

# MANUFACTURING RANGE OVERVIEW





# LU-VE S.p.A.



**LU-VE S.p.A - Uboldo (Va), Italy**  
Heat exchangers for industrial and commercial refrigeration,  
air conditioning and industrial applications.

**LU-VE S.p.A.** is the holding company of LU-VE Group. In 1985 LU-VE S.p.A. acquired Contardo S.p.A., established in 1928. Production began in 1986.

**LU-VE** quickly made its mark thanks to high standards of quality, new solutions designed in its own laboratories and to the care taken with the appearance of its products. (Beautiful outside - Revolutionary inside).

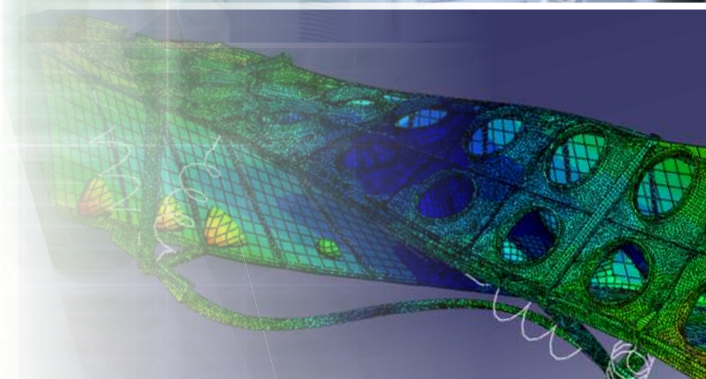
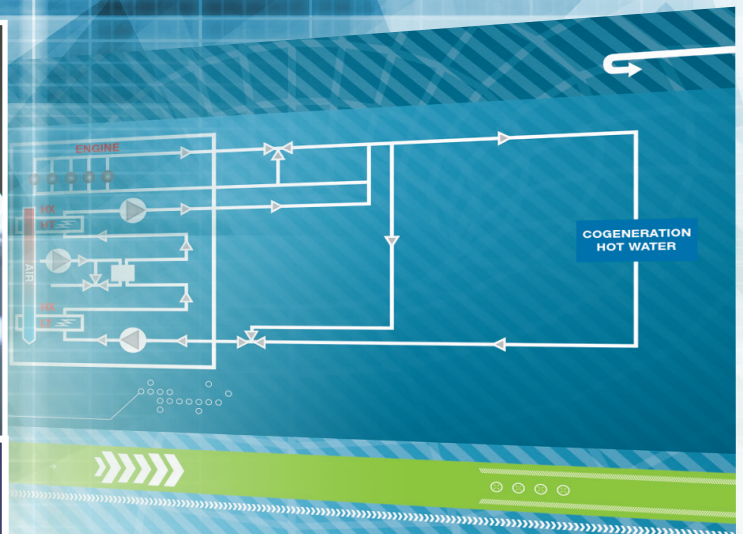
It was the first company in the world to apply avant-garde solutions to commercial and industrial refrigeration:

- grooved tube technology;
- specialized heat exchange surfaces;
- certified performance levels;
- innovative materials and colours;
- advanced design.

The success of **LU-VE** in the international market stems from its research and development policy, its great respect for the environment and its rigorous ethical and commercial principles.

In 2000, **LU-VE** was the first company in Europe to attain the prestigious **Eurovent "Certify-All"** certification for the entire range of its products: unit coolers, condensers and dry coolers.

**LU-VE** and the Group have introduced new ways of conceiving and constructing products for refrigeration, air conditioning and industrial applications, creating new technologies which have then gone on to become the benchmark for the entire industry.





# THE GROUP

The **LU-VE Group** name has become the international reference point for all that is best in the design, production and sales of heat exchangers and other components for equipment used in commercial and industrial refrigeration, air conditioning, industrial applications and close control air conditioning.

The **LU-VE Group** of today, with its headquarters in Uboldo (Varese), Italy, has been made possible thanks to a continuous process of cultural and technological innovation starting in 1928 and still continuing strongly now.

The strength of the Group lies in its 10 production facilities and 12 sales companies. LU-VE has been listed on the Italian stock exchange (AIM market) since July 2015.

The important numbers are:

- more than **2,500** highly skilled employees
- **390,200 m<sup>2</sup>** of total surface area (**160,300 m<sup>2</sup>** covered)
- **2,500 m<sup>2</sup>** of research and development laboratories
- more than **80%** of products exported in **100** countries
- **€ 307 million** aggregate turnover 2018
- **99** production lines.



ITALY



CHINA



ITALY



SWEDEN



ITALY



CZECH REP.



ITALY



POLAND



RUSSIA



INDIA



ITALY



U.S.A.



