

# CLOOS

Weld your way.

## QINEO® TRONIC

Infinitely adjustable welding for highest precision



qineo®

Some innovations change the world forever.



**gineo**<sup>®</sup> TRONIC

## CLOOS: Your brand for innovative welding technology!

Providing added value for our customers! This is the motivational force behind our 700 employees.

We are constantly raising our bar by pushing ourselves to provide innovative welding processes and solutions that will contribute to the long-term commercial success of your company.

Our process competence is at the forefront in welding and cutting of various ferrous and non-ferrous metals. We offer our customers individual solutions which are optimized and adapted specifically to your product and production requirements.

CLOOS develops, manufactures and delivers innovative solutions to more than 40 countries worldwide. With our **QINEO®**, the new generation of welding machines for manual and automated applications, and **QIROX®**, the system for automated welding and cutting, our product range covers the entire spectrum of arc welding technology. Our product portfolio includes intelligent software, sensor and safety technology solutions – all of which are customised to meet your specific needs and requirements!

Leadership and competence equals process automation and welding at its best.

Whatever your needs are, we “Weld your way.”

CLOOS provides full service solutions – all from a single source!

Benefits of choosing CLOOS

- **Unique and customised process and product solutions:**  
Delivering you more commercial success!
- **High level of industrial and engineering competence:**  
We know what matters to you!
- **Professional advice and a high level of global service quality:**  
From start to finish, we are with you all the way!
- **Superior quality and technological know-how:**  
“Made in Germany” can be relied on.

We offer optimised solutions with maximum efficiency and a high degree of welding and cutting products that are customised to your application. And we have been doing this for over 90 years!

**Cloos**  
Weld your way.



## qineo® The new generation of welding power sources for manual and automated applications.

QINEO® are the high-quality welding power sources by CLOOS which have been developed specifically for commercial and industrial welding purposes. They meet every demand of manual and automated welding. Moreover the modular QINEO® system allows individual solutions which can be adapted to your specific production requirements and objectives. From capacity class to special equipment, each QINEO® is customised and supplemented by a comprehensive accessories program and matching services. With highest availability, shortest delivery times and best quality QINEO® welding power sources offer you considerable economical advantages.

## Quality through precision

Synergy mode, simple operation and job memory in combination with the proven Control Weld und Rapid Weld processes: These characteristics enable excellent welding results to be achieved with the QINEO® TRONIC welding power source.

Further advantages of the QINEO® TRONIC are its small design, free configuration capability and high efficiency. The QINEO® TRONIC offers an excellent price/performance ratio for manual and automated welding.

The advantages of QINEO® TRONIC summarised:

- **Sophisticated and precise**  
Infinitely adjustable welding for manual and automated applications
- **Highest quality**  
Optimum ignition and welding characteristics
- **Excellent results**  
Synergy mode with intelligent single-knob operation for all common materials, gases and welding wire
- **Practical and flexible**  
Versatile application possibilities due to low weight



Configuration example  
QINEO® TRONIC 450 with RPU  
Application: Automation





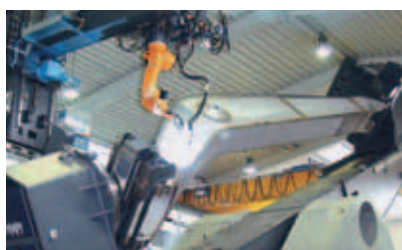
Configuration example  
QINEO® TRONIC 450 with robust  
wire drive unit in metal housing



Configuration example  
QINEO® TRONIC 450 with  
portable wire drive unit

### Extremely adaptable

QINEO® TRONIC succeeds through excellent ignition behaviour, an even and stable welding arc and outstanding welding results. The processes Control Weld and Rapid Weld allow the flexible adaptation to different materials and thicknesses. For manual and automated welding the QINEO® TRONIC is the economic and technically high-quality solution..



#### Control Weld

##### Applications

- Thin plates
- Welding under pure CO<sub>2</sub>
- Manual and automated welding, repair welding
- MIG brazing

##### Advantages

- Uniform arc
- Low heat input
- Good gap bridging ability

The Control Weld Process supplies a uniform arc which is particularly advantageous when welding thin steel. The classic industries are automotive construction, electronics, vehicle construction, heating technology, white goods and furniture. This process can also be used for reliable repair welding throughout all industry sectors and allows for welding under pure CO<sub>2</sub>.

