Ultimate
Manufacturing
Solutions

INNOVATE WITH SMART SOLUTIONS



Industrial Quick Change Clamping System

Ultimate Manufacturing Solutions

1-630-380-3348

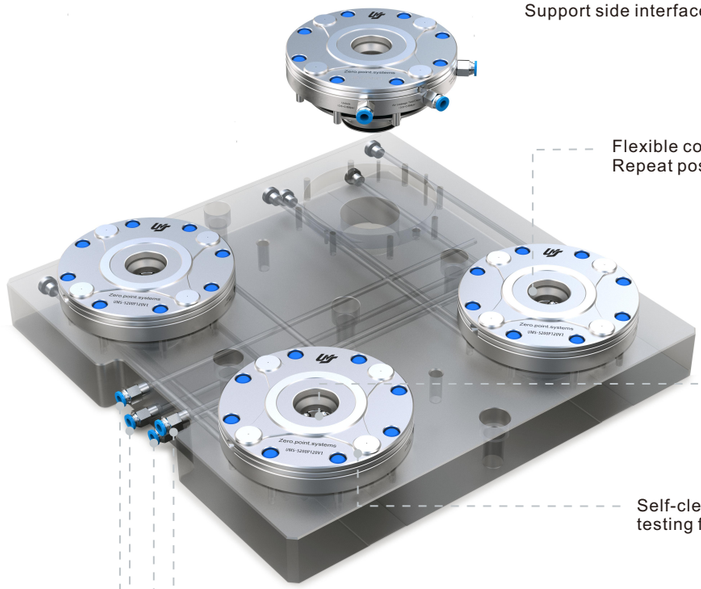
www.ums-tooling.com

sales@ums-tooling.com
info@ums-tooling.com

108 W. Schick Road #487
Bloomingdale, IL 60108

MFG ZERO POINT CLAMPING SYSTEM





Installation flexibility: supporting side quick connection or direct connection of the base plate, suitable for various integration solutions.

Technical Specifications

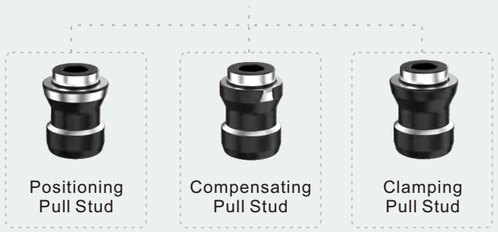
Repeat Positioning Accuracy	Clamping Force	Unlocked Lifting Capacity
0.003mm	**>40,000N**	**300Kg**

Functions and Applications of Zero Point Pull Stud

The zero-point pull stud, when paired with a zero-point chuck, enables rapid tool changing by providing precise positioning, clamping, and force transmission. It offers high precision, superior strength, excellent stability, and user-friendly operation.

Pull studs serve various functions when installed on pallets. Customers can select the appropriate pull stud type based on actual requirements.

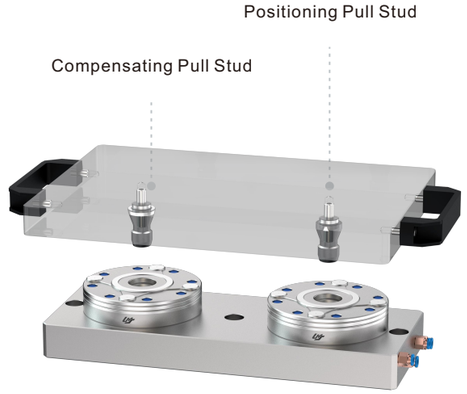
Common Distribution of Zero-Point Pull Studs

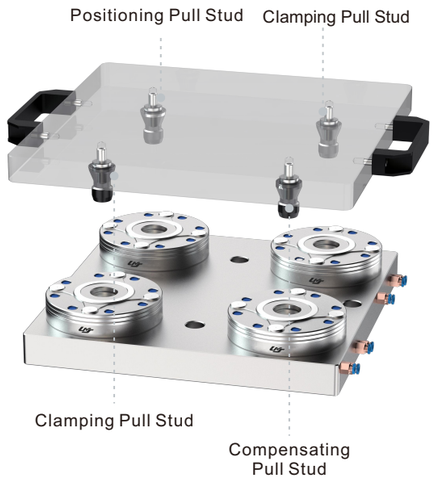


- Positioning Pull Stud: Restricts degrees of freedom in X and Y directions.
- Compensating Pull Stud: Restricts rotational freedom only, providing directional alignment.
- Clamping Pull Stud: Functions to increase clamping force.

Installation Diagram of Dual-Station Zero Point Pull Studs

- The Dual-station zero-point pull studs have only one installation method.
- Install the positioning pull stud into one mounting slot on the change plate, and install the compensation pull stud into the other slot.

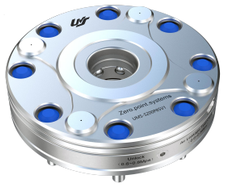




Installation Diagram of Four-Station Zero Point Pull Studs

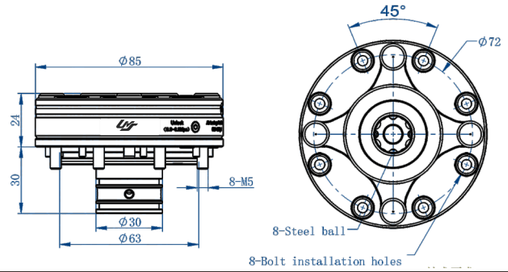
- The positioning pull stud functions to restrict degrees of freedom in the X and Y directions, thereby establishing the primary reference datum point.
- The compensation stud restricts only rotational movement, while the clamping stud provides the axial clamping force. This optimized division of function ensures the pallet is fully located and rigidly held, while intentionally preventing over-constraint.

P85 Zero Point Clamping System



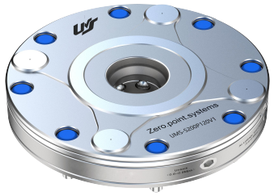
Product Features

- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Self-cleaning&Air-tighness
- Pull stud hole cleaning function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.003 mm
- Installation of the base plate air intake/ side air intake



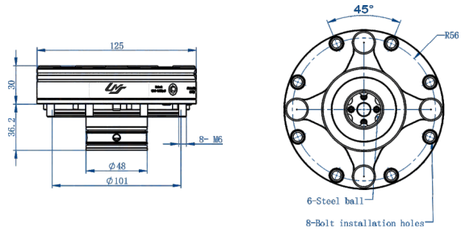
Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.			Weight
				Positioning Pull Stud	Compensating Pull Stud	Clamping Pull Stud	
UMS-S200P85V1	4,000(N)	30Kg	Air Pressure	UMS-S200P25V1	UMS-S200P25V2	UMS-S200P25V3	1Kg

P120 Zero Point Clamping System



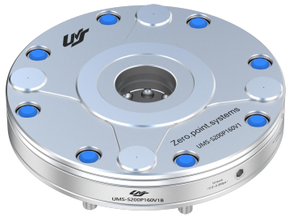
Product Features

- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Self-cleaning&Air-tighness
- Pull stud hole cleaning function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.003 mm
- Installation of the base plate air intake/ side air intake



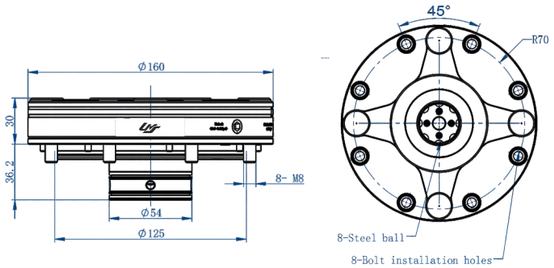
Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.			Weight
				Positioning Pull Stud	Compensating Pull Stud	Clamping Pull Stud	
UMS-S200P120V1	12,000(N)	100Kg	Air Pressure	UMS-S200P30V1	UMS-S200P30V2	UMS-S200P30V3	3Kg

P160 Zero Point Clamping System



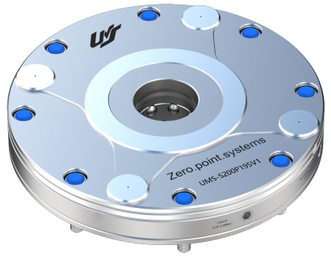
Product Features

- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Self-cleaning&Air-tighness
- Pull stud hole cleaning function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.003 mm
- Installation of the base plate air intake/ side air intake



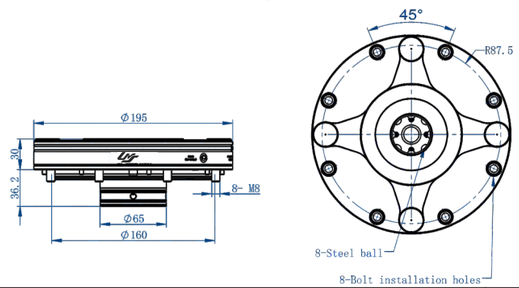
Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.			Weight
				Positioning Pull Stud	Compensating Pull Stud	Clamping Pull Stud	
UMS-S200P160V1	18,000(N)	250Kg	Air Pressure	UMS-S200P35V1	UMS-S200P35V2	UMS-S200P35V3	4.5Kg

P195 Zero Point Clamping System



Product Features

- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Self-cleaning&Air-tighness
- Pull stud hole cleaning function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.003 mm
- Installation of the base plate air intake/ side air intake



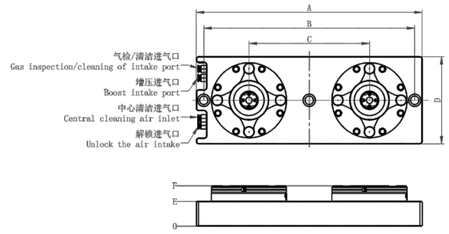
Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.			Weight
				Positioning Pull Stud	Compensating Pull Stud	Clamping Pull Stud	
UMS-S200P195V1	40,000(N)	300Kg	Air Pressure	UMS-S200P40V1	UMS-S200P40V2	UMS-S200P40V3	7Kg

Two-station Zero Point Clamping System



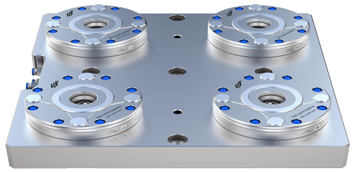
Product Features

- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Self-cleaning&Air-tighness
- Pull stud hole cleaning function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.003 mm
- Installation of the base plate air intake/ side air intake



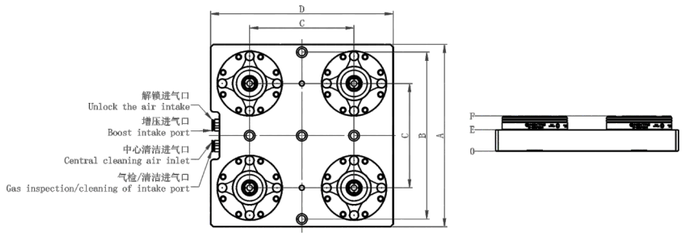
Item No.		UMS-S200P120ZH2A	UMS-S200P120ZH2B	UMS-S200P160ZH2A	UMS-S200P160ZH2B
Clamping Force		2x12,000(N)	2x12,000(N)	2x18,000(N)	2x18,000(N)
Lift Load		2x100Kg	2x100Kg	2x250Kg	2x250Kg
Unlocking Method		Air Pressure	Air Pressure	Air Pressure	Air Pressure
Fitting Pull Stud NO.	Positioning Pull Stud	UMS-S200P30V1	UMS-S200P30V1	UMS-S200P35V1	UMS-S200P35V1
	Compensating Pull Stud	UMS-S200P30V2	UMS-S200P30V2	UMS-S200P35V2	UMS-S200P35V2
	Clamping Pull Stud	UMS-S200P30V3	UMS-S200P30V3	UMS-S200P35V3	UMS-S200P35V3
Specification	A	375mm	475mm	430mm	530mm
	B	350mm	450mm	390mm	490mm
	C	200mm	300mm	200mm	300mm
	D	145mm	145mm	175mm	175mm
	E	41mm	41mm	41mm	41mm
	F	67mm	67mm	67mm	67mm
Weight		19Kg	23Kg	30Kg	35Kg
Remark		We can customize specifications to meet your needs.			

