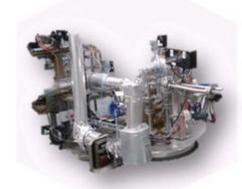


# **ELECTROMAGNETIC PUMP**



#### **Function:**

The electric conductor which is here a liquid metal is browse by an electric power, perpendicular to an external magnetic field. The conductor is submitted to a force which brings the liquid metal flow in a perpendicular direction of the field and the power.





## **Explanation of the phenomenon:**

The powerful magnetic field, produced by the windings of multilayer coil all around the pipe and powers corresponding induce in the sodium propel it in a refractory pipe. Than, the metal fusion is propel according to the field's polarity.

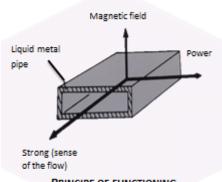
<sup>\*</sup>Increase or decrease of the power permits the flow's control.



#### **Description:**

Electromagnetic pump is composed by different parts:

- A pipe;
- A magnetic circuit with a primary coil;
- A secondary transformer;
- A chassis supporting the whole above;
- An auxiliary transformer;
- A protection casing.



PRINCIPE OF FUNCTIONING



#### **Benefits:**

- No mobile organ;
- No or quiet maintenance;
- Constant flow to continuous process in operation;
- Sodium spills issue are limited;
- Safe & secured transfer.



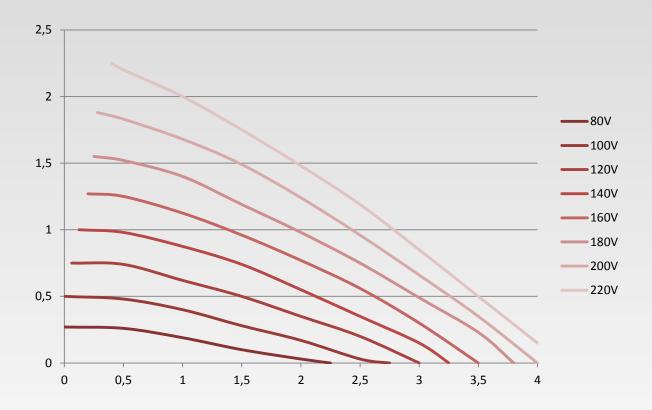
### Contact Sodium Support

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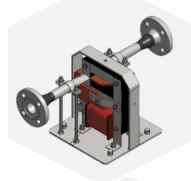
<sup>\*</sup>The inversely of the electrical field reverse the flow's sense.



**Electromagnetic pump - Operating Curve** 









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