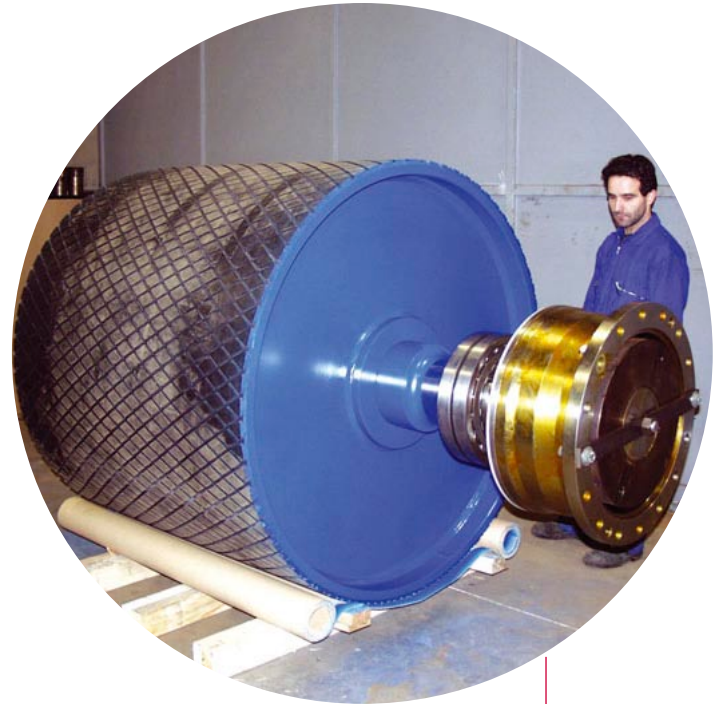


Mecadrum

Improved drum design through simulation

Thanks to specifically developed finite element calculation software, Mecadrum has been able to innovate, optimise its products and land new markets.



Mecadrum builds drums for bulk material belt conveyors. The smallest, measuring 20 cm in diameter and less than a metre long, are designed for a traction force of a few hundred kilos. The largest are 1.5m in diameter and 4m long, weighing 10 t and able to withstand a traction force of 150t. *"Based on the specifications provided by the conveyor's designer, we are able to use software resulting from an initial Cetim study along with our experience to predimension and cost drums to respond to calls for tender as quickly as possible"*, explains Thierry Gauchon, the company's CEO.

All-over checks

"However, with stresses of more than a few tonnes it became necessary to check the stresses all over the drum". Although originally these works were subcontracted to Cetim, their repetitive nature led Mecadrum to acquire finite element calculation software. "Rather than assessing all the heavy-duty software on the market, we asked Cetim to develop a specific version of Castor 2D for cases of non-axisymmetric loads".

New markets

In less than six months, Cetim was able to offer a validated version that met Mecadrum's needs. The cost

of this specific development, which is exclusively owned by Mecadrum, was around € 30,000, 50 % of which was financed by Anvar.

"Optimising the design and reducing the cost of each drum allowed us to enter new markets and to innovate", Thierry Gauchon delighted in telling us.

His customers are happy too: a major player in the iron metallurgy industry has been able to half its annual drum consumption, standardise its drums to divide its stock of spare parts in half as well, benefiting from a 30% price reduction.

OUR CUSTOMER

Corporate name:
Mecadrum

Activity:
Production of drums for belt conveyors

Turnover:
2.5 million euro

Country:
France

Context:
As the French market leader, Mecadrum produces between 400 and 500 drums a month. Based in the Oise region, the company employs a staff of thirty.

Cetim's asset



- Specific simulation and calculation software for each profession
- Teams of developers and profession experts to create or adapt software for every need, in the best conditions.