

Welding

MAT-WELD

Quality Welding Products



Welding

OUTLETS NATIONWIDE

612

Welding

MATWELD offers a comprehensive range of welders and accessories.

The extensive range of Matweld products are guaranteed to stand up

to your challenging performance demands.

From MMA to Gas and MIG to TIG we offer the latest technology and the

most comprehensive technical back-up to help you with any welding job.

Matweld delivers best on price and performance.



Gas Welding & Cutting Torches



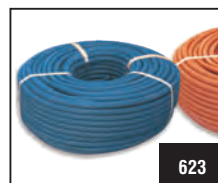
Gas Welding Regulators



Gas Welding Nozzles



Gas Welding Accessories



Gas Welding Hose & Accessories



ARC Welding Cable Connectors



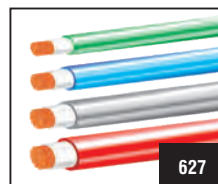
ARC Welding Earth Clamps



ARC Welding Electrode Holders



ARC Welding Gouging Torches



ARC Welding Cable



Welder's Tools & Aids



MIG Welding BNZ Torches & Accessories



MIG Welding TWC Torches & Accessories



TIG Welding Torches & Accessories



Welding Machines AC Air Cooled



Welding Machines DC Inverters



Welding Machines TIG Inverters



Welding Machines Multi-Purpose



Welding Machines MIG



Plasma Cutters & Torches



Welding Machines Oil Cooled & Accessories



Hot Box & Baking Oven



Water Cooler



Electrodes & Fillers

GAS welding torches & accessories

Often referred to as Oxy Fuel Cutting and Welding this process utilises the mixing of a fuel gas, most commonly LPG or Acetylene with Oxygen to produce a high heat flame.

The Oxy Acetylene process produces a flame of around 3200 degrees Celsius while the Oxy LPG flame is about 400 degrees cooler and measures approximately 2800 degrees Celsius.

Acetylene is the hottest fuel gas available to man and is generally regarded as the most effective cutting fuel.

While LPG is considerably cheaper than Acetylene it requires almost twice the amount of Oxygen to achieve its 2800 degrees.

Matweld offers a comprehensive range of Oxy LPG and Oxy Acetylene equipment and accessories and where required complies with the relevant International standards

OXY/ACETYLENE GAS WELDING & CUTTING

Oxy Regulator
MAT3355EN
(see page 620)

Acet Regulator
MAT3340EN
(see page 620)

Flashback
Arrestor
MAT3025EN
(see page 622)

Flashback
Arrestor
MAT3015EN
(see page 622)

Nut MAT3061
(see page 623)

Nut MAT3062
(see page 623)

Tail MAT3063
(see page 623)

Tail MAT3063
(see page 623)

Hose Clamp
MAT3064
(see page 623)

Hose Clamp
MAT3064
(see page 623)

Tail MAT3063
(see page 623)

Hose Clamp
MAT3064
(see page 623)

Nut MAT3061
(see page 623)

Flashback
Arrestor
MAT3030EN
(see page 622)

Hose Clamp
MAT3064
(see page 623)

Tail MAT3063
(see page 623)

Nut MAT3062
(see page 623)

Flashback
Arrestor
MAT3020EN
(see page 622)

Cutting Torch
MAT3005EN
(see page 619)

Nozzles
(see page 621)

Tip Nut MAT3504
(see page 623)

ANM

ANM

ANME

ANME

Shank MAT3003EN
(see page 619)

Mixer
MAT3004EN
(see page 619)

Swaged Nozzle
MAT3100
(see page 621)

Cutting Attachment
MAT3002EN
(see page 619)

Tip Nut MAT3504
(see page 623)

OXY/LPG GAS WELDING & CUTTING

Oxy Regulator
MAT3355EN
(see page 620)

LPG Regulator
MAT3344
(see page 620)

Flashback
Arrestor
MAT3025EN
(see page 622)

Flashback
Arrestor
MAT3015EN
(see page 622)

Nut MAT3061
(see page 623)

Nut MAT3062
(see page 623)

Tail MAT3063
(see page 623)

Tail MAT3063
(see page 623)

Hose Clamp
MAT3064
(see page 623)

Hose Clamp
MAT3064
(see page 623)

Tail MAT3063
(see page 623)

Nut MAT3061
(see page 623)

Flashback
Arrestor
MAT3030EN
(see page 622)

Hose Clamp
MAT3064
(see page 623)

Tail MAT3063
(see page 623)

Nut MAT3062
(see page 623)

Flashback
Arrestor
MAT3020EN
(see page 622)

Cutting Torch
MAT3005EN
(see page 619)

Nozzles
(see page 621)

Tip Nut MAT3504
(see page 623)

PNM

PNM

PNME

PNME

Shank MAT3003EN
(see page 619)

Mixer
MAT3004EN
(see page 619)

Swaged Nozzle
MAT3100
(see page 621)

Cutting Attachment
MAT3002EN
(see page 619)

Tip Nut MAT3504
(see page 623)

OXY/LPG HEATING

Oxy Regulator
MAT3355EN
(see page 620)

LPG Regulator
MAT3344
(see page 620)

Flashback
Arrestor
MAT3025EN
(see page 622)

Nut MAT3061
(see page 623)

Tail MAT3063
(see page 623)

Hose Clamp
MAT3064
(see page 623)

Flashback
Arrestor
MAT3015EN
(see page 622)

Nut MAT3062
(see page 623)

Tail MAT3063
(see page 623)

Hose Clamp
MAT3064
(see page 623)

Hose Clamp
MAT3064
(see page 623)

Tail MAT3063
(see page 623)

Nut MAT3062
(see page 623)

Flashback
Arrestor
MAT3020EN
(see page 622)

Hose Clamp
MAT3064
(see page 623)

Tail MAT3063
(see page 623)

Nut MAT3061
(see page 623)

Flashback
Arrestor
MAT3030EN
(see page 622)

Shank MAT3003EN
(see page 619)

High Capacity Mixer
MAT3010EN
(see page 619)

Torch Heating Lance
MAT3011EN
(see page 619)

Heating Nozzles
(see page 621)

2H

3H

4H

5H

SINGLE VS. MULTI-STAGE REGULATORS



For Regulators see page 620

A single-stage regulator reduces the cylinder pressure to delivery or outlet pressure in one step while a multi-stage regulator performs this process in two. The performance of each is influenced by mechanical characteristics and the choice of regulator thus depends on the requirements of the application.

The two most important variables to be considered are droop and supply pressure effect.

