CLOOS

Weld your way.

QINEO® DATA MANAGER

Perfect welding machine management

Artificial Intelligence!

QIneo® Software

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.
Leadership and competence equals process automation and welding at its best. Whatever your needs are, we **"Weld your way."**

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!

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

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.

Higher efficiency, more safety!

With the new CLOOS Software QINEO® DATA MANAGER (QDM) we developed and realised a tool which helps you to use the welding power sources more effective and efficient. Due to the control and management on a central PC the data are faster at your disposal and can be reliably stored - for example also via a time-controlled, automatic backup. This reduces the total time and effort and forces a quicker workflow because most different welding power sources can be fed, programmed and operated exactly for the job and the project via Ethernet.

The QINEO® DATA MANAGER (QDM) by CLOOS

Our PC software QDM is adapted to the CLOOS welding power sources QINEO® Pulse, QINEO® Tronic and QINEO® Champ. The access to the the welding power sources - in theory in any quantity - is made on a central computer via the company Ethernet.

The software light version offers a manual and an automatic data management (backup and restore) 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.

Power source access via Ethernet

Cloos software QDM
(QINEO® Data Manager)

LAN (Ethernet)

The following functions are available:

QDM Light

- Data backup (also automatic)
- Data restore from existing backups
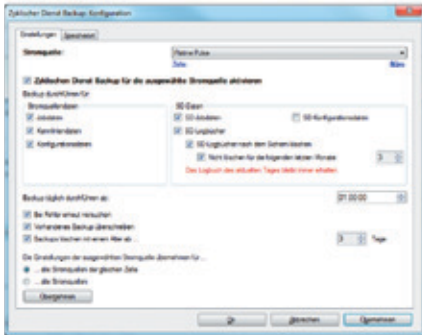- Characteristic curve management

QDM options

- Characteristic curve programming (online and offline)
- Operation of power sources (in the Premium mask)
- Weld data management (in case of existing SD module)

Functions and Data

- Integrated user management for user-related configuration of access rights
- Arrangement of the administered power sources in cells

Better safe than sorry

Store data automatically

During a welding process you can store all relevant data via our QDM software: Jobs, characteristic curve data, configuration data – in the case of an existing SD module also the corresponding SD job and SD configuration data. The data are stored with date and power source name and is thus available for future tasks. Backups can be made automatically - for example every day at the same time.

Nothing is lost

The central backup allows to restore the needed data (jobs, characteristic curves, configurations) quickly and easily. So, you do not have to create repeating jobs, program characteristic curves and generate configurations again. Nothing is lost and all data are always available when needed. This saves time and money.
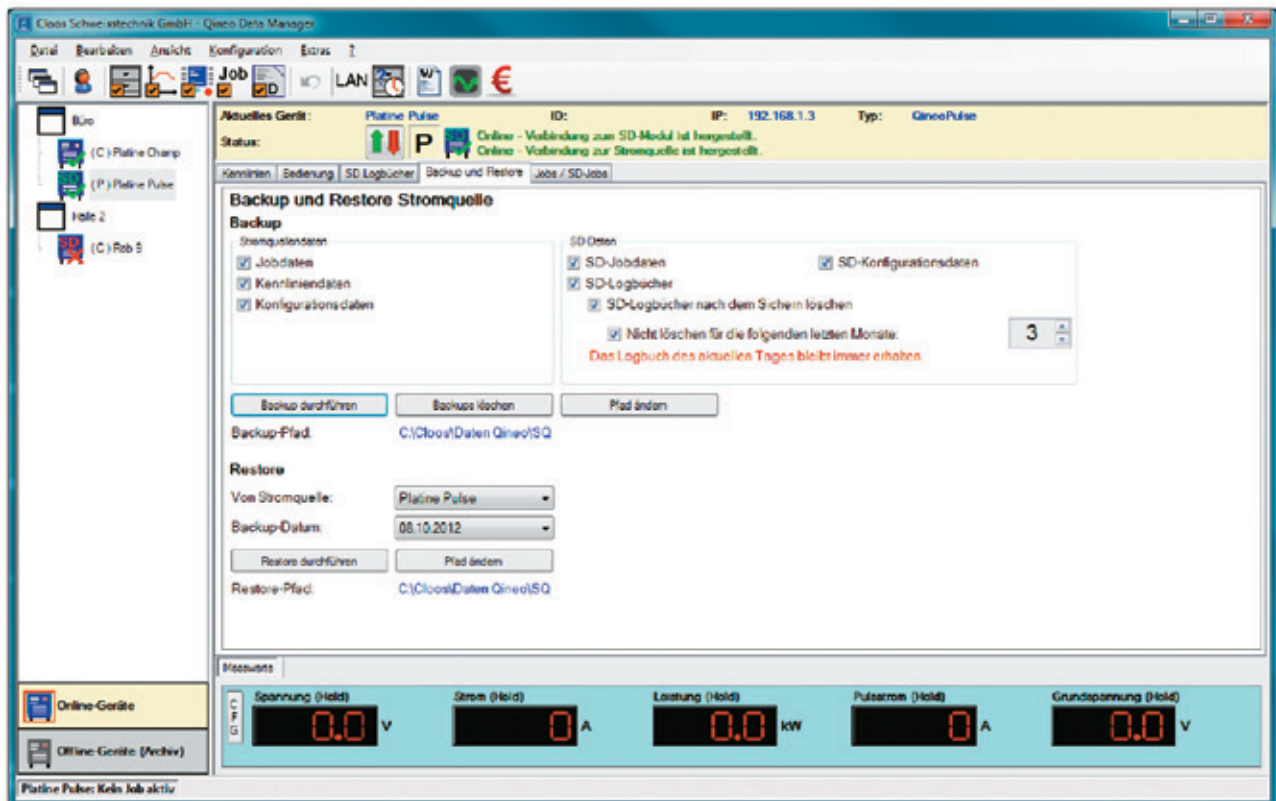
Store data

