

Soldering, Welding



Tinning

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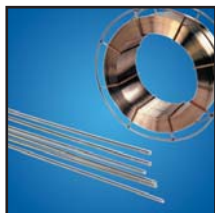
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Filling Solder – 3 Metal Alloy, Lead

- According to DIN 1707

Product No. 5490 25:

- 3 metal alloy: 74% Pb (lead) , 25% Sn (tin) , 1% Sb (antimony)
- Working temperature: +190°C to +250°C

Product No. 5490 40:

- 3 metal alloy: 59.5% Pb (lead), 40% Sn (tin), 0.5% Sb (antimony)
- Working temperature: +200°C to +350°C

Article No.	Article Description	QTY
5490 25	KG FILLING SOLDER PB. 25%	e 25
5490 40	KG FILLING SOLDER PB. 40%	ü 25

(% = tin fraction)



Solder Paddles

- Hornbeam, turned, finely polished

Technical Data

Product no.	Design/spreading area	Length
5491 101	Bottom: round, 110 x 32 mm Front side: flat 58 x 32 mm	260mm
5491 102	Flat & narrow, 135 x 32 mm	260mm
5491 104	Oval & pointed, 80 x 50 mm	200mm
5491 105	Flat & wide, 100 x 58 mm	200mm

Article No.	Article Description	QTY
5491 101	SOLDER PADDLE 101 ROUND/FLAT	1
5491 102	SOLDER PADDLE 102 FLAT, NARROW	1
5491 104	SOLDER PADDLE 104 OVAL/POINTED	1
5491 105	SOLDER PADDLE 105 FLAT, WIDE	1



Soldering Iron, 300W

- 300W, also for seam soldering of sheets up to a strength of 1.5mm
- Metal heating element in steel housing
- Straight copper tip
- Maximum temperature approx. 550°C
- Heating up time approx. 4min
- Approx. 1.5m power cord with CEE 7/7 (hybrid Schuko) plug
- Wooden handle
- In PVC hard box

Article No.	Article Description	QTY
5478 550	SOLDER.IRON220/230V 550°C 300W	1



Cartridge - Soldering Device

- Cartridge - soldering device with high-performance burner and base made of metal

Art. No. 5482 2000:

- Cartridge- soldering device with piezo-ignition
- **Caution: This soldering device may only be used with a standard high-performance burner! The burner accessory set with article number 5482 3000 1 is not applicable!**



5480 3000



5480 2000

Technical Data		
Flame temperature:	approx. 1700°C	
Processing temperature:	approx. 650°C	
Article No.	Article Description	QTY
5482 3000	CARTRIDGE-SOLD.DEVICE MET.BODY	1
5482 2000	CARTR.-SOLD.DEV.W.PIEZO-IGNIT.	1

Cartridge-Soldering Device Accessories



5482 3000 1



5482 2000 1

Article No.	Article Description	QTY
5482 3000 1	BURNER-ACCESSORY-SET 3-PART	1
5482 2000 1	BUTANE - GAS CARTRIDGE 190G	1 x

Solder Wires – Electric/Electron. Solder.Lead-free

- S-Sn99/Cu1 with halogen-free flux filling according to DIN EN 29454-1 1.1.3.B
- Flux residues are transparent, dry, solid, and will not act corrosively

Article No.	Article Description	QTY
5470 05 250 1	SOLD.WIRE SN99/CU1 0.5MM 250G	1
5470 08 250 1	SOLD.WIRE SN99/CU1 0.8MM 250G	1
5470 10 250 1	SOLD.WIRE SN99/CU1 1.0MM 250G	1
5470 15 250 1	SOLD.WIRE SN99/CU1 1.5MM 250G	1

(Wire Ø in mm / g/coil)



Solder Wires-Electric/Electronic Sold.Plumbiferous

- S-Sn60Pb40 with halogen-free, activated rosin flux filling according to DIN EN 29454-1 1.1.3B
- Flux residues are transparent, dry, solid, and will not act corrosively

Article No.	Article Description	QTY
5470 05 100	ELEC.SOL.WIRES60/40 0.5MM 100G	1
5470 05 250	ELEC.SOL.WIRES60/40 0.5MM 250G	1
5470 08 100	ELEC.SOL.WIRES60/40 0.75MM100G	1
5470 08 250	ELEC.SOL.WIRES60/40 0.75MM250G	1
5470 10 250	ELEC.SOLDER WIRE60/40 1MM 250G	1
5470 10 500	ELEC.SOL.WIRES60/40 1.0MM 500G	1
5470 15 250	ELEC.SOL.WIRES60/40 1.5MM 250G	1
5470 15 500	ELEC.SOL.WIRES60/40 1.5MM 500G	1
5470 15 1000	ELEC.SOL.WIRES60/40 1.5MM1000G	1

(Wire Ø in mm / g/coil)



Soldering Paste

- According to DIN EN 29454-1 1.1.2.C
- Flux for soldering in the electro-mechanical and electronics areas
- Content: 50 g

Article No.	Article Description	QTY
5470 50	CONTACT-SOLDERING PASTE 50G	1



Solder Wires for Metal Soldering, Plumbiferous

- S – 40Sn/60Pb with flux filling according to DIN EN 29454-1 2.1.2A
- For soldering on all kinds of metals except aluminium
- Not suitable for electric/electronic soldering
- Please remove flux residues after soldering

Article No.	Article Description	QTY
5471 15 500	SOFT SOL. WIRE.W.FLUX1.5MM 500G	1
5471 15 1000	SOFT SOL. WIRE.W.FLUX1.5MM1000G	1
5471 20 500	SOFT SOL. WIRE.W.FLUX2.0MM 500G	1
5471 20 1000	SOFT SOL. WIRE.W.FLUX2.0MM1000G	1

(Wire Ø in mm / g/coil)



Soldering Grease

- According to DIN EN 29454-1 3.1.1.C
- Flux for soldering tin plated and leaded sheet metal, for tin-plating copper and brass
- Not suitable for electric/electronic soldering
- Contains zinc chloride: acidic

Article No.	Article Description	QTY
5479 1 100	SOLDERING GREASE 100G	1
5479 1 250	SOLDERING GREASE 250G	1



Soldering Gun 60W

- Protection class II, protective insulation
- With integrated solder joint light and 2 tips
- Heating up time: 5 seconds

Article No.	Article Description	QTY
5478 60	SOLDERING GUN 220V 60W	1
5478 60 1	SOLDER TOP SET F.SOLD.GUN 60W	1



Soldering Irons 15/30W

- Low-power soldering irons for electronic soldering
- Plastic handle and straight, nickel-plated tip
- 1.5m power cord with CEE 7/7 (hybrid Schuko) plug

Product no. 5478 15:

- 15 Watt
- Peak temperature: approx. +370°C
- Heating up time: approx. 1.5 min

Product no. 5478 30:

- 30 Watt
- Peak temperature: approx. +410°C
- Heating up time: approx. 1.5 min

Article No.	Article Description	QTY
5478 15	FINE SOLD.IRON 220V/230V 15W	1
5478 15 1	COPPER TOP SET F.SOLD.IRON 15W	1
5478 30	SOLDERING IRON 220/230V 30W	1
5478 30 1	COPPER TOP SET F.SOLD.IRON 30W	1

Product no. 5478 15 1 content:

- 1 bevelled, 1 pencil and chisel-shaped tip

Product no. 5478 30 1 content:

- 1 straight and 1 bent tip



Soldering Irons 100/200W

- For general soldering work
- Plastic handle and straight, nickel-plated tip
- 1.5m power cord with CEE 7/7 (hybrid Schuko) plug

Product no. 5478 100:

- 100 Watt
- Peak temperature: approx. +500°C
- Heating up time: approx. 2.5 min

Product no. 5478 200:

- 200 Watt
- Peak temperature: approx. +530°C
- Heating up time: approx. 4 min
- Also for joint soldering on metal sheets up to 1 mm thickness

Article No.	Article Description	QTY
5478 100	SOLDERING IRON 220/230V 100W	1
5478 100 1	COPPER TOP SET F.SOLD.IRON100W	1
5478 200	SOLDERING IRON 220/230V 200W	1
5478 200 1	COPPER TOP F.SOLD.IRON 200W	1

Product no. 5478 100 1 content:

- 1 straight and 1 bent tip

Product no. 5478 200 1 content:

- 1 straight tip



Soldering Iron Accessories

Product no. 5478 910:

- Fold-away

Product no. 5478 900:

- For cleaning soldering tips
- Dimensions: LxWxH 65 x 45 x 20mm

Article No.	Article Description	QTY
5478 910	SOLDERING IRON PILLAR	1
5478 920	SOLDERING IRON HOLDER	1
5478 900	SALMIAK-SOLD.STONE 65X45X20MM	1

Product no. 5478 920 content:

- 1 Sheet metal foot
- 1 Sponge tray



Desoldering Pump

- With teflon peak and integrated peak cleaner
- Strong suction power at desoldering works on electronical parts

Article No.	Article Description	QTY
5478 950	DESOLDERING PUMP	1
5478 950 1	DESOLDERING PUMP TOP - SET	1



Gas Soldering Kit

Article No.	Article Description	QTY
5482 90	VS GAS SOLDERING KIT	1
5482 20	LIGHTER GAS 100ML	e 5

Content:

- 1 Product no. 5482 3 10 Gas soldering torch
- 1 Product no. 5482 3 19 Soldering iron rest protective cap with sponge
- 1 Product no. 5482 3 11 Hot air tip
- 1 Product no. 5482 3 18 Paint scraper
- 1 Product no. 5482 3 12 Soldering fixture
- 1 Product no. 5482 3 13 Styrofoam cutter
- 1 Product no. 5482 3 14 Needle tip
- 1 Product no. 5482 3 15 Soldering tip
- 1 Product no. 5482 3 16 Wedge tip
- 1 Product no. 5485 3 17 Hot knife fixture, soldering wire, 1mm, 10g



Specifications

Fuel:	Butane gas (lighter gas)
Tank capacity:	11ml
Operating time:	60 – 90 min with full tank
Weight:	115g
Dimensions LxWxH:	180 x 30 x 30mm
Max. flame temperature:	+1300°C
Max. soldering temperature:	+400°C
Max. hot air temperature:	+500°C

Welding Machine Picomig 180 Puls

- Compact Inverter-DC-Welding Machine with integrated 4-roller wire feed system
- Robust plastic housing for each application
- 30 preset welding programmes (JOBS) for common MIG/MAG procedures
- **MIG/MAG**-welding of steel, stainless steel, aluminium, CuSi, flux-cored wire
- **WIG/TIG**-welding (Liftarc) of unalloyed, low and high-alloyed steels, nickel base alloys, copper and special materials
- **E-Hand**-welding with rutile and basic covering of unalloyed, low and high-alloyed steels, nickel base and copper alloys
- For production and repair works, metal construction, facade, heating and ventilation installation, pipeline, tank and apparatus engineering, vehicle, machine, plant and tool manufacturing



Article No.	Article Description	QTY
5460 100	WELD.MACHINE PICOMIG 180 3IN1	1

Included in delivery:

- 1x MIG/MAG-burner
- 1x Earthing cable
- 1x Gas hose, 3 m
- 1x Pressure reducer
- 1x D200 (2 kg) flux-cored wire 0.9 mm
- 1x D200 (2 kg) steel wire 0.8 mm (SG 2)
- 1x Gas nozzle flux-cored wire

Technical Data			
Welding type:	MIG/MAG	WIG	E-Hand
Welding current (A):	5 - 180	5 - 180	5 - 150
Switch-on time at			
Ambient temperature °C:	40	40	40
Switch-on time 25 %:	180	-	-
Switch-on time 30 %:	-	180	-
Switch-on time 35 %:	-	-	150
Switch-on time 40 %:	-	-	-
Switch-on time 60 %:	120	140	110
Switch-on time 100 %:	100	120	100
Open circuit voltage (V):		90	
Power frequency (Hz):		50/60	
Mains fuse (A):		1 x 16	
Mains voltage (tolerance):		1 x 230 V (-40 % - +15%)	
Max. connected load kVA:	6.4	4.4	5,5
Rec. generator power kVA:		7.5	
Wire feed rollers:		4	
Wire speed m/min:		0.5 - 15	
Prot. class/insulation class:		IP23 / H	
Size L x W x H mm:		685 x 280 x 360	
Weight kg:		19	
Norm:		IEC 60 974-1 / IEC 60 974-5 / IEC 60 974-10 / CE / S-sign	

Welding Machine Picomig 180 Plus Accessories



Article No.	Article Description	QTY
5460 101	MIG/MAG BURNER MT220G 3M	1
5460 102	WIG BURNER 1500GD 4M	1
5460 103	ELECTRODE HOLDERS 25QMM 4M	1
5460 104	EARTHING CABLE PICOMIG 180	1
5460 105	GAS HOSE PICOMIG 180	1
5460 106	PK(10)GAS NOZZLE MIG/MAG	1
5460 107	PK(10)GAS NOZZ. FLUX-CORED WIRE	1
5460 108	PK(10)CONTACT TIP M7 0.8 FE/SS	1
5460 109	PK(10)CONTACT TIP M7 0.9 FE/SS	1
5460 110	PK(10)CONTACT TIP M7 1.0 FE/SS	1
5460 111	PK(10)CONTACT TIP M7 0.8 ALUM.	1
5460 112	PK(10)CONTACT TIP M7 1.0 ALUM.	1
5460 113	PK(10)NOZZLE UNIT MIG/MAG	1
5460 114	PK(10)GAS DISTRIBUTOR MIG/MAG	1
5460 115	STEEL CONDUCTOR	1

Article No.	Article Description	QTY
5460 116	COMBI-CONDUCTOR FOR ALU/SS	1
5460 117	PK(2)FEED ROLLERS 0.6+0.8MM	1
5460 118	PK(2)FEED ROLLERS 0.8+1.0MM	1
5460 119	PK(2)FEED ROLLERS 1.0+1.2MM	1
5460 120	PK(2)COUNTER-PRESS.ROLLER FD	1
5460 121	PK(2)FEED ROLLER FD 0.8/0.9	1
5460 122	ELECTRODE PROTECTION SHORT WIG	1
5460 123	ELECTRODE PROTECT.MEDIUM WIG	1
5460 124	ELECTRODE PROTECTION LONG WIG	1
5460 125	PK(5)ELECTRODE HOLDER 1.6MM	1
5460 126	PK(5)ELECTRODE HOLDER 2.4MM	1
5460 127	PK(5)ELECTRODE HOLDER 3.2MM	1
5460 128	PK(10)GAS NOZZLE 6.5MM WIG	1
5460 129	PK(10)GAS NOZZLE 8.0MM WIG	1
5460 130	PK(10)GAS NOZZLE 10.0MM WIG	1
5460 131	PK(10)GAS NOZZLE 11.5MM WIG	1

Minarc 150 Welding Machine

- For stick electrode welding
- 230 Volt
- 150 Ampere
- Can be adjusted to WIG - welding due to contact firing (special accessory)
- 3 m ground and welding cable
- Overload and overvoltage protection
- For outdoor use
- Easy to use
- For welding with common electrodes
- ICS (insulated cooling system)
- Highly impact-resistant plastic casing
- Weight: only 4,2 kg (without cable)

Article No.	Article Description	QTY
5460 1	MINARC 150 WELD.MACHINE	1

Delivery includes:

- 1x Art. No. 5460 1 1 Ground cable with clip
- 1x Art. No. 5460 1 2 Welding cable with electrode holder
- 1x Art. No. 5460 1 3 Shoulder strap

Specifications		
Supply voltage:	1~ 50/60 Hz	230 V +/- 15%
Connected load:	35% ED MMA	7,5 kVA/140 A
	100% ED MMA	5,1 kVA/100 A
	35% ED WIG	5,0 kVA/100 A
	100% ED WIG	3,3 kVA/110 A
Connecting cable:	3x 2,5 mm ² , 3,3 m length	
Fuse inert:	16 A	
Plug:	Schuko	
Capacity +40°C:	35% ED MMA	140 A
	100% ED MMA	100 A
	35% ED WIG	150 A
	100% ED WIG	110 A
Welding range:	MMA	10 A/20,5 V - 140 A/25,6 V
	WIG	5 A/10 V - 150 A/16 V
Max. welding voltage:	MMA	25,6 V/140 A
	WIG	16 V/150 A
Operating factor:	85 V	
Electrode-Ø:	1,5 - 3,25 mm	
Protection class:	IP23C	
Dimensions:	LxWxH	320 x 123 x 265 mm
Weight:	4,2 kg	



Minarc 150 Welding Machine Accessories



Article No.	Article Description	QTY
5460 1 1	GROUND CABLE W/CLIP F.M150	1
5460 1 2	WELDING CABLE W/ELECT.HLDR	1
5460 1 3	SHOULDER STRAP	1
5460 1 4	TIG BURNER TTM 15V 4M	1
5460 6 6	PCK(10)WIG ELECTR:GREY1.6MM	1
5460 6 7	TIG ELECTRODE GREY 2.4MM	1 z
5460 6 8	PCK(10)PULL-ON SHAFT	1
5460 6 9	PCK(10)PULL-ON SHAFT	1
5460 6 10	PCK(5)PULL-ON SHAFT NOZZLE	1

