



ROEMHELD
HILMA ■ STARK

STARK zero point clamping systems



STARK

... because zero point clamping has an origin!

Experience

STARK has developed zero point clamping systems since 1988 and is considered a pioneer in this field.

Described in the first catalogue as follows:

"The retractable nipple is mounted directly on the clamping device or directly on the workpiece."

On introduction, possibilities were conceived that in some cases were only realised years later. The original clamping cylinder is still used in production today.

Specialist

As a leading company in the field of zero point clamping technology, STARK has specialised uncompromisingly in zero point technology. STARK safeguards know-how for the future by training specialist staff.

STARK combines all core competences under one roof.

Continuing development and patents are evidence of the massive power to innovate that exists in the organisation.

Quality, precision, service and specific advice form part of the corporate strategy.

Partner

In production, STARK sees itself as a partner for a number of sectors and applications.

For the automotive or aerospace sector, mechanical engineering as well as one-off or series production, STARK is available as a competent point of contact.

Specific advice on the usage of STARK components and custom solutions for production are our strengths.

Group

Römheld, Hilma, STARK – the three brands of the Römheld Group are among the world's market leaders for productive solutions in industrial manufacturing, assembly, clamping and drive technology.

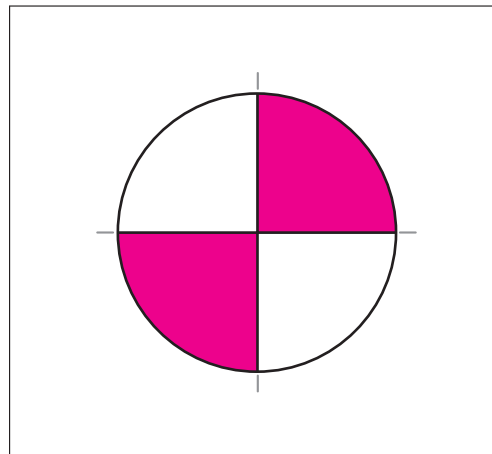
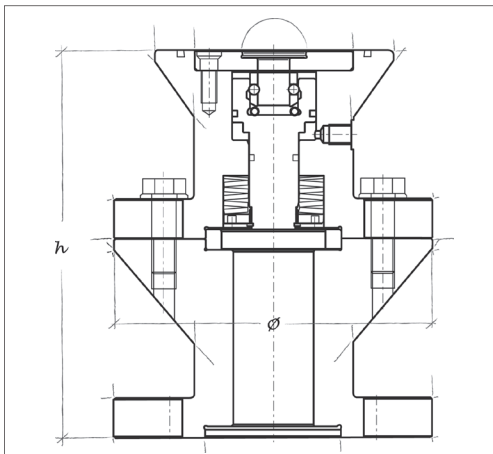
With our components, products and systems, we make your manufacturing more efficient and more flexible. The Römheld Group is represented internationally by sales partners and joint ventures.

www.stark-inc.com

www.hilma.de

www.roemheld.de

www.friedrichshuette.com





Specialist competence

Zero point clamping systems for every requirement – overview

You will find detailed information in the main catalogue. We would be pleased to advise you!

SPEEDY metec

simple	quickly installed
robust	few separate parts
compact	high power density
mechanical	easy maintenance
independent	one torque wrench is enough

Manual loading	<div><div></div></div>
Crane loading	<div><div></div></div>
Automation	<div><div></div></div>



SPEEDY classic

elevated	SPEEDY raises pallet on release
simple	easy to clean
precise	due to cylindrical fit
durable	bolts inserted in the fit
versatile	clamping check, mounting check, clearing device, media ducts

Manual loading	<div><div></div></div>
Crane loading	<div><div></div></div>
Automation	<div><div></div></div>



SPEEDY airtec

low maintenance	intervals up to 2 million cycles
pure	clean air is adequate
powerful	due to enclosing clamping segments
precise	due to cylindrical fit
fast	clamping and release time 0.2 sec

Manual loading	<div><div></div></div>
Crane loading	<div><div></div></div>
Automation	<div><div></div></div>



SPEEDY easy click

click	clamp by pressing in
small	85 mm diameter and only 19 mm high
strong	5 kN clamping force – 10 kN retention force
economical	release using 3 – 8 bar compressed air/electrically
fast	release time 0.1 sec.

Manual loading	<div><div></div></div>
Crane loading	<div><div></div></div>
Automation	<div><div></div></div>





Vertical integration

Zero point clamping systems for every requirement – overview

You will find detailed information in the main catalogue. We would be pleased to advise you!

