



**JAKOB  
GRUPPE**

## OTT-JAKOB Spanntechnik GmbH



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Let our experience work for you!

OTT-JAKOB's products are exported worldwide. The utilization of our drawbars provides the evidence of good quality.

**The employee and his knowledge are at the center of attention.** Ott employees have years of experience and are innovative. They are familiar with complex calculations of speed and limitations thereof for machine tool applications, necessary unclamping forces and other parameters. High-tech manufacturing and the latest CAD software are employed with perfection. Years of experience and cooperation with leading machine and spindle producers, internationally recognized competence and cooperation with universities increase our performance.

OTT-JAKOB maintains close contact to engineers of research and development. This guarantees user-specific products, which work efficiently in practical applications.

**OTT-JAKOB – Success by perfection.** Due to recent innovations, we can offer a complete program of HSK- and steep taper power drawbars. New clamping systems are developed continuously which enables us to show the trend of tool clamping systems worldwide.

This makes OTT-JAKOB the only manufacturer who offers complete tool clamping systems.

### Our Product Range

- automatic tool system (hydraulic or pneumatic)
- HSK clamping units (HSK E25 – HSK A160)
- gripper w/ holder for steep taper (SK 20 – SK 60)
- rotary unions
- unclamping units
- clamping cartridges (for tool clamping)
- manual HSK clamping units (HSK-T)
- pull-force measuring system („Power-Check II“)



Ask for our **catalogs!**  
info@ott-jakob.de

# PRODUCT INFORMATION

## Complete Power Drawbars

- ▮ for steep taper (SK) or HSK
- ▮ completely aligned components (gripper, inside spindle intensifier, rotary union and unclamping unit from one supplier)
- ▮ optimized for your application

## Original Ott-Jakob HSK Clamping Units

- ▮ all types of HSK clamping units of the same size fit the same spindle inside contour
- ▮ all types have a special coating which increases lifetime
- ▮ the HSK clamping unit type B: the locking geometry guarantees trouble free clamping and unclamping
- ▮ type 2S (2Step) features a holding function for the tool

## QCS - Quickchange Clamping System

- ▮ manual clamping system for all HSK tool standards (HSK-A, HSK-C, HSK-T) with and without coolant tube
- ▮ quick, easy, and tool change safe clamping
- ▮ high tool change accuracy and repeatability
- ▮ clamping unit for all special and standard applications

## Power-Check II

- ▮ measuring device used to check the force with which the tool is being pulled into the spindle taper
- ▮ suitable for all types of clamping systems regardless of manufacturers
- ▮ can be used for all tapered standards and sizes (SK, ANSI, BT, MAS, HSK, CAPTO...)
- ▮ exchangeable adapters
- ▮ internal memory for around 8,000 measurements
- ▮ USB port for data download and for charging the internal Li-Ion battery



## T+S-Jakob GmbH & Co. KG



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The mountainous Allgäu region has traditionally led people to acquire workmanship and cognitive skill enabling them to develop and produce precision devices and tools for use worldwide. T+S-Jakob has continually developed into a capable company - with 100 specialists in design, production, and assembly - in this environment since 1970.

The team concentrates on the production of automatic tool changers and magazines for cutting machine tools as well as tool making of foil punches for the packaging industry. Additionally, T+S-Jakob produces punching-and-forming tools for Bihler machines.

Satisfied customers are the goal of T+S-Jakob:

- /// innovative products, that fulfill market requirements today and in the future
- /// high quality
- /// short and reliable delivery times
- /// fair prices

### Product Range



tool changers



tool magazines



punching-and-forming tools  
and parts production



foil cutting



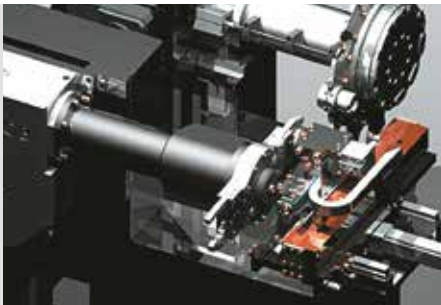
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# PRODUCT INFORMATION

## Tool Changers

Over 5,000 tool changers in various versions have been manufactured for leading German machine tool producers during the past years.

Additionally, T+S-Jakob develops and produces custom tool changers, which fit future machine tool series of renowned producers. Through tight cooperation between producers of machine tools and the design engineers of T+S-Jakob, practice-oriented, robust, and low-cost solutions can be developed and produced.



