

Interview with Leandro Bento

1. What means the factory for Martifer Solar?

This factory is the concretization of an old wish of Martifer Solar and the result of more than one year of optimization studies and projects for the photovoltaic modules production. It represents the beginning of a new phase in the ambitious project of Martifer on the photovoltaic business.

This factory means more independency to Martifer Solar projects, in terms of equipment, and a higher quality control on the products that Martifer Solar will supply on its projects.

This factory will offer us the control of the biggest part of a photovoltaic project, the modules, and with this, Martifer Solar is in good conditions to give to its clients more competitive solutions, for their projects.

2. What challenges Martifer Group face with this factory?

The normal challenges associated to the entrance on a new operational area, challenges that Martifer Group is used to face, as we can see through the history of the company, mainly on the renewable energy fields.

In my opinion, the bigger challenge, that Martifer Group will face, is itself the type of business where photovoltaics are incorporated. This is an intensive capital business and that for it requires a much more intensive control on each executed operation.

The financial flexibility associated to a well defined and clear financial strategy is, without any doubt, the main point to reach the success of this factory, and of course, the subsequent success of Martifer Solar.

3. What makes our factory special respect to others?

The fact of our production be fully automated, from the beginning, on the Glass Washing Station, to the end of the line, on the QA Station, will provide us a much more accurate quality control and will give us the guaranty that all the single production steps will be done with the maximum precision and efficiency.

With this type of production we avoid also the human handling of the raw materials, what reduces the breakage rates and any possible inclusion of garbage inside the modules, contributing like this to obtain a higher level of quality on our finished products.

4. From the standpoint of engineering what is the most remarkable thing of our factory?

There are some aspects that were studied to provide the best conditions to produce a high quality photovoltaic module, and that I think can be considered as remarkable, for example the automation process, the production chamber and the production line layout.

The production chamber, for example, was projected to maintain the interior ambience with values of temperature, humidity and pressure completely controlled and defined as the best for the process.

The production line layout was designed to optimize the process and to provide the possibility of an easy capacity expansion for 100MW.

The automation integrated on the production line will provide us the level of quality we want on our modules and will increase the efficiency on the production process.

5. How many MW will it produce during 2009? When will it reach the 100 MW?

The factory's ramp up will start during the last quarter of this year and I'm very confident that on the beginning of the 2nd quarter of 2009 we will have all the working teams well trained and near from production rates of 100%. That means we will have at least almost 3 quarters of 2009 with very good production rates, and is our intention to reach the 35MW right on the first year of production.

The expansion to 100MW is planned to be done on the beginning of 2010, what makes me believe that we will easily reach the 65MW produced during that year. The growth to 100MW will be gradual and sustainable during the following year.

6. Do we have secured the supply of solar cells?

We are working hard on that and we're just waiting for the best opportunity to announce the results of that work.

7. In terms of logistics, the location of the factory is suitable for subsequent distribution?

The location of the factory, in terms of logistics, is almost ideal. As we want to export almost all our finished product, mainly to our projects, to all Europe and United States of America, we need to be near from sea ports, airports, and be served by good communication infrastructures.

Martifer Solar is located in the middle center of Portugal, near from two important sea ports, Aveiro e Porto, and from the Porto's airport. The airport of Lisbon is not so far too, it's just at 250km from Martifer.

The distance between Martifer Solar and the Spanish boarder is just 150Km.

8. Give me some technical aspects of the factory:

The factory building will have two different spaces, one reserved to the new head offices of Martifer Solar and the other one for the production and storages. The head office will have capacity for 260 people and almost 2000 m² of interior area.

The production building will have 10.000 m² divided in four different areas. The production line, the raw materials storage, the finished product storage and the last one for the aluminum transformation and glass temper lines.

The production line will be installed in a chamber with more than 2.000m², and the storage rooms were projected to have one month of stock capacity when the production capacity reach to 100MW.

This factory will need around 100 people to keep it running..

9. Does it have any handicap?

Of course not, at least that I know it, otherwise wouldn't be a handicap because we would work in order to eliminate it before the start of production.

Is possible that unexpected situations may occur after the factory start working, but honestly that is not expected.

As I had the possibility to refer before, this factory is being studied since more than one year ago with the main target that nothing fails during the normal working process.

10. If the factory comes with success to produce 100 MW, can it be extended to more?

If the factory comes with success to produce 100MW, and I'm sure of that, we will reproduce the entire building and with that duplicate the production for 200MW.

When we started studying the production layout, we had in mind two important points. The first one was the duplication for 100MW on an easy and fast way without any major works, and with only an equipment upgrade. The second point was to project one building that could give us the possibility to replicate it to one side of itself, like a mirror. This second point will need more time and is not as easy as the first one, but the building was designed to permit this replication. So if we need to reach the 200MW capacity, it won't be a problem.

11. Why our modules will be better than those of competitors?

First of all, everything was studied in order to provide all the ideal conditions that this production process needs to produce photovoltaic modules with high levels of quality.

As I referred before, the chamber where we will produce our modules will have an accurate temperature, humidity and pressure control, and that associated to the fully automated process will give us the quality level we want to achieve on our modules. This grade of automation will provide us too, a most efficient quality control on our product as an optimization on the production process.

All these aspects associated to an efficient choice of the best raw materials, will make our module be one of the best photovoltaic modules in the market.



Leandro Bento, Head of the Martifer pv modules factory.