SPEEDY hydratec

- compact** enormous power density
- flexible** equaliser variants possible in the SPEEDY
- clean** encapsulated against soiling
- monitored** all functions can be polled
- cost-effective** short clamping/release times, large number of cycles

Manual loading
Crane loading
Automation



SPEEDY sweeper

- automatic** for automated solutions
- monitored** all functions can be polled
- integrated** built-in couplings available
- adaptable** wide range of variants available
- clean** sophisticated clearing device

Manual loading
Crane loading
Automation



system 3000

- unique** flush-mounted SPEEDY and bolts
- free to move** handling without interfering contour
- very strong** 52 kN retention force
- automatic** suitable for automation
- monitored** all functions can be polled

Manual loading
Crane loading
Automation

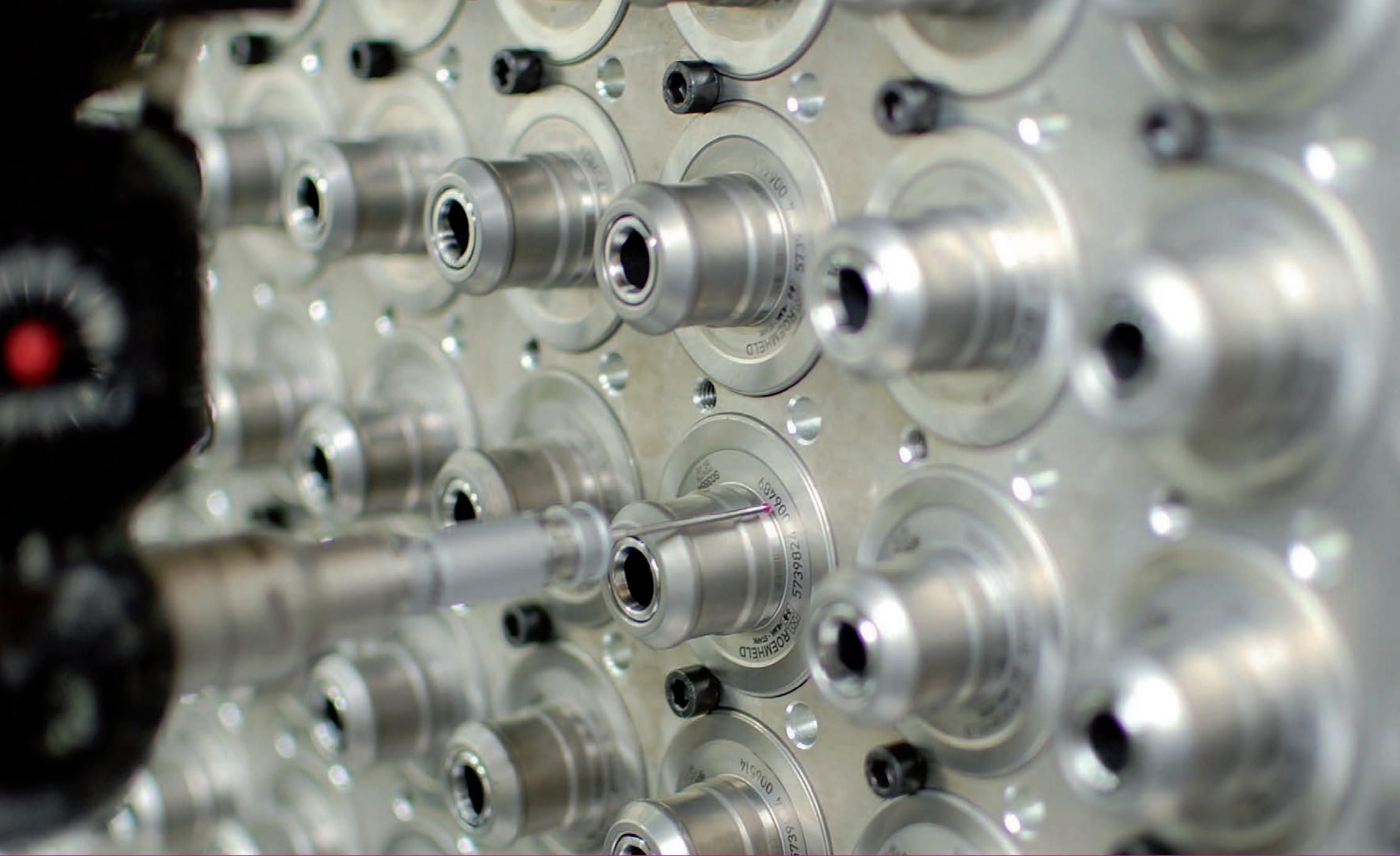


Couplings

- universal** hydraulic, pneumatic, vacuum, electric
- integrated** fits directly in the SPEEDY
- compact** requires little space
- fast** no additional actions
- automatic** coupled/uncoupled on clamping/releasing

Manual loading
Crane loading
Automation





One-off / series production / precision

Checking ensures one-hundred percent availability

Check dimension

There is something special about the SPEEDY classic:

You can straightforwardly check the function yourself! Using the specifically developed check dimension tester your staff are able to undertake a preventive check on the function in a very short time.