Article No.	Article Description	QTY
5460 6 11	PCK(5)PULL-ON SHAFT NOZZLE	1
5460 6 12	PCK(5)ISOLATING RING	1
5460 6 13	ELECTRIC PROTECTION SHORT	1
5460 6 14	ELECTRIC PROTECTION MEDIUM	1
5460 6 15	ELECTRIC PROTECTION LONG	1
5460 6 16	PCK(10)GAS NOZZLE NO.4	1
5460 6 17	PCK(10)GAS NOZZLE NO.5	1
5460 6 18	PCK(10)GAS NOZZLE NO.6	1
5460 6 19	PCK(10)GAS NOZZLE NO.7	1

Minarc 220 Welding Machine

- For stick electrode welding
- 400 Volt
- 220 Ampere
- Can be adjusted to WIG - welding due to contact firing (special accessory)
- 5 m ground and welding cable
- Easy to use
- Highly impact-resistant plastic casing
- For outdoor use
- ICS (insulated cooling system)
- Suitable plug:
Art. No.3891 16 1 CEE plug (not included in delivery)
- Weight: only 9,2 kg



Article No.	Article Description	QTY
5460 7	MINARC 220 WELDING MACHINE	1

Delivery includes:

- 1x Electrode holder with cable 16 mm², 5 m
- 1x Art. No. 5460 6 2 Ground cable 16 mm², 5 m
- 1x Art. No. 5460 1 3 Shoulder strap

Specifications		
Supply voltage:	3~ 50/60 Hz	400 V +/- 15%
Connected load:	MMA	Max. 8,2 kVA (220 A/28,8 V)
	WIG	max. 7,2 kVA (220 A/28,8 V)
Connecting cable:		5x 1,5 mm ² , 5 m length
Fuse inert:		10 A
Plug:		CEE
Capacity +40°C:	35% ED MMA	220 A/28,8 V
	100% ED MMA	150 A/26 V
	35% ED WIG	220 A/18,8 V
	100% ED WIG	160 A/16,4 V
Welding range:	MMA	10 A/204 V - 220 A/28,8 V
	WIG	10 A/10,4 V - 220 A/18,8 V
Max. welding voltage:	MMA	28,8 V/220 A
	WIG	18,8 V/220 A
Operating factor:	MMA	85 V
	WIG	60 V
Utilization rate at nominal value:	MMA	0,86
	WIG	0,80
Power coefficient at nominal value:	MMA	0,91
	WIG	0,92
Electrode-Ø:		1,5 - 5,0 mm
Protection class:		IP23C
Dimensions:	LxWxH	400 x 180 x 340 mm
Weight:		9,2 kg



Accessories: Minarc 220 Welding Machine



Article No.	Article Description	QTY
5460 7 1	WIG BURNER TTM 15BC 4M	1
5460 7 2	WIG BURNER TTM 220GV 4M	1
5460 7 3	REMOTE CONTROL R10 5M	1
5460 6 2	GROUND CABLE 16MM ² 5M	1
5460 6 3	W.CABLE.W/ELECT.HLDR F.TIG180	1
5460 6 6	PCK(10)WIG ELECTR:GREY1.6MM	1
5460 6 7	TIG ELECTRODE GREY 2.4MM	1 z
5460 6 8	PCK(10)PULL-ON SHAFT	1
5460 6 9	PCK(10)PULL-ON SHAFT	1
5460 6 10	PCK(5)PULL-ON SHAFT NOZZLE	1
5460 6 11	PCK(5)PULL-ON SHAFT NOZZLE	1

Article No.	Article Description	QTY
5460 6 12	PCK(5)ISOLATING RING	1
5460 6 13	ELECTRIC PROTECTION SHORT	1
5460 6 14	ELECTRIC PROTECTION MEDIUM	1
5460 6 15	ELECTRIC PROTECTION LONG	1
5460 6 16	PCK(10)GAS NOZZLE NO.4	1
5460 6 17	PCK(10)GAS NOZZLE NO.5	1
5460 6 18	PCK(10)GAS NOZZLE NO.6	1
5460 6 19	PCK(10)GAS NOZZLE NO.7	1
5460 6 20	PCK(10)GAS NOZZLE NO.8	1
3891 16 1	CEE-PLUG 380V 16A	1

Minarc TIG 180 Welding Machine

- For WIG welding of steel and stainless steel (quality welding)
- 230 Volt
- 180 Ampere
- High-frequency contact firing
- Can be adjusted to stick electrode - welding (special accessory)
- 4 m hose package, 5 m ground cable
- One-knop operation for all welding-function/parameters
- Highly impact-resistant plastic casing
- IEC 60974-1, IEC 60974-3 and IEC 60974-10



Article No.	Article Description	QTY
5460 6	MINARC TIG 180 WELDING MACHINE	1

Delivery includes:

- 1x Art. No. 5460 6 1 WIG burner TTC 160, 4 m
- 1x Art. No. 5460 6 2 Ground cable 16 mm², 5 m
- 1x Art. No. 5460 2 3 Inert gas hose 4,5 m
- 1x Art. No. 5460 1 3 Shoulder strap

Specifications

Supply voltage:		230 V +/- 15% 50/60 Hz
Connected load:	MMA	Max. 7,0 kVA (140 A/25,6 V)
	WIG	Max. 6,7 kVA (180 A/17,2 V)
Connection cable:		3x 2,5 mm ² , 3 m length
Fuse inert:		16 A
Plug:		Schuko
Capacity +40°C:	35% ED MMA	140 A/25,6 V
	100% ED MMA	100 A/24 V
	35% ED WIG	180 A/17,2 V
	100% ED WIG	120 A/14,8 V
Welding range:	MMA	10 A/20,4 V - 140 A/25,6 V
	WIG	5 A/10,2 V - 180 A/17,2 V
Max. welding voltage:	MMA	25,6 V/140 A
	WIG	17,2 V/180 A
Operation factor:		95 V
Utilization rate at nominal value:	MMA	0,63
	WIG	0,62
Power coefficient at nominal value:	MMA	81%
	WIG	75%
Electrode-Ø:	MMA	1,5 - 3,25 mm
Protection class:		IP23C
Dimensions:	LxWxH	400 x 180 x 340 mm
Weight:		7,8 kg (8,4 kg with connecting cable)



Minarc TIG 180 Welding Machine Accessories



Article No.	Article Description	QTY
5460 6 1	TIG BURNER TTC 180 4M	1
5460 6 2	GROUND CABLE 16MM ² 5M	1
5460 6 3	W.CABLE.W/ELECT.HLDR F.TIG180	1
5460 9 6	TIG RTC10 BRUNER CONTROL	1
5460 6 5	FOOT REM.CONTR.R11F F.TIG180	1
5460 6 6	PCK(10)WIG ELECTR:GREY1.6MM	1
5460 6 7	TIG ELECTRODE GREY 2.4MM	1 z
5460 6 8	PCK(10)PULL-ON SHAFT	1
5460 6 9	PCK(10)PULL-ON SHAFT	1
5460 6 10	PCK(5)PULL-ON SHAFT NOZZLE	1

Article No.	Article Description	QTY
5460 6 11	PCK(5)PULL-ON SHAFT NOZZLE	1
5460 6 12	PCK(5)ISOLATING RING	1
5460 6 13	ELECTRIC PROTECTION SHORT	1
5460 6 14	ELECTRIC PROTECTION MEDIUM	1
5460 6 15	ELECTRIC PROTECTION LONG	1
5460 6 16	PCK(10)GAS NOZZLE NO.4	1
5460 6 17	PCK(10)GAS NOZZLE NO.5	1
5460 6 18	PCK(10)GAS NOZZLE NO.6	1
5460 6 19	PCK(10)GAS NOZZLE NO.7	1
5460 6 20	PCK(10)GAS NOZZLE NO.8	1

MasterTIG MLS 2300 ACDC Welding Machine

- For professional WIG welding of steel, stainless steel and aluminium
- 230 Volt
- 230 Ampere
- High-frequency contact firing
- Can be adjusted to stick electrode - welding (special accessory)
- One-knob operation for all welding-function/parameters
- Water cooling possible (special accessory)
- Highly impact-resistant plastic housing
- Without panel, hose package and ground cable



Article No.	Article Description	QTY
5460 9	MASTERTIG MLS 2300 WEL.MACHINE	1

Delivery includes:

- 1x Art. No. 5460 1 3 Shoulder strap
- 1x hose, 1,5 m

Specifications		
Supply voltage:	1~ 50/60 Hz	230 V +/- 15%
Connected load:	40% MMA	6,0 kVA/180 A
	60% MMA	4,8 kVA/150 A
	100% MMA	3,7 kVA/120 A
	40% WIG	5,7 kVA/230 A
	60% WIG	4,8 kVA/200 A
	100% WIG	3,9 kVA/170 A
Connection cable:		3x 2,5 mm ² , 3,3 m length
Fuse inert:		16 A
Plug:		Schuko
Welding area:	MMA	10 A/20,5 V - 180 A/27,2 V
	WIG	3 A/10 V - 230 A/19,2 V
Max. welding voltage:	MMA	32 V/180 A
Operation factor:		58 V DC
Utilization rate at nominal value:	MMA	0,99
	WIG	0,99
	MMA	99 %
Power coefficient at nominal value:	WIG	99 %
	MMA	1,5 - 4,0 mm
Electrode-Ø:		IP23C
Protection class:		430 x 180 x 390 mm
Dimension:	LxWxH	15 kg
Weight:		

Accessories: MasterTIG MLS 2300 ACDC Welder



Art. No. 5460 9 1 ACS Panel:

- Current
 - MMA: AC, DC-, DC+
 - WIG: AC, MIX, DC-, DC+
- Gas pre and post-arc current
- Starting current, increasing and decreasing current time
- Current and voltage display, welding parameter displays
- Quick Setup
- 2/4 step operation (keypad function for burner)
- High frequency and contact ignition
- Selection of remote controlling and setting of welding current range (LO/Hi)
- Tester for function for water cooling system
- Tester for function for gas (Gas Test)

Art. No. 5460 9 1 1 ACX Panel equal to Art. No. 5460 9 1 includes:

- 4 step T-Log and Minilog keyboard function
- Start, Minilog and end crater current
- Spot timer
- Long pulse
- Synergistic quick pulse
- Memory 10 channels

Art. No. 5460 9 4 Water cooling device Mastercool 20:

- Supply voltage: 230V +/-15%
- Cooling performance: 1.0 kW
- Max. pressure: 4,0 bar
- Recommended cooling fluid: 20 - 40% ethanol/water
- Tank contents: 3 litres
- Dimensions LxWxH: 500 x 180 x 260 mm
- Weight: 8 kg

Article No.	Article Description	QTY
5460 9 1	ACS PANEL FOR MLS 2300	1
5460 9 1 1	ACX PANEL FOR MLS 2300	1
5460 9 2	WIG BURNER TTC 220W 4M	1
5460 9 3	WIG BURNER TTC 250W 4M	1
5460 6 2	GROUND CABLE 16MM ² 5M	1
5460 9 4	MASTERCool20 WATER COOL.DEVICE	1
5460 9 5	TROLLEY T200 FOR MLS 2300	1
5460 9 6	RTC 10 POTI-REGUL.F.TTC BURNER	1
5460 9 7	RTC20 UP-DOWN REGUL.F.TTC BUR.	1
5460 6 6	PCK(10)WIG ELECTR:GREY1.6MM	1
5460 6 7	TIG ELECTRODE GREY 2.4MM	1 z
5460 6 8	PCK(10)PULL-ON SHAFT	1

Article No.	Article Description	QTY
5460 6 9	PCK(10)PULL-ON SHAFT	1
5460 6 10	PCK(5)PULL-ON SHAFT NOZZLE	1
5460 6 11	PCK(5)PULL-ON SHAFT NOZZLE	1
5460 6 12	PCK(5)ISOLATING RING	1
5460 6 13	ELECTRIC PROTECTION SHORT	1
5460 6 14	ELECTRIC PROTECTION MEDIUM	1
5460 6 15	ELECTRIC PROTECTION LONG	1
5460 6 16	PCK(10)GAS NOZZLE NO.4	1
5460 6 17	PCK(10)GAS NOZZLE NO.5	1
5460 6 18	PCK(10)GAS NOZZLE NO.6	1
5460 6 19	PCK(10)GAS NOZZLE NO.7	1
5460 6 20	PCK(10)GAS NOZZLE NO.8	1

Minarc MIG Adaptive 150 Welding Machine

- For MAG welding of normal steel
- 230 Volts
- 150 Ampere
- Optimal welding parameters due to Adaptive Control (controlling wire feed rate and current with one rotary knob)
- Exact control of arc length
- Automatic compensation of arc length changes
- IEC 974-1 and IEC 60974-5
- 35% duty cycle
- Suitable for mobile use
- Easy handling of the device
- Thin sheet welding, tacking of heavy pipe and plate
- Highly impact-resistant plastic casing
- Weighth: 9.4kg

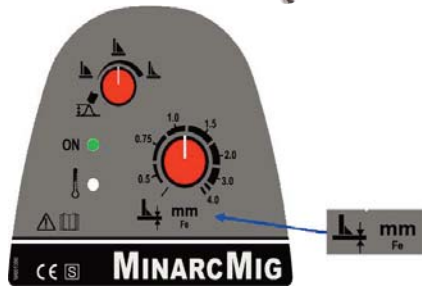
Article No.	Article Description	QTY
5460 2	MINARC MIG 150 WELDING MACHINE	1

Delivery includes:

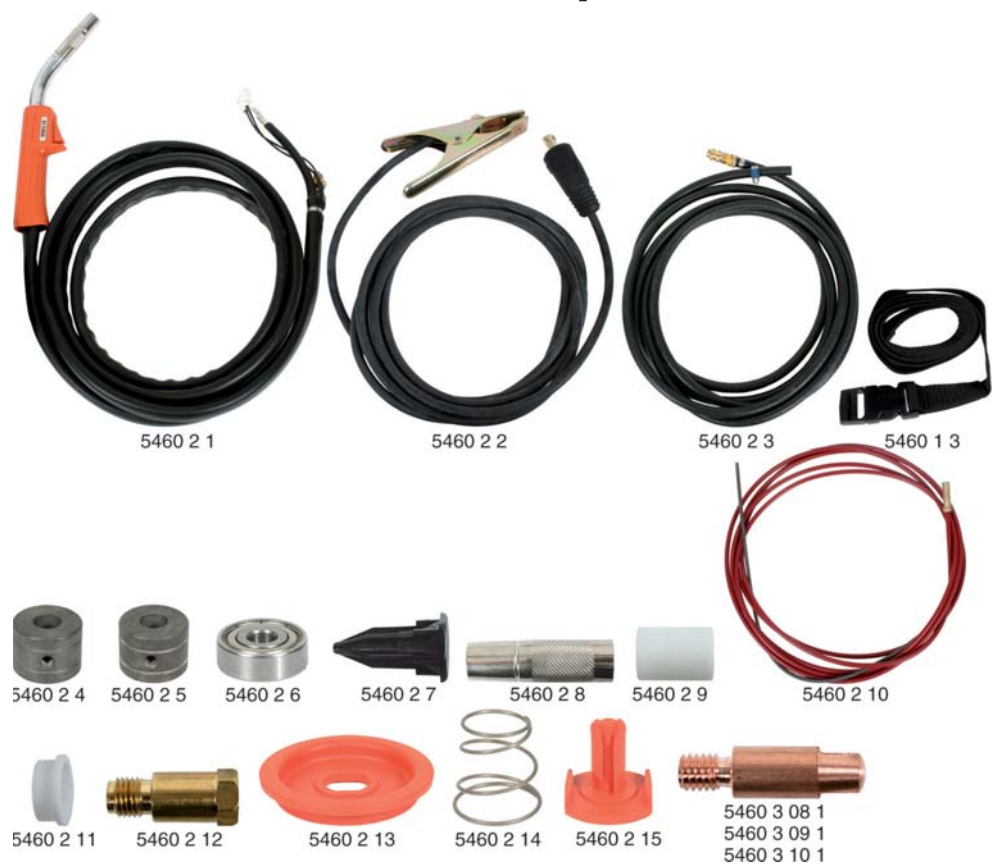
- 1x Art. No. 5460 2 1 Hose package MMG 18, 3 m
- 1x Art. No. 5460 2 3 Inert gas hose, 4.5 m
- 1x Art. No. 5460 3 08 1 Current nozzle M6, Ø 0.8 mm
- 1x Art. No. 5460 1 3 Shoulder strap

Specifications

Supply voltage:	1~ 50/60 Hz	230 V +/- 15%
Connected load:	35% ED	6,9 kVA/150 A
	60% ED	5,3 kVA/120 A
	100% ED	4,2 kVA/100 A
Connection cable:		2,5 mm ² , 3,3 m length
Fuse inert:		16 A
Plug:		Schuko
Capacity +40°C:	35% ED	150 A/221,5 V
	60% ED	120 A/20 V
	100% ED	100 A/19 V
Welding range:		20 A/13,5 V - 150 A/22 V
Max. welding voltage:		21,5 V/150 A
Operation factor:		22 - 31 V
Utilization rate at nominal value:		0,58 (150 A/21,5 V)
Power coefficient at nominal value:		0,80 (150 A/21,5 V)
Wire coil-Ø:		200 mm (5 kg)
Electrode-Ø:	Fe massive wire	0,6 - 1,0 mm
	Fe flux-cored wire	0,8 - 1,0 mm
Protection class:		IP23C
Dimensions:	LxWxH	400 x 180 x 340 mm
Weight:		9,4 kg (incl. burner + cable)



