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MC PRECISION SUPER
HI-PRESSURE RAPID
VISE **TPV**

MC SUPER HI-PRESSURE
DOUBLE VISE **DPV-6-100**



PNEUMATIC SUPER HI-PRESSURE VISE



5-AXIS AIR VISE
PSC



PNEUMATIC POWER
VISE **APV-160**

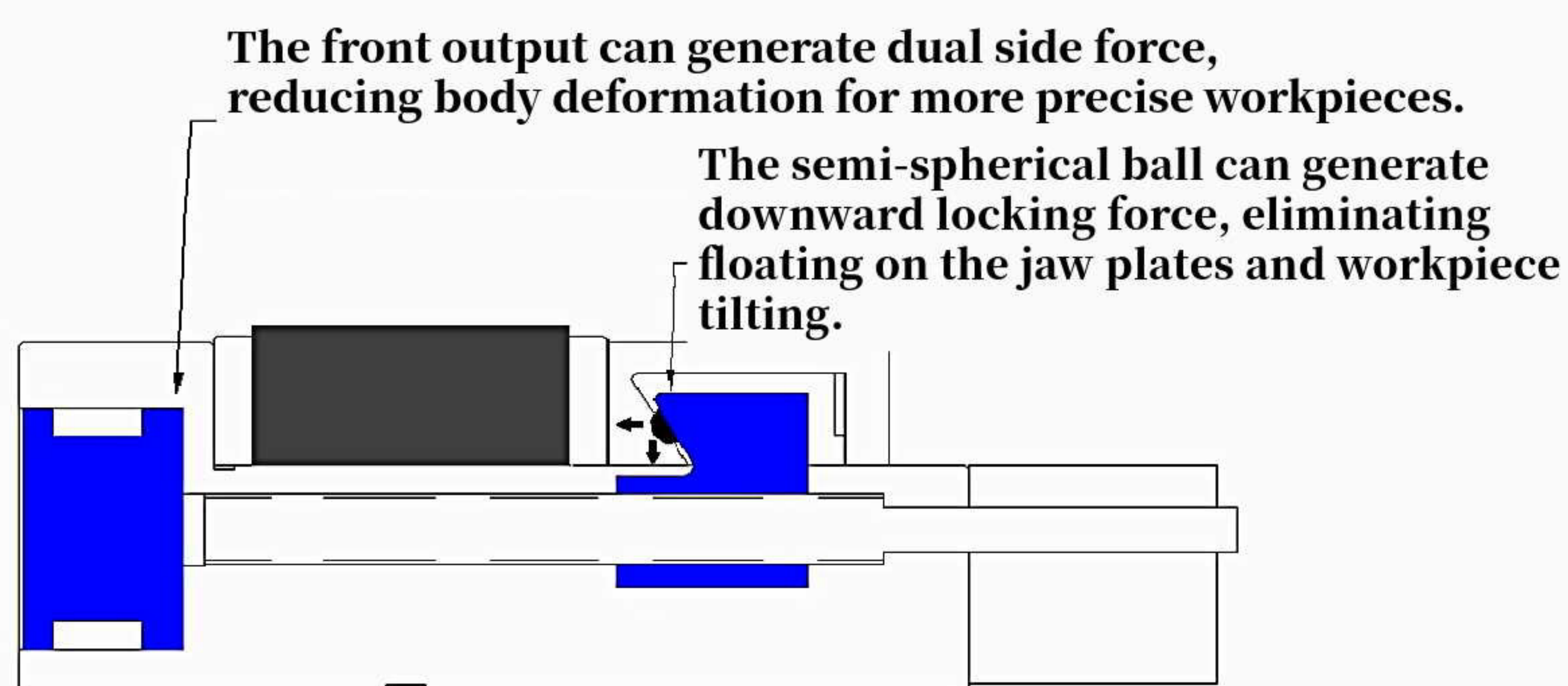
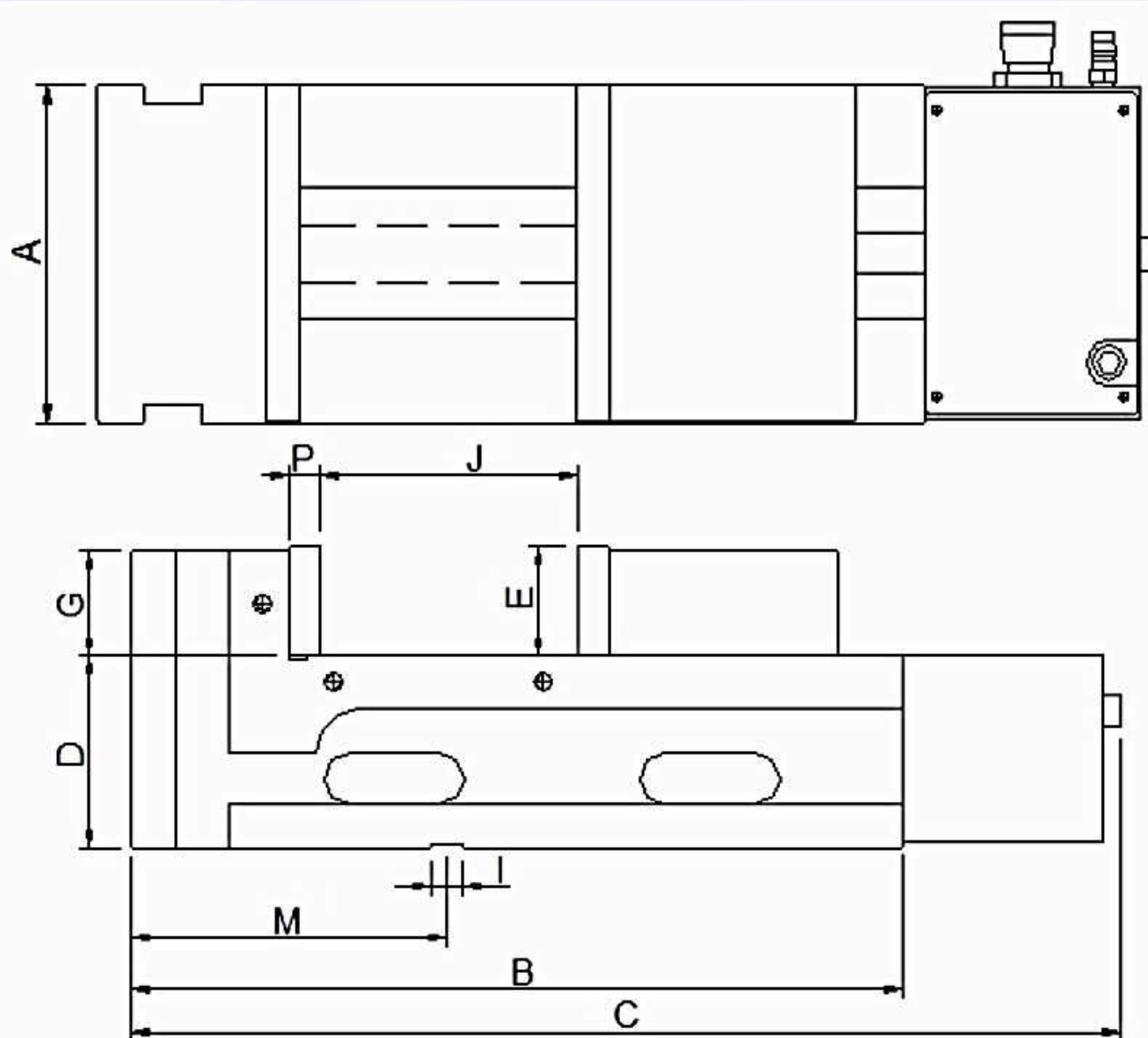


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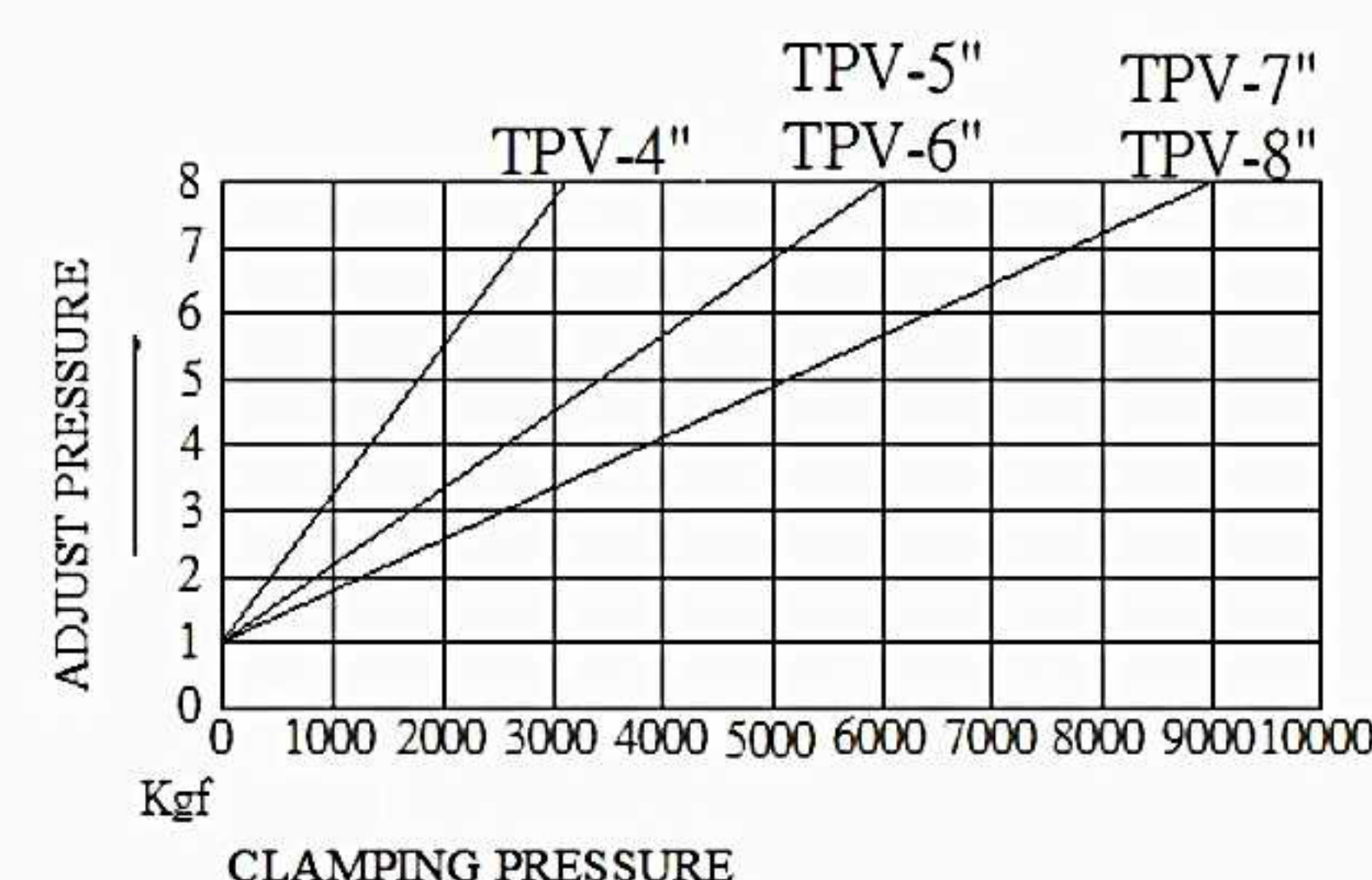
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MC PRECISION SUPER HI-PRESSURE RAPID VISE TPV



