MAGOTTEAUX

OPTIDRY: «THE» transfer diaphragm

WHY THE OPTIDRY?

We designed the OPTIDRY to help operate in the best possible conditions taking the following features into account:

- a maximum area for air passage to allow for a reduced pressure drop through the diaphragm. This, in turn, reduces the wear found in cases where the speed of the dust filled air is excessive;
- the central cage is designed to avoid the passage of grinding media into the drying chamber.

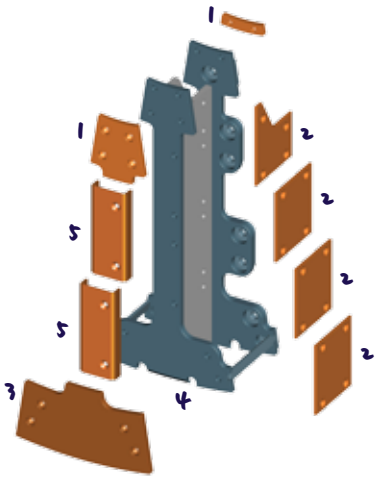
THE IDEAL MECHANICAL SOLUTION

The design of the OPTIDRY provides the following:

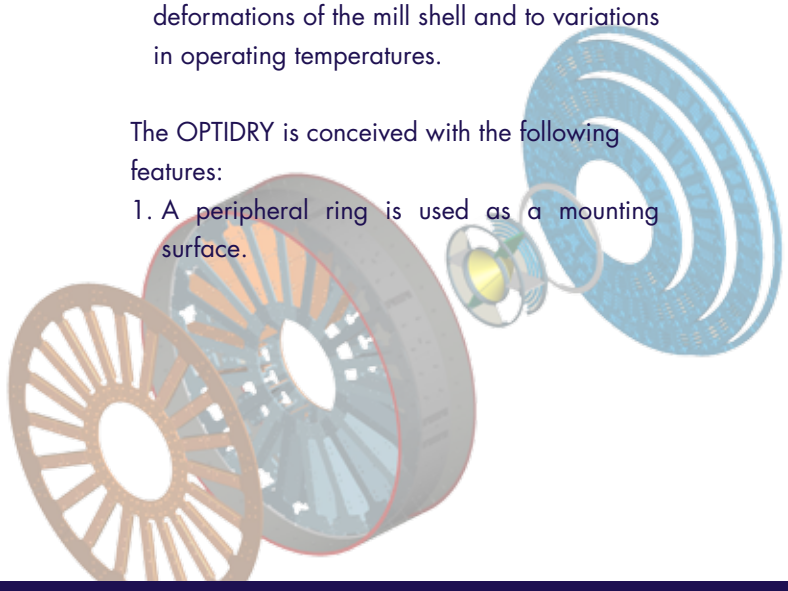
- excellent axial rigidity to resist the pressure of the ball charge which is applied on only one side of the diaphragm;
- ability of the frame to adapt to the dynamic deformations of the mill shell and to variations in operating temperatures.

The OPTIDRY is conceived with the following features:

1. A peripheral ring is used as a mounting surface.
2. Zinc is poured between the peripheral ring and the mill shell to provide the following benefits:
   - perfect seating of the frame;
   - sealing of the peripheral ring to the mill shell, thus avoiding wear by preventing material circulation between the mill shell an the diaphragm sole;
   - optimum heat transfer from the ring to the mill shell to avoid deferential deformations.
3. Radial beam sectors are welded to the pe ripheral ring and act as lifters.



1.Top shielding (standard)
2.Wear resistant shieldings (standard)
3.Wear resistant filling ring segment (standard)
4.«I-beam3 design sector
5.wear resistant shieldings (optional)



ADVANTAGES OF OUR ORIGINAL DESIGN

Increased resistance to high temperatures

The diaphragm frame can be made of a steel which will resist operating temperatures up to 400° C (750 F). All the frame parts that are confronted with highly abrasive conditions are protected by qear resistant cast steel parts which provide excellent resistance both against wear and high temperatures.

Superior foundry technology

- The foundry process offers complete freedom in combining an optimum grate design with maximum wear life. This is critical because:
- The design, the alloy and the heat treatment can be adapted to specific grinding conditions.
- The slots can be designed according to the required quantity of gases.
- The location and the shape of the lifters can be designed according to the wear pattern.
- The design allows the bolts to be perfectly protected.

Precise installation of pre-assembled elements

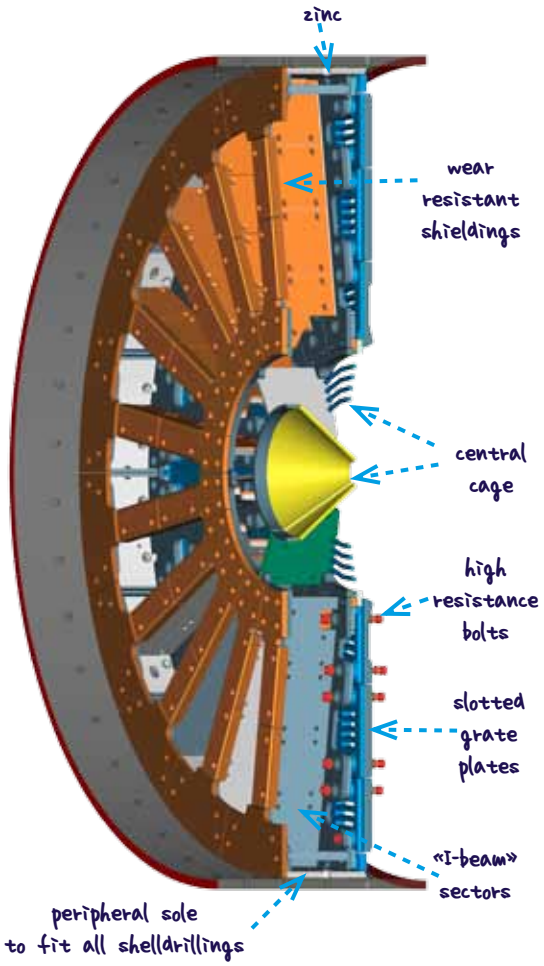
The OPTIDRY can easily and quickly be installed due to several features:

- The design is adapted for any shell drilling.
- Preassembled elements are thoroughly inspected for quality in our workshop.
- The various items are sized to fit either through the manhole or the feed throat.
- On-site welding and assembly are kept to a minimum.

Reduced maintenance schedule

The OPTIDRY requires minimum maintenance as a result of:

- The complete protection of the mill shell.
- The improved design of the grate fastening system.
- The possible overlapping to provide a tight fit and avoid the passage of grinding media.
- The limited quantity and high quality of balls.



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