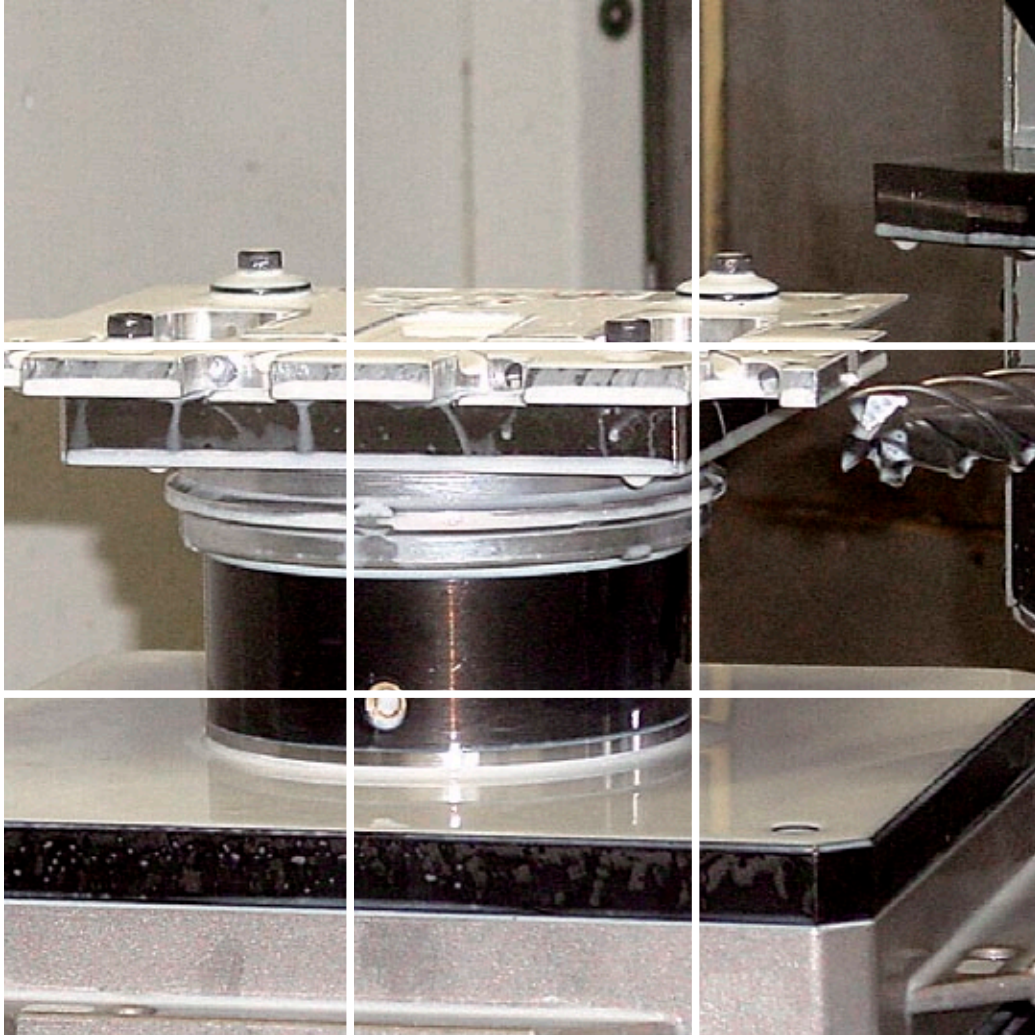
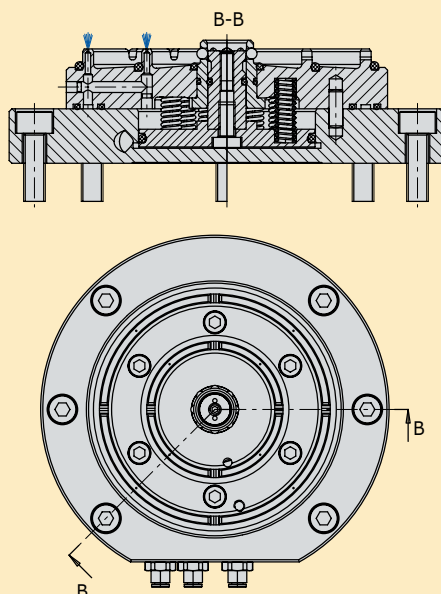
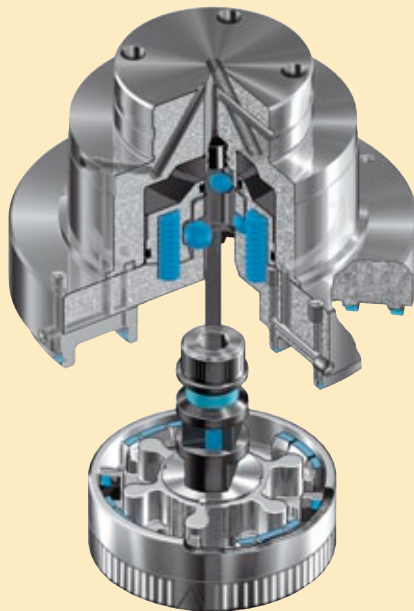
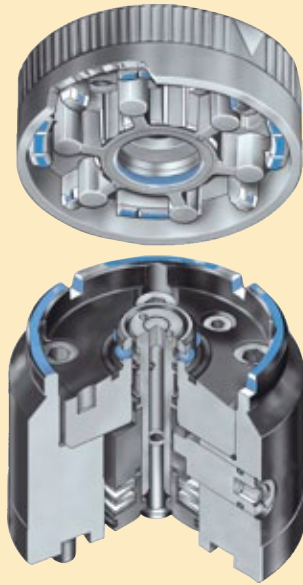


GPS 70, GPS 120, GPS 240

Reference Systems for Precision Production and Die-Sinking EDM





GPS CHUCK, MANUAL

- System size: GPS 70 and 120
- Application: turning, milling, drilling, grinding, die-sinking EDM, set-up and presetting station
- Repetition accuracy: 0.002 mm
- Indexing: 4 x 90°
- Clamping force: adjustable, max. 3000 N
- Clamping: spring force with self-clamping ball-lock
- Clamping/Releasing: manual
- Flushing: central, lateral connection
- GPS pallets: no clamping spigot required
- Material: stainless steel, hardened

GPS CHUCK, PNEUMATIC EDM

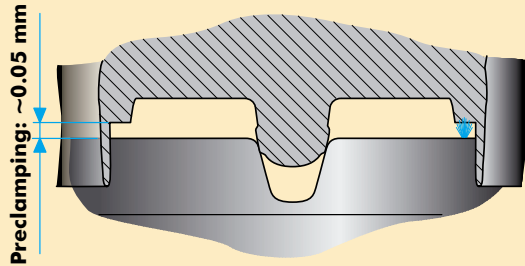
- System size: GPS 70 and 120
- Application: cNC die-sinking EDM machines
- Repetition accuracy: 0.002 mm
- Indexing: 4 x 90°
- Clamping force: approx. 3000 N
- Clamping: spring force with self-clamping ball-lock
- Releasing: with compressed air (6 bar)
- Flushing: central
- Cleaning of Z-supports: automatic
- Operation: pallet presence monitoring
- GPS pallets: with clamping spigot for use in electrode changer
- Material: steel, hardened

GPS CHUCK, PNEUMATIC

- System size: GPS 70 and 120
- Application: manual and automatic palletizing of machine tables for metal-cutting and die-sinking EDM applications as well as for rotary axis
- Repetition accuracy: 0.002 mm
- Indexing: 4 x 90°
- Clamping force: approx. 3800 N
- Clamping: spring force with self-clamping ball-lock
- Releasing: with compressed air (6 bar)
- Cleaning of Z-supports: automatic
- Inside pressure: connection available
- Pneumatic connection: pneumatic box or air-gun valve
- Automatic operation: pallet presence monitoring
- GPS pallets: no clamping spigot required
- Material: stainless steel, hardened

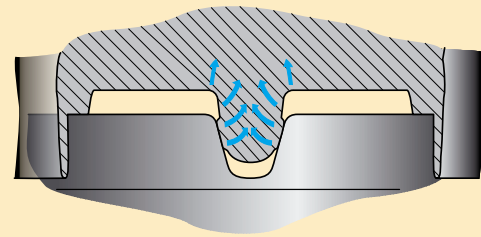
GPS PALLET, ALUMINIUM

Material: aluminium die-cast, face-turned and calibrated

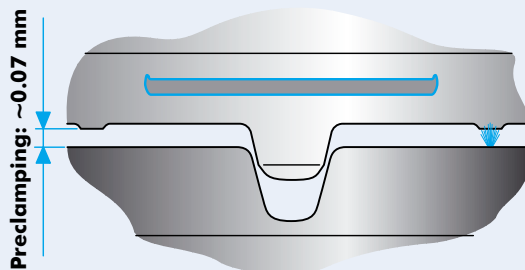
Unclamped pallet**Clamped pallet**

The axial spring of the centring cams assures optimal system accuracy and provides a reliable transmission of substantial machining forces.

