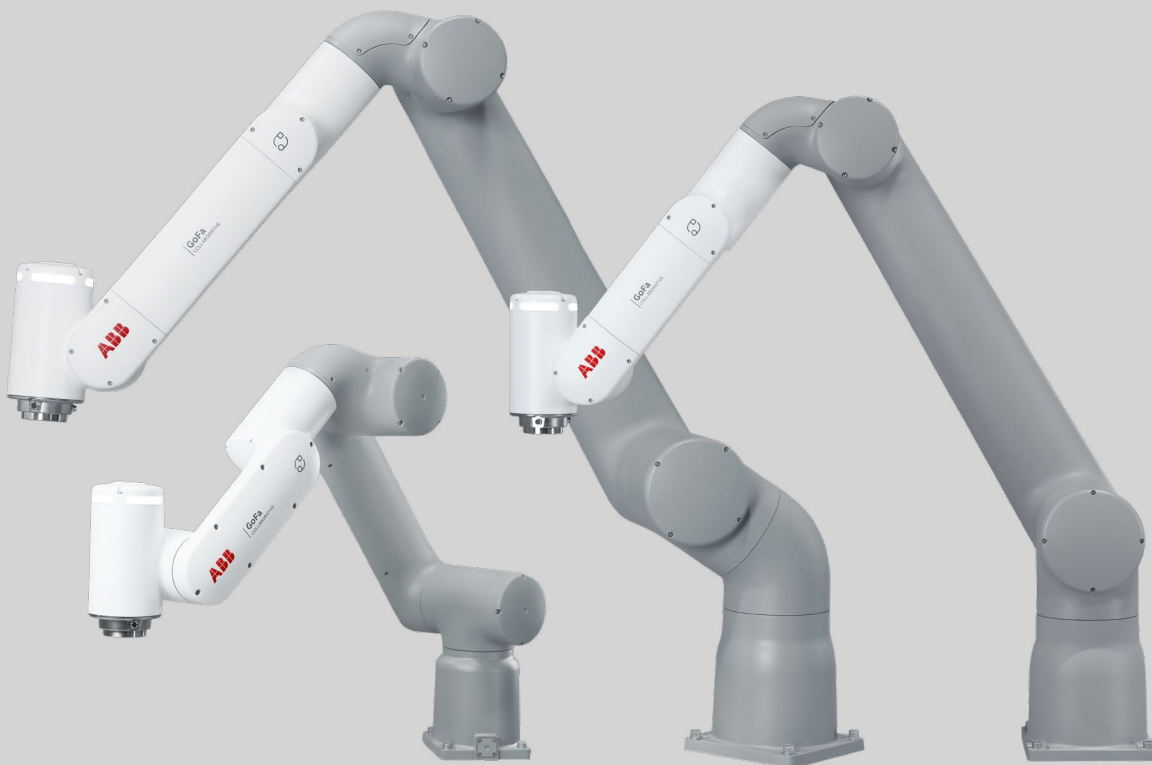


ROBOTICS

GoFa™ CRB 15000

Go far with your new helping hand



Go faster. Go further than ever. GoFa's class-leading speed, safety, and ease of use will take your business to the next level.

Introducing GoFa

GoFa incorporates a range of features that allow it to be used safely, directly alongside human workers and without the need to design and build bulky barriers or fencing. GoFa can continuously share workspace with people, giving it maximum flexibility and efficiency. Robot and human cooperate on the same tasks, without jeopardizing productivity or safety.

Strong yet safe

Designed for handling payloads up to 12 kg, GoFa has integrated torque sensors in each of its six joints offering superior power and force limiting performance. Together, these prevent the risk of injury by bringing GoFa to an immediate stop if it senses any contact with a human worker.

Easy set-up and operation

Set up and configuration is easy with intuitive, graphical Apps directly on the FlexPendant. You can move your robot using lead through in no time.

Faster performance for greater productivity

GoFa offers a maximum Tool Center Point (TCP) speed of up to 2,2 m/s,¹ faster than other cobots in its class. GoFa can perform more operations in a set period than competing robots.

¹ Safe collaborative speed will be lower, refer to the SafeMove configurator App for recommendation. Always do a safety risk assessment of your cobot application.



Key features:



Collaborative safety

- Superior power and force limiting performance through integrated torque sensors,
- Safe design of robot, rounded geometry, no pinch/trap points,
- Safety certified Category 3, PL d.



