


High pressure water deburring and flushing systems



The high-pressure deburring and flushing systems produced by **D.B.M. Tecnologie** are designed to ensure the removal of burrs and shavings embedded in areas that are difficult to reach, as in the case of intersected holes. The working pressure can reach up to 1000 bar, allowing application to various materials such as cast iron, aluminium and steel. These machines can feature a rotary table or tunnel with forward-step motion, depending upon geometry of pieces and target takt time.

The flexibility of the process is guaranteed by the possibility of programming automations and the ability to manage diversified pieces; a special detection system is able to recognize the type of pieces loaded, thus selecting the appropriate work program. The water treatment connected to the systems

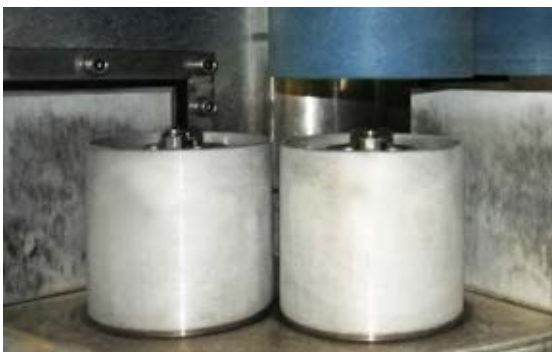
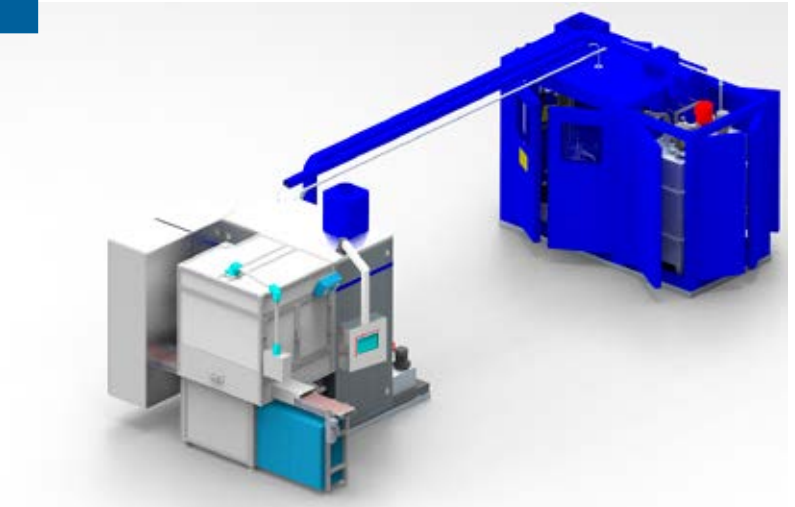
allows oil skimming and filtration, with resulting extension of the life of the washing bath. It is also possible to combine the system with an appropriate chip-filtering system for the automatic filtration of substantial chip loads on the pieces.

Each system is completely made of AISI 304 stainless steel.

All the materials used have been manufactured by major international brands. Particular attention is paid to the easiness with which maintenance operations can be carried out: the components' position has been carefully considered in light of ergonomics principles and safety regulations. Both the external box, which contains the high pressure pump, and the main treatment chamber are soundproofed to ensure compliance with current regulations.

SATURN

The pieces to be processed are housed in special locking mandrels on which rotary joints with high-strength nozzles for high-pressure treatment operate. The high productivity of the system is guaranteed by the integration with a SCARA-type robotized loading/unloading system.



MERCURY

The robotic arms positioned inside the processing booth are equipped with appropriate gripping systems that allow the piece to be moved over the special fixed high-pressure nozzles, carrying out the programmed sequence of movements by handling the piece in such a way as to treat all the relevant points. This movement system allows the integration of hydrokinetic or ultrasound immersion washing phases into the system.



TITAN

The pieces to be treated are loaded on special pallets and locked by special pneumatic systems that secure them in place.

The process equipment, fitted with nozzles made of special durable material, is secured to the wrist of one or more robotic arms, which process the pieces according to the programmed work sequence.

