

MULTIZERO® CLAMPING SYSTEM



Product catalogue

 **SINCO®**

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SINCO®

As the world seems to be turning faster every year and we face countless improvements and fascinating innovations in technology at the speed of light, efficiency and speed have become more important than ever. We believe that time is money, so efficiency, flexibility, and speed have become the core of the SINCO® brand. The introduction of our unique and patented

MultiZero® Clamping System has changed the perception of zero-point clamping systems on the market and made the usage incomparably more simpler, faster, and flexible. We're constantly focused on creating simple and innovative clamping solutions in the field of metal processing. Powered by 40 years of industry experience we believe we have the perfect know-how to ca-

ter to your company's needs — and with every user and market in mind we can treat each company individually at the highest level possible. SINCO® provides solutions that are based on real-time industry problems in the field of high-productive clamping, be it a high-series production facility or small production lines in period where saying "time is money" is more important than ever.



EXPERIENCE

+40

Years of industry experience.

INNOVATION

+10

Patents and utility models.



FLEXIBILITY

+100

Products in portfolio.

“More **efficient,**
flexible and **faster**
production lines.”

MultiZero® Plate Series 3000



Series 3000 Overview

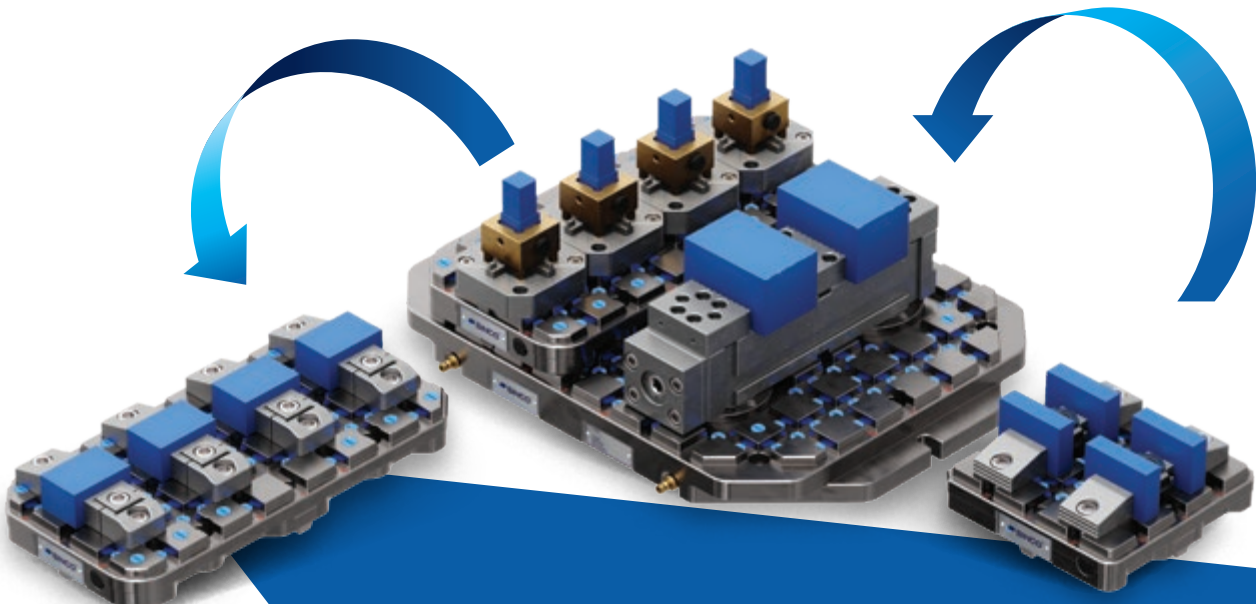
The MultiZero® Plate 3000 family is designed to cover three axis machine tables with sizes AxB but also cover other machines on the market. With a great selection of base plates, pallets and fixtures, the MultiZero® System is made

to be more than flexible to dominate in serial production as well as in low volume production and cover clamping of complex workpieces at the same time. The MultiZero® System is designed to be very simple and easy to use.

With zero-point pneumatic modules for automatic clamping and RFID identification and a data chip optionally installed on each pallet, the system is designed to fully fit automated machine environments and support Industry 4.0.

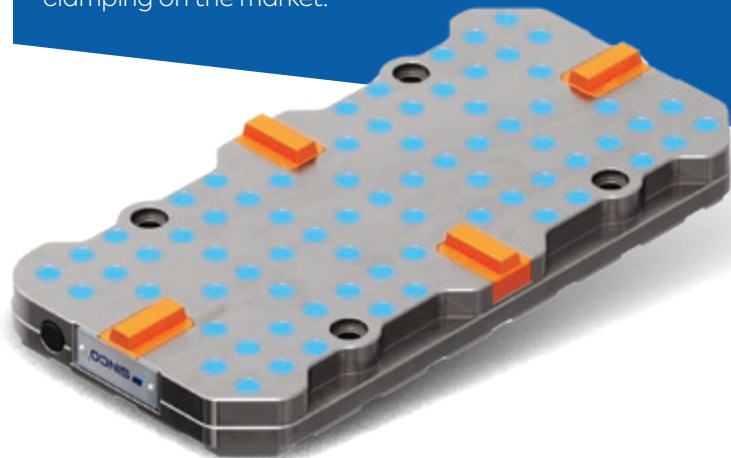
MultiZero® Plate Series 3000 Advantages

- Used for clamping pallets, workpieces, vises and fixtures directly
- Zero point at every cross section of centering slots
- Zero points in array of 50 x 50 mm at type P50 and array of 100 x 100 mm at type P100
- Clamping thread holes M12 in array of 25 x 25 mm
- Great flexibility and machine table usage due to large number of zero points
- One step positioning and clamping at every zero point
- High repeatability and system accuracy with every clamping
- High retention forces and highest allowed lateral forces at every zero point
- Unique system for compensation of vibrations and thermal expansions
- System provides automatic clamping with pneumatic modules and the best compensation for the lateral forces on the market
- Great for clamping complex asymmetrical parts in single-part production
- Clamping system capable of quickly adjusting to various needs
- Great modularity with large selection of various types and sizes of pallets, fixtures and vises
- Compatible with classic tightening methods and clamping elements



Positioning and clamping of the workpieces onto the pallet is done off the machine, while having simultaneous operation on the machine. This leads to higher productivity and makes the system very suitable for serial and low volume production. Multiple pallets, fixtures or workpieces can be clamped numerous times with high repeating in positioning, maintaining the zero-point position accuracy to 5µm.

Pallets and fixtures are automatically self-centered and oriented in all axes as they are put onto the MultiZero® Plate or MultiZero® Pneumatic Plate and Pallet. This is achieved by four aligning members embedded onto every pallet type from the MultiZero® Pallet family. Aligning members correspond to the tapered slots and are oriented and precisely positioned on the MultiZero® Clamping System. Pallets are clamped directly onto the base plate manually with clamping bolts (M12), or automatically with retractable nipples to the MultiZero® Pneumatic Plates. The system ensures the possibility to clamp and orient the pallet at the same time and through simultaneous use of clamping modules and tapered slots, the best possible precision and high rigidity for automatic clamping on the market.



Clamping with bolts or with pneumatic modules accommodates the Z axis, where the other two axes are accommodated by aligning the members. The system has high rigidity and is capable of withstanding high machining forces. Even with high loads, there are less vibrations and no danger of workpiece movement during machining.

Constant repeatable manual
or automatic clamping in
accuracy of 5µm.

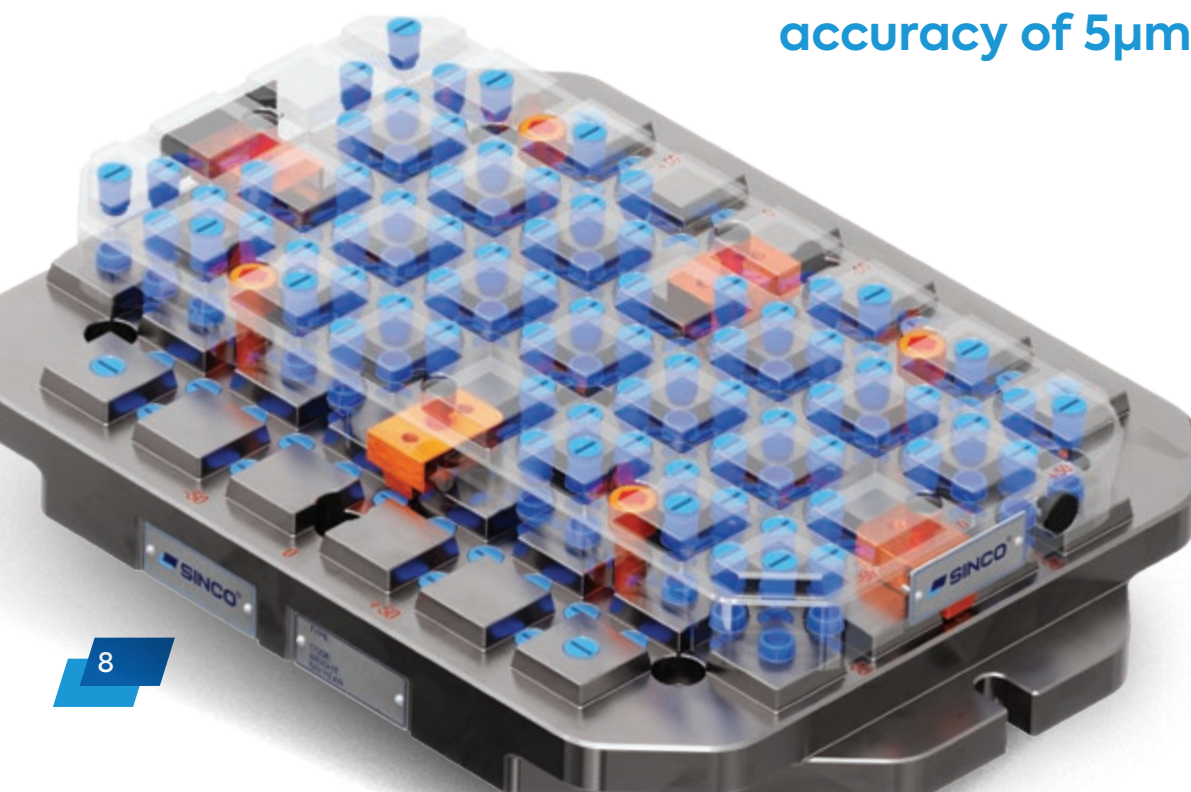
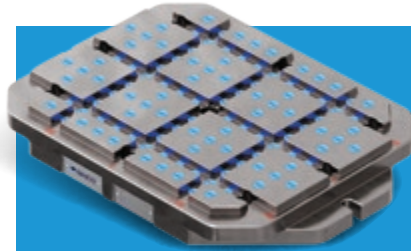


Plate types

MultiZero® Plate P50

- Used for zero-point clamping of pallets, workpieces, vises and clamping fixtures
- Slot pitch 50 mm
- Zero point array 50 x 50



MultiZero® Plate P100

- Used for zero-point clamping of pallets, workpieces, vises and clamping fixtures
- Slot pitch 100 mm
- Zero point array 100 x 100

MultiZero® Pneumatic Plate

- Used for automatic clamping of pallets, workpieces, vises and fixtures
- Supports standard manual clamping of pallets, workpieces, vises and fixtures
- Slot pitch 50 mm
- Zero point array 50 x 50
- Pneumatic zero-point array 200 x 200



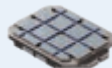
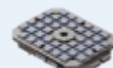
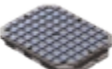
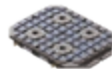
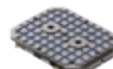
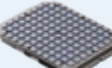
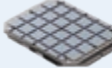
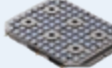
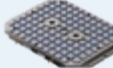
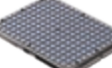
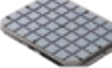
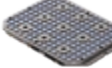
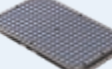
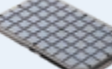
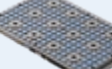
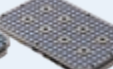
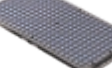
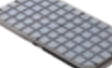
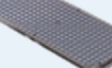
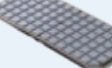
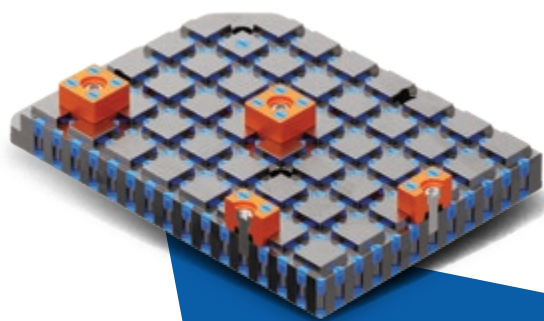
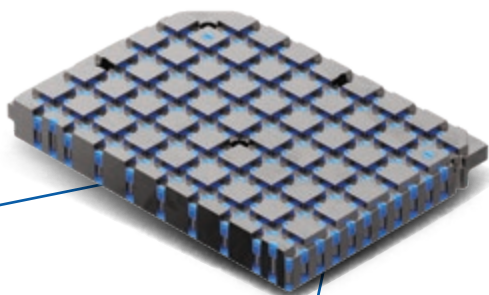
Size in mm	MultiZero® P50		MultiZero® P100		MultiZero® Pneumatic	
320 x 400		1B1-3300-0		1B1-3310-0	 	1B1-3320-0 1B1-3321-0
400 x 500		1B1-3400-0		1B1-3410-0	 	1B1-3420-0 1B1-3421-0
500 x 630		1B1-3500-0		1B1-3510-0	 	1B1-3520-0 1B1-3521-0
630 x 800		1B1-3630-0		1B1-3631-0	 	1B1-3632-0 1B1-3633-0
630 x 1000		1B1-3650-0		1B1-3651-0	 	1B1-3652-0 1B1-3653-0
630 x 1200		1B1-3660-0		1B1-3661-0		
630 x 1400		1B1-3670-0		1B1-3671-0		

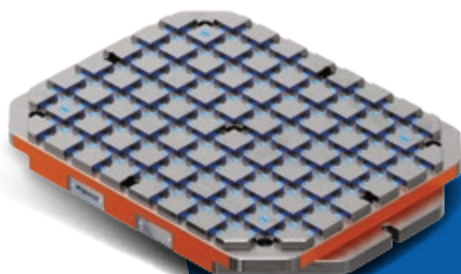
Plate features



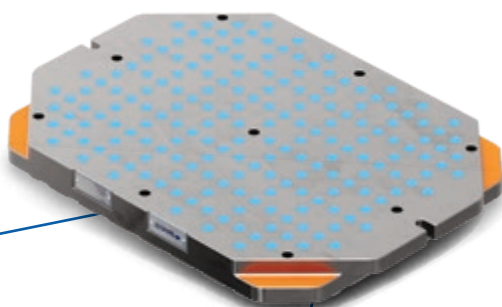
- MultiZero® point at every cross section of conical slots
- Security gap – centering elements don't touch the slot bottom



- Plastic protectors for thread holes (supplied)



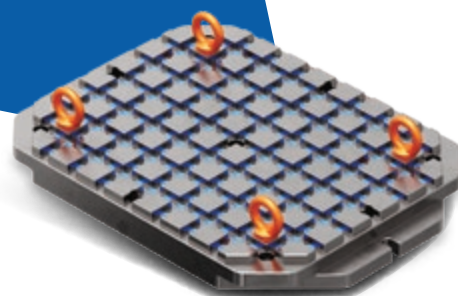
- Precise pallet sides used for centering

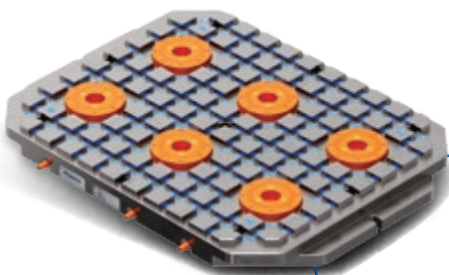
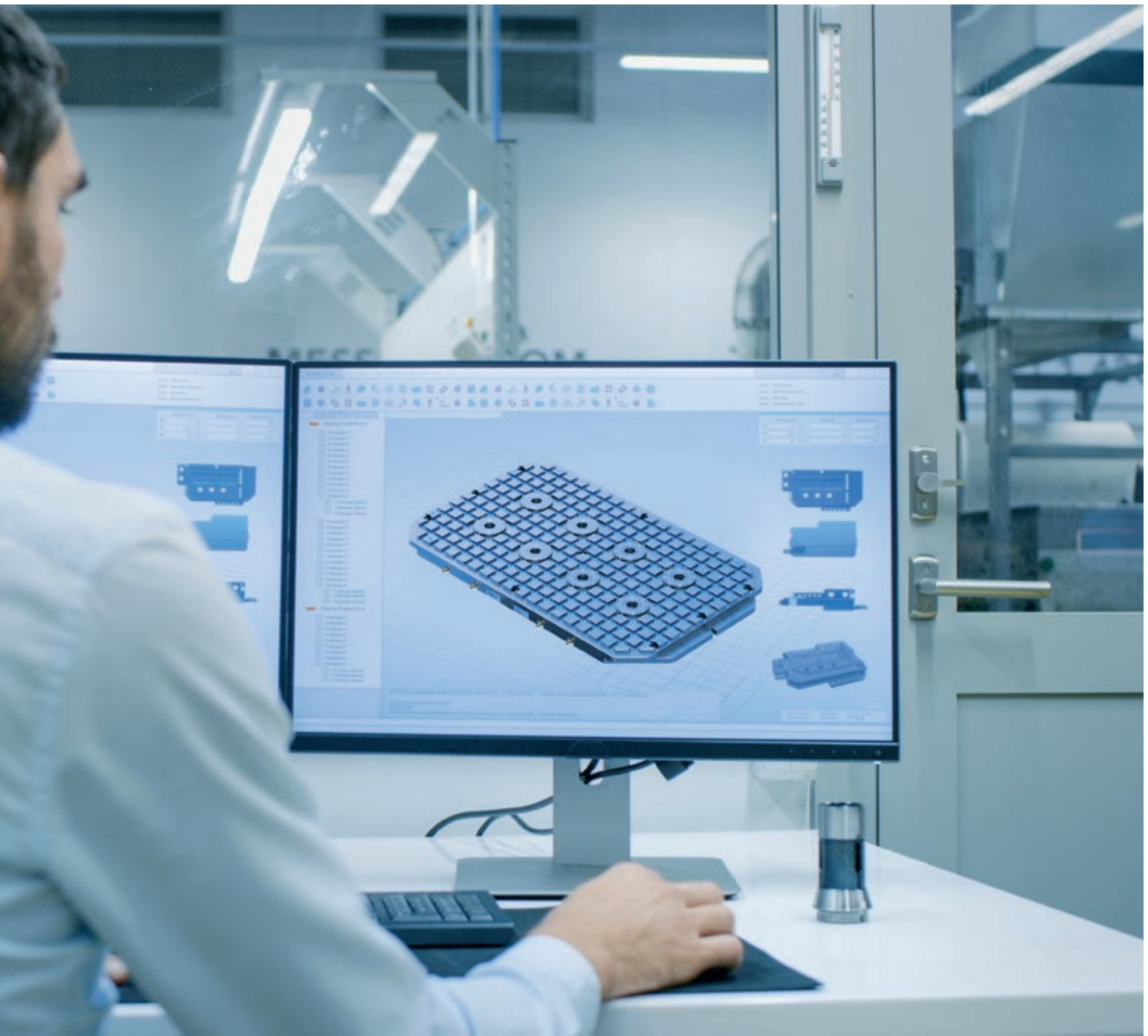


- Handling grooves on the underside



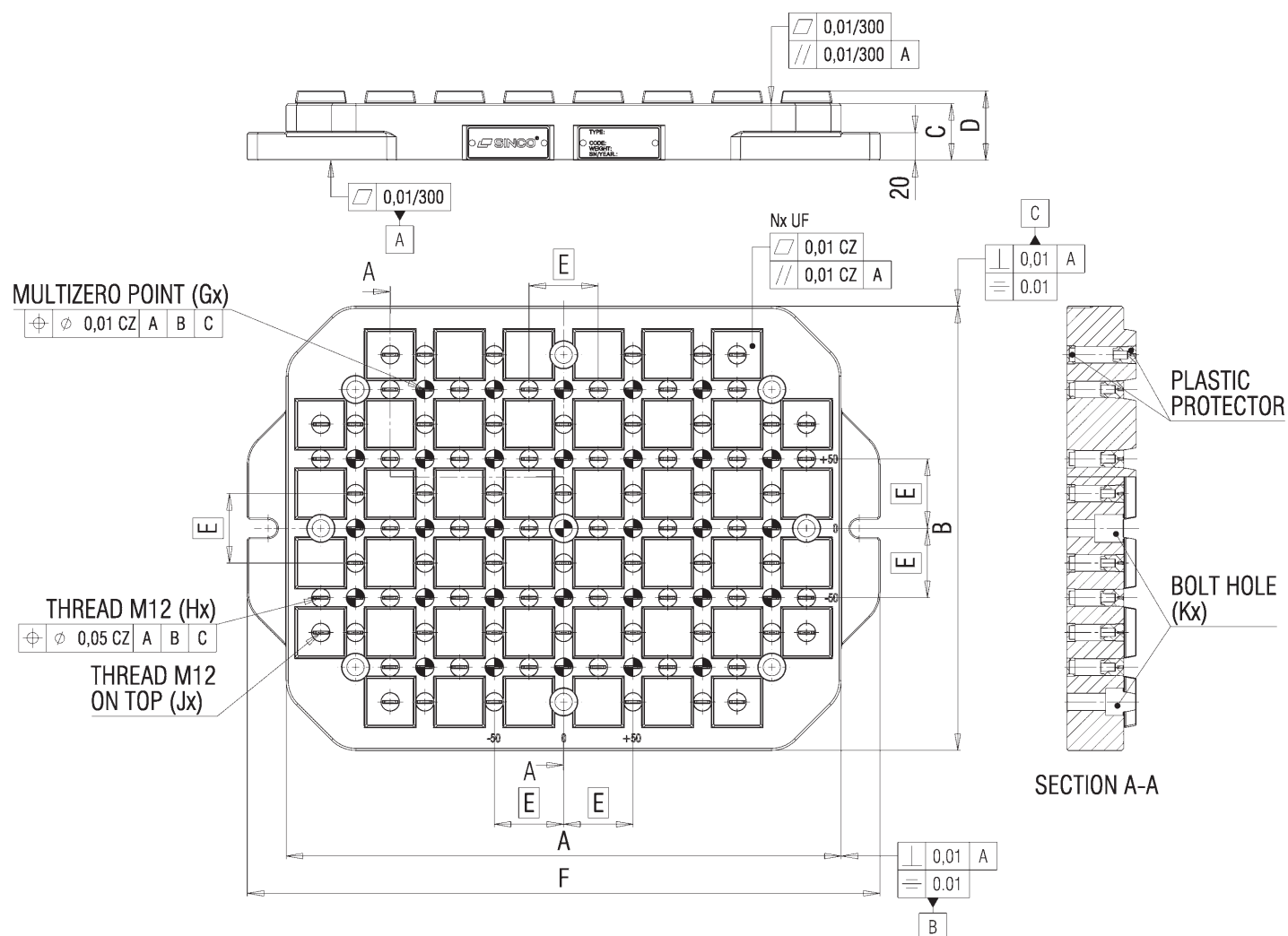
- M12 thread holes for lifting eyebolts





- Pneumatic zero-point modules
 - Available on MultiZero® Pneumatic Plate and MultiZero® Pneumatic Pallet
 - Enables fully automated production
-
- Technical data:
Retention force (per each pneumatic module): 55 kN | Air pressure: min. 5 bar, max. 10 bar | Operating temperature: +10 to +80°C | Min. release time 0.2 seconds

MultiZero® Plate 3000 P50

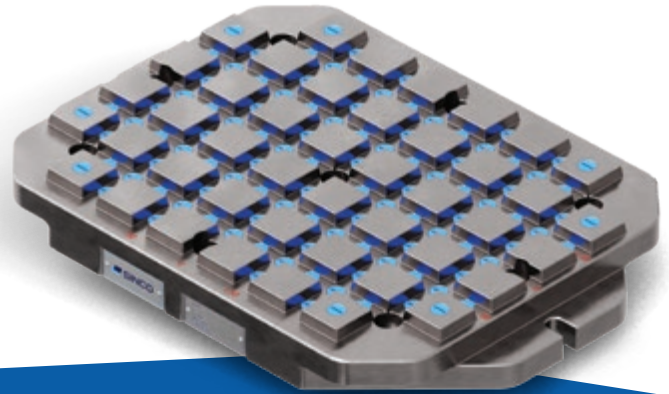
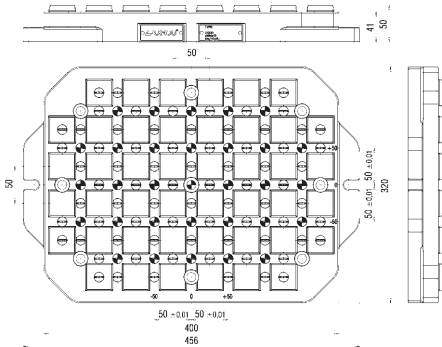


Example: MultiZero® Plate 3300

Size	A (mm)	B (mm)	C (mm)	D (mm)	E* (mm)	F (mm)	G*	H*	J*	K*	Weight (kg)
3300	320	400	41.0	50.0	50	456	31	101	8	11xM12	38.9
3400	400	500	41.0	50.0	50	556	59	188	8	11xM12	61.2
3500	500	630	41.0	50.0	50	686	95	302	8	11xM12	97.0
3630	630	800	41.0	50.0	50	864	161	500	8	11xM16	155.9
3650	630	1000	41.0	50.0	50	1064	205	636	8	11xM16	195.3
3660	630	1200	41.0	50.0	50	1264	249	773	8	11xM16	234.7
3670	630	1400	41.0	50.0	50	1464	293	909	8	11xM16	274.2

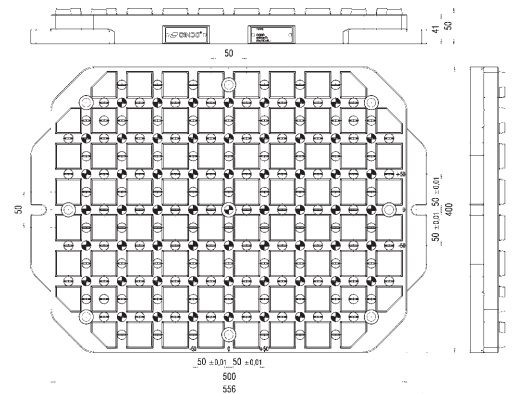
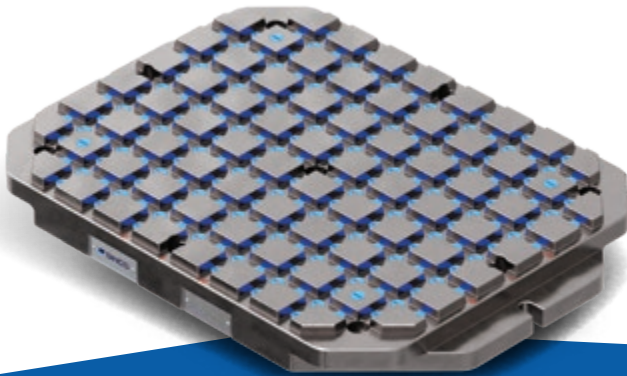
E* - MultiZero® point pitch / G* - MultiZero® Points qty. / H* - Thread holes (M12) on slot bottom qty. / J* - Thread holes (M12) on top qty. / K* - Clamping bolts (M12/M16) qty. / All plates are made from corrosion-resistant steel.

MultiZero® Plate P50 3300



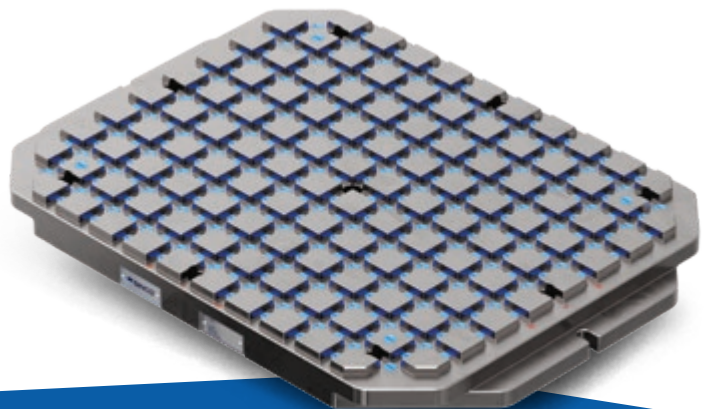
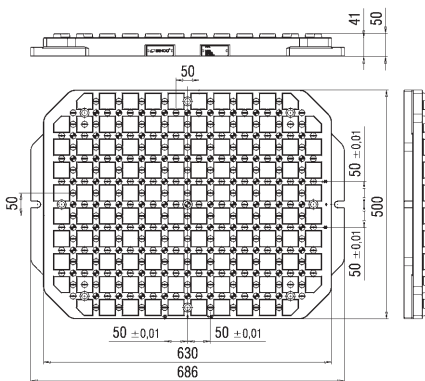
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3300-0	456 (400) x 320 x 50	31 x	101x	10 x	38.9 kg

MultiZero® Plate P50 3400



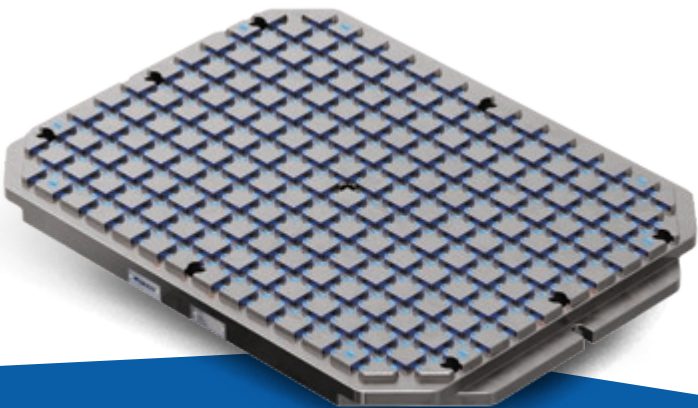
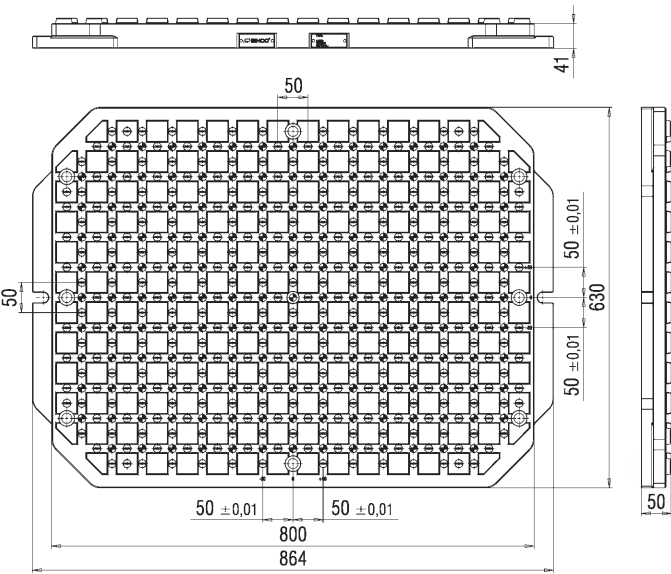
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3400-0	556 (500) x 400 x 50	59 x	188x	10 x	61.2 kg

MultiZero® Plate P50 3500



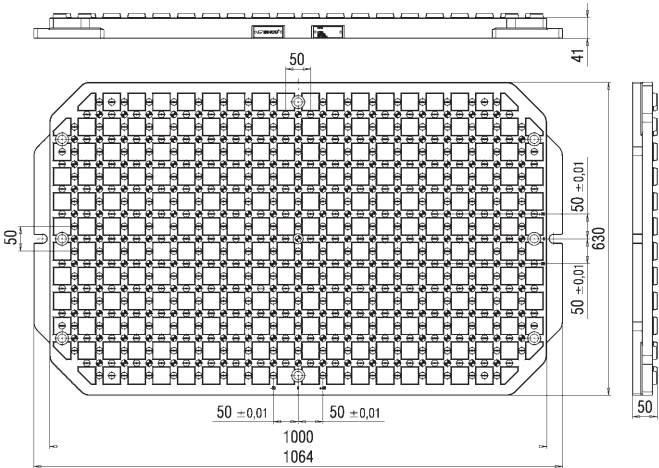
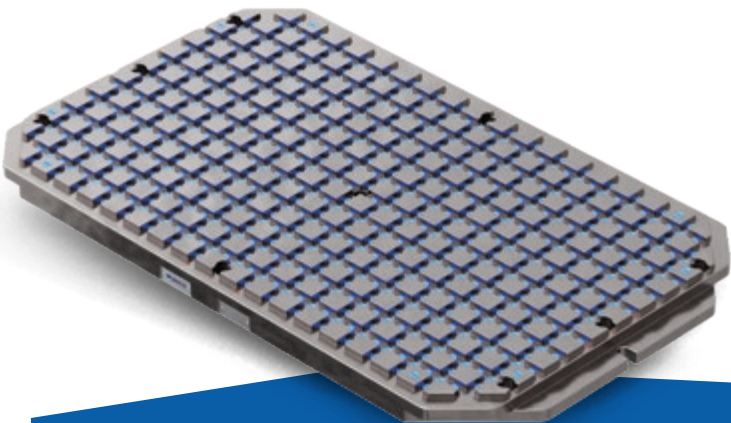
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3500-0	686 (630) x 500 x 50	95 x	302x	10 x	97.0 kg

MultiZero® Plate P50 3630



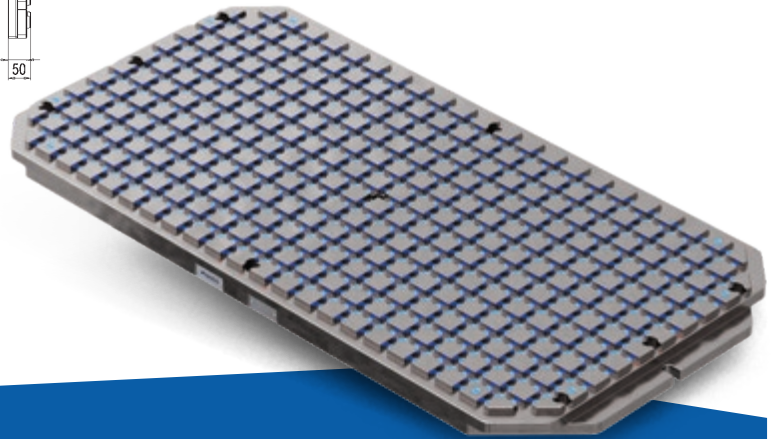
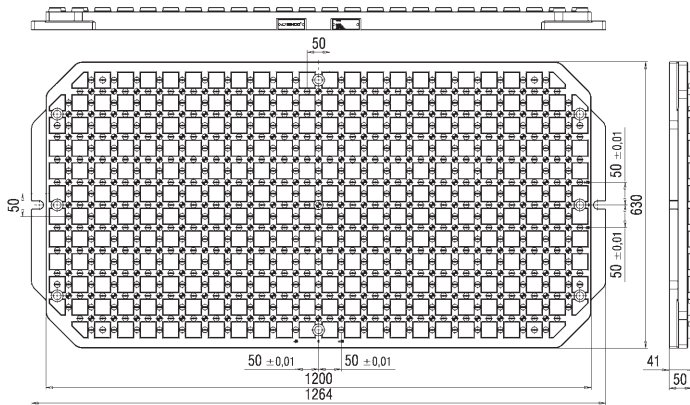
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3630-0	864 (800) x 630 x 50	161 x	500x	10 x	155.9 kg

MultiZero® Plate P50 3650



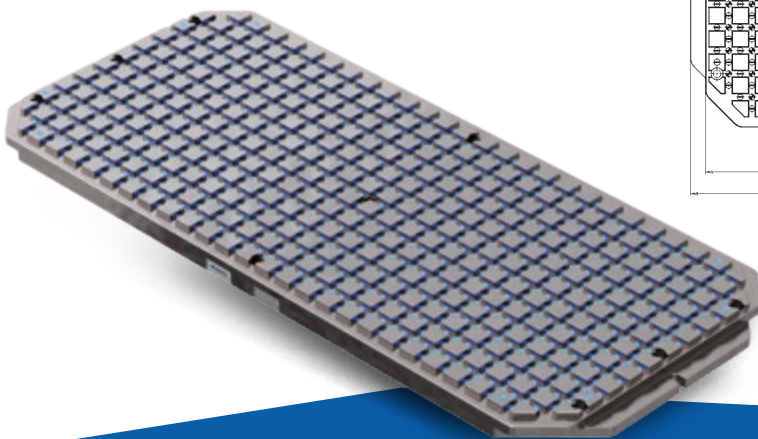
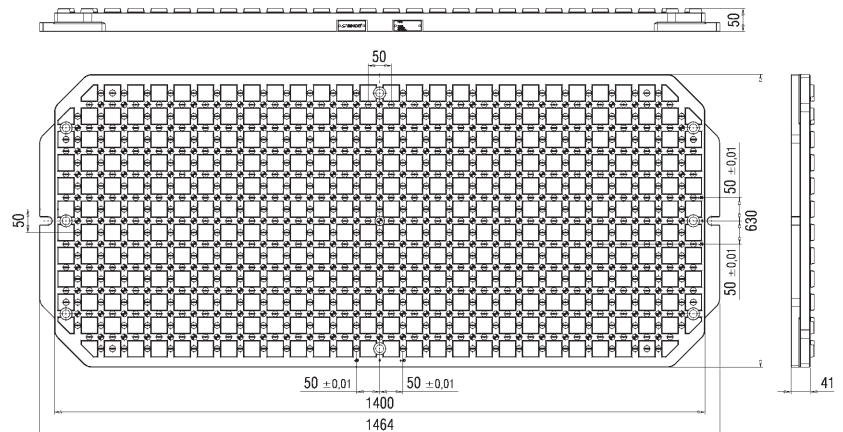
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3650-0	1064 (1000) x 630 x 50	205 x	636x	4 x	195.3 kg

MultiZero® Plate P50 3660



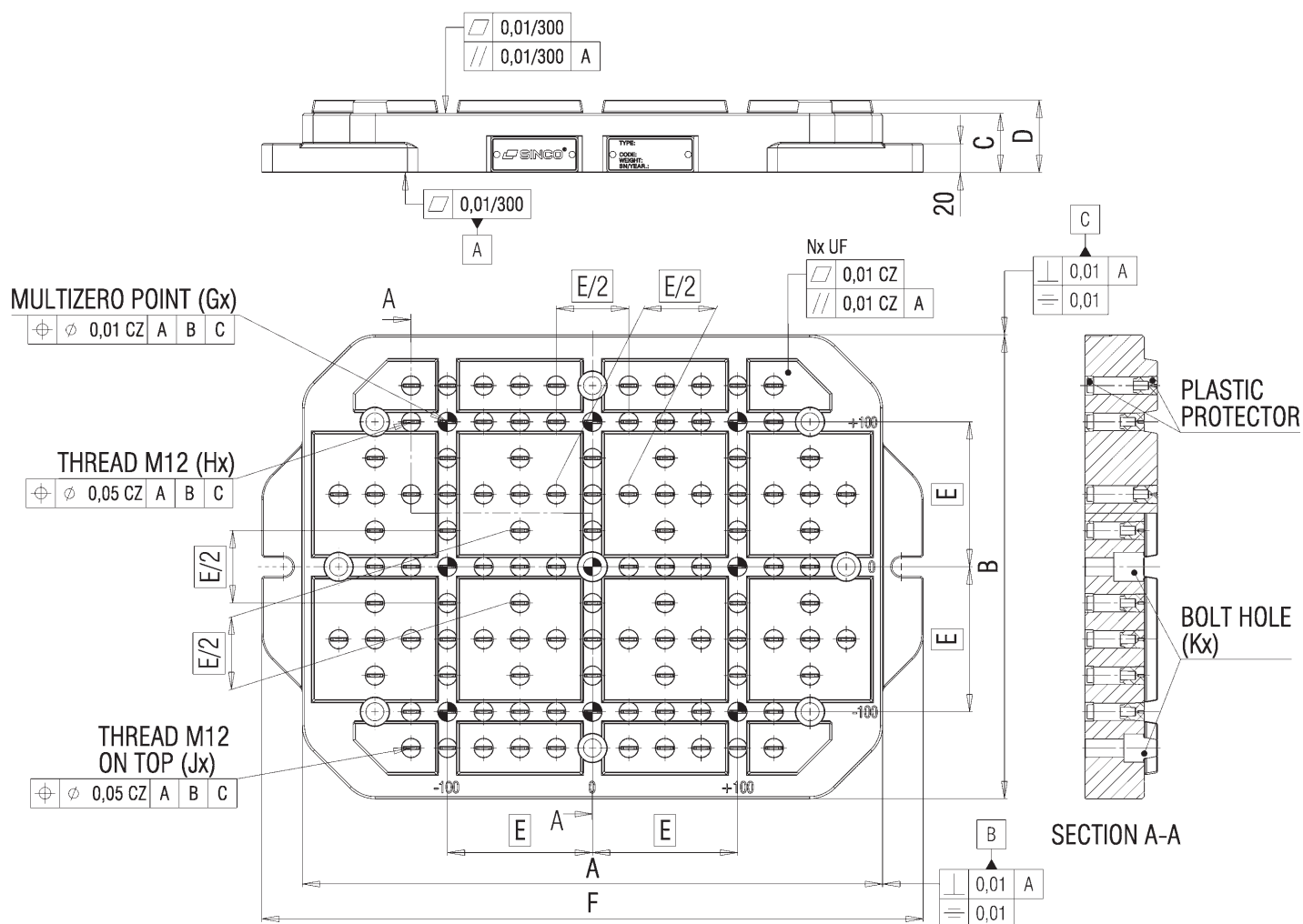
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3660-0	1264 (1200) x 630 x 50	249 x	773x	10 x	234.7 kg

MultiZero® Plate P50 3670



Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-3670-0	1464 (1400) x 630 x 50	293 x	909x	10 x	274.2 kg

MultiZero® Plate 3000 P100

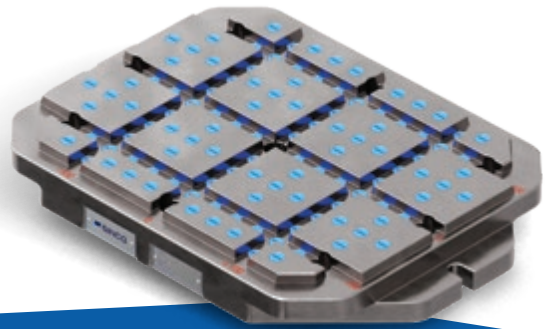
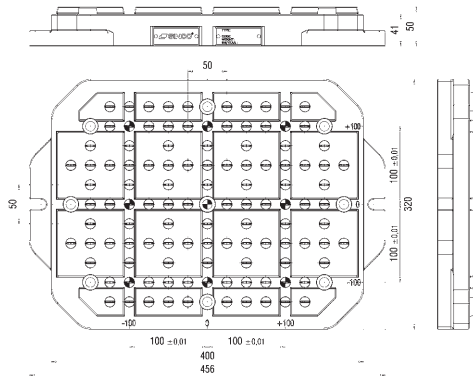


Example: MultiZero® Plate 3310

Size	A (mm)	B (mm)	C (mm)	D (mm)	E* (mm)	F (mm)	G*	H*	J*	K*	Weight (kg)
3310	320	400	41.0	50.0	100	456	9	48	74	11xM12	39.9
3410	400	500	41.0	50.0	100	556	15	104	84	11xM12	63.4
3510	500	630	41.0	50.0	100	686	25	172	128	11xM12	100.4
3631	630	800	41.0	50.0	100	864	35	272	224	11xM16	161.7
3651	630	1000	41.0	50.0	100	1064	45	640	292	11xM16	202.4
3661	630	1200	41.0	50.0	100	1264	55	799	352	11xM16	243.3
3671	630	1400	41.0	50.0	100	1464	65	933	412	11xM16	284.1

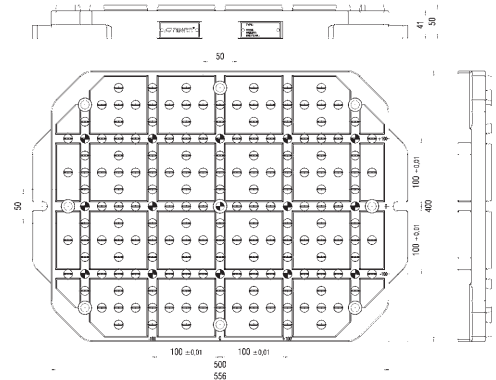
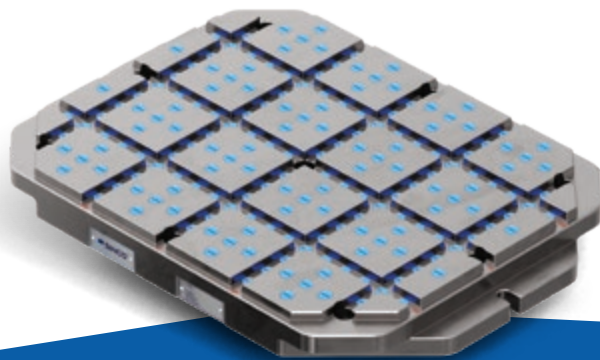
E* - MultiZero® point pitch / G* - MultiZero® Points qty. / H* - Thread holes (M12) on slot bottom qty. / J* - Thread holes (M12) on top qty. / K* - Clamping bolts (M12/M16) qty. / All plates are made from corrosion-resistant steel.

