

CLAMPING TECHNOLOGY AND
AUTOMATION FOR CNC PRODUCTION

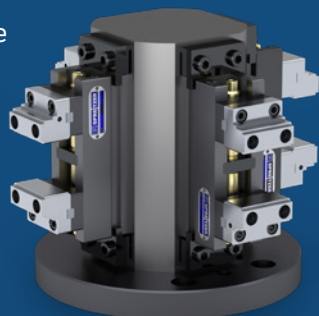


**FASTER IS BETTER,
MORE EFFECTIVE,
MORE PRODUCTIVE.**

NO PROBLEM WITH SPREITZER!

We show you how you can produce faster and more precise by choosing the right clamping tools and automation solutions, while also reducing your tooling costs and increasing productivity.

www.spreitzer.de



SPREITZER: Precision and innovation since 1983.

Our customers have increased their manufacturing productivity by up to 100 % by using our products and services – dramatically reducing their manufacturing costs.

Our region. Our base. Our home.



We are committed to our home in Gosheim.
Made in Germany – by SPREITZER.

The highlights in Catalogue No. 2

In our latest catalogue, you will find a range of new products including our new automatic pallet changers SP-APC 1 and 2, as well as countless improvements and additions to our mechanical and power-operated centre-clamping vices, double clamping vices, compact vices and universally applicable automation clamping vices.

Take a look inside. You'll find it's worth it!

280 pages of concentrated clamping tool know-how and innovative products for your CNC production activities!



CENTRE-CLAMPING VICES

COMPACT VICES

AUTOMATION



High price and cost pressure, ever-shorter delivery times and small lot sizes coupled with high quality requirements – manufacturers need increased flexibility, quality and productivity to be able to compete in the global market. We will be happy to help you succeed with our innovative clamping and automation solutions for modern production facilities.

What you can expect in the new SPREITZER Catalogue No. 2:



Ask us for our new Catalogue No. 2 today –
for centre-clamping vices, automation solutions
and clamping technology for automation.

Available in print, on a USB memory card or
as a PDF download from spreitzer.de

2



OUR ASPIRATION – YOUR BENEFITS



Sure clamping without pre-stamping

You get to save time and money, because no additional pre-stamping is required with our workpiece clamping technology.



Less wear on your tools!

The use of shorter tools and less vibration on the workpiece means an extended tool life throughout.



Shorter machining time!

Shorter piece times and better machining performance thanks to optimum and powerful workpiece clamping.



Increased quality!

By using original SPREITZER products you get to produce higher quality components.

Clamping solutions for modern machining centres

Our clamping vices, compact vices, double clamping vices and alternative clamping technology components have for many years been regarded as innovative and powerful solutions in state-of-the-art processing machines.

Clamping solutions for pallet automation

Our mechanical automation clamping vices score highly with their optimum accessibility and attractive price/performance ratio.

Clamping solutions for workpiece automation

Our pneumatic, hydraulic and electromechanical clamping tools allow for universal use on automation cells.



BEST CENTRE-CLAMPING VICES – SINCE 1983

Our compact mechanical, pneumatic, hydraulic and electromechanical centre-clamping vices allow workpieces to be machined precisely to the given symmetry or axis of rotation.

Delivering a variety of sizes and model variants that are unique in the market, SPREITZER centre-clamping vices represent the optimal solution for conventional and CNC-controlled production jobs on different machine tools and production systems.

Centre-clamping vice model range at a glance

- + Mechanical
- + Pneumatic
- + Hydraulic
- + Electromechanical
- + Jaw widths available 15 – 160 mm
- + Lengths available 50 – 500 mm

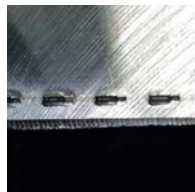
Designs Available

- + **Open** – Optimised for chip discharge
- + **Semi-encapsulated** – For many years of highly functional reliability
- + **100 % encapsulated** – For minimal cleaning effort and maximum process reliability.



