QINEO StarT

Simply better welding

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Weld your way.

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StarT

Simply better welding

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The MIG/MAG welding power source QINEO StarT offers an easy entry into the world of modern welding technology. Due to the excellent price-performance ratio, you can weld any workpiece at economic conditions. The heart of the QINEO StarT is an inverter power unit developed by CLOOS which clocks with a high frequency. This allows an even better arc control for excellent results: Due to the modular system with the Eco, Master and Premium versions you make the QINEO StarT to be your individual welding system. The QINEO StarT convinces with its easy, quick and intuitive operation. You benefit from the comfortable operating concept that you can adapt to your individual requirements. In addition, the QINEO StarT is characterised by high-quality components and a robust design – as technology leader we guarantee maximum performance in proven CLOOS quality.

- Efficient: Excellent price/performance ratio and enormous energy-saving possibilities
- Flexible: Modular design for different welding processes and applications in one machine
- User-friendly: Comfortable operating concept for easy, quick and intuitive handling
- Reliable: Many years of know-how together with highest innovation power
- Robust: High-quality components and a robust design in proven CLOOS quality

QINEO StarT

Diversity of the QINEO StarT

Manual or automated welding, thin or thick materials which require special processes? The QINEO StarT series with its diverse possibilities always offers the right solutions for your welding task. The variants on this side only show a small part of possible combinations. The maximum quality standard makes the QINEO StarT a long-lasting and robust welding machine.

QINEO StarT carriage

QINEO StarT Compact with carriage and QWD-M wire drive

QINEO StarT Compact with carriage, gas bottle holder and QWD-M wire drive

QINEO StarT Compact with carriage, gas bottle holder, cooling module and QWD-P5 Eco wire drive

QINEO StarT

Overview of the QINEO StarT components

You simply weld better with the QINEO StarT: The welding power source offers you an easy entry into the world of manual and automated welding. Benefit from numerous optional components and functions. This makes the QINEO StarT your individual welding power source - exactly as you need it for your tasks.

Wire drive unit depending on the task

- Two wire drive units for manual welding
- One wire drive unit for automated welding

User-friendliness in focus

- MasterPlus operating module – manual welding in perfection
- Extensive concept so that the operating module is always near the welder

Extensive accessories

- Equip the QINEO StarT individually to your requirements

Inverter power unit for optimum welding results

- Digital control enables individual programming of the welding characteristics
- High efficiency meets the future requirements of energy efficiency standards

Cooling module in a separate housing

- High cooling capacity increases the torch service life
- Strong pump for a big operating range
- Service-friendly and without influencing other components of the QINEO StarT
- Big illuminated level indicator
- Energy efficiency due to standby control

Appropriate substructure for all application possibilities

- Carriage with different wheel diameters
- Wall bracket
- Stable palette substructure


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QINEO StarT

Modularity: The perfect combination for every task

The configuration possibilities of the QINEO StarT are as flexible as the welding applications are versatile. This is guaranteed by the consistently modular product concept. From the capacity class to the wire tip, each QINEO StarT is customised. A QINEO StarT, exactly as you need it to cope with your tasks quickly and efficiently.

Operation

Welding torch

Wire drive unit

Power unit

Cooling module

Substructure



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Operation

Operating modules of the QINEO StarT

The right function always at the right place

The operating sites of the welder can be very different. He has other demands on an operation at a stationary working place than when welding in a closed room (for example boiler or container). The QINEO operating concept offers a solution for every requirement. As an alternative to placing the operating module in the wire drive, you can choose between the integrated remote control in the welding torch and the compact RCPlus remote control with all the functions of the MasterPlus operating module.
You can also choose between the two operating modules MasterPlus for manual welding and Premium for automated welding. This gives you a large selection of functions, tailored to your individual use of the QINEO StarT. Convince yourself of the very simple, quick and intuitive operation of the QINEO welding power sources!

QINEO MasterPlus Compact

QINEO MasterPlus operating module – manual welding in perfection

The new MasterPlus operating panel offers a very easy, quick and intuitive control of the QINEO power sources. Five freely programmable quick save memories guarantee a fast access to the most important jobs and easy handling just like the car audio system. The MasterPlus operating panel is designed for robust application during production and is suitable for right- and left-handed operators. Our development is focused on the requirements of the manual welder. Experience the special handling in the well-known QINEO quality!

