



# CASE STUDY:

## Improved Yields with PST versus Other Treatment Options

**BACKGROUND:** In September of 2015, one of our customer, a major producer of aluminum die cast parts for the automotive industry, engaged our engineering team to conduct a pilot test run to see which surface treatment option is best in producing the most shots per tool.

The die casting tool was using H-13 steel.

**BOTTOMLINE:** The engineers at this die casting company found that other surface treatment options (such as TiAlN by Balzers and MaxShot by Prolong) had definite limitation after 35,000 to 70,000 shots because of heat checking, galling and wear issues. With PST, they found that the tools were so resistant to those issues such that over 100,000 shots were produced before they decided to end the pilot test run and declare PST the winning surface treatment technology.

Surface Treatment	Output Results
TiAlN (by Balzers)	35,000 ~ 45,000 shots
MaxShot (by Prolong)	60,000 ~ 70,000 shots
PST (Philos Surface Treatment)	100,000+ shots

**Any given surface treatment option cannot be evaluated on its initial treatment costs alone, because each produce different yields. It is also important to remember that with each improved yield per tool, there will be less downtime due to tool maintenance and changing.**

Contact us today to get your tools and components treated with PST. Our sales engineers will explain to you the PST Process and demonstrate PST’s superior technology with an initial proof-of-concept application at only a nominal cost to you.