

EXTRUDERS

EXTRUDER E9



Key words: Elematic Extruder E9, extruder, hollow-core slabs, hollow-core wall panels, prestressed flooring



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1. Introduction

An extruder is a production machine for a variety of sizes of hollow-core floor slabs. It is the right solution for a producer who needs to manufacture varying quantities of different sizes of hollow core slabs.

Key Elematic Extruder features:

- Cross-sections available from 160 mm to 500 mm
- A wide range of standard, heavier and lighter slab cross-sections
- Most function parameters are factory-set
- Robust and well-engineered heavy-duty construction

ELEMATIC EXTRUDER E9

The fourth generation Elematic Extruder is designed to improve both the quality of the product and the usability of the machine.

1.1. Advantages

IMPROVED COMPACTION WITH INVERTER USE

- Remarkable accuracy of slab dimensions
- Excellent flatness of top surface
- Enhanced durability

ADVANCED USER-FRIENDLY CONTROL SYSTEM

- Recording of production data
- High repeatability of settings: all settings memorized
- Improved product traceability
- Access to production and quality monitoring
- 12" display with user specific screens
- Comprehensible user specific manuals both on screen and on paper
- PC based system with enhanced language settings and possibility to load software
- Readiness for integration to the total automation system ETAC

MINIMIZED DOWNTIME

- Swift change from one slab size to another
- Optimized preventive maintenance scheduling
- Online troubleshooting possibility through WLAN connection



HIGH WEAR RESISTANCE

- The main wear parts are engineered to be maintenance-friendly and are made of the most wear-resistant materials to achieve a long service life

PROVEN RELIABILITY

- Hundreds of Elematic extruders have been delivered in the past 50 years to five continents

1.2. General data

The ELEMATIC Extruder E9 is used to produce prestressed hollow-core slabs and wall panels with 4 to 8 voids on long beds.

Casting width: 1.2 m. Slab width up to 1.2 m.

Standard thickness

- Hollow-core slabs 160 – 500 mm
- Hollow-core wall panels 160 – 265 mm

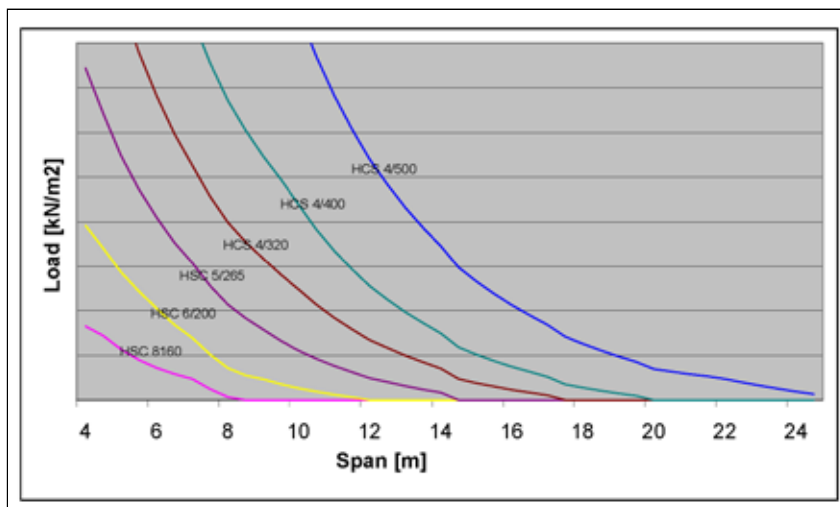


1.3. Detailed data

Modular hollow-core slab sets for producing slabs with the following characteristics:

Number of voids	Height mm	Weight kg/m ²
8	160	226
6	200	242
5	265	348
	320	376
	400	474
	500	601
4	320	393
	400	454
	500	595

Load capacity of different cross sections:





2. Key features

The extruder technique is based on the shear compaction method. Due to the method, the extruder is noiseless. The extruder casts the slabs in one phase, and the voids are formed through the pressure that the feeding screws apply and through the mechanized, moving hollow tubes.

The Elematic extruder is designed for a casting width of 1.2 m.

3. Product components

The ELEMATIC Extruder E9 consists of two main parts: a universal power unit and a slab-specific nozzle module.

