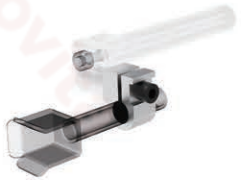
Application



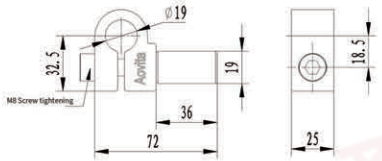
Dimension

Configuration				
No.	Model	L(mm)	Weight(Kg)	Material
1	EX-E-19-25-100	100	0.18	High strength aluminum alloy
2	EX-E-19-25-150	150	0.24	
3	EX-E-19-25-200	200	0.30	
4	EX-E-19-25-250	250	0.36	
5	EX-E-19-25-300	300	0.42	

CP-D-19 Wrist extension



Application

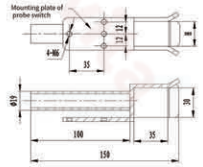


Dimension

Configuration			
No.	Model	Weight(kg)	Material
1	CP-D-19-19	0.08	High strength aluminum alloy

SH-D Shovel

Application

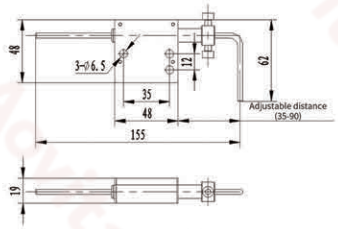


Dimension

Configuration					
No.	Model	H(mm)	Probe switch mounting plate	Weight(Kg)	Material
1	SH-D-25-19-100	25	/	0.20	Steel
2	SH-D-45-19-100	45	/	0.24	
3	SH-D-25-19-100-PS	25	Yes	0.34	
4	SH-D-45-19-100-PS	45	Yes	0.38	

PS-C Probe switch

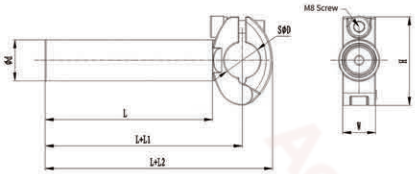
Application



Dimension

EX-S Ball extension arm

Application

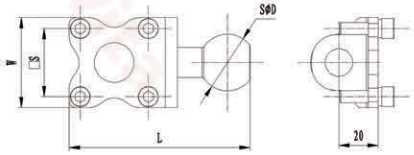


Dimension

Configuration										
No.	Model	SΦD(mm)	Φd(mm)	W(mm)	H(mm)	L(mm)	L1(mm)	L2(mm)	L=100Weight(Kg)	Kg/50mm	Material
1	EX-S285-25-L	28.5	25	20	54	Min: 100 Max: 500	16	36.5	0.27	0.05	Steel
2	EX-S36-30-L	45	30	22.5	67.5		24	46	0.45	0.07	

BA Ball Clamp mount

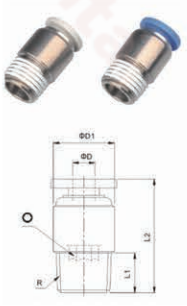
Application



Dimension

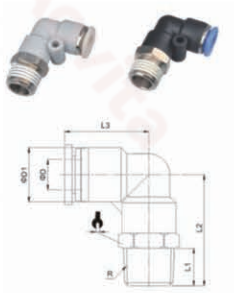
Configuration								
No.	Model	SØD(mm)	L(mm)	W(mm)	S(mm)	Weight(Kg)	Material	Applicable range
1	BA285-1	28.5	85	40	28	0.15	Steel	For connecting Clamp
2	BA285-2	28.5	90	45	34	0.18		
3	BA36-1	36	90.5	40	28	0.25		
4	BA36-2	36	95.5	45	34	0.28		