Four-station Zero Point Clamping System



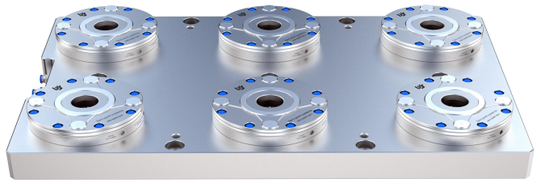
Product Features

- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Self-cleaning&Air-tighness
- Pull stud hole cleaning function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.003 mm
- Installation of the base plate air intake/ side air intake



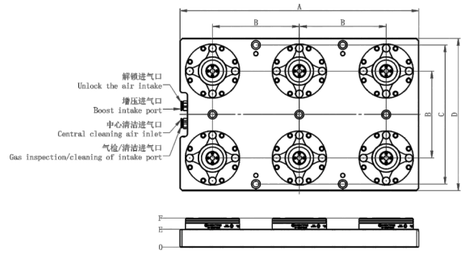
Item No.		UMS-S200P120ZH4A	UMS-S200P120ZH4B	UMS-S200P160ZH4A	UMS-S200P160ZH4B
Clamping Force		4x12,000(N)	4x12,000(N)	4x18,000(N)	4x18,000(N)
Lift Load		4x100Kg	4x100Kg	4x250Kg	4x250Kg
Unlocking Method		Air Pressure	Air Pressure	Air Pressure	Air Pressure
Fitting Pull Stud NO.	Positioning Pull Stud	UMS-S200P30V1	UMS-S200P30V1	UMS-S200P35V1	UMS-S200P35V1
	Compensating Pull Stud	UMS-S200P30V2	UMS-S200P30V2	UMS-S200P35V2	UMS-S200P35V2
	Clamping Pull Stud	UMS-S200P30V3	UMS-S200P30V3	UMS-S200P35V3	UMS-S200P35V3
Specification	A	350mm	450mm	380mm	480mm
	B	320mm	420mm	350mm	450mm
	C	200mm	300mm	200mm	300mm
	D	350mm	450mm	380mm	480mm
	E	41mm	41mm	41mm	41mm
	F	67mm	67mm	67mm	67mm
Weight		46Kg	72Kg	56Kg	84Kg
Remark		We can customize specifications to meet your needs.			

Six-station Zero Point Clamping System



Product Features

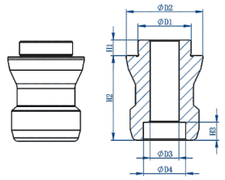
- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Self-cleaning&Air-tighness
- Pull stud hole cleaning function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.003 mm
- Installation of the base plate air intake/ side air intake



Item No.		UMS-S200P120ZH6A	UMS-S200P120ZH6B	UMS-S200P160ZH6A	UMS-S200P160ZH6B
Clamping Force		6x12,000(N)	6x12,000(N)	6x18,000(N)	6x18,000(N)
Lift Load		6x100Kg	6x100Kg	6x250Kg	6x250Kg
Unlocking Method		Air Pressure	Air Pressure	Air Pressure	Air Pressure
Fitting Pull Stud NO.	Positioning Pull Stud	UMS-S200P30V1	UMS-S200P30V1	UMS-S200P35V1	UMS-S200P35V1
	Compensating Pull Stud	UMS-S200P30V2	UMS-S200P30V2	UMS-S200P35V2	UMS-S200P35V2
	Clamping Pull Stud	UMS-S200P30V3	UMS-S200P30V3	UMS-S200P35V3	UMS-S200P35V3
Specification	A	550mm	650mm	580mm	680mm
	B	200mm	300mm	200mm	300mm
	C	320mm	420mm	350mm	450mm
	D	350mm	450mm	380mm	480mm
	E	41mm	41mm	41mm	41mm
	F	67mm	67mm	67mm	67mm
Weight		72Kg	105Kg	108Kg	120Kg
Remark		We can customize specifications to meet your needs.			

Zero Point Positioning Pull Stud

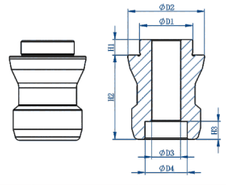




Item No.	φD1 (0/+0.01)	φD2	φD3	φD4	H1	H2	H3	Weight
UMS-S200P25V1	12mm	17.5mm	6.6mm	11mm	5mm	23mm	4.5mm	0.035Kg
UMS-S200P30V1	20mm	29mm	11mm	17mm	5mm	38mm	7mm	0.12Kg
UMS-S200P35V1	24mm	34.5mm	13mm	19mm	7mm	38mm	8mm	0.18Kg
UMS-S200P40V1	28mm	39.5mm	15mm	22mm	8mm	38mm	9mm	0.25Kg

Zero Point Compensating Pull Stud

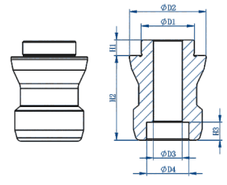




Item No.	φD1 (0/+0.01)	φD2	φD3	φD4	H1	H2	H3	Weight
UMS-S200P25V2	12mm	17.5mm	6.6mm	11mm	5mm	23mm	4.5mm	0.03Kg
UMS-S200P30V2	20mm	29mm	11mm	17mm	5mm	38mm	7mm	0.11Kg
UMS-S200P35V2	24mm	34.5mm	13mm	19mm	7mm	38mm	8mm	0.18Kg
UMS-S200P40V2	28mm	39.5mm	15mm	22mm	8mm	38mm	9mm	0.24Kg

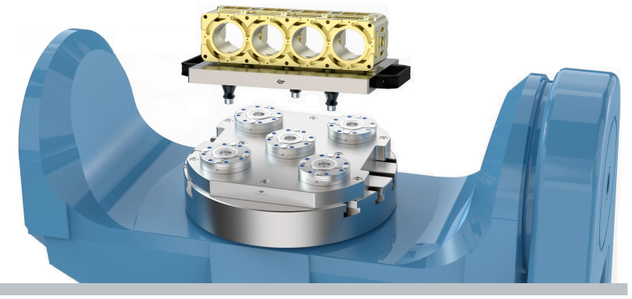
Zero Point Clamping Pull Stud





Item No.	φD1 (0/+0.01)	φD2	φD3	φD4	H1	H2	H3	Weight
UMS-S200P25V3	12mm	17mm	6.6mm	11mm	5mm	23mm	4.5mm	0.035Kg
UMS-S200P30V3	20mm	28.5mm	11mm	17mm	5mm	38mm	7mm	0.12Kg
UMS-S200P35V3	24mm	34mm	13mm	19mm	7mm	38mm	8mm	0.18Kg
UMS-S200P40V3	28mm	39mm	15mm	22mm	8mm	38mm	9mm	0.25Kg

SLIM ZERO-POINT SERIES



Small Footprint, Massive Impact.

- Unlock More Z-Axis Travel Through Ultra-Slim Design.
- Slim Design, True Functionality: Complete Locating & Locking Integrated.

0.005mm
Repeat Positioning Accuracy

14,000N
Clamping Force

150Kg
Unlocked Lifting Capacity



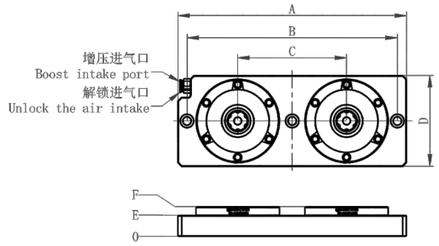


Two-station Slim Zero Point Clamping System



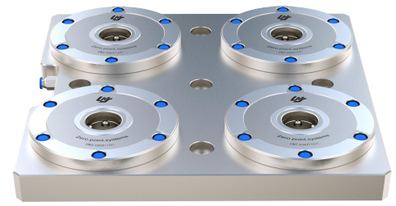
Product Features

- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm



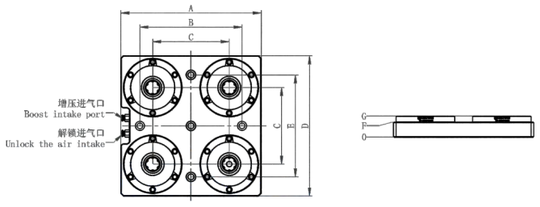
Item No.		UMS-S200P115H2A	UMS-S200P115H2B	UMS-S200P178H2A	UMS-S200P178H2B
Clamping Force		2x8,000(N)	2x8,000(N)	2x14,000(N)	2x14,000(N)
Lift Load		2x70Kg	2x70Kg	2x150Kg	2x150Kg
Unlocking Method		Air Pressure	Air Pressure	Air Pressure	气压 Air Pressure
Fitting Pull Stud NO.	Positioning Pull Stud	UMS-S200P27C1	UMS-S200P27C1	UMS-S200P32C1	UMS-S200P32C1
	Compensating Pull Stud	UMS-S200P27C2	UMS-S200P27C2	UMS-S200P32C2	UMS-S200P32C2
	Clamping Pull Stud	UMS-S200P27C3	UMS-S200P27C3	UMS-S200P32C3	UMS-S200P32C3
Specification	A	315mm	365mm	485mm	535mm
	B	290mm	340mm	460mm	510mm
	C	150mm	200mm	250mm	300mm
	D	125mm	125mm	185mm	185mm
	E	29mm	29mm	29mm	29mm
	F	41mm	41mm	44mm	44mm
Weight		9.14Kg	10.56Kg	23.67Kg	25.76Kg
Remark		We can customize specifications to meet your needs.			

Four-station Slim Zero Point Clamping System



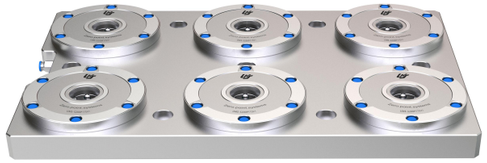
Product Features

- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm



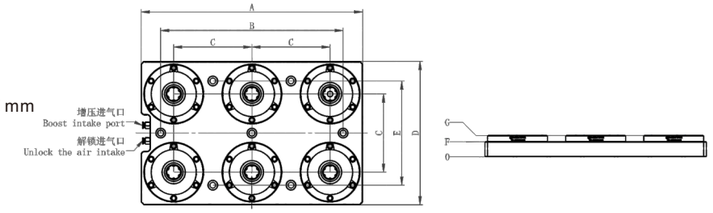
Item No.		UMS-S200P115H4A	UMS-S200P115H4B	UMS-S200P178H4A	UMS-S200P178H4B
Clamping Force		4x8,000(N)	4x8,000(N)	4x14,000(N)	4x14,000(N)
Lift Load		4x70Kg	4x70Kg	4x150Kg	4x150Kg
Unlocking Method		Air Pressure	Air Pressure	Air Pressure	Air Pressure
Fitting Pull Stud NO.	Positioning Pull Stud	UMS-S200P27C1	UMS-S200P27C1	UMS-S200P32C1	UMS-S200P32C1
	Compensating Pull Stud	UMS-S200P27C2	UMS-S200P27C2	UMS-S200P32C2	UMS-S200P32C2
	Clamping Pull Stud	UMS-S200P27C3	UMS-S200P27C3	UMS-S200P32C3	UMS-S200P32C3
Specification	A	275mm	325mm	445mm	495mm
	B	200mm	250mm	370mm	420mm
	C	150mm	200mm	250mm	300mm
	D	275mm	325mm	445mm	495mm
	E	200mm	250mm	370mm	420mm
	F	29mm	29mm	29mm	29mm
	G	41mm	41mm	44mm	44mm
Weight		17.58Kg	24.34Kg	51.55Kg	62.18Kg
Remark		We can customize specifications to meet your needs.			