Airflow measurement

The correct adjustment of all parameters is of major importance on automated systems.

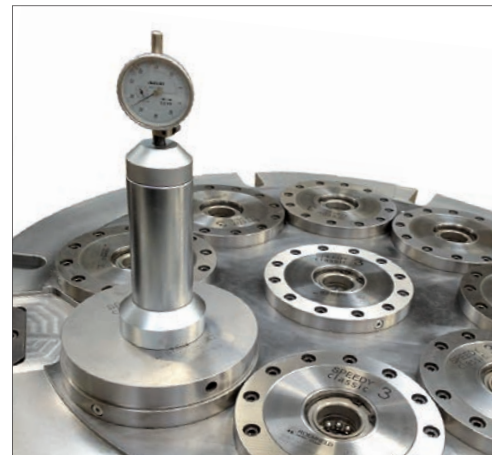
For this purpose STARK offers, e.g., a measuring instrument that indicates the current airflow. You can measure this parameter during commissioning and also later if service is required.



Insertion force measurement

The classic and hydratec systems can be checked using the STARK insertion force tester.

It indicates directly the force acting on the retractable nipple. In this way it is also ensured that the figures defined during design are still met even after extended usage. You can also obtain the insertion force tester on loan.

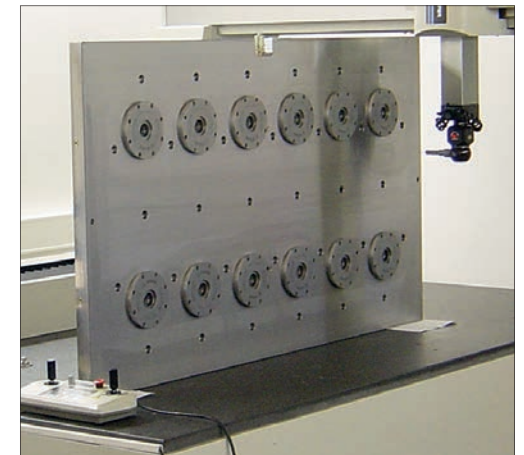


Dimension check

All the products that leave STARK are measured first, the measured values are logged and archived. Should you have any questions on this issue, contact us.

If you return your zero point clamping system to STARK for maintenance, we will repeat this measurement and prepare new logs.

The 3D measurements are made in an air-conditioned measuring room.





Many years of experience

Experience and opinions

You will find more application examples at www.stark-inc.com

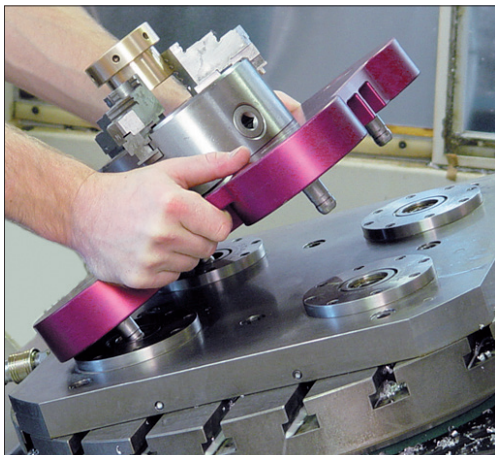
Manual loading

Schöpf Fertigungstechnik GmbH

Manual loading of, e.g., Hilma machine vices and other workpiece-specific jigs. Series production with robot loading is very straightforward and quick to retrofit to conventional tasks thanks to the integrated STARK media ducts. Correct coupling is undertaken at the same time as the SPEEDY are clamped.

"With this changing system we have not only become quicker, but also significantly more flexible."