OTP-H Straight fitting



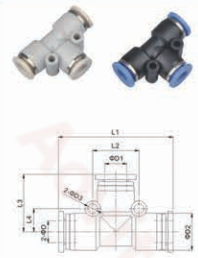
Model	ϕD	R	ϕD1	ϕD2	L1	L2	O	Y
OPT-H-06-G01	6	R1/8	14	14	5.5	22	4	12
OPT-H-06-G02	6	R1/4	14	14	7.5	22.5	4	12
OPT-H-06-G03	6	R3/8	14	20	7.5	20.3	4	12
OPT-H-06-G03	6	R1/2	14	24	10	23	4	12
OPT-H-08-G01	8	R1/8	16	14	5.5	25	4	14
OPT-H-08-G02	8	R1/4	16	17	7.5	24	5	14
OPT-H-08-G03	8	R3/8	16	20	7.5	20.5	6	14
OPT-H-08-G04	8	R1/2	16	24	10	24	6	14
OPT-H-10-G01	10	R1/8	19.5	14	5.5	29	4	17
OPT-H-10-G02	10	R1/4	19.5	17	7.5	30.5	6	17
OPT-H-10-G03	10	R3/8	19.5	20	7.5	27	8	17

OTP-L Straight fitting



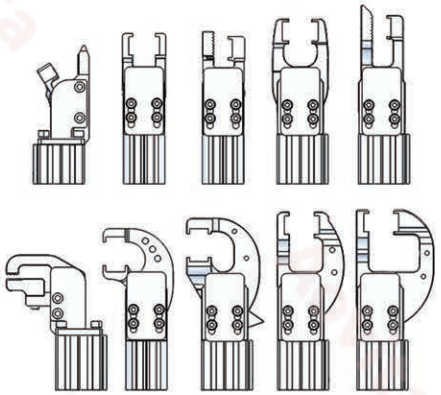
Model	ϕD	R	L1	L2	L3	ϕD1	Y
OPT-L-06-G01	6	R1/8	5.5	25.7	19.2	13.5	14
OPT-L-06-G02	6	R1/4	7.5	28.2	19.2	13.5	17
OPT-L-06-G03	6	R3/8	7.5	28.7	19.2	13.5	20
OPT-L-06-G03	6	R1/2	10	31.2	19.2	13.5	24
OPT-H-08-G01	8	R1/8	5.5	29	22.5	15	14
OPT-H-08-G02	8	R1/4	7.5	31.5	22.5	15	17
OPT-H-08-G03	8	R3/8	7.5	32	22.5	15	20
OPT-H-08-G04	8	R1/2	10	34.5	22.5	15	24
OPT-H-10-G01	10	R1/8	5.5	34	27.8	19	17
OPT-H-10-G02	10	R1/4	7.5	36.5	27.8	19	17
OPT-H-10-G03	10	R3/8	7.5	36.5	27.8	19	20

OTP-T Air fitting



Model	ϕD	ϕD1	ϕD2	ϕD3	L1	L2	L3	L4
OPT-H-06-G01	6	6	13.5	3.2	39	16	19.2	8
OTP-T-08	8	8	15	3.2	45	19	22.5	9.5
OTP-T-10	10	10	19	4.2	57	24	27.8	12

APG Series Clamp



- Advantages

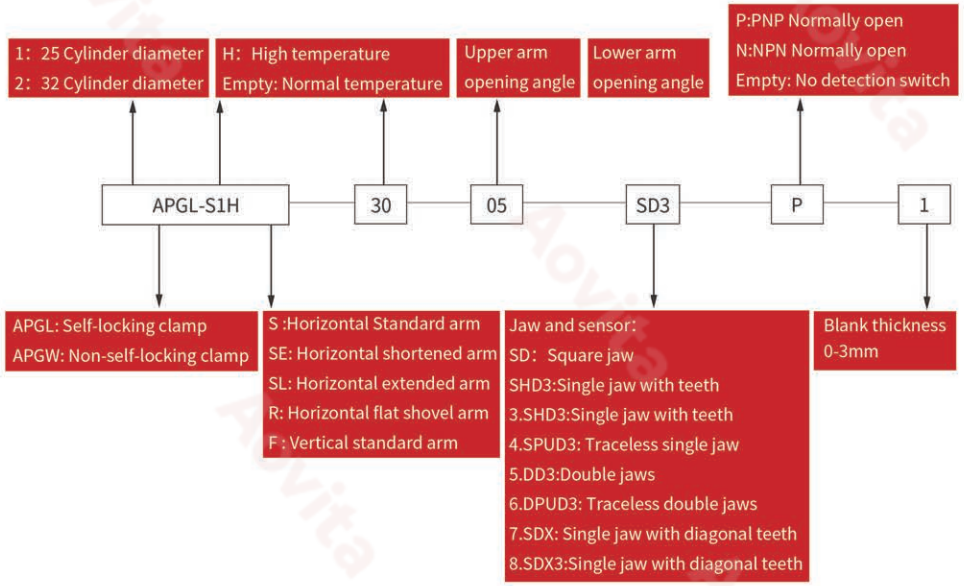
1.Self-locked function when the air cut off, it could prevent the blanks suddenly dropped;

