



## CASE STUDY: Product Performance Leads to Operational Savings

### New Plunger Lubricant: A “Clear” Winner

#### Situation:

A die caster was concerned about the wastage and performance issues with their current pellet plunger lubricant. They had a number of machines ranging in size from 150 T to 900 T, with water cooled CopperBeryllium tips ranging from 60 mm to 100 mm (2.5” to 4”). The plant was experiencing:

- Build-up and wear on their tips;
- Plugging in the vacuum system leading to porosity on critical parts;
- Significant downtime each shift for housekeeping on the machine.

#### Solution:

A trial was started with a new Chem-Trend® oil-based plunger lubricant, on a 350 T machine with a ~90 mm (3.5”) tip and a ~711 mm (28”) sleeve. 1.5 ml of lubricant was applied per shot. The plant noticed an immediate improvement in cleanliness around the shot end of the machine. After three weeks, there was no build-up in the vacuum system, machine or the tip. The photo above shows the comparison between the Chem-Trend plunger lube tip (left) and the competitive product tip (right). Both tips were run for 2,500 shots.

#### Benefits:

Tip life was improved and the number of shots per the life of the tip increased by 200%. The improved productivity and savings in tip and sleeve life was estimated at over 20,000 Euros per year.

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