Offers more than 30,000 clamping operations with constant precision.

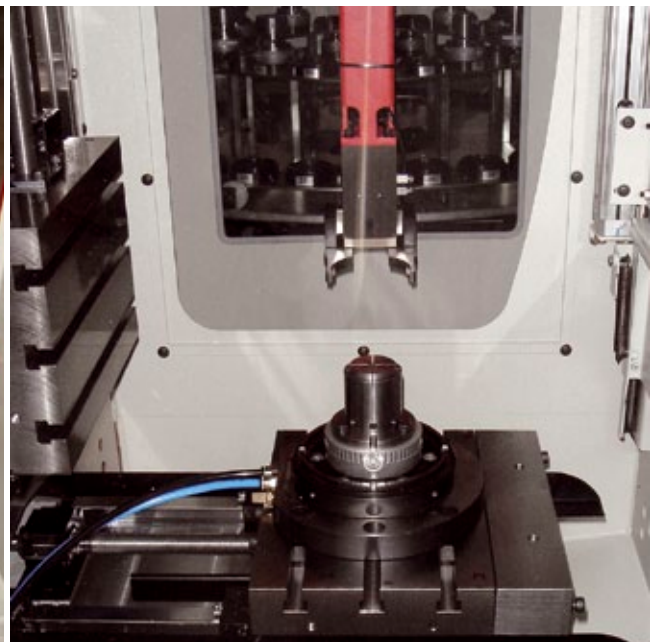
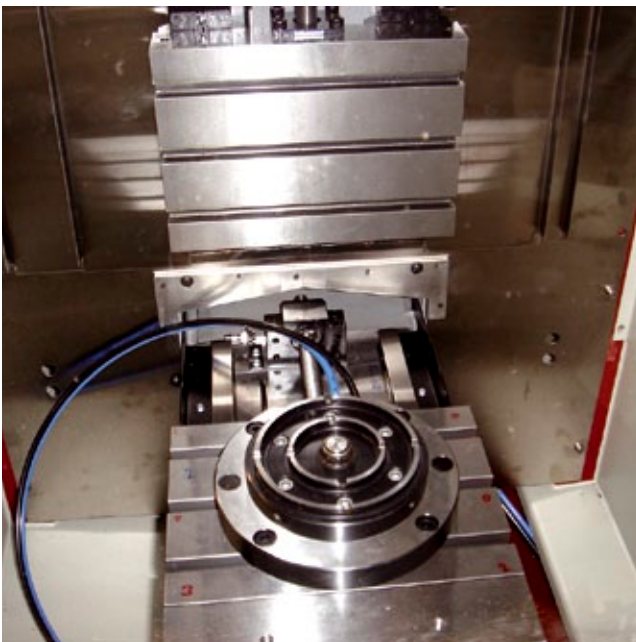
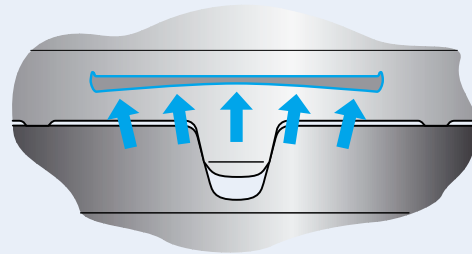
**GPS PALLET, STEEL, GROUND**

Material: stainless steel, hardened and ground

Unclamped pallet**Clamped pallet**

The axial spring of the centring cams assures optimal system accuracy and provides a reliable transmission of substantial machining forces.

Offers more than 100,000 clamping operations with constant precision.



GPS 70 CHUCKS FOR METAL-CUTTING OPERATIONS

The GPS 70 chucks are suitable for clamping applications on drilling, milling and grinding machines, machining centres and measuring machines and for a variety of applications in precision mechanics as well as in tool and die making. The GPS 70 chucks are mounted to the machine table.

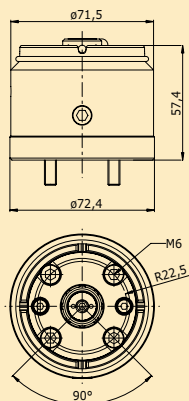
Facts

- Material: stainless steel, hardened / flange: stainless steel, heat pre-treated
- Repetition accuracy: 0,002 mm
- Clamping force: 3.000 - 3.800 N
- Indexing accuracy: 0,005 mm
- Indexing: 4 x 90°

GPS 70 Chuck, manual C 188 300

For turning, milling, grinding, die-sinking EDM.

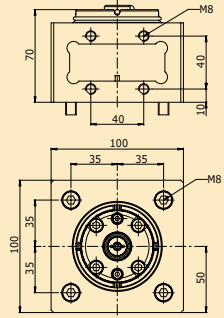
- Dimension: $\varnothing 72 \times 57.4$ mm
- Mounting: 4x M6 screws
- Clamping/releasing: manual
- Flushing: lateral inlet



GPS 70 Machining cube, manual C 530 210

For milling, grinding, die-sinking EDM.
Suitable for the 5-sided machining of electrodes and workpieces.
One side is ground square with the base surface.

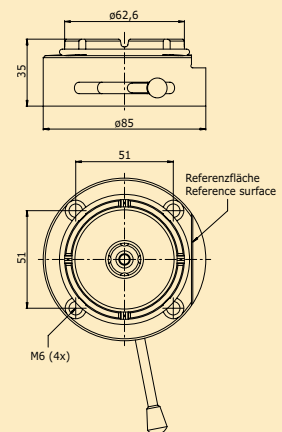
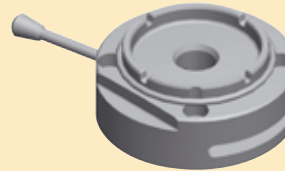
- Dimension: 100 x 100 x 70 mm
- Mounting (from the top): 70 x 70 mm, 4x M8 screws through holes (horizontal)
- Mounting (from the bottom): on GPS 240 pallet:
80 x 80 mm, 4x M8 screws threaded holes (horizontal),
40 x 40 mm, 4x M8 screws threaded holes (vertical)
- Clamping/releasing: manual



GPS 70 Chuck, manual C 190 000

For turning, milling, grinding, die-sinking EDM.

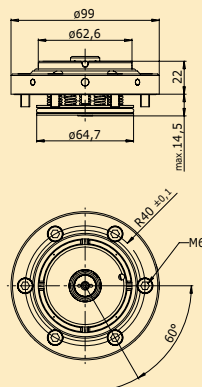
- Dimension: 85 x 35 mm
- Mounting: 4x M6 screws
- Required clamping spigot: S 500 062



GPS 70 Clamping unit, pneumatic C 188 720

For die-sinking EDM, turning, milling, grinding.

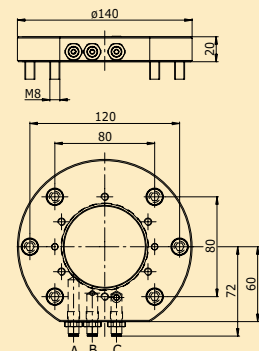
- Dimension: $\varnothing 99 \times 22$ mm
- Mounting: 6x M6 screws (on flange C 188 730)
- Clamping/releasing: pneumatic
- Air pressure: 6 bar
- Z-support cleaning: yes



Flange for GPS 70 clamping unit C 188 730

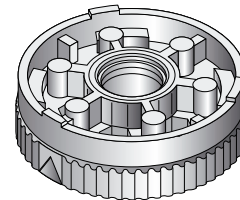
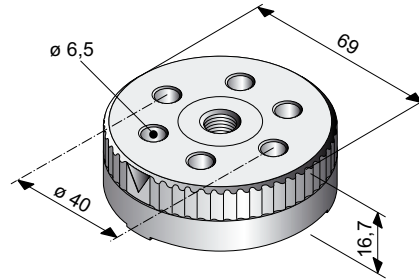
Fits on C 188 720.

- Dimension: $\varnothing 140 \times 20$ mm
- Mounting: 6x M8
- Connections:
A = releasing/clamping
B = Z-support cleaning
C = drain or over-pressure



GPS 70 PALLETS, ALUMINIUM

Using this pallet with its standardized hole pattern, any type of workpiece or any device can be attached from below, thus permitting collision-free 5-way machining. Its well thought out pallet design completely protects its X, Y and Z references from shocks and contamination. The pallets are prepared for the use in automation.



Facts

- Material: coined cast aluminium
- Dimensions: $\varnothing 69,5 \times 16,7 \pm 0,01$ mm
- Hole pattern for M6 screws
- Flatness: 0.01 mm
- X-Y-position: coined cams
- Weight: 0.2 kg

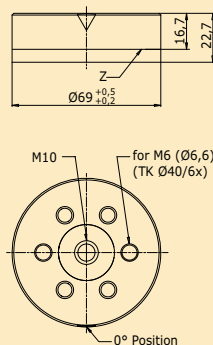
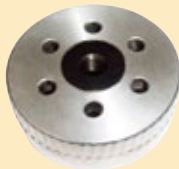
GPS 70 Pallet, aluminium C 695 050

Workpiece or electrode holder.

