

Datasheet : SYB 3

Interactive Collaborative Robot

COBOT Performances

Working Area:	1600 mm (between axis 1 and flange)
Payload:	10 kg over the entire work area
Maximum TCP velocity:	1.0 m/s
Maximum TCP acceleration:	1.0 m/s ²
Position repeatability:	± 0.2 mm on load (NF EN ISO 9283)
Cobot Tool flange:	Keep the tool flange orientation during movements
Tool flange orientation:	Manually changeable: Horizontal or Vertical
IP rating:	IP 54

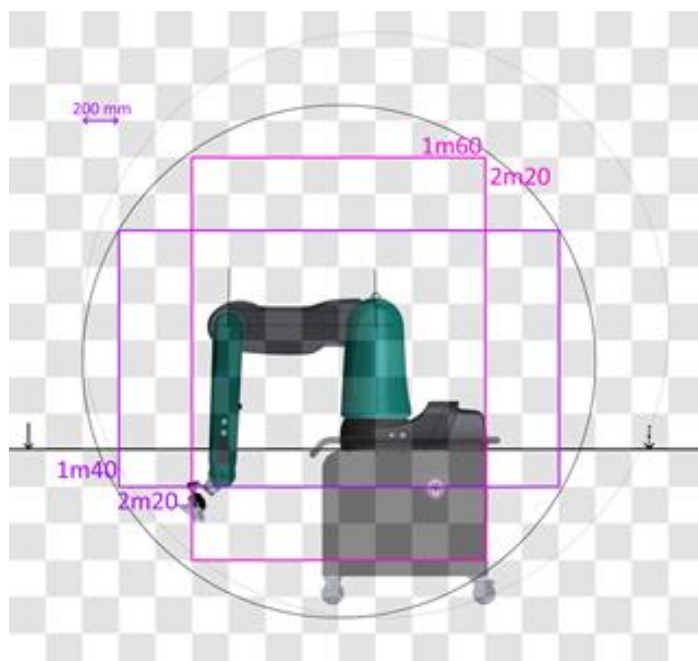
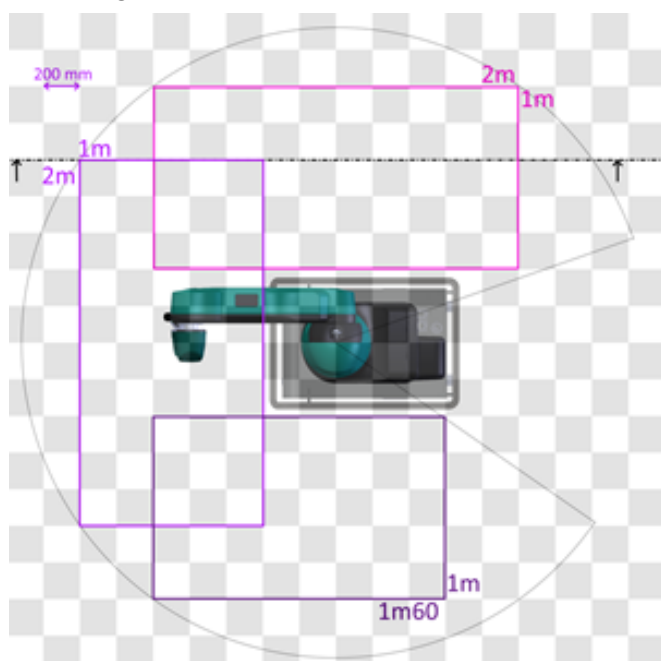
Characteristics

Axis number:	3
Mechanical Weight:	105 kg without tooling
Mechanical Footprint:	500 x 700 mm
Mounting:	Floor and Roof mounting
Mobility:	Mobile Base for the COBOT arm including the control cabinet (option)
Control panel:	Remote (4 m Cable) with touch screen, Start/Stop P/B and E-stop.
Control cabinet:	Height 530 mm x Width 485 mm x Depth 420 mm
Control cabinet mounting:	Vertical mounting Weight 45 Kg
Robot - Cabinet cable length:	2 m, length can be modified as an option

Integrator interfaces

Supply voltage:	230 V, 50 Hz - 16 A
Cobot power supply protection:	Differential circuit breaker 30 mA Curve D
Power consumption:	w/o tool: ~200 W no load, < 700 W max torque
Integrator's Inputs / Outputs:	Extension EtherCAT
	Connector Digital inputs (3) / outputs (4), 24V
External controller connectors:	Terminals: Digital inputs (6) / outputs (3), 24V,
	Remote Emergency Stop
	Network socket
	230 V 50 Hz AC socket
Cobot arm connectors:	4 shielded electrical lines inside the arm to the cabinet

Working Area





Available applications:

- Orbital sanding –150 mm or 77 mm discs
- Floor, wall or ceiling sanding
- Non-destructive testing - force assistance

4 operating modes:

- Assistance - Restitution - Parallelization – Remote operation
- Easy to use user interface, 2 button control
- Effortless handling for the operator - Virtual guide



Instrumented end effector



To sand large surfaces with a small bend radius, an instrumented end effector is available to manage 2 additional degrees of freedom.

The COBOT then integrates 5 degrees of freedom in its servo control laws, to guarantee a perfect sanding result through a constant force normal to the working surface of the disc.

Mobility: mobile base mounting

- The HMI is removable and fixed by a magnetic plate on the cobot base
- A handrail surrounds the base for easy handling
- The base is weighted and braked to ensure stability
- The whole unit is supported by 4 Ø 150 mm wheels; 2 of them have brake.
- Optimal ergonomics in relation to the operator's shoulder line
- A space accessible through a side door is available for integration of additional equipment.
- Basic trolley size: 800 x 1000 mm - Height 840 mm
- Base with on-board vacuum: 800 x 1700 mm - Height 840 mm



ISYBOT strengthens the competitiveness and the attractiveness of the manual job without changing its surroundings.

