

REDEFINING PRECISION IN SURFACE FINISHING



Fine Grinding/Lapping/Polishing

AC microLine[®] Range

High Precision Surface Finishing

AC 470

Fast – highly precise – easy to use:
Double-Side Planarization in Perfection

Ideas – Drive – Flexibility – Commitment. That's exactly what makes the PETER WOLTERS Group a world leader in the field of manufacturing Single- and Double-Wheel Fine Grinding, Lapping, Polishing, Flat Honing and Deburring Machines for flat work pieces.

PETER WOLTERS meets market requirements with a wide range of new, innovative products, offering its customers trend-setting solutions, since 1804. Products for Today and Tomorrow.

The PETER WOLTERS AC 470 demonstrates that you do not have to miss out any advantages, even if you start small. This is the optimal machine for Double-Side Planarization of parallel work pieces, designed for companies specializing in smaller quantity production.

The AC 470 operates based on the same kinematics as the other members of the **microLine**[®] family and offers the same quality results as the High-end-models. Like all

microLine[®] machines it is produced following the proven PETER WOLTERS manufacturing standards – Made in Germany.

Perfection you can rely on.



The AC 470 from the AC **microLine**[®] range brings you the following features and benefits:

Features	Benefits
Various applications (Fine Grinding, Lapping and Polishing)	Ideal adaption of the machine to application requirement
High-precision bearings	High machine stiffness and process precision
Upper working wheel with swivelling device	Fast and ergonomic loading and unloading of the machine as well as easy tool changing
Clear lines, ergonomic design and clearly arranged control elements	User friendly, intuitive and safe machine operation
Extremely maintenance friendly	Low operating costs
PETER WOLTERS process and technology know-how available	Individual process development, excellent production performance, all from one source

AC 530 to AC 2000-F

Latest Technology as Standard –
for outstanding Performance and Versatility

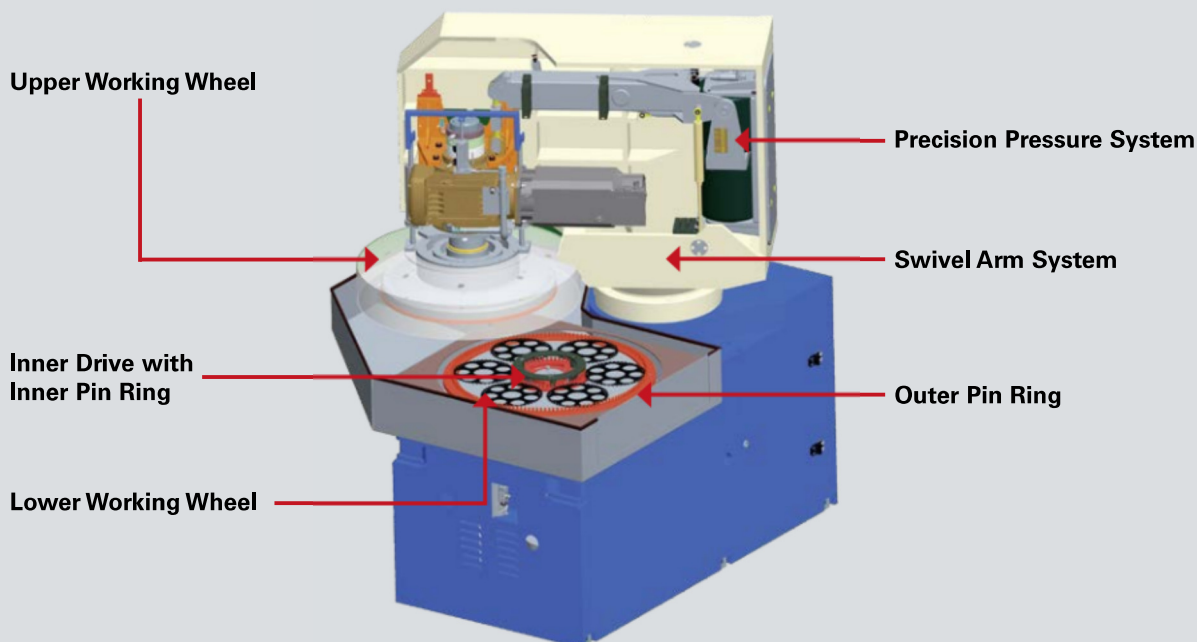
The high productivity double wheel machines of the AC *microLine*[®] range display state-of-the-art design and concept. The modular system of main components together with the precision of the latest control-, drive- and measuring technologies deliver reliability of the process and make the system comfortable to operate. Easily removable machine linings and fully covered process

