

# ***SYNERGIC MIG/MAG WELDING MACHINES***

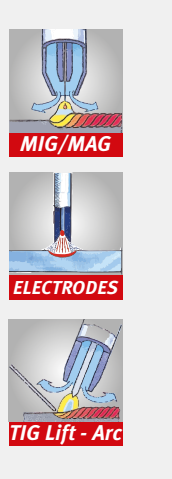


# MIG/MAG gas-shielded welding systems

## **easymig** 181 Multi

The portable multifunctional inverter for MIG/MAG, TIG and electrode welding – with 230V, ideal for any construction site

- ▶ Simple stepless adjustment of the operating point by selecting the voltage and wire speed using one button each
- ▶ Best welding results thanks to reliable ignition and stable arc
- ▶ **Arc force control:** The internal monitoring of welding current and welding voltage means that short circuits are resolved quickly and safely. This stabilises the arc and the electrode can be processed without any problems
- ▶ Cored wires can be easily welded by simply reversing the polarity
- ▶ User-friendly setting also for TIG and electrode



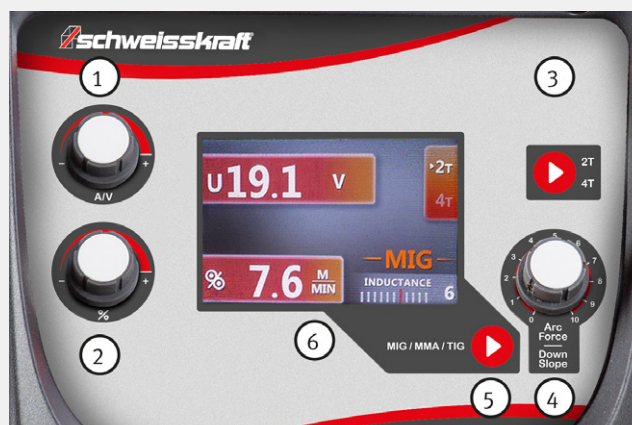
Interior polarity reversible for filler wires



Including SMB torch and pressure reducer

## OPERATION

- ① Rotary knob for setting the welding voltage or current
- ② Rotary knob for wire feed speed
- ③ Pushbutton for setting 2- or 4-cycle operation



- ④ Rotary knob and throttle for ARC force and down-slope
- ⑤ Push-button for setting MIG/MAG, TIG or E-hand operation
- ⑥ Display of welding voltage, welding current and other settings made

## TECHNICAL DATA:

Model	EASY-MIG 181 Multi	
Art. no.		1071181
<b>Technical data</b>		
Setting range for MIG/MAG	A	40 – 180
Setting range for electrode	A	10 – 160
Setting range for TIG DC	A	10 – 180
Duty cycle at $I_{max}$ [40°C] MIG/MAG	%	20
Duty cycle at $I_{max}$ [40°C] Electrode	%	20
Duty cycle at $I_{max}$ [40°C] TIG DC	%	20
Current at 100% duty cycle [40°C] MIG/MAG	A	80
Current at 100% duty cycle [40°C] Electrode	A	80
Current at 100% duty cycle [40°C] TIG DC	A	70
Wire feed unit	Roll	2
MIG/MAG power consumption	kVA	8.41
Electrode power consumption	kVA	6.67
Power consumption TIG DC	kVA	8.4
Electrical connection ~50 Hz	V	230
Dimensions (L x W x H) approx.	mm	525 x 220 x 410
Weight approx.	kg	14.5
Standards <sup>1)</sup> : DIN EN 60974-10 / DIN EN IEC 60974-1, EMC class A		

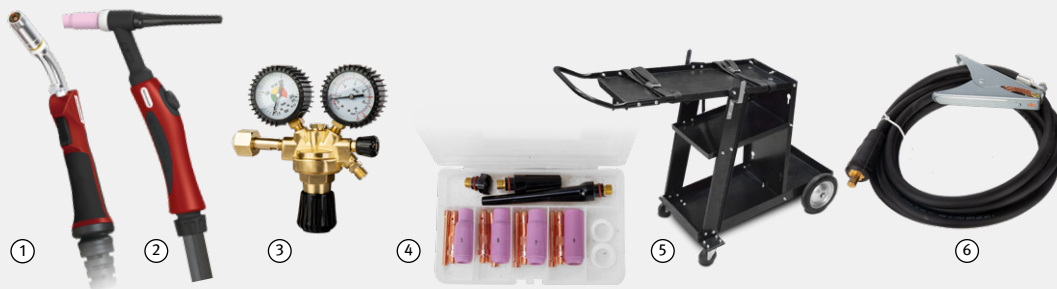
<sup>1)</sup> EMC class A: Welding equipment not intended for use in residential areas where the power supply is provided by a public low-voltage supply system.