Herr Schöpf, senior management



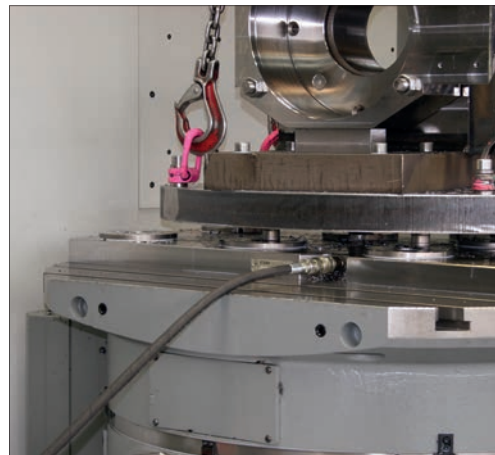
Crane loading

LEWA Attendorn GmbH

A very wide range of jigs can be set-up for three machining centres in parallel with machining – they are aligned flexibly, quickly and exactly at the zero point.

"We are very satisfied with the collaboration with STARK. From the constructive conversations during the planning phase to the service and support on site."

Rainer Frisch, Lewa Attendorn



Automated

Liebherr-Werk Nenzing

Two machining centres with flexible pallet system. Instead of the machine pallets, the base plates with the jigs are clamped directly to the machine table.

"By using the zero point clamping system we have saved a six-figure sum. We manufactured the jigs in-house and fitted them with retractable nipples that are then clamped directly to the zero point clamping systems for the machine pallet."

Michael Torghele, supervisor, small mechanical systems



Individual

Joy Mining Machinery

Suitable for machining, e.g., turning, milling, grinding, honing, eroding as well as for assembly and transport. Various jigs are used on this gearwheel milling machine. The workpieces are now set-up in parallel with machining. As a result the capacity of the machine has been significantly increased.

"The machine operators were so impressed that these parts were fitted to the machines on the very next day." ... "Set-up times have been reduced from 1.5 hours to 10 – 15 minutes."

Ken Barnett





Details count – experience says which

Everything from a single source

Development

The technology employed on machinery has continued to develop significantly. STARK offers systems for modern manufacture, from simple designs to complex, automated clamping solutions. In this way STARK paves the way to sustained growth and releases the potential in your organisation.

At STARK there is a tradition of taking a new direction, e.g., the expansion of the SPEEDY hydratec program with a new type of electric drive as an alternative to hydraulic and pneumatic drive.

Design

The modern design department, equipped with CAD since 1988, prepares specific, optimised solutions for customers. Ongoing innovation and improvement of the existing products and solutions for positioning and clamping secure the organisation's market position over the long term.

STARK also has its own trials facilities for the practical demonstration of the parameters determined theoretically. Here, e.g., long-term tests are undertaken under production conditions (coolant, swarf).

Production

STARK stands for meticulous in-house manufacture with high requirements on quality and precision. The specialist knowledge of our employees and our high level of vertical integration enable us to react flexibly to customer wishes.

STARK invests continuously in the latest technologies to pass this lead onto our customers. The focus is on the highest possible quality and best possible adherence to delivery schedules.

Commissioning service

On the delivery of STARK products, we offer other services along with commissioning on site. These services could include an acceptance process defined in advance, which could also take place, e.g., at the machine manufacturer, or staff training for the safe, efficient usage of your STARK zero point clamping system.

STARK service is also available after commissioning.





Competent advice

Advice means experience

Contacting us

Competent advice starts with the first contact. STARK can be reached all over the world via local consultants and a direct point of contact wherever.

You have the choice:

Telephone: +43 5523 / 647 39 - 0

Fax: +43 5523 / 647 39 - 7

E-mail: info@stark-inc.com

Homepage: www.stark-inc.com

Analysis

The initial direction for successful projects is set in joint meetings and workshops. Use the synergies between your know-how and our know-how to set the specific path to be taken. All staff involved make a valuable contribution to this process.

From the idea to the objective

The quotation design guarantees an optimal solution that then impresses cost-effectively over the entire service life. Force calculations, moments and power flows, finite element analyses, schedule planning and much more are taken into account. Detailed quotations are prepared from all factors; these quotations are optimally tailored to customer requirements.

Realisation – service

All quotations accepted are subjected to a renewed detailed check. The result is approval drawings and, if necessary, expanded technical documentation that gives the certainty everything has been taken into account. Preventive maintenance and a service visit can be planned jointly.

All STARK staff are of course available to provide assistance also after implementation!





STARK Spannsysteme GmbH
Kommingerstrasse 48, 6840 Goetzis, Austria
Telephone: +43 5523 / 647 39 - 0, Fax: +43 5523 / 647 39 - 7
E-mail: info@stark-inc.com, homepage: www.stark-inc.com



ROEMHELD
HILMA ■ STARK