Droop is the difference in delivery pressure between zero flow conditions and the regulator's maximum flow capacity or the change in delivery pressure as flow is initiated and increased through the regulator

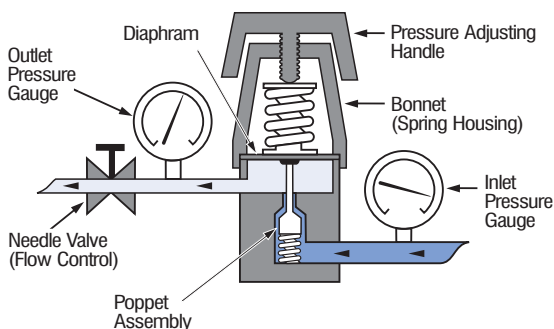
Supply pressure effect is the variation in delivery pressure as supply pressure decreases

while the cylinder empties. In most regulators, a decrease in inlet pressure causes the delivery pressure to increase.

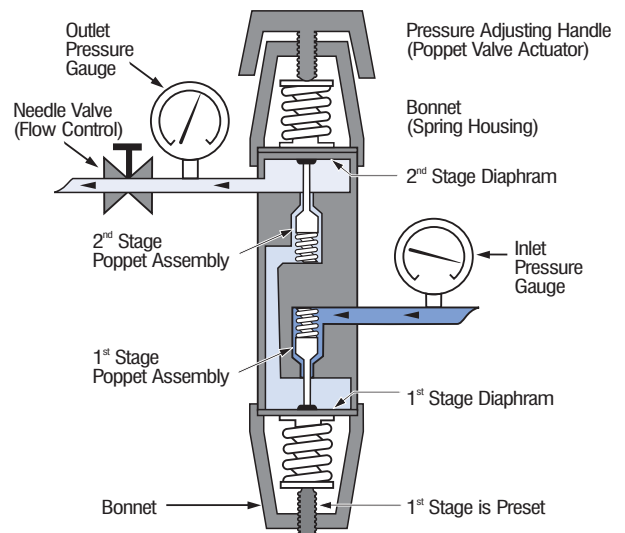
The single-stage regulator shows little droop with varying flow rates, but a relatively large supply pressure effect. This means that the regulator will have to be continuously adjusted as the cylinder empties to maintain the desired working pressure. Generally a single-stage regulator is good for short duration applications. The multi-stage regulator shows a considerable droop, but only small supply pressure effects. A multi-stage regulator, however, provides constant delivery pressure without the need for periodic readjustment. The multi-stage regulator is better suited for long duration applications.

While both regulators are safe to use when operated correctly single stage regulators are more prone to failure owing to operator error. This is primarily because the operator forgets to release the pressure on the regulator after changing cylinders.

SINGLE-STAGE REGULATOR



MULTI-STAGE REGULATOR



MATWELD
 Quality Welding Products

BLACK HANDLE CUTTING TORCH

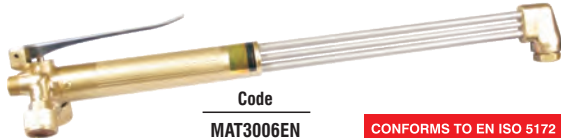
- A streamlined cutting torch designed to ensure operator comfort
- Heavy duty cutting up to 300mm
- Top cutting lever with hold down button
- Stainless steel tubes for greater heat resistance
- Die forged 90° brass head for strength and durability
- For use with Acetylene or Propane
- Uses ANM / ANME / PNM and PNME cutting tips
- Hose connection BSP 3/8" thread

 Code
MAT3005EN

CONFORMS TO EN ISO 5172
MATWELD
 Quality Welding Products

BRASS HANDLE CUTTING TORCH

- A streamlined cutting torch designed to ensure operator comfort
- Heavy duty cutting up to 300mm
- Top cutting lever
- Stainless steel tubes for greater heat resistance
- Die forged 90° brass head for strength and durability
- Uses ANM / ANME / PNM and PNME cutting tips
- For use with Acetylene or Propane
- Hose connection BSP 3/8" thread

 Code
MAT3006EN

CONFORMS TO EN ISO 5172
MATWELD
 Quality Welding Products

AMERICAN STYLE CUTTING TORCH OXY ACETYLENE & OXY PROPANE

- A streamlined cutting torch designed to ensure operator comfort
- Heavy duty cutting up to 300mm
- Triangular stainless steel tubes for maximum strength
- Two stainless steel valves for fast and accurate flame adjustment
- Head mixing with built in safety plug
- MAT3007EN For use with Oxy Acetylene 6290 Tips
- MAT3008EN For use with Oxy Propane 6290-NX Tips

Code	Type
MAT3007EN	Oxy Acet
MAT3008EN	Oxy Prop


CONFORMS TO EN ISO 5172
MATWELD
 Quality Welding Products

AMERICAN STYLE CUTTING TORCH OXY ACETYLENE

- A streamlined torch designed to ensure operator comfort
- Heavy duty cutting up to 300mm
- For use with oxy acetylene cutting nozzles see page 622

 Code
MAT3009

CONFORMS TO EN ISO 5172
MATWELD
 Quality Welding Products

CUTTING ATTACHMENT

- Heavy duty cutting attachment for cuts up to 200mm
- Top cutting lever
- Stainless steel tubes for greater heat resistance
- Die forged 90° brass head for strength and durability
- Uses ANM / ANME / PNM and PNME cutting tips (see page 621)
- For use with Acetylene or Propane

 Code
MAT3002EN

CONFORMS TO EN ISO 5172
MATWELD
 Quality Welding Products

HANDLE/SHANK

- Heavy duty handle for cuts up to 200mm and welds up to 9mm
- Extruded aluminium handle
- Stainless steel needle valves for fast accurate flame adjustment
- Hose connection BSP 3/8"


 Code
MAT3003EN
CONFORMS TO EN ISO 5172
MATWELD
 Quality Welding Products

MIXER

- For connection to MAT3003EN torch handle
- Medium pressure mixer
- Uses swaged welding nozzles (see page 621)


 Code
MAT3004EN
MATWELD
 Quality Welding Products

TORCH MIXER - HIGH CAPACITY

- For connection to MAT3003EN torch handle
- High pressure mixer
- Uses heating lance (below) and heating nozzles (see page 621)


 Code
MAT3010EN
MATWELD
 Quality Welding Products

TORCH HEATING LANCE

- For connection to MAT3010EN high capacity torch mixer
- Uses heating nozzles (see page 621)

 Code
MAT3011EN


SINGLE STAGE REGULATORS

- Forged brass body for maximum strength
- Chrome bonnet
- Non removable adjustment knob
- Sintered metal filter to trap impurities
- 3/8" right hand thread outlet for oxygen
- 3/8" left hand thread outlet for acetylene
- Easy to read gauges