Characteristic curves under control

QDM offers you a comprehensive characteristic curve management tool - with many possibilities

- Load from a backup
- Load from power sources, store in power sources or delete
- Allocate to several power sources
- Use virtual devices for characteristic curve archiving
- Print and export to selected data formats

QDM options - exactly the tools you need

You determine the volume of the QDM that you wish to integrate in your welding processes. Beside the basic version, you can select different additional options.
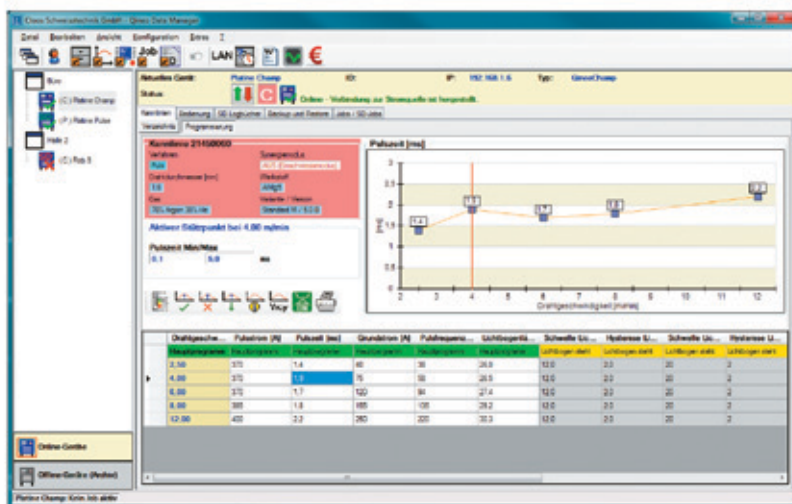
Process characteristic curves
This tool gives you access to the current characteristic curves of the welding power sources. For programming you can load them automatically, activate the welding mode of the power sources and buffer programmed characteristic curves. You can see, store or delete programmed changes.

Online programming of characteristic curves
Via QDM you are able to program current characteristic curves of the welding machine directly online:

- In the welding mode, the data are transferred directly after value changes
- All characteristic curve parameters can be programmed in table form or graphically
- You can insert or delete data points
- All programmed changes are buffered

Online programming of current characteristic curve

Easy work with parameter groups
The QDM groups the parameters acc. to access levels. Thus you can easily select parameter groups for comfortable programming. The access levels are displayed in different colours and locked or released via the software HASP keys (then they are invisible for the users).