## Tool Magazines

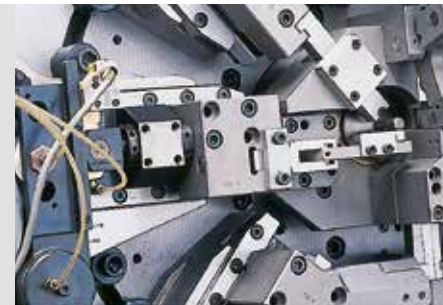
Not only tool changers, but almost as many tool magazines of various designs (disk magazines, horizontal and vertical chain magazines, shelf magazines) have been produced by T+S-Jakob in recent years.

Tool magazines - also as custom products - can be developed by T+S-Jakob fittingly, according to customer wishes and the respective requirements.



## Punching-and-Forming Tools and Parts Production

Our service range includes CAD-design, assembly, running-in of initial batches on newly developed punching-and-forming tools, and batch production of components. The complex production of precision parts of mass production of sheet thicknesses between 0.1 and 2.5 mm is conceived for, and on modern CNC-controlled punching-and-forming machines by T+S-Jakob.



## Foil Cutting

The strip and complete punches produced by T+S-Jakob for the food and packaging industry are characterized by high quality and lifetime due to long-time experience. The micron-precise blade clearance between punch and die makes an exact cut possible.

T+S-Jakob develops the various packaging forms - strip or complete - in close cooperation with its customers.

Steel girder parts are nickel- and chrome-plated, yet food-safe.

The cutting units are made from hardened tool steel or if requested, from stainless steel.





ALLMATIC-Jakob Spannsysteme GmbH · Jägermühle 10 · 87647 Unterthingau  
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ALLMATIC-Jakob has been developing, producing and distributing clamping devices for a broad spectrum of requirements since 1973. Yet while ALLMATIC's range of different solutions is huge, their development has always been based on the same principles: close observation of the market, its development and its innovations. Based on these principles, we offer precise, practical, and efficient systems of lasting value, which offer a solution to your positioning and clamping problems.

The range of applications extends from high-pressure vices for conventional milling machines to complex work-holding solutions for flexible manufacturing centers. We are a dependable partner for any questions concerning all aspects of professional work-holding.

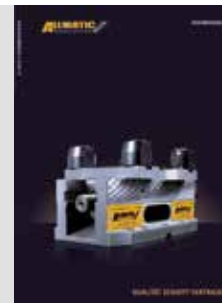
The high demands that we make upon ourselves and the wide range of services we provide have made us into one of today's leading global players. In many countries, we are helping our customers get to "grips" with their requirements.

Visit our website to find your direct contact person:  
[www.allmatic.de](http://www.allmatic.de)

Here you can also download all of our catalogs and brochures!

### Product Range

- machine vices
  - conventional high-pressure vices
  - NC high-pressure vices
  - clamping units for unmachined parts
  - vices for 5-sided machining
  - mechanical and hydraulic versions
- tombstones
- customised solutions
- quick-action clamping system / zero-point clamping system

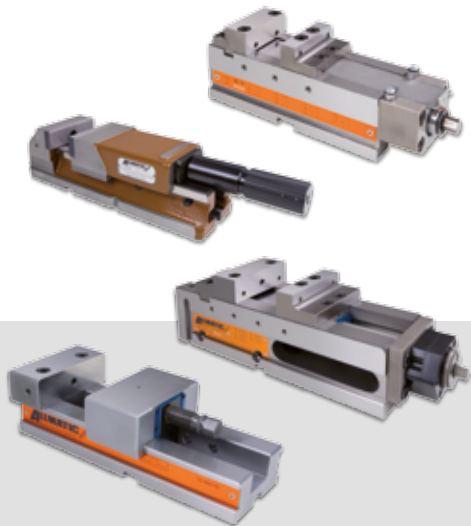


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# PRODUCT INFORMATION

## Machine Vices Conventional

- high-pressure vices for conventional milling machines
- NC high-pressure vices for CNC machining centers - vertical and horizontal as well as for flexible manufacturing systems
- basic and NC high-pressure vices, also in hydraulic version



## Machine Vices Gripper Technology

- high-pressure vices with integrated gripper technology for processing unmachined parts and 5-sided machining
- for clamping conventional workpieces and complex unmachined parts



## Gripper Clamping

- support jaws are used to mount different gripper studs (threaded gripper studs or universal gripper set)
- gripper studs can be screwed onto grid plates in variable positions to clamp a wide variety of workpiece geometries securely
- additional pivot function of the movable clamping jaw compensates for non-parallel clamping surfaces and is necessary for clamping uneven workpieces

## Tombstones and Customized Solutions

Are you still having clamping problems?