Accessories: Minarc MIG Adaptive150 Welder



Article No.	Article Description	QTY
5460 2 1	HOSE PACKAGE MMG 18 3M	1
5460 2 2	GROUND CABLE WITH CLIP 3M	1
5460 2 3	INERT GAS HOSE 4.5M	1
5460 1 3	SHOULDER STRAP	1
5460 2 4	FEEDING ROLL 0.6-1.0MM	1
5460 2 5	FEEDING ROLL 0.6-1.0MM FOR FD	1
5460 2 6	PRESSURE ROLL	1
5460 2 7	REAR WIRE GUIDE	1
5460 2 8	PCK(10)GAS NOZZLE	1
5460 2 9	PCK(10)ISOL.SLEEVE F.GAS NOZ.	1

Article No.	Article Description	QTY
5460 2 10	WIRE GUIDE 0.6-1.0MM FE	1
5460 2 11	PCK(5)NECK ISOLATION	1
5460 2 12	PCK(5)NOZZLE HOLDER	1
5460 2 13	COIL FLANGE	1
5460 2 14	SPRING FOR MINARC	1
5460 2 15	WIRE COIL CATCH	1
5460 3 08 1	PCK(10)STREA.NOZZLE M6 Ø 0.8MM	1
5460 3 09 1	PCK(10)STREA.NOZZLE M6 Ø 0.9MM	1
5460 3 10 1	PCK(10)STREA.NOZZLE M6 Ø 1.0MM	1

Minarc MIG Adaptive 180 Welding Machine

- For MIG and MAG welding of steel, stainless steel, aluminium, flux-cored wires and MIG soldering (after re-setting the hose package)
- 230 Volts
- 180 Ampere
- LCD Display
- Optimal welding parameters due to Adaptive Control (controlling wire feed rate and current with one rotary knob)
- Automatic and manual operation
- Suitable for aluminium, stainless steel, and solid wires (after adapting hose package)
- 25% duty cycle
- IEC 974-1 and IEC 60974-5
- Suitable for mobile use
- Thin sheet welding, tacking of heavy pipe and plate
- Highly impact-resistant plastic enclosure
- Weight: 9,8 kg

Article No.	Article Description	QTY
5460 3	MINARC MIG 180 WELDING MACHINE	1

Delivery includes:

- 1x Art. No. 5460 320 Hose package MMG 20 for Fe
- 1x Art. No. 5460 2 3 Inert gas hose, 4,5 m
- 1x Art. No. 5460 3 08 1 Current nozzle M6, Ø 0,8 mm
- 1x Art. No. 5460 1 3 Shoulder strap

Specifications		
Supply voltage:	1~ 50/60 Hz	230 V +/- 15%
Connected load:	25% ED	8,6 kVA/180 A
	60% ED	5,3 kVA/120 A
	100% ED	4,2 kVA/100 A
Connection cable:		2,5 mm², 3,3 m length
Fuse inert:		16 A
Plug:		Schuko
Capacity +40°C:	25% ED	180 A/23 V
	60% ED	120 A/20 V
	100% ED	100 A/19 V
Welding range:		20 A/12 V - 180 A/23 V
Max. welding voltage:		23 V/180 A
Operation factor:		15,5 - 42,5 V
Utilization rate at nominal value:		0,60 (180 A/23 V)
Power coefficient at nominal value:		0,81 (180 A/23 V)
Fuxe-cored wires-Ø:		200 mm (5 kg)
Electrode-Ø:	Fe massive wire	0,6 - 1,0 mm
	Fe flux-cored wire	0,8 - 1,0 mm
	Ss	0,8 - 1,0 mm
	Al	1,0 mm
Protection class:		IP23C
Dimensions:	LxWxH	400 x 180 x 340 mm
Weight:		9,8 kg (incl. burner + cable)



Accessories: Minarc MIG Adaptive 180 Welder



Article No.	Article Description	QTY
5460 3 20	HOSE PACKAGE MMG 20	1
5460 2 2	GROUND CABLE WITH CLIP 3M	1
5460 2 3	INERT GAS HOSE 4.5M	1
5460 1 3	SHOULDER STRAP	1
5460 2 4	FEEDING ROLL 0.6-1.0MM	1
5460 2 5	FEEDING ROLL 0.6-1.0MM FOR FD	1
5460 2 6	PRESSURE ROLL	1
5460 2 7	REAR WIRE GUIDE	1
5460 2 8	PCK(10)GAS NOZZLE	1
5460 2 9	PCK(10)ISOL.SLEEVE F.GAS NOZ.	1

Article No.	Article Description	QTY
5460 2 10	WIRE GUIDE 0.6-1.0MM FE	1
5460 3 35	TEFLON COND.F.ALU SS 3.5MM	1
5460 2 11	PCK(5)NECK ISOLATION	1
5460 2 12	PCK(5)NOZZLE HOLDER	1
5460 2 13	COIL FLANGE	1
5460 2 14	SPRING FOR MINARC	1
5460 2 15	WIRE COIL CATCH	1
5460 3 08 1	PCK(10)STREA.NOZZLE M6 Ø 0.8MM	1
5460 3 09 1	PCK(10)STREA.NOZZLE M6 Ø 0.9MM	1
5460 3 10 1	PCK(10)STREA.NOZZLE M6 Ø 1.0MM	1

Kempact MIG 2530 Welding Machine

- For MIG and MAG welding of steel, stainless steel, aluminium, flux-cored wires and MIG soldering
- 400 Volts
- 250 Ampere
- Excellent welding properties
- Ignition, dynamics, automatic free burning
- Exact stepped control of WF, U, dynamics
- Overvoltage protection
- IEC 974-1 and IEC 60974-5
- Suitable connector plug: product no. 3891 16 1 (not included in delivery)
- Weight: 20 kg



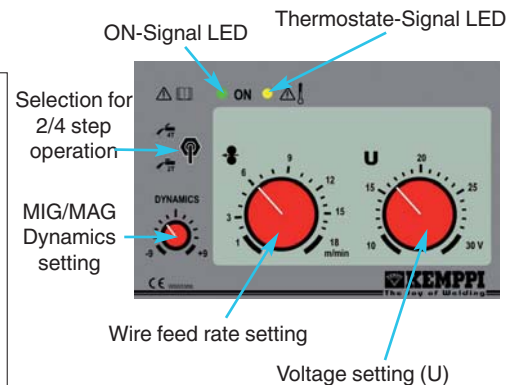
Article No.	Article Description	QTY
5460 4	KEMPACT 2530 WELDING MACHINE	1

Delivery includes:

- 1x Art. No. 5460 4 1 Hose package MMT 27 for Fe, 3 m
- 1x Art. No. 5460 5 1 10 1 Stream nozzle - steel, 1,0 mm
- 1x Art. No. 5460 4 2 Ground cable 35 mm², 5 m
- 1x Art. No. 5460 4 3 Inert gas hose, 5 m

Specifications

Supply voltage:	3~ 50/60 Hz	400 V +/- 15%
Connected load:	40% ED	12 kVA/250 A
	60% ED	10 kVA/207 A
	100% ED	7,5 kVA/160 A
Connection cable:		4x 1,5 mm ² , 5 m length
Fuse inert:		16 A
Plug:		CEE
Capacity +40°C:	40% ED	250 A/26,5 V
	60% ED	207 A/24 V
	100% ED	160 A/22 V
Welding range:		10 - 30 V
Max. welding voltage:		26,5 V/250 A
Utilization rate at nominal value:		0,64 (250 A/26 V)
Power coefficient at nominal value:		0,87 (250 A/26 V)
Wire feed rate:		1 - 18 m/min
Flux-cored wires-Ø:		200 mm (5 kg), 300 mm (15 kg)
Electrode-Ø:	Fe, Ss	0,6 - 1,0 mm
	flux-cored wire	0,9 - 1,2 mm
	Al	0,9 - 1,2 mm
	CuSi	0,8 - 1,0 mm
Protection class:		IP23C
Dimensions:	LxWxH	580 x 280 x 440 mm
Weight:		20 kg



Accessories: Kempact MIG 2530 Welder



Article No.	Article Description	QTY
5460 4 1	HOSE PACKAGE MMT27 3M	1
5460 4 2	GROUND CABLE 35MM ² 5M	1
5460 4 3	INERT GAS HOSE 6M	1
5460 4 9	WIRE GUIDE 0.6-0.8MM FE 3M	1
5460 4 10	WIRE GUIDE 0.9-1.2MM FE 3M	1
5460 4 11	WIRE GUIDE 0.8-1.6MM AL 3M	1
5460 4 12	WIRE GUIDE 0.8-1.0MM SS 3M	1
5460 4 14	PCK(10)GAS NOZ.CYL.FOR MMT27	1
5460 4 15	PCK(10)GAS NOZ.TAP.FOR MMT27	1
5460 4 16	WIRE COIL ADAPTER F.Ø200 COIL	1
5460 5 1 8 1	PCK(10)STREAM NOZZLE ST 0.8MM	1
5460 5 1 10 1	PCK(10)STREAM NOZZLE ST 1.0MM	1
5460 5 1 12 1	PCK(10)STREAM NOZZLE ST 1.2MM	1

Article No.	Article Description	QTY
5460 5 2 10 1	PCK(10)STREAM NOZZLE ALU 1.0MM	1
5460 5 2 12 1	PCK(10)STREAM NOZZLE ALU 1.2MM	1
5460 5 3 8 1	PCK(10)STREAM NOZZLE SS 0.8MM	1
5460 5 3 10	PCK(10)CUR.NOZZLE SS 1.0MM	1
5460 5 5	GAS NOZZLE FOR KEMPACT PULSE	1 z
5460 5 6	NOZZLE HOLD.FOR KEMPACT PULSE	1
5460 5 7	GAS MANIFOLD F.KEMPACT PUL.	1 z
5460 5 9 1	FEED R.0.8-0.9MM WHITE BOTTOM	1
5460 5 9 2	FEED R.0.8-0.9MM WHITE TOP	1
5460 5 9 3	FEED ROLL.1.0MM RED BOTTOM	1
5460 5 9 4	FEED ROLL.1.0MM RED TOP	1
3891 16 1	CEE-PLUG 380V 16A	1

Kempact Pulse 3000 Welding Machine

- For MIG and MAG welding of steel, stainless steel, aluminium, flux-cored wires and MIG soldering
- 400 Volt
- 250 Ampere
- Indispensable for automobile workshops
- One-knob operation of the programmes for welding processes and pulse regulation
- Splatter-free arc welding and soldering
- Spot-weld timer for accurate tack welding and soldering of steel and aluminium
- Water cooling possible (special accessory)
- IEC 974-1 and IEC 6097-4
- Suitable plug with Art. No. 3891 16 1 (not included in delivery)
- Compact design: 22 kg
- Device without hose package

Application fields:

- Automotive repairs
- Aluminium welding
- Soldering of coated steels
- Truck-superstructures



Article No.	Article Description	QTY
5460 8	KEMPACT PULSE WELD.MACH.3000	1

Delivery includes:

- 1x Art. No. 5460 4 2 Ground cable 35 mm², 5 m
- 1x Art. No. 5460 4 3 Inert gas hose, 6 m

Specifications

Supply voltage:	3~ 50/60 Hz	400 V +/- 15%
Connected load:	40% ED	12 kVA/250 A
	60% ED	10 kVA/207 A
	100% ED	7,5 kVA/160 A
Connecting cable:		4x 1,5 mm ² , 5 m
Fus inert:		16 A
Plug:		CEE
Capacity +40°C:	40% ED	250 A/26,5 V
	60% ED	207 A/24 V
	100% ED	160 A/22 V
Welding range:		8 - 30 V
Max. welding voltage:		26,5 V/250 A
Operation factor:		56 V
Utilization rate at nominal value:		0,69 (250 A/26 V)
Power coefficient at nominal value:		0,84 (250 A/26 V)
Wire feed rate:		4-roller drive
Wire coil-Ø:		200 mm (5 kg), 300 mm (15 kg)
Electrode-Ø:	FE, Ss	0,6 - 1,0 mm
	flux-cored wire	0,9 - 1,2 mm
	Al	0,9 - 1,2 mm
	CuSi	0,8 - 1,0 mm
Protection class:		IP23C
Dimensions:	LxWxH	580 x 280 x 440 mm
Weight:		22 kg



- Fast and easy use
- Specially manufactured for automotive repairs and MIG solderings
- One-knob operation
- Pre-setted synergetic programmes AlMg, AlSi, CuAl, Fe, Ss
- 100 memory channels

Accessories: Kempact Pulse 3000 Welding Machine



Art. No. 5460 8 3 Water cooling device Kempactcool 10:

- Welding voltage: 400V 50/60Hz
- Connected load: 100% ED 250W
- Cooling performance: 1.9 kW
- Max. pressure: approx. 4,5 bar
- Recommended cooling fluid: 20 - 40% ethanol/water
- Tank contents: 3 litres
- Dimensions LxWxBxH: 580 x 280 x 300 mm
- Weight: 13 kg

Article No.	Article Description	QTY
5460 8 1	BURNER PMT 32 3M	1
5460 8 2	BURNER PMT 30W 3M	1
5460 4 2	GROUND CABLE 35MM ² 5M	1
5460 4 3	INERT GAS HOSE 6M	1
5460 4 14	PCK(10)GAS NOZ.CYL.FOR MMT27	1
5460 4 15	PCK(10)GAS NOZ.TAP.FOR MMT27	1
5460 4 16	WIRE COIL ADAPTER F.Ø200 COIL	1
5460 5 1 8 1	PCK(10)STREAM NOZZLE ST 0.8MM	1
5460 5 1 10 1	PCK(10)STREAM NOZZLE ST 1.0MM	1
5460 5 1 12 1	PCK(10)STREAM NOZZLE ST 1.2MM	1
5460 5 2 08	PK(10)STREAM NOZZLE ALU. 0.8MM	1
5460 5 2 10 1	PCK(10)STREAM NOZZLE ALU 1.0MM	1
5460 5 2 12 1	PCK(10)STREAM NOZZLE ALU 1.2MM	1
5460 5 3 8 1	PCK(10)STREAM NOZZLE SS 0.8MM	1
5460 5 3 10	PCK(10)CUR.NOZZLE SS 1.0MM	1
5460 5 3 12	PK(10)STREAM NOZZLE SS 1.2MM	1
5460 5 5	GAS NOZZLE FOR KEMPACT PULSE	1 z

Article No.	Article Description	QTY
5460 5 6	NOZZLE HOLD.FOR KEMPACT PULSE	1
5460 5 7	GAS MANIFOLD F.KEMPACT PUL.	1 z
5460 5 9 1	FEED R.0.8-0.9MM WHITE BOTTOM	1
5460 5 9 2	FEED R.0.8-0.9MM WHITE TOP	1
5460 5 9 3	FEED ROLL.1.0MM RED BOTTOM	1
5460 5 9 4	FEED ROLL.1.0MM RED TOP	1
5460 8 7	FEED ROLL 1.2MM ORANGE BOTTOM	1
5460 8 8	FEED ROLL 1.2MM ORANGE TOP	1
5460 8 1 1	TEFLON CONDUCTOR FOR ALU 3M	1
5460 8 1 2	TEFLON CONDUCTOR FOR SS 3M	1
5460 4 9	WIRE GUIDE 0.6-0.8MM FE 3M	1
5460 4 10	WIRE GUIDE 0.9-1.2MM FE 3M	1
5460 8 3	KEMPACTCOOL 10 WAT.COOL.DEVICE	1
5460 8 4	REMOTE CONTROL RMT10 FOR PMT	1
5460 8 5	TROLLEY P20 FOR PULSE 3000	1
3891 16 1	CEE-PLUG 380V 16A	1

Trolley for Welding Equipment

- Trolley with bottle holder
- Suitable for Minarc and Kempact
- Two supports for hose package, ground cable etc.
- Dimensions LxWxH: 84 x 46 x 70 cm
- Dimensions of trays LxW: 53.5 x 32.5 cm
- Weight: 22.5 kg
- Lifting capacity: 65 kg



Article No.	Article Description	QTY
5460 99	TROLLEY FOR WELDERS	1

Coil Adapter

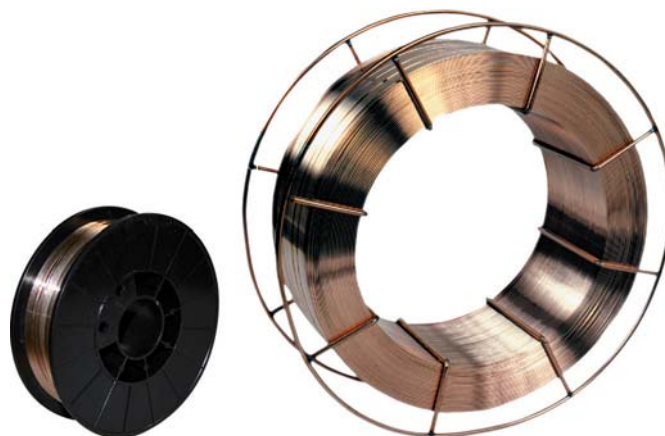
Article No.	Article Description	QTY
5450 1	ADAPTER FOR COILS	1