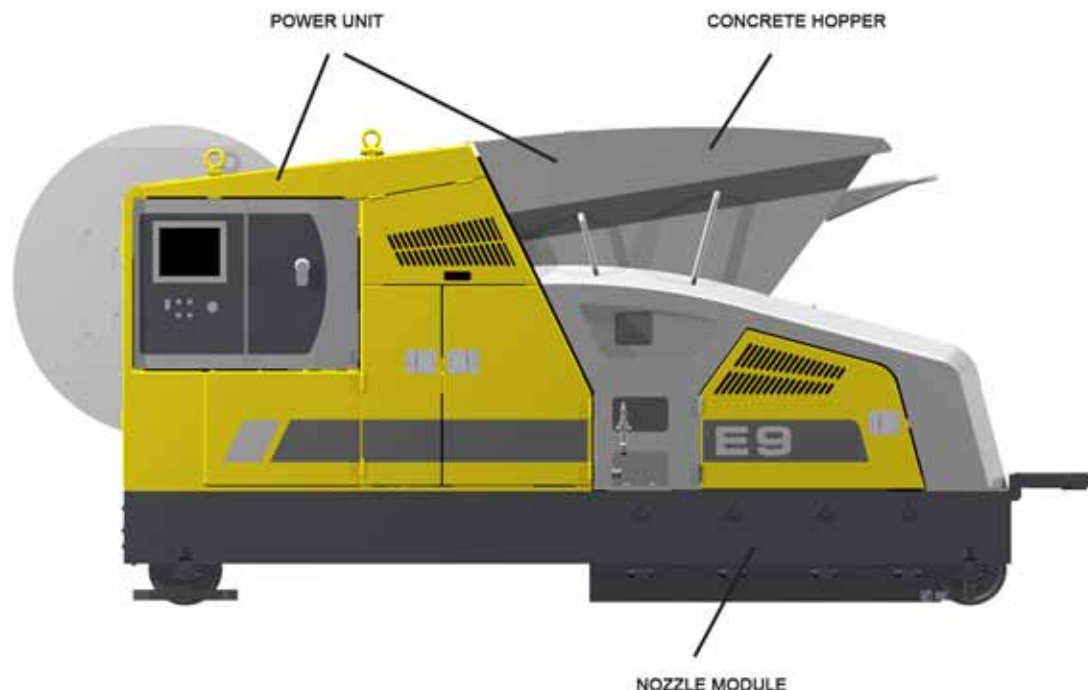
The power unit contains one concrete hopper, out of which concrete is fed onto the feeding screws of the nozzle module, and main operating motors. The number of feeding screws that the nozzle modules have varies according to the number of voids the HC slabs are to have. The concrete mix being fed onto the screws is compacted in the nozzle module. The extruder moves during the cast in reaction to the pressure created by the feeding screws. The power unit can be removed so it works with another nozzle module.

3.1. Power unit

The power unit includes the concrete hopper, the main motors, the main electric box, and the control panel.

3.2. Nozzle module

The nozzle module includes a set of feeding screws, side plates, a leveling beam, and strand guides. The nozzle module defines the slab height and the shape of voids. For producing other slab types, the nozzle module shall be changed. The standard nozzle modules are for 8-, 6-, 5- and 4-void hollow-core slabs.



4. Technical data

EXTRUDER E9

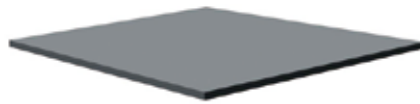
Extruder 9E Dimensions				
Length	4810	mm	With cable drum	
	4350	mm	Without cable drum	
Width	1670	mm		
Height:	2110-2150	mm	Depending on the nozzle module	
Wheelbase	3500	mm		
Rail gauge	1292	mm	(Standard Elematic casting bed)	
Concrete hopper	1.8	m ³	(Water volume)	
Weight:				
Total	6300-8500	kg	Depending on the nozzle module	
Power unit	2650	kg	With cable drum and 130 m cable	
Nozzle module	3500-5850	kg	Depends on the nozzle module	
Electrotechnical Data				
Connection power	44	kW	400 V, 50 Hz	

5. Additional information

The Elematic E9 extruder, the fourth generation extruder, is our response to customer feedback. The previous Elematic extruders have helped our customers turn a profit in more than 40 countries across the globe. For more information, contact us. Find your contact person at www.elematic.com/contact_us.



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.



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