

FANUC

Considering Automating
with Collaborative Robots?

THINK CRX



Why settle for less when you can get **MORE?**



FANUC's series of collaborative robots, also known as cobots, offer **more** choices, payloads, reach and speeds than any other cobots on the market. Safety-certified, FANUC cobots will add value to your process by working hand-in-hand with your team, whether they are experienced or first-time automation users.

More choices for more businesses

Do you run a small- or medium-sized company, and this is the first time you've thought about adding automation? If so, consider a FANUC cobot. Quick to install, easy to use and offering unrivalled reliability, they represent a lasting solution that will boost your productivity and provide new growth opportunities. They also offer a quick return on investment. Let FANUC help you find the right cobot solution to meet your needs!



Easy and Intuitive

Our interactive programming gives you the freedom to teach points using built-in hand guidance function or a tablet interface with drag and drop icons.

The *i*HMI editor provides step-by-step guides to set up your cobot, create programs and has tutorials for new users. In addition, all of our cobots are sensitive enough to stop at a touch and restart at the push of a button.

MORE versatility and MORE precision

Key Features

INTEGRATION

Integration has never been easier thanks to our cobots' lightweight, slim, and compact design

USABILITY

Ready for business in no time: the FANUC CRX series is quick to set up and exceedingly easy to program

SERVICE

Enjoy 8 years of maintenance-free operations

8 YEARS
ZERO
MAINTENANCE

100%
PROVEN
INDUSTRIAL
RELIABILITY



CRX-5iA
Payload: 5 kg
Reach: 994 mm



CRX-10iA
Payload: 10 kg
Reach: 1,249 mm



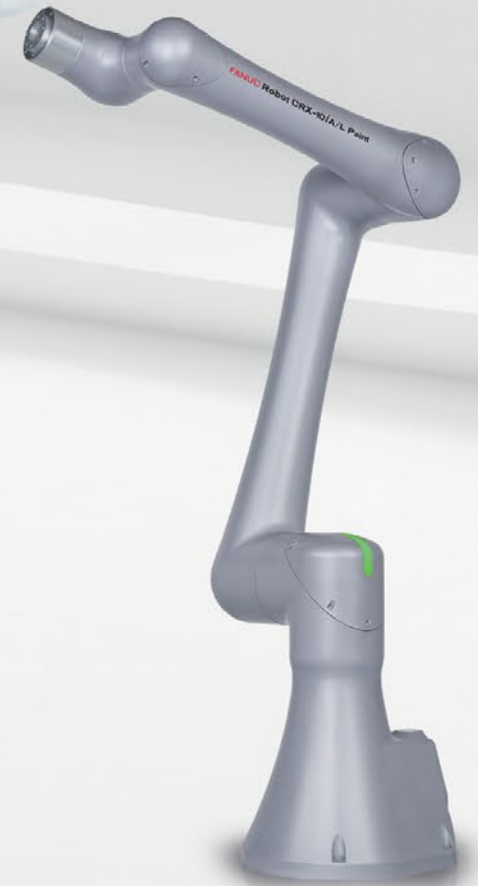
CRX-10iA/L
Payload: 10 kg
Reach: 1,418 mm



CRX-20iA/L
Payload: 20 kg
Reach: 1,418 mm



CRX-30iA
Payload: 30/25 kg
Reach: 1,756/1,889* mm
*Operating space is expanded when
25kg payload mode is selected



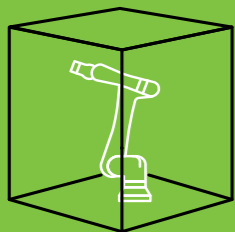
CRX-10iA/L Paint
Payload: 10 kg
Reach: 1,418 mm

MORE freedom and flexibility

The FANUC CRX series can work side by side with people or collaborate with them without the need for external safety devices (in accordance with risk assessment). As a result, you enjoy better versatility and work ergonomics, benefit from flexible mounting options and save valuable production space.

ISO-certified safe to work with people

These collaborative robots are ISO 10218-1 and ISO 13849-1 certified and equipped with ultra-safe FANUC contact stop detection based on proven sensor technology. Highly sensitive contact stop function stop the robot smoothly even with light contact of people and all robots restart easily and quickly after a contact stop. In addition to contact stop, the CRX series robots come with push to escape functions to be able to push the robot out of the way manually for additional safety. In addition, the robot will retract immediately when it contacts hard objects to minimize a pinching force. Speed and safety settings can be customized to help you adapt each collaborative robot to meet your exact specifications.



Dual Check Safety (DCS)

DCS is a safety system that monitors position and speed. It is a proven technology used on many standard FANUC robots.



Flexible mounting options

For more flexible layouts, all models can be mounted upside-down, on a wall, or fixed to a mobile platform or rail.