Productivity

- With a TCP speed of up to 2,2 m/s², GoFa is faster than other cobots in its class,
- Up to 1,62 m reach, 14% longer than other comparable robots,
- Up to 20% energy savings,
- Best-in-class repeatability of 0,02 mm on the market.



Applications

- Machine tending,
- Welding,
- Palletizing,
- Assembly,
- Screwdriving,
- And many more...



Easy to use

- Enhanced interaction with arm side interface,
- Lead-through anywhere on the robot,
- Wizard easy programming,
- SafeMove configurator App on the FlexPendant.

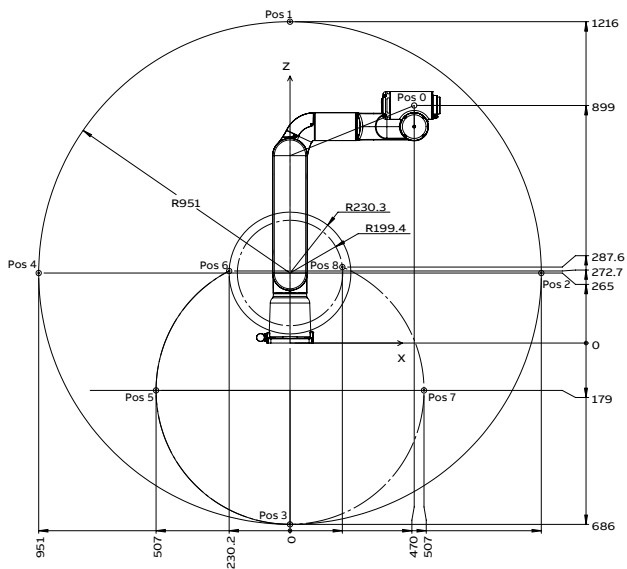
² Safe collaborative speed will be lower, refer to the SafeMove configurator App for recommendation. Always do a safety risk assessment of your cobot application.

Specification			
	GoFa 5	GoFa 12	GoFa 10
Reach (mm)	950 (wrist) 1050 (flange)	1270 (wrist) 1370 (flange)	1520 (wrist) 1620 (flange)
Payload (kg)	5	12	10
Arm load (kg)	1 (mounted on axis 4)	1 (mounted on axis 2, 3, or 4)	1 (mounted on axis 2, 3 or 4)
Number of axes	6	6	6
Protection	IP54	IP67	IP67
Mounting	Any angle, including table mounting, wall mounting, and ceiling mounting		
Controller	OmniCore C30		
Customer power supply	24V/2A supply		
Customer signals	4 signals (for IO, Fieldbus, or Ethernet)		
Tool flange	Standard ISO 9409-1-50		
Functional safety	SafeMove Collaborative included all safety functions certified to Category 3, PL d		

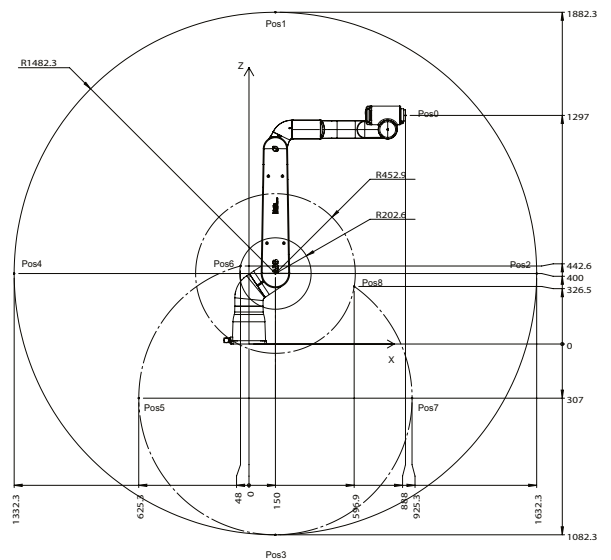
Performance			
	GoFa 5	GoFa 12	GoFa 10
Max TCP Velocity	2,2 m/s	2 m/s	2 m/s
Max TCP acceleration (Controlled motion for nominal load)	36,9 m/s ²	27 m/s ²	28 m/s ²
Max TCP acceleration (e-stop for nominal load)	61,6 m/s ²	79 m/s ²	94 m/s ²
Pose repeatability	0,02 mm	0,02 mm	0,02 mm

Physical			
	GoFa 5	GoFa 12	GoFa 10
Dimensions robot base	165 x 165 mm	200 x 200 mm	200 x 200 mm
Weight	28 kg	48 kg	51 kg

