

SAWS

ELEMATIC SAW EL 1300 A



Key words: Elematic Saw EL1300A, saw, hollow-core slabs, Hollow-Core-wall panels, prestressed flooring, T-beams, I-beams, solid planks, ELiPOS



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1. Introduction

The Elematic EL 1300 A saw is designed for cutting pre-stressed products like hollow-core slabs, T-beams and planks.

The Elematic EL 1300 A is the right solution for a producer who needs automated cross, longitudinal and diagonal cutting.

The Elematic cutting technology is based on completely modern and safe design, utilizing the latest electronic controls.

1.1. Advantages

Due to the versatility of the EL 1300 A, all the cutting can be done with the same saw. Automatic operation ensures accurate cutting with less labor needed. It is the operator's choice whether to do the cutting manually or automatically.

The EL 1300 A saw is designed with an eye to easy maintenance and extended blade life, using only a few wearing parts.

Health and safety issues have been one of the guidelines when developing EL 1300 A saw. A motorized telescopic blade cover with noise reduction reduces spreading of cutting dust.

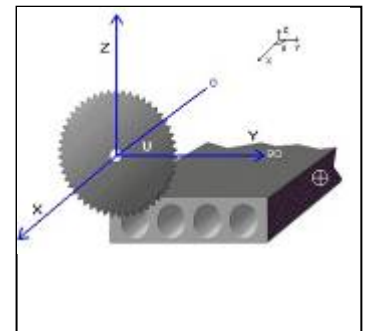
The total automation level can be raised using the Elematic EL 1300 A saw together with the Elematic ELiPOS positioning system, as a part of Elematic Total Automation Concept.

1.2. General data

The EL 1300 A is a hollow-core slab saw for cutting of 1200-mm-wide slabs using an automatic cutting cycle. The maximum thickness of the slab to be cut is 520 mm. The cutting angle is infinitely variable between 0° and 180°. The saw can also be totally automated for cutting any pre-cast units, which are cast on a casting bed.

1.3. Detailed data

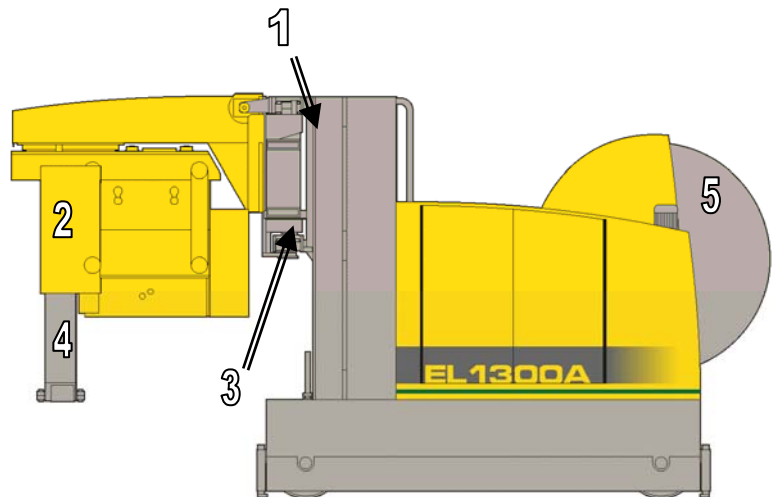
- Slab dimensions:
 - Width max 1220mm (48"),
 - Height max 520mm (20,5")
- Crosscut 90°
- Longitudinal cut 0°...180°
- Splitting 0° or 180°



2. Key features

The ELEMATIC EL 1300 A saw is used for cutting hardened pre-stressed concrete. Hollow-core slabs are cut so that they are ready to be installed on a construction site.

- 1 – Hoisting wagon
- 2 – Slide rest
- 3 – Cross transfer wagon
- 4 – Blade cover
- 5 – Hose and cable drums



The EL 1300 A travels on the side rails of the casting bed.

SPECIAL FEATURES:

- Cutting blade diameter 800 mm – 1300 mm (32"-52"). Change of blade size without adjustment of limit switches.
- Four (4) different automatic cutting cycles for crosscuts (90°) according to the slab types.
- Stepless speed adjustment.
- Water nozzles for washing of slab surface.
- Blade cooling water control.
- Blade motor load and rotation control.
- Blade line indication with laser light.
- User interface with an informative multilanguage touch-screen display in pendant arm.
- Motorized telescopic blade cover.

