

Chapter 3

MIG/MAG welding

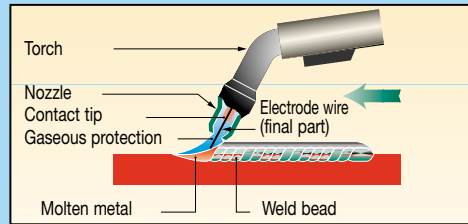


MIG/MAG welding

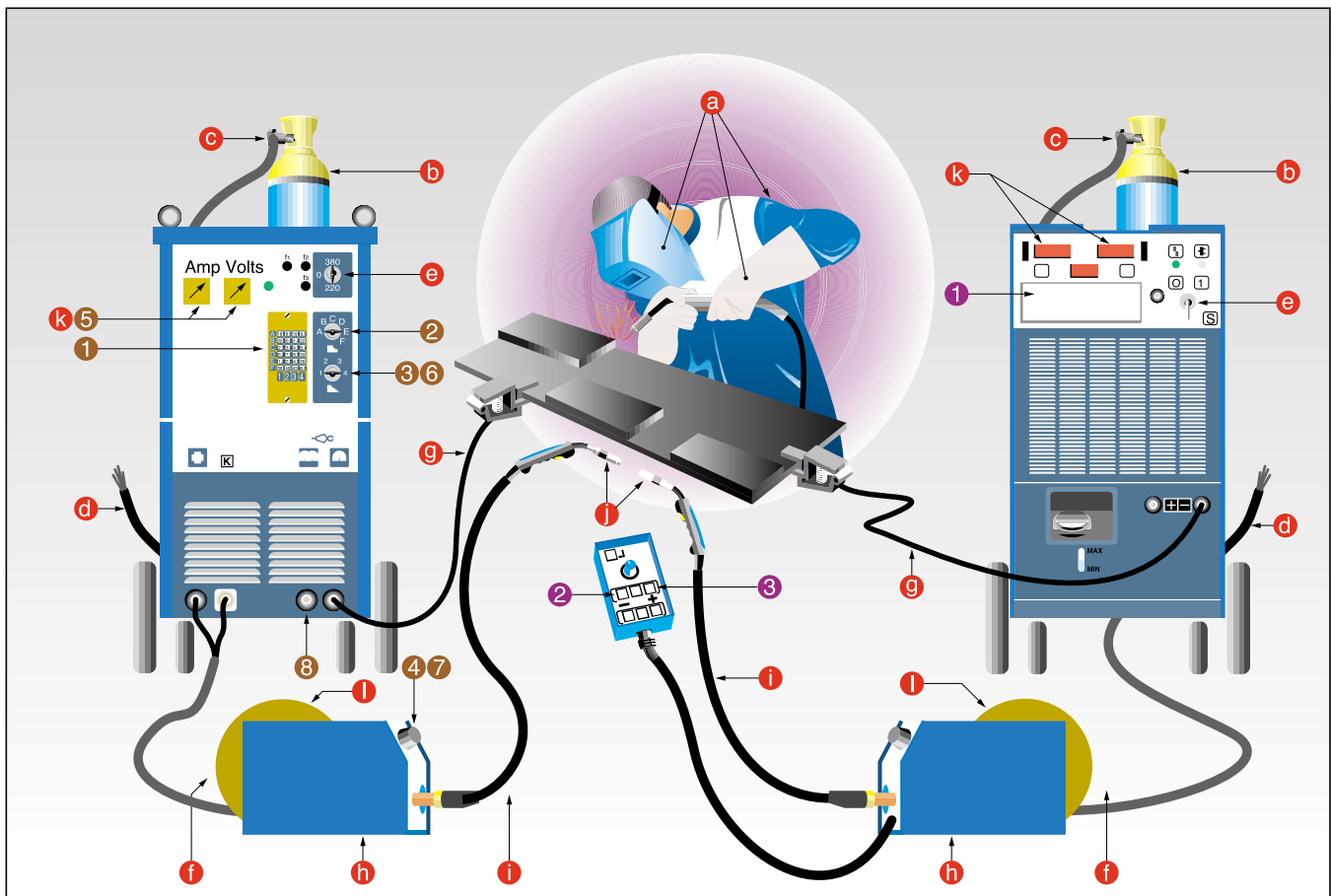


2000-489

The transfer of metal



MIG/MAG welding generalities and quick choice criteria



3

CLASSICAL SET

Setting by stepped increments

Sequence of setting:

- 1 - Approximate determination of arc voltage
- 2 - Approximate setting of arc voltage
- 3 - Fine setting of arc voltage
- 4 - Wire speed setting
- 5 - I and V meters while welding (in option with certain sets)
- 6 - Voltage arc correction
- 7 - Wire speed control correction
- 8 - Selection of the inductance

a - Welder's protection

b - Gas

c - Pressure regulator/flowmeter

d - Primary power supply

e - On/off switch

f - Harness and sheath

g - Earth cable + clamp

h - Wire feeder

i - Torch cable

j - Torch

k - Display of parameters

l - Wire reel

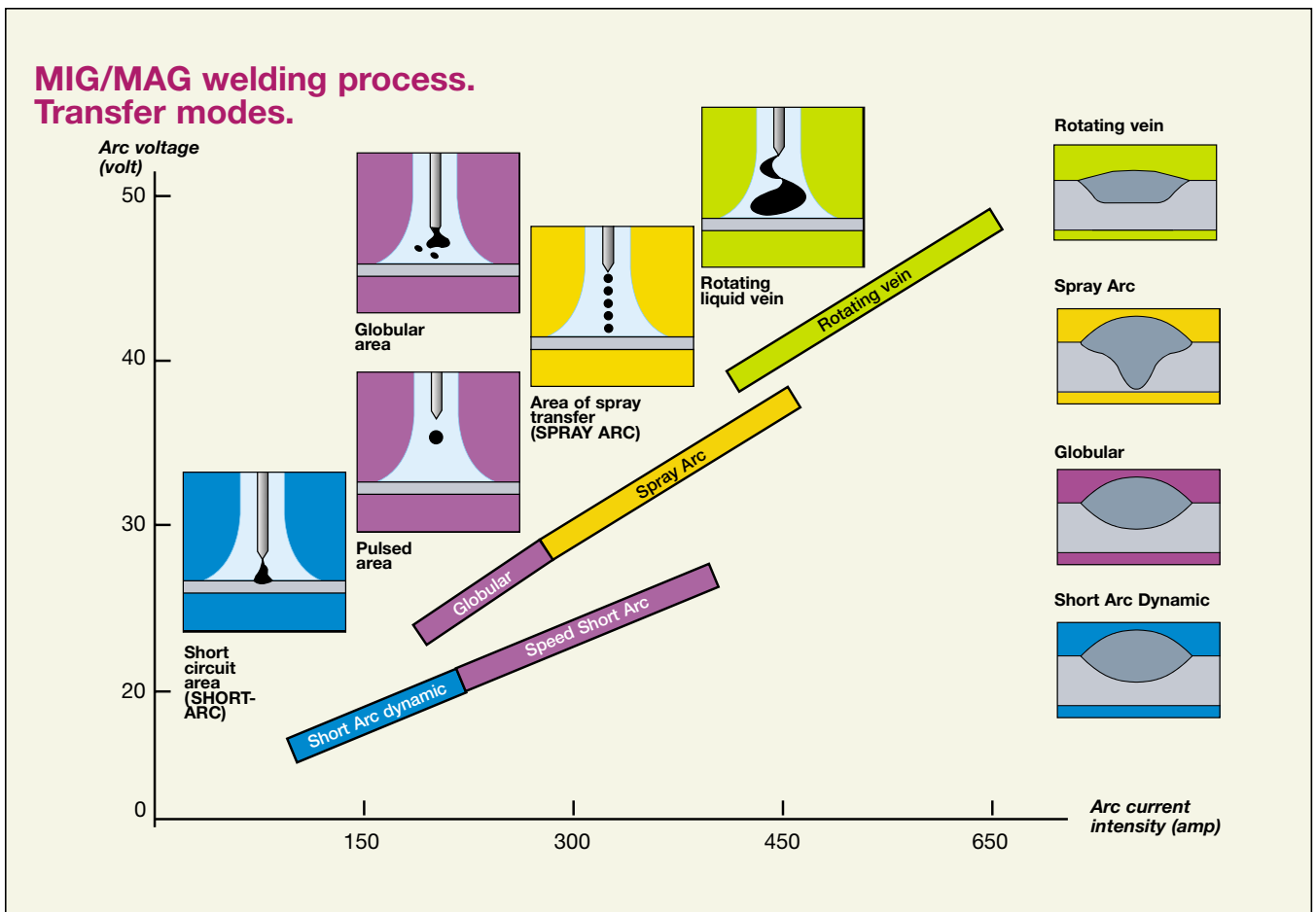
SYNERGIC SET

Setting by single button

Sequence of setting:

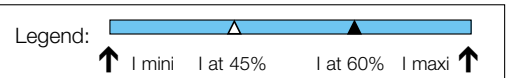
- 1 - Pre-display:
 - wire type
 - gas
 - wire diameter
 - with or without pulse
- 2 - Wire speed setting (approximate welding current is being displayed)
- 3 - Fine adjustment of the arc length (using arc voltage)

MIG/MAG welding



Choice criteria for MIG/MAG power sources

Name of product	Power supply	Setting mode		Complementary processes		Welding current (Ampere)						
		switch	continuous	MMA	pulsed MIG	100	200	300	400	500	600	
SAXOMIG 171 C	Single-phase	✓	-	-	-	100-150						
PRESTOMIG 201 C	Single-phase	-	✓	✓	-	100-200						
FILCORD 171 C	Single-phase	✓	-	-	-	100-150						
FILCORD 201 C	Single-phase	✓	-	-	-	100-150						
FILCORD 251 C / S	Single-phase	✓	-	-	-	100-250						
FILCORD 203 C	Three-phase	✓	-	-	-	100-200						
FILCORD 253 C	Three-phase	✓	-	-	-	100-250						
FILCORD 303 C	Three-phase	✓	-	-	-	100-300						
FILCORD 353 C	Three-phase	✓	-	-	-	100-300						
FILCORD 303 S	Three-phase	✓	-	-	-	100-350						
FILCORD 353 S	Three-phase	✓	-	-	-	100-350						
FILCORD 453 S	Three-phase	✓	-	-	-	100-450						
OPTIMAG 400 S MV / S W	Three-phase	-	✓	-	-	100-400						
OPTIMAG 500 S W	Three-phase	-	✓	-	-	100-500						
SAFMIG 300 BLX S	Three-phase	✓	-	-	-	100-300						
SAFMIG 400 BLX S / S W	Three-phase	✓	-	-	-	100-400						
SAFMIG 500 BLX S / S W	Three-phase	✓	-	-	-	100-500						
DIGI@PULS 320 / 320 W	Three-phase	-	✓	✓	✓	100-320						
DIGI@PULS 420 W	Three-phase	-	✓	✓	✓	100-420						
DIGI@WAVE 280	Three-phase	-	✓	✓	✓	100-280						
DIGI@WAVE 400 W	Three-phase	-	✓	✓	✓	100-400						
DIGI@WAVE 500 W	Three-phase	-	✓	✓	✓	100-500						



Legend for MIG-MAG welding:

MIG: metal inert gas

Arc welding process with a consumable wire. This wire is transferred in the arc and the metal which is in a molten condition deposits itself in the molten pool. All this is protected by an inert gas.

