

坩埚常见问题分析Analysis of Common Problems in Crucibles

问题描述Problem description	原因分析Analysis of causes
4、横向裂纹Transverse crack	
1) 靠近坩埚底部 (有可能导致坩埚底部脱落) Close to the bottom of the crucible (which may cause the bottom of the crucible to fall off)	1) 可能由硬物撞击造成, 如: 将铸料扔进坩埚中, 或者使用铁栅等硬物敲击底部 It may be caused by the impact of hard objects, such as throwing casting materials into the crucible or hitting the bottom with hard objects like iron gratings
2) 大约在坩埚一半的位置 It's approximately at half the position of the crucible	2) 原因可能是将坩埚放置在道炉上或不合适的坩埚底座上, 再取出坩埚时, 如果坩埚钳夹取位置过于靠上, 并且用力过大, 就会造成坩埚下部的坩埚表面出现裂纹 The reason might be that the crucible was placed on the furnace or an inappropriate crucible base. When the crucible was removed, if the tongs were held too high and too much force was applied, it would cause cracks to appear on the surface of the lower part of the crucible
5、腐蚀Corrosion	
1) 坩埚内部金属液面位置腐蚀 Corrosion of the liquid metal level inside the crucible	1) 由于添加剂和金属氧化物漂浮在金属液面所导致。应避免过度氧化和过量使用添加剂, 避免过度加热 It is caused by additives and metal oxides floating on the surface of the molten metal. Excessive oxidation and overuse of additives should be avoided, as well as overheating
2) 坩埚内部多处出现腐蚀 Corrosion has occurred in multiple places inside the crucible	2) 通常是由腐蚀性的物质所导致。如: 在铸料未放入或未融化时放入添加剂或将添加剂直接撒到了坩埚壁上。应按规定使用添加剂, 并避免温度过高或超时加热 It is usually caused by corrosive substances. For example: Adding additives before the casting material is put in or melted, or directly sprinkling the additives onto the crucible wall. Additives should be used in accordance with regulations, and excessively high temperatures or excessive heating should be avoided
3) 坩埚底部或下沿出现腐蚀 Corrosion occurs at the bottom or lower edge of the crucible	3) 由焦炭或炉渣引起。使用劣质焦炭或加热温度过高都会对坩埚造成损伤; 或者是熔物过多, 溢出沿坩埚表面流到坩埚底部也会使坩埚出现腐蚀损伤 Caused by coke or slag. Using inferior coke or heating at excessively high temperatures can both cause damage to the crucible. Or if there is too much molten material and it overflows along the surface of the crucible to the bottom, it will also cause corrosion damage to the crucible

