

## STRUCTURAL AND FLUID DYNAMIC ANALYSES

Tama works in close contact with universities, institutes and vocational schools, through agreements or conventions because it strongly believes in young people. In particular our R&D department collaborates with Trento University, even for the implementation of new projects. In order to improve the current process and to offer the customer a product providing excellent performances, Tama has started a project providing for the use of **structural** and **fluid dynamic** analyses to im-

prove its products, using the ANSYS (*Simulation Driven Product Development*) simulation software. This system allows to study in depth both the behaviour of the air flow inside the filter and its structural behaviour.

### STRUCTURAL ANALYSIS

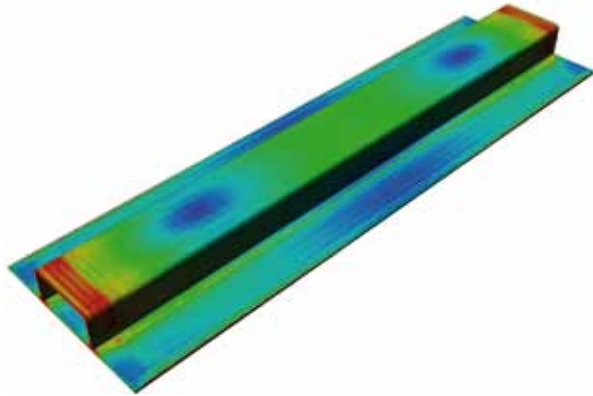
Analysis of stress constraint of material resistance (FEM - Finite Element Method).

### FLUID DYNAMIC ANALYSIS

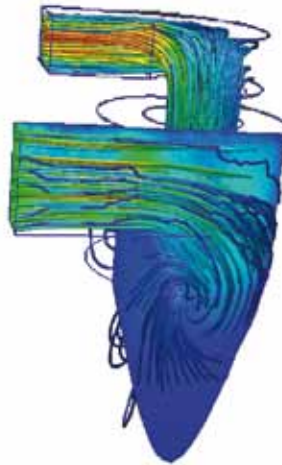
Analysis of air flow distribution, pressure change and speed.

### Application of ATEX directives

The R&D department offers analysis, consulting and design services for the application of ATEX directives. In all that cases where it is needed to consider the possibility of the creation of potentially explosive atmospheres because of combustible dust.



Sample results of a structural analysis



Sample results of a fluid dynamic analysis





### Results of the structural analysis of a frame

#### B: Static Structural

Directional Deformation  
Type: Directional Deformation(X Axis)  
Unit: mm  
Global Coordinate System  
Time: 1  
02/08/2012 08:08