Code	Type
MAT3355EN	Oxygen
MAT3340EN	Acetylene

CONFORMS TO EN ISO 5172

MULTI STAGE REGULATORS

- Two regulators in one forged brass body for maximum strength
- First Stage reduces full cylinder pressure by approximately 90%
- Second stage accurately controls flow and delivery pressure
- Chrome bonnet
- Non removable adjustment knob
- Sintered metal filter to trap impurities
- 3/8" right hand thread outlet for oxygen
- 3/8" left hand thread outlet for acetylene
- Easy to read gauges



Code	Type
MAT3350EN	Oxygen
MAT3335EN	Acetylene

CONFORMS TO EN ISO 5172

MULTI STAGE GAUGELESS REGULATORS

- Two regulators in one forged brass body for maximum strength
- For use in harsh environments where gauges would be damaged
- First Stage reduces full cylinder pressure by approximately 90%
- Second stage accurately controls flow and delivery pressure
- Calibrated chrome bonnet
- Gaugeless
- Pressure displayed on piston-type indicator
- Sintered metal filter to trap impurities
- 3/8" right hand thread outlet for oxygen
- 3/8" left hand thread outlet for acetylene



Code	Type
MAT3351EN	Oxygen
MAT3356EN	Acetylene

CONFORMS TO EN ISO 5172

HEATER FLOW METER

- Forged brass body for maximum strength
- Precision engineered pressure compensated design for precise flow
- Thermostatically controlled
- Easy to read gauges
- 220 volt electric heater keeps Co² warm and prevents freezing
- Maximum delivery pressure 0-10 Bar
- Working pressure 0-16 Bar



Code

MAT3346

ARGON FLOW METER

- Forged brass body and bonnet for maximum strength
- Precision engineered pressure compensated design for precise flow
- Sintered metal filter to trap impurities
- 3/8" right hand thread outlet
- Easy to read gauge
- Easy to read flow tube with 360° visibility
- Suitable for MIG and TIG applications



Code

MAT3345EN

CONFORMS TO EN ISO 5172

LPG REGULATOR

- Forged brass body and bonnet for maximum strength
- Precision engineered pressure compensated design for precise flow
- Sintered metal filter to trap impurities
- 3/8" left hand thread outlet
- Easy to read gauge
- Suitable for Oxy/LPG applications
- Maximum inlet pressure 400 PSI
- Delivery pressure 2-20 PSI



Code

MAT3344

'Y' PIECES

- For connecting two hoses to the same regulator
- Suitable for use on Matweld flow meters
- Two needle valves for independent or dual control



Code	Type
MAT3501	Oxygen
MAT3502	Acetylene

WELDING NOZZLES

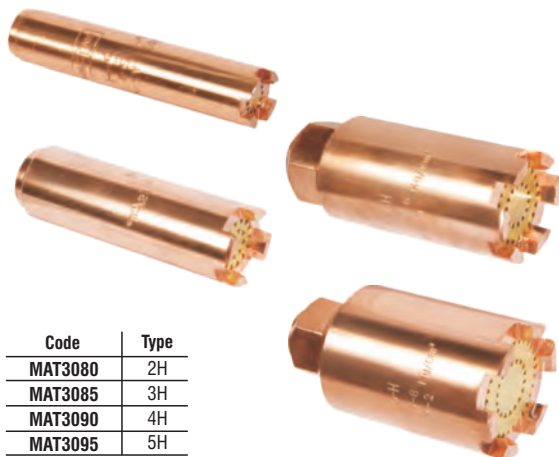
- Tips are swaged and are machined from copper
- Tip size stamped on each tip
- Tips show excellent flame shape
- For use with MAT3004EN mixer & MAT3003EN handle



Code	Tip Size	Material Thickness	Oxygen Pressure (Bar)	Acetylene Pressure (Bar)	Nozzle Length
MAT3100	3	2.0mm	1	0.15	130mm
MAT3110	5	2.6mm	1	0.15	130mm
MAT3120	7	3.2mm	1	0.15	175mm

HEATING NOZZLES

- Specially designed flame release slots prevent flashbacks
- For use with oxy propane
- For efficient heating of metals prior to welding or bending



Code	Type
MAT3080	2H
MAT3085	3H
MAT3090	4H
MAT3095	5H

ANME CUTTING NOZZLES (LONG)

- Oxy acetylene cutting nozzles
- For use with MAT3005EN, MAT3006EN & MAT3002EN cutting attachment



Code	Nozzle Size	Cutting Thickness (mm)	Oxygen Pressure (Bar)	Acetylene Pressure (Bar)	Nozzle Length	#
MAT3138	0.8mm 1/32	1 to 5	1.5	0.5	88mm	1
MAT3139	1.2mm 3/64	5 to 10	2	0.5	88mm	2
MAT3140	1.6mm 1/16	10 to 30	2.5	1	88mm	3
MAT3141	2.0mm 5/64	30 to 60	3	1	88mm	4
MAT3142	2.4mm 3/32	60 to 100	3.5	1.5	88mm	5

PNM CUTTING NOZZLES (SHORT)

- Oxy propane cutting nozzles
- Two piece cutting nozzles
- For use with MAT3005EN, MAT3006EN & MAT3002EN cutting attachment



Code	Nozzle Size	Cutting Thickness (mm)	Oxygen Pressure (Bar)	Acetylene Pressure (Bar)	Nozzle Length	#
MAT3155	0.8mm 1/32"	1 to 5	1.5	0.5	75mm	1
MAT3156	1.2mm 3/64"	5 to 10	2	0.5	75mm	2
MAT3157	1.6mm 1/16"	10 to 30	2.5	1	75mm	3
MAT3158	2.0mm 5/64"	30 to 60	3	1	75mm	4
MAT3159	2.4mm 3/32"	60 to 100	3.5	1.5	75mm	5
MAT3160	3.2mm 1/8"	100 to 200	4	1.5	75mm	6

ANM CUTTING NOZZLES (SHORT)

- Oxy acetylene cutting Nozzles
- For use with MAT3005EN, MAT3006EN & MAT3002EN cutting attachment



Code	Nozzle Size	Cutting Thickness (mm)	Oxygen Pressure (Bar)	Acetylene Pressure (Bar)	Nozzle Length
MAT3130	0.8mm 1/32 #1	1 to 5	1.5	0.5	75mm
MAT3131	1.2mm 3/64 #2	5 to 10	2	0.5	75mm
MAT3132	1.6mm 1/16 #3	10 to 30	2.5	1	75mm
MAT3133	2.0mm 5/64 #4	30 to 60	3	1	75mm
MAT3134	2.4mm 3/32 #5	60 to 100	3.5	1.5	75mm

