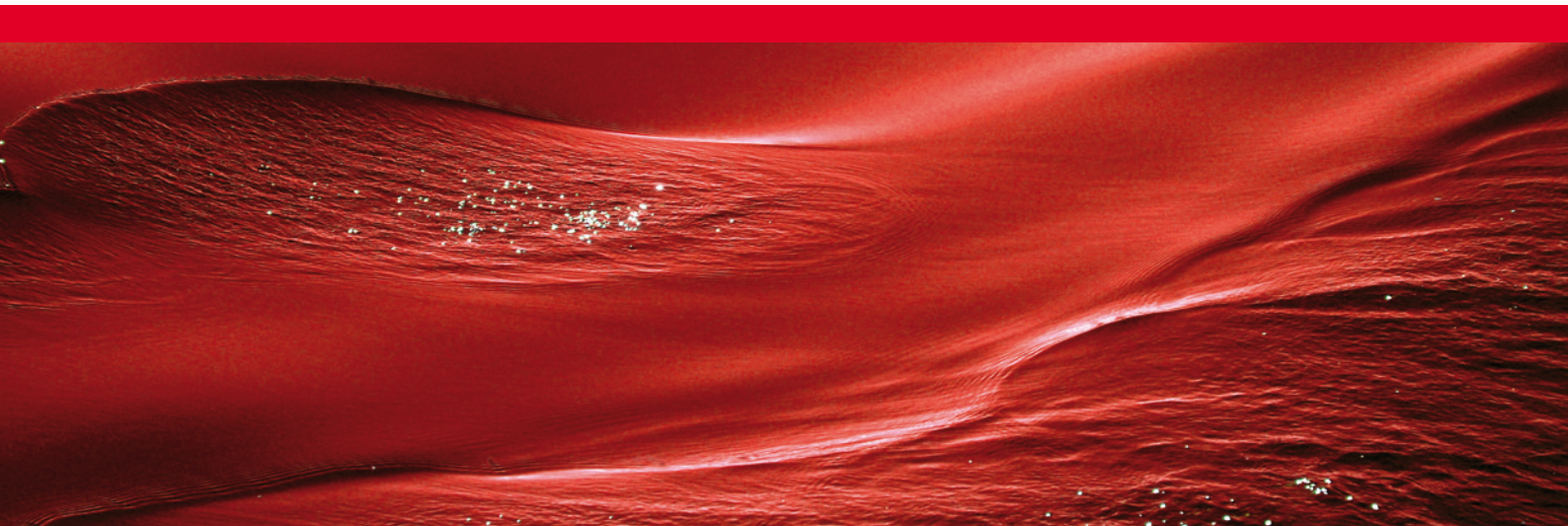


Flat Honing - Lapping - Polishing

Development in mechanical engineering – Commercial machining – Accessories –
Consumables – Research work



Our Competence

STÄHLI-Group

The STÄHLI Group, with a company history encompassing more than 50 years, is one of the most important manufacturers of flat honing, lapping and polishing machines in the world.

However, we not only develop and produce ultramodern machine tools, but also serve our customers through our modern commercial machining centres, in which we not only carry out flat honing, lapping and polishing to the customer's instructions, but we also deal with highly complex project studies. These procedures serve for improvement of size, form and surface quality.

As a complete system supplier we have at our disposal comprehensive know-how in the field of working wheels, consumables and accessories which we ourselves have developed and manufactured.

We develop and assemble our production machinery at our headquarters in Switzerland and we stand for Swiss virtues like precision, innovation, reliability, quality and efficiency.

In Germany, USA or China our customers have the advantage that there are local services, training and testing centres. Furthermore we take care of our customers after the purchase with our after-sales team.

Important is our striving for continuous improvement of our machines and processes and we want to use that knowledge to optimise machines and processes at our customers and in our commercial work.



STÄHLI - Feeling for Finishing



DLM



FLM



CLM

Applied machining techniques

Flat Honing

Flat honing - also known as fine grinding - is a cutting process with bonded grain. The work pieces are loosely held in work piece carriers. The carriers will form with inner and outer pinning a planetary cinematics, which guarantees lowest variance values.