2. Large clamp forcing, stable, high production efficiency.

3. Fast response time, and could meet 25 SPM usage.

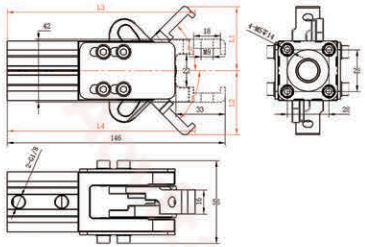
4.More than 95% of the parts of the clamp are self-made and processed, stable product quality and high cost-effectiveness.

- Order specify



Note:The above is for ordering reference only. Please select specific clamp combinations according to the details provided on the product information page. For any questions or further clarifications, please communicate directly.

APGL-S1 Clamp (self locking)



Model	A	B	L1(mm)	L2(mm)	L3(mm)	L4(mm)
APGL-S1-30-05-X-X	30°	5°	38	24	135	145
APGL-S1-30-15-X-X	30°	15°	38	30	135	142
APGL-S1-30-30-X-X	30°	30°	38	38	135	135
APGL-S1-45-05-X-X	45°	5°	43	24	126	145
APGL-S1-45-45-X-X	45°	45°	43	43	126	126

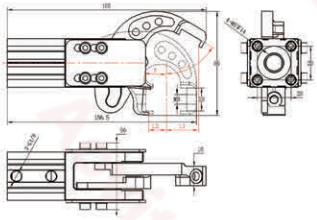
Application

Suitable for flat blank, high-frequency working conditions, with small profile, fast action and light weight.

Technical Parameter

Working air pressure:0.3-0.8MPa
Clamping force under 0.6Mpa:500N
Working temperature:
Normal temperature:-20-60°C High temperature:-20~200°C
Locking/opening time: 0.2s
Weight:0.59kg
Max. blank thickness:3mm
Self-locking function: Yes
Cylinder joint size:2-G1/8

APGL-F1 Clamp (self locking)



Model	A	B	L1(mm)	L2(mm)
APGL-F1-60-05-X-X	60°	5°	27	15

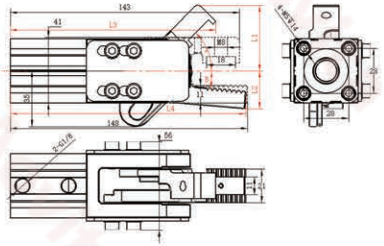
Application

Vertical large forced clamp, used for the blanks edges above 90 degree. Appropriate clear space should be reserved for the downward movement after the clamp arm is opened.

Technical Parameter

Working air pressure:0.3-0.8MPa
Clamping force under 0.6Mpa:500N
Working temperature:
Normal temperature:-20-60°C High temperature:-20~200°C
Locking/opening time: 0.2s
Weight:0.59kg
Max. blank thickness:3mm
Self-locking function: Yes
Cylinder joint size:2-G1/8

APGL-R1 Clamp (self locking)



Model	A	B	L1(mm)	L2(mm)	L3(mm)	L4(mm)
APGL-R1-30-05-X-X	30°	5°	37	24	135	147
APGL-R1-45-05-X-X	45°	5°	41	24	128	147

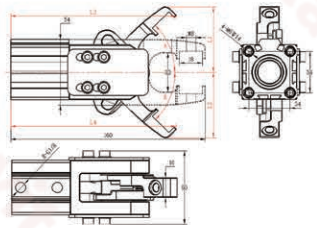
Application

Quick clamp, with thin lower clamp arm, used for low lifting height of lower die and limited space for jaws to extend.

