



Since 1930... Technology of the Heat Exchange.

# **Historical Outline**

**SCAM** SpA has been working in the field of Thermics since its foundation in Turin, back in May 1930.

It was initially established as the Italian Branch of an important international industrial and financial group; through the years it has taken the utmost from the very advanced technology related to Thermotechnics.

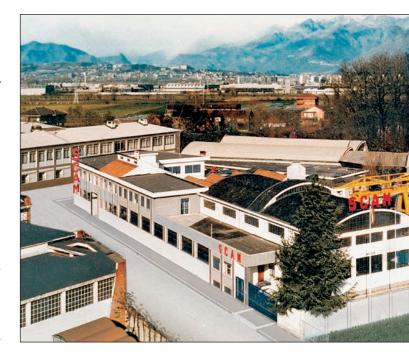
The Company, become independent, after having served the Italian Navy, expanded its activities by providing equipment for the merchant navy.

Since then, its list of customers has included domestic and international shipyards, major Italian and foreign industries in various sectors such as petrochemical, electrical, mechanical, foodstuff, textile, leather curing and paper manufacturing to name but a few.

We can proudly boast of 85 years of experience in the study, planning and building of our manufacturing line.

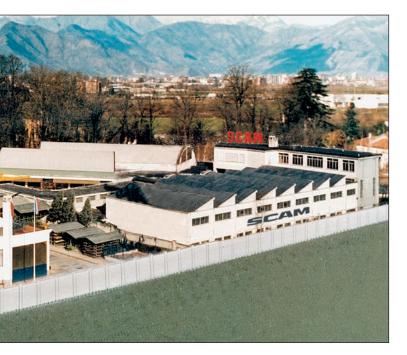
The growing and lasting success we have enjoyed so far is testified by the constant development and refinement of our business structure and by our long list of customers.

Among them we count the most important and outstanding names in public and private Italian and foreign industries, which we proudly include in the long list of our references.













## **Present Structure**

Nowadays **SCAM** comprises:

- Head offices and a modern workshop in Turin, fitted with the latest in modern equipment, including test rooms for raw materials and finished products, laboratories for chemical analysis, the whole obeying to strict Safety Regulations and according to the hightest Quality ISO 9001 manufacturing standards;
- Training programs for our employees, which are held in a well-equipped school to ensure a level of instruction suitable for the degree of the necessary specialization, for: engineers, technicians, testers, draftsmen, and even for our Customers' own operating crews like specialists in the operation of desalination plants, vacuum groups, pumps, etc.;
- An efficient team of highly specialized technicians and engineers.

The production unit is situated in:

Mirafiori Corso Orbassano, 368 / 18 - 24 Turin - Italy

Head Office,
Management and Tec

Management and Technical Offices, Commercial Office.

Commercial Cinc

Administration,

Design Department,

Technical School for engineers

(ours and those of our Customers);

Workshop with Stores,

Testing Areas,

Chemical Laboratory and school for assemblers,

Welders and specialists in our production methods.

## Vacuum pumps

SCAM pumps are mainly used to create and maintain the vacuum in the steam condensate plants.

We have installed thousands of these pieces.

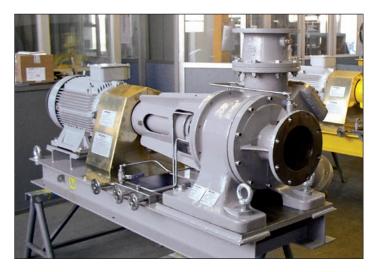
As a proof, we can affirm that our pumps equip all the biggest power plants throughout Italy.

The range of SCAM pumps varies from 2 KW to 75 KW.

## **Ejectors**

Since 1930 SCAM has been designing and manufacturing more than 17,000 ejectors of different types for various applications, counting among its Customers the most important Italian and foreign industries.

SCAM ejectors may be single or multi-stage types with intermediate and final surface or mixture condensers.











The most frequent applications are in energy and production industries. Furthermore, countless chemical and petrochemical plants adopt ejectors for keeping the vacuum necessary for processing fractional distillation, crystallization, drying, deaeration, filtration and impregnation. Particularly, all the plants for deodorization and fatty acid treatment lately built are fitted with steam jet thermocompressor ejectors which allow very low final residual pressures.