PNME CUTTING NOZZLES (LONG)

- Oxy propane cutting nozzles
- Two piece cutting nozzles
- For use with MAT3005EN, MAT3006EN & MAT3002EN cutting attachment



Code	Nozzle Size	Cutting Thickness (mm)	Oxygen Pressure (Bar)	Acetylene Pressure (Bar)	Nozzle Length	#
MAT3165	0.8mm 1/32"	1 to 5	1.5	0.5	92mm	1
MAT3166	1.2mm 3/64"	5 to 10	2	0.5	92mm	2
MAT3167	1.6mm 1/16"	10 to 30	2.5	1	92mm	3
MAT3168	2.0mm 5/64"	30 to 60	3	1	92mm	4
MAT3169	2.4mm 3/32"	60 to 100	3.5	1.5	92mm	5
MAT3170	3.2mm 1/8"	100 to 200	4	1.5	92mm	6

6290 TYPE ACETYLENE CUTTING NOZZLES

- Oxy acetylene cutting nozzles
- One piece cutting nozzles
- For use with MAT3007EN



Code	Nozzle Size	Cutting Thickness (mm)	Oxygen Pressure (Bar)	Acetylene Pressure (Bar)	Nozzle Length
MAT3180	00	5 to 10	1.5	0.5	53mm
MAT3181	0	10 to 15	2	1	53mm
MAT3182	1	15 to 25	2.5	1	53mm
MAT3183	2	25 to 50	3	1	53mm
MAT3184	3	50 to 100	3.5	1.0	53mm
MAT3185	4	100 to 175	4	1.5	53mm
MAT3186	5	175 to 250	5	1.5	53mm

6290NX PROPANE CUTTING NOZZLES

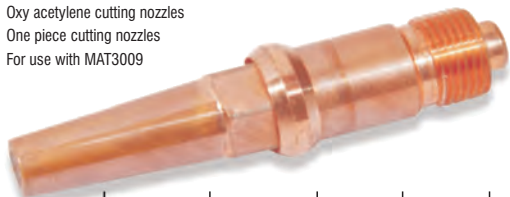
- Oxy propane cutting nozzles
- Two piece cutting nozzles
- For use with MAT3008EN



Code	Nozzle Size	Cutting Thickness (mm)	Oxygen Pressure (Bar)	Acetylene Pressure (Bar)	Nozzle Length
MAT3190	Nx00	5 to 10	1.5	0.5	57mm
MAT3191	NX0	10 to 15	2	1	57mm
MAT3192	NX1	15 to 25	2.5	1	57mm
MAT3193	NX2	25 to 50	3	1	57mm
MAT3194	NX3	50 to 100	3.5	1.0	57mm
MAT3195	NX4	100 to 175	4	1.5	57mm
MAT3196	NX5	175 to 250	5	1.5	57mm
MAT3197	NX6	250 to 300	6	1.5	57mm

2890 AMERICAN STYLE CUTTING NOZZLES

- Oxy acetylene cutting nozzles
- One piece cutting nozzles
- For use with MAT3009



Code	Nozzle Size	Cutting Thickness (mm)	Oxygen Pressure (Bar)	Acetylene Pressure (Bar)	Nozzle Length
MAT3200	2890-1F	0 to 10	1.0 to 1.5	0.20	78mm
MAT3201	2890-2F	10 to 50	1.5 to 2.5	0.30	78mm
MAT3202	2890-3F	50 to 100	3.0 to 4.5	0.50	78mm
MAT3203	2890-4F	125 to 150	5.0 to 5.5	0.70	78mm
MAT3204	2890-5F	150 to 200	5.5 to 6.0	0.70	78mm

WELDING AND CUTTING KIT

- A professional welding and cutting kit presented in a strong polypropylene carry case
- Cutting capacity of up to 200mm and a welding capacity of 9mm this is the ideal kit for precise welding, soldering, brazing and cutting



- 1 - Torch handle
- 1 - Cutting attachment
- 1 - Mixer
- 1 - Single stage oxygen regulator
- 1 - Single stage acetylene regulator
- 2 - Torch mounted flashback arrestors
- 1 - ANM 0.8mm cutting nozzle
- 3 - Swaged welding nozzles (3,5,7)
- 1 - 6 metre twin hose with 3/8" fittings
- 1 - Goggles
- 1 - Flint lighter
- 1 - Nozzle cleaner

Code	Size
MAT3000EN	15 Piece

REGULATORS CONFORM TO EN ISO 2503
 CUTTING TORCH CONFORMS TO EN ISO 5172
 FLASHBACK ARRESTORS CONFORM TO EN 730-1:2002

FLASHBACK ARRESTORS

- For the prevention of flashback and gas reverse flow, these arrestors are available in both regulator and torch 3/8" and 9/16" mount fittings
- Fitted with both a spring loaded non-return valve to prevent gas reverse flow and a sintered stainless flame arrestor to stop and extinguish a flashback

FLASHBACK ARRESTORS CONFORM TO EN 730-1:2002



Code	Size	Type	Mount
MAT3015EN	3/8"	British	Acetylene Reg
MAT3020EN	3/8"	British	Acetylene Torch
MAT3025EN	3/8"	British	Oxygen Reg
MAT3030EN	3/8"	British	Oxygen Torch
MAT3035EN	9/16"	American	Acetylene Reg
MAT3040EN	9/16"	American	Acetylene Torch
MAT3045EN	9/16"	American	Oxygen Reg
MAT3050EN	9/16"	American	Oxygen Torch

FLINT LIGHTERS AND REFILLS

- Convenient one hand operation
- Triple flint head for prolonged service life (renewable)



Code	Type
MAT3065	Triple Flint Lighter
MAT3070	Flint Renewals

NOZZLE CLEANER

- Assorted cleaning pins in one convenient case
- Supplied with cleaning file



Code	Size
MAT3075	Long Type

CIRCLE CUTTING ATTACHMENT & RADIUS CUTTER

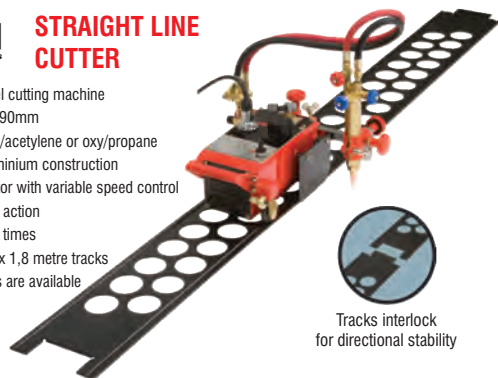
- For use with ANM or PNM nozzles
- Cutting radius of 300mm allowing for 600mm cuts