Inert Gas Welding Wire SG 2

- TÜV - "robot-quality"
- Spooled
- Environmentally-friendly 300mm Ø wire basket roll (15kg)
- 200mm Ø plastic roll (5kg)
- For unalloyed, low-alloyed and fine-grained steels up to StE 420
- Tensile strength: 510 – 560 N/mm²
- W-No.: 1.5124, AWS: ER 70 S-6

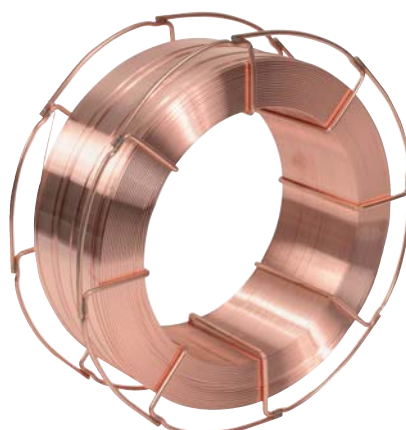
Article No.	Article Description	QTY
5450 06	RO(15KG)INERT GAS WLD.WIRE 0.6	1
5450 08	RO(15KG)INERT GAS WLD.WIRE 0.8	1
5450 10	RO(15KG)INERT GAS WLD.WIRE 1.0	1
5450 12	RO(15KG)INERT GAS WLD.WIRE 1.2	1
5450 06 5	RO(5KG)INERT GAS WLD.WIRE 0.6	1
5450 08 5	RO(5KG)INERT GAS WLD.WIRE 0.8	1
5450 10 5	RO(5KG)INERT GAS WLD.WIRE 1.0	1



Inert Gas Welding Wire SG 3

- TÜV-"robot quality"
- Spooled
- Environmentally friendly 300mm Ø wire basket roll (15 kg)
- 200 mm Ø plastic roll (5 kg)
- For joint and build-up welding of construction and pipe steel as well as fine-grained steel up to StE 420
- Tensile strength: 600-680 N/mm²
- W-No.: 1.5130, AWS: ER A 5.18 ER 70 S-6

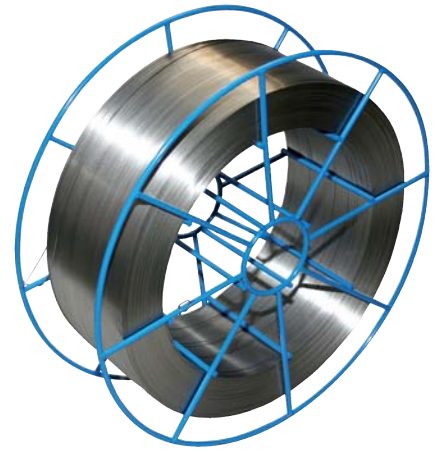
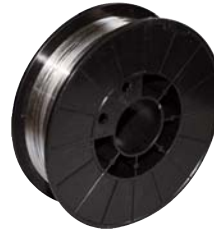
Article No.	Article Description	QTY
5450 08 3 5	RO(5KG)INER.G.WLD.WIRE SG3 0.8	1
5450 10 3 5	RO(5KG)INER.G.WLD.WIRE SG3 1.0	1
5450 08 3 15	RO(15KG)INE.G.WLD.WIRE SG3 0.8	1
5450 10 3 15	RO(15KG)INE.G.WLD.WIRE SG3 1.0	1
5450 12 3 15	RO(15KG)INE.G.WLD.WIRE SG3 1.2	1



Inert Gas Welding Wire for V2A

- TÜV – "robot-quality"
- Spooled
- Environmentally friendly 300mm Ø wire basket roll (15kg)
- 200mm Ø plastic roll (5kg)
- W-No.: 1.4316, AWS A 5.9: ER 308 L Si
- Tensile strength: 590 N/m²

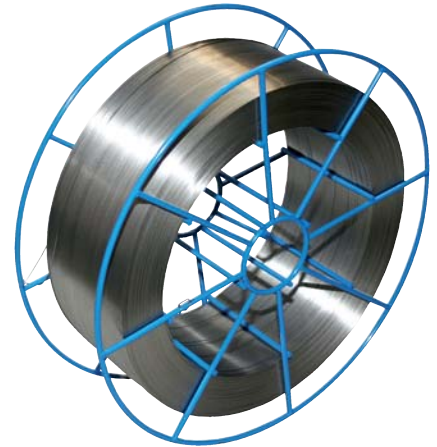
Article No.	Article Description	QTY
5450 08 8 1	RO(5KG)INERT.G.WLD.W.V2A 0.8	1
5450 08 8 2	RO(15KG)INERT.G.WLD.W.V2A 0.8	1
5450 10 8 1	RO(5KG)INERT.G.WLD.W.V2A 1.0	1
5450 10 8 2	RO(15KG)INERT.G.WLD.W.V2A 1.0	1



Inert Gas Welding Wire for V4A

- TÜV – "robot-quality"
- Spooled
- Environmentally friendly 300mm Ø wire basket roll (15kg)
- 200mm Ø plastic roll (5kg)
- W-No.: 1.4430, AWS A 5.9: ER 316 L Si
- Tensile strength: 600 N/m²

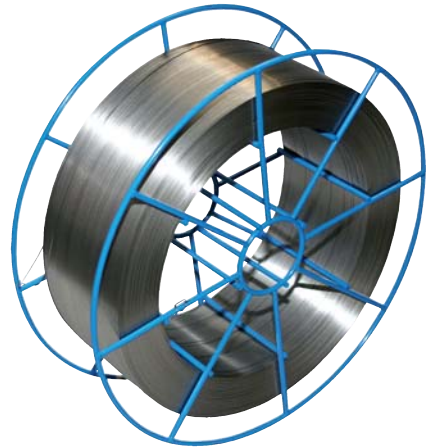
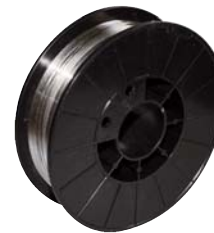
Article No.	Article Description	QTY
5450 08 9 1	RO(5KG)INERT.G.WLD.W.V4A 0.8	1
5450 08 9 2	RO(15KG)INERT.G.WLD.W.V4A 0.8	1
5450 10 9 1	RO(5KG)INERT.G.WLD.W.V4A 1.0	1
5450 10 9 2	RO(15KG)INERT.G.WLD.W.V4A 1.0	1



Inert Gas 4370 Welding Wire

- For joining steel and stainless steel
- TÜV – "robot-quality"
- Spooled
- Environmentally friendly 300mm Ø wire basket roll (15kg)
- 200mm Ø plastic roll (5kg)
- W-No.: 1.4370, AWS A 5.9: ER 307 L: ER 307
- Brinell hardness: approx. 200 HB
- Tensile strength: 600 N/m²

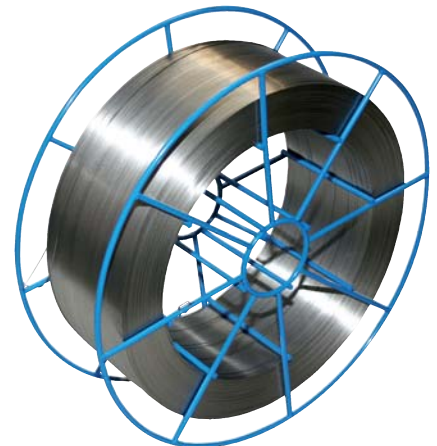
Article No.	Article Description	QTY
5450 08 10 1	RO(5KG)INER.G.WLD.W.FE/INOX0.8	1
5450 08 10 2	RO(15KG)INER.G.WL.W.FE/INOX0.8	1
5450 10 10 1	RO(5KG)INER.G.WL.W.FE/INOX1.0	1
5450 10 10 2	RO(15KG)INER.G.WL.W.FE/INOX1.0	1



Inert Gas Aluminium Welding Wire

- TÜV – "robot-quality"
- Spooled
- Environmentally friendly 300mm Ø wire basket roll (7kg)
- 200mm Ø plastic roll (2kg)
- ALMG 5 – tensile strength: 235 N/mm²
- ALSI 5 – tensile strength: 130 N/mm² (bright weld seam surface)
- ALMG5: W-No. 3.3556, AWS A 5.10: ER 5356
- ALSI5: W-No. 3.2245, AWS A 5.10: ER 4043

Article No.	Article Description	QTY
5450 08 11 1	RO(2KG)INERT.G.WL.W.ALMG5 0.8	1
5450 10 11 1	RO(2KG)INERT.G.WL.W.ALMG5 1.0	1
5450 10 11 2	RO(7KG)INERT.G.WL.W.ALMG5 1.0	1
5450 12 11 2	RO(7.5KG)INER.G.WL.W.ALMG5 1.2	1
5450 08 12 1	RO(2KG)INERT.G.WL.W.ALSI5 0.8	1
5450 10 12 1	RO(2KG)INERT.G.WL.W.ALSI5 1.0	1
5450 10 12 2	RO(7KG)INERT.G.WL.W.ALSI5 1.0	1
5450 12 12 2	RO(7.5KG)INER.G.WL.W.ALSI5 1.2	1



Special Inert Gas Welding Wire for Zn Sheets

- TÜV – “robot quality”
- Spooled
- Environmentally friendly coil (15kg) Ø 300 mm
- Plastic roll (5kg) Ø 200 mm
- Optimum welding of rusted and zinced sheets as well as for overwelding of prefabrication primer
- Excellent weldability due to improved liquid of the weld metal, even and smooth surface
- Low spatter and burn-up of zinc coatings

Art. No. 5450 08 1:

- EN 440 G2Si1, AWS: ER 70 S-G
- Tensile strength 440 N/mm²

Art. No. 5450 08 5 1; 5450 10 1 1; 5450 10 5 1:

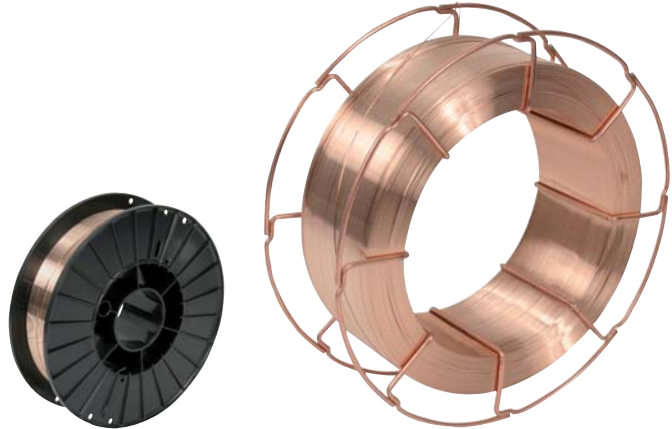
- EN 440 G2Ti, AWS: ER 70 S-2
- Tensile strength: 560 N/mm²



Article No.	Article Description	QTY
5450 06 5 1	RO(5KG)INERT GAS WIRE ZN 0.6	1
5450 08 1	RO(15KG)INERT GAS WIRE ZN 0.8	1
5450 08 5 1	RO(5KG)INERT-GA-WIRE 0.8	1
5450 10 1	RO(15KG)INERT GAS WIRE ZN 1.0	1
5450 10 5 1	RO(5KG)INERT-GA-WIRE 1.0	1

Inert Gas Welding Wire - MIG-Soldering SG-CuSi3

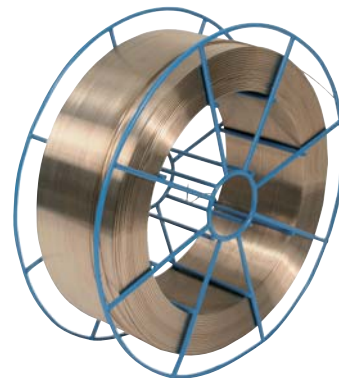
- TÜV – “robot-quality”
- Spooled
- Environmentally friendly coil (15kg) Ø 300 mm
- 200mm Ø plastic roll (5kg)
- For joint-welding of copper, copper-zinc-alloy, build-up welding at cast iron as well as unalloyed and low alloyed steels
- Brinell hardness: 90 HB
- Tensile strength: 370 N/mm²
- W-No.: 2.1461, AWS: ER CuSi-A
- EN 14640



Article No.	Article Description	QTY
5450 08 6 1	RO(5KG)INER.GAS WIRE CUSI3 0.8	1
5450 10 6 1	RO(5KG)INER.GAS WIRE CUSI3 1.0	1
5450 08 6 2	RO(15KG)INE.GAS WIRE CUSI3 0.8	1
5450 10 6 2	RO(15KG)INE.GAS WIRE CUSI3 1.0	1

Inert Welding Wire, Hardfacing DT-SG 600

- TÜV-“robot-quality”
- Spooled
- Environmentally friendly coil (15 kg) Ø 300 mm
- For build-up welding at machine parts or steel casting which is subjected to wear e.g. digger parts, conveyor worm or slide hammer
- The weld metal is very tenacious and abrasionproof
- Brinell hardness: 570
- Rockwell hardness: 55
- W-No.: 1.4718, AWS:M SG 6-GZ-60



Article No.	Article Description	QTY
5450 12 7	RO(15KG)INE.G.WIRE HARDFAC.1.2	1

Flux-cored Wire

- For welding without gas
- Spooled
- Usable for stitch, groove and fillet welding at low alloyed sheets
- For structural steel work, agricultural repairs and common repair welding
- Tensile strength: 520 N/mm²
- EN 758, AWS: A 5.20: E7 1T-11

Article No.	Article Description	QTY
5450 09 1	RO(4.5KG)FLUX-CORED WIRE 0.9	1



WIG Welding Rods for Fe

- Welding rod for WIG welding of low alloyed boiler and pipe steels
- Tensile strength: 560 N/mm²
- W-No.: 1.5125, AWS: ER 70S-6
- Rod length: 1000 mm



Article No.	Article Description	QTY
5455 16 0	KG-WIG FLUX-COR.W.SG2-FE 1.6MM	e 5
5455 20 0	KG-WIG FLUX-COR.W.SG2-FE 2.0MM	e 5
5455 24 0	KG-WIG FLUX-COR.W.SG2-FE 2.4MM	e 5
5455 30 0	KG-WIG FLUX-COR.W.SG2-FE 3.0MM	e 5

WIG Welding Rods for V2A

- W-No.: 4316, AWS: 308
- Rod length: 1000 mm



Article No.	Article Description	QTY
5455 16 1	KG WELDING RODS 4316 V2A 1.6MM	e 5
5455 20 1	KG WELDING RODS 4316 V2A 2.0MM	e 5
5455 24 1	KG WELDING RODS 4316 V2A 2.4MM	e 5

WIG Welding Rods for V4A

- W-No.: 4430, AWS: 316
- Rod length: 1000 mm



Article No.	Article Description	QTY
5455 16 2	KG WELDING RODS 4430 V4A 1.6MM	e 5
5455 20 2	KG WELDING RODS 4430 V4A 2.0MM	e 5
5455 24 2	KG WELDING RODS 4430 V4A 2.4MM	e 5

WIG Welding Rods for Fe/INOX

- For joining steel and stainless steel
- W-No.: 4370, AWS: 307
- Rod length: 1000 mm



Article No.	Article Description	QTY
5455 16 3	KG WLD.RODS 4370 FE/INOX 1.6MM	e 5
5455 20 3	KG WLD.RODS 4370 FE/INOX 2.0MM	e 5
5455 24 3	KG WLD.RODS 4370 FE/INOX 2.4MM	e 5

WIG Welding Rods for Aluminium

- ALMG 5 – tensile strength: 235 N/mm²
- ALSI 5 – tensile strength: 130 N/mm² (bright weld seam surface)
- Rod length: 1000 mm



Article No.	Article Description	QTY
5455 16 4	KG WELDING ROD ALMG5 1.6MM	e 5
5455 20 4	KG WELDING ROD ALMG5 2.0MM	e 5
5455 24 4	KG WELDING ROD ALMG5 2.4MM	e 5
5455 16 5	KG WELDING ROD ALSI5 1.6MM	e 5
5455 20 5	KG WELDING ROD ALSI5 2.0MM	e 5
5455 24 5	KG WELDING ROD ALSI5 2.4MM	e 5

Electrode RC 3

- Approvals:: TÜV, DB, Ü, GL, UDT
- EN 499:E 42 0 RC 11
- AWS A 5.1:E6013
- Ideally suitable for case seam welding
- Moisture repellent
- Flexible and does not lose the coating
- Welds through zinc, rust and colour
- Welding positions: tub, horizontal-vertical, transverse, horizontal-overhead and vertical up position (PA, PB, PC, PD, PE, PF)

Application:

- Universal electrode in steel, machine, ship and vehicle construction



Specifications

Operating temperature:

-10°C to +350°C

Base material:

DIN EN 10025 S235JRG1, S235JRG2, S235JRG3, S275JR, S275J2G3, S355J2G3
 DIN EN 10028-2 P235GH, P265GH, P295GH, P355GH
 DIN EN 10028-3 P275N, P355N, P275NH, P355NH,
 DIN 17100 St 37-2, St 44-2, St 52-3
 DIN 17175 St 35.8, St 45.8, 17 Mn 4, 19 Mn 5
 DIN 17102 StE 255 - StE 355, WStE 255 - WStE 355
 DIN 17172 StE 210.7 - StE 360.7 TM
 DIN 17155 Hl, Hll, 17 Mn 4, 19 Mn 6
 Ship building steel: A-B-D

Mechanical properties of all-weld metal (typical values):

