TITANIUM-COATED ROLLS
IAOM SEA-JAKARTA, OCTOBER 7TH, 2019
With the aim to optimize and enhance the mill’s operation, Ocrim has decided to focus on the grinding rolls, designing a solution that would help in reducing both time and maintenance costs:

**TITANIUM- COATED ROLLS** for the fluted passages in the grinding process.
WHY TITANIUM?

• HIGHER HARDNESS CHARACTERISTICS
• ANTIMICROBIAL MATERIAL
• BENEFITS IN OTHER INDUSTRIES
TITANIUM COATING

42X SANDWICH TIB₂ LAYER
TIN LAYER
42X SANDWICH TIB₂ LAYER
TIN LAYER
WHITE CAST IRON

COATED BY PACVD PROCESS
TWO INDIVIDUAL COATING PROCEDURES:
TIN LAYER + 42X SANDWICH TIB₂ LAYER +
TIN LAYER + 42X SANDWICH TIB₂ LAYER
ADVANTAGES:
4 TIMES HIGHER IN HARDNESS COMPARED TO TRADITIONAL ROLLS
2200 HB VS 560 HB

GUARANTEES:
- FLUTING LASTS LONGER
- LESS MAINTENANCE COSTS
With **TITANIUM-COATED ROLLS** the ideal configuration of the plant lasts longer, remaining as unaltered as possible.

**ADVANTAGES**

**NOMINAL PLANT YIELD LASTS LONGER**

+ **LESS MAINTENANCE COSTS**

+ **LESS ENERGY CONSUMPTION**
TITANIUM-COATED ROLLS were tested on a running Mill in Italy.

- With new TITANIUM-COATED ROLLS the average particle size of the outgoing product was 885 microns.
- After 100,000 tons the average granulometry shifted to 950 microns.

The granulometry value has not changed much, showing an insignificant wear of the grinding roll.
A drop of 0.5% in yield for a 300TPD flour mill, causes:

- Daily flour loss: 650 $
- Annual loss: 180K $
- Inefficiency, $$/yield loss and increase in energy consumption
RESULTS/CONCLUSIONS

- Cutting maintenance costs and time saving
- Reducing plant stops due to changes in rolls
- Lowering costs for renewal of roll fluting
- Reducing plant yield loss
- Increase of mill productivity
- Titanium coating lasts at least 2 years
THANK YOU