

Production Range 2013



easy matic 180mobil

MIG/MAG Inverter 180A

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Plasmacutters

65 A and 90A

Page 18



promatic PULS

MIG/MAG Pulsing Sets

300 / 350A

Page 16



One step ahead.



ergoline EX4

MIG/MAG-step switched
with 4-Roll wire feeder

210 / 260A

Page 2



ergoTIG

AC/DC 250 - 300- 350A

Page 22



easy matic 230+260

Stepless, synergic MIG/MAG-
Sets - also in Dual Feeder
Versions! See Page 8

**3 Years
Warranty**

M a d e i n G e r m a n y

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Elektrotechnik GmbH
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GERMANY

www.erfigmbh.de

MIG/MAG step switched

ergoline

170 • 200 • 250

Semi-Synergic Control
2-Roll Feeder
CU
Copper Coils
Thermal protected

5m
Mains cable
with CEE-Plug

Step-switched

**3 Years
Warranty**

Specifications	Mig 170	Mig 200	Mig 250
Mains	230V	3x400V	3x400V
Current Range	25-170A	25-200 A	25-250 A
Voltage Steps	6	7	7
Open Circuit Voltage	18-33V	18-35V	18-39V
Duty Cycle max. (25°)	170/25%	200/25%	250/25%
D. Cycle 60% (25°)	130 A	140 A	170 A
D. Cycle 100% (25°)	80 A	110 A	130 A
Weight	43kg	47kg	58kg
LxWxH	750 x	335 x	640 mm

M a d e i n G e r m a n y

ergoline MIG/MAG welding sets provide all the power for quality welding and ergonomical use:

Universal MIG/MAG Sets for car body repair, workshop and agriculture use!
Geared 2-roll wire drive:

The upper roll is also driven direct by motor power and not only by pressure - gives excellent welding results.

**Synchronized wire speed:**

Wire drive is automatically changed according to the voltage setting. Speed up your productivity!


☒ **Instant access:** To all control elements of the machine, due to the angular design of the front panel.

☒ **Integrated space** for tools on top.

☒ **All sets include** a spot timer, automatic burn back control and 5 metres mains cable!
ergoline EX4

210EX4 • 260EX4

14 voltage steps allow precise arc control for MIG-Brazing, Aluminium and car body repair!

Semi-Synergic Control
4-Roll Feeder
CU
Copper Coils
Thermal protected

5m
Mains cable
with CEE-Plug

Step-switched

**Ideal suited for the
MIG-Brazing
process!**

Compact MIG/MAG welding set with an extended current range that allows precise control in the low end. 14 voltage steps, teaming up with an extra designed inductor, the EX4 Series is best suited for the MIG-Brazing process. Excellent as well in all other MIG/MAG welding processes.

The 4-roll wire feeder uses extra large 37mm roll resulting in best grip on the wire. Wire drive is automatically changed according to the voltage setting ("synchronized" wire speed).



Specifications	210EX4	260EX4
Mains Supply	3x400V	3x400V
Current Range	20-200A	20-250A
Voltage Steps	14	14
Open C. Voltage	14,5-30V	14,5-33V
D. Cycle max. (25°)	200/25%	250/25%
D. Cycle 60% (25°)	140A	170A
D. Cycle 100% (25°)	110A	130A
Weight	51kg	62kg
LxWxH	750 x 460 x 740 mm	



ergoplus

285-2 • 285-4 • 315-4 • 315EX-4

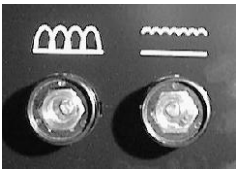
225K • PM245 • PM295



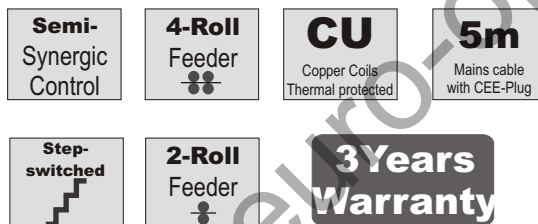
Powerfull, fully geared 4-Roll wire feeder for demanding welding wires. Ideal for long torches, Aluminium and Inox wires!



Standard on all 4-roll models: Digifeed digital motor control, burnback, spot, intervall, and 4-stroke programs



315EX-4 has an inductor with 2 steps for extra fine control of arc dynamics. As well as 20 voltage steps for precise current setting.



The **ergoplus 285** is ideal for workshop or agriculture use. It offers a choice between standard 2- and more powerful 4-roll wire feeder.

The **ergoplus 315EX-4** offers "EX-tra" fine voltage adjustment in 20 finely tuned steps, including extended voltage range - allowing also MIG Brazing. The **ergoplus 315EX-4** is ideal when a great variety of applications is needed.

ergoplus MIG/MAG welding sets provide the "plus" on power for most demanding applications. Ideal for workshop, agriculture or light industrial use.

- ✓ **Fully geared 2- and 4-roll wire feeder:** Designed for heavy duty use. Especially the powerful 4-roll wire feeder is ideal for longer torches or special wires - like Aluminium or INOX!
- ✓ **Higher Duty Cycle up to 45%:** By means of large copper wound transformers with internal cooling channels and high power full bridge silicon rectifier design.
- ✓ **Speed up your productivity** with **ergoplus'** synchronized wire speed!
- ✓ **The angular design** of the front panel gives instant access and protects all control elements. Important details: Space for tools on top of the set and a dust protection for electronic components inside.
- ✓ **Digital meter for voltage and amperage** (available as option). With "Hold" function that keeps the reading after the weld.
- ✓ **5 Meter Supply Cable**
- ✓ **3 Years Warranty!**



ergoplus 225K "Dual voltage" version that can be used with single phase supplies (1x240V) and single phase 230V and with higher output on 400V three phase supplies. A total of 18 fine

PM245 und 295 are designed for single phase supplies (1x240V) and offer high performance. 18 finely tuned voltage steps allow perfect control for all MIG/MAG processes.

Techn. Daten Mig	285-2	285-4	315-4	315EX-4	225K	PM245	PM295
Mains Supply	3x400V	3x400V	3x400V	3x400V	230/400V	1x240V	1x240V
Current range	25-280A	25-280A	25-300A	25-300A	25-220A	25-240A	25-280A
Voltage steps	10	10	10	20	6+12	18	18
Open C. Voltage	18-36V	18-36V	18-38V	14-38V	19-39V	14,9-40V	16,5-44V
Inductor steps	1	1	1	2	1	1	1
D.C. max.	280/35%	280A/35%	300/45%	300/45%	220A/35%	240A/35%	280A/25%
D.C. 60%	180A	180A	280A	280A	160A	165A	170A
D.C. 100%	150A	150A	185A	185A	120A	125A	140A
Wire feeder	2R	4R	4R	4R	2R	2R	4R
Weight	75kg	80kg	110kg	115kg	80kg	85kg	95kg
LxWxH	860 x425 x715 mm			860 x425 x715 mm		860 x425 x715 mm	

MIG/MAG step switched ergopro

MIG/MAG Industrial Welding Sets in Compact Design MIG 350lt MIG 350W • MIG 450W

ergopro welding sets are made for most demanding welding applications: with built-in fully geared 4-roll wire drive, water circulation cooling system*, dual inductor and a digital meter for voltage and amperage that keeps the reading after you finished the weld!

The angular design of the ergopro front panel gives instant access and good protection to all control elements. ergopro pays attention to details like integrated space for tools and an extra dust-protection for the electronic components. With synchronized wire feed the setup time is further reduced.

ergopro provides a full industrial power level by means of large copper wound transformers and inductors plus a full-bridge silicon rectifier design.

With 30 voltage steps (21 for model 350) ergopro sets allow better adjustment of current according to the welding job. Also the dual inductor design results in more controlled arc and therefore less spatter.

*ergopro 350lt and 450lt are gas cooled



**3 Years
Warranty**

Specifications MIG	350lt	350W	450W
Mains Supply	3x400V	3x400V	3x400V
Current range	30-350A	30-350A	40-450A
Voltage Steps	21	21	30
Open Circ. Voltage	18-39V	18-39V	19-48V
Inductor Steps	2	2	2
D.Cycle. 60% (25°)	350A	350A	450A
D. Cycle 100% (25°)	270A	270A	340A
Wire Feed System	4R	4R	4R
Wire Sizes	0,6-1,2**	0,6-1,6**	0,6-1,6**
Water Cooling	-	●	●
Water supply	-	2,2l	2,2l
Pump Pressure	-	3 bar	3 bar
Water stream	-	220l/h	220l/h
Amp/Voltmeter	●	●	●
Spot/Int./4-Stroke	●	●	●
LxWxH	980 x	470 x	900 mm
Weight	125kg	130kg	155kg
Suitable Torch	SB360G	SB400W	SB500W

lt versions w/o water cooling

* Standard length 5m, **Feed rolls for 1,0/1,2 included



Combined Volt/Amp-Meter that keeps the reading after the weld

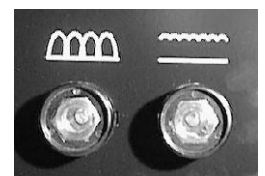
Synchronized wire speed.