- Not prepared for automation

Set of pallets S 500 010

- Set of 9x C 695 050



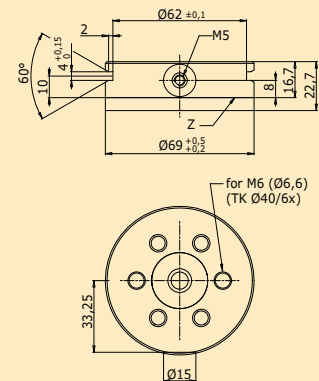
GPS 70 Pallet, aluminium C 695 040

Workpiece or electrode holder. Prepared for automation with thread M5 for code carrier, with gripper contour.

- Scope of delivery: pallet without code carrier fixture and without code carrier

Set of pallets S 500 011

- Set of 9x C 695 040



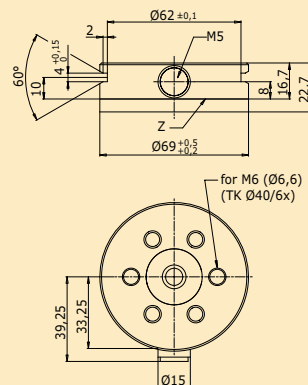
GPS 70 Pallet, aluminium C 695 045

Workpiece or electrode holder. Ready for use for automation with assembled code carrier and gripper contour.

- Scope of delivery: pallet with C 960 740 code carrier fixture and 3R-863.01 code carrier

Set of pallets S 500 012

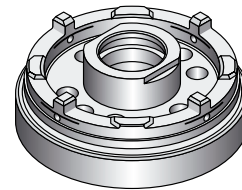
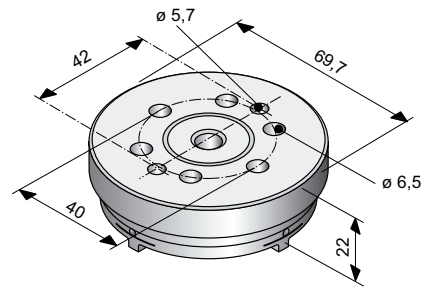
- Set of 9x C 695 045



GPS 70 PALLET, STEEL

Using this pallet with its standardized hole pattern, any type of workpiece or any device can be attached from below, thus permitting collision-free 5-way machining. Its well thought out pallet design completely protects its X, Y and Z references from shocks and contamination.

The pallets are prepared for the use in automation.



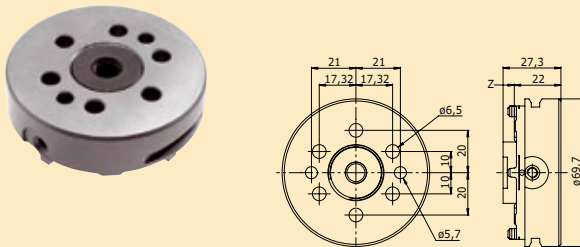
Facts

- Material: stainless steel, hardened
- Dimensions: $\varnothing 69,7 \times 22 \pm 0,005$ mm
- Surface quality: ground finish
- Hole pattern: 6x $\varnothing 6,5$ mm on $\varnothing 40$ mm pitch circle
2x $\varnothing 5,7$ mm (prepared for pin holes)
42 mm spacing

GPS 70 Pallet, steel C 695 265

Workpiece and device holder for precision production. Prepared for automation with thread M5 for code carrier, with gripper contour

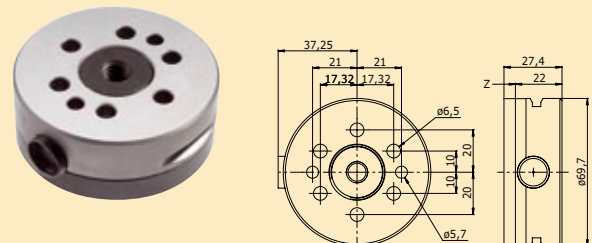
- Scope of delivery: pallet



GPS 70 Pallet, steel C 695 270

Workpiece and device holder for precision production. Prepared for automation with protection ring, code carrier fixture and gripper contour, without code carrier.

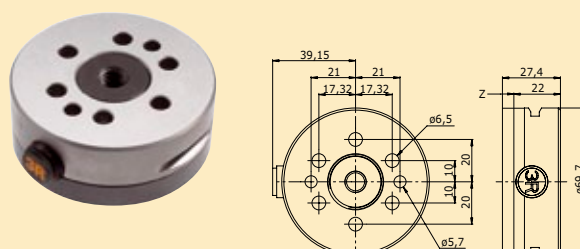
- Scope of delivery: C 695 265 pallet
C 695 272 pallet protection ring
C 960 740 code carrier fixture



GPS 70 Pallet, steel C 695 275

Workpiece and device holder for precision production. Prepared for automation with protection ring, code carrier fixture and gripper contour, with code carrier.

- Scope of delivery: C 695 265 pallet
C 695 272 pallet protection ring
C 960 740 code carrier fixture
3R-863.01 code carrier



Control unit C 960 500

Manual control unit for clamping and releasing chucks C 188 700 and C 188 720.

- Connector materials: included in delivery



GPS 70 Clamping force testing device C 846 900

Measurement and adjustment of clamping force for manual chucks.



GPS 70 Reference pallet C 846 360

For the axial XY alignment of the GPS chuck.

- Material: stainless steel, hardened
- Height: 47 mm
- Construction: 2-piece, form-fitting design
- Positioning accuracy of the centre bore: 0.002 mm/0°
- Parallelism with system axis: 0.003 / 120 mm



GPS 70 Inspection plug C 846 260

For the axial and radial alignment of the GPS chuck with Z.

- Material: stainless steel, hardened
- Height: 160 mm
- Concentricity: 0.005 mm at 150 mm
- Construction: 2-piece, form-fitting design



GPS 70/120 Pallet seal C 531 000

Sealing of unused bores.

- Material: elastomer
- Delivery includes: set of 100 pieces



GPS70 Collet chuck ER 32 C 735 110

Insertion of collet chucks $\varnothing$ 2 – 20 mm.

- Material: stainless steel, hardened
- Dimension: $\varnothing$ 69,7 x 59 mm
- Collet chuck key: included in delivery

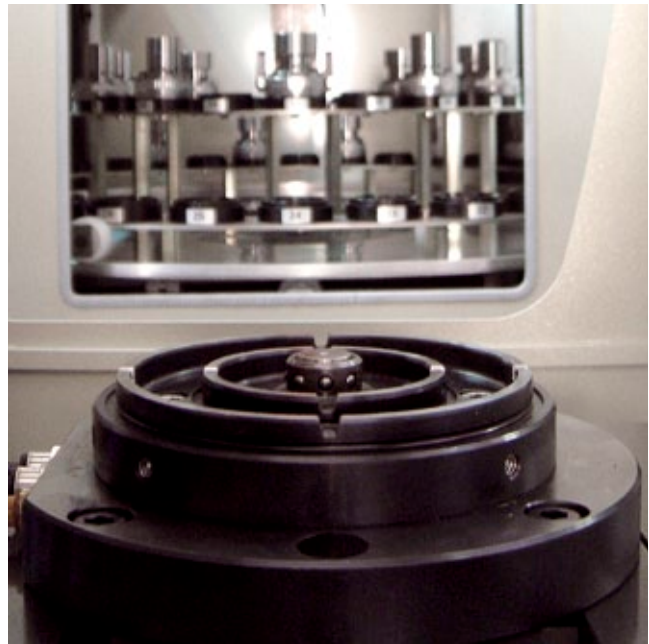


GPS 120 CHUCKS FOR METAL-CUTTING OPERATIONS

The GPS 120 chucks are suitable for clamping applications on drilling, milling and grinding machines, machining centres and measuring machines and for a variety of applications in precision mechanics as well as in tool and die making. The GPS 120 chucks are mounted to the machine table.

Facts

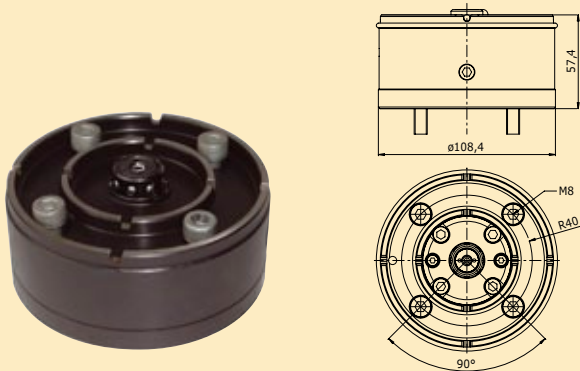
- Material: stainless steel, hardened/
flange: stainless steel, heat
pre-treated
- Repetition accuracy: 0,002 mm
- Clamping force: 3.000 - 3.800 N
- Indexing accuracy: 0,005 mm
- Indexing: 4 x 90°



GPS 120 Chuck, manual C 188 320

For turning, milling, grinding, die-sinking EDM.

