GAS Automation

GAS-Depanelling Technology

THE NEW EFFICIENT
SAR-CostLeader-Series

Intelligence in Motion
– fast and precise

SAR-1000-B1-CL
High Performance For Small Money

The GAS “Cost Leader”-depanelling system SAR-1000-CL as well as the other CL-variants offer the user a largely automated, nearly stress-free and cost effective detachment process to replace traditional detachment methods, such as circular plate, side cutter or punch unit.

The new depanelling system can be used as a cutting cell in a one-piece-flow production as well as a central system for small and medium lot sizes.

The machine is characterized by its excellent price performance relation: Low invest and at the same time highest milling accuracy and high speed movements due to the linear motor actuators of GAS-Automation.

GAS offers a special service for this machine: One specific workpieceholder and one corresponding milling programme.

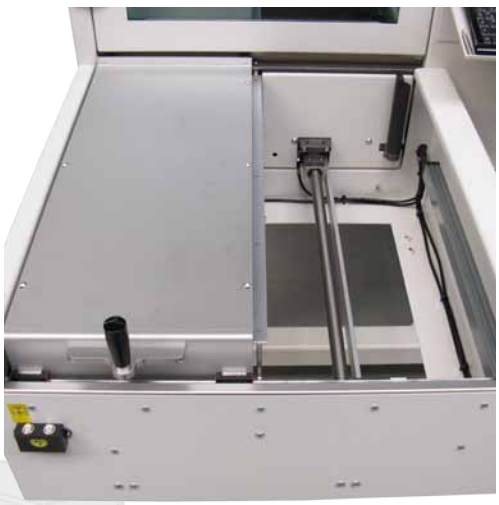
Special features of the SAR-1000-B1-CL are

- Very fast and precise linear motor actuators for all directions of movement (X, Y and Z)
- Milling area: 430 mm x 350 mm
- Manually operated single drawer system available optionally
- Flexible generation of a workpieceholder with the help of magnet pins (MAGNO-PLATE)
- Holding down of the printed circuit-boards during the detachment process with a flexible milling brush holder
- Tool kit with automatic tool exchange, broken tool control and continuous bit control for different levels
- Ionisation
- NC-programmes can be established „offline“ with CAD/CAM system
- State-of-the-art IPC technology ensuring user-friendly operation and highest ease of use

The machine can optionally be loaded by a manual drawer.

The flexible milling brush holder presses the printed circuit board against the supports of the workpiece holder during milling action. Therfore further holding-down devices can often be avoided – depending on the panel size.

SAR-1000-B2-CL
Improved Cycle Time due to a 2-Shuttle System

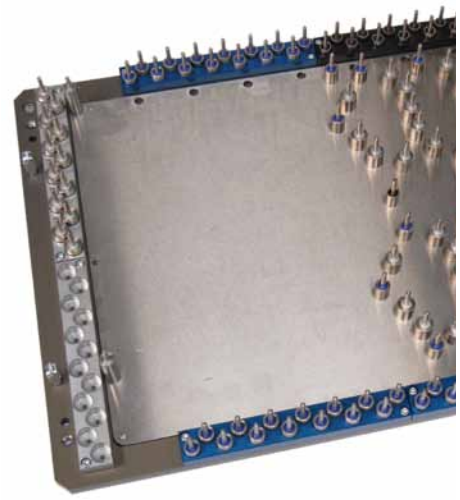


Through the help of the double shuttle system the cycle time is reduced by eliminating the time for loading and unloading of the shuttle.

Special features of the SAR-1000-B2-CL are

- Very fast and precise linear motor actuators for all directions of movement (X, Y and Z)
- Milling area: 380 mm x 195 mm
- Twin shuttle system with automatic movement of shuttles into the milling area
- Flexible generation of a workpieceholder with the help of magnet pins (MAGNOPLATE)
- Holding down of the printed circuitboards during the detachment process with a flexible milling brush holder
- Tool kit with automatic tool exchange, broken tool control and continuous bit control for different levels
- Ionisation
- NC-programmes can be established „offline“ with CAD/CAM system
- State-of-the-art IPC technology ensuring user-friendly operation and highest ease of use

SAR-1300-B2-CL
2 Shuttle System and a large Milling Area



The depanelling machine can optionally be equipped with a flexible workpiece-holder with magnet pins (MAGNOPLATE), that reduces the workpieceholder cost significantly especially in case of high product variety.