Offline programming of characteristic curves
Besides the online programming QDM also offers the complete offline programming without connection to the power source. The characteristic curves which were programmed offline can be applied by online welding power sources.

Operation and Premium Operation

Use the QDM to operate your welding machines. Simply select a welding power source on the screen and do all the adjustments via the screen mask. When the welding power source is faulty, it is displayed. Regardless of the QINEO® operating module you work with the Premium screen mask in QDM. When a SD module exists, the Premium operation is extended by the SD operation. The operating elements can be coloured on the screen.

Print characteristic curves...

When you wish to have the characteristic curves or parts of them as hard copy, simply print them. Click on Print to use the option Preview. The preview option allows to select certain pages with the requested characteristic curves to print or export them. The printout is made in tabular form.

... or export them

Beside printing you can also export characteristic curves or parts of them to different file formats - for example to mail them or to store them elsewhere. The format selection is made via the print options.
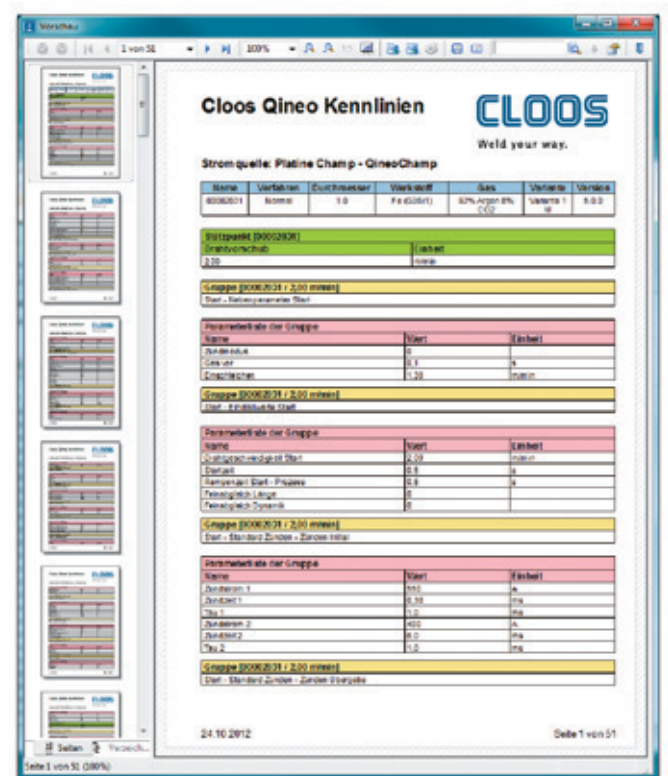
Weld Data Monitoring

A real time monitoring of the welding process allows direct reaction in the case that the real process data deviate from the necessary and adjusted parameters. Reaction can be made in two steps. In step 1, minor deviations, there is a message, welding process is continued. In step 2, major deviations, the welding process stops immediately. The limit values of both steps are individually programmed. The system stores the process data monitored by five monitoring channels for later evaluation purposes.

SD logbook administration and logbook viewer

Power sources with SD module generate daily logbooks on the SD card. Here the SD welding and error data are documented with the corresponding programming. Via a separate viewer you have access to the SD logbooks and can copy them to the PC or delete them in the machine. The logbook contents (active SD channels and SD errors) are displayed based to data set record. The SD data can be filtered - according to time stamp, component, job numbers or error criteria.

Print or export SD logbooks

You can also print the stored SD logbooks or export them into the most different file formats. For example, select the printer or the file format for data export via a dialogue field. The preview option allows to select certain pages with the requested data sets to print or export them. The printout is always made in tabular form.

Welding instruction (WPS)

The quality management in accordance with the European Norms (EN) supports the software QDM by creating and managing welding instructions (WPS, Welding Procedure Specification).

Welding instructions define the significant parameters for a weld and must be verified in the framework of the quality management. The software QDM supports you in creating and managing such welding instructions and offers a high level of flexibility and comfort.