- Dimension: $\varnothing 108 \times 57.4$ mm
- Mounting: 4x M8 screws
- Clamping/releasing: manual
- Flushing: lateral inlet

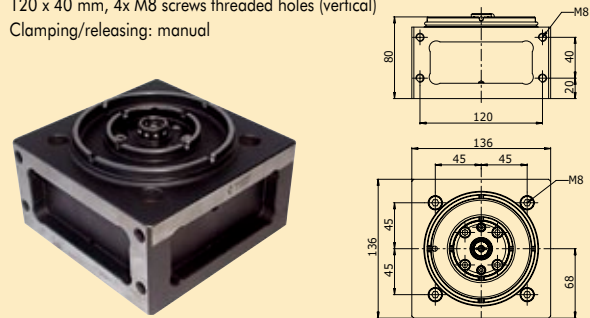


GPS 120 Machining cube, manual C 530 310

For milling, grinding, die-sinking EDM.

Suitable for the 5-sided machining of electrodes and workpieces. One side is ground square with the base surface.

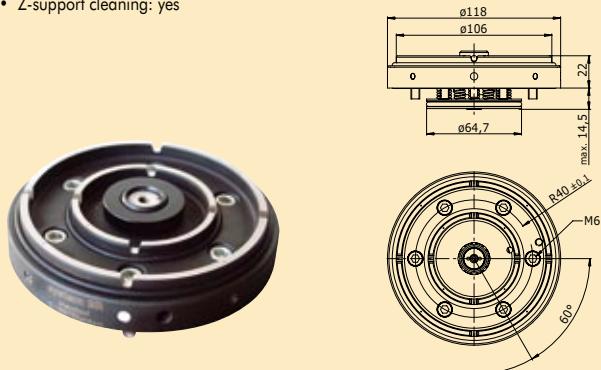
- Dimension: 136 x 136 x 80 mm
- Mounting (from the top): 12 x 120 mm, 4x M8 screws threaded holes (horizontal)
- Mounting (from the bottom): on GPS 240 pallet:
90 x 90 mm, 4x M8 screws through holes (horizontal),
120 x 40 mm, 4x M8 screws threaded holes (vertical)
- Clamping/releasing: manual



GPS 120 Clamping unit, pneumatic C 188 700

For die-sinking EDM, turning, milling, grinding.

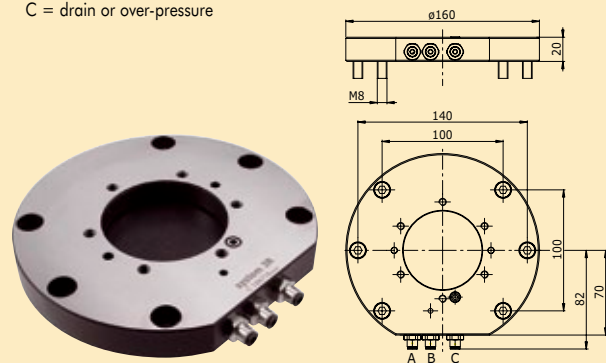
- Dimension: $\varnothing 118 \times 22$ mm
- Mounting: 6x M6 screws (on flange C 188 710)
- Clamping/releasing: pneumatic
- Air pressure: 6 bar
- Z-support cleaning: yes



Flange for GPS 120 clamping unit C 188 710

Fits on C 188 700.

- Dimension: $\varnothing 160 \times 20$ mm
- Mounting: 6x M8
- Connections:
A = releasing/clamping
B = Z-support cleaning
C = drain or over-pressure

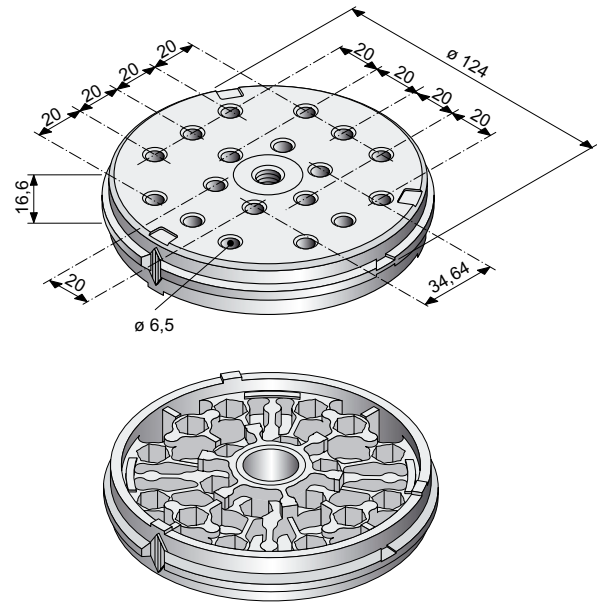


GPS 120 PALLETS, ALUMINIUM

Using this pallet with its standardized hole pattern, any type of workpiece or any device can be attached from below, thus permitting collision-free 5-way machining. Its well thought out pallet design completely protects its X, Y and Z references from shocks and contamination. The pallets are prepared for the use in automation.

Facts

- Material: coined cast aluminium
- Dimensions: $\varnothing 124 \times 16,6 \pm 0,01$ mm
- Hole pattern for M6 screws
- Flatness: 0.025 mm
- X-Y-position: coined cams
- Weight: 0.5 kg



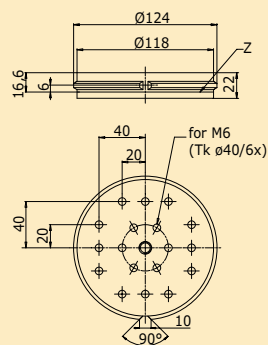
GPS 120 Pallet, aluminium C 695 100

Workpiece or electrode holder.

- Not prepared for automation

Set of pallets S 500 020

- Set of 4x C 695 100



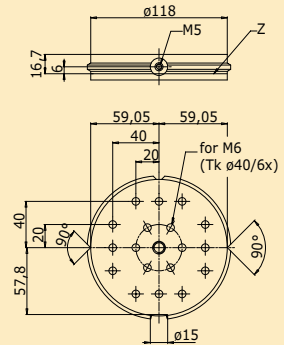
GPS 120 Pallet, aluminium C 695 140

Workpiece or electrode holder. Prepared for automation with thread M5 for code carrier, with gripper contour.

- Scope of delivery: pallet without code carrier fixture and without code carrier

Set of pallets S 500 021

- Set of 4x C 695 140



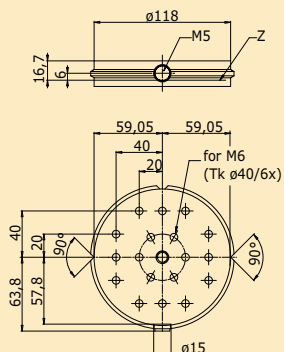
GPS 120 Pallet, aluminium C 695 145

Workpiece or electrode holder. Ready for use for automation with assembled code carrier and gripper contour.

- Scope of delivery: pallet with C 960 740 code carrier fixture and 3R-863.01 code carrier

Set of pallets S 500 022

- Set of 4x C 695 145



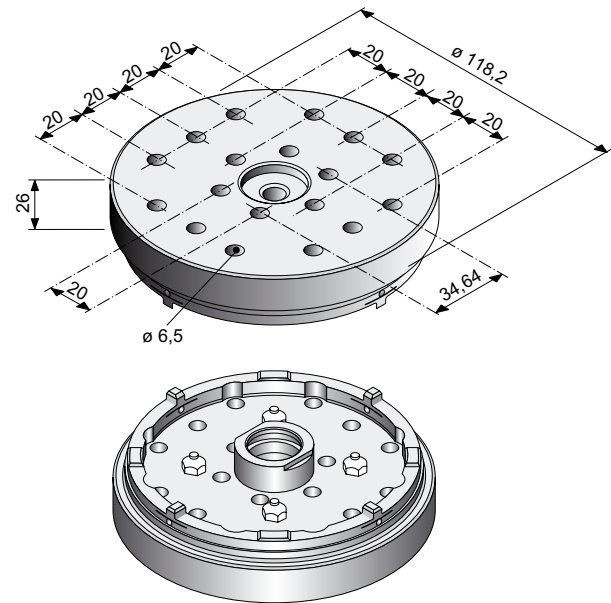
GPS 120 PALLET, STEEL, GROUND

Using this pallet with its standardized hole pattern, any type of workpiece or any device can be attached from below, thus permitting collision-free 5-way machining. Its well thought out pallet design completely protects its X, Y and Z references from shocks and contamination.

The pallets are prepared for the use in automation.

