



example figure

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

NEW AOD CONVERTER AND DEDUSTING SYSTEM

Jesenice, Slovenia

MAIN BENEFITS

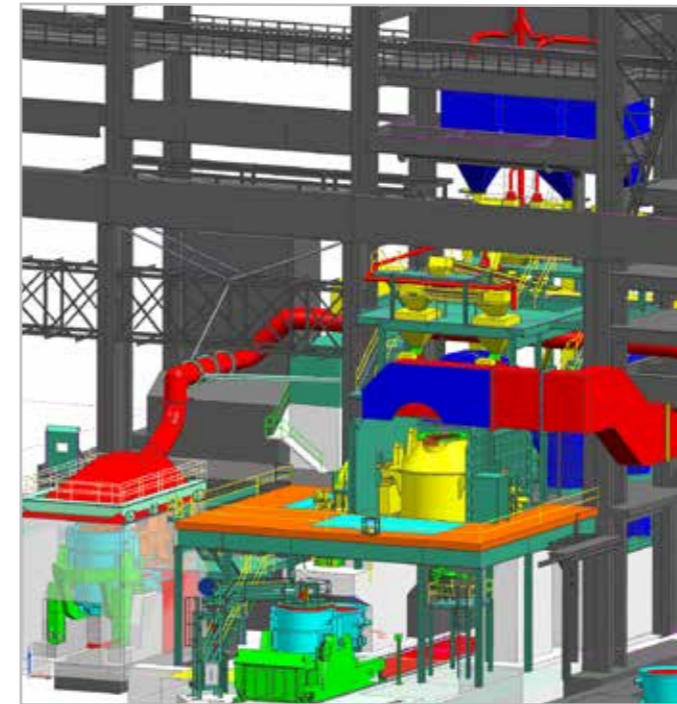
- Reduction of production costs
 - Less expensive charging materials
 - Lower refractory consumption on EAF & VOD
 - Lower energy consumption
 - Higher yield

Productivity Increase

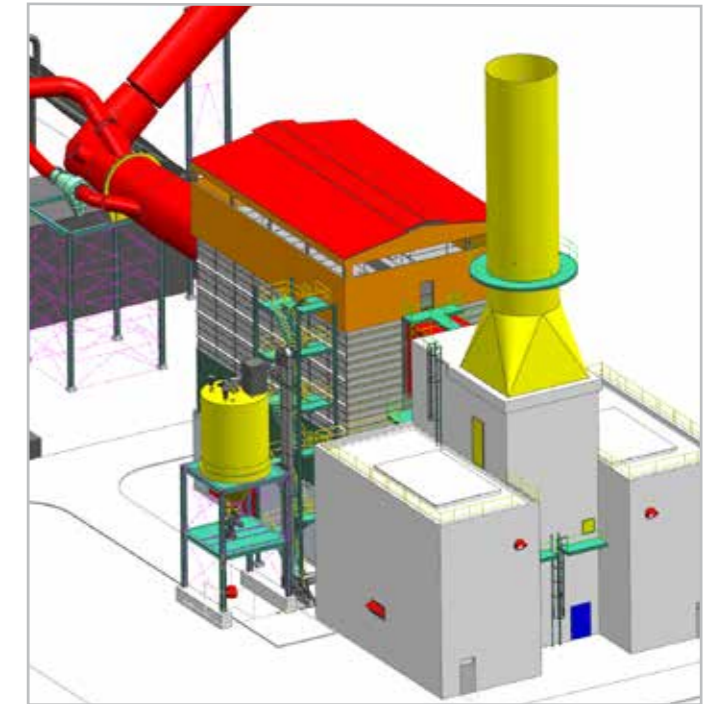
- Up to 50% more heats per day due to reduced tap-to-tap time for stainless steel grades
- Process managed in fully automatic mode
- Longer casting sequences especially for stainless steel

Energy & Environment

- From waste heat recovery possible
- Lowest dust emission levels



AOD converter area



Dedusting plant

Acroni, d.o.o., a Slovenian steel producer belonging to the Slovenian Steel Group (SIJ), has 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 existing plant setup the crude steel is 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 represents a bottleneck in the stainless steel production that will be eliminated by installing an AOD converter, which will increase 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 will be integrated into the existing system.