Tensile strength R_m : 510 N/mm²
 Yield strength R_{eL} : > 420 N/mm²
 Elongation A_5 : > 22 %
 Impact strength ISO-V J at -10°C: > 47

Weld metal analysis (typical wt %):

C 0,07 %
 Si 0,3 %
 Mn 0,5 %

Current: = -/~, 42 V

Rebaking: 1 hour, +100°C ± 10°C (if necessary)

Amperage:	Electrode	Amperage (A)
	2,0 x 300	50 - 80
	2,5 x 350	75 - 100
	3,2 x 350	90 - 130

Article No.	Article Description	QTY
5451 20 300 10	PK(4KG)ELECTRODE RC 3 2.0	1
5451 25 350 10	PK(5KG)ELECTRODE RC 3 2.5	1
5451 32 350 10	PK(5KG)ELECTRODE RC 3 3.2	1

Electrode B 10

- Approvals: TÜV, DB, Ü, GL, UDT
- EN 499:E 42 B 42 H5
- AWS A 5.1:E7018
- For high-quality and crack-proof joint weldings
- Welding positions: tub, horizontal-vertical, transverse, horizontal-overhead and vertical up positions

Application:

- Steel, boiler, container, ship, bridge, machine and vehicle construction



Specifications

Operating temperature:	-40°C to +450°C	
Base materials:	DIN EN 10025	S235JRG1, S235JRG2, S235JRG3, S275JR, S275J2G3, S355J2G3
	DIN EN 10028-2	P235GH, P265GH, P295GH, P355GH
	DIN EN 10028-3	P275N, P275NH, P275NL2, P355N, P355NH, P420NL1
	DIN 17100	St 37-2, St 44-2, St 52-3, ST 50-2
	DIN 17175	St 35.8, St 45.8, 17 Mn 4, 19 Mn 5
	DIN 17102	StE 255 - StE 420, WStE 255 - WStE 420, TStE 255 - TStE 420, EStE 255 - EStE 420
	DIN 17172	StE 210.7 - StE 415.7 TM
	DIN 17155	HI, HII, 17 Mn 4, 19 Mn 6
Shipbuilding steel:		A-B-D-E, A36, D36, E36, F32, F36

Mecanical properties of all-weld metal (typical value):

Tensile strength R_m :	530 N/mm ²
Yield strength R_{eL} :	> 420 N/mm ²
Elongation A_5 :	> 22 %
Impact strength ISO-V J at -10°C:	> 47

Weld metal analysis (typical wt %):

C	0,07 %
Si	0,5 %
Mn	1,0 %

Current: = +

Rebaking: 1 hour, +350°C ± 10°C (if necessary)
1 hour, +400°C = < 5 ml hydrogen

Amerage:	Electrode	Amperage (A)
	2,5 x 350	80 - 100
	3,2 x 350	110 - 150

Article No.	Article Description	QTY
5451 25 350 11	PK(5KG)ELECTRODE B 10 2.5	1
5451 32 350 11	PK(5KG)ELECTRODE B 10 3.2	1

Electrode RR 6

- Approvals: TÜV, DB, Ü, GL, UDT
- EN 499:E 42 0 RR 12
- AWS A 5.1:E6013
- Electrode for very smooth seams
- Easy removal of slags
- Welding positions: tub, horizontal-vertical, transverse, horizontal-overhead, vertical up position

Application:

- Electrode is universally applicable



Specifications

Operating temperature:	-10°C bis +450°C	
Base materials:	DIN EN 10025	S235JRG1, S235JRG2, S235JRG3, S275JR, S275J2G3, S355J2G3
	DIN EN 10028-2	P235GH, P265GH, P295GH, P355GH
	DIN EN 10028-3	P275N, P355N
	DIN 17100	St 37-2, St 44-2, St 52-3
	DIN 17175	St 35.8, St 45.8, 17 Mn 4, 19 Mn 5
	DIN 17102	StE 255 - StE 355
	DIN 17172	StE 210.7 - StE 360.7 TM
	DIN 17155	HI, HII, 17 Mn 4, 19 Mn 6
	Shipbuilding steels: A-B-D	

Mechanical properties of all-weld metal (typical values):

Tensile strength R_m :	520 N/mm ²
Yield strength R_{eL} :	> 420 N/mm ²
Elongation A_5 :	> 22 %
Impact strength ISO-V J bei -10°C:	> 47

Weld metal analysis (typical wt %):

C	0,06 %
Si	0,4 %
Mn	0,5 %

Current: = - / ~ 42 V (conditionally = +)

Rebaking: 1 hours, +100°C ± 10°C (if necessary)

Amperage:	Electrode	Amperage (A)
	2,0 x 300	40 - 80
	2,5 x 350	60 - 110
	3,2 x 350	80 - 140

Article No.	Article Description	QTY
5451 20 300 13	PK(4KG)ELECTRODE RR 6 2.0	1
5451 25 350 13	PK(5KG)ELECTRODE RR 6 2.5	1
5451 32 350 13	PK(5KG)ELECTRODE RR 6 3.2	1

Electrode DUR 59

- DIN 8555:E10-UM-60-GR
- AWS A5.13:21:EFcCr-A1
- Build-up electrode
- High performance electrode with approx. 160 % ejection
- For high abrasionproof non-corroding armouring
- Smooth and bright surface
- Welding positions: tub, horizontal-vertical position

Application:

- For pump parts, agitating arms, concrete pumps, conveyor worms, coke oven slides and agricultural works



Specifications

Mechanical properties of all-weld metal (typical values):

Hardness HRC: approx. 59

Weld metal analysis (typical wt %):

C 3,8 %
Si 0,9 %
Cr 33 %
others approx. 2 %

Current: = + / ~ 50 V

Rebaking: 1 hour, +350°C ± 10°C (if necessary)

Amperage:

Electrode	Strom (A)
2,5 x 350	70 - 120
3,2 x 350	90 - 150

Article No.	Article Description	QTY
5451 25 350 12	PK(5KG)ELECTRODE DUR 59 2,5	1
5451 32 350 12	PK(5KG)ELECTRODE DUR 59 3,2	1

Electrode 4459 AC

- Approvals: TÜV, DB, Ü, GL, UDT
- International standards: EN 1600:E 23 12 2 L R 12; AWS A 5.4:E309 MoL-17
- High alloy level provides crack-proof welds
- For high-alloyed and difficult-to-weld steels
- Welding positions: tub, horizontal-vertical, transverse, horizontal-overhead and vertical up position (PA, PB, PC, PD, PE, PF)
- The weld metal is heat resistant and non-scaling up to +1050°C



Specifications

Operating temperature:

-20°C up to +300°C

Base materials:

Dissimilar joints: 1.4583 with H I / H II, 17 Mn 4, StE 355
P235GH / P256GH / P295GH / P355N
Buffer layers (first layer) for metal sheet plating
Carrier material: H I / H II, 17 Mn 4, StE 255 up to StE 460
P235GH / P256GH / P295GH / P255N up to P460N
1.4401 x 5 CrNiMo 17 12 3
1.4404 x 2 CrNiMo 17 13 2

Mechanical properties of all-weld metal (typical values):

Tensile strength R_m : 650 N/mm²
Yield strength $R_{p0.2}$: 450 N/mm²
Elongation A_5 : 28 %
Impact strength ISO-V J at -20°C: 48

Weld metal analysis (typical wt %):

C < 0.04 %
Si 0.9 %
Mn 0.7 %
Cr 23 %
Ni 13 %
Mo 2.6 %

Current : = +/-, 42 V

Rebaking: 1 h., +350°C ± 10°C (if necessary)

Amperage:	Electrode	Amperage (A)
	2.0 x 300	30 - 60
	2.5 x 300	50 - 80
	3.2 x 350	60 - 100
	4.0 x 350	80 - 140

Article No.	Article Description	QTY
5451 20 300 5	PK(4KG)ELECTRODE 4459 AC 2.0	1
5451 25 300 5	PK(4KG)ELECTRODE 4459 AC 2.5	1
5451 32 350 5	PK(5KG)ELECTRODE 4459 AC 3.2	1
5451 40 350 5	PK(5KG)ELECTRODE 4459 AC 4.0	1

Electrode RC 3 Blue

- Approvals: TÜV, DB, Ü, UDT
- International standards: EN 499:E 38 0 RC 11
- AWS A 5.1:E6013
- Ideally suited for assembly welding on galvanized and primed sheets
- Flexible without loosening the sheathing
- For approx. 2 h humidity-resistant
- Welding positions: tub, horizontal-vertical, transverse, horizontal-overhead, vertical up and vertical down positions

Applications:

- Structural steel engineering, industrial engineering, shipbuilding and vehicle construction

Specifications

Operating temperature:	-10°C up to +350°C	
Base materials:	DIN EN 10025	S235JRG1, S235JRG2, S235JRG3, S275JR, S275J2G3, S355J2G3
	DIN EN 10028-2	P235GH, P265GH, P295GH, P355GH
	DIN EN 10028-3	P275N, P355N
	DIN 17100	St 37-2, St 44-2, St 52-3
	DIN 17175	St 35.8, St 45.8, 17 Mn 4, 19 Mn 5
	DIN 17102	StE 255 - StE 355
	DIN 17172	StE 210.7 - StE 360.7 TM
	DIN 17155	H I, H II, 17 Mn 4, 19 Mn 6

Mechanical properties of all-weld metal (typical values):

Tensile strength R_m :	500 N/mm ²
Yield strength $R_{p0.2}$:	> 380 N/mm ²
Elongation A_5 :	> 22 %
Impact strength ISO-V J at -10°C:	> 47

Weld metal analysis (typical wt %):

C	0.07 %
Si	0.3 %
Mn	0.5 %

Current:	= +/-, 42 V	
Rebaking:	1 h, 100°C ± 10°C (if necessary)	
Amperage:	Electrode	Amperage (A)
	2.5 x 350	65 - 85
	3.2 x 350	95 - 145

Article No.	Article Description	QTY
5451 25 350 7	PK(5KG)ELECTRODE RC 3 BLUE 2.5	1
5451 32 350 7	PK(5KG)ELECTRODE RC 3 BLUE 3.2	1

Electrode 29/9 AC

- Approvals: DB
- International standards EN 1600:E 29 9 R 12
- AWS A 5.4:E312-17
- DIN 8555:E9-UM-200-CKRTZ
- High tensile strength, impact proof, tough, acid and heat resistant up to +1000°C
- For difficult-to-weld base materials such as: high-carbon steel, tool steel, spring steel, manganese steel, case-hardening steel, high-speed steels, cast steels, screening steel etc.
- Welding positions: tub, horizontal-vertical, transverse, horizontal overhead, vertical up and vertical down position

Specifications

Operating temperature:	20°C up to +300°C
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Mechanical properties of all-weld metal (typical values):

Tensile strength R_m :	800 N/mm ²
Yield strength $R_{p0.2}$:	580 N/mm ²
Elongation A_5 :	20 %
Impact strength DVM J bei RT:	30
Hardness HB:	approx. 200

Weld metal analysis (typical, wt %):

C	0.10 %
Si	1.2 %
Mn	0.7 %
Cr	29 %
Ni	9.5 %

Current:	= +/-, 42 V	
Rebaking:	1 h, 350°C ± 10°C (if necessary)	
Amperage:	Electrode	Amperage (A)
	2.5 x 300	50 - 80
	3.2 x 350	70 - 100

Article No.	Article Description	QTY
5451 25 300 6	PK(4KG)ELECTRODE 29/9 AC 2.5	1
5451 32 350 6	PK(5KG)ELECTRODE 29/9 AC 3.2	1

Electrode 4316 AC for V2A

- Approvals: TÜV, DB, Ü, UDT
- International standards EN 1600:E 19 9 L R 12
- AWS A 5.4:E308L-17
- No intercrystalline corrosion due to low carbon content
- The weld metal is capable of taking high polish
- Welding positions: tub, horizontal-vertical, transverse, horizontal-overhead, overhead and vertical up positions



Specifications

Operating temperature:	-120°C up to +350°C	
Base materials:	1.4306 X2CrNi19-11	1.4312 GX10CrNi18-10
	1.4311 X2CrNi18-10	1.4541 X6CrNiTi18-10
	1.4300 X6CrNiNb18-10	1.4550 X6CrNiNb18-10
	1.4301 X5CrNi18-10	1.4552 GX5CrNiNb19-11
	1.4308 GX5CrNi19-10	

Mechanical properties of all-weld metal (typical values):

Tensile strength R_m :	560 N/mm ²
Yield strength $R_{p0.2}$:	380 N/mm ²
Elongation A_5 :	> 35 %
Impact strength ISO-V J at -120°C:	> 32

Weld metal analysis (typical wt %):

C	< 0.03 %
Si	0.8 %
Mn	0.7 %
Cr	19 %
Ni	10 %

Current: = +/-, 42 V

Rebaking: 1 h, 350°C ± 10°C (if necessary)

Amperage:	Electrode	Amperage (A)
	2.0 x 300	40 - 55
	2.5 x 300	50 - 75
	3.2 x 350	65 - 110
	4.0 x 350	90 - 140

Article No.	Article Description	QTY
5451 20 300 8	PK(4KG)ELECTRODE 4316 AC 2.0	1
5451 25 300 8	PK(4KG)ELECTRODE 4316 AC 2.5	1
5451 32 350 8	PK(4KG)ELECTRODE 4316 AC 3.2	1
5451 40 350 8	PK(4KG)ELECTRODE 4316 AC 4.0	1

Electrode 4430 AC for V4A

- Approvals: TÜV, DB, Ü, GL, UDT
- International standards EN 1600:E 19 12 3 L R 12
- AWS A 5.4:E316-17
- No intercrystalline corrosion due to low corrosion content
- The weld metal is capable of taking high polish
- Welding positions: tub, horizontal-vertical, transverse, horizontal-overhead, overhead and vertical up positions



Specifications

Operating temperature:

-120°C up to +400°C

Base materials:

1.4404 X2CrNiMo17-13-2
1.4435 X2CrNiMo18-14-3
1.4409 GX2CrNiMo19-11-2
1.4429 X2CrNiMo17-13-3
1.4401 X5CrNiMo17-12-2
1.4436 X3CrNiMo17-13-3

1.4437 GX6CrNiMo18-12

1.4408 GX5CrNiMo19-11-2

1.4571 X6CrNiMo17-12-2

1.4580 X6CrNiMoNb17-12-2

14581 GX5CrNiMoNb19-11-2

1.4583 (G)X10CrNiMoNb18-12

1.4583 with H I / H II, 17 Mn 4, 15 Mo 3

StE 255 up to StE 355

P235GH/P256GH, P295GH, 16Mo3, P255N up to P355N max. +300°C

Dissimilar metal weld:

Mechanical properties of all-weld metal (typical values):

Tensile strength R_m : 580 N/mm²

Yield strength $R_{p0.2}$: 400 N/mm²

Elongation A_5 : > 32 %

Impact strength ISO-V J at +120°C: 37

Weld metal analysis (typical, wt %):

C: < 0.03 %

Si: 0.8 %

Mn: 0.6 %

Cr: 19 %

Ni: 12 %

Mo: 2.8

Current: = +/-, 50 V

Rebaking: 1 h, 350°C ± 10°C (if necessary)

Amperage:	Electrode	Amperage (A)
	2.0 x 300	35 - 55
	2.5 x 300	50 - 80
	3.2 x 350	70 - 110
	4.0 x 350	95 - 140

Article No.	Article Description	QTY
5451 20 300 9	PK(4KG)ELECTRODE 4430 AC 2.0	1
5451 25 300 9	PK(4KG)ELECTRODE 4430 AC 2.5	1
5451 32 350 9	PK(5KG)ELECTRODE 4430 AC 3.2	1
5451 40 350 9	PK(5KG)ELECTRODE 4430 AC 4.0	1

Electrode Cast Ni

- Approvals: TÜV, DB
- DIN 8573-83:E Ni BG 22
- AWS A 5.15-90:E Ni-C1
- Nickel electrode for gray cast iron and malleable iron
- With special covering
- Welding positions: tub, horizontal, transverse, vertical up and overhead positions

Application:

- For repair weldings of gray cast iron and malleable iron as well as for joint welding materials e.g. steel, monel metal, rust-free steels



Specifications

Base materials: GG-10 to GG-35; GTS-35-10 to GTS-70-02
GTW-35-04 to GTW-S-38-12

Mechanical properties of all-weld metal (typical values):

Tensile strength R_m : 240 - 290 N/mm²
Elongation A_5 : 10 - 20 %
Hardness: 150 - 170 HV

Weld metal analysis (typical wt %):

