QINEO NexT

New excellent Technology – the next generation
MIG/MAG Welding power source for pulsed arc welding

CLOOS

Weld your way.

NexT

New **ex**cellent **T**echnology

New

Technology

Excellent

New

New

"Solving new tasks."

The perfect solution for every requirement

The new MIG/MAG multiprocess QINEO NexT 452 DC welding machine expands the established CLOOS product portfolio. Benefit from many utilisation possibilities - from the basic welding machine for manual welding to the multiprocess welding machine for automated robot welding. No matter if manual or automated welding, thin or thick materials or materials requiring an A/C Solution – the QINEO NexT offers the perfect solution for every task.

QINEO NexT

Diversity of the QINEO NexT

Manual or automated welding, thin or thick materials or materials requiring an A/C process? The QINEO NexT series with its diverse possibilities always offers the right solutions for your welding task. The four variants on this side only show a small part of the combinations. A maximum quality standard is another feature that makes the QINEO NexT a long-lasting robust welding machine.

QINEO NexT Premium

QINEO NexT Premium with cooling module and AC inverter module

QINEO NexT Master with gas bottle holder, cooling module and QWD-P wire drive

QINEO NexT Master with cooling module and QWD-M wire drive

QINEO NexT

Overview of the QINEO NexT components

The QINEO NexT is the next generation of the CLOOS welding power sources. It 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.

Wire drive unit depending on the task

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

User-friendliness in focus

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

Interfaces for communication

- Can be equipped with all commonly used standard interfaces
- OPC -Interface – your way to Industry 4.0 (optional)
- Integration of Weld Process Monitoring (SD) into the QINEO NexT (optional)

Extensive accessories

- Equip the QINEO NexT just as you need it
- Increase the mobility of the QINEO NexT by means of the cable assembly holder

Inverter power unit for optimum welding results

- High frequency allows controlling complex welding processes
- Digital control enables individual programming of the welding characteristics
- High efficiency meets the future requirements of energy efficiency standards
- Comprehensive energy management with stand-by function for inverter and fan

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 influences on other QINEO NexT components
- 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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NeXT

Technology

Technology

"Technology that convinces."

Due to the consistently modular construction with many optional functions and accessories you make the QINEO NexT to be your individual high-tech welding power source – perfectly adapted to your specific production requirements and objectives. The MasterPlus operating module of the QINEO NexT offers a very simple, quick and intuitive control of the QINEO power sources with job memory and job favourite function. Furthermore, the QINEO NexT can be equipped with all commonly used standard interfaces to digitalise and connect the welding production efficiently.

QINEO NexT

Modularity: The perfect combination for every task

The configuration possibilities of the QINEO NexT 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 NexT is customised. A QINEO NexT, 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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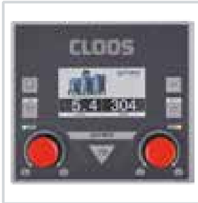
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Operation

Operating modules of the QINEO NexT

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 option to the assembly of the operating module in the wire drive unit, there are many variations: Starting with the extensive functions that the remote control which is integrated in the welding torch makes available via the compact RCPlus remote control with all functions of the MasterPlus operating module up to the RPU which allows the installation of the operating module far away of the welding power source.
You can select between the two operating modules MasterPlus for manual welding and Premium for automated welding. This allows selecting many functions, precisely tailored to your individual use of the QINEO NexT. Convince yourself of the very simple, quick and intuitive operation of the QINEO welding power sources!

QINEO MasterPlus and 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

Operation

QINEO Premium

QINEO Premium operating panel – sophisticated automation

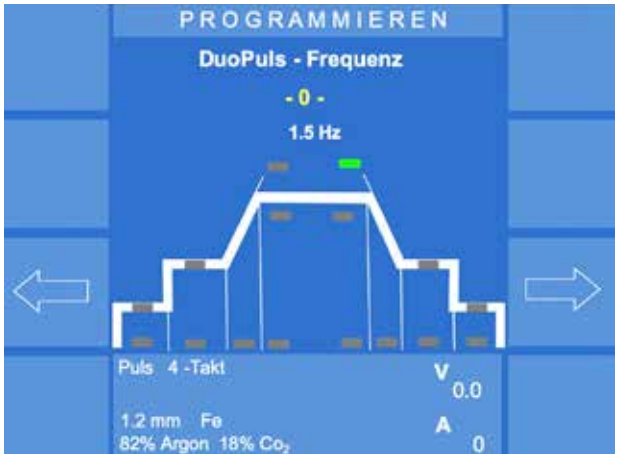
The QINEO Premium operating module offers many functions and is designed for the highest level of automated welding tasks. The operation is easy and intuitive due to a modern LCD display with lateral function keys. Even very extensive welding tasks can be easily programmed.