In one process step it achieves high stock removal but also finest roughness and flatness. With the process flat honing the work piece can show directed or undirected grinding patterns.



Lapping

Lapping is the most common final machining method for flat and plane surfaces. Lapping works with loose grain is efficient and gentle on materials and achieves highest requirements of size, form and surface quality.

After the process of lapping the work piece gets a matt finish surface.



Polishing

Polishing is a machining process. After the process of flat honing and/or lapping there can be a subsequent processing of polishing, depending on requirements of quality of surface. An important role plays optical as well as technical aspects.

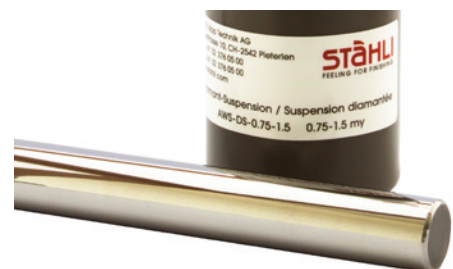
With the polishing the work piece gets either a scratch-free or mirror-finish surface.



Cylindrical lapping / polishing

Cylindrical lapping and cylindrical polishing are centreless procedures. Round grinded components get a gentle improvement of roughness and dimensional tolerance.

There are two different cinematic procedures.
(CLM und FLM 500-R)



Flat Honing, Lapping, Polishing

DLM

Our double side flat honing machine of our DLM-series stands for highest precision and reliability. The mineral cast structure guarantees top thermal and mechanical endurance.

The best-selling machine of Stähli is designed for machining large series of highly-accurate parts of various industries.



FH

The flat honing machine of our FH-series - for one side machining - is designed for small to medium quantities and stands for highest flexibility in production. The use of modern CBN- and diamond tools guarantees high stock removal and productivity.

With the unique in-process measuring the efficiency of the machine is considerably higher and the stock removal of the process can be adjusted.

There are also machines specific to customer requirements available for example with automation.



FLM



The 1-wheel flat lapping and polishing machines of the FLM series with wheel diameters from 500 to 4000 mm are perfectly optimized for production output.

With its particularly robust design including loading and unloading devices this series is very well suited for mass production as well as small quantities with the special feature of wheel correction by means of central geometry adjustment.

CLM



The CLM 150-1500 range of machines stands for time-saving centreless cylindrical lapping and polishing of longer work pieces between two parallel-running rollers.

Our CLM-series is designed for single piece machining and small series to close tolerances. The easy and timesaving handling speeds up production time.

You can find further machine concepts on our homepage and in our brochures about specific processes.

Commercial Machining and Process Development

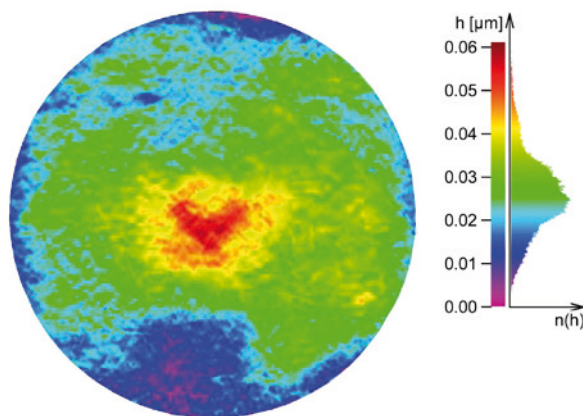


Since the company's foundation, STÄHLI has attached the greatest importance to the expansion of commercial machining centres with the consequence that the knowledge gained has had a direct influence both on the improvement of the machine tools, and the process developments in the 1-, 2- and 3-wheel field.

Also worth mentioning are the unique STÄHLI Technology guides. "The Technique of Lapping" and "Flathoning and Lapping with Two-Wheel Machines" by A.W. Stähli. Comprehensive lapping seminars in Pieterlen/ Biel, Weil i.S./Stuttgart, Lake Zurich/Chicago or Haicang/Xiamen as well as training at the customer's site complete the STÄHLI Group's wide range of service.



Through close cooperation with scientific institutes and universities at home and abroad the STÄHLI Group is also very active in the field of research and development, and continuously contributes to the latest development projects.