C 0,5 %
Ni 94,0 %
Fe 2,5 %

Current: = -/~

Amperage: Electrode Amperage(A)
2,5 x 350 50 - 90

Article No.	Article Description	QTY
5451 25 350 4	KG ELECTRODE CAST NI 2.5X350	1

Application schedule for electrodes

Electrode/Material	RC 3	B 10	RR 6	DUR 59	4459 AC	RC 3 blue	29/9 AC	4316 AC	4430 AC	Cast Ni
Unalloyed and low alloyed steel										
Free cutting steel	X	X	X			X				
Construction steel	X	X	X			X				
Case-hardening steel	X	X	X			X	X			
Spring steel							X			
Heat-treatable steel	X	X	X			X	X			
Gray cast iron and malleable iron										X
Alloyed and high-alloyed steel										
Free cutting steel		X			X			X	X	
Construction steel		X								
Case-hardening steel							X			
Spring steel							X			
Cast iron and cast steel		X			X		X			X
Heat-resistant steel				X	X		X	X	X	
Rust and acid-resistant steel				X	X		X	X	X	X
High-speed steel							X			
Tempering steel				X			X	X		
Wear-resistant steel				X			X			
Tool steel for hot working							X			
Tool steel for cold working							X			
Welding position*	PA, PB, PC, PD, PE, PF, PG	PA, PB, PC, PD, PE, PF	PA, PB, PC, PD, PE, PF	PA, PB	PA, PB, PC, PD, PE, PF	PA, PB, PC, PD, PE, PF, PG	PA, PB, PC, PD, PE, PF	PA, PB, PC, PD, PE, PF	PA, PB, PC, PD, PE, PF	PA, PB, PC, PD, PE, PF

PA = flat welding position, PB = horizontal, PC = transverse, PF = bottom poured, PG = top-cast, PE = overhead, PD = horizontal-overhead

Material catalogue

Low and medium alloyed steel															
CARBO RC 3	1.0345	1.0305	1.0037	1.0038	1.0114	1.0116	1.0254	1.0255	1.0619	1.0457	1.0418	1.0111	1.0461	1.0462	1.0405
	1.0425	1.0423	1.0256	1.0257	1.0044	1.0484	1.0429	1.0481	1.0437	1.0505	1.0506	1.0557	1.0421	1.0581	1.0570
	1.0428	1.0466	1.0438	1.0402	1.1151										
CARBO RC 3 Blau	1.0345	1.0305	1.0037	1.0038	1.0114	1.0116	1.0254	1.0255	1.0619	1.0457	1.0418	1.0111	1.0461	1.0462	1.0405
	1.0423	1.0256	1.0257	1.0044	1.0484	1.0429	1.0481	1.0437	1.0505	1.0507	1.0421	1.0581	1.0570	1.0428	1.0466
	1.0438	1.0402	1.1151												
CARBO RR 6	1.0345	1.0305	1.0037	1.0038	1.0114	1.0116	1.0254	1.0255	1.0619	1.0457	1.0418	1.0111	1.0461	1.0462	1.0405
	1.0425	1.0423	1.0256	1.0257	1.0044	1.0484	1.0429	1.0481	1.0482	1.0437	1.0505	1.0506	1.0473	1.0557	1.0565
	1.0421	1.0581	1.0570	1.0578	1.0582	1.8948	1.0402	1.1151							
CARBO B 10	1.0345	1.0305	1.0037	1.0038	1.0114	1.0116	1.0254	1.0255	1.0619	1.0457	1.0418	1.0111	1.0461	1.0462	1.0463
	1.1103	1.0405	1.1101	1.0425	1.0423	1.0486	1.0487	1.0488	1.1104	1.0256	1.0257	1.0044	1.0144	1.8818	1.8819
	1.0490	1.0484	1.0429	1.0481	1.0482	1.0437	1.0972	1.0505	1.0506	1.0508	1.1105	1.0060	1.0473	1.0557	1.0565
	1.0562	1.8866	1.8867	1.0421	1.0581	1.0570	1.8823	1.0976	1.0545	1.1106	1.0070	1.0578	1.0582	1.8948	1.8947
	1.8972	1.8973	1.0428	1.8824	1.8835	1.8825	1.0980	1.8902	1.8932	1.8912	1.8913	1.0466	1.0438	1.1131	1.1120
	1.5015	1.6221	1.0420	1.0446	1.0552	1.0558	1.0402	1.0501	1.0503	1.0535	1.0601	1.1151	1.1181	1.1191	1.1203
	1.1221	1.1170													
High-alloyed steel															
CARBO 4316 AC	1.4301	1.4303	1.4306	1.4308	1.4309	1.4311	1.4312	1.4541	1.4550	1.4552	1.4948	1.4430	1.4561	1.4571	1.4573
	1.4580	1.4581	1.4583	1.4003	1.4016	1.4021	1.4024	1.4034	1.4113	1.4306	1.4311	1.4510	1.4511	1.4512	1.4541
	1.4550														
CARBO 4430 AC	1.4401	1.4404	1.4406	1.4408	1.4409	1.4412	1.4429	1.4435	1.4436	1.4437	1.4113	1.4122	1.4439	1.4460	1.4521
	1.4571	1.4580	1.4582	1.4583											
CARBO 29/9 AC	1.4340	1.4823	1.4776	1.4460											
Low temperature steel															
CARBO B 10	1.1103	1.1104	1.1105	1.1106	1.8911	1.8913									
CARBO 4316 AC	1.4301	1.4303	1.4306	1.4541	1.5550	1.4311	1.4406	1.4429							
CARBO 4330 AC	1.4401	1.4404	1.4571	1.4580	1.4406	1.4429									
Heat-resistant steel															
CARBO 4459 AC	1.4832	1.4826	1.4825	1.4740	1.4729	1.4710	1.4885	1.4878	1.4828	1.4742	1.4724	1.4713	1.4712		
Cast-iron welding without preheating															
CAST Ni	GG-10	GG-15	GG-20	GG-25	GG-30	GG-35	GTW-35-04	GTW-40-05	GTW-45-07	GTW-S 38-12					
	GTS-35-10		GTS-45-06		GTS-55-04		GTS-65-02	GTS-70-02							

Types of steel

Free cutting steel	Free cutting steels are steels that are optimized for machining (turning, milling, drilling) on automated machine tools, <i>e.g. case-hardened mass production components for the automobile industry, device engineering and equipment manufacturing.</i>
Construction steel	Construction steels are “standard” steels for steel and machine construction; the most frequently used steel types belong in the category of basic steels. They are mostly low-alloyed and usually have a minimum tensile strength of less than 500 N/mm ² , <i>e.g. levers, bolts, axles and shafts.</i>
Case-hardening steel	Case-hardening steels include the unalloyed and low-alloyed steels that inherently contain too little carbon (max. 20 %) for hardening. The result is a component that has high internal strength and has a considerably higher degree of hardness on the surface and hence exhibits high resistance to wear, <i>e.g. levers, joints, toothed gears, bolts and spindles.</i>
Spring steel	Spring steel has a higher tensile strength compared to the other steels. A work piece made of spring steel can be bent up to a specific stress or elastic limit dictated by the material and then returns elastically to the initial condition without any permanent deformation, <i>e.g. leaf springs, pressure springs, spring plates and snap rings.</i>
Heat-treatable steel	This is a type of steel that exhibits high tensile strength and fatigue limit with simultaneous high strength properties as a result of heat treatment (hardening and tempering). Unalloyed and low-alloyed steels are used for heat treatment (quenching and tempering), <i>e.g. screws, bolts, axles, shafts, toothed gears and worm gears.</i>
Tool steel	Tool steels are hardenable stainless steels which can be used in tools that come into direct contact with the material for the manufacture of semi-finished parts and components. According to the composition a differentiation is made between unalloyed and alloyed tool steels, <i>e.g. trimming punches, centring mandrels, calking chisels.</i>
Cast iron and cast steel	The term 'cast material' is a reference to the shaping process. The material is poured into moulds in a liquid state (smelt). During the solidification the material achieves the specified external conformation that can generally only be changed by means of metal cutting machining processes, <i>e.g. chassis, punched grilles, manhole covers.</i>
Heat-resistant steel	In addition to protection against corrosion high-temperature strength is important in these steels. High scaling resistance is achieved with such alloys, especially with the element silicon, <i>e.g. annealing hoods, annealing muffles, super-heated pipes in oven construction and equipment engineering.</i>
Rust and acid-resistant steel	Rust-free steel, also known as non-rusting steel, is a term generally used for rust and acid-resistant steel. The term 'stainless steel' is the most frequently used although it can be defined in different ways. Rust-free steel is distinguished by a content of approx. 13 % chrome that must be dissolved in an austenitic or ferritic solid solution. The effect is based on this high proportion of chrome forming a protective and dense passive layer of chrome oxide on the surface of material. Other alloy components such as nickel, molybdenum, manganese and noid lead to even better corrosion resistance or more favourable mechanical properties in the chlorine gas-laden air of indoor swimming pools, for instance.
High speed steel	This type steel is primarily known as HSS which is derived from the English name of High Speed Steel. HS materials are distinguished by high degree of hardness, good tempering properties, resistance to wear and a high-temperature resistance of up to 600 °C. They are primarily used for metal cutting manufacture on machine tools as a cutting material for tools such as twist drills and centre drills.
Wear-resistant steel	Wear resistance is the resistance of a solid body to wear (mechanical abrasion). In metals the surface of the body is often hardened or coated to improve the resistance to wear. In the case of steel a specific resistance to abrasion is achieved by heat treatment processes (e.g. vacuum hardening, case-hardening, induction hardening, flame hardening and nitration). Some coating processes are, <i>e.g. PVD coating, CVD coating and hard chromium plating.</i>
Tool steel for hot working	Hot work steels are alloyed tool steels for applications where the surface temperature of the tool during use can be up to 400°C. Its high wear resistance is obtained by hardening treatment and its high-temperature resistance through subsequent tempering where the secondary carbide is cut out and residual austenite is converted into martensite during cooling, <i>e.g. forging dies or injection moulding tools.</i>
Tool steel for cold working	Cold work steel is tool steel that can be used for machining temperatures of up to 200 °C on the cutting surface. Unalloyed cold work steels are mainly used in tool construction where a ductile component core is required. Alloyed cold work steels are used in mould construction and in the food industry if a higher overall strength is required, <i>e.g. cutting tools, shearing blades, taps, gages, mandrels, punches and coining tools.</i>

Electrode Comparison

Carbo-Type	Competitor	Type	DIN code	EN code	AWS A 5 .1-4	W-No.
CARBO RC 3	BOEHLER	FOX MSU		E 38 0 RC 11	E 6013	
	BOEHLER	FOX OHV		E 38 0 RC 11	E 6013	
CARBO B 10	BOEHLER	FOX EV 47		E 38 4 B 42 H5	E 7016-1 H4R	
	BOEHLER	FOX EV 50		E 42 5 B 42 H5	E 7018-1 H4R	
CARBO RR 6	BOEHLER	FOX ETI		E 42 0 RR 12	E 6013	
	BOEHLER	FOX SUS		E 42 0 RR 12	E 6013	
CARBO DUR 59	BOEHLER	LEDURIT 60	E10-UM-60-GRZ			
CARBO 4459 AC	BOEHLER	FOX CN 23/12 Mo A		E 23 12 2 L R 32	E 309 MoL-17	
CARBO RC 3 BLAU	BOEHLER	FOX OHV		E 38 0 RC 11	E 6013	
	BOEHLER	FOX MSU		E 38 0 RC 11	E 6013	
CARBO 29/9	BOEHLER	FOX CN 29/9		E 29 9 R 12	E 312-16	
CARBO 4316 AC	BOEHLER	FOX EAS 2- A		E 19 9 L R 32	E 308L-17	
CARBO 4430 AC	BOEHLER	FOX EAS 4 MA		E 19 12 3 L R 32	E 316L-17	
CARBO RC 3	OERLIKON	OVERCORD Z		E 38 0 RC 11	E 6013	
CARBO B 10	OERLIKON	UNIVERS		E 42 3 B 42 H10	E 7016	
	OERLIKON	FINCITO		E 42 4 B 42 H5	E 7018-H4	
	OERLIKON	SUPERCITO		E 42 5 B 42 H5	E 7018-1 H4	
CARBO RR 6	OERLIKON	FINCORD		E 42 0 RR 12	E 6013	
	OERLIKON	FINCORD D		E 42 A RR 12	E 6013	
	OERLIKON	FINCORD S		E 42 A RR 12	E 6013	
	OERLIKON	FINCORD T		E 42 0 RR 12	E 6013	
	OERLIKON	AC BLAU-SILBER T		E 42 0 RR 12	E 6013	
CARBO DUR 59	OERLIKON	CITODUR V 1000	E 10 - UM - 60 R			
CARBO 4459 AC	OERLIKON	VERTINOX 309 Mo		E 23 12 2 L R 11	E 309Mo-16	
	OERLIKON	SUPRANOX 309 MoL	E 23 13 2 L R 23	E 23 12 2 L R 12	E 309MoL-16	1.4459
CARBO RC 3 BLAU	OERLIKON	OVERCORD		E 38 0 RC 11	E 6013	
	OERLIKON	AC BLAU-ROT F		E 38 0 RC 11	E 6013	
	OERLIKON	AC BLAU-ROT P		E 38 0 RC 11	E 6013	
CARBO 29/9	OERLIKON	INOX 29/9		E 29 9 R 12	E 312-16	1.4337
CARBO 4316 AC	OERLIKON	SUPRANOX 308 L		E 19 9 L R 12	E 308L-17	1.4316
	OERLIKON	INOX A 308 L		E 19 9 L R 12	E 308L-16	
	OERLIKON	INOX A 42				
	OERLIKON	INOX AWL		E 19 9 L R 32	E 308L-16	
CARBO 4430 AC	OERLIKON	SUPRANOX 316 L		E 19 12 3 L R 12	E 316L-17	1.4430
	OERLIKON	INOX B 316 L		E 19 12 3 L R 12	E 316L-16	1.4430
	OERLIKON	INOX B 42				
	OERLIKON	INOX BWL		E 19 12 3 L R 32	E 316L-16	
CARBO RC 3	TECHNOLIT	TS 144		E 42 0 RC 11	E 6013	
	TECHNOLIT	TS 177		E 42 0 RC 11	E 6013	
	TECHNOLIT	TS 90		E 38 0 RC 11	E 6013	
	TECHNOLIT	TS 91		E 38 0 RC 11	E 6012	
CARBO B 10	TECHNOLIT	TS 85		E 42 4 B 32 H5	E 7018	
CARBO RR 6	TECHNOLIT	TS 2000 Super		E 42 0 RR 12	E 6013	
	TECHNOLIT	TS 95		E 42 0 RR 12	E 6013	
	TECHNOLIT	TS 96		E 42 0 RR 12	E 6013	
CARBO DUR 59	TECHNOLIT	HE 650				
CARBO 4459 AC	TECHNOLIT	TS 44 ZX Niro Sup		E 23 12 2 L R 32	E 309 Mo-16	
CARBO RC 3 BLAU	TECHNOLIT	TS 1000 Super		E 42 0 RC 11	E 6013	
CARBO 29/9	TECHNOLIT	TS 22 S		E 29 9 R 12	E 312-16	
CARBO 4316 AC	TECHNOLIT	TS 45		E 19 9 L R 12	E 308L-17	
	TECHNOLIT	TS 46		E 19 9 L R 12	E 308L-16	
CARBO 4430 AC	TECHNOLIT	TS 44 S		E 19 12 3 L R 12	E 316L-16	
	TECHNOLIT	TS 45 S		E 19 12 3 L R 12	E 316L-16	
	TECHNOLIT	TS 46 S		E 19 12 3 L R 12	E 316L-16	

Electrode Comparison

Carbo-Type	Competitor	Type	DIN code	EN code	AWS A 5 .1-4	W-No.
CARBO RC 3	THYSSEN	PHOENIX BLAU		E 42 0 RC 11	E 6013	
CARBO B 10	THYSSEN	PHOENIX K 50		E 42 4 B 42	E 7015	
CARBO RR 6	THYSSEN	PHOENIX GRÜN		E 42 0 RR 12	E 6013	
CARBO DUR 59	THYSSEN	CHROMHART				
CARBO 4459 AC	THYSSEN	THERMANIT 23/11		E 23 12 2 L R 32	E 309MoL-17	1.4459
CARBO RC 3 BLAU	THYSSEN	PHOENIX BLAU		E 42 0 RC 11	E 6013	
CARBO 29/9	THYSSEN	THERMANIT 30/10 W		E 29 9 R 12	E 312-16	1.4337
CARBO 4316 AC	THYSSEN	THERMANIT JEW		E 19 9 L R 32	E 308L-17	1.4316
CARBO 4430 AC	THYSSEN	THERMANIT GEW		E 19 12 3 L R 32	E 316L-17	1.4430

Electrode Names according to EU-Norm EN 499

Identification codes for the mechanical and elasticity properties of the weld metal				Code for the impact work of the weld metal		Code for coating types	
Code	Min. elastic limit N/mm ²	Tens. strength N/mm ²	Min. breaking strain %	Code	Temperature for min. impact work 47J °C	Type	Coating
35	355	440 to 570	22	Z	no specifications	A	acidic
38	380	470 to 600	20	A	+20	C	cellulose
42	420	500 to 640	20	Q	0	R	rutile
46	460	530 to 680	20	2	-20	RR	thick rutile
50	500	560 to 720	18	3	-30	RC	cellulose rutile
				4	-40	RA	acidic rutile
				5	-50	RB	alkaline rutile
				6	-60	B	alkaline

Code	Output %	Electricity type
1	≤105	AC and DC
2		DC
3	>105 ≤125	AC and DC
4		DC
5	>125 ≤160	AC and DC
6		DC
7	>160	AC and DC
8		DC

Code	Hydrogen content in ml/100 g weld material max.
H5	5
H10	10
H15	15

Code for hydrogen content of weld material

E 38 4 B 42 H5

1. all positions
2. all positions with exception of vertical-down weld
3. Butt weld in pos. PA, fillet weld in pos. PA and PB
4. Butt weld in pos. PA, fillet weld in pos. PA
5. Positions like 3. plus pos. PG