MODEL	A	B	C	D	E	G	I	M	P	J	Clamping Force (kgf)	Weight (Kg)
TPV-4"-100	100	320	435	100	48	45	16	145	15	100	3200	29
TPV-5"-150	130	380	505	105	55	52	18	145	15	150	6000	40
TPV-6"-160	160	400	525	105	58	55	18	145	15	160	6000	50
TPV-6"-250	160	490	615	105	58	55	18	145	15	250	6000	55
TPV-7"-200	180	460	585	110	63	60	18	180	18	200	9000	72
TPV-8"-200	200	470	595	110	63	60	18	180	18	200	9000	80
TPV-8"-300	200	570	695	110	63	60	18	180	18	300	9000	90



Standard Accessories : Handle x 1 pcs / Guide Key x 2 pcs / Screw M6x10L x 2 pcs / Locked Block x 4 pcs

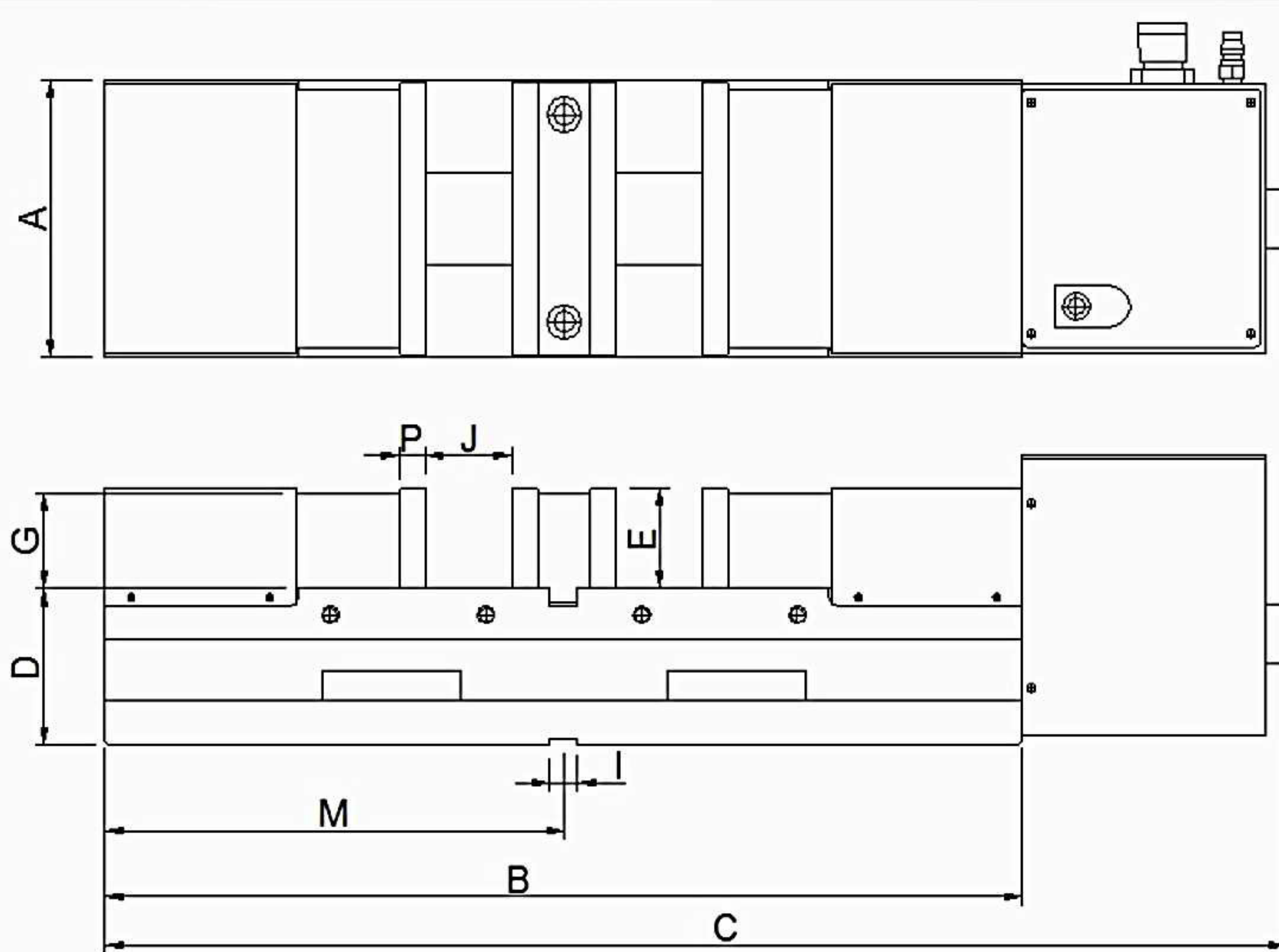
- **Quick clamping and releasing:** The principle of this machine vise is to use a reciprocating pneumatic motor, which utilizes continuous air pressure to drive the hydraulic system to achieve automation.
- **Ultra-high clamping force:** With a low-pressure air supply of 8 kg/cm², it can achieve an ultra-high gripping force of 9,000 kgf.
- **Automatically seek the highest air pressure source:** When processing lightweight copper or aluminum products or heavy cutting of cast iron billets, set the regulator to the required pressure. This ensures that there is no pressure loss due to the air pressure being at a low point, and it also has automatic pressure compensation and stabilization functions to ensure the workpiece is securely gripped.
- **User-friendly design:** The machine vise is controlled with a manual switch, enabling a switch speed of just 1.5 seconds. The safe clamping distance is 8mm, preventing any risk of injury during operation. Additionally, it can be integrated into automated unmanned production systems for special designs (compatible with electronic control valves or controlled via machine controllers).
- **Triple-function (vertical, lateral, horizontal):** The machine vise has fixed dimensions and its body is polished on all six sides with a reserved pressure plate groove, allowing for machining without the need for a fixture board, enabling upright machining.
- **Ultra-high quality material:** The body of the machine vise is made of high ductility spherical graphite cast iron (FCD600) with an integrated design, and the two sides of the slide rails undergo hardening heat treatment (HRC45°), ensuring high precision, high wear resistance, and high tensile strength.
- **Internal angular locking pressure structure:** The semi-spherical ball can generate downward locking force, eliminating floating on the jaw plates and workpiece tilting.



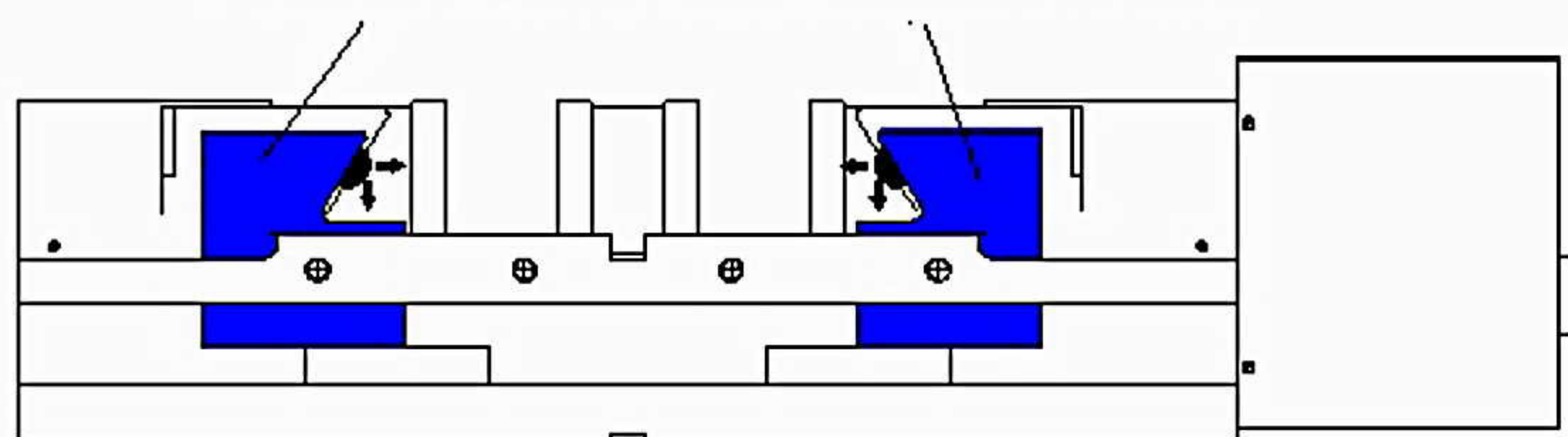
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MC SUPER HI-PRESSURE DOUBLE VISE DPV-6-100