MAG: metal active gas

Same description as MIG but the protection gas is an active one. (CO₂ or argon + CO₂ mixture).

MIG pulse

The current varies during welding, the power source is imposing it a very precised "shape wave". The pulse is above all used for stainless steel wires and light alloys.

Synergic MIG

The welding parameters are programmed in the power source set for a common evolution according to a predefined law. One single setting is needed which facilitates the use of those machines and improves the welding quality.

2 times mode

The welding occurs by pulling the torch's trigger. It stops by loosening the trigger.

Classical 4 times mode

The pre-gas occurs by pushing the trigger, afterwards the welding starts by loosening it then with the next push on the trigger the welding stops and the post-gas stays active until releasing the trigger.

Spot mode

The power source starts to weld when the trigger is pushed, but the welding stops automatically after a pre-set delay.

Intermittance mode

This is a point mode which is repeatable. If the push on the trigger is maintained, the welding will be retaken after an other delay which is as well to be regulated.

Speed regulation

The welding wire spool is electronically regulated which imposes a constant speed of the spool.

Burn back

To solve the problem of wire stiching in the molten pool on completion of the weld cycle.

Soft start

Firstly the wire advances slowly just till the short-circuit point and the arc start; the chosen welding speed is then set up.

OPTI'system

Welding parameters optimization following needs of the welder (available only on OPTIMAG and OPTIPULS installations).

A.N.D. (Arc Non Disruption)

Device avoiding arc disruptions (available only on DIGI@PULS-DIGI@WAVE installations).

Arc Progressive extinction or crater filler

Allows correct finishing of the weld with the suppression of the crater at the end of the weld thanks to a progressive extinction of the arc (DIGI@PULS-DIGI@WAVE) or by levels (on OPTIMAG).

Protection against Ball-effect

At the end of the weld cycle in short circuit regime, this device avoids the formation of a ball at the end of the wire. This contribute greatly to the arc-restriking (on DIGI@PULS-DIGI@WAVE installations or OPTIMAG).



Wire diameter in mm															Wire feed		Weight (kg)	Name of product	
Steel and stainless steel					Aluminium					Cored wire					Number of rollers	Built-in			
0.6	0.8	1.0	1.2	1.6	0.8	1.0	1.2	1.6	2.4	0.8	0.9	1.0	1.2	1.6			2.4		
■	■	-	-	-	-	-	-	-	-	■	-	-	-	-	-	2	yes	27	SAXOMIG 171 C
■	■	■	-	-	-	■	-	-	-	-	-	■	-	-	-	2	yes	29	PRESTOMIG 201 C
■	■	■	-	-	-	■	-	-	-	-	-	■	-	-	-	2	yes	38.5	FILCORD 171 C
■	■	■	-	-	-	■	-	-	-	-	-	■	-	-	-	4	yes	52	FILCORD 201 C
■	■	■	-	-	-	■	-	-	-	-	-	■	-	-	-	4	yes/no	86	FILCORD 251 C / S
■	■	■	-	-	■	■	-	-	-	-	-	■	-	-	-	4	yes	71	FILCORD 203 C
■	■	■	-	-	■	■	-	-	-	-	-	■	-	-	-	4	yes	77	FILCORD 253 C
■	■	■	-	-	■	■	-	-	-	-	-	■	-	-	-	4	yes	96	FILCORD 303 C
■	■	■	-	-	■	■	-	-	-	-	-	■	■	-	-	4	yes	116	FILCORD 353 C
■	■	■	-	-	■	■	-	-	-	-	-	■	■	-	-	4	no	81	FILCORD 303 S
■	■	■	-	-	■	■	-	-	-	-	-	■	■	-	-	4	no	100	FILCORD 353 S
■	■	■	-	-	■	■	-	-	-	-	-	■	■	■	-	4	no	135	FILCORD 453 S
-	■	■	■	■	-	■	■	■	-	-	-	■	■	■	-	4	no	143	OPTIMAG 400 S MV / S W
-	■	■	■	■	-	■	■	■	■	-	-	■	■	■	■	4	no	200	OPTIMAG 500 S W
■	■	■	■	-	-	■	■	-	-	-	-	■	■	-	-	4	yes/no	101	SAFMIG 300 BLX S
-	■	■	■	■	-	■	■	■	-	-	-	■	■	■	-	4	yes/no	161	SAFMIG 400 BLX S / S W
-	■	■	■	■	-	■	■	■	■	-	-	■	■	■	■	4	no	201	SAFMIG 500 BLX S / S W
-	■	■	■	■	-	■	■	-	-	-	-	■	■	-	-	4	no	83	DIGI@PULS 320 / 320 W
-	■	■	■	■	-	■	■	■	-	-	-	■	■	■	-	4	no	91	DIGI@PULS 420 W
■	■	■	■	-	■	■	■	-	-	-	-	■	■	-	-	4	yes	80	DIGI@WAVE 280
-	■	■	■	■	-	■	■	■	-	-	-	■	■	■	-	4	no	91	DIGI@WAVE 400 W
-	■	■	■	■	-	■	■	■	■	-	-	■	■	■	■	4	no	105	DIGI@WAVE 500 W

SAXOMIG, PRESTOMIG and FILCO

The SAXOMIG 171 C and the PRESTOMIG 201 C are portable MIG/MAG installations for the welding of solid wires and flux-cored wires. With the FILCORD range, you will obtain extremely stable arc thanks to the self-regulation of the wire feed speed, the 4 rollers feeding system (2 rollers for FILCORD 171 C) and voltage regulation.

Single-phase range

1

SAXOMIG 171 C

6 decisive advantages:

- polarity reversal,
- "on site" concept,
- suitable for welding with self shielded flux-cored wires (without gas),
- delivered ready to use,
- 2 rollers plate,
- 4 steps adjustment voltage.



2007-255

To order

- **Standard equipment:**
 - 1 power source,
 - 1 earth cable with clamp,
 - 1 primary cable,
 - 1 spool adapter
- Cat. no. W 000 263 761.
- **Add-ons:**
 - NERTALIC 70 S spool 5 kg, Ø 0.6 mm Cat. no. 1090-4507, Ø 0.8 mm Cat. no. 1090-4509,
 - SAFUNI 310 Ø 1.0 mm spool 4 kg, Cat. no. 1090-5386,
 - SAFDUAL ZN (for galvanised steel) Ø 1.0 mm spool 5 kg Cat. no. 1090-5104,
 - PROMIG 141 3 m torch Cat. no. 9149-2124.

2

PRESTOMIG 201 C

7 decisive advantages:

- Multi-processes : MIG / TIG / coated electrodes,
- digital display,
- 9 programs memorisation possibilities,
- polarity reversal,
- suitable for welding with self-shielded flux-cored wires (without gas),
- 2T/4T and spot modes,
- 2 rollers plate.



2005-595

To order

- **Standard equipment:**
 - 1 power source,
 - 1 connected primary cable L = 3 m,
 - 1 ground cable with clamp,
 - 1 equipped gas hose 2 m,
 - 1 kit accessories solid wire 0.6 - 0.8 mm.
- Cat. no. W 000 055 270.
- **Add-ons:**
 - WMT 25 A torch 3 m Cat. No. W 000 010 602
 - WMT 25 A torch 4 m Cat. No. W 000 010 603

Inverter technology

3

FILCORD 171 C

6 decisive advantages:

- specialized in thin sheet,
- user-friendly front panel,
- 2T and spot modes,
- european connector,
- 2 rollers plate,
- 6 steps adjustment voltage.



2007-067

To order

- **Standard equipment:**
 - 1 power source with wheels
 - 1 cylinder holder
 - 1 connected primary cable L = 3 m long
 - 1 ground cable with clamp
 - 1 equipped gas hose 2 m
 - 1 kit accessories for solid wires 0.6-0.8 mm
- Cat. No. W 000 263 762
- **Add-ons:**
 - WMT 15 A torch 3 m Cat. No. W 000 010 600
 - WMT 15 A torch 4 m Cat. No. W 000 010 601

Technical specifications:	1 SAXOMIG 171 C	2 PRESTOMIG 201 C	3 FILCORD 171 C
Power supply single-phase	230 V ± 10% - 50-60 Hz	230 V ± 10% - 50-60 Hz	230 V ± 10% - 50-60 Hz
Primary consumption at I max.	21 A	35 A	24 A
No-load voltage	18 - 32 V	70 V (MMA) - 50 V (MIG) - 25 V (TIG)	18 - 32 V
Welding current	30 - 145 A	30 - 200 A	30 - 170 A
Protection class	IP 21	IP 23	IP 21
Duty cycle at 100%	60 A	115 A (MMA) - 125 A (MIG, TIG)	60 A
10 min. cycle at 60%	75 A	140 A (MMA) - 155 A (MIG, TIG)	75 A
(at 40 °C) at 35%	120 A (at 25%)	180 A (MMA) - 200 A (MIG, TIG)	140 A (at 18%)
Number of rollers	2	2	2
Wire diameter	0.6 - 0.8 mm	0.6 - 1.0 mm	0.6 - 1.0 mm
Dimensions (L x W x H)	420 x 175 x 300 mm	410 x 230 x 450 mm	440 x 670 x 750 mm
Net weight	27 kg	29 kg	38.5 kg
Standards	EN 60974-1;-10	EN 60974-1;-10	EN 60974-1;-10
Torches types	Direct connection	European connection	European connection

RD single-phase range

4

FILCORD 201 C

7 decisive advantages:

- specialized in thin sheet
- user-friendly front panel
- 2T/4T and spot modes
- 4 rollers plate
- polarity reversal
- suitable for welding with self shielded flux-core wires without gas
- 8 steps adjustment voltage.