2.1. Operation

The saw blade line is indicated with a red laser light. The blade is positioned to the cutting point with a joystick. According to the selected cutting program the cutting is automatically performed.

There are four different cutting programs installed in the saw. The cutting program is selected according to the type and prestressing of the slab to be cut. The sequence of cutting cycles varies in different programs and breaking of the slab is thus prevented as the point of the final cut varies.

An oblique cut is always made with one cutting cycle because the starting point is not known.

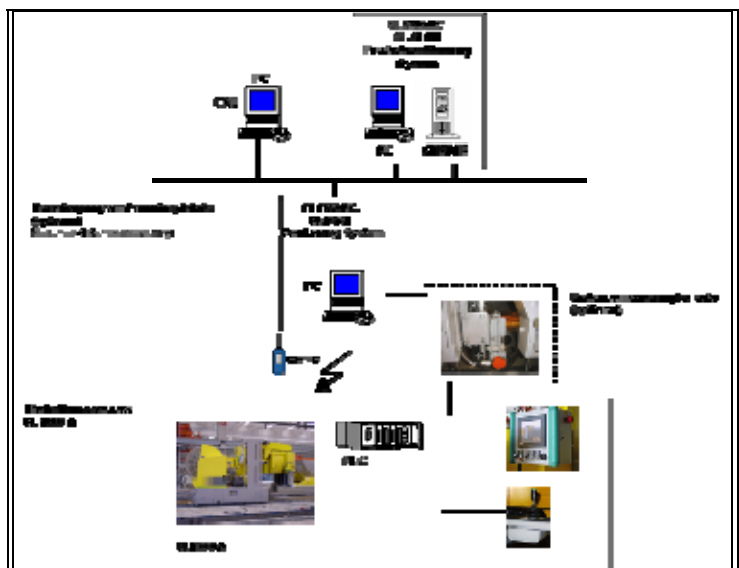
Splitting is done as half-automatic cutting, i.e. it is stopped by the operator's command.

With slab measuring and cutting automation slabs can be automatically measured and cut according to the operators instructions. The operator is not needed while cutting.

EL 1300 A can be equipped with ELiPOS software.

ELiPOS is a simple communication program used to transfer data to the ELEMATIC machines.

ELiPOS operates on user request: the program file for cutting is transferred from PC to the saw via ELiPOS through a wireless connection. The cutting program is in ASCII format and can be done i.e. with ELiPLAN.



3. Product components

3.1. Required components

- EL 1300 A saw
- Cutting blade
- Cable drum and a power cable
- Hose drum and a water hose
- Additional Exchange Parts to change the blade diameter.
- Service modem / service FW/VPN via internet

3.2. Additional components

- Slab measuring and cutting automation
- ELiPOS and wireless data transfer (PC and local area network is needed)
- Retaining clamp for T- and I-beams
- Blade motor speed set
- Camera for monitoring the transfer

4. Technical data

ELEMATIC SAW EL 1300 A

Length	4610 mm / 182"	(With cable/hose drums)	
Width	1675 mm / 66"		
Height	2440 mm / 96"		
Wheelbase	2160 mm / 85"		
Rail gauge	1290 mm	(Standard Elematic bed)	
Blade \varnothing	800...1300 mm / 32"...52"		
Weight	7000 kg / 15.432 lb	(without drums)	
Power Supply	3P+PE,400V,50Hz	Power Supply	3P+PE,480V,60Hz
Connection power	61 kW	Connection power	73 kW
Blade motor	55 kW	Blade motor	66 kW
Moving speed	Max. 0.67 m/s / 2.2 ft/s		
Water pressure at the saw	Min. 2 bar	(after water hose)	

5. Additional information





Elematic is a leading supplier of precast concrete machinery and equipment as well as the only supplier capable of delivering complete production plants anywhere in the world. Elematic's superior technology and industry expertise is currently in use in more than 100 countries across five continents. Elematic is headquartered in Toijala, Finland.