- Created welding instructions can be centrally managed
- Data is recorded in accordance with European Norms (EN)
- The power source-specific parameters are aligned with the CLOOS QINEO® power sources
- The adjustment of a welding instruction to your own needs is possible
- A welding instruction can be output in different formats (print version, PDF, RTF, Microsoft XPS)

WPS data recording

The data for a welding instruction is recorded in a central dialogue.
Register pages in this dialogue group the data for a better overview. All data can be edited, however, in many cases selectable data is offered. Welding layers can be generated in any quantity.

Power source-specific data (basic data of characteristic curve, wire feed, corrections, arc length and dynamics etc.) of a welding layer can be adopted directly from the CLOOS QINEO® power source.
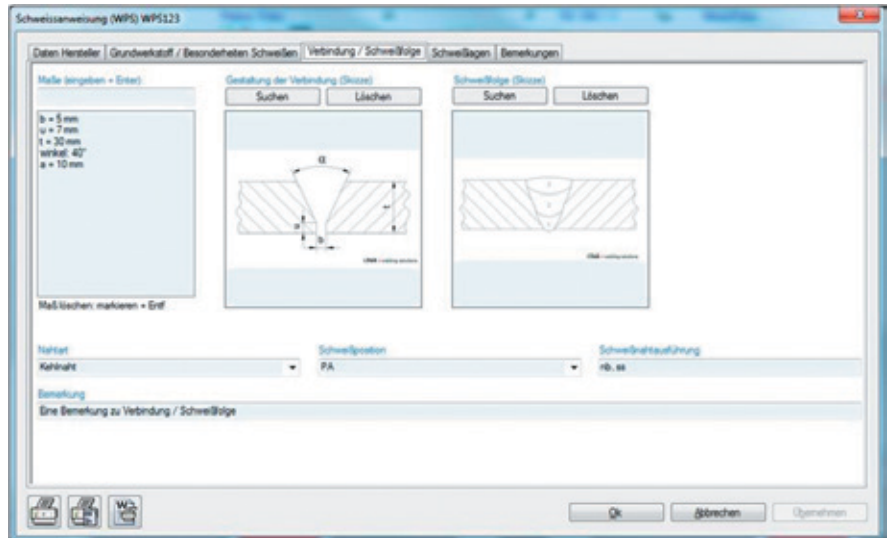
Edit WPS print layout

The print or export layout of a welding instruction is delivered by CLOOS with the software QDM. With a designer that is integrated into the software, the layout can be adjusted to meet your needs. Thus, the colour design of the layout can easily be adjusted to the company's corporate identity or the company logo can be inserted.

Original layouts can be defined as the standard layout or used as an alternative layout for printing a welding instruction.

Saving the print layout under any name
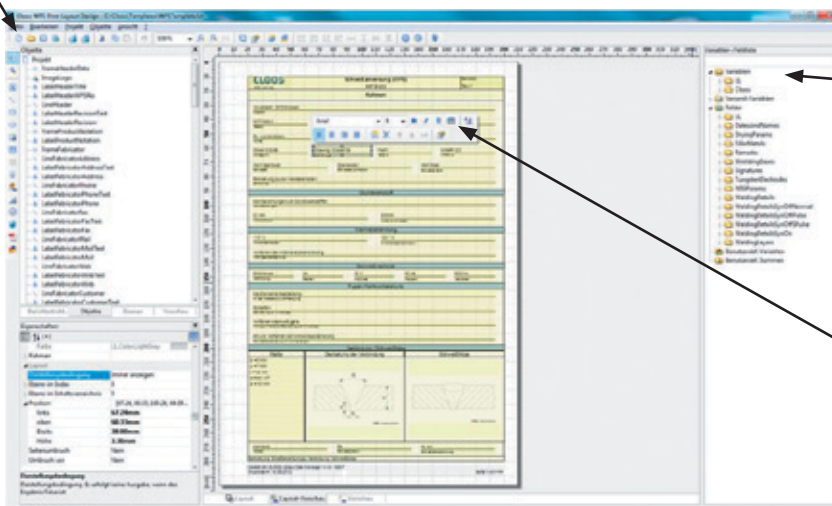
WPS data is transferred as variables and data tables

Edit and adjust print layout in a designer

Print / export WPS

The software offers a variety of options for the output of a welding instruction. There is a preview function and the output in different formats such as PDF, RTF or Microsoft XPS is also possible.

