

GPS 240

- ... reduces setting-up times.
- ... ensures precision and quality.
- ... is sealed against dirt and swarf.
- ... has lightweight pallets.
- ... suitable for automatic changing with System 3R's automation program.

The machining zero point is defined by the centre of the chuck in the GPS 240 system.

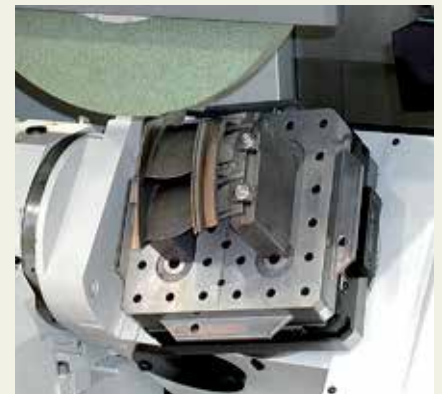
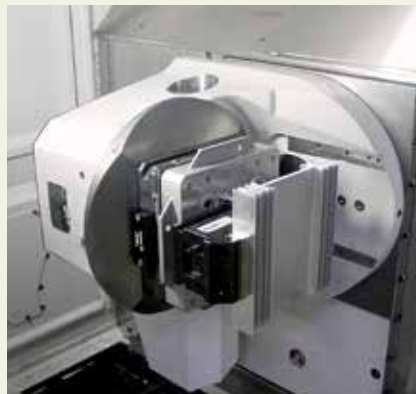
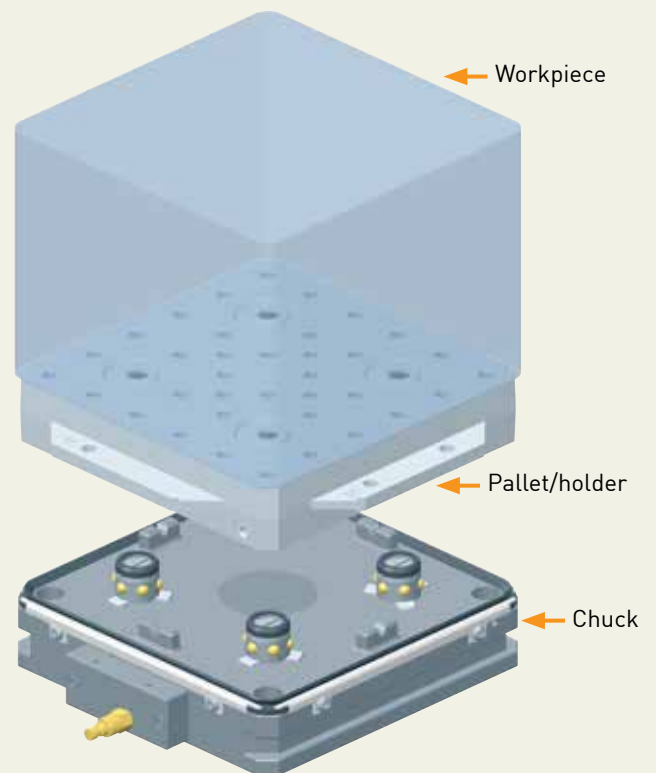
The system is made for universal use and can be used in all kinds of applications milling, turning, grinding, EDM and measuring.

The chuck seal prevents dirt penetrating between the chuck and the pallet. This simplifies maintenance and lengthens the life of the components. A lifting mechanism which operates on locking/opening protects the references when loading heavy workpieces.

The economical, pressure-die-cast aluminium pallets are very light, making them also suitable for manual handling. Naturally the GPS 240 is also suitable for automatic changing.

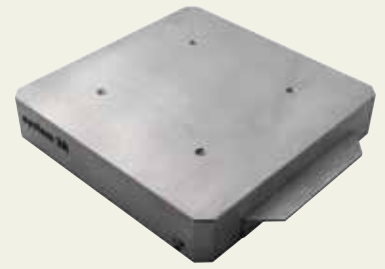
Their standardised hole pattern of the pressure-die-cast aluminium pallets allows the fixation of workpieces, fixtures and accessories such as vices, three-jaw chucks and magnetic tables directly on the pallet from below. This gives collision-free mounting, even with five-sided machining.

- + Repetition accuracy – within 0.002 mm
- + Indexing accuracy – within 0.005 mm
- + Locking force – 30 000 N (with force boost 60 000 N)
- + Fixed index positions – 4x90°
- + Required air pressure, pneumatic chuck – 6 bar
- + Recommended max workpiece weight – 150 kg



GPS 240

Die-cast aluminium pallets with standardised hole pattern or solid aluminium pallets.



