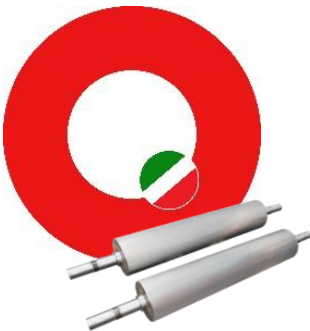




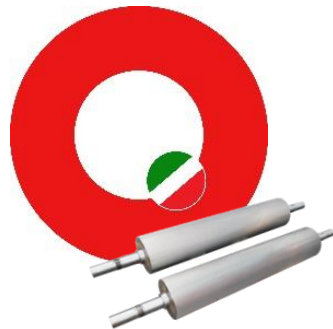
TITANIUM-COATED ROLLS

IAOM SEA-JAKARTA, OCTOBER 7TH, 2019



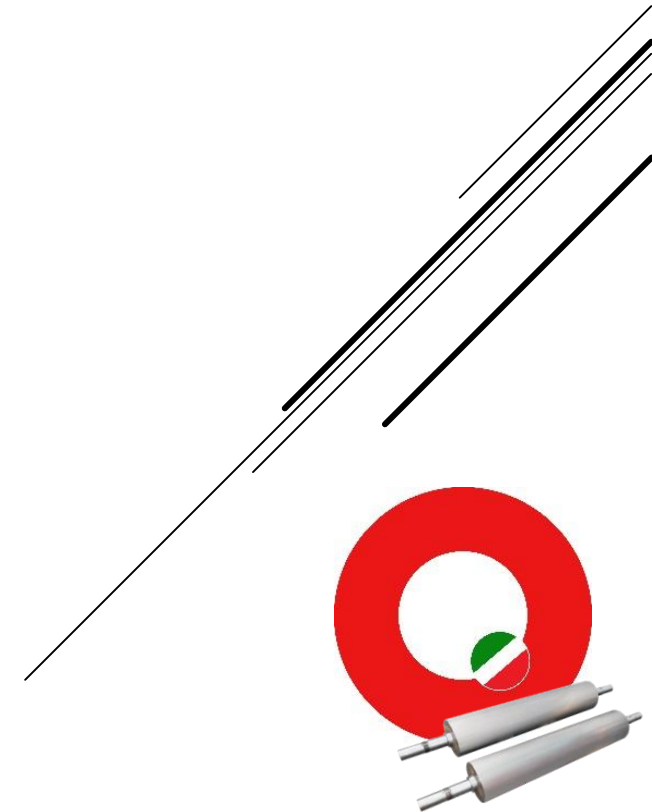
With the aim to optimize and enhance the mill's operation, Ocrim has decided to focus on the grinding rolls, designing a solution that would help in reducing both time and maintenance costs:

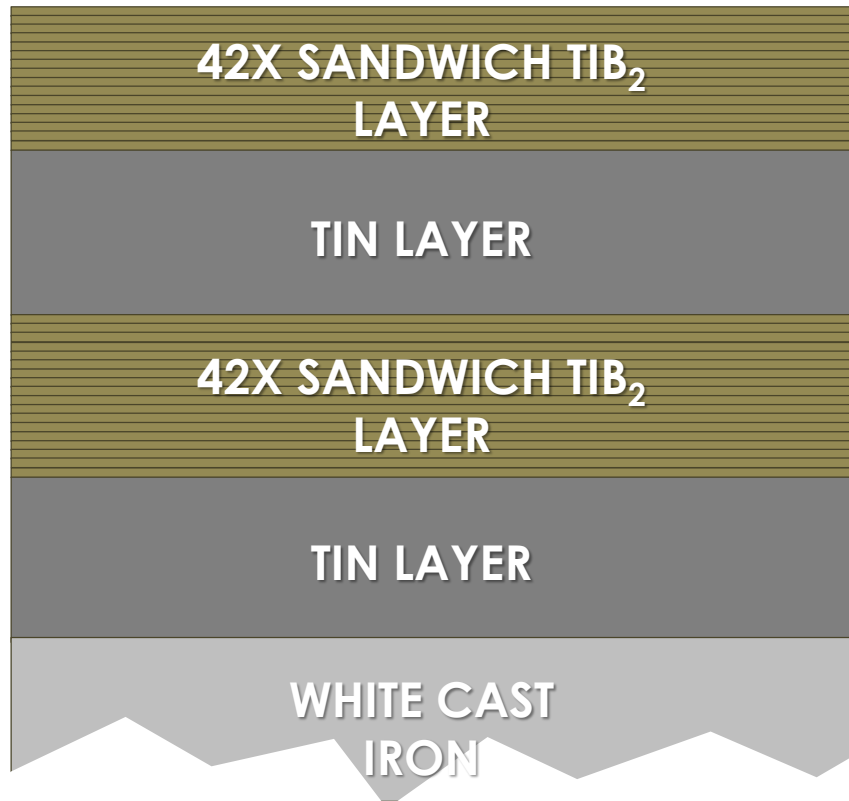
TITANIUM- COATED ROLLS for the fluted passages in the grinding process.



- HIGHER HARDNESS CHARACTERISTICS
- ANTIMICROBIAL MATERIAL
- BENEFITS IN OTHER INDUSTRIES

WHY TITANIUM?

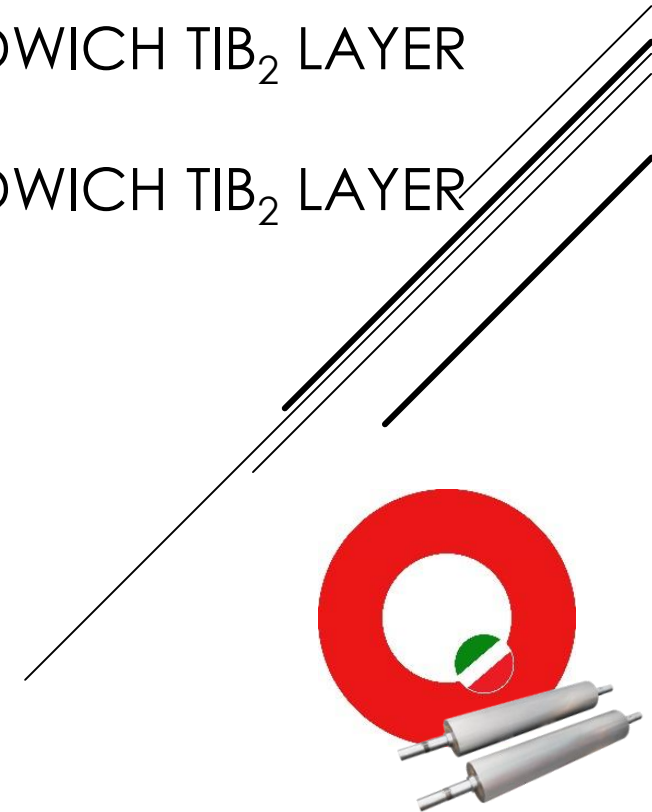




COATED BY PACVD PROCESS
TWO INDIVIDUAL COATING
PROCEDURES :

