

Rotary Transfer Machine RT

In order to satisfy steadily increasing requirements for shorter processing times, Zippel has enhanced the classic multi-chamber system - Machines in the **RT Series** combine innovative technology with efficient cleaning. Integrated robot systems for loading and unloading as well as deburring guarantee results in line with state-of-the-art technology, even for work pieces with intricate designs. Equipped with the latest technology in robotics and engineering, this system guarantees the highest possible load factor and can be easily integrated into any production line.



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Technical Process

- Multi-stage cleaning and rinsing processes
- Optimum quality robot technology
- Flake deburring up to 500 bar
- Integrated medium maintenance system
- Short cycle times
- Largely free of extracted air

Optional Components

- Vacuum drying
- Water treatment system

Advantages

- High positioning accuracy
- Low water consumption
- Smaller space required due to compact design
- Fully operational even when individual chambers are deactivated
- Low servicing costs due to anti-twist snap closure on the nozzle line

Suppliers

- | | |
|----------------------------|---------------------|
| ▪ Pumps: | KSB, Grundfos |
| ▪ Motors: | Planetroll, SEW |
| ▪ Electronics: | Siemens, Pilz, Murr |
| ▪ PLC: | Siemens, Bosch |
| ▪ Control cabinet systems: | Rittal |
| ▪ Sensors: | Omron, IFM |
| ▪ Pneumatics: | SMC, Festo |

This is only a selection of our suppliers. We will gladly cater for customised requirements from clients providing they are technically feasible within the overall design.

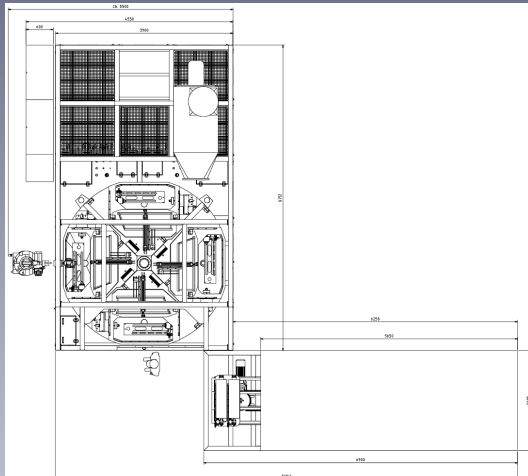
Detailed information regarding possible technical specifications can only be given after consultation with the client as each of our systems is customised and designed according to the client's requirements.

You will find two reference examples of our machines on the following pages.

Rotary Transfer Machine - Example 1

Technical data:

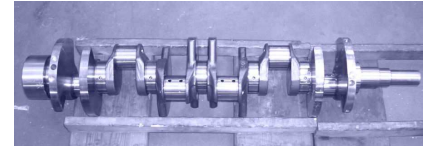
Design:	Rotary table with built-in cooling tunnel
Length:	6,500 mm
Width:	4,000 mm
Height:	3,300 mm



Based on a rotary table, this system was built for efficient flake deburring and cleaning of camshafts. The individual stations consist of cleaning, high-pressure deburring, rinsing, vacuum drying and a built-on cooling tunnel. In order to reduce noise emission the whole system is completely enclosed. The maximum noise level of the system is 80 dB (A).



Two cleaning agent containers are found around the rotary table. Cleaning and rinsing of wash items is carried out using rotary pumps. The high-pressure cleaning is carried out by a solid stream nozzle, which is attached to a robot arm and supplied by a high pressure pump. All waste water is filtered and then goes back into the cycle.



The item to be cleaned is attached to a work piece carrier inside the chamber by hand and passes through the individual stations according to the cycle. The robot-based high-pressure nozzle sprays the work piece precisely and thus ensures it is free of flakes after cleaning.



A base trough integrated in the support frame serves to catch any liquid which may leak out.



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Rotary Transfer Machine - Example 2

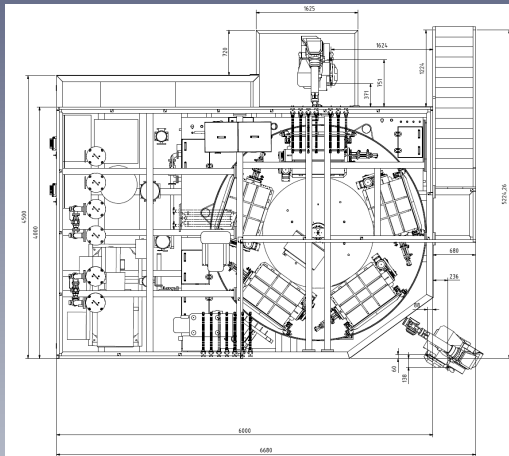
Technical data:

Design: Rotary table with robot-controlled loading

Length: 6,680 mm

Width: 5,300 mm

Height: 5,000 mm



This machine was built to clean gearboxes. Low-pressure cleaning, high-pressure cleaning, rinsing, vacuum drying and blow drying stations are fitted to a rotary table. The work piece is automatically loaded and unloaded by a robot. It is conveyed within the machine according to the cycle.



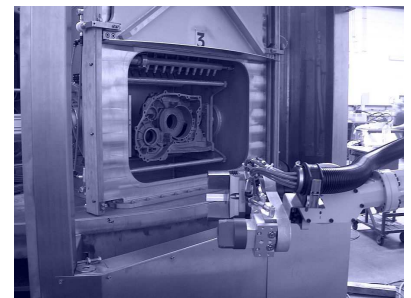
The timing device on the rotary table ensures work pieces are cleaned as efficiently as possible. The chambers attached to the rotary table work at the same rate at the same time, meaning that no chamber is ever empty during operation.



The system's compact design enables it to set up within a very small area. Most of this peripheral system is placed on the machine resulting in a two-storey layout.

The machine was equipped with two robots with one used for loading and unloading and the other for high-pressure cleaning.

Like all our machines, the whole machine stands in an integrated base trough to protect against leakage.



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