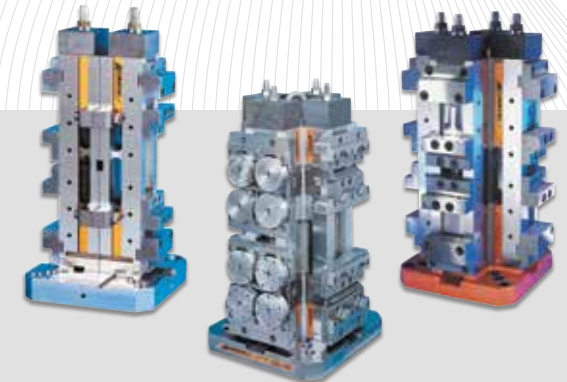
We have the solution!

We will create an individual concept for a custom-made solution to your specific problems.

Visit our website and let the multitude of customized solutions which we have already realized convince you.

[www.allmatic.de](http://www.allmatic.de)

Your ALLMATIC team is looking forward to your inquiry!



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### Product Range

- servo couplings
- safety couplings
- miniature couplings
- mechanical clamping elements
- motor-spindle safety systems
- sectional rail couplings
- hydro-mechanical spring clamping elements

40 years of experience symbolize permanent change and adaption to new technologies. JAKOB has not only adapted to these developments, but has played a central role in pushing these developments with new and innovative products.

Today, we are able to offer a complete range of couplings available for drive technology. JAKOB power clamping elements are used in heavy-duty cutting machines for positioning and clamping of work pieces up to 400 metric tons. They are robust and reliable components for work piece and tool clamping.

The newly-developed motor-spindle safety system offers the optimal safety solution for collision protection.

The sectional rail coupling PKV (vertical) and PKH (horizontal) is another new product, which is used for the low-cost connection of sectional rail systems (e.g. used in transfer presses).

Our brochures offer an overview over our complete range of standard products.

JAKOB offers custom solutions in both drive and clamping technology. Our technicians and engineers always strive to offer the perfect solution for your individual problem.



Ask for our **catalogs!**  
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# PRODUCT INFORMATION

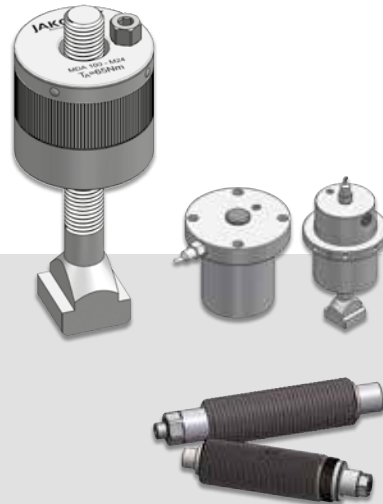
## Servo / Safety Couplings

- ▮ absolutely backlash-free, perfect transfer of torque
- ▮ compensation of misalignment - low restoring forces
- ▮ extensive offer of types and sizes (modular system)
- ▮ optimal overload and collision protection - minimization of damage
- ▮ automatic re-engagement - optionally disengagement until manual re-engagement
- ▮ low moments of inertia - high operational speeds



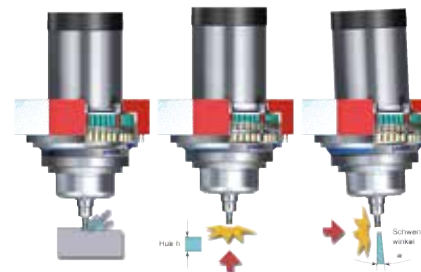
## Mechanical Clamping Elements

- ▮ high clamping forces - low tightening torques
- ▮ long clamping strokes
- ▮ high operational safety due to self-locking design
- ▮ virtually no installation cost - economical clamping technology
- ▮ reduced danger of accidents
- ▮ easy manual operation - clamping force monitoring
- ▮ versatile application thanks to compact and flexible construction



## Motor-Spindle Safety System MS<sup>3</sup>

- ▮ overload protection in case of collision by all-around protection of motor-spindle
- ▮ energy-self-sufficient
- ▮ high precision of re-engagement
- ▮ high marginal adhesive forces and stiffness
- ▮ absorption of kinetic impact energy
- ▮ automatic repositioning
- ▮ maintenance-free



## Sectional Rail Coupling PKV / PKH

- ▮ low-cost connection of sectional rails (e.g. on transfer presses)
- ▮ vertical and horizontal versions
- ▮ self-locking wedge clamping kinematic
- ▮ manual or pneumatic clamping
- ▮ pre centering via centering pins
- ▮ electric monitoring of clamping status
- ▮ available in steel and aluminum versions



## GPA-Jakob Pressenautomation GmbH



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### Creative Automation Concepts for the Automation of Your Presses

The past, present and future of our company have one thing in common: vision. Since 1971, vision has made us what we are today: a strong, innovative partner for automation systems in sheet-metal forming and solid-stock forming. Know-how and creativity are part of what we offer to you.

