



FB ONE

FINEBLANKING: THE NEXT LEVEL OF PERFORMANCE

FB one series of hydraulic fineblanking presses

The FB one series: Your benefits at a glance

Energy and environment

- ▶ Consumes up to 50% less energy
- ▶ Uses up to 40% less hydraulic oil

Ergonomics and connectivity

- ▶ Optimal removal of parts and scrap material
- ▶ Intuitive control system
- ▶ FEINmonitoring keeps a constant eye on the state of the press

Performance

- ▶ Higher number of strokes
- ▶ Higher repeat accuracy
- ▶ Improved reliability
- ▶ Increased stiffness of the press mechanism

Flexibility

- ▶ Modular design creates adaptability
- ▶ Foundation pit no longer required
- ▶ Compatible with existing tools

THE NEW DIMENSION IN FINEBLANKING

The FB one takes fineblanking technology to a new level of performance. It offers a more environmentally friendly, powerful, and precise performance with improved flexibility and energy efficiency. The systematic advancement of the parameters, the design concept, the intuitive control system, and digital connectivity make fineblanking more profitable overall.

MORE ENERGY-EFFICIENT THAN EVER BEFORE

Eco-friendly and optimized energy consumption

When designing the press generation, numerous functional details were realigned with each other. The result is a high-tech production system that unlocks previously unattainable technical, process-related, and financial advantages.

The FB one's hydraulic direct drive achieves shorter cycle times with less energy, making higher stroke rates possible and increasing productivity. This reduces the cost of parts and improves your environmental footprint.

Consumes up to 50 percent less energy

The innovative drive concept consumes less energy with the same level of productivity. As a result, the FB one is more energy efficient.

Resource-friendly operation

The two-level press concept does not require a foundation pit. This simplifies installation at the production site and makes layout planning flexible and customizable. Components can be removed on all four sides – achieving significantly higher performance in a more cost-effective space.

Requires 40 percent less oil

The direct drive concept in combination with active degassing enables operation with approximately 40 percent less oil in the hydraulic tank and lower air content in the oil – with longer replacement intervals.

Energy-saving waste separation

For energy-saving and process-optimized cutting of the scrap web, the waste separator module can be optimally tailored to the scrap web. Additional pistons make it possible to cut the full strip cross-section in an energy-saving manner.

The advantages of energy-efficient direct drive technology

The new drive technology offers a wealth of advantages: The ram's hydraulic direct drive consumes significantly less energy and requires less oil. Thanks to the extremely short switching times of the hydraulic components, the system can achieve the highest cycle rates with maximum process reliability. In the process, a built-in sudden impact damping system protects the press and tools.

The new FB one saves energy, space, and is environmentally friendly.

The advantages:



Increased system efficiency (OEE)



