

Welding Systems

Everything needed for joining and heating for collision damage repair



CAR-O-LINER®

Our Vision

Car-O-Liner strives to be the global leader in workshop solutions for vehicle repair and maintenance

Our Mission

Car-O-Liner is dedicated to creating substantial value through leading edge concepts, technic and information that enable customers to improve their operations.

Our Solutions - the only choice for safe repairs

Car-O-Liner™ is the leading global provider of high-quality, technologically-advanced collision repair equipment to the automotive aftermarket. For more than forty years, we have supplied the industry with innovative solutions, technical development, training and customer support. Over 55,000 Car-O-Liner collision repair systems are in use world-wide.

Car-O-Liner solutions include:

- Computerized and mechanical measuring systems
- Comprehensive vehicle measurement data
- Alignment benches and frame pulling equipment
- Vehicle anchoring systems
- Spot and MIG/MAG welding systems
- Workshop organization and inventory control solutions
- Training and knowledge in modern collision AND SMART repair provided by Car-O-Liner Academy

Grow your business with our integrated solutions

All of our systems and solutions are well known for their high quality, advanced technology and ergonomic design. By integrating our solutions with each other you will not only get a flexible, universal collision repair system but will also be able to support the entire vehicle repair process thereby reducing cycle times and increasing performance and profits.

Car-O-Liner is based in Sweden with the head office located in Gothenburg and manufacturing operations in Kungsör. Subsidiaries are located in Sweden, Norway, the USA, the UK, France, Germany, Singapore, India and China and distributors can be found in more than 70 countries worldwide



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Spot Welder CTR7

Solid, Mid-range spot welder

CTR7™ Resistance Spot Welder, Car-O-Liner's new generation welding machine, provides quality spot welds with all the new high-strength steels using cutting edge inverter technology. A wide range of accessories and sophisticated software with semi-automatic control features guarantee perfect welding results.



- **Innovative design** with low center of gravity for increased safety and easy handling
- **Greater working range** – transformer gun technology
- **Flexible, aluminium, telescopic support arm** – with integrated balancer (optional)
- **Powerful** – with welding currents up to 12,000 Amps
- **User-friendly** – Sharp, easy-to-navigate, 7" colour screen
- **Water cooled** – with a large 20l tank
- **Weldlogger** – Documentation and registration of welding data via PC and USB (optional)

Optional Accessories:

Electrode Arm Kit Article Nr. 46172



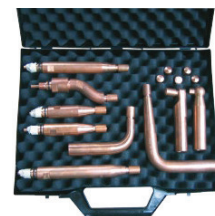
C-Yoke, 40 mm throat depth, air cooled



C-Yoke, 350 mm throat depth, water cooled



C-Yoke, 500 mm throat depth, water cooled



Accessories case, electrode set and 13mm caps.

The CTR7 includes the following:



C-Yoke, 80 mm throat depth, water cooled

CTR7	Article No.	Qty.
400V	45240	1
Balancer arm	44962	1
Electrode arm kit	46172	1

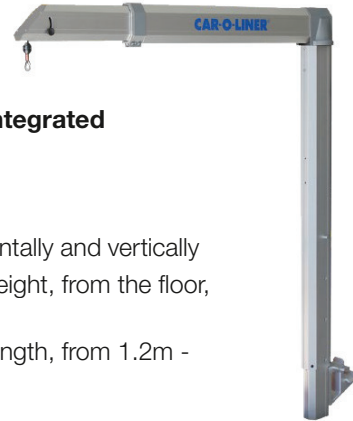
*More spare parts and accessories shown on pages 23-26

CTR7 Resistance Spot Welder

Technical Data

CTR7 Spot Welder	
Max. power:	75kVA
Fuse (delayed action):	16-32 A
Protection type:	IP21
Insulation class:	F
Compressed air supply:	5-10 bar (72-145 PSI)
Power unit for transformer gun (10 KHZ)	
Output current:	0-200 A
Output voltage:	560V
Cooling	
Cooling power:	1000W
Tank capacity:	20 l (5.3gal)
Flow rate:	2 l/min (0.53 gal)
Configuration	
Dimensions (HxWxD) approx. (without support arm)	1130 x 650 x 930 mm (44.5 x 25.5 x 36.5 in)
Approx. weight: (without support arm)	92 kg (202 lbs)
Technical data transformer C- Gun Connection Data	
Primary voltage / Frequency:	560V/10 kHz
Primary power: (100% duty cycle):	20kVA
Protection type:	IP21
Insulation class:	F
Cooling type:	Liquid Cooled
Welding Circuit	
Welding amperage:	10,000 A (Current Controlled)
Max. output amperage:	12 000 A
No-load voltage:	12.5 VDC
Mechanical Data	
Electrode force:	0 - 500 daN (0 - 1124 lbf)
Weight, with 80mm yoke, ca:	11 kg (24 lbs)
Cable length:	6 m (19.7 ft)

Optional Accessories



Support arm with integrated balancer block.

Art. Nr. 44962

- Telescopic horizontally and vertically
- Adjustable arm height, from the floor, 1.9 - 2.4m
- Adjustable arm length, from 1.2m - 1.55m

Complete Set Spotter/Dent fixer

Art. No. 41888

Consisting of: multifunction spot welding gun for dent repairs, pulling, shrinking and push-spotting, including pulling hammer, workpiece cable with connector, 2,500 mm ground cable & accessories box.



WeldLogger

Art. No. 36590 (Optional)



- PC and machine software for documentation and registration of welding data
- Records welding current, time, date, program and result
- Creates work orders
- Saves welding data with print out possibilities via USB

Spot Welder CTR12000

Totally Automatic Spot Welding Machine

Fully automatic process-regulated, multiple function spot welding machine with medium frequency inverter operation and liquid cooling. Designed for vehicle body repair, particularly for components made of high or maximum strength steel and also coated or laminated steel panels.

