Scientific

EXTRUSION BLOW MOULDING MACHINE ATTACHMENT

LBM-125

Fully automatic hydraulic laboratory Blow Moulding attachment with LCD touch screen controls

For producing hollow objects in LD-PE, HD-PE, PP, PC, PS and PVC

Completely enclosed for optimum safety in full conformity to all word safety standards

Offers an economic solution for an easy to use blow moulding attachment which can be attached to any of our Laboratory Single or Twin screw extruders

LBM-250

Bottle Blow Moulding Lines
Single as well as
Multi Layer Co-Ex versions

Labtech Engineering

TECHLABSYSTEMS

BLOW MOULDING ATTACHMENT TYPE LBM-125 AND LBM-250

Blow Moulding Type LBM-125

Fully automatic unit with modern designed cabinet, equipped with large Plexiglas windows for clear visualization of the bottle blow moulding process. With large front door which opens upwards for easy access to mould area during setup. The door is interlocked with double safety and the mould area is fully surrounded by cabinets and windows, making it impossible to reach the moulding area during processing. The controls are made with easy to understand LCD colour touch screen and buttons for both fully automatic as well as manual controls of the machine. The pneumatic inflation controls are conveniently located on a separate panel next to the door.

The heated connecting pipe from the extruder to the die and the access area into the blow moulding cabinet are covered with steel grilles to protect operators from accidental burning, Warning labels are attached to the steel grilles to alert workers of the danger of hot parts within the protective grilles. The enclosure will still allow the operator to see-through the grill sheet to check inside the moulding station.

The machine is equipped with Parison Hot Cutter suitable for all bottle resins. The Hot Cutter consists of a special flat heated steel strip mounted on insulated copper arms connected to a pneumatic piston, which will quickly move the strip across the parison and give a clean cut. A heavy duty high amperage transformer supplies the low voltage heating current to the steel strip. This system ensures a clean and trouble free cut off of the parison and it allows the blow pin to enter the cut off area of the parison without distortion, ensuring a leak free blow up of the bottle inside the mould.

The extruder can be seen on the far right of the picture feeding into the die. The Blow pin unit, hydraulic cylinder and piston (pin) are on the left.

The Single Parison Die

The die incorporates a spider or axial flow head together with a conical or tulip mandrel. The mandrel itself is fixed and dies gap adjustments are made by raising or lowering the die bushing.


Parison Die


Mould Pin Unit

The Mould Pin Unit

The mould pin unit consists of a water cooled blow pin, which can be raised or lowered hydraulically and control for regulating the supply of blowing air through the pin.

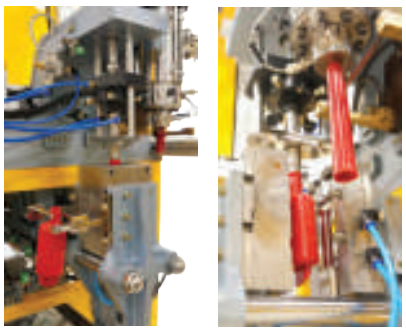
At the top of the hydraulic piston, are adjustment and locking nuts to accurately set the lower position of the blow pin.

A compression spring is provided to cushion the final downward movement of the hydraulic piston (i.e. the blow pin movement) as the pin makes contact with the striker plate of the mould.

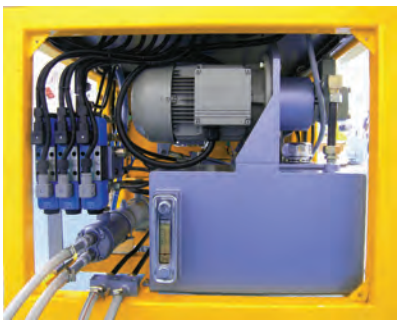

Mould Block Unit

The Mould Block Unit

The mould block unit is two half-face side of 125 ml bottle. It is customed-made of hard chrome and metal polish surface to produce smooth moulded bottle laboratory product. Mould block opening and closing clamping are done with hydraulically system. It moves from original close position below blow pin unit. The mould block leaves the mould bottle in the blow pin and swing up to make another moulding cycle.



Discharge pins will hold the bottles after blowing for one cycle to allow additional cooling before it is automatically dropped into the discharge chute where it will exit out at the left side of the machine body. The strip is heated by a low Voltage, high Ampere supply from a built in power unit.



Generously sized built in hydraulic components designed for trouble free continious production

The machine is fully hydraulic driven; all components are equipped with generous heat exchanger to prevent heating of the hydraulic oil. All hydraulic components are mounted in the sub cabinet.

CO-EX MULTILAYER

The LBM-250-COEX attachment can be equipped with a 250 ml bottle mould of your own design and we also have a standard mould, which is very popular for colour evaluations which has one side rounded and the other side is flat. All moulds can be equipped with your own company logo engraved into the bottle.

The special Co-Ex two layer die is made with spider inlets and spiral flow channels on the mandrels to ensure a very even melt distribution without flow lines. The die is also designed for easy purging to minimize resin usage and time when changing from one colour to another. The die is equipped with parison adjustment as well as adjustment screws for centering of the die lips for even thickness of the parison. The die is connected to the extruders with high pressure individually heated and controlled adaptors through the side of the blow moulding attachment and the adaptors are equipped with flange for easy connection to the C-Clamps of the extruders.

Also available for 3 layers Co-Extrusion Blow Moulding

Technical Data for Extrusion Blow Moulding

	LBM-125	LBM-250
Max. Bottle size	125 ml	200 - 250 ml
Max. Mould dimension (WxH)	130 x 180 mm	125 x 230 mm
Min. Mould Thickness	2 x 45 mm	2 x 50 mm
Mould clamping strock	100 mm	150 mm
Mould clamping force	5 kN	14 kN
Air pressure requirement	4-6 bar	4-6 bar
Motor for hydraulic pump	2.2 kW	2.2 kW
Electrical consumption	6.3 kW	9.9 kW
Machine dimension mm (WxLxH)	1300 x 1320 x 1700	1150 x 1640 x 1780
Weight	650 kg	870 kg