

1. GENERAL CHARACTERISTICS

1.1. Description

The machine is suitable for wet shaping of round articles, without undercut on metal moulds with fixed walls; it automatically carries out feeding, pressing, shaping, extraction, fettling, finishing and transfer. Movements are electromechanical and pneumatic.

The line for flower pots is essentially composed of following units:

- CLAY FEEDER
- SHAPING UNIT UFV250
- LUBRICATION FOR MOULDS
- TRANSFER AND DISCHARGE BELT
- ELECTRIC PLANT WITH BOARD FOR GENERAL COMMANDING

1.2. Technical characteristics

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|---|---------------------|
| - overall dimensions | See T9038003 |
| - total weight | 4525 Kg |
| - total electric power installed | 23 kW |
| - theoretic consumption of compressed air | 12000 NI/h at 6 bar |
| - number of rotating male mould | 1 |
| - number of female moulds | 3 |

1.3. Characteristics of production

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|------------------------------------|------------------|
| - max. external dimensions unfired | Ø 275 x h 255 mm |
| - indicative production | 400÷600 pcs/h |



N.B. The production is subject to the dimensions and the shape of the article, the material used, the lubricant.

1.4. Division in units

1.4.1. Clay Feeder

The unit serves to extrude, cut and automatically place the clay slice in the centre of the plaster mould.

It is composed of:

- INCLINED BELT for the deposit of clay rods, equipped with independent motorization and intermittent operation controlled by photocells.
- PUSHER UNIT pneumatically operated.
- CUTTING UNIT pneumatic operation controlled by photocells, adjustable thickness of the clay slice.
- TRANSFER UNIT FOR CLAY SLICES: pneumatic operation, transport of the clay slice by suction cups under vacuum from the clay feeder outlet to the plaster mould.

TECHNICAL DATA:

- Max. dimensions of clay rods in entrance	Ø 180 x L 600 mm
- Motor power of conveyor belt	0,37 kW
- Total power installed	10 kW
- Total consumption of compressed air	3000 NI/h at 6 bar
- Weight of clay feeder with conveyor belt	2175 Kg

1.4.2 Cakes transfer

The device carries out the pick-up, transport and deposit of the cakes from the clay feeder outlet to the female mould; it is composed of pneumatic cylinders with cakes transport by means of suction cups, alternate pneumatic functioning, vacuum plant with ejector.

1.4.3 Shaping Unit Type UFV 250

The machine is suitable for the shaping of flower pots and it is composed of:

- STRUCTURE UNIT WITH MOBILE CROSSBEAM: carries out a movement of rising and lowering on columns, operated by the main motorization through a mechanism flywheel/connecting rod.
- MALE MOULD UNIT: independent motorization with continuous service, speed adjustable, installed on the crossbeam.
- MAIN MOTORIZATION UNIT: independent motorization, adjustable speed. It commands in synchronism the movement of rising/lowering of the mobile crossbeam as well as the rotation of the turntable carrying the female moulds.
- TURNTABLE UNIT: intermittent movement with three positions, operated directly by the main motorization by means of a chain transmission and a mechanic intermitter.
- Positioning system and mechanical block with pneumatic cylinder.
- No. 3 seats for fixing of the female metal mould, automatic extraction of the flower pots by means of a pneumatic cylinder placed under the female mould.
- SPRAYING-LUBRICATION UNIT: automatic lubrication of the male and female mould by means of two sprayers/atomizers with command by electro-valve; oil tank under pressure pneumatically commanded.

TECHNICAL CHARACTERISTICS

- Stroke of crossbeam	530 mm
- Speed of male mould	0 ÷ 470 r.p.m.
- Speed of variable speed motor (adjustable)	0 ÷ 35 r.p.m.
- Motor power male mould	5,5 kW
- Power main motorization	7,5 kW
- Theoretic air consumption	4.500 NI/h at 6 bar

1.4.4 Pick-up and finishing of Flower Pots

The device carries out the pick-up, the fettling/finishing and discharge of the articles from the shaping unit UFV 250 to the discharge belt.

It consists in:

- PICK-UP/DISCHARGE UNIT FOR FLOWER POTS: pneumatic functioning, transport of flower pots by means of a pick-up pad working under vacuum.
- FINISHING UNIT: independent motorization that commands the rotation of the fettling knife.

TECHNICAL CHARACTERISTICS

- Stroke of cylinder for pick-up	25 mm
- Stroke of transport cylinder	200 mm
- Number of pads	1
- Theoretic air consumption	4500 NI/h at 6 bar

1.4.5 Electric Plant – Switchboard

Comprises all devices for command, power, regulation, safety, signalling with regard to each unit and system installed as well as their cabling.

Provides and controls all functions for the movement of the line.

The electric plant and switchboard have been constructed in accordance with NORM CEI - EN 60204-1.



