

Dynamic Air Intake  
Smart Power



Microsoft Partner  
Silver Application Development





## ClevAIR is the revolutionary answer of two industry leaders to the problem of the efficiency in dust and industrial fumes in the sheet metal cutting

Since 1988, LIBELLULA is one of the major international player in the development of CAD/CAM softwares for the sheet metal cutting sector.

Every software included in the Libellula.UNIVERS suite are entirely based on last generation component and are Microsoft's certified, setting the category standard to every industry operators.

TAMA Air Filtration is an Italian company whose main activity is the production of filtering units, components and air filtration systems from 1985. It deals with different industrial sectors and aims to satisfy and assist in a precious and professional way the requests coming from all over the world. More than offer an extended range of standard product, it is particularly notable for the design and construction of personalized products.

ClevAIR was born from the joint research of Libellula and Tama and exceeds the actual concept of static aspiration, creating a connection between the cutting management software and the aspiring part of the implant, by doing so synchronizing the use of the aspiration with that of the cutting machine and optimizing the energy used to evacuate the fumes. Therefore ClevAIR allows to modulate the power of the aspiration according to the real need of the thermal cut, dramatically reducing the energy waste, the over usage of the components and the noise for at least 90% of the working time of the implant.

- ClevAIR can be easily integrated in previous installations.
- ClevAIR solves the problem of efficiency making the Libellula CAM system manage the working time of the TAMA aspiration implant.

## The aspiration that you need, just when you really need it

Currently, all the dust and fumes aspiration systems built on laser, plasma and oxycut machines are designed to work in the most efficient way with regard to the least favorable phase of production. In any other case, the implant is over dimensioned.

Generally, a cutting machine works in the least favorable condition not more than 10% of the total cycle time.

As a consequence, for at least the 90% of the total work time, the machine is wasting resources under multiple points of view:

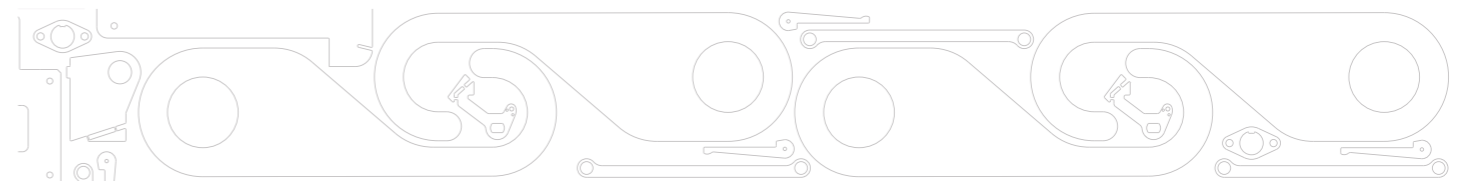
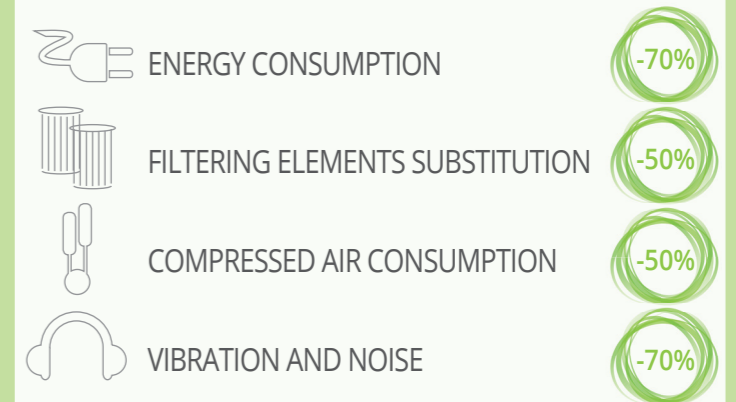
- Energy consumption
- Compressed air consumption
- Less duration of filtering elements
- Waste of thermal energy
- Noise of implant



## ClevAIR: a genial solution



Savings allowed by ClevAIR in case of a laser aspiration with a 6 KW generator:



### Saving on electrical consumption

The power absorbed by the motor that powering the ventilator varies according to the cube of the rotation frequency, so with a reduced rotation frequency the absorbed power decreases from 4,45Kw to 0,55Kw.

**Result: 50% less of aspiration with the 70% less of energy consumption**

### More duration of filtering elements

**The cleaning frequency of the filtering elements reduces up to 50%.** At the same time, during the working time of the implant, decrease also the intake of the air.

This implies that the filtering elements are submitted to less mechanic stress and therefore their duration will increase

### Less Vibrations and Noise

By reducing by half the rotation speed, the noise of the ventilator also decrease of about 15dB (comparing to 80 dB). Furthermore all the aspiration system will be submitted to less vibrations.

**Result: more than 18% less of noise.**

### Saving of Compressed Air

A better efficiency implies a minor frequency of cleaning of the filtering elements, with a related saving of compressed air and of the energy for its production.

**Result: 50% less of consumption.**