Pallet with handles for manual pallet handling or automated pallet change by robot.

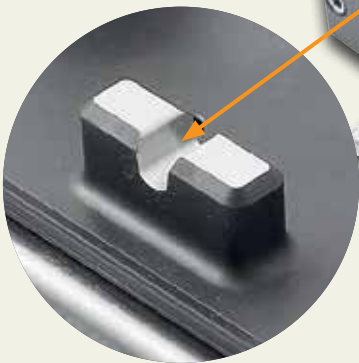


The Z-references are air-blast cleaned, through nozzels in the Z-references of the chuck.

Spring loaded clamping mechanism. Releasing by air.



Clamping mechanism with spring clamping force by springs and clamping with balls.

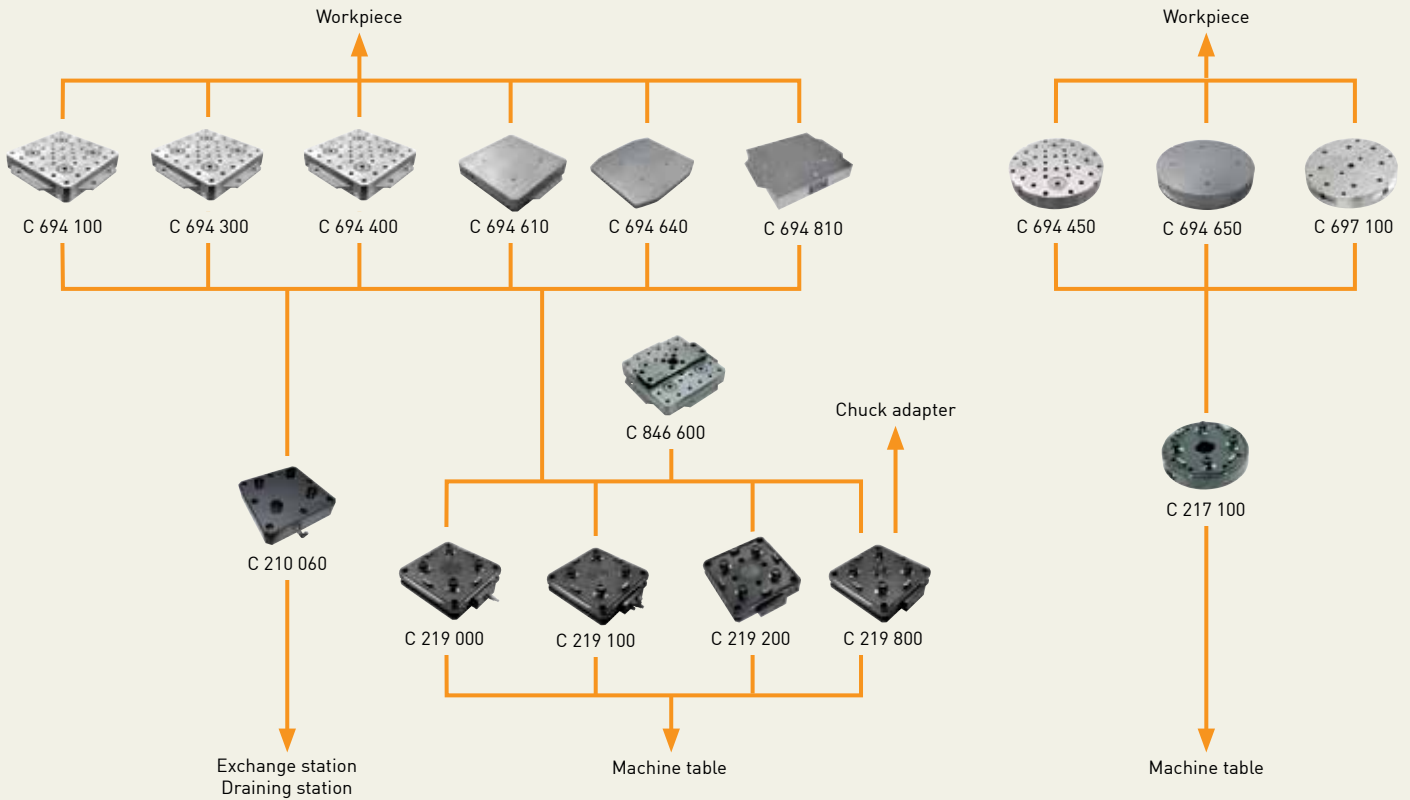


Hardened chuck body with prisms for X/Y centring made out of the piece for maximum stability. Indexing 4x90°.

Seal for a completely sealed chuck-pallet interface against dirt and swarf.

Connection bloc.