Page 1 of WPS form

| Revision: Rev 1 | Schweißanweisung (WPS) WPS123 | CLOOS Weld your way. |

Rahmen

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Anschrift

02773/85-0   02773/85-222   info@cloos.de   www.cloos.de
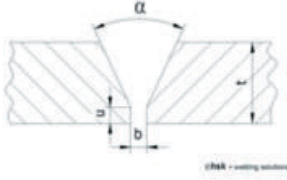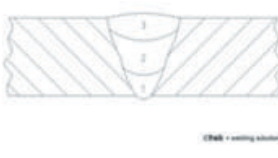Telefon   Fax   E-Mail   Internet

Fa. xyz München
Kunde

Order 123456   Drawing 123456789   Part 1   WPAR 123
Auftrags-Nr.   Zeichnungs-Nr.   Teile-Nr.   WPAR-Nr.

Herr Irgendwer   Oberwelder   Herr Boss
Schweißer   Schweißerqualifikation Schweißaufsicht

Bemerkung zu den Herstellerdaten
Bemerkung

Grundwerkstoff

Kennzeichnungen von Grundwerkstoffen
Kennzeichnungen

25 mm   55 mm
Werkstoffdicke   Außendurchmesser

Wärmebehandlung

110° C   120 °C
Vorwärmtemperatur   Zwischenlagentemperatur

Verfahren der Wärmenachbehandlung
Wärmenachbehandlung

Schweißmethode

Strichraupe   Ja   20 V   50 Hz   500 ms
Nahtführung   Pendeln   Amplitude   Frequenz   Verweilzeit

Fugen-/Nahtvorbereitung

Mechanische Bearbeitung
Art der Vorbereitung und Reinigung

Schleifen
Bearbeitung der Wurzellage

Verfahren des Ausfugens
Ausfugen (Verfahren)/Bearbeitung der Wurzellage

Art und Verfahren der Schweißbadsicherung
Schweißbadsicherung (Art und Verfahren)

Verbindung / Schweißfolge

Maße	Gestaltung der Verbindung	Schweißfolge
b = 5 mm u = 7 mm t = 30 mm winkel: 40° a = 10 mm		

Kehlnaht   PA   nb, ss
Nahtart   Schweißposition   Schweißnahtausführung

Bemerkung: Eine Bemerkung zu Verbindung / Schweißfolge

Erstellt mit CLOOS Qineo Data Manager V1.6.1.6234
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Seite 1 von 2

Page 2 of WPS form (partial)

	Verfahren
	Normal
	S-Pulse
	Pulse

	Markenname	Ausziehlänge Elektrode
	OK Tigrod 16.12	
	OK Tigrod 16.12	
	OK Tigrod 16.12	

	Durchflussmenge	Zeit vorströmen	Zeit nachströmen	Düsengröße
02	5 l/min	0,6 s	0,4 s	0,5 mm
02	5 l/min	10 s	10 s	0,5 mm
02	5 l/min	10 s	10 s	0,5 mm

	Stellung Brenner	Anstellwinkel	Abstand Kontaktdüse	Übergang Werkstoff
cm	senkrecht	90 °	5 mm	feintropfig
cm	senkrecht	90 °	5 mm	feintropfig
cm	senkrecht	90 °	5 mm	feintropfig

Synergie
Länge	Feinabgleich Dynamik
	-4

Expertenmodus S-Pulse
Pulszeit	Pulsspannung	Grundstrom
1 ms	25 V	250 A

Expertenmodus Pulse
strom	Grundstrom	Lichtbogenlänge
	250 A	20,5 V

		Datum / Freigegeben von
		27.04.2012 / K.Musterknabe
Unterschrift / Erstellt von	Unterschrift / Geprüft von	Unterschrift / Freigegeben von

Erstellt mit CLOOS Qineo Data Manager V1.6.1.6234
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Seite 2 von 2

13

Measurements

Quality management tasks include the measurement-related recording of a weld. With the software QDM, a variety of process variables can be recorded including current, voltage and wire feed, the motor currents of the wire feed units or the gas flow (depending on the sensorics on the QINEO® power sources). A measurement can be configured just as flexible as the display and output.

