

Partnering to Progress



ALLIED - VINITHA BLOW MOULDING MACHINES

Allied Solutions India Pvt . Ltd. brings together the world's best Plastics Technologies to address critical client business imperatives. It helps clients eliminate boundaries, collaborate in new ways, establish their customer's trust and continuously seek improvement.

We are committed to redefine the concept of customer delight by constantly updating the contemporary needs of our customers. Our customer's confidence in us has helped us to move ahead, and we take role of a partner for their progress.

We take pride to introduce, **VINITHA Industries** manufacturers of plastic blow moulding machines with capacities ranging from 10 ltrs 220 ltrs. **VINITHA Industries**, with its state-of-art technology manufacturing facility, is situated in Southern India.

Vinitha Blow Moulding machines (VBM series) are focused to cater to the quality conscious customers, and with built in cost effectiveness.

VBM series of machines are designed & built to bring state of the art technology to Indian customers at cost effective prices in order to produce high quality blow moulded containers like Bottles, Jerry Cans, Drums (Closed Head/Wide Mouth/Open Top) and Containers. Suitable for 10 ltrs to 220 ltrs container and can also produce 2/3 layers co-extruded containers. International standard Blow Pin units with three step mechanism for good thread formation. Total machine control and parison programmers optional.



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"VBM Series" encompass :

EXTRUDER:

The extruder has grooved feed section and special mixing element to facilitate processing of HMWHDPE producing homogenous melt at low temperature. It can process HMWHDPE having HLMI as low as 2. Barrel cover protects the extruder from ambient changes. Barrel heat zones (4 no.) are blower-cooled. Feed section has temperature control.

EXTRUDER DRIVE:

Helical speed reducer with hardened and ground/externally lapped gears ensure high efficiency (0.96 typically) and help cut energy costs. Dynamically self-aligning spherical roller thrust bearing of large capacity forms part of the speed reducer. Screw speed change is effected through AC variable speed drive (Frequency converter)

ACCUMULATOR HEAD:

Accumulator head is of overlapping streamlined melt flow and has first-in first-out design to prevent thermal damage of melt. Moving parts are hardened, ground and hard chromium plated. Exceptionally fast straight parison drop is obtained without sag or curl. Radial wall thickness distribution of parison is uniform and with the result the mouldings are free of warpage & stress due to uneven cooling.

CLAMP UNIT:

The clamp unit is of tie bar design & rigid construction. Movement of mould platens is precisely equalized by means of a pair of rack and pinion mechanisms. Mould movement control is by means of displacement transducer.

BLOW AND UNSCREW UNIT:

The blow and unscrew unit is of the most simple and yet reliable design. The blow pin is actuated by special hydraulic cylinder through 3-step movement to facilitate calibration of precise neck. Unscrewing (required for producing internally threaded neck) is done by means of low speed high torque hydraulic motor.

HEATERS:

All band heaters are of ceramic type for conserving energy. Besides they last a lot longer than mica heaters.

HYDRAULICS:

Reliably built system has a noise level of less than 85 decibels. Heat generation is reduced to a minimum with ingenious circuitry and efficient components. Besides energy efficient hydraulic system energy efficient electric motors too are used. That means saving of a lot of energy. Hydraulic cylinders have PTFE seals which give long service life and waste less energy.

TAKE- OUT GRIPPER:

Take-out gripper reduces cycle time by eliminating manual part removal, which is prone to time variation and hazard.

TOTAL MACHINE CONTROL:

Total machine control through MOOG PLC lends itself for easy and quick setting of the machine. Besides parison programming it takes care of temperature control and sequence control of the machine. A variety of sequences to suit different models can be conveniently stored and recalled for use. It is quite user friendly. All control parameters are editable on-line.

Specifications

Feature	Unit	VBM10	VBM20	VBM60	VBM100	VBM200
Moulded Article Capacity Max.	Litre	10	20	60	120	220
Parison Weight Max. Approx.	Kg.	2	2.5	5.4	8	16
Die Diameter Min. / Max.	MM	60 / 160	60 / 180	100 / 200	125 / 230	125 / 230
Plasticising Capacity (HMWHDPE) Approx.	Kg/Hr.	45	60	90	125	250
No. of Parison Programming points		2	128	128	128	128
Screw Diameter	MM	60	60	71	81	100
Screw L/D Ratio		27:1	27:1	27:1	27:1	27:1
Screw Speed Min. / Max.	RPM	15 / 50	28 / 57	25 / 50	26 / 53	30 / 60
Mould Clamping Force Max.	KN	100	120	170	320	610
Clamp Daylight Min. / Max	MM	390 / 840	390 / 840	400 / 1130	500 / 1320	550 / 1500
Clamp Opening Stroke	MM	2 X 225	2 X 225	2 X 365	2 X 410	2 x 475
Mould Envelope Max Height X Width X Thickness	MM	500X520X450	560X520X450	700X660X550	1100X800X720	1300X1050X780
Electric Motor For Hydraulics						
Main	KW	7.5	7.5	15	22	35.5
Servo	KW		5.5	5.5	7.5	7.5
Electric Motor For Extruder	KW	11	15	22	37	75
Heating Load	KW	20.5	21.5	24	34	54
Total Connected Load 415V X 3Ø X 50Hz.	KW	39	50	68	102	174



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