System 3R palletizing systems with Spreitzer clamping solutions
Workpiece clamping solutions to increase productivity

The advantages of a palletable workpiece clamping solution // These are obvious: This is the only way to equip a pallet with a vise, a special device and a workpiece outside the machine and then quickly change it into the machine and replace it again. You save expensive set-up times and significantly reduce downtime.

However, the prerequisite for this is that all systems are matched to one another. And we offer you: The pallet clamping systems from System 3R and the clamping solutions from Spreitzer are optimally matched to each other and to your workpieces. And not only that: The compact design ensures optimum accessibility to the workpiece.

Use these optimized solutions for palletizing and automation in milling, sinking and measuring, increasing your productivity and reducing costs!
The System 3R benefits

+ Standard interface between machine and workpiece
+ Universally applicable in milling, turning, grinding, sinking and measuring
+ Reduced set-up times
+ High precision and quality
+ Indexing 4 x 90°

The advantages of the Spreitzer clamping solutions

+ High centering and repetition accuracy enable highest production quality
+ Less vibration - The stable design allows safe clamping and reduces vibrations on the workpiece
+ In the 5-axis machining, the compact mechanical or pneumatic centre-clamping vises allows exact machining of workpieces to the axis of symmetry or rotation.

The perfect solution

We offer the combination of both systems: Optimized solutions for palletizing and automation. In this catalog you will find a wide range of standardized solutions for different workpiece geometries.

Legende der Lieferbedingungen

- Delivery from stock, subject to prior sale
- Delivery within 4-8 working weeks after incoming order
- Special processing. Delivery only on request.
System 3R palletizing systems

**Macro 54 x 54 mm**
Hardened and precision-cast, with clearance holes for four fixing screws.
Clamping solutions → page 12

**Macro 70 x 70 mm**
Hardened and precision-cast, with clearance holes for eight fixing screws.
Clamping solutions → page 14

**MacroMagnum**
Unhardened Ø156 mm pallet with hardened reference elements and hole markings for eight clearance holes.
+ Adapted for automatic changing
+ Ready for code carrier
+ Weight 4.5 kg
Clamping solutions → page 16

**GPS 70/120 steel pallet**
Workpiece and device holder for precision production. Prepared for automation with protection ring, code carrier fixture and gripper contour, without code carrier.
Clamping solutions GPS 70 → page 20
Clamping solutions GPS 120 → page 26

**GPS 70/120 aluminium pallet**
Work piece and electrode holder. Prepared for automation with gripper contour and M5 thread for code carrier.
Clamping solutions GPS 70 → page 23
Clamping solutions GPS 120 → page 29
**GPS 240**

- Construction height: 48.0 ±0.01 mm
- X/Y-centring: with coined cam
- Flatness: 0.02 mm

Clamping solutions → page 32

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**Dynafix**
Milled aluminium pallet 280x280 mm

- Adapted for automatic changing
- Ready for code carrier
- Flatness 0.04 mm
- Thickness tolerance +0.5/-0 mm

Clamping solutions → page 37

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**Delphin drawbars**
Positioning and clamping element for use on the System 3R zero-point clamping system Delphin.

Clamping solutions → page 42
Spreitzer clamping solutions

Mechanical centre-clamping vises MZR
+ Attractively priced basic model
+ Powerful raw material clamping without prestamping
+ Reversible jaws for maximum clamping range
+ Repetition accuracy 0.01 mm
+ Pairing accuracy 0.03 mm

Mechanical centre-clamping vises MZE
+ Compact design
+ Wide clamping range
+ Interchangeable clamping jaws for various customer requirements
+ Centering accuracy ±0.015 mm
+ Repetition accuracy 0.01 mm
+ Pairing accuracy 0.02 mm

Mechanical centre-clamping vises MZU
+ Large clamping range due to reversible top jaws
+ Maximum flexibility
+ Maximum accessibility
+ Centering accuracy ±0.015 mm
+ Repetition accuracy 0.01 mm
+ Pairing accuracy 0.02 mm
Mechanical centre-clamping vises MZQ

+ Changing jaws within seconds, without using tools!
+ Over 80% less setup costs
+ Large clamping range due to reversible top jaws
+ Centering accuracy ±0.015 mm
+ Repetition accuracy 0.01 mm
+ Pairing accuracy 0.02 mm