Environmentally optimized

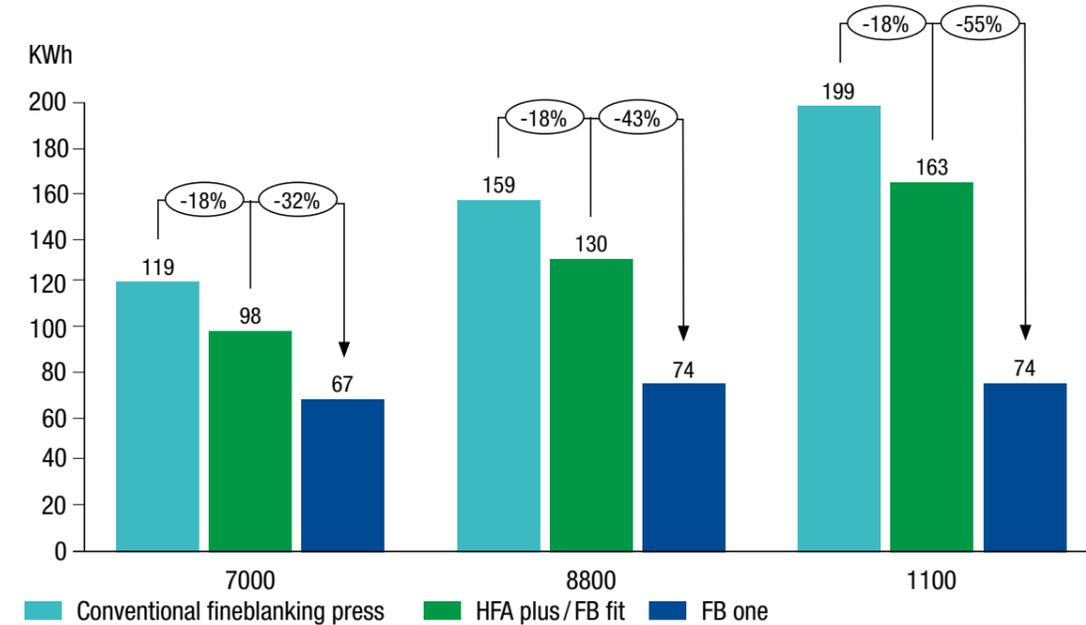


Resource-friendly



Environmentally friendly hydraulics

Comparison of energy consumption by the FB one and existing fineblanking systems



Information on how the comparison was carried out

Reinforced brake pad backing plate



Tool settings

BDC 70 mm
Scanning start 35 mm
Cutting start 21.5 mm
Number of strokes 23/min

Example calculation

Annual consumption HFA 8800 plus 775'500 kWh
Energy costs 193'875.00 €/year, equals 0.25 €/kWh
Savings potential with FB one 40%, equals 77'550.00 €/year

NEW DRIVE SYSTEM – INCREASED PERFORMANCE

Precise and improved performance

The development of the hydraulic direct drive and the design of the press superstructure, together with the new control and operating concept, enable maximum performance. The FB one not only makes fineblanking more precise, but also faster and more efficient.

With up to 100 strokes per minute, the FB one achieves shorter cycle times and outstanding repeat accuracy at the highest production speeds. Stainless and high-strength steels can be processed to a higher standard of quality with lower sudden impact at a higher number of strokes.

The FB one achieves exceptional overall performance. The advantages:

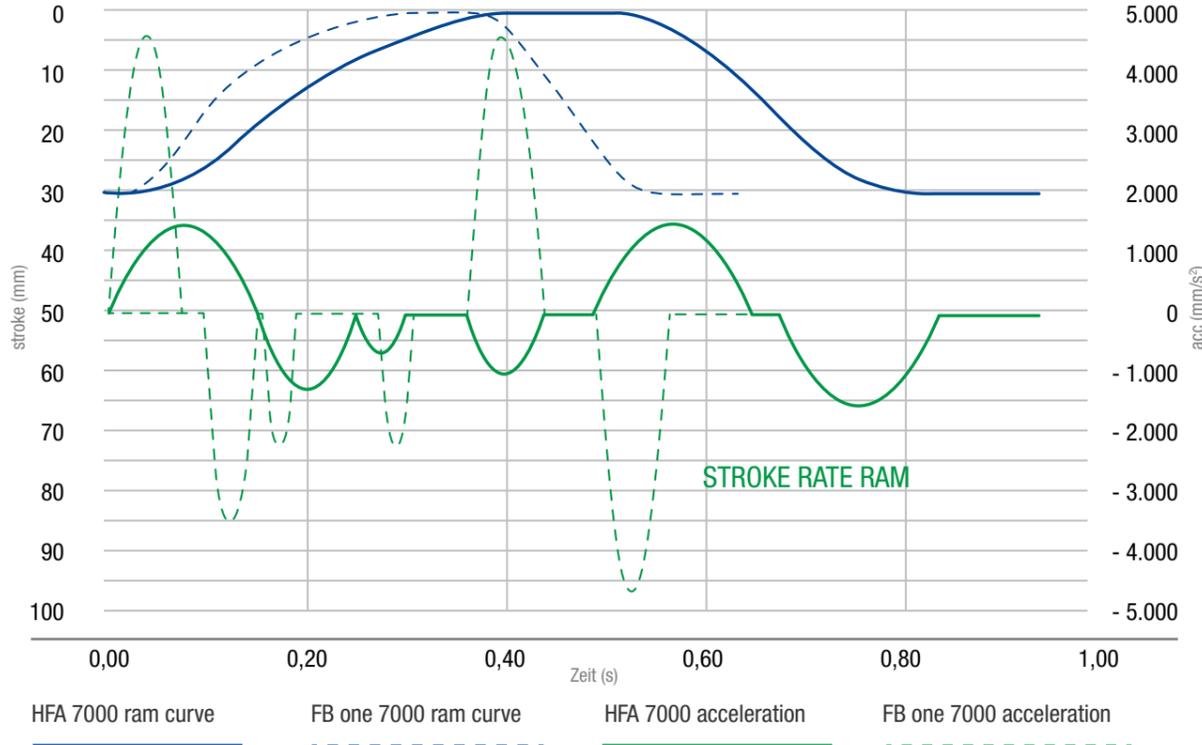


Increased cost-effectiveness



Fundamentally new design features

Comparison of acceleration with existing fineblanking systems



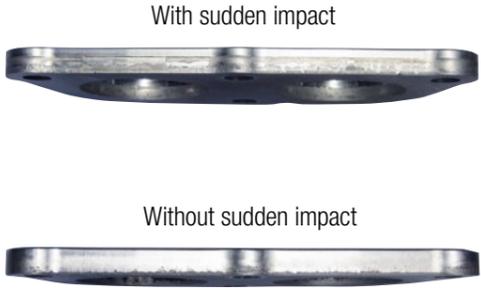
Information on how the comparison was carried out

	Ram acceleration [m/s ²]	Jerk [m/s ³]
HFA	1.5	50
FB one	5.0	250

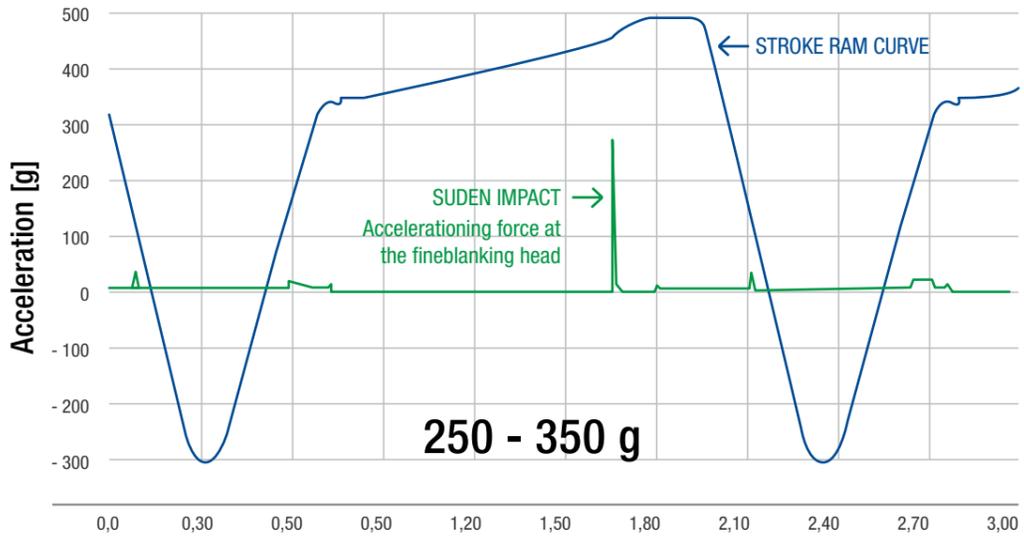
NEW DRIVE SYSTEM – INCREASED PERFORMANCE