Code	Size
MAT3503	300mm Radius

STRAIGHT LINE CUTTER

- Portable oxy-fuel cutting machine
- Cutting range 6-90mm
- For use with oxy/acetylene or oxy/propane
- Lightweight aluminium construction
- High quality motor with variable speed control
- Forward reverse action
- Reduces cutting times
- Supplied with 2 x 1,8 metre tracks
- Additional tracks are available

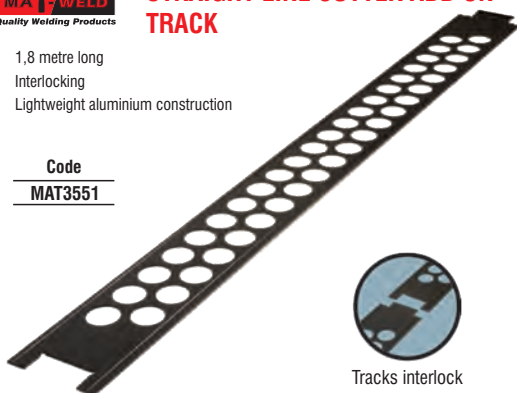


Tracks interlock for directional stability

Code	Cutting Thickness	Cutting Speed	Power	Weight	Size
MAT3550	6-90mm	150-800 mm/min	220V AC	9,5kg	350 x 140 x 175mm

STRAIGHT LINE CUTTER ADD ON TRACK

- 1,8 metre long
- Interlocking
- Lightweight aluminium construction



Tracks interlock

Code
MAT3551

TIP NUTS

- Replacement tip nut for Matweld cutting torches
- Used to secure the cutting nozzle to the cutting torch or cutting attachment



MAT3504



MAT3505



MAT3506

Code	Torch
MAT3504	MAT3005EN-MAT3006EN
MAT3505	MAT3007EN-MAT3008EN
MAT3506	MAT3009

NUTS AND TAILS

- Replacement nut and tails for oxygen and acetylene hose
- 3/8" thread size (British)
- 9/16" thread size (American)
- Oxygen thread right hand
- Acetylene thread left hand
- Tail pieces for use with 8mm ID hoses
- Use MAT3064 hose 'O' clips to secure hose to tail piece
- Care must be taken to ensure that the correct nuts are affixed to the correct hose



MAT3063/MAT3066



MAT3061/MAT3062

Code	Size/Type
MAT3061	3/8" Oxy R/H
MAT3062	3/8" Acet L/H
MAT3063	3/8" Tail Piece
MAT3066	9/16" Tail Piece
MAT3067	9/16" Oxy R/H
MAT3068	9/16" Acet L/H

MAT3067/MAT3068

BULL NOSE STEM & NUTS

- MAT3056 Bull Nose Stem universal, can be used with both Bull Nose nuts
- MAT3057 Acetylene Bull nose nut
- MAT3058 Oxygen Bull Nose nut can be used on Argon flowmeters



MAT3056

Code
MAT3056
MAT3057
MAT3058



MAT3057



MAT3058

HOSE CLAMPS

- Used to hold oxygen and acetylene hoses side by side
- Used to secure hose to tail pieces



Code	Size
MAT3064	Single
MAT3365	Parallel

OXYGEN AND ACETYLENE HOSE

- Heavy duty reinforced hose
- 8mm internal diameter
- Oxygen hose blue
- Acetylene hose red



Code	Type	Size
MAT3400H	Acetylene	8mm x 100m
MAT3401H	Oxygen	8mm x 100m

ARC welding & accessories

MMA Arc Welding Process

Manual Metal Arc or Stick welding refers to the process of joining metals by striking an electric arc between a flux coated filler material (electrode) and the metal that needs to be welded (parent metal).

The Electrode carries the current to provide the electric arc and also provides the filler material. The flux coating burns away and provides the shielding atmosphere to protect the weld pool.

The heat generated by the arc melts both the parent metal as well as the electrode allowing the two to merge together to form a solid mass.

MMA welding remains a very popular and efficient way of joining metals and is still widely used today.

Alternating Current (AC) - An electrical current that reverses its direction at regular intervals, such as 60 cycles alternating current (AC), or 60 hertz.

Amperage - The measurement of the amount of electricity flowing past a given point in a conductor per second. Current is another name for amperage.

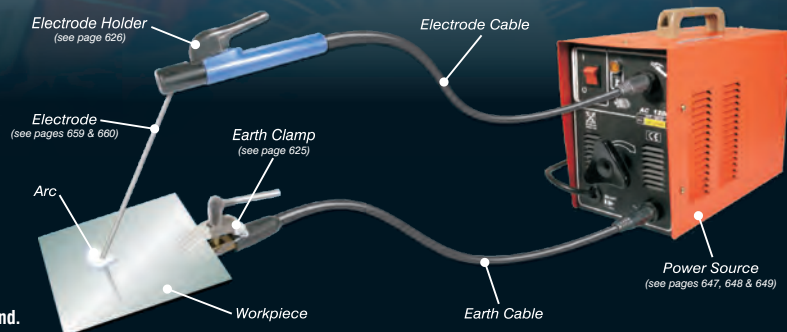
Arc - The physical gap between the end of the electrode and the base metal. The physical gap causes heat due to resistance of current flow and arc rays.

Current - Another name for amperage. The amount of electricity flowing past a point in a conductor every second.

Direct Current (DC) - Flows in one direction and does not reverse its direction of flow as does alternating current.

Direct Current Electrode Negative (DCEN) - The specific direction of current flow through a welding circuit when the electrode lead is connected to the negative terminal and the work lead is connected to the positive terminal of a DC welding machine. Also called direct current, straight polarity (DCSP).

Direct Current Electrode Positive (DCEP) - The specific direction of current flow through a welding circuit when the electrode lead is connected to a positive terminal and the work lead is connected to a



negative terminal to a dc welding machine. Also called direct current, reverse polarity (DCRP).

Duty Cycle - The number of minutes out of a 10-minute time period an arc welding machine can be operated at maximum rated output. An example would be 60% duty cycle at 300 amps. This would mean that at 300 amps the welding machine can be used for 6 minutes and then must be allowed to cool with the fan motor running for 4 minutes. (Some manufacturers rate machines on a 5 minute cycle).

