

A black and white photograph of industrial cooling equipment, featuring a large, dark, cylindrical component in the foreground and a series of parallel, ribbed metal fins extending into the background. A red graphic element, consisting of a square frame and a curved line, is overlaid on the left side of the image.

**COMPLETE
COOLING
SOLUTIONS**

Italia RAAL[®]
complete cooling solutions

THE COMPANY

RAAL[®]
complete cooling solutions

30 YEARS' EXPERIENCE
150 ENGINEERS
++ COOLING SYSTEMS FOR ALL REQUIREMENTS
50 PROTOTYPES/MONTH
2500 EMPLOYEES

RAAL is a manufacturer of complete cooling systems and heat exchangers in brazed aluminium alloy and stainless steel: radiators, oil coolers, air coolers, fuel coolers, condensers and evaporators, meeting the requirements of all market areas including the Agricultural, Industrial and Automotive Sectors and applications in the field of Earthmoving Machinery.



THE PRODUCTS

RADIATORS
OIL COOLERS
AIR COOLERS
FUEL COOLERS
CONDENSERS
EVAPORATORS

RAAL[®]
complete cooling solutions



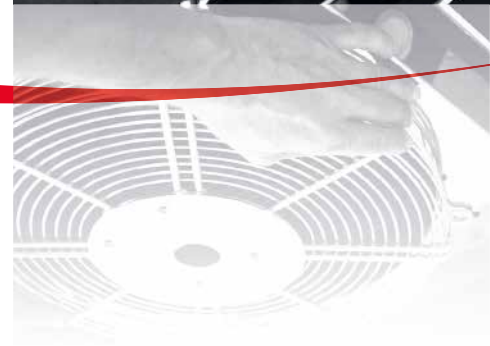
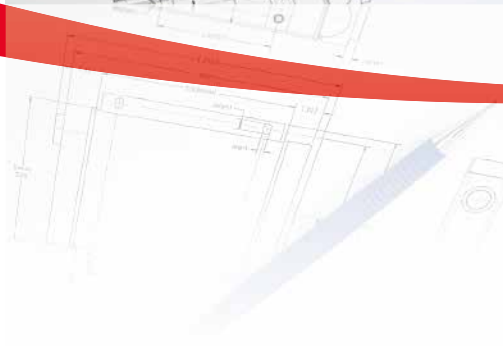
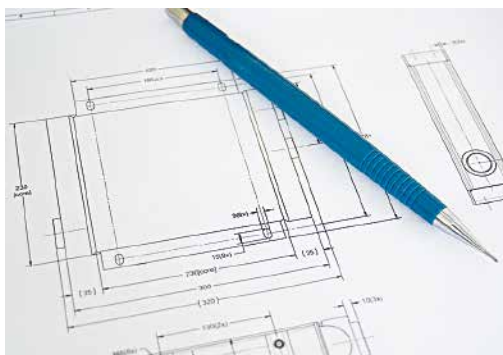
ANALYSIS



PROTOTYPING



TEST



COMPANY MISSION

FLEXIBILITY

The modular heat exchangers and cooling systems are developed in liaison with our customers and specifically designed to meet their needs.

- ✓ Customized solutions
- ✓ Tens of thousands of products
- ✓ Hundreds of applications
- ✓ Groups from one to tens of thousands of items

ENGINEERING

Our high-powered R&D department, benefiting from high levels of expertise and competence, develops and completes each new product in the space of 30 - 50 days.