GPS 240 – Chucks & pallets



Chucks square

	Art. No.	Feature
Pneumatic manual	C 219 000	for manual machining operations
Pneumatic automatic/manual	C 219 100	for manual and automatic machining operations
Pneumatic automatic/manual	C 219 200	connection from below
Pneumatic automatic/manual	C 219 600	built-in pneumatic Macro chuck
Pneumatic automatic/manual	C 219 800	connection from below, air dock 2-fold
Pneumatic automatic/manual	C 210 060	dummy chuck

Chucks round

	Art. No.	Feature
Pneumatic manual	C 217 100	through hole Ø54mm

Pallets square

	Art. No.	Feature	Size (mm)
Cast aluminium	C 694 100		240x240
Cast aluminium	C 694 300	ground	240x240
Cast aluminium	C 694 400		240x240
Solid aluminium	C 694 610		240x240
Solid aluminium	C 694 640		300x300
Solid aluminium	C 694 810	ground	240x240

Pallets round

	Art. No.	Feature	Size (mm)
Cast aluminium	C 694 450		Ø256
Solid aluminium	C 694 650		Ø256
Solid aluminium	C 697 100	ground	Ø256

Pallet with coined cams

Pallet with spring-loaded pin

Pallet with springy hardened cams

GPS 240 – Chucks

GPS 240 Chucks

- Built-up height 52 mm
- Required air pressure 6 bar
- Air-blast cleaning of the references
- Weight 17 kg.

C 219 000

For manual machining operations.

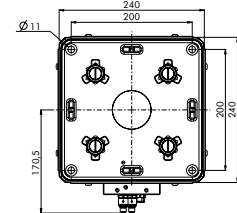
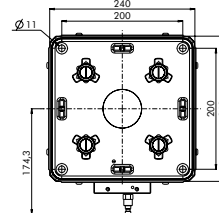
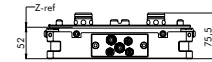
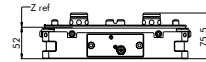
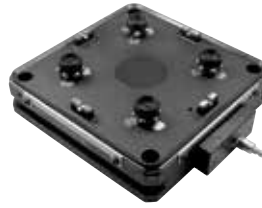
- One air connection
- Clamping force 30 000 N
- Recommended actuator C 810 820 or C 810 710.



C 219 100

For manual and automatic machining operations.

- 5 air connections
- Clamping force 30 000 N/60 000 N
- Recommended actuator C 810 830.



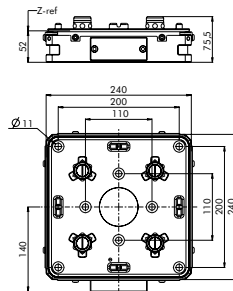
C 219 000

C 219 100

GPS 240 Chuck automatic, C 219 200

For manual and automatic machining operations.

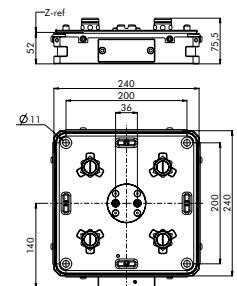
- Built-up height 52 mm
- Air connections positioned centrally on the bottom – prism – air-blast cleaning of Z-references – clamping/ releasing – Turbo/ventilation
- Clamping force 30 000 N/60 000 N
- Weight 17 kg.



GPS 240 Chuck automatic with air dock, C 219 800

For manual and automatic machining operations.

- Built-up height 52 mm
- Air connections positioned centrally on the underside – prism – air-blast cleaning of Z-references – clamping/ releasing – Turbo/ventilation
- Air dock: 2-fold, pneumatic 6 bar.
- Clamping force 30 000 N/60 000 N
- Weight 17 kg.

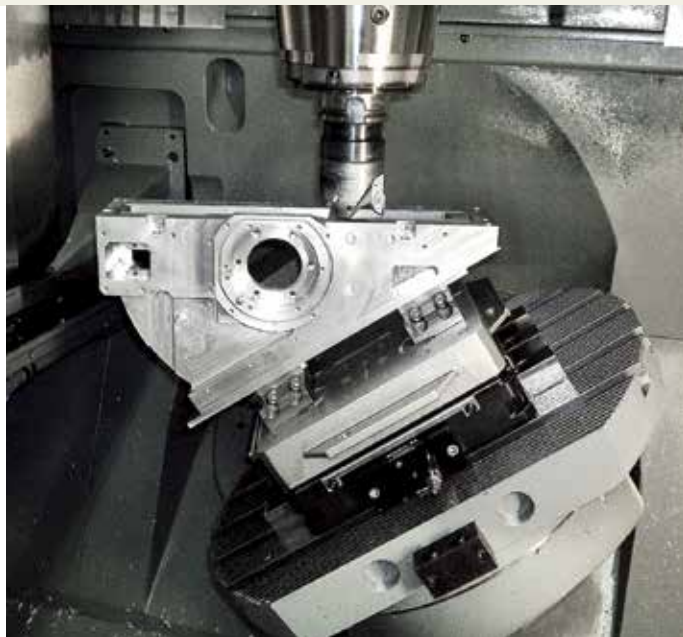
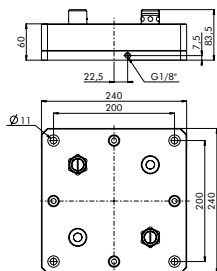