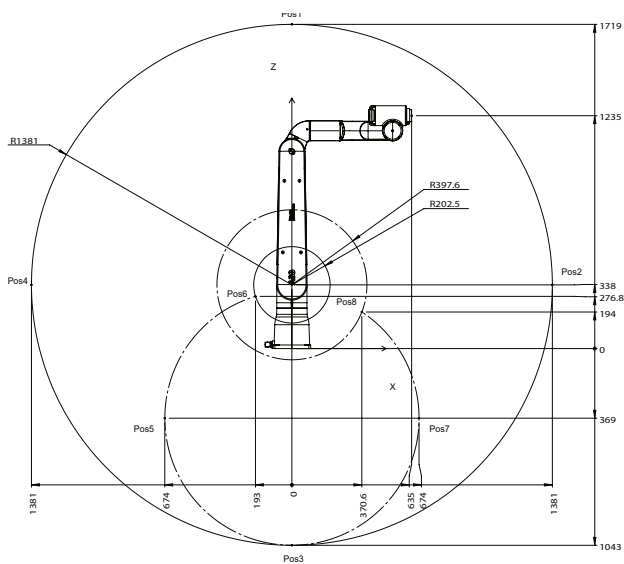
Movement						
	GoFa 5		GoFa 12		GoFa 10	
Axis movement	Working range	Axis max. speed	Working range	Axis max. speed	Working range	Axis max. speed
Axis 1 rotation	-180° to 180°	125 °/s	-270° to 270°	120 °/s	-270° to 270°	120 °/s
Axis 2 arm	-180° to 180°	125 °/s	-180° to 180°	120 °/s	-180° to 180°	120 °/s
Axis 3 arm	-225° to 85°	140 °/s	-225° to 85°	125 °/s	-225° to 85°	125 °/s
Axis 4 wrist	-180° to 180°	200 °/s	-180° to 180°	200 °/s	-180° to 180°	200 °/s
Axis 5 bend	-180° to 180°	200 °/s	-180° to 180°	200 °/s	-180° to 180°	200 °/s
Axis 6 turn	-270° to 270°	200 °/s	-270° to 270°	200 °/s	-270° to 270°	200 °/s



01 GoFa 5 Working range, Side view



02 GoFa 10 Working range, Side view



03 GoFa 12 Working range, Side view

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SWIFTI™ CRB 1100

Unleash the speedy cobot

A lightning-fast cobot that combines industrial-level performance and innovative safety. SWIFTI gets the job done faster and more accurately than you can imagine.



Introducing SWIFTI

SWIFTI bridges the gap between collaborative and industrial robots. It enables proven safe collaborative operation to be achieved, even in applications that demand industrial-level speed and lifting capabilities.

Collaborative safety

Combining ABB's SafeMove comprehensive safety functionality with a safety laser scanner,* SWIFTI can be installed without physical fencing and still collaborate safely with people. If a worker is detected within its working area, SWIFTI will automatically slow down or halt to allow them to approach safely. An interaction light also provides a visual indication of SWIFTI's status. It signals human co-workers when people are inside SWIFTI's working zone.

No experience? No problem.

Offering both lead-through programming – via a clip-on lead-through device, Wizard easy programming software, and the graphical SafeMove configurator App on the FlexPendant, SWIFTI can be configured and programmed easily and quickly.

High-performance collaboration

SWIFTI offers a maximum Tool Center Point (TCP) speed of over 5 m/s,** 5 times faster than other 4 kg cobots and comparable with industrial robots. At 0.01 mm, SWIFTI also provides up to 10 times higher position repeatability than other collaborative robots.

Key features:

Collaborative safety

- Supervised by SafeMove and safety sensor
- Stop safely before contact with a human
- Interaction status light
- Safety certified Category 3, PL d

Easy to use

- Wizard easy programming
- Intuitive robot movement programming with external lead-through device
- SafeMove configurator App on the FlexPendant

Productivity

- With a TCP speed of over 5 m/s,** it is 5 times faster than other cobots in its class
- Up to 10 times higher position repeatability 0.01 mm than most cobots in its class
- Four integrated air supplies enable vacuum picking

Applications

- Assembly
- Insertion
- Kitting
- Material handling
- Machine tending
- Polishing
- Screw-driving
- And many more ...

* Safety PLC is required for connection with the laser scanner

** Safe collaborative speed may be lower, depending on your application layout. Always do a safety risk assessment of your cobot application.