Mechanical centre-clamping vises MZC

+ First and second setup in the highest quality
+ Unmachined and pre-machined workpieces
+ High clamping and holding force
+ 100 % encapsulated design
+ Pairing accuracy 0.01 mm
+ Centering accuracy ±0.015 mm (type E)
  ±0.005 mm (type S)
+ Repetition accuracy 0.01 mm (type E)
  0.003 mm (type S)

Mechanical centre-clamping vises MZS

+ High clamping accuracy
+ High centering and repetition accuracy
+ Large variety
+ Centering accuracy ±0.005 mm
+ Repetition accuracy 0.003 mm
+ Pairing accuracy 0.01 mm
Mechanical compact vises MSU
+ Compact design, maximum accessibility
+ Wide clamping range by reversible top jaws
+ Highest flexibility
+ Pairing accuracy 0.02 mm

Precision vises N xx S
+ Compact design
+ Exchangeable clamping jaws
+ Clamping jaw with pull-down effect
+ Pairing accuracy 0.01 mm

Pneumatic centre-clamping vises PZS
+ Short clamping time
+ Usable for automation
+ High clamping accuracy
+ Centering accuracy ±0.005 mm
+ Repetition accuracy 0.003 mm
+ Pairing accuracy 0.01 mm
Mechanical three-jaw chucks DBF

- High precision
- High clamping force
- Clamping accuracy better than DIN 6386

Pneumatic three-jaw chucks DBF-P

- Short clamping time
- Usable for automation
- High clamping accuracy
- Repetition accuracy < 0.02 mm

Magnetic chucks

- High precision plate for grinding and EDM (type SPPF)
  Holding force 120 N/cm²
  Pole pitch 1.4 + 0.5 mm
- Extremely strong magnetic chuck for milling+ (type SPPM)
  Holding force 180 N/cm²
  Pole pitch 11 + 4 mm
Clamping jaw types

Clamping jaws, soft

Soft block jaws

The soft clamping jaws can be machined and fitted on the workpiece.

Step jaws, ground

Reversible stepped jaws, ground

For clamping of finished parts or for use in the second setup.

Step jaws with carbide coating

Reversible stepped jaws with carbide coating

High holding force through increased friction factor. The workpiece surface will not be damaged.

Step jaws, rough with coating

Reversible stepped jaws with clamping insert, rough with coating / carbide coating

For clamping of high-strength raw material. The hardened and coated surface of the clamping jaws deforms the workpiece surface during the clamping process.

Grip jaws

Stepped grip jaws

For clamping of raw material. The hardened and coated surface of the clamping jaws deforms the workpiece surface during the clamping process.
### Pull-down pendulum jaws

With the pull-down pendulum jaws, angular misalignments of several millimetres can be rectified.

### Prism jaws

Hardened and ground prism jaws for clamping round workpieces.

### Selection criteria

<table>
<thead>
<tr>
<th>Workpiece material</th>
<th>Workpiece material details</th>
<th>Workpiece surface</th>
<th>Workpiece surface details</th>
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<td>Steel e.g., 90MnCrV8, 21MnCr5, 40CrMnMo58-6</td>
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Macro 54 x 54 mm

Item number: 3R-651.7E-P

Hardened and precision-cast with clearance holes for four fixing screws.
+ Adapted for automatic changing
+ Parallel-ground top and bottom faces
+ Fixed index positions 4x90°
+ Rust-resistant

MZU 80-36 & Macro 54 x 54 mm
Item number: B809500363

Clamping width 78 mm
Clamping force 16000 N

MZR 80-36 & Macro 54 x 54 mm
Item number: B809500412

Clamping width 59 mm
Clamping force 16000 N
**CLAMPING SOLUTIONS**

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**MZE 80-36 & Macro 54 x 54 mm**
Item number: B809500002

Clamping width 40 mm  
Clamping force 16000 N

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**MZS 70-36 A & Macro 54 x 54 mm**
Item number: B809500023

Clamping width 70 mm  
Clamping force 10000 N

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**MZS 70-36 B & Macro 54 x 54 mm**
Item number: B809500024

Clamping width 30 mm  
Clamping force 10000 N

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**N25S & Macro 54 x 54 mm**
Item number: B809500087