Drag & Drop Programming

Whether you are a seasoned programmer or a first-time operator – FANUC cobots provide you with user-friendly and intuitive programming. Furthermore, you can also select:

Easy programming with Tablet Teach Pendant

- FANUC's Tablet Teach Pendant is designed for intuitive programming, thanks to a large touch screen
- Additional drag & drop functionality lets you easily program an application within minutes
- Two interfaces are available:
 - New User Interface for beginners
 - iPendant User Interface for experienced operators

Easy programming with iHMI on iPendant Touch

- FANUC's iHMI user interface offers ample processing power and clear high-resolution screen displays
- Display setup, programming guides and tutorials are all readily accessible from the main home screen
- 30 minutes – that's all it takes to create a program for simple handling tasks, thanks to FANUC's programming guide



EASY teaching without programming



By leading it through paths and points, you can now easily teach your FANUC collaborative robot. Additionally, hand guidance is comfortable and intuitive, thereby eliminating the need for a pendant to teach the device positions.

This will not only save you valuable time, but also money – as training costs can therefore be kept to a minimum.



New user interface

MORE reliability

All of FANUC's CRX series robots use proven FANUC technology and a familiar interface. As a result, the collaborative robots operate like any other FANUC robot with exactly the same high degree of reliability, uptime, dexterity and world class +/- 0.01-0.05 mm repeatability.



More features

With more than 250 software features, FANUC's R-30iB Plus controller guarantees the best processing speed and robot performance for every FANUC cobot. Designed for increased user-friendliness and minimal energy consumption, the R-30iB Plus comes in five different cabinets to help you make the most of your floor space and production cell layouts. With the addition of the CRX line, the R-30iB family expanded to include the R-30iB Mini Plus Controller for even more space savings.

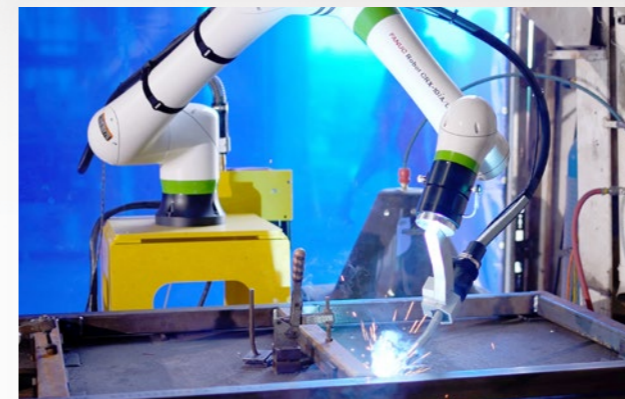
Proven technology

For more reliability, all FANUC cobots are based on proven FANUC technology. They offer exceptional repeatability and come with the standard FANUC interface for easy learning, programming and setup. As a result, no extensive retraining is necessary. Application scenarios can be easily modeled using ROBOGUIDE simulation software. FANUC cobots are customizable and include a large number of options. They are also backed by full spare parts availability, global service and 24/7 support.

Service First 

MORE possibilities

As with all FANUC robots, FANUC's collaborative robot series can be equipped with any of FANUC's intelligence functions - made by FANUC, developed specifically for FANUC robots, to give you more possibility for automating with cobots. Intelligence-ready functions include FANUC 2D and 3D vision sensors using *iR*Vision and much more.



Collaborative arc welding

FANUC's collaborative arc welding robots offer the same high level of performance that FANUC ARC Mate robots are known for including world-renowned technology and proven reliability. FANUC's arc welding cobots are equipped with FANUC ArcTool application software, an easy programming interface that supports both simple and complex applications.



Palletizing for boosting productivity and worker safety

FANUC's CRX-30iA cobot has an enhanced 30kg payload capacity and long 1,756 mm reach, making it perfect for palletizing applications. It can also be equipped with 3DV *iR*Vision, which enables the cobot to locate and pick products on a pallet and place them onto another pallet or a platform part of an Automated Storage & Retrieval System (ASRS).



Recognition, reading and sorting

For the CRX series, new vision features include simple vision setup for beginners using the Tablet TP and drag & drop icons.

Vision features such as 1-marker and 3-marker offset for locating equipment are available when the robot is on a mobile hand-cart or AGV or AMR.

MORE collaborative opportunities with FANUC cobots

Key Industries



AEROSPACE



FOOD & BEVERAGE



AGRICULTURE



JOB SHOPS



AUTOMOTIVE



LIFE SCIENCES



CONSUMER GOODS



LOGISTICS



DIE CAST, FOUNDRY & MOLD



PLASTICS



ELECTRONICS



WAREHOUSING



FABRICATED METALS



WOODWORKING



ASSEMBLING
Cobots are ideally suited to take over repetitive or complex assembly tasks while delivering a precise and consistent output.



GRINDING AND DEBURRING
Tasks which involve removing material can easily be carried out by cobots, adding flexibility, efficiency, and quality to the process.



HANDLING
FANUC Vision and Force accessories can quickly be connected to cobots so as to cover a variety of different handling operations.