#### Rapid Weld

##### Applications

- Medium and thick materials
- Manual and automated welding

##### Advantages

- Fast wire feed for high process speeds
- Deep penetration with high deposition rates
- Penetration profile can be regulated

The Rapid Weld process provides advantages wherever high deposition rates and optimum penetration depths at high process speed are required. It is particularly suited in sectors such as the heavy steel construction industry, shipbuilding and container construction.



#### All processes in one brochure

As a system supplier CLOOS have not specialised in just one welding process but have developed welding power sources which offer all common processes. Each process has its special advantages and application ranges, but also certain technical restrictions which are explained in our special brochure "Welding". Download or order at

[www.cloos.de](http://www.cloos.de)





### Weld your way.

The configuration possibilities of the QINEO® TRONIC are as flexible as the welding applications are versatile. This is guaranteed by the consequent modular product concept. From capacity class, operating module and additional equipment, each individual QINEO® TRONIC is specifically manufactured. The well ordered structure saves a great deal of time during maintenance and also simplifies upgrades and retrofits: so that in future you are able to weld precisely as your job requires.





qineo®



**350**  
Ampere

**450**  
Ampere

*Configuration example  
QINEO® TRONIC 450 with  
portable wire drive unit*

## The standard for manual welding

The standard version for manual welding: The QINEO® TRONIC with the ECO operating panel meets all the usual requirements for manual welding. And it convinces with its easy and intuitive operation.

### Adjustment possibilities

- Fine adjustment wire
- Fine adjustment arc
- Fine adjustment arc dynamic
- Gas preflow
- Wire inch in
- Welding capacity
- Welding capacity Start
- End crater welding capacity
- Wire burnback
- Gas postflow
- Spot and interval time

### Displays

- Average welding voltage
- Average weld current
- Wire feed speed
- Pre-selected plate thickness
- Weld current SET
- Voltage set value  
(in single parameter operation)
- Hold function for welding voltage  
and weld current



Configuration example  
QINEO® TRONIC 450 with  
portable wire drive unit





## One operating panel for 1,000 jobs

The MASTER version has additional parameters to enhance operation and also a JOB function which enables up to 999 jobs to be archived and retrieved. LEDs show the adjustable parameters and make it easier to store them. In addition graded user rights can be set up which ensure that certain defined welding parameters can only be changed by authorised personnel. With its increased range of functions the MASTER is ideal for all manual or automated welding tasks.

### Adjustment options

- Fine adjustment arc
- Fine adjustment arc dynamic
- Gas preflow
- Wire inch in
- Start program
- Up Slope
- Welding capacity Start
- Welding capacity
- Down Slope
- End crater welding capacity
- Wire burnback
- Gas postflow
- Spot and interval time

### Displays

- Average welding voltage
- Average weld current
- Wire feed speed
- Pre-selected plate thickness
- Weld current SET
- Voltage set value  
(in single parameter operation)
- Hold function for welding voltage and weld current



Configuration example  
QINEO® TRONIC 450C  
with portable wire drive unit







## High quality for automation

Equipped with the PREMIUM operating module the QINEO TRONIC® has an enhanced range of functions and meets the most demanding requirements on the highest level of automated welding tasks. The operation is easy and intuitive due to a modern LCD display with function buttons on the side. Extensive welding tasks can thus be programmed without any difficulty.

### ■ Special characteristic curves

Each material requires individual parameters which can be archived as special characteristic curves in every QINEO TRONIC®. Programming is carried out directly on the operating panel.

### ■ User administration

The user administration of the MASTER and PREMIUM operating panels enables access rights to be defined on several levels. Authorisations to program the QINEO® TRONIC are allocated by individual passwords. All changes are recorded and the data sets are protected from unauthorised access.

