

Atlas Copco Overhauling its boosters

Atlas Copco Crepel, a manufacturer of high pressure compressors wanted to reduce the installation costs of its machines. The company was able to adopt an original solution with Cetim's assistance, a concrete frame which replaces the steel one.

Atlas Copco Crépelle (a unit of the Atlas Copco group in Lille) wished to minimize the constraints and costs associated to the installation of its piston air boosters often used in the industry for blowing PET bottles. But the solution to be found had to allow the devices to absorb vibrations and to resist to the strong dynamic stresses generated by the machine. The new device should also allow and ease soundproofing.

Concrete frames

Along with Cetim, Atlas Copco Crépelle's specialists launched an extensive project of value analysis in order to identify potential solutions according to the specifications of this new frame.

Very soon, the replacement of the traditional welded steel frame with a reinforced concrete structure became obvious. This solution brought important savings of time and installation costs and offered a great flexibility when choosing the installation spot (the latter of which may vary).

Cetim's action was on the design of the general diagrams, the structure dimensioning calculations, the connecting components and the reinforcement, on the choice of the concrete formulation and on the definition of the material characterization tests.

Knowledge transmission

A study of concrete frames for two new air boosters was undertaken without a break



and, six months later, the first prototype was born. *"The results obtained as of the first attempt were very satisfactory and the vibratory and acoustic behavior of the machines exceeded our expectations"*, says Valérie Lecomte, in charge of this project at Atlas Copco Crépelle.

Indeed, a soundproofing hood directly mounted on the booster could be developed in the same time. *"These new concrete frames are the result of a work carried out in close cooperation with Cetim specialists who did not hesitate in going beyond their role of mere consultants and give us full access to the knowledge required to control this new technology"*, concludes Valerie Lecomte.

OUR CUSTOMER

Corporate name
Atlas Copco Group

Sales turnover
5,6 billions euro

Workforce
25.900 people in the world

Activity
Atlas Copco Group manufactures equipments for compressed air and gas, generators, building and mining machinery, industrial tools and assembling systems in 150 countries



Cetim's asset

Concrete has very good dynamic characteristics of rigidity and damping, which can be effective in improving the vibratory behavior of many machines.

Cetim is well ahead of the pack in the control of this technology and skill transmission.