Accessories, Measuring Consumables

STÄHLI
FEELING FOR FINISHING

The STÄHLI Group's range extends from specialized lapping abrasive distribution systems, spraying devices, dressing systems, templates, carriers, precision straight edges for checking wheels, polishing tables, monochromatic inspection lights and optical flats through to automatic flatness testing devices.

Lapping wheels, dressing rings, fixed abrasives wheels and rings also for third-party manufacturers machines, lapping oils and powders, diamond fluids and polishing wheels round off the STÄHLI Group's wide range as a competent system suppliers.

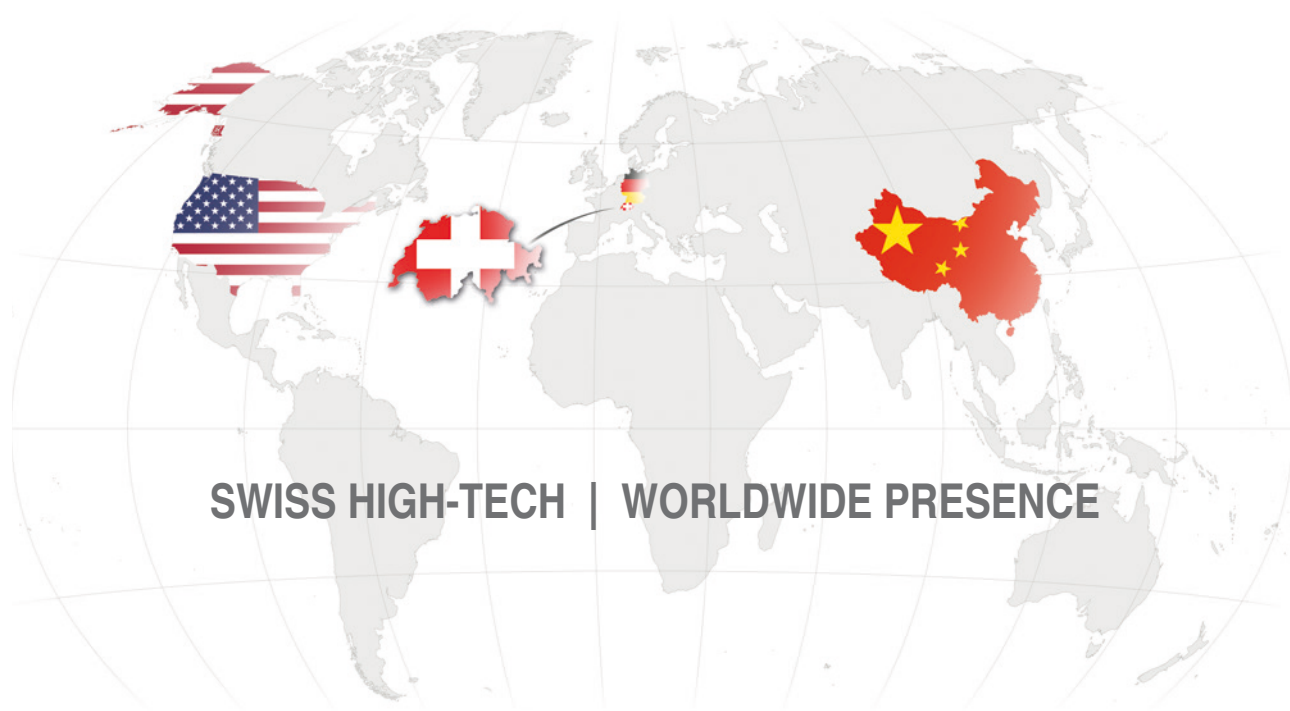


We are one of the leading companies worldwide in the manufacture of flat honing, lapping and polishing machines. At our customers we are known just as much by our standard products as by custom-made and need-oriented special products. This special know-how results from

decades of experience from daily new assignments in contract work and the support of our expert and committed workforce. We are happy to pass on our know-how to our customers within the framework of contract work, tests and complex or experimental project studies.

Put to the test our reliability and innovative dynamism.

Further information may be obtained from the addresses listed or from our homepage.



SWISS HIGH-TECH | WORLDWIDE PRESENCE

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