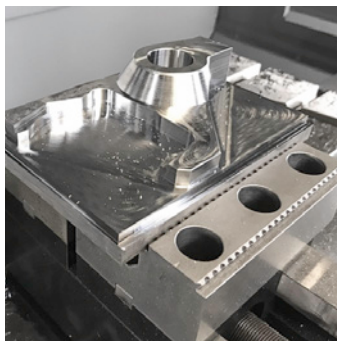
GRIP CHUCK JAWS – SECURE CLAMPING WITHOUT PRE-STAMPING

Raw part clamping and machining requires new and innovative clamping solutions, especially on multi-axis machining centres. The high inherent rigidity, optimal guide ratio and powerful spindle result in high and effective clamping forces.

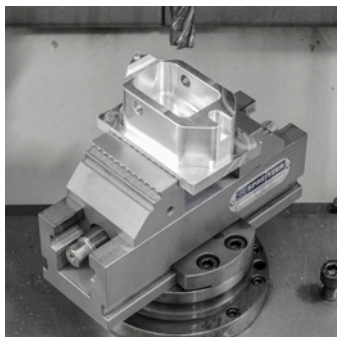


Process-safe clamping with a grip

- ⊕ **No stamping station required.** Stamping and clamping take place in a single operation
- ⊕ High holding forces thanks to material-specific gripper jaws
- ⊕ Less material required thanks to a clamping depth of only 4 mm
- ⊕ Highest machining quality thanks to distortion-free clamping and less vibration



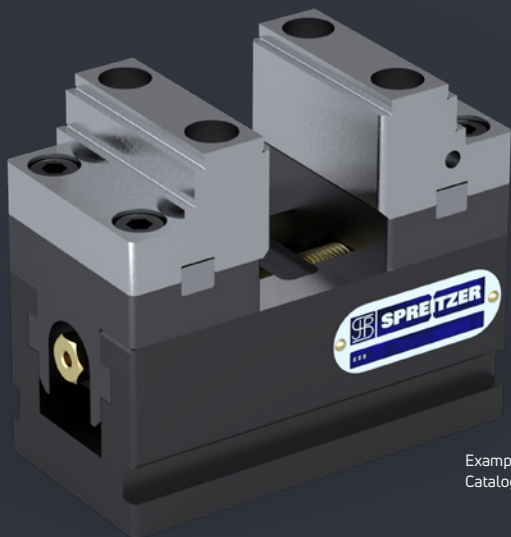
MZU mechanical centre-clamping vice
with reversible gripper jaws



MZR 170-60 mechanical centre-clamping vice

MECHANICAL CENTRE- CLAMPING VICES

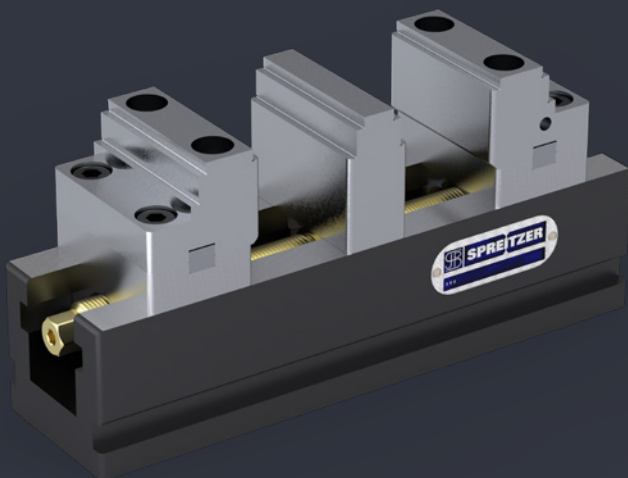
- ✚ Variety of sizes and design variants
- ✚ Powerful clamping
- ✚ Compact design



Example: MZU 120 - 60
Catalogue page 36

MECHANICAL DOUBLE CLAMPING VICES

- ✚ Clamping two workpieces
- ✚ Large clamping width thanks to reversible top jaws
- ✚ Highest flexibility