- **Automatic recognition** of total material thickness via Pulse-Sonar-System
- **Automatic recognition** of material type via Virtual Generator
- **Automatically establishes required settings** to ensure the proper weld nugget
- **Advanced quality control system** that monitors and adjusts the welder to guarantee the total energy input
- **Extremely powerful** with welding current up to 12,000 Amps
- **Greater Power Efficiency** via the 10 kHz Transformer C-Gun
- **Completely liquid-cooled** welding, from the power module all the way to the caps, providing a greater Duty Cycle
- **Easily upgraded** via convenient USB port
- **Reproducible** welding quality
- **Welding data documentation** with the use of WinSpot QS-Software



CTR12000 with support arm and balancer block
Art. No. 43578 (optional)



Virtual Machine -

Programmable Intelligence

The term "Virtual Machine" refers to the innovative control technology. The integrated quality assurance management system monitors the joining process from end to end; starting with a definition of the initial weld situation, monitoring and adjusting through the weld, and ending with the completion of the weld. The system can recognize and adjust for specific situations such as bonding material and shunt effect.

CTR12000	Article No.	Qty.
400V	43000	1
220/230V	43466	1
208V	43465	1
460V	43467	1
400V BMW	43801	1
220/230V BMW	43803	1
208V BMW	43802	1
460V BMW	43804	1
400V VAS	44310	1
220/230V VAS	44312	1
208V VAS	44311	1
460V Vas	44313	1

CTR12000 Resistance Spot Welder

Technical Data

Spot Welder CTR12000	
Max voltage	3 × 400V 50Hz*
Max power	75 kVA
Fuse (delayed action) 16-32 A *	16-32A
Protection class	IP 21
Insulation class	F
Compressed air supply	8 bar
Power unit for transformer gun	(10 KHZ)
Output current	0-200A
Output voltage	560V
Cooling	
Cooling power	1000 W
Tank capacity	20l
Flow rate	6 l/minute
Configuration	
Dimensions(H × W × D) approx.	1220 × 680 × 800 mm
Weight approx. **	95 kg
Technical data transformer C-Gun Connection data	
Primary voltage / frequency	560V/10 kHz
Primary power (100 % duty cycle)	20 kVA
Protection class	IP 21
Insulation class	F
Cooling	Water
Welding circuit	
Welding current	12 kA
No-load voltage	12,5V DC
Mechanical data	
Electrode force	0-5 kN
Weight (dep. upon fitting) approx.	11 kg
Cable length	6 m

* Recommendation 32A (delayed action)

**With the C-80 Yoke. Weight varies with yoke sizes

Optional Equipment

Multifunction Gun Kit

Art. No. 41888



The Multifunction Spot Welding Gun connects quickly and easily to the CTR12000 C-Gun. The kit includes the MF Gun and Ground Cable, Accessory Box, Slide Hammer, and MF Gun Holder.

CTR12000 includes the following:*



C-Gun 40 mm,
air-cooled



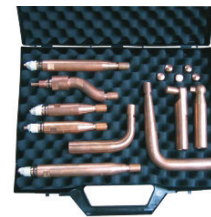
C-Gun 80 mm,
water-cooled



C-Gun 350 mm,
water-cooled



C-Gun 500 mm,
water-cooled



Electrode Set

Optional Accessories

Support Arm with Tool Balancer

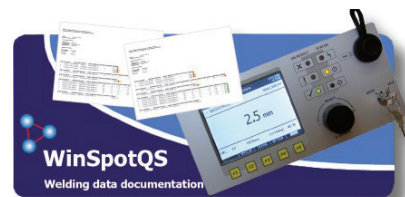
Art. No. 43578



Welding Data Documentation

Art. No. 41943

WinSpotQS is a documentation software program that records weld data and generates reports on the repair



process. Users can create multiple repair orders at one time, record data, store the information and add additional repair order information if desired.

*More spare parts and accessories shown on pages 23-26

Induction Heaters

CH37 & CH100

Torchless Heating Solutions

The advantage of using induction technology is that there is no open flame. The high power CH37 can be used in the same way as a gas torch, but without destroying nearby parts. There are 5 power levels together with a unique regulation and control system to avoid overheating. The CH100 is a robust - 10 kW! - and ergonomically designed induction heater. Despite its compact size, the CH100 is a highly powerful, adjustable machine which can be used in a variety of applications, for example for the warming of heavier machine parts such as bolts, nuts and wear rings so that they quickly and easily detach — saving you time and effort in the workshop.



Technical Data

	CH37	36563	CH100	45330 400V 45331 200 V
Input voltage	208-240V 50-60 Hz, single phase, 16A (USA 20A)		380-400V, 3Ph+PE, 50-60 Hz, 16A 200 V, 3 Ph+PE, 50/60 Hz, 32A	
Protection class	IP21		IP21	
Working frequency	18 - 40 kHz		14 - 30 kHz	
In effect - main supply power	4 kW		11 kW	
Induction power	3.7 kW		10 kW	
Induction cable	3 m long		6 m long	
Cooling system	Water (decalcified)		Water, decalcified	
Weight	34 kg		105 kg (with full tank)	
Water tank	20 liter		35 liter	
Continuous operating time	20 minutes (at 20°C room temperature and max. effect)		40 minutes (at 20°C room temperature and max. effect)	
Measurements	40 x 35 x 100 cm		76 x 56 x 117 cm	
Accessories				
High-tech fluid 3L (concentrate)	33944		33944	
High-tech fluid 5L (ready to use)	36671		36671	
Straight induction head	39591			

- **Safe** — no open flame
- **Secure** — Will not damage nearby heat sensitive parts
- **User friendly** front panel with five power control levels
- **Versatile** — heats through rubber or plastic
- **Total control** — warms only where the technician desires
- **Effective cooling** — fan and condensor package in enclosed water-cooling-system

See accessories on Page 22

Riveting Tool PNP90

Universal Riveting System

Car-O-Liner's new PNP90 riveting tool is the perfect solution for completing all common riveting operations in thin sheet metal structures.



• **Universal** - allows for attachments for various applications:

- Riveting
- Punching
- Pressing Out
- Calibrating

• **Highly efficient** - pressure ratio of 100:1

• **Precise control** over strength of impact

• **Sturdy construction** with low maintenance

Item	Article No.	Qty.
Basic Kit PNP90 UN 2.0	45704	1
Includes:		
Pressure intensifier PNP90		1
Hydraulic gun HP 35 UN		1
Rivet clamp NB 40		1
<ul style="list-style-type: none"> • Length x Width x Height - 106x45x159 • Weight - 1.5 kg • Width, clamp opening - 80 mm • Depth, clamp opening - 40 mm 		
Riveting tool kit UN 2.0		
<ul style="list-style-type: none"> • Setting/closing head 3 mm rivet • Setting/closing head 5 mm rivet • Setting/closing head, flow form rivet • Punch and calibration mandres/die • Replacement elastomer rings • Set of mounting tools • Spacing adapter 		1
Locking bolts		2

Technical Data

Pump PNP 90 UN 2.0	
Length x Width x Height (without hoses, incl. handle)	330 x 230 x 213 mm
Weight (without hoses)	8 kg
Max input pressure	6 bar / 87 PSI
Max operating pressure	600 bar
Hydraulic gun HP 35 UN	
Length x Width x Height (including handle)	246 x 50 x 105 mm
Max operating pressure	600 bar
Travel	15 mm
Accessories (Optional)	
Rivet Clamp NB115	45711
Rivet Clamp NB230	45712



Rivet Clamp NB 115



Rivet Clamp NB 230

See accessories and spare parts on on Page 22

Plasma Cutter

The Plasma Cutter, using inverter technology, guarantees accurate and clean plasma cuts up to 10mm in thickness.