Six-station Slim Zero Point Clamping System



Product Features

- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm



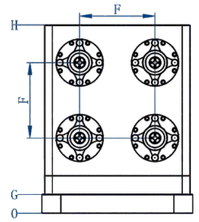
Item No.		UMS-S200P115H6A	UMS-S200P115H6B	UMS-S200P178H6A	UMS-S200P178H6B
Clamping Force		6x8,000(N)	6x8,000(N)	6x14,000(N)	6x14,000(N)
Lift Load		6x70Kg	6x70Kg	6x150Kg	6x150Kg
Unlocking Method		Air Pressure	Air Pressure	Air Pressure	Air Pressure
Fitting Pull Stud NO.	Positioning Pull Stud	UMS-S200P27C1	UMS-S200P27C1	UMS-S200P32C1	UMS-S200P32C1
	Compensating Pull Stud	UMS-S200P27C2	UMS-S200P27C2	UMS-S200P32C2	UMS-S200P32C2
	Clamping Pull Stud	UMS-S200P27C3	UMS-S200P27C3	UMS-S200P32C3	UMS-S200P32C3
Specification	A	425mm	525mm	695mm	795mm
	B	350mm	450mm	600mm	700mm
	C	150mm	200mm	250mm	300mm
	D	275mm	325mm	445mm	495mm
	E	200mm	250mm	370mm	420mm
	F	29mm	29mm	29mm	29mm
	G	41mm	41mm	44mm	44mm
Weight		27.27Kg	33.45Kg	80.13Kg	99.16Kg
Remark		We can customize specifications to meet your needs.			

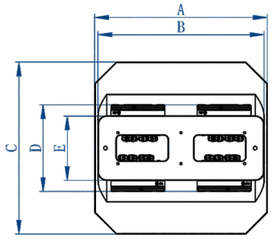
Horizontal Machining Dual-face Four-station Zero Point Clamping System



Product Features

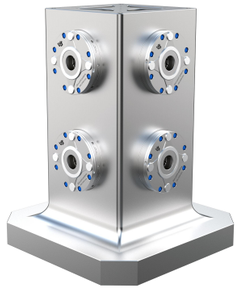
- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Self-cleaning&Air-tighness
- Pull stud hole cleaning function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.003 mm
- Installation of the base plate air intake/ side air intake





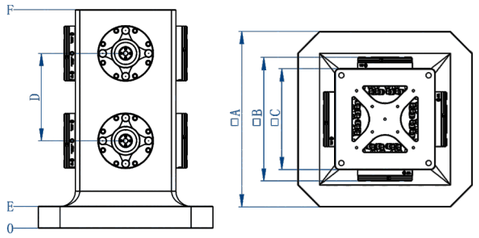
Item No.		UMS-S200P120WJ4	UMS-S200P160WJ4	UMS-S200P115WJ4	UMS-S200P178WJ4
Clamping Force		4x12,000(N) / Side	4x18,000(N) / Side	4x8,000(N) / Side	4x14,000(N) / Side
Lift Load		4x100Kg / Side	4x250Kg / Side	4x70Kg / Side	4x150Kg / Side
Unlocking Method		Air Pressure	Air Pressure	Air Pressure	Air Pressure
Fitting Pull Stud NO.	Positioning Pull Stud	UMS-S200P30V1	UMS-S200P35V1	UMS-S200P27C1	UMS-S200P32C1
	Compensating Pull Stud	UMS-S200P30V2	UMS-S200P35V2	UMS-S200P27C2	UMS-S200P32C2
	Clamping Pull Stud	UMS-S200P30V3	UMS-S200P35V3	UMS-S200P27C3	UMS-S200P32C3
Specification	A	400mm	400mm	400mm	400mm
	B	385mm	400mm	385mm	385mm
	C	400mm	400mm	400mm	400mm
	D	200mm	200mm	174mm	180mm
	E	150mm	150mm	150mm	150mm
	F	200mm	200mm	200mm	200mm
	G	50mm	50mm	50mm	50mm
	H	500mm	500mm	500mm	500mm
Weight		285Kg	298Kg	274Kg	288Kg
Remark		We can customize specifications to meet your needs.			

Horizontal Machining Four-face Dual-station Zero Point Clamping System



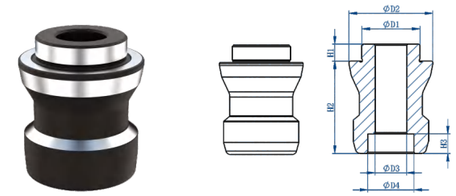
Product Features

- Tapered positioning
- Mechanical self-locking structure
- Clamping pressurization
- Auto-Lift Function
- Self-cleaning&Air-tighness
- Pull stud hole cleaning function
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.003 mm
- Installation of the base plate air intake/ side air intake



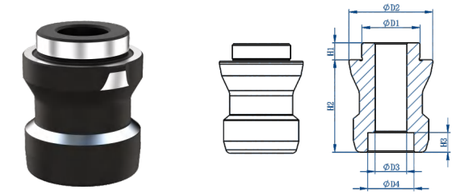
Item No.		UMS-S200P120WJ2	UMS-S200P160WJ2	UMS-S200P115WJ2	UMS-S200P178WJ2
Clamping Force		2x12,000(N) / Side	2x18,000(N) / Side	2x8,000(N) / Side	2x14,000(N) / Side
Lift Load		2x100Kg / Side	2x250Kg / Side	2x70Kg / Side	2x150Kg / Side
Unlocking Method		Air Pressure	Air Pressure	Air Pressure	Air Pressure
Fitting Pull Stud NO.	Positioning Pull Stud	UMS-S200P30V1	UMS-S200P35V1	UMS-S200P27C1	UMS-S200P32C1
	Compensating Pull Stud	UMS-S200P30V2	UMS-S200P35V2	UMS-S200P27C2	UMS-S200P32C2
	Clamping Pull Stud	UMS-S200P30V3	UMS-S200P35V3	UMS-S200P27C3	UMS-S200P32C3
Specification	A	400mm	400mm	400mm	400mm
	B	282mm	282mm	254mm	254mm
	C	230mm	230mm	230mm	230mm
	D	200mm	200mm	200mm	200mm
	E	50mm	50mm	50mm	50mm
	F	500mm	500mm	500mm	500mm
Weight		200Kg	245Kg	189Kg	235Kg
Remark		We can customize specifications to meet your needs.			

Slim Zero Point Positioning Pull Stud



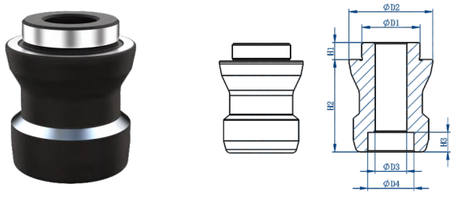
Item No.	φD1 (0/+0.01)	φD2	φD3	φD4	H1	H2	H3	Weight
UMS-S200P27C1	20mm	27.5mm	11mm	17mm	5mm	26.5mm	7mm	0.079Kg
UMS-S200P32C1	24mm	32.5mm	11mm	17mm	5mm	31.5mm	7mm	0.143Kg

Slim Zero Point Compensating Pull Stud



Item No.	φD1 (0/+0.01)	φD2	φD3	φD4	H1	H2	H3	Weight
UMS-S200P27C2	20mm	27.5mm	11mm	17mm	5mm	26.5mm	7mm	0.078Kg
UMS-S200P32C2	24mm	32.5mm	11mm	17mm	5mm	31.5mm	7mm	0.143Kg

Slim Zero Point Clamping Pull Stud

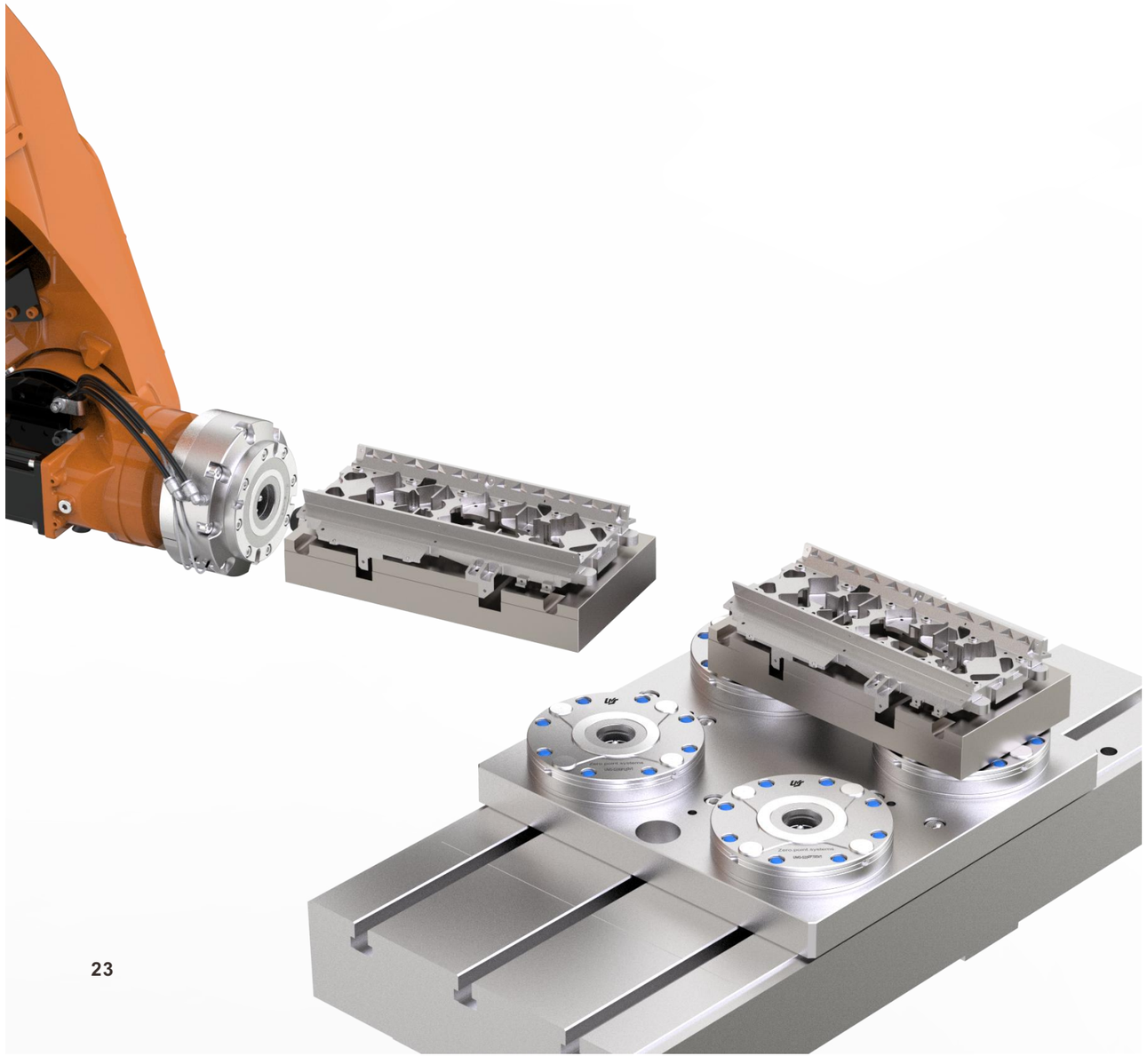


Item No.	φD1 (0/+0.01)	φD2	φD3	φD4	H1	H2	H3	Weight
UMS-S200P27C3	20mm	27mm	11mm	17mm	5mm	26.5mm	7mm	0.078Kg
UMS-S200P32C3	24mm	32mm	11mm	17mm	5mm	31.5mm	7mm	0.143Kg

ROBOT-MOUNTED ZERO-POINT TOOL CHANGER SERIES

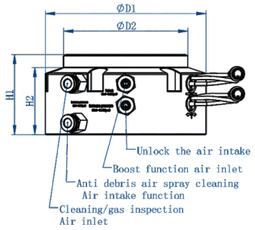


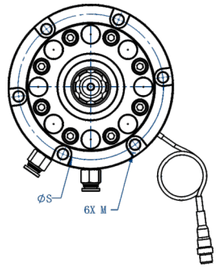
- Unlock More Z-Axis Travel Through Ultra-Slim Design.
- Ultra-Slim Design, True Functionality: Complete Locating & Locking Integrated.



Sensor Zero Point Clamping System



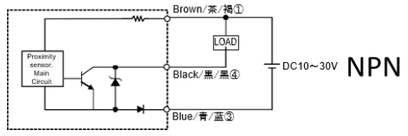




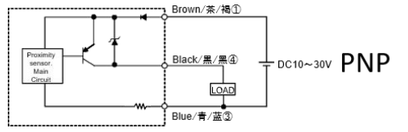
Pin Arrangment



M8



NPN



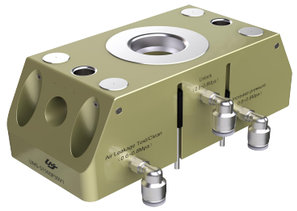
PNP

Polarity selection	NPN/PNP,Polarity selectable
Exposed cable	Robotic folding resistant highly flexible cables
Response frequency	5kHz
Detection distance	0~0.56mm
Supply voltage	DC10~30V
Current consumption	10mA or less
Open and close capacity	Open collector 50mA or less
Protective structure	IEC specification Ip67
Protection circuit	Power reverse connection protection, surge absorption, load short circuit protection, output reverse connection protection.