Welding operation

Clear text display with symbols for a fast recording

Job programming

Clear display
LB and Dyn setting also in the start and end program

Process selection

Easy change between the different welding processes

Job favourites

Quick access to the five most important jobs

Basic and secondary parameters

Quick access

Memory for four welding circuits

Automatic parameter adaptation when changing the workplace

Wire drive units

The QINEO Wire Drive Units

Flexible enlargement of the working space
With the CLOOS wire drive units you enlarge your working space independent of the welding power source. Benefit from the wide range of wire drive units for manual and automated welding. Here you find the suitable design for every requirement. All models are characterised by robust 4-roller drives and powerful drive motors.

QINEO QWD-P

Mobile 4-roller drive in a plastic housing.

Extremely light-weight for mobile use in workshops and during installation. The wire drive unit is used with a connection cable assembly. We adapt the length of the connection cable assembly to the requirements. The operating module is protectively integrated in the QWD housing. So the welder can do all required settings directly and without unnecessary useless routes. The QWD-P is prepared to take up a 15 kg wire coil.

- Mobile and lightweight
- Compact for manhole operation
- Extends the welder's range

QINEO QWD-M

Mobile 4-roller drive in a metal housing.

Very robust for mobile industrial use. The wire drive unit is either hinge-mounted on the power source or connected with a connection cable assembly. We adapt the length of the connection cable assembly to the requirements. For floor use, the QWD has four wheels. The operating module is protectively integrated in the QWD housing. So the welder can do all required settings directly and without unnecessary useless routes. The QWD-M is prepared to take up a 15 kg wire coil.

- Robust and with wheels
- Extends the welder's range

The wire drive unit fulfils many tasks.
It must be robust for a rough environment and at the same time light and compact for an easy handling. The combination of perfectly matched materials guarantees a long service life of the QINEO QWD during welding.

Multifunction handle

- Good QWD load capacity
- Adapter assembly for a suspension at a pivot arm for example

MasterPlus Compact operating module

- The same operating concept as MasterPlus
- Encapsulated mounting, protected from dust, liquids and mechanical influences
- Supports the use of welding torches with remote control

Interfaces

- Adapter plate allows mounting the most different plugs for interfaces

Window

- Fast check of the wire reserve without opening the housing

Inclined position

- Facilitates the change of the welding wire roller

Operating module

- Protected from dirt, yet easily accessible.

Accessories

MIG/MAG manual welding torches

The CLOOS welding torches are as versatile as the welding power sources.

We have the suitable welding torch for each capacity class and for every requirement of manual welding. MIG/MAG welding torches lead the energy to the welding point to melt the materials, the wire electrode and the shielded gas to shield the welding point. They are connected with the power and gas sources via cable assemblies and controllers. Gas-cooled welding torches are sufficient for small welding capacities, for higher capacities we recommend water-cooled torches.

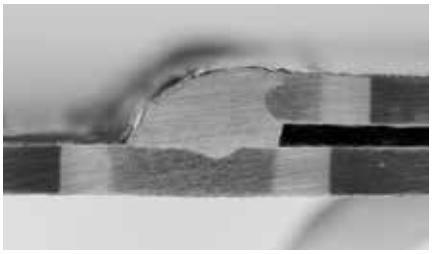
MIG/MAG robot welding torches

The requirements on a robot welding torch are constantly increasing.

A high level of stability of the used components, a slim design and an optimum cooling are the most important characteristics. CLOOS robot welding torches are the result of years of development and experience in the field of automated MIG/MAG welding. We supply special geometries and manufactures on demand, either for single wire torches or for tandem welding torches.

Fine Weld

Finest weld seams for excellent quality



Extremely low spatter MIG/MAG short arc for mixed gas and CO_2 welding

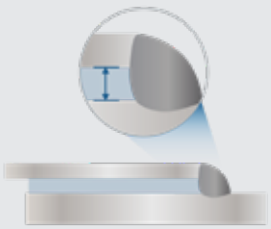
Fine Weld is an energy-reduced, current-controlled MSG short arc process for mixed gas and CO_2 welding. Due to the minimised spatter formation, Fine Weld is suitable particularly for thin, coated plates and fine visible weld seams. The stable arc is characterised by an optimum gap-bridging ability and can be mastered excellently in all welding positions.
With Fine Weld, you reduce the workpiece distortion through the controllable heat input. You avoid extensive reworks due to the minimised spatter formation. Do you also want an extremely low-spatter welding process for excellent welding results with fine welds? Then rely on Fine Wed Weld by CLOOS!

