COMPOSITE INTEGRATION
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Adjustable Cavity VRTM Test Panel Tool

Data Sheet

XM-5102: Option Two

A version of the vacuum-clamped test panel tool with a more sophisticated cavity adjustment mechanism. 500 x 500 mm VRTM with screw adjustable cavity thickness.

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Key Features

> The lower mould is fixed with a moveable peripheral flange plate which allows depth adjustment.

> The upper face consists of 19 mm heat toughened plate glass in a supporting steel framework. This allows full observation of the injection process.

> The mould is clamped using vacuum only (VRTM) and is limited to use at low injection pressures up to 0.5 bar positive.

> Injection is via a peripheral injection gate with a central vent, or vice versa.

> The lower cavity and peripheral flange can be specified with water heating channels or integral electrical heating with the appropriate insulation.

> The glass upper face is hinged and supported on gas struts for ease of operation.

> An air ejector system is included with standard specification.

Specifications	
Type	VRTM
Clamping Method	Peripheral vacuum
Construction	Aluminium cavity plate Aluminium peripheral flange Glass top
Maximum Pressure	0.5 bar (G)
Standard Temperature	Unheated
Maximum Temperature	**Electrical:** 80°C **Water:** 80°C

Cavity Upper Face	
Glass Specification	19 mm heat toughened
Glass Flatness Tolerance	±0.5 mm

Lower Tool Cavity Plate	
Cavity Dimensions	500 x 500 mm (nominal)
Cavity Adjustment	Screw adjustment
Cavity Depth Range	1—15 mm
Cavity Depth Resolution	Up to 0.01 mm ***dependant on 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	80°C
Heating Zones	Lower tool cavity plate and peripheral flange
Heating Capacity	**Water operation:** 3 kW
Power Requirement	400V 50 Hz 16A 3P+N+E

Electrical Heating — Standard Option	
Maximum Heating Temperature	80°C
Heated Zones	Lower tool cavity plate and peripheral flange
Power Requirement	230V 50 Hz 16A 1P+N+E

Electrical Heating — Advanced Option	
Maximum Heating Temperature	80°C
Heated Zones	Lower tool cavity plate and peripheral flange
Power Requirement	230V 50 Hz 16A 1P+N+E
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 (TBC)

Standard Features (included with all options)	
Catch Pot	2 litre inline catch pot with 1 x GEKA fitting for vacuum connection
Ejection	1 x air ejector

Design Life	
Design Life	10 years

Specification Sheet — Test Panel Tool: Option Two

Available Options	Notes	Option Number
Adjustable Cavity VRTM Test Panel Tool — 500 x 500 mm		XM-5102
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 Heating Temperature Control Unit		02
Electrical Heating: Standard Control	Lower tool cavity plate and peripheral flange (2 zones)	03-04
Electrical Heating: Advanced Control	Lower tool cavity plate and peripheral flange (2 zones)	05-06
Insulation Jacket	If the tool is to be used above 50°C	07
Data Logging	Of cavity plate heating and sensor readings Only available for electrical heating: advanced control	31

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