MultiZero® Plate P100 3310



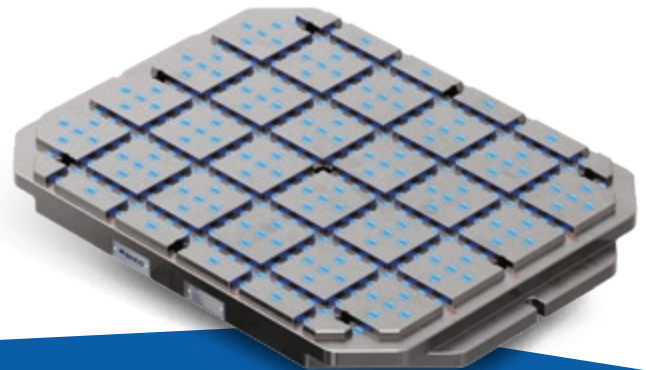
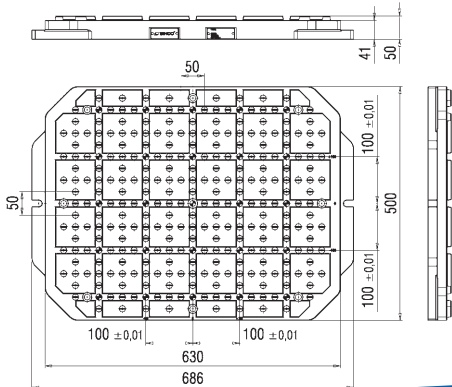
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3310-0	456 (400) x 320 x 50	9x	48x (Slot bottom) / 74x (Plate Top)	11x	39.9 kg

MultiZero® Plate P100 3410



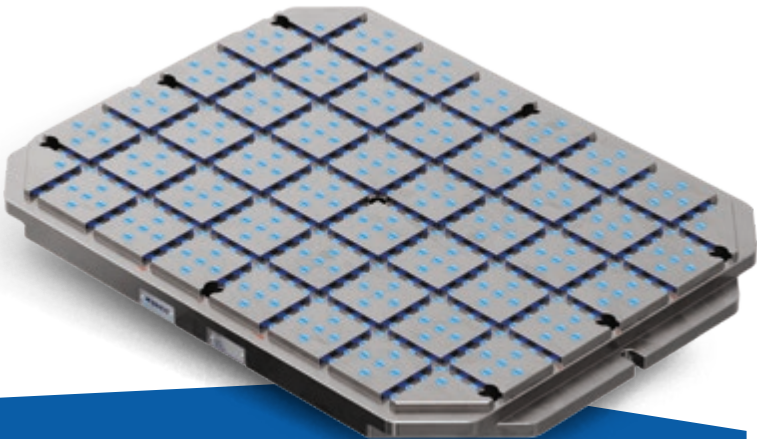
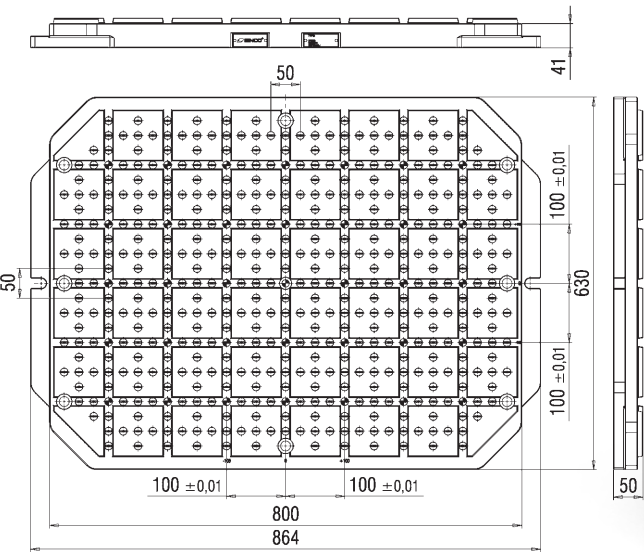
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3410-0	556 (500) x 400 x 50	15x	104x (Slot bottom) / 84x (Plate Top)	11x	63.4 kg

MultiZero® Plate P100 3510



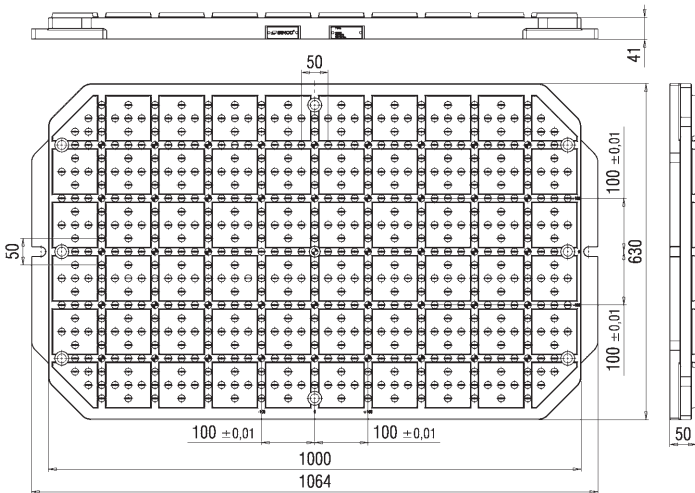
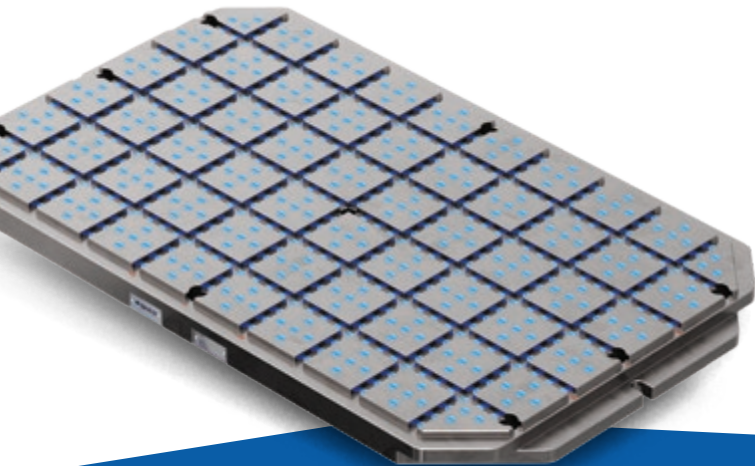
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3510-0	686 (630) x 500 x 50	25x	172x (Slot Bottom) / 128x (Plate Top)	11x	100.4 kg

MultiZero® Plate P100 3631



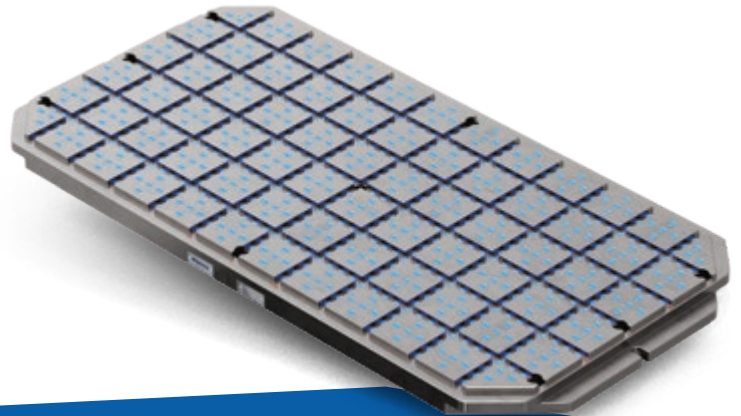
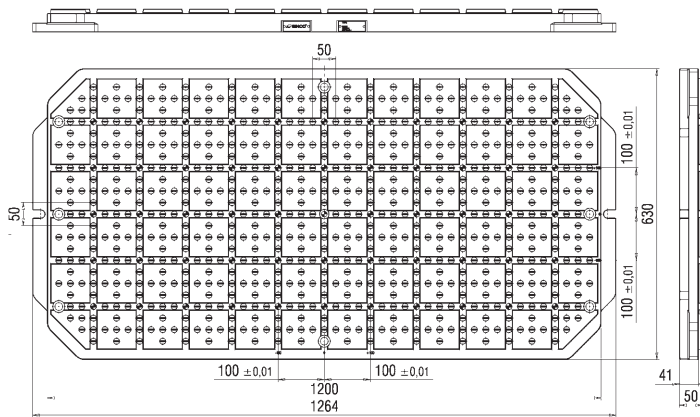
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3631-0	864 (800) x 630 x 50	35x	272x (Slot bottom) / 224x (Plate top)	11x	161.7 kg

MultiZero® Plate P100 3651



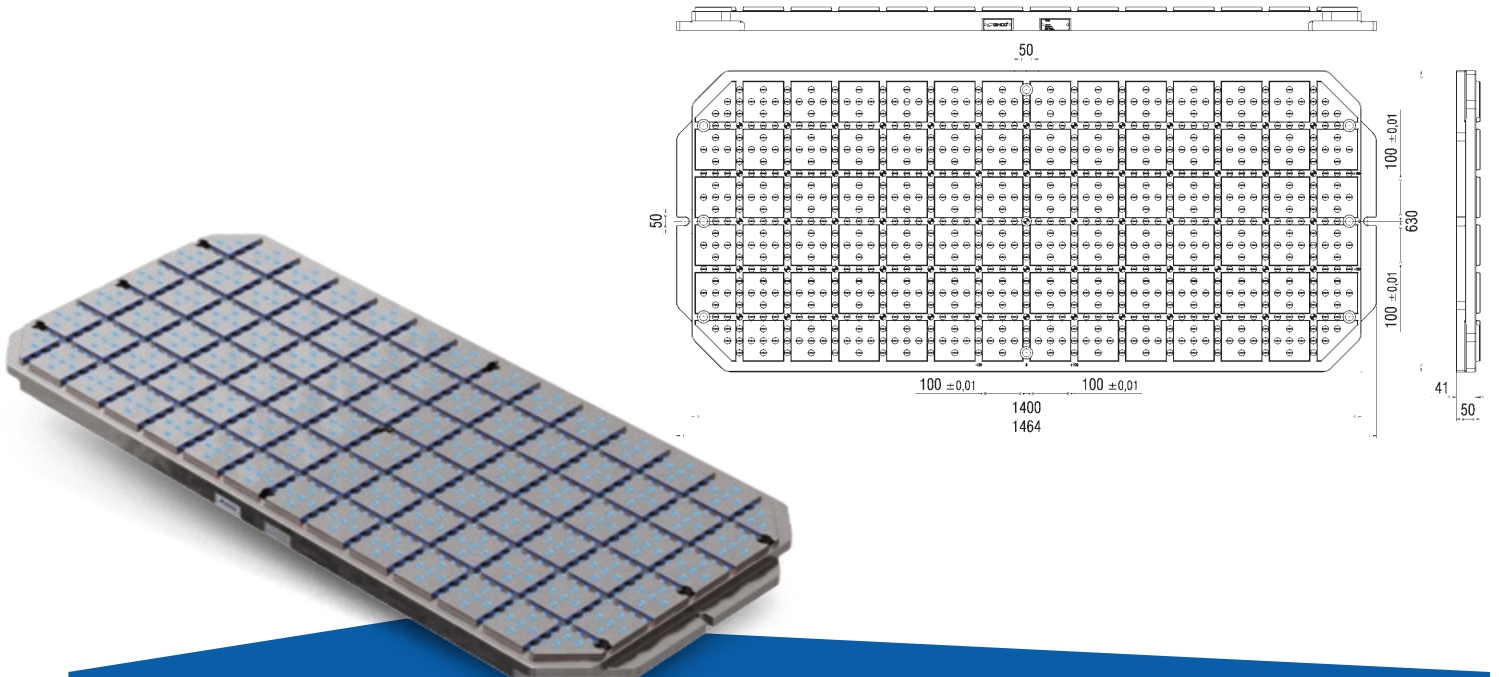
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3651-0	1064 (1000) x 630 x 50	45x	640x (Slot bottom) / 292x (Plate top)	11x	202.4 kg

MultiZero® Plate P100 3661



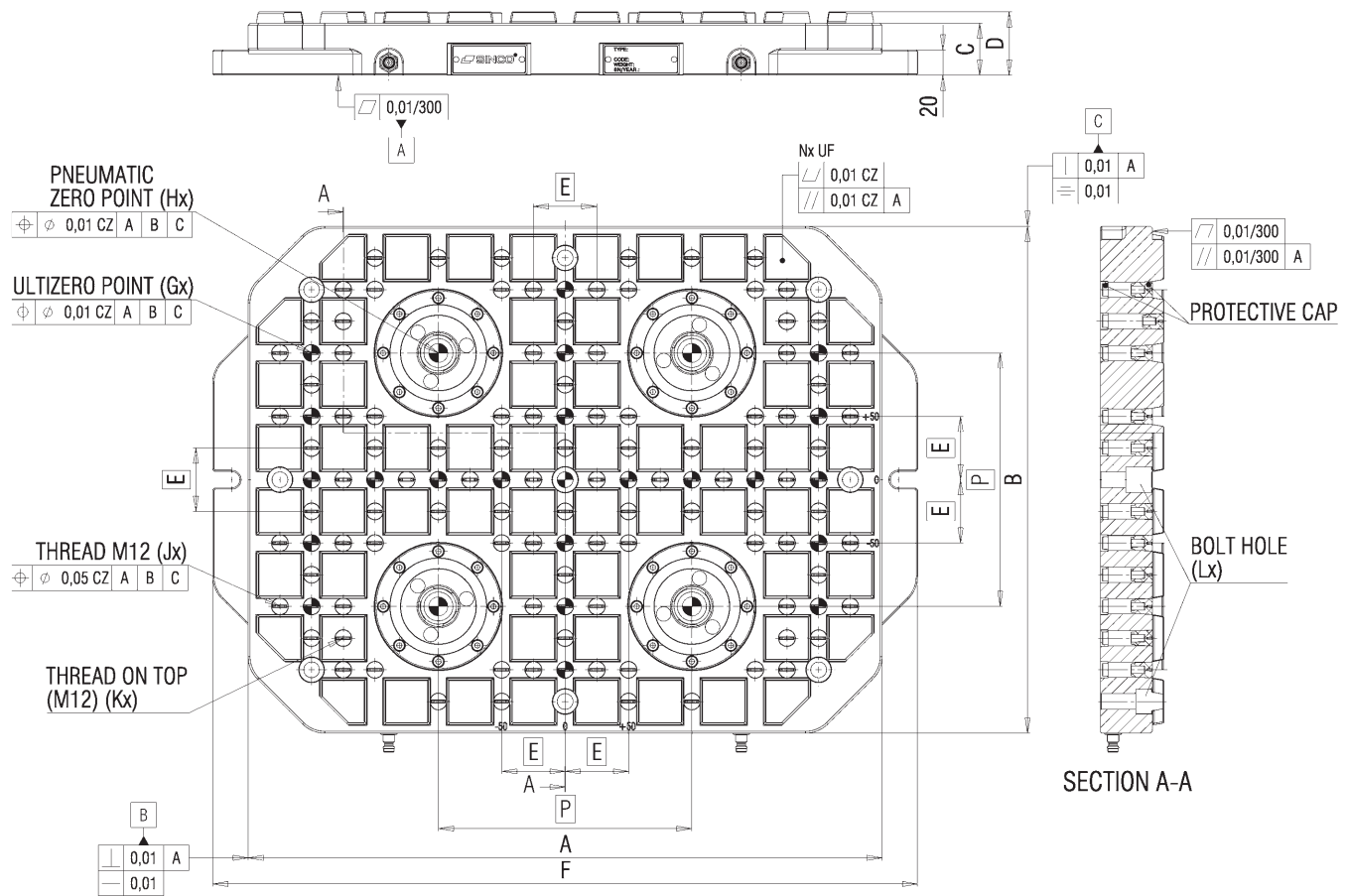
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3661-O	1264 (1200) x 630 x 50	55x	799x (Slot bottom) / 352x (Plate top)	11x	243.3 kg

MultiZero® Plate P100 3671



Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-3671-O	1464 (1400) x 630 x 50	65x	933x (Slot bottom) / 412x (Plate top)	11x	284.1 kg

MultiZero® Pneumatic Plate 3000

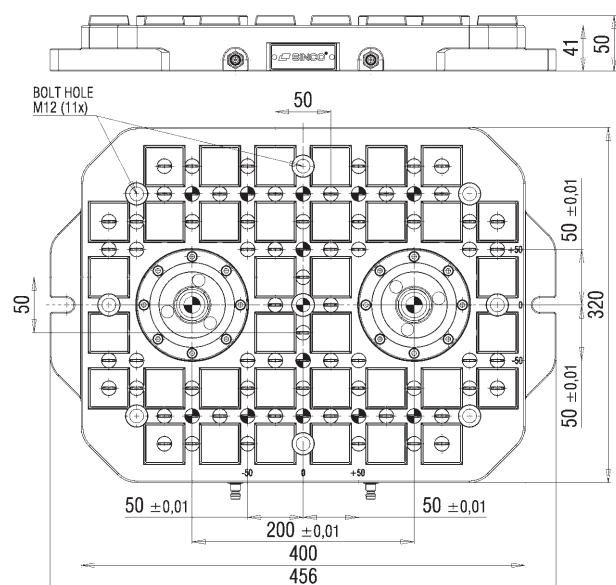


Example: MultiZero® Plate 3421

Size	A (mm)	B (mm)	C (mm)	D (mm)	E* (mm)	F (mm)	G*	H*	J*	P* (mm)	L*	Weight (kg)
3320	400	320	41.0	50	50	456	13	2	67	200	11xM12	42.2
3321	400	320	41.0	50	50	456	22	1	85	200	10xM12	40.1
3420	500	400	41.0	50	50	556	21	4	120	200	11xM12	67.9
3421	500	400	41.0	50	50	556	39	2	154	200	11xM12	64.5
3520	630	500	41.0	50	50	686	90	6	198	200	11xM12	106.9
3521	630	500	41.0	50	50	686	75	2	266	200	11xM12	101.1
3632	800	630	41.0	50	50	800	80	9	348	200	11xM16	170.5
3633	800	630	41.0	50	50	800	89	8	368	200	11xM16	169.0
3652	1000	630	41.0	50	50	1000	83	12	432	200	11xM16	214.6
3653	1000	630	41.0	50	50	1000	133	8	500	200	11xM16	208.0

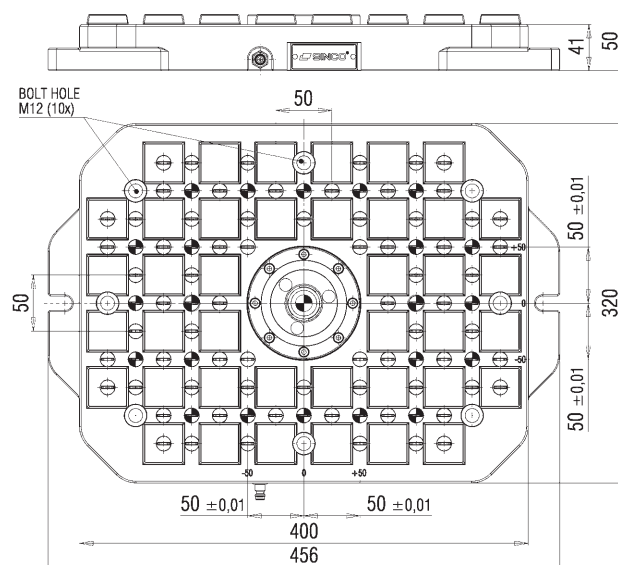
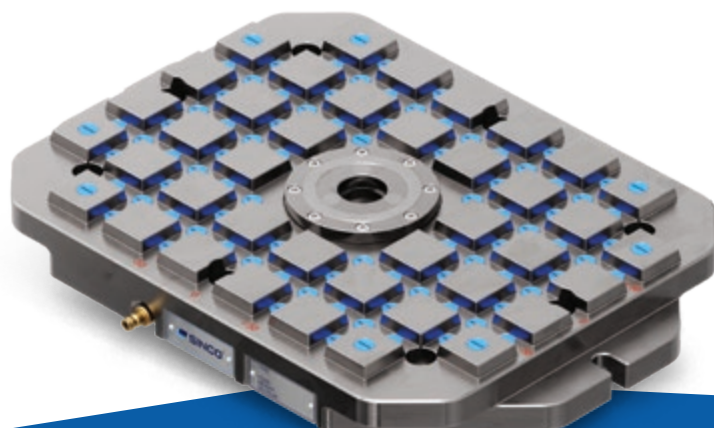
E* - MultiZero® point pitch / G* - MultiZero® Points qty. / H* - Pneumatic zero points qty. / J* - Thread holes (M12) on slot bottom qty. / K* - Thread holes on top qty. / L* - Clamping bolts (M12/M16) qty. / P* - Pneumatic zero points pitch / All plates are made from corrosion-resistant steel.

MultiZero® Pneumatic Plate 3320



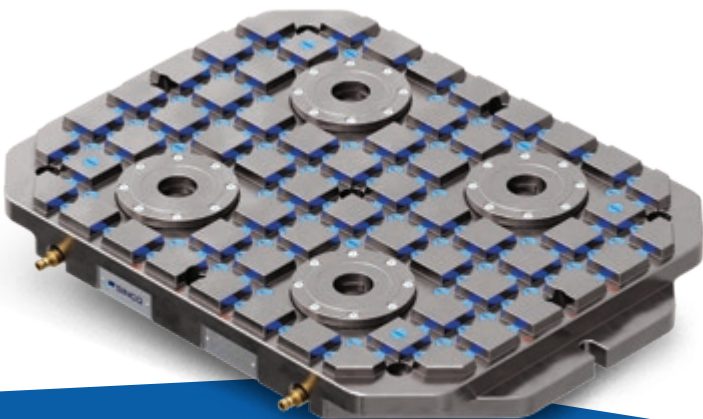
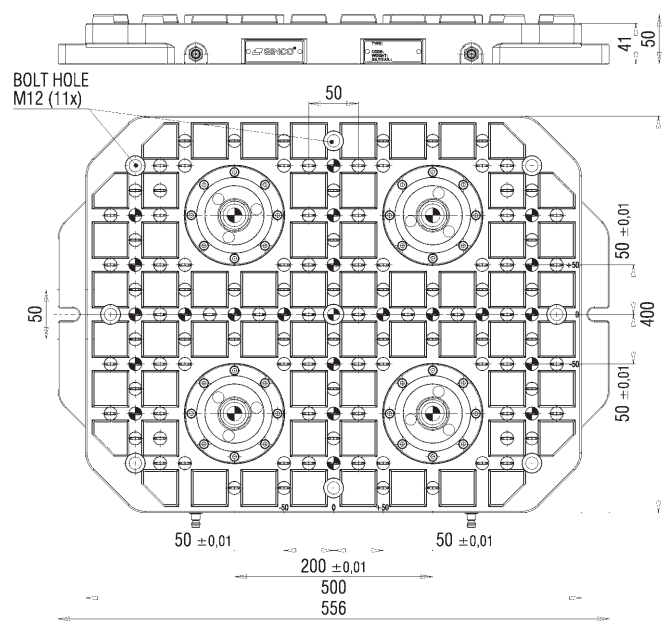
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-3320-0	456 (400) x 320 x 50	2x	13x	67x	42,2 kg

MultiZero® Pneumatic Plate 3321



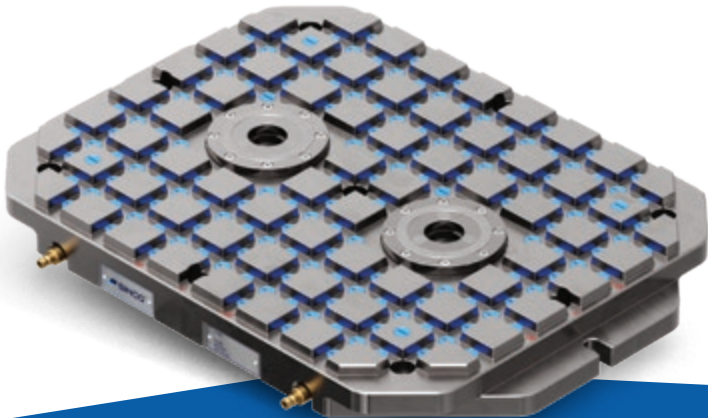
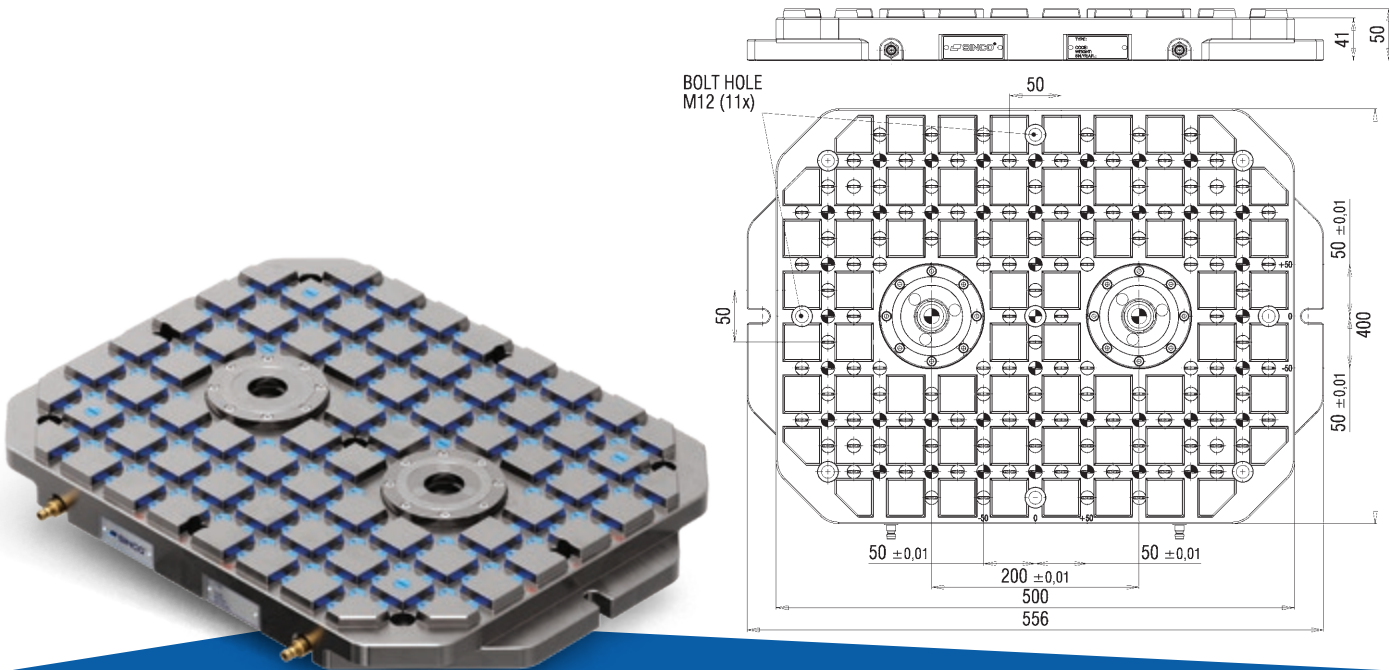
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-3321-0	456 (400) x 320 x 50	1x	22x	85x	40,1 kg

MultiZero® Pneumatic Plate 3420



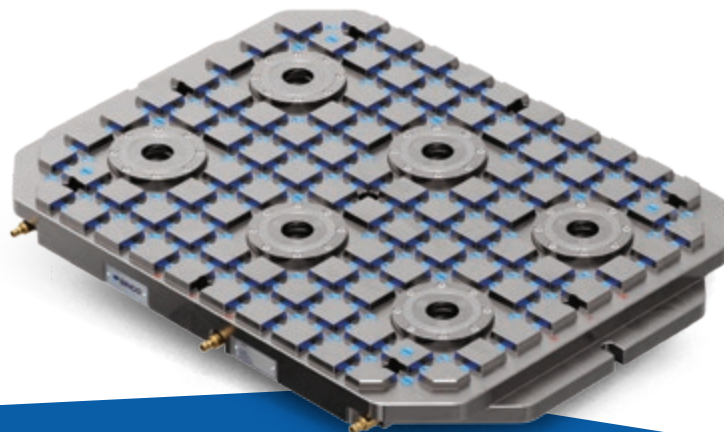
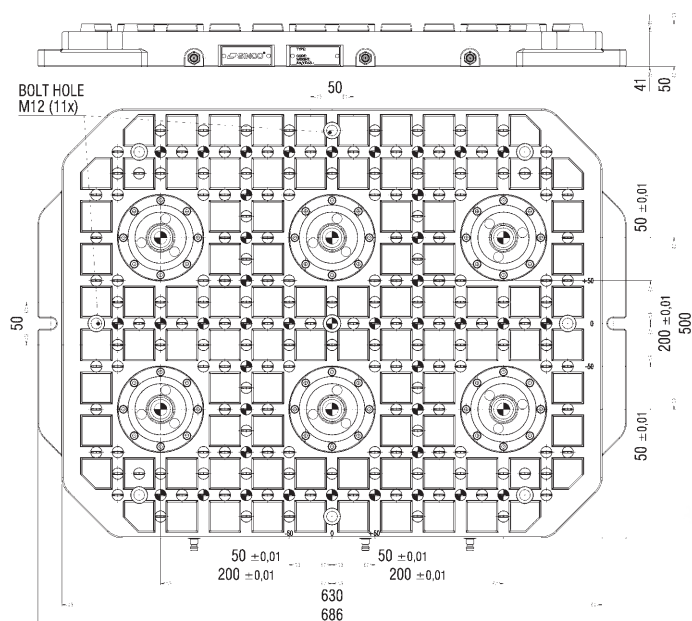
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-3420-0	556 (500) x 400 x 50	4x	23x	120x	67.9 kg

MultiZero® Pneumatic Plate 3421



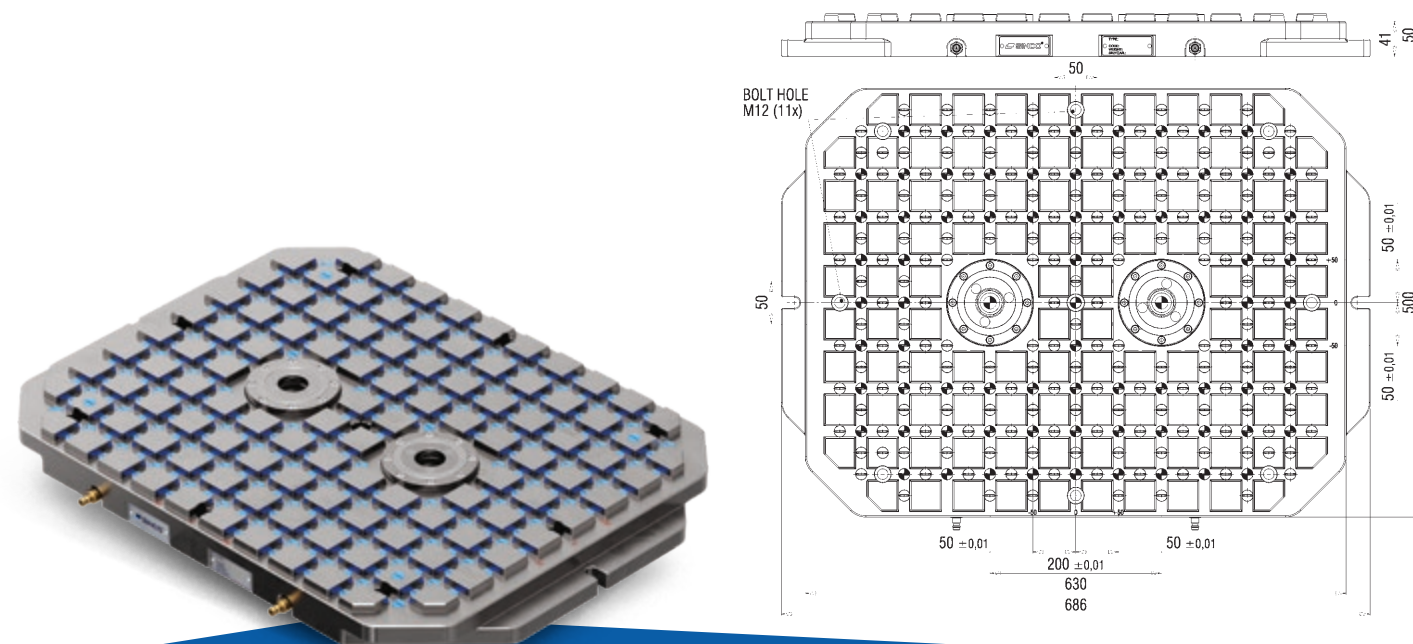
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-3421-0	556 (500) x 400 x 50	2x	41x	154x	64.5 kg

MultiZero® Pneumatic Plate 3520



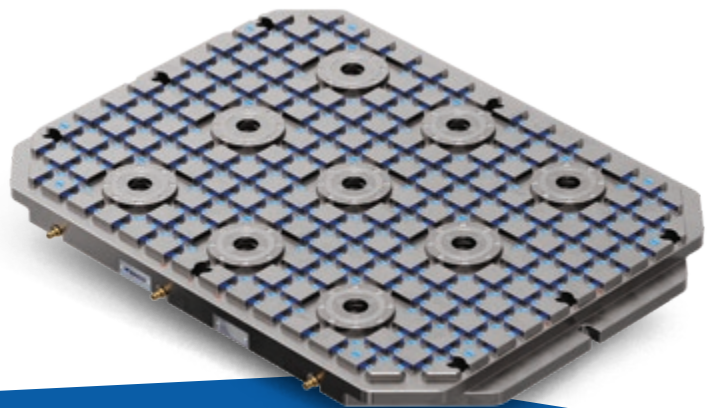
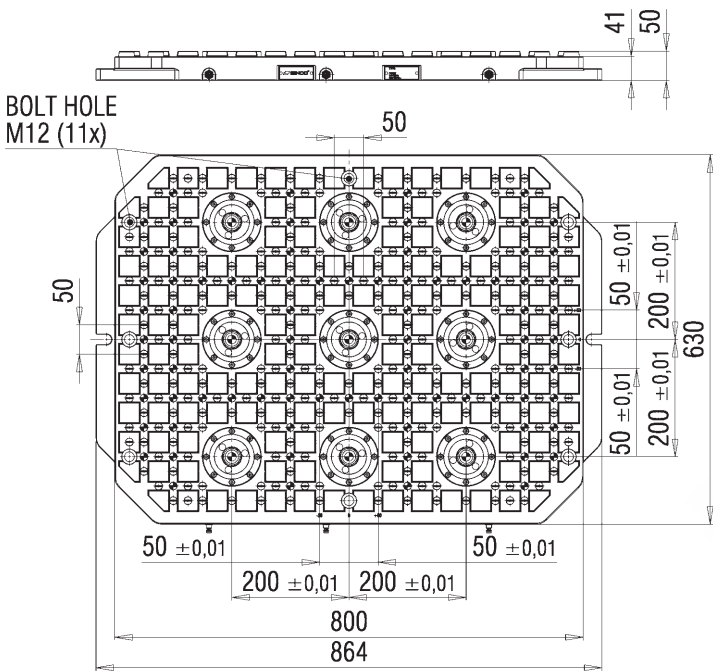
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-3520-0	686 (630) x 500 x 50	6x	93x	198x	106.9 kg

MultiZero® Pneumatic Plate 3521



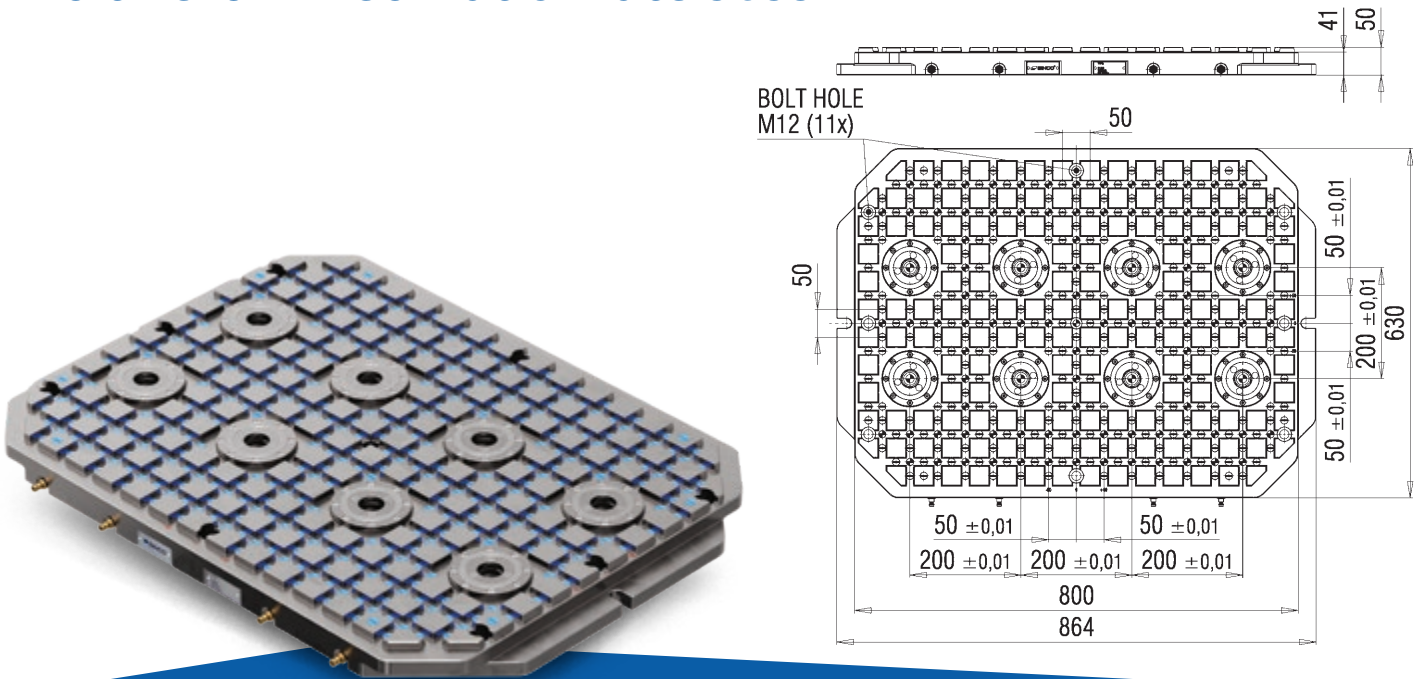
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-3521-0	686 (630) x 500 x 50	2x	77x	266x	101.1 kg

MultiZero® Pneumatic Plate 3632

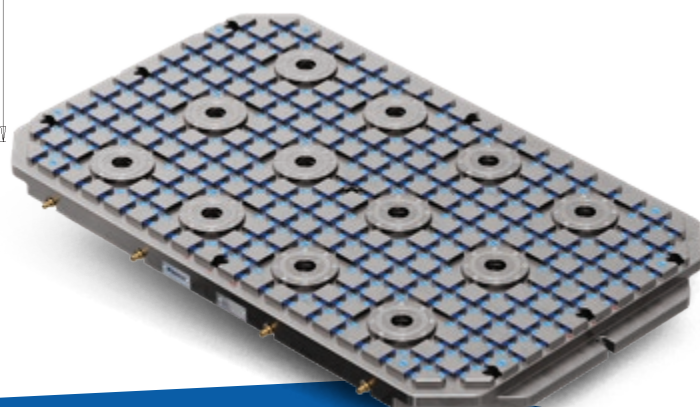
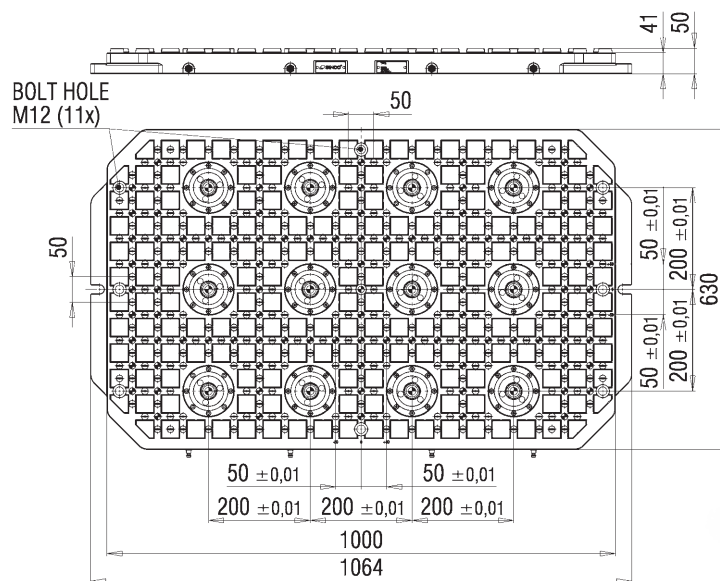


Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-3632-0	864 (800) x 630 x 50	9x	80x	348x	170.5 kg

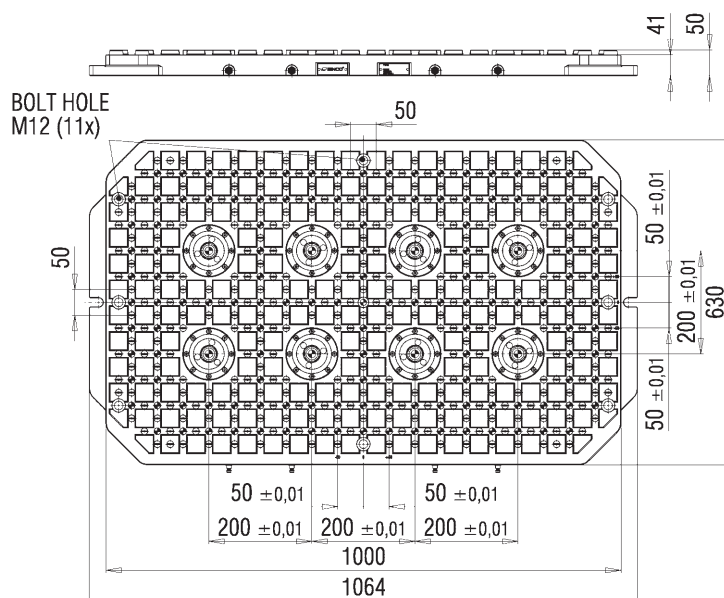
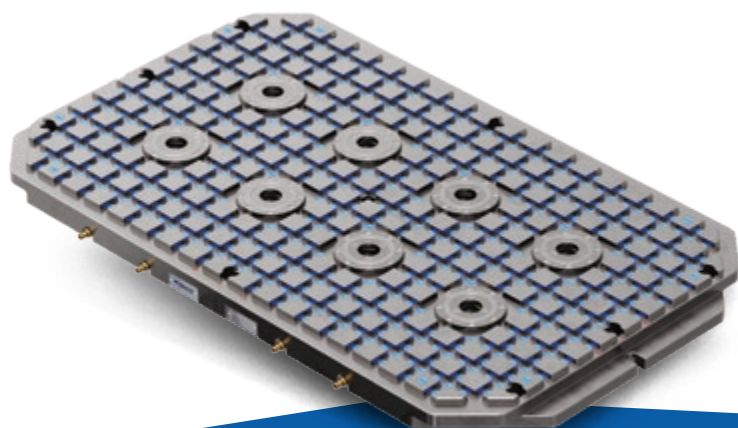
MultiZero® Pneumatic Plate 3633



Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-3633-0	864 (800) x 630 x 50	8x	89x	368x	169.0 kg

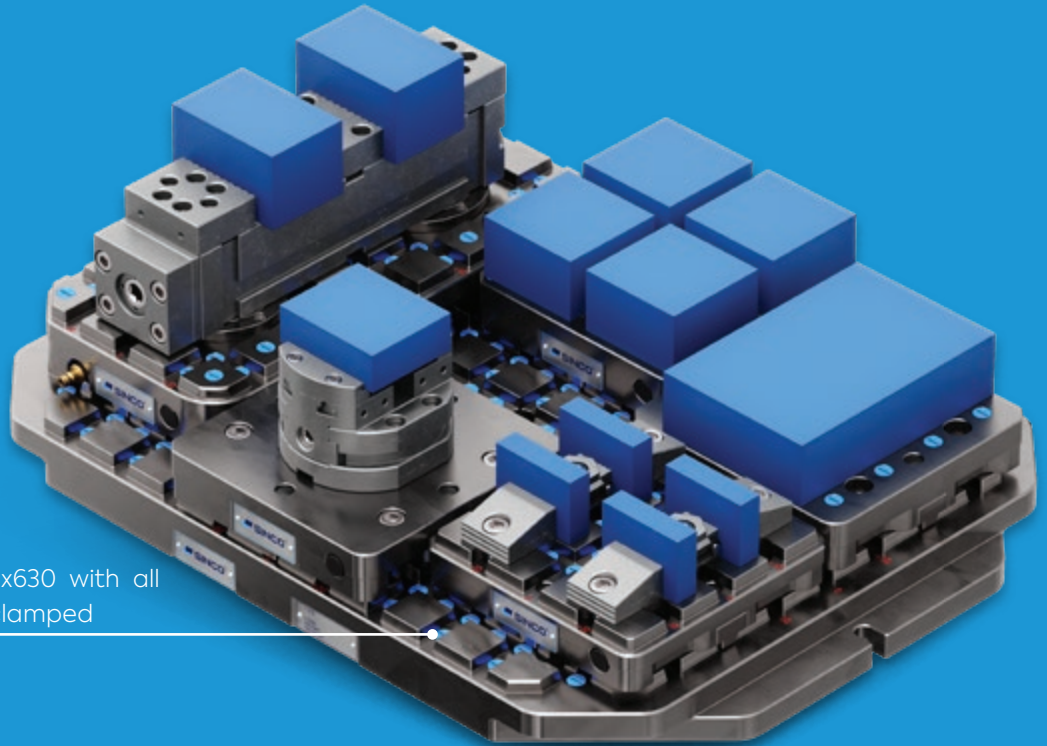


Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-3652-0	1064 (1000) x 630 x 50	12x	83x	432x	214.6 kg

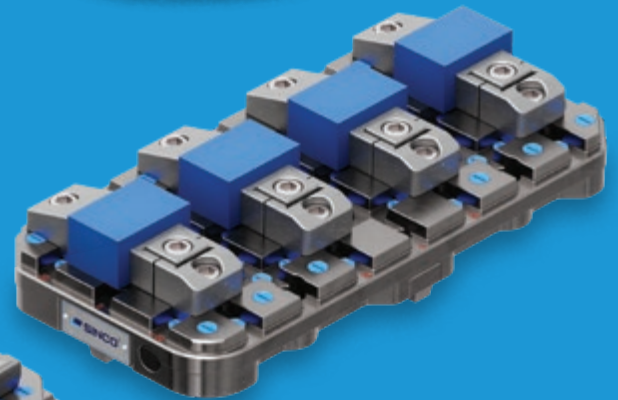


Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-3653-0	1064 (1000) x 630 x 50	8x	133x	500x	208.0 kg

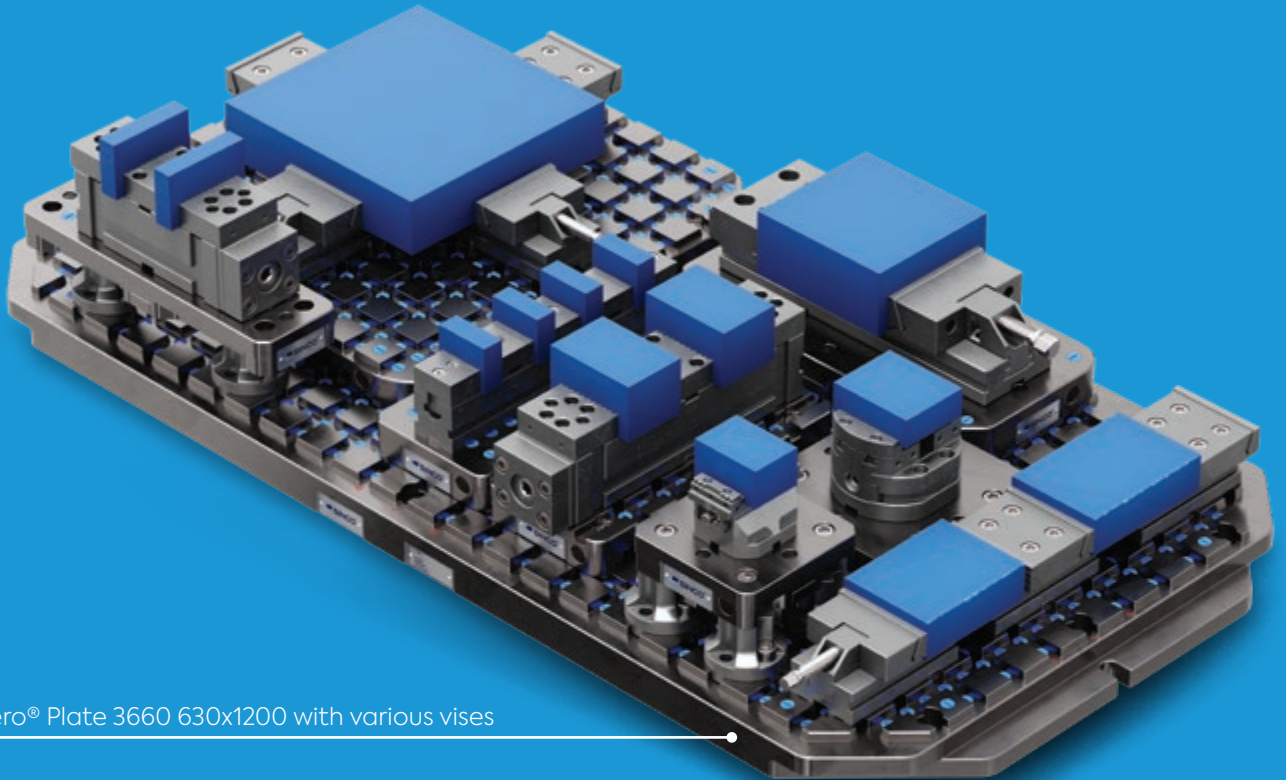
Plate 3000 Examples



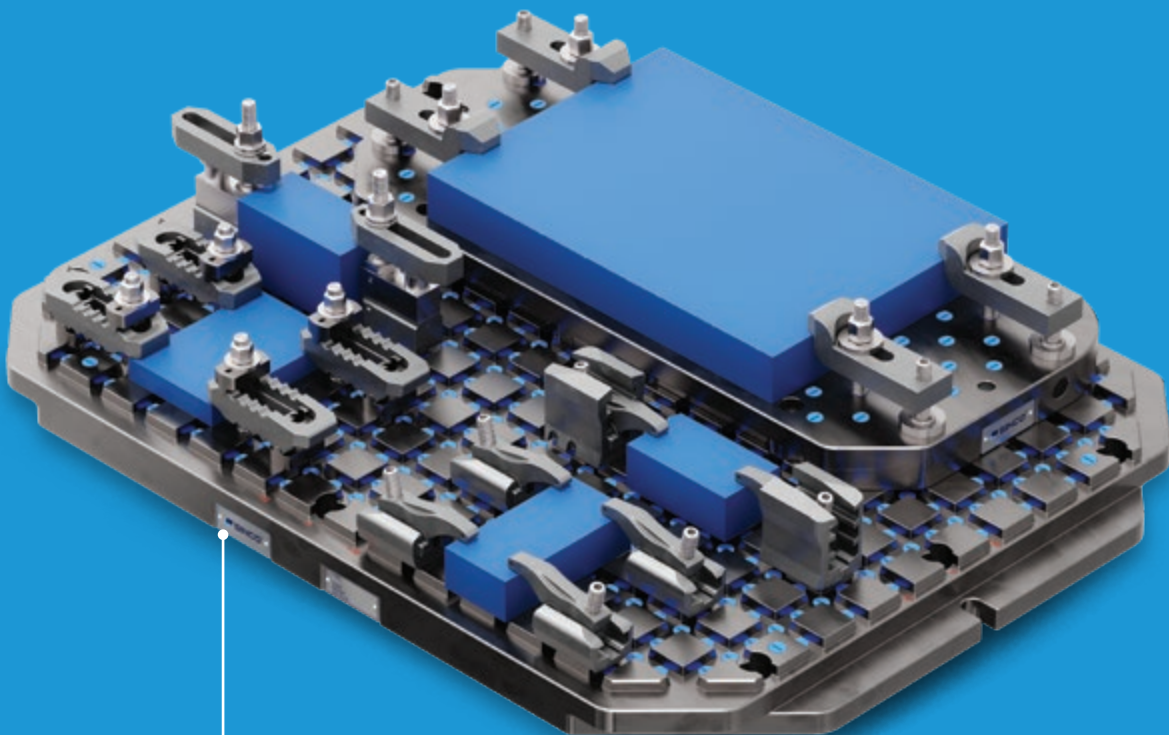
MultiZero® Plate 3500 500x630 with all types of MultiZero® Pallets clamped



MultiZero® Pneumatic Plate 3520 500x630 with two MultiZero® Pallets and a vise



MultiZero® Plate 3660 630x1200 with various vises



MultiZero® Plate 3630 630x800 with various classic clamping elements

MultiZero® Plate Series 5000



Series 5000 Overview

MultiZero® Plates family 5000 is designed to cover five axis machines with square table sizes (AxA). With great selection of base plates, pallets and fixtures, the MultiZero® system is

made to be flexible enough for serial production and cover clamping of complex workpieces at the same time. The MultiZero® System is designed to be very simple and easy to use. Easy

set-up, repeatability in clamping and set-up of the machine makes it ideal for all types of production from single-part production, low-volume to serial production.