MACHINE TENDING
When it comes to repetitive operations such as machine tending, cobots help improve your process speed and quality while at the same time keeping operators safe.



PARTS INSPECTION AND TESTING
Easy to program, FANUC cobots can carry out inspecting operations while assuring accurate production batches and product quality.



PICKING, PACKING, PALLETIZING
The payloads and reaches of FANUC cobots make them suitable to a wide range of handling tasks, relieving operators from heavy lifting.



SANDING AND POLISHING
Equipping cobots with FANUC Force Sensor assures the precision and correct force needed for these kinds of operations.



PAINTING
The CRX-10iA/L Paint collaborative robot offers flexible automation to more paint and coating operations, including high-mix, low-volume applications.



SEALING AND DISPENSING
Dispensing tasks like gluing and sealing can be efficiently carried over by cobots.



WELDING
FANUC cobots are capable of offering consistent weld quality, on top of being easy to teach and program.

MORE information

Technical data CRX series

| Specifications | CRX-5iA | CRX-10iA | CRX-10iA/L | CRX-20iA/L | CRX-30iA |
|--|--------------------|--------------------|--------------------|--------------------|----------------------------|
| Type | 5 | 10 | 10 | 20 | 30 |
| Controlled axes | 6 | 6 | 6 | 6 | 6 |
| Max. load capacity at wrist [kg] | 5 | 10 | 10 | 20 | 30/25 |
| Reach [mm] ^{*1)} | 994 | 1,249 | 1,418 | 1,418 | 1,756/1,889 ^{*4)} |
| Repeatability [mm] ^{*3)} | ±0.03 | ±0.04 | ±0.04 | ±0.04 | ±0.05 |
| Mass [kg] | 25 | 40 | 40 | 41 | 135 |
| Installation: floor upside down wall | • • • | • • • | • • • | • • • | • • • |
| Motion range | | | | | |
| J1 axis rotation [°] | 400 | 380 | 360 | 360 | 360 |
| J2 axis rotation [°] | 360 | 360 | 360 | 360 | 360 |
| J3 axis rotation [°] | 635 | 570 | 540 | 540 | 540 |
| J4 axis wrist rotation [°] | 380 | 380 | 380 | 380 | 380 |
| J5 axis wrist swing [°] | 360 | 360 | 360 | 360 | 360 |
| J6 axis wrist rotation [°] | 450 | 450 | 450 | 450 | 450 |
| Max. speed: Collaborative mode [mm / s] ^{*2)} | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Max. speed: High speed mode [mm / s] ^{*2)} | 2,000 | 2,000 | 2,000 | 1,000 | 2,000 |
| Allowable load moment at wrist | | | | | |
| J4 axis [Nm] | 19.0 | 34.8 | 34.8 | 70.0 | 100.0 |
| J5 axis [Nm] | 15.4 | 26.0 | 26.0 | 64.0 | 74.0 |
| J6 axis [Nm] | 6.7 | 11.0 | 11.0 | 30.0 | 32.0 |
| Allowable load inertia at wrist | | | | | |
| J4 axis [kgm ²] | 0.77 | 1.28 | 1.28 | 4.00 | 4.70 |
| J5 axis [kgm ²] | 0.50 | 0.90 | 0.90 | 4.00 | 4.00 |
| J6 axis [kgm ²] | 0.10 | 0.30 | 0.30 | 2.00 | 2.00 |
| Installation environment | | | | | |
| Input power source [VAC] | 100-120 200-240 | 100-120 200-240 | 100-120 200-240 | 100-120 200-240 | 100-120 200-240 |
| Ambient operating temperature [°C] | 0-45 | 0-45 | 0-45 | 0-45 | 0-45 |
| Protection | | | | | |
| Body standard/optional | IP67 | IP67 | IP67 | IP67 | IP67 |
| Wrist & J3 arm standard/optional | IP67 | IP67 | IP67 | IP67 | IP67 |

• standard

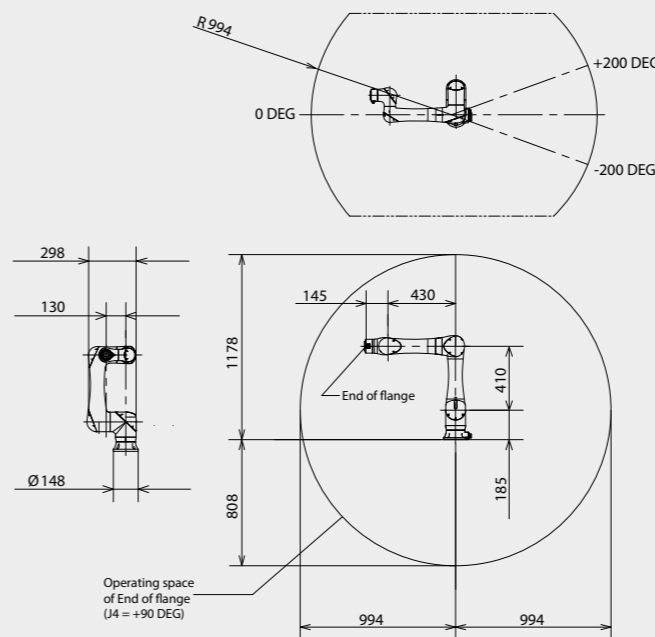
*1) Reach specification from faceplate

*2) It is necessary to set a motion speed according to risk assesment of system.

