

SAN[®] Electro Heat Process HEATING



Miscellaneous

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Member of the NIBE Group

SAN[®]

Electro Heat

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12. MISCELLANEOUS

Miscellaneous

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HEATERS AND FLOW-HEATERS

For heating of air and fluids to high temperatures and under high pressure, **SAN** offers customized heaters. Our engineering department is able to design a heater which will maximize the function, size and economical profitability.

On this page a small part of our heaters are shown. Please contact our engineering department for further information and brochures.

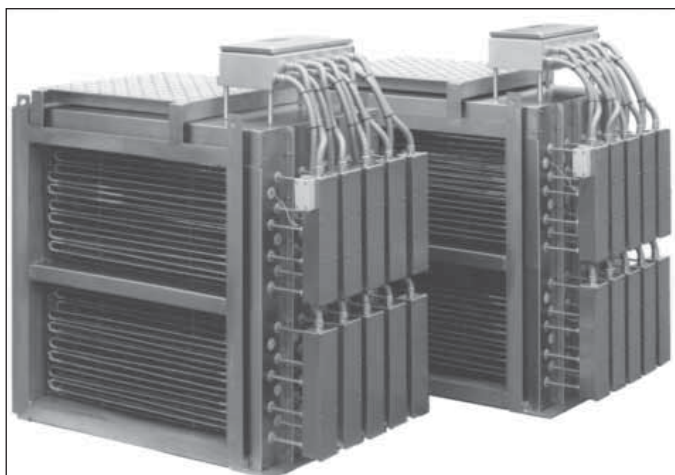


Fig. 1

Fig. 1 shows 2 off 301 kW air pre-heaters in cassette system. The heaters are pre-insulated and equipped with support, so that service personel can walk on top of the heaters. Everything has been made from stainless steel.

Outlet temperature: 350°C.

Fig. 2 shows a control board for electrical heaters. A.o. with PLC control, display of kW, voltage and amp. per phase.

Interlock with fan.



Fig. 2

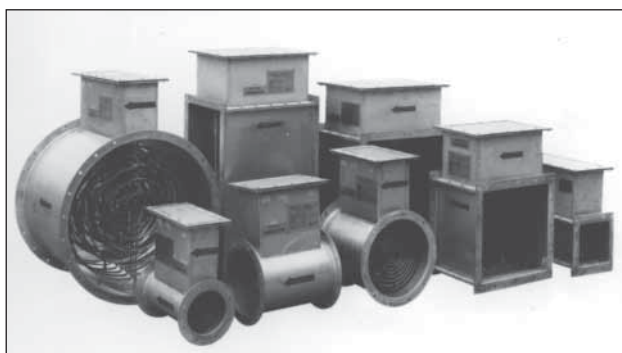


Fig. 3

Fig. 3 shows a part of a series of heaters for ventilation plants on an offshore platform. Made from stainless steel heating elements in a vibration safe mounting. Equipped with double set of overheat protection. Temperature class: T3. Power from 0.5 kW to 50 kW.

For heating of fluids or gasses under high pressure, **SAN** manufactures flow-heaters.

Fig. 4 shows a small 21 kW heater for heating of fluid nitrogen. **SAN** designs these flow heaters in co-operation with our customers. The heaters can be delivered up to several 100 kW under pressure up to 50 bar and 500°C.

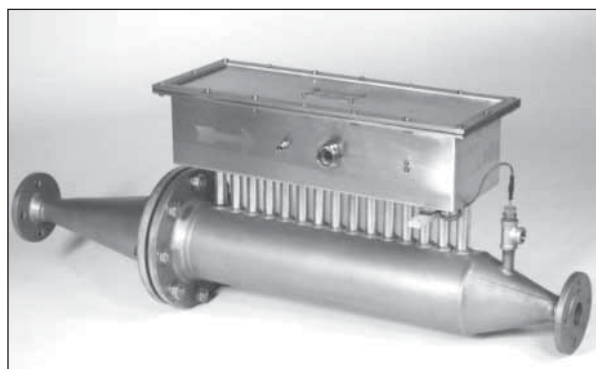


Fig. 4

SAN has a comprehensive programme of resistors for testing of generators, high voltage plants, etc.

Below is shown various solution models. Please contact our engineering department for further information.

BATTERY TEST FOR CONTROL OF EMERGENCY POWER SUPPLY

Testing of voltage drop at constant current.

Fig. 1 shows an example of a module-built system with master unit and slave units 50-100 amp with voltage from 12 V to 440 V d.c.

**LOAD RESISTORS
stationary and mobile**

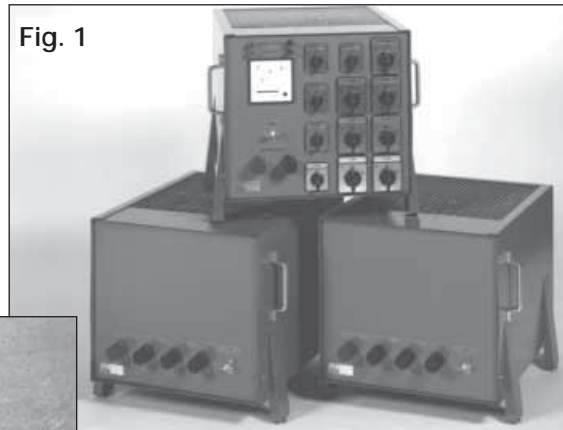


Fig. 1

LABORATORY EQUIPMENT

Fig. 2. Naturally cooled high voltage resistor

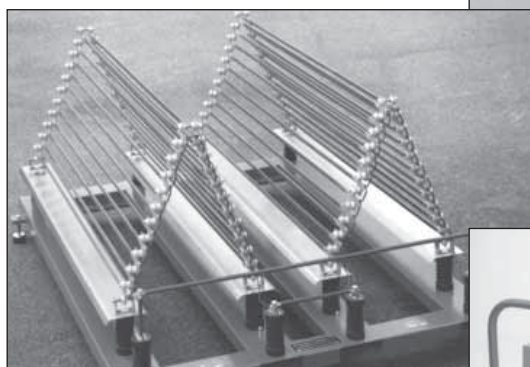


Fig. 2

Fig. 3 Testing of emergency power supply for computer systems.



Fig. 3

TESTSYSTEM FOR MAIN POWER SUPPLY PLANT

Here are shown examples of two load resistors.

Fig. 4 for testing of the main generator on a ship. Technical details to be mentioned: 1 MVA, phase angle between 0.4 to 1.0.



Fig. 4

Fig. 5 Mobile resistor of 600 kW 3 x 440 V, built in up to 20 groups, complete with measuring equipment and adjustment through computer programme.

Documentation for test results either as a print or on a disc.



Fig. 5

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- Flow Heaters
- Air Duct Heaters
- High-voltage
- Resistors
- Controllers



With more than 50 years of experience SAN Electro Heat's most valuable asset is special knowhow about design, product development and manufacturing of professional electrical heating equipment for industrial use.

The company is geared to deliver 100% customized products, and thus functions both as a catalyst for a development project and as supplier of the final product. At the same time we insure and maintain the required quality level, mechanical and electrical dimensioning, approvals and documentation.

