

CMI Novacast LA Series Electromagnetic Liquid Metal Pumps

CMI Novacast's LA series 3-phase linear annular induction pumps are constructed of stainless steel for pumping metals such as Na, NaK, K, and others. Some metals may require that the pump be made from other materials. The metal flows through the annular space between two concentric tubes, the inner of the two containing a magnetic core, through which the lines of a moving radial magnetic field are looped. The field is developed by a 3-phase stator around the tube. The flow of induced currents is circular, within the annular space, cutting the lines of the field. An axially exerted force then results, moving the liquid metal through the pump. Thermocouples are provided to monitor temperature, and cooling is provided to prevent damage to the components during operations up to 600° C. The absence of moving parts within the pumped liquid eliminates the need for seals and bearings that are found in conventional mechanical pumps, thus minimizing leaks, maintenance, and repairs, and improves reliability.

These pumps are designed principally for use in liquid-metal-cooled reactor plants where liquid lithium, sodium, potassium, or sodium-potassium alloys are pumped. Other metallic and non-metallic liquids of sufficiently high electrical conductivity, such as mercury or molten aluminum, lead, and bismuth may also be pumped in non-nuclear applications.

For all other metals, contact CMI Novacast.

CMI Novacast LA500 Electromagnetic Liquid Metal Pump



Specifications for Sodium

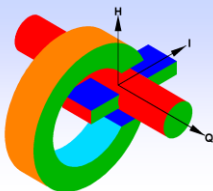
Max delivery (m³/h): 140
Max temp (°C): 600
ΔP (bars): 4
Max pressure in pipe (rel. bars): 15
N.P.S.H. (bars abs.): 1.0

CMI Novacast LA200 Electromagnetic Liquid Metal Pump



Specifications for Sodium

Max delivery (m³/h): 12
Max temp (°C): 600
ΔP (bars): 3
Max pressure in pipe (rel. bars): 15
N.P.S.H. (bars abs.): 0.8



CMI Novacast Inc. 500 E. Touhy Ave. Unit B Des Plaines IL 60018 USA

Toll-free: 877.699.9023 Phone: 847.699.9020 Fax: 847.699.9023

sales@cminovacast.com

www.cminovacast.com

CMI Novacast LA125 Electromagnetic Liquid Metal Pump**Specifications for Sodium**

Max delivery (m³/h): 4
Max temp (°C): 600
ΔP (bars): 1.3
Max pressure in pipe (rel. bars): 15
N.P.S.H. (bars abs.): 0.7

Other CMI Novacast LA Series 500 Electromagnetic Liquid Metal Pump Specifications**LA400 Specifications for Sodium**

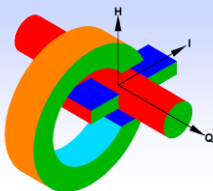
Max delivery (m³/h): 50
Max temp (°C): 600
ΔP (bars): 5
Max pressure in pipe (rel. bars): 15
N.P.S.H. (bars abs.): 0.8

LA300 Specifications for Sodium

Max delivery (m³/h): 25
Max temp (°C): 600
ΔP (bars): 5
Max pressure in pipe (rel. bars): 20
N.P.S.H. (bars abs.): 0.8

LA150 Specifications for Sodium

Max delivery (m³/h): 8
Max temp (°C): 600
ΔP (bars): 1.5
Max pressure in pipe (rel. bars): 15
N.P.S.H. (bars abs.): 0.9



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