microcut
swiss honing systems

UniBore 834-S-2C

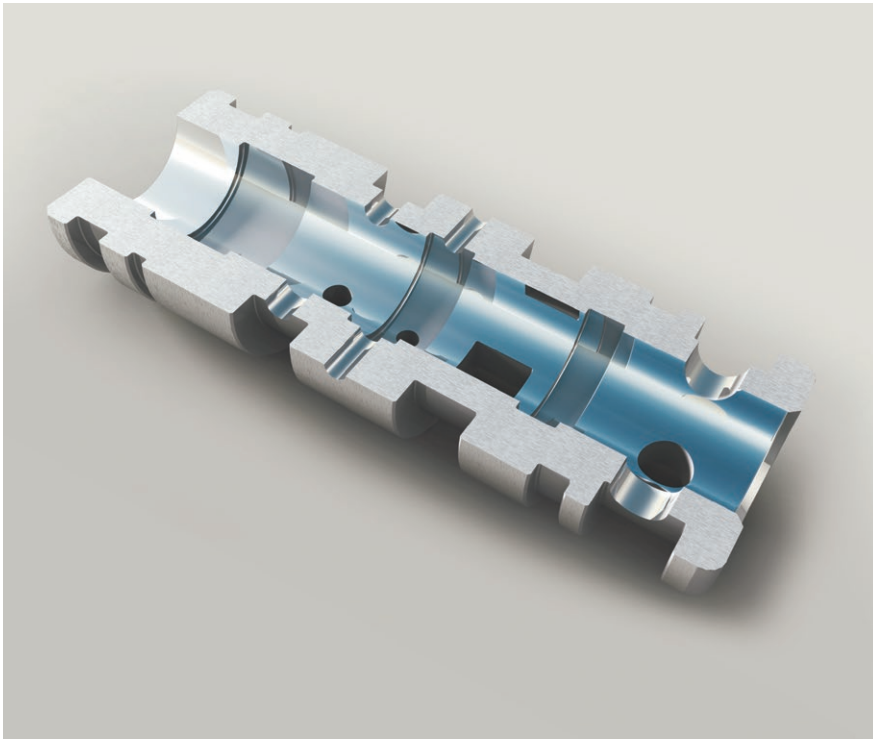
Honing machine with sonic honing technology
for maximum productivity

Machine with up to 4 honing spindles
and 2 circular tables for bores
from Ø **0.30 – 8 mm**

UniBore 834-S-2C

Typical parts, diameter range and material of parts

Bore diameter:	ø 0.25 – 8 mm (in planning up to 12 mm)
Material:	PKD, sapphire, ceramic, carbide, steel, etc.



Hydraulic sleeve

sonic-Honing: the most modern honing technology

The sonic-honing technology stands for the finest surfaces and the most precise shape and diameter tolerances.

It is the most innovative and economical method for finishing of precise boreholes.

The simplification of the system and the massive reduction in cycle time are achieved by our unique innovative honing tools and the intelligent process control. With sonic-honig, we combine adaptive tool feed control with workpiece vibration in the sonic range. The process control and evaluation of the process is given by the highly sensitive force control. Various systems are available for clamping the workpieces.

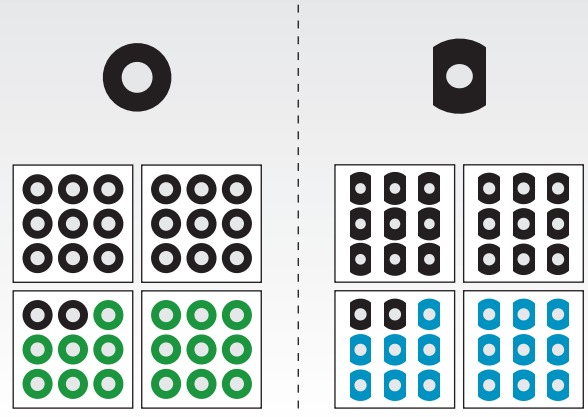
sonic honing®

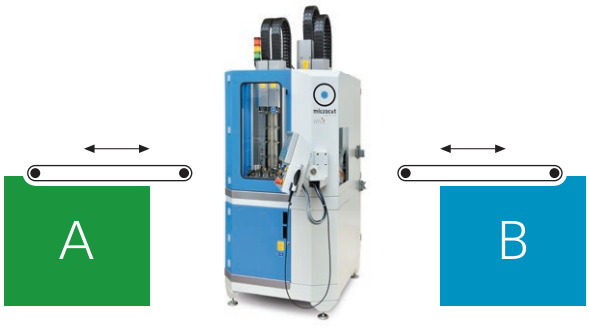
The advantages

- Highest precision and stability/processing capability for shapes such as roundness, parallelism, straightness and cylinders, even with interrupted or cross bores
- Very short processing times
- Robust process even with bore diameters of less than 1 mm
- Simple operation of the machine, no measuring control required
- Little space required: the highest production capacity in the smallest space
- Low energy requirements

