

SAAS *liquid metal technology products and services*

innovative solutions for power generation

Fluid application:

- | | |
|-----------------------------|--------|
| - Sodium | Na |
| - Lead | Pb |
| - Lead- Lithium | PbLi |
| - Lead - Bismut | PbBi |
| - Mercury | Hg |
| - Indium-Gallium Tin Eutect | InGaSn |

Services:

- 3D Design of liquid metal installations (loops)
- Strength and heat transfer calculations for different kind of high temperature heat exchangers and pressure devices
- Design of pressure devices in accordance with EU Pressure Equipment Directive AD2000 and ASME
- Manufacturing drawings for pressure devices
- Design of instrumentation (pressure, temperature, flowrate, level)
- Design of electrical trace heating systems
- Design of control and SCADA systems
- Hazard and risk assessment



Liquid metal loop under construction in cooperation with Karlsruhe Institute of Technology

Delivery products:

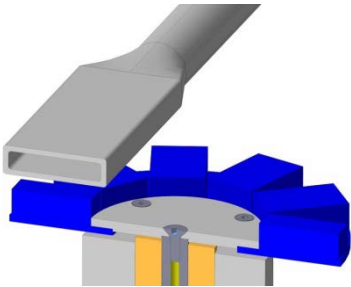
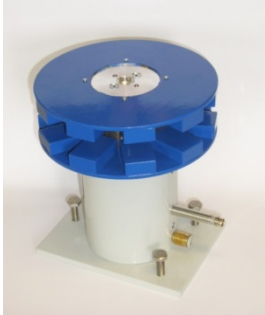
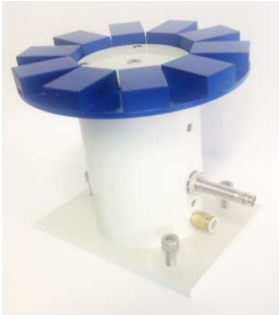
- Turnkey ready to use liquid metal loops or flow installations
- Pressure devices (storage tanks, heat exchangers, cold traps) in accordance with EU Pressure Equipment Directive or ASME
- Control and SCADA systems
- Electrical equipment (trace heating Sensors, actors, valves)
- Liquid metal Permanent Magnetic Pumps
 - o Disk type pump
 - o Cylindrical type pump
- Different liquid metal flowmeter :
 - o Electromagnetic flowmeter *EMD_{tr}*
 - o Permanent magnetic flowmeter *EMD_{fw}* (Flywheel)
 - o Conductive Flowmeter *EMD_{cd}*

Quality management:

- Manufacturing and service under ISO 9001 Quality certificate
- Manufacturing of pressure devices under certificate AD2000 HP0, HP 100R DIN EN 3834-2
- Presentation of a comprehensive welding documentation of the pumps channel or pressure devices , if requested TÜV certificate
- Presentation of pressure test protocol
- Presentation of protocol of non-destructive welding inspection by X-ray CT
- Testbenches for pure lead (400-500°C) and GaInSn eutect are available in cooperation with Helmholtzzentrum Dresden Rossendorf



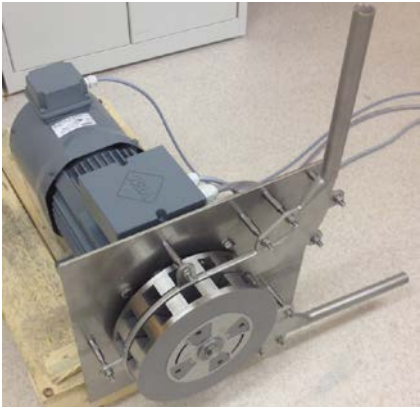
Electromagnetic flowmeter EMD tr, High temperature sensor, transducer



Permanent magnetic flowmeter EMDfw,



Dynamic heat exchanger



Disk type pump PMP 250



Cylindrical type pump PMP250-300

Imprint:

Representative:

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