2007-071

To order

- **Standard equipment:**
 - 1 power source with wheels
 - 1 cylinder holder
 - 1 connected primary cable L = 3 m long
 - 1 ground cable L = 3 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
 - 1 kit accessories for solid wires 0.8-1.0 mm
- Cat. No. W 000 263 763
- **Add-ons:**
 - WMT 15 A torch 3 m
Cat. No. W 000 010 600
 - WMT 15 A torch 4 m
Cat. No. W 000 010 601
- **Options:**
 - A-V digital kit
Cat.no. W 000 264 869
 - Torch arm rest
Cat.no. W 000 261 845

5

FILCORD 251 C

7 decisive advantages:

- specialized in thin sheet,
- user-friendly front panel,
- 2T/4T and spot modes,
- 4 rollers plate,
- polarity reversal,
- suitable for welding with self, shielded flux-core wires without gas,
- 7 fine adjustment voltage.



2007-071R

To order

- **Standard equipment:**
 - 1 power source with wheels
 - 1 cylinder holder
 - 1 connected primary cable L = 3 m long
 - 1 ground cable L = 3 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
 - 1 kit accessories for solid wires 0.8-1.0 mm
- Cat. No. W 000 263 764
- **Add-ons:**
 - WMT 25 A torch 3 m
Cat. No. W 000 010 602
 - WMT 25 A torch 4 m
Cat. No. W 000 010 603
- **Options:**
 - A-V digital kit
Cat.no. W 000 264 869
 - Torch arm rest
Cat.no. W 000 261 845

6

FILCORD 251 S

7 decisive advantages:

- power source with self protected safety switches,
- separate wire feeder with digital display,
- kit accessories for solid wires 1.0 - 1.2 mm,
- user-friendly front panel,
- 2T/4T and spot modes,
- 4 rollers plate,
- 7 fine adjustment voltage.



2007-207

To order

- **Standard equipment:**
 - 1 power source with handle and wheels to move easily in the working area,
 - 1 cylinder holder
 - 1 connected primary cable L = 3 m long
 - 1 ground cable L = 3 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
Cat. No. W 000 055 227
- **Add-ons:**
 - Wire feeder DV 405 F - 5 m
Cat. No. W 000 263 774
 - Wire feeder DV 410 F - 10 m
Cat. No. W 000 263 775
 - WMT 25 A torch 3 m
Cat. No. W 000 010 602
 - WMT 25 A torch 4 m
Cat. No. W 000 010 603
- **Options:**
 - A-V digital kit
Cat.no. W 000 264 869
 - Torch arm rest
Cat.no. W 000 261 846

3

4 FILCORD 201 C

230 V ± 10% - 50 Hz
32 A
18 - 35 V
35 - 180 A
IP 23
85 A
110 A
180 A (at 20%)
4
0.6 - 1.0 mm
500 x 870 x 950 mm
52 kg
EN 60974-1;-10
WMT family

5 FILCORD 251 C

230 V ± 10% - 50 Hz
54 A
20 - 53 V
32 - 250 A
IP 23
140 A
180 A
250 A (at 30%)
4
0.8 - 1.0 mm
500 x 870 x 950 mm
86 kg
EN 60974-1;-10
WMT family

6 FILCORD 251 S

230 V ± 10% - 50 Hz
54 A
20 - 53 V
32 - 250 A
IP 23
140 A
180 A
250 A (at 30%)
4
0.8 - 1.0 mm
500 x 870 x 950 mm
86 kg
EN 60974-1;-10
WMT family

FILCORD C three-phase range

1

FILCORD 203 C

6 decisive advantages:

- user-friendly front panel,
- 2T/4T and spot modes,
- 4 rollers plate,
- inversion of polarity,
- 7 steps adjustment voltage,
- 1 self position.



2007-073R

To order

- **Standard equipment:**
 - 1 power source with wheels
 - 1 cylinder holder
 - 1 connected primary cable L = 3 m long
 - 1 ground cable L = 3 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
 - 1 kit accessories for solid wires 0.8-1.0 mm
- Cat. No. W 000 263 765
- **Add-ons:**
 - WMT 25 A torch 3 m
 - Cat. No. W 000 010 602
 - WMT 25 A torch 4 m
 - Cat. No. W 000 010 603
- **Options:**
 - A-V digital kit
 - Cat.no. W 000 264 869
 - Torch arm rest
 - Cat.no. W 000 261 845

2

FILCORD 253 C

6 decisive advantages:

- user-friendly front panel,
- 2T/4T and spot modes,
- 4 rollers plate,
- inversion of polarity,
- 10 steps adjustment voltage,
- 2 reactance plugs.



2007-073

To order

- **Standard equipment:**
 - 1 power source with wheels
 - 1 ergonomic lower cylinder holder
 - 1 upper cylinder support with torch rest
 - 1 connected primary cable L = 3 m long
 - 1 ground cable L = 3 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
 - 1 kit accessories for solid wires 0.8-1.0 mm
- Cat. No. W 000 263 766
- **Add-ons:**
 - WMT 25 A torch 3 m
 - Cat. No. W 000 010 602
 - WMT 25 A torch 4 m
 - Cat. No. W 000 010 603
- **Options:**
 - A-V digital kit
 - Cat.no. W 000 264 869
 - Torch arm rest
 - Cat.no. W 000 261 845

3

FILCORD 303 C

6 decisive advantages:

- user-friendly front panel,
- 2T/4T and spot modes,
- 4 rollers plate,
- inversion of polarity,
- 2 x 7 steps adjustment voltage,
- 2 self position.



2007-076R

To order

- **Standard equipment:**
 - 1 power source with wheels
 - 1 ergonomic lower cylinder holder
 - 1 upper cylinder support with torch rest
 - 1 connected primary cable L = 3 m long
 - 1 ground cable L = 3 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
 - 1 kit accessories for solid wires 0.8-1.0 mm
- Cat. No. W 000 263 767
- **Add-ons:**
 - WMT 25 A torch 3 m
 - Cat. No. W 000 010 602
 - WMT 25 A torch 4 m
 - Cat. No. W 000 010 603
 - WMT 36 A torch 3 m
 - Cat. No. W 000 010 605
 - WMT 36 A torch 4 m
 - Cat. No. W 000 010 606
- **Options:**
 - A-V digital kit
 - Cat.no. W 000 264 869
 - Torch arm rest
 - Cat.no. W 000 261 845

Technical specifications:	1 FILCORD 203 C	2 FILCORD 253 C	3 FILCORD 303 C
Power supply three-phase	230 /400 V ± 10% - 50 Hz	230 /400 V ± 10% - 50 Hz	230/400 V ± 10% - 50 Hz
Primary consumption at I max.	19 - 11 A	27 - 16 A	33 - 19 A
No-load voltage	18 - 35 V	18 - 40 V	18 - 45 V
Welding current	35 - 200 A	35 - 250 A	35 - 300 A
Protection class	IP 23	IP 23	IP 23
Duty cycle at 100%	110 A	140 A	180 A
10 min. cycle at 60%	140 A	170 A	230 A
(at 40 °C) at 35%	200 A (at 30%)	250 A (at 30%)	300 A
Number of rollers	4	4	4
Wire diameter	0.6 - 1.0 mm	0.6 - 1.0 mm	0.6 - 1.0 mm
Dimensions (L x W x H)	500 x 870 x 950 mm	500 x 870 x 950 mm	620 x 940 x 1 000 mm
Net weight	71 kg	80 kg	96 kg
Standards	EN 60974-1;-10	EN 60974-1;-10	EN 60974-1;-10
Torches types	WMT family	WMT family	WMT family

4

FILCORD 353 C**6 decisive advantages:**

- user-friendly front panel,
- 2T/4T and spot modes,
- 4 rollers plate,
- inversion of polarity,
- 3 x 7 steps adjustment voltage,
- 3 self position.



2007-076

To order

- **Standard equipment:**
 - 1 power source with wheels
 - 1 ergonomic lower cylinder holder
 - 1 upper cylinder support with torch rest
 - 1 connected primary cable L = 3 m long
 - 1 ground cable L = 3 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
 - 1 kit accessories for solid wires 1.0 - 1.2 mm
- Cat. No. W 000 263 768
- **Add-ons:**
 - WMT 36 A torch 3 m
 - Cat. No. W 000 010 605
 - WMT 36 A torch 4 m
 - Cat. No. W 000 010 606
- **Options:**
 - A-V digital kit
 - Cat.no. W 000 264 869
 - Torch arm rest
 - Cat.no. W 000 261 845

4 FILCORD 353 C

230/400 V ± 10% - 50 Hz

41.5 - 24 A

18 - 35 V

35 A - 350 A

IP 23

210 A

270 A

350 A

4

0.8 - 1.2 mm

620 x 940 x 1 000 mm

116 kg

EN 60974-1;-10

WMT family

Basic equipment, compact version (C):

- units with digital display as standard on FILCORD 303 C / 353 C, option on FILCORD 201 C / 251 C / 203 C / 253 C,
- units equipped with the cooled wire feed and the purge gas functions.



2000-024

3

FILCORD S three-phase range

Basic equipment, separate version (S):

- wire feeders with ducted harness of length 5 or 10 m (other length on demand),
- wire feeder, harness (5-10 m) and cooling unit for the water cooled version of FILCORD 453 S.