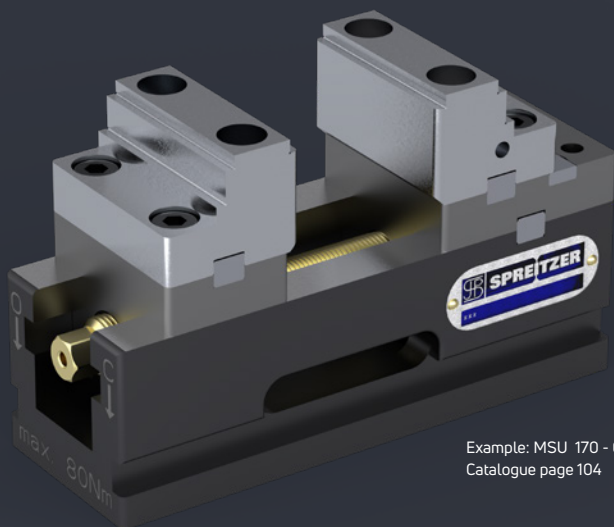


Example: MDU 220 - 60
Catalogue page 96

Numerous other variants and designs can be found in Catalogue No. 2

MECHANICAL COMPACT VISES

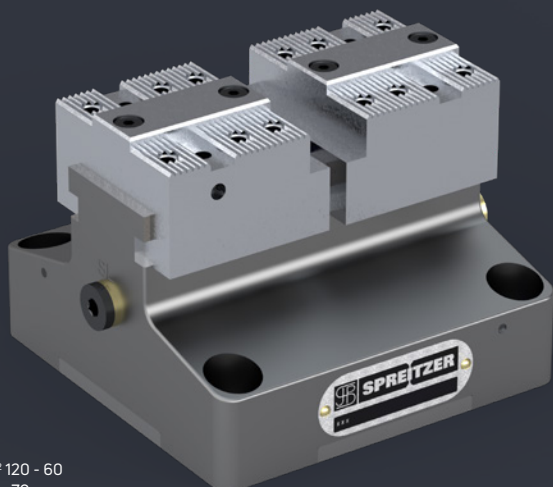
- ✚ Clamping against fixed jaw
- ✚ Large clamping width thanks to reversible top jaws
- ✚ Highest flexibility



Example: MSU 170 - 60
Catalogue page 104

PNEUMATIC CENTRE- CLAMPING VICES

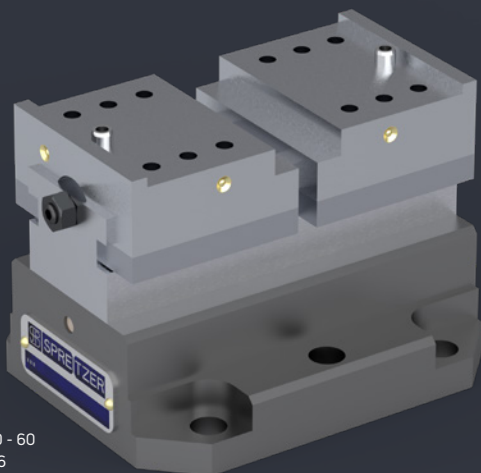
- ✚ Short clamping time, automatable
- ✚ High clamping precision
- ✚ Flexibly adjustable clamping width



Example: PZS² 120 - 60
Catalogue page 70

HYDRAULIC CENTRE-CLAMPING VICES

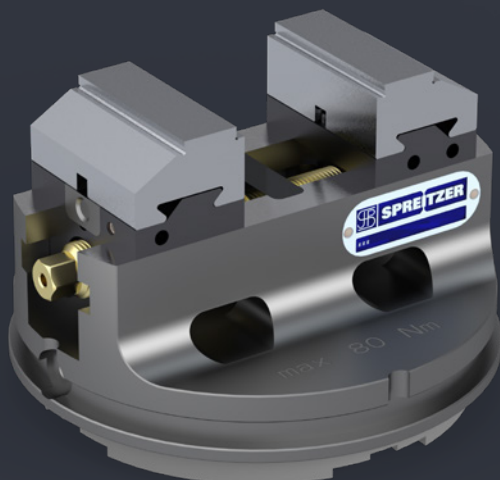
- ✚ Short clamping time, automatable
- ✚ High clamping precision
- ✚ Large jaw stroke