GPS 240 – Chucks

GPS 240 Dummy chuck, C 210 060

Dummy chuck for clamping a GPS 240 pallet on an exchange or draining station.

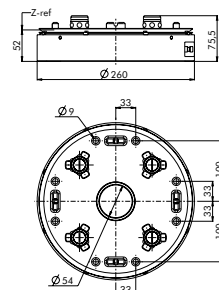
- Required air pressure 6 bar
- Weight 9.5 kg.



GPS 240 Chuck manual round with hole Ø54 mm, C 217 100

Pneumatic chuck for applications in lathes and milling machines.

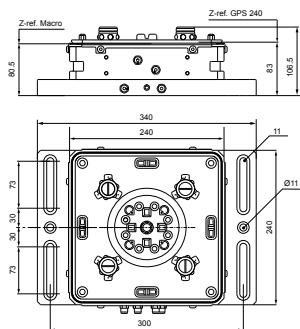
- Built-up height 52 mm
- Required air pressure 6 bar
- Air-blast cleaning of Z-references
- Clamping force 30 000 N
- Recommended control unit C 810 820 or C 810 710
- Weight 16 kg.



GPS 240 Pneumatic chuck with built-in Macro chuck, C 219 650

Pneumatic chuck with built-in Macro chuck. Intended mainly for measuring machines. The following pallets can be mounted in GPS 240 by means of C 219 650 Macro 54x54 mm and Macro 70x70 mm.

- Required air pressure 6 bar
- Air-blast cleaning of the references
- Weight 24 kg.



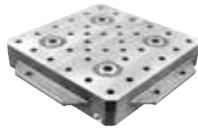
GPS 240 – Pallets

GPS 240 Pallet EDM/Grinding, C 694 100



Cast aluminium pallet.

- Construction height 48.1 ±0.01 mm
- X/Y-centring with spring-loaded pin
- Adapted for automatic changing
- Ready for code carrier fixture C 960 740
- Supplied with C 531 500 sealing plugs.
- Recommended workpiece weight 150 kg.
- Weight 4.8 kg



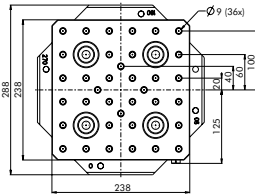
S 500 090

- C 694 100 supplied in sets of 4 pcs.



S 500 100

- C 694 100 supplied in sets of 10 pcs.

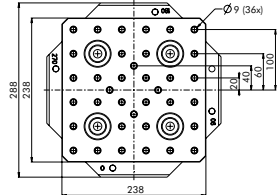
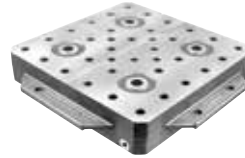


GPS 240 Pallet 'Adaption', C 694 300



Ground cast aluminium pallet. Suitable for fixtures.

- Construction height 48.0 ±0.005 mm
- X/Y-centring with spring-loaded pin
- Adapted for automatic changing
- Ready for code carrier fixture C 960 740
- Supplied with C 531 500 sealing plugs.
- Recommended workpiece weight 150 kg.
- Weight 4.8 kg

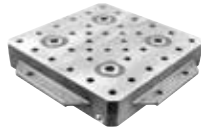


GPS 240 Pallet 'Production', C 694 400



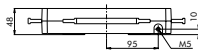
Cast aluminium pallet. Suitable for high-speed milling and arduous milling operations.

- Construction height 48.0 ±0.01 mm
- X/Y-centring with coined cam
- Adapted for automatic changing
- Ready for code carrier fixture C 960 740
- Recommended workpiece weight 150 kg.
- Supplied with C 531 500 sealing plugs.
- Weight 4.8 kg



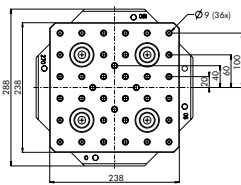
S 500 160

- C 694 400 supplied in sets of 4 pcs



S 500 170

- C 694 400 supplied in sets of 10 pcs.