Easy to handle and operate, this system is suitable for cutting thin materials at high speed. The front panel provides clear and simple graphics for the adjustment of the cutting current.



Item	Article No.	Qty.
Plasma Cutter	46553	1
Consisting of		
Power source, supply cable and torch TO400P, complete with grounded cable		
Spare parts		
Electrode E35	46548	10
Diffuser DIF35	46549	2
Conical tips CA35	46550	10
Nozzel box UG35	46551	2
Space box DIS35	46552	4

Technical Data

Input voltage	230V 50 - 60 Hz 1-ph
Absorb power	60%, 3.5 KVA
No-load voltage	350V
Fuse	16A
Current range	5-30A
Cutting current	35%, 30A
Cutting depth on steel class	10 mm
Air pressure	5-5.5 bar
Compressed air capacity	100 l/min
Weight	11 kg
Dimensions (LxWxH)	220 x 400 x 220
Protection Class	IP22

Spotter CR35

The CR35 is a sophisticated microprocess controlled spotter for welding and traction of all studs, nails, washers, rivets and bolts.



Start Kit

Item	Article No.	Qty.
Spotter CR35 230V 50-60 Hz 1-ph	33434	1
Consisting of		
Power source with 2.5 m (8.2 ft) power cable, multi-function torch, ground cable, dent puller and Start Kit		



Technical Data

Input voltage	230 V, 50 - 60 Hz 1-ph
Rated power at 50 %	2 kVA
Max power	16 kVA
Fuse rating (slow blow)	16A
Secondary no-load voltage	7V
Secondary short circuit current	2,8 KA
Duty cycle	5%
Dimensions W x L x H	130 x 300 x 150 mm
Weight	14 kg

Aluminum Spotter/Workstation

The aluminum spotter is uniquely designed for aluminum repairs. Use on aluminum or steel to quickly attach studs for dent pulling, grounding, or accessories. The high tech discharge process creates the weld without damaging heat sensitive aluminum parts.

The aluminum workstation is designed to provide a solution for aluminum auto body repairs. Avoid galvanic corrosion by keeping your tools separate. With this dedicated tool storage you will reduce the possibility of cross-contamination with steel particles.



Aluminum Spotter



Aluminum Work Station

The unique advantage of the Aluminum Workstation comes from the design of the tools included. The dent pulling bars are constructed of light weight carbon fiber making them super light and 3 times stronger than steel! These exclusive tools offer the advantage of ease of use without compromising the strength of the tool.

Item	Article No.	Qty.
Aluminum Spotter 230V 50-60 Hz 1-ph	46534	1
Consisting of		
Power source with 2 m power cable (with EU plug), spot gun with 4 m cable, 3 m grounded cable		

Technical Data

Input voltage	230V, 50-60 Hz 1-ph
Absorbed Power	0,6 kw
Fuse (slow blow)	16A
Weight	8 kg
Dimensions (LxWxH mm)	320 x 150 x 220

Item	Article No.	Qty.
Aluminum Wokstation	46539	1
Consisting of		
Mobile cart with shelving, tool board & work area		1
Aluminum spotter, 230V		1
Carbon Fiber Pull Bar, dent pulling system with 6 jaws.		
- 50 cm (20")		1
- 100 cm (41.5")		1
- 160 cm (67.5")		1
Fast Puller for Carbon Fiber Pull Bar		1
Hand Puller		1
Aluminum Hammers, professional grade		4
4 mm screws, M4x16mm AISi12 (Box 100)		3
4 mm screws, M4x16mm AIMg3 (100/Box)		3
Threaded pull washers (20/Box)		2

Spot Drill Kit

Easy drilling with an automatic system.



The depth can be easily regulated by means of the red positioning ring and checked by moving the counter-stay backwards. With the yoke fitted, the drill moves automatically towards the spot welds when the trigger is depressed to the half-way position



Drill bits B.O.R



Drill bits HSS



Oil B.O.R

Item	Article No.	Qty.
Spot Drill Kit	32686	1
Adapter Kit Spot Drill	32948	1
>Bushing	32885	1
>Drill support	32886	1
Drill 45 x 8 mm	32863	5
Drill 45 x 10 mm	33276	1
Drill bits B.O.R 3/paket	33939	3
Drill bits HSS 5/paket	33940	5
Oil B.O.R	33941	1

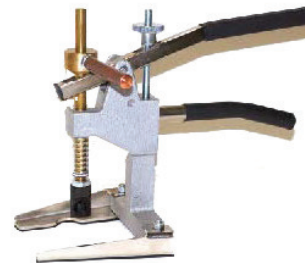
Technical Data

Speed	1800 rpm
Drill diameter	8 mm
Air intake	1/4"
Working pressure	6,2 bar
Vibration level	0,27 m/sec (ISO 8862 - 1)
Air consumption	230 liter/min
Weight	2,3 kg

Dent Puller

Hand-operated dent puller kit.

Item	Article No.	Qty.
Dent Puller	39638	1



CMI3000II MIG/MAG Welder

The CMI3000II is the latest generation of MIG/MAG welding machines. Combining simplicity with state-of-the-art technology, the CMI3000II is a versatile, upgradable MIG/MAG welding machine using flash-card and inverter technology. It has been developed for use in light industrial applications and for modern car body work where heavy demands are placed on the shop to continually adjust their processes to ensure high quality welding operations.

The intelligent, versatile MIG/MAG machine for sheet metal welding and MIG brazing.