Example: HZS 120 - 60
Catalogue page 76

AUTOMATION CLAMPING VICES

- ✚ No adapter plates
- ✚ Fewer interfaces
- ✚ Lower weight



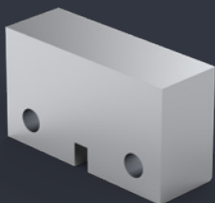
Example: MZQ 160-60 PA
Catalogue page 42

Numerous other variants
and designs can be found
in Catalogue No. 2

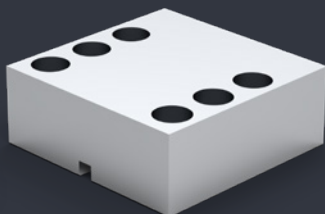
CHUCK JAWS – LARGE SELECTION

FOR A SECURE GRIP

CHUCK JAWS, SOFT

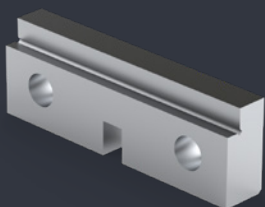


BLOCK CHUCK JAWS, SOFT

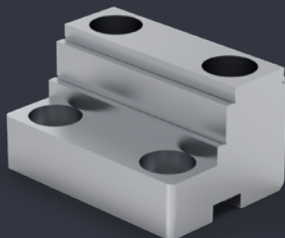


For the in-house production of moulded jaws or for clamping moulded parts.

STEPPED JAWS, CUT

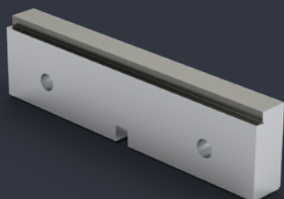


REVERSIBLE STEPPED JAWS, CUT

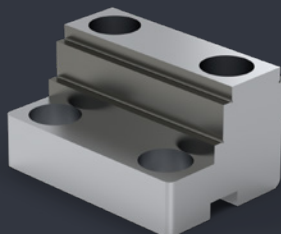


For clamping prefabricated parts or use in the second machining process.

STEPPED JAWS WITH CARBIDE COATING

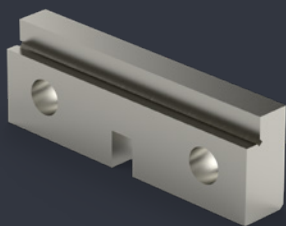


REVERSIBLE STEPPED JAWS WITH CARBIDE COATING

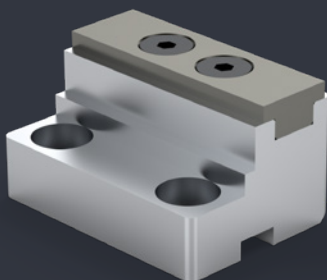


High holding force thanks to increased friction factor. Does not damage the workpiece surface.

STEPPED JAWS, COARSE WITH COATING

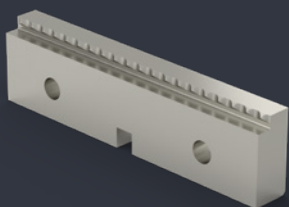


STEPPED REVERSIBLE JAWS WITH CLAMPING STRIP, COARSE WITH CARBIDE COATING

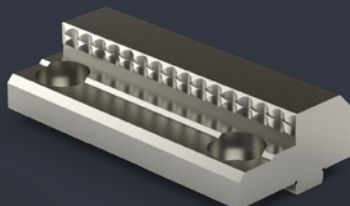


For clamping on hard raw material. The clamping jaws' hardened and coated surface penetrates into the workpiece surface during the clamping process.

GRIPPER JAWS

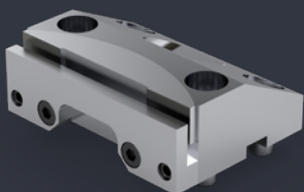


STEPPED GRIPPER JAWS



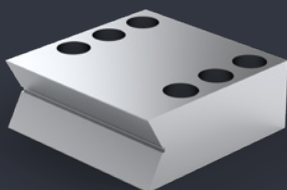
For clamping on raw material. The clamping jaws' hardened and coated surface penetrates into the workpiece surface during the clamping process.