Digifeed digital motor control, burnback, spot, intervall, and 4-stroke programs

PCB in separate, dust reduced compartment.



Strong 4-roll wire feed drive



Inductor with 2 steps for extra fine control of arc dynamics.

Made in Germany

ergopro VK



MIG/MAG Industrial Welding Sets with Separate Feeder

MIG 350It-VK

350W-VK • 450W-VK

ergopro welding sets are available as sets with separate wire feed and power source. A single, flexible interconnection cable with a standard length of 5 metres runs from the power source to the wire feeder. Up to a total length of 15 metres is possible on demand, so the operation range with an ergopro separate feeder set is covering an extensive area.

The advantage of separate feeder and power source is that only the light weighted feeder needs to be transported, while the power source can stay at its normal space. But ergopro welding set with separate feeder can also be used just like a compact set: the feeder can be inserted into a swivel base on top of the power source that holds the feeder - absolutely ideal for lateral welding positions.

The central adaptor on the feeder is slightly angled downward, so bends on the torch cable are avoided. Wire feed speed is directly controlled at the feeder.

ergopro provides a full industrial power level for the most demanding welding applications: transformers with copper coils, fully geared 4-roll wire drive, dust-protection for the electronic components, synchronized wire feed, water circulation cooling system*, dual inductor and a digital meter for voltage and amperage that keeps the reading after you finished the weld.

Wire Feeder VK200



Powerfull 4-Roll wire drive for demanding welding wires.

The feeder can be turned to both sides by means of a swivel base on the power source.

Four castors allow soft movement of the wire feeder during long welding runs.



Swivel Base

3 Years Warranty



Specifications	MIG 350ItVK	350VK	450VK
Mains Supply	3x400V	3x400V	3x400V
Current Range	30-350A	30-350A	40-450A
Voltage Steps	21	21	30
Open Circuit Voltage	18-39V	18-39V	19-48V
Inductor Steps	2	2	2
D.Cycle 60% (25°)	350A	350A	450A
D.Cycle 100% (25°)	270A	270A	340A
Wire Sizes	0,6-1,2**	0,6-1,6**	0,6-1,6**
Water Cooling	-	●	●
Water Tank	-	2,2l	2,2l
Pump Pressure	-	3 bar	3 bar
Water Stream	-	220l/h	220l/h
Amp/Voltmeter	●	●	●
Spot/Int./4-Stroke	●	●	●
LxWxH P. Source	980 x	470 x	900 mm
Weight P. Source	140kg	145kg	165kg
LxWxH Feeder	550 x	280 x	420mm
Weight Feeder	18kg	18kg	18kg
Wire Drive Feeder	4R	4R	4R
Length Interconn.	5m*-15m	5m*-15m	5m*-15m
Suitable Torch	SB360G	SB400W	SB500W

"It" models w/o water cooling

* Standard length 5m; 10 or 15m as option, **Feed rollers for 1,0/1,2 included

The standard length for interconnection cables is 5 meter. Up to 15 m are possible in a single cable.

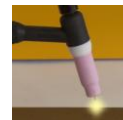
MIG/MAG Inverter

easymatic mobil

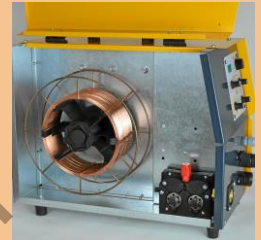
Portable MIG/MAG-Set with TIG and MMA

DPSi
Inverter**MMA**
Mode**TIG**
Mode for
TIG-DC
Welding**4-Roll**
Feeder**RC**
Remote Control**DdC**
Dynamic
Inductor Control**230V**
SinPer
Perfect Sinus
16A/230V!

- ✓ **Portable inverter set** for MIG/MAG welding up to 180A.
- ✓ **Space for large D300 ("15kg")-spools.** For D200 use adaptor.
- ✓ **12 MIG/MAG synergic programs:** Mild steel, INOX, Aluminium AlMg4.5 and ALSi5, MIG-Brazing, Flux Core Wire (FCW).
- ✓ **TIG-DC welding** up to 200A, includes 2-stroke and 4-stroke (latching) operation, arc start by lifting torch, full gas management.
- ✓ **MMA welding** up to 4,0mm including hotstart and arc-dynamics.
- ✓ **Stepless SINGLE KNOB OPERATION for MIG/MAG:** Dial in material thickness, weld, finished!
- ✓ **Precise digital controlled MIG/MAG-arc** including subprograms for arc start, arc dynamics (adjustable inductance), removal of final drop, hot start and current downslope.
- ✓ **erfi SINPER-Technology:** uses available energy the most efficient way. A power factor of 0,99 allows full power just using ordinary 16A (slow) mains fuses!
- ✓ **2-stroke / 4-stroke operation** for MIG/MAG, wire inching without gasflow and voltage on torch.
- ✓ **Digital ammeter, remote control via torch (optional)**
- ✓ **Powerful 4-roll wire drive**
- ✓ **Prepared for Spoolgun use** - ideal for aluminium
- ✓ **5 meters mains cable including plug**

**NEW
2013****Up/Down
Current Control
on Torch!****MIG/MAG**
up to 180A**WIG**
up to 200A**E-Hand**
up to 160A**Space for large D300 spools:**

The easymatic 180mobil allows the use of "normal" 300mm diameter wire spools ("15kg"). As well 200mm spools using an adaptor.



Powerful wire feeder: efficient 4-Roll wire feeder driven by a 50W DC-motor. Uses large 37mm feed rolls for superior power transmission.



Remote socket: Using the optional up/down torch, the arc energy can be directly set on the torch - as well during welding. Supports spoolgun.

Spoolgun: The ideal tool for welding Aluminium! Combines the advantage of having a 6m torch cable and a short travel for the wire itself! Therefore using thin 0,8mm aluminium wire, also thin aluminium sheets can be welded.



Polarity changer: provides the versatility to dial in the correct polarity for all processes. Hence also flux core wires can be processed.

**M a d e i n G e r m a n y**

MIG/MAG Inverter

7



Comfortable Control: Includes 12 synergic programs for different material and wire combinations as well as modes for TIG- and MMA welding. Just dial in the material thickness (in mm) on the display. As well: Variable inductor adjustment system (DDc).

Remote control socket: Allows the connection of torches with up/down buttons, so adjustment of welding energy can be executed directly on the torch. Prepared for the use of the (optional) spoolgun including its integrated remote control.

Universal connection matrix: Easy set-up for all welding processes. For example: Use negative pole for flux core wires or TIG welding. When using MMA Mode the internal connection can be parked in a safe position.

Central Connector: Allows connection of most commercially available MIG/MAG torches. Also hosts TIG torches and hence allows comfortable TIG-welding with torch trigger and complete gas management functions.

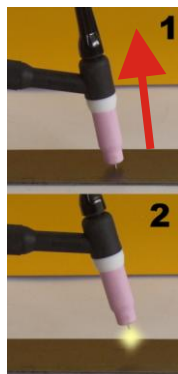
**3 Jahre
Garantie**

easymatic	180mobil
Mains	230V
Fuse	16A slow
Current range MIG/MAG	25-180A
Current range TIG	8-200A
Current range MMA	20-160A
Open Circuit Voltage	60V
Current adjustment	stepless
Inductor adjustment	stepless
D.C. 40% (25/40°)	180/160A
D.C.100% (25/40°)	130/110A
Wire feeder	4-Roll
Wire diameters	0,6-1,0
Ammeter (digital)	●
Hot Arc and Downslope	●
2-Stroke/4-Stroke	●
Prepared for Spoolgun	●
Protection	IP21S
LxWxH (mm)	580 x295 x520
Weight	29,5kg
Article number	#08-65



Cable holder: stores the (5m) mains cable safe during transport of the set.

TIG-Welding: first establish contact with the tungsten needle, press trigger and lift needle off the workpiece. Results in an arc that is started by controlled low current. 2-stroke and 4-stroke functionality plus controllable downslope. Includes complete gas management (pre- and post flow).



Trolley: ideal to use the easymatic 180 in the workshop. Includes big wheels and cylinder holder.

Trolley TW-1

#37-81-3

**Torch SB240UpD/4m**

includes up/down buttons for remote control of welding current or material thickness.

SB240G 3m #20-50-U
SB240G 4m #20-51-U
(Torch only, no set)

**MIG/MAG Accessories Sets**

Regulator 801, Earth Lead 3mx25sqmm, plus a choice of:
SB240G 3m (Set) #20-99-15
SB240G 4m (Set) #20-99-16
SB240G UpD 3m (Set) #20-99-17
SB240G UpD 4m (Set) #20-99-18

**TIG / MMA Accessories Set:**

includes MMA-Cable 3mx25sqmm plus a choice of TIG-Torches

SR17/4m/M (im Set) #20-97-01
SR26/4m/M (im Set) #20-97-02

**Accessories: Spoolgun**

Model GPZ-Mega1, up to 200A, cable length 6m.

