

It's time
to sail.

B•Wave

Rotary Heat Exchanger

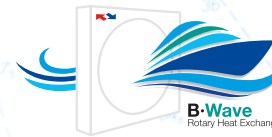


SOLUTION FOR MARINE APPLICATION

RECUPERATOR THE HEAT EXCHANGER



B-Wave | ROTARY HEAT EXCHANGER



MARINE APPLICATION



WE ARE READY.

Recuperator is glad to announce a new product in its range.

The rotary heat exchanger for naval applications such as cruise ship, yachts, mercantiles, ferries etc.

IT'S TIME TO SAIL.

This new product will allow Recuperator to supply all major shipyards in the world.

PRODUCT CHARACTERISTICS

[1] Sectorised rotor

From diameter 1200mm, the rotor can be delivered in four or six sections. This type of solution simplifies the installation of the heat recovery in narrow spaces and facilitates future Upgrading and Refurbishment of previous systems. The sectorised frame can be in galvanised steel or stainless steel Grade 304 or 316L.

[2] Coated aluminium zeolite 3A

The rotor can be made in aluminium sorption zeolite 3A (molecular sieve 3A). The test carried out in the salt spray chamber for 1000h showed that the zeolite coating could be the right solution in coastal and marine applications. In addition, the zeolite, thanks to its crystal structure, is able to adsorb water vapour only, avoiding the adsorption of VOC (Volatile Organic Compounds) molecules.

[3] External bearings and internal hub without screws

Eventually the bearings can be external for easy maintenance. In this case the hub is connected to the shaft directly without any screw, guarantee the reliability of the system over time.

[4] Sectorised casing

The external frame can be manufactured in one piece or sectorised in two pieces with for easy assembly. The material can be galvanised steel, coated or stainless steel Grade 304 or 316L.

[5] Power belt

The movement from the driver is transmitted to the wheel through the belt. Recuperator provides a more reliable innovative belt "powerbelt". With this product Deformation is low and also it does not create any dust compared to the standard V-belt solutions.

[6/a] Self-tensioning system

The drive system is also available with the automatic tensioning system to guarantee the correct tension of the belt and the right transmission of the movement to the rotor.

[6/b] Condensate drip tray

The drip tray can be part integrated of the casing.

[6/c] Motor from 240 up to 690V

Recuperator has a wide range of motors available up to 690V for marine application with RINA conformity and C4 coating protection.

Eurovent, AHRI and TUV certified

The performance of the wheel can be calculated in the software selection tool which is EUROVENT, AHRI, TUV certified.

For entire rotor external tie-rod

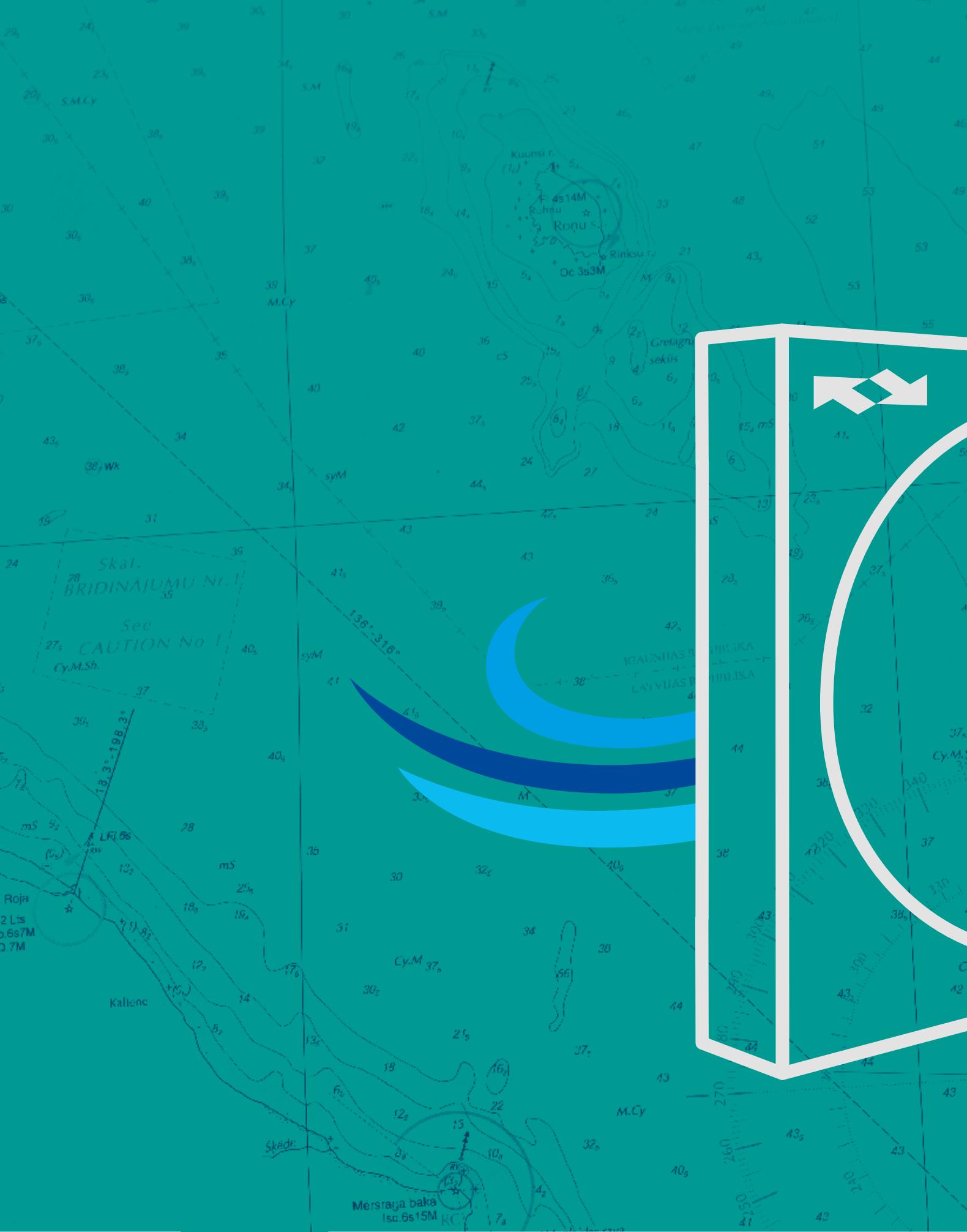
The entire rotor, with diameter from 600mm to 2500mm is further strengthened by external tie rods installed in the matrix.

No additional risk of aerosol transfer

A study carried out by the Hochschule Luzern laboratory highlights with the use of rotary heat exchanger, with the correct pressure ratios and purging sector, there is no additional risk of aerosol transfer. The estimation of the ASTR (aerosol transfer ratio) is easy to calculate using the known EATR (exhaust air transfer ratio). The tests carried out with purging sector measured very low values of EATR and ASTR (always lower than 0.6%).

[Hochschule Luzern Report HP-212193 Measurements of Aerosol Transfer by Rotary heat exchanger]





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