TIN LAYER + 42X SANDWICH TIB₂ LAYER
+
TIN LAYER + 42X SANDWICH TIB₂ LAYER

TITANIUM COATING

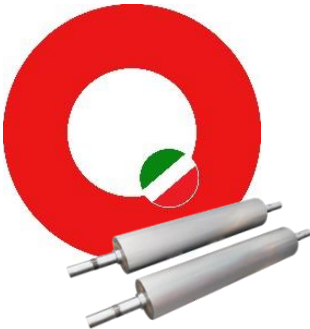




ADVANTAGES: 4 TIMES HIGHER IN HARDNESS COMPARED TO TRADITIONAL ROLLS

2200 HB VS 560 HB

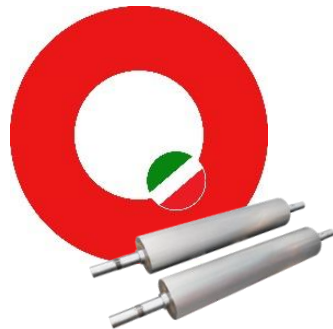
GUARANTEES:
-FLUTING LASTS LONGER
-LESS MAINTENANCE COSTS



With **TITANIUM-COATED ROLLS** the ideal configuration of the plant lasts longer, remaining as unaltered as possible.

NOMINAL PLANT YIELD LASTS LONGER
+
LESS MAINTENANCE COSTS
+
LESS ENERGY CONSUMPTION

ADVANTAGES

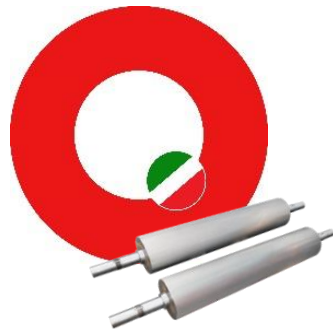


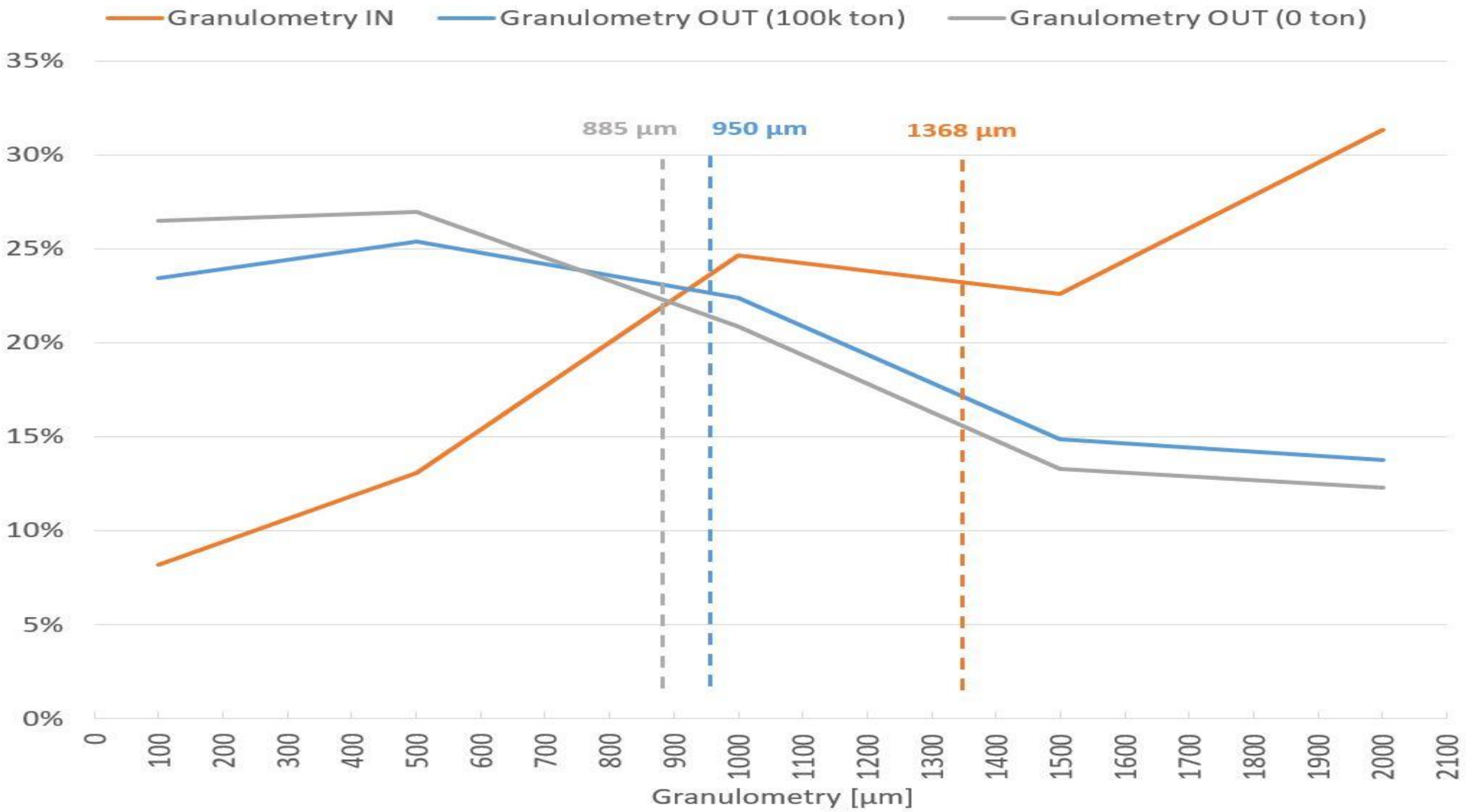
TITANIUM-COATED ROLLS were tested on a running Mill in Italy.