Item No.	Clamping Force	Fitting Pull Stud NO.			Weight
		Positioning Pull Stud	Compensating Pull Stud	Clamping Pull Stud	
UMS-S200P85V2	5,000(N)	UMS-S200P25C1	UMS-S200P25C2	UMS-S200P25C3	3.4Kg
UMS-S200P115V2	10,000(N)	UMS-S200P30C1	UMS-S200P30C2	UMS-S200P30C3	5.4Kg
UMS-S200P148V2	18,000(N)	UMS-S200P35C1	UMS-S200P35C2	UMS-S200P35C3	6.9Kg

Item No.	ϕD1	ϕD2	H1	H2	M	ϕS
UMS-S200P85V2	110mm	85mm	55mm	46mm	M6	97mm
UMS-S200P115V2	140mm	115mm	63mm	51mm	M8	131mm
UMS-S200P148V2	185mm	148mm	76mm	61mm	M10	164mm

Zero Point Coupling

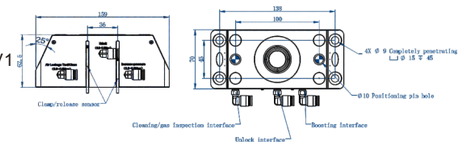


Product Features

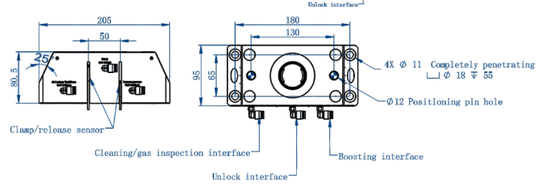
- With functions of releasing, clamping, and air tightness testing
- Hardened Stainless Steel+ Aluminum Oxide
- Repeat Positioning Accuracy < 0.02 mm

Suitable for industrial automation / multi-axis robot operation applications

UMS-S600P159V1

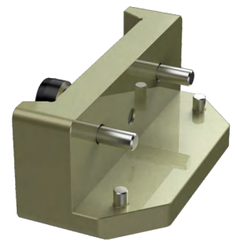


UMS-S600205V1



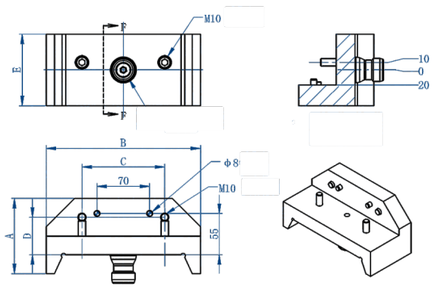
Item No.	Clamping Force	Unlocking Method	Weight	Remark
UMS-S600P159V1	4,000(N)	Air Pressure	2.2Kg	Dimensions can be customized.
UMS-S600P205V1	8,000(N)	Air Pressure	4.7Kg	

Coupling Clamping Pallet



Product Features

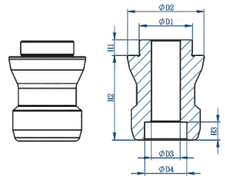
- Used with the zero-point coupling quick-change module, achieve convenient operation and the fastest application of space utilization.
- Aluminum Oxide



Item No.	A	B	C	D	E	Fitting Pull Stud NO.	Weight
UMS-S200P158TP	90mm	158mm	85mm	45mm	70mm	UMS-S200P30V1	3.7Kg
UMS-S200P205TP	100mm	205mm	110mm	50mm	95mm	UMS-S200P35V1	6.5Kg

Sensor Zero Point Positioning Pull Stud

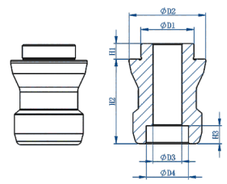




Item No.	φD1 (0/+0.01)	φD2	φD3	φD4	H1	H2	H3	Weight
UMS-S200P25C1	18mm	24.5mm	8.5mm	14mm	5mm	25mm	6mm	0.06Kg
UMS-S200P30C1	20mm	29.5mm	11mm	17mm	5mm	43mm	7mm	0.15Kg
UMS-S200P35C1	28mm	34.5mm	12.5mm	19mm	7mm	39mm	10mm	0.21Kg

Sensor Zero Point Compensating Pull Stud

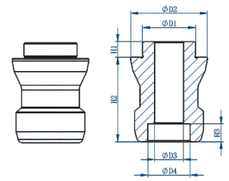




Item No.	φD1 (0/+0.01)	φD2	φD3	φD4	H1	H2	H3	Weight
UMS-S200P25C2	18mm	24.5mm	8.5mm	14mm	5mm	25mm	6mm	0.06Kg
UMS-S200P30C2	20mm	29mm	11mm	17mm	5mm	43mm	7mm	0.15Kg
UMS-S200P35C2	28mm	34.5mm	12.5mm	19mm	7mm	39mm	10mm	0.21Kg

Sensor Zero Point Clamping Pull Stud





Item No.	φD1 (0/+0.01)	φD2	φD3	φD4	H1	H2	H3	Weight
UMS-S200P25C3	18mm	24mm	8.5mm	14mm	5mm	25mm	6mm	0.06Kg
UMS-S200P30C3	20mm	28.5mm	11mm	17mm	5mm	43mm	7mm	0.15Kg
UMS-S200P35C3	28mm	34mm	12.5mm	19mm	7mm	39mm	10mm	0.21Kg

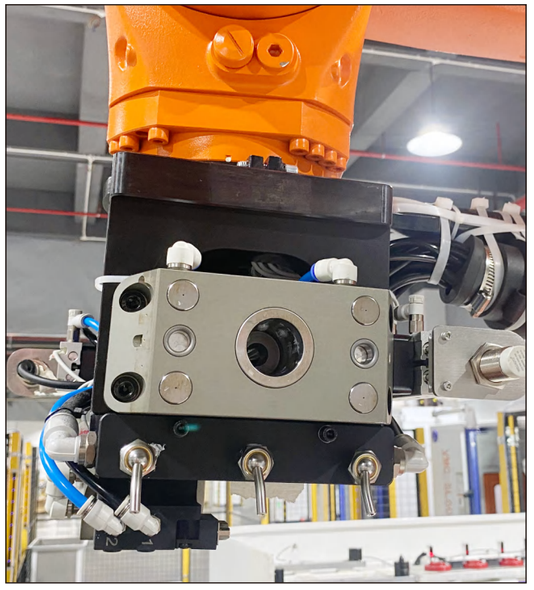
APPLICATION EXAMPLES



- Application of a Horizontal Machining Center with a Six-Position Zero-Point System for Large-Part Manufacturing



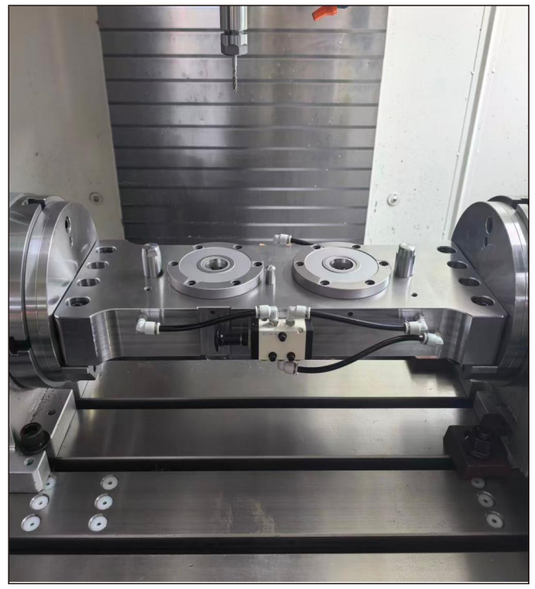
- Application of a Modular Fixture System with Zero-Point Clamping on a Horizontal Machining Center



- Application of Robot Zero-Point Coupling System



- Application of a Zero-Point Clamping System on a 3-Axis Vertical Machining Center (VMC)



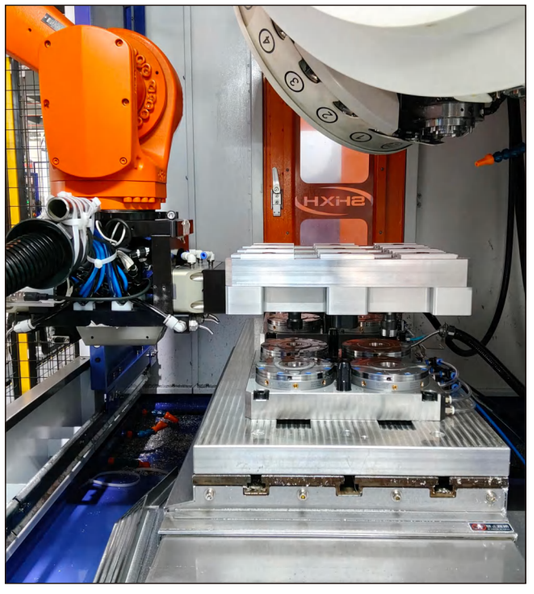
- Application of a Zero-Point Clamping System on a 4-Axis Machining Center



- Application of a Heavy-Duty Zero-Point Clamping System on a Large-Part Horizontal Machining Center



- Application of a Zero-Point Clamping System on a 5-Axis Machining Center

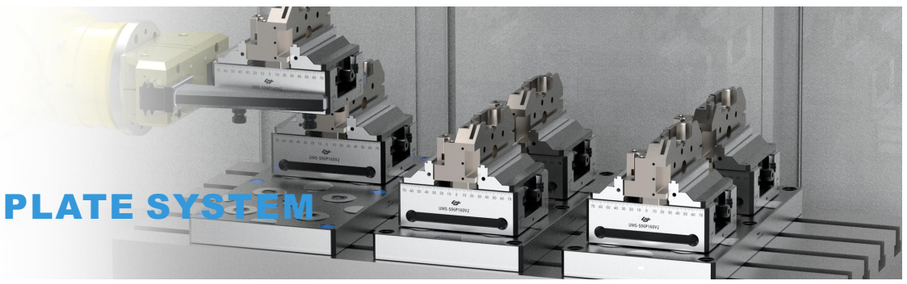


- Integration of Zero-Point Clamping into Automated Systems

ZERO POINT PLATE SYSTEM



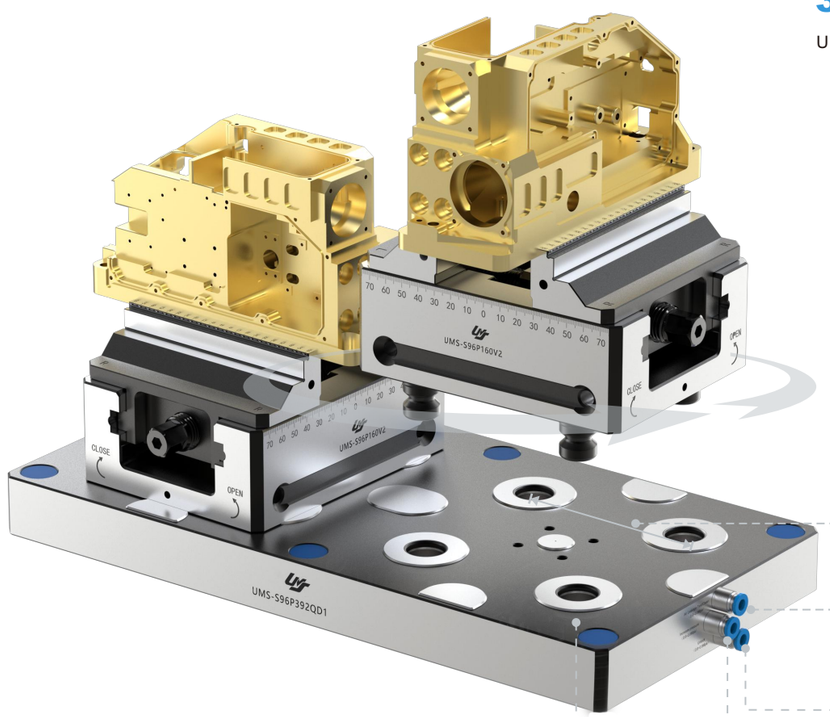
PNEUMATIC ZERO POINT PLATE SYSTEM



0.005mm
Repeat Positioning Accuracy

20,000N
Clamping Force

330Kg
Unlocked Lifting Capacity



4 Fixed Indexing Positions at 90° Intervals

Standard hole centers 52/96mm

Positioning datum surface airtightness testing and self-cleaning function

Clamping Pressurization Function

Unlock & Lift

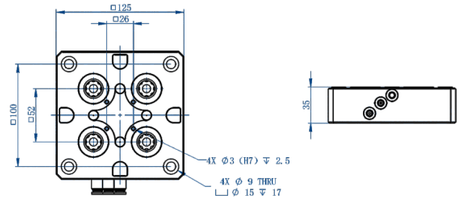
Steel ball mechanical self-locking structure