Clamping width 23 mm

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**N50S & Macro 54 x 54 mm**
Item number: B809500109

Clamping width 63 mm

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**DBF 80 & Macro 54 x 54 mm**
Item number: B809500065

Clamping range 2 - 27 / External clamping 25 - 71 mm  
Clamping force 1000 N
Macro 70 x 70 mm
Item number: 3R-601.7E-P

Hardened and precision-cast with clearance holes for four fixing screws.
+ Adapted for automatic changing
+ Parallel-ground top and bottom faces
+ Fixed index positions 4x90°
+ Rust-resistant

DBF 100 & Macro 70 x 70 mm
Item number: B809500078

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<tr>
<th>Clamping range</th>
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MZR 110-60 & Macro 70 x 70 mm
Item number: B809500435

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MZQ 110-60 & Macro 70x70 mm
Item number: B809500452

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Grid Plate & Macro 70x70 mm
Item number: B809500120

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T-Slot Plate & Macro 70x70 mm
Item number: B809500127

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<tbody>
<tr>
<td>Finish</td>
<td>Anodized</td>
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MacroMagnum
Item number: 3R-681.51-SA

Unhardened pallet with hardened reference and drill marks for eight through holes.
+ Adapted for automatic changing
+ Ready for code carrier
+ Weight 4.5 kg

MZR 170-60 & MacroMagnum
Item number: B809500448
Clamping width 136 mm
Clamping force 30000 N

MZE 170-60 & MacroMagnum
Item number: B809500138
Clamping width 90 mm
Clamping force 30000 N
**MZU 170-60 & MacroMagnum**  
Item number: B809500139  
- Clamping width: 130 mm  
- Clamping force: 30000 N

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**MZE 220-80 & MacroMagnum**  
Item number: B809500140  
- Clamping width: 130 mm  
- Clamping force: 40000 N

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**MZU 220-80 & MacroMagnum**  
Item number: B809500141  
- Clamping width: 180 mm  
- Clamping force: 40000 N

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**MZS 120-60 A (2x) & MacroMagnum**  
Item number: B809500150  
- Clamping width: 120 mm  
- Clamping force: 16000 N

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**MZS 120-60 B (2x) & MacroMagnum**  
Item number: B809500151  
- Clamping width: 57 mm  
- Clamping force: 16000 N

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**MZS 180-80 A & MacroMagnum**  
Item number: B809500156  
- Clamping width: 180 mm  
- Clamping force: 30000 N
**MZS 180-80 B & MacroMagnum**  
Item number: B809500157  
Clamping width 89 mm  
Clamping force 30000 N

**MZS 120-60 A & MacroMagnum**  
Item number: B809500352  
Clamping width 120 mm  
Clamping force 16000 N

**DBF 160 & MacroMagnum**  
Item number: B809500183  
Clamping range 4 - 64 / 50 - 160 mm  
Clamping force 31000 N

**Grid Plate & MacroMagnum**  
Item number: B809500187  
Material: Aluminium  
Finish: Anodized

**T-Slot Plate & MacroMagnum**  
Item number: B809500191  
Material: Aluminium  
Finish: Anodized

**ER 50 & MacroMagnum**  
Item number: B809500336  
Clamping range 4 - 36 mm
MZR 160-60 PA & MacroMagnum  
Item number: B809500423

Clamping width 126 mm
Clamping force 30000 N

MZE 160-60 PA & MacroMagnum  
Item number: B809500424

Clamping width 80 mm
Clamping force 30000 N

MZU 160-60 PA & MacroMagnum  
Item number: B809500425

Clamping width 120 mm
Clamping force 30000 N

MZQ 160-60 PA & MacroMagnum  
Item number: B809500426

Clamping width 116 mm
Clamping force 30000 N

DBF-PH 169 & MacroMagnum  
Item number: B809500441

Clamping force
pneumatic 20000 N  
hydraulic 50400 N

PZS² 120-60 & MacroMagnum  
Item number: B809500440

Clamping width 120 mm
Clamping force 16000 N
GPS 70 Steel pallet
Item number: 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.