GPZ-Mega1 6m #20-28

MIG/MAG DSi Inverter

easymatic**M a d e i n G e r m a n y****Stepless, synergic MIG/MAG-sets**

Single Knob Operation: Stepless adjustment of welding energy. No steps, no coarse and fine adjustment - just dial in the thickness of the material (or desired amperage) and **easy**matic is ready to weld.



erfi-DDc DynaductorControl: Stepless arc adjustment for "soft" or "hard" arc. Autodynamic for optimised arc start.

**Fully geared Wire feed system**

easymatic 230: Robust aluminium die cast 2-roll feeder with geared 40mm rolls. **easy**matic 260: 4-roll wire feeder with strong DC-Motor and big 37mm rolls.



Remote Control: Use knob direct on the torch to adjust the desired thickness or amperage. Special mode for spoolgun (not on DUO) with remote control available - ideal for aluminium welding.

- ✓ **Stepless SINGLE KNOB operation - fully synergic design**
- ✓ **Direct setup of material thickness on display**
- ✓ **Arc adjustable from "hard" to "soft" characteristic with DDc control**
- ✓ **Programs for Mild Steel, INOX, MIG-Brazing and Aluminium**
- ✓ **2-Stroke/4-Stroke selectable**
- ✓ **Digital Ampmeter with "hold"**
- ✓ **Remote control direct on torch available**
- ✓ **Inching without gas and welding voltage**
- ✓ **Fully geared wire feed unit**
- ✓ **Ready for spoolgun - ideal for Aluminium**
- ✓ **Big wheels, sturdy cabinet**
- ✓ **Tool deposit (rubber) on top**
- ✓ **5 Meter mains cable with plug**
- ✓ **Available as 230/400V version (option)**
- ✓ **3 Years warranty**

3 Years
Warranty

* 230Duo and 260Duo are fitted with 2 x 2-roll wire drive

easymatic	230	260
Mains Voltage	3x400V	3x400V
Current Range	15-230A	15-260A
Open Circuit Voltage	41V	44V
Arc Characteristics	stepless	stepless
DC 35% (25/40°)	230/200A	260A/230A
DC 100% (25/40°)	160/130A	170/140A
Wire feed unit	2-Roll*	4-Roll*
Wire diameters	0,6-1,0	0,6-1,0
Ampmeter	•	•
Hot Arc and Downslope	•	•
2T/4T	•	•
Spoolgun Mode	•	•
LxWxH	750 x 460 x 740 mm	
Weight	55kg	65kg

easymatic Duo

Stepless, synergic MIG/MAG-sets with dual wire feeders

- ✓ *Stepless SINGLE KNOB operation - fully synergic design*
- ✓ *Handles two torches - fully automatic switching from one torch to the other*
- ✓ *Two spoolholders and two wire feeders*
- ✓ *Direct setup of material thickness on display*
- ✓ *DDc control: Arc adjustable from "hard" to "soft" characteristic*
- ✓ *Programs for mild steel, INOX, MIG-Brazing and Aluminium*
- ✓ *2-Stroke/ 4-Stroke selectable*
- ✓ *Digital Ammeter with "hold"*
- ✓ *Remote control for both torches*
- ✓ *Inching without gas and welding voltage*
- ✓ *Two fully geared wire feed units*
- ✓ *Holds one 20 l or two 10 l cylinders*
- ✓ *Big wheels, sturdy cabinet*
- ✓ *Tool deposit (rubber) on top*
- ✓ *5 Meter mains cable with plug*
- ✓ *Available as 230/400V version (option)*
- ✓ *3 Years warranty*

Digital Display shows welding current, allows pre-set of amperage or material thickness. Bright green display that can be seen through welding helmet!



Wire and material Preset synergic programs for all materials like mild steel, INOX, Brazing and Aluminium. No separate adjustment of wire feed speed necessary. Separate selector for each wire feeder - no switching needed when changing from one torch to the other

Remote Control: Use knob direct on the torch to adjust the desired thickness or amperage, also during welding! Two remote sockets allow a separate control from both torches.

easymatic Duo:
2 materials without wire change!

Ideal for:

- Steel + Alu
- Steel +Brazing
- Alu + Brazing



1- Duo saves time:

Modern welding covers a variety of materials. However the time for changing wires, torches and gas takes a lot of time. Now **easymatic Duo** allows to hold two different materials ready for welding. No time consuming changes needed - just press the trigger and weld.

2- Duo is easy:

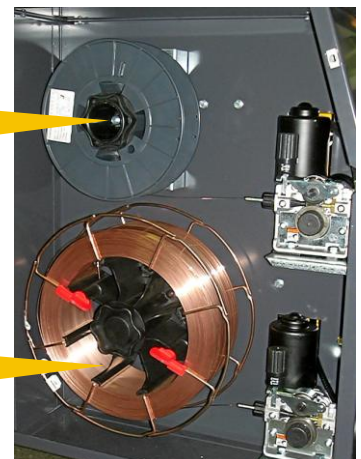
No sophisticated adjustments - just select the wire sizes on the front switch. Wire feed speed and other welding parameters are automatically adjusted from the machine's internal data base. This works as well when changing from one torch to the other.

3- Set-up without trial & error:

Step switching is history: Just dial-in the material thickness on the display. As the **easymatic Duo** has two remote control sockets, this adjustment can be done independently for both torches*.

Two separate wire feeders allow to hold two materials and/or wire size ready for welding. Change is a matter of a press on the trigger.

Fully geared feeders robust aluminium die cast construction with geared upper rolls and strong DC-Motors.



* Torches with remote control (option) necessary.

MIG/MAG DSi Inverter

easy matic 250PULS

Compact MIG/MAG-PULSING-Set with TIG and MMA

DSi
InverterMP
MultiPULSMMA
ModeTIG
Mode for
TIG-DC
welding4-Roll
wire feedRC
Remote ControlDdC
Dynamic
Inductor ControlStepless
NEW
2013Up/Down
Current
Control
on Torch!MIG/MAG
PULS
Up to 250ATIG
Up to 250AMMA
Up to 200A3 Years
Warranty

- ✓ **Compact, gas cooled inverter set** for MIG/MAG-pulse and standard MIG/MAG process up to 250A.
- ✓ **24 MIG/MAG synergic programs** for pulse and standard welding: Mild steel, INOX, Aluminium AlMg4.5 and ALSi5, MIG-Brazing, Flux Core Wire (FCW, only standard process).
- ✓ **TIG-DC welding** up to 250A, includes 2-stroke and 4-stroke (latching) operation, arc start by lifting torch, full gas management.
- ✓ **MMA welding** up to 5,0mm including hotstart and arc-dynamics.
- ✓ **Stepless SINGLE KNOB OPERATION** for MIG/MAG: Dial in material thickness, weld, finished!
- ✓ **Precise digital controlled MIG/MAG-arc** including procedures for arc start, arc dynamics (adjustable inductance), removal of final drop, hot start and current downslope.
- ✓ **2-stroke / 4-stroke operation** for MIG/MAG, wire inching without gasflow and voltage on torch.
- ✓ **Digital ammeter, remote control via torch (optional)**
- ✓ **Powerful 4-roll wire drive**
- ✓ **Prepared for Spoolgun use - ideal for aluminium**
- ✓ **5 meters mains cable including plug**

Powerful wire feeder:

efficient 4-Roll wire feeder driven by a 50W DC-motor. Uses large 37mm feed rolls for superior power transmission.



Made in Germany

**MIG/MAG Accessories Sets:**

Regulator 801, Earth Lead 3mx25sqmm, plus a choice of:

Type	#
SB240G 3m	#20-99-15
SB240G 4m	#20-99-16
SB240G UpD 3m	#20-99-17
SB240G UpD 4m	#20-99-18

**TIG / MMA Accessories Set:**

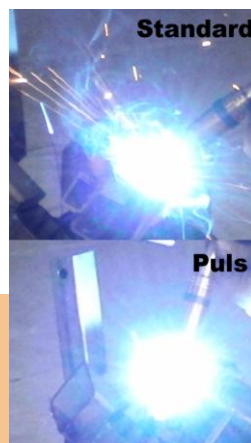
includes MMA-Cable 3mx25sqmm plus a choice of TIG-Torches:

Type	#
SR17/4m/M	#20-97-01
SR26/4m/M	#20-97-02

**Accessories Set: Spoolgun**

Model GPZ-Mega1, up to 200A, cable length 6m.

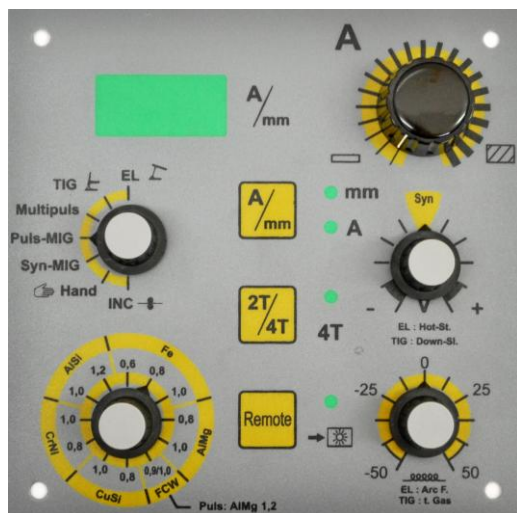
Type	#
GPZ-Mega 1 / 6m	#20-28



In direct comparison: the low spatter arc (above) of standard welding program in direct contrast to the virtually spatter free arc in pulse mode. Same workpiece, welding was done with 1,0mm INOX wire. Therefore MIG/MAG-Puls is the ideal technology for sensitive surfaces and seams in visible areas.

