



Water as a tool
for a clean environment

Ecomaster • Twin Jet

Ultra-High Pressure Water Jet Systems
up to 3,000 bar



Ecomaster • Twin Jet

Ecomaster and Twin Jet meet customers' demands

WOMA's Ecomaster and Twin Jet systems are extremely variable ultra-high-pressure water jet systems, exclusively developed for cleaning, rehabilitation and maintenance jobs. The diesel driven high-pressure units deliver operating pressures up to 3,000 bar.

The Ecomaster and Twin Jet systems can be supplied in several variants

- ▶ stationary and mobile
- ▶ with and without a silent hood
- ▶ with maximum operating pressures between 2,000 bar and 3,000 bar, and maximum water flow rates between 14 l/min and 27 l/min

The pumps that generate the high water pressures are horizontal triplex plunger pumps. Due to their innovative patented central valve design and the use of high-grade materials, they offer maximum reliability and efficiency.

Economical six-cylinder diesel engines are used as the standard motive

power for driving the high-pressure pump and for the generation of compressed air and auxiliary energy for the water tools as well. Header tank and booster pump are component parts of the standard equipment.

The pressure related speed control is coupled to an automatic operating state monitoring system. Automatic control and monitoring via a proven SPC can be supplied on request.

The Ecomaster and Twin Jet systems are compatible to WOMA's modular water treatment system.

Water tools and accessories for Ecomaster and Twin Jet

The Ecomaster and Twin Jet systems comprise a wide variation of water tools and accessories.

- ▶ *Modular high-pressure guns* with rigid heads or rotating nozzle carrier heads for surface preparation
- ▶ *Dump guns* with rotating nozzle carrier heads
- ▶ *ECO Top Spin (ETS)* with rotating nozzle carrier heads

(speed-controlled system) for optimum surface treatment

- ▶ *ECO Top Drill (ETD)* for cleaning fully blocked pipes and tube bundles
- ▶ *ECO Top Cutter (ETC)* for heat-free cutting of materials and for vibration-free demolition, linear · circular · precision
- ▶ *VACU-JET* for emission-free surface horizontal treatment including waste suction
- ▶ *ECO Top Rotating Cleaner (ETRC)* for emission-free vertical surface treatment including waste suction
- ▶ *SPEEDY 3000* with rotating nozzle carrier heads for most efficient surface treatment (speed controlled)
- ▶ *Turbo Nozzle TD 3000* with easy-change head for sensitive surface preparation
- ▶ *Nozzle Carrier Heads Types E 02, E 03, E 09, E 24 and E 28* for surface treatment, cleaning, paint stripping and decoating
- ▶ *Orbimaster® 2500* for surface treatment, cleaning, and the removal of difficult to remove coatings



Cleaning of tube bundles



Surface preparation with two-gun operation



Demolition of steel structures



Emission paint str



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The technique

Pressure generator

- ▶ Slow running 3-plunger pump
- ▶ Load cycle free pump head in central valve design
- ▶ Hydrostatically compensated pressure inserts
- ▶ Tungsten carbide plunger with dynamic sealing systems
- ▶ Low pulsation running due to optimized valve kinematics
- ▶ Pneumatically controlled on-off valves

Tools

- ▶ Modular high-pressure guns
- ▶ Water tools with self propelling rotating nozzle carriers
- ▶ Water tools with pneumatically driven rotating nozzle carriers
- ▶ Cleaning tools with integrated suction for vertical and horizontal surfaces
- ▶ Rotating nozzle carrier heads
- ▶ Abrasive water jet cutting systems
- ▶ Special tools

System description

Parameter		Twin Jet-System	Ecomaster-System
		250 M	250 M
Max. operating pressure		3,000 bar	3,000 bar
Max. nominal flow rate		2 x 26 l/min	26 l/min
Driving power			
– Pump		228 kW	114 kW
– System		268 kW	115 kW
Standard drive		Volvo TAD 943 VE	KHD BF6M 20 MC
Length x Width x Height (mm)	– stationary	3,800	2,850
		1,600	1,410
		1,900	1,640
	– mobile with hood	5,600	4,100
		2,300	1,930
		2,800	2,000
Weight	– stationary with hood	4,400 kg	appr. 2,310 kg
	– stationary without hood	3,700 kg	appr. 2,050 kg
	– mobil with hood	4,850 kg	appr. 2,440 kg

