

Peripheral Shim RTM Test Panel Tool

Data Sheet



XM-5104: Option Four

500 x 500 mm mechanically clamped RTM test panel tool with outer peripheral shim plate cavity thickness adjustment.



Key Features

- > The upper and lower cavity blocks are machined with a zero cavity thickness which can be increased by fitting optional shim plates, with a cavity range of 1 mm to 25 mm.
- > The tool is clamped using bolts and is limited to use at pressures up to 4 bar (G).
- > Injection is via a peripheral injection gate with a central vent or vice versa.
- > The upper and lower cavity blocks can be specified with fluid heating channels or integral electrical heating with the appropriate insulation.
- > The upper mould is hinged and supported on gas struts for ease of operation.
- > In-mould pressure sensors (IMPS) can be connected to the tool to enable pressure control of Ciject equipment directly from the mould.
- > Electrically heated tools feature a PID controller with K-type thermocouple feedback from the tool to detect and control temperature.

Specifications

Type	RTM
Clamping Method	Bolted
Construction	Machined aluminium lower and upper cavity blocks
Maximum Pressure	4 bar (G)
Standard Temperature	Unheated
Maximum Temperature	Electrical: 180°C Oil: 150°C Water: 90°C

Cavity Upper Face

Material	Machine aluminium
Flatness Tolerance	±0.1 mm

Cavity Lower Tool Block

Cavity Dimensions	500 x 500 mm (nominal)
Cavity Adjustment	Peripheral shim plates
Cavity Depth Range	1 — 25 mm *shim dependant
Cavity Depth Tolerance	Dependant on shim set up

Ports

Injection Port	1 x peripheral injection port	*or vice versa, these are switchable
Vent Port	1 x central vent	



Fluid Heating Options

Maximum Heating Temperature	150°C
Heating Zones	Upper and lower tool cavity blocks (2 zone)
Heating Capacity:	Water operation: 9 kW Oil operation: 3 kW
Power Requirement	400V 50 Hz 32A 3P+N+E

Electrical Heating — Standard Option

Maximum Heating Temperature	180°C
Heated Zones	Upper and lower tool cavity blocks (2 zone)
Power Requirement	400V 50 Hz 16A 3P+N+E

Electrical Heating — Advanced Option

Maximum Heating Temperature	180°C
Heated Zones	Upper and lower tool cavity blocks (2 zone)
Power Requirement	400V 50 Hz 16A 3P+N+E *can be specified with 32A 3P+N+E plug if required
Datalogging	USB port as standard Logged to CSV format
Additional Inputs (advanced only)	Option A: 3 x In-mould pressure sensors (IMPS) Option B: 3 x Thermocouples (T/C) *both options can be specified together or separately

Standard Options

Insulation Blanket	Protective insulation required for moulds operating above 50°C
Universal Sensor Positions	Up to 4 IMPS and/or T/C ports
Shims	1 — 25 mm *see associated parts section

Standard Features (included with all options)

Catch Pot	2 litre inline catch pot with 1 x GEKA fitting for vacuum connection
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Design Life

Design Life	10 years
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Specification Sheet — Test Panel Tool: Option Four

Available Options	Notes	Option Number
Peripheral Shim RTM Test Panel Tool — 500 x 500 mm		XM-5104
Sensor Mounting Detail Options		
Sensor Mounting Detail — One Port	One machined hole to accept IMPS or thermocouple Includes blanking plug	21
Sensor Mounting Detail — Two Port	Two machined holes to accept IMPS or thermocouple Includes blanking plug	22
Sensor Mounting Detail — Three Port	Three machined holes to accept IMPS or thermocouple Includes blanking plug	23
Sensor Mounting Detail — Four Port	Four machined holes to accept IMPS or thermocouple Includes blanking plug	24
Heating Options		
Water/Oil Heating Temperature Control Unit		08
Electrical Heating: Standard Control	Upper and lower tool cavity blocks (2 zone)	09-10
Electrical Heating: Advanced Control	Upper and lower tool cavity blocks (2 zone)	11-12
Insulation Jacket	If the tool is to be used above 50°C	13
Data Logging	Of cavity plate heating Only available for electrical heating: advanced control	31
Shims		
1 mm (±0.1 mm)		02
2 mm (±0.15 mm)		03
3 mm (±0.2 mm)		04
4 mm (±0.24 mm)		05
5 mm (±0.25 mm)		06
10 mm (±0.36 mm)		07

Associated Products

Sensor Inserts	Part Number
IMPS and Insert: 0 to 10 bar pressure sensor — 180°C maximum temperature rating	XA-0500-04
K-Type Thermocouple and Insert	XA-0600-02