MIG/MAG DSi Inverter

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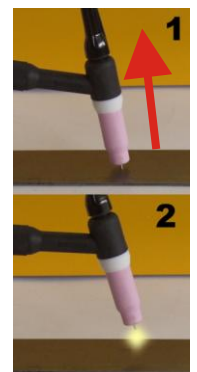
Comfortable Control: Includes 12 synergic an 12 puls programs for different material and wire combinations as well as modes for TIG- and MMA welding. Just dial in the material thickness (in mm) on the display. As well: Variable inductor adjustment system (DDc).

Remote control socket: Allows the connection of torches with up/down buttons, so adjustment of welding energy can be executed directly on the torch. Prepared for the use of the (optional) spoolgun including ist integrated remote control.



Universal connection matrix: Easy set-up for all welding processes. For example: Use negative pole for flux core wires or TIG welding. When using MMA Mode the internal connection can be parked in in a safe position.

TIG-Welding: first establish contact with the tungsten needle, press trigger and lift needle off the workpiece. Results in an arc that is started by controlled low current. 2-stroke and 4-stroke functionality plus controllable downslope. Includes complete gas management (pre- and post flow).



Torch SB240UpD/4m: includes up/down buttons for remote control of welding current or material thickness.



TIG-Torch SR26/4m/M: TIG torch for direct fit to the central adapter of the easymatic 250PULS. Also available as slim SR17 version.



Spoolgun: The ideal tool for welding Aluminium! Combines the advantage of having a 6m torch cable and a short travel for the wire itself! Therefore using thin 0,8mm aluminium wire, also thin aluminium sheets can be welded.

easymatic	250PULS
Mains	3x400V
Fuse (slow)	16A
Current range MIG/MAG	25-250A
Current range PULS	20-250A
Current range TIG	8-250A
Current range MMA	20-200A
Open circuit voltage	65V
Current adjustment	stepless
Inductor adjustment	stepless
D.C. 30% (25/40°)	250/220A
D.C. 100% (25/40°)	150/130A
Wire feeder	4-Roll
Wire diameters	0,6-1,0
Ammeter	●
Hot Arc and Downslope	●
2-Stroke / 4-Stroke	●
Prepared for spoolgun	●
Protection	IP21S
LxWxH (mm)	750 x460 x 740
Weight	65kg
Article number	#08-53

MIG/MAG DSi Inverter

promatic**M a d e i n G e r m a n y****300A • 350A • 400A*****Continuously adjustable synergic MIG/MAG-Sets
Compact Versions**

Never again step 1 is too low and step 2 is too strong! **promatic** combines synergic control for MIG/MAG (GMAW) welding with continuously adjustable energy regulation. No voltage steps, no trial and error. Just set one single knob.

promatic is easy to use: Just preset material thickness and start the welding right away. All other parameters like wire speed and arc voltage are automatically adjusted.

**promatic
compact****300A
350A**

promatic uses the most robust and advanced **erfiDSi** technology. The high speed DSP processor reacts instantaneous to changes in the arc and readjusts the transistorised power source in fractions of a millisecond. Result is a extremely constant, reproduceable and low spatter welding arc.

promatic "W" models include an integrated water cooling unit for long welding runs with high current welding.

**Stepless!**

NEW:
Push/Pull-
Option available!

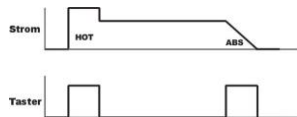
* 400A available only in separate feeder version

**3Years
Warranty**

- ✓ **Just dial in material thickness and start welding.**
- ✓ **Remote Control socket** for welding energy control. Torches with built-in remote control allow changing energy also while welding!
- ✓ **Welding energy is continuously variable** - no voltage steps and confusing coarse and fine settings.
- ✓ **Synergic programmes** for mild and stainless steel, aluminium and MIG-brazing.
- ✓ **Digital Display** for amperage or material thickness. Includes "hold function". Bright display in green colour that can be seen through LCD-Helmets!
- ✓ **Adjustable erfiHotArc** helps to avoid joining errors when the material is cold. Very useful for aluminium welding!
- ✓ **Digital Arc Control Loop** makes sure that the welding results are constant and reproduceable over time and do not depend e.g. from mains variations!
- ✓ **erfiDDc** Arc dynamic control adjusts "hard" and "soft" arc characteristics as desired. Arc dynamics are automatically adjusted for perfect arc start.
- ✓ **4-Roll wire feeder** fully geared version with powerful DC-Motor. Motor speed digitally stabilised + automatic soft wire start.
- ✓ **2T / 4T Control:** 4T (latching) with extended slope control (hot start + downslope for MIG/MAG)
- ✓ **Inching mode** insert the wire without loss of gas and without voltage on the torch.
- ✓ **Integrated Water Cooling Unit** in "W" models with low pressure sensor and stand-by mode.

MIG/MAG DSi Inverter

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Slope Control:

For simple applications 2T is right, but 4T (latching) operation is the preferred choice for longer runs. **promatics** special 4T-Slope mode allows precise control of hotstart and downslope simply with the torch trigger. Only available in stepless technology!



4-Roll Wire feed system

nothing compares to a fully geared 4-roll wire feeder - particularly if special soft wires have to be used.

Be informed: Display Control

select here, whether you want to use material thickness or welding current as your reference for welding energy.

One single knob does it all

After selecting material and wire all you need is to dial in the thickness of the material. Everything else is preset in the memory of the **promatic** control. *Only the adjustment of this single knob is necessary.*



Wire and material

Selects the synergic program for the material / wire diameter combination. Additional "hand" control plus "Inching Mode" that inserts wire without voltage on torch and gas loss.



**3Years
Warranty**

Wire speed correction

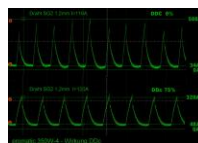
Only needed, if more or less wire feed (longer or shorter arc) is desired for special welding jobs.

Save time: Remote Control

Apart from standard adjustment on the front panel an external control like a knob or up/down buttons on the torch can be used to select in the desired energy.

DDc: Arc dynamics

This control allows you to set the arc to "harder" or "softer" characteristic. Just optimise the arc to the current welding application and benefit from the low spatter arc!



Soft Menu System

Welding experts can use the **promatic** menu to tune every aspect of the arc. Not only simple parameters like burnback and post flow time can be adjusted, also motor speed slope, hot start and downslope is selectable.

Types + Accessories

		#
• promatic 300-4	gascooled	08-70
• promatic 350-4	gascooled	08-71
• promatic 300W-4	water cooled	08-75
• promatic 350W-4	water cooled	08-76
• Torch with remote 5XM36	3m	20-80
• Torch with remote 5XM36	4m	20-81
• Torch with remote 5XM410	4m	20-86
• Standard torch SB360G	3m	20-07
• Standard torch SB360G	4m	20-08
• Standard torch SB400W	3m	20-13
• Standard torch SB400W	4m	20-14
• Push/Pull Torch PPL360	8m (gas cooled)	20-90-8
• Push/Pull Torch PPW400	8m (water cooled)	20-91-8
• Push/Pull Control Unit	internally	08-90
• Aluminium set for all torches		34-20
• Wire feed rollers (set of 2)	0.8/1.0mm	34-29-0810
• Wire feed rollers (set of 2)	1.0/1.2mm*	34-29-1012
• Wire feed rollers (set of 2) f. Alu ("U")	1.0/1.2mm	34-29-1012A
• Earth lead 35qmm, T50 plug	3m	38-10
• Earth lead 50qmm, T50 plug	3m	38-11
• Regulator Harris 801, 2 Man.	200bar	38-02
• Spooladaptor	1-part	37-65-01

* Standard from factory

• can be used with all sets



Aluminium set 34-20

Push/Pull - with **promatic**

by adding a simple-to-install P/P-Control unit (also available built-in from factory) **promatic** compact sets can be used with Push/Pull torches. With this option, long torch runs (6m, 8m oder 10m) for aluminium are no problem any more. Push/Pull torches PPL360 (gascooled) or PPW400 (water cooled) come with a standard remote control!



Torch 5XM36



Push/Pull Torch PPW400



Pull-Feeder from PPW400

MIG/MAG DSi Inverter

promatic VK

M a d e i n G e r m a n y

300A • 350A • 400A

Continuously adjustable synergic MIG/MAG-Sets Separate Feeder Versions



promatic VK

300A
350A
400A



Stepless!

