Open sesame. MIM hot zone door operation - simplified.

The hot zone's performance is just part of the story. Ease of installation and ease of use are also desired criteria for furnace operators. Plansee provides both.

MIM hot zone

The molybdenum hot zone is the heart of every MIM furnace. With proper design and efficient heating elements, it guarantees a very clean environment and ensures that high temperatures are achieved while its shield packs minimize heat loss. Well-designed hot zones have a long service life, offer short heating and cooling cycles, and distribute heat evenly. With creep-resistant molybdenum alloys and creatively engineered lightweight construction methods, Plansee is continuously improving the energy efficiency and performance of hot zones for high-temperature furnaces.

However, the hot zone's performance capabilities are just part of the story. Ease of installation and ease of use are also desired criteria for furnace operators and Plansee provides both. Here is an example:

Plansee has done extensive work with the design of the MIM hot zone door. After all, it is possible that these doors could be opened and closed several times between cycles. With other designs two hands are necessary to open the door to the hot zone. And prior to opening the door, it is necessary to disengage the actuating mechanism for the shutter assembly which enables rapid cooling. Multiple step processes like these can increase the possibility of operator error. Nevertheless, these steps are unavoidable with many of the current designs.

Preinstalled shutters.
Plansee hot zones begin making things easier for you right away. With a Plansee hot zone the shutters and related guide rods are preinstalled to enable a simpler installation. As an added bonus, Plansee has redesigned the shutters in order to further reduce heat loss.

The MIM hot zone

Plansee also has a new design for the door of the retort as well. Thermal deformation is the reason why these doors can be difficult to open. Thanks to reinforcing structural angles on both the inside and outside of the retort door it has increased resistance to warping. Due to these reinforcements and special molybdenum alloys, the new retort doors are subject to less distortion and can be engaged and disengaged more reliably without sticking.

Our door is manually affixed to the retort and held in place with a series of hooks located on both sides of the retort. These specially designed counterweighted hooks employ the use of the door’s own weight to provide a tight seal against the retort opening ensuring atmosphere integrity. This means that loading and unloading your work loads can be done quickly, easily, and efficiently using a PLANSEE MIM hot zone and retort.

Would you like to find out more? Give us a call!