Application



PZM - ROBOTEC for automatic grinding of hoods in

home and kitchen appliance industry

One of the biggest manufacturers in the home and kitchen appliance industry from the USA has a longterm experience with Kuhlmeyer ZBS machines. Now he decides to install a highly automated Robotec Handling along with the PZM grinding machine for big hoods and frontcovers of around 40 kg and dimensions of 66" x 18" x 27".

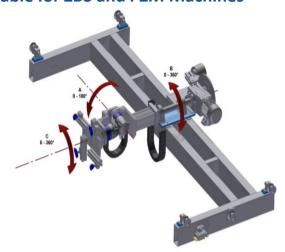


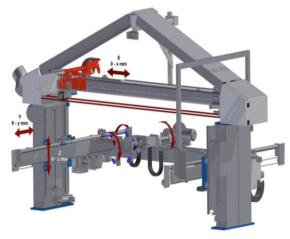
By using the fully automated solution "Robotec" the production time can be reduced with a factor of 2,5. Even with the overlapping of preassembly and setup on other workpieces by the operator, the total output on finished parts can be raised up to a factor of 3, compared with a manual production. At least, the quality is close to 100% due to a maximum repeatability in grinding by programmable steps and procedures.

The PZM Robotec includes 10 motorized and controlled axis by the Simatic S7 and a second operator panel outside the safety guard. All part specific programs can be stored and reused easily. Relevant parameter like speed, position, pressure etc. are shown on the display and can be re-adjusted with the program. Due to the use of two individual grinding and polishing belts, we achieve a high production rate with less downtime for belt changing. Even the process from roughing to finishing is done very quickly by movable tooling. The high flexibility of that PZM Robotec will be supported already by the possibility to change the tooling from automatic into manual mode. This allows the operator to prepare some unique and specific areas on the surface by tolerances in the previous production (i.e. spot weldings to grind accurate beforehand).



ROBOTEC (Patent pending) for automatic grinding in operator-less production, available for ZBS and PZM Machines





Technical Datas and features : Basic Machine					
	ZBS 2	ZBS 3	PZM 2.2	PZM 3.2	
Working Area /	3.000 mm	4.000 mm	3.000 mm	4.000 mm	
Table size					
Main Motor	4.0 kW	4.0 kW	4.0 kW	4.0 kW	
Power					
Grinding Belt	4 – 25 m/s				
Speed					
X- Axis	3.000 mm	4.000 mm	3.000 mm	4.000 mm	

ROBOTEC				
	ZBS	PZM		
Y-Axis	1.000 mm	1.000 mm		
Z-Axis (corresponds to the height between floor and grinding belt, as a max. workpiece height)	780 mm	2.200 mm		
A-Axis	0° - 180°	0° - 180°		
B-Axis	+- 180°	+- 180°		
C-Axis	0° - 360°	0° - 360°		



