



*in our  
element*

## EMERGENCY RUN-OUT PITS

For Foundries by Silmeta Systems

A unique safety system proven to prevent steam explosions, increase safety, and reduce costs and down-time.



Global **Refractory** Solutions



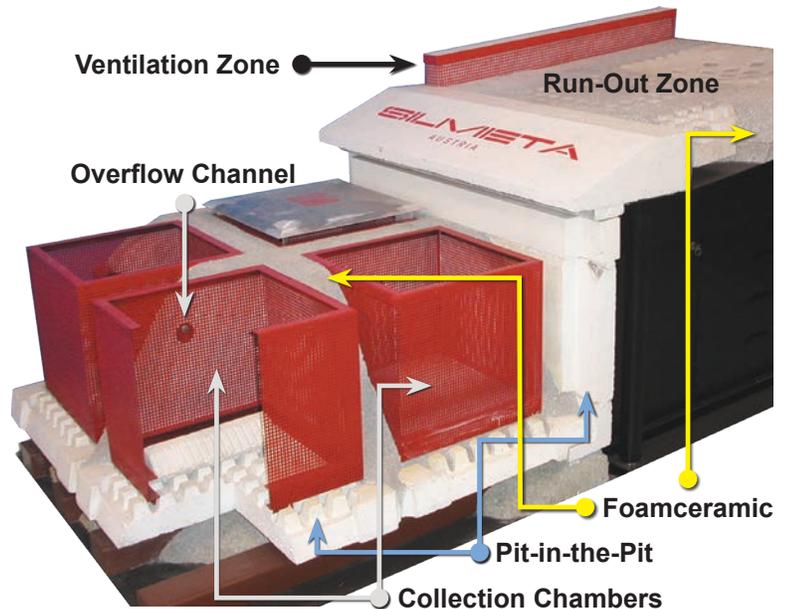
## PREVENT STEAM EXPLOSIONS

# SILMETA SYSTEMS RUN-OUT PITS

EMERGENCY RUN-OUT PITS (ROPs) by Silmeta Systems combine patented materials and design to prevent steam explosions that can occur as a result of a furnace breakout or emergency tapping. With over 500 systems installed in the past 29 years, Silmeta's ROPs are proven safety systems. At those installations, **over 200 furnace breakouts have occurred without a single injury.**

**Compatible Installation Sites.** ROPs are best suited to these applications:

- **Iron Foundries**
  - Holding furnances, including large channel induction furnaces
  - Medium- or supply-frequency crucible furnaces
  - Small channel induction furnaces (pressure furnaces)
- **Copper Foundries**
  - Medium- or supply-frequency crucible furnaces
- **Aluminum Foundries**
  - Medium-frequency crucible furnaces



Silmeta System ROPs can be installed as part of a new installation or as a retrofit, with certain site specific limitations.

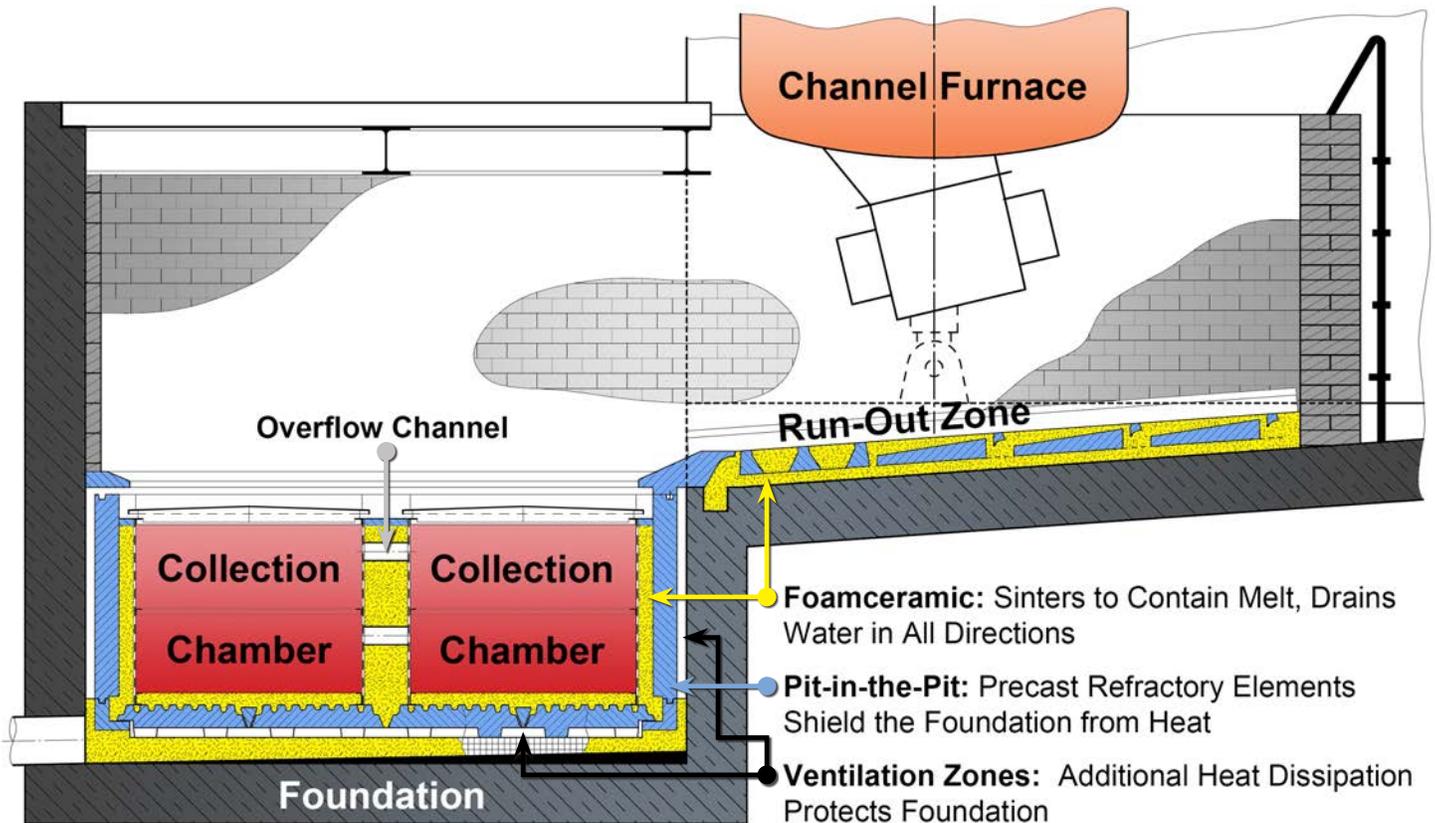
### Benefits:

- Each system is custom engineered and scaled to the size and melt of the furnace it will serve.
- Engineered to contain 120% of the maximum melt, ensuring the entire melt is contained.
- All water present escapes through the Silmeta Systems patented Foamceramic—including in the run-out zone immediately beneath the furnace—which sinters properly to contain the melt and isolate the water in the drainage system.
- Water can escape through the walls of each collection chamber as well as through the floor.
- Built-in crane hooks ensure that removal of the cooled metal mass is straight-forward.
- Ventilation zones and precast refractory elements eliminate heat damage to the pit foundation.
- Reinstallation after a breakout occurs in a matter of days,<sup>1</sup> ensuring a rapid and cost-conscious return to normal operations. Minor damage to any component is also easily repaired.

<sup>1</sup> Once materials are onsite.

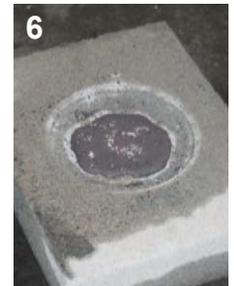
# A COMPLETE SAFETY SYSTEM

## THE EMERGENCY RUN-OUT PIT (ROP)



**The Test.** These photos show the standard test of the Foamceramic material:

1. A sample of molten metal is poured onto a dried block of Silmeta's Foamceramic.
2. Water is poured onto the still-molten metal sample with no effect other than faster cooling.
3. After the metal has solidified, the Foamceramic and metal are completely doused with water.
4. A second molten metal sample is poured right on top of the water.
5. There are no "fireworks" to see, just the second metal sample cooling.
6. The metal solidifies without incident because the water has escaped through the Foamceramic.



WORKING TOGETHER FOR YOU

## ALLIED AND SILMETA

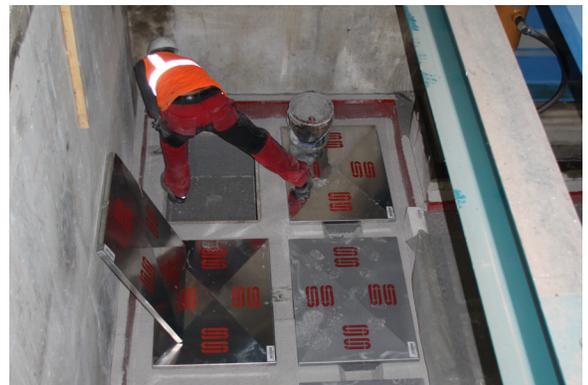
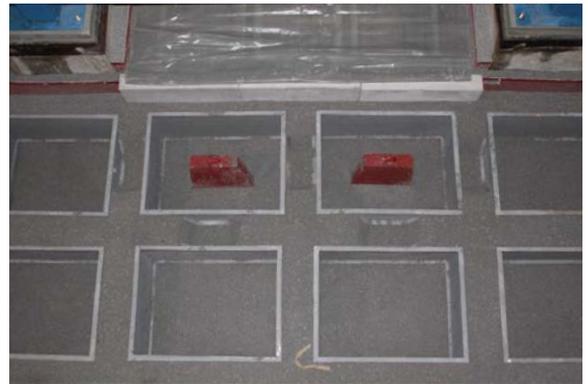
Allied Mineral Products and Silmeta Systems are the ideal team to deliver Emergency Run-Out Pits in the U.S.

Allied's extensive experience with and ability to manufacture precast refractory shapes positions them to deliver projects immediately. And, Allied brings a talented project management and installation team. Those capabilities, coupled with their large and knowledgeable sales force, means that Allied is ready to help foundries understand the product and order exactly what each customer needs.

Silmeta's expertise is a robust part of the equation, too. Established to provide foundries with high-quality equipment, Silmeta brings precise engineering and design to meet each furnace's requirements. And, it wouldn't be a Silmeta ROP without their patented Foamceramic, specifically formulated for each type of melt. Cap it off with Silmeta's ongoing consultation—based on their nearly three decades of experience in developing and installing emergency ROPs—and the collaboration between Silmeta and Allied ensures a proper and effective installation.

With Allied and Silmeta working together, U.S. foundries can count on safety for their employees, a fast installation, and an easier, quicker return to operations after a breakout.

Because every furnace will eventually experience a breakout, Emergency Run-Out Pits by Silmeta Systems, delivered in the U.S. by Allied Mineral Products, are an essential safety system for your foundry's operation.



Global Refractory Solutions

To learn more, contact your Allied representative or email us [allied@alliedmin.com](mailto:allied@alliedmin.com)