

## **Our Times - The Global Crisis - New Paths**

### **The current crisis**

Many countries around the world are currently living through a historic crisis, often the result of unprincipled cultural and political models, a crisis different from past ones, seemingly insurmountable: the economy around the world often falls victim to a handful of speculators, economists no longer have the answers, and the traditional business world seems paralysed and impotent. In Europe, Banks have received a dose of liquidity that was supposed to help the recovery, but have been held back by fear: lending to businesses today is risky. The rigidity of the German economy seems too damaging and introvert. How do we overcome such a complex situation? It is a question that has not yet found a convincing answer. Once, people asked themselves fewer questions, were more committed and accepted that they had to make the necessary sacrifices that the situation demanded.

### **Strength of will and commitment**

In the post-war period after the last world war, an Italy bled by the sanctions, delayed growth and development and destroyed by bombing, invented an industry for itself that had never existed before in our country, and led to the explosion of the Italian economic miracle. Then followed a series of errors, political and economic, which destroyed much of what had been built up: it was easier to create prosperity than to maintain it. Many companies and young people moved abroad, companies were sold, others failed.

Bureaucracy and politics were at fault, in fact, they were the main but not the only, culprits: incompetence, selfishness and lack of love for the job were just as much to blame for the failures of many projects.

### **Hope**

For industry to regenerate, value must be restored to dreams and hopes, and appeal to the young who must believe in a better world, more just and more humane. Today, scientific and technological research could become the main economic driver to jump-start the economy while respecting nature, saving raw materials and using renewable sources of energy.

Young people are idealists: they will not fight the crisis by causing further damage to our planet, whose ability to renew those resources - solid and liquid - is already severely diminished, and which it has always provided the world free of charge. A program created specifically for young people who have the enthusiasm to improve the world, to work for the good of all, young people who love their fellow men and want to be part of a better world which aims to eradicate poverty and destitution.

### **New technologies and environmental sustainability applied to the dental industry**

Cattani S.p.a. has sought and implemented its own development path based on technological research, favouring techniques that save energy and raw materials, and are convinced that these can foster sustainable economic growth.

The environmentally-friendly choice is an obvious one, the only choice that allows us to respect the very life of our planet.

1) Various studies related to the European Commission SAVE project\*, have shown that high efficiency electric motors (class EFF1 and EFF2) can save up to 29% of electricity, reflected in 17% lower CO2 emissions.

2) The inverter (also called the VSD) improves the efficiency of electric motors and also allows the use of smaller motors to do the same job, achieving a saving in raw materials of up to 50% compared to using fixed speed motors.



3) VSD and its specific software allow the operation of the machine to be programmed to automatically adjust the number of motor revolutions to the lowest required for the proper functioning of the system: reducing the rotation speed means less power consumption by the motor and translates into energy saving.

During dental work, suction has always been achieved using fixed speed motors. We are the first (and still the only ones), who use the latest technologies available and who have revolutionized the way aspirators are constructed. It has been difficult and costly work over several years, but the results are

worth it.

For example: in a surgery with four dental chairs, to achieve a capacity of 300 litres/minute simultaneously for each cannula and an operating head of around 2000 mm H2O with fixed a speed aspirator requires a 60 Kg weight (Turbo-Jet Quattro) machine; on the other hand, a better result is achieved (stability of operating head and capacity) with a 36 Kg variable speed aspirator (Turbo-Smart), saving 26 Kg of raw materials and 30% energy.

### **New technologies and functional advantages**

It is always the new technologies that open up space for energy savings and functional benefits. VSD and its artificial intelligence allow the operating head to be programmed and stabilized.

In addition, VSD and its software automatically adjust the flow rate to demand: with additional operators using the suction, the aspiration unit accelerates to maintain a stable flow to each work station, and when demand decreases, the aspiration unit slows down, achieving the energy savings already mentioned.

Aspirators and compressors can communicate with the technician via the internet on the actual operating conditions of the machines allowing the technician to decide whether or not to intervene.

\* Studies published by the "l'Impiantista" magazine

### **General Considerations**

For clarity, we have used concrete examples with verifiable data. Renewal means keeping up with the times, with state-of-the-art technologies and standards, and to waste less and perform better. Machines such as these can persuade the professional to replace his or her older aspirator.

- • A company that renews itself will overcome the crisis but a company that stands still will slowly die.
- • One person alone is unlikely to affect a company's growth, but a group of motivated people can make a difference.
- • An individual company alone will not resolve the crisis in our country just as one country will not solve the European crisis, but a group of companies or a group of countries can solve the crisis in Europe and the world.

Every day the media informs us (and possibly frighten us) that the end of the world has already begun and that we are reaching the point of no return. So, if everyone immediately did whatever they can for his or her company, country and the world - this would already be a good start.

**Cattani S.p.A.**