Adjust the information on the display individually

Let the display show the information which is relevant for you

Expert Mode

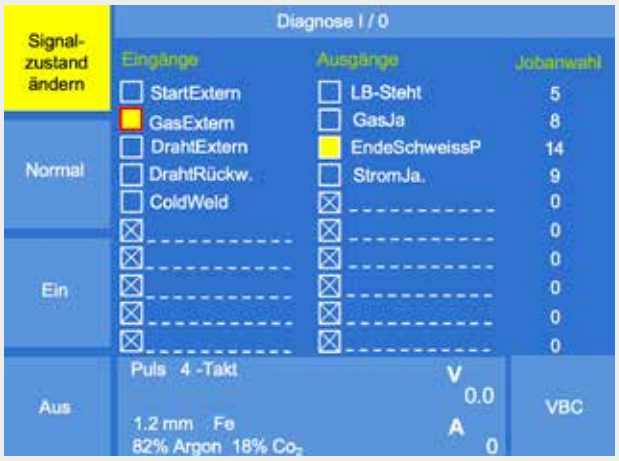
Program the arc individually for your welding task with up to 13 secondary parameters.



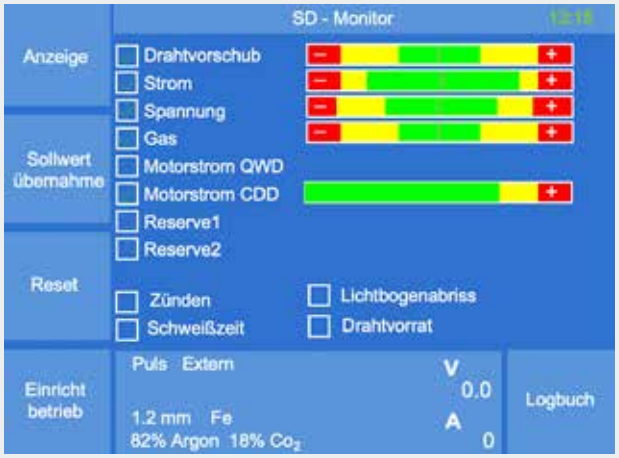
Memory for four welding circuits

Change of the working place without parameter adaptation.

Extensive diagnostic functions
Optimum help in the case of service.



Operating data
Support for the determination of the weld seam costs.



Weld Process Monitoring WPM (option)

- Monitor up to 10 important parameters which are relevant for the weld quality. WPM switches off the arc when excessing programmed limits.
- Can be realised outside the QINEO without additional components.

Data backup
Make a regular backup of all data of the QINEO welding processes.

User management (option)
Grant different access rights for operation and programming.

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 wire drive units and powerful drive motors.

QINEO QWD-P

Mobile 4-roller wire drive unit 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 with a length of up to 15 m. 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 wire drive unit 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 with a length of up to 15 m. 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.

QINEO Data Manager QDM

Higher efficiency, more safety!

Save time and money: With QDM you control and manage your welding power sources on a central PC. Your data is reliably stored - also because of a time-controlled, automatic backup. So, nothing is lost and your data is always available when needed. The software basic version offers a manual and an automatic data management as well as a characteristic curve management and can be enlarged as an option. So you determine the volume of our QDM software that you wish to integrate in your operations and processes.

Overview of all benefits:

- **Central data control:** Jobs, characteristic curve data and configuration data are always at disposal
- **Safe data storage:** Time-controlled, automatic backup
- **Accelerated work flow:** Programming and operation of several welding power sources via Ethernet interface

WPM Weld Process Monitoring

Monitoring channels

1. **Wire feed speed**
2. **Welding current**
3. **Welding voltage**
4. **Gas flow rate**
5. **Arc burn time**
6. **Motor current wire drive unit**
7. **Motor current wire drive unit DuoDrive (option)**
8. **Build-up of pores (only for pulsed arc)**
9. **Reserve**
10. **Heat input**

The WPM Weld Process Monitoring records data of the sensors mounted in the QINEO. Thus it obtains all relevant actual values of the media which are mainly responsible for a high-quality weld. The software functions allow the comparison of the actual values with the set values stored in the WPM. The two-step monitoring system warns when reaching the first limit value and stops welding when reaching the second limit value. So you make sure that you are early informed about changes during production and that no faulty workpiece leaves the workplace.