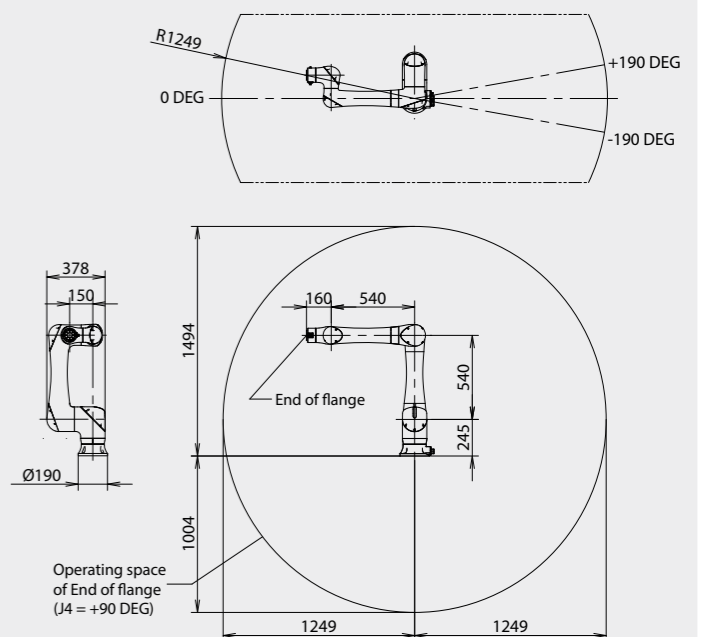
*3) Compliant with ISO9283.

*4) Operating space is expanded when 25kg payload mode is selected

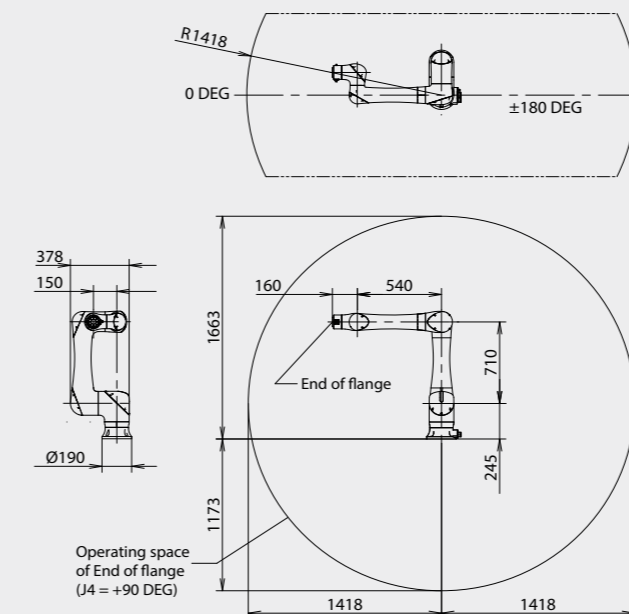
Working range CRX-5iA



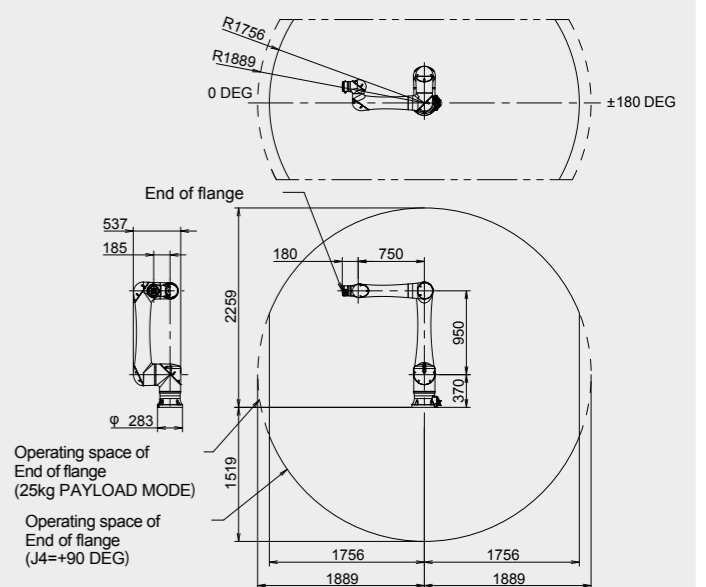
Working range CRX-10iA



Working range CRX-10iA/L and CRX-20iA/L



Working range CRX-30iA



CRX Food Series

FANUC CRX food-grade collaborative robots (cobots) are specifically designed for use in food and beverage manufacturing environments.