MultiZero® Plate Series 5000 Advantages

- Used for clamping pallets, workpieces, vises and fixtures directly
- Zero point at every cross section of centering slots
- Zero points in array of 50x50 mm at type P50 and array of 100x100 mm at type P100
- Clamping thread holes M12 in array of 25x25 mm
- Great flexibility and machine table usage due to large number of zero points
- One step positioning and clamping at every zero point
- High repeatability and system accuracy with every clamping
- High retention forces (65kN) and highest allowed lateral forces at every zero point
- Unique system for compensation of vibrations and thermal expansions
- System provides automatic clamping with pneumatic modules and the best compensation for the lateral forces on the market
- Good for clamping complex asymmetrical parts for single-part production
- Clamping system capable of quickly adjusting to various needs
- Great modularity with large selection of various types and sizes of pallets, fixtures and vises
- Compatible with classic tightening methods and clamping elements

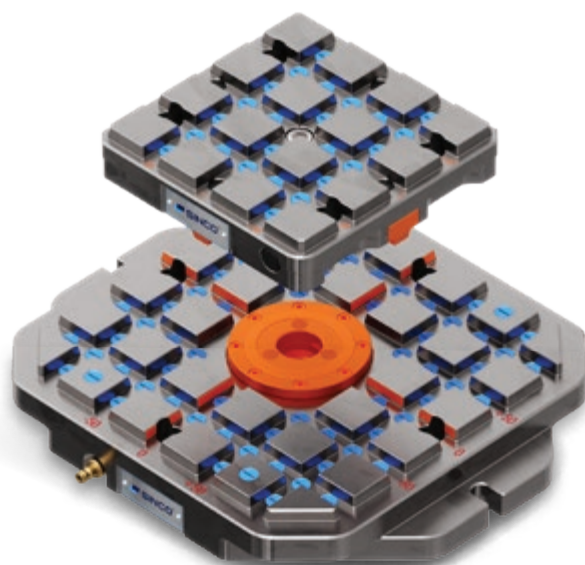
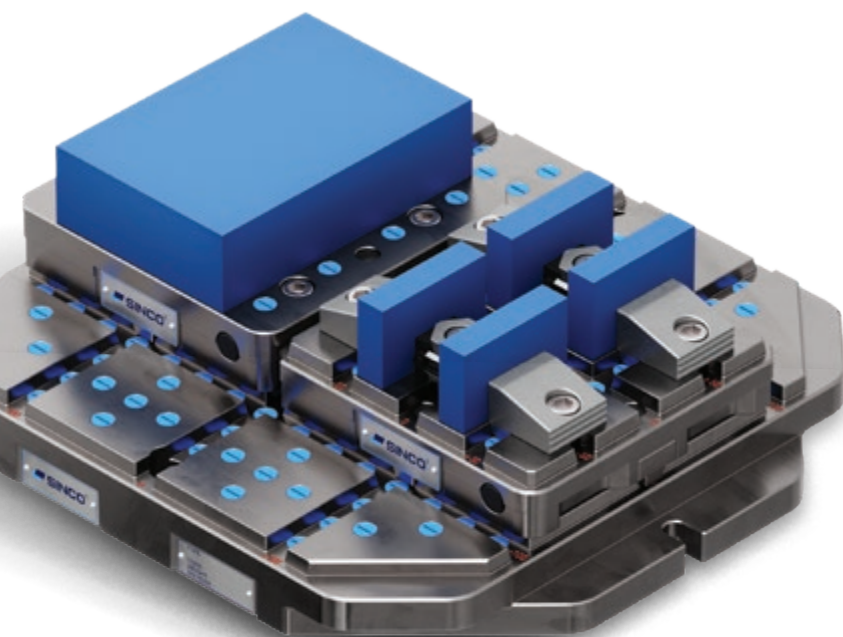


Positioning and clamping of the workpieces onto the pallet is done off the machine, having simultaneous operation on the machine. This leads to higher productivity and makes the system most suitable for serial and low volume production, even on classic machines. Multiple pallets, workpieces and fixtures can be clamped with high speed and simplicity, maintaining high repeatability and the positioning accuracy.

The system has high rigidity and is capable of withstanding high machining forces. It doesn't have the disadvan-

tages of known similar solution in relation to the forces and rigidity. Clamping with bolts or automatically with

pneumatic modules, accommodate the Z axis, where the other two axes are accommodated by aligning members.



MultiZero® System offers
up to 273 zero points
in one solution – most
on the market.

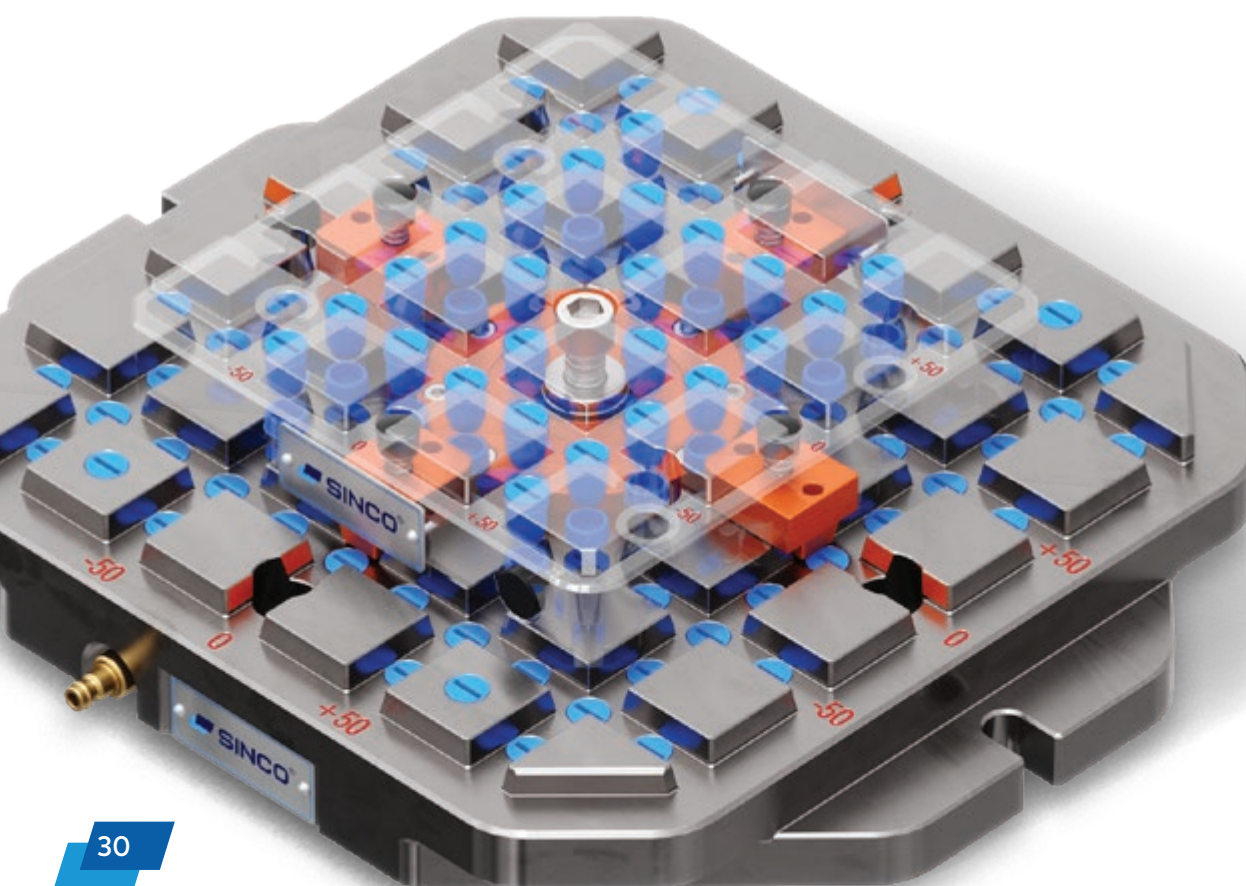
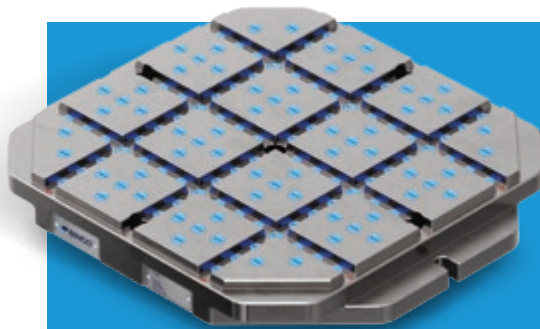
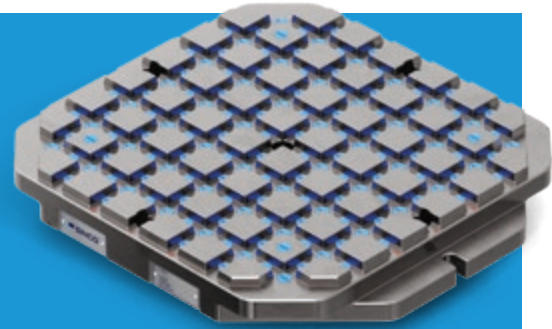


Plate types

MultiZero® Plate P50

- Used for clamping pallets, workpieces, vises and clamping fixtures directly
- Slot pitch 50 mm
- Zero point array 50 x 50

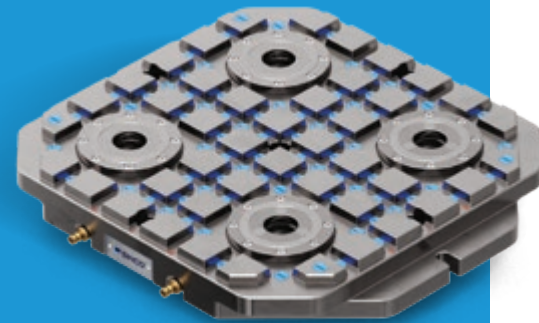


MultiZero® Plate P100

- Used for clamping pallets, workpieces, vises and clamping fixtures directly
- Slot pitch 100 mm
- Zero point array 100 x 100

MultiZero® Pneumatic Plate

- Used for clamping pallets, workpieces, vises and fixtures automatically
- Supports standard manual clamping of pallets, workpieces, vises and fixtures
- Slot pitch 50 mm
- Zero point array 50 x 50
- Pneumatic zero-point array 200 x 200



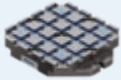
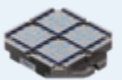
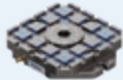
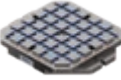
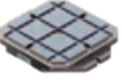
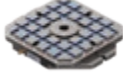
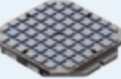
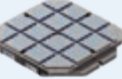
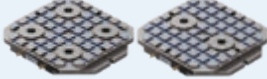
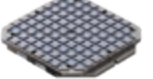
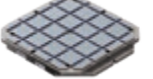
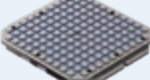
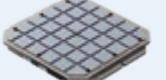
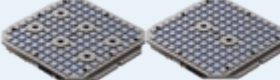
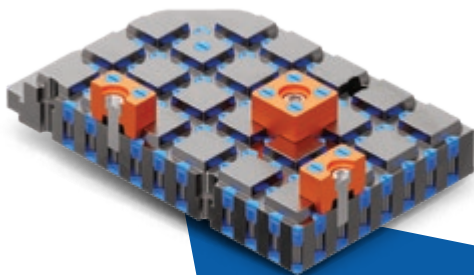
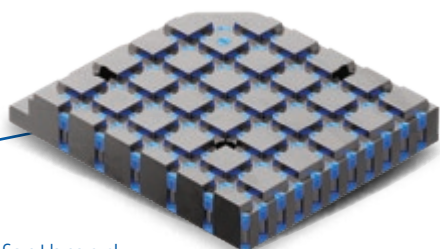
Size in mm	MultiZero® P50	MultiZero® P100	MultiZero® Pneumatic
240x240	 1B1-5300-0	 1B1-5310-0	 1B1-5320-0
320x320	 1B1-5400-0	 1B1-5410-0	 1B1-5420-0
400x400	 1B1-5500-0	 1B1-5510-0	 1B1-5520-0 1B1-5521-0
500x500	 1B1-5630-0	 1B1-5631-0	 1B1-5632-0 1B1-5633-0
630x630	 1B1-5800-0	 1B1-5810-0	 1B1-5820-0 1B1-5821-0

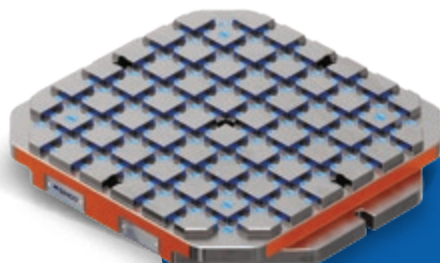
Plate features



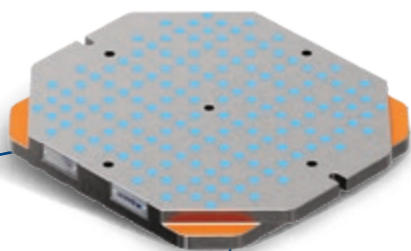
- MultiZero® point at every cross section of conical slots
- Security gap – centering elements don't touch the slot bottom



- Plastic protectors for thread holes (supplied)



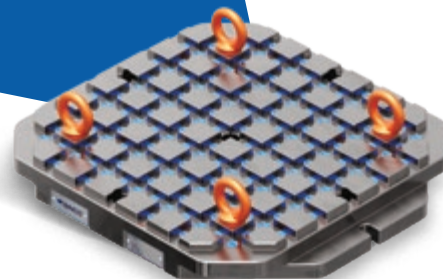
- Precise pallet sides used for centering

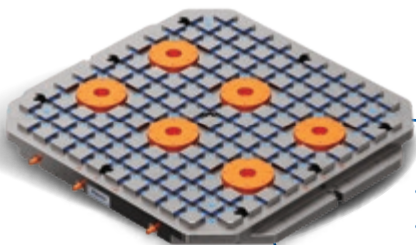


- Handling grooves on the underside



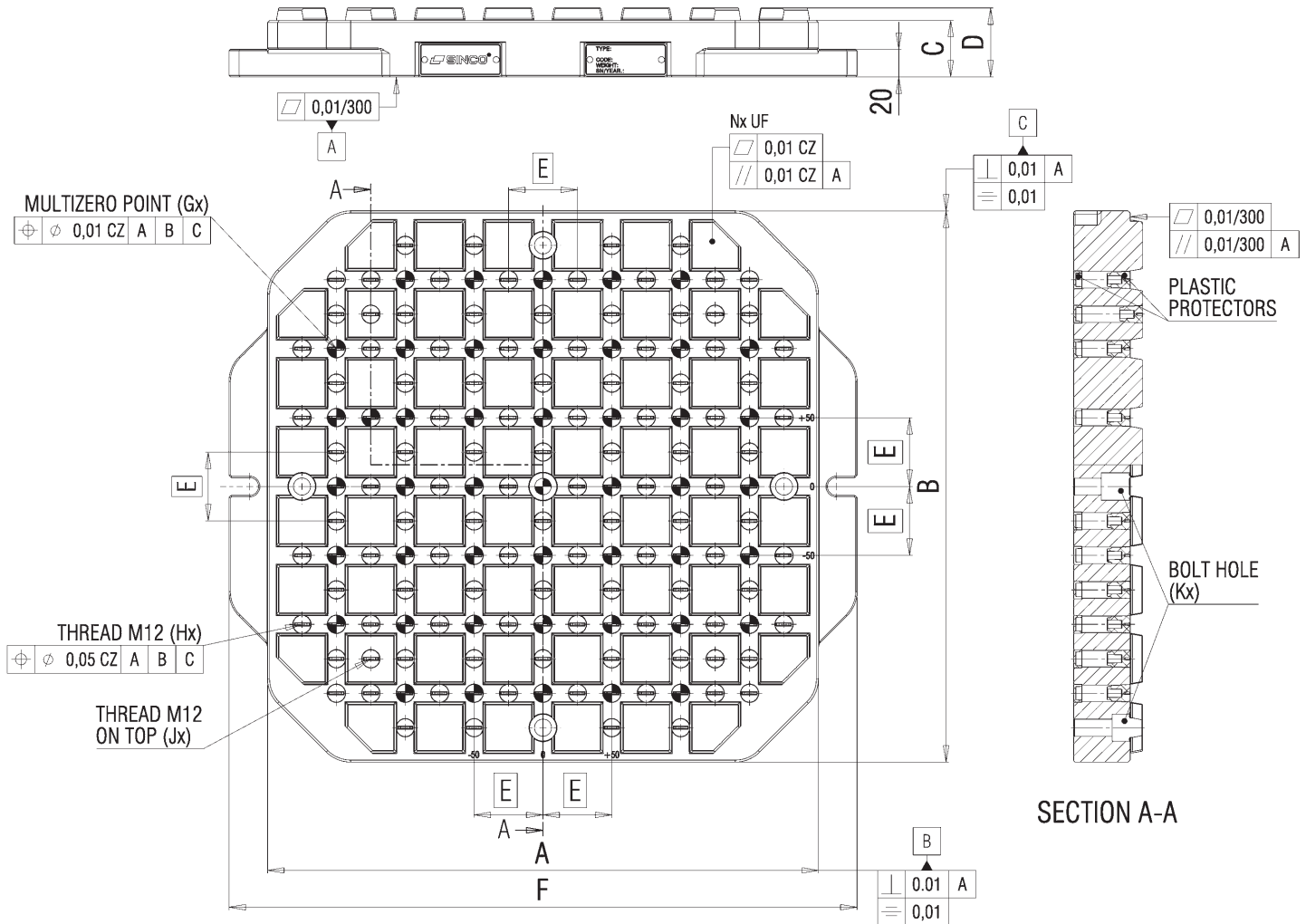
- M12 thread holes for lifting eyebolts





- Pneumatic modules with zero points
 - Available on MultiZero® Pneumatic Plate and MultiZero® Pneumatic Pallets
 - Enables fully automated production
- Technical data:
Retention force (per each pneumatic module): 55 kN | Air pressure: min. 5 bar, max. 10 bar | Operating temperature: +10 to +80°C | Min. release time 0.2 seconds

MultiZero® Plate 5000 P50

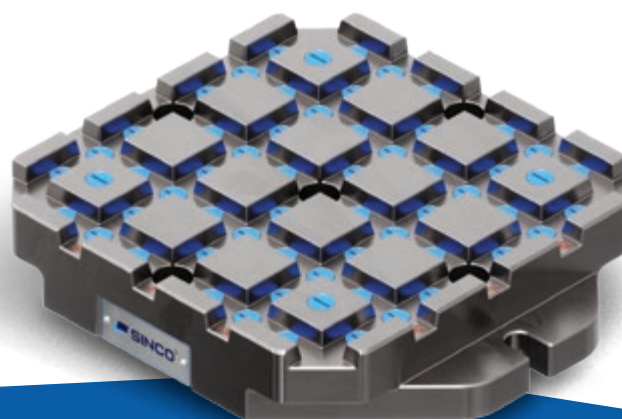
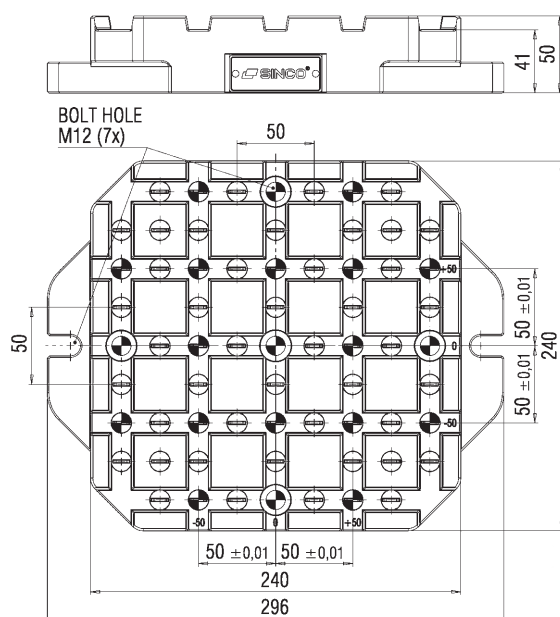


Example: MultiZero® Plate 5500

Size	A (mm)	B (mm)	C (mm)	D (mm)	E* (mm)	F (mm)	G*	H*	J*	K*	Weight (kg)
5300	240	240	41.0	50.0	50	296	21	56	4	7xM12	17.8
5400	320	320	41.0	50.0	50	376	25	80	4	7xM12	31.0
5500	400	400	41.0	50.0	50	456	45	148	4	7xM12	48.8
5630	500	500	41.0	50.0	50	556	77	140	4	11xM12	76.7
5800	630	630	41.0	50.0	50	694	117	368	4	10xM16+ 1xM12	122.7

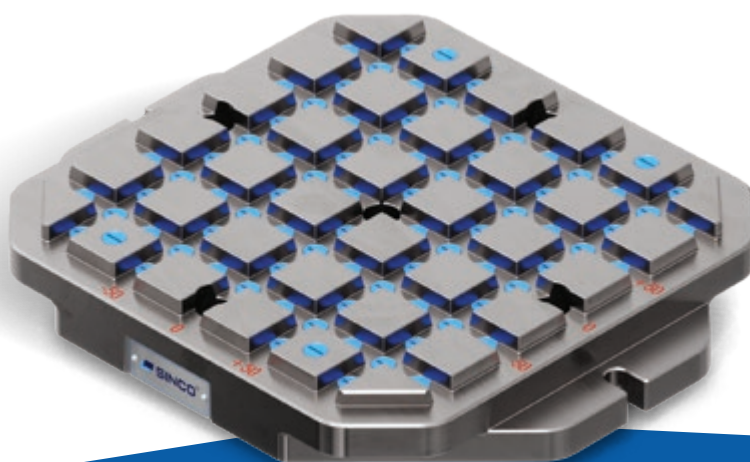
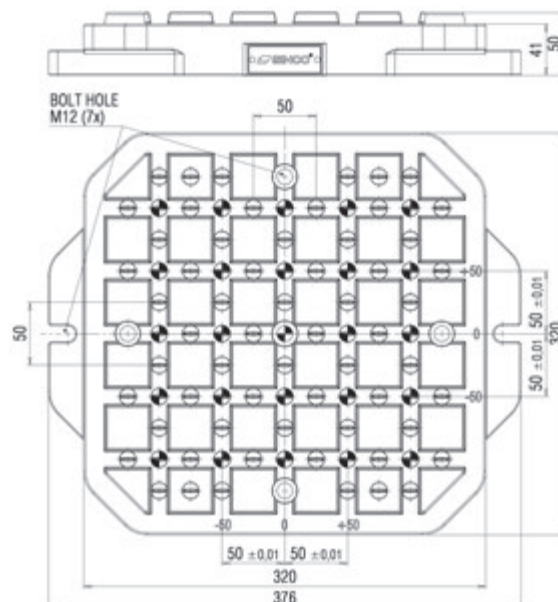
E* - MultiZero® point pitch / **G*** - MultiZero® Points qty. / **H*** - Thread holes (M12) on slot bottom qty. / **J*** - Thread holes (M12) on top qty. / **K*** - Clamping bolts (M12/M16) qty. / All plates are made from corrosion-resistant steel.

MultiZero® Plate P50 5300



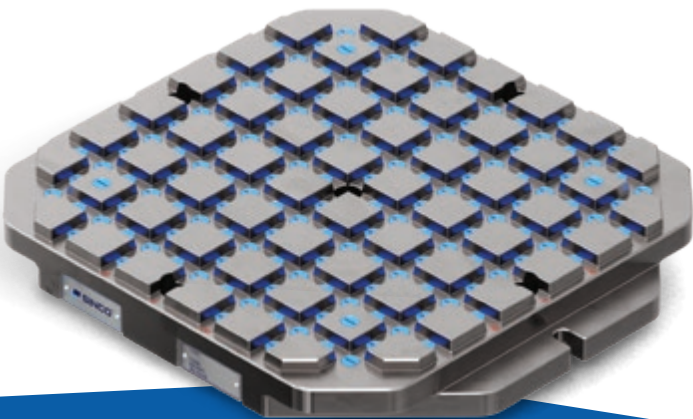
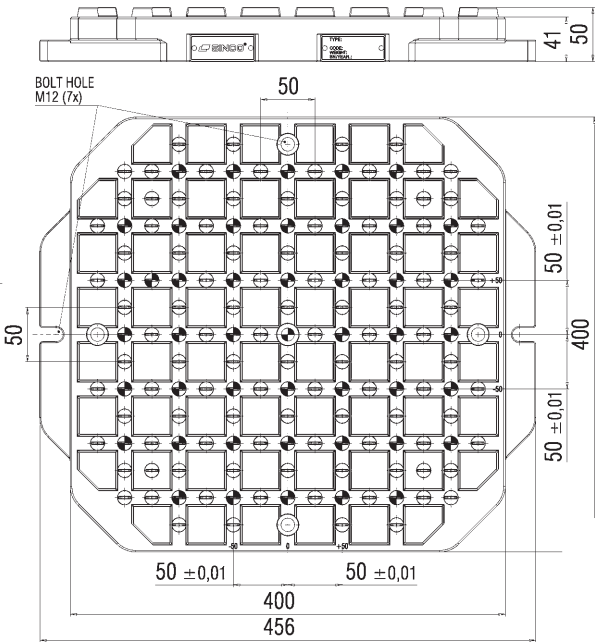
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-5300-0	296 (240) x 240 x 50	21x	56x	7x M12	17.8 kg

MultiZero® Plate P50 5400



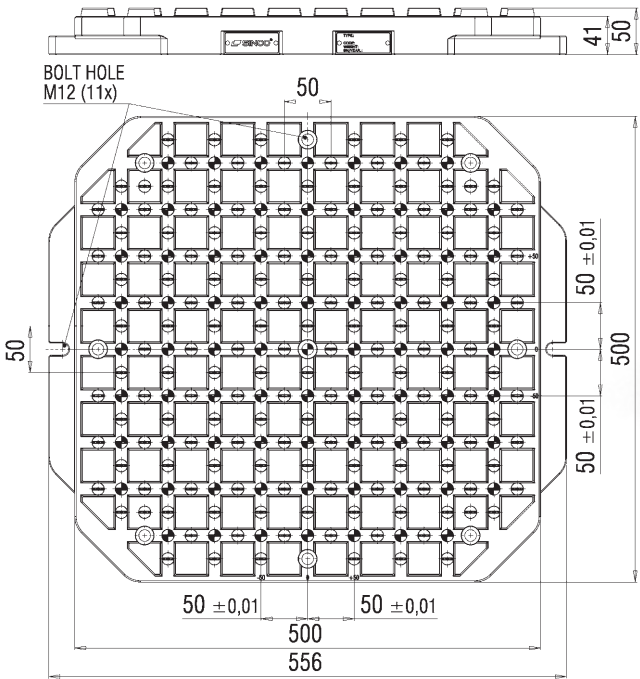
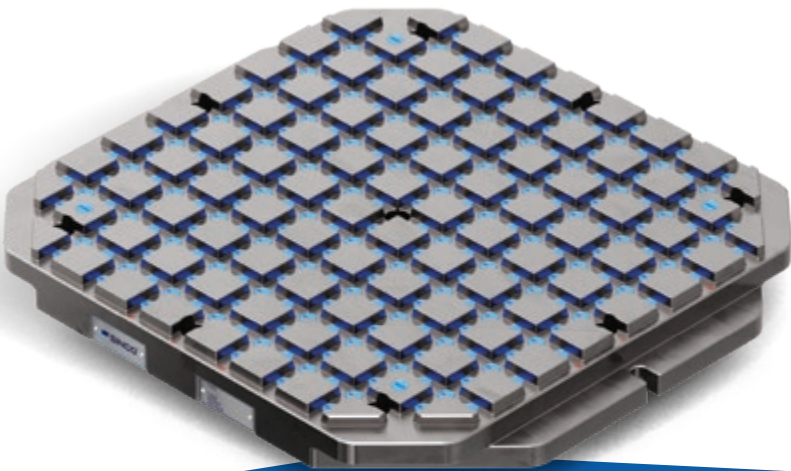
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-5400-0	376 (320) x 320 x 50	25x	80x	7x M12	31.0 kg

MultiZero® Plate P50 5500



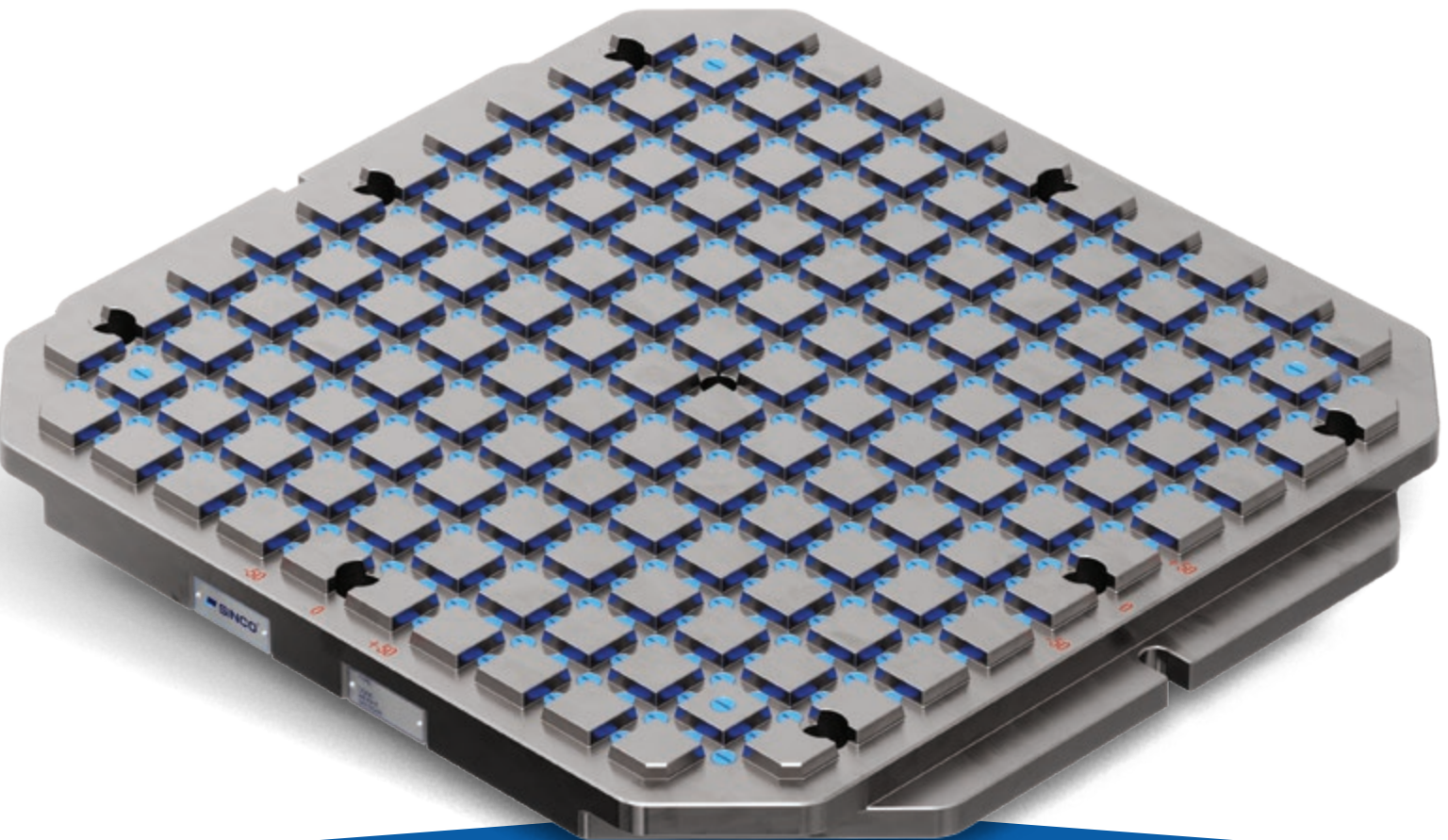
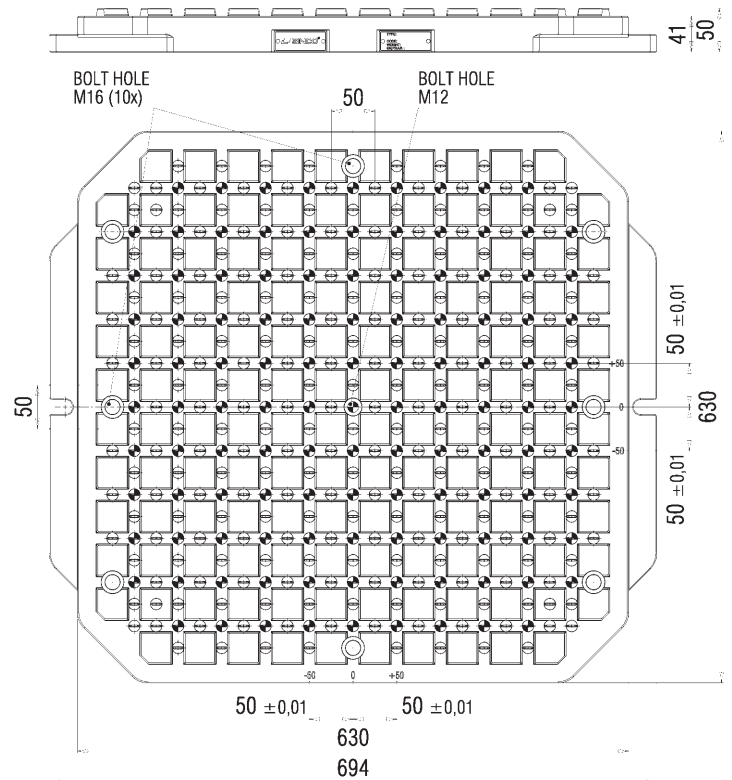
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-5500-0	456 (400) x 400 x 50	45x	148x	7x M12	48.8 kg

MultiZero® Plate P50 5630



Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-5630-0	556 (500) x 500 x 50	77x	140x	11x M12	76.7 kg

MultiZero® Plate P50 5800



Order No.

1B1-5800-0

Dimensions (mm)

694 (630) x 630 x 50

Zero points

117x

Thread holes M12

368x

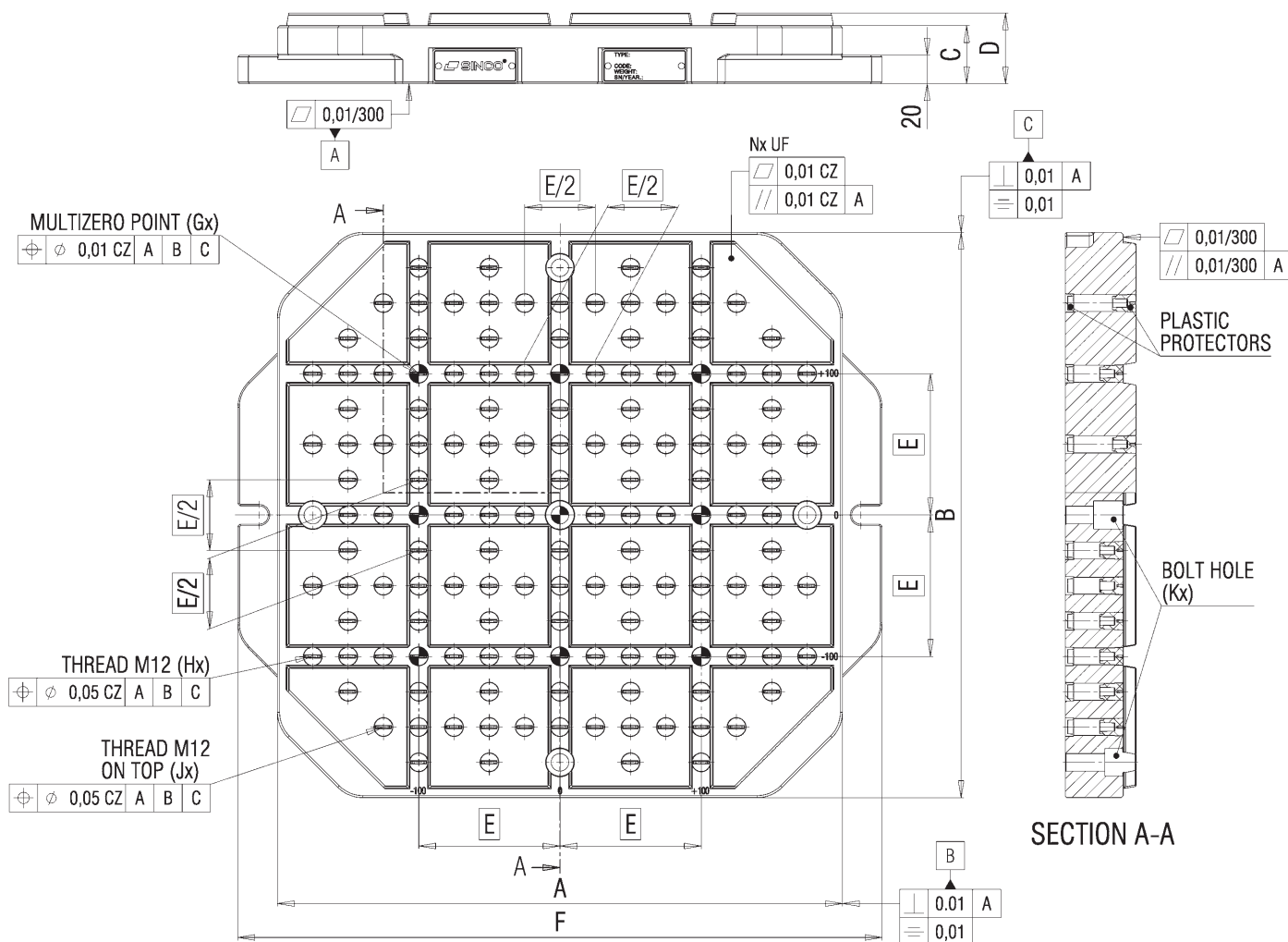
Clamping bolts

10x M16 + 1x M12

Weight

122.7 kg

MultiZero® Plate 5000 P100

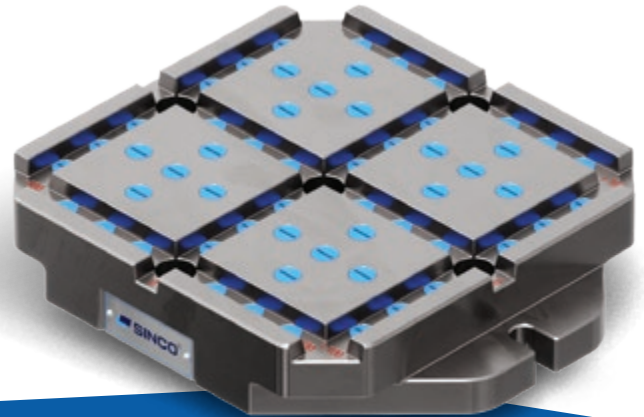
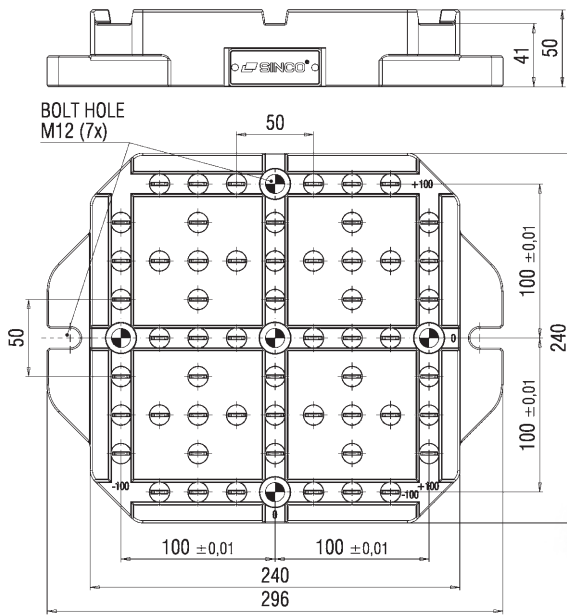


Example: MultiZero® Base Plate 5510

Size	A (mm)	B (mm)	C (mm)	D (mm)	E* (mm)	F (mm)	G*	H*	J*	K*	Weight (kg)
5310	240	240	41.0	50.0	100	296	5	46	20	7xM12	18.6
5410	320	320	41.0	50.0	100	376	9	52	44	7xM12	31.2
5510	400	400	41.0	50.0	100	456	9	68	76	7xM12	50.9
5631	500	500	41.0	50.0	100	556	21	96	144	11xM12	79.2
5810	630	630	41.0	50.0	100	694	25	168	196	10xM16+ 1xM12	127.3

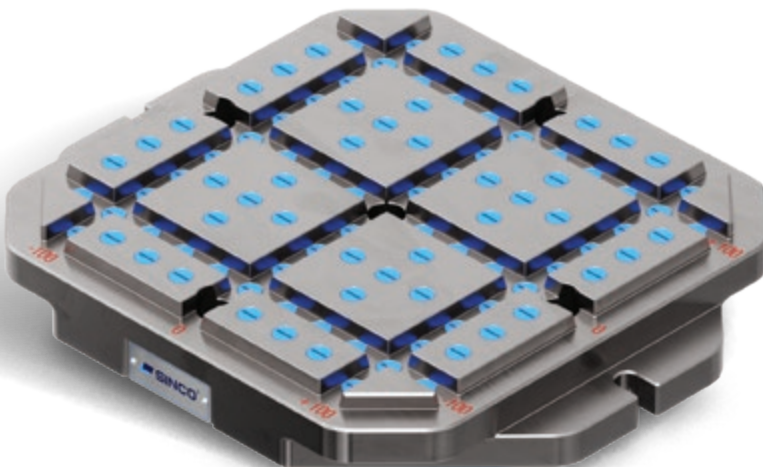
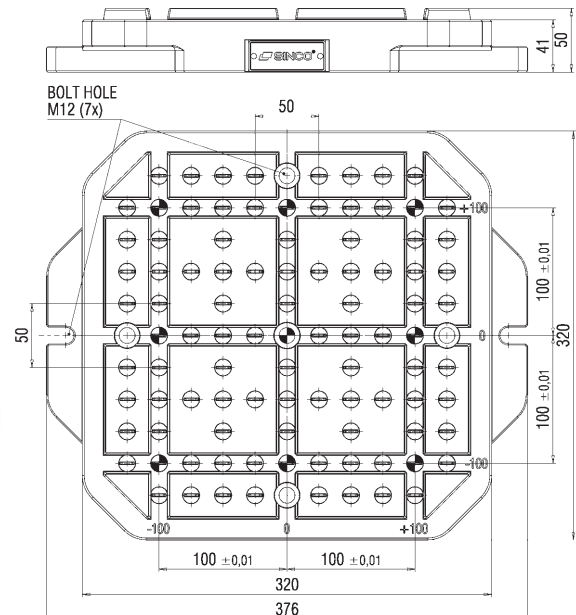
E* - MultiZero® point pitch / G* - MultiZero® Points qty. / H* - Thread holes (M12) on slot bottom qty. / J* - Thread holes (M12) on top qty. / K* - Clamping bolts (M12/M16) qty. / All plates are made from corrosion-resistant steel.