Specification

Robot version	Reach (m)	Payload (kg)	Armload (kg)
CRB 1100-4/0.475	0.475	4	0.5
CRB 1100-4/0.58	0.58	4	0.5
Number of axes	6		
Protection	Standard IP40		
Mounting	Any angle		
Controller	OmniCore C30		
Integrated signal and power supply	Up to 12 signals (C1 + C2) on upper arm		
Integrated air supply	4 air on wrist (Max. 6 Bar)		
Integrated ethernet	One 1000 Base-T ethernet port (C2)		
Tool flange	Standard ISO 9409-1-31.5-4 M5		
Functional safety	SafeMove Collaborative included All safety functions certified to Category 3, PL d		

Performance (according to ISO 9283)

	CRB 1100-4/0.475	CRB 1100-4/0.58
Max TCP Velocity	4.32 m/s	5.05 m/s
Max TCP Acceleration (normal control motion @nominal load)	82.13 m/s ²	71.48 m/s ²
Max TCP Acceleration (e-stop @nominal load)	144.6 m/s ²	137.21 m/s ²
Acceleration time 0-1m/s	0.06 s	0.12 s
Pose repeatability, RP	0.01 mm	0.01 mm
1 kg picking cycle 25 × 300 × 25 mm	0.42 s	

Physical

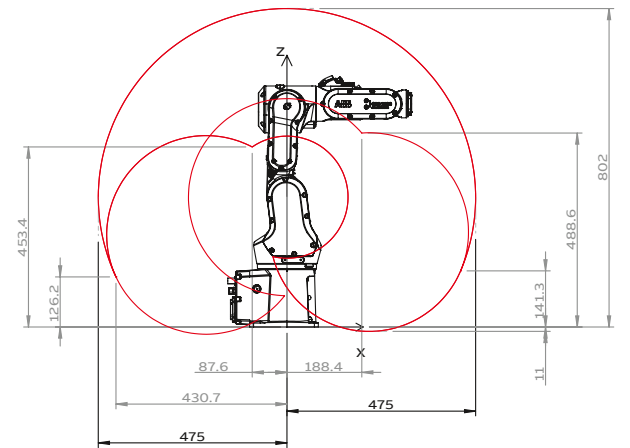
Dimensions robot type	160 × 172 mm
Weight	21 kg

Movement

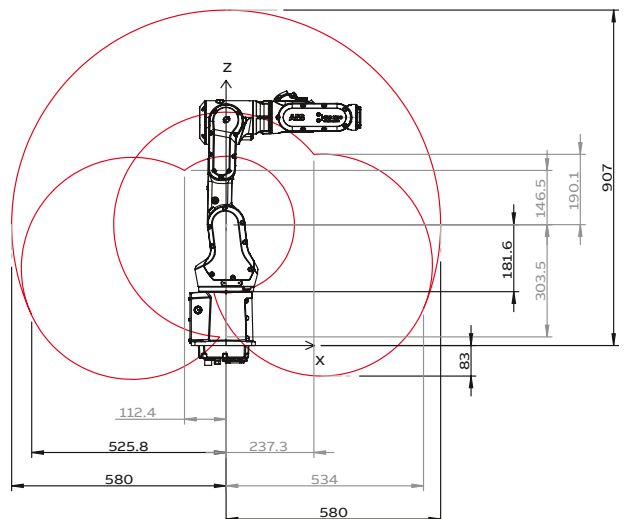
Axis movement	Working range	Max. speed CRB 1100-4/0.475	Max. speed CRB 1100-4/0.58
Axis 1 rotation	+230° to -230°	460°/s	460°/s
Axis 2 arm	+113° to -115°	380°/s	360°/s
Axis 3 arm	+55° to -205°	280°/s	280°/s
Axis 4 wrist	+230° to -230°	560°/s	560°/s
Axis 5 bend	+120° to -125°	420°/s	420°/s
Axis 6 turn	+400° to -400°	750°/s	750°/s



Working range, CRB 1100-4/0.475



Working range, CRB 1100-4/0.58



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SWIFTI™ CRB 1300

The speedy cobot just got stronger

Introducing SWIFTI CRB 1300, the lightning-fast industrial collaborative robot that takes industrial-level performance and innovative safety to the next level. Designed for high payload and high demand applications of upto 11kg, SWIFTI opens new possibilities for using cobots in industrial applications.