Hose Package SP 15

- For loads up to 150 Amps
- For wire diameters from 0.6 to 1.0 mm
- Binzel system
- With gas nozzle for plugging

Article No.	Article Description	QTY
5458 15 3	HOSE PACKAGE SP15 3M	1
5458 15 4	HOSE PACKAGE SP15 4M	1
5458 15 5	HOSE PACKAGE SP15 5M	1



Accessories for Hose Package SP 15

Article No.	Article Description	QTY
5459 15	BURNER NECK FOR PLUGG.F.SP15	1
5459 15 1	BURNER NECK F.SCREWING F.SP15	1
5459 15 2	BURNER NECK FLEX.F.PLUGG.SP15	1
5459 06	CONTACT TIP 0.6MM M6X25	1
5459 08	CONTACT TIP 0.8MM M6X25	1
5459 10	CONTACT TIP 1.0MM M6X25	1
5459 60	FASTEN.SPRING STAINL.ST.F.SP15	1
5459 20	GAS NOZZLE CON.F.PLUGG.F.SP15	e 10
5459 21	GAS NOZZLE CON.F.SCREW.F.SP15	1
5459 30	GAS NOZZLE CYL.F.PLUGG.F.SP15	1
5459 31	GAS NOZZLE CYL.F.SCREW.F.SP15	1
5459 40	SPOT GAS NOZZ.F.PLUGG.FOR SP15	1
5459 41	SPOT GAS NOZZ.F.SCREW.FOR SP15	1
5460 115	CORE FOR STEEL 0.6-1.2MM 3M	1
5460 116	COMBI-CORE ALU/SS 0.6-1.2MM 3M	1



Hose Package SP 25

- For loads up to 200 Amps
- For wire diameters from 0.8 to 1.2 mm
- Binzel system

Article No.	Article Description	QTY
5458 25 3	HOSE PACKAGE SP25 3M	1
5458 25 4	HOSE PACKAGE SP25 4M	1
5458 25 5	HOSE PACKAGE SP25 5M	1



Accessories for Hose Package SP 25

Article No.	Article Description	QTY
5459 25 1	BURNER NECK FOR PLUGG.F.SP25	1
5459 25 6	BURNER NECK FLEX.F.PLUGG.SP25	1
5459 25 7	NOZZLE.HOLD.ON BURN.NECK M8/6	1
5459 25 08	CONTACT TIP 0.8MM M 6-8X28	1
5459 25 09	CONTACT TIP 0.9MM M 6-8X28	1
5459 25 10	CONTACT TIP 1.0MM M 6-8X28	1
5459 25 12	CONTACT TIP 1,2MM M 6-8X28	1
5459 70	FASTEN.SPRING STAINL.ST.F.SP25	1
5459 25 2	GAS NOZZLE CONICAL FOR SP 25	1
5459 25 3	GAS NOZZLE CYLINDRIC.FOR SP 25	1
5459 25 4	SPOT GAS NOZZLE F.PLUGG.SP 25	1
5459 25 14	CORE FOR STEEL 0.6-1.0MM 4M	1
5459 25 15	COMBI-CORE ALU/SS 1.0-1.2 4.5M	1



Gas Measuring Tube Ar/CO2

- For checking the actual gas flow at the torch of the hose package

Article No.	Article Description	QTY
5400 6	GAS MEASURING TUBE AR/CO ²	1



Gas Nozzle Pliers

- For the care of inert gas burners
- Fast and accurate welding wire cutting
- Time-saving cleaning and removal of inert gas nozzle

Article No.	Article Description	QTY
5459 38	GAS NOZZLE PLIERS SPECIAL	1



Gas Nozzle Cleaner

- Fast cleaner for all MIG/MAG burners
- Secure, clean and reliable removal of all contaminations

Article No.	Article Description	QTY
5459 39	GAS NOZZLE CLEANER	1



Weld Inspection Mirror

- For inspecting difficultly accessible welding positions
- Heat-resistant

Article No.	Article Description	QTY
5400 70 80	WELD INSPECTION MIRROR 70X80	1
5400 70 80 1	REPL.MIRROR 1.0MM F.W.INS.MIR.	1



Ground Clips

- 400 Amps
- Copper braid connection strip
- M10 connecting bolt

Article No.	Article Description	QTY
5459 37	GROUND CLIP 400AMPS	1



Electrode Holder

- Thermoplastic pipe
- Thermo set insulation sheath
- Upper and lower part made of brass
- Cable lug connection M8
- Up to 300A CE

Article No.	Article Description	QTY
5459 301	ELECTRODE HOLDER STANDARD 300A	1



Chipping Hammer

- Forged steel



Article No.	Article Description	QTY
5459 400	CHIPPING HAMM.STEEL HANDLE400G	1 s

Tungsten Electrode WL 15 Gold

- According to ISO 6848 / EN 26848
- Consists of 98.5 % tungsten and 1.5 % lathanum oxide
- Radiation-free standard electrode for all applications
- Suitable for DC and AC
- Steel, stainless steel and aluminium
- Length 175 mm

Article No.	Article Description	QTY
5459 100 16	PK(10)TIG ELECTRODE GOLD 1.6	1
5459 100 24	PK(10)TIG ELECTRODE GOLD 2.4	1
5459 100 32	PK(10)TIG ELECTRODE GOLD 3.2	1



Tungsten Electrode WC 20 Grey

- According to ISO 6848 / EN 26848
- Consists of 98.0 % tungsten and 2.0 % cerium oxide
- Radiation-free standard electrode for all applications
- For DC and AC
- Steel, stainless steel, qualified adequate for aluminium
- Length 175 mm

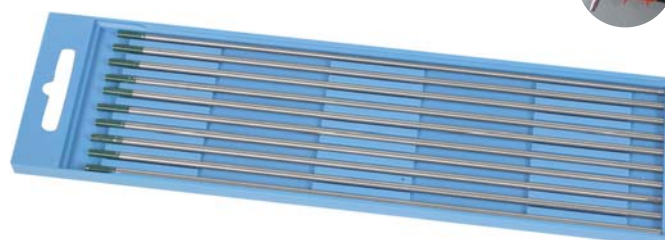
Article No.	Article Description	QTY
5459 101 16	PK(10)TIG ELECTRODE GREY 1.6	1
5459 101 24	PK(10)TIG ELECTRODE GREY 2.4	1
5459 101 32	PK(10)TIG ELECTRODE GREY 3.2	1



Tungsten Electrode WP 00 Green

- According to ISO 6848 / EN 26848
- Consists of 99.8 % tungsten
- Undoped radiation-free special electrode
- Not suitable for DC and AC
- Aluminium, aluminium alloys
- Length 175 mm

Article No.	Article Description	QTY
5459 102 16	PK(10)TIG ELECTRODE GREEN 1.6	1
5459 102 24	PK(10)TIG ELECTRODE GREEN 2.4	1
5459 102 32	PK(10)TIG ELECTRODE GREEN 3.2	1



Tungsten Electrode WT 20 Red

- According to ISO 6848 / EN 26848
- Consists of 98.0 % tungsten and 2.0 % thoria
- Doped radiating standard electrode
- Not suitable for DC and AC
- Steel, stainless steel, copper, brass
- Length 175 mm

Article No.	Article Description	QTY
5459 103 16	PK(10)TIG ELECTRODE RED 1.6	1
5459 103 24	PK(10)TIG ELECTRODE RED 2.4	1
5459 103 32	PK(10)TIG ELECTRODE RED 3.2	1



Protective Caps for Manometer

- Protects manometer from damages
- Indicate the different gases

Article No.	Article Description	QTY
5400 60 5	PROTECTIVE MANOMETER CAP, BLUE	1
5400 60 6	PROTECTIVE MANOMETER CAP, RED	1
5400 60 7	PROTECTIVE MANOMETER CAP, GREY	1



5400 60 5



5400 60 6



5400 60 7

Welding and Cutting Set

- For acetylene/ oxygen
- Shaft-Ø: 17 mm
- For welding from 0.5 to 14mm
- For cutting from 3 to 100mm
- Including steel cassette
- Compatible with the following systems:
 - EWO Stuttgart Type 17 mm
 - Kayser Dortmund Type KE 17mm
 - SHS Lauffen Type 17mm
 - Lorch Waldenbuch Type 17mm

Article No.	Article Description	QTY
5400 3700	WELDING AND CUTTING SET 17MM	1



Welding and Cutting Set - Spare Parts

Article No.	Article Description	QTY
5400 100	WELDING HANDLE 17MM	1
5400 111	CUTTING ATTACHMENT 17M	1
5400 113	HEATING NOZZLE 3-100MM	1
5400 115	CUTTING NOZZLE 3-25MM	1
5400 116	CUTTING NOZZLE 25-50MM	1
5400 117	CUTTING NOZZLE 50-100MM	1
5400 118	WELDING TIP 17MM 0.5-1MM	1
5400 119	WELDING TIP 17MM 1-2MM	1
5400 120	WELDING TIP 17MM 2-4MM	1
5400 121	WELDING TIP 17MM 4-6MM	1
5400 122	WELDING TIP 17MM 6-9MM	1
5400 123	WELDING TIP 17MM 9-14MM	1
5400 124	BURNING CARRIAGE W.CIRCLE ROD	1
5400 125	BURNING SPANNER F.CUTT.THR.17	1
5400 127	EMPTY SHEET STEEL BOX	1



5400 100



5400 111



5400 113



5400 115 - 117



5400 118



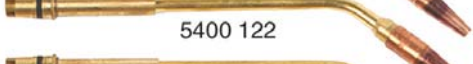
5400 119



5400 120



5400 121



5400 122



5400 123

Oxy-Acetylene Twin Hose

- According to DIN 8541
- Red acetylene: inner-Ø 9 x outside-Ø 16 mm
- Blue oxygen inner-Ø 6 x outside-Ø 16 mm
- Length: 10m
- Extendable by double nipple, if required

5400 60:

- Without adapters

5400 60 1:

- With adapters

Article No.	Article Description	QTY
5400 60	RO(10M)OXY-ACETYLENE TWIN HOSE	1
5400 60 1	RO(10M)OXY-ACETY.TWIN HOSE CPL	1
5400 60 8	DOUBLE NIPPLE 1/4"X 1/4" RIGHT	1
5400 60 9	DOUBLE NIPPLE 3/8"X 3/8" LEFT	1
3929 38 9 1	HOSE NOZZLE R3/8" 9MM	1
3929 14 6 1	HOSE NOZZLE R1/4" 6MM	1
3930 38 1	UNION NUT SW19 R3/8"LEF.H.THR.	1
3930 14	UNION NUT SW17 R1/4"RIG.H.THR.	1



Gas Lighter

Article No.	Article Description	QTY
5400 128	GAS LIGHTER BOW-SHAPED	1
5400 129	PK(50)REPL.STONES F.GAS LIGHT.	1



Cutting Nozzle Cleaning Set

- Consists of 13 nails (Ø 0.5 - 1.65 mm) and a file
- For cleaning autogeneous nozzles as well as propane heating devices or patio heaters

Article No.	Article Description	QTY
5400 130	CUTTING NOZZLES CLEANING SET	1



Welding Rod Autogenic G I

- Welding rod for joint-welding of sheets and pipes
- Coppered, light-bodied welding
- Rod length: 1000 mm

Fields of application:

- Exhaust pipes, railings, steel frames etc.
- EN 12536: O I, DIN 8554: G I
- W-Nr. 1.0324, AWS A5.2: R45-G
- Tensile strength: 340-380 N/mm²



Article No.	Article Description	QTY
5455 10	KG-WELDING ROD G-1 1.0MM	e 5
5455 15	KG-WELDING ROD G-1 1.5MM	e 5
5455 20	KG-WELDING ROD G-1 2.0MM	e 5
5455 30	KG-WELDING ROD G-1 3.0MM	e 5
5455 40	KG-WELDING ROD G-1 4.0MM	e 5

Welding Rod Autogenic G III

- Welding rod for joint-welding with high demands
- Recommended for seal welding
- Coppered, heavy-bodied welding
- Rod length: 1000 mm

Fields of application:

- Container and pipeline construction
- EN 12536: O III, DIN 8554: G III
- W-Nr. 1.6215, AWS A5.2: R60
- Tensile strength: 400-450 N/mm²



Article No.	Article Description	QTY
5455 20 6	KG-WELDING ROD G-3 2.0MM	e 5
5455 24 6	KG-WELDING ROD G-3 2.4MM	e 5
5455 30 6	KG-WELDING ROD G-3 3.0MM	e 5

Brazing Solder-Copper-Phosphor

- For gap soldering on copper, brass, bronze and red brass
- Soldering points with operating temperatures up to 150°C
- Not suitable for sulphur containing media as well as Fe and Ni-Basis alloys
- Light-bodied, with good capillary action
- Rod length: 500 mm

Fields of application:

- Copper pipe-water conduit-installationen, container and apparatus engineering, heat exchanger and boiler
- Copper and copper without fluxing agent
- Copper and red brass, copper-tin or copper-zinc-alloys with fluxing agent Art. No. 5475 100
- EN 1044: CP 203, DIN 8513: L-CuP6
- W-Nr. 2.1462
- Tensile strength: 250 N/mm²
- Working temperature: 760°C
- Melting range: 710-890°C



Article No.	Article Description	QTY
5475 20 500	KG-BRAZING SOLDER L-CUP6 2.0MM	e 5

Silver Hard Solders acc. to DIN EN 1044 - AG 104

- Cadmium-free silver solder for gap soldering of alloyed and non-alloyed steel, nickel and nickel base alloys, malleable cast iron, copper and copper alloys
- Approved for copper pipe installation according to DVGW-working sheet GW 2 and suitable for the use in seawater
- For solder points with operating temperatures up to 200°C
- FH10 flux-coated as per DIN EN 1045
- The fluxing agent coating is sufficient for pipe measurements up to Ø 22 mm
- Rod length: 500 mm

Fields of application:

- Oil, gas and liquid gas installation as well as heating and drinking water installation
- DIN EN 1044: AG 104
- DIN 8513: L-Ag 45 Sn
- W-Nr. 2.5158
- Tensile strength: 400 N/mm²
- Working temperature: 670°C
- Melting range: 640 - 680°C
- Electrical conductivity: 13 S m/mm²



Article No.	Article Description	QTY
5475 45 2	PK(5)SILV.HARD SOLDER AG45 2.0	1

Silver Hard Solder acc. to DIN EN 1044 - AG 106

- Cadmium-free silver solder for gap solder of alloyed and non-alloyed steel, nickel and nickel base alloy, malleable cast iron, copper and copper-alloys
- Approved for copper pipe installation according to DVGW-working sheet GW 2
- Suitable for solder points with operating temperatures up to 200°C
- FH10 flux-coated as per DIN EN 1045
- The fluxing agent coating is sufficient for pipe measurements up to Ø 22 mm
- Rod length: 500 mm

Fields of application:

- Installation technology for various base materials, radiators, fittings, oil and gas pipes etc.
- DIN EN 1044: AG 106
- DIN 8513: L-Ag 34 Sn
- W-Nr. 2.5157
- Tensile strength: 430 N/mm²
- Working temperature: 710°C
- Melting range: 630 - 730°C
- Electrical conductivity: 14 S m/mm²



Article No.	Article Description	QTY
5475 34 2	PK(5)SILV.HARD SOLDER AG34 2.0	1

Brazing Rods acc. to DIN EN 1044 – Cu 301

- Former standard: DIN 8513 L – CuZn 40
- Brazing rods with flux core
- Non-smoking
- For all metals except aluminium and copper
- Melting point: +890°C
- No silver content
- Suitable for stainless steel



Article No.	Article Description	QTY
5475 25	KG BRAZING RODS FILL. 2.5MM	1

Brazing Rods acc. to EN 1044 – Cu 306

- B-Cu 59 ZnSn (Ni) (Mn) (Si)
- Former standard: DIN 8513 L - CuZn 39 Sn
- Twisted, with flux
- Melting temperature range: +890 to +900°C
- For hard soldering steel, sheet steel (e.g., car bodies), zinc plated sheet metal and tubes, cast iron, copper and copper alloy
- Can be used for build-up hard soldering, e.g. tool inserts, etc.