The scope of Primetals supply also includes a process automation system specifically designed for AOD converters. The dedusting system, which will be installed at the same time as the AOD converter, will not only ensure that emissions are below the current limits, but also increase the energy efficiency and occupational safety in the production environment.

Planned start-up: Middle of 2017

PLANT DATA

AOD Converter

Nominal heat size	95 t
Number of tuyeres	5
Specific reaction volume	0,485 m ³ /t
Oxygen blowing capacity	120 Nm ³ /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

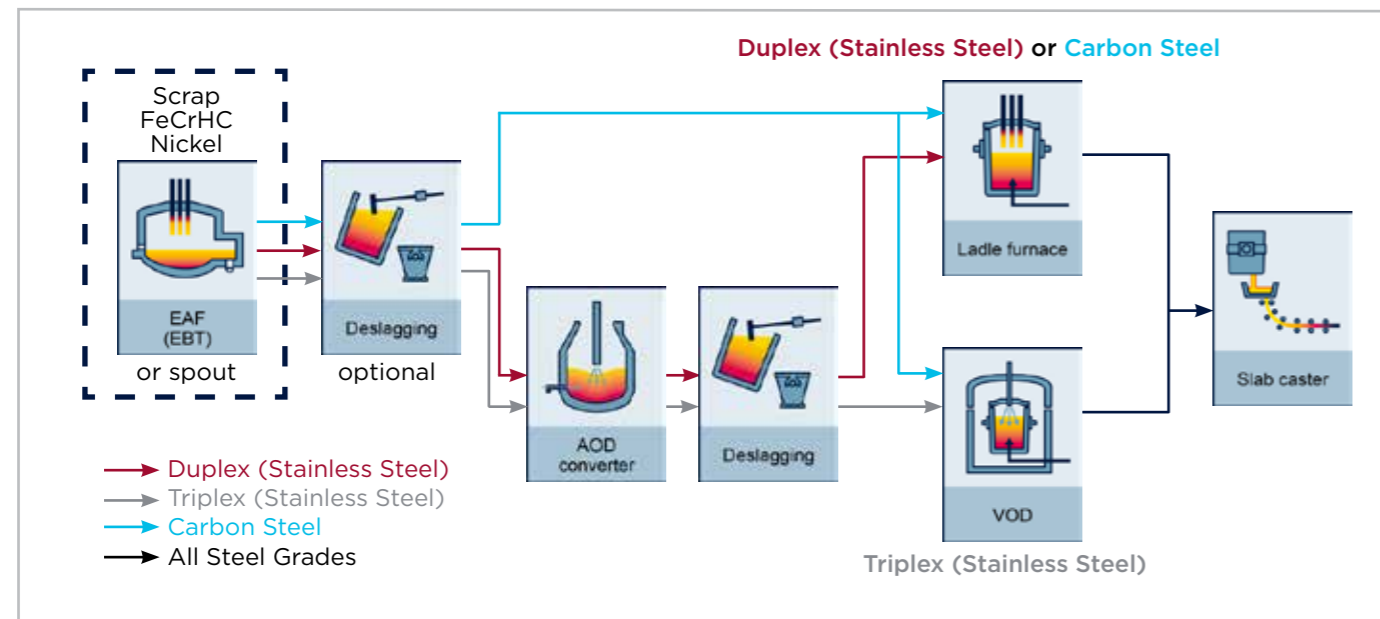
Dry technology	Pulse jet filter with forced draft cooler with optional heat recovery
Flow rate	approx. 1.000.000 Am ³ /h
Clean gas content	max. 10 mg/m ³

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



Production flow steel

Primetals Technologies Austria GmbH

A joint venture of Mitsubishi Heavy Industries and partners

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