1

FILCORD 303 S

8 decisive advantages:

- power source with self, protected safety switches,
- separate wire feeder with digital display,
- 1 kit accessories for solid wires 1.0-1.2 mm,
- user-friendly front panel,
- 2T/4T and spot modes,
- 4 rollers,
- 2 x 7 steps adjustment voltage,
- 2 reactance plugs.



2007-211

To order

- **Standard equipment:**
 - 1 power source with handle and wheels
 - 1 ergonomic lower cylinder holder
 - 1 upper cylinder support with torch rest
 - 1 connected primary cable L = 3 m long
 - 1 ground cable L = 5 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
- **Add-ons:**
 - Wire feeder DV 405 F - 5 m Cat. No. W 000 263 774
 - Wire feeder DV 410 F - 10 m Cat. No. W 000 263 775
 - Weldline WMT 25 A torch 3 m Cat. No. W 000 010 602
 - WMT 25 A torch 4 m Cat. No. W 000 010 603
 - WMT 36 A torch 3 m Cat. No. W 000 010 605
 - WMT 36 A torch 4 m Cat. No. W 000 010 606
- **Options:**
 - A-V digital kit Cat.no. W 000 264 869
 - Torch arm rest Cat.no. W 000 261 846

2

FILCORD 353 S

8 decisive advantages:

- power source with self protected safety switches,
- separate wire feeder with digital display,
- 1 kit accessories for solid wires 1.0-1.2 mm,
- user-friendly front panel,
- 2T/4T and spot modes,
- 4 rollers,
- 3 x 7 steps adjustment voltage,
- 3 reactance plugs.



2007-080

To order

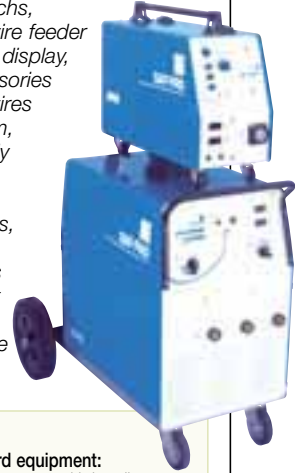
- **Standard equipment:**
 - 1 power source with handle and wheels
 - 1 ergonomic lower cylinder holder
 - 1 upper cylinder support with torch rest
 - 1 connected primary cable L = 3 m long
 - 1 ground cable L = 5 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
- **Add-ons:**
 - Wire feeder DV 405 F - 5 m Cat. No. W 000 263 774
 - Wire feeder DV 410 F - 10 m Cat. No. W 000 263 775
 - WMT 36 A torch 3 m Cat. No. W 000 010 605
 - WMT 36 A torch 4 m Cat. No. W 000 010 606
- **Options:**
 - A-V digital kit Cat.no. W 000 264 869
 - Torch arm rest Cat.no. W 000 261 846

3

FILCORD 453 S

8 decisive advantages:

- power source with self protected safety switches,
- separate wire feeder with digital display,
- 1 kit accessories for solid wires 1.0-1.2 mm,
- user-friendly front panel,
- 2T/4T and spot modes,
- 4 rollers,
- 3 x 7 steps adjustment voltage,
- 3 reactance plugs.



2007-217

To order

- **Standard equipment:**
 - 1 power source with handle and wheels
 - 1 ergonomic lower cylinder holder
 - 1 upper cylinder support with torch rest
 - 1 connected primary cable L = 3 m long
 - 1 ground cable L = 5 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
- **Add-ons:**
 - Wire feeder DV 405 F - 5 m Cat. No. W 000 263 774
 - Wire feeder DV 410 F - 10 m Cat. No. W 000 263 775
 - Weldline WMT 36 A torch 3 m Cat. No. W 000 010 605
 - Weldline WMT 36 A torch 4 m Cat. No. W 000 010 606
 - Wire feeder (water cooled) DV 400 FW Cat. No. W 000 262 181
 - Cooler unit: Cat. No. W 000 262 188
 - Harness 10 m water Cat. No. W 000 262 343
 - Harness 5 m water Cat. No. W 000 262 342
 - WMT 500 A torch 3 m Cat. No. W 000 010 608
 - WMT 500 A torch 4 m Cat. No. W 000 010 609
 - FREEZCOOL (6 l cans) Cat. no. W 000 010 167
- **Options:**
 - A-V digital kit Cat.no. W 000 264 869
 - Torch arm rest Cat.no. W 000 261 846

Technical specifications:	1 FILCORD 303 S	2 FILCORD 353 S	3 FILCORD 453 S
Power supply three-phase	230 /400 V ± 10% - 50-60 Hz	230/400 V ± 10% - 50 Hz	230/400 V ± 10% - 50 Hz
Primary consumption at I max.	34 - 19 A	42 - 24 A	60 - 34.5 A
No-load voltage	18 - 42 V	18 - 45 V	19 - 54 V
Welding current	40 - 300 A	35 - 350 A	35 - 450 A
Protection class	IP 23	IP 23	IP 23
Duty cycle at 100%	180 A	210 A	270 A
10 min. cycle at 60%	230 A	270 A	345 A
(at 40 °C) at 35%	300 A	350 A	450 A
Number of rollers	4	4	4
Wire diameter	0.6 - 1.2 mm	0.6 - 1.2 mm	0.6 - 1.2 mm
Dimensions (L x W x H)	500 x 870 x 900 mm	500 x 870 x 900 mm	610 x 915 x 1 030 mm
Net weight	120 kg	125 kg	135 kg
Standards	EN 60974-1;-10	EN 60974-1;-10	EN 60974-1;-10
Torches types	WMT family	WMT family	WMT family

Wire feeder wear parts

PRESTOMIG 201 C (feeder 2 rollers)

Entry wire guide	W 000 257 998
Roller for solid wires Ø 0.6 - 0.8 mm	W 000 227 931
Roller for solid wires Ø 1.0 - 1.2 mm	W 000 227 930

SAXOMIG 171 C - FILCORD 171 C (feeder 2 rollers)

Entry wire guide	W 000 233 472
Roller for solid wires Ø 0.6 - 0.8 mm	W 000 232 110
Roller for solid wires Ø 1.0 - 1.2 mm	W 000 232 112

FILCORD RANGE COMPACTSEPARATE (feeder 4 rollers)

Entry wire guide	W 000 050 139
Kit 2 Rollers for solid wire Ø 0.6 mm	W 000 050 096
Kit 2 Rollers for solid wire Ø 0.8 mm	W 000 050 097
Kit 2 Rollers for solid wire Ø 1.0 mm	W 000 050 098
Kit 2 Rollers for solid wire Ø 1.2 mm	W 000 050 099
Kit 2 Rollers for aluminium wire Ø 0.8 mm	W 000 050 100
Kit 2 Rollers for aluminium wire Ø 1.0 mm	W 000 050 101
Kit 2 Rollers for aluminium wire Ø 1.2 mm	W 000 050 102
Kit 2 Rollers for flux-cored wires Ø 1.0 - 1.2 mm	W 000 264 870
Kit 2 Rollers for flux-cored wires Ø 1.4 - 1.6 mm	W 000 265 883



2000-489

3

OPTIMAG 400 S and 500 S

Available
mid 2007

Welding MIG/MAG installations continuous adjustment with separated wire feeder for intensive industrial work.

1

OPTIMAG 400 S MV

13 decisive advantages:

- simple to use,
- synergic and manual adjustment,
- digital display and pre-setting,
- separate wire feeder 4 rollers,
- missing phase detector,
- disengageable cooling fan,
- adjustable voltage striking,
- arc extinction device,
- built-in crater filler function in 4T mode,
- pre-gas, burn-back and post-gas times adjustment,
- wire feed advance without power,
- 2 lifting eyes,
- reliability and robustness.



1145-30R

To order

- **Standard equipment:**
 - 1 power source with handle, wheels and cylinder holder
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp
 - 1 equipped gas hose 2 m long
- Cat. No. W 000 263 737
- **Add-ons:**
 - Wire feeder DV 44 Z - 5 m
 - Cat. No. W 000 263 776
 - Wire feeder DV 44 Z - 10 m
 - Cat. No. W 000 263 777
 - PROMIG NG 341 torch 3 m
 - Cat. No. W 000 260 894
 - PROMIG NG 341 torch 4 m
 - Cat. No. W 000 260 895
 - PROMIG NG 441 torch 3 m
 - Cat. No. W 000 260 897
 - PROMIG NG 441 torch 4 m
 - Cat. No. W 000 260 898

2

OPTIMAG 400 S W

13 decisive advantages:

- simple to use,
- synergic and manual adjustment,
- digital display and pre-setting,
- separate wire feeder 4 rollers,
- missing phase detector,
- disengageable cooling fan,
- adjustable voltage striking,
- arc extinction device,
- built-in crater filler function in 4T mode,
- pre-gas, burn-back and post-gas times adjustment,
- wire feed advance without power,
- 2 lifting eyes,
- reliability and robustness.



1145-30R

To order

- **Standard equipment:**
 - 1 power source with handle, wheels and cylinder holder
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp
 - 1 equipped gas hose 2 m long
- Cat. No. W 000 263 741
- **Add-ons:**
 - Wire feeder DV 44 Z - 5 m water
 - Cat. No. W 000 263 778
 - Wire feeder DV 44 Z - 10 m water
 - Cat. No. W 000 263 779
 - GRE cooling unit
 - Cat. No. 9157 0406
 - FREEZCOOL (6 l cans)
 - Cat. no. W 000 010 167
 - PROMIG NG 241W torch 3 m
 - Cat. No. W 000 260 900
 - PROMIG NG 241W torch 4 m
 - Cat. No. W 000 260 901
 - PROMIG NG 341W torch 3 m
 - Cat. No. W 000 260 903
 - PROMIG NG 341W torch 4 m
 - Cat. No. W 000 260 904

3

OPTIMAG 500 S W

13 decisive advantages:

- simple to use,
- synergic and manual adjustment,
- digital display and pre-setting,
- separate wire feeder 4 rollers,
- missing phase detector,
- disengageable cooling fan,
- adjustable voltage striking,
- arc extinction device,
- built-in crater filler function in 4T mode,
- pre-gas, burn-back and post-gas times adjustment,
- wire feed advance without power,
- 2 lifting eyes,
- reliability and robustness.



