

AC 1000

LAPMASTER®
WOLTERS

DOUBLE-SIDE HIGH-PRECISION PROCESSING MACHINE



AC 1000 with loading table*

PETER WOLTERS AC1000 double-side batch processing machine has been designed for high-precision series processing work pieces. Due to its modular construction, AC 1000 can be used as a fine grinding, honing, and polishing machine.

MACHINE FEATURES

Like all machines of the AC microLine® series, AC 1000 is based on tried and tested core components such as high-precision, pneumatic pressure system, non-contact micro measuring controller, powerful drive technology, and the PLC assisted machine control. Software has been developed by PETER WOLTERS which makes it possible to intuitively operate the machine entirely by menus. The swivel mounted upper base frame allows good access to the machine interior.

The machine is available with different epicyclic workholder drive systems and wheel speeds to match the widest possible range of work pieces. This ensures optimum machine configuration for every application. AC 1000 is available with well-known, tried and tested accessories such as gap formation, alignment device, and dosing system for fine grinding liquid or polishing compound.

Accessories such as measuring sensor and post-process measurement provide data for statistical process control and offer process security when processing critical work pieces. DataCare®, the proprietary analysis tool, captures all controller data and thus is the perfect platform for analytic process evaluation, optimization and fault analysis. AC 1000 can load and process work pieces with a maximum diameter of 290 mm and a maximum thickness of 100 mm.

CUSTOMER BENEFITS

- Adapts easily to customer's application requirements
- High degree of stiffness and precision
- Fast – ergonomic loading and unloading, as well as easy tool changing
- Optimum surface quality, flatness, thickness tolerance and plane parallelism with narrowest tolerances on the work piece
- Extreme temperature stabilization over the tool surface and therefore constant flatness of the working wheels
- Reduced cost per piece, shorter loading, unloading, non-productive times
- Comprehensive, clearly structured screens
- Excellent machining results due to compliance with freely programmable process parameters
- Fast response to load changes
- User friendly, intuitive operation
- Capable of storing 60 or more processing programs
- Low operating costs
- Individual process development, highest productivity
- Easy to maintain

EQUIPMENT

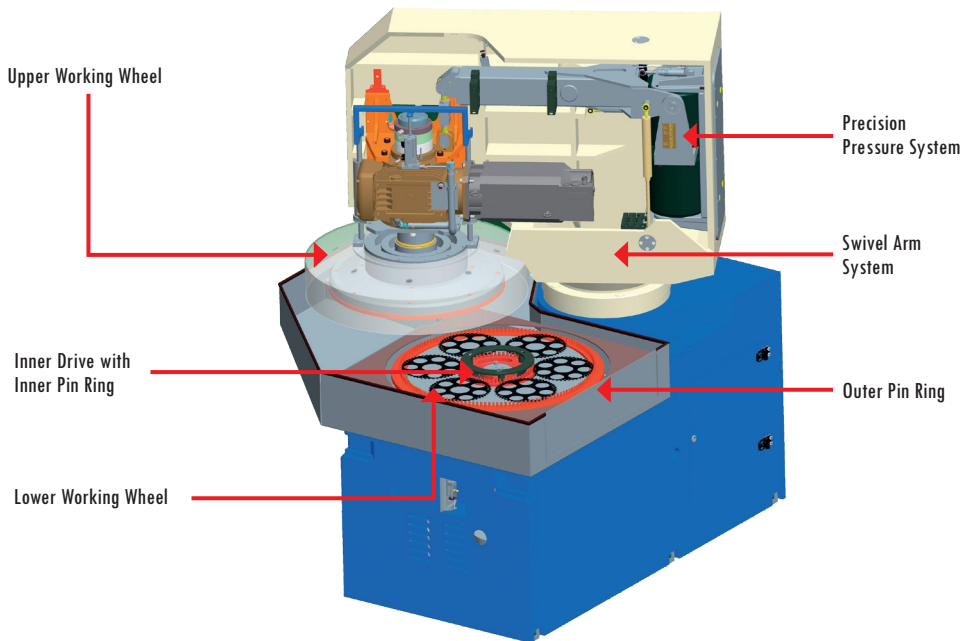
- AC 1000 can be configured to the respective application and is suitable for fine grinding, honing and polishing
- Top variant features constant-torque servo drives
- Size of the work piece to process is the basis for selecting the optimum epicyclic workholder drive system. Several variants to choose from
- Machine comes with suitable filters and cooling components depending on the application
- AC 1000 can be linked with manual, semi-automatic or fully automatic loading systems
- Remote maintenance solution RangeCare® via mobile communications or VPN

TECHNICAL DATA

AC 1000

Version	F	H
Wheel diameter (mm)	1050	1050
Ring width (mm)	292	292
Max. load pressure (daN)	1500 / 2500	1500 / 2500
Upper drive power (kW)	24 / 36	24
Upper drive speed (rpm)	150 / 250	150
Lower drive power (kW)	24 / 36	24
Lower drive speed (rpm)	150 / 250	150
Center drive power (kW)	6	6
Center drive speed (rpm)	94	94
Working wheel cooling	Labyrinth	Labyrinth
Dimensions (H × W × D) (mm)	2400 × 2325 × 3355	2400 × 2325 × 3355
Weight (kg)	7000	7000
Max. work piece thickness (mm)	100	100

FUNCTIONAL DRAWING OF THE PETER WALTERS AC MICROLINE® RANGE



PLC CONTROL WITH CONTROL PANEL



Process oriented visualization (Human Machine Interface – HMI):

- Detailed graphic display of process data
 - Pressure and geometry
 - Rotational speed (rpm)
 - Torque
 - Temperatures
- Comprehensive, clearly structured adjustment of several machine options, i. e. process control, swivel mounted upper frame after process ends, countdown counter etc.
- Temperature monitoring (working wheel, cooling lubricant)
- Monitoring of the cooling lubricant flow rate
- Language switch-over
- Touch-down monitor of upper working wheel

Various error diagnostic functions through:

- Text display of error messages
- Error location display
- Error history

Process-Data-Recording (DataCare®)

- Recording of process data (speeds, torques, etc.) and other meta data on external data media

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