areas give the best accessibility and industrial safety. For automatic loading and unloading the upper wheel can be swung out.

Durability, reliability, low Cost of Ownership, variety in applications and automation solutions – these are the outstanding features which characterize every PETER WOLTERS system.

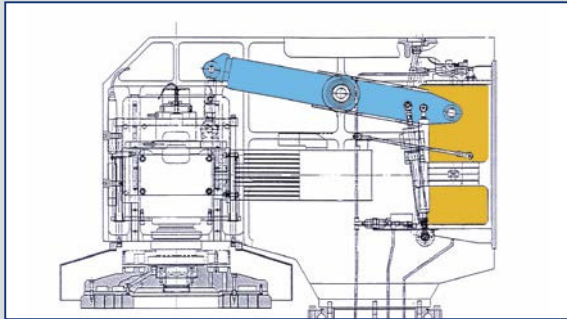


Functional Drawing of the PETER WOLTERS AC *microLine*[®] Range

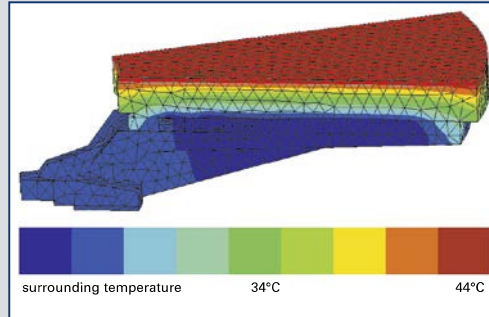


The AC *microLine*[®] Range

Technical Data at a Glance:



Highly precise, pneumatic pressure system



*Temperature distribution of working wheels
(FEM Analysis by Aachen University)*

Machine Model	AC 470		AC 530	
	F	L. P	F	L. P
Versions	F	L. P	F	L. P
Wheel-Ø [mm]	445 / 475	445 / 475	534 / 562	534 / 562
Ring width [mm]	120 / 150	120 / 150	150 / 180	150 / 180
Max. load pressure [daN]	250	250	500 / 800	500
Upper Wheel Drive [kW]	3.0	2.0	10.0	3.0
Upper Wheel RPM [min ⁻¹]	50–275	20–100	175 / 350	100
Lower Wheel Drive [kW]	3.0	2.0	10.0	3.0
Lower Wheel RPM [min ⁻¹]	50–275	20–100	175 / 350	100
Inner Pin Ring Drive [kW]	1.4	1.4	1.3	1.3
Inner Pin Ring RPM [min ⁻¹]	20–70	20–70	100	100
Outer Pin Ring Drive [kW]	x	x	x	x
Outer Pin Ring RPM [min ⁻¹]	x	x	x	x
Cooled Working Wheels	optional		Labyrinth Cooling System, closed circuit	
Control	manual	manual	Siemens	
Operator Panel	manual	manual	Siemens. 10.4"	
Dimensions (HxWxD) [mm]	1980 x 1750 x 1300		1900 x 1900 x 1700	
Weight [kg]	800		1700	
Max. work piece height [mm]	30		50	



AC 700-F
with loading table (optional)



AC 1000-F
with Twin loader rotary table (optional)