Typical applications of Ecomaster and Twin Jet

- ▶ Removal of hard-to-remove impurities from production units and technical equipment
- ▶ Sensitive paint stripping from metallic and mineral surfaces
- ▶ Complete or selective removal of heavy coatings
- ▶ Emission-free surface preparation prior to painting and coating
- ▶ Cleaning of pipes and tube bundles
- ▶ Decontamination of technical structures
- ▶ Exposing of reinforcement bars in concrete structures
- ▶ Cutting of metals, concrete, reinforced materials and more
- ▶ Vibration-free demolition of engineering constructions



Emission-free
stripping



Cutting of
reinforced concrete



Exposing of
reinforcement bars

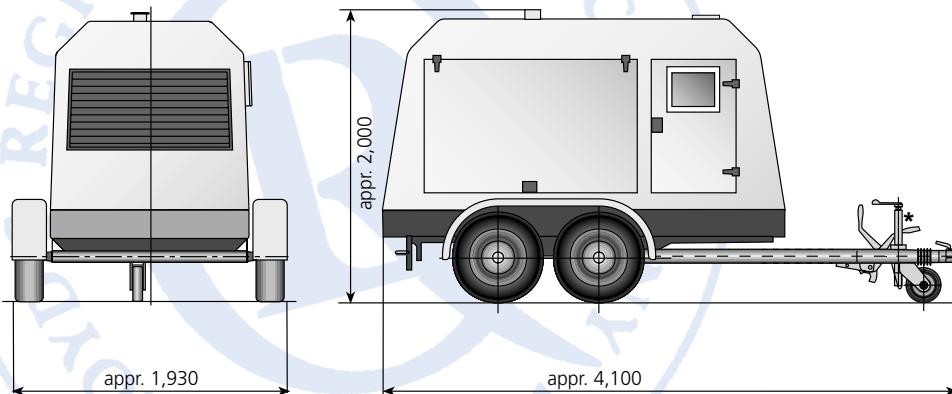
Basic Structure and Dimensions



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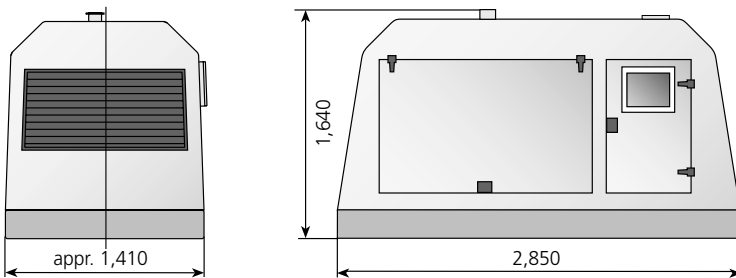
Ecomaster MK3



All dimensions in mm

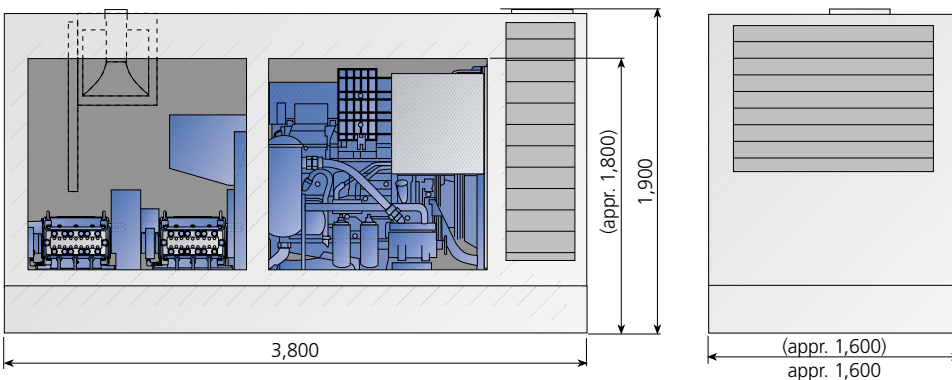
*Shaft can be provided with vertical adjustment

Ecomaster MK3 stationary



All dimensions in mm

Twin Jet 250 M



(Values in brackets are valid for version without hood)

All dimensions in mm

Delivery Programme

High-pressure plunger pumps
 High-pressure water jet systems
 High-pressure water tools and accessories

Fields of Application

Agriculture
 Automotive and aviation industry
 Beverage industry
 Cement industry
 Chemical industry
 Construction and concrete industry
 Engineering industry
 Food industry
 Glass, porcelain, ceramic industry
 Iron, steel and metal industry
 Mining
 Municipal services
 Offshore industry
 Power industry
 Public transport
 Pulp and paper industry
 Ship building
 Wood working industry