You get a protocol containing the recorded data, with reference to the workpiece and with date and time. Without additional options and attached parts, the WPM Weld Process Monitoring works in the QINEO NexT using the Premium operating module. Programming, archiving and check of the WPM are made directly in the welding power source. The CLOOS PC software QDM (QINEO Data Manager) merges several QINEO welding power sources which are equipped with WPM. The data transmission is made via an Ethernet interface.

Interfaces

Other interfaces are available. Please contact us!

Excellent

excellent

"Excellent welding results."

Focus on process safety

Excellent arc characteristics for highest welding quality are stand-out features of the QINEO NexT. The regulated drop separation ensures stable and reproducible processes – even in the case of complex welding tasks.
As there are nearly no spatters during welding, reworking in the following production steps reduces enormously. Thus you can make your welding processes still more efficient!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Cold Weld

Welding with optimum heat input!

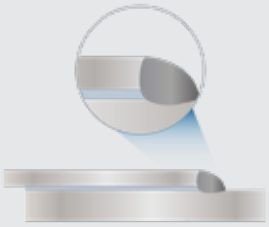
Directionally stable MIG/MAG AC pulsed arc for optimum results when welding demanding materials

Due to the optimum heat input, Cold Weld is perfectly suitable for demanding materials. Cold Weld combines a pulsed arc with AC technology. Due to the adjustable AC part you can individually control the heat input into the component. With Cold Weld you can get higher welding speed as you increase the deposition rate at a lower heat input. The optimum heat input has a positive effect on the component and material characteristics. You keep the original material properties because of the minimised heat input. You reduce the component distortion and avoid extensive reworks. You compensate material tolerances due to the good gap bridging ability.

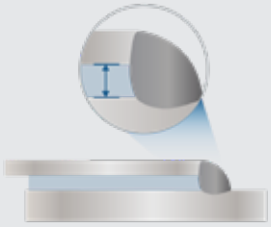
- **Excellent welding results due to a directionally stable MIG/MAG AC pulsed arc**
- **Shorter welding times because of high deposition rate**
- **Optimum material characteristics due to controllable heat input**
- **Avoidance of reworks thanks to minimised component distortion**

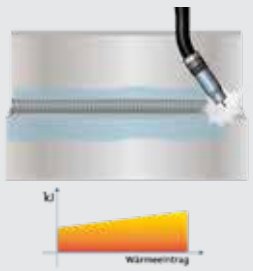
Applications

- Complex aluminium and chrome-nickel components up to t = 4 mm
- Root welding at magnetised steel components
- Aluminium extrusion / Casting alloy
- Hot-crack sensitive materials



Very good gap bridging ability





Low heat input
Conservation of the material characteristics

Less component distortion
High dimensional accuracy after welding

Rapid Weld

That's what efficiency looks like!

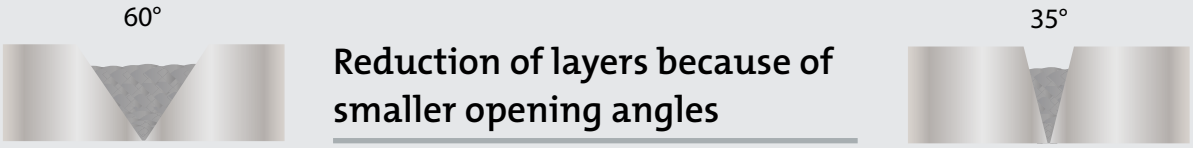
Focused high-capacity MIG/MAG spray arc for deep penetration and efficient welding

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.