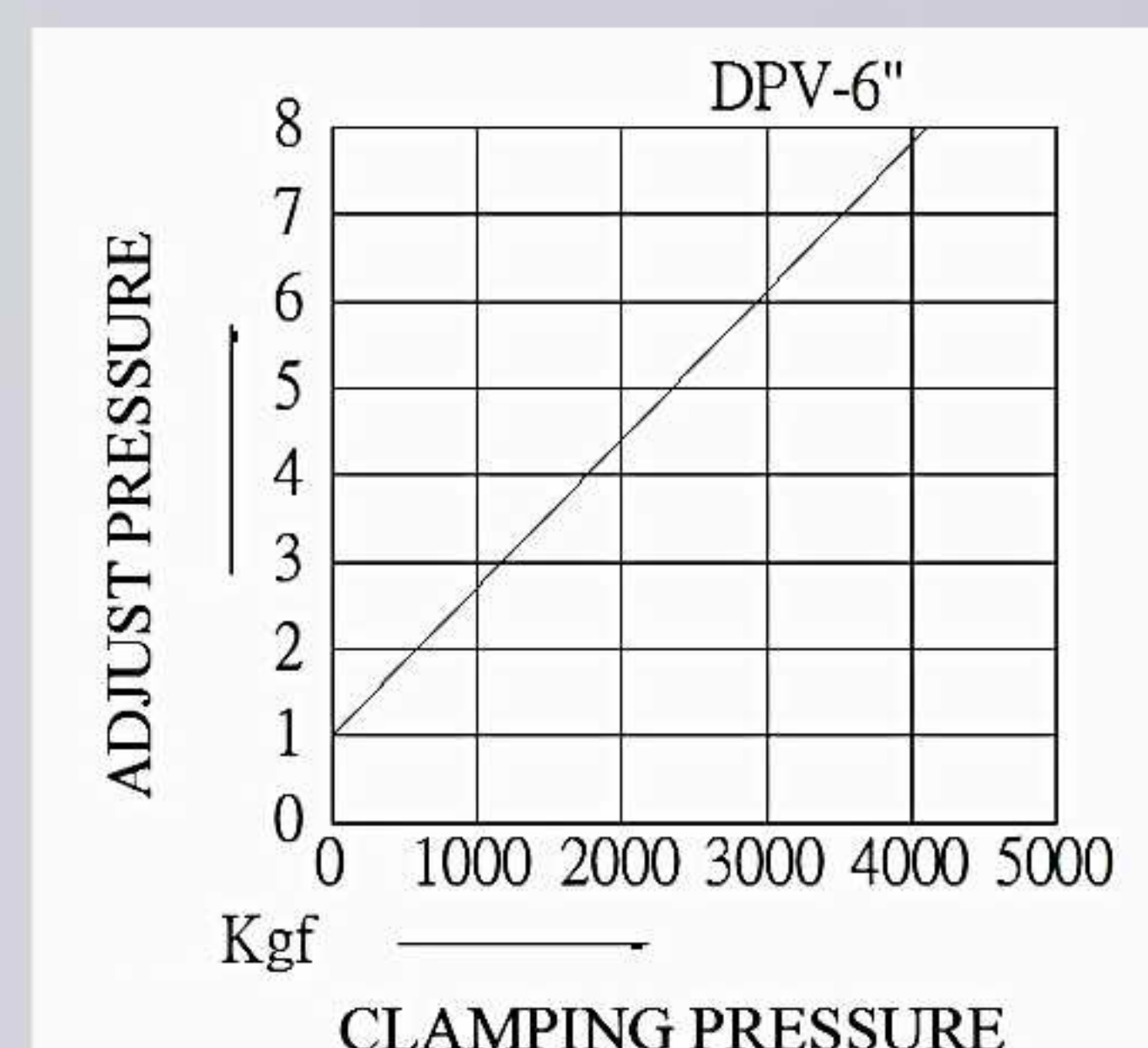


The semi-spherical ball can generate downward locking force, eliminating floating on the jaw plates and workpiece tilting.



MODEL	A	B	C	D	E	G	I	M	P	J	Clamping Force (kgf)	Weight (Kg)
DPV-6"-100	160	530	680	90	58	55	18	265	15	100	4000	66

Standard Accessories : Handle x 1 pcs / Guide Key x 2 pcs / Screw M6x10L x 2 pcs / Locked Block x 4 pcs



