

STEAM MULTIFLASH DESALTING PLANTS

ON-SHORE SEA WATER DESALTING PLANTS

Power Plants and industries employ huge quantities of desalted water.

Since the early 60's, SCAM had been adopting one of the most widely used techniques: the multi-flash system which resulted particularly suitable when treating huge outputs and for on shore installations.

Many years ago, SCAM optimized a distillation technology consisting of several subsequent stages with instant evaporation: multi-flash distillation

This procedure shows the advantages of allowing manufacturing distilling units with a low specific consumption.



Power Station Steam Desalting Plants

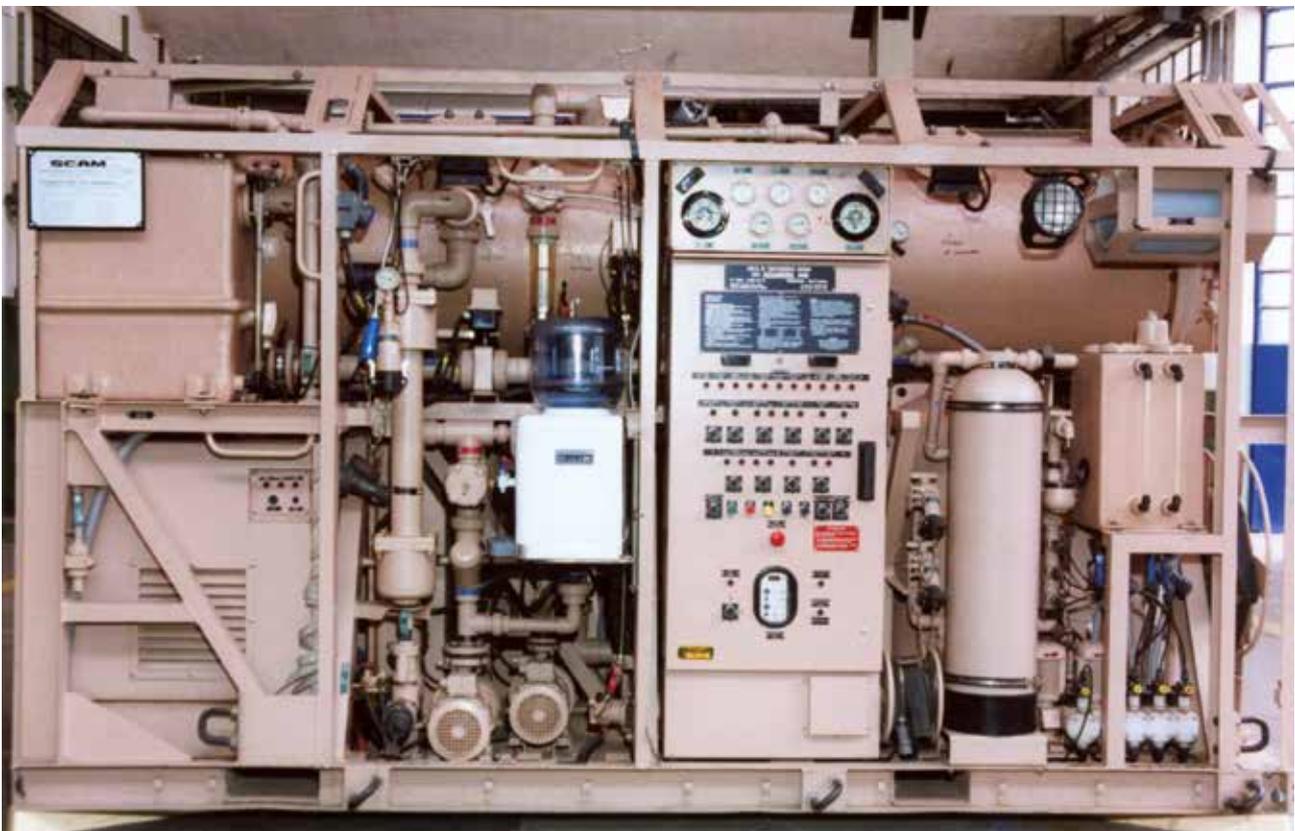


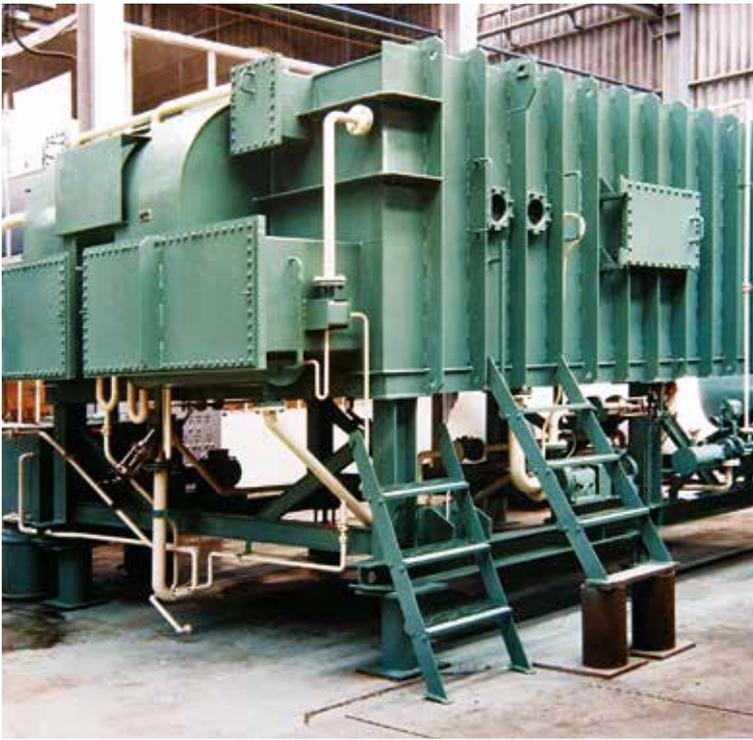
Mobile steam desalination plant, mobile on a trailer towed by truck; supplied to the Italian Army for the foreign missions of the Armed Forces.

Working for evaporation and subsequent condensation the plants are able to produce pure water and may draw water from any quality of source: seas, rivers, lakes, puddles, also dirty and/or contaminated.

These plants are really appreciated all over the world, because in the areas with water scarcity and water risk of poisoning, represent a safely solution for the users.

Naturally, these units, are endowed to make drinking water after and after a special treatment for softening and potabilisation and a special care to the antibacterial process by UV.





Some of our achievements
seawater evaporators for ships

Seawater Steam Evaporators 120 m³/day each for italian aircraft carrier “Garibaldi”



OUR HISTORY WATER FOR SHIPS

Where we have drawn our experience?

Our history and experience in the desalination begins with the production of water for ships. In 1934, SCAM supplied for the Italian Navy the first two steam evaporators desalination for the ships to produce clean water from sea water, to make steam to drive the large turbines and for use on-board for each of the Cruisers R. Montecuccoli and R. Attendolo. Later in 1935 were supplied four desalination plants for the large battleship Vittorio Veneto. Since then, it was a constant request by the Merchant and Military Italian Marine and foreign. These large plants represented a significant step forward in the modernization of ships, giving them total independence from the supply of ground water to produce steam to drive large turbines and for the purposes of the crew for drinking water, kitchen, health needs.

Today there are about 1500 plants built by SCAM, most of them are still working on naval, military and merchant ships, Italian, English, French, Venezuelan, Siamese, Argentine, Paraguayan, Soviet, Peruvian, Portuguese, Greek, Indonesian and Iraqi.



SCAM
Turin-Italy

WIDE RANGE OF PRODUCTION

The company SCAM designs and builds evaporators for sea water which are suitable for various kinds of daily productions of drink water requested by the customer.