MultiZero® Plate P100 5310



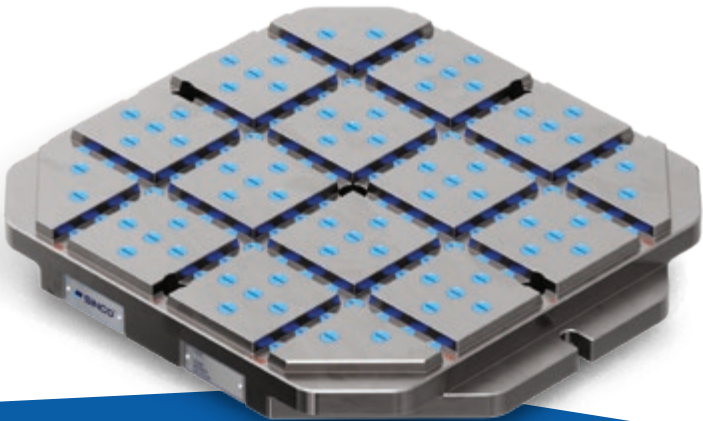
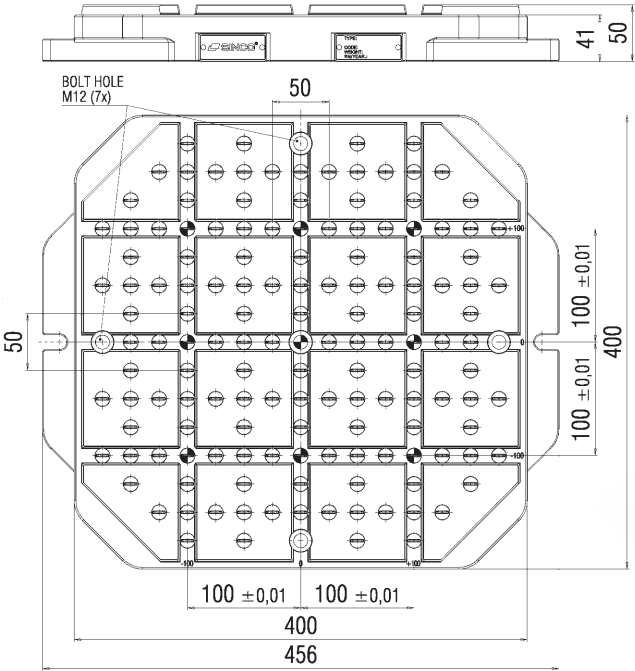
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-5310-0	296 (240) x 240 x 50	5x	46x (Slot bottom) / 20x (Plate top)	7x M12	18.6 kg

MultiZero® Plate P100 5410



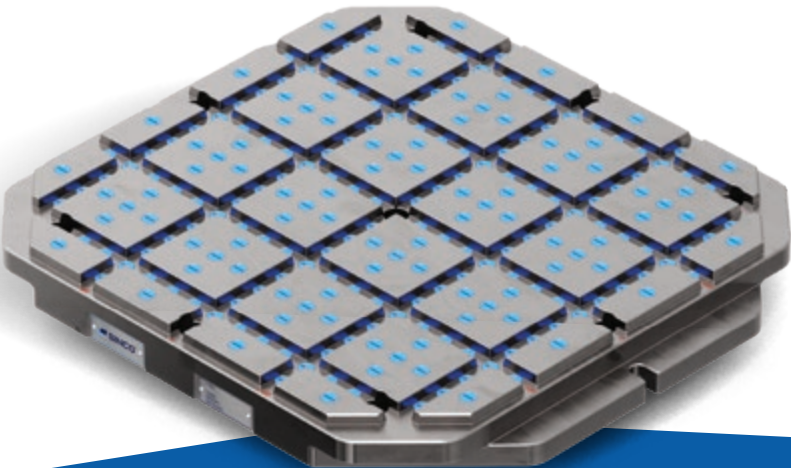
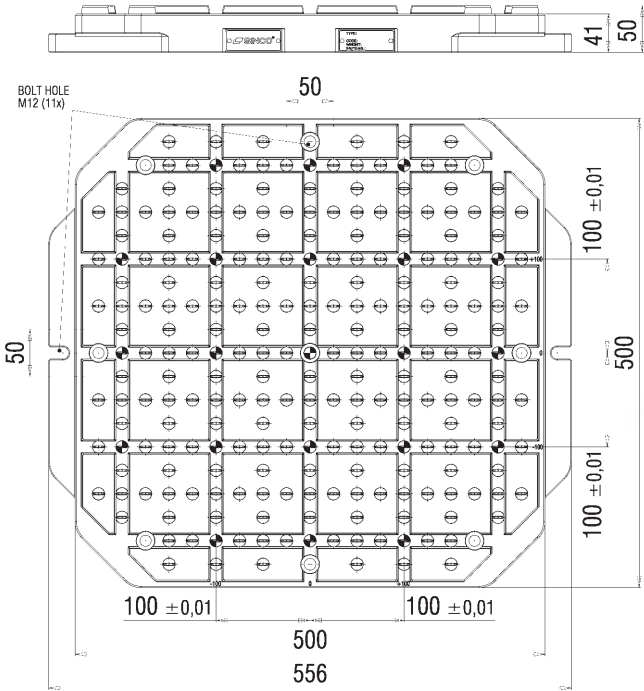
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-5410-0	376 (320) x 320 x 50	9x	52x (Slot bottom) / 44x (Plate top)	7x M12	31.2 kg

MultiZero® Plate P100 5510



Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-5510-0	456 (400) x 400 x 50	9x	76x (Slot bottom) / 68x (Plate top)	7x M12	50.9 kg

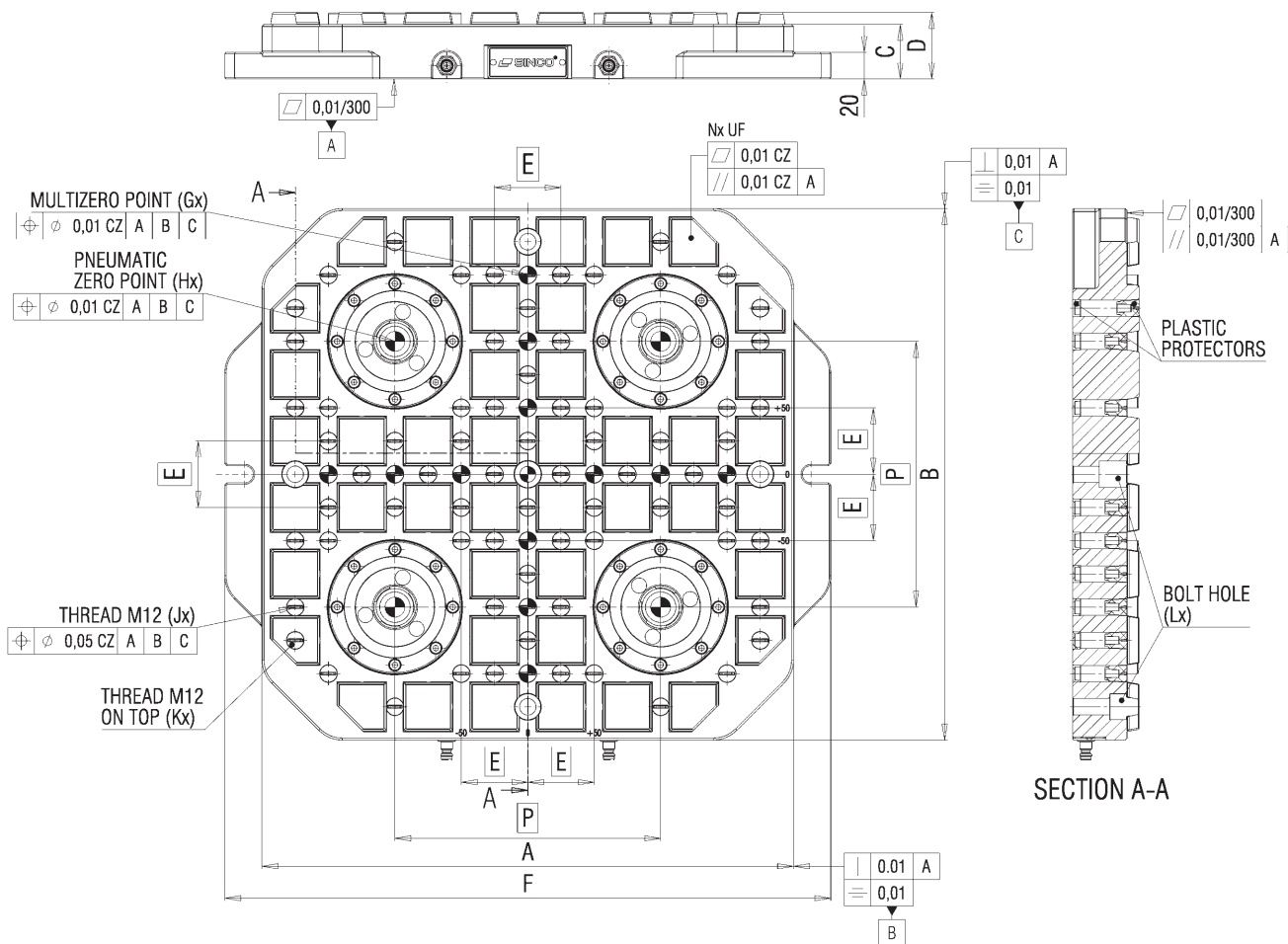
MultiZero® Plate P100 5631



Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-5631-0	556 (500) x 500 x 50	21x	144x (Slot bottom) / 96x (Plate top)	11x M12	79.2 kg

Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B1-5810-0	694 (630) x 630 x 50	25x	196x (Slot bottom) / 168x (Plate top)	11x M12	127.3 kg

MultiZero® Pneumatic Plate 5000

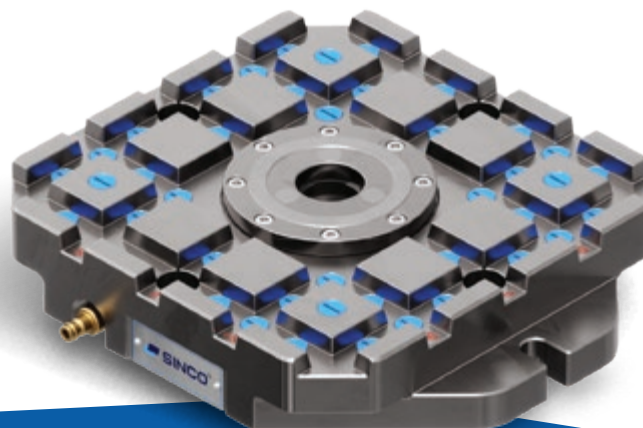
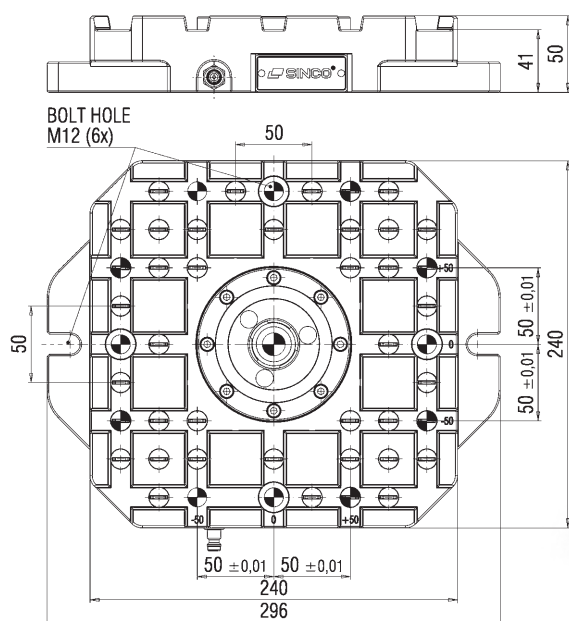


Example: MultiZero® Plate 5520

Size	A (mm)	B (mm)	C (mm)	D (mm)	E* (mm)	F (mm)	G*	H*	J*	L*	P* (mm)	Weight (kg)
5320	240	240	41.0	50	50	200	12	1	37	7xM12	200	18.4
5420	320	320	41.0	50	50	200	16	1	64	7xM12	200	31.5
5520	400	400	41.0	50	50	200	13	4	76	7xM12	200	50.9
5521	400	400	41.0	50	50	200	27	2	114	7xM12	200	49.8
5632	500	500	41.0	50	50	200	41	4	168	11xM12	200	81.0
5633	500	500	41.0	50	50	200	59	2	202	11xM12	200	79.9
5820	630	630	41.0	50	50	200	63	6	266	10xM12+ 1xM16	200	125.4
5821	630	630	41.0	50	50	200	99	2	334	10xM12+ 1xM16	200	123.5

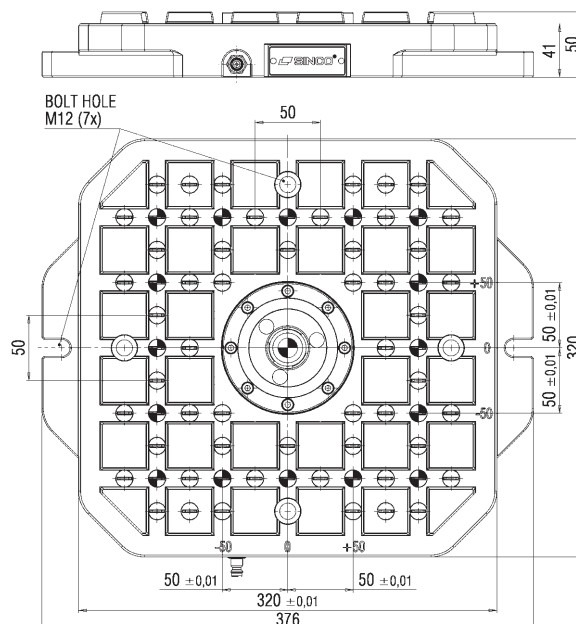
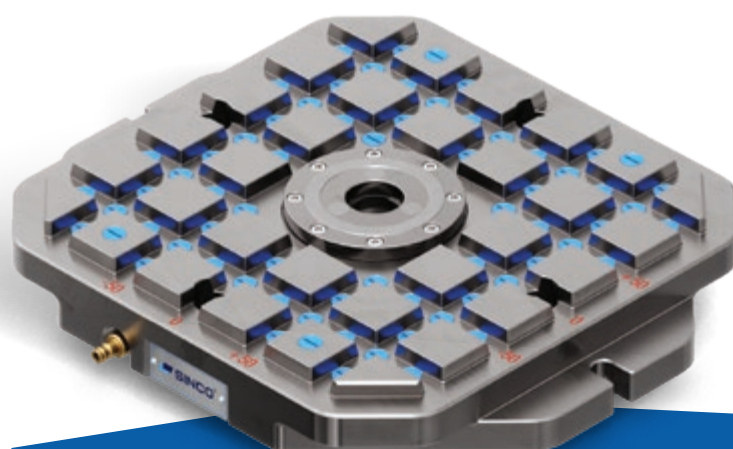
E* - MultiZero® point pitch / G* - MultiZero® Points qty. / H* - Pneumatic zero points qty. / J* - Thread holes (M12) on slot bottom qty. / L* - Clamping bolts (M12/M16) qty. / P* - Pneumatic zero points pitch / All plates are made from corrosion-resistant steel.

MultiZero® Pneumatic Plate 5320



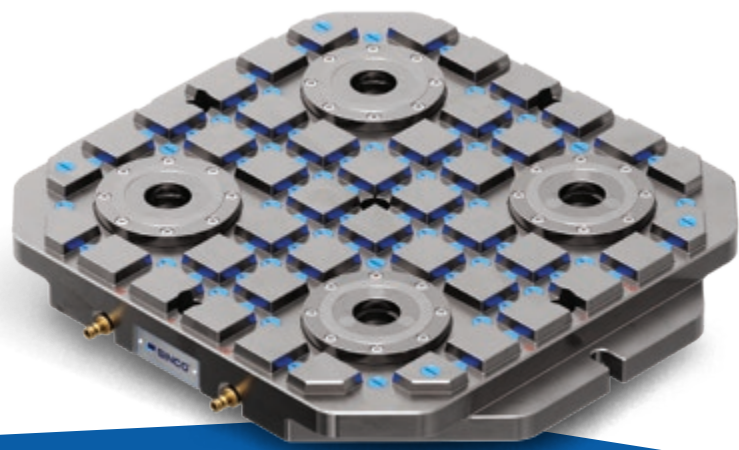
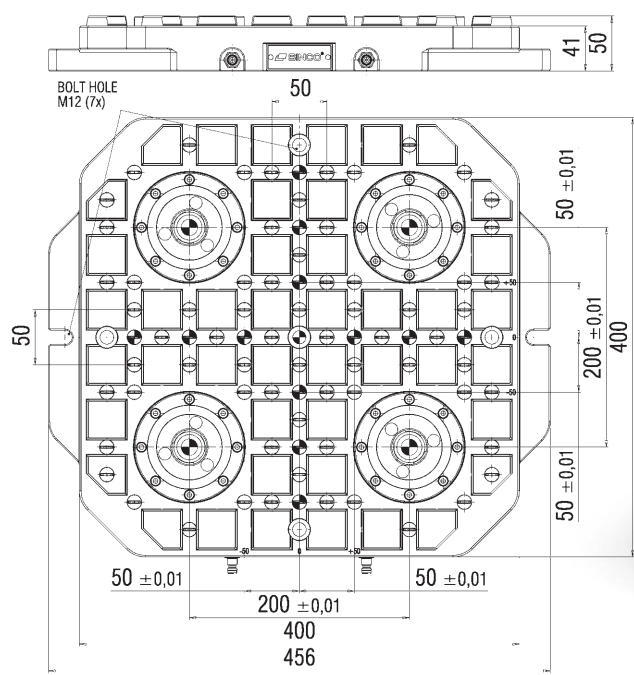
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-5320-0	296 (240) x 240 x 50	1x	12x	37x	18.4 kg

MultiZero® Pneumatic Plate 5420



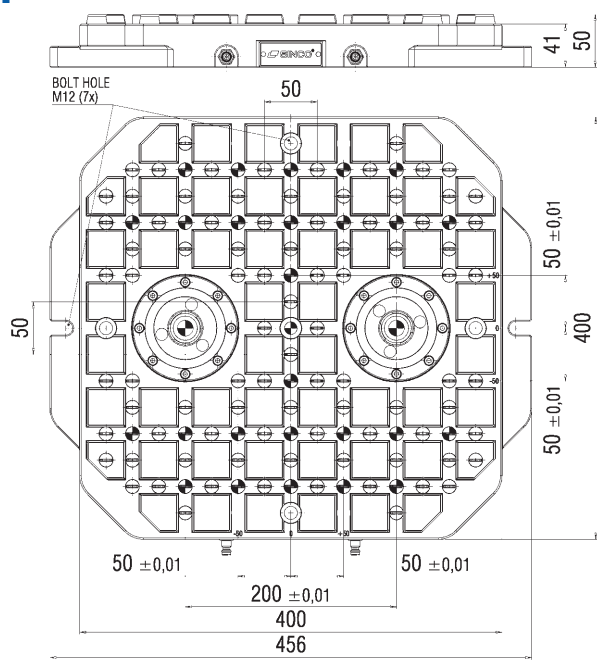
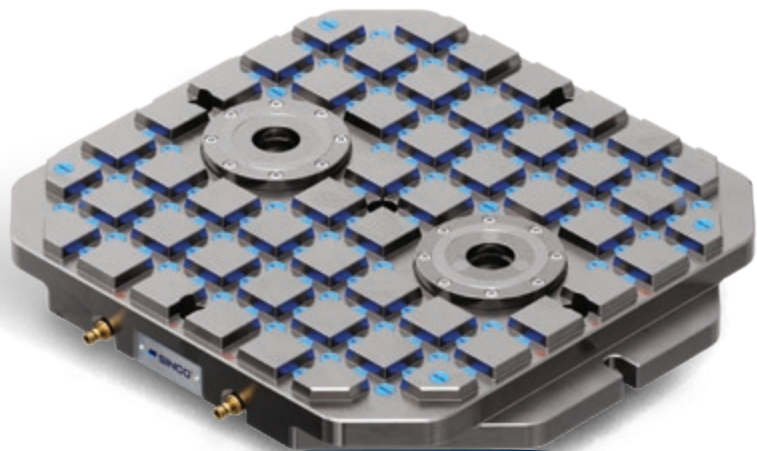
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-5420-0	376 (320) x 320 x 50	1x	16x	64x	31.5 kg

MultiZero® Pneumatic Plate 5520



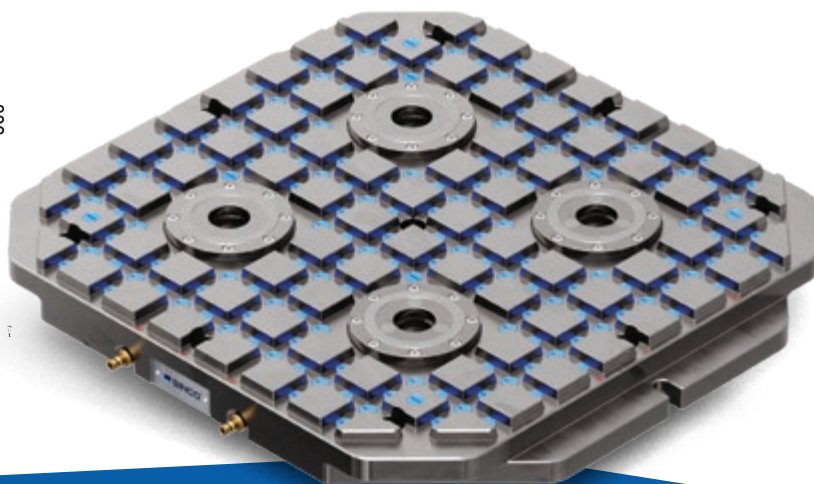
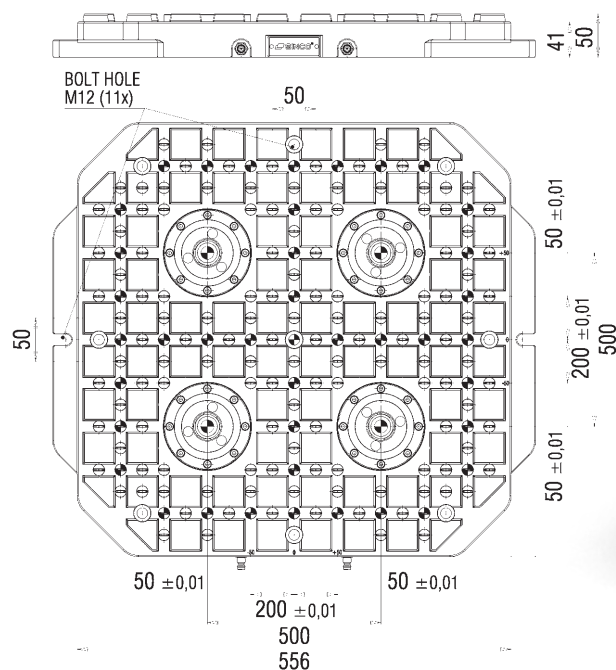
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-5520-0	456 (400) x 400 x 50	4x	13x	76x	50.9 kg

MultiZero® Pneumatic Plate 5521



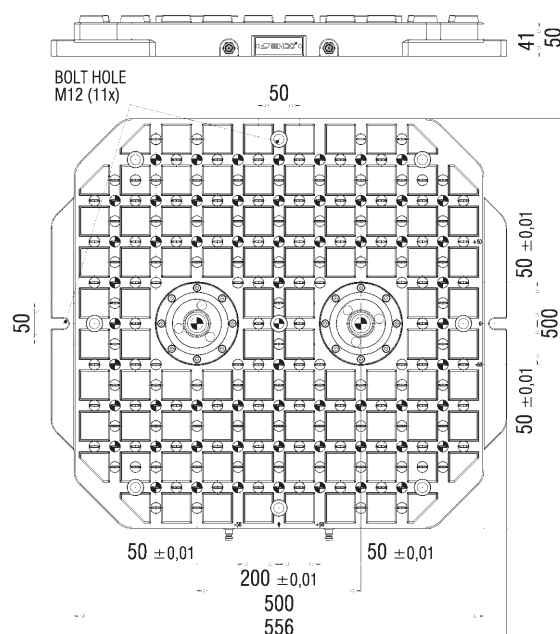
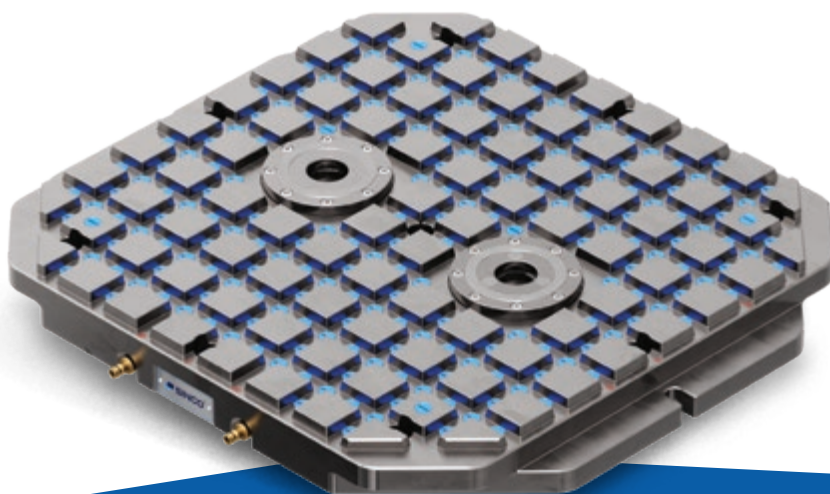
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-5521-0	456 (400) x 400 x 50	2x	27x	114x	49.8 kg

MultiZero® Pneumatic Plate 5632



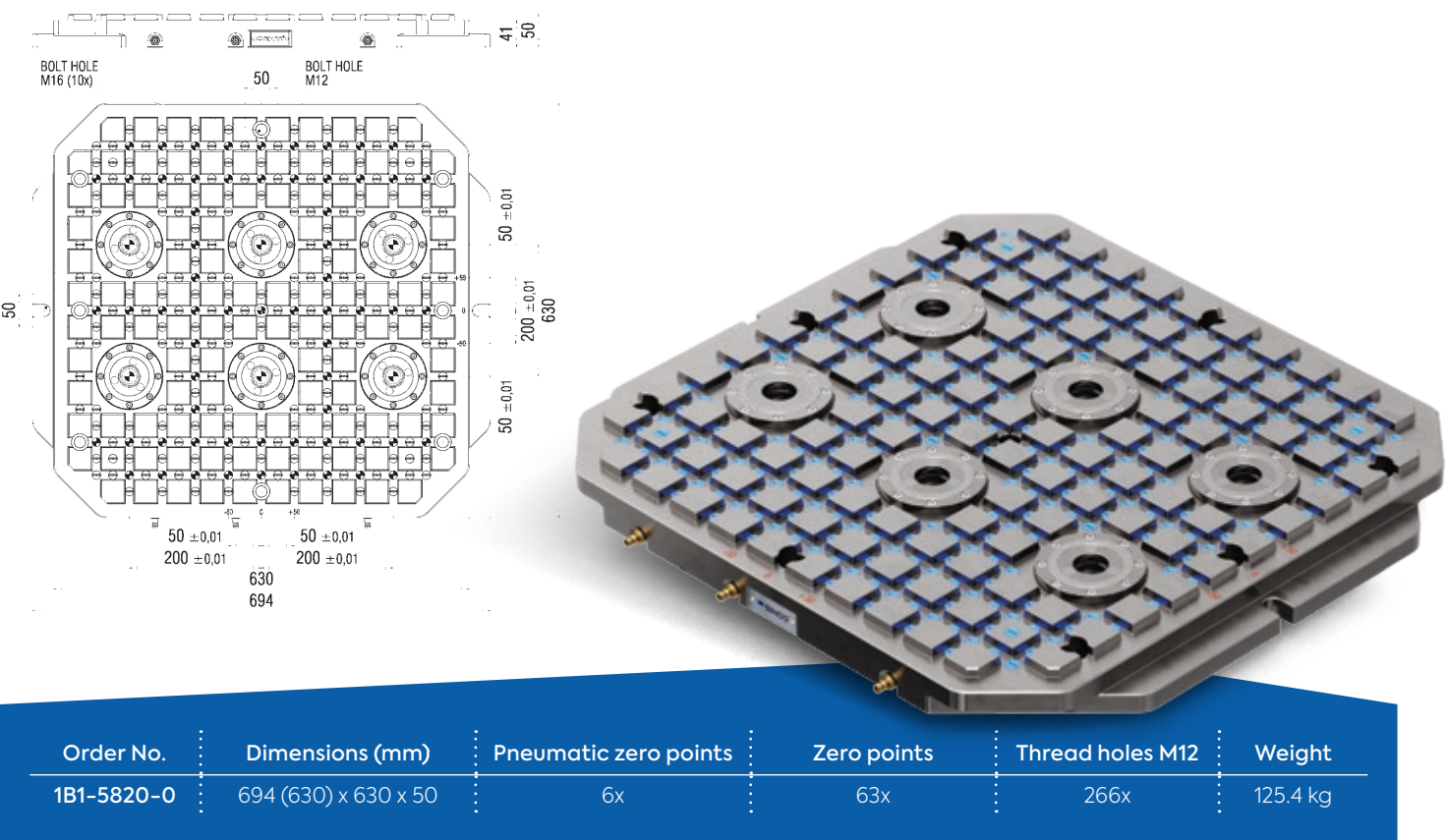
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-5632-0	556 (500) x 500 x 50	4x	41x	168x	81.0 kg

MultiZero® Pneumatic Plate 5633



Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Thread holes M12	Weight
1B1-5633-0	556 (500) x 500 x 50	2x	59x	202x	79.9 kg

MultiZero® Pneumatic Plate 5820



MultiZero® Pneumatic Plate 5821

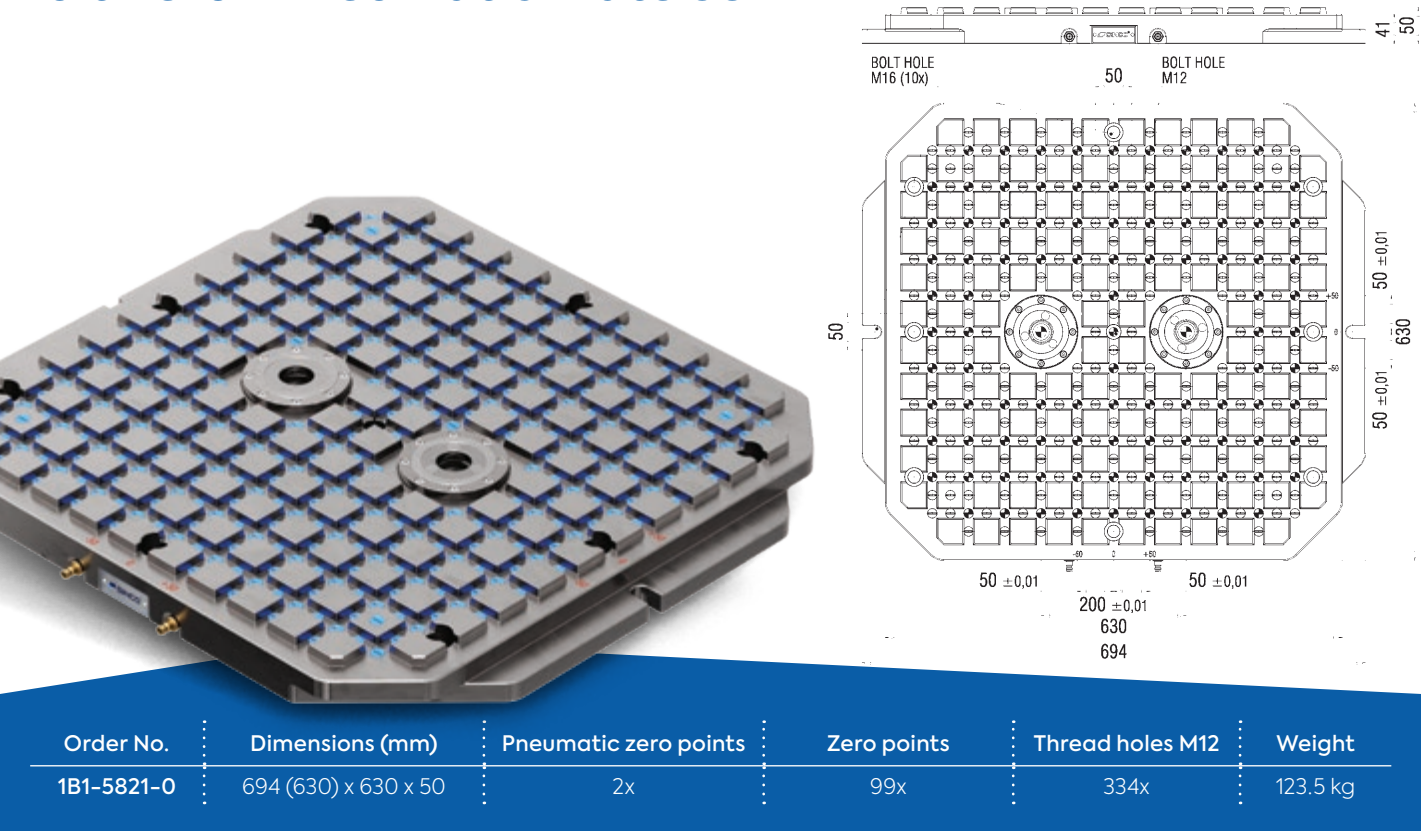
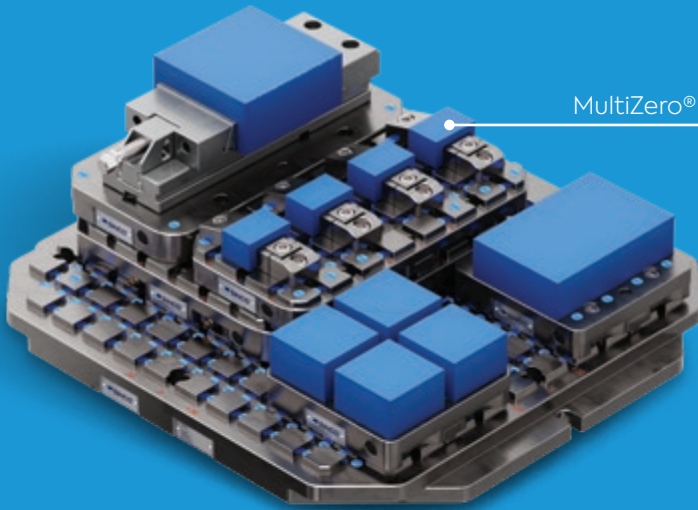
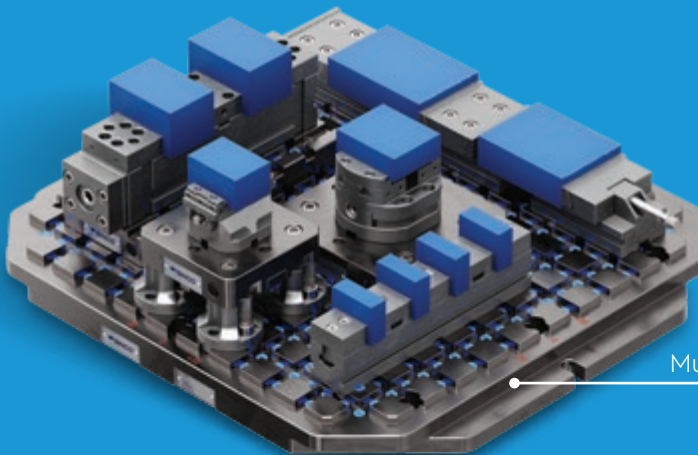
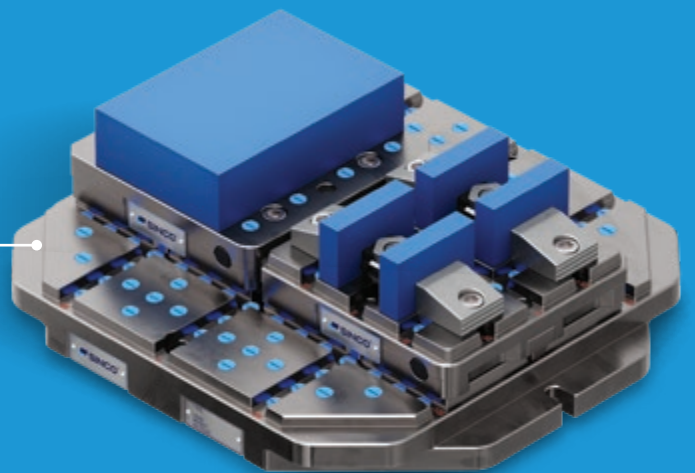


Plate 5000 Examples



MultiZero® Plate 5800 630x630 with all five types of pallets clamped

MultiZero® Pneumatic Plate 5510 400x400 with two pallets size 200x200

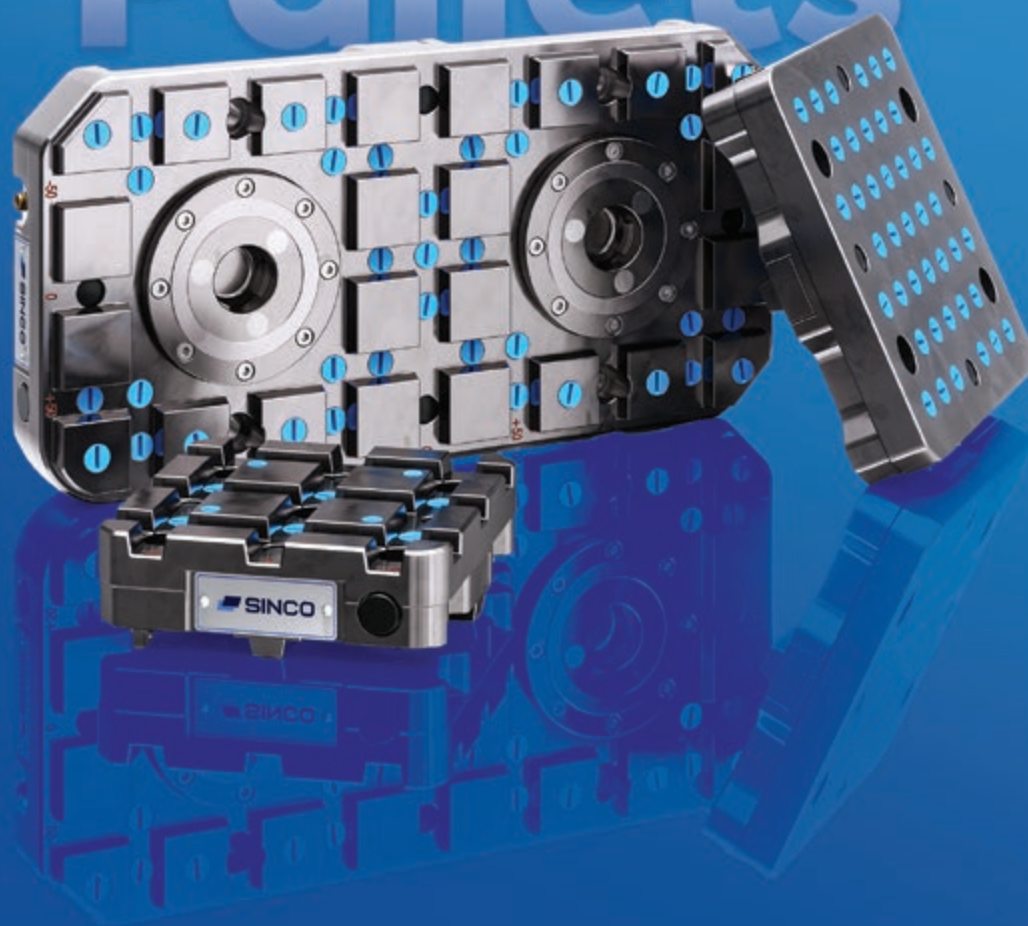


MultiZero® Plate 5800 630x630 with various pallets with vises

MultiZero® Pneumatic Plate 5632 500x500 with three pallets



MultZero® Pallets



MultiZero® Pallets Overview

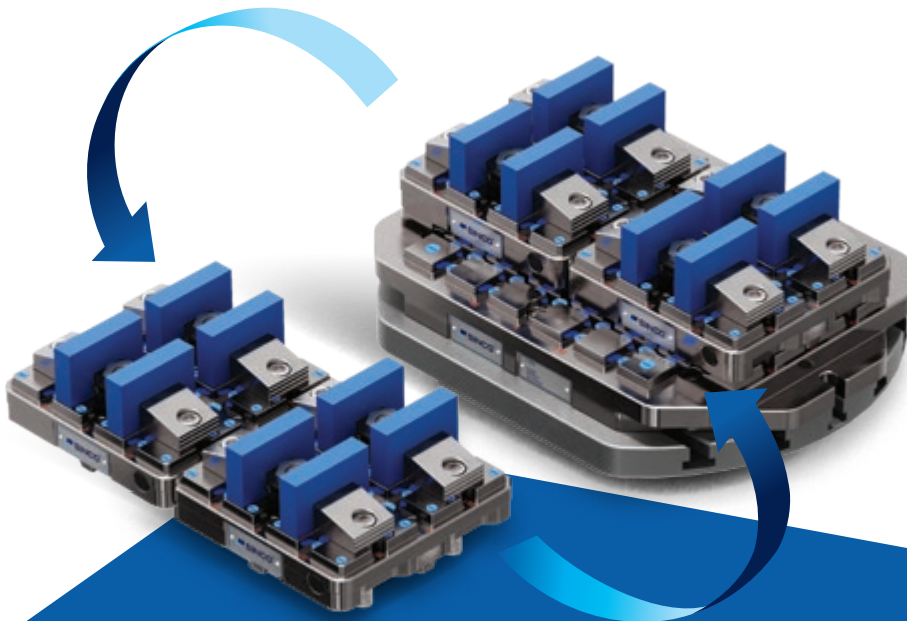
The MultiZero® Clamping System not only boasts two product groups of MultiZero® Plates, but also includes five pallet types with a great size selection, the results of which are seen in achieving the maximum processing pro-

ductivity. The Pallet System supports clamping on to the MultiZero® Plates manually or automatically with pneumatic modules. It is designed to be very simple and easy to use. Easy set-up and repeatability in clamping and

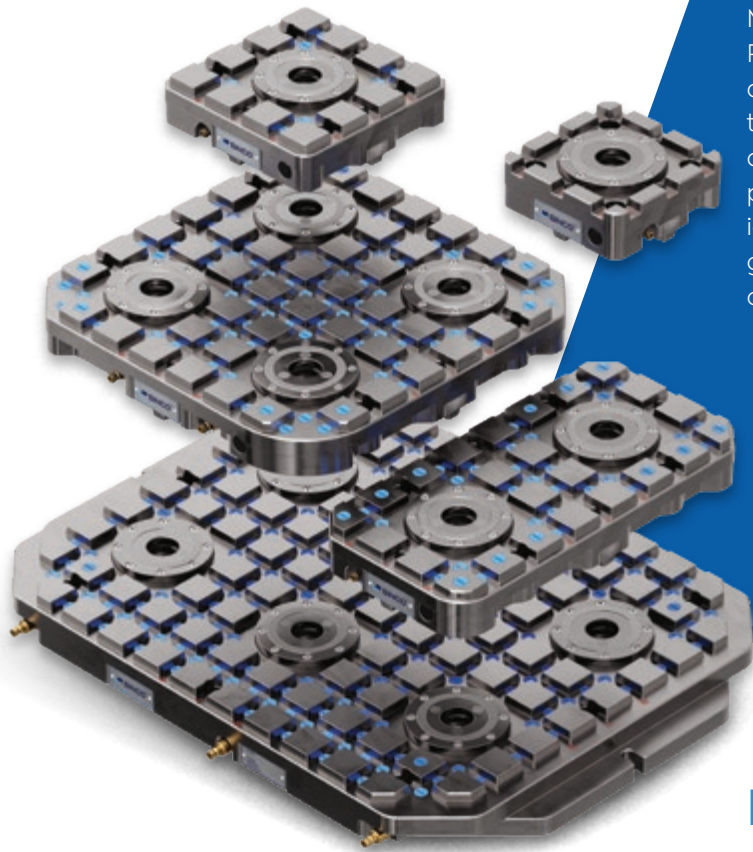
set-up of the machine makes it ideal for low-series, single-part production as well as serial production. The system is simultaneously extremely flexible and suitable for clamping complex workpieces.

The MultiZero® Clamping System offers up to 273 zero points in one solution, making it the market leader. The large number of zero points perform as one of the main benefits of the system and enable use in endless combinations of pallet layouts and allows maximum utilisation of the machine's working area. The high flexibility and quality of the processing with the MultiZero® Clamping System that contributes a large number of zero points, zero-point positioning, accuracy and repeatability, high retention forces, etc., changes the ratio in terms of the technological view of the zero-point clamping systems on the market.

With zero-point pneumatic modules for automatic clamping and RFID identification and a data chip optionally installed on each pallet, the system is **designed to fully fit automated machine environments and support Industry 4.0.**

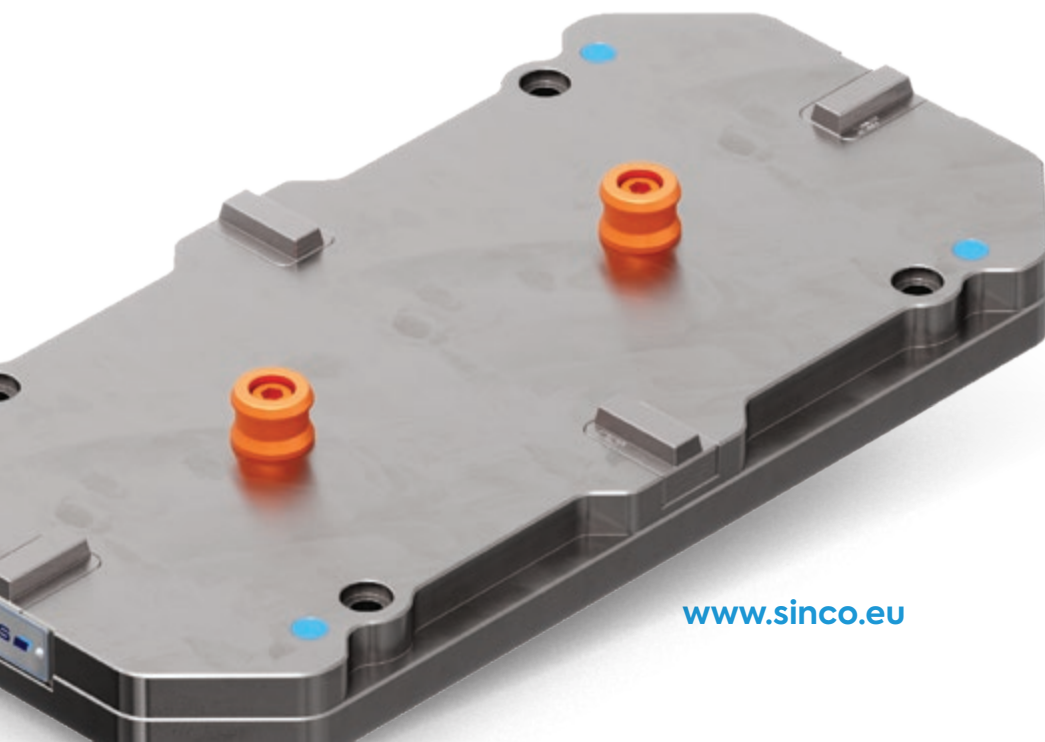


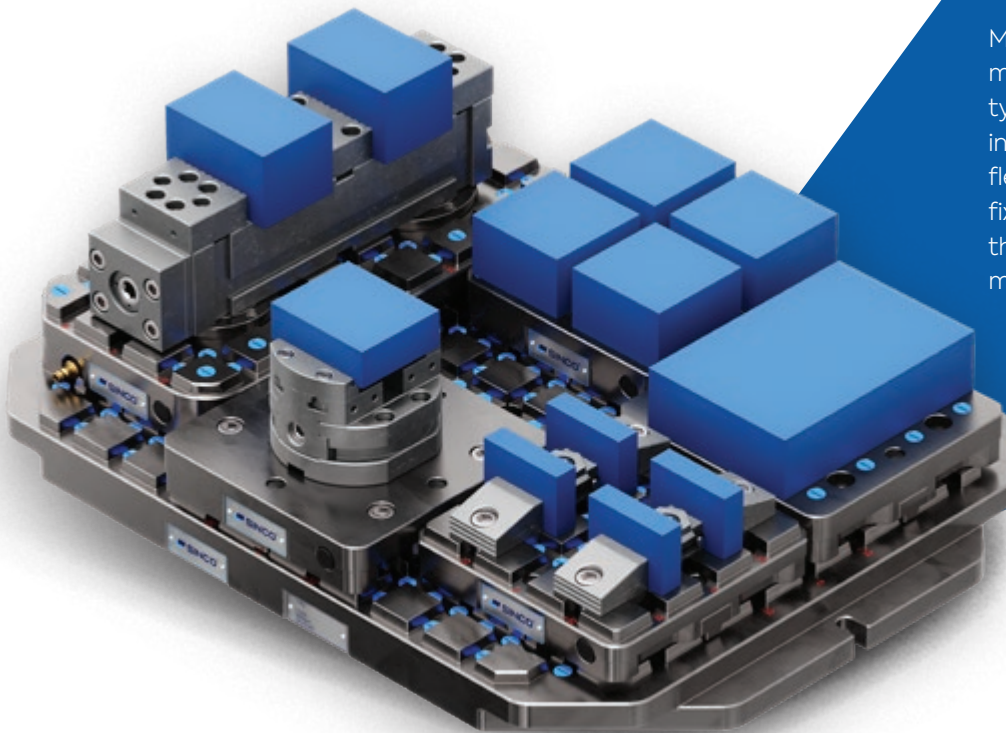
Positioning and clamping of the workpieces onto the pallet is done off the machine, while having simultaneous operation on the machine. This leads to higher productivity and makes the system very suitable for serial and low volume production. Multiple pallets, fixtures or workpieces can be clamped numerous times with high repeating in positioning, maintaining the zero-point position accuracy to 5µm.



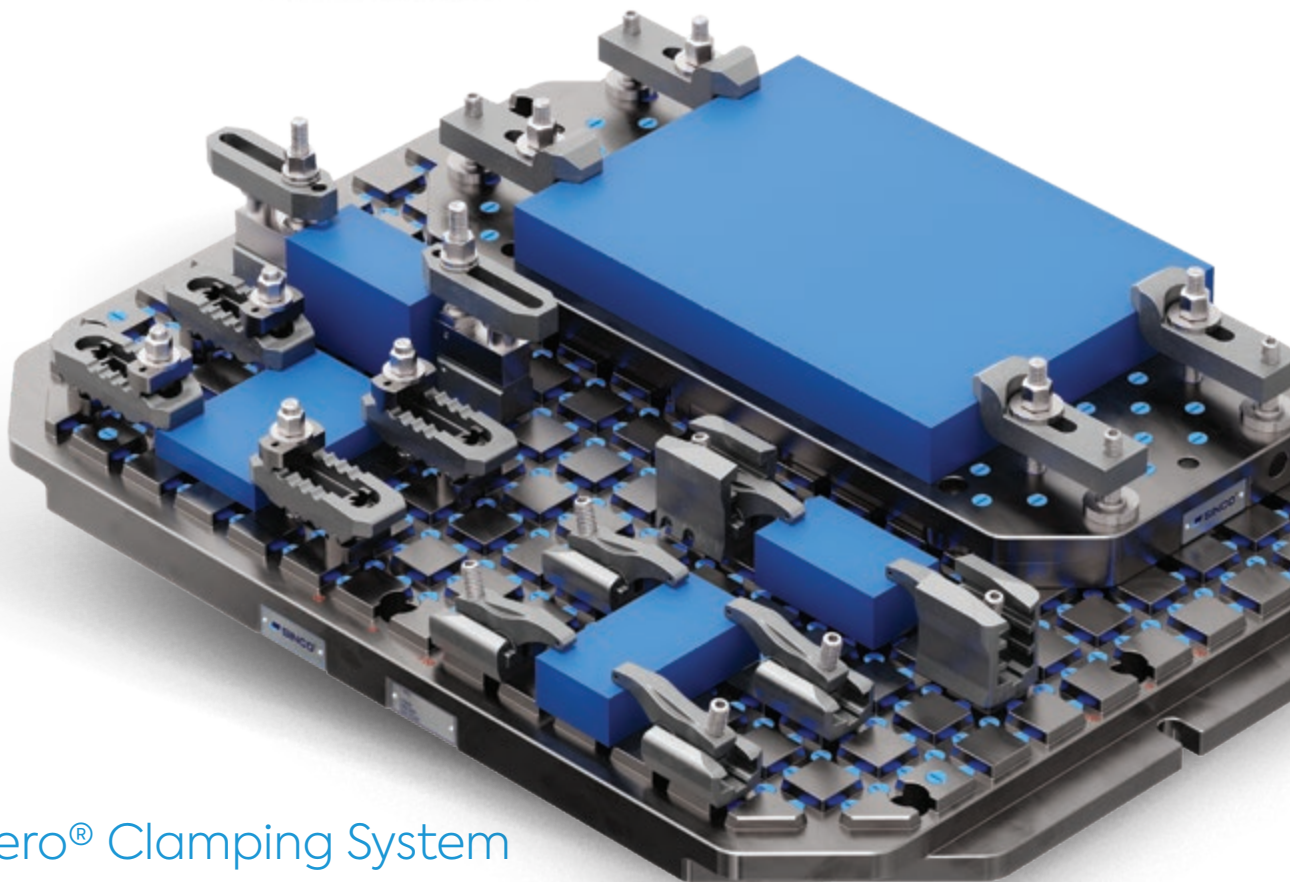
With automatic clamping, pneumatic modules on the MultiZero® Pneumatic Plate or MultiZero® Pneumatic Pallet clamps the certain other type of pallet with retractable nipples. At the same time four centering members enter conical slots of the MultiZero® System, providing for the centering, lateral forces and orientation of the clamped pallet. With this the MultiZero® System with pneumatic zero modules has incomparably better centering and greater compensation for lateral forces, compared to other automatic zero-point systems on the market.