AC 640	AC 700		AC 1000
F	F	L. P	F
640	720 / 740 / 760		1050
180	200 / 220 / 240		290
500	1000 / 1800	1000	1500 / 2500
7.4	12.0 / 23.0	6.0	26.0 / 36.0 / 50.0
175	160 / 300	80	150 / 250 / 250
7.4	12.0 / 23.0	6	26.0 / 36.0 / 50.0
175	160 / 300	80	150 / 250 / 250
1.7	2.5		6.0
80	83		90
x	x	x	x
x	x	x	x
Cooling Matrix	Labyrinth Cooling System, closed circuit		Labyrinth Cooling System, closed circuit
Siemens	Siemens		Siemens
Siemens. 8"	Siemens. 12.4"		Siemens. 12.4"
1900 x 1500 x 2200	2100 x 2800 x 2500		2350 x 3400 x 3280
2350	3900		8000
65	75		100



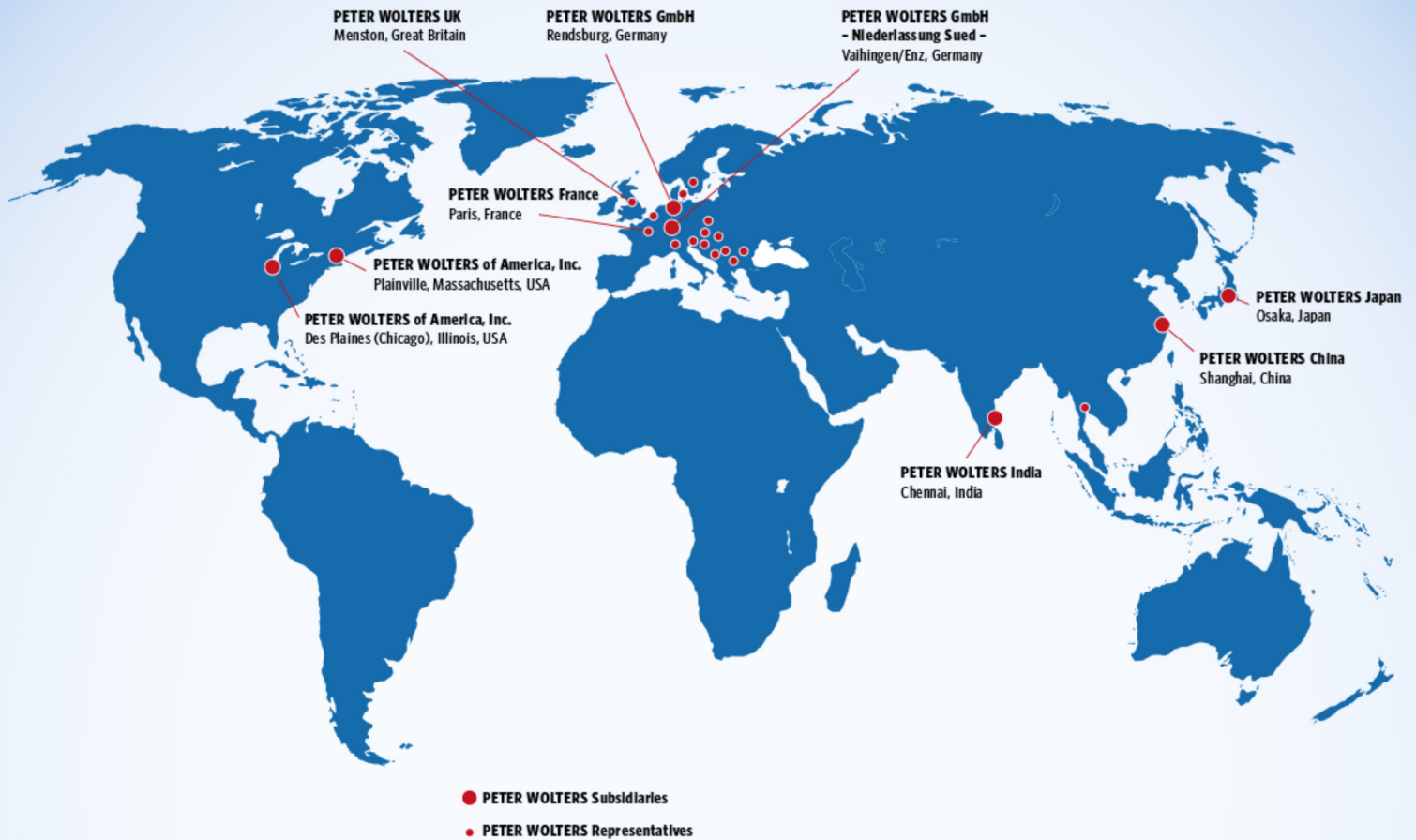
AC 2000-F with carrier loading system (optional)