Precise and improved performance

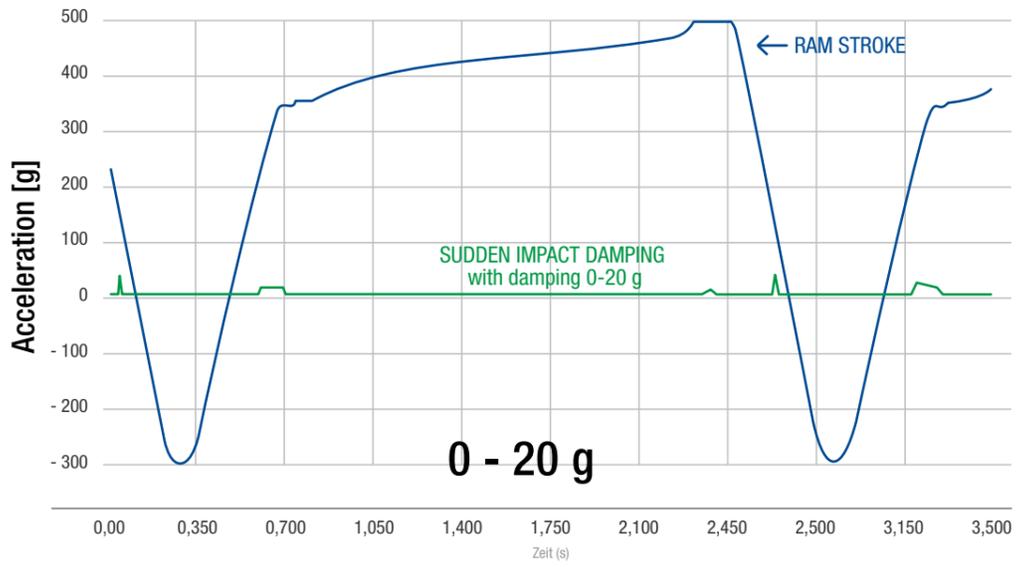
High-strength and stainless steels are prone to cutting impact. This occurs when the part breaks through at the end of the cutting process and the pressurized system consisting of press, tool, and oil column relaxes very quickly. This rapid spring-back negatively affects part quality and significantly reduces the service life of the tool and press components. The FB one series features a built-in sudden impact damping system.



Without sudden impact damping



With sudden impact damping



Thanks to the built-in impact damping, the system can achieve higher cycle rates with superior part quality. In addition, tool and press wear is massively reduced.

NEW DRIVE SYSTEM – INCREASED PERFORMANCE

Precise and improved performance

The compact design and pretensioned pedestal with tension rods help ensure that the press mechanics are extremely stiff. Due to the stiffer press body, the FB one exhibits minimal elongation and can absorb higher off-center loads. This significantly increases the service life of the tool, which translates into a more cost-effective fineblanking process.

