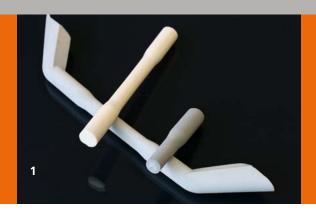


### FRAUNHOFER INSTITUTE FOR MANUFACTURING TECHNOLOGY AND ADVANCED MATERIALS IFAM





- 1 Various salt cores.
- 2 A complex salt core produced using low-pressure die casting.

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# MANUFACTURE OF CAST SALT CORES IN LOW-PRESSURE GRAVITY DIE CASTING

Cast salt cores enable the manufacture of high-pressure die cast components with integrated complexly shaped hollow spaces. Thus, hollow spaces such as cooling channels or structural lightweight construction can be realized.

- High casting quality due to laminar form filling and high process stability
- No corrosion problems due to capsulated furnace chamber

## **Properties and possibilities**

Salt cores produced in low-pressure gravity die casting are characterized by the following:

- High reproduction accuracy and high size accuracy
- Very good, smooth, dense surfaces
- High mechanical and thermal stability
- Simple and reliable residue-free removal from the component

## The following advantages are offered:

 Significantly lower invest (compared to high-pressure die casting and periphery) -----

**Our Services** 

- Development of gravity dies for cast salt cores, including casting process development
- Manufacture of small and pre-series salt cores in low-pressure die casting
- Tailored salt mixes for improved casting technological properties
- Supply chain for salt cores, storage suitability / storage conditions
- Characterization of salt mixes (e.g., casting properties) and salt cores (e.g., micro-structures, strength)
- Capture of thermophysical data for casting simulation