RESEARCH AND DEVELOPMENT

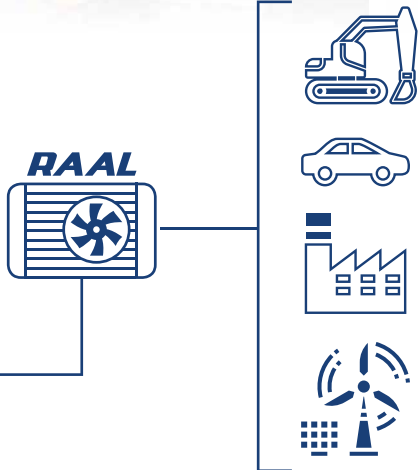
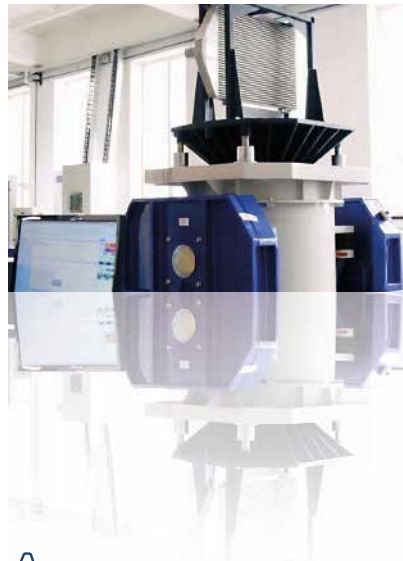
Short development cycle: design, sizing and simulation, testing and validation, prototype manufacturing, tool and die design and manufacturing, serial production. All operations performed entirely in house.

LOGISTICS

Customized logistics services: transport, storage and distribution based on the customer's requirements. RAAL has branches in Italy, the Netherlands, Germany, Russia and the USA.

RAAL ITALIA is the Italian branch

created to support all customers, from the choice of product and project development stage to the construction of products in all sectors and for all applications.



THE BEST THERMAL PERFORMANCES



THE BRANCH



BRANCH HISTORY

- 2005** RAAL ITALIA is opened
- 2006** New range of standard products
- 2007** Increase of the stock through new customers
- 2009** Inauguration of new headquarters
- 2013** New catalogue of standard products
- 2015** Increase in new standard products
- 2019** New Genset products - generators sets

STANDARD OIL PRODUCTS



RAAL ITALIA is the only branch in the world with the ability to supply a standard product that is always ready thanks to the available stocks, thus guaranteeing a service of excellence with short lead times.

The standard line comprises aluminium alloy units for cooling of the hydraulic circuits installed on industrial plants and off-road and on-road moving machinery. The products, featuring Placche & Barre construction, are designed to overcome the criticalities of the various applications, such as vibration, high temperature, and high pressure values.

All RAAL ITALIA products can be accessorized, based on requirements, with:

hydraulic motor
(G1, G2)

or

electric motor driven fan
(AC, DC)



GR S/D Series

Range:
10lt ÷ 200lt
(1,4kW ÷ 56kW)



BY-PASS Series

Range:
10lt ÷ 260lt
(3kW ÷ 45kW)



VT Series

Range:
10lt ÷ 140lt
(3,1kW ÷ 35kW)



SHELL Series

Range:
30lt ÷ 160lt
(3kW ÷ 23kW)



T Series

Range:
30lt ÷ 350lt
(14kW ÷ 80kW)



GRV Series

Range:
30lt ÷ 350lt
(15kW ÷ 92kW)

AFTERMARKET PRODUCTS

In order to offer an ever broader range of products, **RAAL ITALIA** today can meet the demands of a new sector, that of "tractor specialists", to provide agricultural machinery service organisations with a range of spare parts in various construction solutions (aluminium-plastic, aluminium-aluminium, copper-brass).

Thanks to our **immediate delivery service** we can cover a vast range of vehicles, from the oldest models to the very latest.

The specific features of the RAAL ITALIA service are unchanging: product quality, fast deliveries, and hallmark levels of service and courtesy.



Thanks to our in-house team, **RAAL** is a flexible supplier able to build all types of cooling systems, working alongside each customer to develop and design solutions to meet their requirements.

