

## VOLUMETRIC PREFORMING MACHINE FOR ELASTOMERIC MATERIALS

### THE VOLUMETRIC PREFORMING MACHINE FOR ELASTOMERIC MATERIALS

is a machine for the continuous production and palletization of items or preformed rubber pieces. For metering it uses a pump specially built for rubber, a patent of which Delia srl has the exclusive use.

The volumetric preforming machine consists in a pressing group for closing the preforming moulds or matrix dies on which a volumetric pump is fitted, which allows to inject continuously into moulds or open cavities with pressures and injection speeds equal to those applied by the usual injection groups. On the pressing group a transfer thermo-regulated group and/or a group with thermo-regulated channels can be applied to inject into several points of the mould/preforming die. In the central part of the pressing group a preforming mould or matrix die rotation group with two stations is fitted, one for the preforming phase and one for the items unloading phase in masked time. Downstream to the unloading station a device is fitted for the automatic evacuation and palletization of pressed or preformed pieces.

THE VOLUMETRIC PREFORMING MACHINE FOR ELASTOMERIC MATERIALS is composed of:

- A pressing group for closing preforming moulds or matrix dies
- A plasticization group
- A thermo-regulated block
- A series of pumping elements
- A group for the material distribution inversion
- An injection-nozzle group
- An oleodynamical gearbox
- An electronical group for controlling the volumes to be injected
- A thermo-regulation group and plasticizing extruder
- A thermo-regulation group of the pumping elements group

ACCESSORIES BUILT BY DELIA srl, which can be used with the pumping group:

- A thermo-regulated channels group for injecting into several points of the mould
- A thermo-regulated transfer group for injecting into several points of the mould
- A group for rotating the moulds/ preforming dies
- A group for automatically evacuating pressed or preformed pieces
- A group for the palletization of pressed or preformed pieces

### POSSIBLE IMPLEMENTATIONS

- A group for removing burr and/or finishing the pieces
- An artificial optical system for detecting sizes and defects

<b>DESCRIZIONE MACCHINA E SPECIFICHE TECNICHE</b>	<b>I</b>
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**TECHNICAL FEATURES OF THE BASIC VOLUMETRIC PUMP**

Plasticization capacity	Kg/h	80/100
Screw diameter	mm	50
Length of the plasticizing screw	-	12d
Hydraulic engine couple	KN/m	100
Screw revs	rev/min	0/110
Injection volume	cc	unlimited
Theoretical injectable speed	cc/sec	80
Injectable weight (ps. 1.25)	gr /sec	100
Pressure on the material	Kg/cm <sup>2</sup>	1500
Operation pressure (low/high)	bar	175/200
Heating power of the extruder thermo-conditioner	Kw	3
(Indirect) cooling power of the extruder thermo-conditioner	Kw	5a150°C
(Indirect) cooling power of the thermo-conditioner of the pumping elements	Kw	3
(Indirect) cooling power of the thermo-conditioner of the pumping elements	Kw	5a150°C
Power of the oleodynamic pump engine	Kw	22+22
Total power installed	Kw	50
Size of the pump group only (length, width, height)	m	2.8x0.7x0.65