

CJECT^{ZERO}

Data Sheet



Ciject[®] Zero — RTM/VRTM Injection Machine

The entry level machine in the Ciject range with a simple and effective manual control system. The Ciject Zero includes accurate electronic pressure control allowing it to be used for both RTM and vacuum processes.



Key Features

- > Simple and reliable operator control.
- > Purpose designed resin and 316 stainless steel catalyst/hardener piston pumps for high reliability and simple maintenance.
- > Available with mix ratios to suit polyester/vinylester, epoxy and phenolic systems.
- > Manually adjustable injection speed with digital pump count readout.
- > Fixed automatic mix-head.
- > Automated, low volume flushing system.
- > Inline resin and catalyst/hardener filtration.
- > Pre-settable pump counter with auto-stop.
- > Flush alarm which provides timed audible warning after injection.
- > Service interval alarm.
- > Lockable settings.

Specifications	
Material Viscosity Range	Up to 5,000 cPs *for material viscosity above 5,000 cPs please contact Composite Integration
Injection Pressure Setting Range	-0.9—8 bar (G)
Pre-set Injection Volume	0.1—1,000 L or continuously
Injection Rate	0.1—8 L/min *dependent on material viscosity

Ratio Range	
Polyester	0.5—4%
Phenolic	1—8%
Epoxy 2:1	100:12.5—100:50
Epoxy 1:1	100:25—100:100

Process	
RTM	✓
VRTM	✓
Infusion	✓
Material	Epoxy Phenolic Polyester Vinylester



Control

Pressure	Simple ON/OFF pressure control
Pressure Sensor	-1 to 19 bar (G)
Parameters	Programmable injection quantities and speeds

Operating Conditions

Noise Output	< 70dB
Humidity	20—75% non-condensing
Storage Temperature	0—60°C
Operating Temperature	0—45°C
Maximum Resin System Temperature	50°C

Power Requirements

Electrical Supply	110—230V AC, 50/60Hz, 1A
Internal Fuse	3.15A, 20 mm cartridges
Supply Fusing Required	3A (BS1362, IEC 269-3A)
Air Supply Standard	8 bar 600 L/min — dry, non-lubricated
Air Supply Limits	6—8 bar



