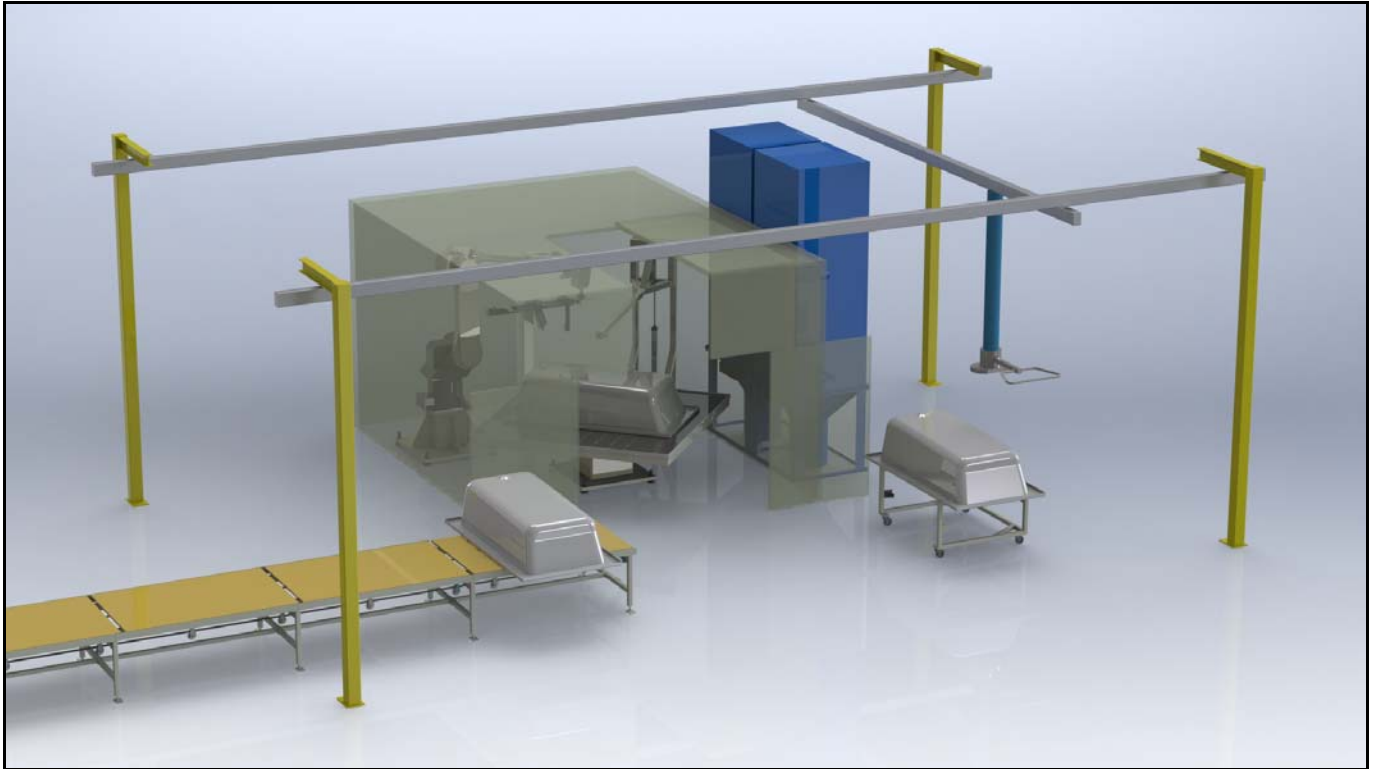
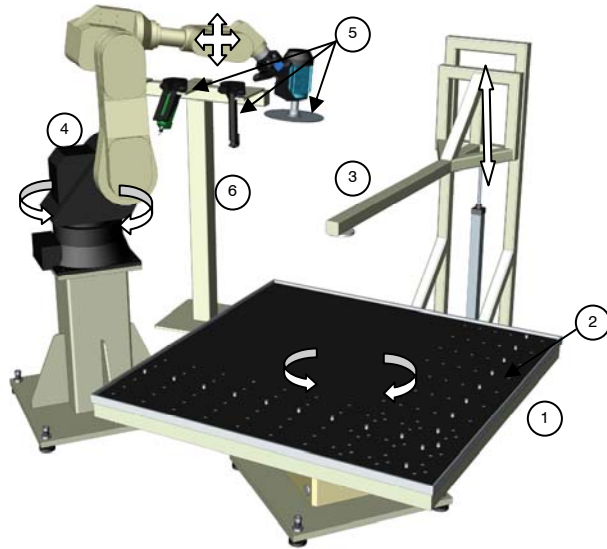