Technical Parameter

Working air pressure:0.3-0.8MPa
Clamping force under 0.6Mpa:500N
Working temperature:
Normal temperature:-20-60°C High temperature:-20~200°C
Locking/opening time: 0.2s
Weight:0.59kg
Max. blank thickness:3mm
Self-locking function: Yes
Cylinder joint size:2-G1/8

APGL-SE2 Clamp (self locking)



Model	A	B	L1(mm)	L2(mm)	L3(mm)	L4(mm)
APGL-SE2-30-05-X-X	30°	05	29	16	147	159
APGL-SE2-30-15-X-X	30°	15	37	25	147	155
APGL-SE2-30-30-X-X	30°	30	47	36	147	147
APGL-SE2-45-05-X-X	45°	5°	29	16	136	159
APGL-SE2-45-45-X-X	45°	45°	54	54	136	136

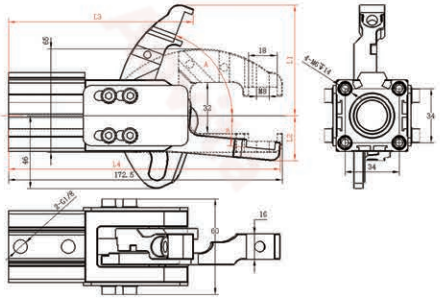
Application

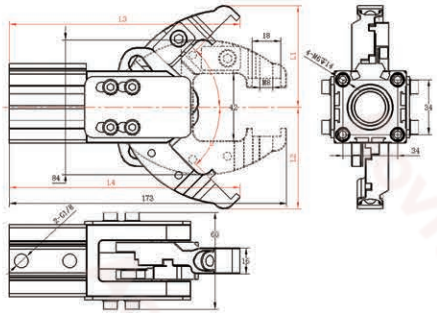
Large forced clamp with fast action, small interference space, suitable for high-frequency working conditions.

Technical Parameter

Working air pressure:0.3-0.8MPa
Clamping force under 0.6Mpa:800N
Working temperature:
Normal temperature:-20-60°C High temperature:-20~200°C
Locking/opening time: 0.2s
Weight:0.59kg
Max. blank thickness:3mm
Self-locking function: Yes
Cylinder joint size:2-G1/8

APGL-S2 Clamp (self locking)





Model	A	B	C	D	L1(mm)	L2(mm)	L3(mm)	L4(mm)
APGL-S2-30-05-X-X	30°	5°	/	/	55	29	157	172
APGL-S2-45-05-X-X	45°	5°	/	/	64	29	144	172
APGL-S2-75-05-X-X	75°	5°	/	/	70	29	117	172
APGL-S2-30-30-X-X	/	/	30°	30°	55	55	154	154
APGL-S2-45-45-X-X	/	/	45°	45°	64	64	144	144

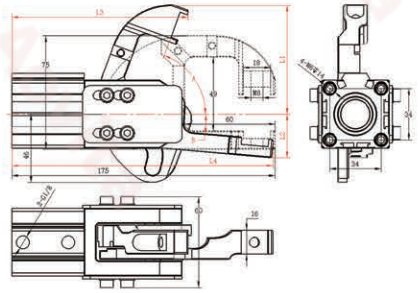
Application

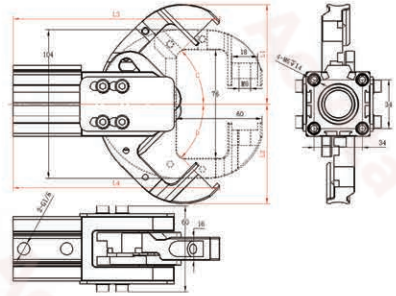
Large forced clamp with fast action, small interference space, suitable for high-frequency working conditions.