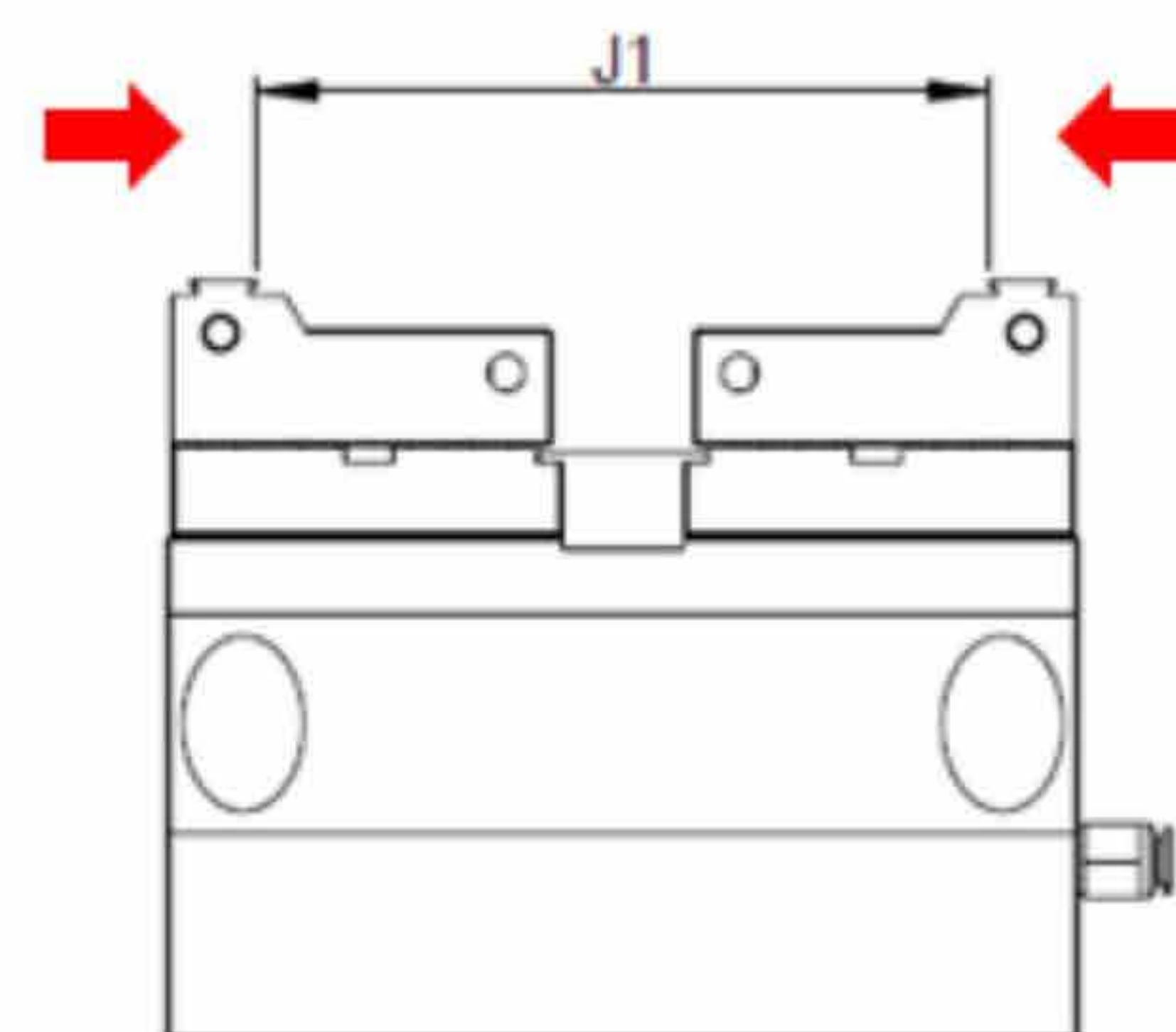
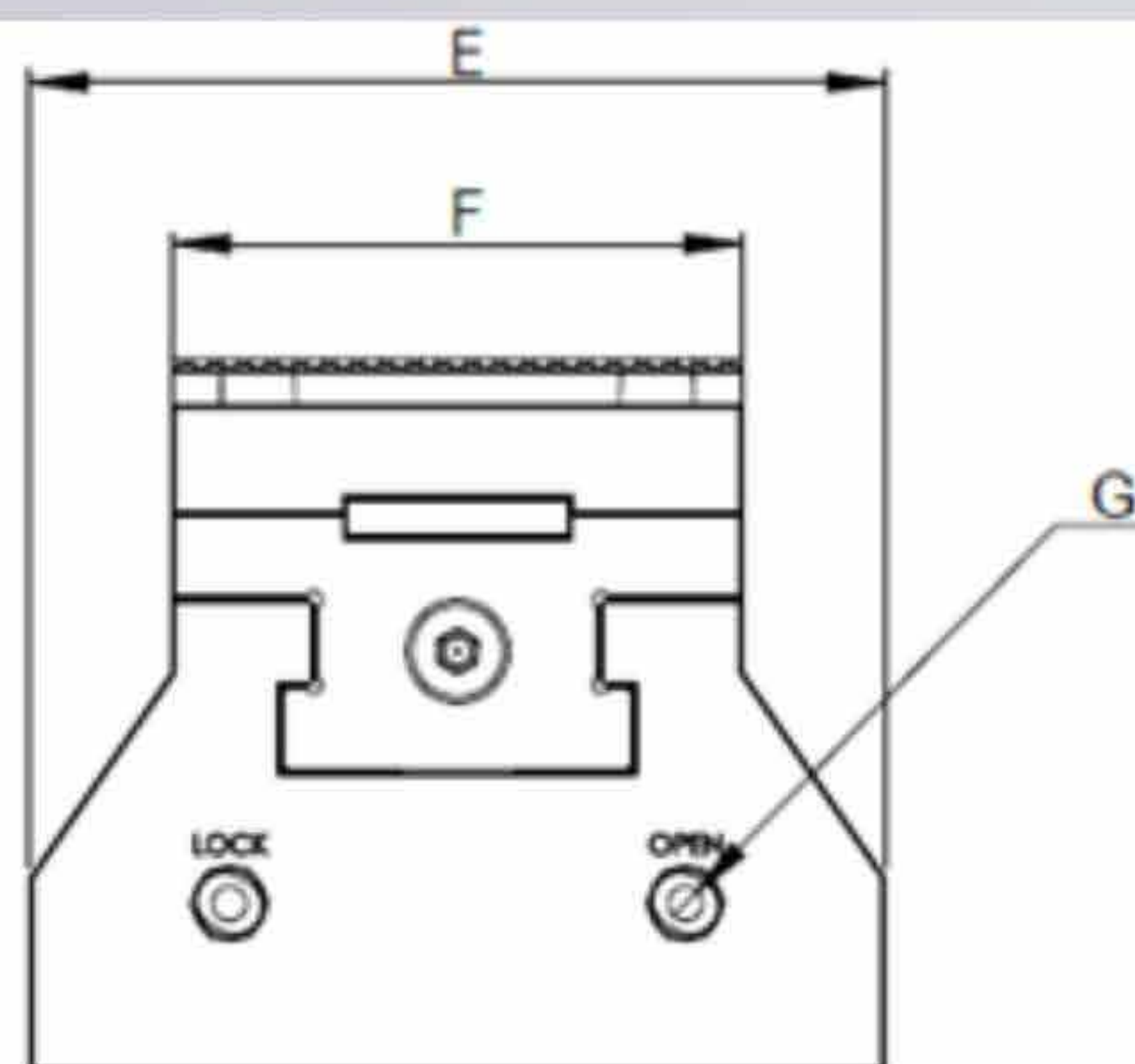
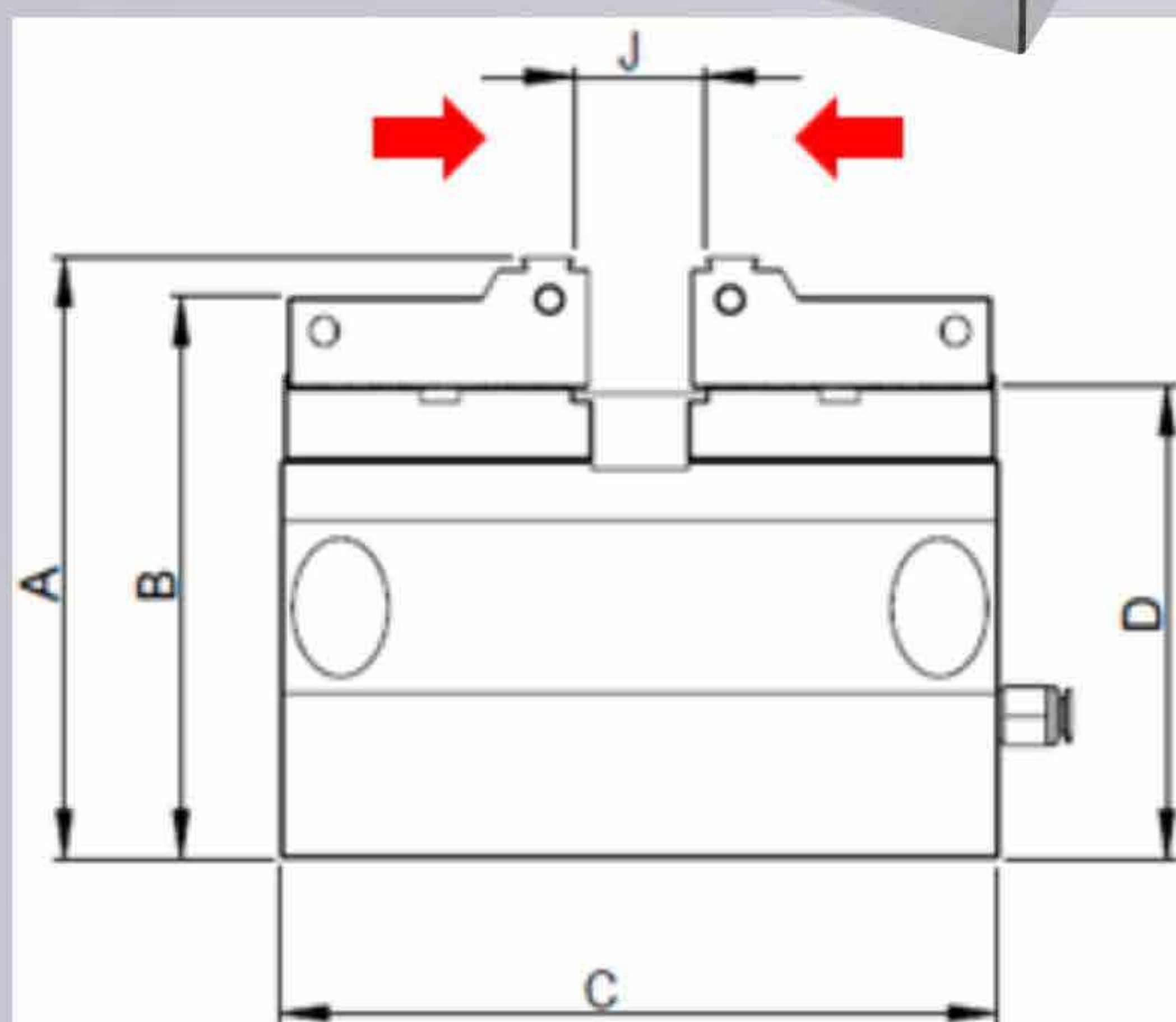
- **Double clamping structure :** Clamping two workpieces simultaneously, increasing productivity, so that the original function of holding more rapid upgrade.
- **Quick clamping and releasing:** The principle of this machine vise is to use a reciprocating pneumatic motor, which utilizes continuous air pressure to drive the hydraulic system to achieve automation.
- **Ultra-high clamping force:** With a low-pressure air supply of 8kg/cm², it can achieve an ultra-high gripping force of 4,000 kgf.
- **Automatically seek the highest air pressure source:** When processing lightweight copper or aluminum products or heavy cutting of cast iron billets, set the regulator to the required pressure. This ensures that there is no pressure loss due to the air pressure being at a low point, and it also has automatic pressure compensation and stabilization functions to ensure the workpiece is securely gripped.
- **User-friendly design:** The machine vise is controlled with a manual switch, enabling a switch speed of just 1.5 seconds. The safe clamping distance is 5mm, preventing any risk of injury during operation. Additionally, it can be integrated into automated unmanned production systems for special designs (compatible with electronic control valves or controlled via machine controllers).
- **Ultra-high quality material:** The body of the machine vise is made of high ductility spherical graphite cast iron (FCD600) with an integrated design, and the two sides of the slide rails undergo hardening heat treatment (HRC45°), ensuring high precision, high wear resistance, and high tensile strength.
- **Internal angular locking pressure structure:** The semi-spherical ball can generate downward locking force, eliminating floating on the jaw plates and workpiece tilting.