1145-37R

To order

- **Standard equipment:**
 - 1 power source with handle, wheels and cylinder holder
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp
 - 1 equipped gas hose 2 m long
- Cat. No. W 000 263 773
- **Add-ons:**
 - Wire feeder DV 44 Z - 5 m water
 - Cat. No. W 000 263 778
 - Wire feeder DV 44 Z - 10 m water
 - Cat. No. W 000 263 779
 - GRE cooling unit
 - Cat. No. 9157 0406
 - FREEZCOOL (6 l cans)
 - Cat. no. W 000 010 167
 - PROMIG NG 341W torch 3 m
 - Cat. No. W 000 260 903
 - PROMIG NG 341W torch 4 m
 - Cat. No. W 000 260 904
 - PROMIG NG 441W torch 3 m
 - Cat. No. W 000 260 906
 - PROMIG NG 441W torch 4 m
 - Cat. No. W 000 260 907

Technical specifications:	1 OPTIMAG 400 S MV	2 OPTIMAG 400 S W	3 OPTIMAG 500 S W
Power supply three-phase	220 to 240/380/400/415/440 V ± 10% 50-60 Hz	220 to 240/380/400/415/440 V ± 10% 50-60 Hz	220 to 240/380/400/415/440 V ± 10% 50-60 Hz
Primary consumption at I max.	51 A - 29 A	51 A - 29 A	77 A - 43 A
No-load voltage	38.9 - 44 V	38.9 - 44 V	61 V
Welding current	50 - 400 A	50 - 400 A	40 - 520 A
Protection class	IP 23	IP 23	IP 23
Duty cycle 10 min. cycle (at 40 °C)	at 100%	270 A	370 A
	at 60%	350 A	520 A
	at 40%	400 A	-
Number of rollers	4	4	4
Wire diameter	0.8 - 1.6 mm	0.8 - 1.6 mm	0.8 - 2.4 mm
Dimensions (L x W x H)	1 015 x 530 x 830 mm	1 015 x 530 x 830 mm	1 120 x 712 x 1 330 mm
Net weight	143 kg	143 kg	200 kg
Standards	EN 60974-1; -10	EN 60974-1; -10	EN 60974-1; -10
Torches types	PROMIG NG family	PROMIG NG family	PROMIG NG family



2000-500

SAFMIG BLX air/water cooled

The SAFMIG BLX range are conventional switch based MIG-MAG welding installations with help system setting (ESP). These units are equipped with digital wire speed regulation, maintaining a constant value in the wire-feed supply regardless of variations resistance. This characteristic produce a perfectly stable arc for top-quality weld beads in terms of defects and surface appearance.

1

SAFMIG 300 BLX

13 decisive advantages:

- user-friendly front panel,
- pre-gas, post-gas and burn-back times adjustment,
- ESP mode to adjust easily the welding parameters,
- digital display,
- 2T/4T, spot and intermittent modes,
- 4 rollers plate,
- inversion of polarity,
- 12 steps adjustment voltages,
- 2 self positions,
- disengageable ventilation,
- wire feeding regulation system,
- saturable self,
- system of "projection reduction".



To order

- **Standard equipment:**
 - 1 power source with wheels, cylinder support and handle
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
 - 1 kit accessories for solid wires 1.0 -1.2 mm
- Cat. No. W 000 260 977
- **Add-ons:**
 - PROMIG NG 241 torch 3 m
 - Cat. No. W 000 260 891
 - PROMIG NG 241 torch 4 m
 - Cat. No. W 000 260 892
 - FREEZCOOL (6 l cans)
 - Cat. no. W 000 010 167

2

SAFMIG 400 BLX

13 decisive advantages:

- user-friendly front panel,
- pre-gas, post-gas and burn-back times adjustment,
- ESP mode to adjust easily the welding parameters,
- digital display,
- 2T/4T, spot and intermittent modes,
- 4 rollers plate,
- inversion of polarity,
- 3 x 10 steps adjustment voltages,
- 2 self positions,
- disengageable ventilation,
- wire feeding regulation system,
- saturable self,
- system of "projection reduction".



To order

- **Standard equipment:**
 - 1 power source with wheels, cylinder support, handle and 4 lifting eyes
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
 - 1 kit accessories for solid wires 1.0 -1.2 mm
- Cat. No. W 000 260 979
- **Add-ons:**
 - PROMIG NG 341 torch 3 m
 - Cat. No. W 000 260 894
 - PROMIG NG 341 torch 4 m
 - Cat. No. W 000 260 895
 - FREEZCOOL (6 l cans)
 - Cat. no. W 000 010 167

3

SAFMIG 400 BLX W

13 decisive advantages:

- user-friendly front panel,
- pre-gas, post-gas and burn-back times adjustment,
- ESP mode to adjust easily the welding parameters,
- digital display,
- 2T/4T, spot and intermittent modes,
- 4 rollers plate,
- inversion of polarity,
- 3 x 10 steps adjustment voltages,
- 2 self positions,
- disengageable ventilation,
- wire feeding regulation system,
- saturable self,
- system of "projection reduction".



To order

- **Standard equipment:**
 - 1 power source with wheels, cylinder support, handle and 4 lifting eyes
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long
 - 1 kit accessories for solid wires 1.0 -1.2 mm
 - 1 built-in cooling unit
- Cat. No. W 000 260 980
- **Add-ons:**
 - PROMIG NG 341 W torch 3 m
 - Cat. No. W 000 260 903
 - PROMIG NG 341 W torch 4 m
 - Cat. No. W 000 260 904
 - PROMIG NG 441 W torch 3 m
 - Cat. No. W 000 260 906
 - PROMIG NG 441 W torch 4 m
 - Cat. No. W 000 260 907
 - FREEZCOOL (6 l cans)
 - Cat. no. W 000 010 167

Technical specifications:

	1 SAFMIG 300 BLX	2 3 SAFMIG 400 BLX / BLX W
Power supply	230 / 400 V ± 10% - 50 Hz three-phase	230 / 400 V ± 10% - 50 Hz three-phase
Primary consumption at I max.	27 - 16 A	47 - 27 A
No-load voltage	16.5 - 35.8 V	16.6 - 45.8 V
Welding current	30 - 270 A	28 - 380 A
Protection class	IP 23	IP 23
Duty cycle at 100%	200 A	300 A
10 min. cycle at 60%	240 A	320 A
(at 40 °C) at 45%	270 A	380 A (at 40 %)
Number of rollers	4	4
Wire diameter	0.8 - 2.4 mm	0.8 - 2.4 mm
Dimensions (L x W x H)	825 x 390 x 821 mm	925 x 580 x 1 060 mm
Net weight	93 kg	161 kg
Standards	EN 60974-1; -10	EN 60974-1; -10
Torches types	PROMIG NG family	PROMIG NG family

Compact and separate ranges

4

SAFMIG 300 BLX S

13 decisive advantages:

- user-friendly front panel,
- pre-gas, post-gas and burn-back times adjustment,
- ESP mode to adjust easily the welding parameters,
- digital display,
- 2T/4T, spot and intermittent modes,
- 4 rollers plate,
- 1 kit accessories for solid wires 1.0 - 1.2 mm,
- 12 steps adjustment voltage,
- 2 self positions,
- disengageable ventilation,
- wire feeding regulation system,
- saturable self,
- system of "projection reduction".



2006-361

To order

- **Standard equipment:**
 - 1 power source with wheels, cylinder support and handle
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long Cat. No. W 000 260 978
- **Add-ons:**
 - Wire feeder DV 44 X - 5 m air Cat. No. W 000 260 986
 - Wire feeder DV 44 X - 10 m air Cat. No. W 000 260 987
 - PROMIG NG 241 torch 3 m Cat. No. W 000 260 891
 - PROMIG NG 241 torch 4 m Cat. No. W 000 260 892

5 6

SAFMIG 400 BLX S / 400 S W

13 decisive advantages:

- user-friendly front panel,
- pre-gas, post-gas and burn-back times adjustment,
- ESP mode to adjust easily the welding parameters,
- digital display,
- 2T/4T, spot and intermittent modes,
- 4 rollers plate,
- 1 kit accessories for solid wires 1.0 - 1.2 mm,
- 3 x 10 steps adjustment voltage,
- 2 self positions,
- disengageable ventilation,
- wire feeding regulation system,
- saturable self,
- system of "projection reduction".



2006-294

To order

- **Standard equipment:**
 - 1 power source with wheels, cylinder support, handle and 4 lifting eyes
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long Cat. No. W 000 260 981 (air version) Cat. No. W 000 260 982 (water version) with built-in colling unit
- **Add-ons:**
 - Wire feeder DV 44 X - 5 m air Cat. No. W 000 260 986
 - Wire feeder DV 44 X - 10 m air Cat. No. W 000 260 987
 - PROMIG NG 341 torch 3 m Cat. No. W 000 260 894
 - PROMIG NG 341 torch 4 m Cat. No. W 000 260 895
 - Wire feeder DV 44 X - 5 m water Cat. No. W 000 260 988
 - Wire feeder DV 44 X - 10 m water Cat. No. W 000 260 989
 - PROMIG NG 341 W torch 3 m Cat. No. W 000 260 903
 - PROMIG NG 341 W torch 4 m Cat. No. W 000 260 904
 - PROMIG NG 441 W torch 3 m Cat. No. W 000 260 906
 - PROMIG NG 441 W torch 4 m Cat. No. W 000 260 907

7 8

SAFMIG 500 BLX S / 500 S W

13 decisive advantages:

- user-friendly front panel,
- pre-gas, post-gas and burn-back times adjustment,
- ESP mode to adjust easily the welding parameters,
- digital display,
- 2T/4T, spot and intermittent modes,
- 4 rollers plate,
- 1 kit accessories for solid wires 1.0 - 1.2 mm,
- 3 x 10 steps adjustment voltage,
- 2 self positions,
- disengageable ventilation,
- wire feeding regulation system,
- saturable self,
- system of "projection reduction".