Facts

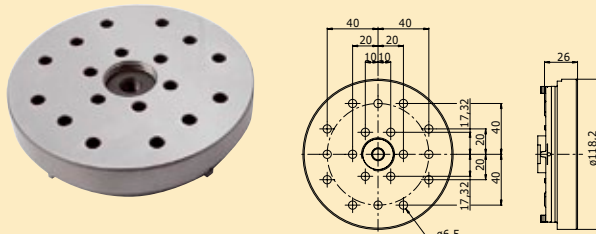
- Material: stainless steel, hardened and ground
- Dimensions: $\varnothing 118 \times 26 \pm 0,005$ mm
- Surface quality: ground finish
- Hole pattern: 18 holes for M6



GPS 120 Pallet, steel C 695 365

Workpiece and device holder for precision production.

- Scope of delivery: pallet

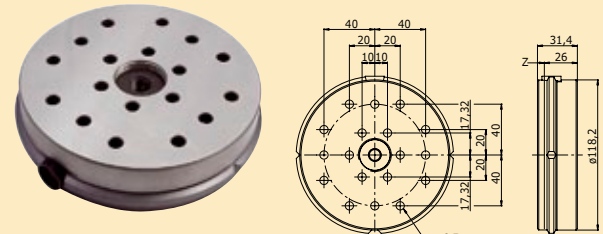


GPS 120 Pallet, steel C 695 370

Workpiece and device holder for precision production.

Prepared for automation with protection ring, code carrier fixture and gripper contour, without code carrier.

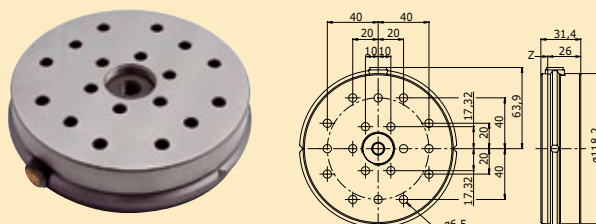
- Scope of delivery: C 695 365 pallet
C 695 372 pallet protection ring
C 960 740 code carrier fixture



GPS 120 Pallet, steel C 695 375

Workpiece and device holder for precision production.
Prepared for automation with protection ring, code carrier fixture and gripper contour, with code carrier.

- Scope of delivery: C 695 365 pallet
C 695 372 pallet protection ring
C 960 740 code carrier fixture
3R-863.01 code carrier



GPS 70/120 Pallet seal C 531 000

Sealing of unused bores.

- Material: elastomer
- Delivery includes: set of 100 pieces



Control unit C 960 500

Manual control unit for clamping and releasing chucks
C 188 700 and C 188 720.

- Connector materials: included in delivery



GPS 120 Chip protection C 695 176

Chip protection ring for GPS 120 chucks when used with
GPS 70 palletizing system.

- Material: aluminium, anodized
- Dimension: $\varnothing$ 120 x 13,5 mm



Code carriers 3R-863.01

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

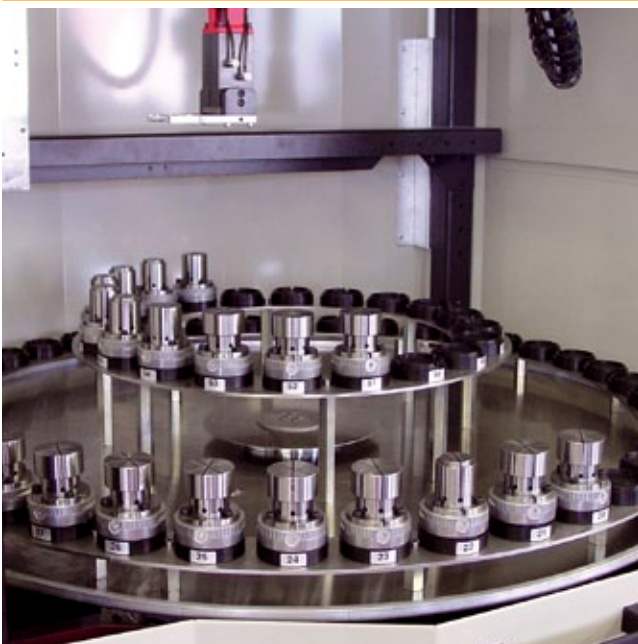
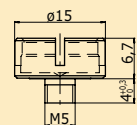
3R-863.01-10

Sets of 10 pieces.

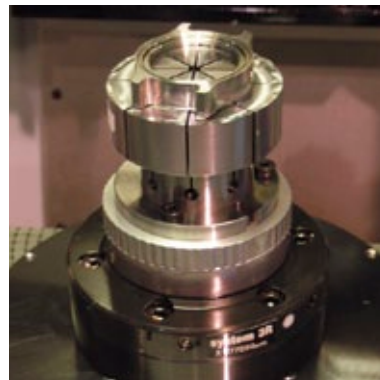
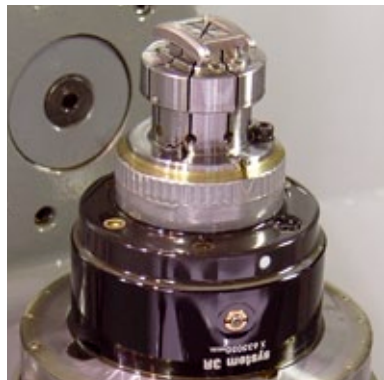


Code carrier, fixture C 960 740

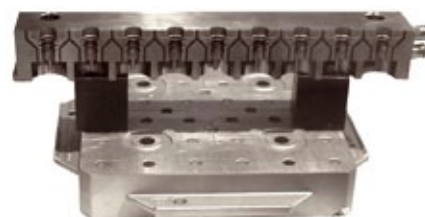
Fixture for code carrier
3R-863.01-10.



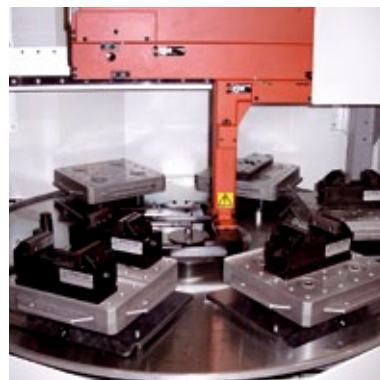
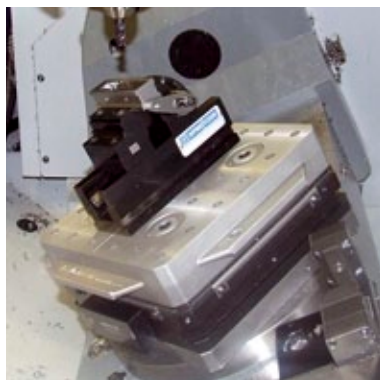
Solution for watch manufacturing
GPS 70 pallet with COCN collet



