

TAE N MINI

Air-cooled process chillers with atmospheric in-tank evaporator.
Nominal cooling capacity 1,8 – 4,1 kW



The natural answer to your industrial needs.

Modern industries require technical solutions which ensure increased productivity, high precision, elevated product quality, reduced overall system costs and high environmental awareness.

TAE N MINI chillers are designed specifically for industry, combining ultra-low GWP refrigerant **R290** and Eurovent certified performance.

The innovative in-tank evaporator configuration offers unique benefits to industrial users, maintaining fail-safe operation in all applications and conditions.

TAE N MINI is compact and easy to use and maintain; meticulous attention to every detail assures high reliability even in harsh environments, with minimum downtimes.

Extended operating limits ensure **TAE N MINI** always operates under even the most adverse and deviating conditions, allowing optimum operation at all times.



TAE N MINI

THE SMALLEST BENCHMARK PROCESS CHILLER

Process chillers are required to operate faultlessly 24/7 under highly differing, and abruptly fluctuating, operating conditions; these conditions differ notably from one application to another, but the chiller must always maintain accurate temperature control.

Industry features rigorous environments, dirty process water and testing schedules; even a short period of imperfect operation, let stand a chiller shut-down, can cause disruptions, and

damaged goods, which can cost even millions a day.

Process chillers improve production, accelerate manufacturing cycles, increase product quality and reduce wastages.

The cost of a process chiller is irrelevant compared with the potential cost if it does not always work perfectly. Industry requires purpose-built chillers, MTA offers the benchmark process chiller.

BENEFITS OF R290

PURE > R290 is a pure refrigerant.

ECOLOGICAL > With a direct GWP of only 3 (AR4) and an ODP of zero, R290 is one of the most ecological refrigerant.

SAFE & RELIABLE > R290 is A3 (ASHRAE) classified and non-toxic. The unit is designed in strict compliance with safety standards.

ECONOMICAL > Using R290 avoids carbon taxes and benefits from national incentives.

FUTURE PROOF > R290 is exempt from HFC phase-out programs.

HIGH PERFORMANCE > R290 has excellent thermodynamic properties which deliver high efficiency and wide operating maps.



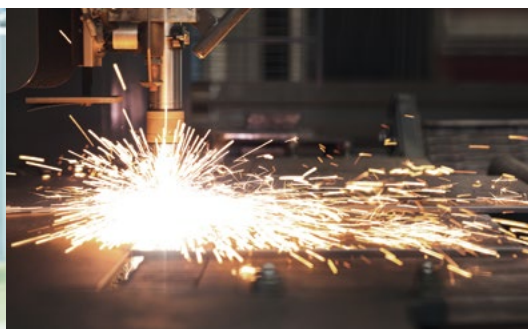
MTA: MEETS THE APPLICATION

Each industrial application presents individual challenges. MTA's expertise, perfected during 40 years in industry, offers every user a unique solution to their personal needs, perfectly integrated into their process.

Industrial cooling encompasses the precise and continuous temperature control of highly differing production processes, manufacturing tools, finished products, warehousing and working environments.

MTA's application expertise covers welding, filtration, material working, machine tools, lasers, food, beverages & alcohol, plastics, paper & printing, chemical & pharma, medical & healthcare, energy, electronics & electrics, transport & automotive, materials, gas treatment, technical air conditioning and many other applications.

MTA offers the ideal solution, the know-how to apply it and the ability to support every need for many years to come.





BENEFITS OF TAE N MINI

- **Unique evaporator mounted within the tank** and designed for industry, ensuring reliable operation in even the most demanding industrial applications.
- **Non Ferrous hydraulic circuit**, allowing fluids aggressive to carbon steel to be treated and maintaining maximum quality and cleanliness of the process fluid.
- **Eurovent certified performances**, a unique feature for process chillers.
- **Reliable and robust**: TAE chillers keep working whatever the conditions, for years on end.
- **Extended operating limits**: liquid outlet temperatures from 0 °C up to +30 °C, ambient temperatures from +5 °C up to +45 °C.
- All TAE N MINI models are ErP SEPR HT Tier 2 compliant.
- **Innovation which works**: rotary compressors, microchannel condensers, microprocessor control technology.
- **Simple installation and compact dimensions**, the robust structure with eyebolts allows easy movement of the unit.
- **Easy maintenance**: a rational component layout, simple refrigerant circuit and fully numbered electrics simplify verifications and maintenance, which can even be performed with the unit running.



