

## MACHINE DESCRIPTION AND TECHNICAL SPECIFICATIONS

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### VOLUMETRIC PUMP FOR THE INJECTION OF ELASTOMER PLASTIC MATERIALS

To be used in injection pressing and in continuous production and palletization of rubber items or preformed pieces.

The new VOLUMETRIC RUBBER PUMP for the injection of elastomeric and plastic materials is the practical carrying out of a patent of which Delia srl has the exclusive right of use.

The volumetric pump is to be used in injection pressing and in continuous production and palletization of rubber items or preformed pieces.

It consists of an injection group for elastomeric and plastic materials, designed on a new concept basis to be used in the production of items without limits in terms of volume to be injected and with pressures and injection speeds equal to the usual injection groups, along with remarkably reduced overall sizes.

The VOLUMETRIC PUMP is a machine, which allows the continuous injection into moulds or open cavities with pressures and injection speeds that are equal to those used for the usual injection groups.

The VOLUMETRIC PUMP is composed of:

- 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 pressing group for closing moulds or preforming dies
- 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

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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/cm2	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