

# MAGOTTEAUX

## OPTIMEX: «THE» outlet diaphragm

### WHY THE OPTIMEX?

The OPTIMEX diaphragm is designed to help optimize the grinding process. Its design features include:

- a maximum air passage area to allow for a reduced pressure drop and optimum ventilation;
- free passage of material due to the innovative design of the frame, grates and slots;
- overlapping grates to provide a tight fit and avoid the passage of grinding media;

### THE IDEAL MECHANICAL SOLUTION

The OPTIMEX diaphragm can have its frame fastened to the outlet head of the mill and/or the mill shell, thus protecting both completely. The grates are totally independent from the mill head. This allows for better standardization of the grates as well as more flexibility in their design. The OPTIMEX central screen is conceived in such a way as to allow for maximum air passage.



### ADVANTAGES OF OUR ORIGINAL DESIGN

#### Superior foundry technology.

The outlet diaphragm usually undergoes little mechanical stress due to its location in the mill. Because of this, the alloy selection and its subsequent heat treatment allows for grates with very high hardness, which in turn results in excellent wear resistance.

In addition to this, MAGOTTEAUX can adapt the thickness of the grates to give perfect protection to the bolts.



#### Precise installation of pre-assembled elements.

The OPTIMEX can be easily and quickly installed due to several features:

- Adapted design for any shell drilling.
- The grate fastening can be done from the grinding compartment without intervention in the diaphragm.



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SHAPING A WORLD OF PERFORMANCE

- Use of preassembled elements thoroughly inspected for quality in the workshop.
- The various pieces are sized to either fit through the manhole or the inlet trunnion of the mill.
- On site welding and assembly is kept to a minimum.

### Reduced maintenance schedule

- The fixing and sealing of the peripheral ring to the mill shell, avoiding wear due to material circulation between the mill shell and the diaphragm sole.
- The ideal design of the grate fastening system.
- The shape, alloy and heat treatment of the grates, made according to the grinding conditions.
- The grates, designed with overlaps to avoid gaps and provide a tight fit.
- The limited quantity and high quality of bolts.

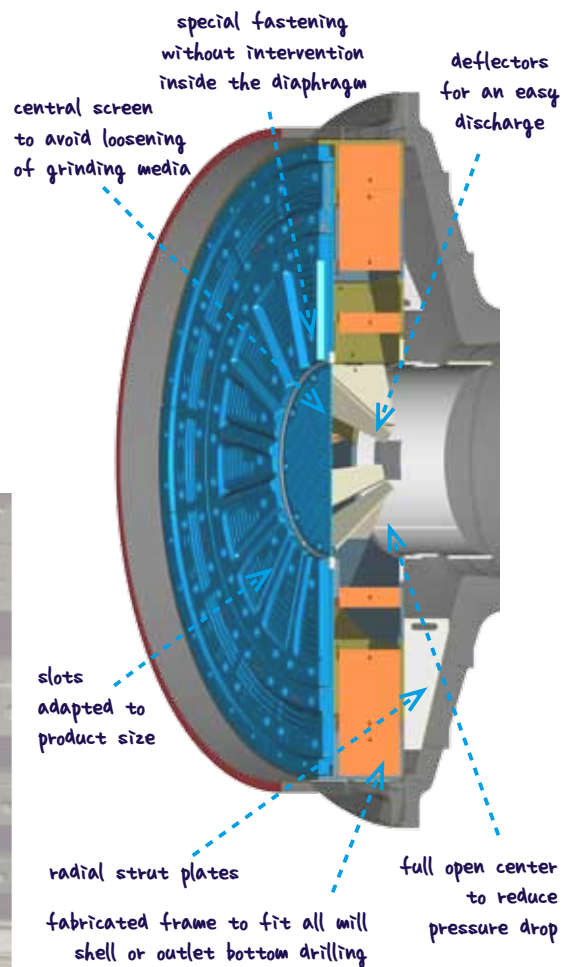
### Specific design for special conditions

For example, in special cases, the OPTIMEX can be fitted with scoops. These scoops can be adjusted in the same way as for the OPTICONTROL diaphragm. For a more detailed operating explanation, please see the technical data sheet for this diaphragm.

### Optimization of mill grinding efficiency

- Better process control.
- Ideal mechanical solution.

- Precise installation of preassembled elements.
- Reduced maintenance.
- Specific design for special conditions.



**Please do not hesitate to contact our engineers for any further details.**  
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