ITALY



AUSTRALIA



AUSTRIA



CHINA



FRANCE



GERMANY



INDIA



POLAND



RUSSIA



SPAIN



UAE



UK - EIRE



USA



# PRODUCTS

## PRODUCT FEATURES

- Performance maximisation given by the new high capacity TURBOCOIL® heat exchanger manufactured with internally grooved tubes and TURBOFIN® fins.
- Heat exchanger ventilation optimisation.

## Ecology and saving

- Energy consumption reduction
- Noise reduction
- Reduction of the internal volume of refrigerant circuit

## Space and transport saving

- Overall dimension and weight reduction

## Time saving

- Installation and maintenance simplification

## Design

- High quality in design and rational planning
- Maximum reliability of all components
- Minimum LCC (Life Cycle Cost).

# APPLICATIONS

The production strategy of **LU-VE** is based on its "Towards Excellence" programme. This concept is an inherent part of the core business of the entire Group, whose products are very closely connected to quality of life: they are used in the refrigeration of food; in air conditioning to reduce temperature and humidity in homes, hospitals, work places and transportation; in the production of energy; in industrial applications, etc.

## Commercial and industrial refrigeration

- Conservation of fresh food
- Conservation of fresh fruit and vegetables
- Food processing
- Seasoning
- Freezing
- Warehousing and logistics

## Air conditioning for civil and industrial buildings and close control air conditioning

- Shopping centres
- Data centres
- Industry
- Hospitals
- Operating theatres
- Telecommunications

## Applications for industrial processes

- Automotive
- Chemical and pharmaceutical
- Oil refining
- Plastics
- Energy production
- Industry in general

## Coils for OEM applications

- Refrigerated display cabinets and counters
- Dispensers
- Ice making machines
- Condensing units
- Air conditioning
- Made to measure solutions for special applications.

## COMMERCIAL AND INDUSTRIAL REFRIGERATION



## COMMERCIAL UNIT COOLERS

The commercial unit coolers are designed for the conservation of fresh and frozen goods.

All ranges are super compact and are suitable for cold rooms or, with low ventilation, for laboratories, work rooms and packing areas.



## INDUSTRIAL UNIT COOLERS

The industrial unit coolers are designed for the conservation of fresh or frozen goods and for flash freezing/temperature reduction.

The standard ranges are suitable for cold rooms or freezing and the special ranges are for specific refrigeration installation requirements.

## AIR CONDITIONING AND INDUSTRIAL PROCESSES



## AIR COOLED CONDENSERS

The air cooled condensers are used in equipment for refrigeration, air conditioning and industrial processes.

Axial and centrifugal fan air cooled condensers with single or twin coil (V shape configuration).



## DRY COOLERS

The dry coolers are used in industrial processes (to cool water or other fluids) and for air conditioning and refrigeration (water cooling and free cooling).

Axial and centrifugal fan dry coolers with single or twin coil (V shape configuration) – Highest capacity and small footprint.

## OEM APPLICATIONS



## OEM PRODUCTS

The compact unit coolers are designed for small cold rooms, reach-in cabinets and refrigerated cabinets. The constant high efficiency compact condensers are specially designed for OEMs.

These products are not included in the Eurovent certification programme.



• FHC *Vantage*



1.5 - 81.9 kW



• FHD *Vantage*



2.0 - 19.8 kW

• FHC *Vantage*



31.5 - 122.4 kW

• CHS • LHS *Value Defender*



6.7 - 216.3 kW

• CDH *Value Defender*



8.6 - 125.1 kW

• LMC *Minichannel*



9.3 - 247.2 kW

• SHV



3.7 - 82.4 kW

• SAV • EAV • XAV • EHV



13.8 - 1,584 kW

• XDHV *Small Giants*



49 - 1,000 kW

• SAL • XAL • EHL-EAL



11 - 1,330 kW



New

• XDHL *Small Giants*



38 - 810 kW

• EHL D *Giants*



159 - 1,867 kW

• SHP



470 - 1,160 W

• MMC *Minimagic*



340 - 1,740 W

• BHS • SHS



700 - 2,290 W

UNIT COOLERS



• BMA-SMA *Vantage*



1.9 - 12.4 kW

• FHA *Vantage*



1.1 - 8.3 kW

• FF *Fast Freezer*



13.6 - 109.4 kW

• PDF • LS • CS



**SPECIAL INDUSTRIAL UNIT COOLERS**

• EHVD *Giants*



198 - 2,340 kW

• RAD



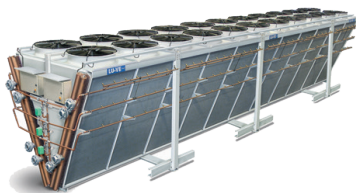
65 - 444 kW

• *Emeritus*



**NEW COMBINED SPRAY + ADIABATIC SYSTEM**

• XXLD *Mega Giants*



347 - 2,333 kW

• SHF • HF



250 - 570 W

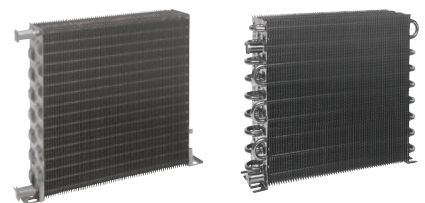
• STVF...ES BENEFIT® • STVF  
Tubeless steel condensers



