



WATERMAN ENGINEERS

For the last ten years Waterman Engineers has been setting new benchmarks in the field of PET Blow moulding Machines. Through constant research, innovation and implementation of modern technology in manufacturing. The company has manufacturing facility in Ahmedabad, India.

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Semi-Automatic PET Blow Moulding Machine

- ◆ Hydro-Pneumatic mould clamping system to enhance power efficiency. It saves air consumption and hence reduces production cost.
- ◆ Positioning of heaters is better, ensuring faster and simpler heating.
- ◆ Air ventilation with controllable venting in heating chamber (for better heat penetration control).
- ◆ Versatile range to produce 50 ml to 5000 ml bottle / jar. Neck diameter ranging from 20 mm to 46 mm. In case of small diameter bottles, this increases production rate and reduces production cost



Machine Model	WMSBM-2C	WMSBM-3C	WMSBM-4C
Machine Type	Semi-Automatic	Semi-Automatic	Semi-Automatic
Max Blowing Pressure	20 kg/cm ²	20 kg/cm ²	25 kg/cm ²
Opening Stroke	200 mm	200 mm	200 mm
Total Weight (Approx)	800 kg	950 kg	1100 kg
Cavity	2 cavities	3 cavities	4 cavities
Production	800-1000 Bottles/Hour (1 litre Water Bottle)	1100-1200 Bottles/Hour (1 litre Water Bottle)	1300-1400 Bottles/Hour (1 litre Water Bottle)
Max Neck Size	46 mm	46 mm	32 mm
Max Product Diameter	120-130 mm	120-130 mm	120-130 mm
Max Product Volume	2 litres	1.5 litres	1.5 litres
Utility Requirements			
Blowing Air	40 CFM for 1 litre water bottle @ 800 BPH @ 20 kg/cm ²	50 CFM for 1 litre water bottle @ 1100 BPH @ 20 kg/cm ²	54 CFM for 1 litre water bottle @ 1300 BPH @ 25 kg/cm ²
Chiller	1.5 TR	1.5 TR	1.5 TR
Power - total Connected Load (without Utilities)			
Heating Load	12 kW	12 kW	12 kW

PET Blow Moulding Machine for 20 ltr Jar



Description	Unit	20 litre - WMJBM-20-1C
Machine Specifications		
No. of Cavity	No	1
Bottle Volume		5 litre - 20 litre
Mould Clamp		Hydro-Pneumatic
Stretching Type		Pneumatic
Production Per Hour	BPH	70-80
Nominal Bottle Volume	ml	20000
Max Bottle Dia	mm	350
Max Neck Dia	mm	120 mm
Max Bottle Height	mm	500
Air Requirement		
H.P. & L.P.Air CFM	CFM	54 CFM
Calculated at		(20000 ml @ 30 Bar)
Electrical Requirement		
Connected Load Without Utility	kW	25
Cooling Tower		
Cooling Tower (for Compressor) (20 TR @ 100 CFM)	TR	5
Mould & Neck Cooling		
Chiller	TR	3

Automatic PET Blow Moulding Machine

- ◆ 2 Cavity 1800-3600 BPH
- ◆ 4 Cavity 3600-5500 BPH
- ◆ 6 Cavity 5500-6500 BPH
- ◆ Preform Handling.
- ◆ Robust gripping system in Loader and Ejector, to prevent breakage of grippers.
- ◆ Positioning of Haters - Better, Faster and Simpler.
- ◆ Dual Neck Protection - Chilled Water and Air Ventilation for Heating Chamber with controllable Vent (for better heat penetration).
- ◆ Mould Clamping using Toggle mechanism for fast cycles. Quick Mould Changeover system.
- ◆ Air RECOVERY system to reduce LP air consumption.
- ◆ Pneumatic cylinders, control valves (FESTO, Germany).
- ◆ Compact Foot-print with In-built Electrical Control Panel.
- ◆ Simple Mechanical construction with Electro-Pneumatic controls for easy maintenance.
- ◆ Trouble-free operation with autonomous maintenance.
- ◆ Touchscreen HMI
- ◆ Automation Control PLC



Machine Model	WMABM-2C (LSP Series)	WMFBM-2C (HSP series)	WMABM-4C (LSP Series)	WMFBM-4C (HSP series)	WMABM-6C (LSP series)	WMFBM-6C (HSP series)
Production Rate (Bottles\Hours)	1800 BPH	3600 BPH	3600 BPH	5500 BPH	5000-5500 BPH	6500 BPH
Max Bottle Volume(ml)	1000 ml	1000 ml	1000 ml	1000 ml	1000 ml	1000 ml
Max Neck Size(mm)	38	38	38	38	38	38
No of Cavity	2	2	4	4	6	6
Max Container Dia (mm)	85 mm	85 mm	85 mm	85 mm	85 mm	85 mm
Max Bottle pressure(kg/cm2)	40	40	40	40	40	40
Air Requirements						
Blowing (CFM)	40 (1000ml @ 30 Bar)	140(1000ml @ 40 Bar)	85(1000ml @ 30 Bar)	210 (1000ml @ 35 Bar)	95 (1000ml @ 30 Bar)	250 (1000ml @ 35 Bar)
Low pressure (CFM)	45(1000ml @ 8 Bar)	110(1000ml @ 8 Bar)	65 (1000ml @ 10 Bar)	75 (1000ml @ 8 Bar)	100 (1000ml @ 10 Bar)	100 (1000ml @ 10 Bar)
Electricals						
Total Load (KW)	20	26	40	40	50	40
Utility Requirements						
Chiller	5 TR	5 TR	7.5 TR	7.5 TR	10 TR	10 TR
Air Dryer	100 CFM	250 CFM	150 CFM	300 CFM	200 CFM	350 CFM