



All-In-One Integrated
Variable frequency
Single Pump Booster





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The TRUBOOST is a compact, frequency controlled booster pump designed for a variety of domestic and light industrial applications. The TRUBOOST Booster ensures great comfort by providing constant pressure regardless of variations in demand. The system maintains constant pressure whilst controlling the pump operation against changing system demand. TRUBOOST is more efficient, more reliable, smarter and saves 30% to 60 % of energy than traditional way of water boosting.

The entire solution is a combined unit consisting of one Horizontal Multistage pump fitted with All-in-One Variable Frequency drive, a five-way fitting and a diaphragm tank. The five-way fitting encompasses a check valve, a pressure transmitter, a pressure gauge and a diaphragm tank connection. When delivered, the entire package is ready to install, & easy to use.

The integrated Variable Frequency Drive is equipped with an easy to use LCD display and is completely designed and built for controlling pump systems from the ground up. In addition, the TRUBOOST booster makes it possible to personalise the water pressure. By the touch of a button the pressure level is increased or decreased as desired.



SMOOTH START & SILENT IN OPERATION

The TRUBOOST Booster operates quietly, at around 55 decibels, significantly quieter pump currently available in the market.



EASY INSTALLATION & MAINTENANCE

The TRUBOOST is very easy to install. Once the booster has been connected to the pipework, it is simply a matter of putting the plug into a socket, and the system is operational.



FULLY PROTECTED PUMP SYSTEM

The TRUBOOST Booster features dry run protection and is also protected against Over current, under voltage, Inverter overload, Motor overload, Overheating ,Output/input phase loss.



ECONOMICAL & HIGH ENERGY SAVINGS

The frequency controller of the TRUBOOST matches the power consumption with the required water output, helping to conserve energy.



COMPACT & STRONG BUILT

Booster set is built solidly with Robust construction. Pumps complete wetted parts are made from high quality stainless steel AISI304 or AISI316 to ensure the longest life possible.

















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MHM(S)

VFD Features

The TRUBOOST comprises of next generation all-in-one pump drive, suitable for small single pump constant pressure water supply equipment.

INTELLIGENT ALL-IN-ONE VFD

- The Drive is Installed directly to motor, no need of control cabinet
- Pressure boost & stabilization, restarting at power on, water shortage protection, self-recovery
- One-key pressure setting, rapid parameter view
- Single phase 220VAC input, easy Application

performance

Pump Features

The Mechlion range of MHM, MHMI pumps are non-self-priming, horizontal, multistage, centrifugal pumps. Pump and motor are integrated in a compact and user-friendly design making the pumps suitable for installation in compact systems. The pump is fitted with a maintenance-free, mechanical shaft seal and through-going pump-motor shaft.

	MHM	MHM	MHMI
Suction / Discharge chamber :	Cast Iron with CED	SS 304	SS 304
Complete wet hydraulics Cham	bers: SS 304	SS 304	SS 304

Technical Superiority

The TRUBOOST booster system has two stage important functioning

Stage 1: Complete protections against incoming voltage source and then give a protected supply to the Drives making it a safe and reliable operation

Stage 2: Dedicated smart all-in-one water boosting VFD, which is the heart of the system and works seamlessly, intelligently in maintaining the constant pressure as

required by the user.



Primary Protection

LOW VOLTAGE

PROTECTION

Automatic power switcher/voltage protector is a device preventing damage to system from power fluctuation at source.

- Adjustable parameters settings
- ☐ High speed response time <200ms
- ☑ Auto recovery without user intervention







PROTECTION





The drive system is very easy to operate and cost effective with high reliability and low noise. It has built-in complete protections ensuring a trouble free & long lasting reliable system.



OPEN CIRCUIT

PROTECTION







OVER TEMP.