Extend your working area: **promatic VK** sets use a separate feed unit mounted on a swivel base that is easily removable from the power source. In this way, only the light weight feeder needs to be taken to the welding point, while the power source can rest at its place. Interconnection cables between power source and feeder are available with 5 or 10 meters length - also longer runs on demand.

All sets are available with an internal water cooling unit. Water circulation is monitored by sensors, also the water cooling unit switches to stand-by during welding pauses.



A gear for woodworking machinery welded with model 350W.

promatic VK sets cover all the functions of the compact sets like stepless adjustment and synergic control plus extra features:

- ✓ **Removable separate feeder:** connected to power source via interconnection cable (5m oder 10m).
- ✓ **Interconnection cable** removable on feeder and power source side. The cables are cascable, so additional interconnection cables can be used as extension.
- ✓ **Swivel base for feeder:** when using the feeder on top of the power source the feeder will automatically turn.
- ✓ **Feeder unit with 4 castors:** for long welding runs the feeder can be pulled behind.
- ✓ **Adjustments direct on feeder:** Stepless adjustments located on feeder panel.
- ✓ **Remote control on feeder:** Set material thickness directly on torch via potmeter or up/down buttons (5XM torches recommended).
- ✓ **4-Roll wire feeder:** fully geared 4-roll feeder with powerful DC-motor. Closed loop controlled, automatic soft start for wire.
- ✓ **Integrated water cooling:** ("W"-models) with active control and stand-by function.
- ✓ **Synergic programs** selectable direct on feeder.
- ✓ **Digital display** on feeder panel with hold function & green colour that can be read through LCD-Helmets.

Model range:

promatic	Water-cooling	Separate feeder	Power source	preferred models*
300-4	-	-	300A	•
300W-4	•	-	300A	
300VK + VK400-4	-	•	300A	
300W-VK + VK400W-4	•	•	300A	
350-4	-	-	350A	
350W-4	•	-	350A	•
350VK + VK400-4	-	•	350A	
350W-VK + VK400W-4	•	•	350A	•
400VK + VK400-4	-	•	400A	
400W-VK + VK400W-4	•	•	400A	•

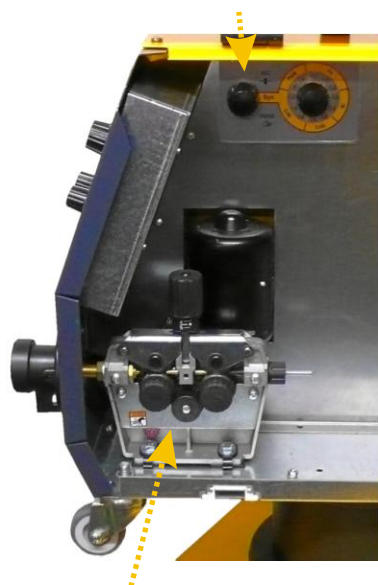
* These types are preferred in production. Other models are available on demand.

MIG/MAG DSi Inverter

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3 Years
Warranty
300A • 350A • 400A
Continuously adjustable synergic MIG/MAG-Sets
Separate Feeder Versions
Program selection:

Located directly in the feeder unit. Selects the synergic program for the material / wire diameter combination. Additional "hand" control plus "inching mode" to insert wire without voltage on torch and gas loss.


Adjustments on feeder:

The complete set-up for the power source is done on the front panel of the feeder - saves time when using the feeder away from the power source. Plus: remote socket for torch.. Potmeter and up/down buttons are supported as remote controls.


Removable Interconnect:

The interconnection cable is removable both on feeder and power source side. Ideal for transport, also interconnect cable with different length can be exchanged.


4-roll fully geared wire feeder

ideal base for a reliable wire feed. A powerful DC-motor with closed loop control and automatic soft start provides constant feed also for soft wire materials.

Feeder with castors & swivel base

The wire feeder is placed in a swivel base on top of the power source. It can be easily turned toward the work area. Four castors allow the feeder to be pulled behind for long welding runs.

Cascade Interconnects:

Due to mirrored connectors the interconnection cables can be easily cascaded. If a longer cable is needed, just use another cable to extend range!

Types + Accessories

		#
●	promatic 300VK + VK400-4	gas cooled 08-70-V
●	promatic 350VK + VK400-4	gas cooled 08-71-V
●	promatic 300W-VK + VK400W-4	water cooled 08-75-V
●	promatic 350W-VK + VK400W-4	water cooled 08-76-V
●	promatic 400W-VK + VK400W-4	water cooled 08-76-V
●	Interconnection 35qmm gas cooled	5m 31-13
●	Interconnection 35qmm gas cooled	10m 31-14
●	Interconnection 50qmm water cooled	5m 31-15
●	Interconnection 50qmm water cooled	10m 31-16
●	Torch with Remote 5XM36	3m 20-80
●	Torch with Remote 5XM36	4m 20-81
●	Torch with Remote 5XM410	4m 20-86
●	Standard Torch SB360G	3m 20-07
●	Standard Torch SB360G	4m 20-08
●	Standard Torch SB400W	3m 20-13
●	Standard Torch SB400W	4m 20-14
●	Aluminium set for all torches	34-20
●	Wire feed rollers (set of 2)	0.8/1.0mm 34-29-0810
●	Wire feed rollers (set of 2)	1.0/1.2mm* 34-29-1012
●	Wire feed rollers (set of 2) f. Alu ("U")	1.0/1.2mm 34-29-1012A
●	Earth lead 35qmm, T50 Stecker	3m 38-10
●	Earth lead 50qmm, T50 Stecker	3m 38-11
●	Regulator Harris 801, 2 Man.	200bar 38-02
●	Spool adaptor	1-part 37-65-01

* Standard from factory
 ● can be used with all sets

Technical Specifications of *promatic* power sources:

promatic	300A	350A	400A
Mains Supply	3x400V	3x400V	3x400V
Current range	15-300A	3x400V	3x400V
Open Circ. Voltage	46V	47V	50V
Inductor (DDc)	stepless	stepless	stepless
D.Cycle. 50% (20/40°)	300/270A	350/320A	400A/370A
D.Cycle. 100% (20/40°)	240/210A	280/250A	320A/290A
Wire Feed System	4-Roll	4-Roll	4-Roll
Wire Sizes	0,8-1,2	0,8-1,2	0,8-1.2
Ammeter	●	●	●
Hotstart/Downslope	●	●	●
LxWxH	980 x470 x900 m		
Weight	95/100kg	110/115kg	145kg

MIG/MAG DSi Pulsing Sets

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promatic PULSE**MIG/MAG Pulsing Set****350A water cooled**

New in the *erfi* production range: the **promatic** MIG/MAG-Pulse set is designed for virtually spatter free welding of inox, mild steel, aluminium and galvanised sheets (MIG-Brazing). Its high speed electronic power source allows precise control of each droplet of molten material that transfers from the wire to the workpiece. This results in an arc without short circuits, hence not spatter is generated.

- **No spatter, perfect seam and no rework necessary.**

The **promatic** MIG/MAG-Pulse set is very easy to set-up, as it contains a complete expert database for all welding parameters and characteristics needed for pulse and standard welding processes. Furthermore a MMA mode allows welding of stick electrodes.

- **Just select material thickness and the set is ready for welding.**

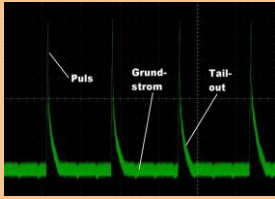
Also the **promatic** 350W-4PULS incorporates an integrated low noise water cooling system with large 5 litre capacity. Its function is monitored by the machine's control and is activated on demand only.

promatic
PULS**350A****3 Years
Warranty****One step ahead.**

- ✓ **MIG/MAG Pulse Welding** - virtually spatter free welding due to electronic controlled metal transfer (ODPP: one droplet per pulse). Perfect welding results with almost no rework needed.
- ✓ **Multipulse:** A second pulse generator is added to control heat input by separating heating and cooling phases. Results in a seams that look like welded by TIG - especially for aluminium and inox.
- ✓ **Integrated Database:** All synergic welding and pulsing parameters for mild steel, aluminium, inox and MIG-brazing are stored in the machines internal memory. So set-up for welding is as easy as dialing in the thickness of the material!
- ✓ **Stepless DSi-Inverter:** No voltage steps and confusing coarse and fine settings. Just use one single knob - or even the remote on your torch - to set the desired material thickness!
- ✓ **Remote Control socket** for welding energy control. Torches with built-in remote control (optional) are ideal to change current - also possible while welding.
- ✓ **erfi Hot-Arc:** Avoids cold joints when starting the arc. Outstanding for aluminium.
- ✓ **erfi DdC** Arc dynamic control adjusts "hard" and "soft" arc characteristics. Arc dynamics are automatically adjusted for perfect arc start.
- ✓ **4-Roll wire feeder** fully geared with powerful motor. Wire speed digitally stabilised.
- ✓ **2T / 4T** (latching), 4T with slope control and adjustable *erfi* HotArc that helps to avoid joining errors. Plus Inching mode to insert the wire without loss of gas and without voltage on the torch.
- ✓ **Integrated Water Cooling Unit** in "W" models with large 5l tank, flow sensor and low noise stand-by mode.

