Hi-tech washer from **NEPTUN** takes Hi-Speed feature to new levels



continually adapted and improved to meet evolving technical requirements.

The Tornado horizontal washing machine range comprises three product lines:



neptun

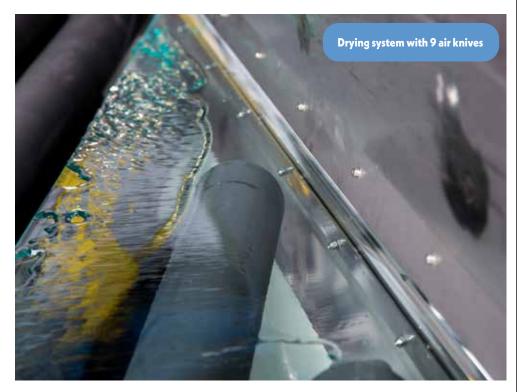
Offering a wide range of washing machines to meet diverse needs, NEPTUN's Tornado series includes the Easy, HP and HP-S lines. The company recently supplied a high-performance washing machine to leading glass manufacturer Vitro - well known both for its success in innovating with glass and for embracing sustainability in its products.

float glass, automotive glass, chemicals and machinery. The company's commitment to sustainability is evident through initiatives like Cradle-to-Cradle certification and publishing verified envi-

- Tornado Easy: Designed for straightforward use, offering robust construction and extensive stainless steel components - being suitable for less demanding production contexts.
- Tornado HP: Equipped with a powerful touch screen PLC, it excels in intensive industrial processes while integrating seamlessly into production lines and SCADA or I4.0 management systems.
- Tornado HP-S: Optimized for special applications such as solar glass, ceramic ink, ultrathin glass for LCD panels and medical glass, where precision is measured at surface tension level. Here Neptun recently supplied a high-performance machine to multinational Vitro.

A COVETED PARTNERSHIP

Operating internationally, Vitro, is a large glass manufacturer in Mexico and a global industry leader since 1909, producing and distributing various glass products that include architectural glass,





WASHING MACHINES



ronmental product declarations (EPDs) for glass products like Solarban® solar control low-E glass. Vitro has also contributed to numerous LEED® certified buildings.

MEETING AMBITIOUS WASHING AND GRINDING SPECIFICATIONS

For a high-speed grinding and washing line that's capable of up to 20 metres per minute, Neptun has tackled the challenge of maintaining impeccable washing and drying quality. Precision remains paramount, as glass briefly interacts with both brushes and air blades - demanding consistent quality at high speeds. The Tornado HP-SV model, deployed in the washing section, has in-

corporated technical enhancements for superior effectiveness. Achieving optimum drying proved very complex indeed, involving a configuration of four pairs of highblower-driven pressure Extensive fans work was invested in optimizing blower geometries to maximize airflow, thereby directing water droplets and humidity away from the already dried glass surface and edges. Also, careful control of water and air temperatures was crucial to the high-speed work cycle - minimizing energy consumption.

To meet the expected intensive use, specialized sensors were integrated for enhanced automation, promptly signaling potential issues and faults. Preventive maintenance and comprehensive control and

management of machine functions were displayed on the operator panel. A group of flow switches dynamically monitored the cleanliness of the water circuit, thus signaling any clogs or maintenance requirements. The exclusive A-qual system efficiently managed water quality ensuring it remained below the set threshold while minimizing consumption. Owing to the machine's demanding workload, reliability remained a paramount consideration. Indeed just one hour's operation at these speeds is tantamount to four to five hours of wear for any standard washing machine - making longterm reliability essential.

ONGOING SUPPORT

Neptun was delighted at having earned Vitro's trust

with such a significant project and was recently happy to acknowledge the company's local representative, Marbolz Vetrostile, for having extended such professional support and commitment to Neptun by providing skilled on-site technicians to offer technical assistance.



Take a glance at details enhancing the living spaces!



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