

DATASHEET

CIJECT

LABORATORY PRESSURE POT MACHINE

INTRODUCTION

A machine designed for Resin Transfer Moulding and Direct Infusion processes in a laboratory or prototyping environment, providing maximum flexibility with a wide range of thermoset resin systems.



KEY FEATURES

- Advanced pressure-pot machine designed for pre-mixed or single component resin systems.
- 7.5 Litre pressure vessel to suit 5 kg resin containers.
- PID controlled resin heating to ensure optimum process parameters.
- Integrated load weighing platform with readout on HMI screen. Measuring range of 0 — 10 kg (± 1 gram resolution).
- Ergonomic and light weight lid design for easy opening/closing and secure locking.
- Generous illuminated viewing port allows easy monitoring of resin without removing the lid.
- Resin pipe can be installed either through the pot side or the lid, based on user preference.
- Heated base to maintain pre-heated resin temperature.
- Heated hose to the mould which is rated up to 200°C.
- Manual pressure adjustment with digital readout.
- Unregulated or regulated vacuum with digital readout.
- Integrated pot proximity switch which automatically disables pneumatic and electrical power to the heater and stirrer when the lid is lifted to enhance operational safety.
- Electrically driven detachable tank stirrer (70RPM).

MACHINE RESIN SYSTEMS

Standard Options	Description	Product Number
Standard Machine		XE-9999-124

MACHINE ANCILLARIES/RELATED PRODUCTS

Related Products	Description	Product Number
CIDAQ Data Acquisition System	Sophisticated yet simple to use software interface allowing real-time viewing of process information and recording of data. Includes a total of 20 channels for measuring both temperature and 0—10V analogue sensor outputs.	XE-9999-028
IMPS Pressure Sensor	0 — 4 bar (absolute) – MIL Spec 26482 6 Pin Connector. Output: 0 – 10V Max. Operating Temperature: 85°C	XE-0050-008
IMPS Lead Assembly — 3 m	Connect a XE-0050-008 sensor with MIL-Spec connection directly to a machine IMPS Input.	XE-0060-05
IMPS Lead Assembly — 10 m	Connect a XE-0050-008 sensor with MIL-Spec connection directly to a machine IMPS Input.	XE-0060-06
IMPS Lead Assembly — 25 m	Connect a XE-0050-008 sensor with MIL-Spec connection directly to a machine IMPS Input.	XE-0060-07

TECHNICAL SPECIFICATION

General	
Product Dimensions	L: 1.1 m x W: 0.6m x H: 1.2 m
Product Weight	125 kg
Maximum Shipping Weight	Dependent on shipping options
Nominal Service	1 calendar year
Design Life	10 years

Mechanical	
Injection Pressure Setting Range	0.1 — 7.0 bar (absolute)
Injection Rate	Dependent on injection pressure, resin viscosity, pipe length and diameter
Injection Hose Length	2 m standard *other lengths are available on request.
Agitation	Motor driven 316 stainless steel stirrer. 70RPM fixed speed.

Control	
Pressure	Simple, manually adjusted pressure control
Pressure Sensor Type	0 — 4 bar (absolute)

Safety & Monitoring	
Temperature Rating	Heated Base: Rated to 90°C Heated Hose: Rated to 200°C
Over Pressure	Mechanical Over Pressure Valve: 5 bar (G) Pressure Regulator: 4 bar (G)
Exhaust Venting	Any fumes should be vented away from the operator
Operator Protection	Proximity switch on the pot lid which cuts air supply and stirrer when the lid is opened

Power Requirements	
Power Connection	16A 2P+N&E appliance inlet
Electrical Supply	Single Phase 16A Total
Supply Fusing Required	16A max
Air Supply Standard	8 bar 600 L/min — dry, non-lubricated
Air Supply Requirements	Minimum Incoming Air Supply: 6 bar (G) Maximum Incoming Air Supply: 8 bar (G) 200 L/min — dry, non-lubricated

Operating Conditions	
Maximum Material Temperature	Same as Temperature Rating
Ambient Operating Temperature	0 — 45°C
Storage Temperature	Ambient conditions 23°C ±10
Humidity	20 — 75% non-condensing
Noise Output	< 70 dB