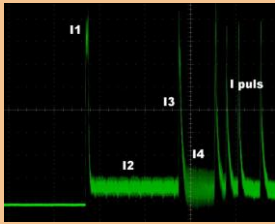


Made in Germany



Pulse: Eye on the droplet

The welding wire is first molten by a low energy "base current". Then current rises fast to pulse current. Now the unleashed electric and magnetic forces separate the droplet from the wire. During tail-out phase the droplet is completely transferred to the welding pool. The whole process works without any contact of wire and workpiece, so short circuits and resulting spatter is avoided.



Start from pole position

Most important for proper pulse welding is an ideal arc start. **Promatic** pulse sets use a sophisticated start sequence that incorporates touch pulse (I1), distance current (I2), separating pulse (I3) and delay current (I4) to minimise spatter while starting the arc. The complete sequence takes only a fraction of a second - all you notice is an excellent start.



Keeps the wire pointed

Arc strike can only be as good as the wire's end that was left over from last welding. Only a sharp and pointed wire end allows optimal conditions for re-strike of the arc. In pulse mode, **Promatic** stops the arc with exact timing, so last droplets transferred and the wire as pointed as possible.



4-Roll wire feed

Ideal base for a reliable and stable wire feed. Uses a powerful DC-Motor with electronic closed loop control. Advanced ignition feed control for starting arc also with most difficult wires.



Remote control on Torch

Set the material thickness directly on the torch - no need to leave your welding position. The 7XM-torches allow energy control right at the handle of the torch. As well during welding, of course.

Type + Accessories		#
● Promatic PULS 350W-4	water cooled	08-76
● Torch with remote control 7XM410	4m	20-86
● Standard Torch SB400W	3m	20-13
● Standard Torch SB400W	4m	20-14
● Aluminium Kit f. all Torches		34-20
● Wire feed roll set	0.8/1.0mm	34-29-0810
● Wire feed roll set	1.0/1.2mm*	34-29-1012
● Wire feed roll set f. Alu ("U")	1.0/1.2mm	34-29-1012A
● Earth lead 50qmm, T50 plug	3m	38-11
● Regulator Harris 801, 2 gauges	200bar	38-02
● Spool adaptor		37-65-01

● for all promatic sets



4 Questions to Peter Finzel, design engineer of promatic pulsing sets.

Why use MIG/MAG-pulsing?

With normal MIG/MAG welding sets, only high currents beyond 200 to 250A result in a spatter free "spray" arc mode. But widely used short and mixed arc modes still rely on short circuits to melt the wire. Unfortunately every short circuit throws spatter out of the arc. This can be avoided by pulsing the arc's current. Using MIG/MAG-pulse also low and medium currents are free of short circuits and therefore enjoy the benefits of spatter free welding.

Talking technical, the current is kept to a quite low value just to keep the arc going. Then the current is immediately raised to a value beyond the spray arc region and a single droplet is separated off the wire. As soon this droplet is on the way to the workpiece, the current quickly returns to its low "base" value again. No contact of wire and material is needed, so no short circuits are generated and virtual spatter free welding is possible at all current levels.

When pulsing should be used?

The big advantage is the spatter free welding, so pulsing is the ideal process for

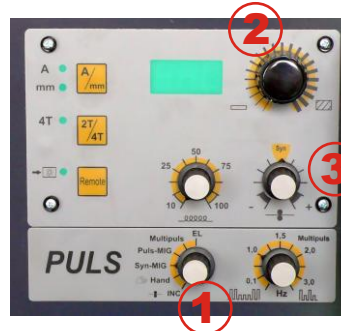
welding seams that are on the outside of any products. There is no rework necessary so surfaces are not contaminated by spatter. MIG/MAG-pulsing is the ideal process for aluminium and inox (CrNi), but also mild steel benefits from pulsing. In addition, MIG-brazing can be greatly enhanced by the pulse process.

What is multipulse good for?

If a "TIG" like appearance of the welding seam is desired, multipulse is the process of choice. By using a second, much slower pulse generator, phases of more and less heat input are separated. This results in more controlled heat input and TIG-like welding seams. Mostly used for aluminium and inox (CrNi).

Is pulsing complicated to use?

Definitely no. The simple reason: during design, all necessary parameters and curves were stored in the machine's memory. So there is no reason for the user to deal with pulse times, base currents and the like. Just select material and thickness, and all the parameters are loaded from the expert data base inside the machine. So pulsing is just as easy as normal MIG/MAG welding.



Very easy setup

First, select the desired process (normal, pulse or multipulse) on switch (1). Now dial in material thickness with control (2). Set both controls (3) to the middle position - and the set is ready for welding.

On demand, the parameters like arc length and arc dynamics ("inductor") can be trimmed to specific applications using controls (3).

Promatic 350W-4PULS	Compact	Sep.-Feeder
Mains	3x400V	3x400V
Current range	15-350A	15-350A
Fuse (slow)	25A	25A
Open circuit voltage (OCV)	65V	65V
Wire feed speed	1,0-22m/min.	1,0-22m/min.
D. Cycle 50% (20/40°)	350/320A	350/320A
D. Cycle 100% (20/40°)	280/250A	280/250A
Wire feed type	4-Roll	4-Roll
Wire diameters	0,8-1,2	0,8-1,2
Ammeter	●	●
Hotarc + Downslope	●	●
Water cooling	●	●
LxWxH	980 x470 x900 mm	
Weight	115kg	130kg

PlasmaCutter

M a d e i n G e r m a n y

PS660 PS990

A new line of very powerful and highly economic plasma cutters for metals of all kind. The single step PS 660 offers a cutting range up to 20mm (clean cut up to 15mm) and allows fast cutting of thin sheet metals as well.

The PS990 offers two current choices and allows a maximum cutting capacity of 25mm (clean cut up to 20mm) in mild steel).

Plasma
65A
90A

Both sets feature automatic arc strike by HF, so no contact to workpiece is needed. There are absolutely no moving parts in the torch - very important for a long service life of the consumables. Also both sets are equipped with

pilot arc, so arc start on painted or rusty workpieces is guaranteed.

- ✓ 15mm (P660) or 20mm (PS990) quality cut in mild steel
- ✓ 20mm(PS660) or 25mm (PS990) max. cutting capacity
- ✓ automatic arc start
- ✓ Pilot arc: starts also on rusty + painted materials
- ✓ 6m torches included
- ✓ Integrated pressure regulator with meter
- ✓ NEW: with Grid Cut
- ✓ Includes Filter (microfilter available as option)
- ✓ Safety features
- ✓ easy to use!
- ✓ 5m mains cable



3 Years
Warranty



New: Grid Cut.

Grids can be cut continuously without stopping!

Specifications	PS660	PS990
Supply Voltage	3x400V	3x400V
Frequency	50/60Hz	50/60Hz
Fuses	25A slow	32A slow
Input Power (60%, 400V)	16 KVA	25kW
Cutting current	65A/106V	90A/116V
Open Circuit Voltage	280V	298V
Duty Cycle 35% (25°C)		90A/116V
Duty Cycle 40% (25°C)	65A/106V	
Duty Cycle 60% (25°C)		60A/104V
Input Pressure	6-10 bar	6-10bar
Air Input (typ.)	130l/min	150l/min
Quality Cut (Mild Steel)	up to 15mm	up to 20mm
Maximum Cut (Mild Steel)	up to 20mm	up to 25mm
Weight	75kg	105kg
LxWxH, mm	530 x 370 x 750	
Supply Cable	4x2,5qmm/5m	4x4qmm/5m
Torch	CB70 / 6m	CB100/6m
HF-Arc start	Yes	Yes
Pilot Arc	Yes	Yes
Strikes on Paint	Yes	Yes
Safety Features	Yes	Yes

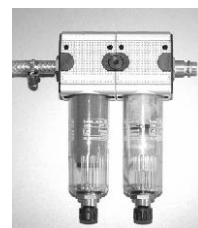
Torches for every job.

The PS660 comes complete with a 6m long torch. The CB70 torch has a small footprint, ideal to cut in difficult positions. Even more, longer nozzles are available to reach most demanding edges.



Micro filter as Option

instead of the normal filter both machines can be fitted with a micro filter unit as an option. This unit removes dust and moisture from the compressed air used for cutting, resulting in a still longer service life of consumables and improves HF arc start.



Easy to operate

All switches and gauges are located on the front panel and are easy to reach. Integrated regulator for air pressure.