2005-203

To order

- **Standard equipment:**
 - 1 power source with wheels, cylinder support, handle and 4 lifting eyes
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp and DINSE connector
 - 1 equipped gas hose 2 m long Cat. No. W 000 260 983 (air version) Cat. No. W 000 260 984 (water version) built-in colling unit
- **Add-ons:**
 - Wire feeder DV 44 X - 5 m air Cat. No. W 000 260 986
 - Wire feeder DV 44 X - 10 m air Cat. No. W 000 260 987
 - PROMIG NG 441 torch 3 m Cat. No. W 000 260 897
 - PROMIG NG 441 torch 4 m Cat. No. W 000 260 898
 - Wire feeder DV 44 X - 5 m water Cat. No. W 000 260 988
 - Wire feeder DV 44 X - 10 m water Cat. No. W 000 260 989
 - PROMIG NG 441 W torch 3 m Cat. No. W 000 260 906
 - PROMIG NG 441 W torch 4 m Cat. No. W 000 260 907

4 SAFMIG 300 BLX S

230 / 400 V ± 10% - 50 Hz three-phase
27 - 16 A
16.5 - 35.8 V
30 - 270 A
IP 23
200 A
240 A
270 A
4
0.8 - 2.4 mm
825 x 390 x 821 mm
93 kg
EN 60974-1; -10
PROMIG NG family

5 6 SAFMIG 400 BLX S / 400 BLX S W

230 / 400 V ± 10% - 50 Hz three-phase
47 - 27 A
16.6 - 45.8 V
28 - 380 A
IP 23
300 A
320 A
380 A (at 40 %)
4
0.8 - 2.4 mm
925 x 580 x 1 060 mm
161 kg
EN 60974-1; -10
PROMIG NG family

7 8 SAFMIG 500 BLX S / 500 BLX S W

230 / 400 V ± 10% - 50 Hz three-phase
63 - 36 A
15.8 - 50.4 V
16 - 480 A
IP 23
370 A
410 A
480 A (at 50 %)
4
0.8 - 2.4 mm
925 x 580 x 1 060 mm
201 kg
EN 60974-1; -10
PROMIG NG family

3

The new generation of power sources

The DIGI@PULS range has been designed for all applications requiring very high quality welding for all thicknesses and all materials used in the main industrial sectors. The direct adjustment of the parameters on the front panel makes the utilization of the power source much easier for the operator. A setup program allows numerous adjustments of the welding cycles, the welding modes and processes, will ensure an optimum use of these power sources.

DIGI@PULS range

Decisive advantages:

- **Regulation and numerical controls:** total control of alimentation waves forms for an improvement of the processes, and of the thicknesses, and exact parameters reproduction.
- **Increased power (Voltage/Current):** increase the arc rigidity with pulsed mode, which improves penetrations and allows a good fusion of the usually "hard-to-weld" wires.
- **More processes:** Soft current, Speed Short Arc™ (SSA™), pulsed and MMA.
- **More memory:** 99 welding laws on DIGI@PULS 320 (W) and 121 welding laws on DIGI@PULS 420 W are proposed, answering to all applications on the welding market. The remote control box also allows memorization of 10 programs.
- **More cycles:** 2T/ 4T/ Spot weld/Cold Double Pulse current (CDP).
- **More options:** large options offer in order to make easier and safer the welding process.
- **Potentiometer torch.**

1

DIGI@PULS 320

To order:

- **Standard equipment air cooled:**
 - 1 power source
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp
 - 1 equipped gas hose 2 m long Cat. No. W 000 055 000
- **Add-ons:**
 - Wire feeder DV 400 CDR Cat. No. W 000 055 082
 - Harness air cooled L = 5 m for steel Cat. No. W 000 055 089
 - Harness air cooled L = 10 m for steel Cat. No. W 000 055 090
 - PROMIG NG 341 torch 3 m Cat. No. W 000 260 894
 - PROMIG NG 341 torch 4 m Cat. No. W 000 260 895
 - DIGI@TORCH P 341 torch 3 m Cat. No. W 000 055 072
 - DIGI@TORCH P 341 torch 4 m Cat. No. W 000 255 636
- **Options:**
 - Workshop trolley for power source Cat. no. W 000 055 046
 - Pivot standard (requires power source workshop trolley) Cat. no. W 000 055 048
 - Workshop trolley for wire feeder Cat. no. W 000 055 050
 - Wire feed suspension support Cat. no. W 000 055 101
 - RC JOB remote control Cat. no. W 000 055 077
 - Anti-dust filter Cat. no. W 000 055 049



2006-014

2

DIGI@PULS 320 W

To order:

- **Standard equipment water cooled:**
 - 1 power source
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp
 - 1 equipped gas hose 2m long Cat. No. W 000 055 001
- **Add-ons:**
 - Wire feeder DV 400 CDR Cat. No. W 000 055 082
 - Harness water cooled L = 5 m for steel Cat. No. W 000 055 092
 - L = 10 m for steel Cat. No. W 000 055 093
 - L = 15 m for steel Cat. No. W 000 055 094
 - L = 5 m for aluminium Cat. No. W 000 055 096
 - L = 15 m for aluminium Cat. No. W 000 055 097
 - PROMIG NG 341 W torch 3 m Cat. No. W 000 260 903
 - PROMIG NG 341 W torch 4 m Cat. No. W 000 260 904
 - DIGI@TORCH P 341W torch 3 m Cat. No. W 000 260 889
 - DIGI@TORCH P 341W torch 4 m Cat. No. W 000 260 890
- **Options:**
 - Workshop trolley for power source Cat. no. W 000 055 046
 - Pivot standard (requires power source workshop trolley) Cat. no. W 000 055 048
 - Workshop trolley for wire feeder Cat. no. W 000 055 050
 - Wire feed suspension support Cat. no. W 000 055 101
 - RC JOB remote control Cat. no. W 000 055 077
 - Anti-dust filter Cat. no. W 000 055 049
 - FREEZCOOL (6 l cans) Cat. no. W 000 010 167



2006-014

3

DIGI@PULS 420 W

To order:

- **Standard equipment water cooled:**
 - 1 power source
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp
 - 1 equipped gas hose 2 m long Cat. No. W 000 055 008
- **Add-ons:**
 - Wire feeder DV 500 CDR Cat. No. W 000 055 083
 - Harness water cooled L = 5 m for steel Cat. No. W 000 055 092
 - L = 10 m for steel Cat. No. W 000 055 093
 - L = 15 m for steel Cat. No. W 000 055 094
 - L = 5 m for aluminium Cat. No. W 000 055 096
 - L = 15 m for aluminium Cat. No. W 000 055 097
 - PROMIG NG 441 W torch 3 m Cat. No. W 000 260 906
 - PROMIG NG 441 W torch 4 m Cat. No. W 000 260 907
 - DIGI@TORCH P 441W torch 3 m Cat. No. W 000 255 634
 - DIGI@TORCH P 441W torch 4 m Cat. No. W 000 255 635
- **Options:**
 - Workshop trolley for power source Cat. no. W 000 055 046
 - Pivot standard (requires power source workshop trolley) Cat. no. W 000 055 048
 - Workshop trolley for wire feeder Cat. no. W 000 055 050
 - Wire feed suspension support Cat. no. W 000 055 101
 - RC JOB remote control Cat. no. W 000 055 077
 - Anti-dust filter Cat. no. W 000 055 049
 - FREEZCOOL (6 l cans) Cat. no. W 000 010 167



2006-015

Technical specifications:

	1 2 DIGI@PULS 320 / 320 W	3 DIGI@PULS 420 W
Power supply three-phase	400 V ± 10% - 50/60 Hz	400 V ± 10% - 50/60 Hz
Primary consumption at I max.	25.9 A	37.5 A
No-load voltage	106 V	106 V
Welding current	20 - 320 A	20 - 420 A
Protection class	IP 23	IP 23
Duty cycle at 100%	320 A	350 A
10 min. cycle at 60%	-	400 A
(at 40 °C) at 45%	-	420 A
Number of rollers	4	4
Wire diameter	0.6 - 1.6 mm	0.6 - 1.6 mm
Dimensions (L x W x H)	1 150 x 750 x 1 150 mm	1 150 x 750 x 1 150 mm
Net weight	83 kg (air) - 91 kg (water)	91 kg
Standards	EN 60974-1;-10	EN 60974-1;-10
Torches types	PROMIG NG and DIGI@TORCH P families	PROMIG NG and DIGI@TORCH P families

DIGI@PULS and DIGI@WAVE

User-friendliness and high level of performances make DIGI@WAVE the ideal partner for your manual, automatic and robotic welding uses. A wide graphic screen allows the operator to navigate easily around a menu bar for adjusting the various parameters of the unit.

DIGI@WAVE range

Decisive advantages:

- **Control of aluminium welding:** special equipments, adapted processes (SM : Spray Modal™), essential options for demanding applications (reduction and almost suppression of the porosities and increase of the penetration).
- **Regulation and numerical controls:** total control of alimentations waves forms for an improvement of the processes, and of the thicknesses, and exact parameters reproduction.
- **Increased power (Voltage/Current):** increase the arc rigidity with pulsed mode, which improves penetrations and allow a good fusion of the usually "hard-to-weld" wires.
- **More processes:** Soft current, Pulsed, SSA, SSP, SM, CDP, MIG brazing, MMA, and PR Spray.
- **More memory:** 115 welding laws on DIGI@WAVE 280 and 153 welding laws on DIGI@WAVE 400/500 W are proposed, answering to all applications on the welding market. The power sources also allow memorization of 100 programs, selectable from the wire feeder, remote control and DIGI@TORCH E family.
- **More controls:** parameters monitoring, indication of the defects, parameters blocking on several levels, printing, 99 programs, calibration...
- **More cycles:** 2T/ 4T/ Spot weld/Cold Double Pulse current (CDP).
- **More options:** large options offer in order to make easier and safer the welding process.
- **Advanced torch "DIGITAL".**

4

DIGI@WAVE 280



To order:

- **Standard equipment air cooled:**
 - 1 power source
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp
 - 1 equipped gas hose 2 m long
 - 1 built-in wire feed 4 rollers
- Cat. No. W 000 055 011
- **Add-ons:**
 - PROMIG NG 341 torch 3 m Cat. No. W 000 260 894
 - PROMIG NG 341 torch 4 m Cat. No. W 000 260 895
 - DIGI@TORCH E 341 torch 3 m Cat. No. W 000 255 593
 - DIGI@TORCH E 341 torch 4 m Cat. No. W 000 255 632
 - FREEZCOOL (6 l cans) Cat. no. W 000 010 167
- **Options:**
 - Workshop trolley for power source Cat. no. W 000 055 046
 - RC JOB remote control Cat. no. W 000 055 077
 - Anti-dust filter Cat. no. W 000 055 049