DBF 80 & GPS 70
Item number: B809500009

- Clamping range: 2 - 27 / 25 - 71 mm
- Clamping force: 10000 N

DBF 100 & GPS 70
Item number: B809500081

- Clamping range: 3 - 33 / 32 - 83 mm
- Clamping force: 17000 N
N50S & GPS 70
Item number: B809500114

Clamping width 63 mm
GPS 70 Aluminium pallet

Item number: C 695 040

Workpiece and device holder. Pre pared for automation with thread M5 for code carrier.

DBF 100 & GPS 70
Item number: B809500082

Clamping range 3 - 33 / 32 - 83 mm
Clamping force 17000 N

MZE 80 - 36 & GPS 70
Item number: B809500007

Clamping width 40 mm
Clamping force 16000 N
**MZS 70-36 A & GPS 70**  
Item number: B809500232  
Clamping width: 70 mm  
Clamping force: 10000 N

**MZS 70-36 B & GPS 70**  
Item number: B809500231  
Clamping width: 30 mm  
Clamping force: 10000 N

**N25S & GPS 70**  
Item number: B809500093  
Clamping width: 23 mm

**N50S & GPS 70**  
Item number: B809500115  
Clamping width: 63 mm

**MZU 80-36 & GPS 70**  
Item number: B809500477  
Clamping width: 80 mm  
Clamping force: 16000 N

**MZR 80-36 & GPS 70**  
Item number: B809500476  
Clamping width: 59 mm  
Clamping force: 16000 N

**MZ 80-36 & GPS 70**  
Item number: B809500477  
Clamping width: 40 mm  
Clamping force: 16000 N

System 3R & Spreitzer
**DBF 80 & GPS 70**

*Item number: B809500478*

<table>
<thead>
<tr>
<th>Clamping range</th>
<th>2 - 27/25 - 71 mm</th>
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<td>External clamping</td>
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<tr>
<td>Clamping force</td>
<td>10000 N</td>
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</table>
GPS 120 Steel pallet

Item number: 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.

MZ 120-60 & GPS 120
Item number: B809500456

Clamping width 68 mm
Clamping force 30000 N

MZ 120-60 & GPS 120
Item number: B809500457

Clamping width 40 mm
Clamping force 30000 N
**MZU 120-60 & GPS 120**
Item number: B809500458

Clamping width 80 mm  
Clamping force 30000 N

**MZR 170-60 & GPS 120**
Item number: B809500459

Clamping width 136 mm  
Clamping force 30000 N

**MZE 170-60 & GPS 120**
Item number: B809500134

Clamping width 90 mm  
Clamping force 30000 N

**MZU 170-60 & GPS 120**
Item number: B809500135

Clamping width 130 mm  
Clamping force 30000 N

**MZS 120-60 A & GPS 120**
Item number: B809500146

Clamping width 120 mm  
Clamping force 16000 N

**MZS 120-60 B & GPS 120**
Item number: B809500147

Clamping width 57 mm  
Clamping force 16000 N
**N50S & GPS 120**  
Item number: B809500142

- Clamping width: 63 mm

**DBF 160 & GPS 120**  
Item number: B809500179

- Clamping range: 4 - 64/50 - 160 mm
- External clamping: 50 - 160 mm
- Clamping force: 31000 N
GPS 120 Aluminium pallet

Item number: C 695 140

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

MZE 170-60 & GPS 120
Item number: B809500130

MZU 170-60 & GPS 120
Item number: B809500131
**MZS 120-60 A & GPS 120**  
Item number: B809500148

Clamping width 120 mm  
Clamping force 16000 N

**MZS 120-60 B & GPS 120**  
Item number: B809500149

Clamping width 57 mm  
Clamping force 16000 N

**N50S & GPS 120**  
Item number: B809500143

Clamping width 63 mm

**DBF 160 & GPS 120**  
Item number: B809500180

Clamping range 4 - 64 / 50 - 160 mm  
External clamping 50 - 160 mm  
Clamping force 31000 N

**MZR 170-60 & GPS 120**  
Item number: B809500460

Clamping width 136 mm  
Clamping force 30000 N

**MZE 170-60 & GPS 120**  
Item number: B809500395

Clamping width 90 mm  
Clamping force 30000 N
**MZU 170-60 & GPS 120**
Item number: B809500461

- Clamping width: 130 mm
- Clamping force: 30000 N

**PZS 100-50 & GPS 120**
Item number: B809500467

- Clamping width: 100 mm
- Clamping force: 12000 N
GPS 240
Item number: C 694 400

