# **RWD**

Air-cooled liquid coolers. Cooling capacities 10 - 372 kW.



Cooling your industry, optimising your process.





RWD PROVIDES MEDIUM TEMPERATURE COOLING, OR FREECOOLING IN WINTER WHEN MATED WITH A CHILLER, ENSURING EXCEPTIONAL ENERGY SAVINGS AND RAPID PAY-BACKS VERSUS CHILLER ONLY SOLUTIONS. RWD FEATURES ALL SYSTEM COMPONENTS INSTALLED ON-BOARD.





# AN ENVIRONMENT-FRIENDLY SOLUTION

RWD liquid coolers, with finned coils and axial fans, are the ideal solution for the free-cooling of applications in which the process temperature is higher than the ambient temperature for most of the year. Exploiting low ambient air temperatures, RWD cools the fluid free of charge, eliminating energy wastages caused by running refrigerant compressors during winter.

# FREE-COOLING

In new plants customers can select the RWD model which provides the ideal compromise between installation cost and return on investment. In the case of existing plants retrofitting an RWD equipped with a 3-way valve in series with the system chiller is a viable solution. Installation of an RWD not only increases the life of the chiller, but also allows significant energy saving levels ensuring a return on the initial investment in approximately twelve months.

# PLUG AND PLAY

From RWD 200 the main components such as 3-way valves, manifolds, and single or double pumps can be installed in the unit. RWD can be installed outdoors thanks to the IP54 protection rating and epoxy surface coating of the frame. Consequently no time is lost in component selection and RWD installation is rendered quick and easy.

#### **VERSIONS**

- Acoustic versions:
- C (standard);
- SC (low noise);
- SSC (very low noise).
- Configurations:
  - Single coil (RWD 010-150);
  - Packaged twin coil (RWD 200-350).
- Airbatic version.

# **ACCESSORIES**

- Electrical panel;
- Microprocessor controller;
- Electronic fan speed regulation (special);
- Differing head pressure pumps in single or twin configurations (RWD 200-350) (special);
- Metal mesh protection filters for coils;
- 3-way valves + manifolds (RWD 200-350) (special);
- 60 Hz power supply (special);
- Manifolds kit;
- Horizontal installation kit (RWD 030-150);
- Remote control.



| RWD Model                           |         | 010          | 020  | 030          | 040    | 050    | 075   | 100   | 150   | 200   | 250   | 300    | 350    |
|-------------------------------------|---------|--------------|------|--------------|--------|--------|-------|-------|-------|-------|-------|--------|--------|
| Cooling power (1)                   | kW      | 10,3         | 20,0 | 30,6         | 40,6   | 49,0   | 68,5  | 96,8  | 133,1 | 194,6 | 247,9 | 303,7  | 372,0  |
| Absorbed power                      | kW      | 0,48         | 0,96 | 2,10         | 2,10   | 2,10   | 4,10  | 4,10  | 6,10  | 8,10  | 10,0  | 10,0   | 12,0   |
| Water flow                          | l/h     | 1797         | 3470 | 5315         | 7052   | 8522   | 11899 | 16821 | 23126 | 33822 | 43079 | 52783  | 64653  |
| Pressure drop                       | bar     | 0,16         | 0,26 | 0,33         | 0,26   | 0,38   | 0,60  | 0,34  | 0,63  | 0,33  | 0,53  | 0,39   | 0,66   |
| Fans                                | n°      | 1            | 2    | 1            | 1      | 1      | 2     | 2     | 3     | 4     | 5     | 5      | 6      |
| Sound pressure level (3)            | dB(A)   | 47,8         | 50,8 | 60,1         | 59,1   | 58,1   | 62,1  | 61,1  | 62,8  | 64,1  | 65,0  | 64,0   | 65,8   |
| Power supply (2)                    | V/Ph/Hz | 230±10%/3/50 |      | 400±10%/3/50 |        |        |       |       |       |       |       |        |        |
| Depth                               | mm      | 847          | 1682 | 2145         | 2145   | 2145   | 3042  | 3959  | 4860  | 4390  | 5295  | 5295   | 6200   |
| Width                               | mm      | 440          | 440  | 779          | 779    | 779    | 779   | 779   | 779   | 1510  | 1510  | 1510   | 1510   |
| Height                              | mm      | 763          | 763  | 1364         | 1364   | 1364   | 1364  | 1364  | 1364  | 1485  | 1485  | 2085   | 2085   |
| Height with legs                    | mm      | -            | -    | 1534         | 1534   | 1534   | 1534  | 1534  | 1534  | -     | -     | -      | -      |
| Weight                              | Kg      | 57           | 109  | 413          | 423    | 433    | 562   | 679   | 821   | 1064  | 1271  | 1543   | 1803   |
| Water connections without manifolds |         | G 1″         | G 1″ | G 1 ½″       | G 1 ½″ | G 1 ½″ | G 2"  | G 2 ½" | G 2 ½" |
| Water connections with manifolds    |         | -            | -    | -            | -      | -      | -     | -     | -     | DN 80 | DN 80 | DN 100 | DN 100 |