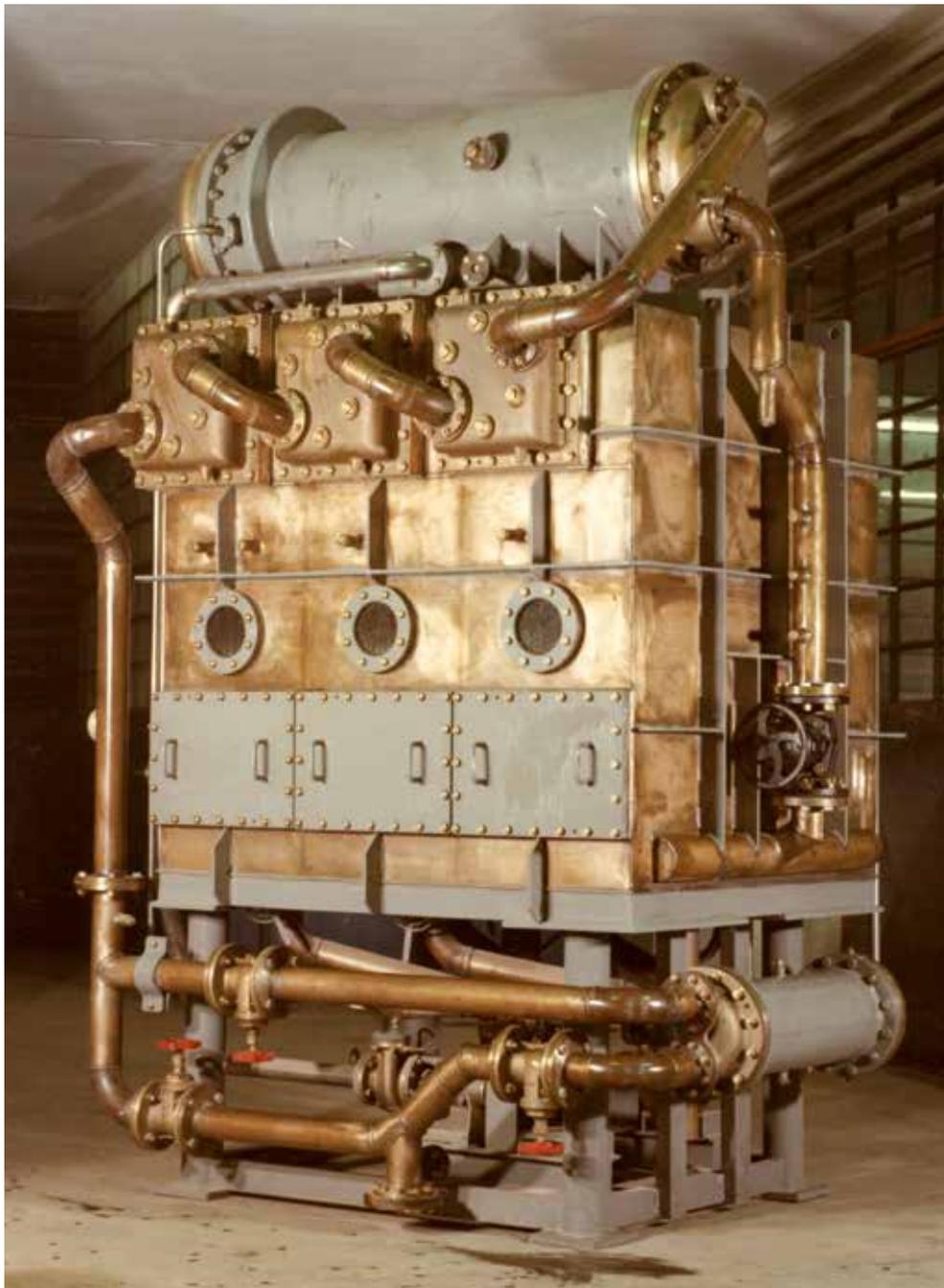
The management of this desalting plant is very simple due the evaporation at low temperature (50 degrees Celsius) which reduces depositions, and due to the pre-treatment of sea water in order to reduce corrosion.

All SCAM maritime evaporators have been planned in order to obtain compact apparatuses of small dimensions, with maximum production capacity, easy and reduced maintenance.



1500 EQUIPPED SHIPS

Over the years it has progressively established the trend for shipbuilding to provide the units of appropriate facilities for the seawater distillation, with characteristics that make the ship self-sufficient with consequent elimination of both stopping while traveling in a defined places for the supply of fresh water both crates for water reserves of large capacity with obvious greater space availability for the traffic load.



SEA WATER DESALINATION HISTORY

HISTORIC OUTLINE on ships use of “sea water for production of fresh water”.

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It should be reminded that still at the beginning of the past century for ships with steam boilers, their autonomy was strongly limited by frequent needs of supplies of carbon and fresh water, necessary for boilers feeding as well as for use on board.

For those who know we deem interesting to remind the episode occurred in 1905.

Among the reasons of the complete failure of the expedition of Russian Fleet, which moved from Europe to the Far East, with the task to free Port Arthur, controlled by the Japanese, there was, (absurd and not well planned), the transfer of the Russian Fleet from Baltic Sea and from Black Sea, which began in October of 1904, it ended in May 27/28, 1905 near the Tsushima island, in the Korean Gulf, where Japanese Admiral Togo waited such fleet when it was at the extremes of fresh water reserves and he completely destroyed it.

As to what the news of that time refers, there was a wrong prevision of boiler water consumptions and the consequent lack during battles of suitable quantities of fresh water to produce steam for turbines.

The shock was very big for all the Naval Technicians of that time, and consequently the Navies were the first inducted to try to supply their ships of means able to produce necessary fresh water by sea. From that moment were borned and were accelerated the studies on desalination to produce sea fresh water in the countries world-widely more important.