Remote control using the MIG-A Twist® welding torch

- **Compact** – easy to use
- **Matches new materials** and individual user-patterns in all welding environments
- **Synergy program** decreases the risk of error
- **MIG-brazing** for galvanized steel
- **4- wheel drive** with sure-grip
- **Energy saving** – standby (30 W) saves energy, decreases CO₂ emissions and increases the lifetime of the machine

Technical Data

Art. No. 34556 CMI3000II, 400V	
Input voltage	3 x 400 V (3 x 230V - 500V)* 50-60Hz
Fuse	16A
Effective mains current	15.7 A
Current range DC	15 - 300A
Duty cycle 20°	300A/100%
Duty cycle 40°	270 A/100%
Duty cycle 40°	300 A/80%
Open circuit consumption	40W
Mains voltage max	18.1 A
Efficiency rate	0.85
Power factor	0.90
Open circuit voltage	69-76 V
Application class	CE, S
Protection class	IP23
Norm	IC60974 -1, -2, -5, -10
Dimensions L x W x H	92.5 x 52.4 x 90.6 cm
Weight (incl. supply cable)	58 kg
* Configured with auto transformer	

Item

Item	Article No.
CMI3000II 3 x 400V Programmable for GM/PSA ML240, Twist R, 4m, 1.0 ALU nozzle	34556
CMI3000II 3 x 230-500V Programmable for GM/PSA ML240 Twist R, 4m, 1.0 ALU nozzle (Configured with autotransformer)	34558

Accessories

Accessories	Article No.
Aluminium wire	
AlMg 5 1,0mm 2 kg	35178
AlMg 5 1,0mm 6 kg	34344
Galvanized wire	
SG1 0,8mm 5 kg	34345
SG1 0,8mm 15 kg	34346
MIG-brazing wire PSA	
CuAl 8 1,0 mm 5 kg	34049
MIG-brazing wire GM	
CuSi 3 1,0mm 5 kg	34202
Gas regulator 30l	34203
Adapter for 5 kg reel	33509

CMI183, CMI223 & CMI273

The CMI-welders are compact, fully digitised welding machines with synergic, preset welding programs and automated functions. The machines are designed for modern materials used in the auto business and meet the increasing demands for joining materials. The CMI273 Pulse version provides Auto-pulse technology for advanced pulse welding of aluminum. With the Twin models you can efficiently switch between key materials!



Technical Data

	CMI183 & CMI 183 Twin	CMI223 & CMI223 Twin	CMI273 & CMI273 Twin
Input Voltage +/- 15%	3 x 400V	3 x 400V	1 or 3 x 230V (200-440V)
Fuse	10 A	10 A	10 A
Duty Cycle 100% at 40°C	115/19.8	165/22.3	175/22.8
Duty Cycle 60% at 40°C	125/20.3	175/22.8	205/24.3
Duty Cycle 100% at 20°C	160	220	230
Duty Cycle 60% at 20°C	180		245
Current Range, A	15-180 A	5-230 A	15-270 A
Protection Class	IP23S	IP23S	IP23
Norm	EN/IEC 60974-1/5/10		
HxWxL, cm Single	66x38x79	66x38x79	55x25x64
HxWxL, cm Twin/Duo	96x60x85	96x60x85	96x57x87
Weight, Single	26.2 kg (56 lbs)	26.5 kg (56 lbs)	26kg (58 lbs)
Weight, Twin/Duo	41.2 kg (90 lbs)	41.2 kg (90 lbs)	55 kg (124 lbs)

MIG/MAG Welders CMI183, CMI223 & CMI273



- *Digital synergic control panels — Switch On - Press - Weld!*
- **Pulse** — for advanced pulse welding and pulse brazing of high-tensile steel
- **MIG-brazing** — for galvanized steel
- **Twin versions** — for easy switch-over between welding and brazing operations



Item	Article No.
CMI183 3 x 400V	46444
CMI183 Twin 3 x 400V	46445
CMI223 3 x 400V	43799
CMI223 Twin 3 x 400V	43800
CMI273 3 x 400V	46446
CMI273 Twin 3 x 400V	46442
CMI273 Pulse 3 x 400V	46448
CMI273 Pulse Twin 3 x 400	46450

Accessories	Article No.
Wire feed kit 0,6	44746
Aluminum wire	
AlMg 5 1,0mm 2kg	35178
AlMg 5 1,0mm 6kg	34344
Galvanized wire	
SG1 0,8mm 5kg	34345
SG1 0,8mm 15kg	34346

MIG-brazing wire PSA	
CuAl 8 1,0mm 5kg	34049
MIG-brazing wire GM	
CuSi 3 1,0mm 5kg	34202
Gas regulator 30l	34203
Adapter for 5kg reel	33509

CONTENTS PER MODEL

Model	Gun and hose	Wire leads	Wire feeder
CMI183 3 x 400V	ML150 Twist R 4m 0,8 nozzle	Steel 0.8-1.0 Blue	V-0.8
CMI183 Twin 3 x 400V	ML240 Twist R 4m 0,8 nozzle ML240 Twist R 4m 1,0 ALU nozzle	Steel 0.8-1.0 Blue Teflon 1.2 - 1.6	V-0.8 U-1.0
CMI223 3 x 400V	ML150 Twist R 4m 0,8 nozzle	Steel 0.8-1.0 Blue	V-0.8
CMI223 Twin 3 x 400V	ML240 Twist R 4m 0,8 nozzle ML240 Twist R 4m 1,0 ALU nozzle	Steel 0.8-1.0 Blue Teflon 1.2 - 1.6	V-0.8 U-1.0
CMI273 3 x 400V	ML240 Twist R 4m 0,8 nozzle	Steel 0.8-1.0 Blue	V-0.8
CMI273 Twin 3 x 400V	ML240 Twist R 4m 0,8 nozzle ML240 Twist R 3m 1,0 ALU nozzle	Steel 0.8-1.0 Blue Teflon 1.2 - 1.6	V-0.8 U-1.0
CMI273 Pulse 3 x 400V	ML240 Twist R 4m 1,0 ALU nozzle	Teflon 1.2 - 1.6	U-1.2
CMI273 Pulse Twin 3 x 400	ML150 Twist R 4m 0,8 nozzle ML240 Twist R 4m 1,0 ALU nozzle	Steel 0.8-1.0 Blue Teflon 0.8 - 1.0	V-0.8 U-1.0

MIG/MAG CMI161 & CM193

Quality MIG/MAG Welders for the Automotive Industry



CMI161

The CMI161 is a handy, portable & versatile welding machine. It is designed as a compact multiprocess machine, primarily for MIG welding but also for the MMA welding process; a modern mono-phase 230V inverter machine suitable for workshop use and site welding operations.