Every pallet has an option for adding retractable nipples from the underside, making it fully compatible and ready to clamp with the MultiZero® Pneumatic Plate or MultiZero® Pneumatic Pallet.





MultiZero® Pallets of different dimensions and different function type are mutually interchangeable into endless combinations. These flexible arrangements of pallets or fixtures allow coverage of most of the available working surface, which maxes out the production capacity.

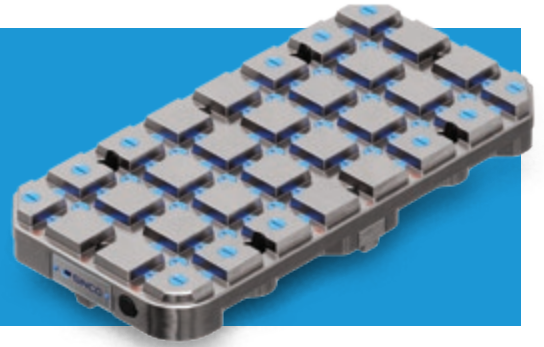


MultiZero® Clamping System
can **utilise commonly
available and used clamps,
vises and fixtures.**

Pallet types

MultiZero® Pallet

- Used for zero point clamping of pallets, workpieces, vises and fixtures

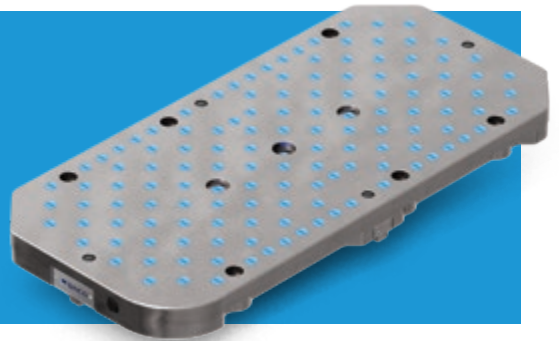


MultiZero® Pneumatic Pallet

- Used for automatic clamping of pallets, vises and fixtures

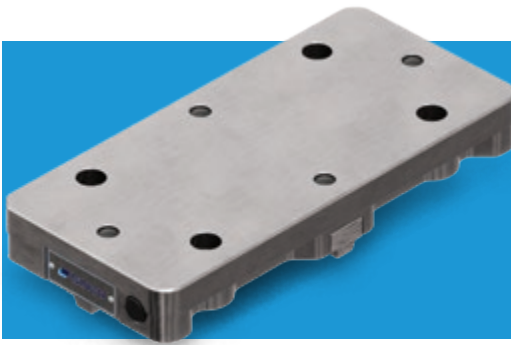
MultiZero® Clamp Pallet

- Used for clamping workpieces, vises and fixtures directly



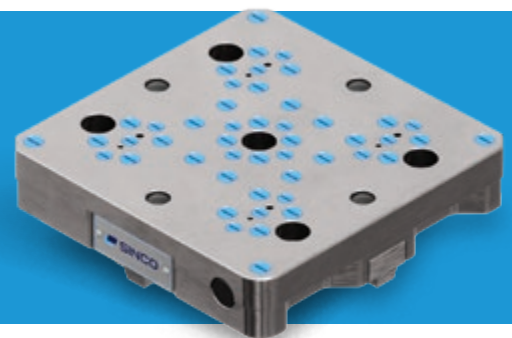
MultiZero® Blank Pallet

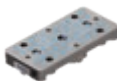
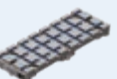
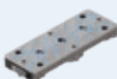
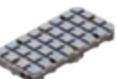
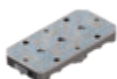
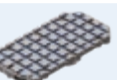
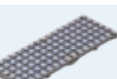
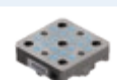
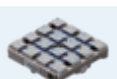
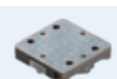
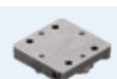
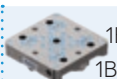
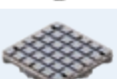
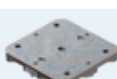
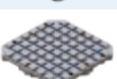
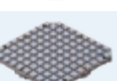
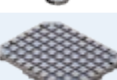
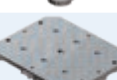
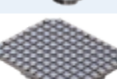
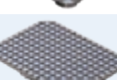
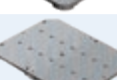
- Delivered blank
- Users can self-adjust the palette surface area to their processing needs
- On request produced according to customer's requirements



MultiZero® EDM Pallet

- Used for clamping single or multiple electrodes for sink erosion



Size in mm	MultiZero®	MultiZero® Pneumatic	MultiClamp	MultiBlank	MultiEDM
100 x 350	 1B2-1010-0*			 1B2-1013-0*	
150 x 320	 1B2-1020-0* 1B2-1025-0**		 1B2-1021-0* 1B2-1026-0**	 1B2-1023-0* 1B2-1027-0**	
150 x 400	 1B2-1030-0* 1B2-1035-0**		 1B2-1031-0* 1B2-1036-0**	 1B2-1033-0* 1B2-1037-0**	
200 x 400	 1B2-1040-0* 1B2-1045-0**	 1B2-1042-0*	 1B2-1041-0* 1B2-1046-0**	 1B2-1043-0* 1B2-1047-0**	
200 x 500	 1B2-1050-0* 1B2-1055-0**		 1B2-1051-0* 1B2-1056-0**	 1B2-1053-0* 1B2-1057-0**	
200 x 600	 1B2-1060-0*			 1B2-1063-0*	
250 x 500	 1B2-1070-0* 1B2-1075-0**		 1B2-1071-0* 1B2-1076-0**	 1B2-1073-0* 1B2-1077-0**	
300 x 630	 1B2-1080-0*		 1B2-1081-0*	 1B2-1083-0*	
300 x 800	 1B2-1090-0*		 1B2-1091-0*	 1B2-1093-0*	
150 x 150	 1B2-1100-0* 1B2-1105-0**	 1B2-1102-0*	 1B2-1101-0* 1B2-1106-0**	 1B2-1103-0* 1B2-1107-0**	
200 x 200	 1B2-1110-0* 1B2-1115-0**	 1B2-1112-0*	 1B2-1111-0* 1B2-1116-0**	 1B2-1113-0* 1B2-1117-0**	 1B2-1114-0* 1B2-1118-0**
240 x 240	 1B2-1120-0* 1B2-1125-0**		 1B2-1121-0* 1B2-1126-0**	 1B2-1023-0* 1B2-1023-0**	
315 x 315	 1B2-1130-0* 1B2-1135-0**		 1B2-1131-0* 1B2-1136-0**	 1B2-1133-0* 1B2-1137-0**	
400 x 400	 1B2-1140-0* 1B2-1145-0**	 1B2-1142-0*	 1B2-1141-0* 1B2-1146-0**	 1B2-1143-0* 1B2-1147-0**	 1B2-1144-0* 1B2-1148-0**
500 x 500	 1B2-1150-0* 1B2-1155-0**		 1B2-1151-0* 1B2-1156-0**	 1B2-1153-0* 1B2-1157-0**	
630 x 630	 1B2-1160-0*		 1B2-1161-0*	 1B2-1163-0*	
400 x 500	 1B2-1180-0* 1B2-1185-0**		 1B2-1181-0* 1B2-1186-0**	 1B2-1183-0* 1B2-1187-0**	
500 x 600	 1B2-1190-0*		 1B2-1191-0*	 1B2-1193-0*	
600 x 800	 1B2-1200-0*		 1B2-1201-0*	 1B2-1203-0*	

* Order No. Pallet with mechanical clamping with bolts

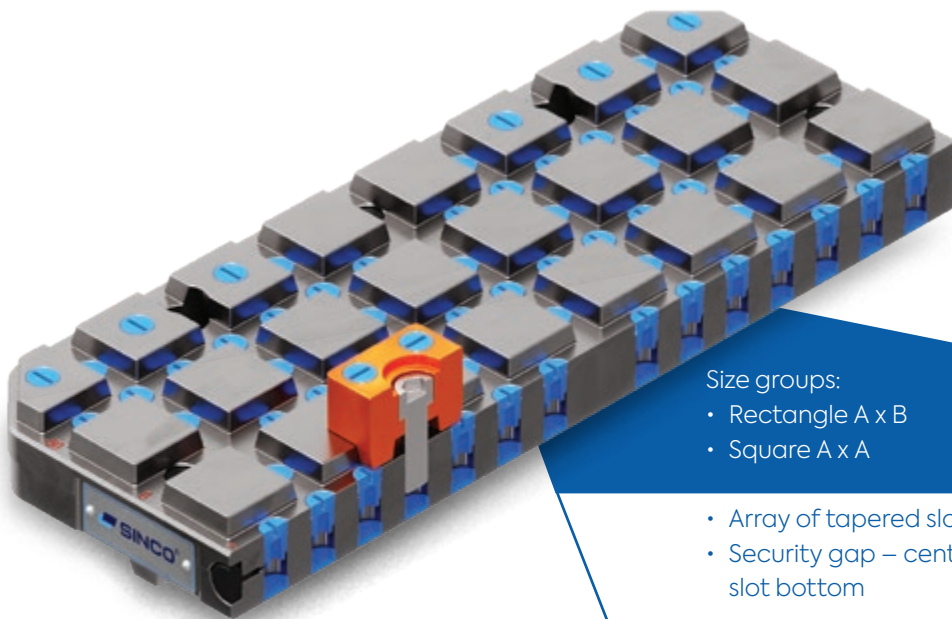
** Order No. Pallet with retractable nipples installed, used at pneumatic base plates

MultiZero® Pallet

Pallet features

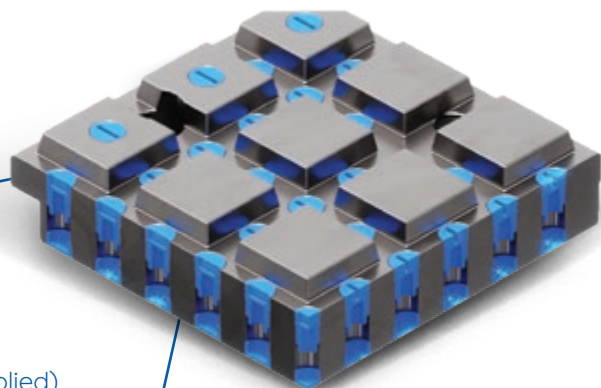
- Used for zero point clamping of MultiZero® clamping devices, workpieces, fixtures and vises directly
- MultiZero® points in array of 50 x 50 mm
- Thread holes M12 in array of 25 x 25 mm
- Clamping repeatability <0.005 mm, at each MultiZero® point
- MultiZero® point at every cross section of pallet slots
- Two types of pallet clamping:
 - Clamped with M12 bolts to the MultiZero® Plate
 - Clamped with addition of retractable nipples onto the MultiZero® Pneumatic Plate
- Pallet can be lifted by supports centered through slots from the underside at each clamping bolt
- Limitless options and flexibility in clamping

- Pallet material: corrosion-resistant steel
- RFID identification and data chip optionally installed on each pallet



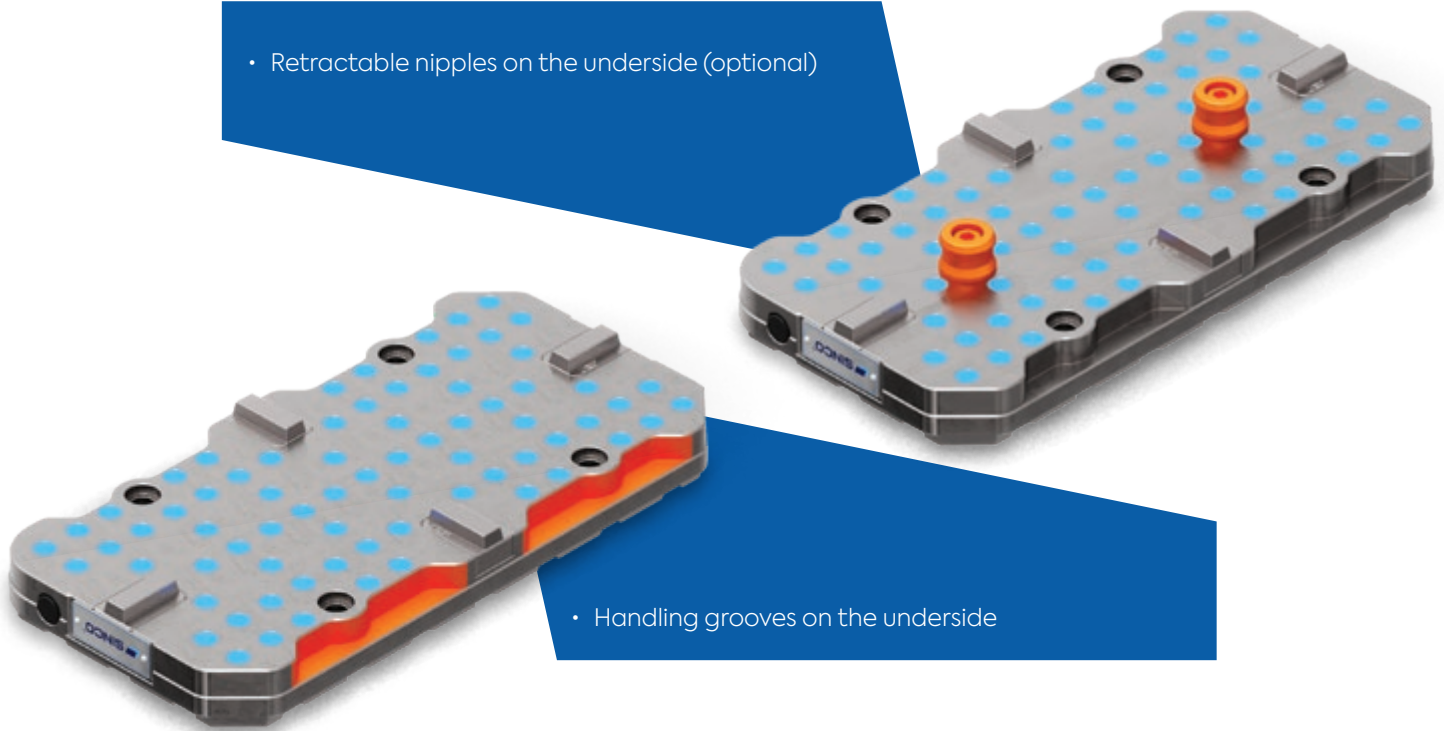
Size groups:

- Rectangle A x B
 - Square A x A
-
- Array of tapered slots, pattern 50 x 50 mm
 - Security gap – centering elements don't touch slot bottom



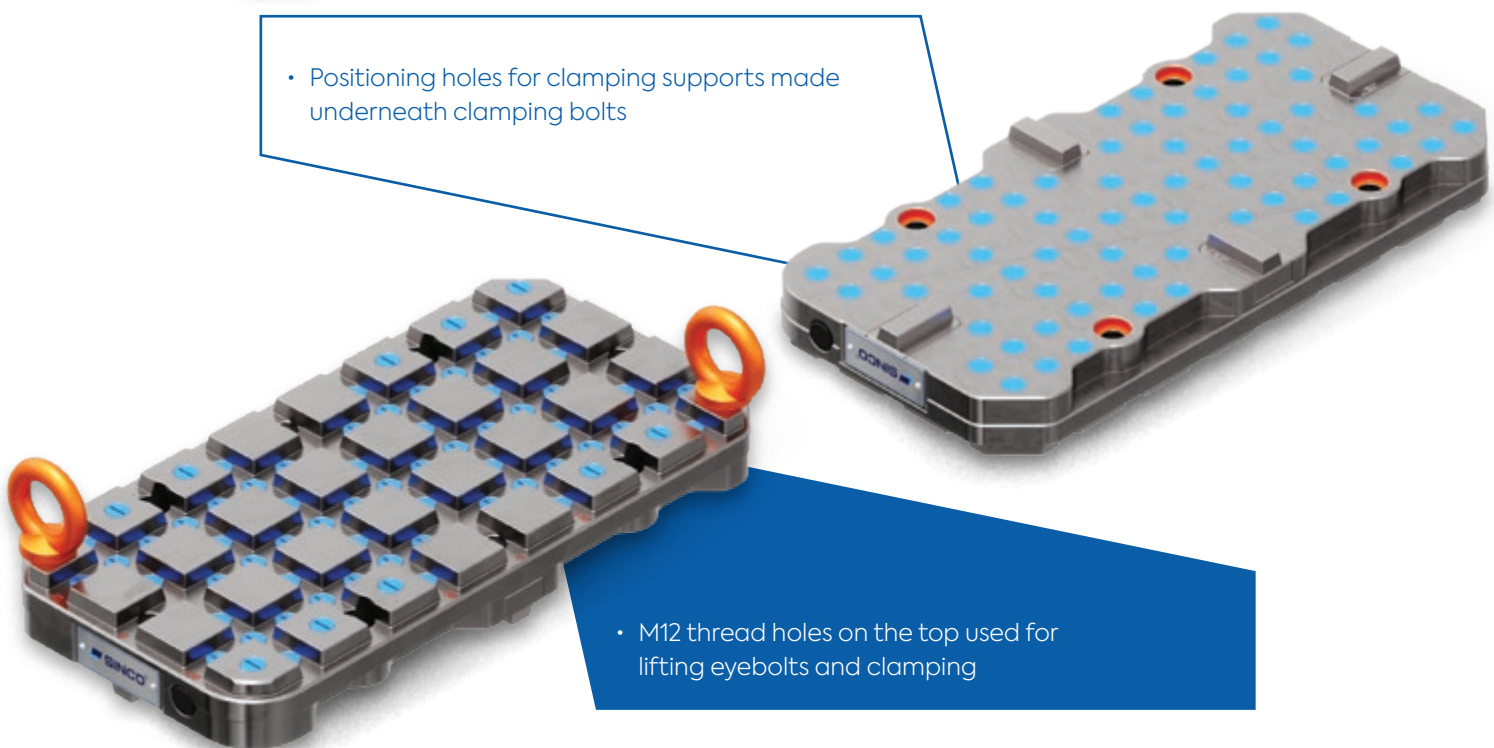
- Plastic protectors for thread holes (supplied)

- Retractable nipples on the underside (optional)



- Handling grooves on the underside

- Positioning holes for clamping supports made underneath clamping bolts

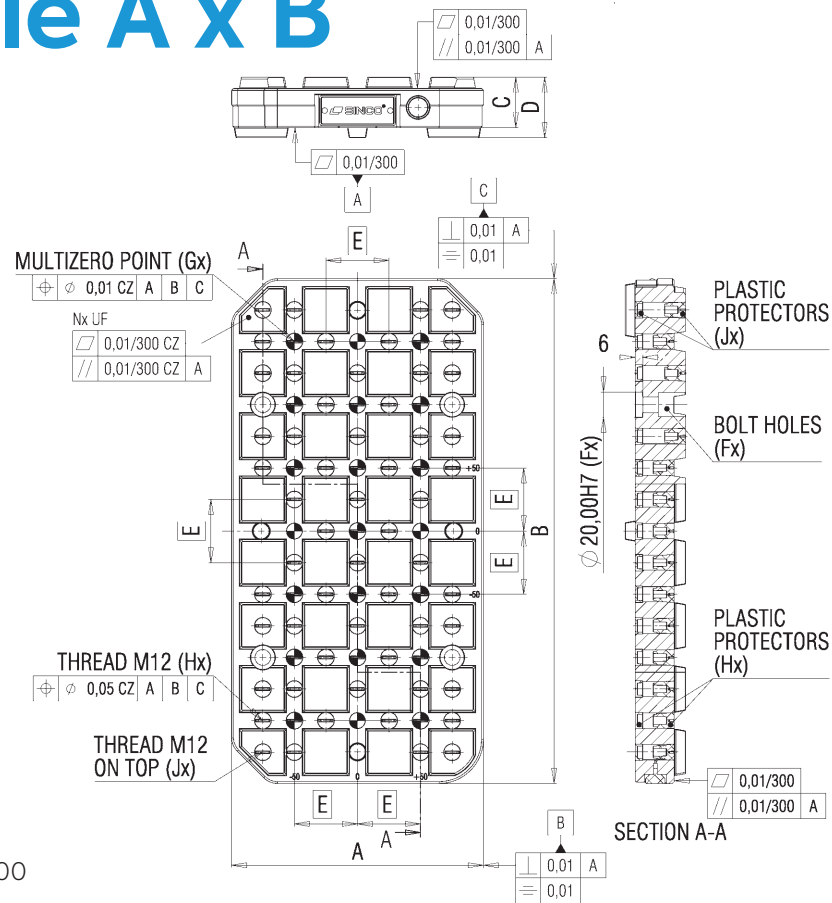


- M12 thread holes on the top used for lifting eyebolts and clamping

- RFID Identification and data chip installed optionally



MultiZero Pallet Rectangle A x B

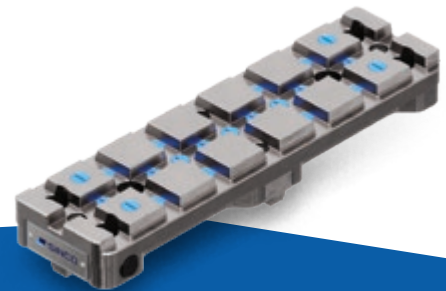
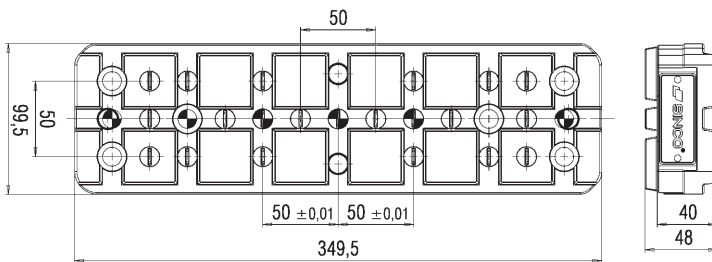


Example: MultiZero® Pallet 200 x 400

Size	A (mm)	B (mm)	C (mm)	D (mm)	E* (mm)	F*	G*	H*	J*	Weight (kg)
100 x 350	99.5	349.5	40.0	48.0	50	2x/ 4x	7	16	4	7.8
150 x 320	149.5	319.5	40.0	48.0	50	4	15	33	4	11.2
150 x 400	149.5	399.5	40.0	48.0	50	4	21	50	4	13.7
200 x 400	199.5	399.5	40.0	48.0	50	4	21	61	12	18.4
200 x 500	199.5	499.5	40.0	48.0	50	4	27	87	8	23.1
200 x 600	199.5	599.5	40.0	48.0	50	4	33	101	8	27.6
250 x 500	249.5	499.5	40.0	48.0	50	4	41	115	4	28.4
300 x 630	299.5	629.5	40.0	48.0	50	6	51	174	12	43.1
300 x 800	299.5	799.5	40.0	48.0	50	6	75	233	16	56.5
400 x 500	399.5	499.5	40.0	48.0	50	4	59	195	8	46.0
500 x 600	499.5	599.5	40.0	48.0	50	4	95	305	8	69.8
600 x 800	599.5	799.5	40.0	48.0	50	6	161	504	12	112.0

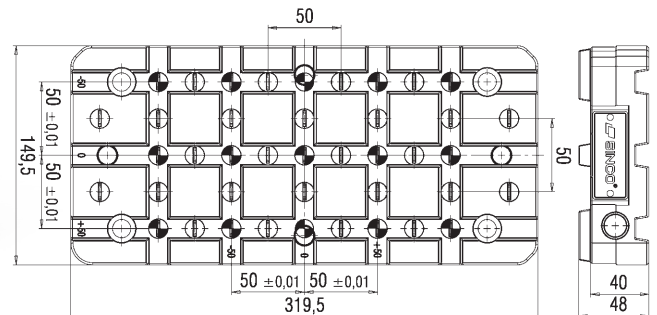
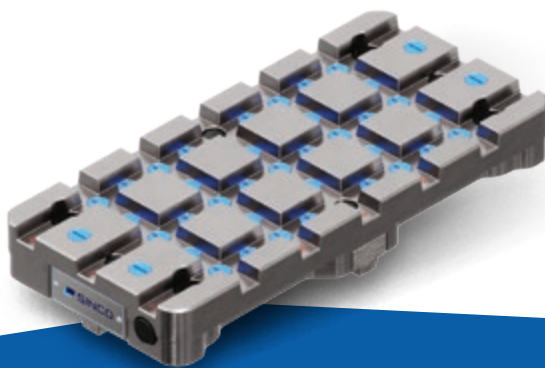
E* - MultiZero® point pitch / **F*** - Clamping bolts (M12) qty. / **G*** - MultiZero® Points qty. / **H*** - Thread holes (M12) on slot bottom qty. / **J*** - Thread holes (M12) on top qty. / All plates are made from corrosion-resistant steel.

MultiZero® Pallet 100 x 350



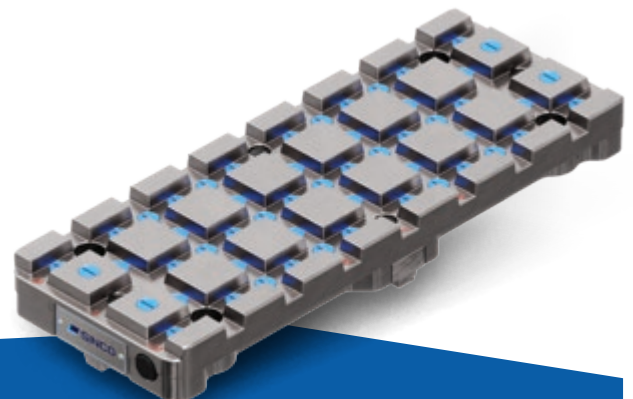
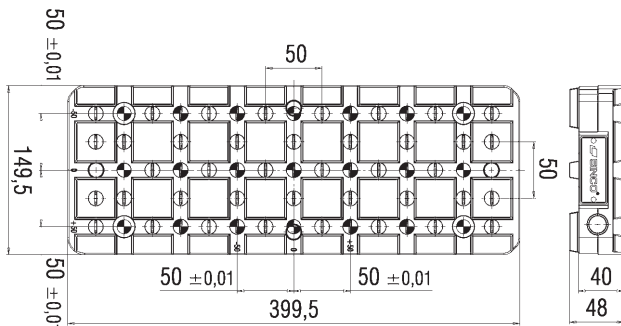
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1010-0	99.5 x 349.5 x 40 (48)	7x	16x	2x/4x	7.8 kg

MultiZero® Pallet 150 x 320



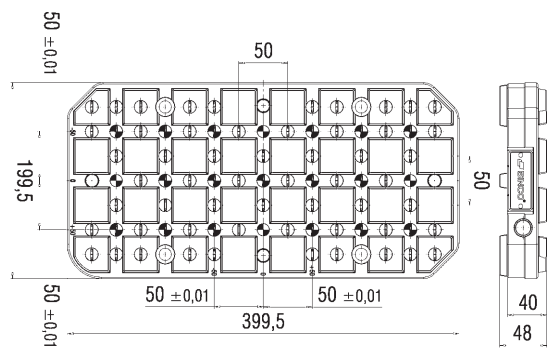
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1020-0	149.5 x 319.5 x 40 (48)	15x	33x	4x	11.2 kg

MultiZero® Pallet 150 x 400



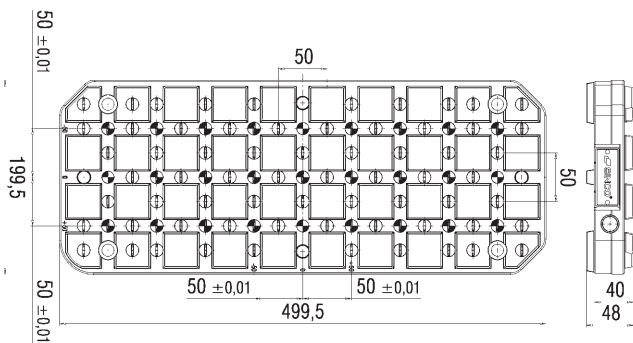
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1030-0	149.5 x 399.5 x 40 (48)	21x	50x	4x	13.7 kg

MultiZero® Pallet 200 x 400



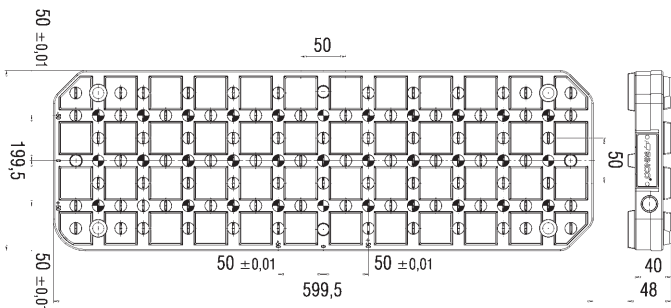
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1040-0	199.5 x 399.5 x 40 (48)	21x	61x	4x	18.4 kg

MultiZero® Pallet 200 x 500



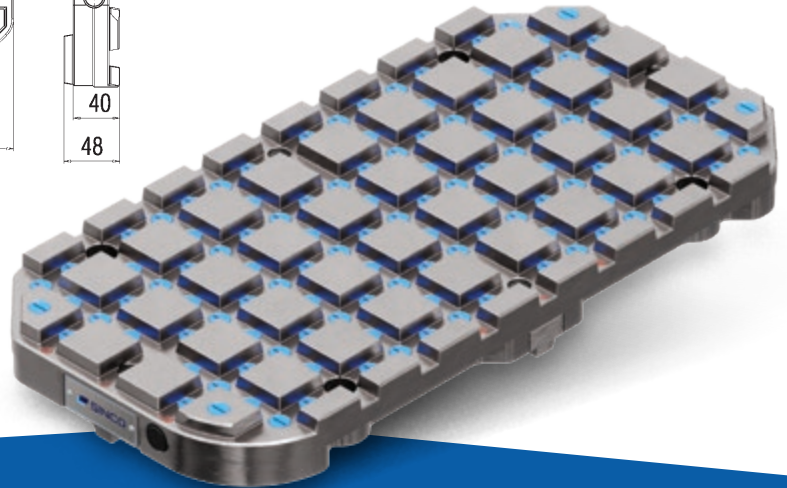
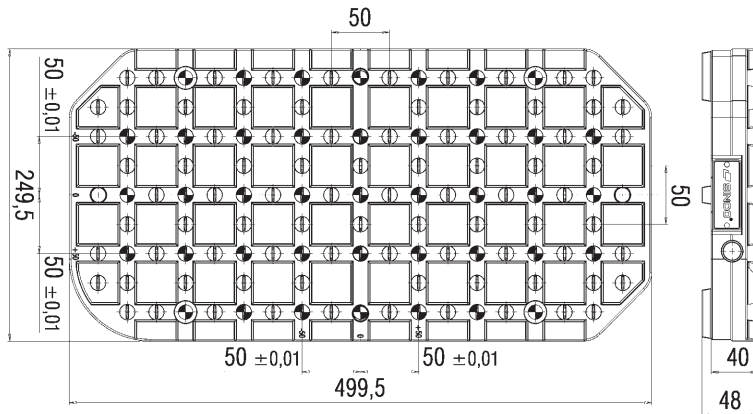
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1050-0	199.5 x 499.5 x 40 (48)	27x	87x	4x	23.1 kg

MultiZero® Pallet 200 x 600



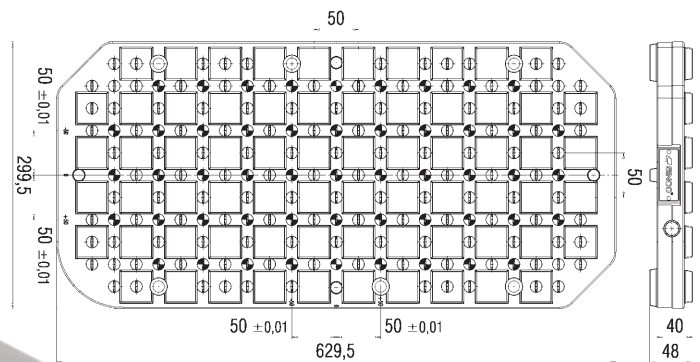
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1060-0	199.5 x 599.5 x 40 (48)	33x	101x	4x	27.6 kg

MultiZero® Pallet 250 x 500



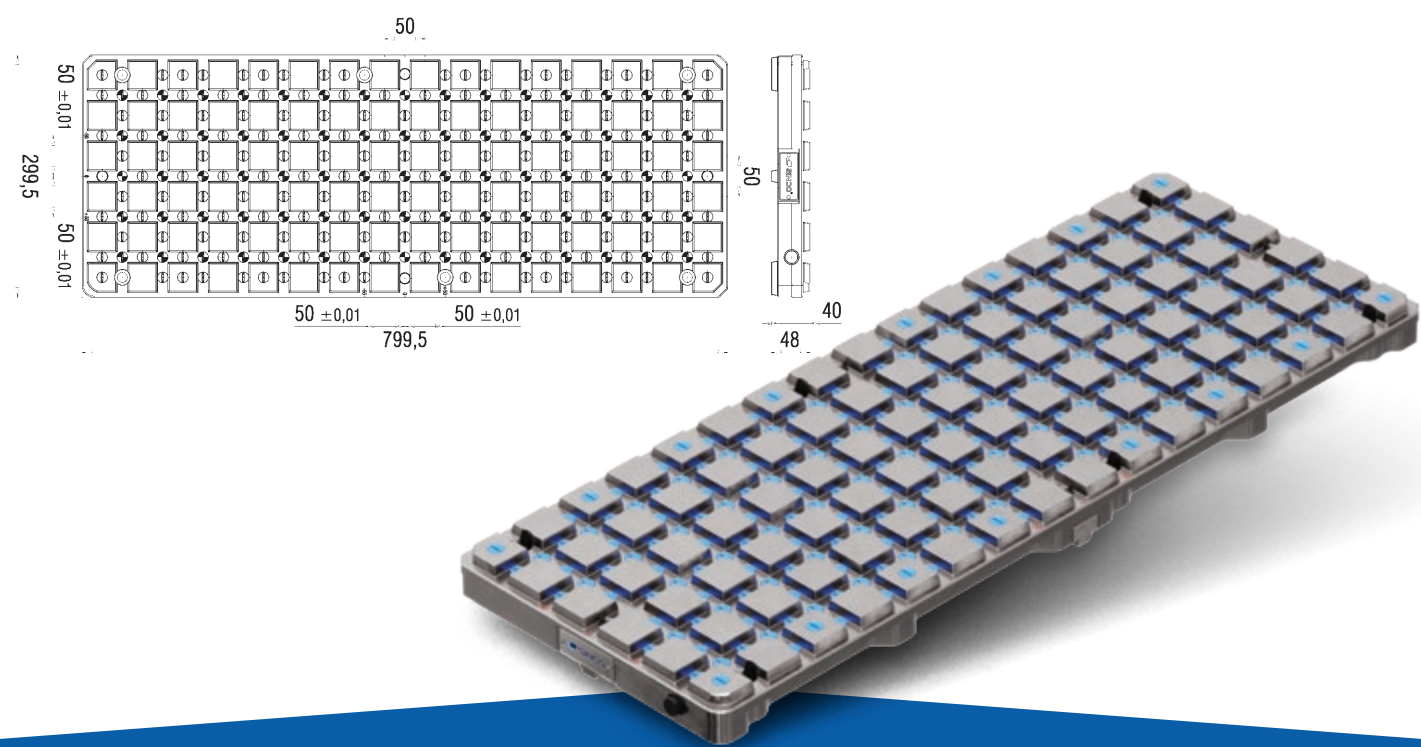
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1070-0	249,5 x 499,5 x 40 (48)	41x	115x	4x	28,4 kg

MultiZero® Pallet 300 x 630



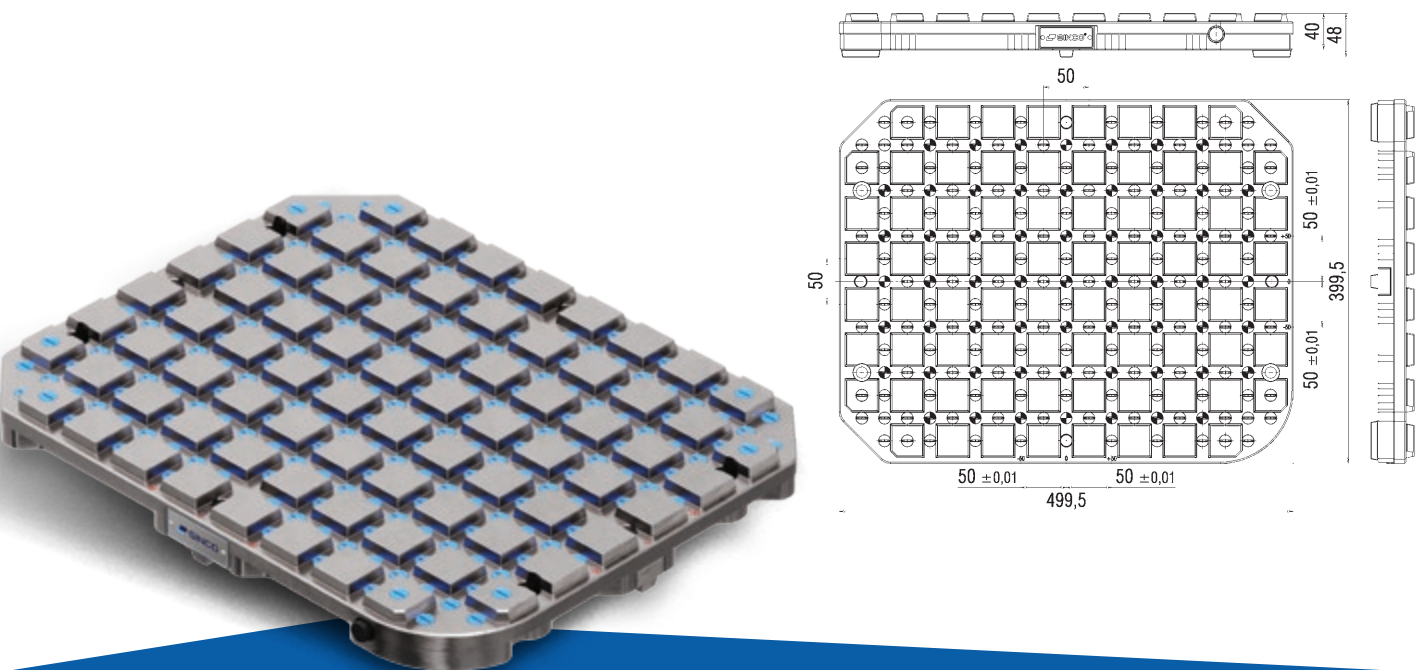
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1080-0	299,5 x 629,5 x 40 (48)	51x	174x	6x	43,1 kg

MultiZero® Pallet 300 x 800



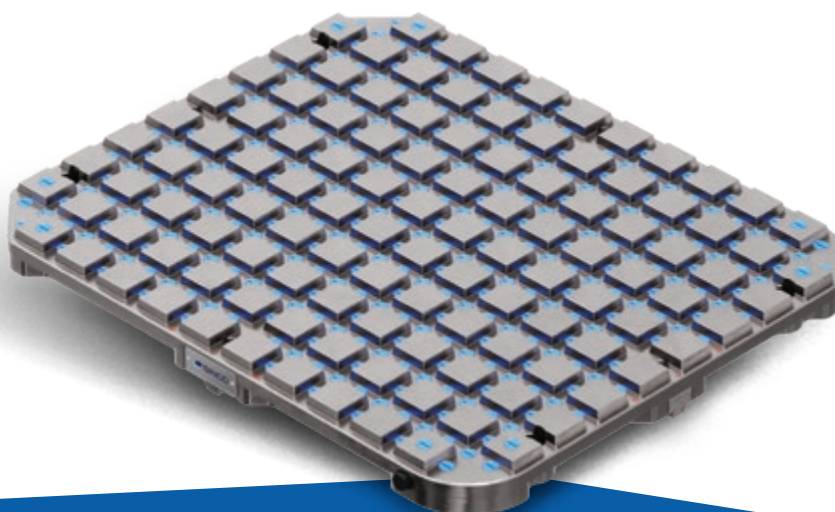
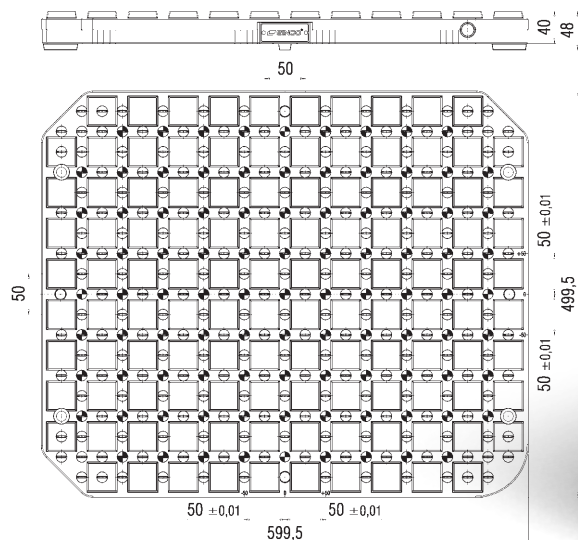
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1090-0	299.5 x 799.5 x 40 (48)	75x	233x	6x	56.5 kg

MultiZero® Pallet 400 x 500



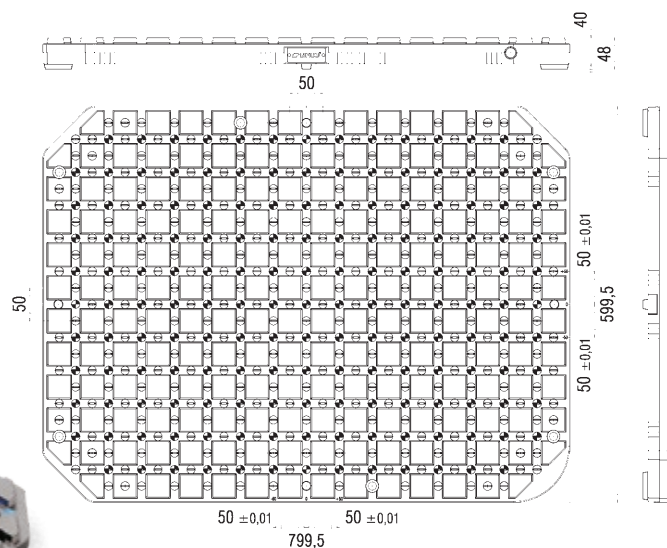
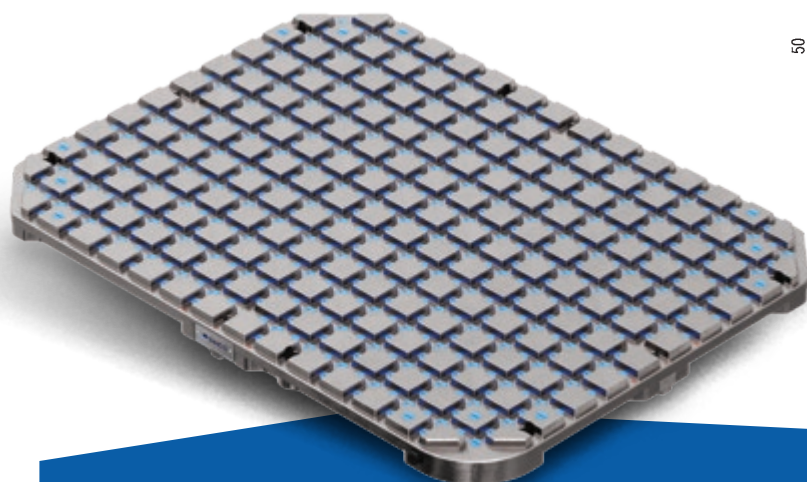
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1180-0	399.5 x 499.5 x 40 (48)	59x	195x	4x	46.0 kg

MultiZero® Pallet 500 x 600



Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1190-0	499.5 x 599.5 x 40 (48)	95x	305x	4x	69.8 kg

MultiZero® Pallet 600 x 800

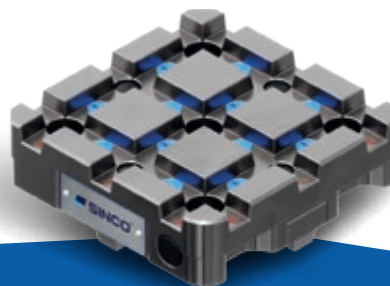
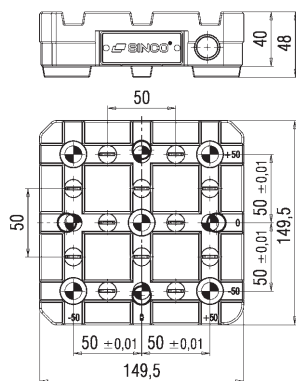


Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1200-0	599.5 x 799.5 x 40 (48)	161x	504x	6x	112.0 kg



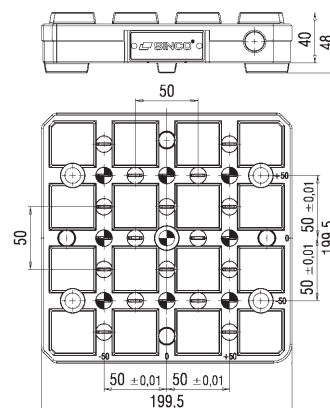
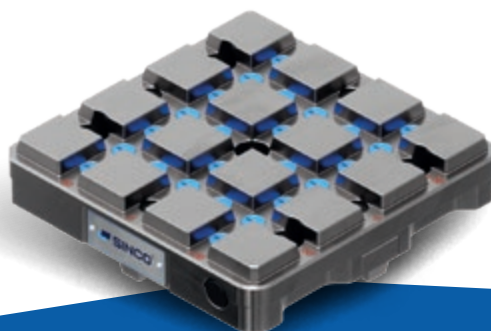
E* - MultiZero® point pitch / **F*** - Clamping bolts (M12) qty. / **G*** - MultiZero® Points qty. / **H*** - Thread holes (M12) on slot bottom qty. / **J*** - Thread holes (M12) on top qty. / All plates are made from corrosion-resistant steel.