PULL-DOWN PENDULUM JAWS



Our pull-down pendulum jaws can be used to correct angle errors of mere millimetres.

PRISM JAWS



Hardened and ground prism jaws for clamping round workpieces.

ZPS

**ZERO POINT
CLAMPING SYSTEM**

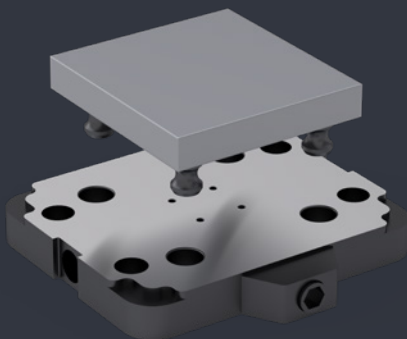
- ✚ Fast changeover, replacement
- ✚ Standard interface for all CNC processing machines
- ✚ Precise 0,005 / 0,01 mm positioning (depending on the design variant)
- ✚ Clamping tools and pallets indexable by $4 \times 90^\circ$
- ✚ High retraction force, high holding force
- ✚ Cost-effective system

Produce faster thanks to shorter set-up times.

Our ZPS mechanical zero-point clamping system reduces set-up times and costs by up to 90%. It facilitates the quick change of different clamping devices on the clamping unit.

Operation takes place using a single central clamping screw. Universal attachment to the machine table or attachment fixtures is facilitated by its flat design and integrated mounting hole pattern.

ZPS 96
Catalogue page 213



4x ZPS clamping unit mounted on the machine table



MZR 220-125 mechanical centre-clamping vice, directly mounted clamping spigots

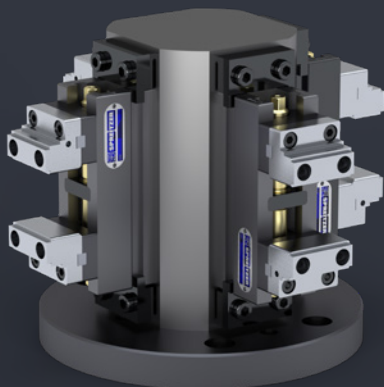
ADVANCED FUNCTIONALITY WITH ACCESSORIES BY SPREITZER

Our range of substructures, adapter plates and grid plates, and various attachments and clamping bridges allow you to extend your range of production possibilities in no time at all.

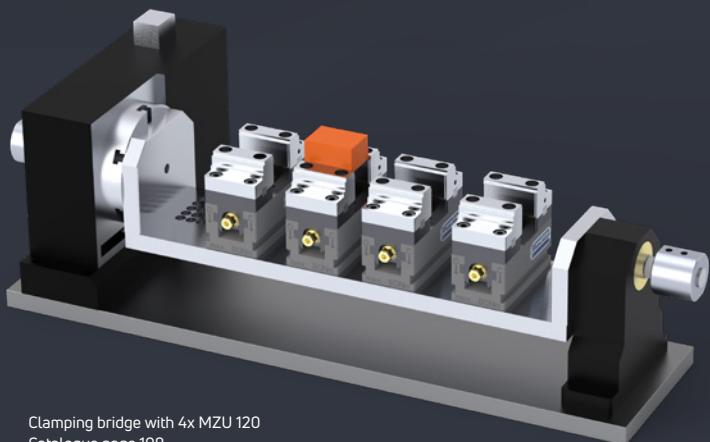
Multiple clamping on change pallets increases the effective machine runtime for automated multi-axis machining centres and reduces cycle times significantly.



Pyramid with 8x MZR 80-36
Catalogue page 200



90° clamping tower with 4x MZU 170-60
Catalogue page 201



Clamping bridge with 4x MZU 120
Catalogue page 198



AUTOMATION FOR THE MANUFACTURING INDUSTRY

You want to produce in a highly flexible manner, whether on a large scale or in small quantities, while also relieving your highly qualified workforce from monotonous and time-consuming work.

With Spreitzer, that is entirely possible.

You won't need to invest in new CNC machining centres or additional space, and your production runs 24/7 in automated operation.