CM193

Technical Data

	CMI161	CM193
Input voltage	230V 50-60 Hz 1-ph	230V/400V 50-60 Hz 3-ph
Fuse	16A	10A
Current range	20-160A	20-180A
Open circuit voltage	90V	14-30V
Duty cycle 100%	(MIG 20°C) 135A	
60 %	145A	85A
40 %	160A	
35 %		110A
Voltage steps	Stepless, synergic	7
Wire dimensions	0,6-0,8 mm	0,6-0,8 mm
Wire reel dimension	5 kg	5-15 kg
Wire reel speed	Synergic	2-12 m/min
Dimensions L x W x H	45 x 23 x 37 cm	72 x 38 x 70 cm
Weight	13 kg	57 kg
Torch with remote control	ML150 Twist R 3m, 0,8 mm	ML150 Twist R 3m, 0,8 mm

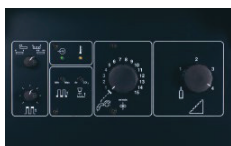
MPS System für CM193:

Spot weld time	0,15-2,5 sec
Stitch time	0,15-2,5 sec
Burn back time	0,05-0,5 sec

Functions

MPS (spot/stitch)	x
Tool tray with rubber mat	x
Remote control for the torch	x
Torch holder	x

MIG/MAG Welders CMI161 & CM193



MPS automatic spot and stitch welding



Torch holder



Protective rubber mat for tools



Remote control for the torch

Item			Article No.	Qty.
CMI161	230V	1-ph 160A	46443	
CM193	230V/400V	3-ph 180A	33275	
CM193	400V	3-ph 180A	36828	

Consisting of

Power Source		1
MPS automatic spot and stitch welding		
Feed rolls 0,8-1,0 mm steel wire		
Torch holder		1
Tool mat in rubber, on top of machine		1
CM193		
Torch with remote control ML150F		1
CMI161		
Torch with remote control PL250F		1

Accessories

ALU-kit for CM	33495	1
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Consisting of:

Feed roll ALU 1,0 mm		1
Teflon wire guide liner 1,0 mm		1
Contact tip 1,0 mm		1
Gas Nozzel		1

To CMI161 & CM193

Hose package with remote PL150F 3 m 0,8 mm	33070	1
Hose package with remote PL250F 3 m 0,8 mm	33072	1
Hose package with remote PL250F 3 m 1,0 mm ALU	33073	1
Gas regulator 15 l	34203	1

Aluminum wire

AlMg 5 1,0 mm 2 kg	35178	1
AlMg 5 1,0 mm 6 kg	34344	

Galvanized wire

SG1 0,8 mm 5 kg	34345	1
SG1 0,8 mm 15 kg	34346	1
Adapter for 5 kg	33509	1
Feed rolls 0,6-0,8 mm steel wire	35262	1

Torch

Wire guide liner steel for 0,8-1,2 mm wire	33128	1
Wire guide liner teflon for 1,0 -1,6 mm ALU wire	33129	1
Cone-shaped welding gas nozzle PL150	33126	1
Cone-shaped welding gas nozzle PL250	33127	1
Locking spring for gas nozzle	39736	1
Contact tip Ø 1,2 × 28 mm M6 ECU	33131	1
Contact tip 1,0 × 28 mm M6 ECU	35260	1
Contact tip 0,8 × 28 mm M6 ECU	33130	1
Contact tip 0,6 × 28 mm M6 ECU	33258	1

Spare parts, Supplies and Accessories

Spot Welders



Support arm

Tool panel



600-yoke



80-yoke



330-yoke



330W LP-yoke



80W HP-yoke

C-tong holder
CR500 DA +
HP/W

Bypass device

Item	Article No.	Qty.
Accessories for:		
CR300, CR500, CR500 DA, CR510, CR530		
Cable support complete	32254	1
> Cable holder	32379	1
> Band	32255	1
> Plastic roller	32239	1
Tool panel with rubber mat	32253	1
CR100, CR300, CR500, CR500 DA, CR510, CR530		
600-yoke kit	32266	1
>Yoke 600	32187	1
>Electrode 50, domed	31065	1
>Electrode 170, domed	32951	1
CR100, CR300, CR500, CR500 DA		
80-yoke	31980	1
330-yoke	31981	1
CR510, CR530c		
80W HP-yoke	34432	1
330W LP-yoke	42117	1
C-tong parts for:		
CR100, CR300, CR500,		
C-tong holder	33184	1
Yoke locking handle	33086	1
CR500 DA, CR510, CR530		
C-tong holder DA + HP/W	34702	1
CR100		
C-tong incl. cables 185 mm ²	33189	1
C-tong cable 185 mm ²	33190	1
CR300, CR500		
C-tong inc. cables 240 mm ²	33096	1
C-tong cable 240 mm ²	33098	1
C-tong without cable	35563	1
CR500 DA		
C-tong DA incl. cables 240 mm ²	34704	1
C-tong cable DA 240 mm ²	34762	1
CR510, CR530c		
C-tong HP/W incl. cables 240 mm ²	34832	1
C-tong cable HP/W 240 mm ²	34476	1
C-tong HP/W without cables	35562	
By-pass connection	34889	1

Spare parts, Supplies and Accessories

Spot Welders



Fender Edge Kit



Electrode tip dresser (manual)



Electrode tip dresser spherical and 120°

Electrodes, lengths:
40 60 80 100 120 140



> Electrode inside 30°

> Electrode outside 30°

Electrodes, lengths: 120°
140 120 100 80 60 40



Item	Article No.	Qty.
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Fender edge kit	32228	
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CR100, CR300, CR500, CR500DA, CR510, CR530c

Consisting of:

1. Fender edge yoke	32189	1
2. Electrode holder, length 80 mm/ 45°	32191	1
3. Electrode holder, length 80 mm	32190	1
4. Electrode holder, length 80 mm/ 45°	32194	1
5. Electrode, length 20 mm	31066	1
6. Electrode, length 80 mm Ø 13	32193	1
7. Electrode, length 80 mm Ø 13 / 45°	32195	1
8. Electrode washer	32192	1
9. Electrode S	31061	1

