

A close-up photograph of a QINEO ArcBoT collaborative robot arm. The arm is white and blue, with the brand name 'QINEO ArcBoT' printed vertically on its upper section. It is equipped with a welding torch and is actively welding a metal component. A bright blue and white light is visible at the point of contact between the torch and the metal. The background is dark and out of focus.

QINEO ArcBoT Cobot Welding System

Optimum human-robot collaboration
Your easy entry into the world of
automated welding!

CLOOS

Weld your way.

Cobot meets high-tech welding technology

The CLOOS QINEO ArcBoT offers an easy entry into the world of automated welding. With the QINEO ArcBoT, you can weld even small batch sizes economically and with consistently high quality. The high-tech MIG/MAG welding power source and the very precise Cobot complement each other perfectly. In addition to the relief of the employees – especially with monotonous, repetitive tasks – you benefit from excellent welding results due to the reproducible quality.

- ▣ **Quick programming**
Automated welding from batch size 1
- ▣ **Simple operation**
No previous knowledge of robot programming required
- ▣ **"Ready to weld" complete package**
Installation ready for welding within a few hours
- ▣ **Excellent welding quality**
Reproducible welding results for maximum efficiency
- ▣ **High economic efficiency**
Short payback time
- ▣ **Compact design**
Space-saving for flexible adaptation to your production environment

Exact, intuitive and safe

A torque sensor in each axis allows the QINEO ArcBoT to be programmed and moved precisely. The intuitive operation significantly increases work efficiency. The user can make individual adjustments on the user-friendly touch control panel with macros specially developed for welding. In addition, the Freedrive option with foot switch and the intelligent safety concept guarantee sensitive and safe control of the QINEO ArcBoT. Another special feature is the simple restart after an emergency stop as no extensive unlocking or free movement of the robot is necessary.



Highest precision:

Torque sensors in all axes



Finger-forced stop:

Very precise power cut-off when touching the robot



Intuitive programming:

User-friendly touch control panel with macros specially developed for welding



Simple restart after emergency stop:

No unlocking or free movement of the robot necessary



Sensitive and safe control:

Foot switch for freedrive mode



CE conformity:

Automatic wire retraction for maximum work safety



"Ready to weld" complete package

The QINEO ArcBot includes all components being necessary for automated welding – perfectly matched to each other and easy to mount. The compact "Ready to weld" complete package is delivered completely ready for operation which ensures a problem-free integration into existing production processes. The integrated safety components ensure the necessary personal protection. An electrically movable protective screen mounted to the optional welding table protects the surroundings from the UV radiation generated during welding.

1. 4-roller wire drive unit
2. Wire feed system
3. QINEO ArcBoT
4. Fume extraction welding torch
5. Optional welding table
6. QINEO operating module
7. QINEO Welding power source



QINEO ArcBoT – Precise and robust

The 6-axis QINEO ArcBoT has a range of 1,300 mm and a payload of up to 10 kg. A sensitive torque sensor in each axis enables optimum weight determination of the welding equipment. This is the basis for a very sensitive positioning of the QINEO ArcBoT when programming the points as well as for a precise power cut-off on contact (finger-forced stop). The QINEO ArcBoT mechanics has a very robust design and is perfectly suited for industrial welding operation.

Technical data

Axes	6
Pay load	10 kg
Range	1300 mm
Speed	1 m/s
Repeatability	± 0,1 mm
Operating temperature	5-45°C
Weight	33 kg
Mounting position	Floor, ceiling, walls
Protection class	IP54
Movement per axis	(Working angle/speed):
Axis 1	±360° / 120°/s
Axis 2	±360° / 120°/s
Axis 3	±160° / 180°/s
Axis 4	±360° / 225°/s
Axis 5	±360° / 225°/s
Axis 6	±360° / 225°/s

* at an ambient temperature of 40°C



QINEO StarT 406 Premium- High-tech welding equipment

Use the advantages of the five available CLOOS welding processes in addition to the standard processes. This allows you to start welding immediately – without a long parameter search. With the QINEO StarT406 you can use the energy-reduced, current-controlled MSG short arc process Fine Weld. Due to the minimised spatter formation, Fine Weld is suitable particularly for thin, coated plates and fine visible weld seams. Benefit from numerous optional components and functions. This makes the QINEO StarT your individual power source - exactly as you need it for your automated welding tasks

- High-quality components with optimum price/performance ratio and excellent welding characteristics
- Extremely low-spatter Fine Weld process ensures excellent results with thin plates and fine welds
- Simple, quick and intuitive operation with the MasterPlus Compact operating module
- Faster to the target with the preset five CLOOS welding processes
- Prepared for many commonly used standard interfaces
- Modular design and extensive accessories for flexible application possibilities adapted to individual requirements

QINEO StarT	QINEO StarT 406
Welding current	20 A / 15 V - 400 A / 34 V
Welding current at 60% duty cycle*	400 A
Welding current at 100% duty cycle*	350 A
Open circuit voltage	78.7 V at 3 x 400 V 74.6 V at 3 x 380 V
Mains voltage	380V - 400 V / 3 phases
Connection cable	4 x 6 mm ²
Mains fuse slow-acting	32 A
Protection class	IP 23
Insulation class	F
Cooling type	F
Dimensions L/W/H	720 x 340 x 500 mm
Weight of power unit	63 kg
Weight of cooling module	28 kg
Weight of Eco cooling module	18.5 kg

* at an ambient temperature of 40°C

Wire drive unit	QINEO QN-WDA-20
Wire feed speed	max. 30 m / min
Dimensions L/W/H	342 / 203 / 215 mm
Weight	6 kg
Wire diameter	0,8.. 2.0 mm

Use the QINEO ArcBot for other welding power sources of the QINEO product series, too!



