



- *WATER JET HIGH PRESSURE DEBURRING*
- *BRUSH AND TOOL DEBURRING*



A Worldwide Experienced Team
Generating
World Class
EXCELLENT TECHNOLOGY



ENGINEERING AND DESIGN

With the increasing market standards for a better surface quality in the final product, a reliable and efficient machinery supplier such as I.T.F. becomes an invaluable strategic partner. Every customer's requirement is unique and that's why it deserves our full attention. For this reason we offer our efficient Testing Center always at the customer's disposal to perform process simulations and to verify test quality result. Only when the customer is satisfied with outcome, our technical department will start the engineering proposal to find the perfect balance between the customer's request and the best technology the state of art can provide, in order to achieve maximum efficiency with the best final result.



CERTIFIED BUILDING QUALITY

I.T.F. manufactures internally every single machine assuring highest quality control in each stage of the construction process. Each machinery is CE marked and complies with quality standards. Before leaving our plants, all machines must be tested under customer's supervision and the result must be approved according to the technical requirements.

LIFE - CYCLE THINKING

Our design philosophy is centered around the idea of machine Life-Cycle. Reliability and error prevention are two main factors guiding our engineering process. Our customer service includes options such as remote supervision, technical phone support, local assistance and spare parts service center, we can always provide a fast and reliable service to our customers around the world.

INTEGRATED CYCLE FOR WASHING AND DEBURRING



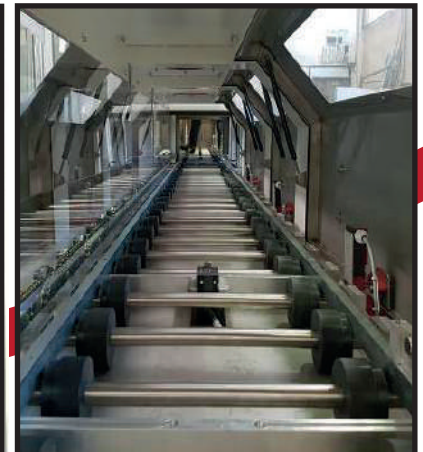
IFW WASHING



CALIBRATED BLOWING



VACUUM DRYING



COOLING TUNNEL

FLEXIBILITY 4.0

I.T.F. water jet high pressure deburring systems are designed to meet the state of the art standards as per **industry 4.0**. The main cleaning station of each deburring system is equipped with an **IP 67 grade robot** that will follow your defined deburring program on each mechanical part entering the machine. At the loading position, there is a smart **identification device** that will recognize the part and then initiate the corresponding deburring program. Our identification system is designed to recognize multiple parts, so you won't need retooling each time you decide to change the production batch. During the deburring process the robot arm guides the **high pressure nozzles** into every fissure in order to remove the contaminants from the part. The robot can either pick up the parts or to guide the nozzles, depending on the program specification and cycle time.



TAILOR MADE SOLUTIONS

With an increasing market demands for higher quality products and lower environmental impact solutions, the cleaning process has become a mandatory and critical operation in every production line across the manufacturing industry. Cleaning means removing chips, burs, oil, sands and other undesired pollutants from any mechanical parts. When it comes to cleaning operations before components assembling, to achieve **high degrees of cleanliness** allows a good and easier coupling between the parts, resulting in **longer product life**.



SMART DESIGN FOR EASY MAINTENANCE

The machine is designed to **facilitate** user access for future maintenance. All the utility subsystem are located inside an **independent cabin** equipped with glass door. As for regular maintenance, such as filter replacement, the operator doesn't have to enter the washing chambers, therefore avoiding undesired disturbance to the sensor or the robots. Our design philosophy is based on **turn-key solution** principle: the machine is built into **process modules** and each process module is separated from one other by automated doors, so there won't be any cross contamination during the washing process. I.T.F. deburring machine is more than just a deburring station: it's an **integrated washing solution**. In fact, besides high pressure deburring, we also implemented other necessary process such as IFW, pin-point washing, rinsing, vacuum drying and final cooling.



STANDARD AND CUSTOMIZED SOLUTIONS

Our engineering team is dedicated to customize the deburring machine to better satisfy customers' **specific needs**. We start by designing the "gripping" system for the robot to pick up the different parts. Then, according to your cleanliness requirement, we verify the proper process and then we choose the most suitable nozzle for each purpose. We only use **stainless steel nozzles** with **anti-collusion** feature that will last longer than traditional nozzles. In order to overcome different types of contamination, our deburring machines can also include mechanical brushing for some particular applications. After the washing process we also provide hot air blowing or vacuum drying unit with the cooling tunnel. We can provide the machine with manually loading/unloading or, with **integrated automation system**.



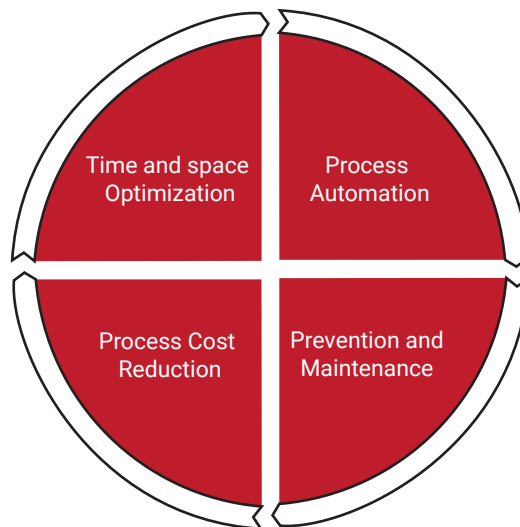
EFFICIENT ENGINEERING

Time and space optimization

- Plant Space Saving
- Cycle Time Optimization
- Process / Cost Reduction

Process cost reduction

- Water Saving
- Energy Saving
- Waste Reduction
- Disposal Reduction
- Price / Price Reduction

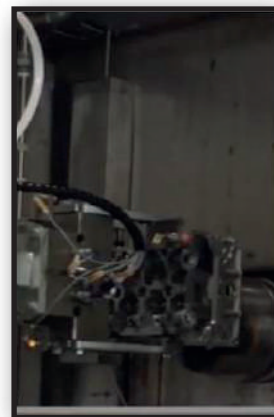


Process automation

- Cycle Time Optimization
- Higher Productivity
- Labor Cost Reduction
- Price / Piece Reduction

Prevention and maintenance

- Cycle Time Optimization
- Higher Productivity
- Labor Cost Reduction
- Price / Piece Reduction



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