

Rotational Molding Laboratory Machine

Unique Features

- 1 Powder Drying Mode
- 2 Vacuum & Pressurization Modes
- 3 Internal Air Cooling & Pressurization

Ideal for

Prototype Developments

& Quality Control

Mini roto
BSE-600



ARM Impact
test specimens



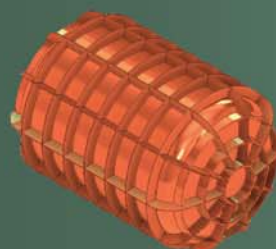
PP products for
high temp applications



Fuel tank



Aerator Impeller
Crosslink PE + PE foam



Solid Rib

FASTER

Than 3-D Printer in
production runs and has
lower investment costs than
injection/blow molding

PERFECT

For Start-up & SME to
produce mass prototypes for
market testing or for limited-
edition products



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Rotational Molding Machine

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The mini shuttle rotational molding machine BSE600 has been designed to make prototypes or for resin quality control purposes.

Additional temperature channels have been incorporated in the machine for measuring part internal air temperature, (PIAT) oven air temperature and mold surface temperatures.

This data logging capability makes the BSE600 ideally suited for educational facilities for the training of rotomolding personnel.



STEP	1	2	3	4	5	6	7	8
ARM,ANGLE	0	0	0	0	0	0	0	0
ARM,RPM	1.0	1.0	+30	-45	1.0	1.0	1.0	1.0
ARM MODE	SPEED	SPEED	ANGLE	ANGLE	SPEED	SPEED	SPEED	SPEED
DIRECTION	0	1	0	1	0	1	0	1
PLATE,RPM	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
TIME (Min)	03:00	03:00	03:00	03:00	03:00	03:00	05:00	05:00
	00:00	00:00	00:00	00:00	00:00	00:00	04:23	00:00

Shift Program

TOTAL TIME	28:00	MIN	INTERNAL AIR TEMP	40
PRE - COOL	00:30	MIN	EXTERNAL MOLD TEMP	36
COOLING	15:00	MIN		

OVEN TEMP, C	
33	
IDLE	0
PREHEAT	50
STEP1	75
	01:00
STEP2	100

HOME

PROGRAM

GRAPH

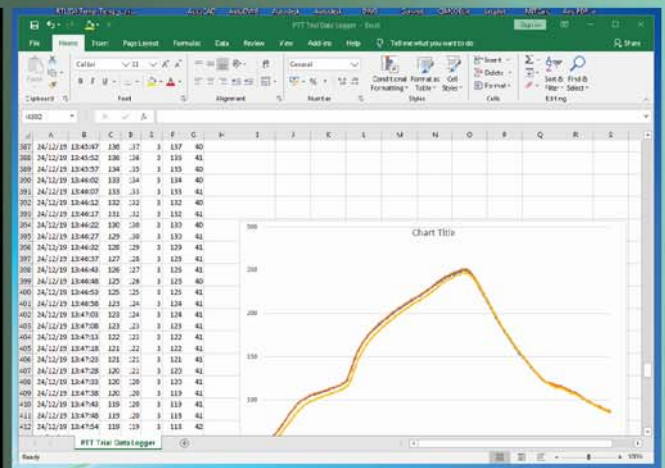
SETTING

8 step molding pattern programmable with absolute independent Arm & Plate speed

Two step oven temperature set points can be input for complex molding resins

The machine can either be manually or automatically controlled by PLC with color Human Machine Interface (HMI) touch screen. Process parameters, such as oven temperature, direction and speed of arm and plate, arm idle at set angle and the duration for up to 8 process steps can be input directly into the touch screen.

For space saving and safety reasons, the BSE600 utilizes electrical heating with PID control that can maintain the oven temperature constant throughout the entire molding cycle.



HMI also equipped with real time display of oven temperature and internal mold air temperature, displayed in either digital or graphical format. The data can be saved to SD Ram and downloaded in CSV format for analysis and reporting.



The machine runs automatically by moving the mold cart into the oven after oven temperature reaches a preheat set point and then returns to its home station when internal mold temperature reaches a set point for control PIAT (Peak Internal Air Temperature) Cooling, demolding and loading is ready for the next molding process.