P125 Pneumatic Zero Point Plate



Product Features

- Mechanical self-locking structure
- Clamping pressurization
- Self-cleaning&Air-tighness
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



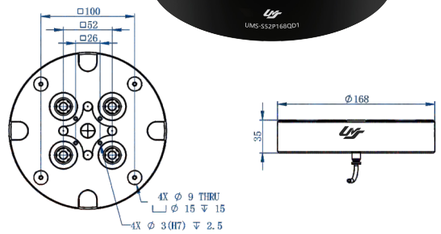
Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P125QD1	9,000(N)	100Kg	Air Pressure	UMS-S52P16V1	3.5Kg

P168 Pneumatic Zero Point Plate



Product Features

- Mechanical self-locking structure
- Clamping pressurization
- Self-cleaning&Air-tighness
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



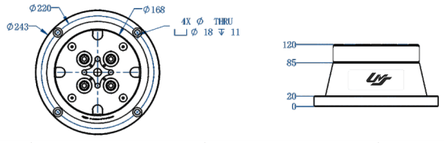
Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P168QD1	9,000(N)	100Kg	Air Pressure	UMS-S52P16V1	5.2Kg

P168 Riser Seat Pneumatic Zero Point Plate



Product Features

- Mechanical self-locking structure
- Clamping pressurization
- Self-cleaning&Air-tighness
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



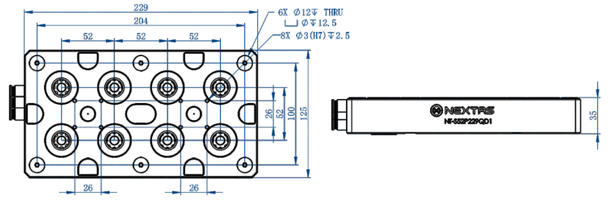
Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P168QD2	9,000(N)	100Kg	Air Pressure	UMS-S52P16V1	12Kg

P229 Pneumatic Zero Point Plate



Product Features

- Mechanical self-locking structure
- Clamping pressurization
- Self-cleaning&Air-tighness
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



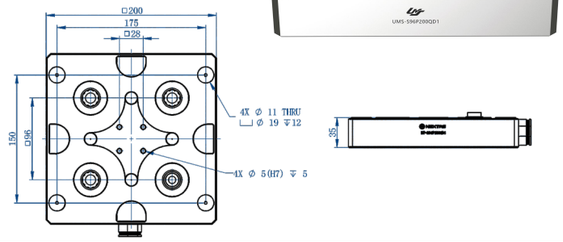
Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P229QD1	18,000(N)	200Kg	Air Pressure	UMS-S52P16V1	6Kg

P200 Pneumatic Zero Point Plate



Product Features

- Mechanical self-locking structure
- Clamping pressurization
- Self-cleaning&Air-tighness
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



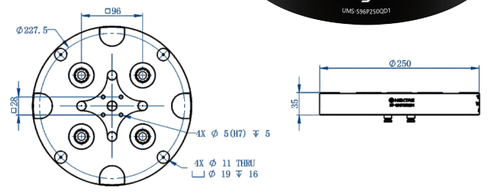
Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P200QD1	20,000(N)	280Kg	Air Pressure	UMS-S96P20V1	9Kg

P250 Pneumatic Zero Point Plate



Product Features

- Mechanical self-locking structure
- Clamping pressurization
- Self-cleaning&Air-tighness
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



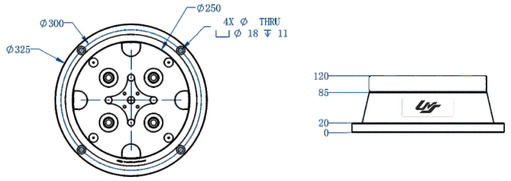
Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P250QD1	20,000(N)	280Kg	Air Pressure	UMS-S96P20V1	12Kg

P325 Riser Seat Pneumatic Zero Point Plate



Product Features

- Mechanical self-locking structure
- Clamping pressurization
- Self-cleaning&Air-tighness
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

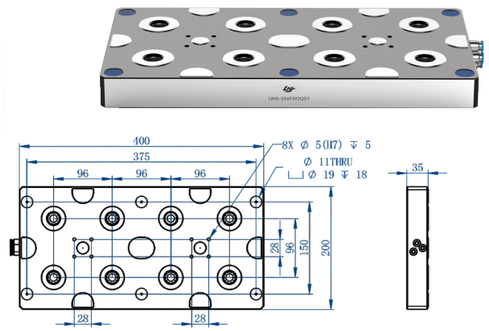


Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P250QD2	20,000(N)	280Kg	Air Pressure	UMS-S96P20V1	25Kg

P400 Pneumatic Zero Point Plate

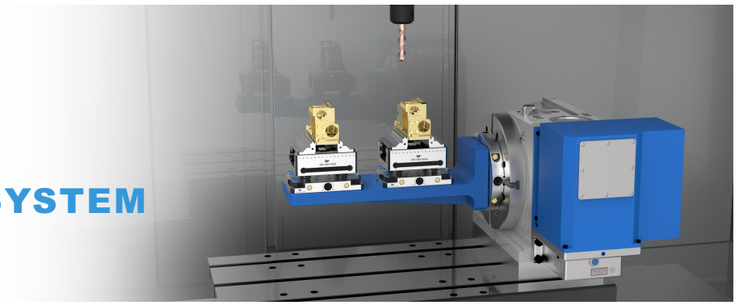
Product Features

- Mechanical self-locking structure
- Clamping pressurization
- Self-cleaning&Air-tighness
- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



Item No.	Clamping Force	Lift Load	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P400QD1	40,000(N)	560Kg	Air Pressure	UMS-S96P20V1	18Kg

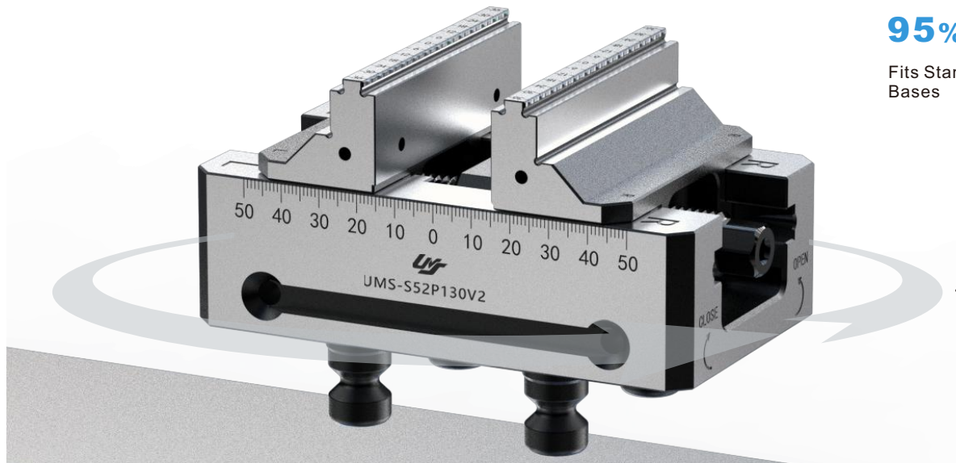
MANUAL
ZERO POINT PLATE SYSTEM



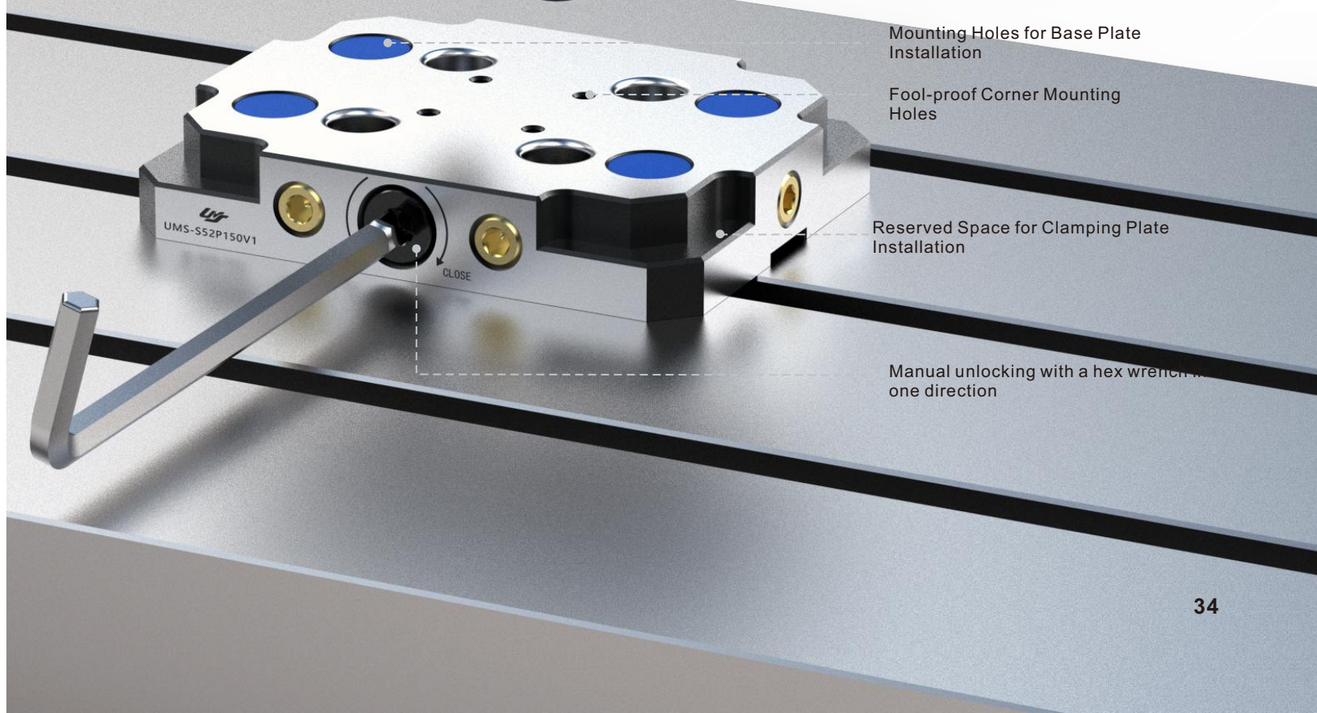
0.005mm
Repeat Positioning Accuracy

500,000c
Lifetime Test Validation

95%
Fits Standard CNC Machining Center Bases



4x90° Fixed Indexing Position

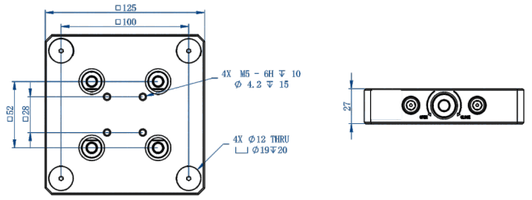


P125 Zero Point Plate



Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



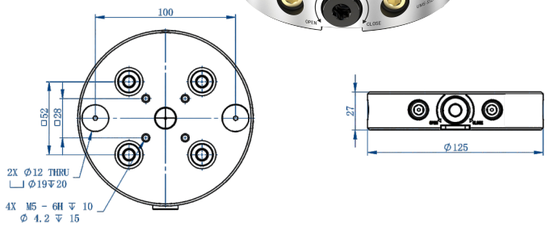
Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P125V1	20,000(N)	Manual	UMS-S52P16V1	2.8Kg