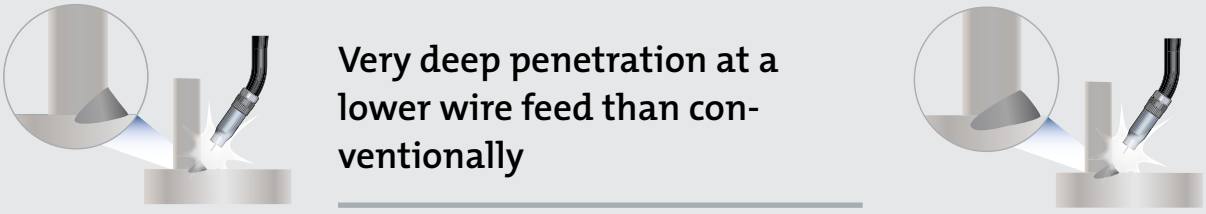
Applications

- 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

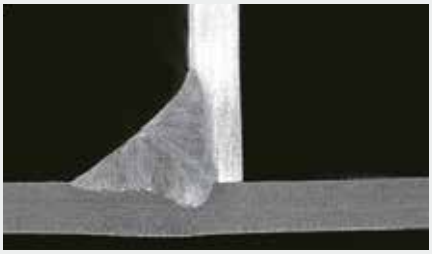
Speed Weld

Pulsed arc for rapid welding

Voltage-controlled MIG/MAG pulsed arc for numerous applications

Speed Weld is used in all sectors of metal machining. The voltage-controlled MIG/MAG pulsed arc process allows a very high arc pressure even under demanding conditions. With Speed Weld you achieve high welding speeds because of the highly powerful arc. You benefit from the excellent weld quality due to the deep penetration. You avoid extensive reworks as spatters and undercuts are reduced to a minimum.

- **High welding speeds due to the highly powerful arc**
- **Excellent welding quality because of a deep penetration**
- **Reduced rework thanks to the pulsed arc technology with regulated drop separation**

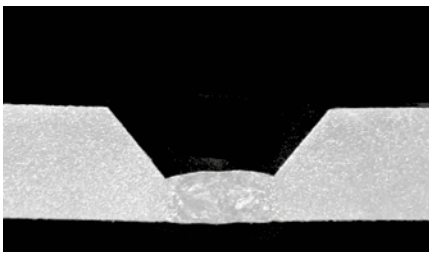


Applications

- Plate thicknesses from 2.5 mm
- Versatile use
- Complex aluminium components
- Welding with flux-cored wire
- MIG Brazing

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.

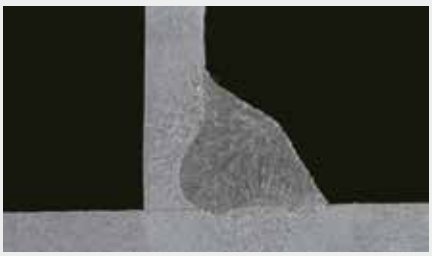
- **Insensitive short arc**
- **Resistant to external influences**
- **Optimum gap bridging ability even without extensive oscillation**
- **Well controllable arc**