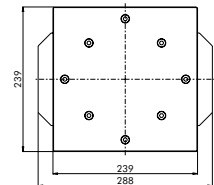


GPS 240 Pallet, C 694 810



Ground solid aluminium pallet. Suitable for fixtures.

- Construction height 46 ±0.005 mm
- X/Y-centring with springy cams, hardened, stainless
- Adapted for automatic changing
- Ready for code carrier fixture C 960 740
- Recommended workpiece weight 150 kg.
- Weight 7.2 kg.

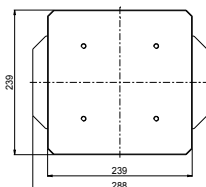
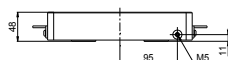


GPS 240 Pallet 240x240 mm, C 694 610



Solid aluminium pallet. Suitable for fixtures and accessories.

- Construction height 48.0 ±0.01 mm
- X/Y-centring with coined cam
- Prepared for automation
- Flatness 0.01 mm
- Ready for code carrier fixture C 960 740
- Recommended workpiece weight 150 kg.
- Weight 7.4 kg.

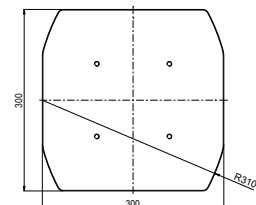


GPS 240 Pallet 300x300 mm, C 694 640



Solid aluminium pallet. Suitable for fixtures and accessories.

- Construction height 48.0 ±0.01 mm
- X/Y-centring with coined cam
- Flatness 0.02 mm
- Prepared for automation
- Ready for code carrier fixture C 960 740
- Recommended workpiece weight 150 kg.
- Weight 9 kg.



Coined cam icon Pallet with coined cams.

Springy cam icon Pallet with springy cams, hardened, stainless.

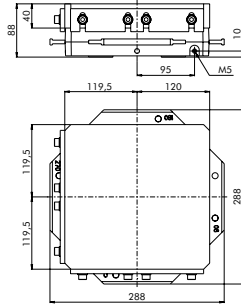
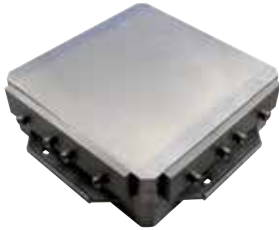
Spring-loaded pin icon Pallet with spring-loaded pin.

GPS 240 – Pallets

GPS 240 Magnetic table, C 694 260

High-precision magnetic plate for grinding work and for erode.

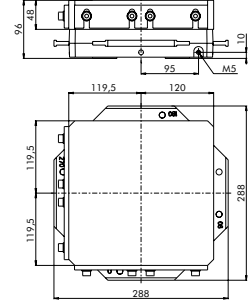
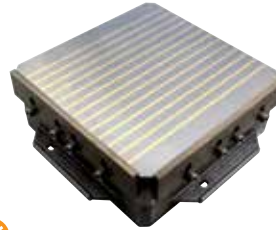
- Magnetic field height 5 mm
- Holding force 100 N/cm²
- Dimensions 240x240x88 mm
- X/Y-centring with spring-loaded pin
- Adapted for automatic changing
- Ready for code carrier fixture C 960 740
- Weight 23 kg.



GPS 240 Magnetic table, C 694 270

Strong magnetic plate for milling.

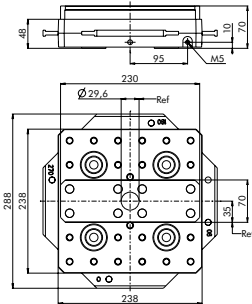
- Magnetic field height 10 mm
- Holding force 150 N/cm²
- Dimensions 240x240x96 mm
- X/Y-centring with spring-loaded pin
- Adapted for automatic changing
- Ready for code carrier fixture C 960 740
- Weight 27.1 kg.



GPS 240 Master pallet, C 846 600

The pallet has a ground reference ruler and a ground indication hole for alignment of the references.

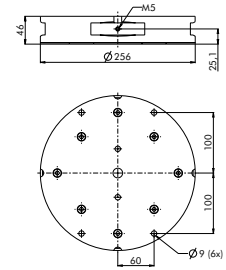
- X/Y-centring: with spring-loaded pin
- Adapted for automatic changing
- Ready for code carrier fixture C 960 740
- Weight 7.4 kg.



GPS 240 Pallets round, C 697 100

Ground solid aluminium pallet. Suitable for fixtures.