Tip Dresser

CR100, CR300, CR500, CR500DA

Electrode tip dresser (manual)	32410	1
Electrode tip dresser spherical for drill tools	33634	1
Blade, spherical for drill tools	33636	1
Electrode tip dresser complete 120° for drill tools	33635	1
Blade, 120° for drill tools	33637	1

Spare parts for C-tong, C-tong DA; Electrode parts för CR100, CR300

Electrode, length 40 mm spherical	31060	1
Electrode, length 60 mm spherical	31059	1
Electrode, length 80 mm spherical	31058	1
Electrode, length 100 mm spherical	34623	1
Electrode, length 120 mm spherical	34624	1
Electrode, length 140 mm spherical	34625	1
Electrode kit 30° (inner and outer)	32715	1
> Electrode inner 30°	32672	1
> Electrode outer 30°	32673	1

CR300, CR500, CR500 DA

Electrode, length 40 mm 120°	33517	1
Electrode, length 60 mm 120°	33518	1
Electrode, length 80 mm 120°	33519	1
Electrode, length 100 mm 120°	33520	1
Electrode, length 120 mm 120°	33521	1
Electrode, length 140 mm 120°	33522	1
Electrode insulation nozzle	34018	1

Spare parts, Supplies and Accessories

Spot Welders



Cap holder 40

Cap holder 60

Cap holder 80

Cap holder 100

Cap holder 120

Cap



Wire electrode



Wrench



Crimped wire



Contact tip



Item	Article No.	Qty.
Electrode Parts		
CR510, CR530c		
Cap holder 20 mm	35161	1
Cap holder 40 mm	34885	1
Cap holder 60 mm	34888	1
Cap holder 80 mm	34886	1
Cap holder 100 mm	34887	1
Cap holder 120 mm	34897	1
Caps 10 pcs.	34921	10
CR35 Start Kit		
35139	35139	1
Electrode holder	34634	1
Carbon rod, 10 mm diameter	32322	2
Stud holder, 5 and 6 mm diameter	32318	1
Rivet holder, 3 och 5 mm diameter	32319	1
Stud, M6 x 20 (grounded)	31068	50
Stud, M5 x 18, coarse thread	31067	100
Clip rivets 3 x 4,5 mm	32506	100
Clip rivets 3 x 3,2 mm	31070	100
Crimped wire	32223	50
Contact tip	35474	1
Plastic box	35476	1
Wrench	35475	1
Wire electrode	35473	1



Basic Kit*

Electrode holder

Electrodes, lengths 40 & 80

Contact tip for dent puller

Electrode, length 50, domed

Carbon rod, 10 mm

Allen Key

Stud, M5 x 18

Stud, M6 x 20

Stud holder

Shrink electrode

Rivet holder

















Ground knob

Rivets 3.2 & 4.2

Item	Article No.	Qty.
Basic Kit*		
32315	32315	
Electrode holder	34634	1
Electrode, length 40	31060	2
Electrode, length 80	31058	1
Contact tip for puller	32504	2
Carbon rod, 10 mm diameter	32322	2
Stud holder, 5 och 6 mm diameter	32318	1
Rivet holder, 3 och 5 mm diameter	32319	1
Shrink electrode	32320	1
Electrode, length 50 mm, domed	31065	1
Stud, M6 x 20 (ground)	31068	50
Stud, M5 x 18, coarse thread	31067	100
Clip rivets 3 x 4,5 mm	32506	100
Clip rivets 3 x 3,2 mm	31070	100
Ground knob	31053	1
Allen wrench T 5 mm	31076	1
Plastic box	35476	1

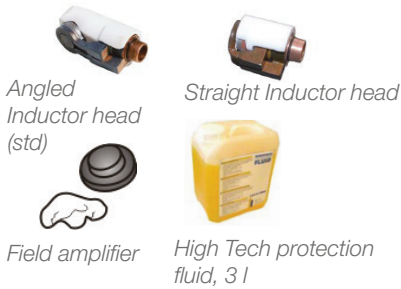
Spare parts, Supplies and Accessories

Spot Welders

	Item	Article No.	Qty.
	Spare parts for multi-function gun		
	CR100, CR300, CR500, CR500 DA		
<i>Multi function gun</i> 	Multi-function gun, 2,5 m 120 mm ²	33185	1
	Ground cable, 2,0 m 120 mm ²	33186	1
	CR510, CR530		
<i>Ground cable 2,0</i> 	Multi-function gun, 2,5 m 120 mm ² Air	33671	1
	Ground cable, 2,0 m 120 mm ² Air	33672	1
<i>Ground knob</i> 	All:		
	Holder for multi-function gun	32962	1
<i>Electrode holder</i> 	Ground device	31074	1
	Ground knob	31053	1
<i>Stud holder diameter 5-6 mm</i> 	Electrode holder	34634	1
	Stud holder, diameter 5 - 6 mm	32318	1
<i>Rivet holder</i> 	Rivet holder, diameter 3- 5 mm	32319	1
	Carbon rod holder	32873	1
<i>Carbon rod holder</i> 	Carbon rod diameter 10 mm	32322	1
	Contact tip for dent puller	32504	1
<i>Contact tip for dent puller</i> 	Stamp electrode	32320	1
<i>Stamp electrode</i> 	Clip rivets 3 × 3,2 mm	31070	100
	Clip rivets 3 × 4,5 mm	32506	100
<i>Rivet 3,2</i> 	Stud, M5 × 18, coarse thread	31067	100
<i>Rivet 4,2</i> 	Stud, M6 × 20 (ground)	31068	50
<i>Stud, M5x18</i> 	Beaded nut 6 mm	34351	20
<i>Stud, M6x20</i> 	Stitch weld electrode	32503	1
<i>Stitch weld electrode</i> 	Dent puller		
<i>Dent puller</i> 	Hand-operated Dent puller kit	33037	1
<i>Crimped wire</i> 	Dent puller (COL)	32557	1
	Puller head for washers (hook)	32580	1
	Puller head for nails	32581	1
	Stud holder for nails	33628	1
	Stud holder for washers	32578	1
	Nails 2 mm	32576	100
	Washer for dent puller 8 x 16	32575	100
	Puller head for washer (old, Itay)	32316	1
	Washer (old, Itay)	32321	20
	Washer (old, France)	31071	50
	Slide hammer	32224	1
	Pulling handle finger	32220	1
	Crimped wire	32223	50

