



LOTUSS System

ALUMINIUM PROCESS
Recycling for Scrap Melting

SCRAP CHARGE RATE
800 kilograms per hour

LOTUSS SYSTEM SIZE
30-inch diameter LOTUSS bowl with T-35SD circulation pump

LOTUSS ROTATION SPEED
450 rpm

PREVIOUS SITUATION

The customer, a secondary ingot manufacturer, previously handled scrap melting manually. Even when treated by forklift for more than 30 minutes, the scrap was not melted efficiently. The primary problems encountered included:

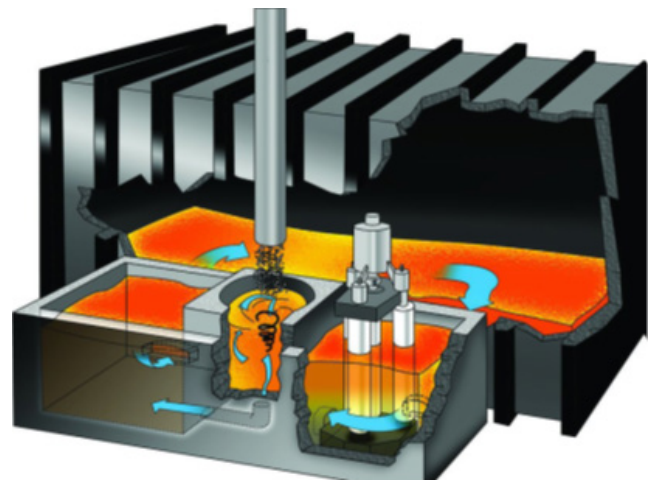
- Slow melting speed
- Poor yield
- Poor metal quality (oxidation)



Before:
manual method of melting scrap

PYROTEK SOLUTION

Installation of the LOTUSS system delivered immediate results in the problem-areas of the customer's light-gauge scrap (swarf) recycling process. The LOTUSS system proved to be an efficient and low-cost solution. The LOTUSS operates in conjunction with the T-35SD circulation pump. Because the LOTUSS charge well is separate from the dross well, charging can be continuous, even during fluxing and dross removal. This automatically generates higher yield. The swarf charging rate is 800 kilograms per, and the rotation speed is approximately 450 revolutions per minute. This process was further enhanced with the introduction of 1 percent



Coveral 18S (flux) with the scrap feed.

The results were a very high recovery rate and a 3 percent yield improvement compared to the conventional manual method.



After:
Pyrotek's LOTUSS system continuously melts scrap

PROCESS IMPROVEMENTS

- Remelt yield improvement
- Reduced downtime
- Enhanced metal quality
- Maximized metal production

ESTIMATED SAVINGS

| | |
|---|---------------------|
| Annual Scrap Volume | 2400 tonnes |
| Yield Improvement (3% Annually) | 72 tonnes |
| Aluminium Price Per Tonne | USD\$2000 |
| Annual Cost Advantage (72 tonnes x USD\$2000 Per Tonne) | USD\$144,000 |
| Annual System Consumption | USD\$40,000 |
| Total Savings | USD\$104,000 |