BAYONET TYPE

- Solid brass connectors
- Rubber insulation
- For joining up to 70mm² cables
- Rated 500 Amp
- **Not for connecting cables to welding machines**



Code	Type	Rating
MAT1000	Female	500 Amp
MAT1005	Male	500 Amp

DINSE TYPE 50/70

- Dinse type
- Solid brass connectors
- Rubber insulation
- For use with 50 and 70mm² cables
- Can be used to connect cables to welding machines using MAT1025 panel socket (below)



Code	Type	Rating
MAT1021	50/70 Female	500 Amp
MAT1022	50/70 Male	500 Amp

DINSE TYPE 35/50

- Dinse type
- Solid brass connectors
- Rubber insulation
- For use with 35 and 50mm² cables
- Can be used to connect cables to welding machines using MAT1025 panel socket (below)



Code	Type	Rating
MAT1015	35/50 Female	300 Amp
MAT1020	35/50 Male	300 Amp

DINSE TYPE 10/25

- Dinse type
- Solid brass connectors
- Rubber insulation
- For use with 10 and 25mm² cables
- Can be used to connect cables to welding machines using MAT1026 panel socket (below)



Code	Type	Rating
MAT1016	10/25 Female	200 Amp
MAT1017	10/25 Male	200 Amp

PANEL SOCKETS

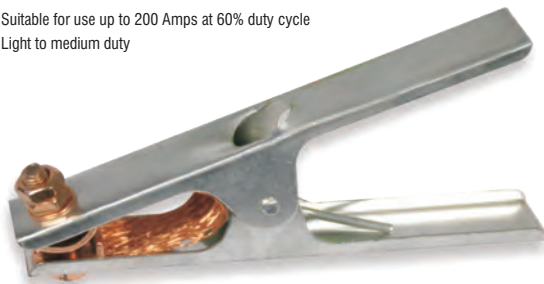
- Replacement panel sockets for welding machines and generators
- Small size for 10/25 Dinse type cable connectors
- Large size for 35/50 and 50/70 cable connectors

Code	Type	Rating
MAT1026	10/25	200 Amp
MAT1025	35/50 & 50/70	500 Amp



PLATED CROCODILE TYPE

- Suitable for use up to 200 Amps at 60% duty cycle
- Light to medium duty



Code	Type	Rating
MAT1030	Crocodile	200 Amp

PLATED CROCODILE TYPE

- Suitable for use up to 400 Amps at 60% duty cycle
- Medium to heavy duty



Code	Type	Rating
MAT1035	Crocodile	400 Amp

PLATED CROCODILE TYPE

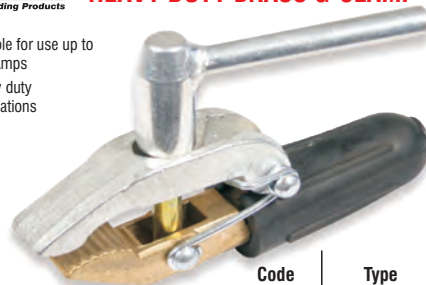
- Suitable for use up to 600 Amps at 60% duty cycle
- Heavy duty



Code	Type	Rating
MAT1045	Crocodile	600 Amp

HEAVY DUTY BRASS G-CLAMP TYPE

- Suitable for use up to 600 Amps
- Heavy duty applications



Code	Type	Rating
MAT1050	G-Clamp	600 Amp

KD STYLE

- Entry level DIY electrode holder
- Available in 300 & 500 Amp
- Suitable for home and light industrial use



Code	Type	Rating
MAT1070	KD Style	300 Amp
MAT1080	KD Style	500 Amp

OPTIMUS STYLE

- Fully industrial collet type electrode holder
- Available in 300, 400 and 600 Amp
- Fully insulated jaws
- Ribbed handles for better grip and optimal cooling



Code	Type	Rating
MAT1085	Optimus Style	300 Amp
MAT1090	Optimus Style	400 Amp
MAT1095	Optimus Style	600 Amp

JAW TYPE

- Fully industrial jaw type electrode holder
- Available in 300 and 500 Amp



Code	Type	Rating
MAT1110	Jaw Type	300 Amp
MAT1115	Jaw Type	500 Amp

TWIST-LOCK TYPE

- Heavy industrial screw type electrode holder
- Available in 400 and 600 Amp
- Knurled handles for better grip and optimal cooling
- Screw type clamping mechanism ensures proper connection with electrode



Code	Type	Rating
MAT1100	Twist	300 Amp
MAT1105	Twist	500 Amp

K4 TYPE

- General purpose carbon arc air gouging torch
- Gouging, cutting, beveling & piercing metal
- 15° torch angle
- 2 metre swivel cable
- Requires compressed air at 80 to 100 psi
- Weight 2.4kg



Code	Type	Rating
MAT1275	K4 Type	800 Amp

K5 TYPE

- Heavy duty carbon arc air gouging torch
- Gouging, cutting, beveling & piercing metal
- Heavy duty foundry application
- 2 metre swivel cable
- Requires compressed air at 80 to 100 psi
- Weight 2.4kg



Selected gouging torch spares are available

Code	Type	Rating
MAT1280	K5 Type	1000 Amp

CHIPPING HAMMER



- Chisel & point end
- Comfortable spring handle

- All steel
- Chisel and pick point
- Spring type wire handle.
- Used for cleaning welding slag



Code
HON2000



Code
LAS2540

WELDER'S WIRE BRUSH

- Heavy duty steel bristles
- Wooden handle
- For cleaning mild steel before and after welding or brazing



Code	Type
SPR2070	5 Row S/Steel
SPR2060	4 Row Steel



WELDER'S WIRE BRUSH - 6 ROW

- Light duty
- Wooden handle

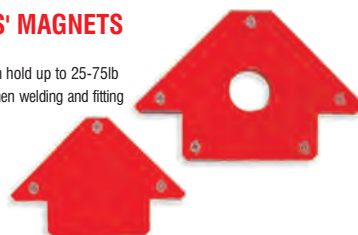


Code
HON0700



WELDERS' MAGNETS

- Strong, powerful magnets can hold up to 25-75lb
- Hold sheet metal, pipes etc. when welding and fitting at angles of 45°, 90° and 135°
- Baked enamel finish



Code	Size
HON0835	Small
HON0836	Large

RIDGID WELDING PIPE VICE - STRAIGHT - 461

- Made of durable performance-proven material
- Designed to resist strain, heat and warp age during tacking
- Machined swivel nuts and pins
- Special chain screws, give smooth trouble free assembling of the vice onto pipe

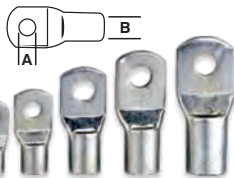


Code	Capacity
RID40220	1/2-8"

