Thirty years of experience, all machinery manufactured in-house, worldwide partnerships. This all amounts to important and competitive advantages, which Vidromecanica exploits to the full when supplying its clients with equipment. Today, the company has partnerships around the world and provides a wide range of glass equipment, as well as manufacturing technology and high-tech machinery.

Ricardo Barreto - Export Manager VIDROMECANICA
THE PROBLEM – CAT SCRATCH CORDS

Cat scratch cords are the defects that sometimes appear on the glass articles. This problem can appear and disappear and can evolve only on some production lines. There are several conditions that provoke high-density viscous glass to appear when the glass flows onto the spout. Deeper zones where the glass is colder are the most critical zones.

The cords visible on the glass surface are the result of different glass properties and composition. Dissolution of refractory materials is the reason for the difference in composition in the glass.

THE SOLUTION FROM VIDROMECANICA

Vidromecanica has developed a cord dispersal stirrer system in collaboration with glass plant manufacturers with the purpose of mixing the dense viscous glass with cord that is present on the bottom of the forehearth.

One or various twin counter-rotating stirrers are installed to lift the dense 'cordy' glass that is following on the bottom. The cord material is dispersed in the molten glass before arriving to the spout, thus eliminating the visual defect.

To lift and mix the cords material, stirrer speed is about three rotations per minute. Vidromecanica’s remote control panel is provided with inverters that controls and indicate the stirrer speed.

Type and design of stirrers are chosen depending on forehearth widths. Normally, helical stirrers are used in thinner sections and paddle type stirrers are installed in wider sections.

To get the correct elimination of cat scratch effects, the equipment must be designed with the appropriate configuration and characteristics, and then installed in the right position.

These systems can be installed on forehearths producing green, amber or flint glass, and should also be installed in colorant forehearths, since they also have cord defects.

In addition to elimination or reduction to approved levels of cord defects, there are other advantages in using our system:

- no drain is required to avoid cords;
- no waste of drained glass;
- save energy remelting the contaminated glass;
- no glass output reduction;
- improve homogenization of temperature;
- reduction in rejects;
- higher glass quality and customer satisfaction.

Vidromecanica’s engineering team is responsible for the commissioning, start-up and training and in this way guarantees that the equipment is correctly installed. Functioning is smooth and the maintenance procedures are learned by the customer’s team.

THE COMPANY

Vidromecanica, founded as a lehr manufacturer in Marinha Grande, Portugal, in 1984, is focused on new realizations and improvements of the following equipment:

- annealing and decorating lehrs;
- belt and spindles tempering lines for tableware;
- roller annealing lehrs for flat glass;
- moulds pre-heating kilns;
- hot end coating hoods;
- cold end coating spraying equipment;
- internal and external cullet recycling plants.

Nowadays, the source and cause of cat scratch cords is not possible to eliminate, but the defects in the glass disappear by the installation of Vidromecanica’s cord stirrer systems in the forehearth.
MACHINERY AND EQUIPMENT

Quality Management

In the late 1990s Vidromecanica established a Quality Management System to control its order fulfilment process: specifying, designing, building, testing, shipping, installing, and commissioning. Suppliers were included in the quality management through detailed technical specifications, goods inspections, and supplier assessments. A successful independent audit and certifies the Quality Management System twice a year. In 2009, the company was certified according to EN ISO 9001:2008.

If you want to walk on new paths, you have to consciously exceed limits. Break through familiar thought patterns to come up with new solutions, taking into consideration the knowledge and experience that has accumulated over the years. This approach will give rise to a new way of looking at things, to continuous progress and trust. Just like a partner, Vidromecanica wants to continue exchanging ideas, opinions and experiences with its customers in the future. So that it will continue to be a driving force of progress and one of the leading companies in hollow and flat glass around the world.

Glassmechanics is a company of the group, which is now responsible for the export of equipment manufactured by Vidromecanica. Our companies’ know-how is the result of more than 30 years of dedication, research and development, which involved testing and experiments of a wide range of technical solutions to meet customer needs. We produce top performance machinery able to run 24 hours per day on long-term production runs.

Our mission is to develop, manufacture and supply equipment for the glass industry, with technology and quality of excellence, thus contributing to increase the productivity of customers. We are engaged in the research and develop of innovative technical solutions aimed at simplifying the use of the equipment, reducing energy consumption and increasing their longevity.