

# Glass gobs gathering robots

Since its creation in 2004, Novaxion has developed a range of ball-gatherer robots, able to gather a few grams of gobs up to 6kg of glass.

**N**ovaxion formed a partnership with industrial robotics group Fanuc which allowed it to offer customers a 18-month guarantee with a stock of always-available spare parts and an after-sales service in every region of the world.

Novaxion General Manager, Christophe Duplan, has installed more than 160 robots in different glassworks around the world since he began to work in the field of robotics for the glass industry in 1989.

Novaxion provides glass gobs gathering robots to global glassware producers such as Rogaska in Slovenia, Iittala in Finland and Waltersperger in France.

Mr Duplan said: "After a challenging period between 2010 and 2015, glass gathering robots' sales are now rising, meeting the demand for high quality robots."

Novaxion's leitmotiv is innovation and the company is always looking to innovate to provide robots that gather high quality glass gobs.

Three models of 6-axis ball-gatherer robots are currently available to gather small to big glass gobs, up to 6kg of glass, from all types of furnaces, from pots and day-tanks to continuous level furnaces.

## Flexibility

Mr Duplan said ball gatherer robots are much more flexible than slow feeders. "There are many advantages offered by ball-gatherer robots which balance the comparison with slow feeders.

"Slow feeder systems can be installed only on a constant level furnace that excludes day-tanks and pot furnaces. From this first principle, the possibility of working with colour glass is limited. Putting a feeder into operation is long and difficult to realise by an operator. It comprises ring clearing, gob regulation and thermal stabilisation of the feeder.

"This period practically does not exist with the ball gatherer robot. These feeder disadvantages are important when production is not done in three shifts.

"Each machine stop for maintenance,



breakdown or production change causes important glass losses. With a slow speed there is a necessity to flow down a glass trickle and to make a pre-gob before being able to get the right gob. So there is less flexibility with a gob feeder.

"The glass shape obtained is more limited due to passing through a ring. This fact eliminates production of big flat articles, which requires the spreading out of glass in the mould.

"With a feeder people are obliged to work in the range of lower temperatures which is inconvenient for production of some glass articles and sometimes for glass technology since the phenomena of deglazing can appear on the feeder.

"The most beautiful glass articles have been hand-made until now. So, surface heterogeneity does not constitute a problem. A glass gatherer robot imitating human work enables articles similar to hand-made quality to be obtained."

Novaxion 6-axis glass gatherer robots have soft movements reproducing the hand-gatherer way and are easily movable

from one furnace to another.

They can work at high speed combined with high precision and they can feed up to two forming machines simultaneously.

Concerning the gathering of glass from day-tanks and pots, Novaxion offers a glass gob weight control system to ensure a constant weight of the gob while the glass level is decreasing.

Simple programming methods are used: a new friendly gathering software has been developed, allowing more flexibility for the end-users and more possibilities of adjustments.

Novaxion also offers two models of pneumatic shears to cut the melted glass:

- Shears with V blades (feeder type) to reduce the cut mark.
- Shears with transfer and long blades to cut glass down into the mould. ■

Novaxion, Paluds de Noves, France  
[www.novaxion-robots.com](http://www.novaxion-robots.com)  
[novaxion.info@wanadoo.fr](mailto:novaxion.info@wanadoo.fr)