Product portfolio

Microfinish machines are being applied for highest precision and super high strength surfaces. Especially with high load workpieces made from steel, cast iron, plastics, ceramics or glass of all forms and sizes – cylindrical, eccentric, conical, plane, concave, convex, or spherical – the form and geometry improving surface microfinishing procedure is being applied.

Besides selling new machines Thielenhaus Microfinish also offers a wide range of products and accessories for supporting our customers' production availability:

- ▶ Refurbishing of machines to the latest technologies
- ▶ Repairs of assemblies with new value warranty
- General overhauling of machines
- Spare parts
- Second-hand machines
- Rental machines
- Microfinish attachments for stone and tape finishing
- Stone and tape MicroTools
- MicroFin flushing oil



Extreme Precision for a Sustainable World

- Manufactured Around the World



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Services

Ensuring a Smooth Production



THIELENHAUS

MICROFINISH



Services

We take the term services literally. Our goal is to ensure the longest machine life for our customers, best production quality and customer specific solutions for any machining. Our service points applying a concise information management are situated on three continents ensuring an efficient customer care worldwide.

Our services comprise the following:

- > 24/7 hotline
- Online-direct-service
- Intensive training
- Inspections
- Sub-contracting and prototype machining
- Process evaluation
- Service consulting
- Servicing any machine tools







Customer Service

- Experienced service engineers can be reached throughout the day at our **24/7 hotline** and help you solve your problem in no time. Our customers can reach us under the following telephone number: +49 (0)2 02 481-112. Thus they can rest assured that they will never be left alone with any kind of problem.
-) On request, our **Online-Direct-Service** features a direct connection to the respective machine control from our central service computer. Many failures can thus be cleared worldwide reducing unproductive times and costs.
- Customer Service to us means a prompt reaction should our specialists become necessary at the customers'. Within Europe we can even guarantee a 24-hour-service if desired
- We offer **intensive training** applying theory in practice. The programme includes training courses for operators, machine setters and maintenance personnel as well as process and technology training. Detailed and practice relevant training materials ensure that the topics covered can be re-read at a later time again and again.
- In order to increase the lifetime of the machines we encourage our customers to have **inspections** carried out documenting the present state of the machines as well as all necessary overhauling or modification measures that might become necessary in the near future.
- On request, we analyze your manufacturing processes and submit **process evaluations**, detailed measuring documentation and quality certificates.
- Increasing the quality, lowering production costs, and increasing productivity can be achieved by our extensive service-consulting.
- On request, we also take over **services for other machine tools** within your production line.

Sub-Contracting

Our sub-contracting department deals with first, small, and middle sized series as well as compensating production shortages. Here we machine anything from one single part up to hundreds of parts in three shifts per day.

Before applying microfinishing within the production line our customers often want to test the effects of a microfinished surface on improving function and geometry on prototypes. The machining of prototypes is being handled under series production conditions. On request, we can also issue statistic evaluations and quality certificates documenting the quality of the workpieces as regards

- Improvement of load capacity
- Improved gliding quality
- Improvement of lifetime
- Improved resistance to wear
- Improved micro and macro geometric surface profiles etc.

Tools / Flushing Means

High quality **tools** are vital for achieving highest quality and efficiency. Close parameters can only be kept by using homogenous grain size and structure. Therefore, we propose to use our standard MicroTools (both abrasive stones and CBN, abrasive and diamond tape, polishing tools). Compared to other tools they feature a longer tool-life and – even more important – hardly any quality deviations between different charges, eliminating the need for adapting new machining parameters.



Microfinishing calls for use of extremely clean **flushing means** as any abrasives of grinding means and metal affects the quality. Besides, higher tool wear also means higher cost. Therefore, we propose to use our flushing oils MicroFin 920 HV5 and MicroFin 168-3 which is also kind to your skin.



Life Long Availability

- **)** By **refurbishing machines** to the latest technology even very old machines can be brought up to date so that the latest process and machining parameters can be implemented.
- Should a functioning unit fail it will be exchanged for a new one and then repaired at our premises. These repairs of assemblies with warranty as new enable the customer to continue to use his machine.
- Our service technicians are specialized on a general overhauling of machines both at our premises and at the customers'. Such a midlife-conversion can prolong the life cycle of a machine considerably.
- According to individual contracts with our customers we stock **spare parts** and assemblies for their machines enabling us to ship them the same day with an order received before 5 p.m.
- For a prompt application of the microfinishing process Thielenhaus offers **second-hand machines** featuring the latest technology which can be applied in any production line on a short term basis.
- Our stone and tape **microfinish attachments** can be used on already present machine tools.
- Stone and tape MicroTools in combination with our machines guarantee the adherence to the closest parameters and longest tool life. Not least, they have been established in close coordination with the process development.
- **MicroFin flushing oil** ensures a homogenous quality of microfinish machining minimizing tool wear.