A weld can be recorded with all important measurement variables and parameters:

- Oscilloscope function during welding.
- It is possible to save a measurement and to subsequently load it.
- Measurement value recording approx. every 100 ms.
- Saving the measurement series in a csv format for easy export to Excel. Saving in xml is also possible.
- Automatic recording and saving of welds for all of the power sources connected to the software QDM can be configured in the background.

SD monitoring

If the SD monitoring for the power source is activated, the warning and limit thresholds for the respective channel can be displayed: SD set value, SD warning range and SD limit range. Thus violations of the warning or limit ranges can be easily recognised.

SD set value

SD warning range

SD limit range

Violation of the warning and limit ranges
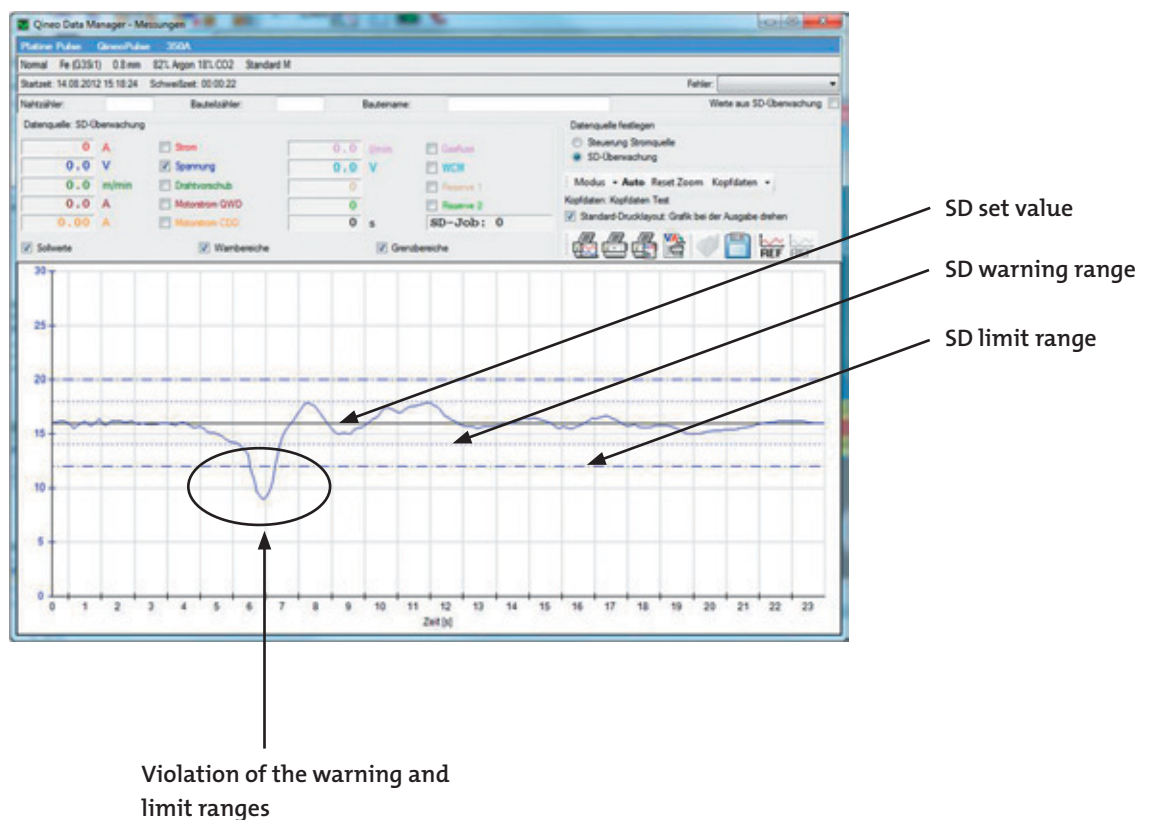
Reference measurements