## SCOPE OF DELIVERY:

- 3 m welding cable 16 mm<sup>2</sup> with 300A electrode holder
- 3 m ground cable 16 mm<sup>2</sup> with 300A earth clamp
- Torch SMB 15 3 m
- Gas hose 4 m including quick connector
- Pressure reducer
- Feed roller V 0.8-1.0 mm



## ACCESSORIES



### ACCESSORIES

	Art. no.
① TIG torch SR26, ED, gas-cooled, 4 m	1105004
② MIG/MAG torch SMB 15, 3 m	1090153
③ Argon/CO2 pressure reducer, large	1700050
④ Wear parts set VTS SR17/SR18/SR26 Short torch cap / medium torch cap / long torch cap; gas nozzles: Size 5 / 8 mm, size 6 / 9.8 mm, size 7 / 11.2 mm, size 8 / 12.7 mm, size 10 / 15.7 mm / clamping sleeves: 1.6 mm, 2.4 mm, 3.2 mm, 4.0 mm; clamping sleeve housing: 1.6 mm, 2.4 mm, 3.2 mm, 4.0 mm; Teflon seal for nozzle	1100152
⑤ Universal trolley	1090015
⑥ Ground cable complete with MK4/25 KS13 200A clamp	1250225
Welding cable complete with electrode holder SK4/25 KS13 EH260	1250361
Welding cable complete with electrode holder SK4/35 KS13 EH400	1250362
Feed roller 0.8/0.9 mm K-groove	1171001
Feed roller 0.6/0.8 mm V-groove	1171002
Feed roller 0.8/1.0 mm V-groove	1171003
Feed roller 0.8/1.0 mm U-groove	1171004


# MIG/MAG gas-shielded welding systems

## **craftmig**® 201 LCD P Synergic


Impulse gas-shielded welding machine Modern MIG welding machine for professional use

- ▶ Best welding results thanks to reliable ignition and stable arc
- ▶ Suitable for operation on a power generator
- ▶ Simplest setting thanks to synergy function - three steps to welding: gas, material, wire diameter
- ▶ 2/4 time, dots, interval
- ▶ Material thickness
- ▶ Precise setting of welding parameters via digital display with job memory
- ▶ The quiet-running fans dissipate the heat well from the appliances and ensure a long switch-on time
- ▶ Arc force control: The internal monitoring of welding current and welding voltage means that short circuits are resolved quickly and safely. This stabilises the arc and the electrode can be processed without any problems
- ▶ Device with PFC (power factor correction) equipped enables the best use even on cable reels



 **Power Factor Correction**

▶ PFC is an electrical or electronic circuit that increases the so-called power factor

 **Generator Friendly**



Including SMB torch and pressure reducer

## OPERATION



Simple setting with plain text display.

Quickly achieve the perfect result after one setting in three steps:

Step 1: Set gas/material, wire Ø.

Step 2: 2/4 time, dots, interval

Step 3: Set the material thickness.

Thanks to the large display, all parameters are always in view and can be adjusted.

Welding has never been so easy!

## TECHNICAL DATA:

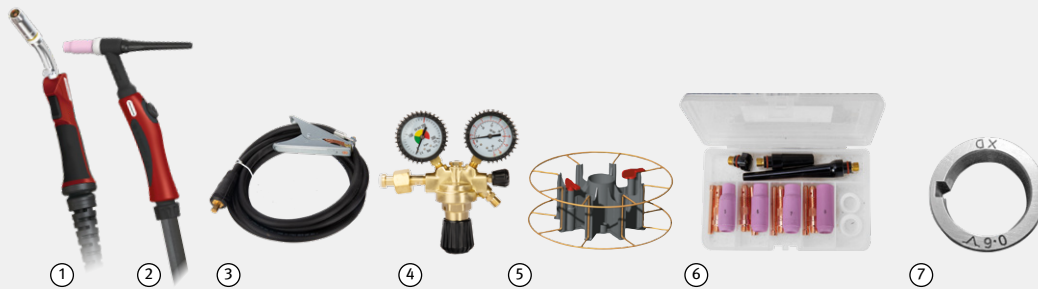
Model	CRAFT-MIG 201 LCD P Synergic	
Article no.	1071201	
<b>Technical data</b>		
Setting range for MIG/MAG	A	25 – 200
Setting range for TIG DC	A	10 – 200
Setting range for electrode	A	10 – 200
Duty cycle at max. current 40°C	%	40
Current at duty cycle 100% 40°C	A	130
MIG/MAG power consumption	kVA	6.44
Electrode power consumption	kVA	7.36
Power consumption TIG DC	kVA	5.06
Power factor	cos phi	0.99
Efficiency	%	80
Cooling type		AF
Torch cooling		gas-cooled
Wire feeder, weldable wires, steel	mm	0.6 – 1.0
Wire feeder, weldable wires, stainless steel	mm	0.6 – 0.9
Wire feed unit	Rollers	2
Wire feed speed	m/min	1.5 – 16.5
No-load voltage	V	Electrode: 65   TIG: 63   MIG/MAG: 65
Power consumption	kVA	Electrode: 32   TIG: 22   MIG/MAG: 28
Electrical connection ~50 Hz	V	110/230
Dimensions (L x W x H) approx.	mm	560 x 220 x 410
Weight approx.	kg	15.5
Standard		EN 60 974-1; -10