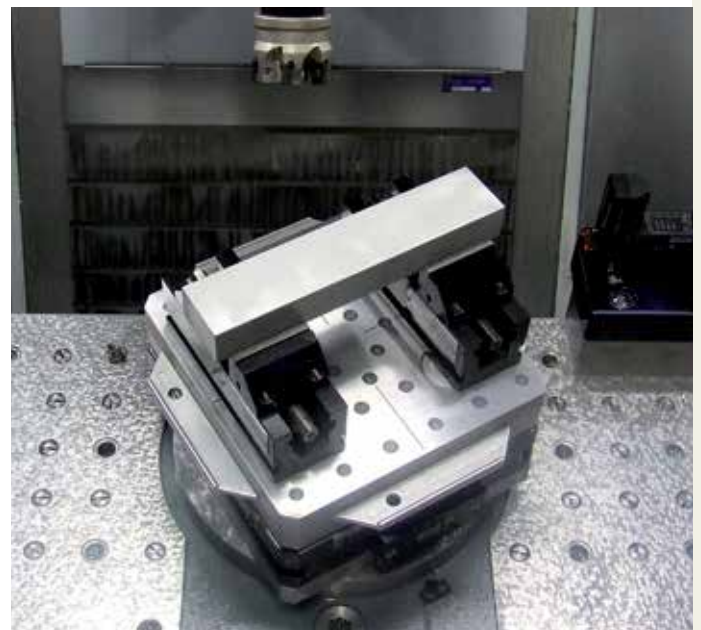
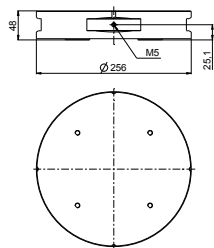
- Construction height 46 ±0.005 mm
- X/Y-centring: with springy cams, hardened, stainless
- Adapted for automatic changing
- Ready for code carrier fixture C 960 740
- Recommended workpiece weight 150 kg.
- Weight 6.2 kg.



GPS 240 pallet round, C 694 650

Solid aluminium pallet. Suitable for fixtures.

- Construction height 48.0 ±0.01 mm
- X/Y-centring with coined cam
- Adapted for automatic changing
- Ready for code carrier fixture C 960 740
- Recommended workpiece weight 150 kg.
- Weight 6.5 kg.



/// Pallet with coined cams.

➤ Pallet with springy cams, hardened, stainless.

⊙ Pallet with spring-loaded pin.

GPS 240 – Chuck adapters

Chuck adapter HP, GPS 240-GPS 120, C 522 800

Chuck adapter with built-in pneumatic GPS 120 chuck for mounting in:

- C 219 800 for automated pallet change GPS 120
- C 219 000, C 219 100, C 219 110, C 219 200 for manual pallet change GPS 120; Open/Close GPS 120 with air gun.
- Built-up height 54 mm
- X/Y-centering with springy cams, hardened, stainless steel
- Simple retrofit from version „automation“ to version „manual“ by the operator
- Weight 7.9 kg.

Chuck adapter HP, GPS 240-GPS 70, C 522 810

Chuck adapter with built-in pneumatic GPS 70 chuck for mounting in:

- C 219 800 for automated pallet change GPS 70
- C 219 000, C 219 100, C 219 110, C 219 200 for manual pallet change GPS 70; Open/Close GPS 70 with air gun.
- Built-up height 54 mm
- X/Y-centering with springy cams, hardened, stainless steel
- Simple retrofit from version „automation“ to version „manual“ by the operator
- Weight 7.9 kg.

Chuck adapter Std, GPS 240-GPS 120, C 522 850

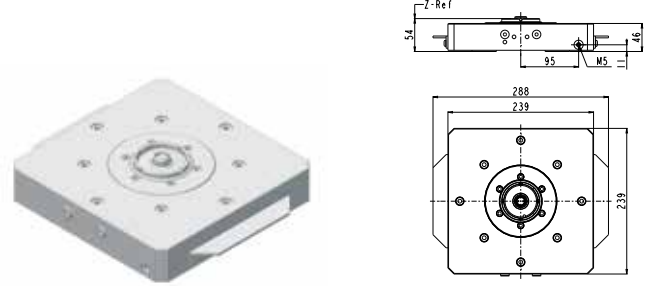
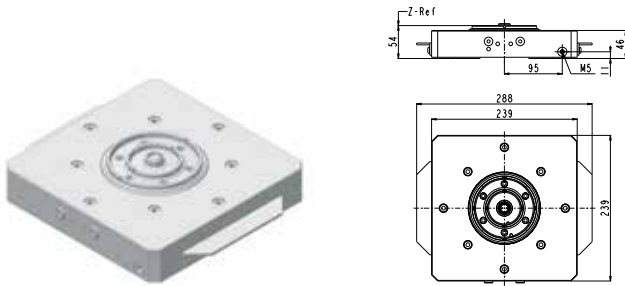
Chuck adapter with built-in pneumatic GPS 120 chuck.