Whether you wish to feed blanks or billets to a press, transport them through a die, unload them or interlink several presses to form a press line: GPA-Jakob provides you well-considered complete solutions for parts handling in and around mechanical and hydraulic presses of sheet-metal and solid-stock forming.

GPA-Jakob Automation Systems are ideal for retrofits of existing presses as well as new press installations.

Whether in the automotive industry or its suppliers, the electrical or the household appliances industry - automation units made by GPA-Jakob have been working for decades wherever there is demand for the most efficient parts transport solutions.

Take advantage of our know-how and experience!

### Product Range

- transfer systems
- destackers
- stackers
- loading and unloading feeders
- press line automation



Order our **brochure!**  
[info@gpa-jakob.de](mailto:info@gpa-jakob.de)

# PRODUCT INFORMATION

## Destackers

GPA-Jakob destackers are used to separate blanks and feed them to the front of the press.

Depending on the individual requirements they consist of different components of our modular system and are suited to process magnetic or non-magnetic materials such as aluminum blanks for the automotive industry.

## Press Transfers

GPA-Jakob transfers are used to transport parts stepwise in multi-station presses or to interlink several presses to form a press line. They are suitable for mechanical, hydraulic, or servo presses.

GPA-Jakob delivers freely programmable electronic press transfers as well as well-proven mechanical systems.

2- or 3-axis transfers in single-bar or double-bar designs are available.

## Stackers

GPA-Jakob stackers take the parts in a defined manner from the press and automatically form straight stacks.

They are suited to process magnetic or non-magnetic materials.

Special solutions for electrical steel laminations are available. Thanks to their modular design concept GPA-Jakob stackers can be tailor-made to customer needs.

## Automation Feeders

GPA-Jakob feeders are an all-purpose system for transporting blanks and parts.

They are ideal for the transport of flexible parts, e.g. loading and unloading of presses, destacking of blanks, stacking of formed parts and press-to-press parts transfer in a press line.

By request, additional axes such as override systems, rotation axes or tip axes may be implemented.



## Optima Spanntechnik GmbH



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Optima Spanntechnik GmbH specializes in the development and production of clamping systems for presses and special machines in the cutting and forming industries. With more than 40 years of experience we are amongst the market leaders.

With a view to optimize set-up times, Optima quick clamping systems make speedy and trouble-free die clamping possible with minimum installation costs. Thus, greater economy of operation and productivity can be achieved.

In close cooperation with our customers, our team develops the best solution possible for your die change requirements: Optima offers complete solutions, from consultation at the project stage, through production including retrofitting and modification of existing machinery. Comprehensive service is of the utmost importance to us and does not end with purchase. After sales service and long-term availability of spare parts as well as on-site diagnosis in case of malfunction are basic principles of our corporate philosophy.

Continuous quality control and improvement, the constant advancement of existing technology, as well as research and development guarantee products of the highest technological level.

As an expansion of our product range, we now also offer rotor lock systems for medium and large wind turbines.

A worldwide network of representatives and authorized agents enables us to successfully market our products on the international market.

### Product Range

- mechanical clamping units
- hydraulic clamping units
- electromechanical clamping systems
- flexible clamping systems
- slide lock systems
- hydraulic accessories
- rotor lock systems for wind turbines



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info@optima-spanntechnik.de

# PRODUCT INFORMATION

## Hydraulic Clamping Units

- // universally operable due to their wide clamping dimension tolerance
- // easy installation and good price-performance ratio
- // minimal space requirements and flexible operation
- // for initial installation as well as for retro-fitting



## Electromechanical Clamping Systems

- // variable use at a wide range of clamping dimensions
- // extremely high loading force
- // especially recommended for dies with large variations of clamping dimension tolerance
- // minimal installation requirements