5

DIGI@WAVE 400 W



To order:

- **Standard equipment water cooled:**
 - 1 power source
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp
 - 1 equipped gas hose 2 m long
- Cat. No. W 000 055 015
- **Add-ons:**
 - Wire feeder DV 500 CDR Cat. No. W 000 055 083
 - Harness water cooled L = 5 m for steel Cat. No. W 000 055 092 L = 10 m for steel Cat. No. W 000 055 093 L = 15 m for steel Cat. No. W 000 055 094 L = 5 m for aluminium Cat. No. W 000 055 096 L = 15 m for aluminium Cat. No. W 000 055 097
 - PROMIG NG 341 W torch 3 m Cat. No. W 000 260 903
 - PROMIG NG 341 W torch 4 m Cat. No. W 000 260 904
 - DIGI@TORCH E 341W torch 3 m Cat. No. W 000 260 887
 - DIGI@TORCH E 341W torch 4 m Cat. No. W 000 260 888
 - FREEZCOOL (6 l cans) Cat. no. W 000 010 167
- **Options:**
 - Workshop trolley for power source Cat. no. W 000 055 046
 - Pivot standard (requires power source workshop trolley) Cat. no. W 000 055 048
 - Workshop trolley for wire feeder Cat. no. W 000 055 050
 - Wire feed suspension support Cat. no. W 000 055 101
 - RC JOB remote control Cat. no. W 000 055 077
 - Anti-dust filter Cat. no. W 000 055 049

6

DIGI@WAVE 500 W



To order:

- **Standard equipment water cooled:**
 - 1 power source
 - 1 connected primary cable L = 5 m long
 - 1 ground cable L = 5 m with clamp
 - 1 equipped gas hose 2 m long
- Cat. No. W 000 055 020
- **Add-ons:**
 - Wire feeder DV 500 CDR Cat. No. W 000 055 083
 - Harness water cooled L = 5 m for steel Cat. No. W 000 055 092 L = 10 m for steel Cat. No. W 000 055 093 L = 15 m for steel Cat. No. W 000 055 094 L = 5 m for aluminium Cat. No. W 000 055 096 L = 15 m for aluminium Cat. No. W 000 055 097
 - PROMIG NG 441 W torch 3 m Cat. No. W 000 260 906
 - PROMIG NG 441 W torch 4 m Cat. No. W 000 260 907
 - DIGI@TORCH E 441W torch 3 m Cat. No. W 000 055 073
 - DIGI@TORCH E 441W torch 4 m Cat. No. W 000 255 633
 - FREEZCOOL (6 l cans) Cat. no. W 000 010 167
- **Options:**
 - Workshop trolley for power source Cat. no. W 000 055 046
 - Pivot standard (requires power source workshop trolley) Cat. no. W 000 055 048
 - Workshop trolley for wire feeder Cat. no. W 000 055 050
 - Wire feed suspension support Cat. no. W 000 055 101
 - RC JOB remote control Cat. no. W 000 055 077
 - Anti-dust filter Cat. no. W 000 055 049

4 DIGI@WAVE 280

400 V ± 10% - 50/60 Hz
31.4 A
106 V
20 - 280 A
IP 23
280 A
-
-
4

0.6 - 1.2 mm
1 150 x 750 x 1 150 mm
80 kg

EN 60974-1;-10

PROMIG NG and DIGI@TORCH E families

5 DIGI@WAVE 400 W

400 V ± 10% - 50/60 Hz
34.5 A
106 V
20 - 400 A
IP 23
350 A
400 A
-

4
0.8 - 1.6 mm
1 150 x 750 x 1 150 mm
91 kg

EN 60974-1;-10

PROMIG NG and DIGI@TORCH E families

6 DIGI@WAVE 500 W

400 V ± 10% - 50/60 Hz
44.5 A
106 V
20 - 500 A
IP 23
440 A
500 A
-

4
0.8 - 2.4 mm
1 150 x 750 x 1 150 mm
105 kg

EN 60974-1;-10

PROMIG NG and DIGI@TORCH E families

3

MIG/MAG welding new processes

Processes advantages for a perfect assembly :

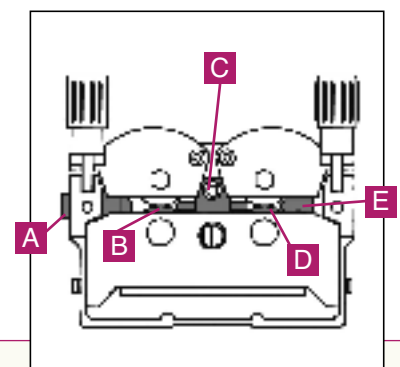
This new generation of power sources provides new welding methods able to meet quality and productivity levels to answer the needs of the main industrial sectors (specially road and rail transports, automotive industry and shipbuilding).

Process	Definition	Customers advantages	Power source
Speed Short Arc™ (SSA)	The Speed Short Arc™ allows a high travel speed due to a rigid arc and a cold regime. It is very effective for welding thin steel plates, working in position and in closed angle and filling bevels. The SSA™ is used for short circuit welding though the normal globular regime travel speed domain.	<ul style="list-style-type: none"> • Increase in travel speed • Reduced distortion (thin steel sheets) • Suited to welding in position • Tolerance and usability 	DIGI@WAVE DIGI@PULS
Spray Modal™ (SM)	Spray Modal™ is a process that strongly reduces micro porosity and increases penetration. It can be used in all positions and is particularly effective on aluminium sheets greater than 3 mm. Spray-MODAL™ uses a low-frequency modulated current which has the effect of removing most hydrogen bubbles from the weld pool before solidification.	<ul style="list-style-type: none"> • Reduces porosity • Increases penetration • All-position welding • Higher travel speed 	DIGI@WAVE
Soft Silence Pulse™ (SSP)	The Soft Silence Pulse™ is a quieter pulsed mode mainly intended for stainless steel welding applications. The SSP™ produces a softer but very stable arc with good wetting of the weld bead. This waveform significantly reduces pater and gives a very fine appearance to the weld bead.	<ul style="list-style-type: none"> • Reduction of noise • Good wetting of the weld bead • Reduction of spatter • Good weld bead appearance 	DIGI@WAVE
Cold Double Pulse™ (CDP)	The Cold Double Pulse™ produces very high quality welds on thin material while avoiding distortion. CDP™ gives a TIG appearance to the weld and is very effective on very thin aluminium or stainless steel sheet (< 2 mm). The operating technique is made easier due to good control of the weld pool even on badly-prepared sheets. This sequencer mode automatically chains hot arc and cold arc regimes together.	<ul style="list-style-type: none"> • Effective on thin sheets • Reduces distortion • Easy operating technique • TIG appearance weld bead 	DIGI@PULS DIGI@WAVE

Options and parts for DIGI@WAVE and DIGI@PULS

Length	Air harnesses	Water harnesses	Water harnesses for aluminium
2 m	W 000 055 088	W 000 055 091	W 000 055 095
5 m	W 000 055 089	W 000 055 092	W 000 055 096
10 m	W 000 055 090	W 000 055 093	-
15 m	-	W 000 055 094	W 000 055 097
25 m	-	-	W 000 055 098

Options	DIGI@PULS	DIGI@WAVE
• Workshop trolley for power sources	W 000 055 046	W 000 055 046
• Workshop trolley for wire feeder	W 000 055 050	W 000 055 050
• Pivot stand (requires power source workshop trolley)	W 000 055 048	W 000 055 048
• Wire feed suspension cradle	W 000 055 101	W 000 055 101
• RC-JOB remote control (digital display)	W 000 055 077	W 000 055 077
• Torch with potentiometer DIGI@TORCH P	See page 49	-
• Torch with integrated adjustment and display DIGI@TORCH E	-	See page 49



Wire feeder wear parts for DV 44X - DV 44 Z - DV400 CDR - DV 500 CDR

	A	B D	C	E	
	Entry wire guide	Rollers	Middle wire guide	Exit wire guide	
Steel	0.6	W 000 149 209	-	W 000 162 834	W 000 255 654
	0.8		W 000 160 942		W 000 241 685
	1.0		W 000 160 944		W 000 255 655
	1.2		W 000 160 945		W 000 241 682
1.6	-	-	-	-	
Alu	1.0 - 1.2	ALUKIT W 000 255 648			
	1.2 - 1.6	ALUKIT W 000 255 649			
	1.6 - 2.4	ALUKIT W 000 255 650			
Flux cored wire	1.0 - 1.2	W 000 149 209	W 000 257 331	W 000 162 834	W 000 255 655
	1.2 - 1.6	W 000 257 395	W 000 266 330	W 000 257 397	W 000 241 682
	1.6 - 2.4	W 000 257 395	W 000 266 331	W 000 257 397	W 000 257 396

PROMIG NG - DIGI@TORCH E/P

See page 95 for AZUR fume extractor torches

Main features:

- Regular wire feeding allowing minimum frictions
- Adjustable Stick-out option
- High intensities options
- Limited number of spare and wear parts



- 1 Ergonomic handle
- 2 Simple trigger
- 3 Handle spring
- 4 Insulated and reinforced lance
- 5 One piece nozzle
- 6 Alloyed copper contact tip
- 7 Extra flexible coaxial cable with ultra-resistant elastomer outer
- 8 Back connector spring

PROMIG NG	241	341	441	241W	341W	441W
	Air cooling			Water cooling		
Duty cycle	60%			100%		
	270 A	350 A	450 A	270 A	370 A	450 A
Ø suitable wires	0.8-1.0 (1.2) mm	(0.8) 1.0-1.2 (1.6) mm	1.0-1.6 mm	0.8-1.0 (1.2) mm	(0.8) 1.0-1.2 (1.6) mm	1.0-1.6 mm
Options	Stick-out setting High current alum.liner	Stick-out setting High current alum.liner High-current nozzle + contact tip	Stick-out setting High current alum.liner High-current nozzle + contact tip	Stick-out setting High current alum.liner	Stick-out setting High current alum.liner	Stick-out setting High current alum.liner