- Built-up height 57 mm
- X/Y-centering with coined aluminium cams
- Other specifications as C 522 800.

Chuck adapter Std, GPS 240-GPS 70, C 522 860

Chuck adapter with built-in pneumatic GPS 70 chuck.

- Built-up height 57 mm
- X/Y-centering with coined aluminium cams
- Other specifications as C 522 810.



Chuck adapter HP, GPS 240-GPS 120, C 522 820

Chuck adapter with built-in pneumatic GPS 120 chuck for mounting in:

- C 219 800 for automated pallet change GPS 120
- C 219 000, C 219 100, C 219 110, C 219 200 for manual pallet change GPS 120; Open/Close GPS 120 with air gun.
- Built-up height 100mm
- X/Y-centering with springy cams, hardened, stainless steel
- Simple retrofit from version „automation“ to version „manual“ by the operator
- Weight 8.9 kg.

Chuck adapter HP, GPS 240-GPS 70, C 522 830

Chuck adapter with built-in pneumatic GPS 70 chuck for mounting in:

- C 219 800 for automated pallet change GPS 70
- C 219 000, C 219 100, C 219 110, C 219 200 for manual pallet change GPS 70; Open/Close GPS 70 with air gun.
- Built-up height 100 mm
- X/Y-centering with springy cams, hardened, stainless steel
- Simple retrofit from version „automation“ to version „manual“ by the operator
- Weight 8.9 kg.

Chuck adapter Std, GPS 240-GPS 120, C 522 870

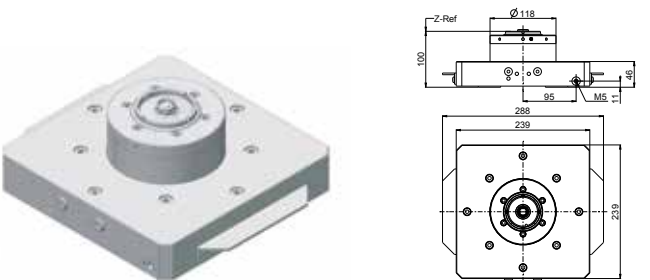
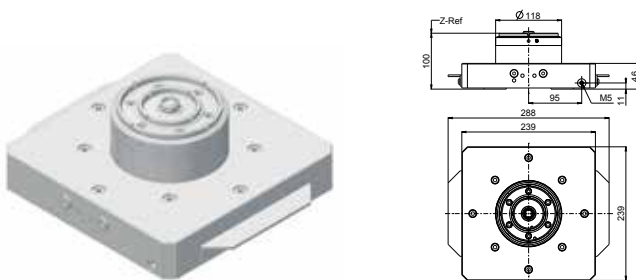
Chuck adapter with built-in pneumatic GPS 120 chuck.

- X/Y-centering with coined aluminium cams
- Other specifications as C 522 820.


Chuck adapter Std, GPS 240-GPS 70, C 522 880

Chuck adapter with built-in pneumatic GPS 70 chuck.

- X/Y-centering with coined aluminium cams
- Other specifications as C 522 830.



 Pallet with coined cams.

 Pallet with springy cams, hardened, stainless.

GPS 240 – Chuck adapters & accessories

Chuck adapter HP, GPS 240-Macro, C 522 520

Chuck adapter with built-in pneumatic Macro chuck.
3R-24460 for mounting in:

- C 219 800 for automated pallet change Macro
- C 219 000, C 219 100, C 219 110, C 219 200 for manual pallet change Macro; Open/Close/Turbo Macro with air gun.
- Built-up height 80 mm
- X/Y-centering with springy cams, hardened, stainless steel
- Drawbar 3R-605.1 oder 3R-504.4
- Simple retrofit from version „automation“ to version „manual“ by the operator
- Weight 8.5 kg.

Chuck adapter Std, GPS 240-Macro, C 522 530

Chuck adapter with built-in pneumatic Macro chuck.

- Built-up height 79 mm
- X/Y-centering with coined aluminium cams
- Other specifications as C 522 520.