Automation options

The honing machine can be loaded from one side or both sides. If the machine is loaded on two sides, different types of workpieces can be honed at the same time on the machine.





Subject to modifications

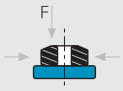
Typical batch sizes

Series production machine for approx. 2 to 5 million pieces per year

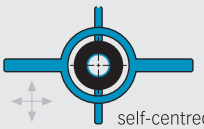
depending on the machining time (stock allowance, bore length, material) and the number of honing spindles (usually 2 or 4 honing spindles)

UniBore 834-S-2C, clamping of parts

Workpiece clamping



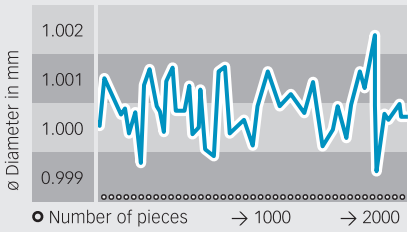
Universal: radial, axial, centering by bore hole



self-centred

Other technologies

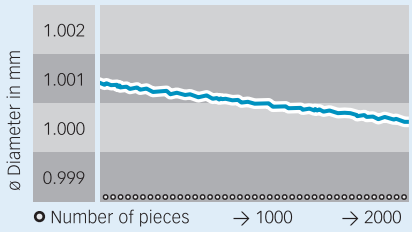
Conventional honing, internal grinding



- Measurement control required
- Corrections to machining parameters required

Advantages of the Microcut Honing System

Microcut Honing System

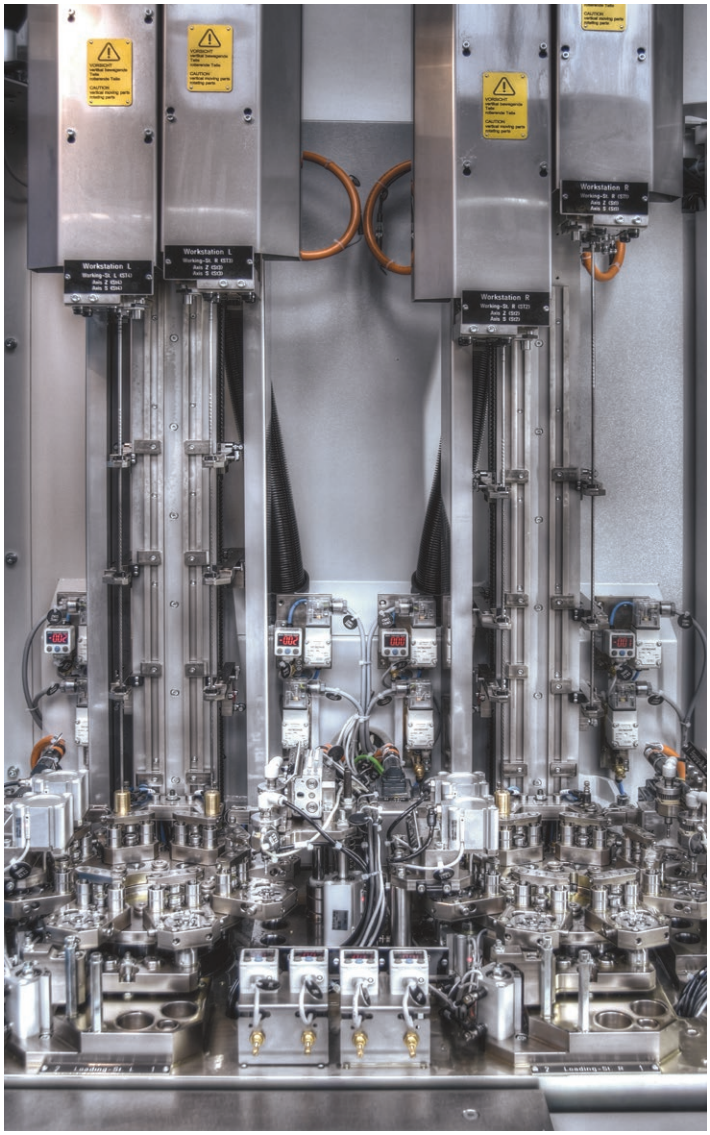


- without measurement control

High reproducibility of dimension and bore quality

- Independent on machine, employee and temperature.
- The tool with many abrasive grains offers the best conditions for the longest possible tool life.