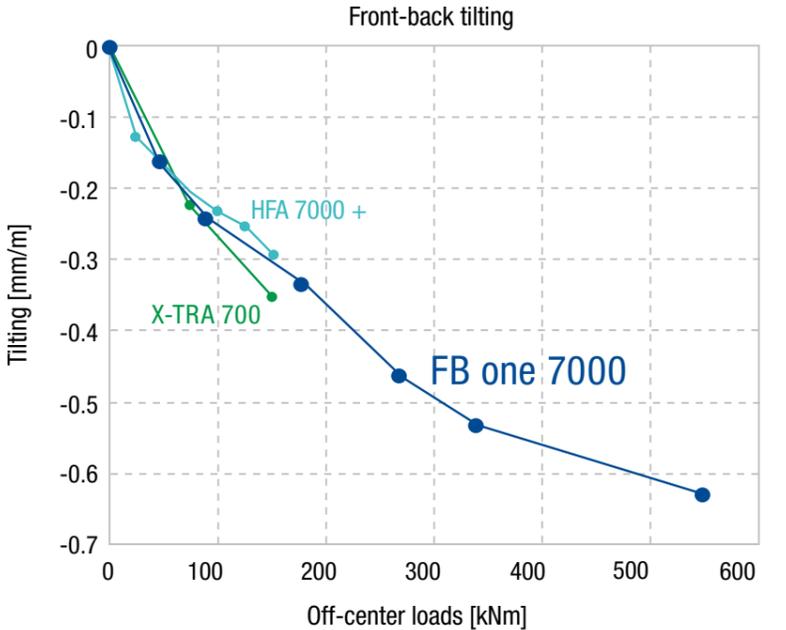
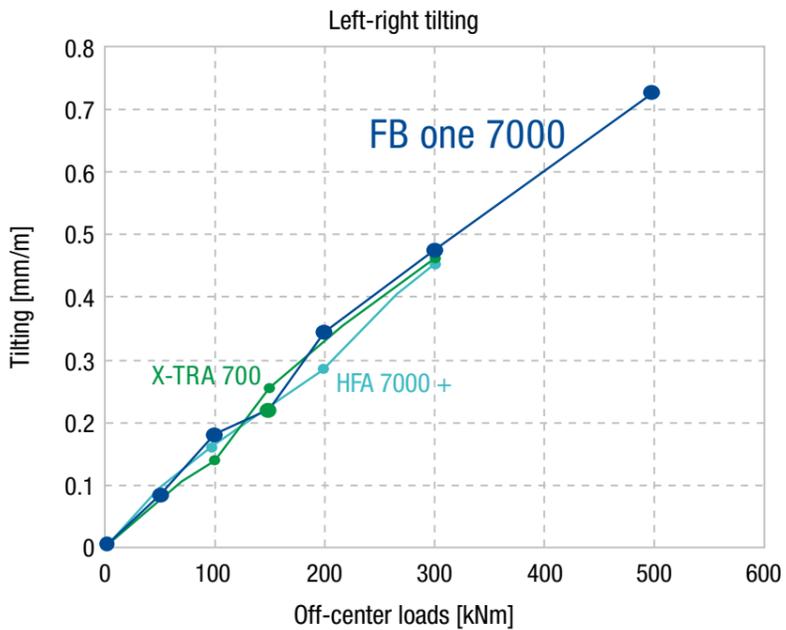


Greater cost-effectiveness



Fundamentally new design features

The FB one can handle considerably higher off-center loads



EASIER TO USE, MORE VERSATILE, AND MORE EFFICIENT

An adaptable production system with a small footprint

While developing the FB one, the goal was to make it easier to customize system configuration and achieve maximum flexibility when adapting the system to permanently changing production layouts. This was realized with the modular design.

The design concept makes it possible to arrange and combine machine components with maximum flexibility. Identical parts can be used for different configurations. Standardized parts reduce the number of parts needed – streamlining maintenance and spare parts management.

The new FB one makes fineblanking more flexible.
The advantages:



Modular system design



New system layout accessible from all sides

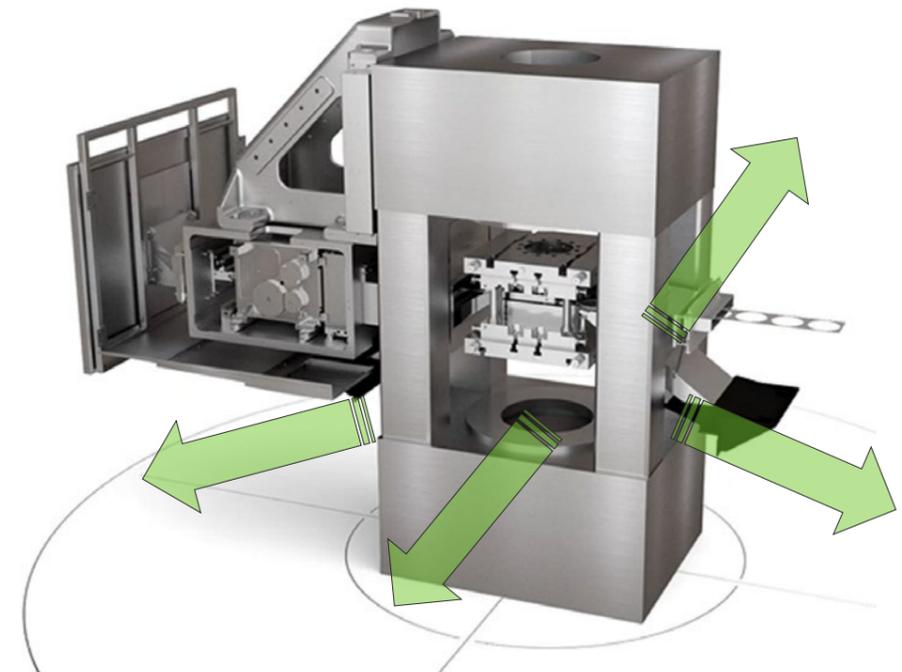


Compatibility and flexibility of the tools



Can be expanded in numerous ways

Ideal access to the tool mounting space



Fineblanking tools have become more complex and processes more interconnected over the years. Accessibility to the tool mounting space as well as easy parts and waste removal play an important role.

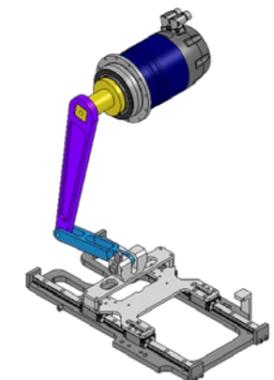
The ability to remove parts and scrap from the press in all directions optimizes the process and makes the system less susceptible to malfunctions.

High-speed removal system: Functional and visible surfaces free of impact marks

Servo part removal system

Part removal via removal systems offers many advantages compared to spraying them with compressed air. There are no impact marks on the parts, moreover, these parts can be oriented in the right direction and separated during removal. There is no additional oil mist and no noise from the blowing air, which has a positive effect on the workplace.

The servo removal system combines all these advantages with faster cycle times and higher process reliability compared to blowing parts out.



OUR SERVICES – ALWAYS THERE FOR YOU

Feintool service – ready to help, wherever you are

Hotline service – globally connected

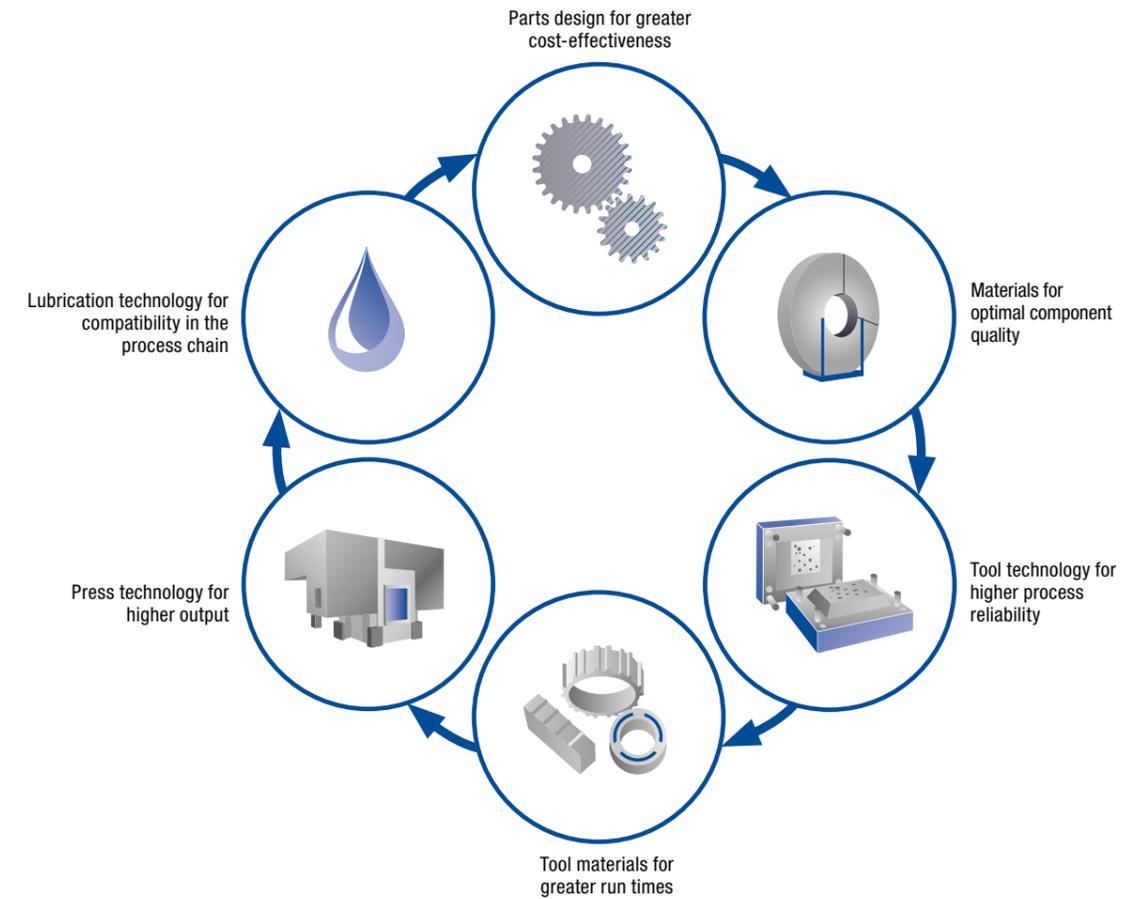
Regardless of the time zone your company produces in, you can access Feintool's considerable expertise via our service hotline. Our hotline staff are familiar with Feintool fineblanking systems and have a direct line to service technicians as well as access to genuine spare parts. Remote diagnostics via telephone or the internet helps to eliminate malfunctions quickly. You can find the contact details at www.feintool.com