- + Increased productivity
- + Maximum flexibility
- + Shorter lead times
- + Unit cost reduction
- + Quicker return on investment

Our new pallet automation systems combine proven automation technology with Spreitzer capabilities and know-how through our partnership with SYSTEM 3R.

- + Satisfaction guaranteed – Already used successfully in over 900 systems
- + Optimal design for your machine environment and individual requirements
- + Advanced reliability for 24/7 production
- + Guaranteed, short-term replacement parts supply
- + Future-proof, scalable and extendible
- + Professional technical service – worldwide

Reliable and economical automation and clamping solutions from a single source. From Spreitzer, of course.

- + Large glass doors
- + Loading by crane possible
- + Compact design, only 1.200 x 1.200 x 1.870 mm
- + Left or right-hand machine loading possible

Automatic
pallet changer

SP-APC 1



**SATISFACTION GUARANTEED -
ALREADY USED SUCCESSFULLY IN
OVER 900 SYSTEMS WORLDWIDE**



Our SP-APC 1 pallet changer requires minimum floor space. The system is easy to install and provides you with a fast return on investment.

Automatic pallet changer

SP-APC 2

- + Compact Design, 1270 × 1735 × 2250 mm, (depending on the magazine type)
- + Universally extendible: 10 – 240 pallets (1 – 3 magazines)
- + Easy to install
- + Compatible with all standard machines



up to 240 pallet spaces

Serves one or
two machines

The SP-APC 2 delivers maximum magazine capacity. Thanks to its modular design, the system can be adapted extremely flexibly to match customer needs and can be extended by adding one to two additional magazines.



Gripper changing system
for different pallets

Small floor area

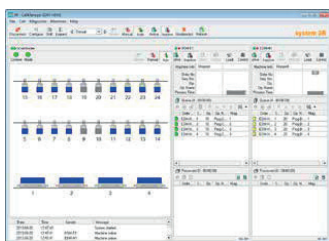
Large glass doors



Case study, serves two machines

Process control system – WorkshopManager WSM

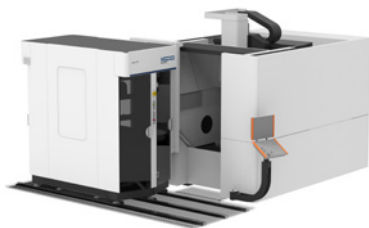
- ⊕ User-friendly
- ⊕ Workflow in three steps:
 1. Planning – WorkCenter
 2. Control – CellManager
 3. Monitoring – CellMonitor
 Preparation – WorkCenter
- ⊕ Chaotic magazine loading
- ⊕ Priority sequence can be changed at any time
- ⊕ Alarm server – Notifications when errors and standstills occur
- ⊕ Live status and reports



Our WorkshopManager facilitates user-friendly control of the automation cell. It manages all job-relevant data and provides the operator with the system's LIVE status on the fly. Several machines and automation cells can be controlled.

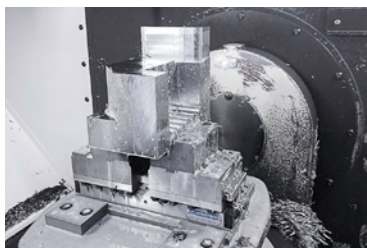
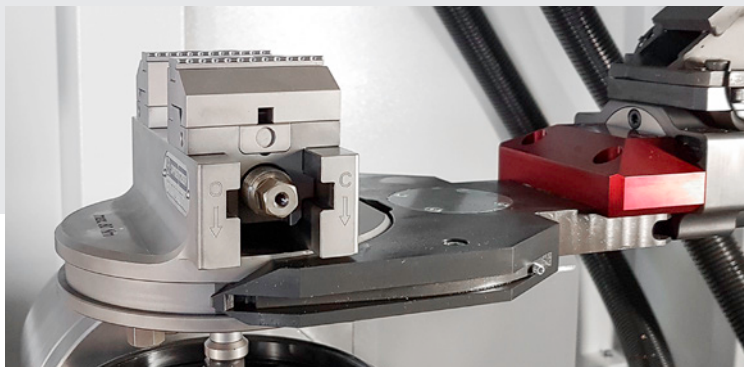
Accessories

