

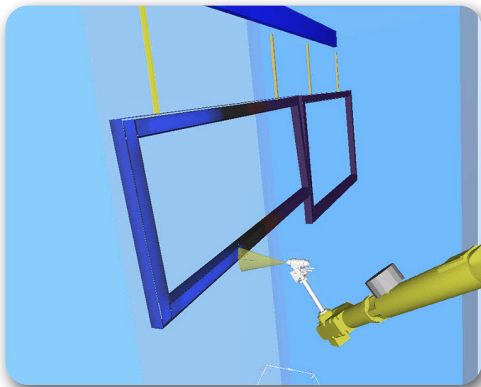


Automatic scanning and robotized painting of windows and doors.



INROPA™ WINDOWPAINTER

Inropa™ WindowPainter is a wellproven technology that ensures high surface quality, reduces costs for personnel and paint material, and increases production by ensuring a constant and optimized flow in the paint line.



WindowPainter creates the paint robot programs automatically.

AUTOMATIC PROGRAMMING

With an Inropa™ WindowPainter system, the operator mounts the parts on the conveyor and sends them through the paint line. Inropa™ WindowPainter then utilizes the Inropa™ 3D-Scanning system to automatically scan the parts and generate the robot programs.

The parts are scanned in 3D which means that, along with the size and shape of each individual part, the

position and orientation is also taken into account. As a result, the program for each part is optimized individually to ensure an optimal surface quality as well as a minimum of paint consumption. As each program is created on the fly, Inropa™ WindowPainter is optimal for painting lot size one products.

HIGH SURFACE QUALITY

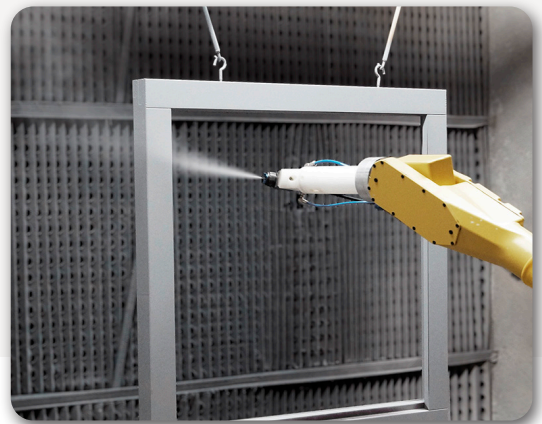
It is possible to adjust painting parameters such as angles, speed, and paint pressure for each surface type of window or door. This means that it is possible to vary the quality for the front compared to the inside or outside of the window or door, if desired.

As the settings are constant regardless of the size and shape of the parts, a repeatable high surface quality is obtained when using the Inropa™ WindowPainter system.

INCREASE PRODUCTION CAPACITY

The parts will be painted while

moving on the conveyor line in a constant flow. The Inropa™ WindowPainter ensures a smooth flow in the paint line and it will be attainable to gain synergies by efficient integration with up-stream and downstream production. Just-in-time production is strongly supported.



The operator hangs the parts on the conveyor, and the parts are then sent through the paint line, where a 3D-scanner scans them. From these scans, the Automatic Programmer generates the programs automatically.

The speed of the conveyor is automatically adjusted, depending on the complexity of the part. The system will therefore automatically optimize the capacity of the paint line.

REDUCE COST OF PRODUCTION

Because of the repeatable high surface quality the Inropa™ WindowPainter system will, in most cases, reduce costs for paint material and for repainting. Using robots will furthermore reduce ventilation and heating costs by recirculating the air in the spray cabin. Also, personnel for painting and moving

parts will normally be reduced significantly since the parts are painted by the robots and automatically transferred to the drying area.

It is possible to combine the system with automatic colour change equipment, which will enable fast colour changes with minimal waste of paint material.

WELL-PROVEN TECHNOLOGY

The technology is running in several industrial paint lines for windows and doors and the technology is used for several other industrial applications worldwide.