



*High
Pressure
Machines*

OMS
Group
Polyurethane Evolution



**PENTAFOAM
SERIES**

P E N T A F O A M

The high pressure foaming machine PENTAFOAM is a complete unit for the metering and injection of two components polyurethane foams utilising pentane as alternative blowing agent. This unit is equipped with a mixing system for polyol and pentane enclosed in a single suction cabin. Due to its small dimensions, this machine can be easily inserted into existing production lines without substantial changes and can be equipped with one or more mixing heads assembled on automatic movement systems or in fixed positions.

Technical data	U.M.	Pentafoam HP 40/20	Pentafoam HP 100/50	Pentafoam HP 200/100
Adjustable ratio		1÷5 - 5÷1		
minimum/Maximum output (at low speed)	g/s	60÷300	150÷750	300÷1500
minimum/Maximum output (at high speed)	g/s	120÷600	300÷1500	600÷3000
Motor speed	rpm	700- 1400		
Metering pump capacity	cc/rev	12	28	55
Tank capacity (each)	l	250		
Working pressure (alternative 6 or 10 bar)	bar	4		
Tank heating power	kW	3		
Hydraulic unit output	l/min	16		
Hydraulic unit tank capacity	l	100		
Oil accumulator volume	l	5		
Working pressure	bar	180		
Installed power	kW	26	38	50
Gross weight	Kg	2250	2350	2600
Working voltage		400V-50Hz		

The technical solution adopted, the components used and the safety systems implemented ensure a proper running of all the units in respect to safety regulations presently in force.

The polyol/pentane metering line is enclosed within a suction cabin separated from the remaining parts of the machine (isocyanate line and control panel).

The metering machine and all safety devices should be directly connected to a sensor control panel which can also handle safety devices (sensors, fans, etc.) on the foaming line (dry part).

This solution presents the following advantages:

- * reduces to the minimum the internal volume of the chamber to be ventilated, enabling the use of small fans, with consequent reduction of electric power and air consumption;
- * makes more efficient detection of eventual vapours by means of sensors having a reduced volume to control;
- * does not limit maintenance access to any parts of the line which has been installed

Series

Component Storage and Temperature Conditioning

- * 250 dm³ capacity vertical, insulated cylindrical tank PED tested, complete with removable lid and temperature control jacket with anti-corrosion treatment;
- * heating by means of electric resistance inside the jacket and cooling by an external compressor chiller.
- * PT 100 probe for temperature control.
- * maximum tank temperature control giving an alarm and stopping the machine and tank heating.
- * slow-speed agitator driven by a motor reducer minimum IP 55 electrical protection; agitator provided with special sealing with automatic monitored level (Ex-i) safety to control eventual leakage.
- * Capacitance level under Ex-i safety regulations provided with alarm of maximum and minimum, levels, start and end loading operations handled automatically by a fail safe valve; display 0-100% on board of the control panel



Safety accessories

- * Suction cabin with metal frame structure with pre-painted metal sheet sandwich panels, sliding doors with anti-shock glass and drip pan covering the highest possible leakage which may occur.
- * No 1 catalytic pentane vapour detector, anti-spark type (Ex-d), connected to the analysis and display unit on board of the sensors alarm panel
- * No 2 independent electric fans, anti-spark type, each one driven by an electric motor with IP 55 electrical protection with flow-meter mounted within the plenum of the 2 electric fans
- * sensor for liquid under Ex-i safety regulations placed at the bottom of the drip pan and connected to the fail safe valve located between the tank and the pump and the fail safe valve located between the automatic filling line



High Pressure Mixing Head ECOMIX Y2K

As a result of OMS Group long-lasting endeavour in design and technology in the development and research in the polyurethane field, a new ECOMIX Y2K series of high pressure heads has been launched in the market.

Our ECOMIX Y2K series of mixing head combines compact external dimensions for easier handling with a "V" angle orientation of the pouring nozzles for better mixing performance combined with a smooth dampened flow at the pouring nozzle outlet.

Moreover, this ECOMIX Y2K series is pre-arranged for colour injection.

The ECOMIX Y2K series is therefore ideal for both open and closed mould foaming operation and offers the following important benefits:

Ecology: self cleaning impingement mixing reduces waste, eliminates solvents.

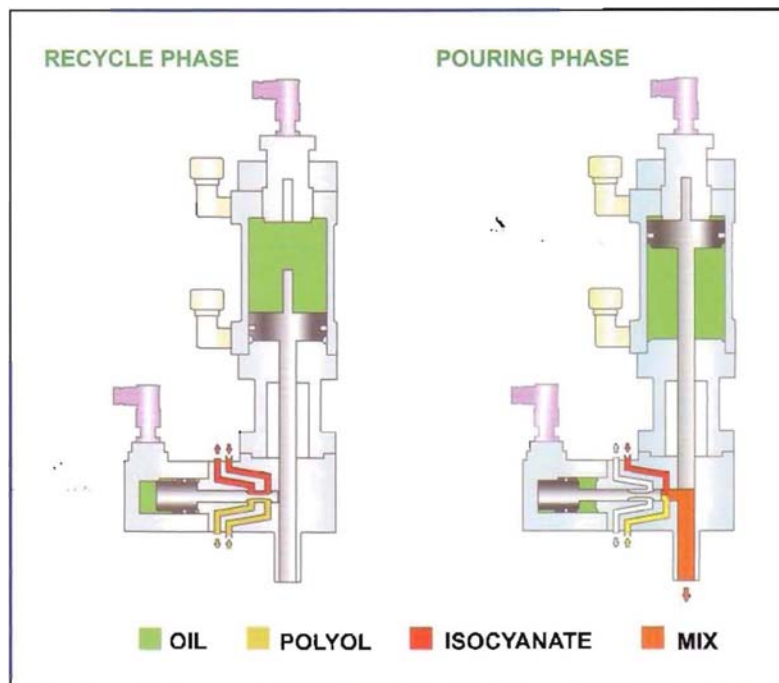
EcoQuality: assured by continuous R&D and investments in hi-tech manufacturing plant