φ125 Zero Point Plate



Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



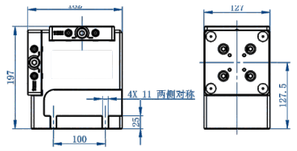
Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P125V2	20,000(N)	Manual	UMS-S52P16V1	2.2Kg

P125 Right-Angle Zero Point Plate



Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



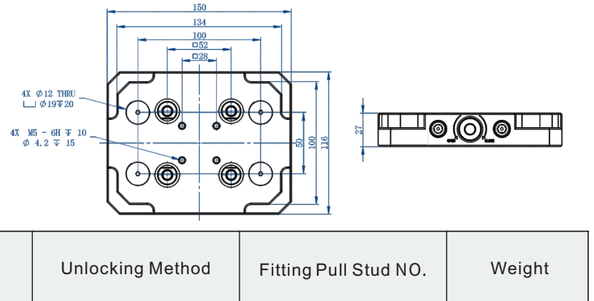
Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P125V3	20,000(N)	Manual	UMS-S52P16V1	14.2Kg

P150 Zero Point Plate



Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



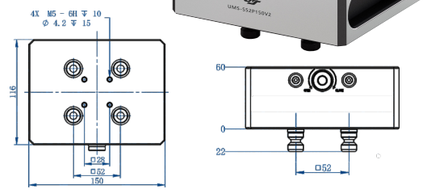
Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P150V1	20,000(N)	Manual	UMS-S52P16V1	3Kg

P150 Riser 60 Zero Point Plate



Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



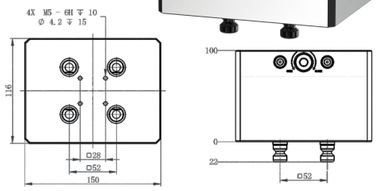
Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P150V2	20,000(N)	Manual	UMS-S52P16V1	6.9Kg

P150 Riser 100 Zero Point Plate



Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P150V3	20,000(N)	Manual	UMS-S52P16V1	11.5Kg

φ160 Zero Point Plate

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

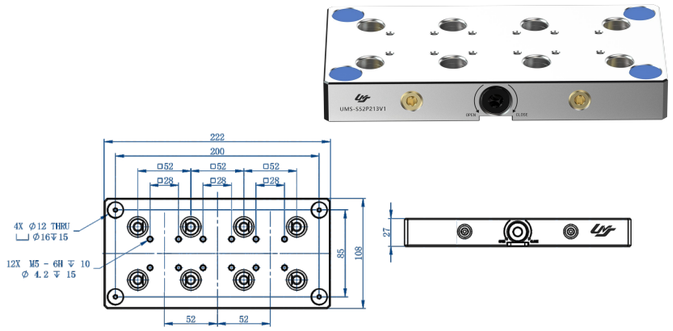


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P160V1	20,000(N)	Manual	UMS-S52P16V1	3.5Kg

P222 Dual-Station Zero Point Plate

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

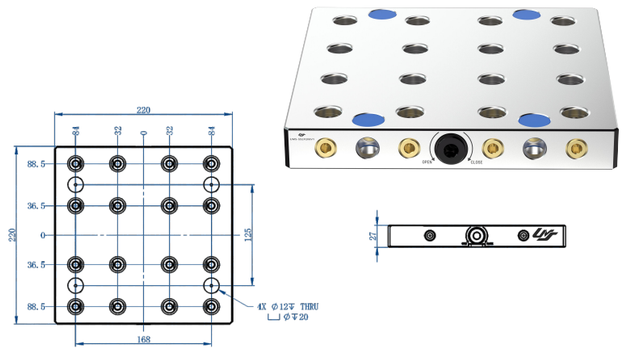


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P222V1	20,000(N)	Manual	UMS-S52P16V1	4. 2Kg

P220 Four-StationZero Point Plate

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

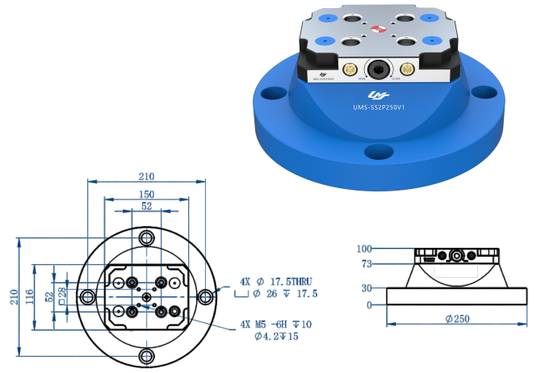


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P220V1	20,000(N)	Manual	UMS-S52P16V1	8. 2Kg

P250 Riser Seat Zero Point Plate

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

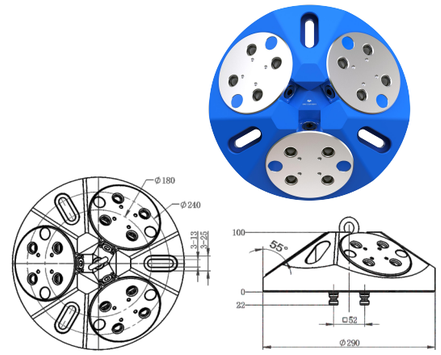


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P250V1	20,000(N)	Manual	UMS-S52P16V1	9. 1Kg

P290 5-Axis Three-Station Zero Point Plate

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

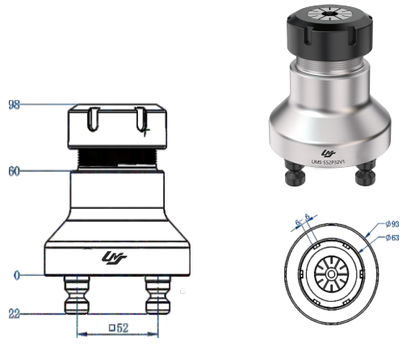


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P290V1	20,000(N)	Manual	UMS-S52P16V1	15Kg

P32 Positioning and Locking Dowel

Product Features

- Hardened Stainless Steel
- 4x90° Fixed Indexing Position



Item No.	Clamping Accuracy	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P32V1	<0.01mm	Manual	UMS-S52P16V1	2.7Kg

P100 Self-Centering Chuck

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

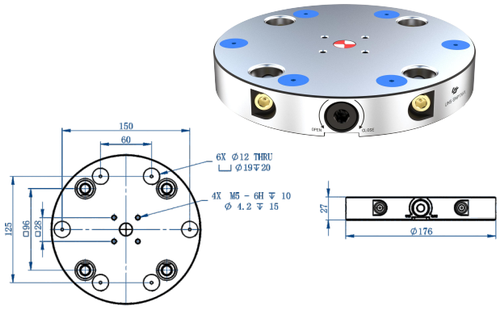


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S52P100V1	20,000(N)	Manual	UMS-S52P16V1	4.4Kg

ϕ176 Zero Point Plate

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

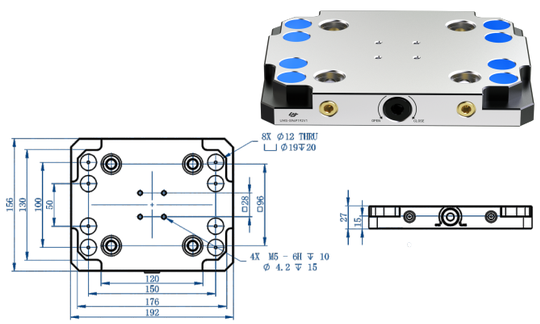


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P176V1	30,000(N)	Manual	UMS-S96P20V1	4. 5Kg

P192V1 Zero Point Plate

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

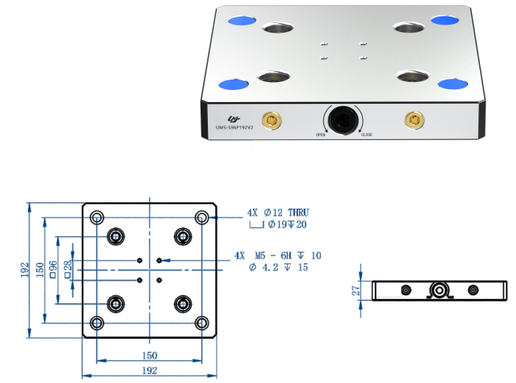


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P192V1	30,000(N)	Manual	UMS-S96P20V1	5.4Kg

P192V2 Zero Point Plate

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

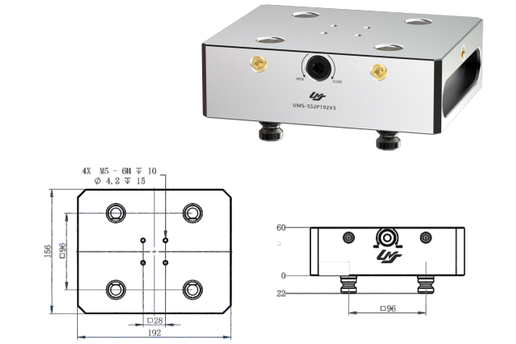


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P192V2	30,000(N)	Manual	UMS-S96P20V1	7.5Kg

P192 Riser 60 Zero Point Plate

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

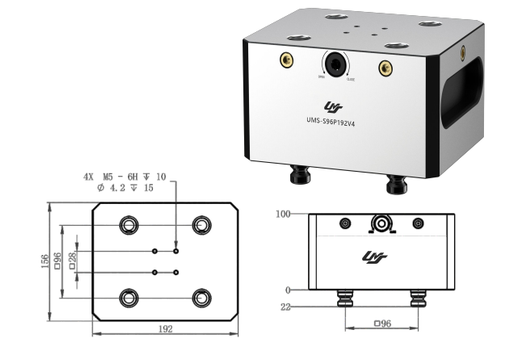


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P192V3	30,000(N)	Manual	UMS-S96P20V1	11.7Kg

P192 Riser 100 Zero Point Plate

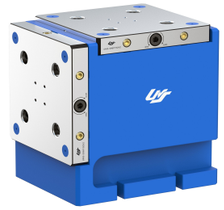
Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



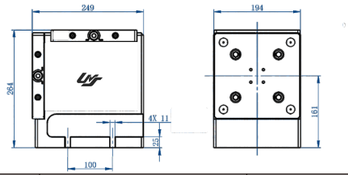
Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P192V4	30,000(N)	Manual	UMS-S96P20V1	19.3Kg

P192 Right-Angle Zero Point Plate



Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

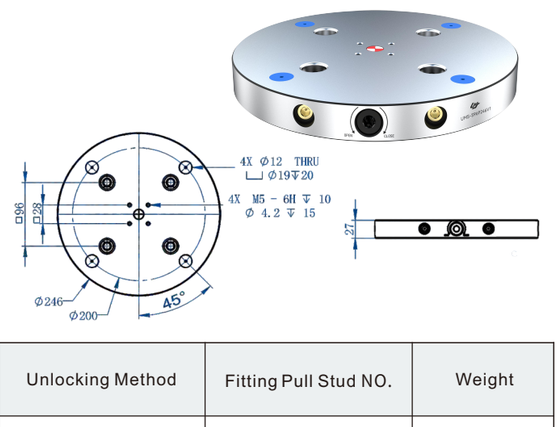


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P192V5	30,000(N)	Manual	UMS-S96P20V1	41.3Kg

ϕ246 Zero Point Plate

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

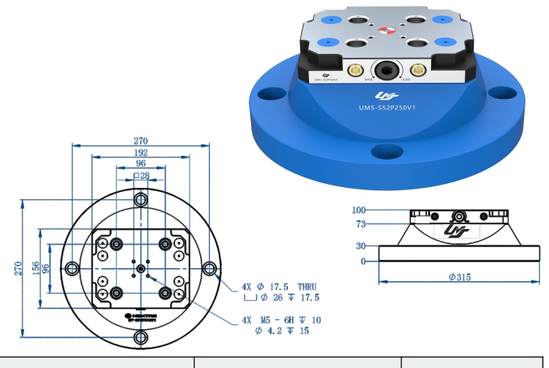


Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P246V1	30,000(N)	Manual	UMS-S96P20V1	9.5Kg