Applications

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

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

Service-friendliness

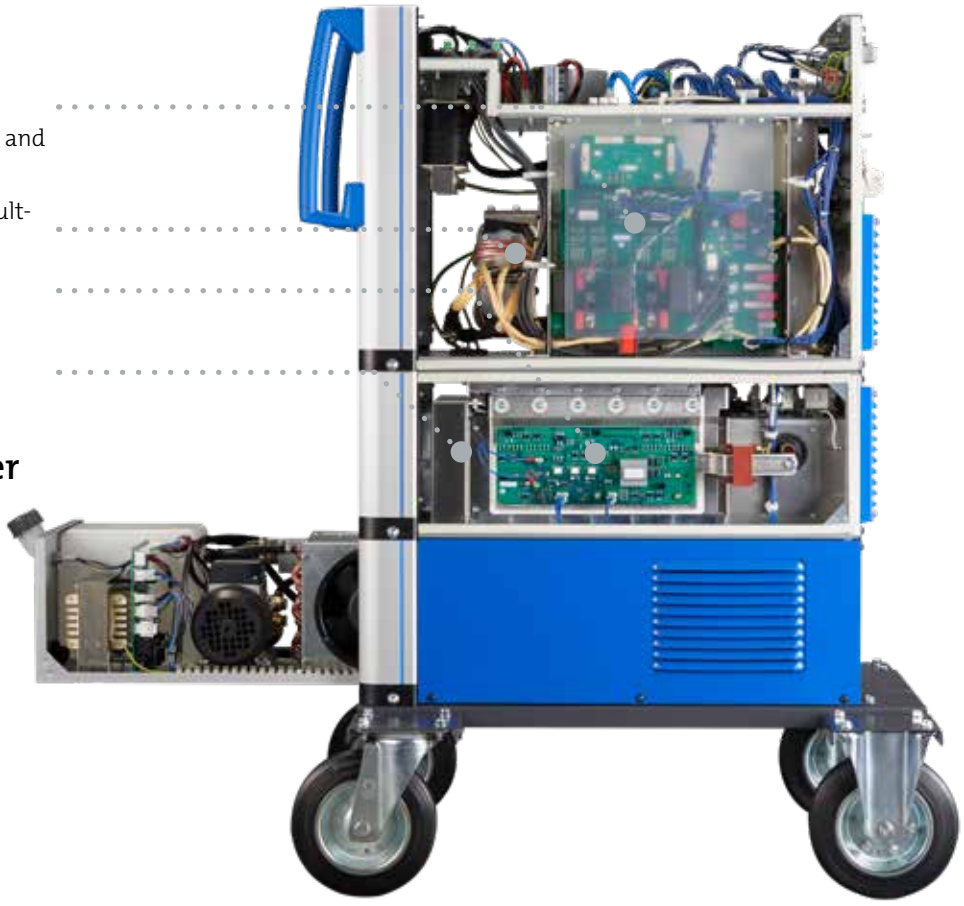
Sophisticated to the tiniest detail

Maintenance and service - quick and easy

The QINEO NexT convinces with its excellent welding results and also with its special ease of service and maintenance. The clear design of the welding power source with an easy access to all components enables an easy maintenance and a quick fault-finding. Thus you can change spare parts and consumables quickly and without much effort. The powerful, separate cooling module with a big illuminated level indicator can be pulled off easily. The modular design allows quick and easy retrofits.

Clear design

- Encapsulated modules protect sensitive components from dirt and heat
- Easy maintenance and quick fault-finding
- Easy access to all components
- Few plug connectors reduce susceptibility to damage



Cooling module drawer

- Direct access due to an easy pulling out of the module

Dirt filter

- Quick change without tool

Interface module

- Simple retrofit

Without tool

- Change of all consumables

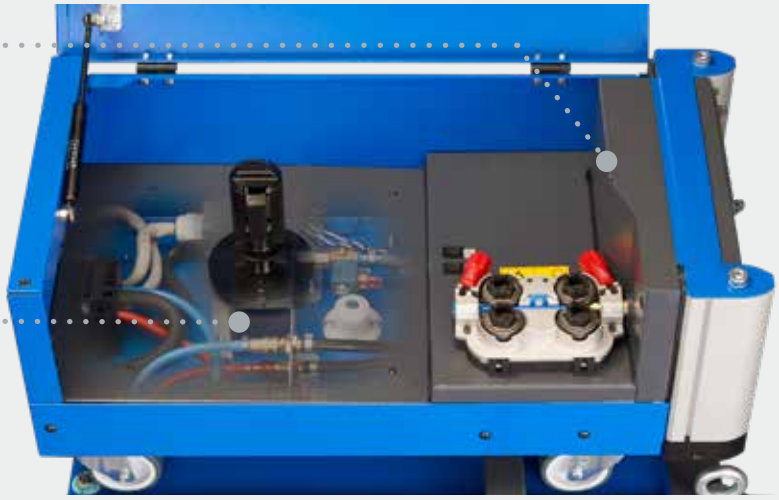
No confusion

- Colour code of all wire-guiding parts ensures the use of the correct components




Protected connections

- Protection of the connections from external influences
- No interfering edges in mobile use



Double bottom

- Separate supply of the coolant to protect the mechanical and electrical components

Technical data

	NexT 452 DC	NexT 602 DC	NexT 452 AC
Welding current	25 A / 15 V - 450 A / 36.5 V	25 A / 15 V - 600 A / 44 V	25 A / 15 V - 450 A / 36.5 V
Welding current at 60 % duty cycle*	450 A / 36.5 V	600 A / 44 V	450 A / 36.5 V
Welding current at 100 % duty cycle*	350 A / 31.5 V	500 A / 39 V	350 A / 31.5 V
Open circuit voltage	80 V	80 V	75 V
Mains voltage	380 V - 480 V / 3 phases	380 V - 480 V / 3 phases	380 V - 480 V / 3 phases
Connection cable	4 x 6 mm²	4 x 10 mm²	4 x 6 mm²
Mains fuse slow-acting	32 A	50 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	720 x 340 x 500 mm	720 x 340 x 500 mm	720 x 340 x 782 mm
Weight of power unit	63 kg	65 kg	92 kg
Weight of cooling module	28 kg	28 kg	28 kg

* at an ambient temperature of 40°C

Wire drive units QINEO NexT	QINEO QWD-M	QINEO QWD-P	QINEO QWD-AR	QINEO QWD-A
Wire feed speed	max. 30 m / min	max. 30 m / min	max. 30 m / min	max. 30 m / min
Dimensions L/W/H	700 x 340 x 255 mm	702 x 240 x 375 mm	320 x 200 x 200 mm	350 x 270 x 230 mm
Weight	27.0 kg	14.8 kg	7.5 kg	10.2 kg
Wire diameter	0.8 to 2.0 mm	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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Weld your way.