Every weld can be saved under any name as a reference measurement. A reference measurement can be displayed in addition to a measurement that has already been displayed. Thus deviations of a measurement variable can be easily recognised.
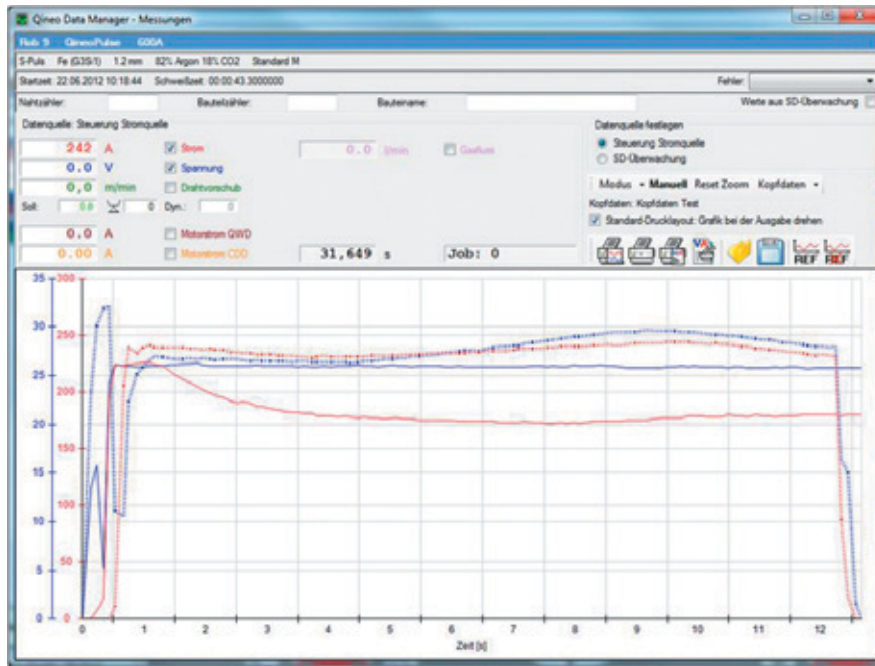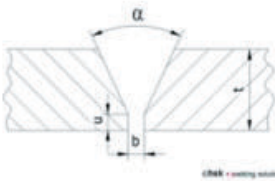

Pre-set weld data of a measurement

To create component-related weld data proofs, pre-set weld data can be created and allocated to a measurement:

- Personnel data
- Data component group and individual parts
- Filler materials
- Weld preparation and welding details
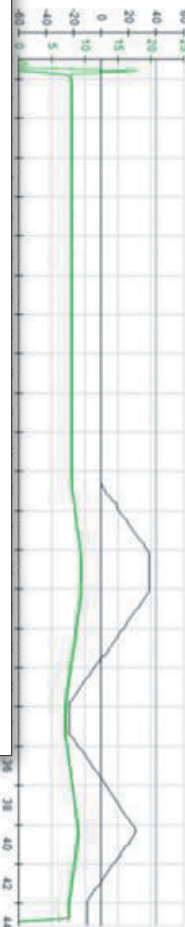
Weld data proof related to the component
Individual print layouts can be created for the component-related weld data proofs.
They can be defined as the standard layout or used as an alternative layout for
printing.

Bauteilbezogener Schweißdatennachweis — CLOOS — Weld your way

| Welder / Schweißer | | Oberwelder / Schweißaufsicht | |

Bauteildaten übergeordnete Baugruppe

| Bezeichnung Baugruppe / Bezeichnung | Material-Nr. Baugruppe / Materialnr. | Zeichnungs-Nr. Baugruppe / Zeichnungsnr. |
| Naht Nr. 1 / Nahtnr. | Schweißanweisung MSG / WPS-Nr. | Folgeplan-Nr. 1 / Schweißfolgeplan-Nr. |

Bauteildaten Einzelteile

Grundwerkstoff 1 / Grundwerkstoff 1

| Material-Nr. 1 / Materialnr. 1 | Zeichnungs-Nr. 1 / Zeichnungsnr. 1 | Max Dicke 1 / Max Dicke 1 | Min Dicke 1 / Min Dicke 1 |

Grundwerkstoff 2 / Grundwerkstoff 2

| Material-Nr. 2 / Materialnr. 2 | Zeichnungs-Nr. 2 / Zeichnungsnr. 2 | Max Dicke 2 / Max Dicke 2 | Min Dicke 2 / Min Dicke 2 |

Wurzellage + 2 Zwischenlagen + Decklage / Schweißlagen

| Vorwärmtemperatur / Vorwärmtemperatur | Zwischenlagentemperatur / Zwischenlagentemperatur |