Welding torch



Wire drive QINEO QN-WDA-20 Eco



Power source QINEO StarT 406 Premium



Cooling module



Carriage

Fume extraction torch with filter unit

The measures required for collecting, extracting and filtering the flue gases in robotic systems are often associated with great effort. Large collection hoods with curtains, complex pipe systems and a large filter unit are necessary to extract and clean the polluted air. When extracting directly at the welding torch, the volume of polluted air is much smaller. By using the extraction welding torch system, you have to invest significantly less in extraction technology, air ducting system and filter device – with the same effect. Another advantage: Due to the significantly better energy efficiency as well as the minimised effort for cleaning and replacement of the filter components, your operating costs are considerably reduced.

Reduced investment volume with low operating costs

- **Reduced investment costs:**
Elimination of the extraction hood and the air control systems
- **Minimised expenditure:** A flexible hose with a small diameter replaces the complex pipe system for discharging the contaminated air to the filter unit
- **Less space required:** Due to the smaller volume of contaminated air, a smaller filter unit is necessary
- **Lower operating costs:** Lower energy consumption (only 1.0 to 1.5 kW)
- **Optimised process flow:** No interference during loading and unloading of the workstations due to extraction hoods or exhaust air ducts



TIG welding power sources QINEO GLW-322 AC/ DC

With its excellent process functions, you can use the QINEO GLW-322 TIG Inverter welding power source for a wide range of applications in manual and automated welding. The QINEO GLW provides three different AC waveforms. In this way you always react appropriately to the special requirements of welding aluminium. An optional interface offers an optimal connection to robot or system controllers. The high tolerance to mains voltage fluctuations guarantees best welding results with long cable lengths and when operating on a generator. Equipped as standard for gas-cooled TIG welding torches, the units can optionally be equipped with a cooling module. A trolley and a gas bottle holder are also available for an optimum mobility.



- **Safe arc ignition:** Matched start parameters for best ignition conditions
- **Alternating current waveform for every need:** Individual AC waveforms for demanding tasks
- **Penetration function for thin/thick plate joints:** Joining of aluminium plates of very different thicknesses
- **Suitable for MMA welding:** Optimum flow behaviour and more protection due to VoltageReduceControl
- **Optimum power and weight ratio** The powerful but light partner - everywhere
- **Everything at a glance:** A clear operating panel for easy handling
- **Robust construction:** High level of stability of the devices
- **Automation interface:** Easy integration of the TIG welding power source in robot welding systems

Welding machines

QINEO GLW-322 AC/DC

Welding current	5 A - 320 A AC/DC
Welding current	320 A (45 % duty cycle*)
Welding current at 60% duty cycle*	280 A
Welding current at 100% duty cycle*	240 A
Open circuit voltage	66V
Mains voltage	3 x 400 V
Connection cable	4 x 2,5 mm ²
Mains fuse slow-acting	25 A
Protection class	IP 23 S
Insulation class	H
Cooling type	AF
Dimensions L/W/H	690 x 290 x 450
Weight	54 kg

* at an ambient temperature of 40°C



QINEO ArcBoT at Glüpker: Economic welding of small batch sizes!

In order to weld even small batch sizes economically and with consistently high quality, the company uses three QINEO ArcBot welding systems by CLOOS. Now, the QINEO ArcBoT mainly weld smaller components up to a size of half a metre. A torque sensor in each axis allows the QINEO ArcBoTs to be programmed and moved precisely. The user can make individual adjustments on the user-friendly touch control panel with macros specially developed for welding. In addition, the Freedrive option with foot switch and the intelligent safety concept guarantee sensitive and safe control of the QINEO ArcBoT. The QINEO ArcBot Welding Systems are each equipped with the high-tech QINEO Next MIG/MAG welding power source which is characterised by versatile high-performance welding processes and excellent welding properties.

Small parts for industrial vehicles



More on CLOOS TV

With a large range of proven and innovative welding processes we offer you solutions for the future providing excellent quality, maximum efficiency and productivity. No matter if thick or thin, steel, chrome-nickel or aluminium – here you find the right welding process for every product requirement.

Efficiency ...



Rapid Weld

High-capacity MIG/MAG spray arc for efficient welding



Control Weld

Reliable MIG/MAG welding process for thin and thick materials



Vari Weld

MIG/MAG pulsed arc for optimum welding results even under demanding conditions



Speed Weld

Stable MIG/MAG pulsed arc for numerous applications



Fine Weld

Extremely low spatter MIG/MAG short arc for mixed gas and CO₂ applications



The way ...
... to your success.



Consulting

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



Commissioning

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



Planning

We elaborate a solution which perfectly meets your individual requirements.



Training

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



Design

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



Service

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



Production

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

All over the world

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Subject to technical alterations.

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