Introducing SWIFTI

SWIFTI bridges the gap between collaborative and industrial robots. It enables proven safe collaborative operation to be achieved, even in applications that demand industrial-level speed and lifting capabilities.

The cobot that does more

With payload options from 7kg to 11kg and reaches from 0.9m to 1.4m, SWIFTI CRB 1300 opens an expanded range of applications. An IP67 variant also offers new possibilities for automated machine tending where high levels of dust or moisture may be present.

Collaborative safety

Combining ABB's SafeMove comprehensive safety functionality with a safety laser scanner, SWIFTI can collaborate safely with people without physical fencing. If a worker is detected within its working area, SWIFTI will slow down or halt so they can approach safely. An interaction light also provides a visual indication of SWIFTI's status.

No experience? No problem

Lead-through programming, Wizard easy programming software, and the FlexPendant graphical SafeMove configurator App makes configuring and programming SWIFTI quick and easy.

High-performance collaboration

SWIFTI's maximum Tool Center Point (TCP) speed of 6,2 m/s, is 6 times faster than cobots in its class* and comparable with industrial robots. At 0.02 mm, SWIFTI also provides up to 5 times higher position repeatability than other collaborative robots in its class.

Key features:

Increased payload and reach

- Choice of payload options from 7kg to 11kg and reaches from 0.9m to 1.4m
- IP67 variant for use in dusty, high moisture environments

Collaborative safety

- Supervised by SafeMove and safety sensor
- Stop safely before contact with a human
- Interaction status light
- Safety certified Category 3, PL d

Easy to use

- Wizard easy programming
- Intuitive robot movement programming with external lead-through device
- SafeMove configurator App on the FlexPendant

Productivity

- With a TCP speed of over 6,2 m/s, it is 6 times faster than other cobots in its class*
- Up to 5 times higher position repeatability
- Four integrated air supplies enable vacuum picking

Applications

- Palletizing
- Machine tending
- Screw driving
- Material handling
- Assembly
- Kitting
- And many more...

* Safe collaborative speed may be lower, depending on your application layout. Always do a safety risk assessment of your cobot application.

Specification

Robot version	Reach (m)	Payload (kg)	Armload (kg)
CRB 1300-11/0.9	0.9	11	1
CRB 1300-10/1.15	1.15	10	0.5
CRB 1300-7/1.4	1.4	7	0.5
Number of Axes	6		
Protection	IP40 standard IP67 Optional		
Mounting	Any angle		
Controller	Omnicores C30/ C90XT optional		
Integrated signal and power supply	Upto 20 signals on upper arm (c1 + c2 +c3)		
Integrated air supply	4 air on wrist max 6 bar		
Integrated ethernet	One 1000 Base-T ethernet port (C2)		
Tool flange	ISO 9409-1-40-4-M6		
Functional safety	SafeMove Collaborative included all safety functions certified to Category 3, PL d		

Physical

	CRB 1300-11/0.9	CRB 1300-10/1.15	CRB 1300-7/1.4
Dimensions (mm)	220 x220 mm		
Weight (kg)	75 Kg	77 Kg	79 Kg

Performance (according to ISO 9283)

	CRB 1300-11/0.9	CRB 1300-10/1.15	CRB 1300-7/1.4
Max TCP Acceleration (normal control motion @nominal load)	49.5 m/s ²	50 m/s ²	66 m/s ²
Max TCP Acceleration (e-stop @nominal load)	75 m/s ²	68 m/s ²	82 m/s ²
Acceleration time 0-1m/s	0.044 s	0.042 s	0.045 s
Pose repeatability, RP (mm)	0.02 mm	0.023 mm	0.03 mm
Path repeatability, RT (mm)	0.08 mm	0.04 mm	0.07 mm
1 kg picking cycle 25 x 300 x 25 mm	0.42 s	0.45 s	0.41 s

Movement

Axis movement	Working range	Axis max speed CRB 1300-11/0.9	Axis max speed CRB 1300-10/1.15	Axis max speed CRB 1300-7/1.4
Axis 1 rotation	+180° to -180°	280°/s	240°/s	249°/s
Axis 2 arm	+155° to -95°	228°/s	228°/s	180°/s
Axis 3 arm	+69° to -210°	300°/s	336°/s	247°/s
Axis 4 wrist	+230° to -230°	500°/s	500°/s	500°/s
Axis 5 bend	+130° to -130°	420°/s	420°/s	420°/s
Axis 6 turn	+400° to -400°	720°/s	720°/s	720°/s

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