Zusatzwerkstoffe

Schweißzusatz

| 0,8 mm / Durchmesser | Fe (G3Si1) / Bezeichnung | Hersteller Schweißzusatz / Hersteller | Markenname Schweißzusatz / Markenname |

Schutzgas

| 82% Argon 18% CO_2 / Zusammensetzung | Bezeichnung Gas / Bezeichnung | Hersteller Gas / Hersteller | Markenname Gas / Markenname |
| Durchflussmenge Gas / Durchflussmenge | 0,6 s / Zeit vorströmen | 0,4 s / Zeit nachströmen | Düsengröße / Düsengröße |

Nahtvorbereitung

Maße	Gestaltung der Verbindung	Schweißfolge
a = 10 mm		
b = 15 mm		
c = 20 mm		

| Beschreibung Oberfläche / Oberfläche | Kehlnaht / Nahtart | Ausführung Schweißnaht / Schweißnahtausführung | PA / Schweißposition |

Einzelheiten Schweißen

250 A / Strom	20 V / Spannung	=/+ Gleichstrom Elektrode / Stromart / Polung	7,9 m/min / Vorschub Draht
Normal / Verfahren	2-Takt / Betriebsart	0 (Kein Job aktiv) / Jobs	
Kontaktdüsenabstand / Abstand Kontaktdüse	Werkstoffübergang / Übergang Werkstoff	Brennerstellung / Stellung Brenner	Anstellwinkel / Anstellwinkel

Bemerkungen

Hier können Bemerkungen zu den Kopfdaten einer Messung stehen.

Datum / Erstellt von	Datum / Geprüft von	Datum / Freigegeben von
04.07.2012 / Welder	04.07.2012 / Oberwelder	04.07.2012 / Superwelder
Unterschrift	Unterschrift	Unterschrift

Erstellt mit CLOOS Qineo Data Manager V1.6.1.6097
Druckdatum: 14.08.2012

Seite 1 von 2

CLOOS — Weld your way

(Istwerte)

obs: 0

00:43.3000000
weißzeit

Bauteilname

[mm/in]
Soll [mm/in]
tbogenlänge
am k

Erstellt mit CLOOS Qineo Data Manager V1.6.1.6097
Druckdatum: 14.08.2012

Seite 2 von 2

Operating and cost data

The CLOOS QINEO® power sources record data such as the operating time, welding time, consumption of wire, gas and energy as well as the costs thereof. Via the QDM software, you can evaluate and process this data .

- Direct reset f the data sets is possible.

- With the help of the measuring function, the operating and cost data can easily be recorded related to time, e.g to shifts.

Measuring function:
- Time of a reset is set as the starting time.
- Time the dialogue is opened is set as the end time.
- Manual correction of the times is possible.
- Display of the measuring duration and the data for this period.

- When using the measuring function, the data sets cannot be reset on the power source but only via the QDM software.

Print operating and cost data

Printing the operating and cost data with the measuring points and the measuring duration.

Individual print layouts can be created for the operating and cost data. They can be defined as the standard layout or used as an alternative layout for printing.

Betriebsdaten Stromquelle		CLOOS
Platine Pulse QineoPulse 350 A		*Weld your way.*

Summenzähler	
Betriebszeit	930:05 Stunden
Schweißzeit	4:45 Stunden
Aktuelle Naht	22.0 Sekunden

	Datensatz 1	Datensatz 2
Schweißnähte	875	2

Verbrauchsdaten ab Reset		
Schweißzeit	5:04:20.9 Stunden	44.4 Sekunden
Draht	0,00 m	0,00 m
	0,000 kg	0,000 kg
Gas	0,0 l	0,0 l
Energie	9,520 kWh	0,015 kWh

Kostendaten ab Reset		
Draht	0,00 Euro	0,00 Euro
Gas	0,00 Euro	0,00 Euro
Energie	0,95 Euro	0,00 Euro

Messzeitraum		
Messung Start (letzter Reset über	17.07.2012 16:09:31	13.08.2012 12:15:41
Messung Ende	15.08.2012 08:27:56	15.08.2012 08:27:56
Messung Dauer	28.16:18:25	1.20:12:15

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Seite 1 von 1

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**

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