

# CLASSIFYING LINER CLASSOLINE®

## WHY A CLASSIFYING LINER?

This type of liner has a critical role in mill operation:

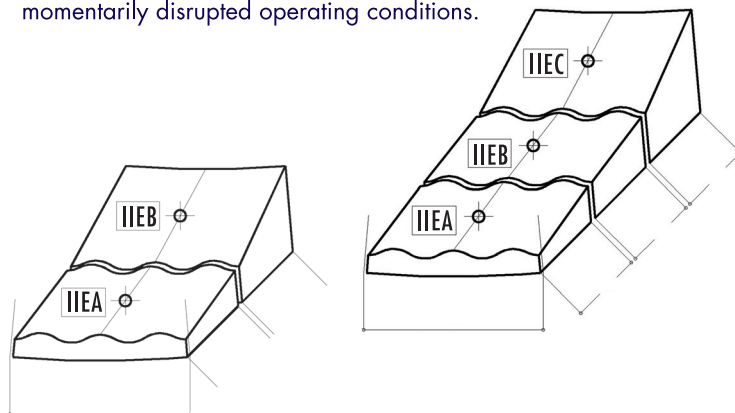
- To classify the grinding media by size, from inlet to outlet of the grinding chamber. It adapts media size to the particles size to be ground.
- To guarantee an optimum attrition of the material.
- To contribute to a smooth flow of material.



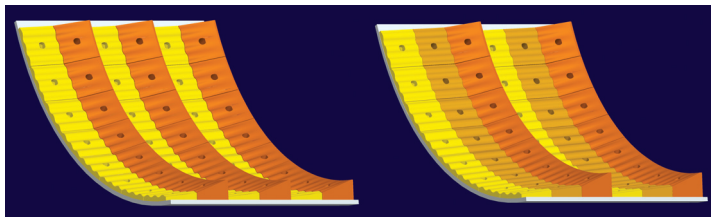
## THE MAGOTTEAUX/ SLEGTEN CONCEPT

The design features are:

- Generates cascading effect.
- Classifies grinding media from 60 to 15mm in finishing mills and 90 to 20mm in mono chamber mills. Classification effect is independent from mill rotating direction.
- Allows to match media sizes with particles to be ground along mill length, which leads to an efficient attrition rate.
- Counters grinding media tendency to declassify during mill rotation.
- Keeps good classification in case of momentarily disrupted operating conditions.



The CLASSOLINE® profile is adapted to two, three or four plates, depending on the mill diameter.



The information and data in this data sheet are accurate to the best of our knowledge. They are intended for general information only. Applications as suggested are described only to help readers make their own assessment. They are neither guarantees nor to be construed as express or implied warranties of suitability for these or other applications.



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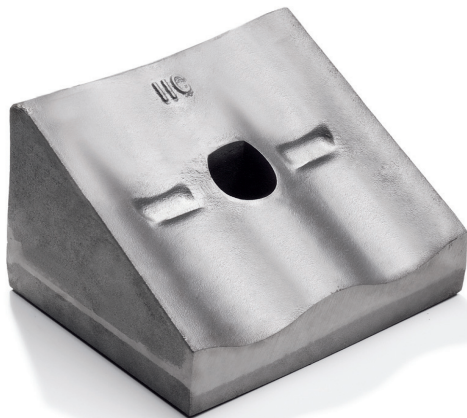
The profile is selected according to:

- customer's specific requirements
- tube mill type
- grinding circuit type
- material to be ground
- grinding charge characteristics
- grinding media filling degree
- mill rotation speed.

## TECHNICAL CHARACTERISTICS

The CLASSOLINE® liner can be installed in a mill in two different ways:

- Bolted
- Semi-vaulted (2, 3 or 4 bolted semi-vaults)



The CLASSOLINE® is manufactured in cast irons with a chromium content between 11% and 27% and a hardness ranging from 50 to 62 HRc.

## ADVANTAGES

1.  $\pm 10\%$  overall increase in grinding efficiency as compared to a non classifying lining.
2. Classifying effect prevents overgrinding.
3. Creates smooth natural material flow -> reduces the need for grinding additives.
4. Permits the use of large diameter media at entrance of 2nd compartment to overcome lower grinding efficiency in 1st compartment or diaphragm.
5. Allows to constantly keep original best-suited ball charge by just adding required sizes and quantities.
6. Reduced maintenance costs (longer lifetime – reduced downtimes).
7. Reduced ball wear through restriction of sliding phenomenon and better adaptation of grinding charge surface to that of material to be ground.

## FIELDS OF APPLICATION

CLASSOLINE® is used for grinding the following materials: clinker, gypsum, anhydrite, white cement, raw materials, slag and coal.



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