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**ACRONI D.O.O., SLOVENIA**  
AOD CONVERTER AND DEDUSTING  
SYSTEM

# NEW AOD CONVERTER AND DEDUSTING SYSTEM

Acroni d.o.o  
Jesenice, Slovenia

## MAIN BENEFITS

### Reduction of production costs

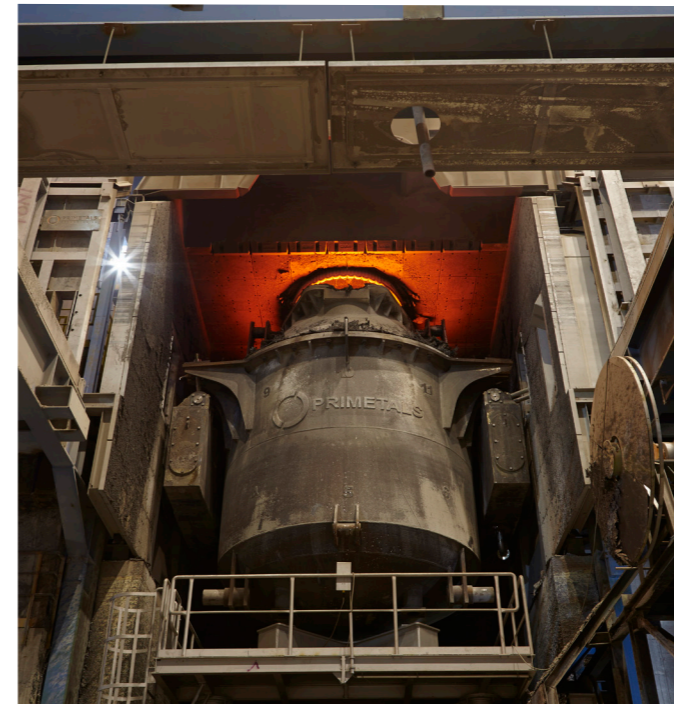
- Less expensive charging materials
- Lower refractory consumption on EAF & VOD
- Lower energy consumption
- Higher yield

### Productivity increase

- Up to 50% more heats per day due to reduced tap-to-tap time for stainless steel grades
- Process managed in fully automatic mode
- Longer casting sequences especially for stainless steel

### Energy & environment

- From waste heat recovery possible
- Lowest dust emission levels



AOD converter



Dedusting plant

Acroni d.o.o., a Slovenian steel producer belonging to the Slovenian Steel Group (SIJ), awarded Primetals Technologies an order to supply a new 95 metric ton AOD converter and dedusting system to its steel works in Jesenice.

## SOLUTION

In the previously existing plant setup the crude steel was produced in an electric arc furnace, and decarburized in a VOD plant with a capacity of 95 metric tons. As the duration of treatment is significantly longer than for carbon steels, this plant configuration represented a bottleneck in the stainless steel production that has been eliminated by installing an AOD converter, which increased both the production capacity and the flexibility of the steel works.

Additional advantages of an AOD converter are the low degree of slagging of alloying elements and the option of using cheaper ferrochromium grades with a higher carbon content as an alloying addition. The new material handling system for the converter has been integrated into the existing system.

The scope of Primetals Technologies supply also included a process automation system specifically designed for AOD converters. The dedusting system, which has been installed at the same time as the AOD converter, has not only ensured that emissions are below the current limits, but also increased the energy efficiency and occupational safety in the production environment.

## PLANT DATA

### AOD Converter

Nominal heat size	95 t
Number of tuyeres	5
Specific reaction volume	0.485 m <sup>3</sup> /t
Oxygen blowing capacity	120 Nm <sup>3</sup> /min
Charge-to-tap time	80 to 100 min
Annual possible AOD production approx.	349,000 t/y

### Dedusting Technology for AOD and material handling

Dry technology	Pulse jet filter with forced draft cooler with optional heat recovery
Flow rate	approx. 1,000,000 Am <sup>3</sup> /h
Clean gas content	max. 10 mg/m <sup>3</sup>

## SCOPE OF SUPPLY

- Engineering
- Equipment manufacturing and supply
- Erection
- Training on site
- Advisory services for start-up and commissioning

## Electrics and automation

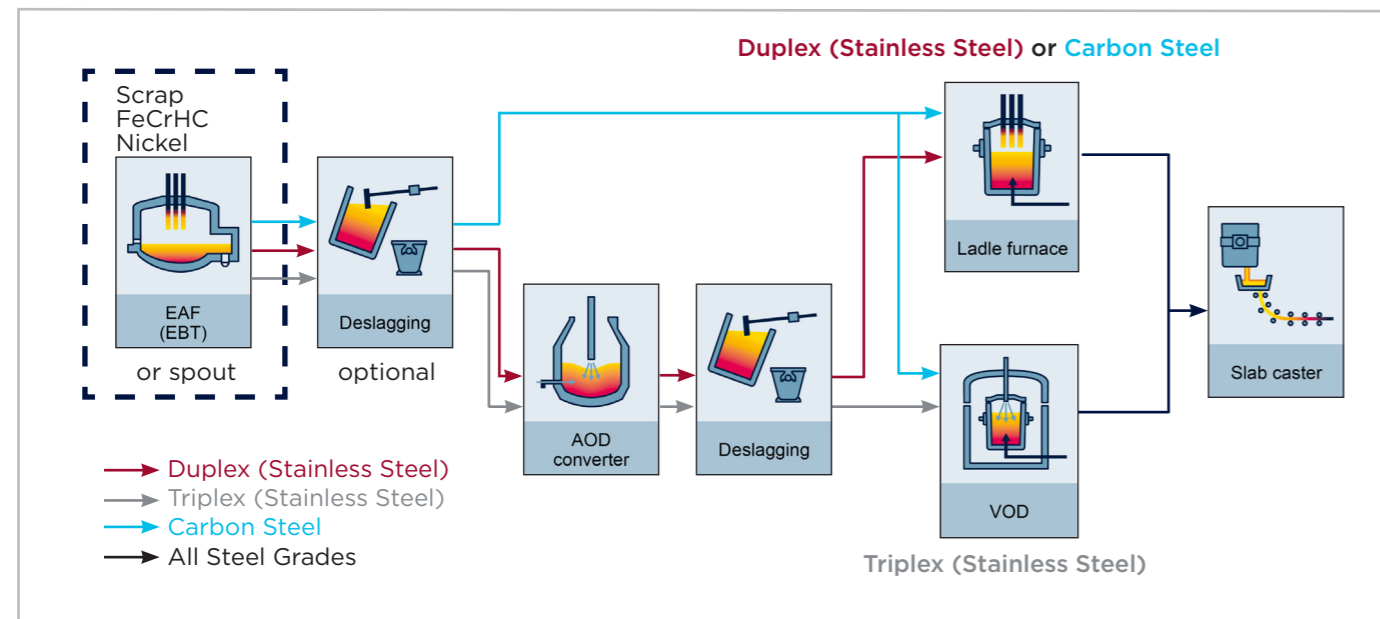
- Basic automation systems
- Process optimization systems, including process models
- Condition monitoring solutions

With the new advanced stainless steel making facility Acroni is now able to expand its production of highly specialized stainless steel grades and improve its position on the market.



For more information watch the reference video.

[meta.is/New-AOD-Converter](https://meta.is/New-AOD-Converter)



Production flow

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