1) EMC class A: Welding equipment not intended for use in residential areas where the power supply is provided by a public low-voltage supply system.

## SCOPE OF DELIVERY:

- Torch SMB25 3m
- Feed rollers Ø0.8- 1.0 mm steel
- Ground cable 25mm<sup>2</sup> 3m incl. 300A earth clamp
- 4 m gas hose
- Argon/CO<sub>2</sub> pressure reducer, large
- 3 m mains cable

## ACCESSORIES



### ACCESSORIES

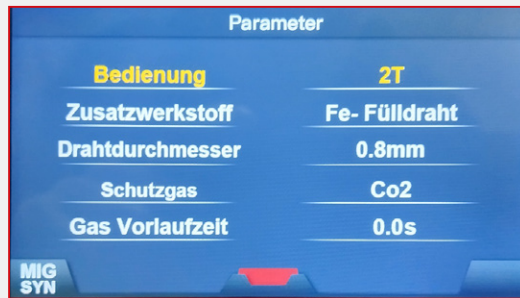
	Art. no.
① MIG/MAG welding torch, gas-cooled SMB25 4m	1090254
② SR26 TIG torch, 4 m ED, gas-cooled	1105004
③ Ground cable 4m 25mm <sup>2</sup> , KS50/13mm, clamp 200A	1250225
③ Ground cable 4m 35mm <sup>2</sup> , KS50/13mm, clamp 400A	1250235
④ Pressure reducer Argon/CO <sub>2</sub>	1700050
⑤ Basket coil adapter KA 2, with quick-release fastener	1110005
⑥ Wear parts kit VTS SR 17/18/26 Torch cap short/medium/long, gas nozzle size 5/6/7/8/10, clamping sleeve 1.6/3.2/4.0/2.4mm, clamping sleeve housing 1.6/3.2/4.0/2.4mm, Teflon seal for nozzle	1100152
⑦ Single feed roller	
0.6/0.8 mm V-groove	1171005
0.8/1.0 mm V-groove	1171006
0.8/1.0 mm K-groove	1171007
0.8/1.0 mm U-groove	1171008

# MIG/MAG gas-shielded welding systems

## Series SYN-MIG Synergic - Universally applicable MIG/MAG inverter welding machines with synergy characteristics

- ▶ Infinitely regulatable
- ▶ Synergy characteristics - 3 steps lead to the perfect welding result
- ▶ Adjustable choke enables precise adjustment of the arc characteristics
- ▶ Robust trolley with large storage space for gas cylinders and accessories makes it easier to transport and organise tools directly on site
- ▶ Can hold both 10 litre cylinders and up to 50 litre gas cylinders
- ▶ State-of-the-art inverter technology ensures precise welding and a uniform arc with maximum efficiency
- ▶ Overheating protection and voltage monitoring ensure safe working conditions
- ▶ Suitable for use on the generator
- ▶ Sheet thickness: from 0.8 mm steel and stainless steel (MAG), from 1.0 mm for aluminium (MIG)
- ▶ Base materials: Unalloyed and low-alloy materials (S235JR), high-alloy materials (stainless steel), aluminium alloy, filler wire
- ▶ Typical applications: Locksmithery, mechanical engineering, assembly, car workshop, tinsmith, maintenance, repair

## OPERATION



- User-friendly LCD display enables precise setting of welding parameters
- Simple setting with plain text display