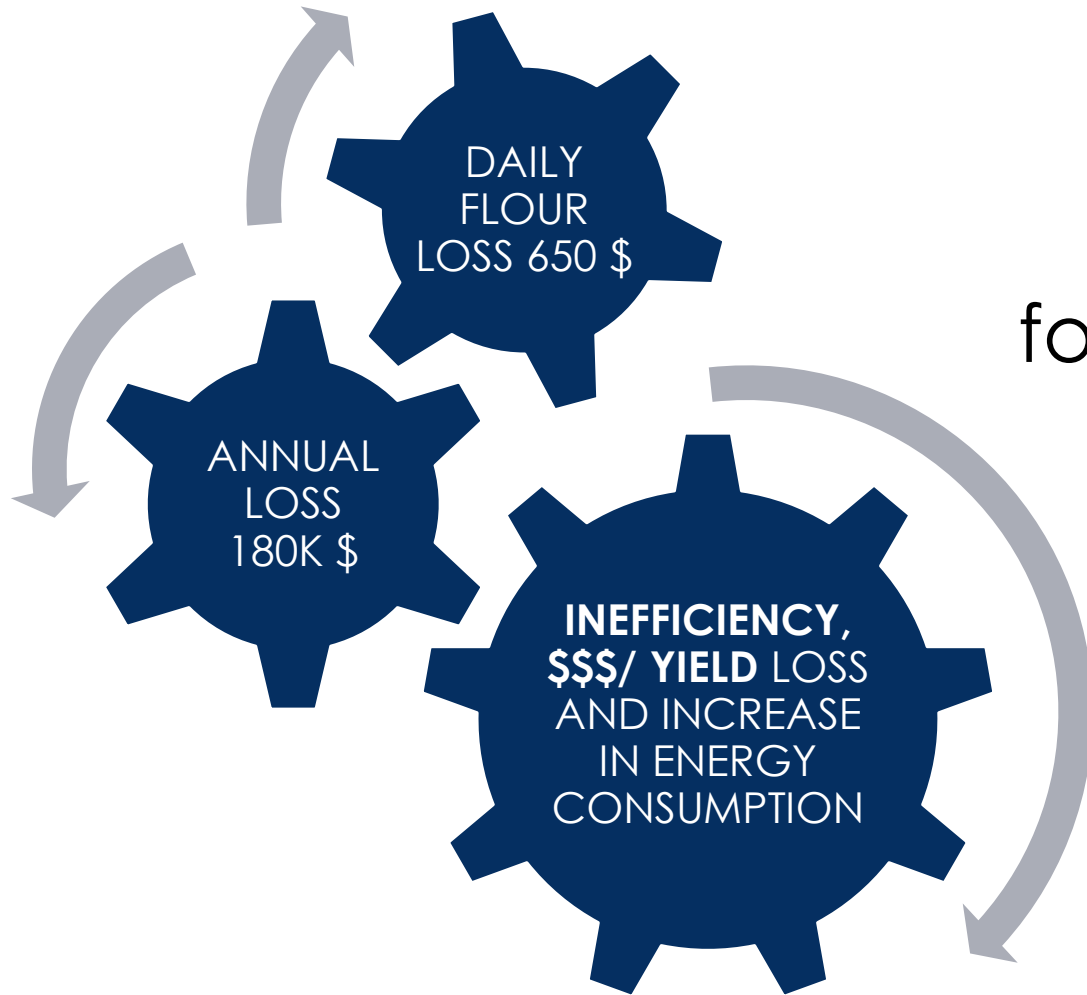
- **With new TITANIUM-COATED ROLLS the average particle size of the outgoing product was 885 microns**
- **After 100,000 tons the average granulometry shifted to 950 microns**