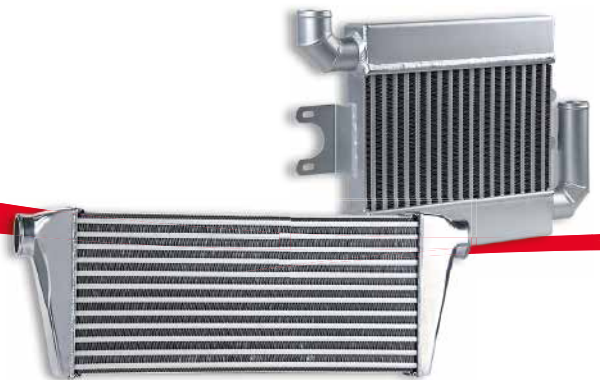
RAAL heat exchangers are designed and built with the following construction solutions: "Plate & Bar", brazed tubes, shells, extruded tubes and brazed plates.



COMPLETE COOLING UNITS



OIL COOLERS



AIR COOLERS



WATER COOLERS

RAAL designs and manufactures **aluminium alloy water cooling radiators with brazed construction techniques** in the "Plate & Bar", welded tubes and shell construction solutions.

The applications are many: from the agricultural and forestry sector to construction and mining machinery, from cars to commercial vehicles, from railway equipment to military applications and from compressors to systems for industrial applications.

RAAL radiators are designed in various configurations and construction solutions with a **vast range of sizes** and the possibility to proceed with small, medium and large quantity series production.

CERTIFICATIONS

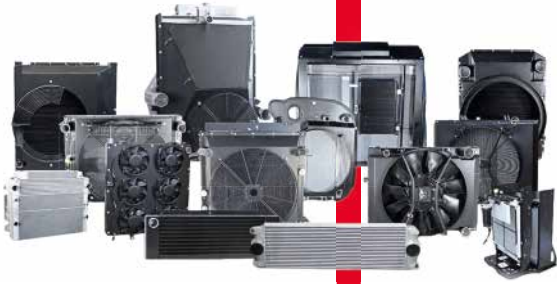
All RAAL products are fabricated in compliance with high quality standards and they checked in RAAL Testing Centers (in-house research and testing facilities).

Quality Management System: ISO 9001:2008 & ISO/TS 16949:2009.

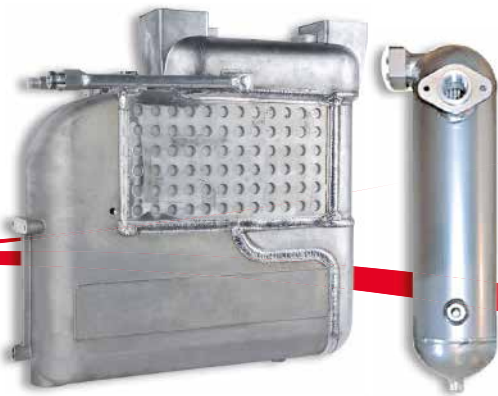
Environment Management System: EN ISO 14001:2004.

Occupational Health and Safety Management System: OHSAS 18001:2007.

DEDICATED PRODUCTS



**CONDENSERS
& FUEL COOLERS**



DRYERS



**CIRCULAR HEAT
EXCHANGERS**

AUTOMOTIVE

RAAL manufactures **individual cooling systems and heat exchangers** for **automotive sector applications**: radiators, oil coolers, air coolers, fuel coolers, heaters, condensers and evaporators.

RAAL employs a dedicated production line to make **brazed plate heat exchangers** for cars, motorcycles, ATVs, jet skis, and aircraft, designed specifically to increase cooling performance in a compact format.

In addition, RAAL has recently brought a **new production line** on stream dedicated to heat exchangers designed for cooling electronic circuits and batteries in **hybrid and electrically powered vehicle applications**.