- ⊕ Sliding plate for front loading
- ⊕ Set-up station
- ⊕ Pallet drying station
- ⊕ ID chip system with or without automatic scanning
- ⊕ Air connection for chuck over pallet gripper

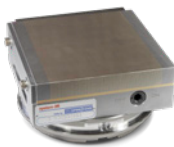
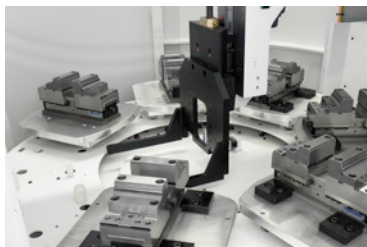


Accessories: Sliding plate for front loading

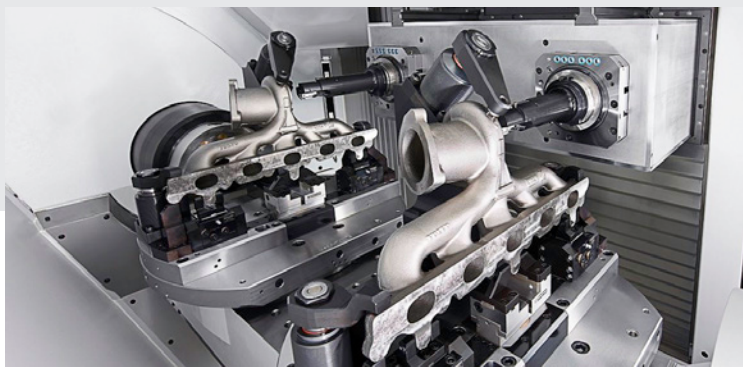
PALLET AUTOMATION



Smart investing –
For new purchases and
expanding capacities!



WORKPIECE AUTOMATION



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Convince yourself of the benefits of our products and order products that you can test for 14 days for free.



ALTERNATIVE CLAMPING SOLUTIONS

MADE BY SPREITZER

Precision EHS pull-down vices

Due to their precision, these vices are mainly used in tool making, on grinding, milling and HSC machines and for measuring and control work.



Permanent magnetic clamping technology

Magnetic clamping plates and round chucks are used in all areas of metal processing. Magnetic clamping devices prove their worth every day with the highest precision in grinding, milling and eroding work, and in measuring technology.



Electro-permanent magnetic chucks

Magnetic chucks only need a short pulse of current to switch and can be used without consuming additional power or suffering from disruptive connections.



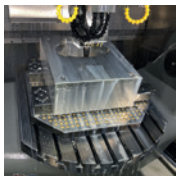
Vacuum clamping chucks

Vacuum clamping chucks are especially suitable for the process-reliable clamping of flat, plane-underside workpieces made of metal on CNC machining centres with guaranteed minimum set-up times. Vacuum clamping technology even allows mechanically difficult-to-clamp components to be affixed easily, quickly and precisely, without distortion.



Universal clamping system

Our universal clamping system consists of a modular clamping system based on a bore system and is available in three different grid types. Various clamping and support elements can be assembled in a system using releasable connections to create a suitable tool for the application in hand.





Clamping | Testing | Automation

- 0 Special tools
- 1 Universal clamping system
- 2 Centre-clamping vices | Compact vices | Automation
- 3 Multi-sided machining with multiple voltage
- 4 Universal measuring and testing kit
- 5 ALUMESS – clamping systems
- 6 Clamping tools for toolmaking and control
- 7 Roundness testing devices
- 8 Endless-rod signing machine
- 9 Magnetic clamping technology
- 10 Vacuum clamping system
- 11 Freeze clamping technology





Clamping | Testing | Automation

IMPROVED CLAMPING.

MORE PRODUCTIVE

MILLING!



Spreitzer GmbH & Co. KG
Brücklestraße 21
78559 Gosheim
Germany

Phone +49 (0) 7426 9475-0
Fax +49 (0) 7426 9475-20
Mail info@spreitzer.de

www.spreitzer.de



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