Key Features

Rated IP67, FANUC's CRX food-grade cobots are dust-tight and waterproof and can operate in harsh food production environments without compromising performance.

The wrist features a corrosion-resistant finish.

A smooth surface and fully enclosed design with internal cable routing makes it easy to clean.

Epoxy coating is compliant with USDA Incidental Food Contact Requirements.

Uses NSF H1 food-grade grease which is safe for incidental food contact.



Is a FANUC CRX Food-Grade Cobot Right for You?

If your production involves food handling, wet environments, or has rigorous hygiene requirements, a FANUC CRX food-grade cobot is a great choice.



CRX-5iA Food Grade
Payload: 5 kg
Reach: 994 mm

CRX-10iA Food Grade
Payload: 10 kg
Reach: 1,249 mm

CRX-10iA/L Food Grade
Payload: 10 kg
Reach: 1,418 mm

CRX-20iA/L Food Grade
Payload: 20 kg
Reach: 1,418 mm

CRX-30iA Food Grade
Payload: 30/25 kg
Reach: 1,756/1,889* mm
*Operating space is expanded when
25kg payload mode is selected

MORE information

Features:

NSF H1 food-grade grease
White USDA compliant epoxy coating

Technical data CRX food series

| Specifications | CRX-5iA Food Grade | CRX-10iA Food Grade | CRX-10iA/L Food Grade | CRX-20iA/L Food Grade | CRX-30iA Food Grade |
|--|-----------------------|------------------------|--------------------------|--------------------------|----------------------------|
| Type | 5 | 10 | 10 | 20 | 30 |
| Controlled axes | 6 | 6 | 6 | 6 | 6 |
| Max. load capacity at wrist [kg] | 5 | 10 | 10 | 20 | 30/25 |
| Reach [mm] ^{*1)} | 994 | 1,249 | 1,418 | 1,418 | 1,756/1,889 ^{*4)} |
| Repeatability [mm] ^{*3)} | ±0.03 | ±0.04 | ±0.04 | ±0.04 | ±0.05 |
| Mass [kg] | 25 | 40 | 40 | 41 | 135 |
| Installation: floor upside down wall | • • • | • • • | • • • | • • • | • • • |
| Motion range | | | | | |
| J1 axis rotation [°] | 400 | 380 | 360 | 360 | 360 |
| J2 axis rotation [°] | 360 | 360 | 360 | 360 | 360 |
| J3 axis rotation [°] | 635 | 570 | 540 | 540 | 540 |
| J4 axis wrist rotation [°] | 380 | 380 | 380 | 380 | 380 |
| J5 axis wrist swing [°] | 360 | 360 | 360 | 360 | 360 |
| J6 axis wrist rotation [°] | 450 | 450 | 450 | 450 | 450 |
| Max. speed: Collaborative mode [mm / s] ^{*2)} | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| Max. speed: High speed mode [mm / s] ^{*2)} | 2,000 | 2,000 | 2,000 | 1,000 | 2,000 |
| Allowable load moment at wrist | | | | | |
| J4 axis [Nm] | 19.0 | 34.8 | 34.8 | 70.0 | 100.0 |
| J5 axis [Nm] | 15.4 | 26.0 | 26.0 | 64.0 | 74.0 |
| J6 axis [Nm] | 6.7 | 11.0 | 11.0 | 30.0 | 32.0 |
| Allowable load inertia at wrist | | | | | |
| J4 axis [kgm ²] | 0.77 | 1.28 | 1.28 | 4.00 | 4.70 |
| J5 axis [kgm ²] | 0.50 | 0.90 | 0.90 | 4.00 | 4.00 |
| J6 axis [kgm ²] | 0.10 | 0.30 | 0.30 | 2.00 | 2.00 |
| Installation environment | | | | | |
| Input power source [VAC] | 100-120 200-240 | 100-120 200-240 | 100-120 200-240 | 100-120 200-240 | 100-120 200-240 |
| Ambient operating temperature [°C] | 0-45 | 0-45 | 0-45 | 0-45 | 0-45 |
| Protection | | | | | |
| Body standard/optional | IP67 | IP67 | IP67 | IP67 | IP67 |
| Wrist & J3 arm standard/optional | IP67 | IP67 | IP67 | IP67 | IP67 |