- > *Process chiller with ultra-low GWP refrigerant.*
- > *Eurovent certified dedicated process chiller.*
- > *Chiller with in-tank evaporator technology.*
- > *TAE: possibly the world's favourite process chiller.*

UNIQUE IN-TANK EVAPORATOR

MTA's evaporator is a breakthrough in industrial applications, offering notable benefits and ensuring utmost peace of mind in even the most adverse and varying conditions.

INTEGRATED > Innovative evaporator mounted inside the tank: compact, increased tank size, stable liquid temperature.

INDUSTRIAL > Wide fin spacing resists water fouling: industrial and impure liquids pose no problems.

INGENIOUS > 0 °C to +30 °C water outlet, delta T up to 10 °C.

INVINCIBLE > Durable, long-lasting & dependable, many TAE units have been operating for well over 30 years.

INVALUABLE > Non-ferrous liquid circuit allows operation under all conditions and in even the most demanding industries.

INTELLECTUAL > Energy saving, low pressure drop, high water flows and minimal heat gain.



Standard features

- Refrigerant fluid R290 (GWP=3, ODP=0);
- Hermetic rotary compressors;
- High efficiency finned coil evaporator installed inside the storage tank, with copper tubes and aluminum fins;
- Polyethylene coolant storage tank fitted with drain valve, filling and overflow connections and a visual level indicator;
- Air-cooled aluminium microchannel condenser with protection coating and a removable metal mesh filter;
- Peripheral non-ferrous P3 pump (3 barg nominal available head pressure);
- Axial fan equipped with sickle-shaped galvanized sheet blades.
- Non ferrous atmospheric pressure hydraulic circuit with a 0-6 bar pressure gauge;
- Water by-pass for safe continuous operation;
- Hydraulic circuit compatible with glycol concentrations up to 30%;
- High pressure switch with manual reset (M05-M10);
- Easy to use parametric microprocessor control;
- Lamination device: capillary tube;
- AC power plug for simple electrical connection;
- Power supply: 230V/1Ph/50Hz;
- Electrical protection grade IP33.

Options

- Peripheral non-ferrous P5 pump (5 barg nominal available head pressure);
- Hydraulic sectioning system;
- Industrial multipole connector;
- Stainless steel frame.

Kits

- Hydraulic filter;
- Automatic hydraulic by-pass;
- Dynamic set point;
- Antivibration mounts;
- Wheels kit.

TAEN		M03	M05	M08	M10
Nominal cooling capacity (1) ▼	kW	1,31	1,86	2,27	3,00
EER (1) ▼	-	2,87	2,64	2,83	2,75
SEPR HT (2) ▼	-	5,01	5,01	5,04	5,01
Nominal cooling capacity (3)	kW	1,77	2,69	3,14	4,07
EER (3)	-	4,72	4,41	4,47	4,22
Power supply	V/ph/Hz	230 ± 10% / 1-PE / 50			
Circuits / Compressors	n°	1 / 1	1 / 1	1 / 1	1 / 1
Refrigerant	-	R290	R290	R290	R290
Sound Power (4) ▼	dB(A)	74	75	75	75
Length	mm	690	690	690	690
Width	mm	486	486	486	486
Height	mm	622	622	872	872
Operating weight (5)	kg	110	112	143	143
Tank volume	l	15	15	22	22
Evaporator water connections	Rp-DN	1/2"	1/2"	1/2"	1/2"

Data declared according to UNI EN 14511, and they refer to units without options which require an electrical feeding source and in nominal working conditions.

- (1) Evaporator water inlet/outlet temperature 12/7 °C, external air temperature 35 °C;
- (2) Data declared in compliance with the European Regulation (EU) 2016/2281 with regard to ecodesign requirements for cooling products and high temperature process chillers;
- (3) Evaporator water inlet/outlet temperature 20/15 °C, external air temperature 25 °C;
- (4) Sound power is determined on the basis of measurements taken in accordance with the standard ISO 3744;
- (5) Operating weight refers to the unit without options but is considering a P3 pump.

▼ Eurovent certified data.



MTA is ISO9001 certified, a sign of its commitment to complete customer satisfaction.



MTA products comply with European safety directives, as recognised by the CE symbol.



MTA participates in the E.C.C. programme for LCP-HP. Certified products are listed on: www.eurovent-certification.com
Certification applied to the units:
- Air/Water up to 600 kW
- Water/Water up to 1500 kW

www.mta-it.com

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