Chuck adapter HP, GPS 240-MacroMagnum, C 522 540

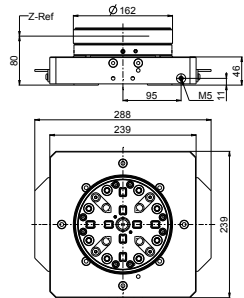
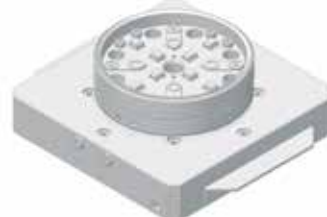
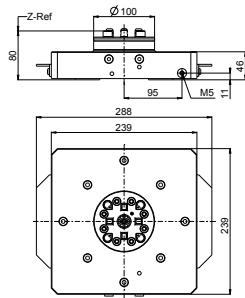
Chuck adapter with built-in pneumatic MacroMagnum chuck
3R-90809.03 for mounting in:

- C 219 800 for automated pallet change MacroMagnum
- C 219 000, C 219 100, C 219 110, C 219 200 for manual pallet change MacroMagnum; Open/Close/Turbo MacroMagnum with air gun.
- Built-up height 80 mm
- X/Y-centering with springy cams, hardened, stainless steel
- Drawbar 3R-605.1 oder 3R-504.4
- Simple retrofit from version „automation“ to version „manual“ by the operator
- Weight 11.7 kg.

Chuck adapter Std, GPS 240-MacroMagnum, C 522 550

Chuck adapter with built-in pneumatic MacroMagnum chuck.

- Built-up height 79 mm
- X/Y-centering with coined aluminium cams
- Other specifications as C 522 540.



GPS 240 Controllers

C 810 820

Unit for controlling pneumatic chucks C 217 100 and C 219 000.

- 1 connection (clamping/releasing).



C 810 830

Unit for controlling pneumatic chucks C 219 100.

- 4 connections - prism - air-blast cleaning of Z-references - clamping/releasing - Turbo/ventilation.




Hand gate valve, C 810 710

For controlling pneumatic chucks C 217 100 and C 219 000.



 Pallet with coined cams.

 Pallet with springy cams, hardened, stainless.

GPS 240 – Accessories

GPS 240 Spare parts set, S 220 000

Contains all elements for a normal service.

- Suitable for all square chucks, apart from C 219 400
- Recommendation: every 2 years if used manually and annually if used in the automation system.



Sealing, C 219 007

The chuck seal is a wear part which should be replaced every three to six months.

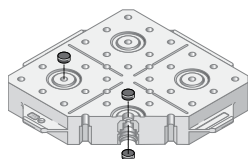
- Material Viton.



Seals, C 531 250

To seal the holes in the four clamping elements of the pallet.

- Material elastomer
- Supplied in sets of 20.



GPS 240 Spare parts set, S 220 400

Contains all elements for a normal service.

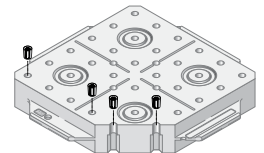
- Suitable for C 217 100
- Recommendation, every 2 years in manual use .



Sealing plugs, C 531 500

Plugs for sealing GPS 240 pallets.

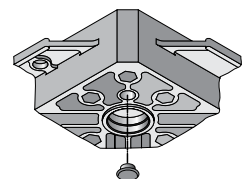
- Supplied in sets of 40.



Reference protectors, C 531 210

To protect the Z-reference of the pallet.

- Supplied in sets of 20.



GPS 240 – Accessories & user kits

Code carriers, 3R-863.01

With pre-programmed unique identity, designed for GPS 240 pallets.



3R-863.01-10

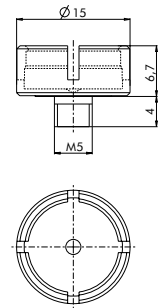
- Sets of 10 pieces.



Code carrier, fixture, C 960 740

Fixture for code carrier 3R-863.01-10.

- The code carrier can be clicked into position.



GPS 240 Clamp strip kit, C 810 880-XX*

- C 810 881 undrilled clamp strip (x2)
- E 010 144 washer M10 (x4)
- E 010 143 washer M8 (x4)
- E 000 428 Allen screw M10x45 (x4)
- E 000 354 Allen screw M8x45 (x4)
- 12 E 040 030 T-slot nut M10x12 (x4)
- 14 E 040 031 T-slot nut M10x14 (x4)
- 16 E 040 032 T-slot nut M10x16 (x4)
- 18 E 040 033 T-slot nut M10x18 (x4)



* When ordering, state the required dimension of the T-slot nut.



GPS 240 Presetting station, C 810 650

For alignment of workpieces on GPS 240 pallets.

- Parallelism 0.005 mm
- Required air pressure 6 ±1 bar.
- Supplied with dial indicator, dial indicator holder and actuator.



GPS 240 Lifting grip, C 810 960

Lifting gear for handling GPS 240 pallets 240x240 mm.

- Weight 2.9 kg

