Introducing TUROMAS' new high-performance decoating system

Against the backdrop of fresh needs in the glass market to ensure products can rely on an advanced system that's capable of both removing a wide range of coatings and managing process-related waste, Turomas now offers its latest, winning solutions. Here's why the company's next generation decoating systems are satisfying the unmet needs of some of the most demanding customers in today's market - all to cater to higher glass volumes in multiple coating formats while having less impact on the environment.

ACR DECOATING

Turomas' new, self-calibrated ACR -or Advanced Coating Removal- is the company's state-of-the-art decoating system. It's specially-designed to work

As the rising demand for higher quality glass begins to necessitate product protection -from production through all stages of processing- TUROMAS' innovative ACR will decoat different protective plastics and resins that require removal during glass-cutting.

high-performance glass with plastic protective coating (TPF), as well as the cutting-edge EASYPRO® coating: a Saint-Gobain product that will effectively coat-protect glass against both mechanical damage and ageing during transportation, handling, storage and processing - from the time the coating is deposited un-

til the glass is tempered. Representing a major advantage for the glass processor, EASYPRO® simply evaporates during tempering - leaving no residue on the glass surface either inside or outside the furnace and with no impact on people's health and safety. The finish obtained when decoating EASYPRO® protected coated glass has been certified by the manufacturer Saint-Gobain itself - obtaining more than satisfactory results both at 100m/min and at 4000 rpm.

Indeed the ACR system incorporates two developments that will significantly improve the glass decoating process, namely the two-phase decoating system and the Advanced Cooling System - both of which are patented by the Spanish brand.

2-STAGE DECOATING SYSTEM

When TPF glass has to be decoated it's common for the edges of the protective layer to lift off - so exposing the low emissivity layer. This had Turomas developing a 2-stage decoating system. Firstly, the grinding wheel is positioned at a distance of 10 mm from the edge or corner. It starts decoating in the opposite direction to prevent the protective layer from lifting. Thus, as the second phase starts the grinding pass has already begun, ensuring that the edge will not be easily lifted off.

ADVANCED COOLING SYSTEM

ACR incorporates a cooling system that prevents any significant temperature rise at the grinding wheel edges. This temperature variation occurs in multi-pass processes (over 20 mm grinding thickness) or in longer glass strips. In addition to cooling the surface of the grinding wheel by blowing cold air, the airflow cleans any surface adhering residues - thereby significantly reducing the number of wheel grinding operations. The air blown onto the grinding wheel is cooled by means of a vortex tube that will allow hot air to exit at one end and cold air at the other. Thanks to automatic cooling and cleaning of the entire grinding wheel surface, a perfect decoating finish is guaranteed with every single operation - eliminating any possibility of unwanted 'bar code' finishes.

GRINDING WHEEL

The edges of the soft coated sheets are homogeneously removed by a grinding wheel set to a speed for each sheet type that can be pre-defined in the material library. The grinding wheel is raised and lowered by a magnetic drive, combined with an analogue sensor and PID controller - so allowing it to be calibrated before each grinding operation and ensuring the applied pressure is constant and homogeneous. Any kind of coating-improving cycle time will be decoated in a single operation. It can also perform linear operations and shapes thanks to the multi-turn orientation system, which will rotate at more than 360°. Not only. It allows for a thickness increase of the line - either by making several passes or by substituting the grinding wheel with a larger one (20-30 mm).

HERMETIC HOUSING

In order to concentrate the absorption of residues from the decoating process the entire system is protected by a housing that has a special, hermetic design which makes it ideal for avoiding air leaks. However, it incorporates a simple opening system to facilitate the replacement and maintenance of the grinding wheel.

THREE-PHASE INDUSTRIAL VACUUM CLEANER

The ACR decoating system incorporates a high flow, three-phase vacuum cleaner for the collection of residues generated during the decoating process. Thanks to its high performance, it's ideal for the cleaning of any residue - especially when large quantities of dust must be collected. The 3 kW side channel turbine allows for continuous debris collection, providing reliability while allowing considerable savings in both time and resources.

AIR DUCTING SYSTEM

The industrial vacuum cleaner is connected to the decoating system by way of an 80 cm hose along the cutting bridge and side of the table. To ensure the linearity of the hose, as well as correct air flow, it's guided by cable chains specially-designed for the function.

Turomas

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