

## Mechanical destruction due to thermal expansion

### Cause

Metal cubes, sprue cones or casting arms become wedged with the crucible wall (picture 3). During the melting process, the metal expands more than the ceramic and shatters the crucible. The appearance is characteristic. Starting from a central point, fine cracks diverge in the shape of spider webs (pictures 1 and 2). Often a whole shard is pressed out. The resulting hole becomes larger starting from the inner wall (picture 4).

### Troubleshooting

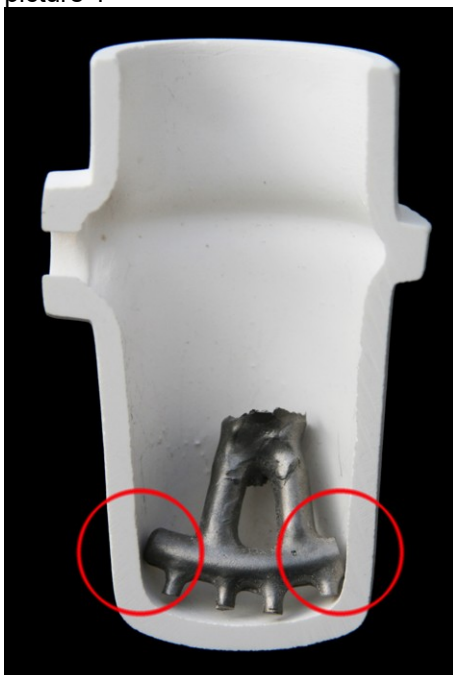
Under all circumstances, wedging of the metal in the crucible must be prevented. The metal must lie loosely in the crucible. The metal needs enough space to expand during heating.



picture 1



picture 2



picture 3



picture 4