- All welding parameters and settings at a glance

Scope of delivery	
<b>SYN-MIG 201-2 P Synergic</b>	
<b>SYN-MIG 203-2 Synergic</b>	
· 16 mm <sup>2</sup> earth cable 3 m	
· Pressure reducer	
· Gas hose 4 m	
· MAG torch SMB 15 4 m	

Scope of delivery	
<b>SYN-MIG 253-4 Synergic</b>	
<b>SYN-MIG 323-4 Synergic</b>	
· 35 mm <sup>2</sup> earth cable 3 m	
· Pressure reducer	
· Gas hose 4 m	
· MAG torch SMB 25 4 m	

Scope of delivery	
<b>SYN-MIG 353-4 W Synergic</b>	
<b>SYN-MIG 403-4 W Synergic</b>	
· 35 mm <sup>2</sup> earth cable 3 m	
· Pressure reducer	
· Gas hose 4 m	
· MAG torch SMB 400 4 m	

### TECHNICAL DATA:

**MACHINES ARE DELIVERED WITHOUT COOLING WATER!**

Model		SYN-MIG 201-2 P Synergic	SYN-MIG 203-2 Synergic	SYN-MIG 253-4 Synergic	SYN-MIG 323-4 Synergic	SYN-MIG 353-4 W Synergic	SYN-MIG 403-4 W Synergic
Article no.		1071202	1071203	1071254	1071323	1071353	1071403
Setting range for MIG/MAG	A	30 – 140 / 3 – 200	30 – 200	30 – 250	30 – 315	30 – 350	30 – 400
Setting range for electrode	A	10 – 100 / 20 – 200	10 – 200	10 – 250	10 – 250	10 – 350	10 – 400
Setting range for TIG DC	A	10 – 140 / 10–200	10 – 200	10 – 250	10 – 300	10 – 350	10 – 400
Duty cycle at max. current 40°C	%	40 / 30	40	60	40	60	60
Current at duty cycle 60% 40°C	A	100 / 145	165	250	260	350	400
Current at duty cycle 100% 40°C	A	80 / 110	130	195	200	275	310
MIG/MAG power consumption	kVA	3.7 / 5.7	8.5	11.2	15.4	13.5	16.8
Electrode power consumption	kVA	3.0 / 6.5	9.6	12.5	12.7	14.4	17.9
Power consumption TIG DC	kVA	2.8 / 4.4	6.8	8.9	11.4	10.8	13.6
Cooling type		AF	AF	AF	AF	AF	AF
Torch cooling			gas-cooled			water-cooled	
Weldable wires, steel	mm	0.6 – 1.0	0.6 – 1.0	0.6 – 1.2	0.8 – 1.2	0.8 – 1.2	0.8 – 1.2
Weldable wires, stainless steel	mm	0.8 – 1.0	0.8 – 1.0	0.8 – 1.2	0.8 – 1.2	0.8 – 1.2	0.8 – 1.2
Weldable wires, aluminium	mm	1.0 – 1.2	1.0 – 1.2	1.0 – 1.2	1.0 – 1.2	1.0 – 1.2	1.0 – 1.2
Weldable wires, CuSi	mm	1.0	1.0	1.0	1.0	1.0	1.0
Weldable wires, filler wire	mm	0.8 – 1.0	0.8 – 1.0	0.8 – 1.2	0.8 – 1.2	0.8 – 1.2	0.8 – 1.2
Wire feed unit	Rollers	2	2	4	4	4	4
Wire feed speed	m/min	16	18	24	24	24	24
Wire feed rolls, driven	Roll	1	1	2	2	2	2
Required generator output	kVA	>7	>7	>8	>10	>13	>15
Open circuit voltage MMA	V	66.5	74	75	74	76.5	75
Electrical connection ~50 Hz	V	110/230	400	400	400	400	400
Dimensions (L x W x H) approx.	mm	1100 x 530 x 850					
Weight approx.	kg	44.7	52.5	52.5	53.5	66.5	66.5
Standards 1):		DIN EN 60974-10 / DIN EN IEC 60974-1, EMC class A					

**Procedure**

- ▶ MIG / MAG
- ▶ WIG (DC)
- ▶ Electrode

**MIG MAG**



**HANDLE**

- Robust handle design for easy manoeuvring and for winding up the hose package



**COLOUR DISPLAY**

- Simple operation with large colour display.
- 3 steps to the result.
- The display is optimally protected by the cover.



**BOTTLE TROLLEY**

- low-lying



**FLAP**

- Large, wide-opening flap makes it easy to set up the machine
- The lighting also makes it easier to work in dark surroundings

**VIEWING WINDOW**

- in the cover of the wire feeder



*Syn-Mig  
403-4 W Synergic*