To order

3 m cable	W 000 260 891	W 000 260 894	W 000 260 897	W 000 260 900	W 000 260 903	W 000 260 906
4 m cable	W 000 260 892	W 000 260 895	W 000 260 898	W 000 260 901	W 000 260 904	W 000 260 907
5 m cable	W 000 260 893	W 000 260 896	W 000 260 899	W 000 260 902	W 000 260 905	W 000 260 908

A range of torches with integrated adjustments:

Advantages DIGI@TORCH E/P

- Setting directly on torch
- Adjustment during welding
- Parameters reading (on **DIGI@TORCH E**)
- Easy to use

Type	DIGI@TORCH E for DIGI@WAVE : integrated adjustment and display				DIGI@TORCH P for DIGI@PULS : integrated adjustment			
	241	341	341 W	441 W	341	341 W	441 W	
Duty cycle	60% 100%	270 A -	350 A -	- 350 A	- 450 A	350 A -	- 350 A	- 450 A
Ø suitable wires	0.8 - 1.0 mm possible (1.2)	1.0 - 1.2 mm possible (0.8 and 1.6)	1.0 - 1.2 mm possible (0.8 and 1.6)	1.0 - 1.6 mm	1.0 - 1.2 mm possible (0.8 and 1.6)	1.0 - 1.2 mm possible (0.8 and 1.6)	1.0 - 1.6 mm	
Standard 3 m lengths	W 000 261 585	W 000 255 593	W 000 260 887	W 000 055 073	W 000 055 072	W 000 260 889	W 000 255 634	
	W 000 261 586	W 000 255 632	W 000 260 888	W 000 255 633	W 000 255 636	W 000 260 890	W 000 255 635	
Cooling	air	air	liquid	liquid	air	liquid	liquid	

Competitive Advantages of DIGI@TORCH E

- Easy access to the regulation buttons
- Possible adjustment of parameters in semi-synergic mode
- Display 3 digits with 3 indicators for visualization of selections

DIGI@TORCH E

- 1 Display for parameters setting
- 2 Regulation + & - : to adjust the welding intensity and the wire feeding speed
- 3 Welding program selection -/+

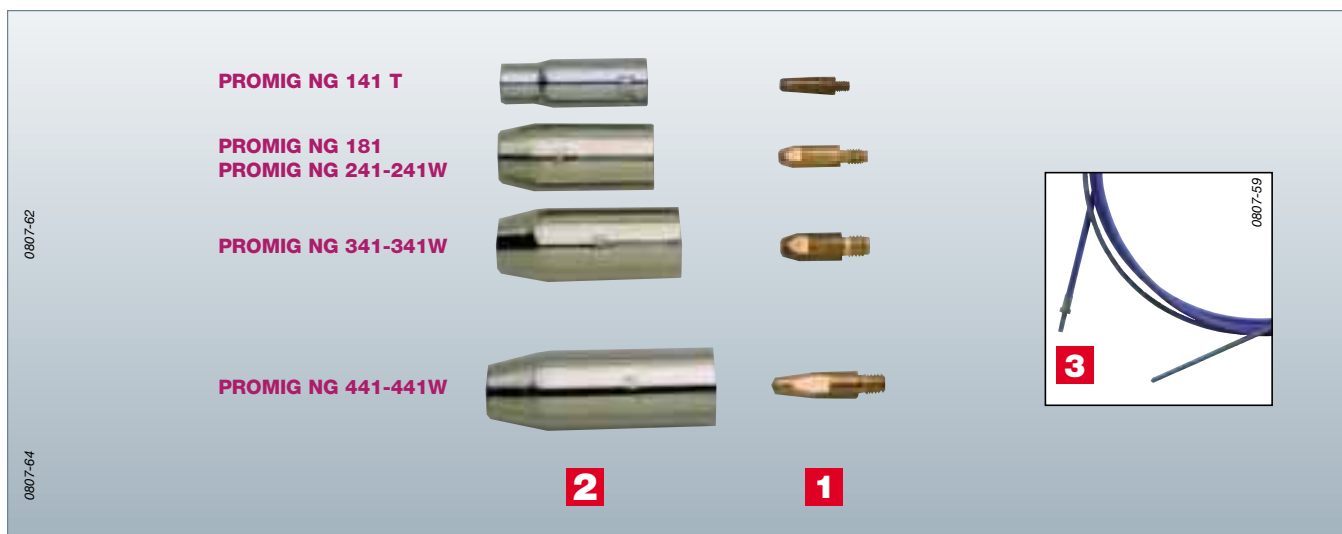


DIGI@TORCH P with potentiometer

2 separated adjustments: wire feeding speed and welding intensity



Wear parts for PROMIG NG torches and DIGI@TORCH



PROMIG NG torch		Ø mm	1 Contact tip	2 Nozzle	3 Internal liner		
					3 m	4 m	5 m
141 T	Steel	0.6	9159-5707	9159-6164	9149-1266	9149-1267	-
		0.8	9159-5708	9159-6164	9149-1269	9149-1270	-
181	Steel	0.8	W 000 234 576	9149-1163	9149-1241	9149-1242	9149-1265
		1.0	W 000 234 578	9149-1163	9149-1243	9149-1244	9149-1265
241-241 W	Steel	0.8	W 000 234 576	9149-1153	9149-1241	9149-1242	9149-1265
		1.0	W 000 234 578	9149-1153	9149-1243	9149-1244	9149-1245
		1.2	W 000 234 579	9149-1153	9149-1246	9149-1247	9149-1245
	Aluminium	1.0	W 000 234 577	9149-1153	9149-1257	9149-1258	-
1.2		W 000 234 599	9149-1153	9149-1257	9149-1258	-	
341-341 W	Steel	1.0	W 000 234 581	9149-1157	9149-1243	9149-1244	9149-1245
		1.2	W 000 234 582	9149-1157	9149-1246	9149-1247	9149-1248
		1.6	W 000 234 583	9149-1157	9149-1246	9149-1247	9149-1248
	Aluminium	1.0	W 000 234 600	9149-1157	9149-1257	9149-1258	-
		1.2	W 000 234 601	9149-1157	9149-1257	9149-1258	-
441-441 W	Steel	1.0	W 000 234 585	9149-1143	9149-1243	9149-1244	9149-1245
		1.2	W 000 234 586	9149-1143	9149-1246	9149-1247	9149-1248
		1.6	W 000 234 587	9149-1143	9149-1246	9149-1247	9149-1248
	Aluminium	1.0	W 000 234 602	9149-1143	9149-1257	9149-1258	-
		1.2	W 000 234 603	9149-1143	9149-1261	9149-1262	-
		1.6	W 000 234 604	9149-1143	9149-1261	9149-1262	-

WMT torches



See page 95 for AZUR fume extractor torches

A complete range of MIG-MAG torches.

Product advantages:


- wear parts compatible with the most common standard in Europe,
- easily pivoting handle,
- complete range.



WMT 15A
 Duty cycle at 60 %
 180 A (CO₂)
Original equipment:
 • Steel wire 0.8 mm
 • nozzle Ø 12.5 mm
Natural cooling
Suitable wire diameter:
 • 0.6 to 1.0 mm
 Automotion, welding
 in restricted areas.

To order

3 m	4 m	5 m
W 000 010 600	W 000 010 601	-



WMT 36A
 Duty cycle at 60 %
 340 A (CO₂)
Original equipment:
 • Steel wire 1.2 mm
 • nozzle Ø 16 mm
Natural cooling
Suitable wire diameter:
 • 0.8 to 1.6 mm
 Boiler making, tack welding,
 metal frame.

To order


3 m	4 m	5 m
W 000 010 605	W 000 010 606	W 000 010 607



WMT 25A
 Duty cycle at 60 %
 230 A (CO₂)
Original equipment:
 • Steel wire 1.0 mm
 • nozzle Ø 14 mm
Natural cooling
Suitable wire diameter:
 • 0.8 to 1.2 mm
 Iron work, metallic joinery.

To order

3 m	4 m	5 m
W 000 010 602	W 000 010 603	W 000 010 604



WMT 500 W
 Duty cycle at 100 %
 500 A (CO₂)
Original equipment:
 • Steel wire 1.2 mm
 • nozzle Ø 16.5 mm
water cooling
Suitable wire diameter:
 • 0.8 to 1.6 mm
 Intensive welding, boiler
 making, tack welding,
 metal frame.

To order

3 m	4 m	5 m
W 000 010 608	W 000 010 609	W 000 010 610



3

Wear parts for WMT torches



Wear parts	Diameter (mm)		WMT			
			15A	25A	36A	500 W
1 Contact tip	Steel	0.6	W 000 010 820	-	-	
		0.8	W 000 010 821	W 000 010 826	W 000 010 834	
		1.0	W 000 010 822	W 000 010 827	W 000 010 835	
		1.2	-	W 000 010 828	W 000 010 836	
		1.6	-	-	W 000 010 837	
	Aluminium	1.0	-	W 000 010 850	W 000 010 853	
		1.2	-	W 000 010 851	W 000 010 854	
		1.6	-	-	W 000 010 855	
2 Nozzle			W 000 010 786	W 000 010 790	W 000 010 794	W 000 010 797
Spring nozzle			W 000 010 789	W 000 010 793	-	-
3 Isolating diffuser			-	-	W 000 010 780	W 000 010 783
4 Isolating ring			-	-	-	W 000 010 748
Internal liner	Steel	0.6 - 0.8	3 m	W 000 010 730		
			4 m	W 000 010 731		
			5 m	W 000 010 732		
		1.0 - 1.2	3 m	W 000 010 733		
			4 m	W 000 010 734		
			5 m	W 000 010 735		
		1.6	3 m	W 000 010 867		
			4 m	W 000 010 868		
			5 m	W 000 010 869		
	Teflon	1.0 - 1.2	3 m	W 000 010 736		
			4 m	W 000 010 737		
			5 m	W 000 010 738		
		1.6	3 m	W 000 010 745		
			4 m	W 000 010 746		
			5 m	W 000 010 747		