### **Air Coolers**

For many years, SCAM has been manufacturing finned tube coolers. These tubes, externally finned, offer a large surface in contact with cooling air and allow an optimised heat exchange between the two fluids.



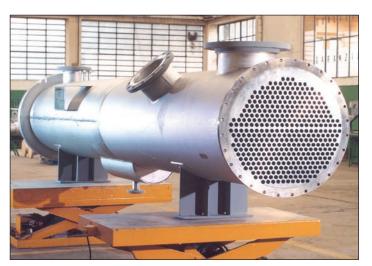


Our air coolers have the following applications:

- air coolers for overcharged diesel engines
- air coolers for electric motors and alternators
- hydrogen coolers for high power alternators
- double tube air coolers for electric motor and marine engines
- water and oil finned tube air coolers.

## **Heat Exchangers**

Since the beginning, SCAM has been manufacturing heat exchangers. The main fluids handled are water, oil, steam, hydrogen and those produced by the petrochemical industries. These apparata are usually destined to cooling rotative equipment (turbines, alternators, engines), of industries (refineries and chemical plants) or may find other specific applications (Navy, nuclear power plants).





# **Sea Water Evaporators**

Since 1930 SCAM has been designing and manufacturing plants for the production of distilled water from sea water. In 85 years, SCAM has equipped approximately 1750 ships of all types and nationalities, counting among its Customers the most famous shipyards and the most important shipping Companies.

SCAM designs and manufactures sea water evaporators suitable for any fresh water daily production rate that our Customers may require.

The operation of this desalination unit is very simple: firstly, because evaporation occurs at very low temperatures (about 50°C), reducing deposits; secondly, because the sea water is pre-treated reducing corrosion.



## **Reverse Osmosis Plants**

The recent imposition of new technologies using semi permeable membranes, has found SCAM ready to take the challenge of studying and applying the studies necessary to the manufacturing of Reverse Osmosis plants.

Today we are ready to develop and package several lines of Reverse Osmosis sea and brackish water desalting units from small units for ships to big units able to produce thousands of m³/day.





## Reverse Osmosis Zero Discharge

In the last years, our engineers and technicians have designed, built and tested our new revolutionary and advanced system to produce desalted water with zero discharge.

The innovation of our new plants is combined with two of the major systems till here known:

- Desalination with production of pure distilled water;
- Desalination by Reverse Osmosis System with production of purified water with really low salinity.





We studied, built, tested and patented this new mixed system that combines other three processes: a double desalination system of Reverse Osmosis, a Chemical Process and a Solar Evaporation Point, thereby obtaining the maximum possible production of desalted water with an almost zero discharge of brackish water.

### **Deaerators**

The first SCAM deaerators, adopting patented devices, have been manufactured at the end of the 30's.

The experience acquired since that time has been very important for reaching the present manufacturing level that sees SCAM at the top of the state - of - the - art in the field of degassing plants, thanks to a very low oxygen residual content and to a very high adaptability to variations occurring In the flow of the water to degas.







## **Steam Condensers**

Surface condenser for steam turbine operating under vacuum by axial discharge. The type of construction is Dual Bank in order to guarantee the maintenance of half tube bundle with the other half in operation and without stopping the thermal cycle. The particular distribution of tubes allows the steam to be supplied uniformly on the entire exchange surface by guaranteeing the maximum condensation before it reaches the incondensable extraction air box.







Austria Belgium Dehnmark

Finnland

France

Germany

Great Britain

Greece

Ireland

Iceland

Yugoslavia

Norway

The Netherlands

Poland

Portugal Spain

Sweden

Switzerland

**USSR** 

Mexico U.S.A.

### **Central America**

Costa Rica

Cuba Haiti

Panama

### **South America**

Argentina

Brazil

Chile

Columbia

Peru

Uruguay

Venezuela

Angola

**Ivory Coast** 

Egypt

Ghana

Libya

Morocco

South Africa

Senegal

Tanzania

Tunisia

Zaire

Australia

Saudi Arabia

Qatar

Jordan

Kuwait

Bahrain

Iraq

Iran

Lebanon

Pakistan

Yemen Arab Rep.

Syria Turkey

#### **Far East**

Philippines Hong Kong

India

Indonesia

Malaysia

China P.R.

Thailand

Singapore

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