Spare parts, Supplies and Accessories

CH37 & CH100 Induction Heaters



Item	Article No.	Qty.
CH37 & CH100	36563	
Angled inductor head (std)	39595	1
Straight inductor head	39591	1
Field amplifier angled ind.	39498	1
Field amplifier straight ind.	39947	1
High-Tech Protection Fluid, 3L (concentrated)	33944	1
Hi-tech protection Fluid, 5 L (ready to use)	36671	1

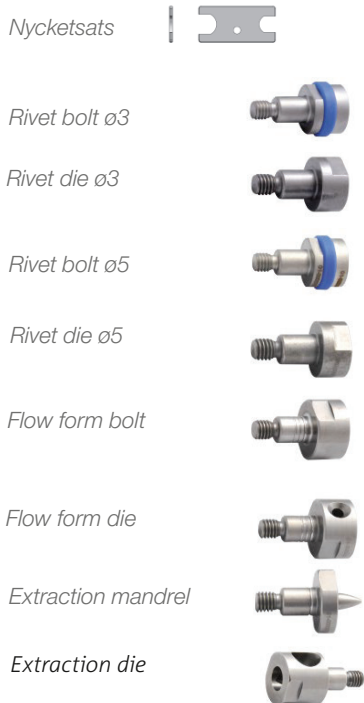
PNP90 Riveting Tool



Accessories (not part of the Basic Kit)

Rivet clamp NB 115	45711	
LxWxH* 213 x 44 x 220 mm, Weight* 3 kg Clamp Opening - 80mm, Opening Depth - 115 mm		
Rivet clamp NB 230 + spacer	45712	
LxWxH* 364 x 45 x 348 mm, Weight* - 9.5 kg Clamp Opening - 140mm, Opening Depth - 230 mm Length spacer, 78 mm		

* including hoses



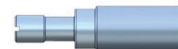
Consumables	
Rivet insert repair kit (complete)	45709
Spanner kit	45713
Rivet bolt, ø3mm Rivet die ø3mm	45714
Rivet bolt, ø5mm Rivet die ø5mm	45715
Flow form bolt Flow form die	45716
Punch ø6mm Punch die ø6mm	45717
Extraction mandrel Extraction die	45718
Bushing Spacing bolt Spacing sleeve	45719
Elastomer rings	45720
Spacer for NB230	45752

Bushing, Spacing bolt, Spacing sleeve

Elastomer rings



Spacer for NB230



Spare parts, Supplies and Accessories

CTR12000 & CTR7

Angle cutter



Tip Dresser



Dresser Blade



Coupling,
Plug nipple



Cooling unit



Wave wire



Support Arm with
Balancer



Electrode arm



Electrode arm



Electrode arm/
welding yoke



Electrode arm/
welding yoke



Item	Article No.
Angle cutter sharpening machine for electrode tips, incl. Electrode cap cutter with cutter-knife	41917
Tip Dresser for electrode tips standard, incl. Dresser Blade	41919
Dresser Blade	41921
Tip Dresser BMW 16	41920
Dresser Blade BMW 16	41922
Tip Dresser VAS 16A	44704
Dresser Blade VAS 16A	44705
Air connection to angle cutter sharpening machine, consisting of:	
Coupling	41923
Plug nipple	41924
Cooling unit	
3 L plastic canister (concentrate)	41928
Accessories	
Support arm with balancer	43578
Electrode arm, inclined, 40 mm throat depth, air-cooled without electrode holder and electrodes	41944
Electrode arm, straight, 80 mm, water-cooled without electrode holder and electrodes	41945
Electrode arm, straight, 350 mm, water-cooled without electrode holder and electrodes	41646
Electrode arm, straight, 500 mm, water-cooled without electrode holder and electrodes	41947

Spare parts, Supplies and Accessories

CTR12000 & CTR7

Complete set, spotter/dent fixer



Spotter



Accessories box



Pulling hook



Special chuck



Washer welding electrode



Electrode for set screw



Electrode for set screw



Spot welding electrode



Electrode cap



Washer



Trim strip nipple



Set screw



Coarse thread pin



Special triangular pulling eye



Carbon rod



Sickle electrode for stitch welding












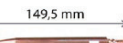









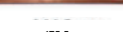


Flat wrench



Item	Article No.
Complete Set Spotter/Dent fixer Consisting of: spot gun with pulling hammer, workpiece cable with connector, ground cable 2500 mm, accessories box and delivery plate	41888
Spotter/Dent fixer Consisting of: spot gun with pulling hammer, workpiece cable with connector, ground cable 2500 mm	41889
Accessories box	41894
Accessories box with electrodes and consumables	
Consisting of:	
1 x Pulling hook for slide hammer	1 x Special chuck for triangular pulling eye
1 x Washer welding electrode	1 x Electrode for set screw
1 x Electrode for set screw M4 + nails	1 x Electrode for trim strip nipple
1 x Electrode for sheet pulling	1 x Spot welding electrode 16 mmØ
1 x Electrode cap for spot welding electrode, 13 mm	1 x Trim strip nipple, 3 x 3,2 mm, 100 pcs.
1 x Copperized washers, 8 x 16 x 1,5 mm, 50 pcs.	1 x Trim strip nipple, 5 x 8,2 mm, 100 pcs.
1 x Trim strip nipple, 3 x 4,5 mm, 100 pcs.	1 x Set screw M4 x 12, 100 pcs..
1 x Coarse set screw 5 x 12 mm, VE, 100 pcs.	1 x Set screw M5 x 18, 100 pcs.
1 x Coarse set screw 5 x 25 mm, VE, 100 pcs.	1 x Coarse set screw 5 x 18 mm, VE, 100 pcs.
1 x Carbon electrode	1 x Special triangular pulling eye, 20 pcs.
Single parts Accessories Box Spotter:	
Pulling hook for slide hammer	41895
Special chuck for triangle electrode	41896
Washer welding electrode	41897
Electrode for set screw	41898
Electrode for set screw M4 + nails	41899
Electrode for sheet pulling	41901
Electrode for spot welding 16 mmØ	41902
Electrode cap for spot welding electrode, 13 mm	41903
Washer 8 x 16 x 1,5 mm, 50 pcs.	41904
Trim strip nipple, 3 x 3,2 mm, 50 pcs.	41905
Trim strip nipple, 3 x 4,5 mm, 100 pcs.	41906
Holding nipple 5 x 8,2 mm, 100 pcs.	41907
Set screw M4 x 15 mm, 100 pcs.	41908
Set screw M5 x 18 mm, 100 pcs.	41909
Coarse thread pin 5 x 18 mm, VE 100 pcs.	41911
Coarse thread pin 5 x 25 mm, VE 100 pcs.	41912
Special triangle pulling eye, 20 pcs.	41913
Carbon electrode for shrinking	41914
Sickle electrode	41915
Flat wrench, size 27	41916