MultiZero® Pallet 150 x 150



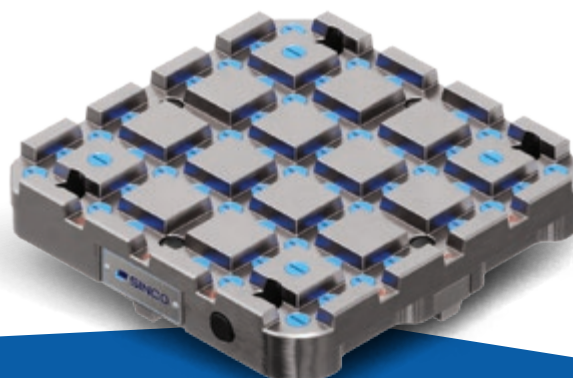
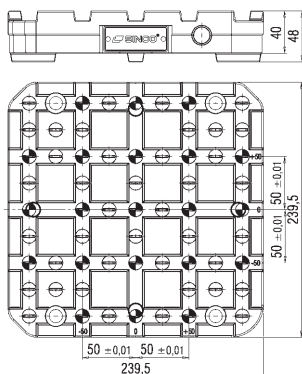
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1100-0	149.5 x 149.5 x 40 (48)	9x	12x	1x/ 4x	5.2 kg

MultiZero® Pallet 200 x 200



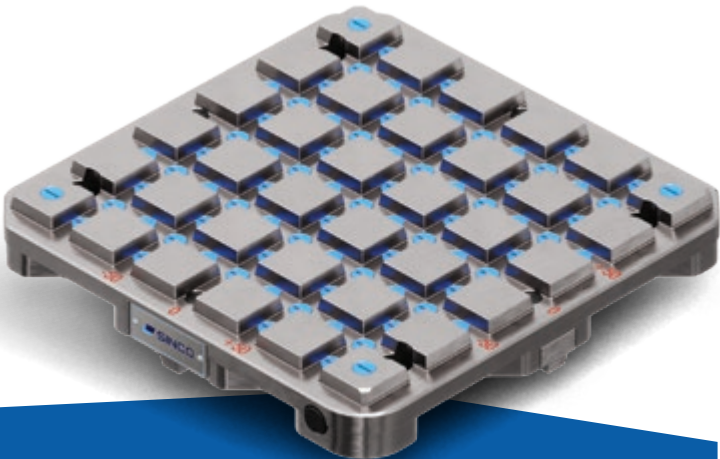
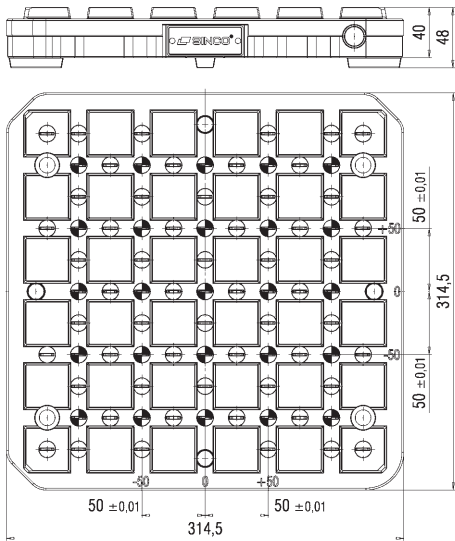
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1110-0	199.5 x 199.5 x 40 (48)	9x	24x	1x/ 4x	9.4 kg

MultiZero® Pallet 240 x 240



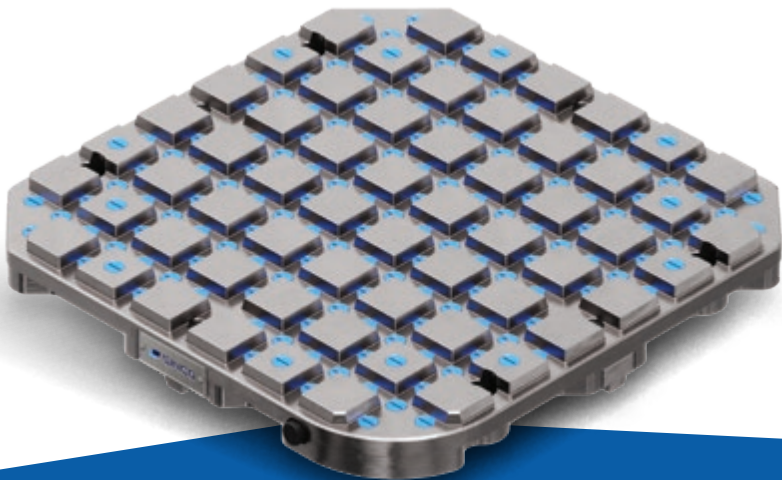
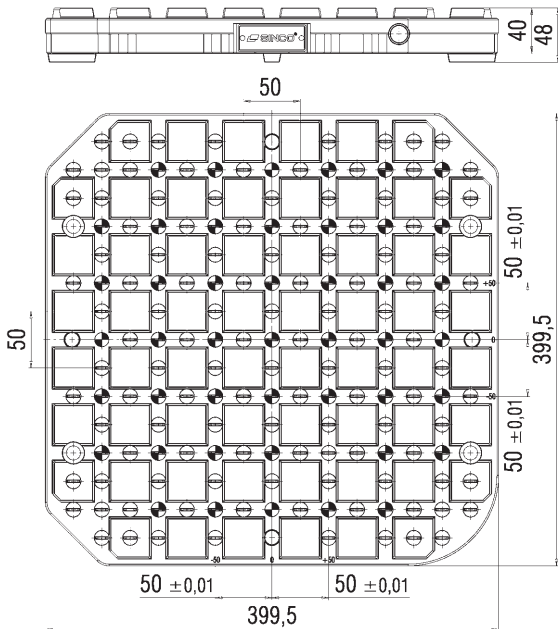
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1120-0	239.5 x 239.5 x 40 (48)	21x	53x	4x	13.4 kg

MultiZero® Pallet 315 x 315



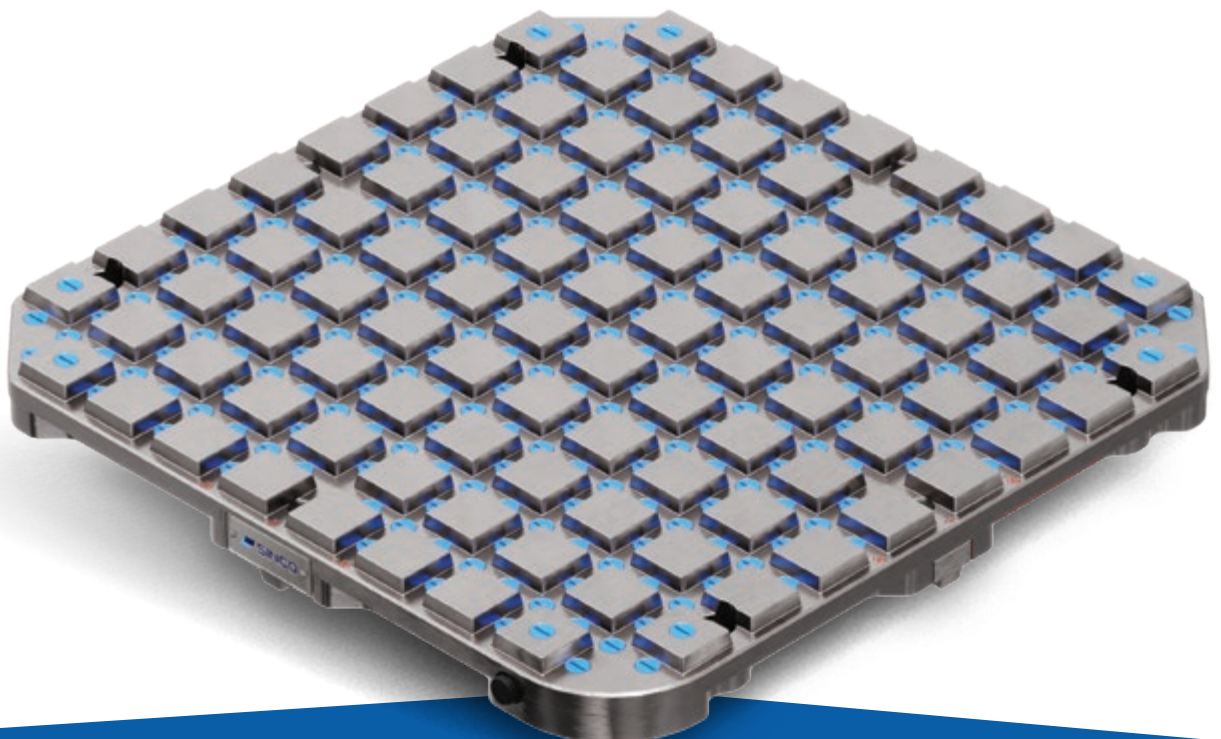
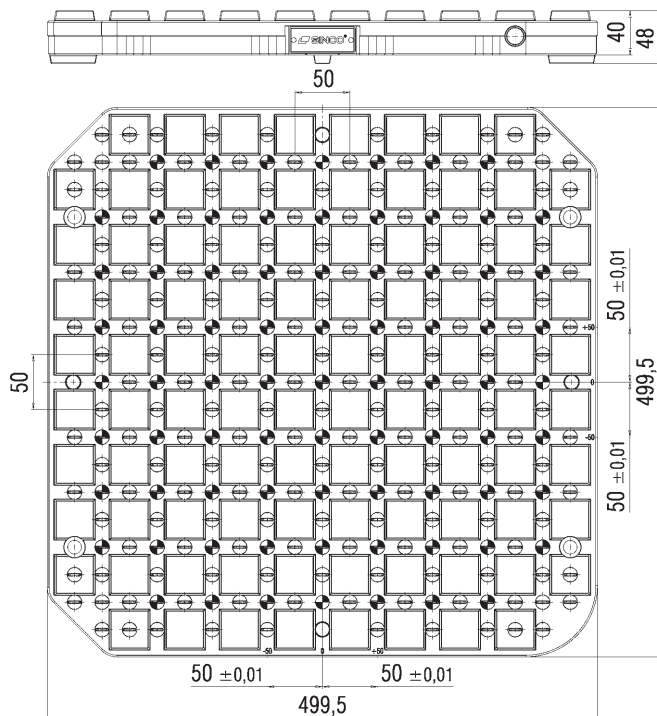
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1130-0	314.5 x 314.5 x 40 (48)	25x	77x	4x	23.0 kg

MultiZero® Pallet 400 x 400



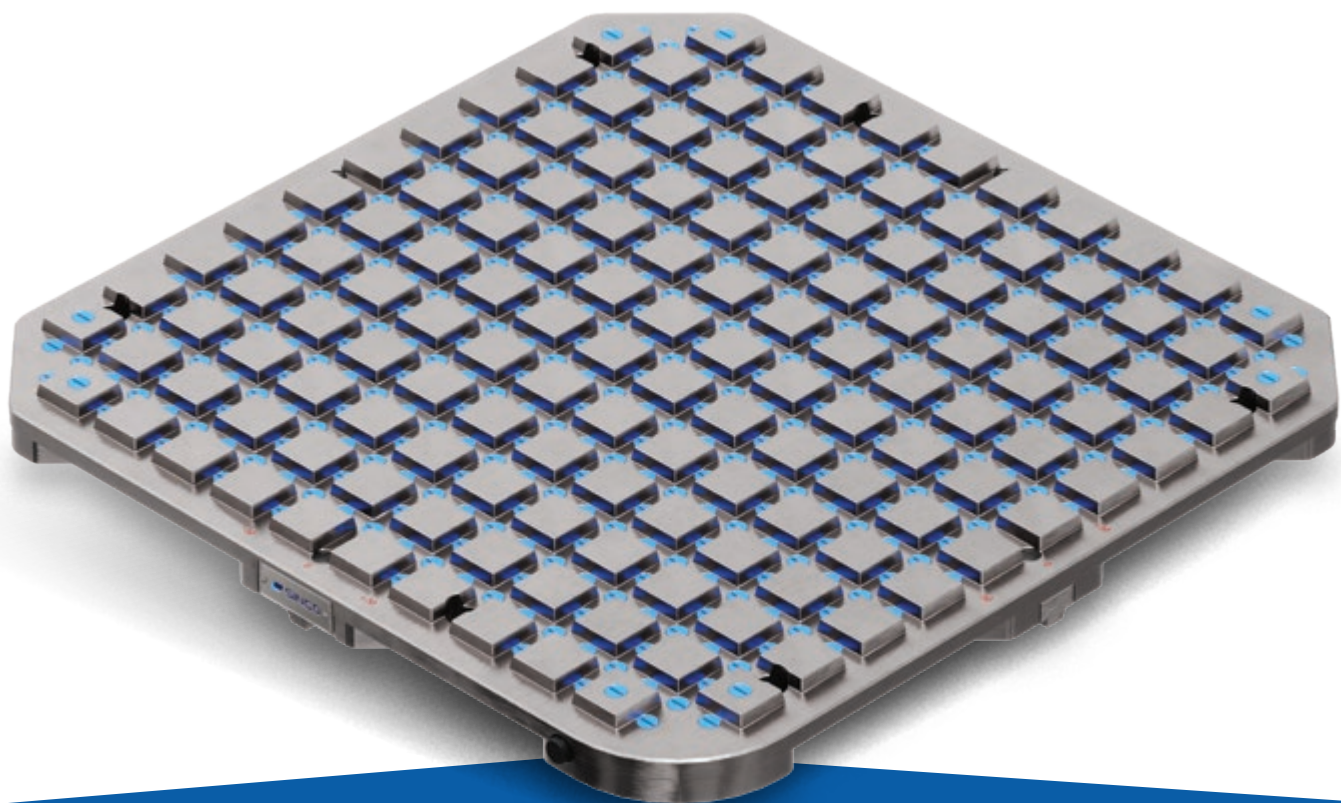
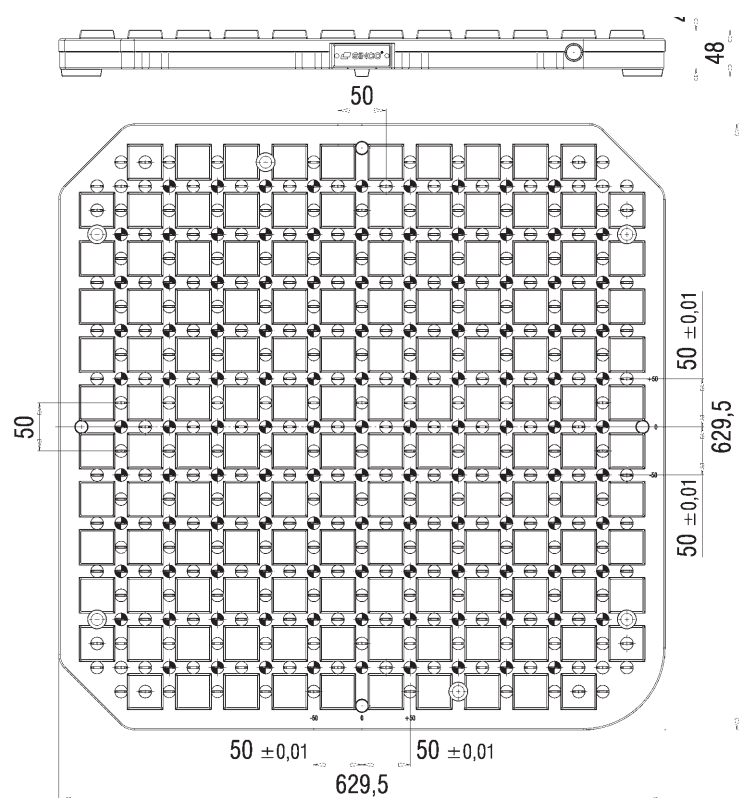
Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1140-0	399.5 x 399.5 x 40 (48)	45x	150x	4x	36.6 kg

MultiZero® Pallet 500 x 500



Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1150-0	499,5 x 499,5 x 40 (48)	77x	249x	4x	57,9 kg

MultiZero® Pallet 630 x 630

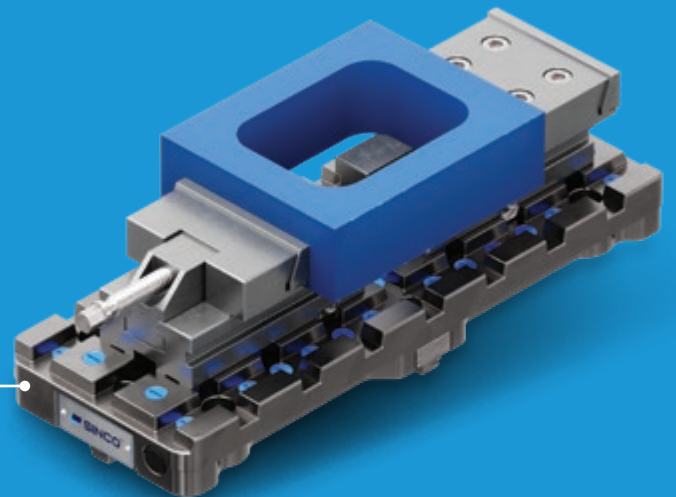


Order No.	Dimensions (mm)	Zero points	Thread holes M12	Clamping bolts	Weight
1B2-1160-0	629.5 x 629.5 x 40 (48)	117x	375x	6x	91.2 kg

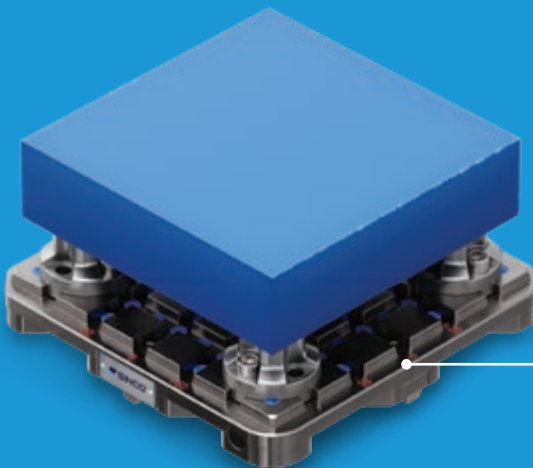
MultiZero® Pallet Examples



MultiZero® Pallet 200 x 400 with workpieces clamped by MultiZero® Clamps



MultiZero® Pallet 150 x 400 with workpiece clamped with modular vise



MultiZero® Pallet 315 x 315 with workpiece lifted by MultiZero Supports

MultiZero® Pneumatic Pallet

Pallet features

- Used for automatic zero-point clamping of standard pallets equipped with retractable nipples, vises and other fixtures
- Includes MultiZero® points, slot pattern and pneumatic zero-point modules installed
- Designed to fit completely automated machine environments
- Clamping repeatability <0.005 mm, at each zero point
- Two types of pallet clamping:
 - Clamped with M12 bolts to the MultiZero® Plate
 - Clamped with addition of retractable nipples onto the MultiZero® Pneumatic Plate
- Pallet can be lifted by supports centered through slots from the underside at each clamping bolt

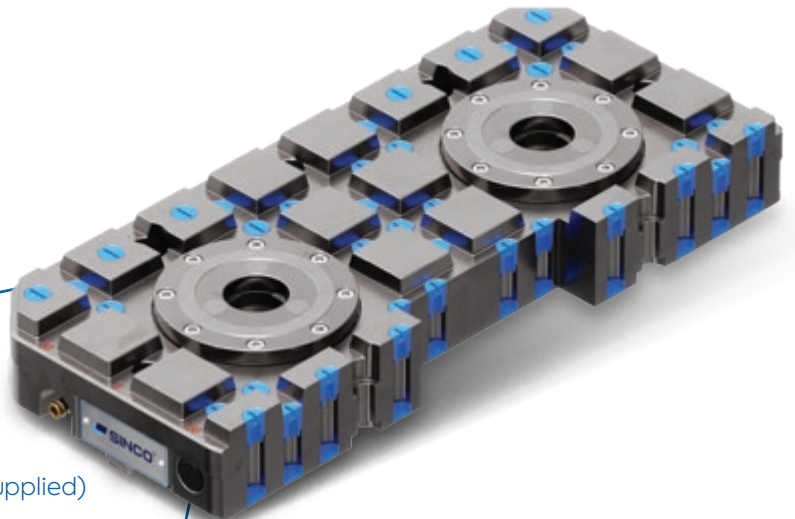
- Pallet material: corrosion-resistant steel
- RFID identification and data chip optionally installed on each pallet



Pneumatic module specification:

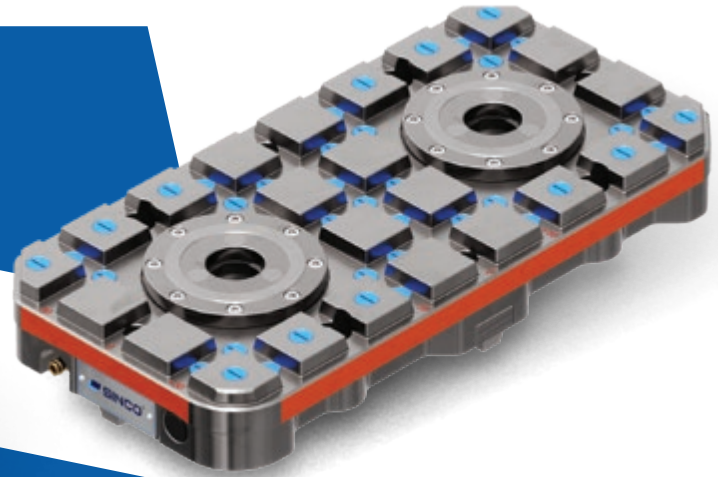
- Retention force of each module: 55kN
- Air Pressure: min. 5 bar, max. 10 bar
- Operating temperature: +10 to +80°C
- Min. release time 0.2 seconds

- Array of tapered slots, pattern 50 x 50 mm
- Pneumatic modules with zero points

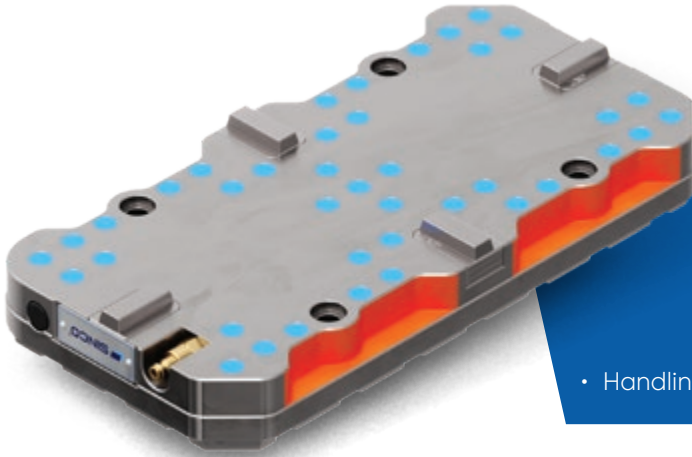


- Plastic protectors for thread holes (supplied)

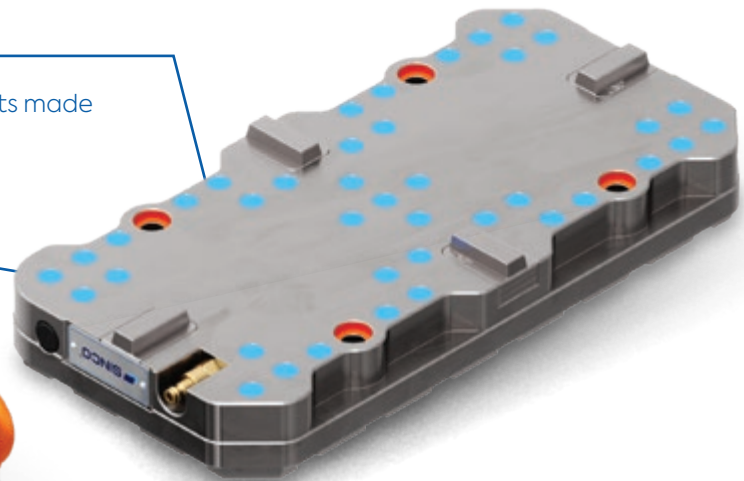
- Precise pallet sides used for centering



- Handling grooves on the underside



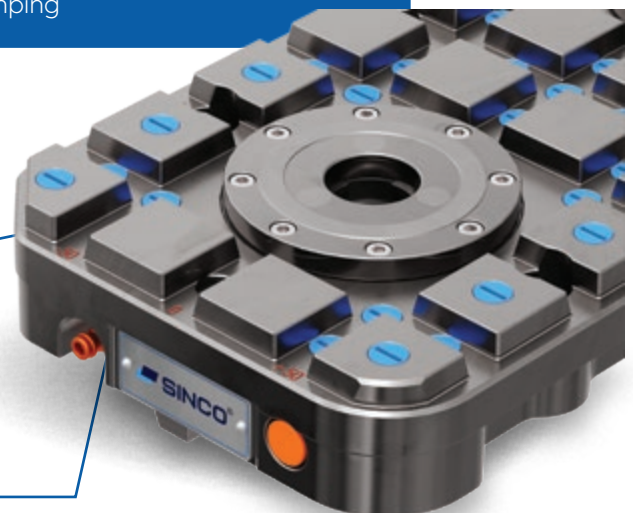
- Positioning holes for clamping supports made underneath clamping bolts



- M12 thread holes on the top used for lifting eyebolts and clamping



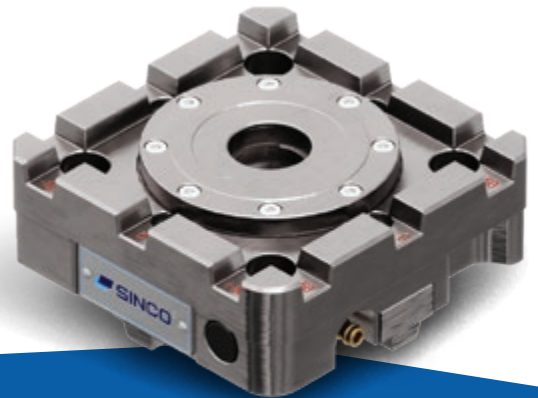
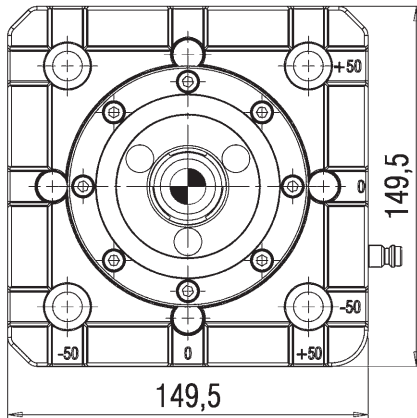
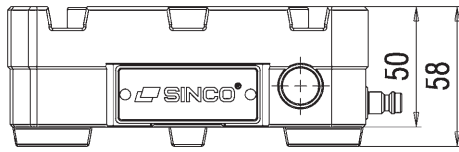
- Standard shut-off air connection nipple
- RFID Identification and data chip installed optionally





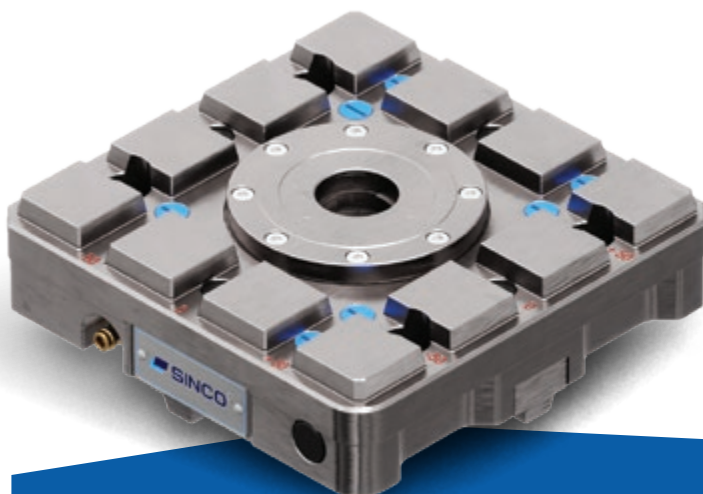
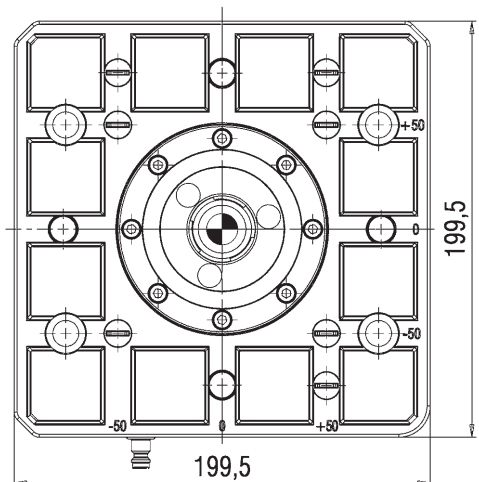
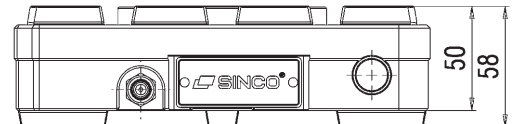
E* - MultiZero® point pitch / **F*** - Pneumatic zero points qty. / **G*** - MultiZero® Points qty. / **H*** - Thread holes (M12) on slot bottom qty. / **J*** - Thread holes (M12) on top qty. / **L*** - Air connections / Air lines qty. / **P*** - Pneumatic zero points pitch. / All plates are made from corrosion-resistant steel.

MultiZero® Pneumatic Pallet 150 x 150



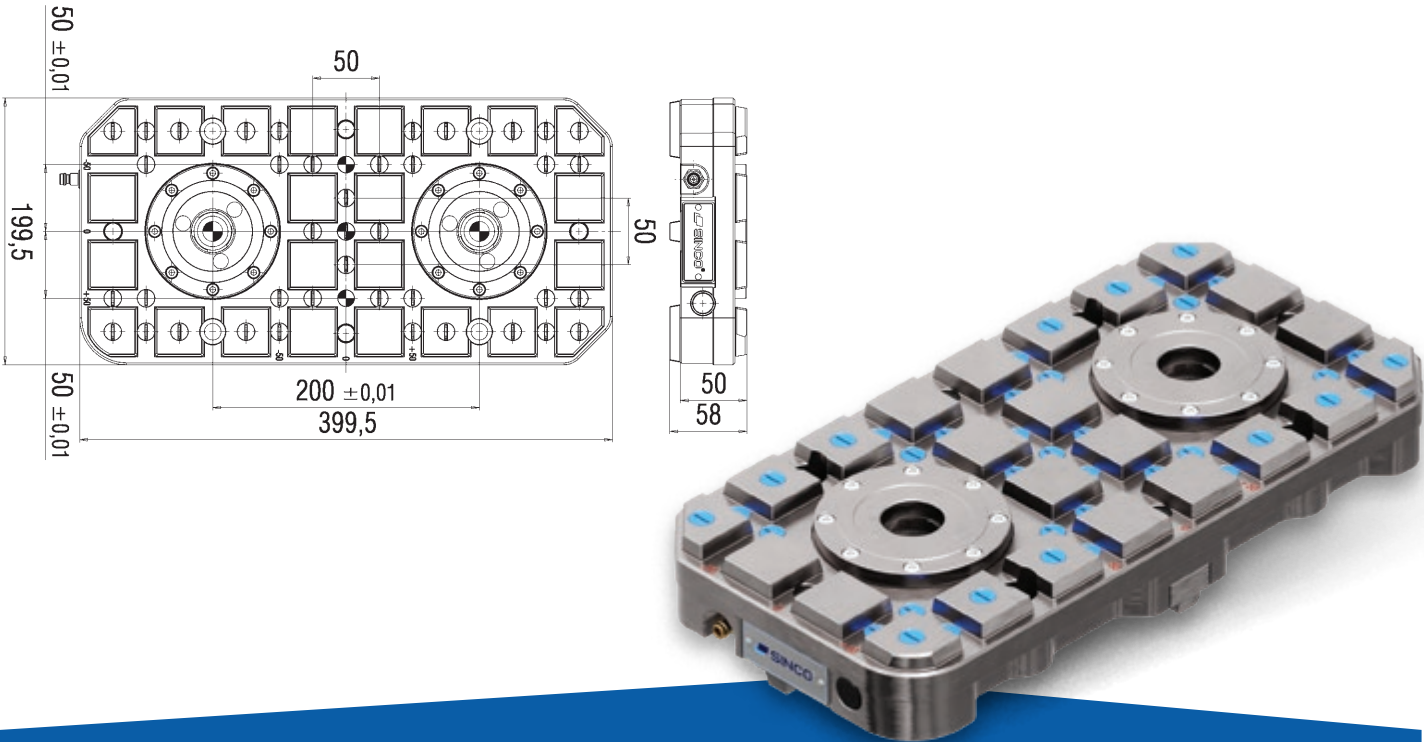
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Clamping bolts	Weight
1B2-1102-0	149.5 x 149.5 x 50 (58)	1x	0	4x	8.3 kg

MultiZero® Pneumatic Pallet 200 x 200



Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Clamping bolts	Weight
1B2-1112-0	199.5 x 199.5 x 50 (58)	1x	0	4x	14.1 kg

MultiZero® Pneumatic Pallet 200 x 400



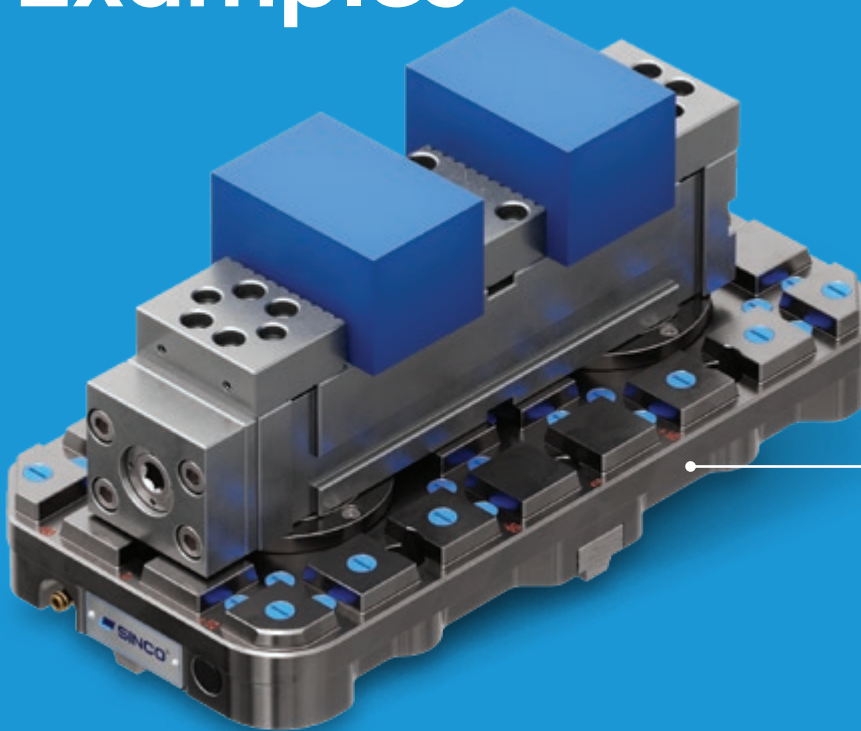
Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Clamping bolts	Weight
1B2-1042-0	199.5 x 399.5 x 50 (58)	2x	3x	4x	26.5 kg

MultiZero® Pneumatic Pallet 400 x 400

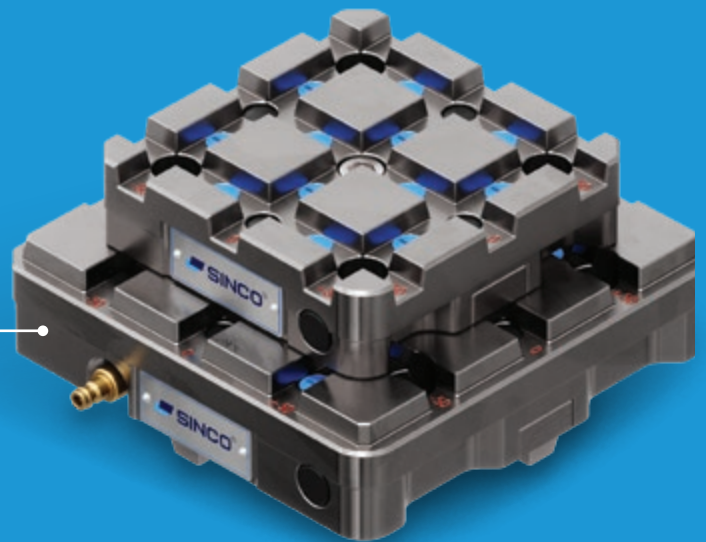


Order No.	Dimensions (mm)	Pneumatic zero points	Zero points	Clamping bolts	Weight
1B2-1142-0	399.5 x 399.5 x 50 (58)	4x	13x	4x	48.8 kg

MultiZero® Pneumatic Pallet Examples



MultiZero® Pneumatic Pallet 200 x 400
with clamped vise

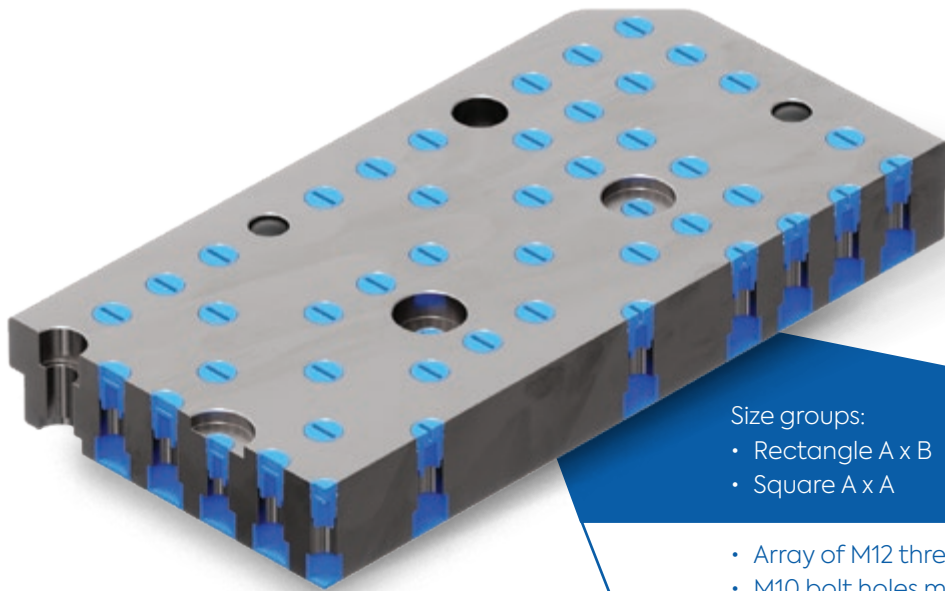


MultiZero® Pneumatic Pallet 200 x 200 with clamped
MultiZero Pallet 150 x 150

MultiZero® Clamp Pallet

Pallet features

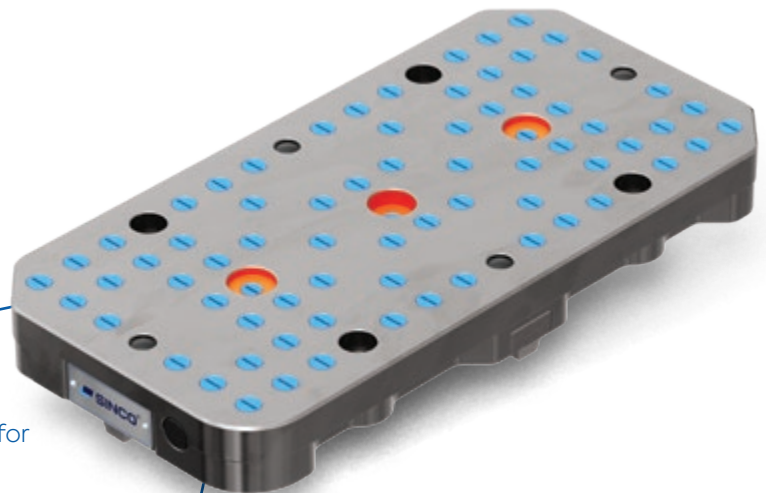
- Used for clamping various fixtures or workpieces and vises directly
 - M12 thread holes in array of 25x25 mm
 - Standard dowel holes D12,00 F6 at each M12 thread, support hole and dowel system
 - Holes for M10 bolts made from the underside, at every M12 thread hole
 - Precisely machined holes D25,00 H7 for centering vises and fixtures, on the top of pallet
 - Two types of pallet clamping:
 - Clamped with M12 bolts to the MultiZero® Plate
 - Clamped with retractable nipple onto the MultiZero® Pneumatic Plate
 - Pallet can be lifted by supports centered through slots from the underside at each clamping bolt
-
- Pallet material: corrosion-resistant steel
 - RFID identification and data chip optionally on each pallet



Size groups:

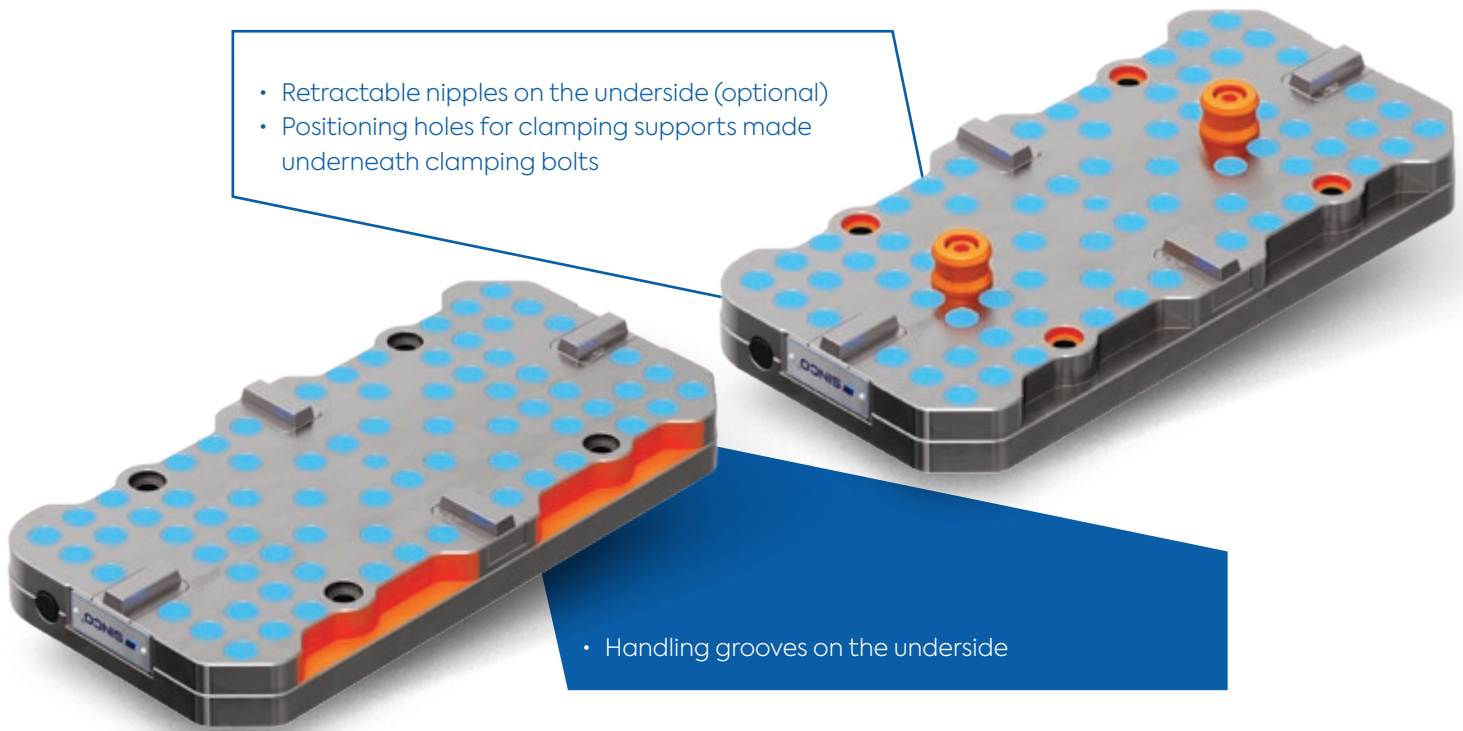
- Rectangle A x B
- Square A x A

- Array of M12 thread holes, pattern 25x25 mm
- M10 bolt holes made from the underside
- Plastic protectors for thread holes (supplied)



- Centering holes D25.00 on top used for centering vises and special fixtures
- Number and pattern vary on pallet size

- Retractable nipples on the underside (optional)
- Positioning holes for clamping supports made underneath clamping bolts



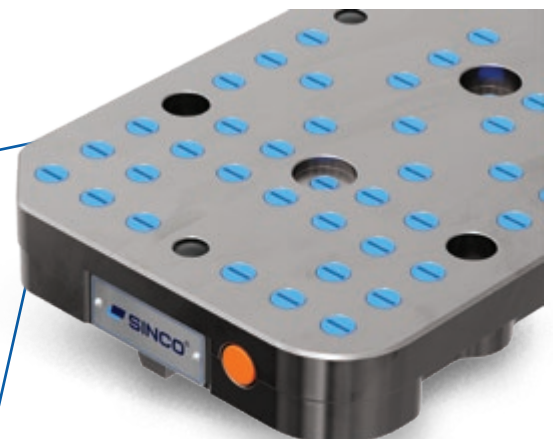
- Handling grooves on the underside

- Precise pallet sides and centering holes can be used for centering

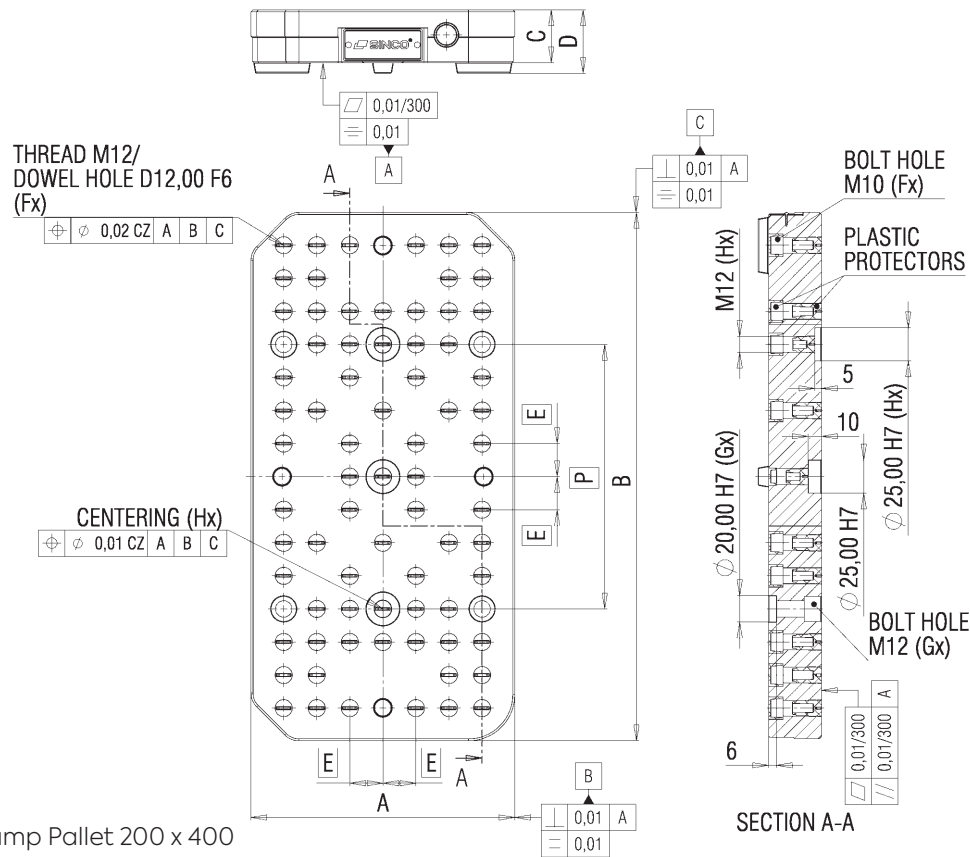


- Lifting with eyebolts

- RFID identification and data chip installed optionally



MultiZero® Clamp Pallet Rectangle Sizes A x B

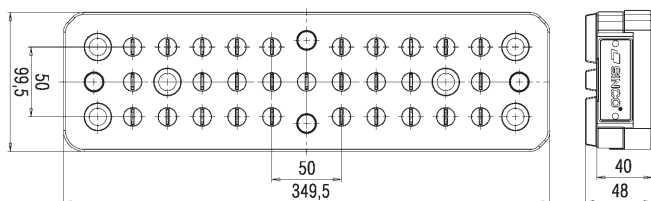


Example: MultiZero® Clamp Pallet 200 x 400

Size	A (mm)	B (mm)	C (mm)	D (mm)	E* (mm)	F*	G*	H*	Weight (kg)
100 x 350	99.5	349.5	40.0	48.0	25	29	2x/ 4x	-	8.2
150 x 320	149.5	319.5	40.0	48.0	25	39	4	3	11.6
150 x 400	149.5	399.5	40.0	48.0	25	48	4	3	14.9
200 x 400	199.5	399.5	40.0	48.0	25	72	4	3	19.8
200 x 500	199.5	499.5	40.0	48.0	25	87	4	3	24.9
200 x 600	199.5	599.5	40.0	48.0	25	109	4	3	29.7
250 x 500	249.5	499.5	40.0	48.0	25	88	4	3	31.7
300 x 630	299.5	629.5	40.0	48.0	25	130	6	3	48.8
300 x 800	299.5	799.5	40.0	48.0	25	166	6	5	63.9
400 x 500	399.5	499.5	40.0	48.0	25	160	4	4	50.9
500 x 600	499.5	599.5	40.0	48.0	25	244	4	7	77.3
600 x 800	599.5	799.5	40.0	48.0	25	338	6	15	126.4

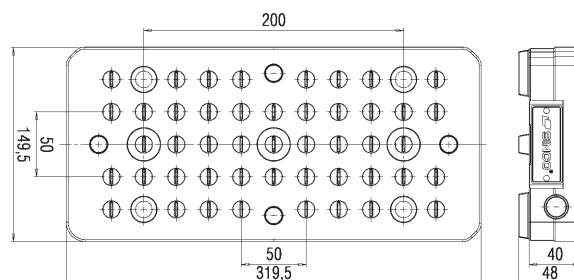
E* - Hole pitch / F* -Thread holes (M12) & Dowel holes D12.00 F6 qty. / G* - Clamping bolts (M12) qty. / H* - Centering points qty. / All plates are made from corrosion-resistant steel.