• standard

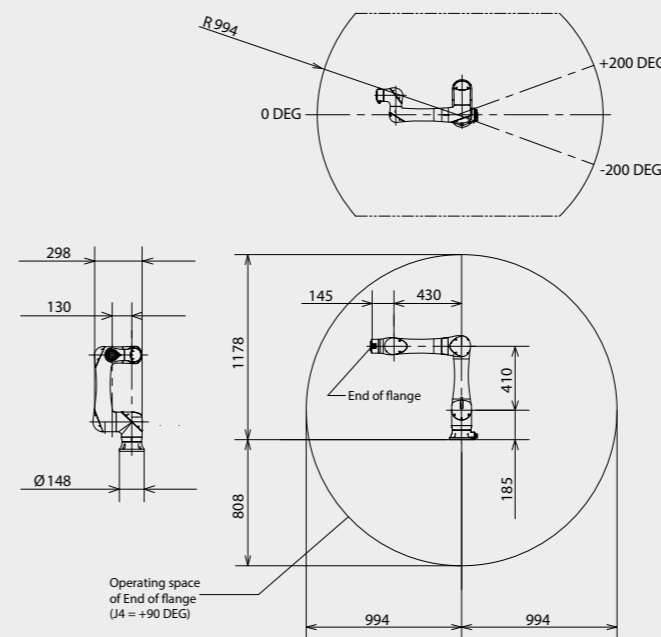
*1) Reach specification from faceplate

*2) It is necessary to set a motion speed according to risk assesment of system.

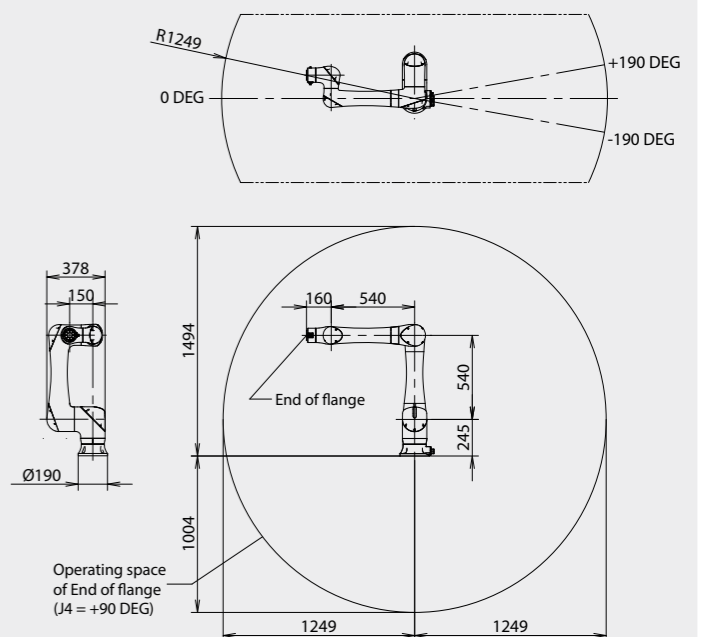
*3) Compliant with ISO9283.

