

CASE STUDY - DIE CASTING

# High Efficiency Release Agent (HERA™) changes the game.

10.5%  
CYCLE TIME  
REDUCTION



44.5 sec to 39.8 sec

SECOND-STAGE  
SHOT  
VELOCITY

SAVING ENERGY AND  
EQUIPMENT WEAR.



3.87 m/s to 3.30 m/s

DIE LUBRICANT  
CONCENTRATE  
CONSUMPTION



16.5 ml/shot to  
3.48 ml/shot

## WHAT WE ACHIEVED.

Our High Efficiency Release Agent (HERA™) is a micro-spray application innovation that provides countless advantages over traditional release agents. Designed to use far less release agent to create a similar or improved result, it is a breakthrough with radical implications for productivity, efficiency, and sustainability. HERA™ also allows die casters to modify their release agent application method and equipment for process optimization. However, this shift from traditional to HERA™ requires a major change in application method and equipment.

A visionary automotive parts manufacturer engaged with Chem-Trend to implement this revolutionary approach to release agents. We were able to achieve a remarkably beneficial shift with little disruption.

## HOW WE GOT THERE.

This manufacturer was looking for a competitive advantage. Chem-Trend saw them as a prime candidate to take a giant leap forward in technology and process by utilizing our HERA™ micro-spray technology with its multitude of advantages over traditional release agents. We became

quickly aligned. Working alongside them, we analyzed, customized, tested, and implemented the new process. By pairing our HERA™ product with new equipment and processes, we worked to do more than replicate their previous results. We aimed to improve every aspect of their process.

## OUR SOLUTION.

### Immediate advantages were realized.

Our client achieved a 10.5% reduction in cycle time, unleashing productivity on a new scale. HERA™ also provided several advantages, both short- and long-term.

- Improved die life through reduced thermal shock
- Efficient single-position spray application
- Reduced usage of plant air
- Improved process reliability
- Several sustainability advantages
- Less product. Less waste.

We were able to provide all of these improvements and still deliver the solution with an overall economical advantage over traditional release agents.



## HANDPRINT IMPACT

At Chem-Trend, we pride ourselves on our long history of sustainability efforts. However, it is our effect on our customers' processes that provides the greatest impact. It goes beyond our global Footprint; it is our even wider Handprint.

### Here, we achieved the following:

- Significant reduction in energy usage
  - 73% savings from thermal regulators
  - Greatly reduced the use of plant air
  - Reduced transportation needs
  - Reduced packaging needs
- Complete elimination of die lubricant wastewater
- Consumption of release agent by volume greatly reduced

For more information about our die casting capabilities, our innovations, or more stories, visit [CHEMTREND.COM](http://CHEMTREND.COM)