



QIROX QRC-30/45/60-PL robot

The all-round robot with big payload

CLOOS

Weld your way.

www.cloos.de

QIROX QRC-30/45/60-PL robot

More than welding

Whether laser or laser-hybrid welding, handling or grinding tasks – the QIROX QRC-30/45/60-PL robot is a true all-rounder with a high payload capacity for a wide range of applications. The optional changing tool allows the flexible use of different working processes with one robot. The QRC-30/45/60-PL is characterised by high dynamics with a low weight and a slim product design. The robot also impresses with a big working envelope and little floor space. Benefit from the repeatability, the long service life and long maintenance intervals. Due to the modular design, we realise customised solutions for you. Extensions and retrofits are possible at any time.

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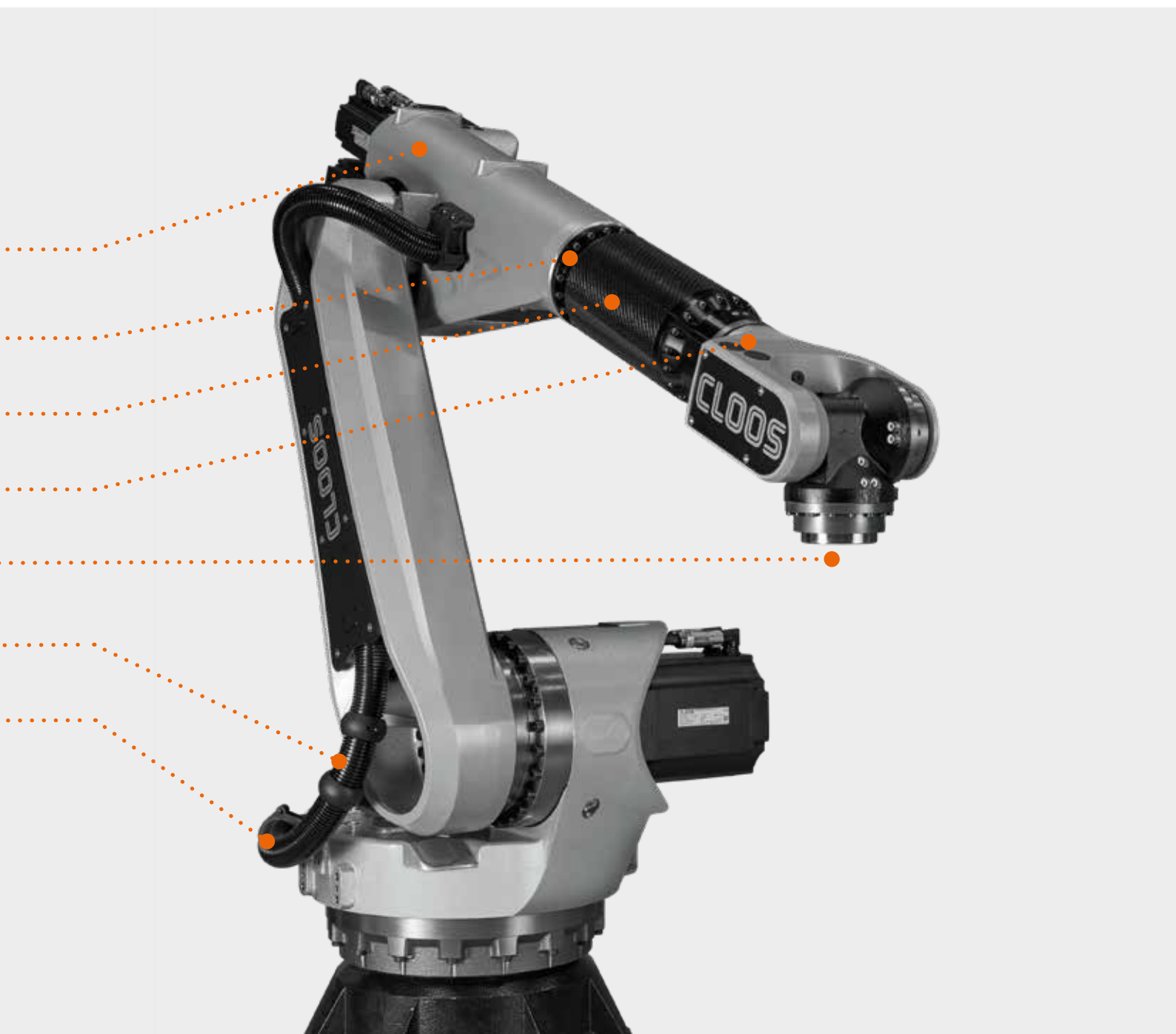
- **A wide variety of application possibilities:** Laser welding, laser hybrid welding, handling, grinding etc.
- **Flexible application:** Several working processes with a robot
- **High dynamics:** Modern materials for reduced weight and slim product design with ergonomic forms
- **Maximum working space:** High payload capacity, a big working envelope and little floor space
- **Excellent quality:** Repeatability, long service life and maintenance intervals