*4) Operating space is expanded when 25kg payload mode is selected

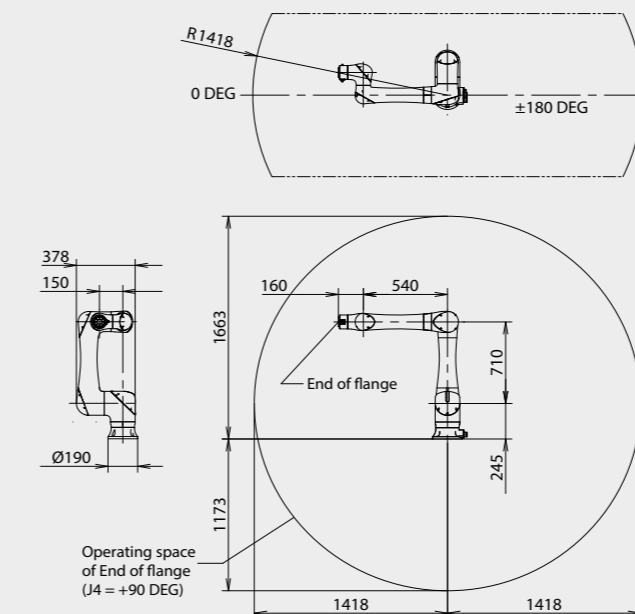
Working range CRX-5iA Food Grade



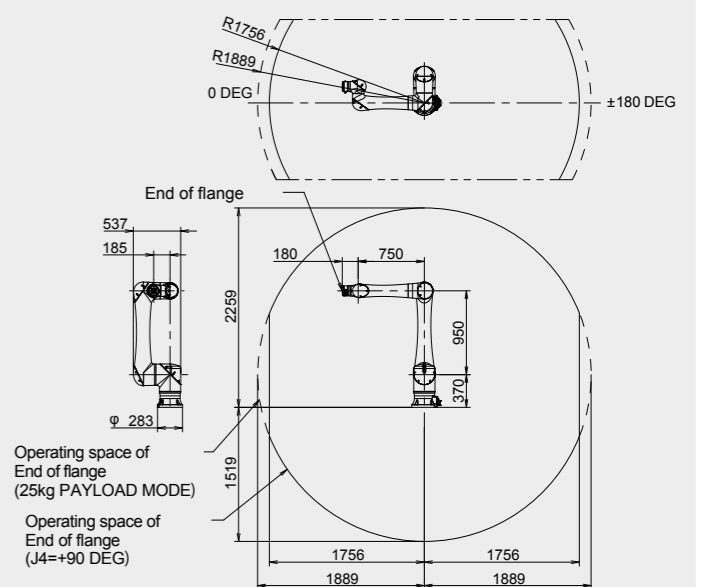
Working range CRX-10iA Food Grade



Working range CRX-10iA/L and CRX-20iA/L Food Grade

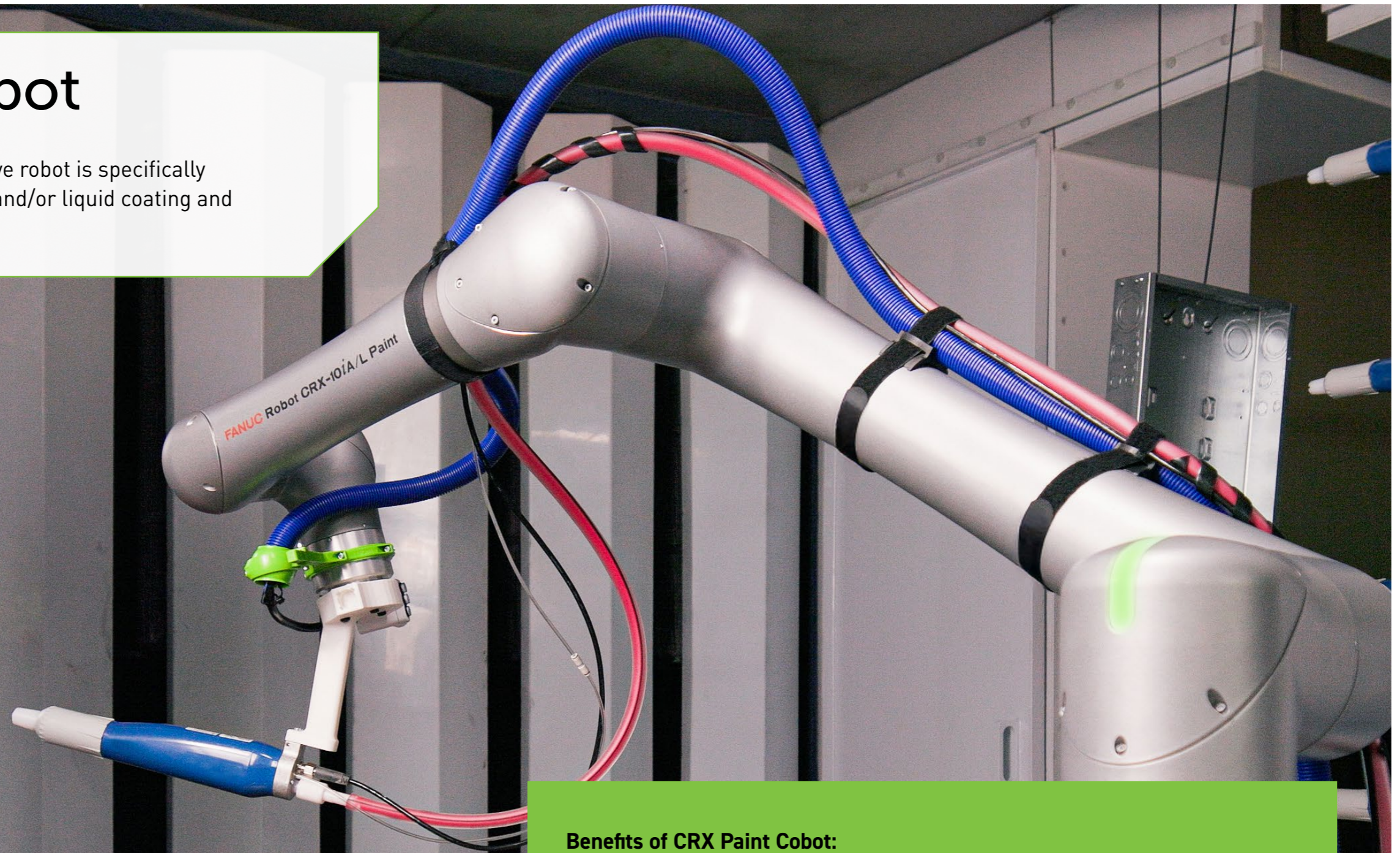


Working range CRX-30iA Food Grade



CRX Paint Cobot

The FANUC CRX-10iA/L Paint collaborative robot is specifically designed for use in the painting, powder and/or liquid coating and fiberglass industries.



Benefits of CRX Paint Cobot:

- Designed to comply with the stringent explosion-proof safety standards required in the US.
- The small footprint and force-sensing technology enables it to work safely around people.
- "Easy-teach" features including drag-and-drop programming with graphical icons and "lead through teach" capabilities allow those with little or no robotics experience to quickly and effectively deploy cobots.
- Longest reach in its class at 1,418mm and a 10kg payload with a unique underflip motion.
- Can access large workpieces and areas that pose ergonomical challenges for humans.
- Lightweight at 45 kg.
- Intuitive paint-specific icon commands added for paint applications.
- Full optimization capabilities offered with path editing and ROBOGUIDE software.
- Easily integrates with other equipment used in painting, powder, liquid, coating and fiberglass reinforced plastic (FRP CHOP/ GEL) applications.
- Maintenance-free for 8 years.