Technical Parameter

Working air pressure: 0.3-0.8MPa
Clamping force under 0.6Mpa：1000N
Working temperature:
Normal temperature: -20-60°C
High temperature: -20~200° C
Locking/opening time: 0.2s
Weight: 1kg
Max. blank thickness: 3mm
Self-locking function: Yes
Cylinder joint size: 2-G1/8

APG-SL2 Clamp (self locking)





Model	A	B	C	D	L1(mm)	L2(mm)	L3(mm)	L4(mm)
APG-SL2-30-05-X-X	30°	5°	/	/	65	29	159	173
APG-SL2-45-05-X-X	45°	5°	/	/	70	29	145	173
APG-SL2-75-05-X-X	75°	5°	/	/	73	29	117	173
APG-SL2-30-30-X-X	/	/	30°	30°	65	65	159	159
APG-SL2-45-45-X-X	/	/	45°	45°	70	70	145	145

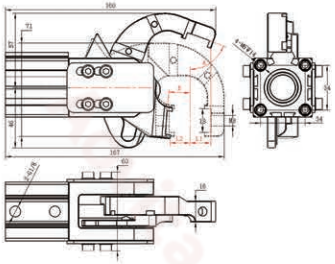
Application

Large forced clamp, suitable for long distance large flap blank. Due to the long clamp arm, adequate clearance space should be considered during operation

Technical Parameter

Working air pressure: 0.3-0.8MPa
Clamping force under 0.6Mpa：1000N
Working temperature:
Normal temperature: -20-60°C
High temperature: -20~200° C
Locking/opening time: 0.2s
Weight: 1kg
Max. blank thickness: 3mm
Self-locking function: Yes
Cylinder joint size: 2-G1/8

APGL-F2 Clamp (self locking)



Application

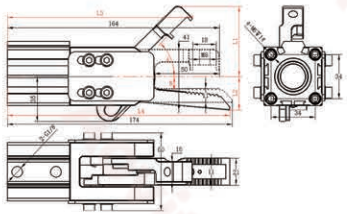
Vertical large forced clamp, used for the blanks edges above 90 degree, and prevent to dropping the blanks.

Technical Parameter

Working air pressure:0.3-0.8MPa
Clamping force under 0.6Mpa:500N
Working temperature:
Normal temperature:-20-60°C High temperature:-20~200°C
Locking/opening time: 0.25s
Weight:0.59kg
Max. blank thickness:3mm
Self-locking function: Yes
Cylinder joint size:2-G1/8

Model	A	B	L1(mm)	L2(mm)
APGL-F2-50-05-X-X	50°	5°	23	16
APGL-F2-70-05-X-X	70°	5°	16	16

APGL-R2 Clamp (self locking)



Application

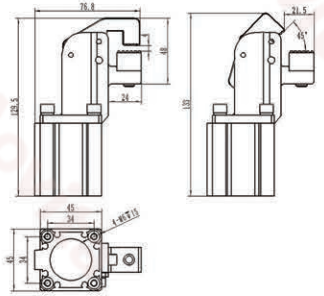
Extended flat clamp with long clamp arm and thin lower clamp arm, the clamping distance is farther, suitable for small space reserved for clamping in the die.

Technical Parameter

Working air pressure:0.3-0.8MPa
Clamping force under 0.6Mpa:500N
Working temperature:
Normal temperature:-20-60°C High temperature:-20~200°C
Locking/opening time: 0.25s
Weight:0.59kg
Max. blank thickness:3mm
Self-locking function: Yes
Cylinder joint size:2-G1/8

Model	A	B	L1(mm)	L2(mm)	L3(mm)	L4(mm)
APGL-R2-30-0-X-X	30°	5°	46	26	153	172
APGL-R2-45-0-X-X	45°	5°	55	26	143	172

APGW-F2C Clamp



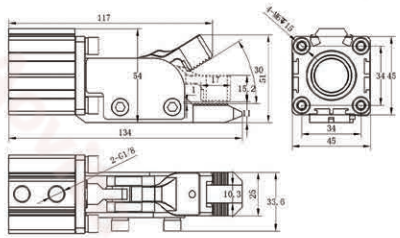
Application

Vertical hinge clamp, suitable for working conditions without self-locking requirements, anti-seize, and cost-effective.