FEINmonitoring and Smart Maintenance

Increase the availability and cost-effectiveness of your system using the intelligent FEINmonitoring analysis and maintenance tool. Built-in sensors continuously monitor the technical status of your fineblanking presses. The data obtained is analyzed and transmitted to us via the internet. Together with Feintool Smart Maintenance, you can reduce unplanned downtime, optimize maintenance cycles, and increase the performance of your presses.

Rapid delivery of genuine spare parts

We keep more than 5000 genuine spare parts readily available at our warehouse near Frankfurt am Main, Germany. Its central location helps keep delivery times short and system downtime to a minimum.



Feintool technical expertise in every sub-area

Comprehensive service portfolio

Feintool offers complete solutions consisting of presses, tools, and peripheral systems for fineblanking and forming technology. Our activities focus on the development of customer-specific solutions and system production as well as comprehensive support in the form of consulting, engineering, and training. The ideal combination of equipment, tooling systems, materials technology, and part design is key to the success of a project. As a supplier that operates worldwide, Feintool brings together all of these core competencies and thus offers holistic technology consulting and comprehensive customer support.

Straight to the best solution

Feintool's specialists guide customers along the entire process chain. They can give solid advice on areas ranging from part design and tooling design to part and tooling materials to lubricants. As a customer, you also benefit from Feintool's expertise in process optimization, machine operation, as well as preventive maintenance and the servicing of your equipment.

EUROPE**Feintool Technologie AG**

Industriering 3
3250 Lyss, Switzerland
Phone +41 32 387 51 11
Fax +41 32 387 57 80
feintool-ftl@feintool.com

USA**Feintool Equipment Corp.**

6833 Creek Road
Cincinnati, OH 45242, USA
Phone +1 513 791 00 66
feintool-ftu@feintool.com

ASIA**Feintool Japan Co., Ltd.**

260-53, Hase, Atsugi City
Kanagawa Prefecture,
243-0036 Japan
Phone +81 46 247 74 51
Fax +81 46 247 20 08
feintool-ftj@feintool.com

**Feintool Fineblanking Technology
(Shanghai) Co., Ltd.**

Bld. No. 27, No.1525 Minqiang Road
Shentian High-Tech Park
Songjiang District
201612, Shanghai, P. R. China
Phone +86 21 6760 1518
Fax +86 21 5778 6656
feintool-ftc@feintool.com