MORE information

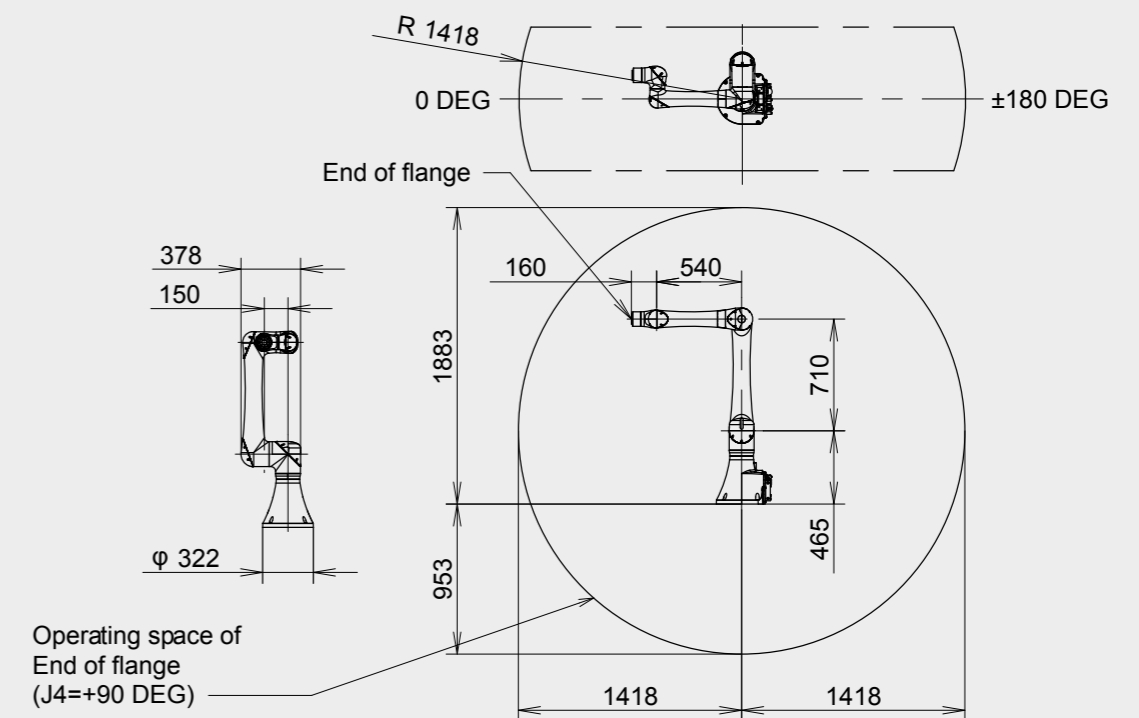
Technical data **CRX** paint cobot

| Specifications | CRX-10iA/L Paint |
|---|--------------------|
| Type | 10 |
| Controlled axes | 6 |
| Max. load capacity at wrist [kg] | 10 |
| Reach [mm]**1) | 1,418 |
| Repeatability [mm] *3) | ±0.04 |
| Mass [kg] | 47 |
| Installation: floor upside down wall | • • • |
| Motion range | |
| J1 axis rotation [°] | 360 |
| J2 axis rotation [°] | 360 |
| J3 axis rotation [°] | 540 |
| J4 axis wrist rotation [°] | 380 |
| J5 axis wrist swing [°] | 360 |
| J6 axis wrist rotation [°] | 450 |
| Max. speed: Collaborative mode [mm / s] *2) | 1,000 |
| Max. speed: High speed mode [mm / s] *2) | 2,000 |
| Allowable load moment at wrist | |
| J4 axis [Nm] | 34.8 |
| J5 axis [Nm] | 26.0 |
| J6 axis [Nm] | 11.0 |
| Allowable load inertia at wrist | |
| J4 axis [kgm ²] | 1.28 |
| J5 axis [kgm ²] | 0.90 |
| J6 axis [kgm ²] | 0.30 |
| Installation environment | |
| Input power source [VAC] | 100-120 200-240 |
| Ambient operating temperature [°C] | 0-45 |
| Protection | |
| Body standard/optional | IP67 |
| Wrist & J3 arm standard/optional | IP67 |

• standard
 *1) Reach specification from faceplate
 *2) It is necessary to set a motion speed according to risk assesment of system.
 *3) Compliant with ISO9283.



Working range CRX-10iA/L Paint



FANUC



The Most
Extensive
Collaborative
Robot Lineup
...EVER

MORE choices
MORE payload
MORE reach
MORE control