Spare parts, Supplies and Accessories

CTR12000 & CTR7

		Item	Article No.
<i>Electrode cap holder</i>		For inclined electrode arm	
		Ball electrode, massive, air-cooled, without bore hole for cooling	41948
<i>Electrode arm 40 mm</i>		Electrode cap holder, curved and water cooled incl. water cooling tube and electrode cap	41949
<i>Adapter</i>		Adapter with cooling tube	41950
<i>Electrode cap holder</i>		Electrode cap holder 106,5 mm, water-cooled, incl. water cooling tube and electrode cap 41959	41951
<i>Water cooling tube</i>		Water tube, length 120,5 mm for 41951	41952
<i>Electrode cap holder</i>		For electrode arms 40 mm, 80 mm / 350 mm	
<i>Special electrode</i>		Electrode cap holder, with ball electrode, massive, water-cooled, incl. water cooling tube and special electrode M8	41953
<i>Water tube</i>		Special electrode M8 for ball electrode	41954
		Water tube for 41953	41955
<i>Electrode cap holder</i>		For electrode arms 80 mm / 350 mm	
		Electrode cap holder, straight, water-cooled, incl. water cooling tube and electron cap	41956
<i>Electrode cap holder</i>		Electrode cap holder, 149,5 mm, straight and water-cooled, incl. water cooling tube and electron cap	41957
<i>Water tube</i>		Water tube, length 163,5 mm for 41957	41958
<i>Electrode caps</i>		For electrode arms 80 mm / 350 mm / 500 mm	
		Electrode cap standard, 13 mm, R 15 (minimum order 10 pcs.)	41959
		Electrode cap. BMW, 16 mm (minimum order 10 pcs.)	41960
		Electrode cap. VW, 16 mm (minimum order 10 pcs.)	44357
<i>Key for electrode caps</i>		Key for electrode caps	41961
<i>Electrode cap holder, curved</i>		Electrode cap holder, curved and water-cooled incl. water cooling tube and electrode cap	41962
<i>Electrode cap holder, 74 mm</i>		Electrode cap holder, 74 mm and water-cooled incl. water cooling tube and electrode cap	41963
<i>Water tube</i>		Water tube, length 125,5 mm for 41963	41966
<i>Electrode cap holder, 111,5 mm</i>		Electrode cap holder, 111,5 mm, water-cooled incl. water cooling tube and electrode cap	41965
<i>Water tube</i>		Water tube, length 125,5 mm for 41963	41966
<i>Electrode cap holder, 164,5 mm</i>		Electrode cap holder, 164,5 mm, water-cooled incl. water cooling tube and electrode cap	41967
<i>Water tube</i>		Water tube, length 178,5 mm for 41967	41968
<i>Electrode cap holder, 175,5 mm</i>		Electrode cap holder, 175,5 mm, water-cooled incl. water cooling tube and electrode cap	43031
<i>Water tube</i>		Water tube, length 190 mm for 43031	43275

Spare parts, Supplies and Accessories

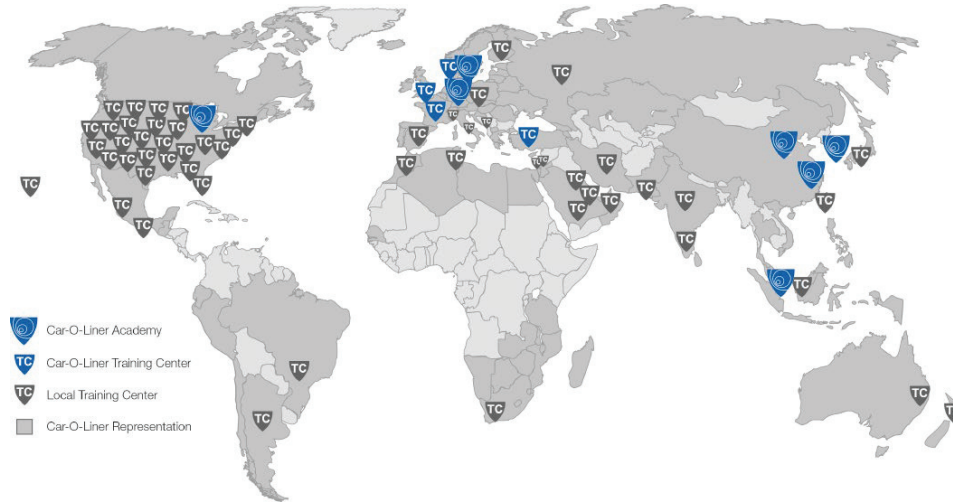
CTR12000 & CTR7



Item	Article No.
Electrode cap holder, curved, water-cooled, incl. water cooling tube and electrode cap	41967
For electrode arms 40 mm	
Tube strap with quick coupling, plug nipple and 2 clamps for inclined arm	41970
For electrode arms 500 mm	
Fabric tube 0,13 with quick coupling and 2 clamps (10,5 mm)	41971
Fabric tube, 0,13 with plug nipple	41972
Elbow coupling	41973
For electrode arms 500 mm	
Water tube 1,19 m with quick coupling and one clamp (13,8 mm)	41976
Water tube 1,19 m with plug nipple and one clamp (13,8 mm)	41977
For electrode arms 350 mm, 500 mm	
Clip for water tube	41978
For electrode arms 40 mm, 80 mm, 350 mm, 500 mm	
Quick coupling	41979
Plug nipple	41980
Clamp 10,5 mm	41981
Clamp 13,8 mm	41982
Copper grease	41983
Rubber rings	
Rubber ring 14-2, inner	41984
Rubber ring 12-2, outer	41985
Release handle incl. screws	41986
Clamp handle incl. screw 8 × 60 DIN 912	41987
Grab handle, long, incl. screw 8 × 80 DIN 91	41988
Adapter for Airpuller	41991
Welding data documentation	
CTR12000 WinSpot-QS	41943
CTR7 Weld Logger	36590

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