

PRESSURE HORIZONTAL BRAKING RESISTOR

JEVI design and produce load banks for freshwater and seawater (also other media). This load bank is mainly for the oil and gas industry for example drill ships, FPSO, jack-ups, or cable ships. The resistor can be used to dump electrical braking energy from drawworks, top drives, thrusters, cranes, and other electrical systems into a cooling media.

According to your requirements, we can supply this system with instrumentation and valves. This includes temperature sensor(s), flow sensor, level switch, pressure transmitter, pressure gauge, thermostats, shut off valve, pressure safety valve, air eliminator, and drain valve.

We can also deliver the resistor in racks with up to 6 resistors on a common manifold and common instrument junction box. The rack system reduces the requirements for engineering at our customers and at the yard. This ensures quick and problem free installation at the yard.

TECHNICAL DATA

Type:

- Freshwater cooled without any aggressive additive
- Seawater cooled with aggressive additive

Classification:

- Safe area, non-Atex, and Atex zone 1, temperature class T3

Voltage:

- 3-690 Volt AC (max. is 1200 Volt DC)

Power:

- From 50kW to 3000kW

Junction box:

- AISI 316L

Protection class:

- IP66

Heating elements:

- Incoloy 825 if the media is fresh water
- Titanium if the media is sea water

Temperature inlet:

- 0°C

Temperature outlet:

- 65°C (max. 95°C) by fresh water
- Max. 60°C by sea water

Safety thermostat:

- 1 pcs. 113°C thermostat for protection of the resistor elements. This is with manual reset in the junction box of the resistor.

Design/construction:

- The design and construction of the tank is for pressure system (EN13445, PED or ASME)

Material:

- AISI 316 stainless steel

Test pressure:

- 15 bar

Sensor for outlet temperature:

- 1 pcs. PT100 sensor, with 4-20mA amplifier/transmitter at the outlet

Level sensor:

- Level switch placed in the top of the tank, to secure water in the tank before the resistor is in use

Drain flange:

- In the bottom of the tank there will be mounted a flange, but with out any valve drain valve

Flange:

- All flange can be made customized. Normal is DN or ANSI





OTHERS:

Anodes:

- If freshwater is used as cooling media, there is none anodes inside the tank
- If seawater is used as cooling media, there is anodes inside the tank.

Temperature sensor:

- 1 per each step

Instrument junction box:

- 1 instrumentation junction box is placed on the tank. These junction boxes are for all signals (temperature sensor, level switch, safety thermostat and other)

Cabeling for signal:

- Cabeling from all signal to common junction box after IEC 60092. With cable and cabel ladder

Cabel gland:

- Supplied by client

CONFORMITY STANDARDS

- ABS
- DNV
- EN 13445 (European Pressurized equipment standard)
- CR13 (Brazilian Pressurized equipment standard)
- IEC 60092 (Electrical Installations on ships)
- ATEX/IECEX
- CCS
- EAC