Quality Cut with PS66 up to 15mm
mild steel. (PS99 up to 20mm)



PS660 - PS990 Accessories

PS660 + Accessories

PS 660 w. Torch 6m & standard air filter	71-33-660
Microair filter set PS660/PS990	71-33-3
Guidecart CB70	39-60-CV0073
Circle cutting set CB70	39-60-CV0074
Distance crown CB70	39-60-CV1117
Parts set Ps660 Consumables	39-60-SET
PartsSet Ps660 Consumables LONG	39-60-SETL

Consumables PS660

Cutting electrode CB70	39-60-PR0063
Cutting nozzle CB70 (1,2mm)	39-60-PD0088
Cutting electrode CB70 LONG	39-60-PR0064
Cutting Nozzles CB70 LONG (1,2mm)	39-60-PD0063
Gas shroud CB70	39-60-PC0032
Diffusor CB70 (Insulator)	39-60-PE0007
Diffuser short (Air tube)	39-60-FH0211
Diffuser long (Air tube)	39-60-FH0215
Spring CB70	39-60-CV
Torch CB70/6m complete	39-60

PS990 + Accessories

PS 990 w. Torch 6m & standard air filter	71-33-990
Mico air filter set PS660/PS990	71-33-3
Guide Cart CB100	39-70-CV0021
Circle cuttingset CB100	39-70-CV0022
Distance crown CB100	39-70-CV0012
Parts set Ps990 Consumables	39-70-SET
Parts set Ps990 Consumables LONG	39-70-SETL

Consumables PS990

Cutting electrode CB100	39-70-PR00034
Diffusor CB100 (Isolierteil)	39-70-PE0009
Cutting nozzle CB100 (1,3mm)	39-70-PD0026-13
Cutting nozzle CB100 (1,6mm)	39-70-PD0026-16
Gas shroud CB100	39-70-PC0038
Spring CB100	39-70-CV
Cutting electrode CB100 LANG	39-70-PR0045
Cutting nozzle CB100 LONG 1,4mm	39-70-PD0025-14
Cutting nozzle CB100 LONG 1,6mm	39-70-PD0025-16
Gas shroud CB100 LANG	39-70-PC0038
Distance holder CB100 LANG	39-70-CV0009
Torch CB100/6m complete	39-70

Plasma cutting sets are complete with torch 6m, pressure regulator and earth lead.



#39-60: CB70/6m



Parts Set PS660:

3xNozzle CB70
3x Electrode CB70
1xGas shroud CB70
1xSpring CB70
1xDiffusor (Insulator)



#39-60-SET

Consumables Sets

these parts sets your customers a reliable base of consumables for operating the set.

Parts Set PS990

3xNozzle CB100
3x Electrode CB100
1xGas Shroud CB100
1xSpring CB100
1xDiffusor (Insulator)



Distance Crown

PS660: #39-60-CV1117
PS990: #39-60-CV0012



Guide Cart

PS660: #39-60-CV0073
PS990: #39-60-CV0021

Circle cutting set

PS660: #39-60-CV0074
PS990: #39-60-CV0022



Parts Set PS660 LONG

3xDüse lang
3x Elektrode lang
1xSchutzhappe
1xDiffusor (Isolierteil)
1xDiffuser (Luftrohr)



#35-60-SETL

Parts Set PS990 LONG

3xNozzle long
3x Electrode long
1xGas Shroud long
1xDiffusor (Insulator)
1xDistance holder



#39-70-SETL

Mikro air filter set: cleans the incoming air directly at the input of the Plasma set. Dry and clean air enhances the service life of the consumables and optimises the arc strike of the torch. Please note #71-33-3 in the order, so the mikro air filter set will be already built-in in the factory..



#71-33-3

InverterMMA

M a d e i n G e r m a n y

micro 1600
micro 1900
mega 2600

SinPer
Perfect Sinus Power

- 3 Years warranty
- G-SAFE: generator safe
- XRi: use with long extension cable possible
- SINPER technology (micro1900)
- Stable, controlled arc
- Robust design with steel cabinet
- 5 Metre mains supply cable

3 Years
Warranty

G-SAFE: especially older generators can cause dangerous voltage spikes, mostly when welding stops and the generator is still delivering a high power level. The control circuit of the generator cannot reduce the output voltage fast enough to keep it down in a safe zone. The additional G-SAFE Hardware reacts instantaneously and 100% safes the inverter from overvoltage.

XRi (eXtended voltage Range input): normal welding inverters switch off welding current, when the mains voltage drops below a certain minimum threshold. As a result, short interruptions in welding current may occur, especially when using long mains extensions cables. However, inverters fitted with XRi technology use a highly stabilised internal supply that is not influenced by temporal voltage drops and therefore work without any interruptions.

SINPER-Technology: gather a perfect sinusoidal current from mains (SINusPERfect), resulting in an optimal power factor of 0,99. This allows the welding inverter to increase output power available for welding by 30%, without drawing more power from mains.

Technical Specs	Micro 1600	Micro1900	Mega 2600
Mains voltage	1x230V	1x230V	3x400V
Current range	10-150A	10-180A	10-250A
Power input (60%)	5,5KVA	6,2KVA	10,4KVA
Recom. power/generator	8,0KVA	8,0KVA	14KVA
Open circuit voltage	80V	80V	90V
Fuse	16A slow	16A slow	3x16A slow
Electrodes up to	3,25mm	4,0mm	6,0mm
D.C. 30%/20°	-	180A/27,2V	-
D.C. 30%/40°	-	160A/26,4V	-
D.C. 35%/20°	150A/26,0V	-	250A/30,0V
D.C. 35%/40°	130A/25,2V	-	230A/29,4V
D.C. 60%/20°	125A/25,0V	130A/25,2V	210A/28,4V
D.C. 60%/40°	110A/24,4V	110A/24,4V	190A/27,6V
D.C. 100%/20°	110A/24,4V	115A/24,6V	160A/26,4V
D.C. 100%/40°	95A/23,8V	100A/24,0V	140A/25,6V
G-SAFE	•	•	-
XRi	•	•	•
SINPER	-	•	-
Antistick	•	•	•
Protection	IP21	IP21	IP23
Weight	6,5kg*	9,5kg*	15,5kg*
LxVxH	320x150x255	390x150x255	490x180x330
Article number	18-31	18-35	18-10
Accessories set	38-15	38-15-2	38-15-3

* only power source, for mains cable add 1kg

XRi

G-SAFE
100% Generator

150A
up to 3,25mm



micro1600: Compact designed and low weight welding inverter with a maximum output of 150A, suitable for electrodes up to 3.25mm. Safe use on generators, uninterrupted welding also with long extension cables.

XRi

G-SAFE
100% Generator

SinPer
Perfect Sinus Power

180A
up to 4,0mm



micro 1900: Due to its latest SINPER technology this advanced welding inverter allows a maximum of 180A from regular 230V mains. Electrode diameters up to 4,0mm can be used with this set. Safe use on generators, uninterrupted welding also with long extension cables.

XRi

IP23

3-Phase
3x400V

250A
up to 6,0mm



mega 2600: High output threephase welding inverter that allows a maximum output of 250A - sufficient for up to 6,0mm electrode diameter. Very robust IP23 cabinet, uninterrupted welding also with long extension cables.

InverterTIG

Made in Germany



micro 1650HF

micro 1950HF

The micro16500/1950HF series got all functions you will need for every days work. Easy and straight to operate. Only adjust welding current plus downslope and you are ready to weld.

- the integrated **HF-system** starts the arc with a single push on the trigger. No contact to the workpiece is necessary.
- The 2-stroke mode (2T) is mostly used for spot welding and short runs, while the 4-stroke includes some functions for extended slope control like seeking arc, upslope and downslope control.
- Postflow time is adjustable in a wide range and protects welding pool and needle against oxidation after welding.
- The MMA mode includes useful functions like active arc force that instantaneously increases current when the arc gets to short. Hot start enhances the arc start for difficult-to-weld sticks and anti-sticking saves the electrode from sticking to the workpiece.
- Welding current is stepless adjustable up to 150A / 200A (**1950HF**) for material sizes from thin sheet metal to medium plates.
- Safe use with generators: due to its G-SAFE unit the **micro1650HF/1950HF** can be used with any generator*. Over voltage spikes will be 100% safely blocked.
- Important for mobile use: due to XRI technology these sets will work without interruptions even when input voltage gets unstable - for example when long extension cables are used.
- Functional design: very robust, zinc- and powder coated cabinet made of thick steel sheet metal - most important for mobile use in rough environment. The **micro1650HF** and **1950HF** includes a flexible rubber mains cable 5 metre long with 2.5mm copper core and can be operated on any 230V outlet*.
- Made in Germany including 3 years warranty!**

*implies sufficient size of generator. ** Fuse 16A slow required



Micro1650HF

XRi

G-SAFE
100% Generator

HF-Start
w/o contact

150A
TIG + MMA

WIG-DC/HF
Inverter
150A

XRi

G-SAFE
100% Generator

SinPer
Perfect Sinus Power

200A
TIG / 180A MMA

HF-Start
w/o contact



Micro1950HF

Technical Specs	Micro 1650HF	1950HF
Mains Voltage	1x230V	1x230V
SINPER (PFC) Technology	-	●
Current Range TIG	5-150A	8-200A
Current Range MMA	20-150A	20-180A
Input Power (60%)	5,5kVA	5,9kVA
Recom. Power f. Generator	8,0kVA	8,0kVA
Open Circuit Voltage	90V	80V
Fuse (slow)	16A	16A
Duty Cycle 30%*	-	200A/180A
Duty Cycle 35%*	150A/130A	-
Duty Cycle 100%*	110A/95A	105A/85A
G-SAFE	●	●
XRi	●	●
Antistick/Hotstart/Arcforce	●	●
TIG-Start w/o contact (HF)	●	●
Weight	8,5kg**	10,5kg**
LxWxH (mm)	340x150x325	440x150x325
Article Number	18-50	18-60
Accessories Set	38-22	38-22

* values (25°/40°) ** Power Source only, 9,5kg / 11,5kg including mains cable

- 3 Years warranty!**
- TIG-Welding arc start w/o contact**
- 4T (latching) + downslope**
- G-SAFE: generator safe!**
- XRi: long extension cable possible!**
- Robust design with steel cabinet!**
- 5 Metre mains supply cable!**

3 Years
Warranty

ergoTIG**M a d e i n G e r m a n y**

ergoTIG Sets with **erfiDSi** technology use latest power transistors to achieve a perfect TIG arc. **erfiDSi** allows high speed digital control loops that are particularly useful for AC-welding. In this way the **ergoTIG** allows an extended adjustment for AC-Balance and precise control over the AC-Frequency - not possible before with older thyristor-driven welding sets.