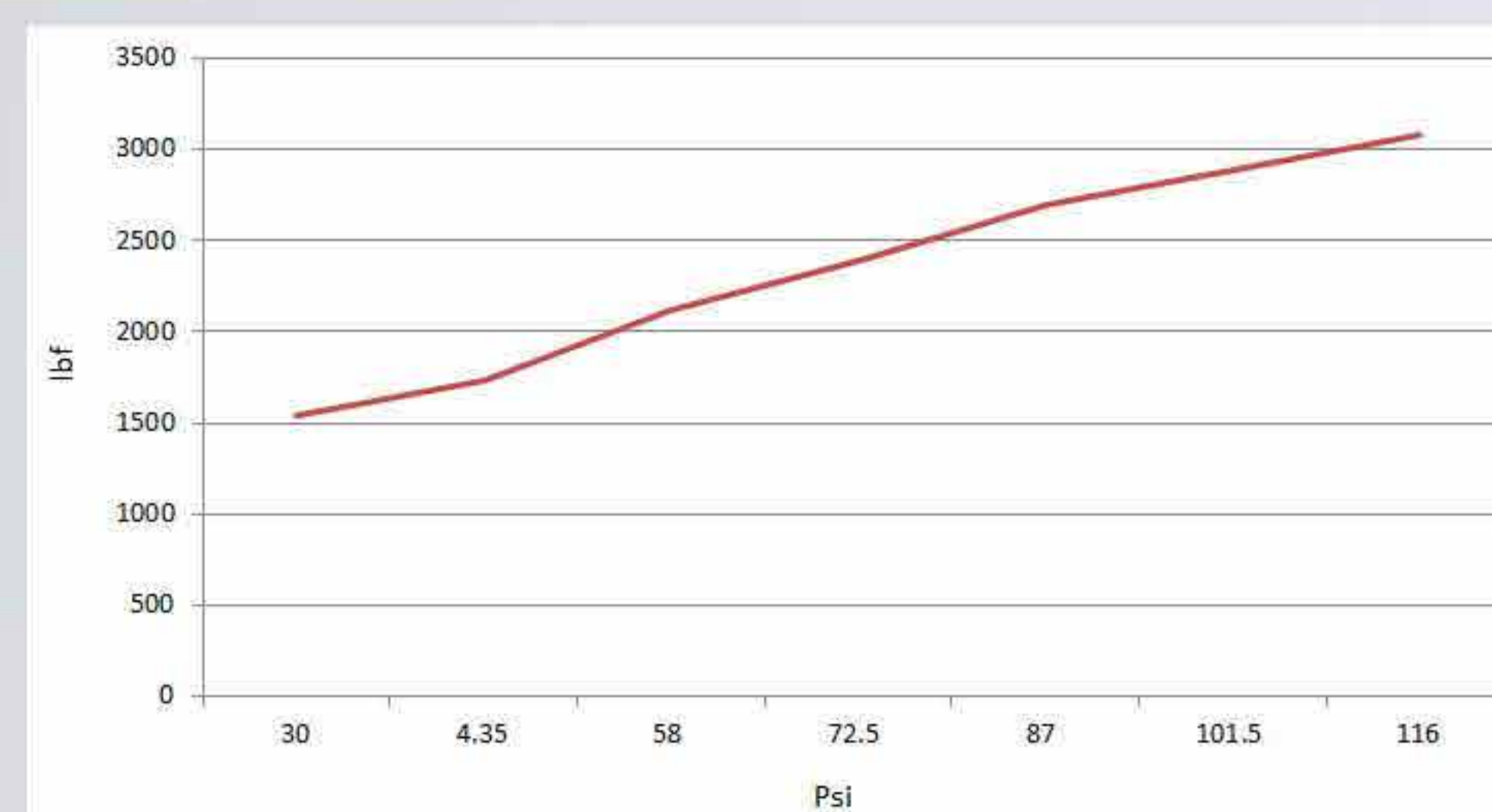
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5-AXIS AIR VISE PSC

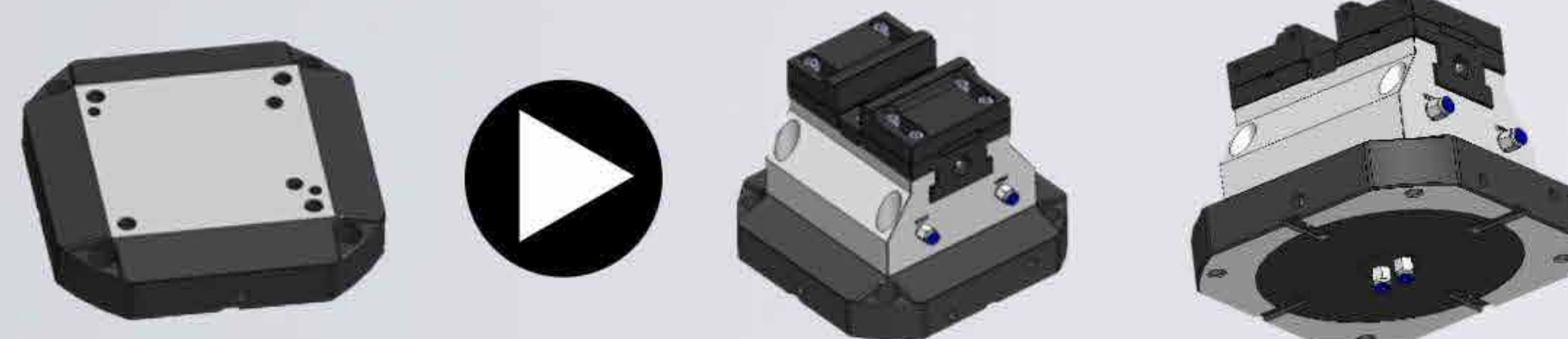
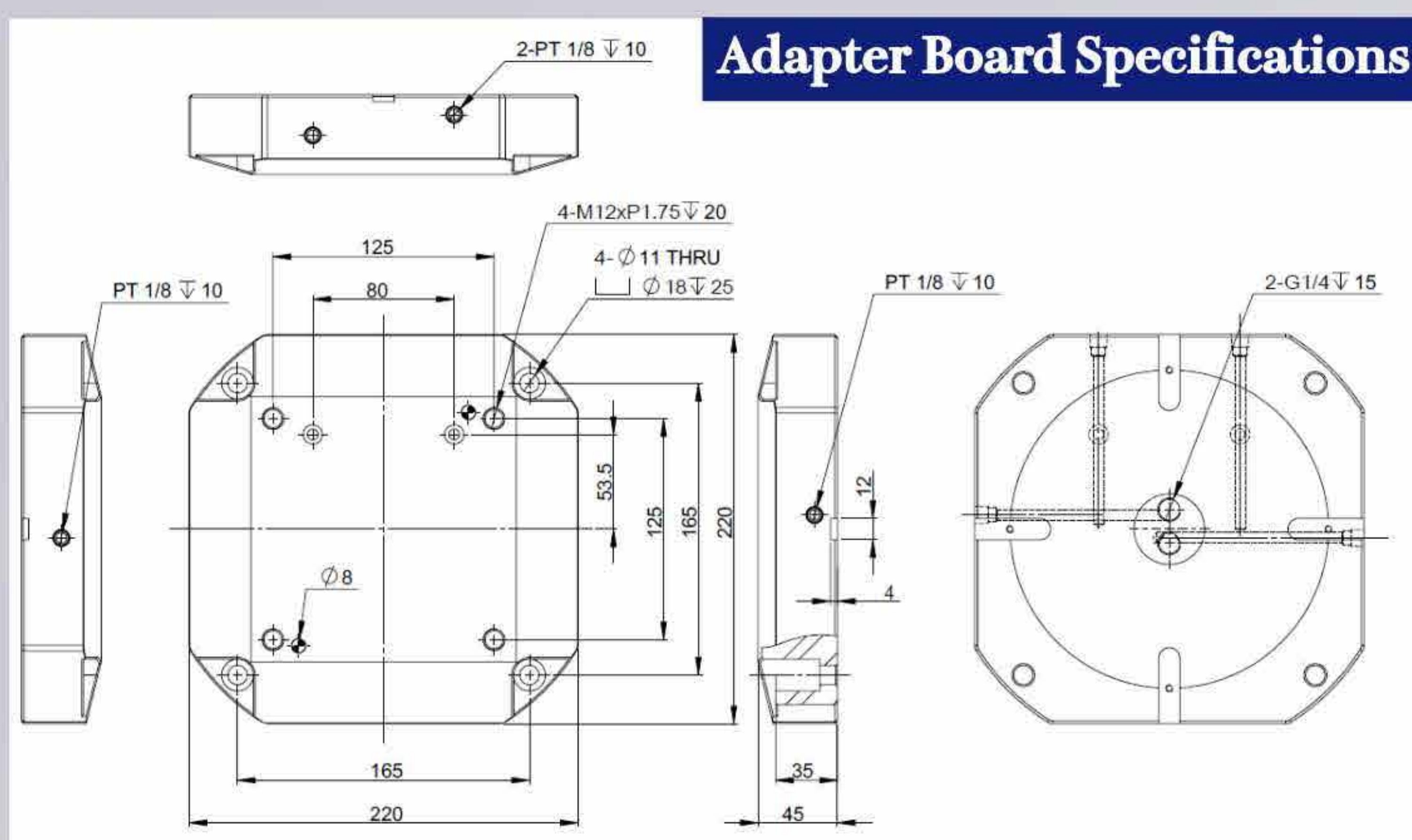


MODEL	A	B	C	D	E	F	G	J	J1	Open stroke	Max-Clamping Force(lbf)	N.W. KG
PSC-100	124	116	150	100	150	100	Ø8	27.5	120	4	2,750	25
PSC-88	111.5	103.5	150	88	150	100	Ø8	27.5	120	3	2,400	23.5



Standard Accessories : 1. T-slot Nut (M12) x 4 pcs 2. Screw M12x30L x 4 pcs

Optional Accessories : Adapter Board
(for the heighten function, the hole can also be used to connect the air pressure pipe.)



