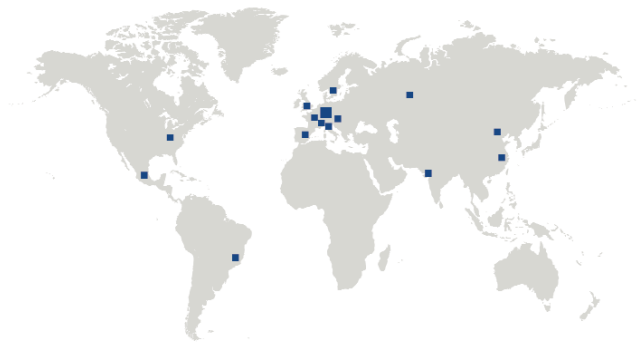




HELLER worldwide

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HELLER in Aerospace:

The future has already begun



Precision Machine Tools. Advanced Technology. Innovative Processes.

HELLER solutions deliver high productivity, cost-effective precision over any product life cycle.

Aerospace companies are being challenged to reduce costs, lead times, and machine with the paradigms of "First Part – Good Part" and "First Part – First Fit". The manufacturing OEMs and their tier-suppliers strive to remain competitive. HELLER machines and process design capability are well-positioned to help the industry meet or exceed its goals for reducing part cost and lead time while improving part quality.

With an investment in HELLER machines and processes, the industry can count on accurately machined structural and engine components in the toughest material with reductions in cost, production time, and variability.

HELLER's H, MCH, F, and MCH-C series horizontal machining centers and spindles are designed for high accuracy, high-performance heavy-cutting with 5-axis contouring. High torque and low-range spindle speeds are well-matched to the demands of aerospace machining.

In addition, our process-driven approach to component machining results in complete, robust solutions. We integrate each element of the machining process, from our high performance horizontal machining centers, to advanced cutting tools, part fixturing, automatic pallet and part handling, coolant systems, CAD/CAM interfaces and 24/7 support.



"Quality, flexibility, delivery, reliability, low piece part costs plus machine design and process development are not conflicting interests at HELLER."

Quality

HELLER machines have earned a reputation for durable design, stability, machining accuracy, and machining quality. That's why HELLER machines are used by aerospace companies for the production of many different parts from engine to structural components.

Flexibility

HELLER machines come with the flexibility to manufacture ranges of parts. When integrated into a production cell or system with advanced pallet and tool changing plus robotics, AGVs and pallet handling systems, a HELLER turnkey system becomes a highly capable, long life-cycle production tool.

Productivity

HELLER engineers are relentless in their work to reduce cycle times for customer parts. Continual improvement in the machining process not only reduces cycle times but can also positively impact part quality. Improvements in the machining process by HELLER, for example, eliminated the need for post-machining deburring of a complex aerospace component.

Support

Focusing on the supply of high quality machines is not enough. That's why we're there to advise and assist you during all phases of a planned modification to your production, from initial planning meetings through final decision, no matter whether you plan to retrofit, optimize or rebuild your HELLER machines.

HELLER's world wide 24-hour support, spare parts distribution system, and locally based experts mean that in the unlikely event of a breakdown, machines are typically back in service within a few hours of HELLER receiving a call. Our centers are located close to all global aerospace manufacturing clusters.

Life cycle costs

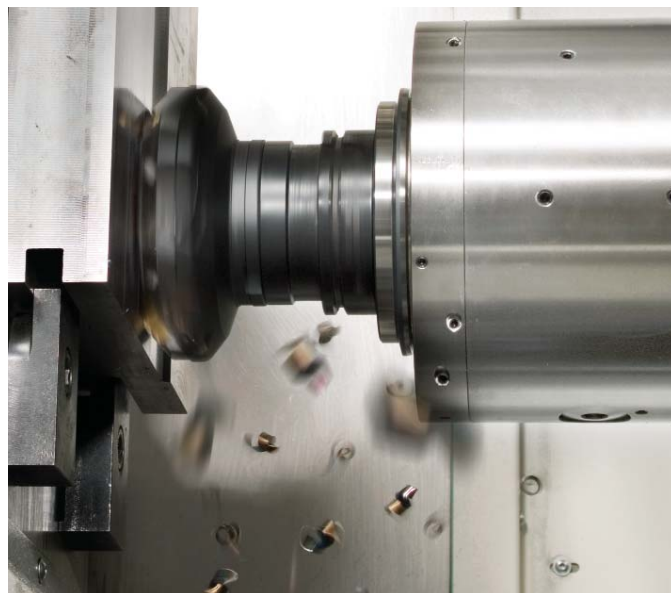
The operating costs of a machine over its complete life cycle are easy to calculate from the cost of investment and the cost of operation. Keeping these costs at a minimum, without compromising on the quality and reliability of the machine, is the essence of what we do.



HELLER Solutions: range of products and services

4-axis machining centers

Horizontal machining centers from our H and MCH series range from durable, basic, modular machines through powerful production machines, and they all come with the proven productivity of HELLER.



5-axis machining centers

With the 5-axis F and MCH-C series, HELLER offers multiple strategies for complete component machining in a single setup, individual parts or small batches in a single set-up. With excellent accessibility and ease of operation, these high-performance machines offer high cutting capacities.

As example, our new F series HMCs for 5-axis simultaneous machining, comes with three high performance spindle options for different cutting conditions and part configurations. HELLER machines provide high torque at low speeds during milling. We also offer an optional mill/turn work table.

Services

With a modular range of services, HELLER Services cater to the customers' needs throughout the complete life cycle of the machines and production systems.

A tight-knit network of Service Centers and Service Bases ensures short response times and extensive, personal support on site around the globe.

Flexible Manufacturing Systems

Over more than 115 years as an innovative machine tool designer and builder, HELLER has developed deep process knowledge across a wide range of customer industries. From stand-alone machining centers to comprehensive flexible production solutions, our process know-how works to our customers' advantage.

HELLER Solutions: setting standards in 5 axis

The aerospace industry is faced with stringent requirements for better fuel burn, structural weight reductions and a smaller environmental footprint. Innovative part design and advanced part materials such as Inconel, Hastelloy, Titanium, Single Crystals, Composites, and more permit these advancements in aerospace performance, but present many challenges to machining.

In response, HELLER high performance machining centers are designed and built to handle practically any part material and complexity efficiently.

Every machine over the entire line-up features high dynamic stiffness, high torque curves, absolute temperature control in all axes, vibration damping bed and column design, powerful controllers with adaptive control and customized options to guarantee finish-machining with speed and precision reliably and cost-effectively.



As example, take our new innovative F series HMCs, for 5-axes, simultaneous machining in one clamping. All models come with three high performance spindle options for different cutting conditions and part configurations. Highly productive machine accessories and modules complement the versatile HELLER machine design.



HELLER Solutions: process and project competence

Continual expansion of HELLER's process and project competence has opened new opportunities. Thus, the HELLER Group can support customers in the optimization of their production processes and help them maximize added value. However, input from HELLER is not limited to ensuring optimum application of machine technology. It also covers a wide range of other areas such as part optimization for production, material flow, fixture design, tooling and part handling between operations.



HELLER Solutions: a network of strong partners

We draw on the specialized knowledge of our many competent technology partners for automation, assembly and test, CAD/CAM, and tooling to provide our customers with complete turnkey production solutions.

Automation

HELLER offers pallet or robot-based automation that ensure users a competitive edge through high efficiency and productivity.

CAD/CAM integration

Fast, highly precise machining directly from part design data is key to productive 5-axis machining. HELLER machine controls accept part programs based on your design data, saving time and promoting machining reliability and repeatability.