470 - 5,460 W

• STFT • STN

Tubeless steel condensers



210 - 3,670 W

**AIR COOLED CONDENSERS**



## CERTIFICATIONS

In 2000, **LU-VE** S.p.A. was the first company in Europe to achieve the prestigious **Eurovent "Certify All"** certification for the entire range of its products. The voluntary Eurovent certification (which guarantees capacity, air quantity, energy consumption, sound pressure levels and construction characteristics) covers all products which make up the range. It is only issued if test results confirm the values stated in the catalogue.

**LU-VE** S.p.A. holds certification based on various standards and conformity requirements such as:

- UNI EN ISO 50001:2011 "Energy Management Systems"
- UNI EN ISO 14001:2015 "Environmental Management Systems"
- UNI EN ISO 9001:2015 "Certified Quality System"
- Russian GOST Certification
- "QS" Certification (Industrial production of heat exchangers for refrigeration in the Peoples Republic of China)
- ASME Certification (only for special ASME units).
- Eurovent Certification Nr. 00.10.214

### European Directives

- 2006/42/CE Machinery Directive
- 2014/68/UE Pressure Equipment Directive (PED)
- 2014/35/UE Low Voltage Directive (LVD)
- 2014/30/UE Electromagnetic Compatibility (EMC)



**LU-VE** was the first company to obtain the new important European **EUROVENT** certification "**CERTIFY-ALL**" for all ranges of unit coolers, air cooled condensers and dry coolers.



The **LU-VE** Environmental Certification System is in compliance with UNI ISO EN 14001:2015.



The **LU-VE** Energy Management System is in compliance with UNI CEI EN 50001:2011.



**LU-VE** is certified to UNI EN ISO 9001:2015, which is the most important Quality Assurance Qualification.

## LU-VE TECHNOLOGY

### CO<sub>2</sub>

Unit coolers and gas coolers for CO<sub>2</sub>.

### EMERITUS®

**EMERITUS®** is the most advanced **SPRAY®** solution to improve performance and minimize dimensions of large-capacity aircooled condensers, gas coolers and dry coolers.

**EMERITUS®** brings together the benefits of spray systems and adiabatic pre-cooling. A sophisticated control system maximizes the effects of these combined systems.

### GLYCOL

Industrial air coolers for **glycol water**.

### SAFESHELL

Casing manufactured from "**Safeshell**" shock resistant safety material.

### JET-O-MATIC®

**JET-O-MATIC®**: maximum unit cooler capacity at every condition of heat load (CT), room temperatura (TC), temperature difference (ΔT) and refrigerant type (R), specially with the new refrigerants characterized by a mixture with high gas/liquid ratio after the expansion valve.

### JETSTREAMER®

The special profile of **JETSTREAMER®** grille combines innovative design with a notable increase in air throw and air quantity, especially with frost on the fins.

### MINICHANNEL® Tube Ø 5mm

**MINICHANNEL®** has been designed for reducing refrigerant charge and energy consumption, combined with high operating pressures.

Heat exchanger with special configuration of fins with "louvre" cuts which are positioned very closely together, capable of optimizing and increasing heat transfer performance, thanks also to the use of special high-efficiency tubes with internal grooves.

### NIDEA

New Intelligent DDefrosting Apparatus: Nidea optimizes all the dynamics of the electrical defrost process of unit coolers and avoid wasting energy and money, without reducing the functionality of the equipment.

### NH<sub>3</sub>

Industrial unit coolers for ammonia (NH<sub>3</sub>) with very low refrigerant charge.

### STEEL PROTECTED

Galvanized steel casing with corrosion-resistant **Epoxy-Polyester** powder coating.

### SAFETUBES SYSTEM®

The **LU-VE** patented coil suspension **SAFETUBES SYSTEM®** completely eliminates contact between tube and condenser or dry cooler structure, providing full protection for the coil tubes during transport, installation and operation.

### SMART®

The patented **SMART®** structure, exhaustively tested on vibrating platforms, provides many advantages such as greater product rigidity, reduced unit weight, better and more uniform air circulation and minimum performance loss if one motor should stop.

### WHISPERER PLUS

The new compact silencer, designed and tested in the **LU-VE** laboratories, dramatically reduces sound pressure level up to 6 dB(A).