Aluminum pallet.
Suitable for high-speed milling and arduous milling operations.
Prepared for automation.
+ Construction height: 48.0 ± 0.01 mm
+ X/Y-centring: with coined cam
+ Flatness: 0.02 mm
MZU 170-60 & GPS 240
Item number: B809500207
Clamping width 130 mm
Clamping force 30000 N

MZU 170-60 (2x) & GPS 240
Item number: B809500213
Clamping width 90 mm
Clamping force 30000 N

MZU 170-60 (2x) & GPS 240
Item number: B809500214
Clamping width 90 mm
Clamping force 30000 N

MZU 220-80 & GPS 240
Item number: B809500216
Clamping width 180 mm
Clamping force 40000 N

MZR 220-80 & GPS 240
Item number: B809500451
Clamping width 178 mm
Clamping force 40000 N
CLAMPING SOLUTIONS

**MZU 280-100 & GPS 240**
Item number: B809500229

**MZS 180-80 A & GPS 240**
Item number: B809500220

**MZC 220-80 E & GPS 240**
Item number: B809500376

**MZC 220-80 S & GPS 240**
Item number: B809500377

**MZU 280-100 & GPS 240**
Item number: B809500221

**MZS 180-80 B & GPS 240**
Item number: B809500230

**MZS 180-80 A & GPS 240**
Item number: B809500229

Clamping width 185 mm
Clamping force 30000 N

Clamping width 190 mm
Clamping force 50000 N

Clamping width 240 mm
Clamping force 50000 N

Clamping width 180 mm
Clamping force 30000 N

Clamping width 89 mm
Clamping force 30000 N
MZS 260-125 A & GPS 240
Item number: B809500243

- Clamping width 260 mm
- Clamping force 50000 N

MZS 260-125 B & GPS 240
Item number: B809500244

- Clamping width 111 (260) mm
- Clamping force 50000 N

DBF 80 (4x) & GPS 240
Item number: B809500264

- Clamping range 2-27 / External clamping 25-71 mm
- Clamping force 10000 N

DBF 200 & GPS 240
Item number: B809500275

- Clamping range 4-90 / External clamping 60-200 mm
- Clamping force 37000 N

Grid Plate & GPS 240
Item number: B809500301

- Material Steel
- Finish Surface hardened

T-Slot plate & GPS 240
Item number: B809500327

- Material Aluminium
- Finish Anodized
**Fine Pole Magnet SPPF & GPS 240**  
*Item number: B809500250*

- Holding force: 120 N/cm²  
- Magnetic field height: 5 mm

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**Standard Pole Magnet SPPM & GPS 240**  
*Item number: B809500251*

- Holding force: 180 N/cm²  
- Magnetic field height: 10 mm
Dynafix

Item number: 3R-771.2

Milled aluminium pallet 280x280 mm
+ Adapted for automatic changing
+ Ready for code carrier
+ Flatness 0.04 mm
+ Thickness tolerance +0.5/-0 mm

MZE 170-60 & Dynafix
Item number: B809500210

Clamping width 90 mm
Clamping force 30000 N

MZU 170-60 & Dynafix
Item number: B809500211

Clamping width 130 mm
Clamping force 30000 N
CLAMPING SOLUTIONS

MZE 170-60 (2x) & Dynafix
Item number: B809500217
Clamping width 90 mm
Clamping force 30000 N

MZU 170-60 (2x) & Dynafix
Item number: B809500218
Clamping width 130 mm
Clamping force 30000 N

MZE 220-80 & Dynafix
Item number: B809500222
Clamping width 130 mm
Clamping force 40000 N

MZR 220-80 & Dynafix
Item number: B809500433
Clamping width 178 mm
Clamping force 40000 N

MZU 220-80 & Dynafix
Item number: B809500223
Clamping width 180 mm
Clamping force 40000 N

MZE 280-100 & Dynafix
Item number: B809500224
Clamping width 190 mm
Clamping force 50000 N

System 3R & Spreitzer

CLAMPING SOLUTIONS
MZU 280-100 & Dynafix
Item number: B809500225
Clamping width 240 mm
Clamping force 50000 N