QIROX QRC-30/45/60-PL robot

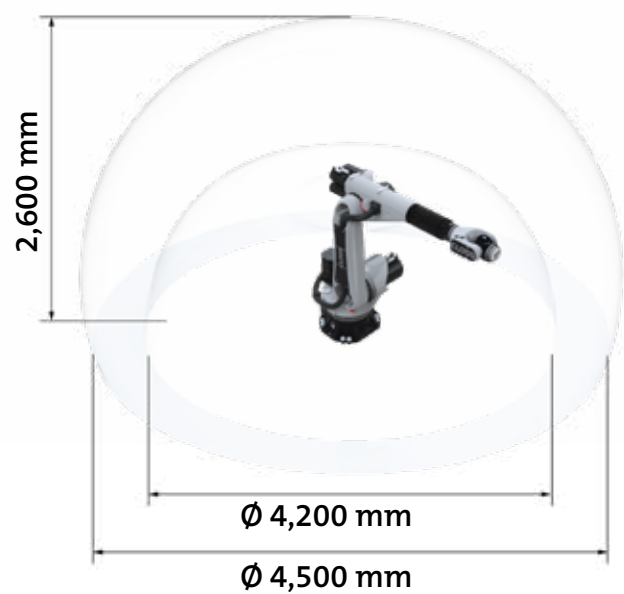
Overview of all benefits

- **Mechanical interface on axis body 3:**
Attachment of tools, media boxes, wire drive units up to 40 kg
- **Modular design:**
Retrofits possible at any time
- **Use of carbon components:**
Maximum dynamics with low weight and high stiffness
- **Manual axes free from backlash:**
Very high repeatability independent of the payload
- **Standard flange at the robot wrist:**
Use with all common tools
- **Externally guided cable loom:**
Quick repair in case of service by means of Plug & Play
- **Integrated media supply system:**
Compressed air, signal and data lines



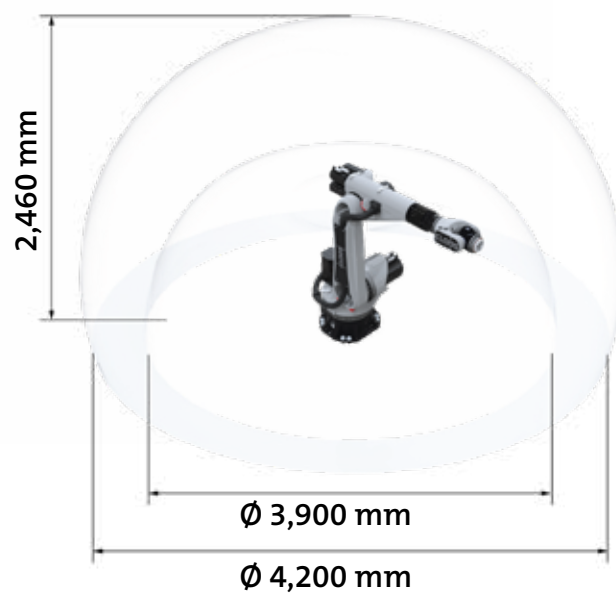
QIROX QRC-30-PL robot

The all-round robot with big payload



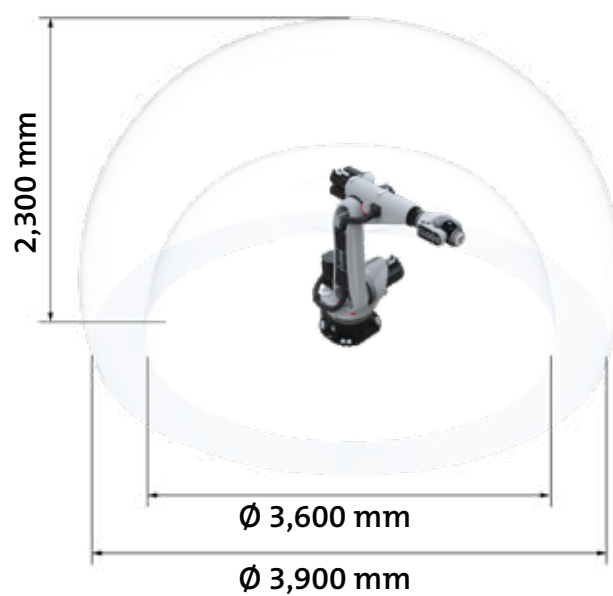
QIROX QRC-45-PL robot

The all-round robot



QIROX QRC-60-PL robot

The all-round robot with big payload



QIROX QRC-30/45/60-PL robot

The all-round robot with big payload

The QIROX QRC-30/45/60-PL is a six-axis articulated arm robot. The robot is used in upright position and is mounted on a base or directly at a robot positioner. The QRC-30/45/60-PL has a classic wrist where working tools with a weight of up to 30/45/60 kg can be mounted. The optional changing tool at the wrist allows the use of different working processes with one robot.