CABLE LUGS

- Manufactured from high conductivity copper which is tin plated to prevent corrosion
- Suitable for use with all welding cables, provided the correct size is selected and the relevant crimping methods are used
- Available for conductors from 16mm² to 70 mm²
- Easy to use in conjunction with mechanical or hydraulic crimping equipment

Code	Hole Ø (A)	Cable Ø (B)
MAT1300	12mm	16mm ²
MAT1305	12mm	25mm ²
MAT1310	12mm	35mm ²
MAT1315	12mm	50mm ²
MAT1320	12mm	70mm ²



TEMPERATURE CRAYONS

- Calibrated at $\pm 1\%$ Accuracy
- Lead and Sulphur free
- Compliance with European RoHS regulations
- Simple to use; mark surface of metal with the required crayon
- Once the surface reaches the rated temperature of the crayon, the mark would melt
- For use during pre-welding, inter-pass, and post welding



Part No.	°C/°F	Pack	Part No.	°C/°F	Pack	Part No.	°C/°F	Pack
MAT1500	38/100	Box 5	MAT1510	135/275	Box 5	MAT1519	253/488	Box 5
MAT1501	52/125	Box 5	MAT1511	149/300	Box 5	MAT1520	260/500	Box 5
MAT1502	59/138	Box 5	MAT1512	163/325	Box 5	MAT1521	274/525	Box 5
MAT1503	66/150	Box 5	MAT1513	177/350	Box 5	MAT1522	288/550	Box 5
MAT1504	79/175	Box 5	MAT1514	191/375	Box 5	MAT1523	302/575	Box 5
MAT1505	93/200	Box 5	MAT1515	204/400	Box 5	MAT1524	316/600	Box 5
MAT1506	101/213	Box 5	MAT1516	218/425	Box 5	MAT1525	343/650	Box 5
MAT1507	107/225	Box 5	MAT1517	232/450	Box 5	MAT1526	371/700	Box 5
MAT1508	110/231	Box 5	MAT1518	246/475	Box 5	MAT1527	399/750	Box 5
MAT1509	121/250	Box 5						

PAINT MARKERS

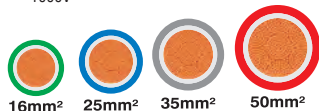
- Each marker has a high quality reversible nib
- Permanent marking, lettering, coding or numbering can be made using these marker pens
- Low Chloride, Fast Drying
- Weather Resistant Marks
- Suitable for marking on metal, glass, wood, rubber, plastic etc
- The mark will withstand temperatures up to 400° C

Code	Colour
MAT1530	White
MAT1531	Yellow



WELDING CABLE

- SABS approved
- Double insulated
- 1000V



Part No.	Packing / Coil (M)	Colour	Mass kg/m	Area mm²	Dia. mm²	Current Rating / Duty Cycle (A)				
						100%	85%	60%	30%	10%
MAT1400	6	Green	0.203	16	9.4	83	90	105	150	184
MAT1405	30									
MAT1410	100									
MAT1415	6	Blue	0.283	25	10.7	105	113	135	191	236
MAT1420	30									
MAT1425	100									
MAT1430	10	Grey	0.384	35	12.0	139	150	180	255	311
MAT1435	30									
MAT1440	100									
MAT1445	10	Red	0.534	50	14.3	173	188	296	315	386
MAT1450	30									
MAT1455	100									

PICKLING PASTE

- This top quality paste removes all annealing colours and welding scale in the area of the HAZ
- Suitable for all grades of Stainless Steel
- Shorter Reaction Time
- Stronger Pickling Action
- Easily rinses off

Code	Size
MAT0855	2kg
MAT0860	1kg
MAT0861	12.5kg



PASSIVATING GEL

- It is a popular misconception that Pickling Paste can also perform a Passivating role
- Stainless Steel owes its corrosion resistance to a microscopic Passive Layer
- This Passive Layer needs to be restored after Pickling
- Pickling paste cannot both Pickle and Passivate

Code	Size
MAT0865	2kg
MAT0866	10kg



ALUMINIUM CLEANER

- A Highly effective Pickling Agent for Aluminum surfaces
- Also suitable for other metals and alloys (Brass)
- Odorless
- Removes Oxides, contaminations and Annealing colours
- Produces an evenly brightened surface

Code	Size
MAT0870	2kg
MAT0871	10kg



SURFACE CLEANER

- Removes annealing colours, welding scale and corrosion, traces of oil and grease from stainless steel surfaces
- Surfaces are brightened and show a brilliant optical effect
- The indicator achieves controllable spraying and reduction of the emission of poisonous and nitrous gases
- Cleaning of slightly greasy surfaces
- Control of reaction (decolorization)

Code	Size
MAT0875	2kg
MAT0876	20kg



ACID RESISTANT BRUSHES

- Special Acid resistant brushes for applying Pickling & Passivating products

Code	Size
MAT0886	1,0"
MAT0885	1,5"
MAT0887	Small



SPANJAARD FLAW & CRACK DETECTOR No. 1, 2 & 3

- Three part kit (sold separately)
- No 1 is cleaner, No 2 is penetrant, No 3 is Developer
- Available in aerosol only

Code	Item
SPN0310	No1
SPN0315	No2
SPN0320	No3



MAT WELD Quality Welding Products

COLD ZINC GALVANISING SPRAY

- Deposits a flexible, hard, 95% pure zinc coating used for the protection of steel surfaces
- Especially useful in cases where the galvanized coating on steel has been disturbed due to welding, drilling, etc

Code	Size
MAT0815	350ml



SPANJAARD COLD ZINC GALVANISING SPRAY

- Deposits a flexible, hard, 95% pure zinc coating used for the protection of steel surfaces
- Especially useful in cases where the galvanized coating on steel has been disturbed due to welding, drilling, etc

Code	Size
SPN0179	400ml



MAT WELD Quality Welding Products

ANTI SPATTER WELDING AEROSOL

- Specially formulated to prevent welding spatter
- For use with MIG / MAG welding
- Minimises clean up
- Enhances gas flow
- Available in SILICONE & NON-SILICONE