MZU 360-125 & Dynafix
Item number: B809500228
Clamping width 310 mm
Clamping force 70000 N

MZS 180-80 B & Dynafix
Item number: B809500234
Clamping width 89 mm
Clamping force 30000 N

MZS 180-80 A & Dynafix
Item number: B809500233
Clamping width 180 mm
Clamping force 30000 N

MZS 260-125 A & Dynafix
Item number: B809500247
Clamping width 260 mm
Clamping force 50000 N

MZS 250-125 A & Dynafix
Item number: B809500227
Clamping width 250 mm
Clamping force 70000 N

MZS 250-125 A & Dynafix
Item number: B809500227
Clamping width 250 mm
Clamping force 70000 N
**MZS 260-125 B & Dynafix**  
Item number: B809500248

<table>
<thead>
<tr>
<th>Clamping width</th>
<th>111 (260) mm</th>
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<tbody>
<tr>
<td>Clamping force</td>
<td>50000 N</td>
</tr>
</tbody>
</table>

**MZC 280-100 E & Dynafix**  
Item number: B809500378

<table>
<thead>
<tr>
<th>Clamping width</th>
<th>245 mm</th>
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</thead>
<tbody>
<tr>
<td>Clamping force</td>
<td>50000 N</td>
</tr>
</tbody>
</table>

**MZC 280-100 S & Dynafix**  
Item number: B809500379

<table>
<thead>
<tr>
<th>Clamping width</th>
<th>245 mm</th>
</tr>
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<tbody>
<tr>
<td>Clamping force</td>
<td>50000 N</td>
</tr>
</tbody>
</table>

**DBF 250 & Dynafix**  
Item number: B809500281

<table>
<thead>
<tr>
<th>Clamping range</th>
<th>5 - 118 / 77 - 250 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping force</td>
<td>46000 N</td>
</tr>
</tbody>
</table>

**Grid plate & Dynafix**  
Item number: B809500304

<table>
<thead>
<tr>
<th>Material</th>
<th>Steel</th>
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</thead>
<tbody>
<tr>
<td>Finish</td>
<td>Surface hardened</td>
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</tbody>
</table>
Set of clamping elements for B809500304
Item number: B809500455

T-Slot plate & Dynafix
Item number: B809500330

Fine Pole Magnet SPPF & Dynafix
Item number: B809500253

Standard Pole Magnet SPPM & Dynafix
Item number: B809500255

PZS 180-80A & Dynafix
Item number: B809500453

<table>
<thead>
<tr>
<th>Material</th>
<th>Aluminium</th>
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</thead>
<tbody>
<tr>
<td>Finish</td>
<td>Anodized</td>
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</tbody>
</table>

Holding force 120 N/cm²
Magnetic field height 5 mm

Holding force 180 N/cm²
Magnetic field height 10 mm

Clamping width 180 mm
Clamping force 24000 N
Mechanical centre-clamping vises / Mechanical compact vises

The centre-clamping vises MZU and the compact vises MSU are prepared for mounting the drawbars. They can be used on Delphin base plates with 200 or 250 mm centre distance. The drawbars are included in the delivery.

**MZU 360-125 for Delphin 200 mm**
Item number: B809500466

- Clamping width: 310 mm
- Clamping force: 70000 N

**MZU 500-125 for Delphin 250 mm**
Item number: B809500462

- Clamping width: 450 mm
- Clamping force: 70000 N
MSU 360-125 for Delphin 200 mm
Item number: B809500469

<table>
<thead>
<tr>
<th>Clamping width</th>
<th>310 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clamping force</td>
<td>50000 N</td>
</tr>
</tbody>
</table>

Note: Required clamping force

The clamping force of the centre-clamping vises and compact vises depends on tightening torque. We recommend to use a torque wrench. The adjusted tightening torque depends on influencing variables for example workpiece geometry, version of clamping jaws, work material, work conditions and so on. Due to the above mentioned variables it can be necessary to adjust the torque value individually.

The clamping force of the different centre-clamping vise variants in this catalogue is the arithmetic sum of the individual forces occurring at the jaws.
At a glance

We enable our customers to run their businesses efficiently and effectively by offering innovative Milling, EDM, Laser, Spindle, Automation and Tooling solutions. A comprehensive package of Customer Services completes our proposition.

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