Detailed views



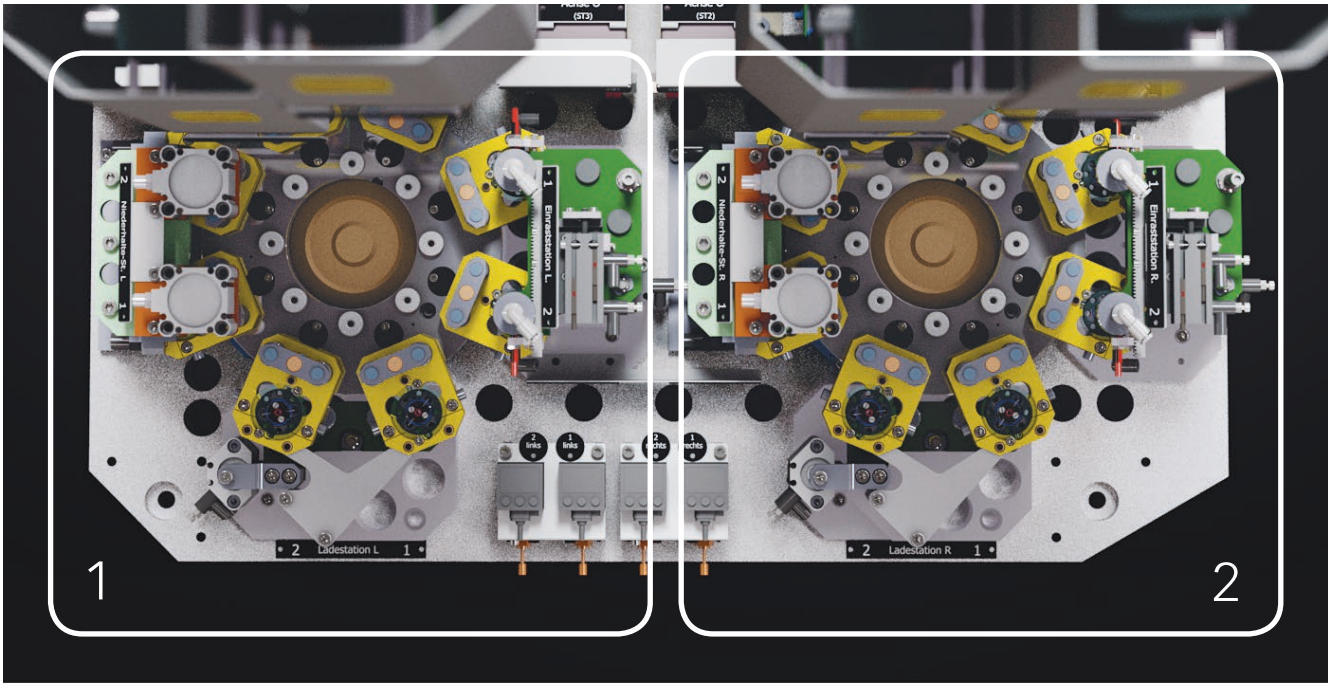
UniBore 834-S-2C

sonic honing®

Machine description

Honing machine with 2 circular tables, so 2 different types of parts can be machined at the same time.

- Up to 4 honing spindles
- Honing spindle speed: > 7500 1/min (depending on the type of honing spindle)
- sonic honing with oscillation of the parts of > 50 Hz



Technical specifications of the machine

- Control: Beckhoff
- Different levels of access for operators, programmers, etc.
- All parameters of the machining process are controlled by software
- Library of parameter profiles for different workpiece types
- Remote diagnostics via Internet (optional)

Electrical connection:	3 x 400 V+N+E, 50/60 Hz
Power consumption:	5 kVA
Air connection:	5.5 bar (filtered, dry)
Dimensions with lamp and shuttle L x W x H:	930 x 1100 x 2000
Weight:	max. 900 kg

Subject to modifications

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