Technical Parameter

Working air pressure:0.3-0.8MPa
Clamping force under 0.6Mpa:500N
Working temperature:
Normal temperature:-20-60°C High temperature:-20~200°C
Locking/opening time: 0.25s
Weight:0.8kg
Max. blank thickness:3mm
Self-locking function: No
Cylinder joint size:2-G1/8

APGW-S2C Clamp



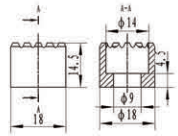
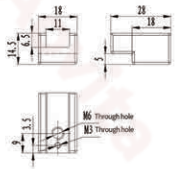
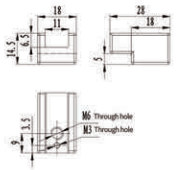
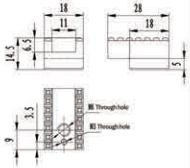
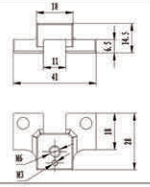
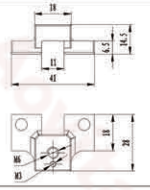
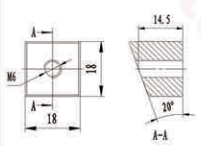
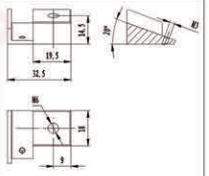
Application

Vertical hinge clamp, suitable for working conditions without self-locking requirements, anti-seize, and cost-effective.

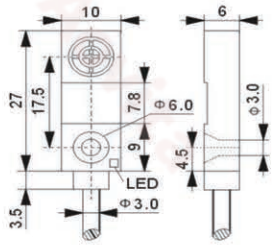
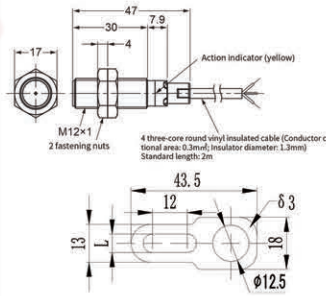
Technical Parameter

Working air pressure:0.3-0.8MPa
Clamping force under 0.6Mpa:500N
Working temperature:
Normal temperature:-20-60°C High temperature:-20~200°C
Locking/opening time: 0.25s
Weight:0.8kg
Max. blank thickness:3mm
Self-locking function: No
Cylinder joint size:2-G1/8

Jaw

Model	SD3 Jaw	SD3 Jaw	SPUD3 Jaw	SHD3 Jaw
Picture				
Description	Small space occupation External sensor available	Small space occupation Built-in sensor available	High surface requirements (e.g., automotive exterior parts) Built-in sensor available	Poor rigidity of blank (e.g. flat blank) Built-in sensor available
Dimension drawing				
Technical Parameter	Body material: steel Function: Matching with clamp	Body material: steel Function: Matching with clamp	Body Material: Steel, Polyurethane Function: Matching with clamp	Body material: steel Function: Matching with clamp
Model	**DD3 Jaw**	**DDPU3 Jaw**	**SXD Jaw**	**SXD3 Jaw**
Picture				
Description	Wider jaws for more stable clamping Built-in sensor available	Wider jaws for more stable clamping,high surface requirements Built-in sensor available	Beveled Jaw Clamping External sensor available	Beveled Jaw Clamping Detection switch available
Dimension drawing				
Technical Parameter	Body material: steel Function: Matching with clamp	Body Material: Steel, Polyurethane Function: Matching with clamp	Body material: steel Function: Matching with clamp	Body material: steel Function: Matching with clamp

Detection switch

Model	Output signal	Picture	Dimension drawing	Technical Parameter
Built-in sensor	PNP NPN			Detection Distance: 3MM Function: Matching with clamp Detecting the existence of blank
External sensor	PNP NPN			Detection Distance: 4MM Function: Matching with clamp Detecting the existence of blank

Double blank detection device

Used in FOL feeding clamps to detect whether the clamped blank is single or double.

Configuration						
No.	Model	Recognizable sheet thickness	Weight (kg)	Material	Output signal	Applicable
1	DDA-P	0.5-2	0.1	Steel	PNP normally open	For clamp series
2	DDA-N				NPN normally open	
Note: These detection devices are clamp accessories and should be ordered with pneumatic clamps, separate orders are not supported. When ordering, add DDA-P or DDA-N to the clamp model number.						