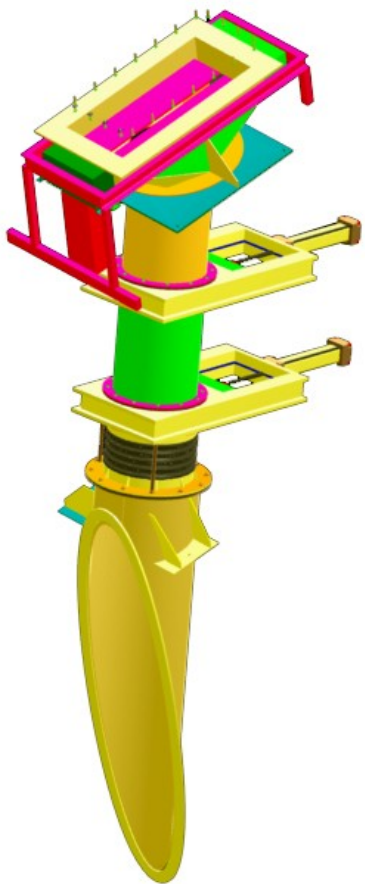


The action

For designing the discharge sections in the kiln upper chamber, the wide operational temperature range has been considered. Flexible elements, refractory layers and safety cut off gates have been added to the design. An other design constrain was generated by the available space. The designed solution meets all the requirements and constraints. It also insures safety and maintenance requirements.



3D model of a discharge section.

HOOK ELEVATOR IMPLEMENTATION

Project # 3

EN

Project erected in a high density equipment area.

The Project:

Design a steel structure composed of foundations, support / maintenance platforms, airlock valve support structure and discharge sections to a cement kiln that serves a tires feeder hook elevator.

Required resources:

This project required the addition of a structural engineer and a licensed structural supervisor besides the industrial design office resources. CAD Resources: Pro / E Wildfire 2 Flex Eng module.

Features:

The wide operational temperature range (-45 °, 180 ° C) required development of solutions able to solve the operating problems. The discharge platform located at +24.73 [m] in a constraints crowded area with other equipment on the kiln tower required a careful 3D model of this environment.

Achievements:

The structure design meets the requirements of various equipment functions, equipment maintenance and dimensional constraints. The tires hook elevator feeder is a win/win solution, allowing the neutralization of waste tires and cheap energy for cement manufacturers.

Peculiarities:

- Accurate defining the project development area.
- 3D modeling of existing structures and equipment.
- The incorporation in the generated assemble of the 3D hook elevator model.
- Generating a hoist support structure and discharging sections.