P315 Riser Seat Zero Point Plate

Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



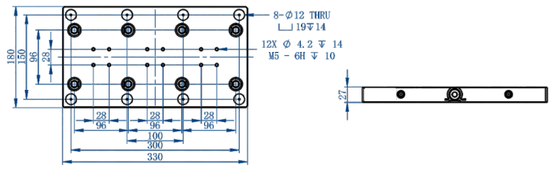
Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P315V1	30,000(N)	Manual	UMS-S96P20V1	16Kg

P330 Dual-Station Zero Point Plate



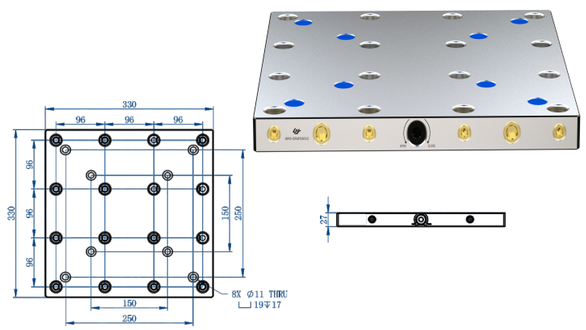
Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P330V1	30,000(N)	Manual	UMS-S96P20V1	10Kg

P330 Four-Station Zero Point Plate

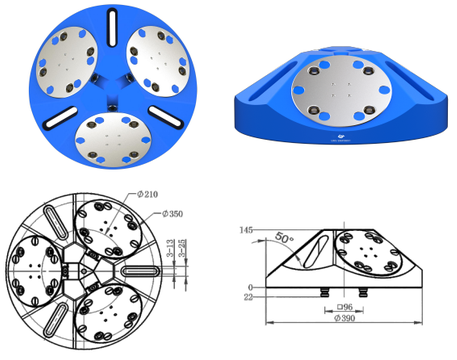


Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P330V2	30,000(N)	Manual	UMS-S96P20V1	19.3Kg

P390 5-Axis Three-Station Zero Point Plate



Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position

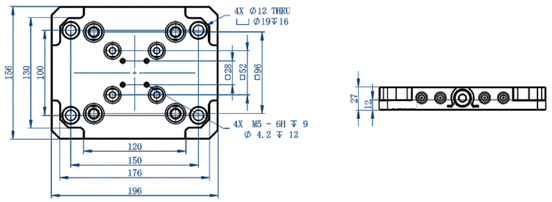
Item No.		Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S96P390V1	30,000(N)	Manual	UMS-S96P20V1	37Kg

Square 52/96 Combination Zero Point Plate



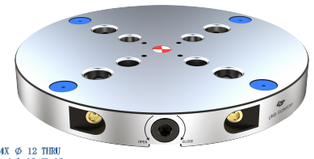
Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



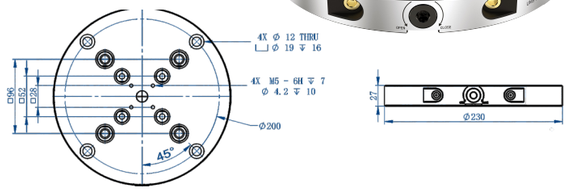
Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S5296P196V1	30,000(N)	Manual	UMS-S52P16V1 UMS-S96P20V1	4.89Kg

Round 52/96 Combination Zero Point Plate



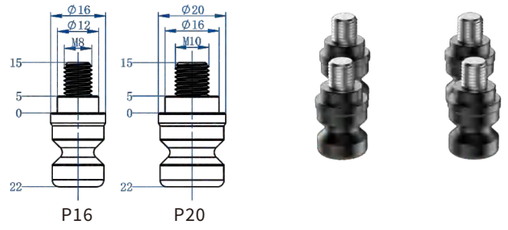
Product Features

- Hardened Stainless Steel
- Repeat Positioning Accuracy < 0.005 mm
- 4x90° Fixed Indexing Position



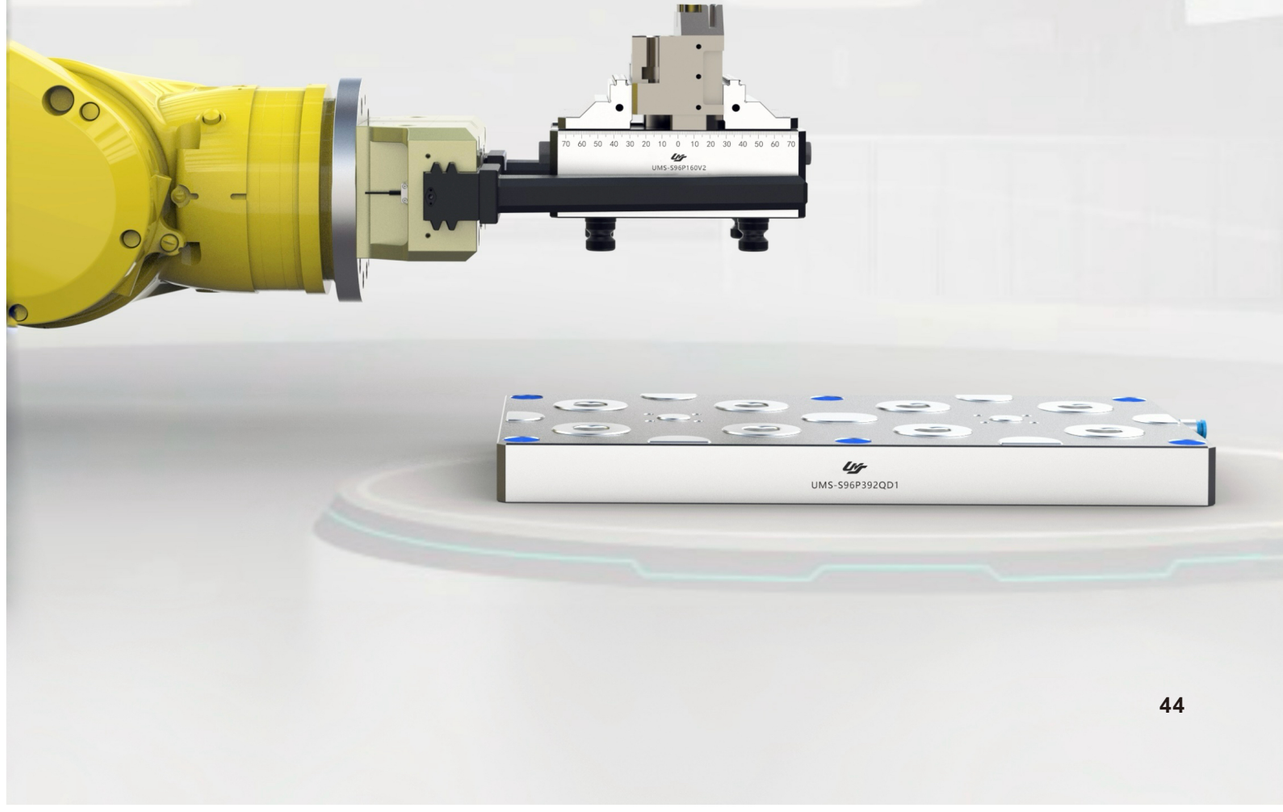
Item No.	Clamping Force	Unlocking Method	Fitting Pull Stud NO.	Weight
UMS-S5296P230V1	30,000(N)	Manual	UMS-S52P16V1 UMS-S96P20V1	9.5Kg

Positioning Pull Stud



Item No.	Size	Material	Weight
UMS-S52P16V1	52x52mm	Hardened Stainless Steel	0.15Kg
UMS-S96P20V1	96x96mm	Hardened Stainless Steel	0.2Kg

Self Centering Vise





1 Engaging tooth design: Both the left and right clamping jaws are equipped with engaging teeth to enhance the clamping stability of blanks.

2 Smooth-face clamping: Designed for products with surface-critical workpieces to prevent grip marks or scratches.

3 Threaded holes for workpiece locating block fixation.

4 Precision T-slot guide design ensures optimal clamping accuracy and rigidity.

5 Sealed lead screw centering device with <0.02mm repeat clamping accuracy.

6 Multi-clamp positioning ports for segmented clamping applications.

7 The base features side clamping grooves for automated applications.

8 The lead screw is made of martensitic stainless steel with quenching and tempering hardening treatment, and adopts an advanced coating process to improve the wear resistance and corrosion resistance of the product.The two ends of the lead screw are designed with internal and external hexagonal wrench flats, allowing tightening and adjustment with both external hexagonal socket wrenches and internal hexagonal wrenches.

9 Equipped with locating pull studs for positioning and clamping in zeropoint quick-change systems.

10 The main body is designed with inclined drainage and chip removal structures on both sides.It is made of martensitic stainless steel with quenching and tempering hardening treatment, and adopts an advanced nitriding process to enhance rigidity, wear resistance and corrosion resistance.

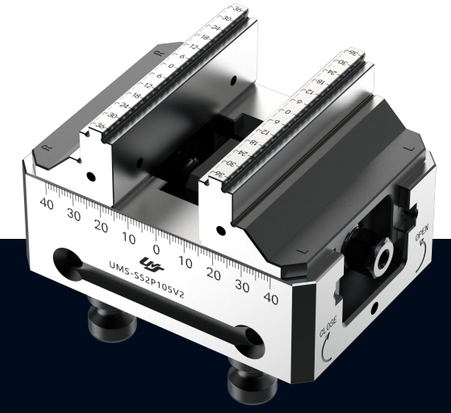
11 M5 threaded hole for RFID chip mounting.

12 Smooth-face clamping: Designed for products with surface-critical workpieces to prevent grip marks or scratches.

13 The monolithic jaw structure features high-rigidity design with reversible orientation capability and extended clamping stroke. Constructed from quenched-and-tempered martensitic stainless steel with advanced nitriding treatment to enhance rigidity, wear resistance, and corrosion protection.

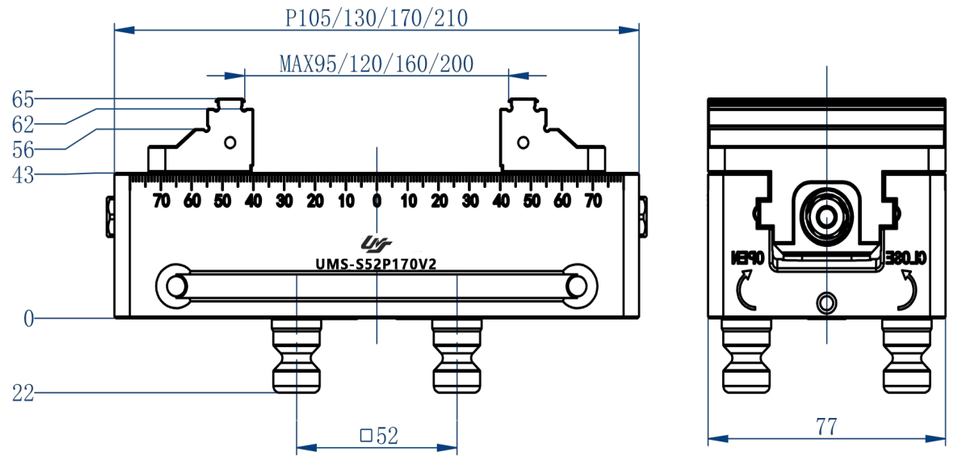
14 Preload-enabled design eliminates mating clearance, significantly enhancing vise clamping accuracy and stability.

