



GEBE2

Europe Technologies group

COLLABORATIVE ROBOT FOR SANDING



COLLABORATIVE ROBOT FOR SANDING: COSAND

To complete our range of sanding systems, GEBE2 now supplies a collaborative sanding robot based on the cobot SYB 3 from the French manufacturer ISYBOT (www.isybot.com).

This new robot provides a solution in case of low production rate and large variety of parts. It is also the response to musculoskeletal disorder problems increasingly observed in production workshops.

This unique robot design is easy to program in 4 operating modes:

- **Assistance:** The operator controls the toolpath, the robot applies the desired force.
- **Playback:** The operator performs a first toolpath, the robot repeats the trajectory by applying the force and the desired forward speed. The operator can take control of the robot at any time.
- **Parallelisation:** The operator teaches 4 points on a flat or curved surface, the robot sands automatically this area.
- **Remote operation (optional):** The robot works in hostile environments controlled via a joystick by an operator who remains in a safe environment.

For each operation mode the operator can choose the forward speed of the robot, the applied force, and the rotation speed of the sander via the user-friendly interface.

Mobility: the sanding robot can be mounted on a mobile platform, which allows to move around a large workpiece or to use it in several workshops.

SPECIFICATIONS OF THE SANDING EFFECTOR

The standard sanding effector from GEBE2 is installed on the cobot and provides the same performances as the fully automated cells.

	Effector 1*	Effector 2*
Technology	Rotary	Roto-orbital
Rotation speed	0-10,000 rpm	
Abrasive diameters	50/80/100/150 mm	80/150 mm
Grit	Coarse, medium or fine	
Force control	Up to 100N via the robot	
Dust extraction	at the source (optional deduster)	

*Application in collaborative context depends on the risk analysis.

PROPOSED SERVICES

- Feasibility
- Leasing or rent
- Sale
- Specific integration



In addition to the collaborative sanding robot, GEBE2 provides sanding exoskeletons and robotic sanding cells.

**GEBE2**

Europe Technologies group

COLLABORATIVE ROBOT FOR SANDING

INTERACTIVE COLLABORATIVE ROBOT

COBOT performances

Max Reach	1600 mm
Maximum force applied on the sander	100 N
Maximum speed	1.0 m/s
Maximum acceleration	1.0 m/s ²
Repeatability in positioning	± 0.2 mm under load (according to the BS EN ISO 9283 standard)
Sander bracket	The sander follows the orientation of the surface
Protection index	IP 54

Characteristics

Number of axes	5 (including 3 motorised)
Weight of robot and sander	100 kg
Mechanical base dimensions	700 x 500 mm
Mounting position	Floor or ceiling
Robot mobility	Installation on an optional movable cart
Controlling the cobot	Remote console (4 m cable) with touchscreen, start button and emergency stop button on the robot arm.
Electrical cabinet	530 x 485 x 420 mm
Weight of electrical cabinet	45 kg
Wiring harness	Standard length 2 m (other lengths optional)

Energy supply

Electrical supply	230 V, 50 Hz, 16 A
Cobot power protection	Differential circuit breaker 30 mA D CURVE
Power consumption unloaded	Movement without sanding and without effort 200 W
Power consumption under load	Up to 1000 W during sanding according to force applied