MultiZero® Clamp Pallet 100 x 350



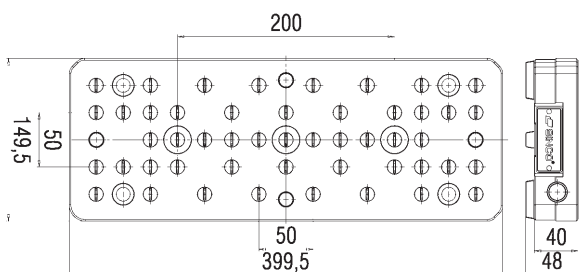
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1011-0	99.5 x 349.5 x 40 (48)	-	29x	2x/4x	8.2 kg

MultiZero® Clamp Pallet 150 x 320



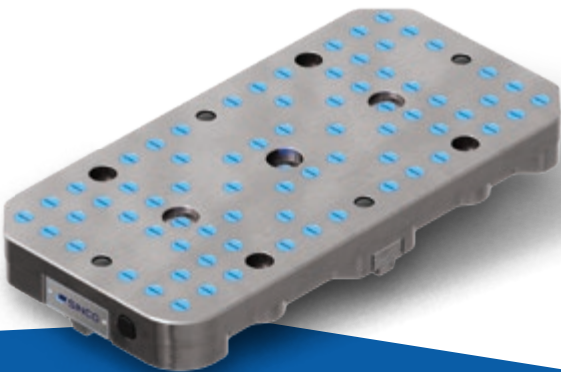
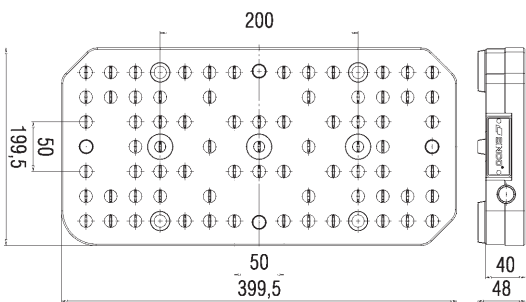
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1021-0	149.5 x 319.5 x 40 (48)	3x	39x	4x	11.6 kg

MultiZero® Clamp Pallet 150 x 400



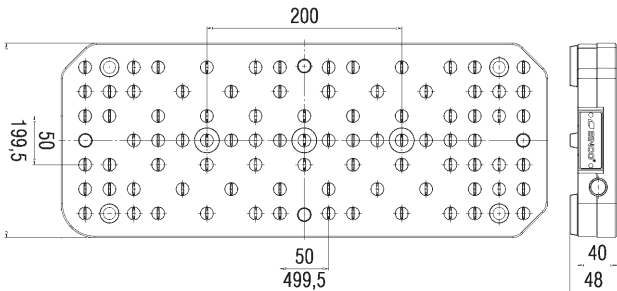
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1031-0	149.5 x 399.5 x 40 (48)	3x	48x	4x	14.9 kg

MultiZero® Clamp Pallet 200 x 400



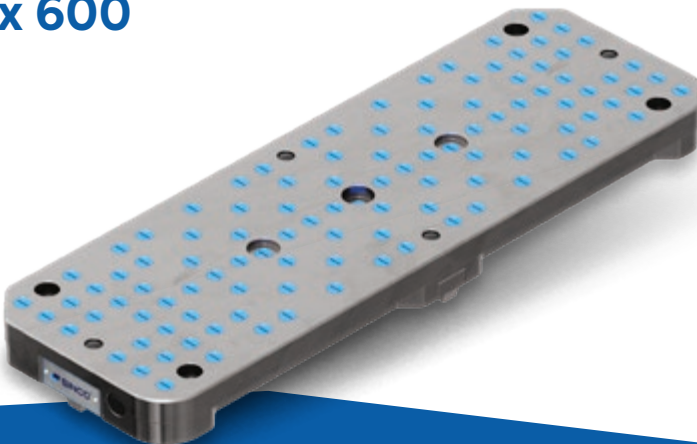
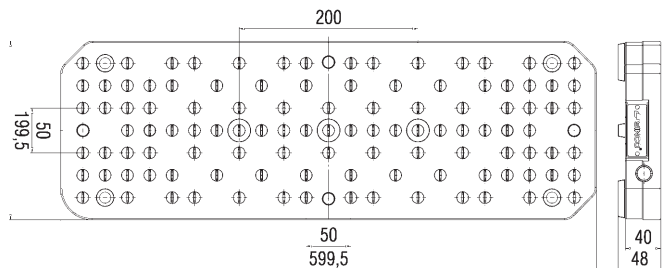
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1041-0	199.5 x 399.5 x 40 (48)	3x	72x	4x	19.8 kg

MultiZero® Clamp Pallet 200 x 500



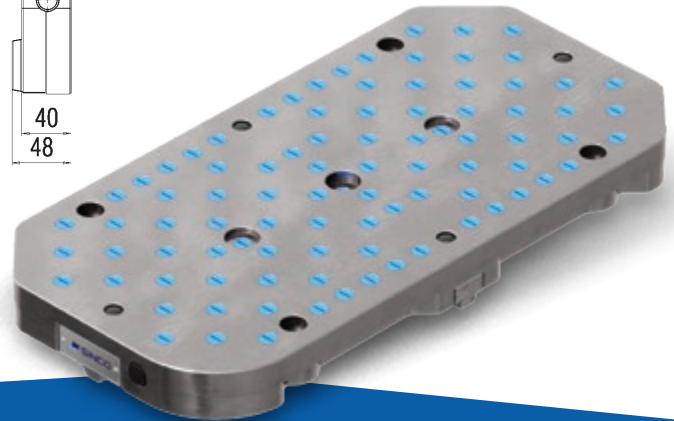
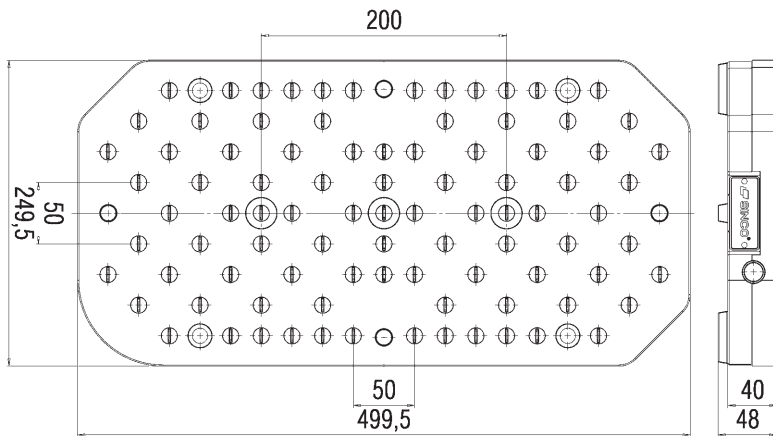
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1051-0	199.5 x 499.5 x 40 (48)	3x	87x	4x	24.9 kg

MultiZero® Clamp Pallet 200 x 600



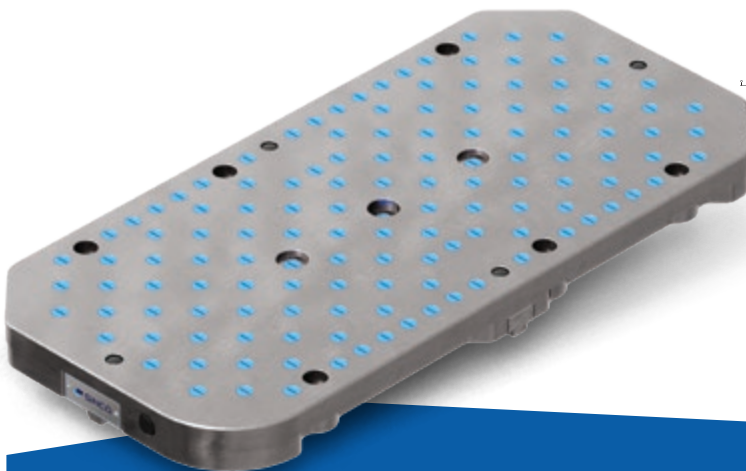
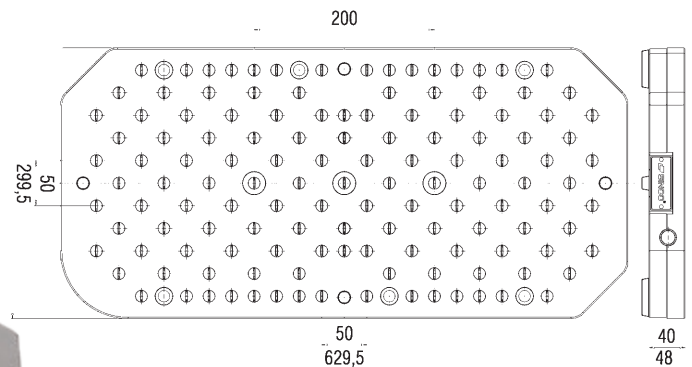
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1061-0	199.5 x 599.5 x 40 (48)	3x	109x	4x	29.7 kg

MultiZero® Clamp Pallet 250 x 500



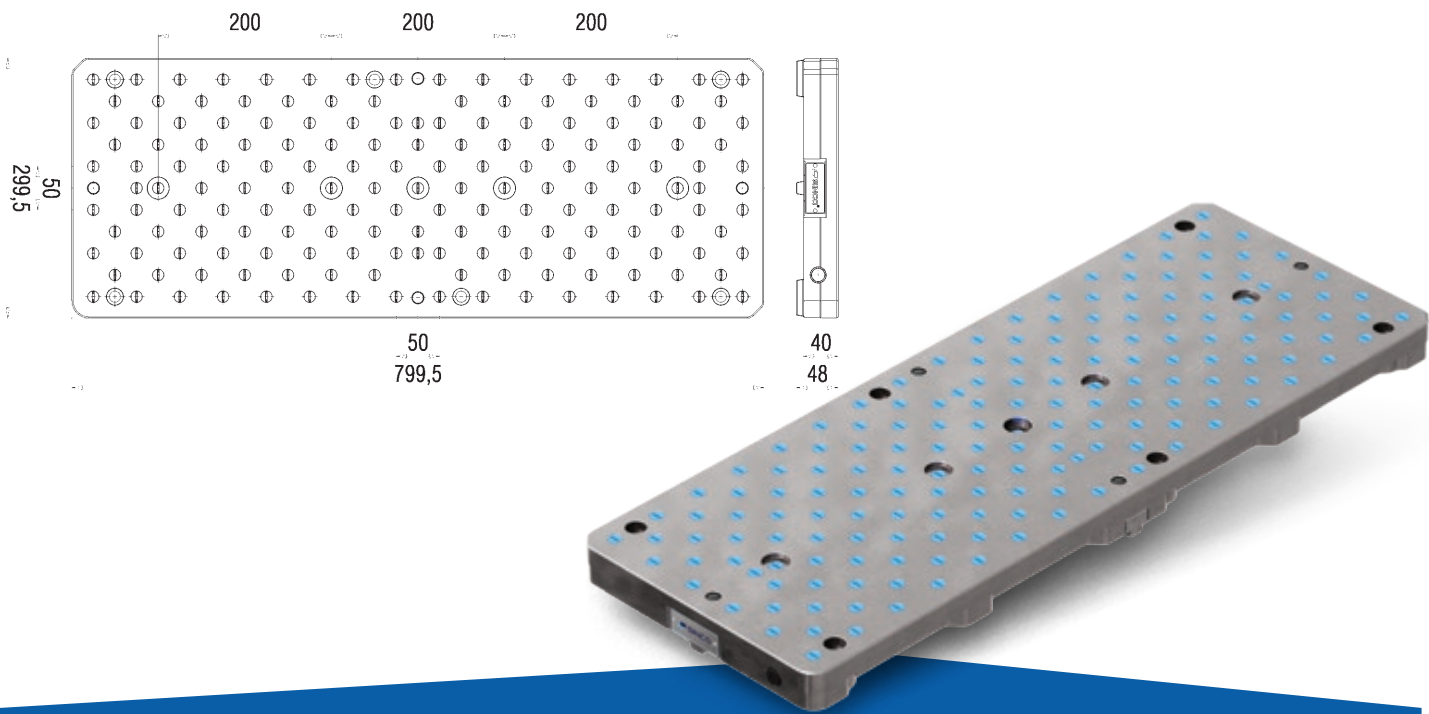
Order No.	Dimensions (mm)	Centering	Trehad holes M12	Clamping bolts	Weight
1B2-1071-0	249.5 x 499.5 x 40 (48)	3x	88x	4x	31.7 kg

MultiZero® Clamp Pallet 300 x 630



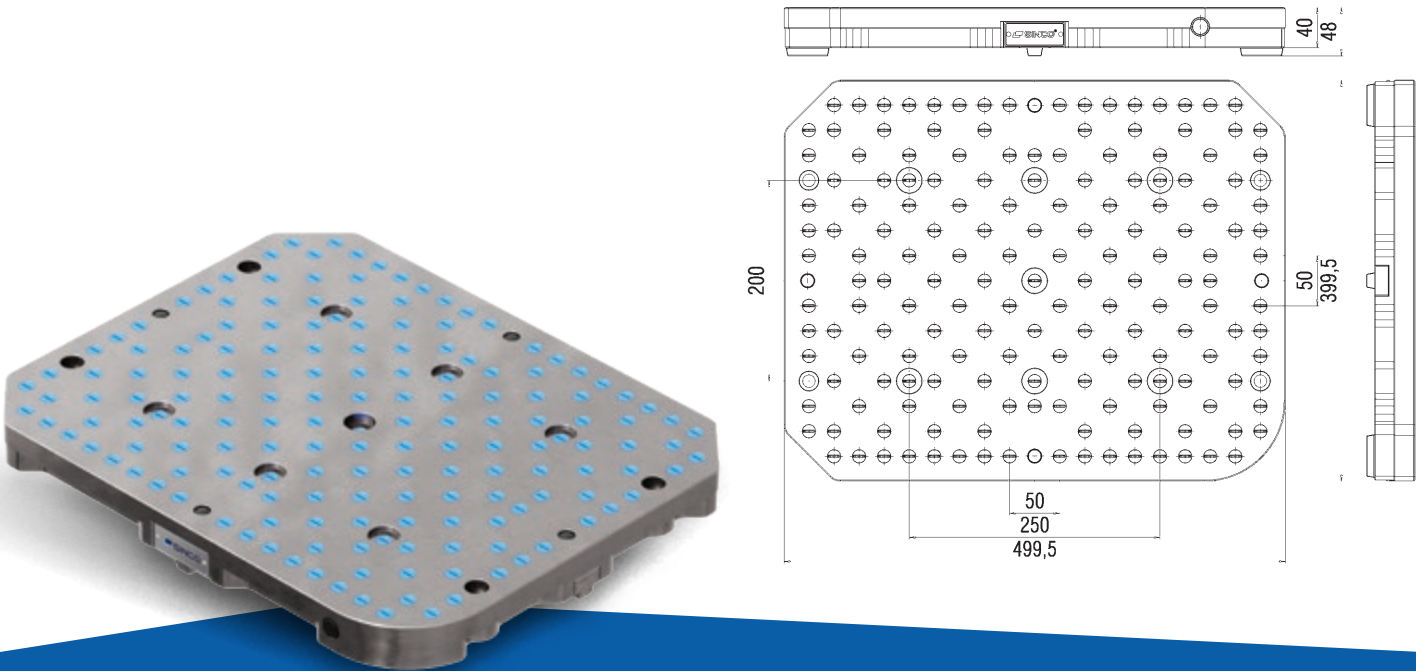
Order No.	Dimensions (mm)	Centering	Trehad holes M12	Clamping bolts	Weight
1B2-1081-0	299.5 x 629.5 x 40 (48)	3x	130x	6x	48.8 kg

MultiZero® Clamp Pallet 300 x 800



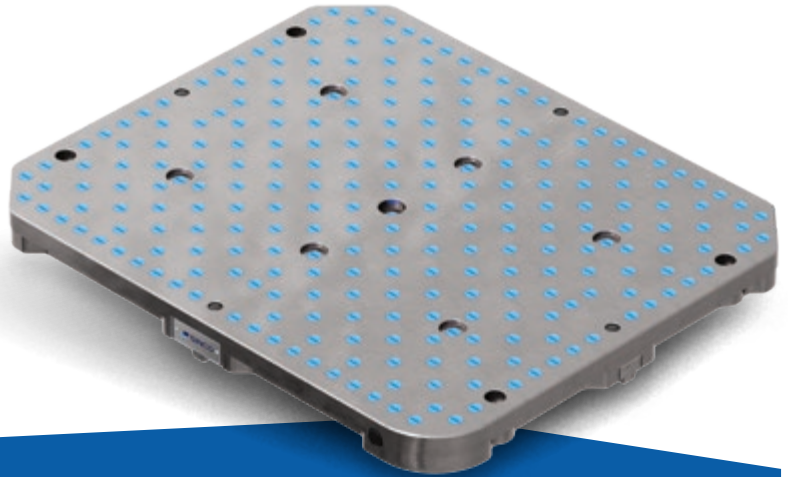
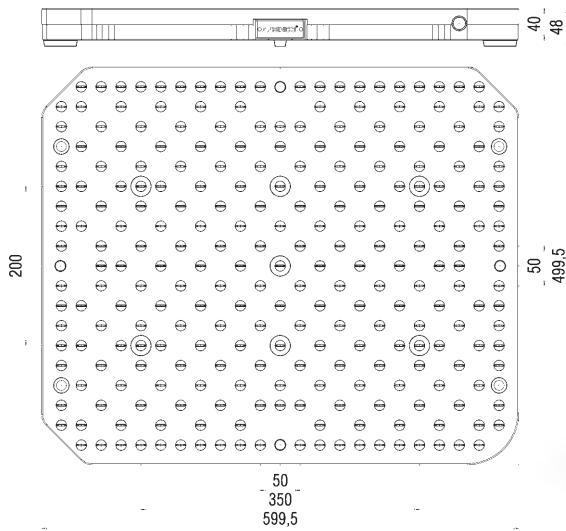
Order No.	Dimensions (mm)	Centering	Trehad holes M12	Clamping bolts	Weight
1B2-1091-0	299.5 x 799.5 x 40 (48)	5x	166x	6x	63.9 kg

MultiZero® Clamp Pallet 400 x 500



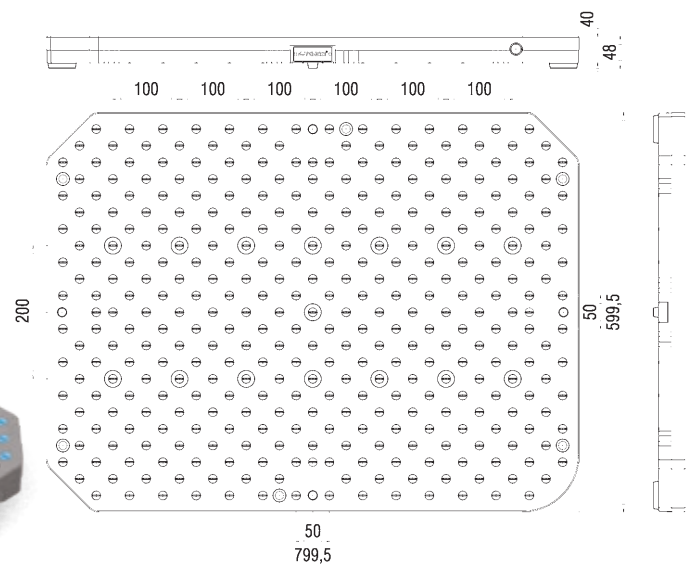
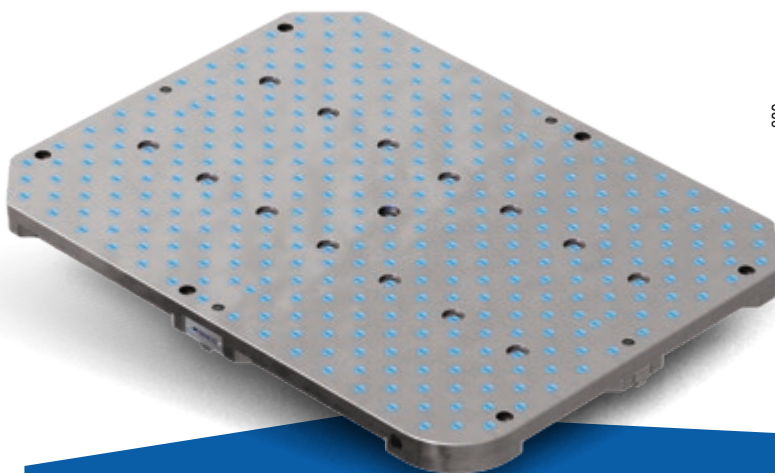
Order No.	Dimensions (mm)	Centering	Trehad holes M12	Clamping bolts	Weight
1B2-1181-0	399.5 x 499.5 x 40 (48)	7x	160x	4x	50.9 kg

MultiZero® Clamp Pallet 500 x 600



Order No.	Dimensions (mm)	Centering	Trehad holes M12	Clamping bolts	Weight
1B2-1191-0	499.5 x 599.5 x 40 (48)	7x	244x	4x	77.3 kg

MultiZero® Clamp Pallet 600 x 800

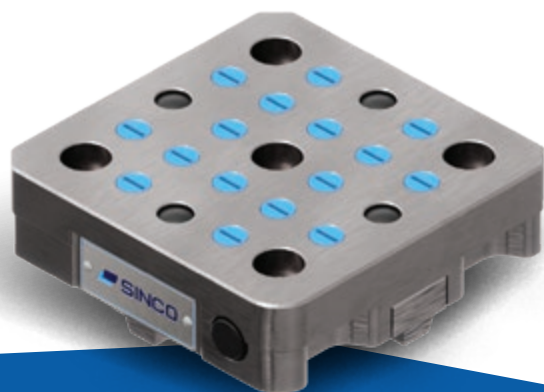
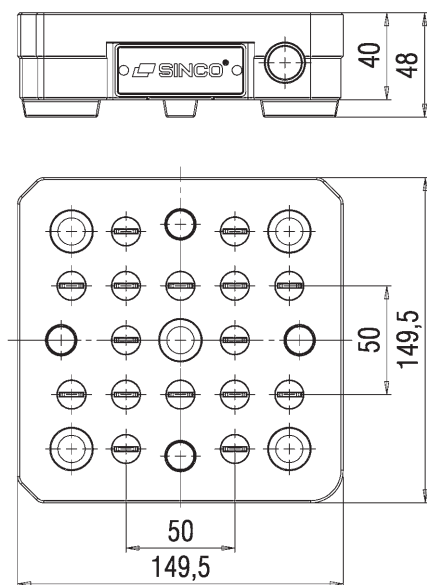


Order No.	Dimensions (mm)	Centering	Trehad holes M12	Clamping bolts	Weight
1B2-1201-0	599.5 x 799.5 x 40 (48)	15x	338x	6x	126.4 kg



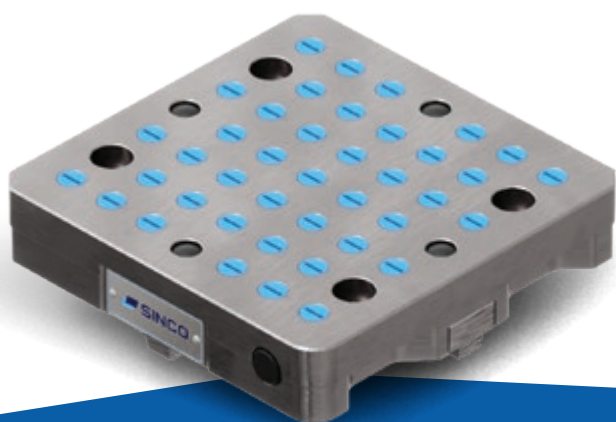
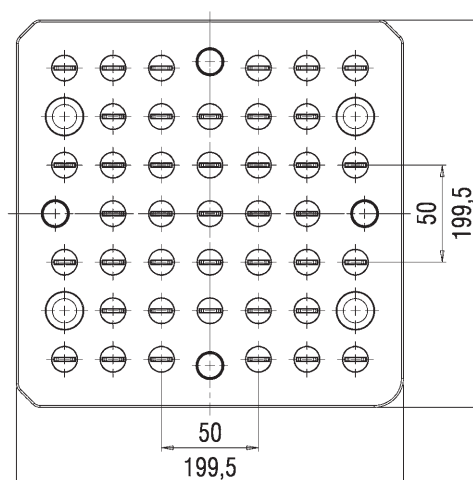
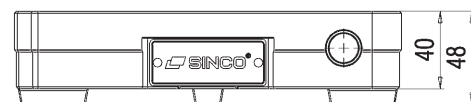
E* - Hole pitch / F* -Thread holes (M12) & Dowel holes D12.00 F6 qty. / G* - Clamping bolts (M12) qty. / H* - Centering points qty. / All plates are made from corrosion-resistant steel.

MultiZero® Clamp Pallet 150 x 150



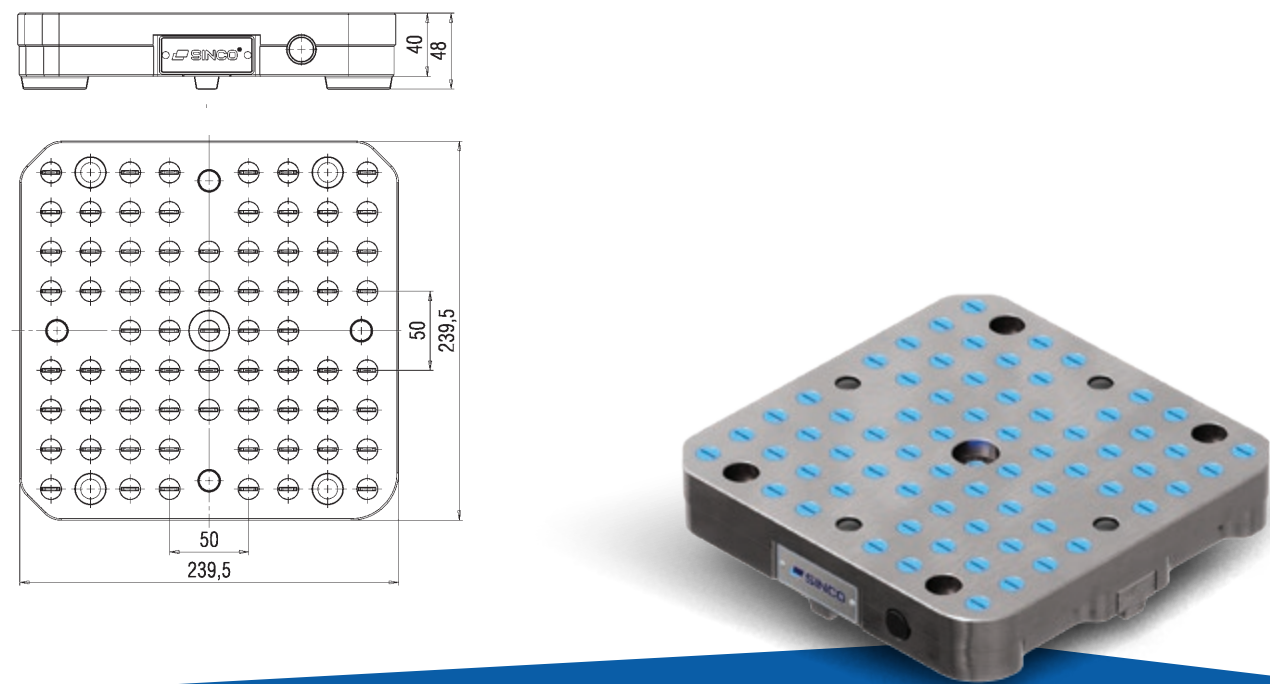
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1101-0	149.5 x 149.5 x 40 (48)	-	16x	1x/ 4x	5.6 kg

MultiZero® Clamp Pallet 200 x 200



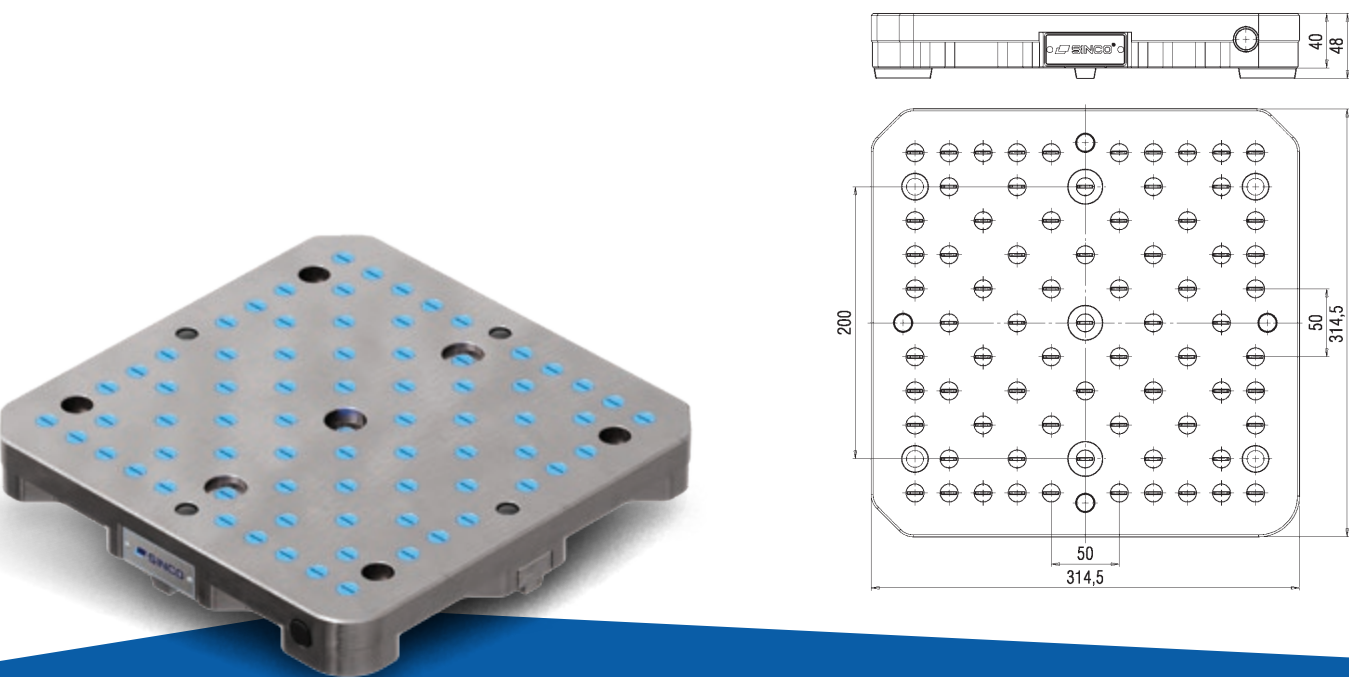
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1111-0	199.5 x 199.5 x 40 (48)	-	41x	4x	10.0 kg

MultiZero® Clamp Pallet 240 x 240



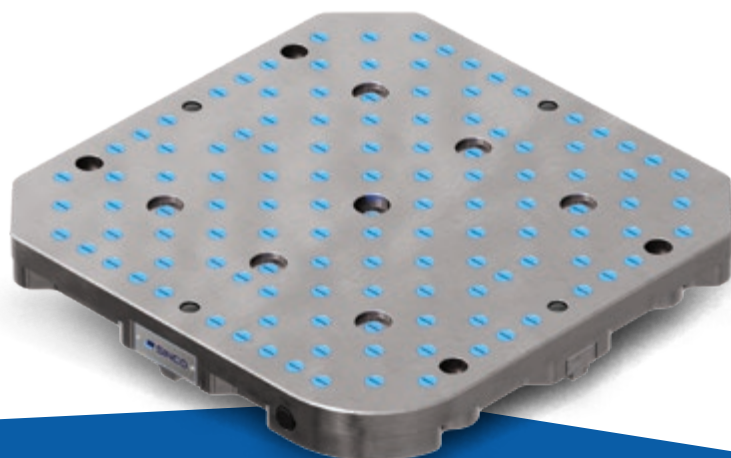
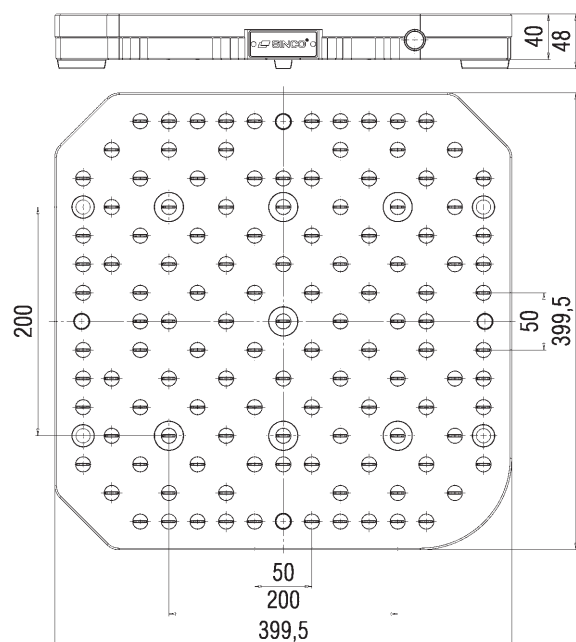
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1121-0	239.5 x 239.5 x 40 (48)	1x	69x	4x	14.0 kg

MultiZero® Clamp Pallet 315 x 315



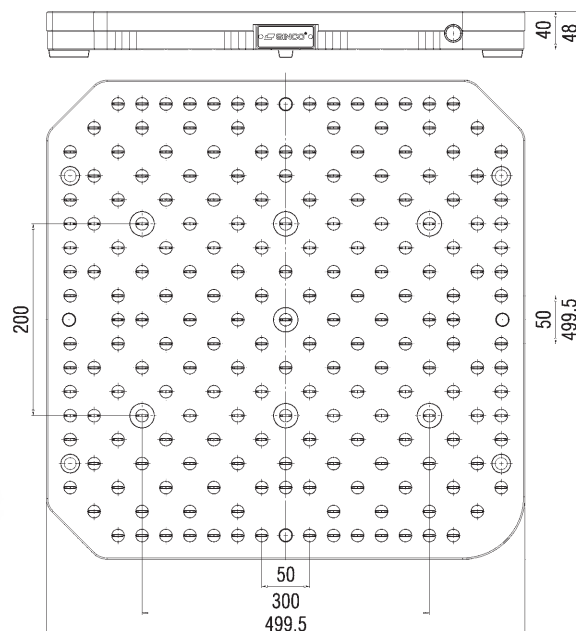
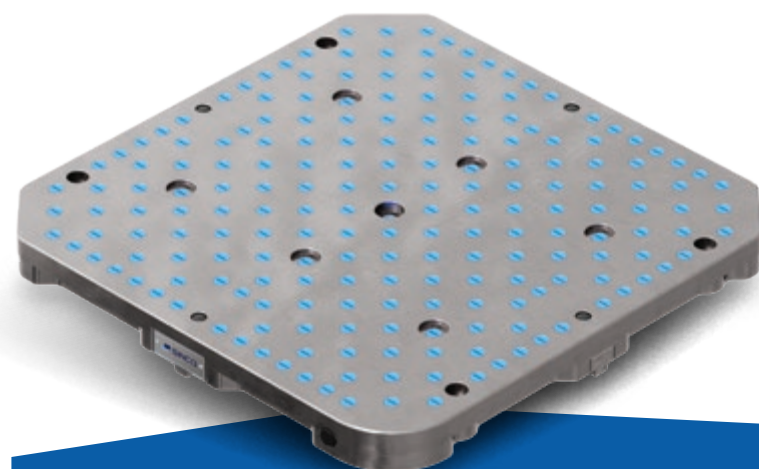
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1131-0	314.5 x 314.5 x 40 (48)	3x	74x	4x	25.5 kg

MultiZero® Clamp Pallet 400 x 400



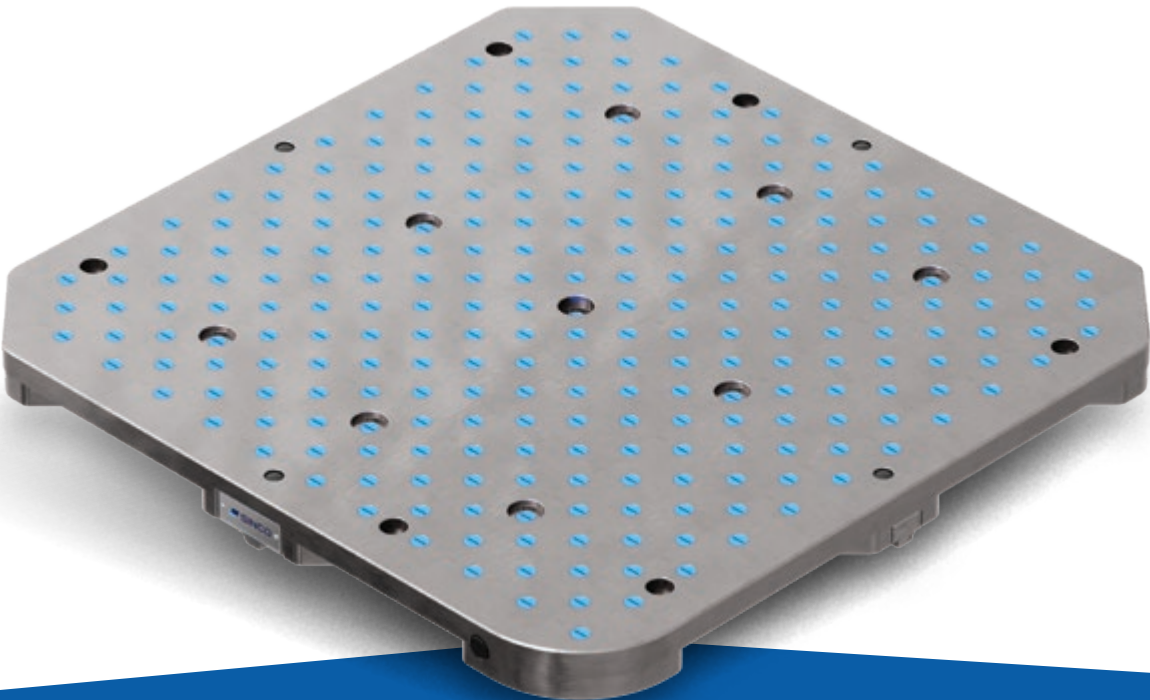
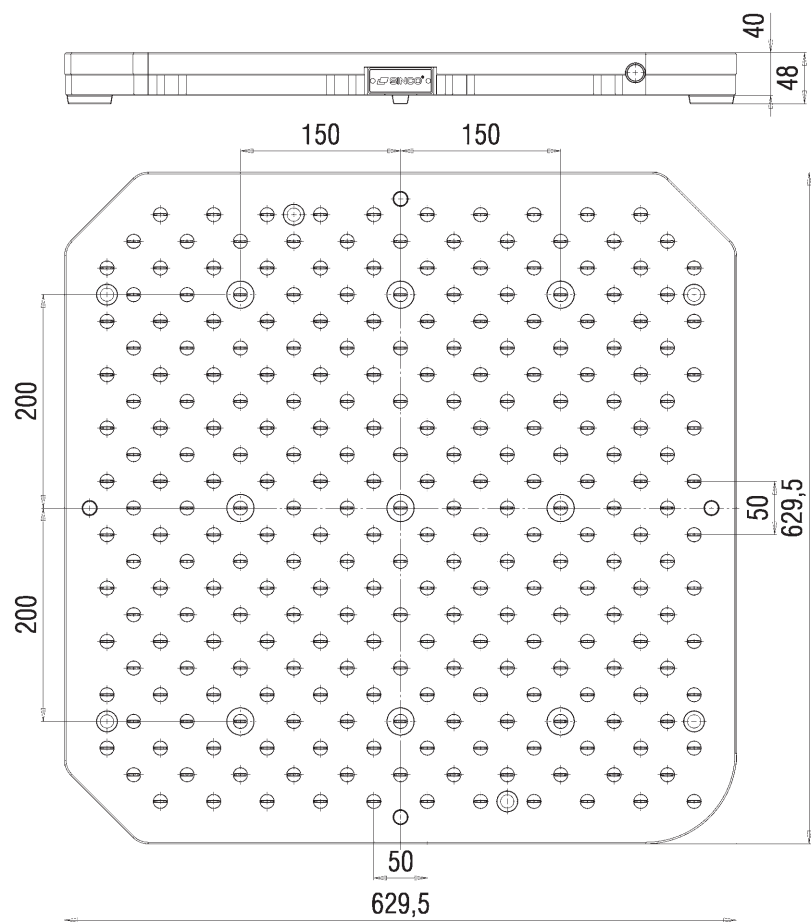
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1141-0	399.5 x 399.5 x 40 (48)	7x	121x	4x	40.9 kg

MultiZero® Clamp Pallet 500 x 500



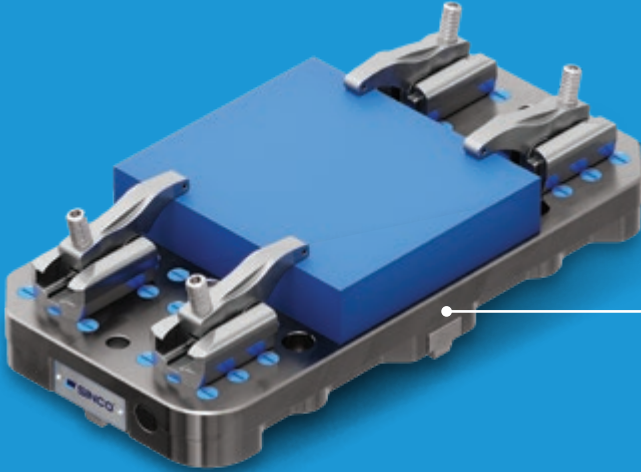
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1151-0	499.5 x 499.5 x 40 (48)	7x	197x	4x	64.6 kg

MultiZero® Clamp Pallet 630 x 630



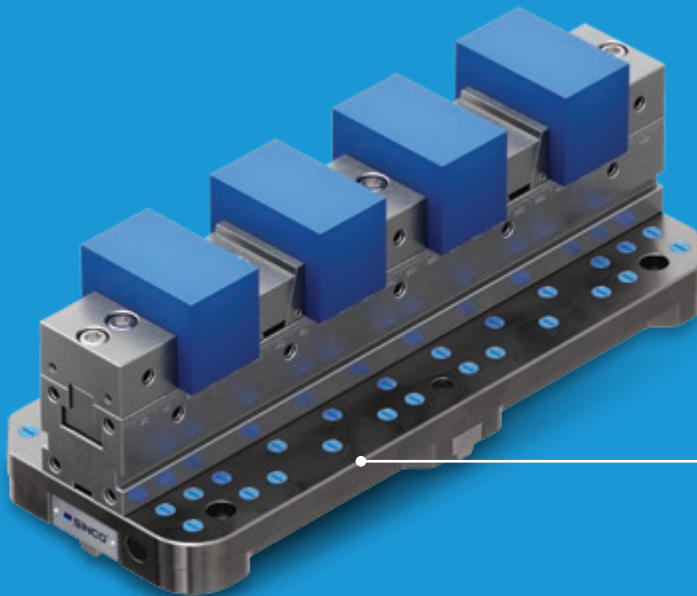
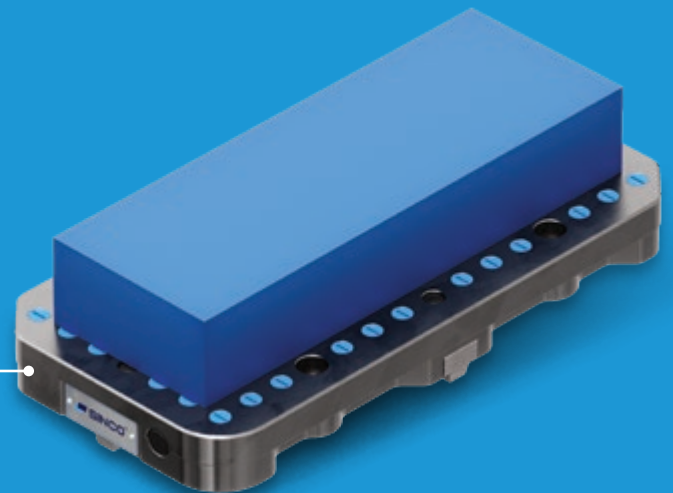
Order No.	Dimensions (mm)	Centering	Thread holes M12	Clamping bolts	Weight
1B2-1161-0	629.5 x 629.5 x 40 (48)	9x	262x	6x	104.3 kg

MultiZero® Clamp Pallet Examples



MultiZero® Clamp Pallet 200 x 400 with workpiece clamped with standard clamps

MultiZero® Clamp Pallet 200 x 400 with workpiece clamped from the underside



MultiZero® Clamp Pallet 200 x 500 with workpiece clamped with vise

MultiZero® Blank Pallet

Pallet features

- Delivered with blank top surface, or milled according to customer requests
- Used for specific uses:
 - clamping of special vises and clamping fixtures
 - clamping customer specific workpieces, pallets can be designed and produced according customers project requirements
 - possible to install specific zero-point pneumatic modules
- Two types of pallet clamping:
 - Clamped with M12 bolts to the MultiZero® Plate
 - Clamped with retractable nipples onto the MultiZero® Pneumatic Plate
- Pallet can be lifted by supports centered through slots from the underside at each clamping bolt

- Pallet material: corrosion-resistant steel
- RFID identification and data chip optionally installed on each pallet

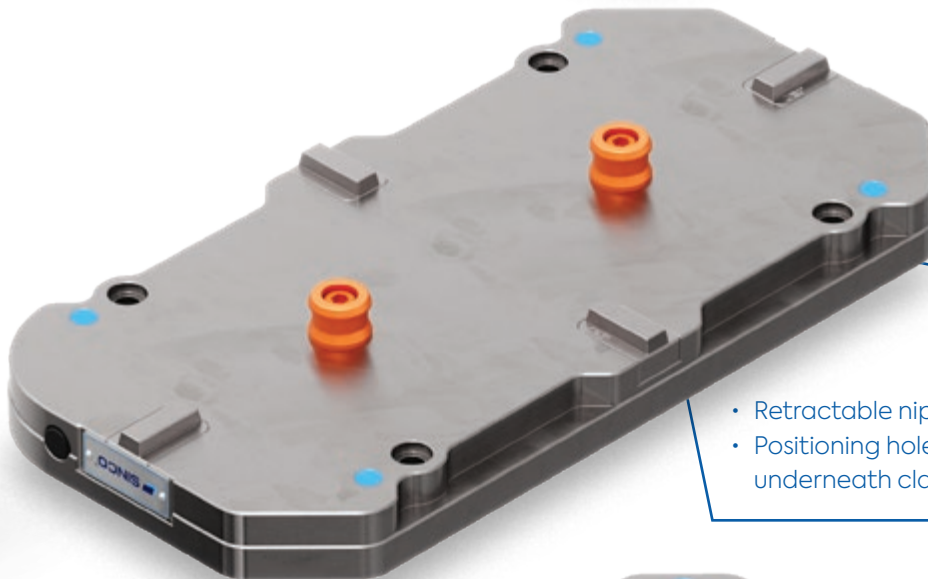
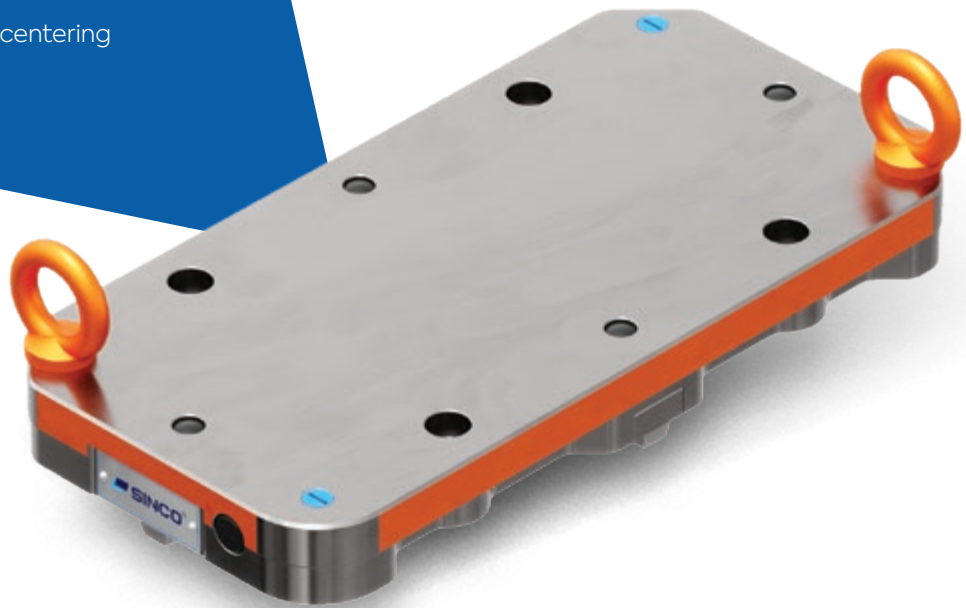


Size groups:

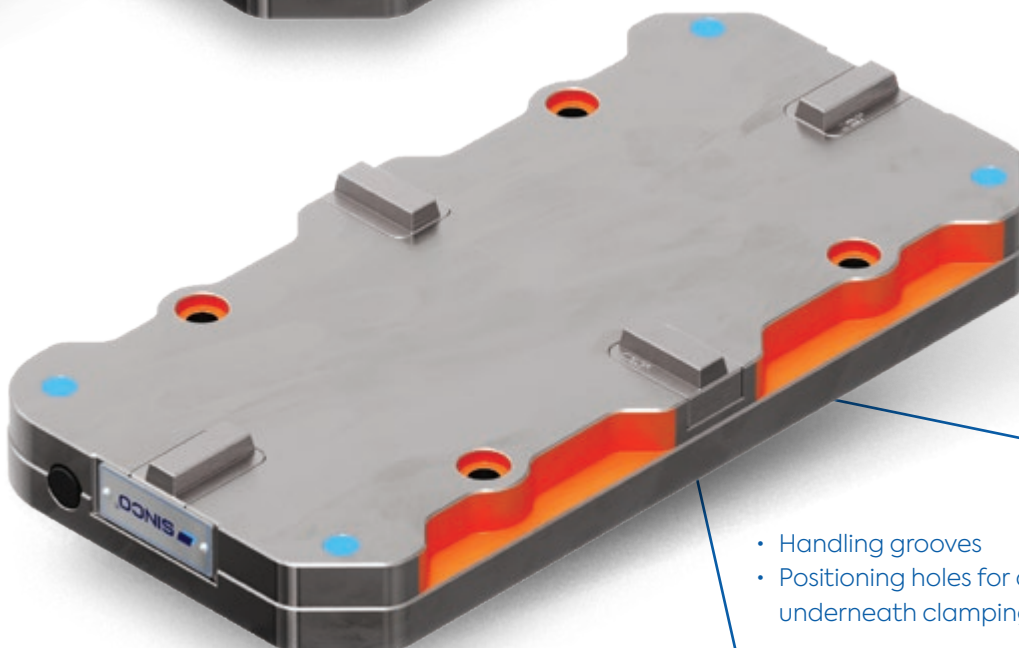
- Rectangle A x B
- Square A x A

- Plastic protectors for thread holes
- RFID identification and data chip installed optionally

- Precise pallet sides used for centering
- M12 thread holes for lifting

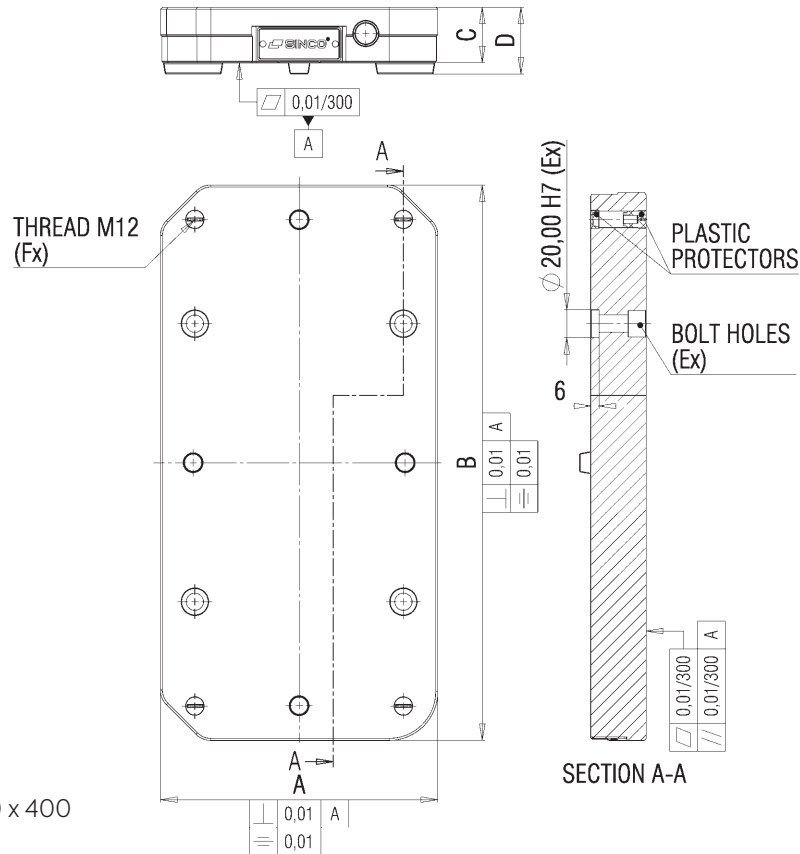


- Retractable nipples on the underside (optional)
- Positioning holes for clamping supports made underneath clamping bolts



- Handling grooves
- Positioning holes for clamping supports made underneath clamping bolts

MultiZero® Blank Pallet Rectangle Sizes A x B



Example: MultiBlank Pallet 200 x 400

Size	A (mm)	B (mm)	C (mm)	D (mm)	E*	F*	Weight (kg)
100 x 350	99.5	349.5	40.0	48.0	2/ 4	-	9.4
150 x 320	149.5	319.5	40.0	48.0	4	-	13.7
150 x 400	149.5	399.5	40.0	48.0	4	4	16.9
200 x 400	199.5	399.5	40.0	48.0	4	4	22.8
200 x 500	199.5	499.5	40.0	48.0	4	4	28.6
200 x 600	199.5	599.5	40.0	48.0	4	4	34.3
250 x 500	249.5	499.5	40.0	48.0	4	4	35.5
300 x 630	299.5	629.5	40.0	48.0	6	4	54.4
300 x 800	299.5	799.5	40.0	48.0	6	4	71.2
400 x 500	399.5	499.5	40.0	48.0	4	4	58.0
500 x 600	499.5	599.5	40.0	48.0	4	4	88.1
600 x 800	599.5	799.5	40.0	48.0	6	4	142.1

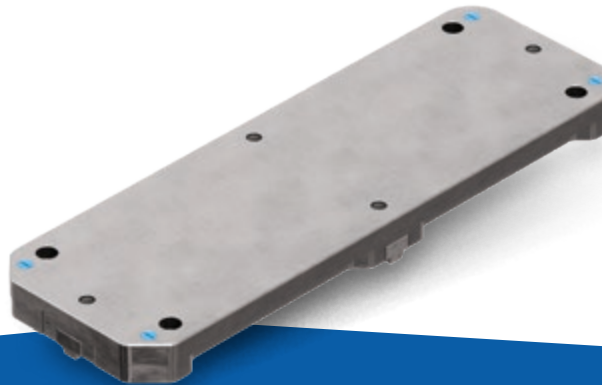
E* - Clamping bolts (M12) qty. / F* - M12 Thread holes for lifting qty.
/ All plates are made from corrosion-resistant steel.

