

Aluminium low pressure casting system AI NGS

Aluminium as a light metal like Magnesium is increasingly used as a construction material. The ever-increasing demands on components (strength, design,...) lead to manufacturing process in low in low pressure casting.

RAUCH low pressure casting systems have been developed also for aluminum after the market launch for magnesium.

Through the use of universal melting furnace magnesium and aluminium alloys can be produced in the same furnace for the casting process. This means high flexibility in adapting to the needs of the market and a short set-up time in the process.

The transfer of the melt into the casting furnace is done via crucible transfer in a heated casting furnace. Thus overheating of the melt

for the casting procedure is not necessary, the temperature remains stable until the last cast.

There are two casting processes available

Processor-controlled pressurization of the furnace and the melt is transferred via a riser pipe into the mold where the melt solidifies.

- By means of an aluminum pump the melt is drained via a riser pipe into the sand mold or gravity mould.

Thus it is possible to transfer the melt virtually free of turbulences in the form and to fill even narrow form channels without gas inclusions.

Both systems are controlled according to a pre-programmed casting curve and compensated by the level in the crucible, so that the casting can be reproduced several times in stable quality

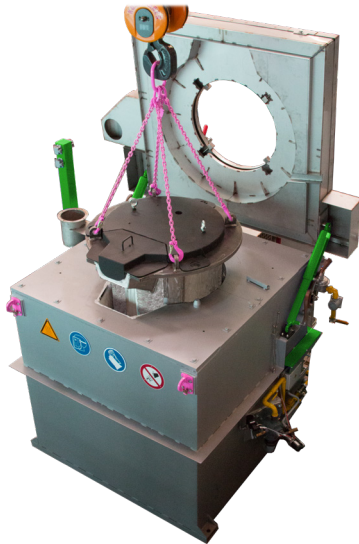


Advantages of aluminum low pressure casting system

- Flexible production between aluminium and magnesium
- Low investment cost and space-saving installation with universal furnace system
- Flexible casting systems in accordance with the needs for the casting process
- Continuous heating up to the last casting process (no overheating needed)

- Heated riser pipe to avoid heat losses during casting breaks
- High quality standard of the melting and casting process (certified in aerospace companies)
- High pressure during the aluminum pumping procedure
- Change between aluminum and magnesium operation with short changeover times

RAUCH Universal melting and holding furnaces can be used in conjunction with aluminum and magnesium gravity-casting system (SGS).



Aluminium crucible furnace ATO



Aluminium low pressure furnace ANO