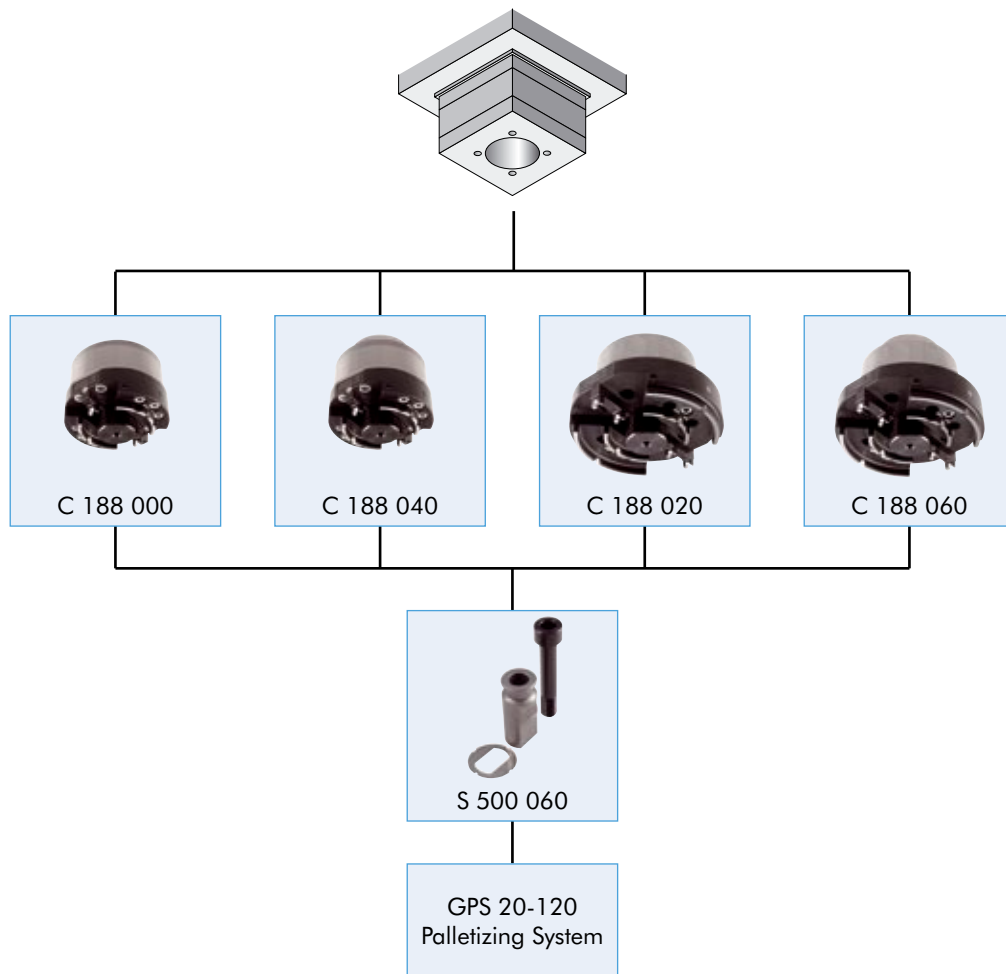
Application examples



Centric clamping devices

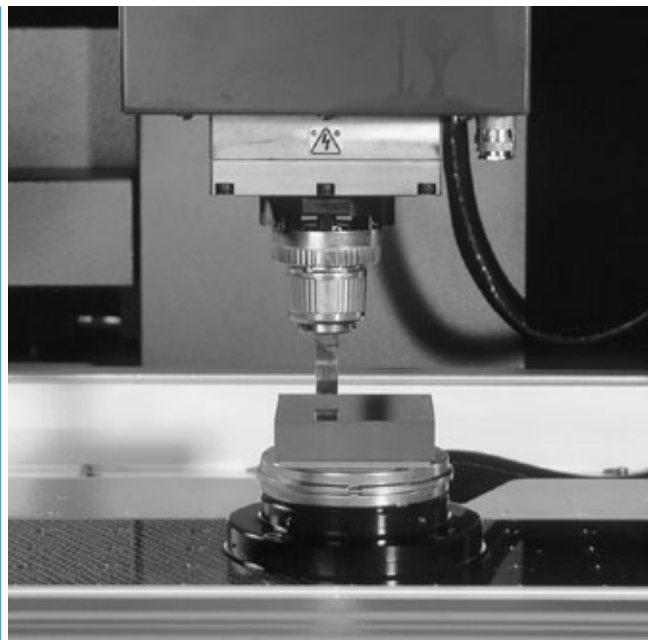


GPS 70/120 CHUCKS FOR DIE-SINKING EDM WITH C-AXIS AND/OR ELECTRODE CHANGER



Technical Specifications

- The GPS 70/120 chucks are integrated into the quill.
- Flushing and pneumatic actuation takes place through the quill centre.
- The GPS palletizing system is clamped in the GPS 70/120 chucks with clamping spigots S 500 060. The mounting of the clamping spigots on the GPS 70/120 steel pallets requires the clamping spigot set-up gauge C 695 075 or C 695 175.
- The GPS 20 palletizing system can be adapted to the GPS 70/120 chucks with the GPS 70 shank holder 40 (C 525 560).
- The GPS 70/120 chucks are available with a $\varnothing$ 45 mm graduated circle ($\varnothing$ 55 mm connection) and a $\varnothing$ 68 mm graduated circle ($\varnothing$ 80 mm connection).



GPS 70 Chuck, pneumatic EDM C 188 000

Die-sinking EDM with C-axis and/or electrode changer.

- Connection: $\varnothing$ 80 mm
- Height: 68 mm
- Mounting: 4 M6 screws on $\varnothing$ 70 mm pitch circle
- Air pressure: 6 bar
- Z-support cleaning: yes
- Flushing: central
- Clamping spigot set-up gauge: included in delivery



GPS 70 Chuck, pneumatic EDM C 188 040

Die-sinking EDM with C-axis and/or electrode changer.

- Connection: $\varnothing$ 55 mm
- Height: 80 mm
- Mounting: 4 M6 screws on $\varnothing$ 45 mm pitch circle
- Air pressure: 6 bar
- Z-support cleaning: yes
- Flushing: central
- Clamping spigot set-up gauge: included in delivery



GPS 120 Chuck, pneumatic EDM C 188 020

Die-sinking EDM with C-axis and/or electrode changer.

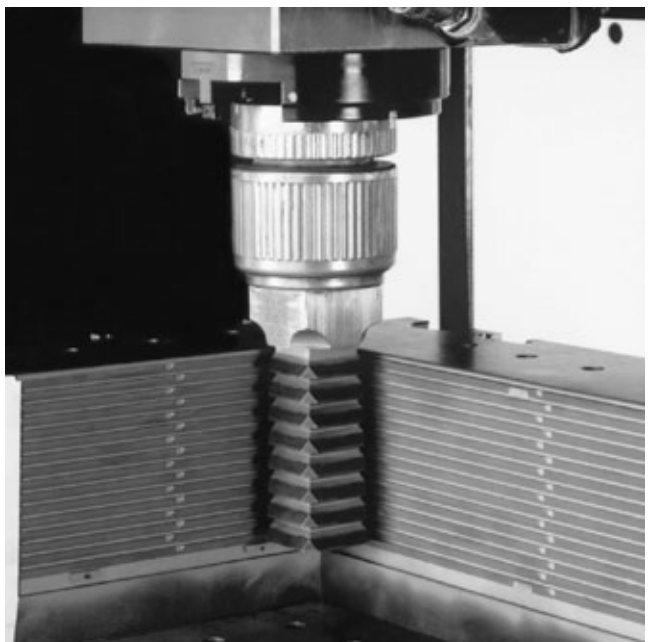
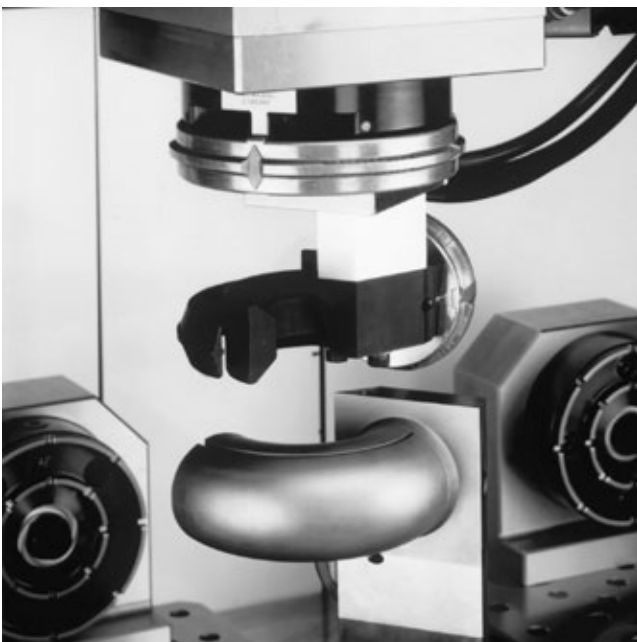
- Connection: $\varnothing$ 80 mm
- Height: 68 mm
- Mounting: 4 M6 screws on $\varnothing$ 70 mm pitch circle
- Air pressure: 6 bar
- Z-support cleaning: yes
- Flushing: central
- Clamping spigot set-up gauge: included in delivery



GPS 120 Chuck, pneumatic EDM C 188 060

Die-sinking EDM with C-axis and/or electrode changer.

- Connection: $\varnothing$ 55 mm
- Height: 80 mm
- Mounting: 4 M6 screws on $\varnothing$ 70 mm pitch circle
- Air pressure: 6 bar
- Z-support cleaning: yes
- Flushing: central
- Clamping spigot set-up gauge: included in delivery



