

ELC

DOUBLE SIDE MACHINES

FINE GRINDING
LAPPING/POLISHING



MELCHIORRE
QUALITY AND MORE

ELC

The quality and soundness of "ELC" machines combined with electronic systems allow for highly efficient manufacturing whilst reducing costs:

- Electronic retroactive pressure control by means of a ball screw.
- Easy maintenance for greater efficiency.
- Remote support for "online assistance" over the internet and connection to the company's network.
- Upper grinding wheel automatic stiffening system, antivibration.
- Independent and adjustable drive units: upper grinding wheel-lower grinding wheel-internal ring gear.
- Advanced temperature control systems and relative control of temperature values on the panel.



- > Precision
- > High output
- > Lower costs
- > Safety
- > User-friendly

ELC 900

			ELC 500	ELC 900	ELC 1200	ELC 1500	ELC 2000
Version	Number of carriers		5 (6)	6 (5)	5 (4)	5	5 (4)
	Available diameter	[mm]	160 (124)	254 (305)	430 (510)	520 (650)	720 (800)
Grinding wheel	External diameter	[mm]	550	860	1220	1500	2000
	Surface	[cm ²]	2000	4500	10000	17000	25000
Features	Size H x W x D	[m]	2,3x1,9x2	2,7x1,5x2,9	3,3x1,7x2,6	3,3x1,9x2,8	4,5x3,4x3,4
	Weight	Kg	2500	6000	10000	12000	35000
	Vertical axis torque	[Nm]	6 8	16	27	36	90
	Grinding wheel motor power	[kW]	3 5,5	15 18,5	22 37	37 45	75
	Max grinding wheel speed	[rpm]	200 350	120 200	100 200	90 130	80
	Max piece size	[mm]	150	230 (280)	400 (480)	495 (620)	690 (750)

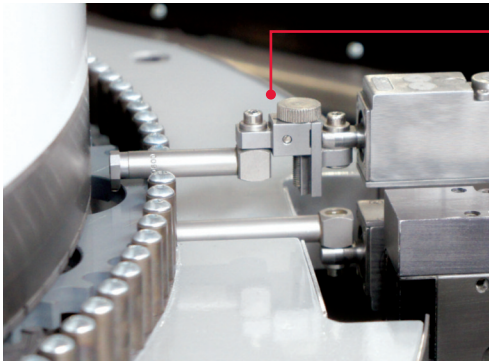
The versions reported are standard versions; technical data is meant as a guide and is subject to change. Intermediate versions are available as required, e.g. 650 and 800 on a 900 structure - 1000 with a 1200-FP700 structure (400rpm)



- Touch-screen colour operator panel.
- Software designed to suit specific needs
- Self-learning system with graphics.

ELC 1500

> FEATURES



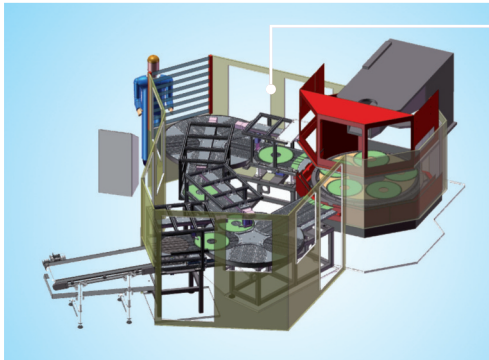
> PIECE MEASURING SYSTEM

Contact pieces measured during the process with resolutions of less than 1 micron.

Indirect measurements with no contact.

> C-FRAME STRUCTURE

Monolithic structure to ensure the biggest stiffness.



> AUTOMATIC LOADING AND UNLOADING

Example of a system for carriers (even with the grinding wheel down)

Can be connected to washing and brushing systems.

> OSCILLATION SYSTEM

Exclusive system that automatically blocks the oscillation of the upper grinding wheel during the various stages of the work cycle.

ELC

> Technical and process support

- Experience and technical expertise: option of designing the various stages of the process with the client to optimise the cost of line grinding.
- High-tech test room for an optimal definition of the grinding wheel: option of start-up with subcontracting.
- Programs for preventive maintenance and specific process training.



High stock removal
Low roughness
Tolerances (parallelism/flatness)
less than one micron

> All-in-one "fine grinding" solutions



automotive

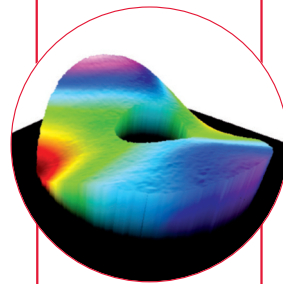
High resolution control
over the quality
of finished pieces (0.01 micron)
with statistical control methods
(e.g. Cpk/Cmk)



hydraulic



technical ceramics



other (optics, hard metals, silicon, etc)



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