



GEBE2

Europe Technologies group



COSAND

Collaborative robot for sanding

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 3 operating modes :

Assistance

The operator performs the toolpath, the robot applies the desired force and absorbs a huge amount of tool vibrations.

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 2 or 4 points on a flat or curved surface, the robot sands automatically this line or area (depending on the number of teached points).

For each operation mode the operator can choose via the user-friendly interface different sanding parameters, such as the applied force, the rotation speed of the sander ...



CHARACTERISTICS

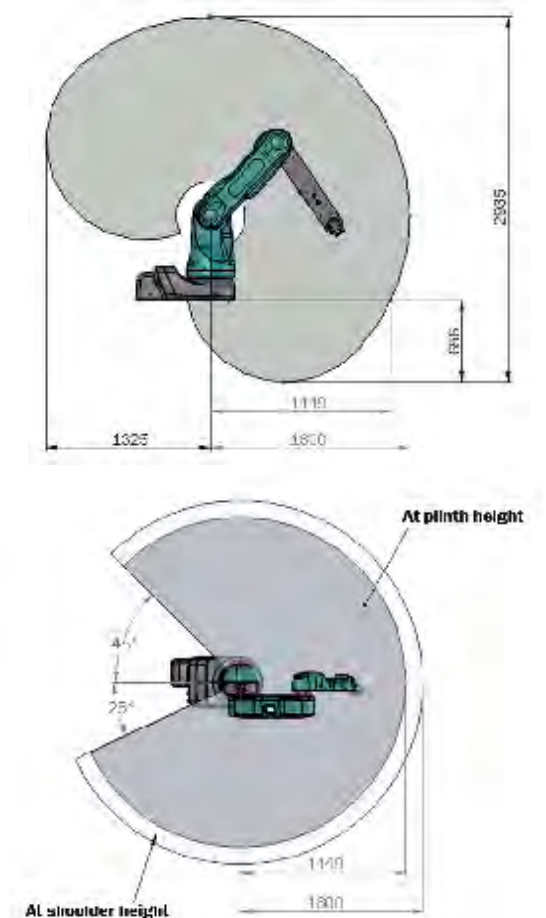
COBOT PERFORMANCES	
Max reach	1600 mm
Maximum force applied on the sander	100 N
Maximum speed	1.0 m/s
Maximum acceleration	1.0 m/s ²
Repeatability in positionning	±0.2 mm under load <i>(according to the BS in ISO 9283 standard)</i>
Sander bracket	Maintenance of sander normality <i>(during movements)</i>
Protection index	IP 54

TECHNICAL CHARACTERISTICS	
Number of axis	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 optionnal movable cart
Controlling the cobot	Remote console with touchscreen <i>(4m cable)</i>
Electrical cabinet	530 x 485 x 420 mm
Weight of electrical cabinet	45 kg

ENERGY SUPPLY	
Electric supply	230 V, 50Hz, 16A
Cobot power protection	Differential circuit breaker 30 mA D curve
Power consumption unloaded	= 200W <i>(movement without sanding and without effort)</i>
Power consumption under load	≤1000W <i>(depending on applied effort during sanding)</i>

CHARACTERISTICS OF SANDING EFFECTOR	
Technology	Roto-orbital
Rotation speed	0-10 000 rpm
Abrasive diameters	75-150 mm
Grit	Standard
Force control	±100 N (via the cobot)
Dust extraction	At the source (optional vacuum)

*The application in a collaborative context is depending on the risks.



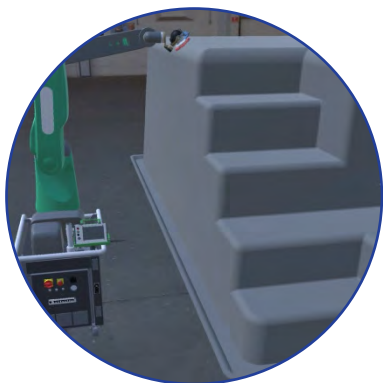
In addition mobility : the sanding cobot can be mounted on a mobile platform, which allows to move around a large workpiece or to use it in several workshops.

EXAMPLES OF APPLICATIONS



Discover those applications on our Youtube channel

SERVICES



Feasibility

As pre-project, we check the accessibility, the maximum range of the cobot and the tools reach regarding the sanded product.

Sale

This service includes the verification of the cobot, the delivery, the implementation of the cobot on site, the risk analysis, the collaborator training for production and maintenance.

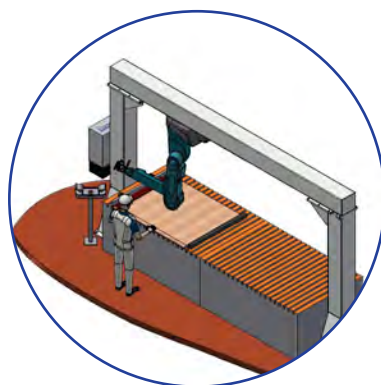


2 location modes

We suggest you a one month location to try the cobot in your workshop OR the long term location from one to three years.

Specifics

We answer to your special request by directly integrating the cobot in your dedicated environnement on all kind of devices.



Customer services

We regularly realize the update of the software and robot modes and provides a preventive maintenance for long term operation.