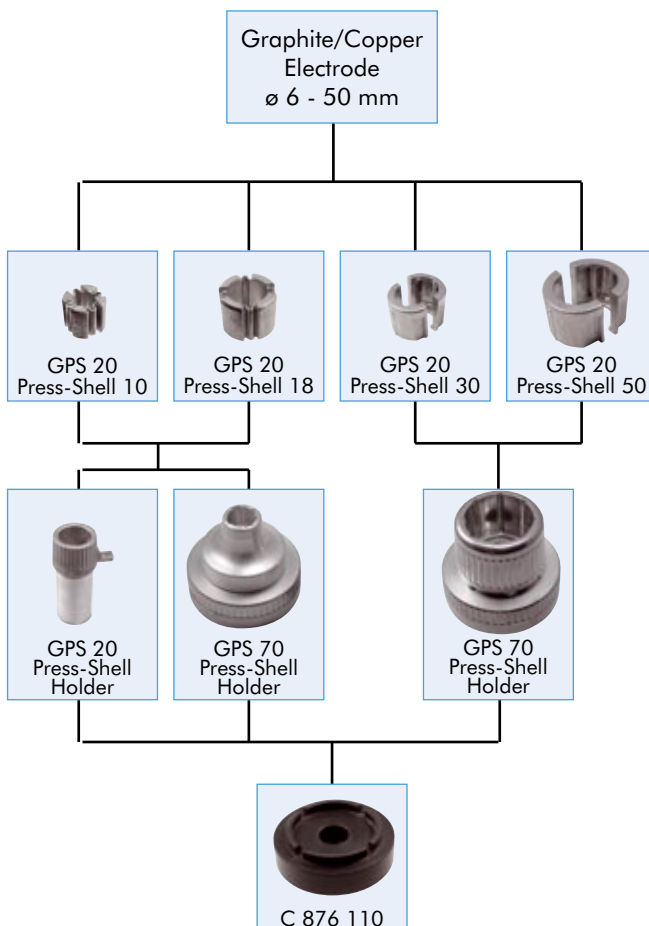
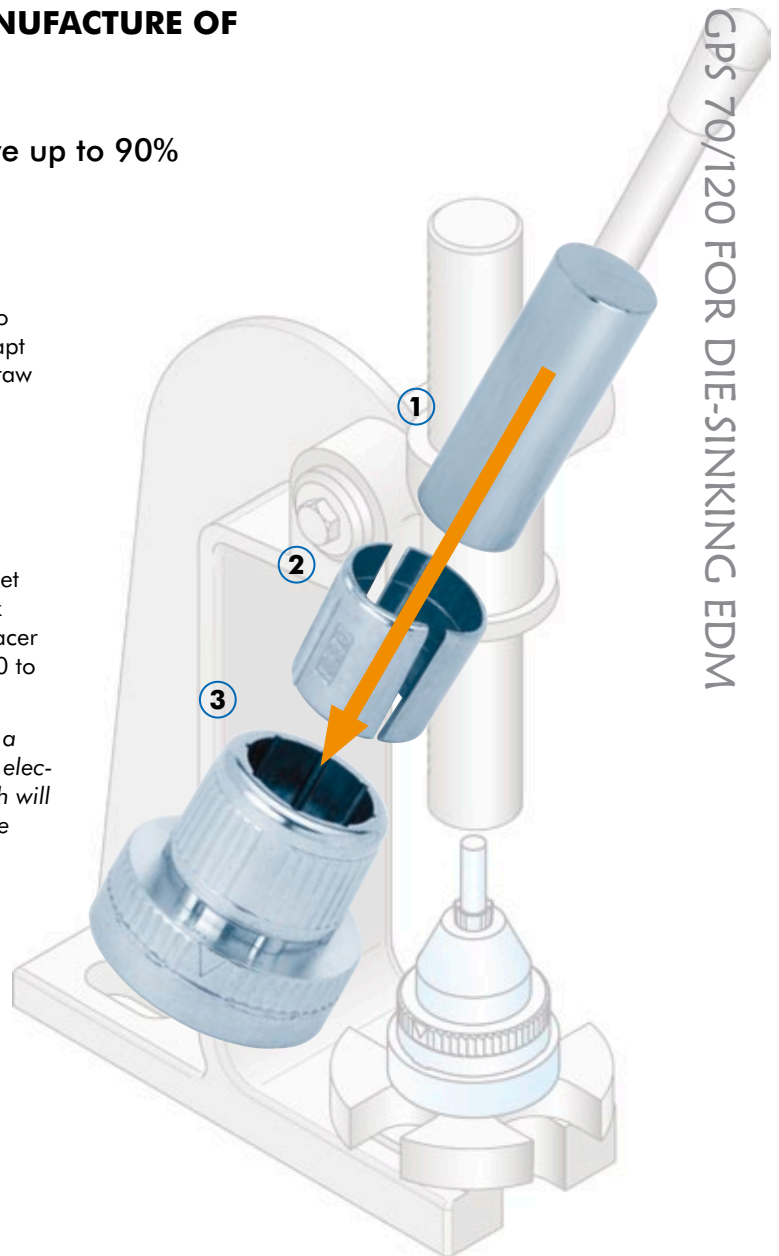
GPS PRESS-IN SYSTEM FOR THE MANUFACTURE OF ELECTRODES AND WORKPIECES

With the GPS palletizing system you save up to 90% of unproductive set-up time.

The split collets ② surrounding the raw electrode ① offer the unique advantage that during the insertion into the cup-shaped split collet holder ③ they positively adapt to it thus providing even and concentric holding of the raw electrode in the holder.

... and this is how it's done:

1. Cut the standard electrode section to the desired length
 2. Bur raw electrode with hand grinder
 3. Insert raw electrode in suitable collet or split collet and introduce into collet or split collet holder
 4. Put complete split collet holder or collet shank onto arbour-press spacer and press in with (300 to 700 kg) force
- In less than two minutes a concentrically palletized electrode will be ready which will withstand all conceivable machining forces.*



Technical Specifications

- Quick and simple insertion of round and square copper and graphite electrodes in the ø 6 to 50 mm range.
- 25 collets and split collets for standard electrode sections (tolerance: $\pm 0,1$ mm).
- No screwing, soldering, gluing or drilling.
- All split collets and collets are supplied with matching seals.
- The GPS palletizing system ensures an exact micro-millimetre chuck to chuck repeatability.
- Supplied with a convenient, stackable tray for storing finished electrodes.
- The electrode is stored on the holder – ready to be used again.

GPS 70 Shank holder 40 C 525 560

The GPS 20 palletizing system can be adapted to the GPS 70/120 chucks with the GPS 70 shank holder 40.

- Material: stainless steel, hardened
- Dimension: $\varnothing 69,7 \times 67,6$ mm
- Flushing: central
- Design: two-piece, form-fitting
- Clamping: hydraulic
- Maintenance set: included in delivery



GPS 20 Aluminium collet shank 10 S 501 240

Electrode holder used with collet 10.

- Material: aluminium die-cast, coined
- Insertion: press-in raw electrode with collets into collet shank
- Fits on shank holder C 525 560: for insertion of collet shank in the GPS pallet
- Delivery includes: set of 20 units



GPS 20 Aluminium collet shank 18 S 501 310 / S 501 320

Electrode holder used with collet 18.

- Material: aluminium die-cast, coined
- Insertion: press-in raw electrode with collets into collet shank
- Fits on shank holder C 525 560: for insertion of collet shank in the GPS pallet
- Delivery includes: S 501 310: set of 10 units
S 501 320: set of 20 units



GPS 20 Collets 10 S 501 xxx

For insertion of up to $\varnothing 10$ mm copper and graphite electrodes in collet shank 10.

- Material: zinc aluminium alloy
- Positioning accuracy after insertion: concentric
- Tube section tolerance: ± 0.1 mm
- Delivery includes: set of 10 units

S 501 250

- $\varnothing 6$

S 501 260

- 6×6

S 501 270

- $\varnothing 8$

S 501 280

- 8×8

S 501 290

- $\varnothing 10$

S 501 300

- 10×10



S 501 370

- Set with 10 pieces each size

GPS 20 Collets 18 S 501 xxx

For insertion of up to $\varnothing 18$ mm copper and graphite electrodes in collet shank 18.

- Material: zinc aluminium alloy
- Positioning accuracy after insertion: concentric
- Tube section tolerance: ± 0.1 mm
- Delivery includes: set of 10 pieces

S 501 330

- $\varnothing 12$

S 501 340

- 12×12

S 501 350

- $\varnothing 15$

S 501 360

- $\varnothing 18$



S 501 380

- Set with 10 pieces each size



GPS 70 Collet holder 10 S 500 041

Workpiece and electrode holder used with collets 10.

- Material: aluminium, coined
- Design: screwed two-piece construction
- Dimension: $\varnothing$ 69,5 x 54,7 mm
- Delivery includes: set of 9 units



GPS 70 Collet holder 18 S 500 051

Workpiece and electrode holder used with GPS 20 collets 18.

- Material: aluminium, coined
- Design: screwed two-piece construction
- Dimension: $\varnothing$ 69,5 x 54,7 mm
- Delivery includes: set of 9 units



GPS 20 Split collet holder 30 S 500 040

Workpiece and electrode holder used with GPS 70 split collets 30.

- Material: aluminium die-cast, coined
- Dimension: $\varnothing$ 69,5 mm
- Height: approx. 62 mm (incl. split collets)
- Construction: screwed 2-piece design
- Delivery includes: set of 9 units



GPS 70 Split collet holder 50 S 500 050

Workpiece and electrode holder used with GPS 70 split collets 50.

- Material: aluminium die-cast, coined
- Dimension: $\varnothing$ 69,5 mm
- Height: approx. 72 mm (incl. split collets)
- Construction: screwed 2-piece design
- Delivery includes: set of 9 units



GPS 70 Split collets 30 S 501 xxx

For insertion of up to $\varnothing$ 30 mm copper and graphite electrodes in split collet holder 30.

- Material: aluminium die-cast
- Positioning accuracy after insertion: central
- Tube section tolerance: $\pm$ 0.1 mm
- Delivery includes: set of 10 pieces

S 501 000 **S 501 030**
• $\varnothing$ 20 • 15 x 15

S 501 010 **S 501 040**
• $\varnothing$ 25 • 20 x 20

S 501 020 **S 501 050**
• $\varnothing$ 30 • 25 x 25

S 501 510
• Set with 2 pairs each size

S 501 530
• Set with 10 pairs each size



GPS 70 Split collets 50 S 501 xxx

For insertion of up to $\varnothing$ 50 mm copper and graphite electrodes in collet holder 50.