**Cooling plates
NEW PRODUCTION LINE**

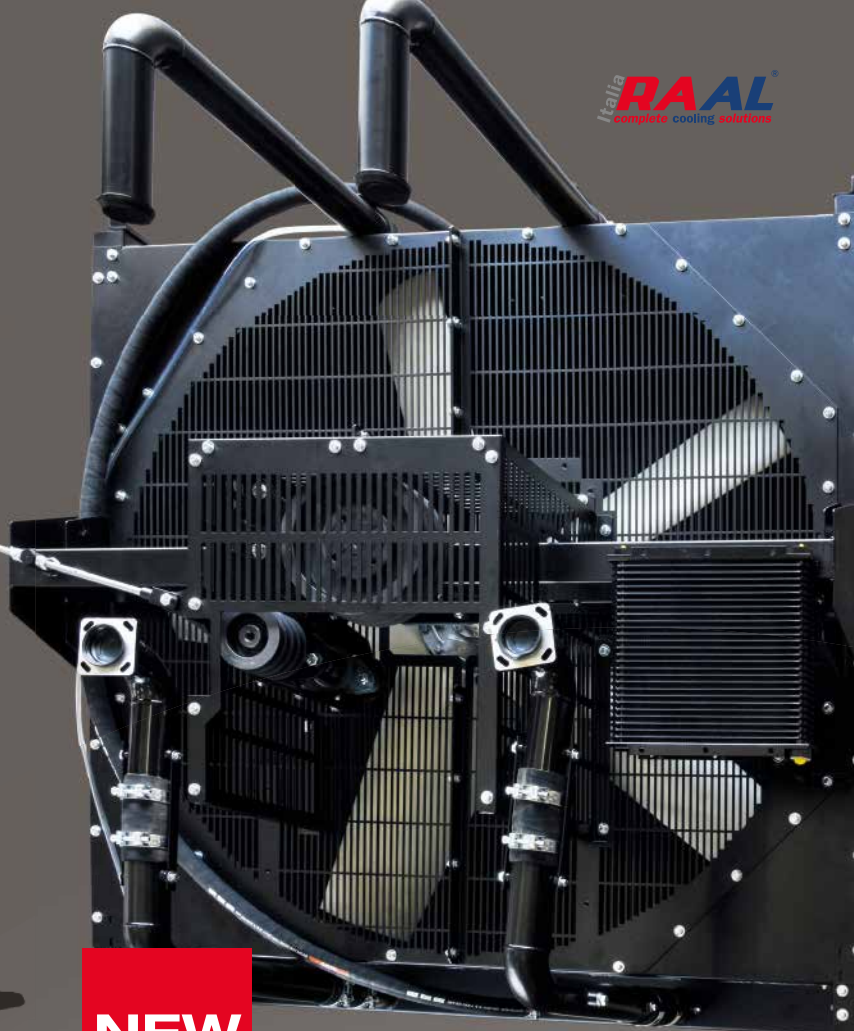
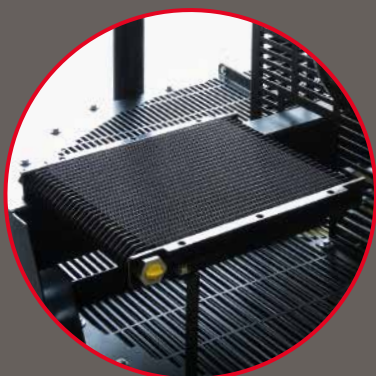
Welding process: EN ISO 3834 - 2.

Welding of railway equipment and welding of heat exchanger components EN 15085-2 level-CL1.

Design, manufacturing and sale of heat exchangers: PED 97/23/EC.

Brazing and welding procedures: DIN EN 13134, EN ISO 15614-2 and ASME/sect. IX.

Brazing operators and welders: DIN EN 13133, EN ISO 9606-2, EN 1418 and ASME/sect. IX.



NEW

GENSET

APPLICATIONS FOR GENERATOR SETS

In the GENSET sector, RAAL has developed cooling units designed for containerisation. The dimensions of these units make them suitable for use with PERKINS, MTU, MITSUBISHI, CUMMINS and FPT engines at 50Hz-60Hz with belt driven or electric motor driven fans.

RAAL has also developed remote horizontal cooling units with electric motor driven fans.



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