Technical data

	QRC-30-PL	QRC-45-PL	QRC-60-PL
Swivelling range			
- Axis 1	+185° / -185°	+185° / -185°	+185° / -185°
- Axis 2	+120° / -90°	+120° / -90°	+120° / -90°
- Axis 3	+184° / -67°	+184° / -67°	+184° / -67°
- Axis 4	+360° / -360°	+360° / -360°	+360° / -360°
- Axis 5	+120° / -120°	+120° / -120°	+120° / -120°
- Axis 6	+360° / -360°	+360° / -360°	+360° / -360°
Swivelling speed			
- Axis 1	160 °/sec	160 °/sec	160 °/sec
- Axis 2	150 °/sec	150 °/sec	150 °/sec
- Axis 3	160 °/sec	160 °/sec	160 °/sec
- Axis 4	260 °/sec	260 °/sec	260 °/sec
- Axis 5	245 °/sec	245 °/sec	245 °/sec
- Axis 6	322 °/sec	322 °/sec	322 °/sec
Working area	Ø 4200 mm	Ø 3900 mm	Ø 3600 mm
Pay load	30.00 kg	45.00 kg	60.00 kg
Repeatability (ISO 9323)	+/- 0.06 mm	+/- 0.06 mm	+/- 0.06 mm
Floor space	540 x 490 mm	540 x 490 mm	540 x 490 mm
Weight	530 kg	520 kg	520 kg

QIROX Controller

Control centre of the QIROX robot systems

The QIROX Controller is specially designed for the requirements of robot technology. A digital drive system with high end distributed computing power ensures dynamic movement and a high path accuracy of the robot during welding. All processes are controlled by an industrial PC with the capacity to simultaneously control seven internal robot axes and numerous external peripheral axes. The components are clearly arranged in a robust system cabinet where they are protected from dirt and easily accessible. This contributes overall to a high reliability and a low maintenance expenditure.

- **High end distributed computing power:** Dynamic movement and a high path accuracy of the robot
- **Absolute reliability:** Clear dirt-protected arrangement and easy change of all components in the robust system cabinet
- **Numerous extra functions:** Many optional combinations with the RoboPlan offline programming software and CarolaEdi, Remote Service Manager (RSM), Process Data Manager (PDM) and User Management (UMS) by CLOOS



QIROX Controller

- | | |
|---|---|
| ■ QIROX Controller Master | Robot controller in basic design |
| ■ QIROX Controller Advanced | Robot controller in standard design |
| ■ QIROX Controller Advanced Double | Robot controller in standard design for complex systems |

QIROX

Operating System QOS

Optimum "man-machine" interface

The QIROX Operating System QOS offers a user-friendly and intuitive programming of the QIROX robots. The light and robust teach pendant with touch interface and keyboard as well as the optional additional monitor support the operator in the best possible way when programming the different components. The integrated QINEO interface allows him to select the welding parameters directly in the QOS. You benefit from a significant reduction of the programming times for a maximum system efficiency. The simple integration of sensors into the process run ensures excellent weld quality. In addition, the C-Gate enables an optimal data flow and makes your robot system fit for Industry 4.0. Furthermore, you can use a variety of optional modules to adapt the QOS to your individual requirements.

- **Intuitive programming:** Quick and easy for reduced programming times
- **Efficient interfaces:** Integration of all process-managing devices and sensors into the programming of the QOS
- **C-Gate:** Built-in future for the world of Industry 4.0



QIROX Robot Standard Design

QRC-30/45/60-PL Standard Design

Forklift pockets with crane eyes

- Transport the robot mechanics safely and easily!



Integrated media supply system

- Achieve maximum service life with the wear-resistant media supply system through the robot body!



Media box

- Benefit from the close-to-tool interface of the internal media supply system in the third axis body!

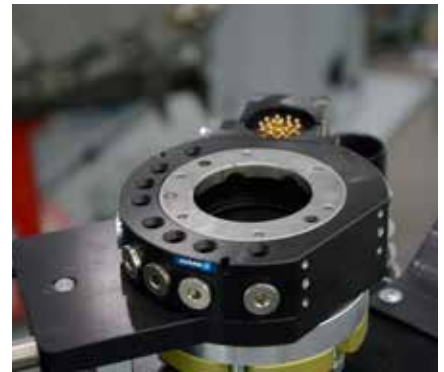


QIROX Robot Options

QRC-30/45/60-PL Options

Changing tool

- Combine different processes on one robot!



Standard gripper

- Equip the robot with a standard gripper for various applications!



Protective shell

- Protect the robot mechanics from dust and aggressive influences in the application environment!

Enhancement of the application range

due to a tool changing system



- Tandem Weld with DuoDrive, sensors and tool changing system



- Laser Hybrid Weld



- Laser cutting



- Automated grinding and polishing



- Versatile handling tasks



The way ...



Consulting

With this comprehensive “pre-service”, we take care of your project from the beginning and transfer our integrated process expertise to your component..



Planning

We elaborate a solution which perfectly meets your individual requirements.



Design

Due to the modular design of our product series we develop customised solutions which meet all your production requirements.



Production

Welding machine and robot technology is our strength - including our core competence: the arc.



Commissioning

Our specialists carry out the installation step-by-step in your production hall and test your system for faultless functionality.



Training

We train your employees and service technicians in programming, operation and maintenance in our modern training centre



Service

Our competence team advises you on any extensions, modifications and retrofits of your existing robot and welding systems.

... to your success.

All over the world!



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