### ■ Optional Weld data monitoring

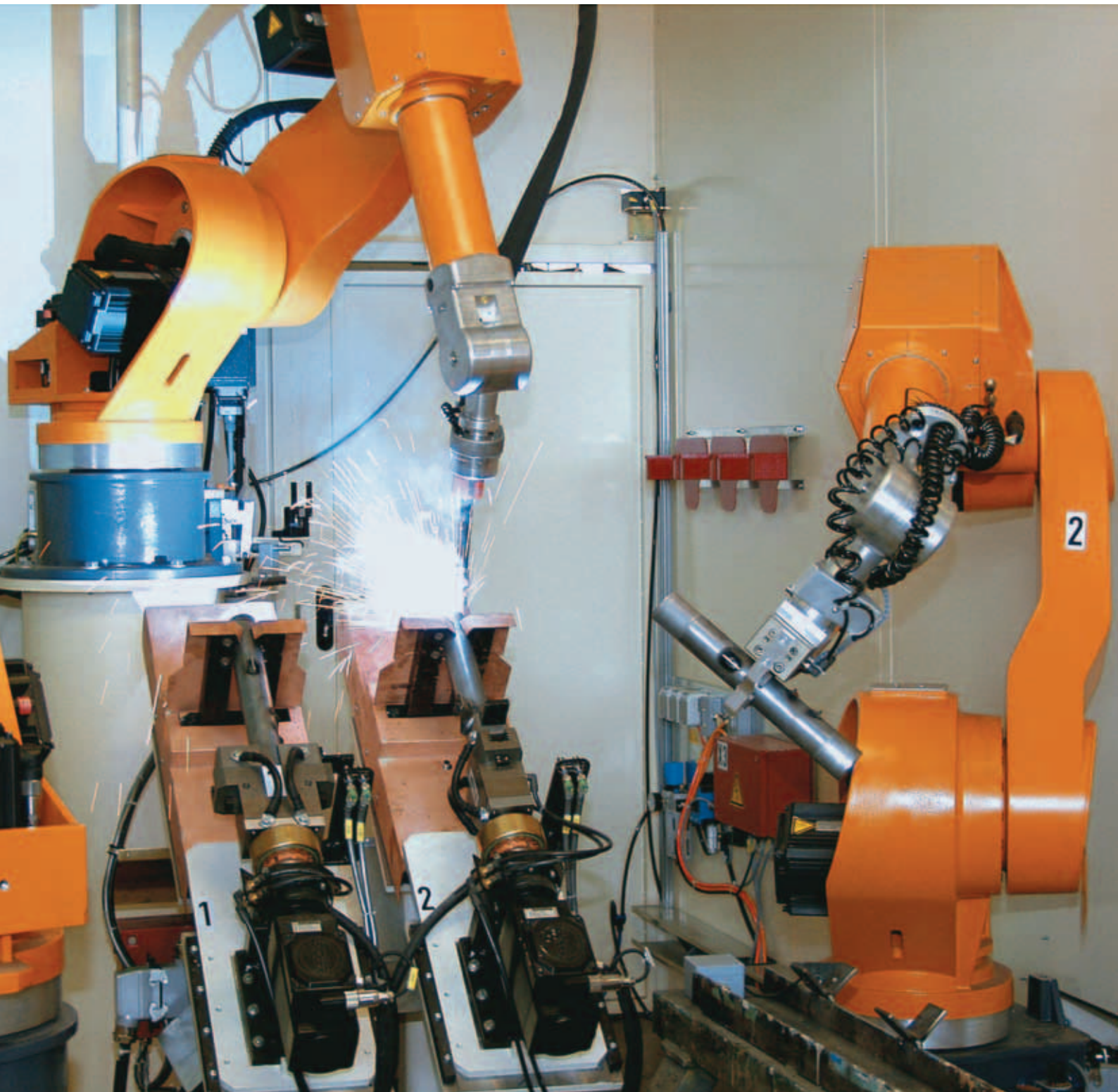
To ensure constant weld seam quality all welding parameters are monitored and archived on the QINEO® TRONIC PREMIUM. The weld data monitoring, which can be completely programmed via the display, has a learning mode and several individually adjustable monitoring channels. The limit values and the response when exceeding or falling below thresholds can be programmed by the user.