PROTECTION









System Components details



EFFICIENT MOTOR

MECHLION

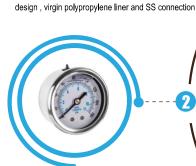
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The pumps comes along with latest high efficiency class of motors standards. The standard being IE2/IE3



BASE PLATE

Durable Base plate of MS material coated with industrial grade epoxy powder coat



Guaranteed GWS USA make tanks single diaphragm

PRESSURE GAUGE

The pressure gauge is liquid filled type & made of SS 304 and hence rust free and long lasting.

Dial Size: 50 / 60 & Pressure range: 0-10 bar



PRESSURE SENSOR

- 1. Standard output signals: 4 20 mA & Protection grade up to IP 69 and 100V/m radiation immunity
- 2. Good electro magnetic compatibility (EMC)



SS MULTISTAGE PUMP

- 1. High hydraulics efficiency
- 2. Super silent in operation
- 3. High reliability and performance
- 4. Monoblock construction make disassembly and maintenance easily
- 5. AISI304 and AISI 316 hydraulics ensure the health and safety of water



5 WAY CHECK VALVE

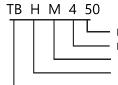
- Completely new design which integrates
 Nipples + NRV + 3 Way Connector all-in-one facilitating easy installation and maintenance.
- 2. Specially compliant for Variable frequency booster application to take maximum start and stop.
- 3.The material is SS 304 grade for complete rust free operation & meeting the requirement of drinking water



ALL-IN-ONE VFD

- 1. Installed directly to motor, No need of panel
- 2. IP65 protection (dust and water proof)
- 3. Pressure boost & stabilization, restarting at power on, water shortage protection, self-restart
- 4. One-key pressure setting, rapid parameter views
- 5. Single phase 220VAC input, easy application

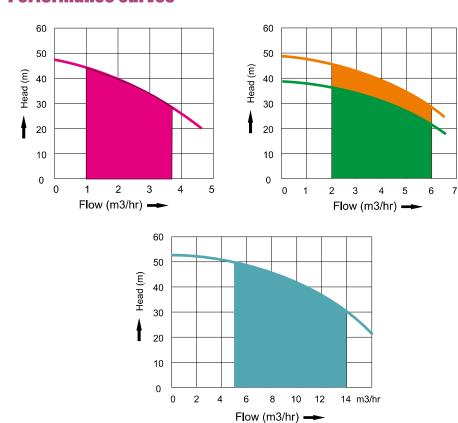
Nomenclature



No. Of stages x 10 Nominal Flow rate (m3/hr) Single pump Horizontal Multistage pump TRUBOOST VFD Booster Pump



Performance curves



Operating conditions

Flow range : 1 – 14 m3/hr Head Range : 5 - 55 m

Liquid temperature: 0 °C to +60 °C

System pressure: Max. 10 bar

Liquid temperature: 0 °C to +60 °C

Ambient temperature: Max. +50 °C

Medium: clean , clear liquid without solid & fibre

Technical data

Mains voltage: 1 x 240 V, 50 Hz

Enclosure class: IP55

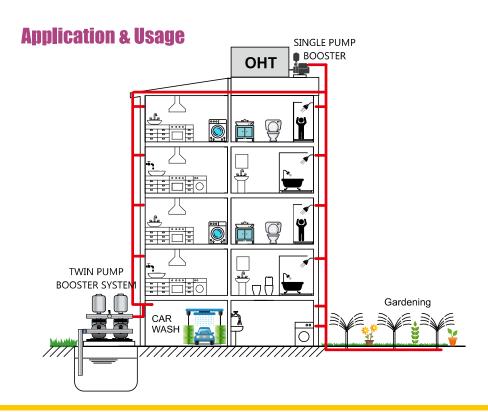
Insulation class: F

Sound pressure level: < 55 dBa

Motor duty: S1 Continuous

Motor type: 3 Phase, TEFC

Output Power range (P2): 0.37 KW – 2.2 KW



Applications













Body / Shower jets

Gar Washing

Garden Sprinklers

Dish Washing





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ALITHORISED	DISTRIBL	ITOR

Our policy is one of continuous improvement. We reserve the right to alter our technical data and specifications without notice.