The granulometry value has not changed much, showing an insignificant wear of the grinding roll.

FIELD TESTS

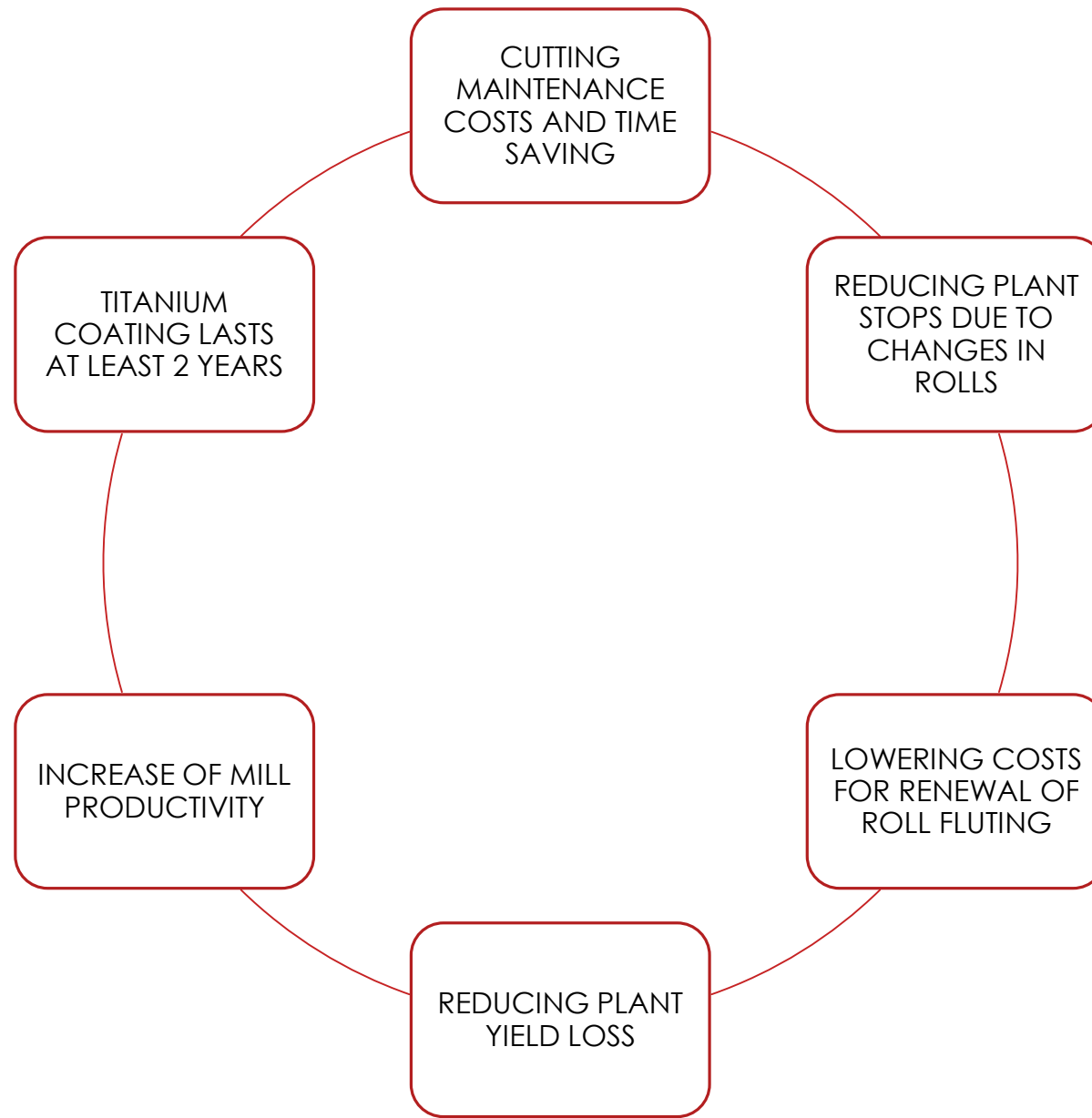