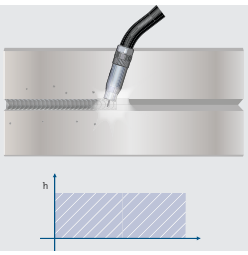
- **Minimised spatter formation**
- **Controllable heat input**
- **Reduced workpiece distortion**
- **Optimum gap bridging ability**
- **Stable, quiet, well controllable arc**

Applications

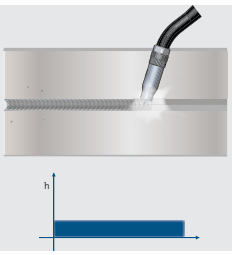
- Thin plates even under CO_2
- Coated plates
- Automotive
- Root welding
- Pipeline construction
- Container construction
- All welding positions

Very good gap bridging ability





Reduced rework



Less component distortion
High dimensional accuracy after welding

Rapid Weld

That's what efficiency looks like!

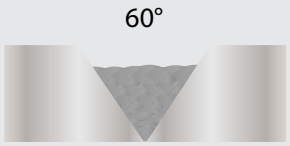
Focused high-capacity MIG/MAG spray arc for deep penetration and efficient welding

Rapid Weld is a focused high-capacity MIG/MAG spray arc and provides advantages wherever high penetration depths and a safe root fusion are required. The special control generates a very focused stable arc with a very high arc pressure. The one-knob-operation allows you to specifically model the penetration profile from small to wide. Due to the very small opening angle you reduce filler material and shielded gas. You obtain complete fusions due to the deep penetration. You reduce the welding time as considerably less welding layers are necessary.

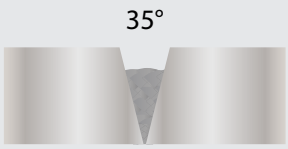
Applications

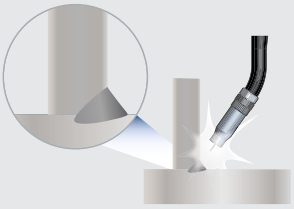
- Thick components from 6 mm

- **Reduction of filler material and shielded gas due to a smaller opening angle**
- **Complete fusions thanks to deep penetration**
- **Minimised welding times because of a reduced number of welding layers**

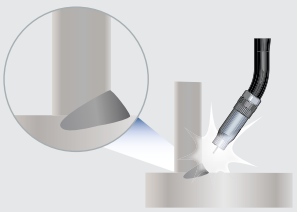


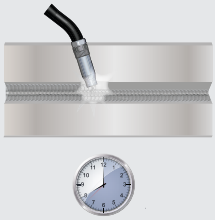
Reduction of layers because of smaller opening angles



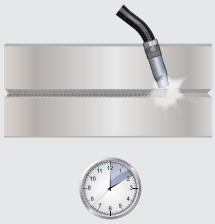


Very deep penetration at a lower wire feed than conventionally





Up to 30 % saving of costs



Processes

Vari Weld

From easy to demanding

Current-controlled MIG/MAG pulsed arc for optimum welding results under demanding conditions

Vari Weld is a MIG/MAG pulsed arc for a very wide range of applications. The current-controlled MIG/MAG pulsed arc process allows controlling the penetration profile at a multitude of materials and applications. The material characteristics remain nearly unchanged, particularly in the case of heat-sensitive materials. You avoid extensive reworks as spatters are reduced to a minimum. So you achieve optimum welding results even under demanding conditions.

- **Optimum weld pool control due to efficient arc control**
- **Excellent welding results at demanding applications (e. g. chrome-nickel)**
- **Reduced rework thanks to the pulsed arc technology with regulated drop separation**

Applications

- MIG Brazing
- Cladding
- Surfacing
- Plate thicknesses from 1.5 mm

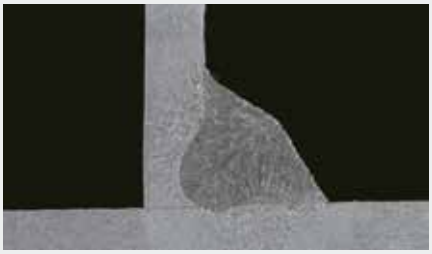
Control Weld

Through thick and thin

MIG/MAG welding process for thin and thick materials

Control Weld covers the whole range of controlled MIG/MAG welding and is suitable for different applications. The classic MIG/MAG process offers a stable metal transfer from short arc to spray arc. At low power a short arc forms which is particularly advantageous when joining thin components and out-of-position welds. With regard to spray arc, this process has more energy and there is more heat input in the base material. There are only few spatters due to the small, short-circuit proof metal transfer which also results in less rework.