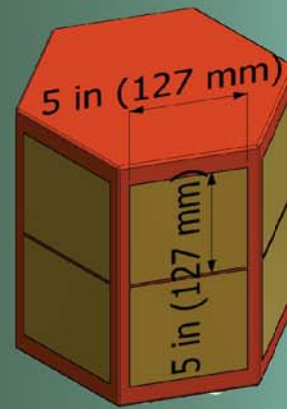
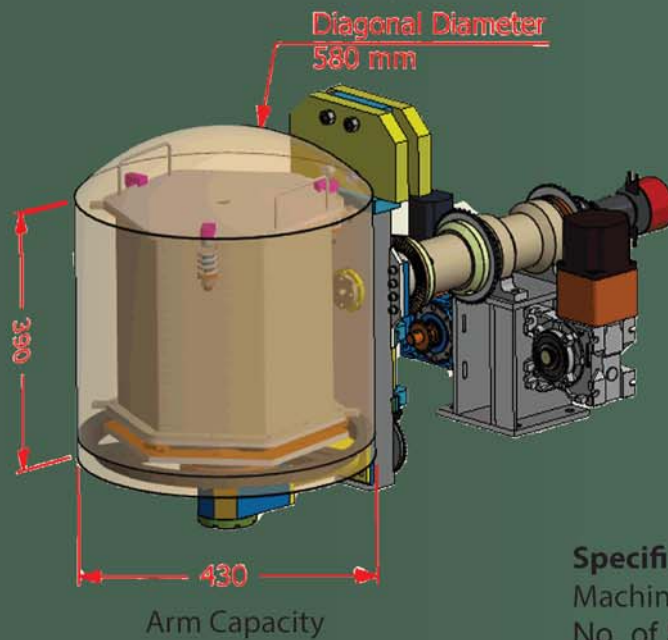
Provided software allows connectivity between BSE600 and a PC which can be used as remote control interface via internet TCP/IP protocols.



New features for molding engineering resins such as polycarbonate and nylon

- 1) Resin Dryer, temperature and vacuum mode
- 2) Vacuum & Pressure control 10 step programmable to remove air bubbles
- 3) Air cool with pressure mode for fast cooling and holding pressure to protect product collapse

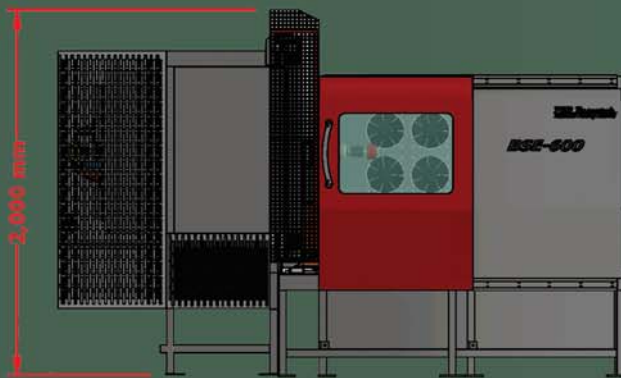
2 Air Ports (Air, Inert Gas or vacuum)



ARM Impact test specimens 12 pcs

Specifications ;

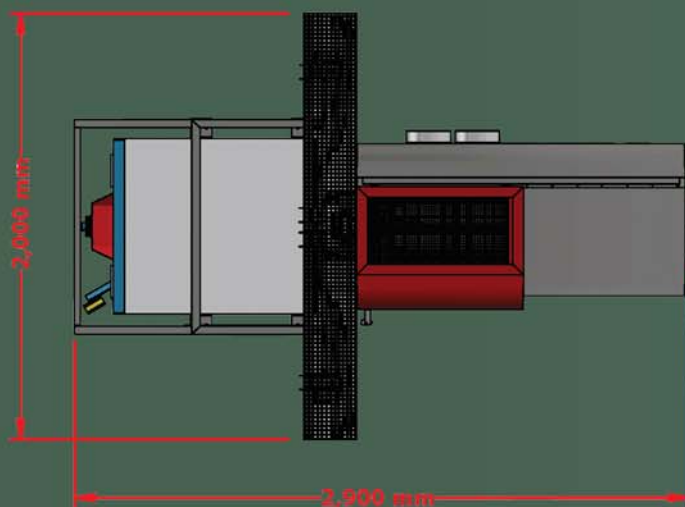
Machine Type : Shuttle
No. of Station : 2 Station, 1 Heating
+ 1 Cooling/Load/Unload



Front View

ARM

No. of Arm : 1 Offset
Maximum Swing Diameter : 580 mm
Loading Capacity : 15 kg
Arm Speed : 0-10 rpm (Resolution 0.1 rpm)
Plate Speed : 0-10 rpm (Resolution 0.1 rpm)
Arm and Plate Control :
: 8 Step Molding pattern
: Programmable
- Arm and Plate Speed
- Arm and Plate Direction
- Arm Stop angle 8 position
with setting dwell time



Top View

Temperature

Built in Sensor :

Oven Air Temperature at Oven wall
Oven Air Temperature at Arm
Internal Mold Temperature
- (PIAT) at Arm
Infrared External Mold
- Surface Temperature

Air Port

: 2 Port for Air, Inert Gas or Vacuum

Oven ;

Heating Type : Electrical heater 8 kW, 380 VAC.
Hot Air Circulating Fan : Plug Fan 380 VAC, 1,100 watts
Maximum Oven Temperature : 300 °C

Mold Cooling Fan

: 4x60 watts Axial fan

Electrical Power

: 380 VAC, 50 Hz, 3 Phase,
50 Hz, 10 kW

Weight

: 800 kg