



Cast Iron Skim Blades

PROCESS

Continuous billet casting

CUSTOMER BACKGROUND

The customer runs multiple continuous billet casting lines.

PREVIOUS SITUATION

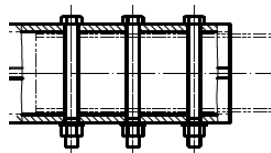
The customer was using plate steel skim blades. They needed to reduce production costs, and allowed Pyrotek to look at products used and identify ways to increase service life.

PYROTEK SOLUTION

Pyrotek proposed trialing a cast iron skim blade to compare service life. Both the cast iron and plate steel blades were run on the same casting line, and were measured by the number of drossings.



The cast iron boom bolts onto the existing steel boom with 3 steel bolts, reducing replacement time.



Three-bolt design

The customer's previous plate steel blade was welded to the boom, making blade replacement difficult and usually resulted in scrapping the entire blade/boom assembly.

TRIAL RESULTS

The plate steel blade was pulled from service after 33 drossings due to blade erosion. The cast iron skim blade was pulled after 49 drossings, also for blade erosion.

PROCESS IMPROVEMENTS

- Increased skim blade life
- Cost savings

CUSTOMER SAVINGS

	Steel Plate	Cast Iron
Blade Cost (USD)	\$1100	\$1350
Service Life (drossings)	33	49
Cost Per Drossing (USD)	\$33.33	\$27.55
Annual Savings* (USD)	\$55,000	

*When used on all 9 furnaces

PRODUCT INFORMATION

Pyrotek skim blades are made from ductile cast iron, providing better corrosion and erosion resistance than traditional steel blades. This improved erosion resistance extends the working life of the blade and reduces the amount of iron contamination in the melt.

Pyrotek skim blades use a bolt system for attaching the blade to the boom. Using bolts allows for easier blade replacement, less damage to the boom, and reduced downtime when compared to traditional welding.

VALUE TO OUR CUSTOMERS

- Two-piece design allows for blade replacement without replacing the boom, reducing downtime
- Increased product life compared to welded steel
- Reduced iron contamination
- Customized to attach to current connection systems
- Delivered in ready-to-install condition