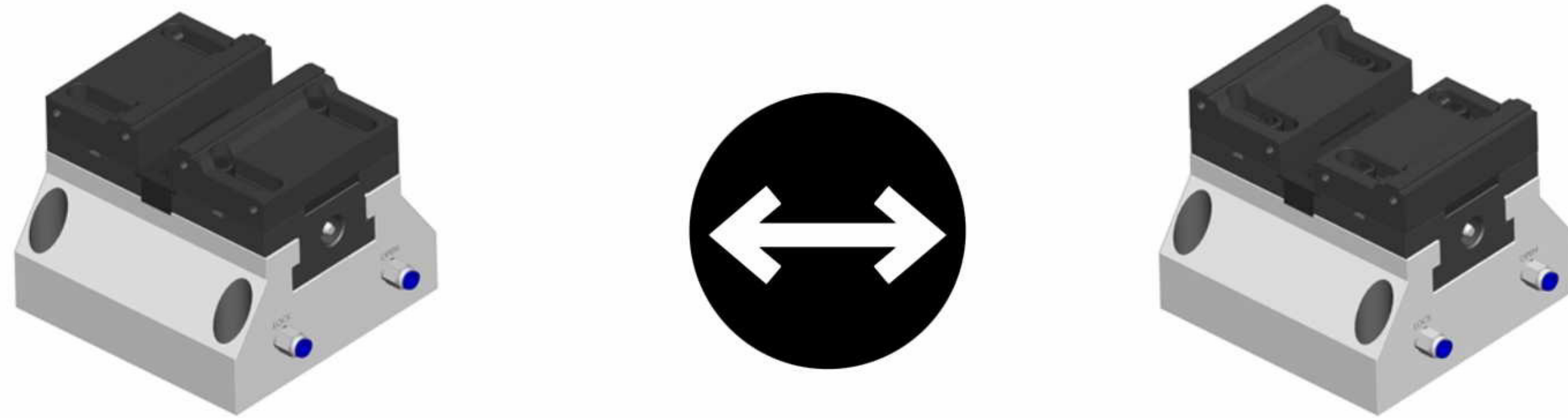
Manual Control Optional Accessories :
1. Pressure Valve: UR - 02(G1/4) 2. Manual valve: Four-port three-position (G1/4)

Automatic Control Optional Accessories :
1. Pressure Valve: UR - 02(G1/4) 2. Solenoid Valve (Five-port two-position / Five-port three-position)
3. Quick Coupling (PC 08 - 02_PT1/4)

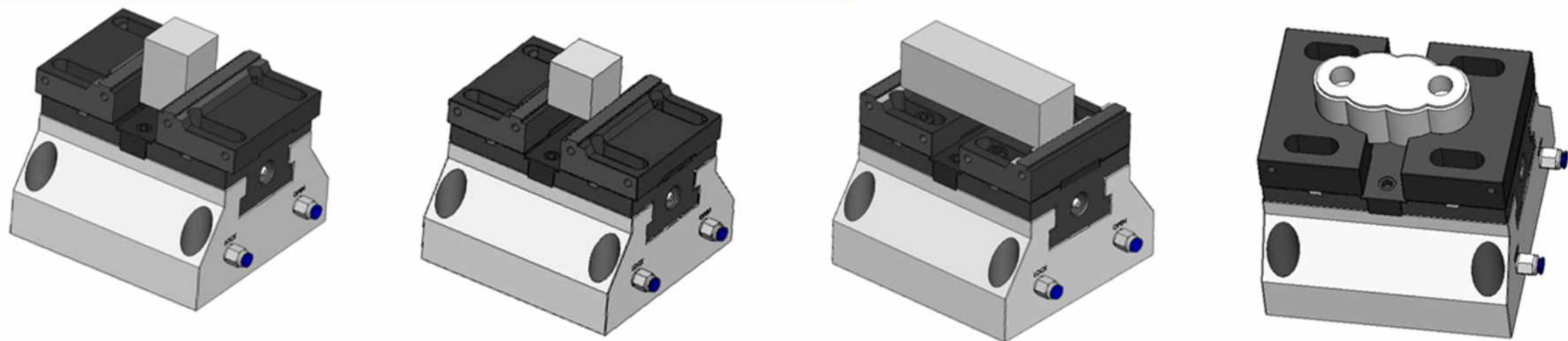


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Can change the direction of the sliding block to increase the clamping distance



Flexible use of the sliding block to meet the clamping needs of different workpieces



- Pneumatic self-centering vise, with high repeat clamping positioning accuracy (up to 0.01mm), suitable for precision machining applications in precision 4-axis or 5-axis CNC machine tools, rotary tables, or CNC machining centers
- Depending on the machining requirements, it can be operated manually with a switch for clamping or automatically with a switch. The clamping switch operates quickly and can also be integrated with machine tools and robotic arms for automated production.
- Special internal design prevents pressure loss due to low air pressure, ensuring the safety of workpiece clamping and processing.
- Pneumatic self-centering vise can be arranged in parallel with fixed height specifications for multiple units, allowing simultaneous use to significantly increase production efficiency and save costs.
- The body and parts of the machine vise are made of high-grade alloy steel and undergo a high-quality tempering and harden heat treatment process, providing characteristics of high strength, high wear resistance, and high tensile strength. They undergo precise machining and high-precision grinding, resulting in high clamping surface accuracy, achieving high-quality machining effects and meeting requirements.
- The hardness of the jaw plates after heat treatment is above HRC45°, enabling clamping of various high-hardness materials. The jaw plates can be quickly reoriented to increase the gripping distance or changed to different jaw forms to meet the clamping requirements of various workpieces, providing versatility and flexibility in workpiece clamping. The upper end of the jaw plates features a special structure with a 45° angled dovetail design, which generates downward clamping force and ensures secure clamping of the workpiece