- Material: aluminium die-cast
- Positioning accuracy after insertion: central
- Tube section tolerance: $\pm$ 0.1 mm
- Delivery includes: set of 10 pieces

S 501 060 **S 501 090** **S 501 120**
• $\varnothing$ 35 • 30 x 30 • 30 x 15

S 501 070 **S 501 100** **S 501 130**
• $\varnothing$ 40 • 35 x 35 • 40 x 15

S 501 080 **S 501 110** **S 501 140**
• $\varnothing$ 50 • 40 x 40 • 40 x 20

S 501 520
• Set with 2 pairs each size

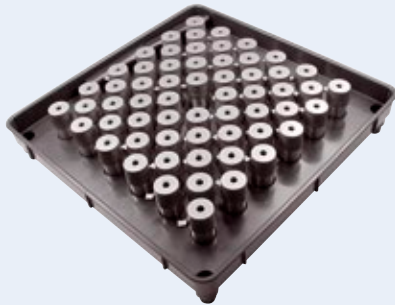
S 501 540
• Set with 10 pairs each size



**GPS 20 Shank
S 500 080**

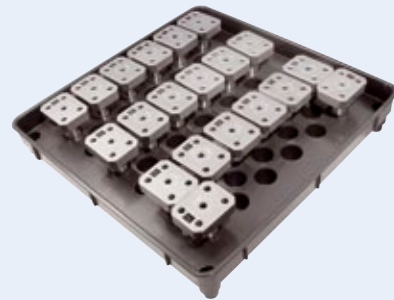
For small electrodes.

- Fits on: C 525 560
- Material: aluminium die-cast, coined
- Hole pattern: M5 and / or cemented joint
- Delivery includes: set of 60 pieces

**GPS 20 Shank pallet
S 500 070**

For the palletizing of electrodes.

- Fits on: C 525 560
- Material: aluminium die-cast, coined
- Hole pattern: for M5 screws
- Supporting surface: 24 x 36 mm
- Delivery includes: set of 20 pieces

**GPS70 Collet chuck ER 32
C 735 110**

Insertion of collet chucks $\varnothing$ 2 – 20 mm.

- Material: stainless steel, hardened
- Dimension: $\varnothing$ 69,7 x 59 mm
- Collet chuck key: included in delivery

**Collets / Seals**

For collet chuck holder C 735 110.

**Collet Set
V 005 002**

- Delivery includes: 18 collets ER 32, 2 to 20 mm

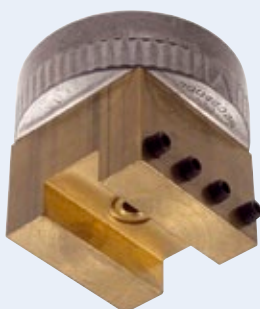
**Seal Set
V 005 008**

- Delivery includes: 18 seals ER 32, 2 to 20 mm

**GPS 70 Parallel holder (brass)
C 526 020**

Electrode holder for laminated electrodes.

- Outside dia.: 69.5 mm
- Height: 50.7 mm
- Inside dimensions: 20 x 70 mm
- Construction: 2-piece brass holder screwed onto GPS 70 aluminium pallet

**GPS 70 Square holder (brass)
C 526 010**

Square electrode holder.

- Outside dia.: 69.5 mm
- Height: 50.7 mm
- Inside dimensions: 26 x 26 mm square
- Design: 2-piece brass holder screwed onto GPS 70 aluminium pallet



GPS 70 Adapter ITS 50 C 526 060

Adaptation of GPS 70 on ITS 50.

- Material: stainless steel, hardened
- Dimension: $\varnothing$ 69.7 mm
- Height: overall: 50 mm, Z-supports: 36.5 mm
- Construction: 2-piece, form-fitting design
- Flushing: central



GPS 70/120 Adapter C 526 160

Adaptation of GPS 70 on GPS 120.

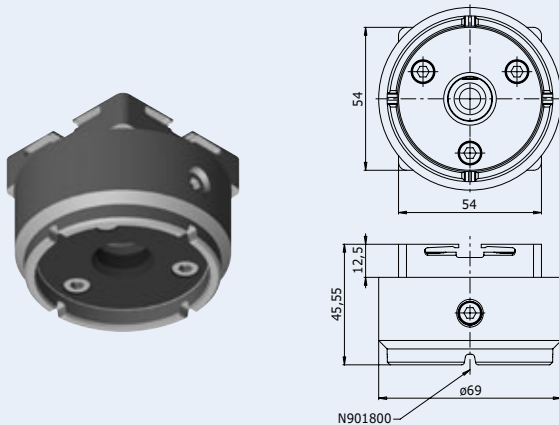
- Material: stainless steel, hardened
- Dimension: $\varnothing$ 106 x 26 mm
- Construction: one-piece design
- Flushing: central



3R Macro adapter GPS 70 manual C 188 550

Adaptation of Macro on GPS 70.

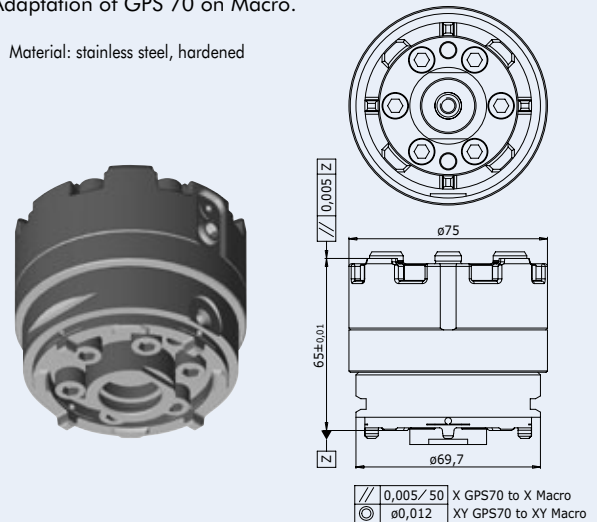
- Material: stainless steel, hardened
- Clamping spigot: N 901 800



GPS 70 Adapter 3R Macro manual C 188 560

Adaptation of GPS 70 on Macro.

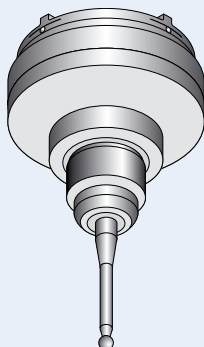
- Material: stainless steel, hardened



GPS 70 Renishaw probe C 810 530

Automatic measuring of workpieces on CNC die-sinking EDM.

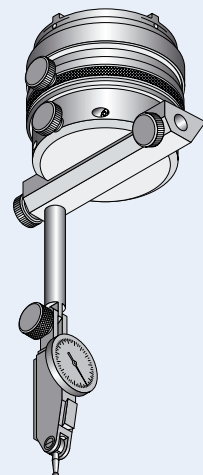
- Height: 130 mm
- Tracer ball: 5 mm
- Overtravel protection: 3-dimensional (Z = 5 mm, XY = 15 mm)



GPS 70 Dial indicator holder, swivel type C 810 170

Alignment of workpieces on machines with or without C-axis.

- Measuring range: up to $\varnothing$ 250 mm
- Dial indicator: 0.01 mm
- Locking: mechanical



Hydraulic maintenance unit for shank holder C 525 165

Filling of hydraulic system of GPS shank holder with grease when clamping force weakens.

- Instructions: see maintenance instructions



GPS 70 Arbour press spacer C 876 110

Support for pressing the raw electrode into the GPS 20 collet shank 10/18 and into the GPS 70 split collet holder 30 and 50.

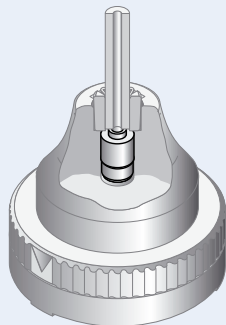
- Material: POM



GPS 70 Collet shank seal C 711 320

Seals for through the electrode flushing.

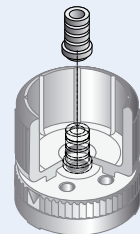
- Material: plastic
- Delivery includes: set of 10 units



GPS 70 Split collet holder seal C 531 100

Seals for through the electrode flushing.

- Material: thermoplastic
- Delivery includes: set of 100 units



Clamping spigot set automatic S 500 060

For GPS 70/120 chucks: C 188000 / C 188020 / C 188040 / C 188060. For use with electrode changer.

- Material: steel, hardened
- Clamping screw: M10 x 55 mm screw, with through-bore flushing
- Delivery includes: set of 10 units



GPS 70 Clamping spigot alignment gauge C 695 075

Alignment of the clamping spigot (S 500060) in the GPS 70 steel pallet in the electrode changer.

- Material: anodized aluminium



GPS 120 Clamping spigot alignment gauge C 695 175

Alignment of the clamping spigot (S 500 060) in the GPS 120 steel pallet in the electrode changer.

- Material: anodized aluminium



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