Thanks to their ultrafast DSP processors, the **ergoTIG** Sets are very easy to handle. Direct controls for often used parameters!

The three phase design of the **ergoTIG** welding sets is optimised for low input power across all three phases - one more great advantage over older thyristor technology with only two useable phases. Also, the **erfi DSi** power unit is placed on the secondary side so only the lower welding voltage has to be dealt with. This results in a very robust design of the **erfiDSi** power unit. The cabinet features an integrated mount for the gas cylinder.

Integrated water cooling ("W"-Sets only) and ventilation is activated on demand only, so the machine is low noise and reduces dirt input to a minimum. The water circulation uses a powerful and vibration-free centrifugal pump, protected by a safety switch for low pressure.



Operating panel - very easy to set-up.



Connection panel - with water cooling.

250 • 300 • 350**TIG-Sets AC/DC****erfiDSi** - Digital Secondary Inverter**3 Years
Warranty**

ergoTIG	250	250W	300W	350W
Input Voltage	3x400V	3x400V	3x400V	3x400V
Current Range	6-250A	6-250A	6-300A	6-350A
D.C. 40% (25/40°)	250/230A	250/230A	300/270A	350/320A
D.C. 60% (25/40°)	220/200A	220/200A	260/240A	290/270A
D.C. 100% (25/40°)	200/180A	200/180A	230/210A	260/230A
Open Circuit Voltage	85V	85V	85V	90V
Input Power max.	8,3 kVA	8,3 kVA	11 kVA	14 kVA
Input Power 60% D.C.	6,9 kVA	6,9 kVA	9,0 kVA	11,5 kVA
Fuses (400V)	16A, tr.	16A, tr.	16A, tr.	25A, tr.
Watercooling	no	yes	yes	yes
WxHxD / cm	39x96x75	39x96x75	39x96x75	39x96x75
Weight	77 kg	81 kg	83 kg	95kg

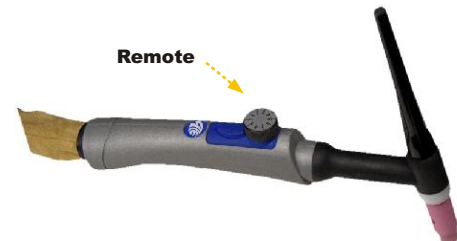


- ✓ **Easy to work with:** direct controls, NO complicated menu needed for the adjustment of these parameters!
- ✓ **DC and AC - Modes:** DC is mild and stainless steel. For Aluminium and its alloys, the AC-Mode is the right choice.
- ✓ **Remote Control on Torch handle:** a potentiometer inside the torch handle allows extended control of current while welding! Foot control is also supported and available.
- ✓ **erfi Balance control in AC-Mode:** changes between clearing and penetration in AC-Mode. Wide adjustment range.
- ✓ **Adjustable AC-Frequency:** allows precise control of arc shape.
- ✓ **Integrated erfi Pulse Unit:** Allows a very precise control over the arc. Fast pulse up to 250Hz in DC-Mode!
- ✓ **Digital Display** for welding current and exact adjustment. Bright green displays. Can be seen through automatic welding helmets!
- ✓ **MMA-Mode with adjustable erfi HotArc** helps to avoid welding errors while starting the arc.
- ✓ **Remote Control Socket:** allows connection of hand- and foot- and controls. Also a remote control directly on the torch is supported.
- ✓ **Water Cooling on demand:** uses ventilator and watercooling unit only when needed. Water cooling is an option on ergoTIG250.
- ✓ **Low Input Power:** ergoTIG sets with erfiDSi use three phase power input.
- ✓ **2-Stroke and 4Stroke Modes .**

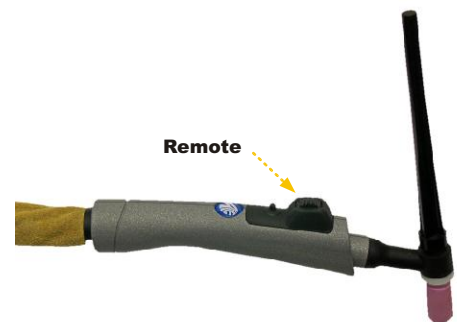


Foot Control eT: very robust mechanics made of aluminium die cast for heavy duty use. Start/stop function via foot controller. 5 meter cable with plug for ergoTIG-Set. Current range can be limited directly on ergoTIG set.

TIG AC/DC
250A
300A



Torch Type 5XT-26 (gas cooled for ergoTIG 250) or 5XT-18 (water cooled for ergoTIG250W-350W) with integrated analog remote controller on handle. Cable set covered by leather nearer handle. 4 or 8 meter versions.



Torch Type 5XT-30 (water cooled, fits on ergoTIG 250W-350W). Special neat and small footprint with integrated analog remote controller on handle. Cable set covered by leather nearer Handle. 4 or 8 meter versions.

Type	#
ergoTIG 250 (gas cooled.)	19-15
ergoTIG 250W (water cooled)	19-16
ergoTIG 300W (water gek.)	19-20
ergoTIG 350W (water cooled)	19-30
Acc. set 250 gas cooled. Type 5XT-26	38-23-GK
Acc. set 250-350 WK Type 5XT-18	38-23-WK
Acc. set 250-350 WK Type 5XT-30	38-24-WK
Extra Torch 8m	38-23-8M
Foot control, Alum. die cast, Start/Stop, 5m	40-10

Acc.- Set consists of: TIG-5XT-Torch 4m, Gas Regulator Druckminderer Harris 801, Earth Lead 3m, Electroden Lead 3m

MMA Transformers



Some say the design of a welding transformer is a piece of art...

...an art that erfi masters since more than 45 years. Together with every AC welding set you own the experience of a long tradition in production and construction of MMA transformers. AC welding sets are designed without compromise. Of course its coils are made by copper wire only and of course all welding cables are detachable on its front terminals. Without any question, the current selection is done by high quality cam switches.

The current is controlled by means of a primary inductor. Some simple designs use just tapings on the transformer, but the experts know: nothing comes close to an extra inductor in the primary circuit. Only this method delivers smoothest arc characteristics and saves lot of voltage headroom for special electrodes and arc start. Each AC is built without vulnerable electronics and without moving parts - so it will work flawless during the next decades to come. Exactly the same way, as every transformer from erfi did in the past 50 years.

The mobile cabinet is made out of coated steel plates. That said, you will understand that it is one of our easiest tasks to cover every AC welder with a full 3-years warranty.



Specifications	AC200	AC250
Mains	230V/400V	230/400V
Frequency	50/60Hz	50/60Hz
Fuse (slow, 400V)	16A / 32A	16 / 32A
Input Power (60%)	8KVA	10 KVA
Current Range	25-200A	30-240A
Steps 230V/240V	6	6
Steps 400V/415V	18	18
Open Circuit Voltage	48V	52V
Duty Cycle 25%(25°C)	200A/28,0V	240A/29,6V
Duty Cycle 60% (25°C)	120A/24,8V	160A/26,4V
Sheet-Metal Mode	●	●
Two mains Cables	●	●
Copper Coils	●	●
Forced Air Cooling	●	●
Primary Inductor	●	●
Weight	42kg	55kg
LxWxH in mm	310 x 42 x 850	
Mains Cable	2 x 5 meters	

AC200 • AC250

Step Switched Welding Transformers



- ✓ **230V- and 400V Operation**
works with both supply voltages
- ✓ **Dual Supply Leads**
no more hassle with lost adaptors etc. Every AC has two independant supply leads: one for 230V, the other for 400V. Very easy, no faults possible.
- ✓ **Current setting by Inductor**
achieves a very soft arc and a lot of voltage headroom for excellent arc strike. 18 Steps (plus 6 for 230/240V!) allow very precise setup - also for sheet metal works!
- ✓ **Copper Coils**
thermally protected and fan cooled.
- ✓ **Robust and Mobile Cabinet**
coated sheet metal leads to unparalleled stability.
- ✓ **5 Meters Supply Lead**
Dual 5m supply leads are standard on any AC welding set.

Made in Germany