

# **HAE**evo

Air-cooled heat pumps with hermetic scroll or reciprocating compressors.

Cooling capacity 13,4 - 96,3 kW

Heating capacity 11,7 - 84,6 kW



satisfaction have been MTA's hallmarks in over 30 years in the industrial cooling market. The HAEevo heat pumps, specifically designed for use in industrial applications, are compact units equipped, as standard, with an internal storage tank and pump, offering a tried and tested solution that has received worldwide acclaim. The result of painstaking research and design, HAEevo heat pumps guarantee COP levels at the top of the category and constitute a key resource in increasing the energy efficiency of industrial processes. The use of components sourced from premium manufacturers and extensive factory testing of all units make for highest reliability levels, minimising the risks of unplanned stoppages and increasing productivity levels.



Cooling, conditioning, purifying.

## Frost Detecting System (FDS)

The microprocessor detects the effective quantity of frost on the evaporator coil and manages the defrosting cycles in an intelligent manner, minimising the cycle frequency and performing cycles only when strictly necessary. FDS increases performance in the Heat Pump mode and decreases running costs.

## Easy operation and maintenance

The command and control devices, including the main switch and the microprocessor controller, are easily accessible from the unit front. Comprehensive safety equipment, including phase monitor, pressure switches, antifreeze sensors and level sensors, plus an internal hydraulic bypass circuit, ensure stable and safe operation, minimising the risk of system errors. Easily removable panels provide ready access to all refrigeration and hydraulic circuit components, facilitating maintenance operations.

## Simple and reliable evaporator

The finned coil evaporator, with copper tubes and aluminium fins, is mounted inside the tank. This configuration allows operation wih high flow rates and low pressure drops, and is compatible with the presence of contaminated process fluids.

### Scroll compressors

HAEevo chillers are equipped with scroll compressors (from model HAEevo 081), ensuring high efficiency, excellent performance, and energy savings. Thanks to the reduced number of moving parts and the absence of suction and discharge valves, scroll compressors offer reduced maintenance requirements, minimum noise emissions and maximum reliability over time. All the compressors are equipped with crankcase heaters.

#### Suited to all industrial needs

The generous standard offering, plus an extensive range of accessories and kits, backed up by the consolidated experience of MTA, allow each HAEevo unit to match the specific customer requirements. HAEevo Heat Pumps, expressly designed for industrial applications, are ideal for a range of differing processes including: food, dairy, winemaking, chemicals, pharmaceuticals and a host of other industrial requirements.

## Non-ferrous hydraulic circuit

The NON-FERROUS version, which features an all-copper evaporator and a stainless steel tank, is particularly suitable for use with water which is aggressive towards ferrous materials, or for applications that call for particularly pure water, as frequently required in the food industry.

All the models are available with a sophisticated microprocessor which can be mounted up to 150 m from the unit.



4-way valve.



The standard pump has a 3 bar head pressure; a 5 bar pump or double pump are also available



The integral yet removable high capacity water tank ensures very precise water temperature control



Model HAEevo		031	051	081	101	121	161	201	251	301	351
Cooling capacity (1)	kW	13,4	19,6	27,6	40,0	49,9	56,2	64,9	78,1	85,1	96,3
Total absorbed power (1)	kW	4,3	6,2	7,1	10,2	11,8	14,5	17,0	18,9	22,0	25,0
Heating capacity (2)	kW	11,7	16,7	24,5	32,2	39,2	46,1	52,8	63,6	74,3	84,6
Absorbed power (2)	kW	3,9	5,1	7,5	10,2	12,8	14,4	16,4	18,8	22,0	26,5
Power supply	V/Ph/Hz	400 ± 10% / 3 - PE / 50									
Noise level	dB(A)	53,1	53,1	53,6	54,1	54,1	55,0	56,3	56,3	58,0	58,0
Width	mm	660	660	760	760	760	760	866	866	866	866
Depth	mm	1310	1310	1860	1860	1860	1860	2240	2240	2240	2240
Height	mm	1400	1400	1447	1447	1447	1447	2064	2064	2064	2064
Working weight (P3 pump)	Kg	323	343	483	656	672	684	920	1017	1107	1123
Tank volume	J	115	115	140	255	255	255	350	350	350	350
Evaporator water connections	BSP	1"	1"	1 1/2"	1 1/2"	1 1/2"	1 1/2"	2"	2"	2"	2"

All data refers to standard units at the following nominal conditions:

- [1] Evaporator water inlet/outlet temperature 20/15 °C, external air temperature 25 °C;
- (2) Condenser water inlet/outlet temperature 40/45 °C, external air temperature 10 °C;

Sound pressure level in free field at 10 m from unit condenser side and 1,6 m from ground.

Data declared according to UNI EN 14511:2011.