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Safety and Monitoring

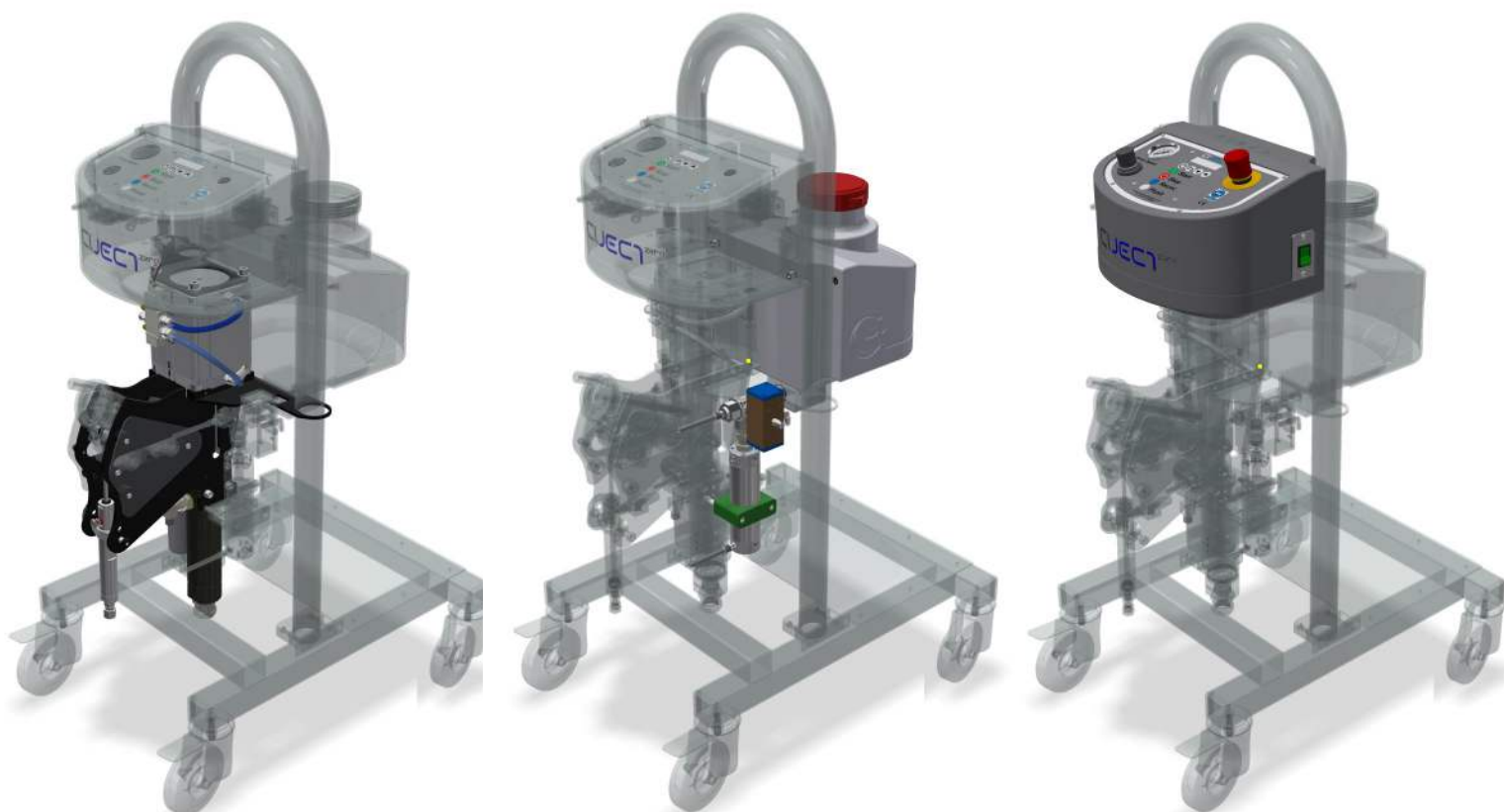
Catalyst Monitoring	Detects low pressure
Stall Alarm	Audible alarm
Gel Alarm	Adjustable alarm to alert when flushing is required

Dimensions

Height	1220 mm
Width	625 mm
Length	725 mm
Weight	60 kg
Maximum Shipping Weight	100 kg *dependant on options

Design Life and Servicing

Nominal Service	1 calendar year
Design Life	10 years



Specification Sheet — Ciject® Zero

Machine Options

Polyester Version	0.5 — 4.0%
Epoxy Version 2:1	100:12.5 — 100:50
Epoxy Version 1:1	100:25 — 100:100
Phenolic Version	1 — 8%

Available Options

High-Flow Mix-Head	Optimises material flow
High-Flow Hose (IBC Type)	Maximises machine output with standard configuration for connecting to IBC
Stainless Steel Drum Trolley	Suitable for up to 200 litre material barrel

Associated Parts

IBC Connection Kit: A Component Feed	Connects Ciject machine to IBC for A component material
IBC Connection Kit: B Component Feed	Connects Ciject machine to IBC for B component material
IBC Heater	240V flexible jacket with quick release buckles to heat 1,000 litre intermediate bulk container
Barrel Heater	240V flexible jacket to heat 200 litre material barrel up to 80°C.
Flush Waste Container	25 litre

Spares Kit

Polyester Option	0.5 — 4% (pre September 2021)
Polyester Option	0.5 — 4% (post September 2021)
Epoxy Option	100:12.5 — 100:50
Epoxy Option	100:25 — 100:100
Phenolic Option	1 — 8%
High-Flow Hose Option	
High-Flow Mix-Head Option	

Conversion Kits

Polyester to Epoxy 100:50
Epoxy 100:50 to Polyester
Epoxy 100:50 to Epoxy 100:100
Epoxy 100:100 to 100:50

To specify a Ciject Zero machine configuration please contact our sales team through the contact information below or send an email to: sales@composite-integration.co.uk