MultiZero® Blank Pallet 150 x 320



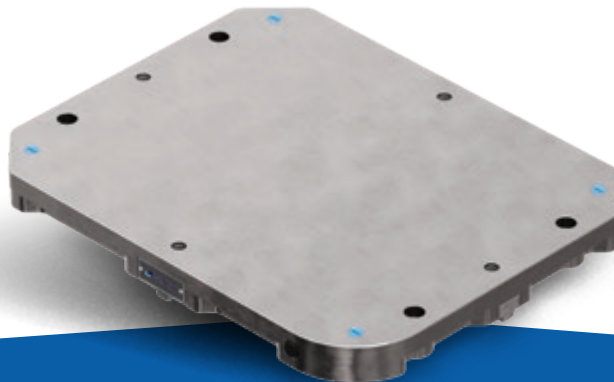
Order No.	Dimensions (mm)	Clamping bolts	Weight
1B2-1023-0	149.5 x 319.5 x 40 (48)	4x	13.7 kg

MultiZero® Blank Pallet 200 x 600



Order No.	Dimensions (mm)	Clamping bolts	Weight
1B2-1063-0	199.5 x 599.5 x 40 (48)	4x	34.3 kg

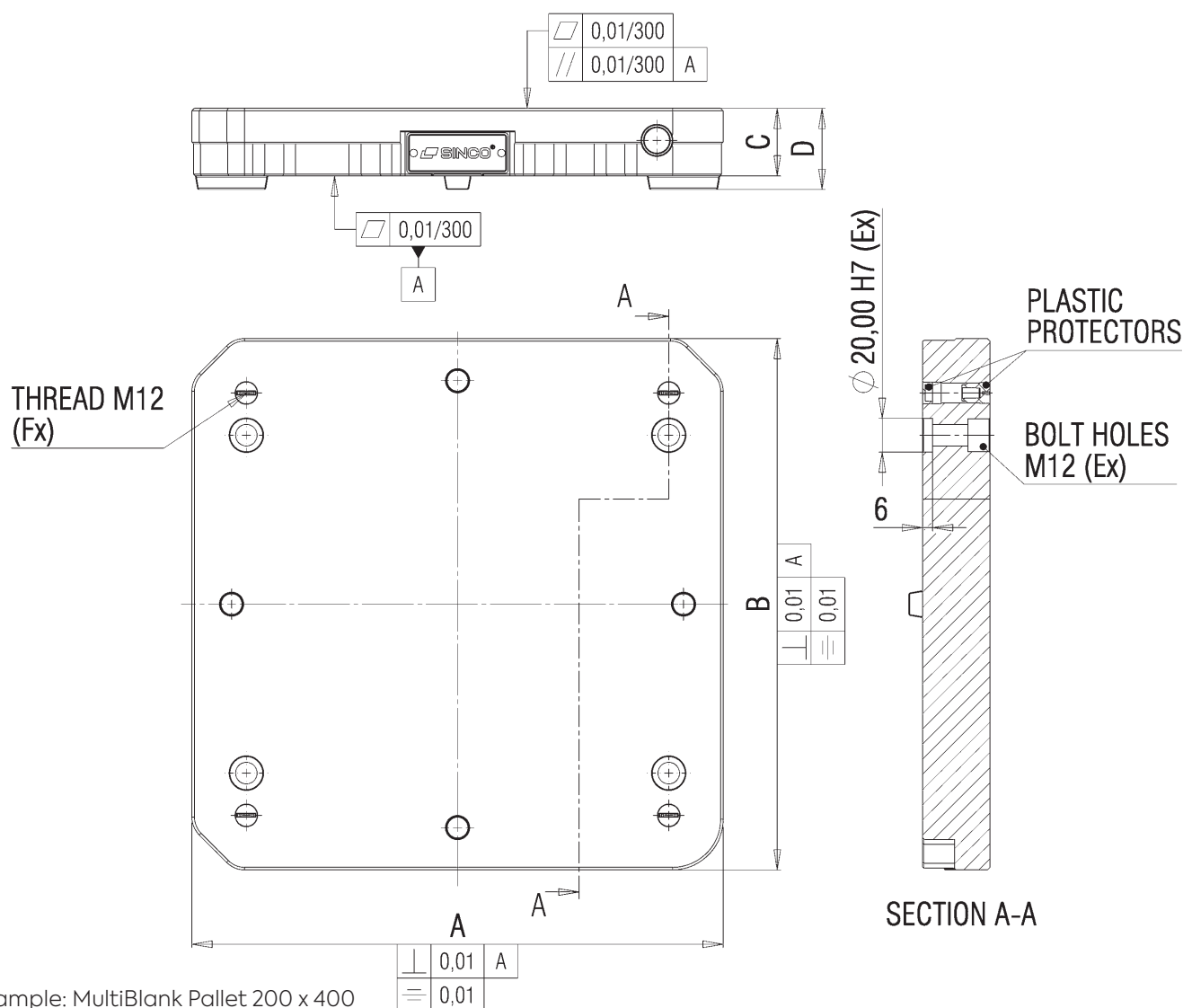
MultiZero® Blank Pallet 400 x 500



Order No.	Dimensions (mm)	Clamping bolts	Weight
1B2-1083-0	399.5 x 499.5 x 40 (48)	4x	58.0 kg

To see all MultiZero® Blank Pallet dimensions look at page 53.

MultiZero® Blank Pallet Square Sizes A x A



Example: MultiBlank Pallet 200 x 400

Size	A (mm)	B (mm)	C (mm)	D (mm)	E*	F*	Weight (kg)
150 x 150	149.5	149.5	40.0	48.0	4	-	6.4
200 x 200	199.5	199.5	40.0	48.0	4	-	11.6
240 x 240	239.5	239.5	40.0	48.0	4	4	16.8
315 x 315	314.5	314.5	40.0	48.0	4	4	28.5
400 x 400	399.5	399.5	40.0	48.0	4	4	46.1
500 x 500	499.5	499.5	40.0	48.0	4	4	73.1
630 x 630	629.5	629.5	40.0	48.0	6	4	116.0

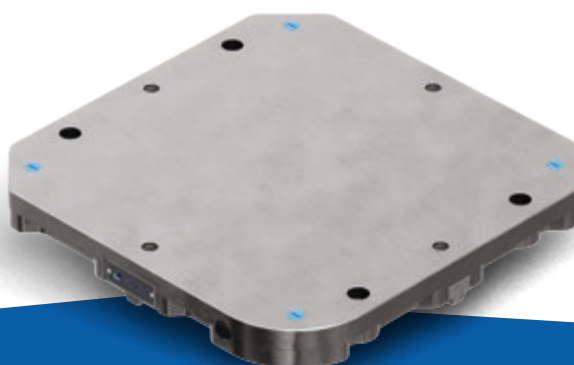
E* - Clamping bolts (M12) qty. / F* - Thread holes (M12) for lifting qty.
/ All plates are made from corrosion-resistant steel.

MultiZero® Blank Pallet 200 x 200



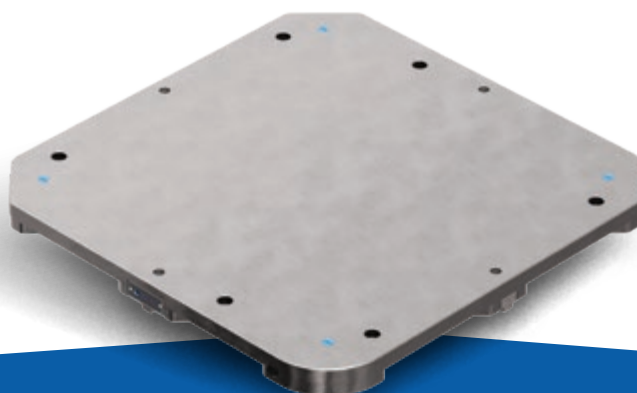
Order No.	Dimensions (mm)	Clamping bolts	Weight
1B2-1113-0	199.5 x 199.5 x 40 (48)	4x	11.6 kg

MultiZero® Blank Pallet 400 x 400



Order No.	Dimensions (mm)	Clamping bolts	Weight
1B2-1143-0	399.5 x 399.5 x 40 (48)	4x	46.1 kg

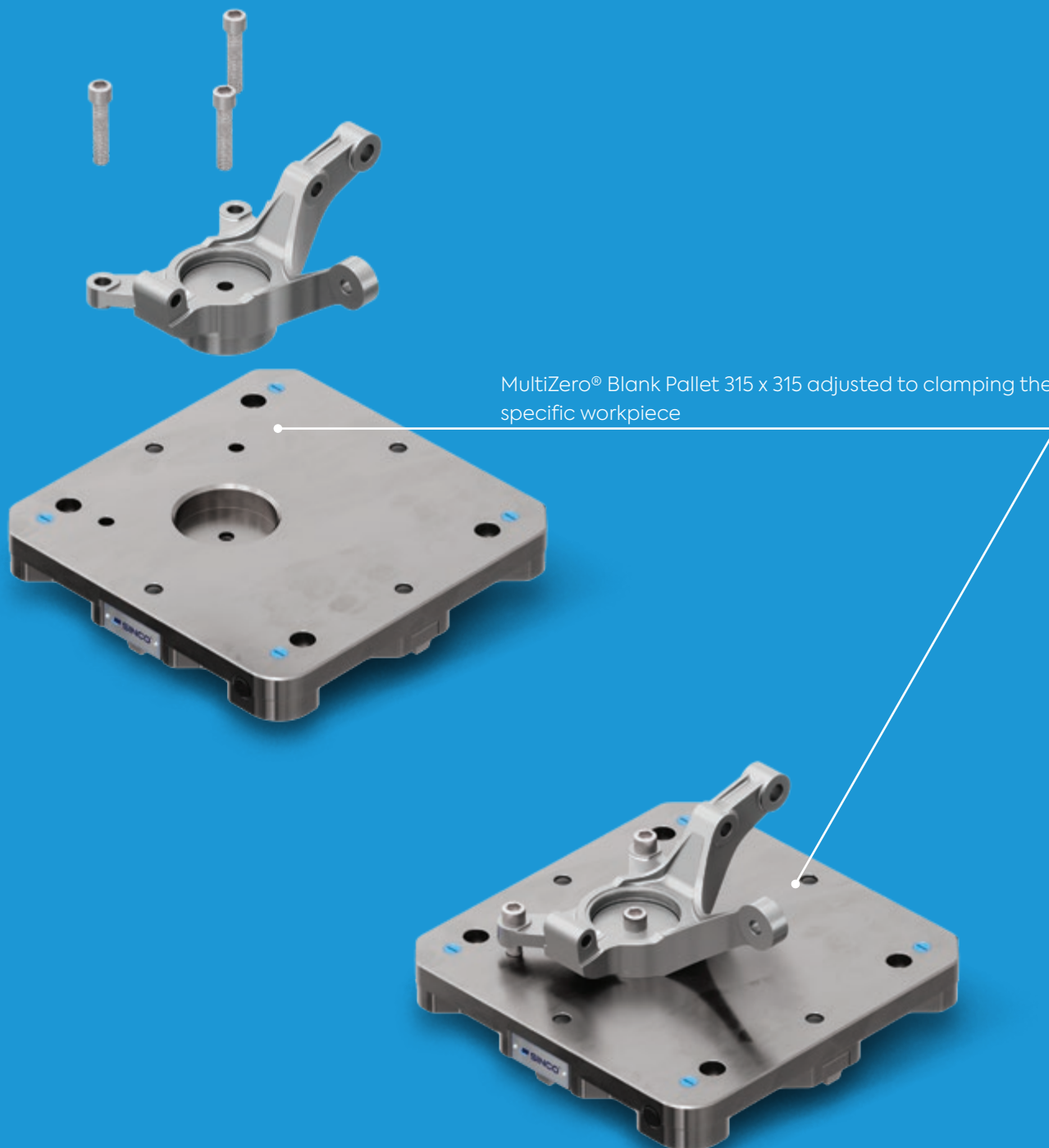
MultiZero® Blank Pallet 630 x 630

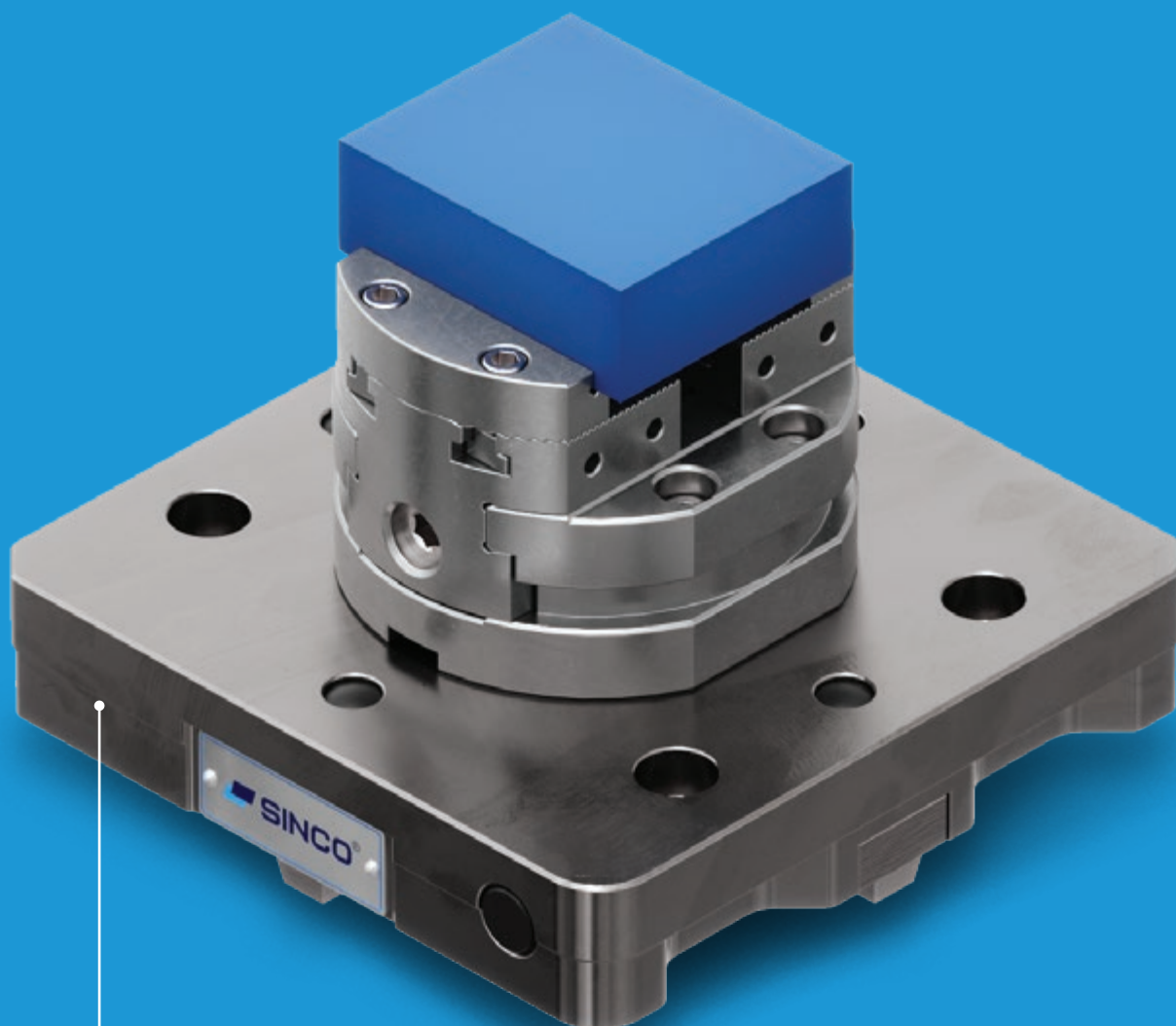


Order No.	Dimensions (mm)	Clamping bolts	Weight
1B2-1163-0	629.5 x 629.5 x 40 (48)	6x	116.0 kg

To see all MultiZero® Blank Pallet dimensions look at page 53.

MultiZero® Blank Pallet Examples





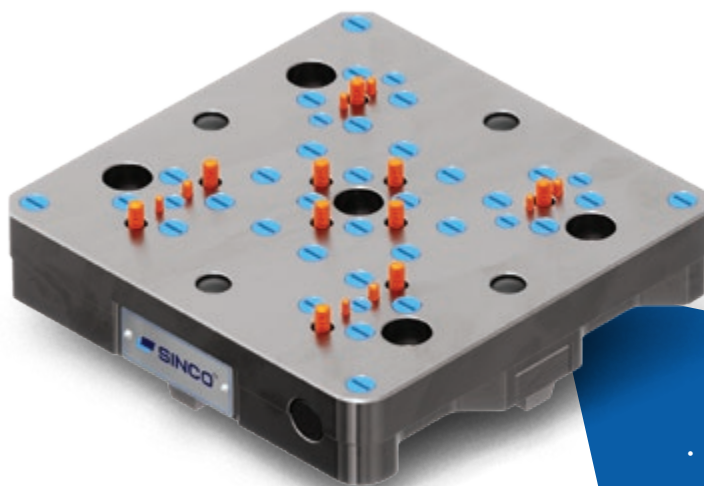
MultiZero® Blank Pallet 200 x 200 with workpiece clamped in the vise

MultiZero® EDM Pallet

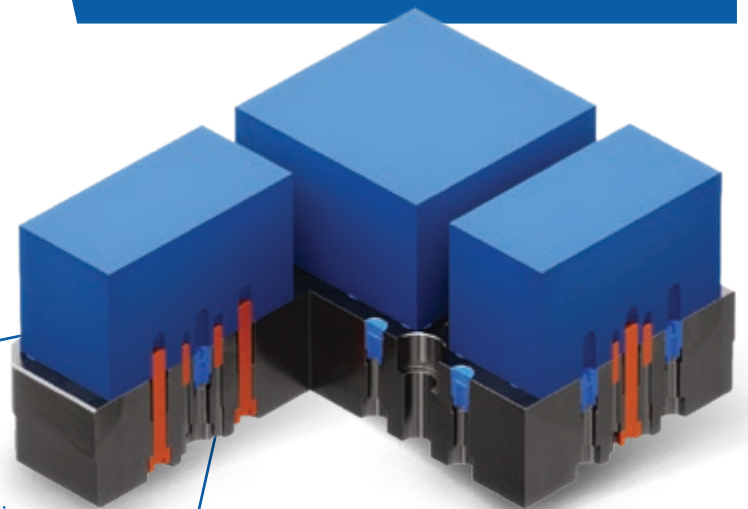
Pallet features

- Used for clamping electrodes directly onto the pallet or clamping various workpieces and fixtures
- Self-centering of the pallet and clamped electrodes on the MultiZero® Plate, no additional centering needed
- Two types of pallet clamping:
 - Clamped with one or four M12 bolts to the MultiZero® Plate
 - Clamped with retractable nipples onto the MultiZero® Pneumatic Plate
- Dowel pin positioning of electrodes, compatible with Meusburger Electrode System Hole Pattern
- Great flexibility with multiple ways to clamp electrodes:
 - Dowel pins and M6 bolt from underneath the pallet
 - Dowel pins and M8 bolt from the top
 - Fixation of larger workpieces / electrodes or fixtures with M8 bolts from underneath
 - Fixation of larger workpieces / electrodes or fixtures with M10 bolts from the top

- Pallet material: corrosion-resistant steel
- RFID identification and data chip optionally installed on each pallet

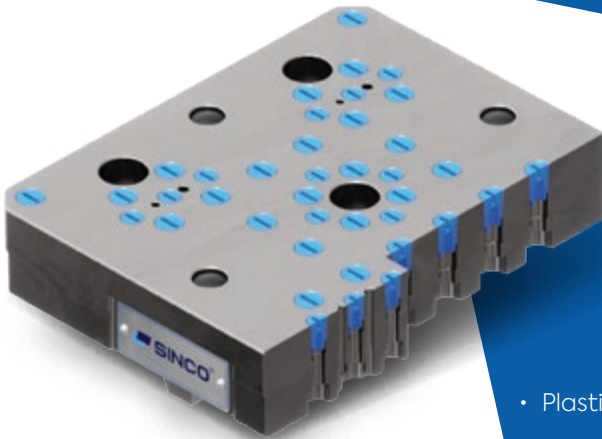
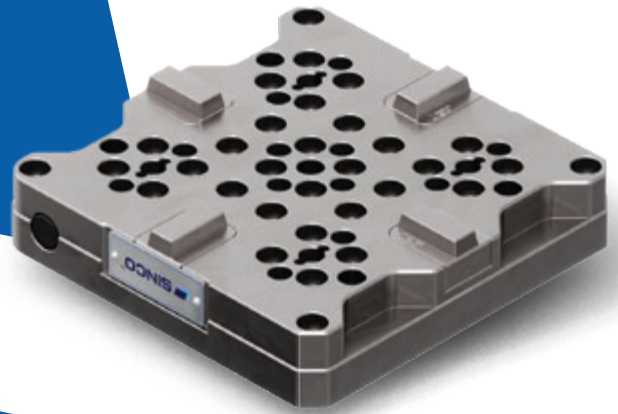


- Clamping with one or two M6 screws from the underside of the pallet
- Dowel pins D3.00 and D4.00 at



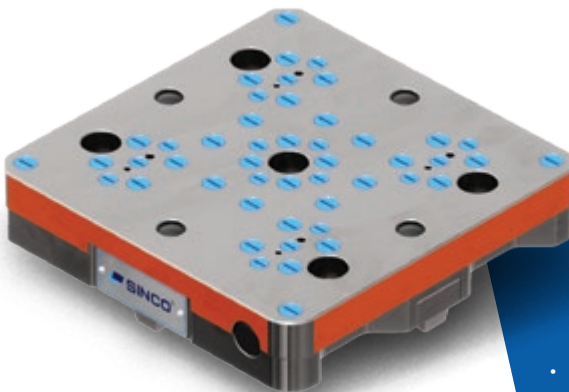
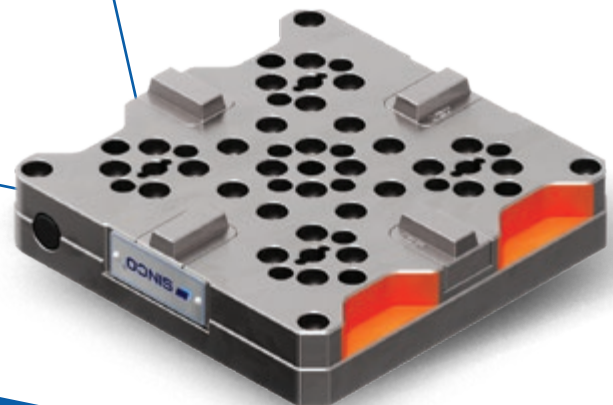
- Example of clamping four electrodes, with one and two screws M6

- Thread and bolt holes in pattern 50 x 50:
 - Bolt holes M8 from the bottom
 - Thread holes M10 from the top



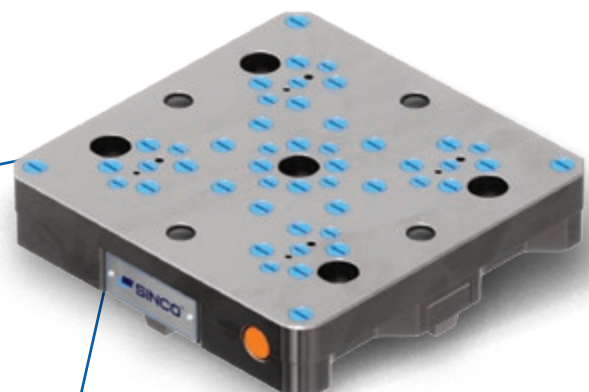
- Plastic protectors for thread holes (supplied)

- Handling grooves on the underside

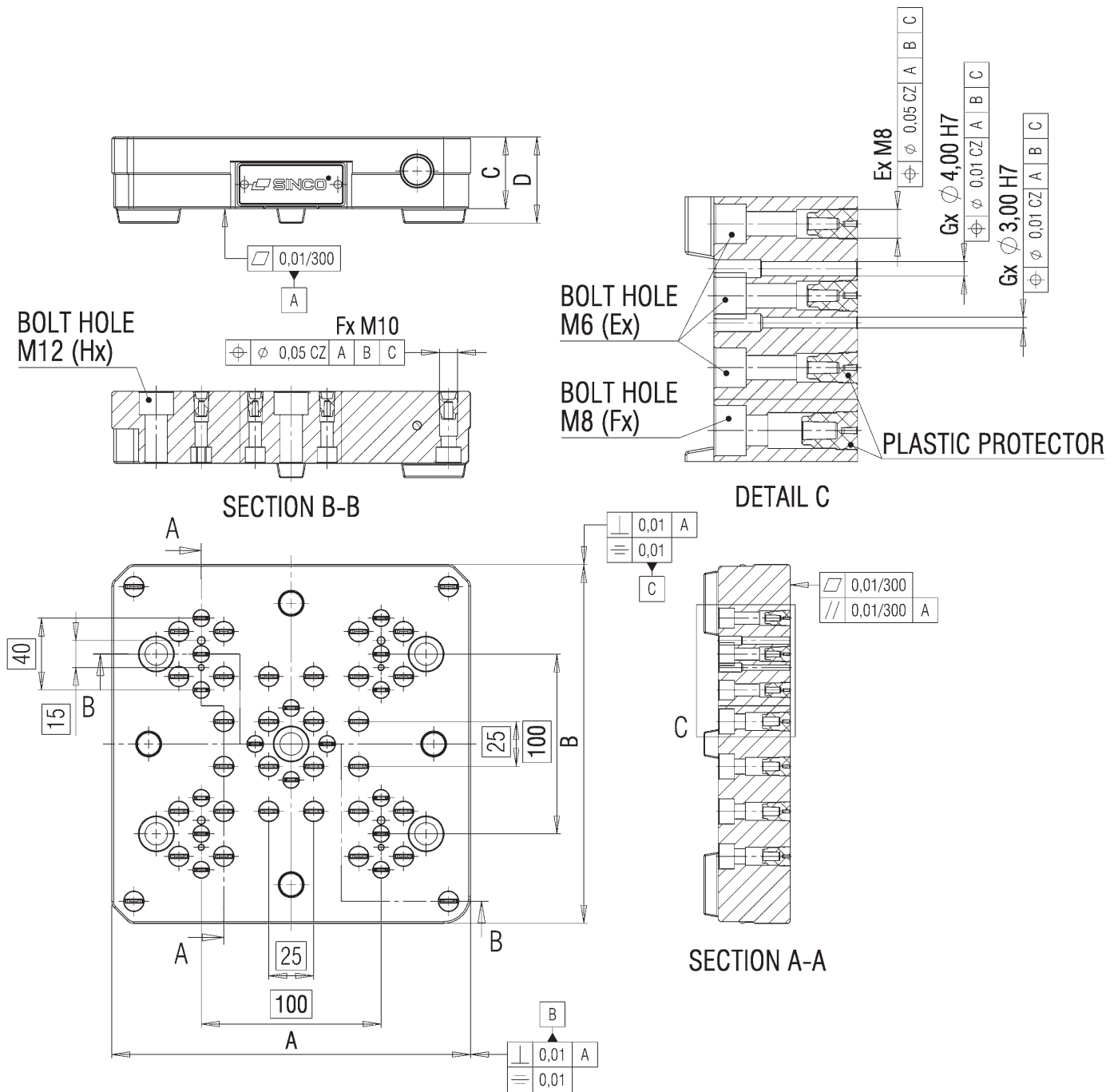


- Precise pallet sides and centering holes can be used for centering

- RFID identification and data chip installed optionally



MultiZero® EDM Pallet Sizes



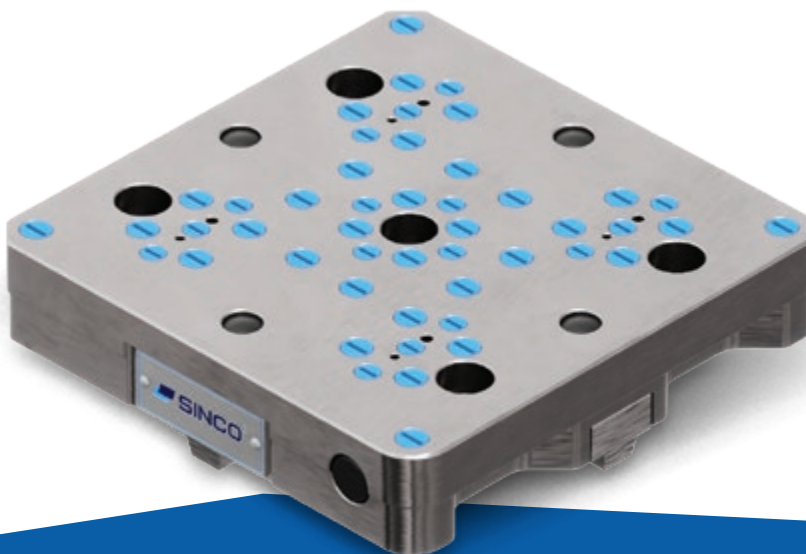
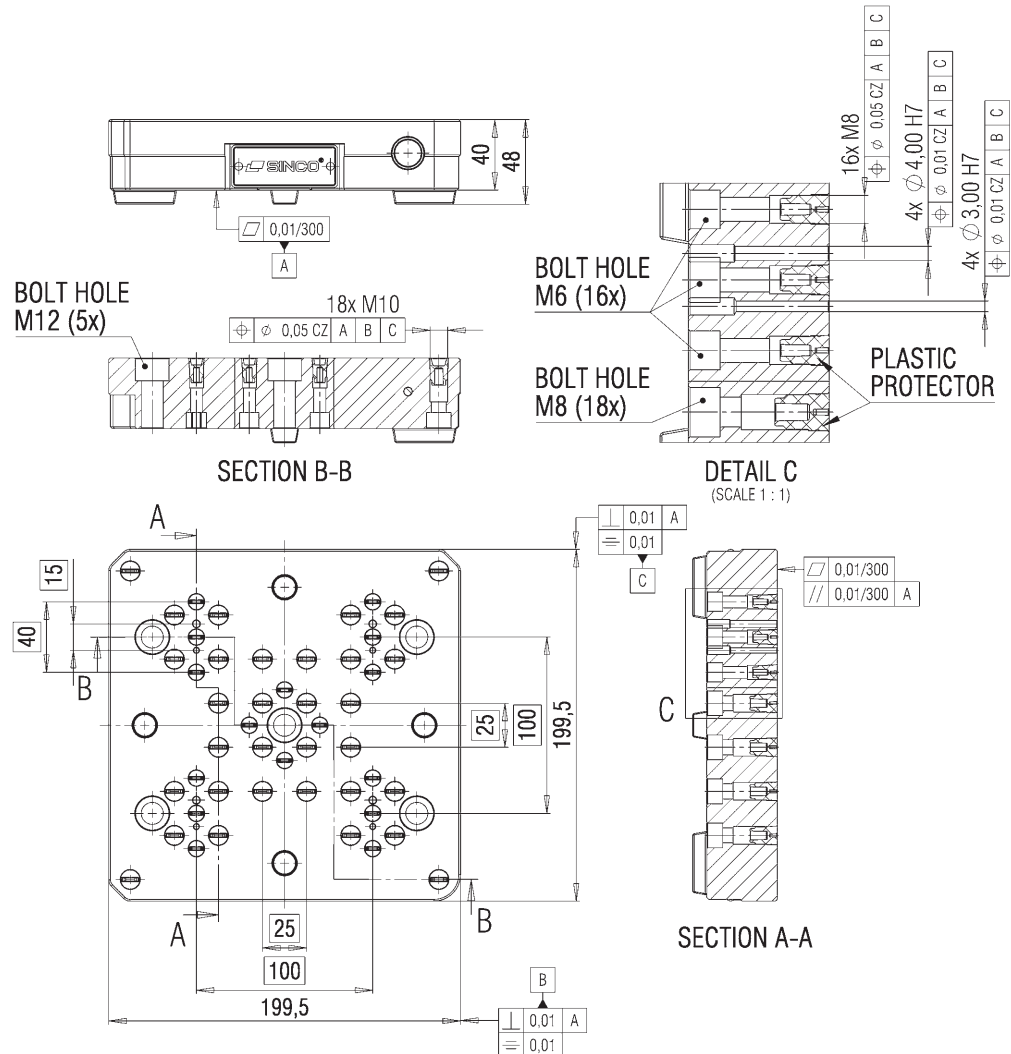
Example: MultiZero® EDM Pallet 200 x 200

Size	A (mm)	B (mm)	C (mm)	D (mm)	E*	F*	G*	H*	Weight (kg)
200 x 200	199.5	199.5	40.0	48.0	16x	18x	4x	1x / 4x	10.5
400 x 400	399.5	399.5	40.0	48.0	60x	48x	4x/8x	1x / 4x	43.5

E* - M6 bolt holes & M8 thread for clamping electrodes qty./ F* - M8 bolt holes & M10 thread for clamping electrodes qty. / G* - Electrode clamping points qty. / H* - Pallet clamping bolts (M12) qty.

MultiZero® EDM Pallet 200 x 200

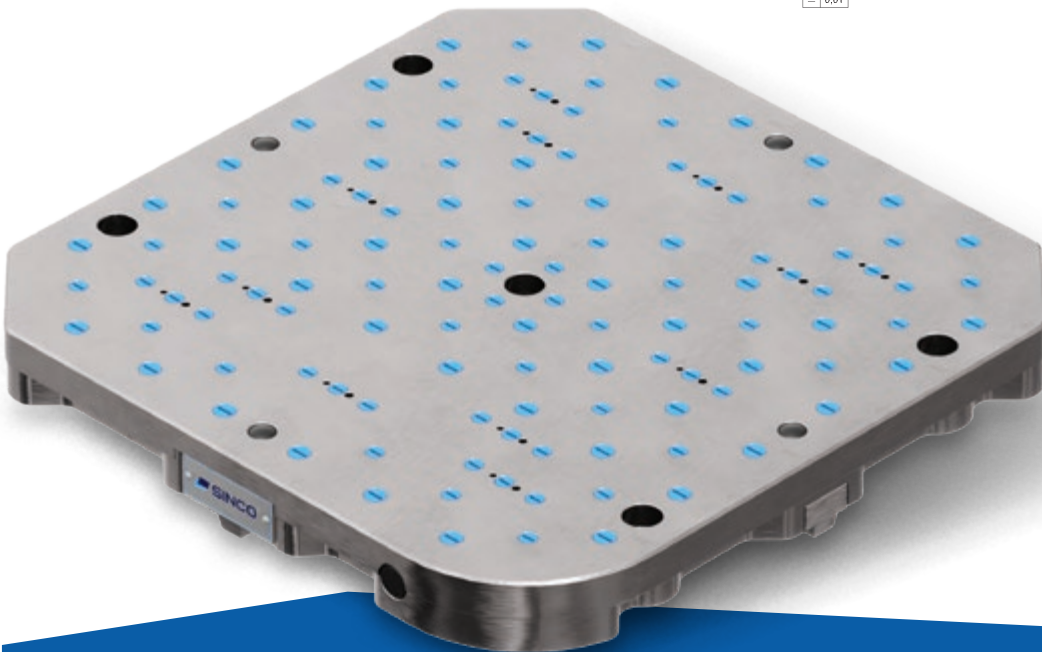
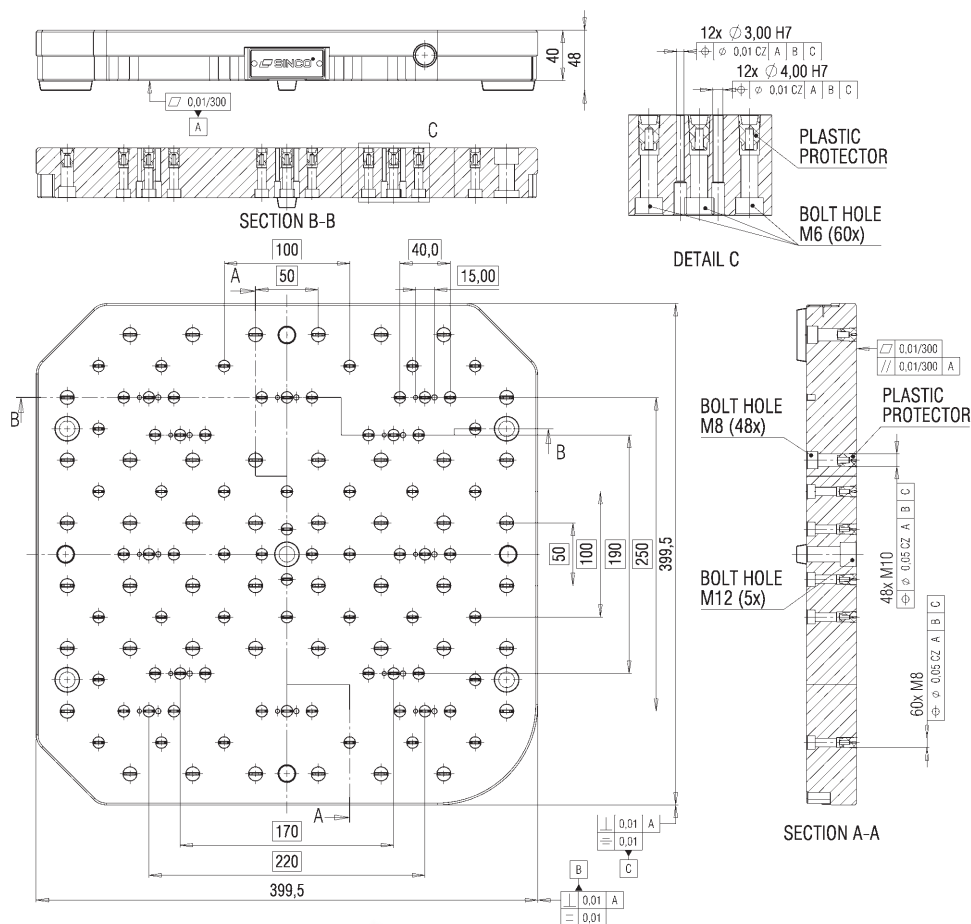
- Clamping one larger electrode: max. dimensions of the electrode: 125.0 x 195.0
- Clamping four electrodes: max. dimensions of the electrode: 85.0 x 85.0



Order No.	Dimensions (mm)	Thread holes M8	Thread holes M10	Clamping bolts	Weight
1B2-1114-0	199.5 x 199.5 x 40 (48)	16x	18x	1x/4x	10.5 kg

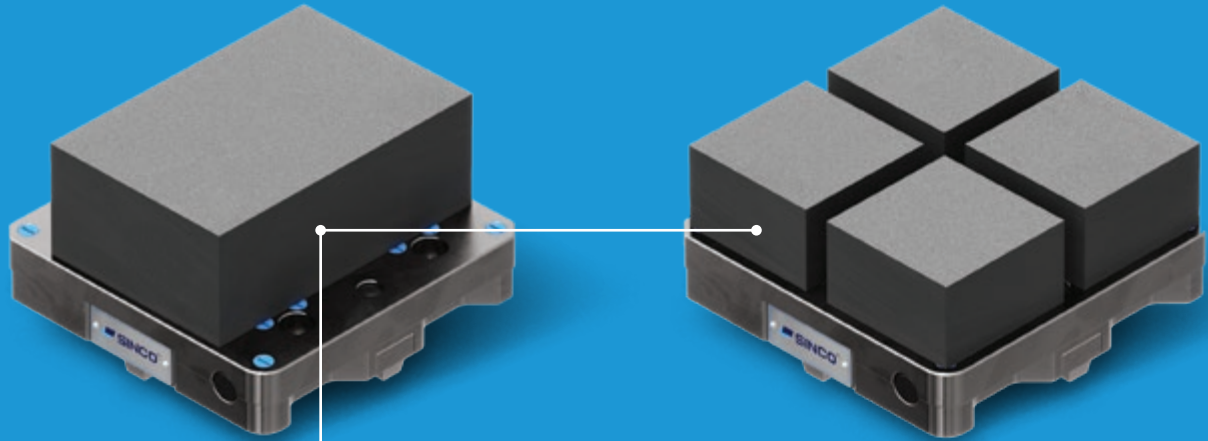
MultiZero® EDM Pallet 400 x 400

- Clamping one larger electrode: max. dimensions of the electrode: 330.0 x 365.0
- Clamping four electrodes: max. dimensions of the electrode: 160.0 x 170.0
- Clamping eight electrodes: max. dimensions of the electrode: 100.0 x 100.0

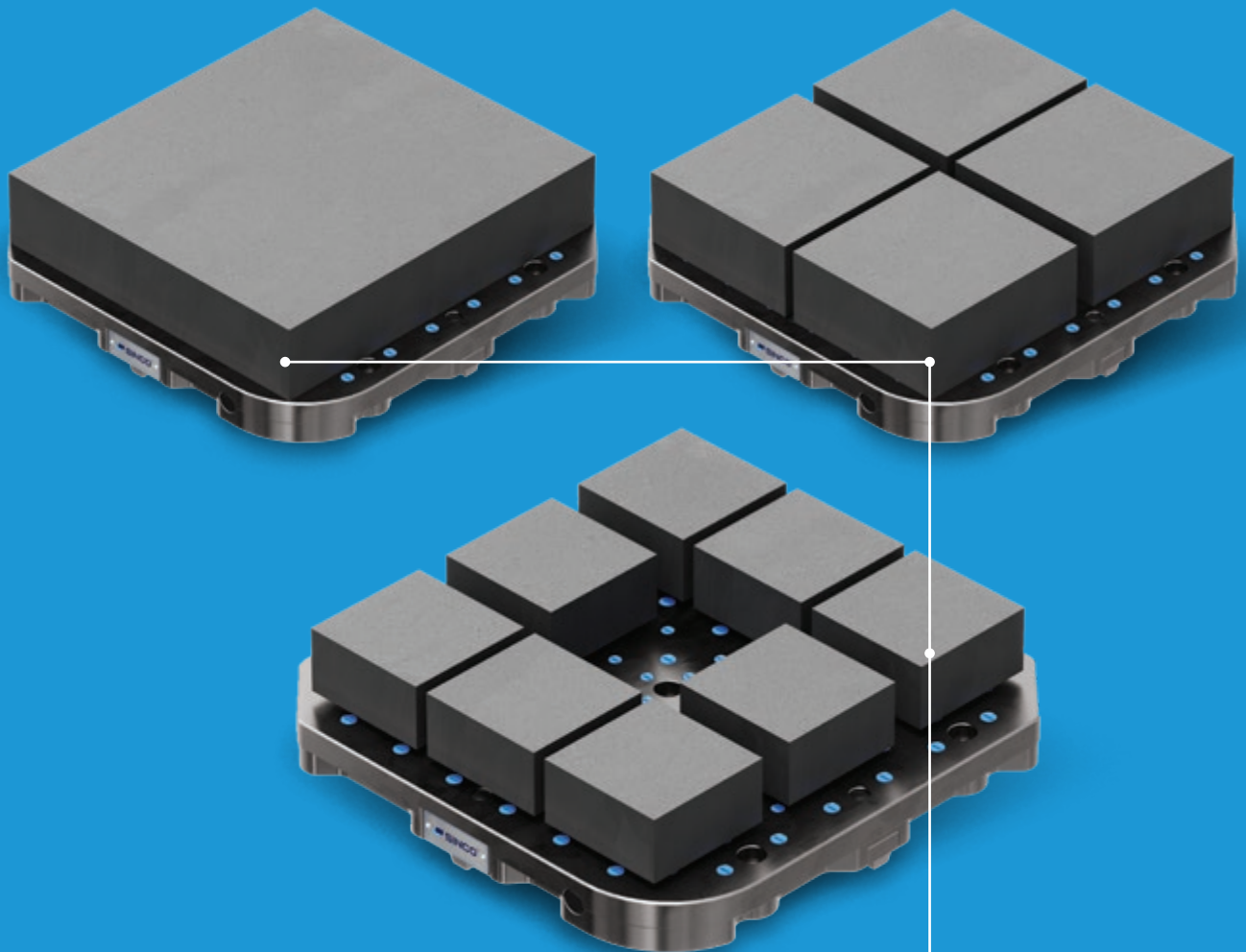


Order No.	Dimensions (mm)	Thread holes M8	Thread holes M10	Clamping bolts	Weight
1B2-1144-0	399,5 x 399,5 x 40 (48)	60x	48x	1x/4x	43.5 kg

MultiZero® EDM Examples



MultiZero® EDM Pallet 200 x 200 with one and four electrodes clamped



MultiZero® EDM Pallet 400x400 with one, and four and eight electrodes clamped

[illegible]