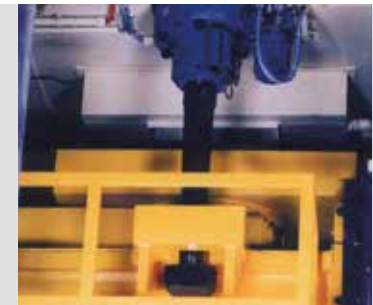
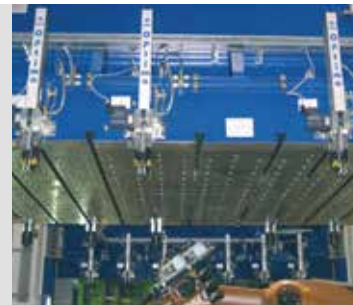
## Flexible Clamping Systems

- // with positioning unit for clamping dies of different sizes
- // cost-effective use of existing dies due to minimal die adjustments
- // each clamping system can be selected or deselected by machine control
- // high automation level enables economical solutions for die clamping



## Slide Lock Systems

- // for locking the slide in any position within its stroke steplessly whenever works have to be carried out underneath the slide or inside the press
- // release of the tie rod even under load is possible without compromising safety
- // electric monitoring and central operation



## JAKOB Vakuumtechnik GmbH

JAKOB Vakuumtechnik GmbH is a company with experienced employees, which has specialized in the production of vacuum components. In addition to the product range of standardized vacuum components from the catalogue, we offer the production of customized products.

We offer cutting, WIG- and plasma welding, as well as vacuum soldering and annealing as manufacturing processes. Glass bead blasting, cleaning, He-leak-testing and protective packaging complete our range of services. Therefore, we are able to offer a wide variety of products for users in vacuum technologies while maintaining high quality.

### Product Range

- blank and welding flanges
- centering rings (also available with wire)
- clamping rings, clamping screws and jaws
- connectors, reducing pipes, tees, crosses etc.
- bellows and flexible pipes
- ball valves, angle valves and inlet air valves
- isolating valves with welding ends
- LN2 cooled cryo traps, condensate traps, etc.



Ask for our **catalog!**  
[info@jakob-vakuumtechnik.de](mailto:info@jakob-vakuumtechnik.de)

## PRODUCT INFORMATION

### Small-Flange(KF) Parts

Small-Flange(KF) Parts are used in vacuum tubes. These parts are made from stainless steel and aluminum. Flanges are connected via centering rings with O-rings for high vacuum tightness. The connections are secured by clamping rings.

### Clamping Flange (ISO-K) Parts

Clamping Flange (ISO-K) parts are used starting at a nominal width of 63. By using stainless steel, these elements are corrosion-resistant. The O-ring-seal mounted on the centering ring ensures the connection is vacuum-sealed.

Clamping screws and jaws, which grip the grooves of the clamping flange, secure the connection.



# CHRONIC

- 1971 » Founding of JAKOB avocationally.
- 1973 » Production of revolver measuring gears and of simple bellows couplings with feather key.
- 1974 » Development and patent of the KSS-series coupling.  
First time, the principle of the frictional shaft-hub connection is used worldwide. This principle is copied often, even today.
- 1975 » Start of JAKOB's own production and quality assurance.
- 1977 » Development of the first safety coupling able to compensate for shaft misalignments (Type SKA).
- 1977 » Presentation of the SKA coupling at the EMO 1977 in Hannover with great success.
- 1977 » Relocation to new production building at Dieselstraße.
- 1979 » Founding of a development department for optoelectronics.
- 1982 » Presentation of the new, portable optoelectronic hand wheels.
- 1983 » Relocation to the new administration building at Dieselstraße 8.
- 1988 » Purchase of a majority interest of Optima Spanntechnik in Scheuerfeld.
- 1989 » Production is relocated to the new and bigger production plant at Daimler Ring 42.
- 1993 » Purchase of Ott Maschinentechnik, Lengenwang.
- 1995 » Purchase of GPA, Karlsruhe.
- 1995 » Founding of JAKOB Vakuumtechnik.
- 1998 » Purchase of IPT Ionen- und Plasmatechnik, Kaiserslautern.
- 1999 » Relocation of JAKOB Antriebstechnik, JAKOB Vakuumtechnik, IPT and ENEMAC to the new administrative building at Daimler Ring 42.
- 2001 » Purchase of ALLMATIC Spannsysteme, Unterthingau.
- 2005 » Relocation of ALLMATIC-Jakob to the new building in Unterthingau.
- 2005 » Opening of the new administrative building of OTT-Jakob in Lengenwang.
- 2006 » Purchase of Trenkle + Schneider, Pfronten.
- 2010 » Sale of IPT Ionen- und Plasmatechnik.
- 2011 » Opening of an additional production building of OTT-Jakob in Lengenwang.
- 2011 » Opening of the new production building of T+S-Jakob in Unterthingau.
- 2012 » Purchase of Multitec GmbH, Nesselwang.





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