MAGNUM VENUS PLASTECH

CUSTOMER CASE STUDY

Increasing Productivity Through Light RTM

For the better part of the last century, open moulding was considered the best, and only, method for effective FRP/GRP production. However, as more governments around the world began to investigate and regulate styrene emissions, and with the demand for more precise parts, the Composites Industry needed to develop a cleaner, more precise method of production. Light RTM was the solution to their problems.

Since beginning their Comprehensive Light RTM Training in 2007, MVP has trained and helped several customers make the move to Light RTM.

One such customer is Iplaresa in Spain. Iplaresa was founded in 1972 as one of the first composites manufacturers in Spain. They started with manufacturing small houses used for construction, urban furniture and parts for buses. Recently, they moved into manufacturing parts for recreational Karts and parts used in the air conditioning system on buses.

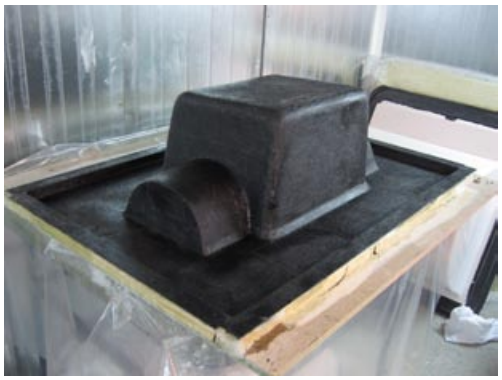
As with the majority of composites products manufacturers Iplaresa had been using open moulding to make their products, and were able to make an average of 15 units per month for the recreational Karts. As demand for the product increased Iplaresa Managing Director Juan Carlos Ayudarte felt the need to explore new production methods that would increase output, improve quality, and allow him to avoid the challenges of working in cold weather.

After doing research, attending other courses in Light RTM and consulting with José Garcia, owner of MVP-España, Señor Ayudarte made the decision to host the MVP Light RTM Training Course at his facility in January of 2008.

MVP RTM/Infusion Technical Specialist, and industry expert in Light RTM, Charles Tur, conducted the intensive three day workshop at the Iplaresa facility along with technicians from MVP-España. The course includes extensive classroom lectures on the technology and techniques behind the process, the real costs and benefits of using Light RTM, and then moves to hands-on training from tooling the mould and counter mould, and finishes with the injection of a finished part.

According to Señor Ayudarte, this was the first time a Light RTM training course had included such a balance of the practical with the theoretical, and at the end of the three days his engineers were confident they would be able to translate this training into practical production.

And, that is exactly what happened.



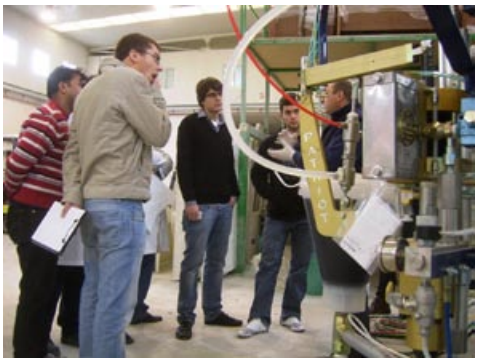
Within a week of completing the course, Iplaresa's engineers had designed, built and put into production the mould necessary to make the Kart parts using Light RTM. Within a month their production went from 15 units to an average of 60 units. When asked if he has seen a difference in the quality of the parts produced, Señor Ayudarte said, "Yes, of course. Now we have complete control over the final part, and the parts are always what you expect."

The training was such a success that shortly after tooling the mould for the electric Kart parts, Isplaresa's engineers designed and built three moulds for bus air conditioner parts, and they are now manufacturing them exclusively through Light RTM.

Iplaresa is using the MVP Patriot™ SSB Injection system in their Light RTM parts production. The Patriot™ SSB Auto injection machine features adjustable, "on the fly" catalyst ratios from 0.5% to 3%, as well as the latest, highly accurate meter/mix technology with Patriot™.

By 2005 more and more manufacturers around the world had begun to investigate making the change to Light RTM in their production. All they needed to effectively make the change was the proper training and the correct equipment.

"In my opinion, it [making the mould yourself] is the most important part of the course, especially when you want to involve your workers in a new process," says Señor Ayudarte. "We are using a lot of the instructions we have learned during the course. For our company, taking the course has had an incalculable value. The hands-on training was what made us take the course, and I can say that it is the main reason why we are now working with RTM. I wouldn't dare before taking the course."



Iplaresa is sold on the benefits of using Light RTM in their production, and has plans to begin producing several of their larger products using this process in the near future.

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