

SEMI-AUTOMATIC INJECTION MOLDING MACHINE

REFERENCE : EX1600



Non contractual photo

SERVICE : 220V - 50 HZ SINGLE PHASE + EARTH 550 W
DIMENSIONS : 850 X 250 X 420 MM

WEIGHT : 50KG

Injection molding consists, after fluidifying by heating a thermoplastic material, to inject it under high pressure into a mold containing the indentation of a workpiece. This press designed for teaching can inject thermoplastic parts. A project can be to design a footprint under DAO, to realize it with a 3D prototyping machine and to test it with the press. The machine is directly operational. It comes with a metal mold and 10 kg of material.

Educational Objectives :

- Validate the process of plastic injection of impressions (molds) made on 3d type rapid prototyping machines
- To understand the process of injection of thermoplastic materials
- Set up and adjust equipment
- Check the result, confirm or change the settings

Technical specifications :

The system is composed of :

- A frame that sits on the machine with 4 legs on a table or bench
- A protective casing A heating device regulated in temperature
- An injection system for introducing the pressurized material by manually operated injection screw
- A mobile platform that carries the ejection battery adaptable to the different impressions made
- Two columns that guide the mobile platform in translation
- A flywheel for closing and opening the mold
- A fixed tray
- A cooling circuit with water reserve for the fixed plate and the power supply
- A cylindro-conical stainless steel feed hopper for granulated material
- An automaton with screen allowing the visualization and the modification of the parameters of injection and the control of the injection cycle
- Three test protocols are proposed and modifiable
- Two temperature controllers control the injection temperature in both zones

The different parameters are:

- Injection temperature of the material in two zones
- torque limiter / injection time
- Maintaining time
- Decompression time
- Cooling time

OPTIONS :

Mold with 2 full plates for realization of a mold per pupil