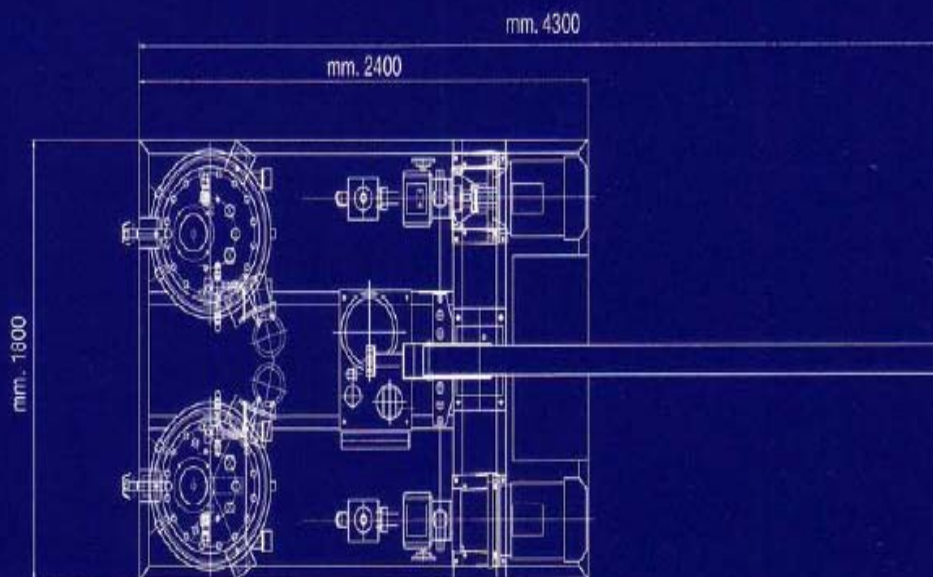
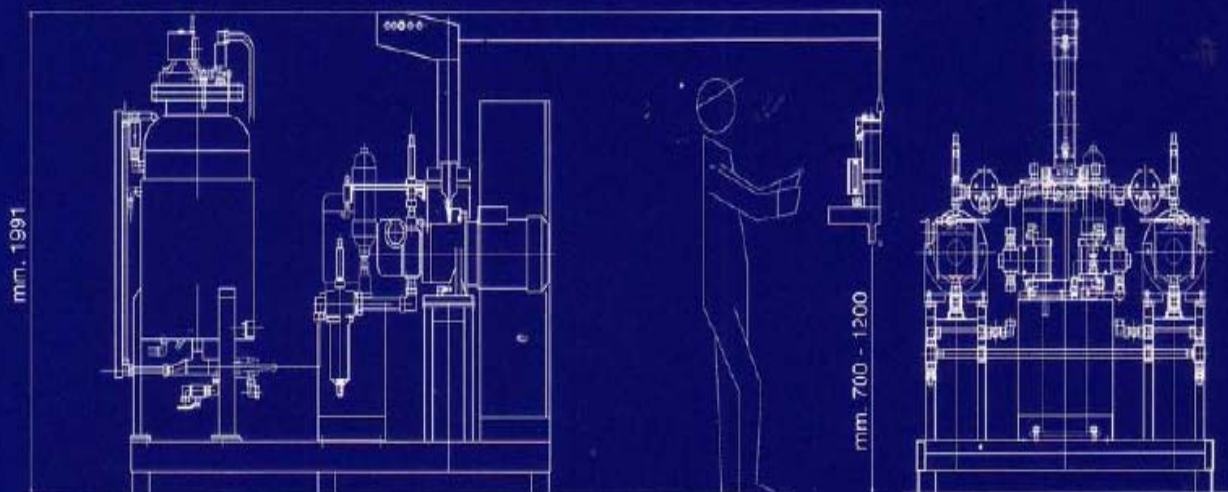
EcoEfficiency: optimisation of mixing chamber geometry

EcoDurability: special materials and surface treatments give long, trouble free life.

Economy: save materials and time and reduces disposal costs

HEADS MODELS	OUTPUTS (gr/sec)	
	Ratio 1:1	Ratio 2:1
ECOMIX Y2K 4/6	15-100	20 -80
ECOMIX Y2K 6/10	50-300	60 -250
ECOMIX Y2K 10/14	100-600	120-500
ECOMIX Y2K 12/18	200 -1100	250-800
ECOMIX Y2K 16/24	500 -3000	600-2500





The above data is issued for guidance only, the detailed specification of any machine is subject to confirmation.
We reserve the right to improve the features of our equipment at any time without prior notice.

OMS
GROUP
Polyurethane Evolution

Impianti OMS Spa

Via Sabbionetta,4

20050 Verano Brianza (Mi), Italy

Tel. +39-0362-9831 Fax +39-0362-983217

e-mail: impianti.oms@omsgroup.it

Internet: www.omsgroup.it



ISO 9001 - 2000
Cert. n° 0577