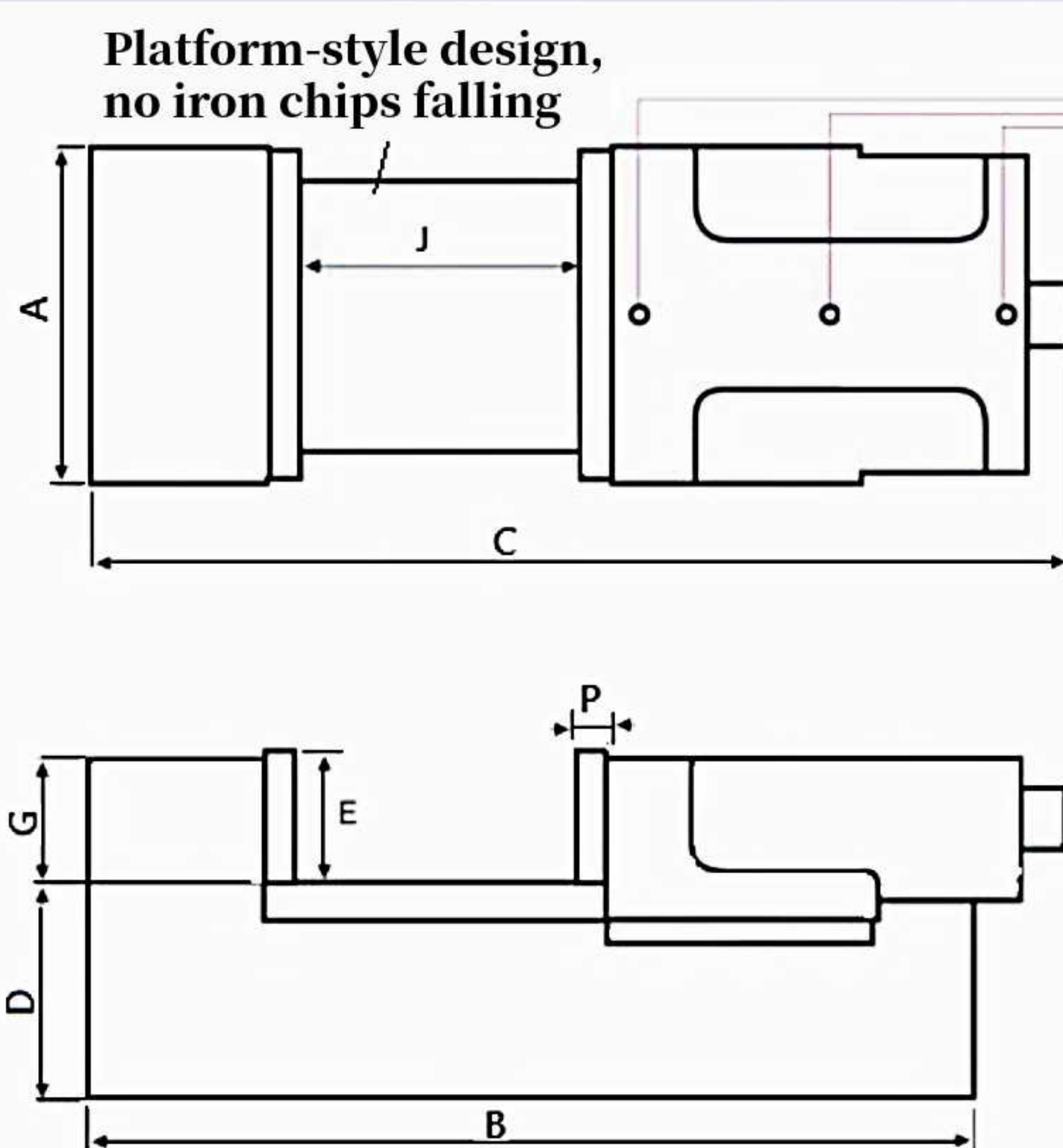


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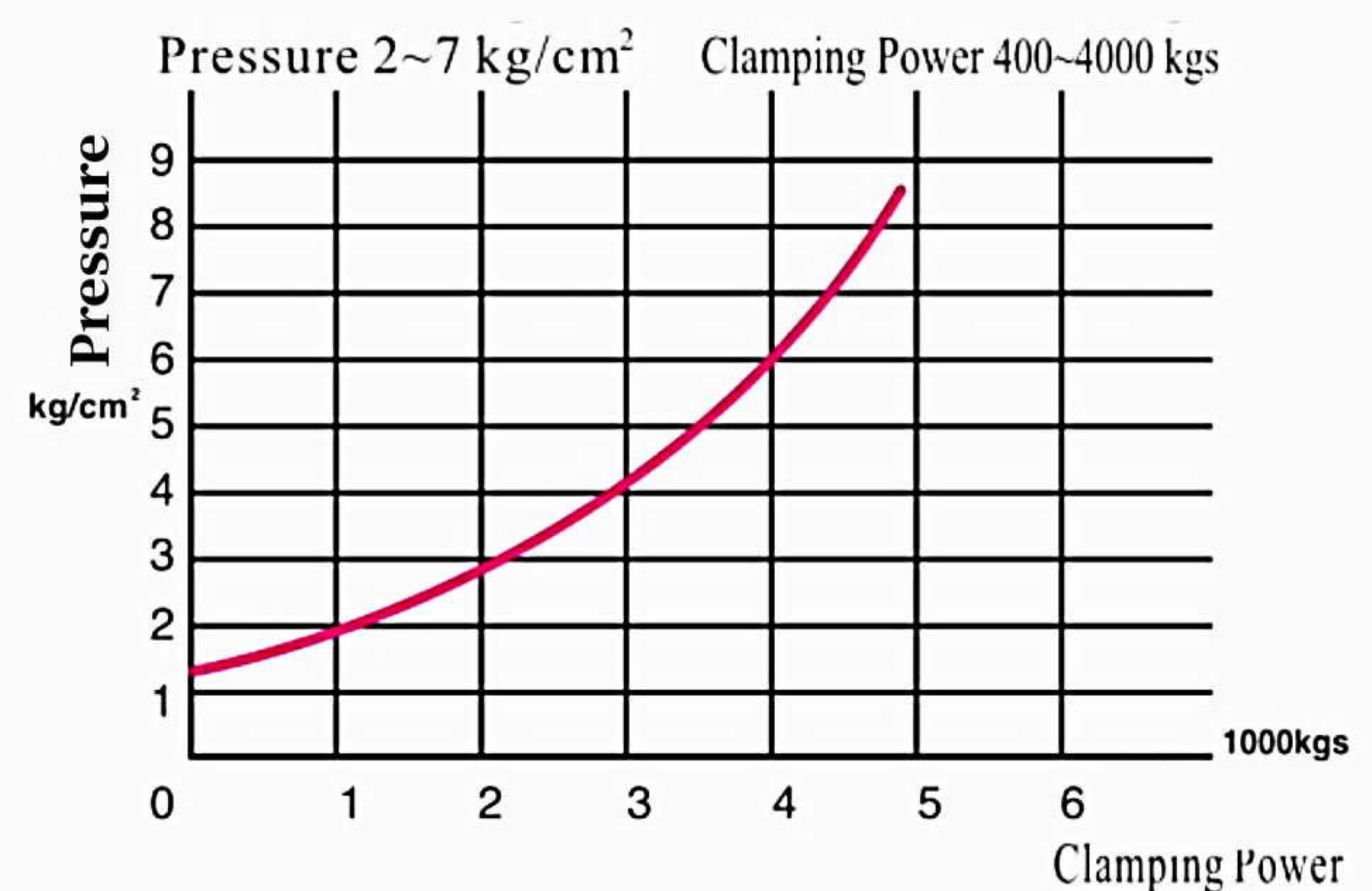
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PNEUMATIC POWER VISE APV-160



Oil injection hole



MODEL	A	B	C	D	E	G	P	J	Clamping Force (kgf)	Weight (Kg)
APV-160	160	480	685	85	60	60	15	210	400~4000	60

Standard Accessories : 1. Handle x 1 pc, 2. Screw 5/8" x 4 pcs, 3. Vise locked block x 4 pcs

FEATURES

- Quick clamping and installation of check valves, ensuring that even if the air duct breaks, pressure loss is prevented, resulting in high safety.
- Special fivefold pressurization cylinder + lever pressurization design.
- The work surface adopts a platform-style design, without gaps or iron chips falling, making it convenient for placing workpieces.
- The sliding surface undergoes heat treatment with a hardness of HRC 50 or higher, ensuring high precision through rigorous grinding, making it sturdy and durable.
- The entire machine vise is made of FCD 65 kg/cm² nodular cast iron, offering high rigidity with no deformation or damage.
- Clamping operation takes only 0.5 seconds

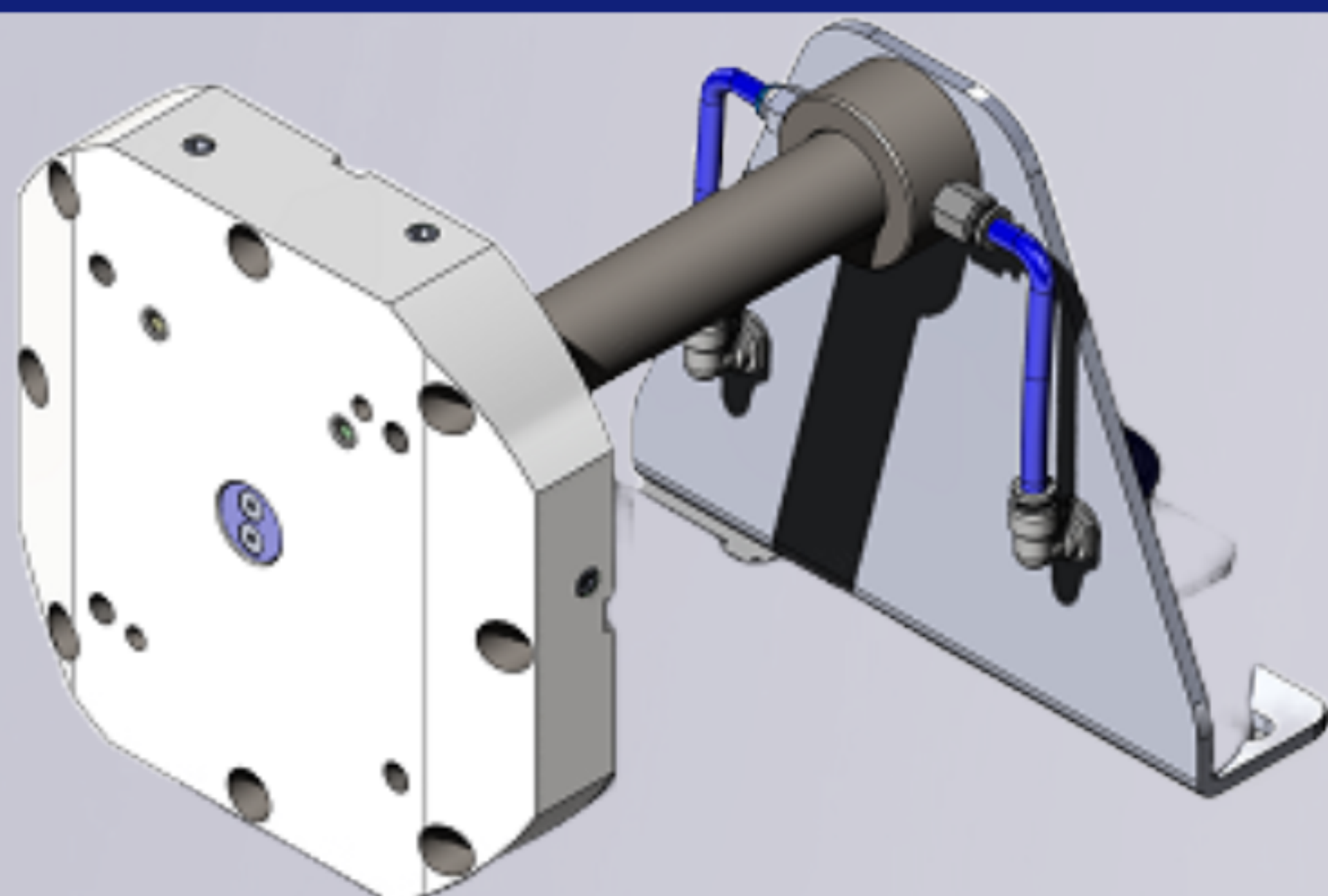
Maintenance and Precautions

- Please lubricate the three oil injection holes weekly.
- Install a three-point combination on the air pressure source to prevent rust and corrosion of the pressurization cylinder caused by moisture.
- The machine vise opens quickly with a distance of 5mm.



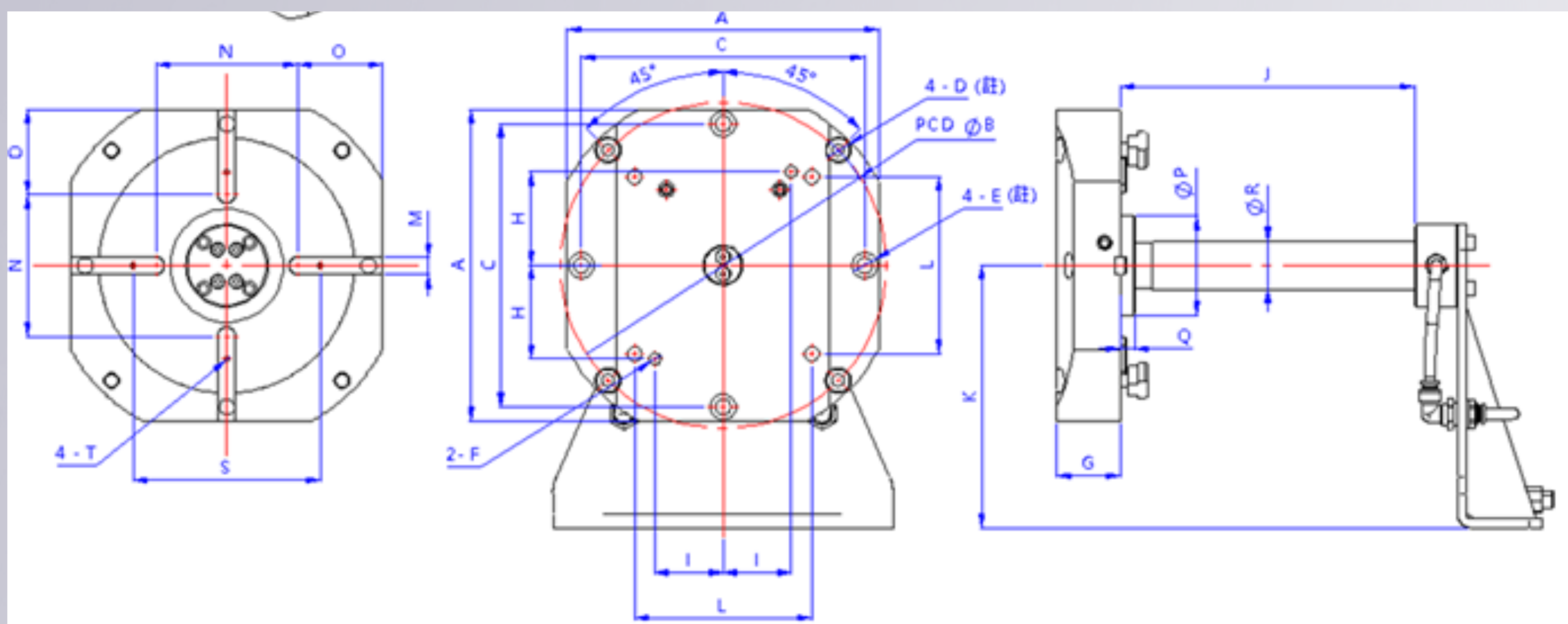


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Rotating Oil Separation System

Use with UT-TECH pneumatic vise, different rotating oil separation system can be produced according to customer requirements.