Article No.	Article Description	QTY
5475 1 25	KG BRAZING RODS 2.5MM	1

Welders' Apron – Split Leather

- Leather apron
- 3-point strapping
- Size adjustable, thus suited for wearers of any size
- Ideal cut, abrasive protection for automotive body shops, ship and machine building, glass workings, sheet metal workings
- 100 x 80 cm



Article No.	Article Description	QTY
5400 410	WELDER'S APRON - SPLIT LEATHER	1

Welders' Apron – Full Grain Cow Hide

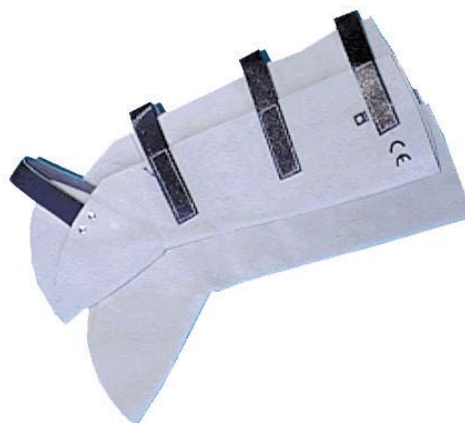
- Ideal protection for welders in foundries, zinc and welding shops
- Resistant against flying sparks, welding spatter and liquid metal
- Colours vary
- Dimensions HXB:100 x 80cm



Article No.	Article Description	QTY
5400 410 1	WELD.APRON-FULL GRAIN COW HIDE	1

Welders' Spats

- Leather spats
- With fastening straps
- 35cm high



Article No.	Article Description	QTY
5400 411	PAIR WELD.SPATS SPLIT LEATHER	1
5400 412	PAIR WELD.SPATS GRAIN LEATHER	1

Supplied:

- 1 pair of welders' spats

Welder's Gloves Cowhide or Calf Leather

- Length: approx. 35cm
- Calf leather interior
- Back of hand and cuff made of cowhide
- According to DIN EN 12477 version A (for welders)
- Protection against mechanical hazards according to DIN EN 388 and against thermal risks according to DIN EN 407

Specifications

Norm:	EN 388
Abrasion resistance:	2
Cutting resistance:	1
Tear propagation resistance:	4
Puncture resistance:	3

Norm:	EN 407
Flammability:	4
Contact heat:	1
Convective heat:	3
Radiant heat:	-
Stress due to small spatter of melted metal:	3
Stress due to large quantities of liquid metal:	-

Article No.	Article Description	QTY
5405 8	WELD.GLOVES SPLIT/GRAIN SIZE10	1 d



Welder Gloves Calf Leather

- Length: approx. 35 cm
- Inside and back hand made of calf leather
- Cuff made of cowhide
- In accordance with DIN EN 12477 version A (for welders)
- Protection against mechanical dangers according to DIN EN 388 and against thermal risks according to DIN EN 407

Specifications

Norm:	EN 388
Abrasion resistance:	3
Cutting resistance:	1
Tear propagation resistance:	4
Puncture resistance:	3

Norm:	EN 407
Flammability:	4
Contact heat:	1
Convective heat:	2
Radiant heat:	-
Stress due to small spatter of melted metal:	3
Stress due to large quantities of liquid metal:	-

Article No.	Article Description	QTY
5405 8 9	WELD.GLOVES CALF LEATH.SIZE 9	1 z
5405 8 10	WELD.GLOVES CALF LEATH.SIZE10	1 d
5405 8 11	WELD.GLOVES CALF LEATH.SIZE11	1 z



Active Welders' Helmet Type 200

- Fully automatic darkening within a millisecond fraction
- Quality mark: CE EN 379
- UV/IR protection: DIN 15 (eye and skin protection, no flash burn)
- Power supply: solar cell (no battery change necessary)
- Adjustable headband

Technical Data

Filter size	110 x 90 x 9mm
View window	96 x 40mm
Filter darkening range	DIN 4 / 11
Optical quality	1/2/1
Switching time	0.5 ms
Latency (dark > light)	0.25 sec.
Sensitivity	fully automatic, variable
Detection system	2 sensors (optical)
Weight	approx. 480 g



Article No.	Article Description	QTY
5400 200	ACT.WELDERS HELMET TYPE200	1
5400 200 5	REPL.HEADBAND F.HELMET TYPE200	1
5400 400 12	INNER PROTECT.LENS 51X108MM	e 10
5400 80 9	PROT.SHIELD 1000HRS.90X110MM	e 10
5400 200 3	REPLACE.SWEATBAND PU YELLOW	1

Active Welders' Helmet Type 400

- Fully automatic darkening within a millisecond fraction
- Quality mark: CE EN 379
- UV/IR protection: DIN 15 (eye and skin protection, no flash burn)
- Power supply: solar cell (no battery change necessary)
- Adjustable headband

Technical Data

Filter size:	110 x 90 x 9 mm
View window:	98 x 44 mm
Filter darkening range:	DIN 3 (4) / 9-13
Optical quality:	1/2/1
Switching time:	0.5 ms
Latency (dark > light):	0.25 s (fast) / 0.6 s (slow)
Sensitivity:	manually variable (high or low)
Detection system:	2 sensors (optical)
Weight:	approx. 500 g



Article No.	Article Description	QTY
5400 400	ACTIVE WELDERS HELMET TYPE400	1
5400 400 5	REPL.TAPE FOR HELMET TYPE400	1
5400 400 13	INNER PROTECT.LENS 47X97MM	e 10
5400 80 8	PROTECT.LENS 1000HRS.89X104MM	e 10
5400 200 3	REPLACE.SWEATBAND PU YELLOW	1

Welding Helmet Automatic Powershield II

- Automatic welding protection helmet
- Permanent protection level DIN4
- Stepless adjustment of protection level
- Stepless adjustment of response sensitivity
- Two-step openin delay
- Grinding mode
- Colour-fast filter (Art. No. 5400 760)
- Replaceable batteries (Art. No. 3882 27 2x)

Technical Data

Filter size:	90 x 110 mm
Size of field of vision:	50 x 100 mm
Switching time:	0,18 ms
Filter darkening range:	DIN4 / 5 - 13 DIN4 / 9 - 13
Opening delay (dark>bright):	0.1 - 0.35s (fast) / >0.35s (slow)
Sensitivity:	manually variable
Weight:	490 g
Power supply:	Solar cells and batteries (no switching on and off)
Battery life:	2500 hrs

Article No.	Article Description	QTY
5400 760	AUTO.WELD.HELMET PS II 5-13	1
5400 750	AUTO.WELDING HELMET PS II 9-13	1
5400 752	PK(2)SWEAT BAND FOR PSII	1
5400 754	INTERN.VIEW.WIND.55X107MM PSII	1
5400 756	EXTERNAL VIEWING WINDOW PSII	1



Welding Headshields

- Made of reinforced fibre glass plastic, seamlessly pressed
- Spatter and burn-through proof
- Protects against heat and rays
- For lens sizes 90 x 110 mm
- Delivery without lens
- The headband of the headshields steplessly is adjustable and the face protection can be opened up

Article No.	Article Description	QTY
5400 80	WELD.HAND PROTECTION SHIELD	1
5400 80 1	WELD.HEAD PROTECTION SHIELD	1



Safety Lenses

- Art. No. 5400 80 9: 1000 hours lens made of plastic, CR 39, clear
- Art. No. 5400 80 6: mirrored

Article No.	Article Description	QTY
5400 80 2	SAFETY LENS CLEAR 90X110MM	e 10
5400 80 3	SAFETY LENS GREEN A9 90X110MM	e 10
5400 80 5	SAFETY LENS GREEN A11 90X110MM	e 10
5400 80 6	SAFE.LENS GREEN A11 MET.90X110	e 10
5400 80 9	PROT.SHIELD 1000HRS.90X110MM	e 10
5400 80 10	PROTECT.LENS GREEN A13 90X110	e 10
5400 80 11	PROT.LENS GREEN A13 MIR.90X110	e 10



Welders' Flip-up Goggles Clear

- Soft, fire-retarding plastic frame for optimum wearing comfort and sealing
- Mist-free—indirectly ventilated through 4 large, dust-proof ventilation valves
- Can be worn over corrective glasses
- 50mm Ø lenses, easily exchangeable:
- Splinter-proof, clear lenses inside the frame
- Athermal 5-A DIN, green lenses in arrestable flip-up part



Article No.	Article Description	QTY
5400 20	FLIP-UP WELD.GOGGLES CLEAR/A5	1 z
5400 30 0	REPLACEMENT LENS CLEAR 50MM	1 z
5400 31 0	REPLAC.LENS GREEN 5-A DIN 50MM	1 z

Safety Goggles – Nylon

- Spectacles with flip-out side protection
- 50mm Lens Ø, easily exchangeable with screw in centre of frame



Article No.	Article Description	QTY
5400 11	NYLON SAFE.GOGGLE GREEN5-A DIN	1 z
5400 31 0	REPLAC.LENS GREEN 5-A DIN 50MM	1 z

Safety Goggles – Screw Ring

- Aluminium frame with ventilation slits, rubber tube padding, and adjustable rubber headband
- 50mm Ø lenses easily exchangeable with the help of screw rings



Article No.	Article Description	QTY
5400 31	SCREW-R.GOGGLES GREEN 5-A DIN	1 z
5400 31 0	REPLAC.LENS GREEN 5-A DIN 50MM	1 z

Plasma Cutting Machine HF 10-25

- Compressed-air plasma cutting machine
- Pilot arc system (enables the ignition without touching the cutting part)
- Inverter technology
- Ideal for maintaining car bodies
- Suitable for (data for quality cuttings)
 - Steel up to 10 mm
 - Stainless steel up to 8 mm
 - Aluminium up to 5 mm
 - Light-metals, high-strength sheets, coated and painted materials



Technical Data

Power connection:	230/50 V/Hz
Cutting parameter:	5 - 25 A
Operating factor:	25 A/35 % acc. to EN 60974.1
Air consumption:	60 l/min 3.5 bar
Net weight:	13 kg
Dimensions LxWxH:	410 x 155 x 385 mm

Article No.	Article Description	QTY
5461 1	PLASMA CUTTING MACHINE HF10-25	1
5461 1 1	NOZZLE 0.7MM FOR HF 10-25	1
5461 1 2	ELECTRODE FOR HF 10-25	1
5461 1 3	DIFFUSER FOR HF 10-25	1
5461 1 4	NOZZLE HOLDER FOR HF 10-25	1
5461 1 7	GUIDING PART FOR HF 10-25	1
5461 1 9	CIRC.CUTTING SET FOR HF 10-25	1

Included in delivery: Plasma cutter, cutting head compl. 4 m, earth cable 4 m, pressure reducer, plug nipple



Plasma Cutting Machine HF 22-60

- Compressed-air plasma cutting machine
- Pilot arc system (enables ignition without touching the cutting part)
- Inverter technology
- Ideal for steel girder, truck, many cutting processed in the metal working area
- Suitable for (data for quality cuttings)
 - Steel up to 22 mm
 - Stainless steel up to 18 mm
 - Aluminium up to 15 mm
 - Light-metal, high strength sheets, coated and painted materials

Technical Data

Power connection:	400 Volt
Max. connection value:	6.9 kW
Fuse slow:	16 A
Cutting parameter:	20 - 60 A
Operating factor:	60 A/35 % acc. to EN 60974.1
Air consumption:	150 l/min 4.7 bar
Net weight:	26 kg
Dimensions LxWxH:	510 x 280 x 410 mm



Article No.	Article Description	QTY
5461 3	PLASMA CUTTING MACHINE HF22-60	1
5461 3 1	NOZZLE 1.0MM FOR HF 22-60	1
5461 3 2	NOZZLE 1.2MM FOR HF 22-60	1
5461 3 3	ELECTRODE FOR HF 22-60	1
5461 3 4	NOZZLE HOLDER FOR HF 20-60	1
5461 3 5	PK(3)DISTANCE PIECE WITH 2TIPS	1
5461 3 6	DIFFUSOR HF 22-60	1
5461 3 8	GUIDING PART FOR HF 22-60	1
5461 3 9	CIRC.CUTTING SET FOR HF 20-60	1

Included in delivery: Plasma cutter, cutting head compl. 6 m with 1.0 mm nozzle, earth cable 6 m, pressure reducer, plug nipple, goggles, 1x distance holder, 1.2 mm nozzle

Plasma Cutting Machine HF 30-100

- Compressed-air plasma cutting machine
- Inverter technology
- Press button with double activation for protection against unintentional ignition of arc
- Pilot arc system (enables the ignition without touching the cutting part)
- Cutting of painted and coated materials
- Ideal for car bodies and vehicle, container, steel, and metal construction etc.
- **Suitable for (data for quality cuttings):**
 - Steel up to 30 mm
 - Stainless steel up to 25 mm
 - Aluminium up to 20 mm
 - Copper, brass and cast materials

Technical Data		
Power connection:	400V 50/60 Hz	
Fuse slow:	32 A	
Cutting parameter:	20 - 100 A	
Operation factor (ED):	100 A / 50% acc to. EN 60974.1	
Air consumption:	200 l/min. 5.0 bar	
Length of cutt. head:	6 m	
Earth cable length:	6m / 25 mm²	
Net weight:	34 kg	
Dimensions LxWxH:	510 x 295 x 555 mm	

Article No.	Article Description	QTY
5461 4	PLASMA CUTTING MACH.HF30-100	1
5461 4 2	NOZZLE 1.1MM FOR CP160	1
5461 4 3	NOZZLE 1.3MM FOR CP160	1
5461 4 6	ELECTRODE FOR CP160	1
5461 4 7	NOZZLE HOLDER FOR CP160	1
5461 4 8	PK(5)DISTANCE SPRING FOR CP160	1
5461 4 9	PK(3)DIST. PART 2TIPS F.CP160	1
5461 4 10	DIFFUSOR FOR CP160	1
5461 4 11	GUIDING PART FOR CP160	1
5461 4 12	CIRC.CUTTING SET FOR CP160	1

Included in delivery: Plasma cutter, cutting head compl. 6 m with 1.1 mm nozzle, earth cable 6 m, pressure reducer, plug nipple, goggles, 1x distance holder, 1x 1.3 mm nozzle



Plasma Cutting Machine PROF 122

- Compressed-air plasma cutting machine
- Direct current constant-power source with electronic cutting current regulation
- Maximum constance of capability characteristics and cutting quality
- Press button with double activation for protection against unintended ignition of arc
- Pilot arc system (enables the ignition without touching the cutting part)
- Cutting of painted and coated materials
- Ideal for car bodies and vehicle construction, container, steel and metal construction etc.
- **Suitable for (data for quality cuttings):**
 - Steel up to 35 mm
 - Stainless steel up to 30 mm
 - Aluminium up to 25 mm
 - Copper, brass and cast materials



Technical Data

Power connection:	400V 50/60 Hz
Fuse slow:	32 A
Cutting parameter:	20 - 120 A
Operation factor (ED):	120 A / 60% acc to. EN 60974.1
Air consumption:	200 l/min. 5.0 bar
Length of cutt. head:	6 m
Earth cable length:	6m / 25 mm ²
Net weight:	120 kg
Dimension LxWxH:	775 x 450 x 875 mm

Article No.	Article Description	QTY
5461 5	PLASMA CUTTING MACHINE PROF122	1
5461 4 2	NOZZLE 1.1MM FOR CP160	1
5461 4 3	NOZZLE 1.3MM FOR CP160	1
5461 4 4	NOZZLE 1.6MM FOR CP160	1
5461 4 6	ELECTRODE FOR CP160	1
5461 4 7	NOZZLE HOLDER FOR CP160	1
5461 4 8	PK(5)DISTANCE SPRING FOR CP160	1
5461 4 9	PK(3)DIST. PART 2TIPS F.CP160	1
5461 4 10	DIFFUSOR FOR CP160	1
5461 4 11	GUIDING PART FOR CP160	1
5461 4 12	CIRC.CUTTING SET FOR CP160	1

Included in delivery: Plasma cutter, cutting head compl. 6 m with 1.1 mm nozzle, earth cable 6 m, pressure reducer, plug nipple, goggles, 1x distance holder, 1x 1.3 mm nozzle



Plasma Cutting Machine PROF 163

- Compressed-air plasma cutting machine
- Direct current constant-power source with electronic cutting current regulation
- Maximum constance of capability characteristics und cutting quality
- Digital setting of cutting current
- Press button with double activation for protection against unintended ignition of arc
- Pilot arc system (enables the ignition without touching the cutting part)
- Cutting of painted and coated materials
- Ideal for car bodies and vehicle construction, container, steel and metal construction etc.
- **Suitable for (data for quality cuttings):**
 - Steel up to 50 mm
 - Stainless steel up to 40 mm
 - Aluminium up to 35 mm
 - Copper, brass and cast materials



Technical Data

Power connection: 400V 50/60 Hz
Fuse slow: 64 A
Cutting parameter: 20 - 160 A
Operation factor (ED): 160 A / 40% acc to. EN 60974.1
Air consumption: 220 l/min. 5.0 bar
Length of cutt. head: 6 m
Earth cable length: 6m / 25 mm²
Net weight: 144 kg
Dimension LxWxH: 775 x 450 x 875 mm

Article No.	Article Description	QTY
5461 6	PLASMA CUTTING MACHINE PROF163	1
5461 6 2	NOZZLE 1.2MM FOR CP161	1
5461 6 3	NOZZLE 1.4MM FOR CP161	1
5461 6 4	NOZZLE 1.6MM FOR CP161	1
5461 6 5	NOZZLE 1.8MM FOR CP161	1
5461 6 6	NOZZLE 3.0MM GOUGING F.CP161	1
5461 6 7	ELECTRODE FOR CP161	1
5461 6 8	NOZZLE HOLDER FOR CP161	1
5461 6 9	NOZZLE PROTECTION FOR CP161	1
5461 6 10	PK(5)DISTANCE SPRING FOR CP161	1
5461 6 11	PK(3)DIST. PART 2TIPS F.CP161	1
5461 6 12	DIFFUSOR FOR CP161	1
5461 6 13	GUIDING PART FOR CP161	1
5461 6 14	CIRC.CUTTING SET FOR CP161	1

Included in delivery: Plasma cutter, cutting head compl. 6 m with 1.2 mm nozzle, earth cable 6 m, pressure reducer, plug nipple, goggles, 1x distance holder, 1x 1.4 mm nozzle