- **Versatile process**
- **Good gap bridging ability in the short arc range**
- **Low spatters in the spray arc range**

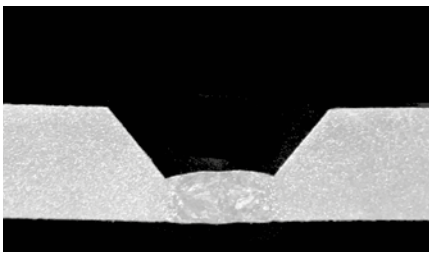


Applications

- Universally applicable
- Welding with flux-cored wire
- Suitable for all welding positions
- Welding under pure CO_2

Root Weld

Stable and insensitive



Energy-reduced controlled MIG/MAG short arc for excellent quality under demanding conditions

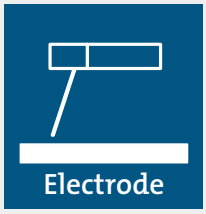
Root Weld is an energy-reduced, controlled MIG/MAG short arc which is suited for the special requirements of root welding or thin plate welding where out-of-position welds and varying gap widths often arise. Compared to the standard short arc, Root Weld is considerably quieter and produces less spatters.. Due to the improved process control, Root Weld is more stable and can thus be perfectly controlled even in the lower capacity range. With Root Weld you reduce the workpiece distortion because of the lower heat input. You avoid extensive reworks due to the minimised spatter formation. You always achieve optimum welding results as the arc is resistant to external influences.

- **Insensitive short arc**
- **Resistant to external influences**
- **Optimum gap bridging ability even without extensive oscillation**
- **Well controllable arc**

Applications

- Root welding
- Pipeline construction
- Container construction
- All welding positions

Stick electrode welding



Weld demanding seams with stick electrode already in the basic equipment. The integrated synergy characteristic curves were optimised for basic, Rutil- and CEL stick electrodes.

Gouging

Gouging turns the QINEO StarT into a real multiprocess system. Remove all points of failure with stick up to 6 mm and then solve the task with the same welding system.

Processes

The right welding process for every requirement

The selection of the right welding process is essential for a successful production. The QINEO StarT offers a large range of proven and innovative welding processes for manual and automated welding applications. Excellent quality, maximum efficiency and productivity – benefit from future-oriented processes for your individual welding solution.

QINEO StarT		402 / 502 Eco	402 / 502 Master	406 Premium	502 Premium
	Control Weld	X	X	X	X
	Vari Weld		X	X	X
	Fine Weld			X	
	Root Weld	X	X	X	X
	Rapid Weld	X	X	X	X
	Duo Pulse		X	X	X
	MMA	X	X	X	X
	Gouging	X	X	X	X
	TIG	X	X	X	X

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 advices you on any extensions, modifications and retrofits of your existing robot and welding systems.

... to your success.

Technical data

	StarT 402	StarT 406	StarT 502
Welding current	20 A / 15 V - 400 A / 34 V	20 A / 15 V - 400 A / 34 V	20 A / 15 V to 500 A / 39 V
Welding current at 60 % duty cycle*		400 A	500 A
Welding current at 100 % duty cycle*	400 A	350 A	400 A
Open circuit voltage	78.7 V at 3x 400 V 74.6 V at 3x 380 V	78.7 V at 3x 400 V 74.6 V at 3x 380 V	78.7 V at 3x 400 V 74.6 V at 3x 380 V
Mains voltage	380 V - 400 V / 3 phases	380 V - 400 V / 3 phases	380 V - 400 V / 3 phases
Connection cable	4 x 6 mm²	4 x 6 mm²	4 x 6 mm²
Mains fuse slow-acting	32 A	32 A	32 A
Type of protection	IP 23	IP 23	IP 23
Insulation class	F	F	F
Type of cooling	F	F	F
Dimensions L/W/H	714 x 348 x 553 mm	714 x 348 x 553 mm	714 x 348 x 553 mm
Weight of power unit	56 kg	56 kg	56 kg
Weight of cooling module	28 kg	28 kg	28 kg

* at an ambient temperature of 40°C

Wire drive units QINEO StarT	QINEO QWD-M5	QINEO QWD-P5 Master	QINEO QWD-P5 Eco
Wire feed speed	max. 30 m / min	max. 30 m / min	max. 30 m / min
Dimensions L/W/H	685 / 340 / 235 mm	732 / 255 / 400 mm	732 x 236 x 385 mm
Weight	22.5 kg	15.8 kg	13.2 kg
Wire diameter	0.8 to 2.0 mm	0.8 to 2.0 mm	0.8 to 2.0 mm

With CLOOS you weld and cut ...

... all types of metal!

... all material thicknesses from 0.5 to 300 mm!

... with innovative processes!

... manually or automated, just as you need it!

... efficiently and individually!

... and profit from many additional services!

... in all industries!

... all over the world!

... to your utter satisfaction!

... and benefit from more than 100 years of welding experience!

... all from a single source!

All over the world

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