

SHL / KUKA Robotic Polishing Cell No.6

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Stock No	PS984S
Manufacturer	SHL
Model	SHL / KUKA Robotic Polishing Cell
Year of Manufacture	2004
Serial	SHL 1086 CME08
Other Info	Quantity 3 cells available
Location	Cheltenham, UK
Weight (kgs)	Approx. 5000kgs Each
External Dimensions (WxDxH mm)	2400 x 4850 x 3000mm (Demountable)

Description

SHL- Robot Polishing - Cabin includes SHL double pivoting polishing machine Type 1 SDP 1000 ROB / 1 P Single wheel 550 ROB with 1 KUKA model KR30/3 KR C2 6 Axes Industrial Robot

The robots described are six axes industrial robots with jointed arm kinematics for all continuous path controlled tasks.

KUKA KR30-3 give you high performance in terms of cycle time and accuracy.

Extremely space saving - Extremely efficient, the small footprint enables problem free implementation even in confined cell layouts and thanks to its minimal disruptive contour, these versatile all-rounders also guarantee efficient offline programming - The advantages: high adaptability and simple programming.

Maximum reach - 2033mm

Rated payload - 30kg

Number of axes - 6

Positioning repeatability ± 1.15 mm

1 SHL Swivellable Double polishing machine Type SDP 1000 built on machine basis and pneumatically swivellable by max. $\pm 90^\circ$ from the mid point in 7 positions, swivellable to the left or to the right.

The polishing machine is equipped with a double polishing spindle to receive two sets of polishing mops.

The robot programs are corrected automatically according to mop wear and the circumferential speed of the mops is adapted automatically according the reduced mop diameter in order to maintain a constant buffing speed.

Two liquid compound high pressure guns for compound feeding

In addition to the KUKA KR30/3 KR C2 6-axis industrial robots for the purpose of workpiece feeding, the SHL robotic polishing cells include a number of polishing machines, the design of which take into account the special requirements for the deburring and polishing of profiled workpieces and moulded parts – even with the most difficult of contours and materials including steel, nonferrous metals, wood, plastic etc. – all with various band speeds.

Both the robot and the polishing machines are anchored on a stable frame and surrounded by a cabin. This provides especially favourable conditions for extraction and thus effects sound dampening. The fore cabin area is fitted with an overhang under which are mounted the various feed units e.g. slide table, pallet conveyor unit or other units serving automatic workpiece feeding.

SHL polishing machine

Type P 550 ROB (Serial 2195/10)

The SHL type P 550 ROB polishing machine is engineered for polishing, Scotch-Brite, deburring and brushing processes. All of the electrical elements required by the machine are located in a switch cabinet. From this unit, an SHL bus system is used to link it to the robot and integrate it into a functional whole. The machine design takes the latest advances in polishing technology into account, and the system is engineered for the use of polishing discs up to 550 mm in diameter.

The P 550 ROB polishing machine takes into account the particular requirements of polishing machined workpieces and moulded parts with steplessly varying belt speeds, including extremely difficult contours from metal, non-ferrous metals, wood and plastics.

Its compact form factor offers excellent freedom of movement for the workpiece.

Particular design characteristics - May Include:-

- Microprocessor controlled frequency converter – for stepless control of spindle rotary speed
- Digital display of the spindle rotary speed in the centre control panel of the SHL control cabinet – for exact setting of the speed level for the corresponding work area



- Automated compensation for wear as the polishing disc is progressively worn down. An electronic control circuit regulates tracking to ensure that the contact point remains constant to a precision of +/- 0.5 mm. The contact pressure can be adjusted steplessly at the central control panel.
- Optional: Liquid or solid paste feed can be supplied as required

SHL pivoting dual polishing machine:

Type SDP 1000 ROB (Serial 2192/2)

The SHL type SDP 1000 ROB pivoting dual polishing machine is engineered for deployment in robot polishing plant. All of the electrical elements required by the machine are located in a switch cabinet. From this unit, an SHL bus system is used to link it to the robot and integrate it into a functional whole. Constructed on a machine base, the processing unit can be pivoted steplessly right and left from the central position. The polishing machine is equipped with a dual polishing spindle, for fitting with 2 polishing disc sets.

The resetting of the robot program during disc wear occurs automatically, with the spindle rotary speed being increased to compensate for polishing speed.

Particular design characteristics

- Two microprocessor controlled frequency converters for stepless control of spindle rotary speed
- Digital display of the spindle rotary speed for exact setting of the speed level for the corresponding work area
- Pressure-controlled compensation of polishing disc wear via a robot. Spindle rotary speed adjustments matching the disc diameter as it wears down occur automatically via robot control.

Actual equipment Manufactured 2004 contained within the cabin including models and serial numbers:-

Kuka Robot - Type KR30/3 KR C2 - Serial no: 732653

SHL Control Panels - Type ZS - Serial no: 2169

SHL Double Polishing machine - Type SDP1000 - Serial 2192/2

SHL Polishing Machine - Type P550 - Serial 2195/10

SHL Loading & Unloading table - Type BET

SHL Cell/full enclosure for complete robotic buffing cell.

Photographs taken prior refurbishment. Our refurbishment service is not available on all machines.