MODEL	A	PCD ØB	C	D	E	F	G	H	I	J
OOS-250	220	230	200	4 - M10	4 - M10	Ø8PIN	45	66	48	Customized
K	L	M	N	O	P	Q	R	S	T	
Customized	125	12	100	60	Ø70	10	Ø 34	132	4 - M4	

Note (D) and Note (E), please choose one of the fixed method.
Note (P) is the center positioning contact surface, which can be equipped with a positioning ring for use with the fourth-axis positioning hole.

Standard Accessories :

1. T-SLOT (M10) x 4 PCS
2. SCREW M10 x 25L x 4 PCS
3. Customized oil supply bracket
4. Parallel key 12 x 30 x 4PCS
5. Screw M4 x 10L x 4 PCS
6. Quick Coupling PC801 x 2 PCS

Optional Accessories : Center positioning ring (Material : medium-carbon steel). This is used in conjunction with the fourth axis, with a center positioning ring, or it can be centered using a cross-key groove.



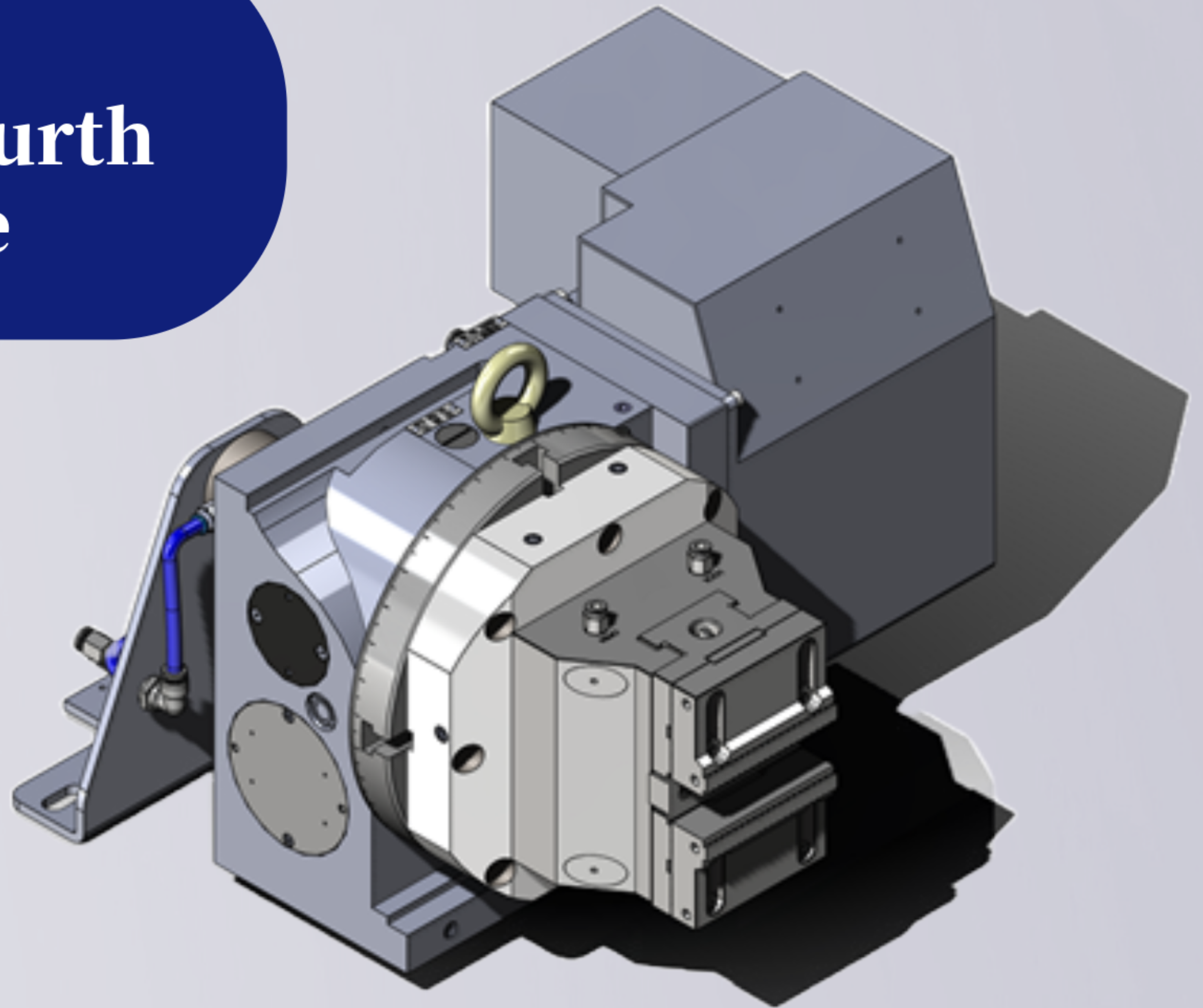


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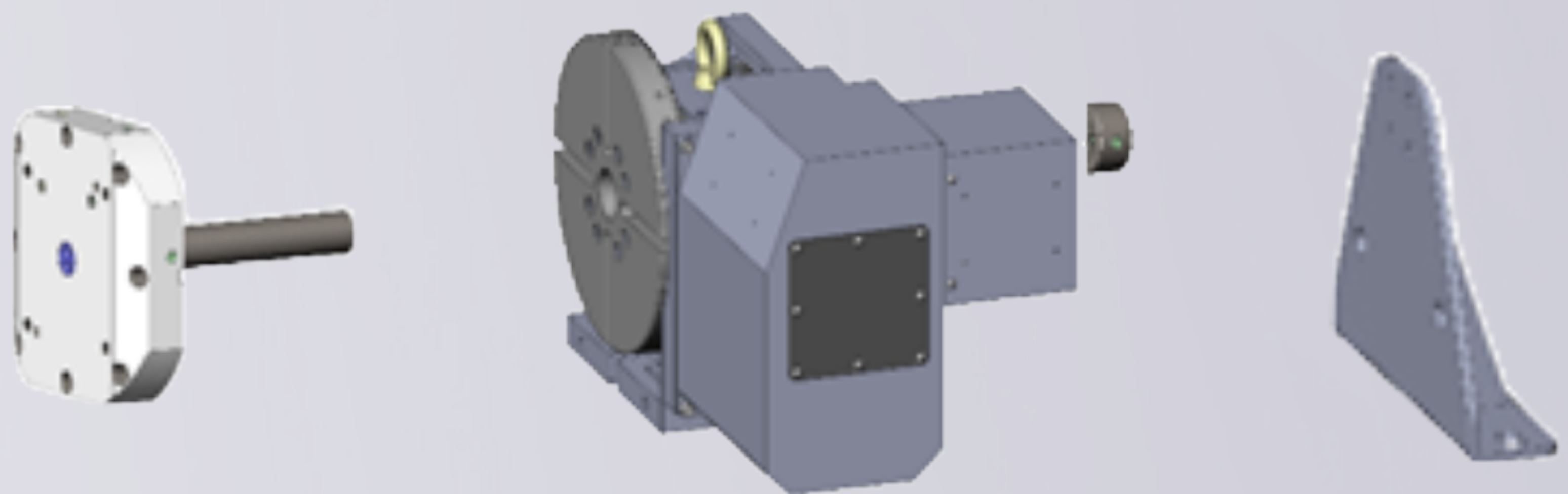
Diagram of the Rotary Oil Separation System with the fourth axis & PSC-100 pneumatic vise

Mainly used for the fourth axis.



Operation Instruction

When installing the Rotary Oil Separation System, first pass the entire mechanism's axis through the center hole of the fourth axis, aligning the key groove (or center positioning ring). Secure it with the T-slot nut, then lock the oil supply axis adapter plate onto the main shaft. Install the oil separation axis bracket and its air pipe. Lock PC801 quick coupling on both sides of the adapter plate. The PC801 quick coupling line can be connected to a manual valve or an automatic switch to form a clamping loop, allowing the mechanism to control gripping and releasing.



Features

- This Rotary Oil Separation System serves as an intermediate connecting device between the pneumatic vise or mold fixture and the fourth axis. It provides pneumatic pressure for the pneumatic vise, ensuring its clamping function operates normally and synchronizes with the 360-degree rotation of the fourth axis worktable.
- Depending on processing needs, it can be used for manual or automatic clamping. The clamping switch operates quickly and can be mounted on machine tools or integrated with robotic arms for automated production.
- Unlike similar products on the market that require disassembling the pneumatic lines to control the clamping of the pneumatic vise, preventing a 360-degree rotation without removing the pneumatic lines, this oil separation system significantly saves loading and unloading time. It also improves the cumbersome process of disassembling pneumatic lines, thus saving time and labor costs.
- This Rotating Oil Separation System aligns with the current trend towards automated production. Besides enhancing production efficiency, it can be combined with robotic arms to achieve intelligent and automated manufacturing.