- (1) Values refer to standard units at the following operating conditions:  $\Delta T$  10 °C between water inlet temperature and ambient temperature,  $\Delta T$  5 °C between water inlet temperature and water temperature at outlet from chiller located at sea level and with 0% glycol.
- (2) Model RWD 020 is available also in a version for connection to a 400V±10%/3/50Hz power supply.
- (3) Sound pressure level in hemispherical field at 10 m  $\,$  from condenser side and 1.6 m from ground. Values with tollerance  $\pm$  2 dB. The sound levels refer to operation of the unit under full load in nominal conditions.

# REDUCED COSTS, REDUCED ENVIRONMENTAL IMPACT

Cooling towers suffer substantial costs due to the treatment of the process water. Because it uses a closed circuit, RWD does not require any form of process fluid treatment and eliminates liquid losses caused by evaporation.

# MICROPROCESSOR CONTROLLER

RWD units can be equipped with a microprocessor featuring an intuitive graphic interface. The controller manages the fans independently, starting them in steps in proportion to the fluid inlet temperature.

# **AIRBATC VERSION**

The RWD Airbatic version, thanks to the water sprayed on the cooling coils, offers the following benefits:

- The chilled water at the outlet can be at a temperature which is below ambient temperature;
- High cooling capacity within compact dimensions;
- Low water consumption compared to cooling towers;
- Radical energy savings when cooling the condensation water for water-cooled chillers;
- High cooling power in presence of high ambient temperatures;
- High cooling efficiency also in the low noise operating mode.

Integral independent electrical panel.

Internal view of packaged RWD 300-350.

Fans with integrated motors.

Remote control (optional).









#### **ENERGY FOR THE FUTURE**

MTA was born over 30 years ago with a clear objective: improving mankind's relationship with two distinct natural resources, air and water, and optimising their transformation into energy sources. And as each application differs, so MTA offers a personalised energy solution perfectly aligned to each individual need. At MTA energy is our business, and improving your relationship with your energy is our aim.

#### STRATEGIC DIVERSIFICATION

MTA covers three distinct market segments. As well as Compressed Air & Gas Treatment solutions, MTA offers products for Industrial Process Cooling, as well as Air Conditioning solutions. MTA is renowned for the innovation it brings into each of these three sectors; in fact our strategic diversification offers our Customers unique benefits unseen in their individual fields.

#### **FAR REACHING BUT ALWAYS CLOSE BY**

MTA is present in over 80 countries worldwide. 7 MTA Sales Companies cover 4 continents. Expert knowledge and an accurate attention to application consultancy and service support guarantees that our Customers can look forward to long term peace of mind and an optimized energy solution. We always remain close to our Customers, so wherever you may be, we are close by.

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# Cooling, conditioning, purifying.



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