52mm Self Centering Vise

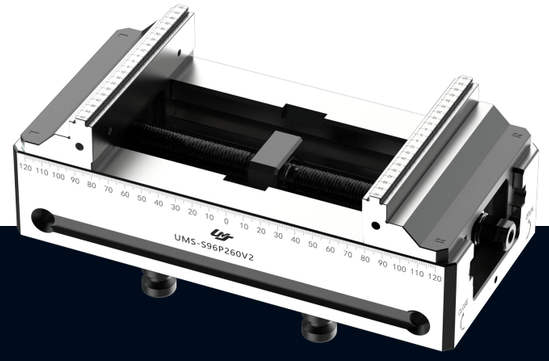


- 52mm Spacing Models
- Repeat Positioning Accuracy:<0.02mm
- Clamping Force:14,000N
- Max. Torque:70Nm
- Material: Hardened Stainless Steel

Item No.	Size			Overall Clamping Range	Weight
	Jaw width	Overall length	Height		
UMS-S52P105V2	77mm	105mm	87mm	0~95mm	2.8Kg
UMS-S52P130V2	77mm	130mm	87mm	0~120mm	3.2Kg
UMS-S52P170V2	77mm	170mm	87mm	0~160mm	3.8Kg
UMS-S52P210V2	77mm	210mm	87mm	0~200mm	4.4Kg

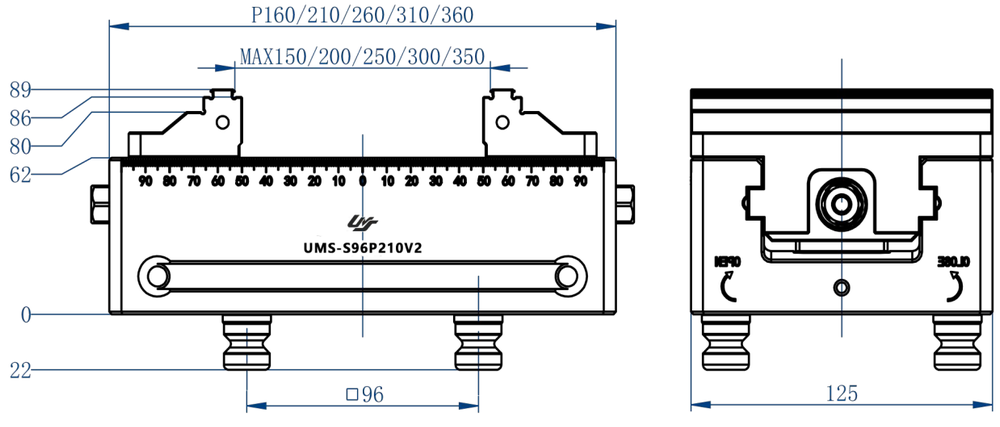


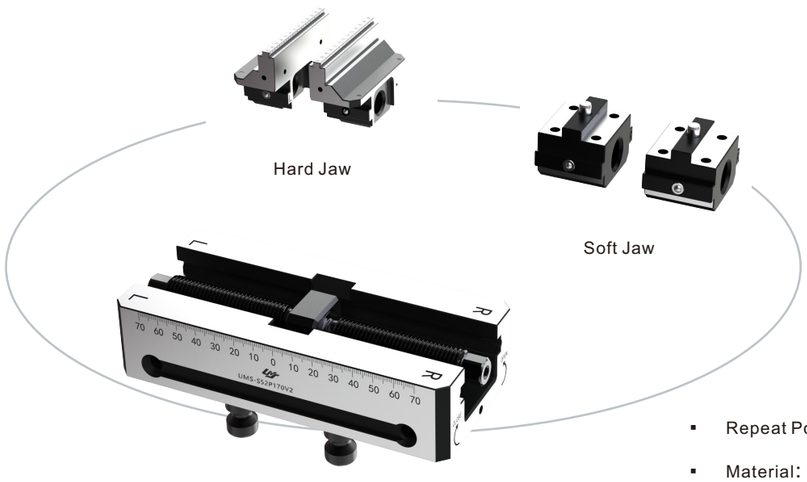
96mm Self Centering Vise



- 96mm Spacing Models
- Repeat Positioning Accuracy:<0.02mm
- Clamping Force:20,000N
- Max. Torque:100Nm
- Material：Hardened Stainless Steel

Item No.	Size			Overall Clamping Range	Weight
	Jaw width	Overall length	Height		
UMS-S96P160V2	125mm	160mm	111mm	0~150mm	8.9Kg
UMS-S96P210V2	125mm	210mm	111mm	0~200mm	10.8Kg
UMS-S96P260V2	125mm	260mm	111mm	0~250mm	12.6Kg
UMS-S96P310V2	125mm	310mm	111mm	0~300mm	14.5Kg
UMS-S96P360V2	125mm	360mm	111mm	0~350mm	16.4Kg

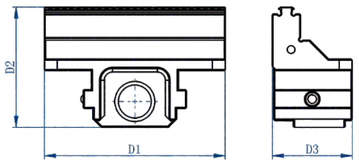




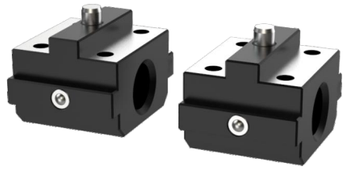
Vise Clamping Solution

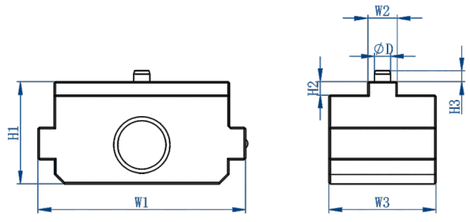
- Repeat Positioning Accuracy:<0.02mm
- Material：Hardened Stainless Steel





Item No.	Model	Size			Clamping force	Weight
		D1	D2	D3		
UMS-S52P77V2	P77	77mm	51mm	34mm	14,000(N)	0.44Kg
UMS-S96P125V2	P125	125mm	65mm	47mm	20,000(N)	1.3Kg



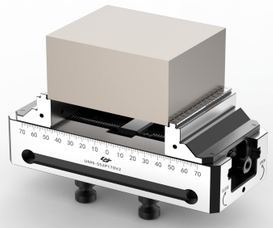


Item No.	Model	Size							Clamping force	Weight
		H1	H2	H3	W1	W2	W3	φD		
UMS-S52P77V1	P77	29.1mm	5mm	4.5mm	44mm	10mm	34.5mm	6mm	14,000(N)	0.2Kg
UMS-S96P125V1	P125	38.1mm	5mm	6mm	77.5mm	11mm	40mm	6mm	20,000(N)	0.6Kg

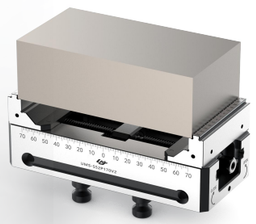
Self-Centering Vise – Hard Jaw Mounting & Usage



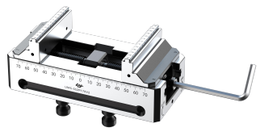
Vise Hard Jaws - Dual-station Installation & Usage



Hard Jaw Front Clamping Illustration



Hard Jaw Reverse-Side Clamping Illustration



Step 1

Disassemble Clamping Jaws from Jaw Base with Allen Wrench.



Step2

Reverse and Reinstall Disassembled Left/Right Jaws.



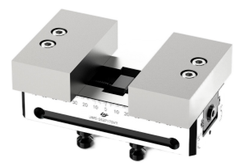
Step3

Installation & Operation Completed.

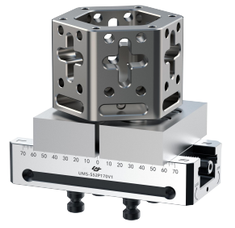
Self-Centering Vise – Soft Jaw Usage



Using Soft Jaws for Vises



Soft Jaw Clamping Illustration



Custom Contour Clamping Demo



Step 1

Prepare the finished soft jaws to be used for machining.



Step2

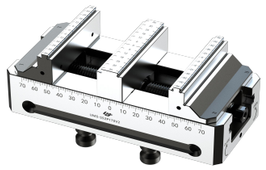
Install and secure the soft jaws using the back lock.



Step3

Preparation complete.

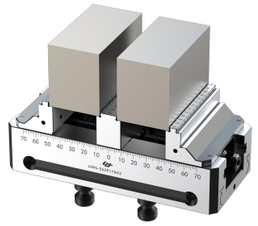
Self-Centering Vise – Hard Jaw Mounting (Dual-Station) & Usage



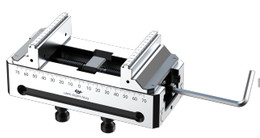
Vise Hard Jaws - Multi-Position Clamping Usage



Central Hard Jaw Assembly



Hard Jaw Multi-Position Clamping Illustration



Step 1

Disassemble Clamping Jaws from Base Plate with Allen Wrench.



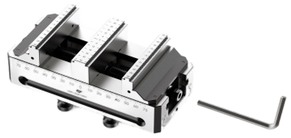
Step2

Disassemble Clamping Jaws from Base Plate with Allen Wrench.



Step3

Install Central Solid Jaw Assembly.



Step4

Reinstall Left/Right Jaws.

Self-centering Vise – Soft Jaw Mounting & Usage



Multi-position clamping with vise soft jaws



Center Soft Jaw Assembly



Soft Jaw Multi-Position Clamping Diagram



Step 1

Detach L/R soft jaw holders from base with hex key.



Step2

Remove the bottom screws with a hex key, then detach the screw-fixed base mount.



Step3

Install the central soft jaw assembly.

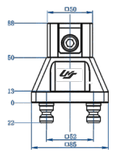


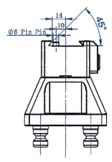
Step4

Reinstall the left and right soft jaws.

P50 Dovetail Fixture



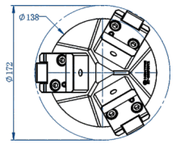


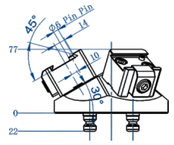


Item No.	Unlocking Method	Material	Weight
UMS-S52P50V1	Manual	Hardened Stainless Steel	1.5Kg

P50 Three-Station Dovetail Fixture



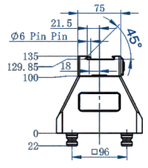


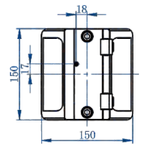


Item No.	Unlocking Method	Material	Weight
UMS-S52P50V2	Manual	Hardened Stainless Steel	3.6Kg

P150 Dovetail Fixture





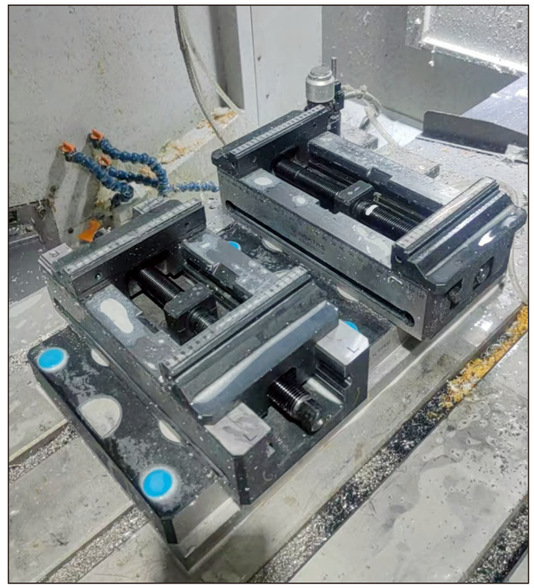


Item No.	Unlocking Method	Material	Weight
UMS-S96P150V1	Manual	Hardened Stainless Steel	7Kg

APPLICATION EXAMPLES



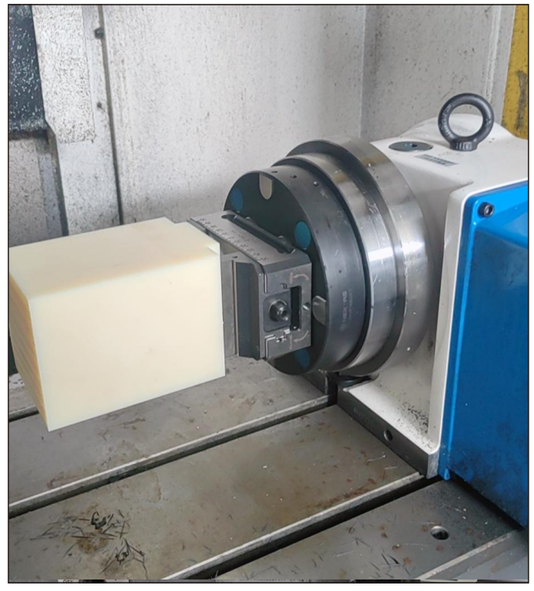
- Pneumatic Zero Point Plates with Self-Centering Vises on Automated 5-Axis Equipment



- Pneumatic Zero Point Plates with Self-Centering Vises on 3-Axis Vertical Machining Centers (VMCs)



- Pneumatic Zero Point Plates with Self-Centering Vises on 4-Axis Machining Centers



- Pneumatic Zero Point Plates with Self-Centering Vises on 4-Axis Machining Centers