



Cobot Welding System

Optimum human-robot collaboration:

Your easy entry into the world of automated welding!

CLOOS

Weld your way.

www.cloos.de

Cobot meets high-tech welding technology

The Cobot Welding System from CLOOS and MPA Technology offers an easy entry into the world of automated welding. With the Cobot Welding System, 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 amortisation time
- **Compact design**
Space-saving for flexible adaptation to your production environment



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Cobot Welding System

Exact, intuitive and safe

A torque sensor in each axis allows the Cobot 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 Cobot. 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



Intuitive programming:

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



Sensitive and safe control:

Foot switch for freedrive mode



Finger-forced stop:

Very precise power cut-off when touching the robot



Simple restart after emergency stop:

No unlocking or free movement of the robot necessary



CE conformity:

Automatic wire retraction for maximum work safety



"Ready to weld" complete package

The Cobot Welding System includes all components being necessary for automated welding – perfectly matched to each other and easy to mount. The compact "Ready to weld" 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. QWD-A 4-roller wire drive unit
2. Cobot
3. Wire feed system with welding torch
4. Optional antiglare device
5. Optional welding table
6. QINEO-RPU
7. QINEO Welding power source



Cobot – Precise and robust

The 6-axis Cobot 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 Cobot when programming the points as well as for a precise power cut-off on contact (finger-forced stop). The Cobot 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 |
| Type of protection | 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 |



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



Cold Weld

Heat-reduced MIG/MAG AC pulsed arc for optimum results when welding sensitive materials



Fine Weld

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

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.

... due to modern processes



QINEO NexT 452 Premium – High-tech welding equipment

The QINEO NexT has all important components and functions "on board" so that you are perfectly prepared for the future. The heart of the QINEO NexT is an inverter power unit developed by CLOOS which clocks with a high frequency. This allows an even better arc control for excellent results: The unique welding characteristics enable you to solve complex welding tasks perfectly. A multitude of optional components and functions make the QINEO NexT to be your individual power source – exactly how you need it for you tasks of automated welding.

- High-quality inverter technology for excellent weld quality
- Robust housing and good user-friendly operation guarantee a high availability
- Prepared for all commonly used standard interfaces
- The Premium operating module, designed for the highest level of welding
- A wide range of accessories guarantees that the NexT can be adapted to your needs



QINEO NexT

QINEO NexT 452 Premium

| | |
|--------------------------------------|------------------------------|
| Welding current | 25 A / 15 V - 450 A / 36.5 V |
| Welding current at 60 % duty cycle* | 450 A / 36.5 V |
| Welding current at 100 % duty cycle* | 350 A / 31.5 V |
| Open circuit voltage | 80 V |
| Mains voltage | 380 V - 480 V / 3 phases |
| Connection cable | 4 x 6 mm ² |
| Mains fuse slow-acting | 32 A |
| Type of protection | IP 23 |
| Insulation class | F |
| Type of cooling | F |
| Dimensions L/W/H | 720 x 340 x 500 mm |
| Weight of power unit | 63 kg |
| Weight of cooling module | 28 kg |

* at an ambient temperature of 40°C

Wire drive units

QINEO QWD-A

| | |
|------------------|--------------------|
| Wire feed speed | max. 30 m / min |
| Dimensions L/W/H | 350 / 270 / 230 mm |
| Weight | 7.5 kg |
| Wire diameter | 0,8.. 2.0 mm |

Compatibility:

Use the Cobot Welding System for other welding power sources of the QINEO product series, too!

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Cobot Welding System

MPA Technology GmbH – a company of the CLOOS group: Full Service Automation

MPA Technology GmbH is specialised in the development, production and sales of special-purpose machines and automation technology. The company is a full-service partner in automation technology and acts nationally and internationally in all fields of process technology. At MPA Technology everything comes from a single source: from the design, the construction over mechanical engineering to delivery and commissioning. No matter if automated packaging, gripper and fixture construction as well as assembly automation or supply technology – MPA Technology develops and produces all relevant special-purposes machines.



MPA TECHNOLOGY



CLOOS

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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MPA Technology GmbH is a company of the CLOOS Group

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