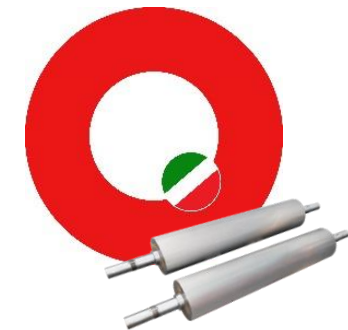


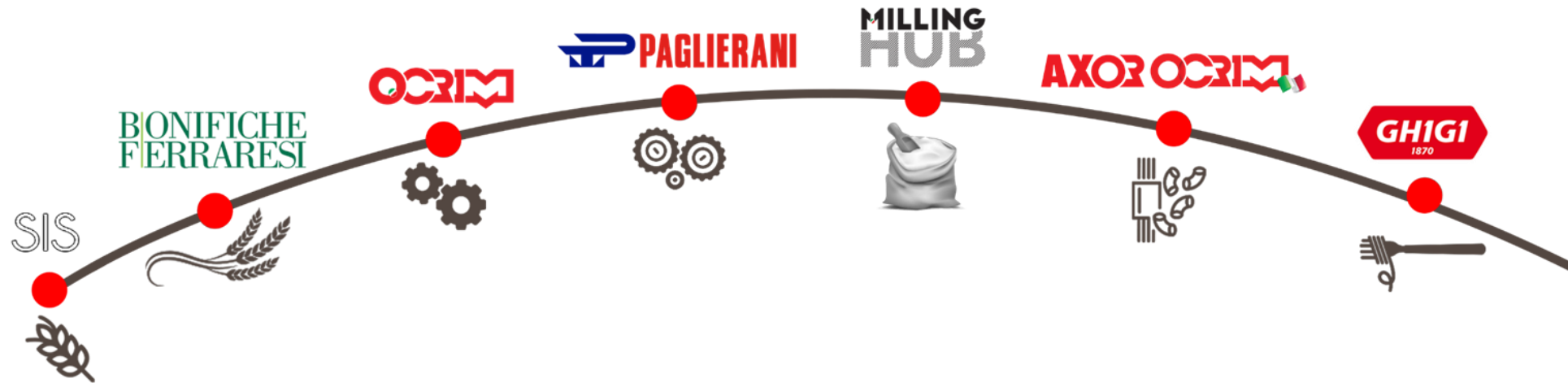
A drop of **0.5%** in yield for a 300TPD flour mill, causes:





RESULTS/CONCLUSIONS





THANK YOU