Special features of the SAR-1300-B2-CL are

- Very fast and precise linear motor actuators for all directions of movement (X, Y and Z)
- Milling area: 430 mm x 350 mm
- Twin shuttle system with automatic move-ment of shuttles into the milling area
- Flexible generation of a workpieceholder with the help of magnet pins (MAGNOPLATE)
- Holding down of the printed circuit-boards during the detachment process with a flexib-le milling brush holder
- Tool kit with automatic tool exchange, broken tool control and continuous bit control for different levels
- Ionisation
- NC-programmes can be established „offline“ with CAD/CAM system
- State-of-the-art IPC technology ensuring user-friendly operation and highest ease of use

SAR-1300-D1-CL
Sawing with High Precision

Long straight crosscuts can be executed in optimum cycle times in horizontal and vertical direction

Special features of the SAR-1300-D1-CL are

- Very fast and precise linear motor actuators for X- and Y direction
- Milling area: 430 mm x 350 mm
- Shuttle with automatic movement into milling area
- Nearly stressfree detachment process by sawing module in X- and Y direction
- Ionisation
- NC-programmes can be established „offline“ with CAD/CAM system
- State-of-the-art IPC technology ensuring user-friendly operation and highest ease of use

Technical Specifications

		SAR-1000-B1-CL	SAR-1000-D1-CL	SAR-1000-B2-CL	SAR-1300-B2-CL
Machine dimensions	Length (mm)	1450	2230	2138	2410
	Width (mm)	1000			1370
	Height (mm)	1850			
	Operator height (mm)	900		976	983
	Weight (kg)	700	750		900
Speed of axes (mm/s)	X-, Y and Z-linear motor actuators	1000			
Accuracy (mm)	Repeat accuarcy	± 0.02			
	Positioning accuracy	± 0.02			
	Milling accuracy	± 0.15			
Work space (mm)	Max. panel size X- and Y-direction	430 x 350		380 x 213	430 x 350
PCB-characteristics	PCB-thickness (mm)	0.5 - 3.2			
	Max. component height on top side (with 0,6KW spindle) (mm)	10			
	Max. component height on top side (with 1,1KW spindle) (mm)	15			
	Max. total height of worktable with PCB (mm)	70			
	PCB materials	CEM1, FR2, FR3, FR4, FR5			
Availability and CE standard	Technical availability	≥ 98 %			
	Machine capability study	✓			
	CE type	✓			
Noise level	Measured at a distance of 1.2 m	≤ 72 db (A)			
System control	Beckhoff IPC control with DIN 66025	✓			
	Windows CE-operating system	✓			✘
	Windows XP-operating system	✓			
	17" TFT-screen-Monitor	✓			
Power supply	Voltage	400 V / 50 Hz / 16 A			
	Compressed air	0.6 mPa (6 bar)			
	Ambient temperature	+18° C to +40° C			
	Relative air humidity	15% to 80%			
	ELCB > 100 mA: Connection over ELCB not possible	✓			
Options	Stronger spindle with 1,1 KW	•		•	•
	MAGNOPLATE	•			•
	Automatic tool exchange, broken tool control and continuous bit control for different levels	•		•	•
	Milling brush holding-down device	•	•	•	•
	Single drawer	•			
	Double shuttle system			•	•
	CAD/CAM software for generating of milling programme	•	•	•	•
	GAS standard detection of good or bad parts			•	•
	Traceability			•	•

GAS Automation

GAS-Automation GmbH
Am Tannwald 2
D-78112 St. Georgen/Schwarzwald
Telefon: +49 77 25 91 66 - 0
Telefax: +49 77 25 91 66 - 13
Internet: www.gas-automation.de
E-Mail: info@gas-automation.de