Configuration example  
QINEO® TRONIC 450  
with RPU. Application: Automation







### Single source supply

Rough workshop environment or High-Tech production line: customised accessories increase the versatility of the QINEO® TRONIC welding machines. And service life. And efficiency.



#### External wire drive unit QINEO® WIRE DRIVE

This external wire drive for manual welding gives you the choice. The mobile alternative with the robust steel casing is suited for extreme requirements while the lighter portable wire drive enables highest mobility. Both versions of the QINEO® wire drive unit allow a quick change of the wire coil and easy feed of the welding wire.



#### External wire drive unit QINEO® WIRE DRIVE AUTOMATION

This external wire drive is mainly used in for fully automated welding devices and can be mounted without any problems on a robot arm. Thereby, a high-performance roller drive with a powerful motor ensures a wire delivery without slips and grits.



#### Wide range of welding torches

The CLOOS welding torches are as versatile as the welding power sources. We produce gas and water-cooled welding torches for each capacity class and every requirement of manual welding.



#### User friendly remote control

ECO, MASTER or PREMIUM: Each CLOOS operating module can also be supplied with a remote control, which is very user friendly – especially when manually welding components which are difficult to access.



#### Spare parts and special equipment

All QINEO® welding power sources can be supplied with wheels or feet. Wire coils, filters, housing elements and connection cables are also part of the range of accessories supplied, as is special equipment such as arc and gas shroud sensors.



### Only QINEO® offers built-in quality



The state-of-the-art individual production of QINEO® welding power sources from modules sets a new standard for the whole industry. The matching components guarantee an economical production, very short delivery times and best quality. Every QINEO® welding power source is of a piece. And every detail serves only one end: to achieve optimal welding results



## Welding machines

	QINEO® TRONIC 350	QINEO® TRONIC 450
Weld current	40 - 350 A	40 - 450 A
Weld current at 60 % duty cycle	350 A at 31.5 V	450 A at 36.5 V
Weld current at 100 % duty cycle	270 A at 27.5 V	350 A at 31.5 V
Open circuit voltage	100 V	100 V
Mains voltage	3 x 400 V / 50 Hz to 3 x 480 V / 50(60) Hz	3 x 400 V / 50 Hz to 3 x 480 V / 50 (60) Hz
Special voltages	on demand	
Connection cable	4 x 4 mm <sup>2</sup>	4 x 6 mm <sup>2</sup>
Mains protection	25 A	32 A
Type of protection	IP 23	IP 23
Insulation class	F	F
Type of cooling	F	F
Dimensions L/W/H (without wire drive unit)	1011 x 517 x 703	1011 x 517 x 703
Weight (without wire drive unit)	82	88
Operating modes	2-cycle, 4-cycle, super 4-cycle, spot welding/interval, external start (with operating modules MASTER and PREMIUM)	



## Wire drive units

	QINEO® WIRE DRIVE	QINEO® WIRE DRIVE	QINEO® WIRE DRIVE ROBOT
Wire drive speed	max. 24 m / min	max. 24 m / min	max. 30 m / min
Dimensions L/W/H	620 / 385 / 255 mm	674 / 260 / 450 mm	320 / 200 / 200 mm
Weight	21.1 kg	12.8 kg	8.3 kg
Wire diameter	0.8 ... 2.0 mm	0.8 ... 2.0 mm	0.8 ... 2.0 mm

## Service

### Active worldwide

There are more than 40 sales and service centres in our worldwide CLOOS organisation, which are at your disposal for sales and service. In addition, our experienced service team in Haiger can be called at any time for any problems. In this way we can ensure effective help on site if breakdowns occur.



### Long service life guaranteed

With maintenance and inspection at regular intervals the technical availability of a CLOOS system is nearly 100 %. But if faults do occur, we can minimise downtime by means of a quick repair. This is ensured by well-equipped spare parts stores and a computer-controlled logistic system

### Always at your service

Our Service-Hotline is free of charge and in the case of emergencies is always available for you. Even in the case of products which have been in use for more than 20 years we have the expertise to answer all your questions.

### Service-Hotline

 **+49 (0) 27 73/85-132**

Additional information regarding QIROX® the system for automatic welding and cutting can be obtained at [www.qirox.de](http://www.qirox.de)

**QIROX®**





Weld your way.

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