RT-03 ROBO-TRIM



The RT-03 Robotic Trimming System is designed to give maximum productivity and flexibility. The 6-axis robot is more versatile than a multi-axis CNC system, and the use of custom designed cutting tools enables the machine to carry out all cutting operations in a far shorter time than previously possible. A rotating table holds the product securely whilst moving in perfect harmonisation with the robot. Products are located into an adjustable datum corner and are pneumatically clamped. Programming can be carried out off-line giving a minimum of machine downtime for program testing. Armour will custom build a robotic solution for your application.



1. Product table
2. Product locating pins
3. Product clamp
4. Robot
5. Tools
6. Tool changer
7. Rotating table

The Operator places the product onto the holding table (1) and pulls into into the datum corner defined by the product locating pins (2). The product will now be roughly on the centre of the table. The operator leaves the enclosure and closes the door. The start button is pressed and the product clamp moves down to hold the product. The robot (4) will select the correct tool (5) from the tool changer (6) and begin trimming the product. During the program the table will rotate to allow the robot to access all areas as required.

MACHINE SPECIFICATION

ELEMENT	SPECIFICATION	
Machine Capabilities	Maximum product size:	2000 x 2000 x 800mm
	Maximum cutting speed (saw):	180mm/s (finish cut) 300mm/s (scrap cut)
	Maximum cutting speed (router):	80mm/s
	Cutting times:	50mm hole in 5 seconds 35 seconds (standard trim rectangular bath)
Machine Construction	Main frame:	Rolled steel sections – BS EN 10025 material
	Casing:	Sheet steel – BS EN 10025 material
	Paint finish:	Textured powder coating
Robot	Robot type:	Panasonic Panarobo HS-80
	Capacity:	80kg
	Number of axis:	6
	Repeatability:	±0.2mm or less
	Maximum speed:	2m/s
Saw Spindle	Blade:	240mm diameter tungsten carbide
	Cutting motor power:	4 kW
Router Cutting Head	Cutting spindle power:	1.2 kW
	Cutting speed:	20,000 rpm
	Speed control:	Inverter
Rotating Product Table	Driven with AC brushless servo-motor.	
	Motor power:	2 kW
	Maximum speed:	10 rpm
	Harmonised with robot to give a total of 7 axes.	

Product Location	Pneumatically operated pins provide a variable datum corner. Minimum product size: 700 x 700mm
Product Holding	Pneumatically operated clamping system. Clamp arm provides secure resistance to lateral movements. Pneumatic cylinder pulls product tight onto the high grip rubber table surface.
Tool Changer	3 station tool stand with location pins and sensors. Pneumatically operated tool lock mechanism with fail-safe. Tool change time: Up to 10 seconds
Control System	PLC controlled sequence. Touch screen user interface. Standard hole cut programs included. Robot programming via teach pendant. Offline programming option.
Dust Extraction	Specified and supplied separately.
Enclosure	Modular unit with sliding door recommended. Specified and supplied separately.
Electricity	3 Phase supply + Neutral + Earth: 380/415V @ 50Hz Maximum power consumption: 25 kW

example specification only - specification may be subject to change without notice

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