AC 1200		AC 1500		AC 2000	
F	L. P	F	L. P	F	L. P ²
1160 / 1232	1232	1535	1470 / 1538	1800	1809
341 / 396	396	500	455 / 503	551	686
1800 / 3000	1300	1800 / 3000	1300	4000	3500
26.0 / 36.0	12.0 / 16.0	26.0 / 36.0	16.0	72.0	46.0
110 / 136 / 160	80 / 60	110 / 136	60	93	40
26.0 / 36.0	12.0 / 16.0	26.0 / 36.0	16.0	72.0	46.0
110 / 136 / 160	80 / 60	110 / 136	60	93	40
6.0 / 9.0	4.5	6.0	4.5	8.0	7.5
90 / 120	60	90	60	50	50
x	x	x	optional	x	7.5
x	x	x	optional	x	12.5
Labyrinth Cooling System, closed circuit		Labyrinth Cooling System, closed circuit		Labyrinth Cooling System, closed circuit	
Siemens		Siemens		Siemens	
Siemens. 12.4"		Siemens. 12.4"		Siemens. 15"	
2350 x 3400 x 3280		2350 x 3650 x 3450		2900 x 3425 x 3975	
8300		8700		19500	
220		120		200	

The AC *microLine*[®] Range

Machine Features and Customer Benefits at a Glance:

Machine Features	Customer Benefits
Hardware	
Various applications (Fine Grinding, Lapping and Polishing)	Ideal adaption of the machine to application requirement
Solid cast iron frame	Excellent swing and vibration damping
High-precision bearings	High machine stiffness and process precision
Upper working wheel with swivelling device	Fast and ergonomic loading and unloading of the machine as well as easy tool changing
Up to three independently controlled drives (upper wheel, lower wheel, inner pin ring)	Optimal process results with lowest work piece tolerances (flatness, thickness variation, parallelism, surface quality)
Patented labyrinth cooling system for the upper and lower wheel	Extreme temperature stabilisation over the whole tool surface and therefore flatness of the working wheels
Various steps of automation available from PETER WOLTERS as a complete system (optional)	Reduced cost-per-piece, shorter loading and unloading cycle, constant work piece quality
Colour-Display	User friendly, self-explanatory operation and programming
High-precision, low friction pneumatic upper wheel pressure system	The parameters which have unrestricted programming guarantee excellent machining results
Almost friction-free linear guiding system of the upper working wheel	Immediate machine reaction at load changes from software (hysteresis-free)
Software	
Process oriented visualization (Human Machine Interface – HMI): <ul style="list-style-type: none"> • Detailed graphic display of process data <ul style="list-style-type: none"> – Pressure and geometry – Speed (rpm) – Torque – Temperatures • Various, clear PLC options to adjust machine parameters, i.e. process relevant items, automatic swivel-out after end of process, cycle counter • Temperature control (working wheels, honing oil) • Flow control of coolant / honing oil • Change of language 	Ergonomic, intuitive operation
Crash Control System	Securing tool and work pieces
Various error diagnostic functions through: <ul style="list-style-type: none"> • Text display of error messages • Error location display • Error history 	Time saving, efficient diagnosis
Software program storage to external data disk	Comfortable program / process storage and archiving, easy exchange of data between various machines
Process-Data-Recording (PDR) – recording Process Information (i.e. speeds, torque etc.), optional	Easy-to-analyse process data (data and graphic) for Quality Management or further process development
Other Features	
Easy to access, low maintenance design	Low operating costs
Market-leading process- and technology know-how	Individual process development ensures highest productivity



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