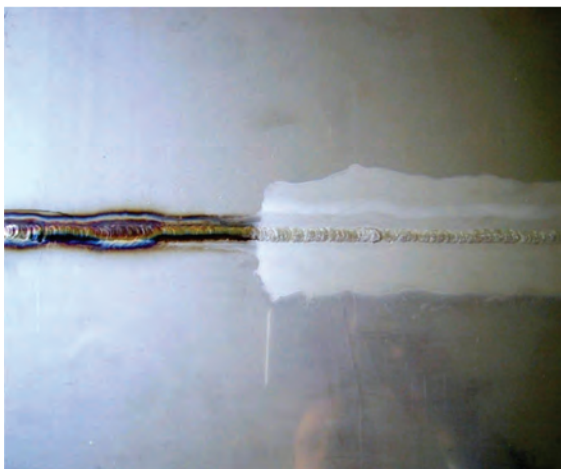
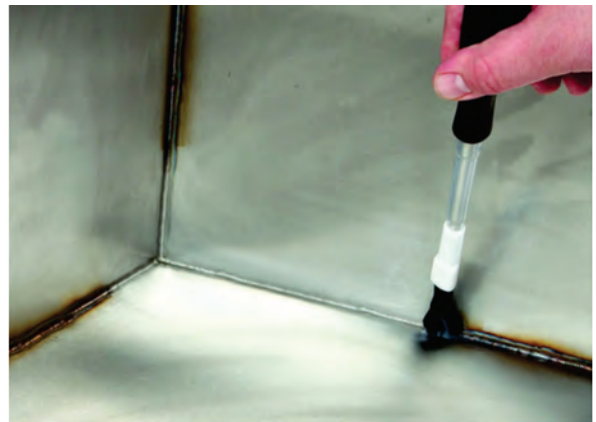
Code	Type	Size
MAT0800	Non-Silicone	400ml
MAT0805	Silicone	400ml
MAT0810	Silicone	500ml



SPANJAARD NON SILICONE SPATTER RELEASE

- Provides an economical non-silicone film that prevents adherence of weld spatter around the weld zone and in the nozzle of CO2 gas shrouded welding guns
- Will not cause problems with subsequent painting / galvanising

Code	Size
SPN0627	400ml



SAFETY FIRST!

Always follow the necessary safety procedures when using MATWELD products. Wear protective clothing at all times and take note of these important points.

- Matweld products should only be used by suitably qualified and competent personnel
- Electric shock can kill - ensure that all electrical connections are safe and properly insulated
- Always inspect your equipment before use for signs of damage or wear and tear
- Ensure that all gas connections are secure and leak free
- Never operate gas equipment without suitable Flashback Arrestors
- Always adhere to the manufacturers operating instructions
- Be aware of your surroundings, sparks can ignite fires and harm you or those around you
- Arc rays can burn the skin and harm the eyes always wear suitable body and eye protection
- Fumes generated during welding or cutting can be harmful, always use in a well-ventilated area and where necessary make use of an adequate respirator



For Safety Gear see Pages 608 & 609



MAT-SAFE
Quality Safety Products

Welding

MIG welding torches & accessories

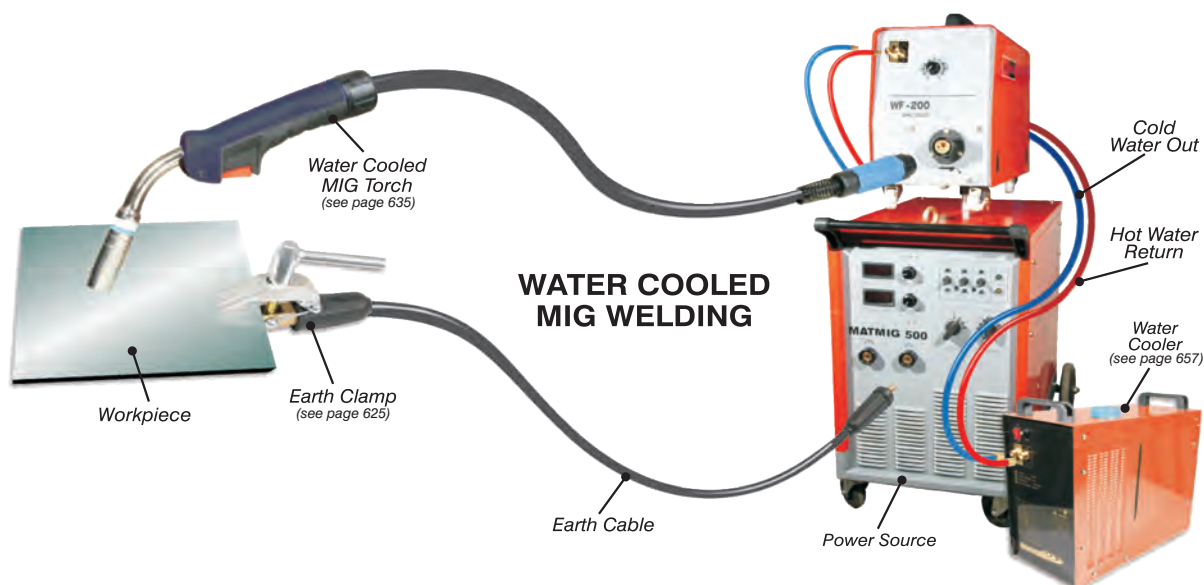
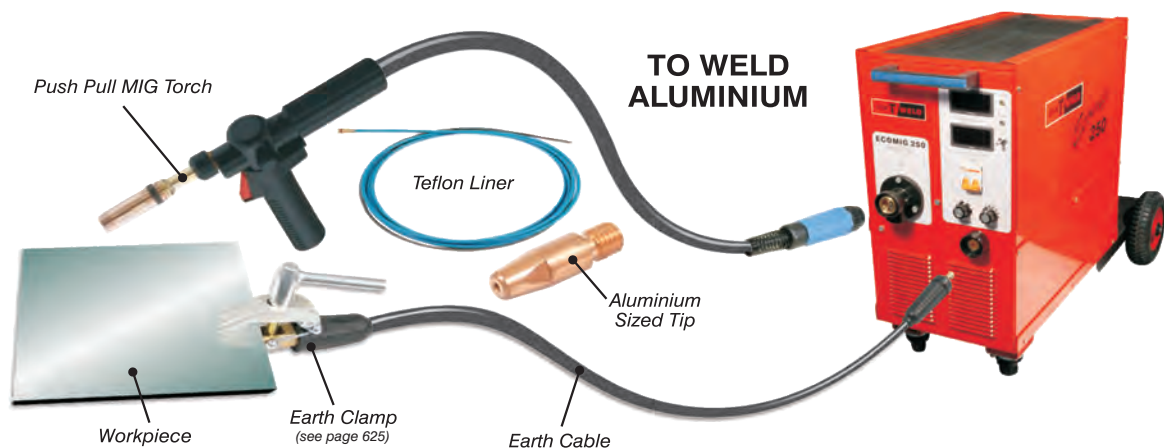
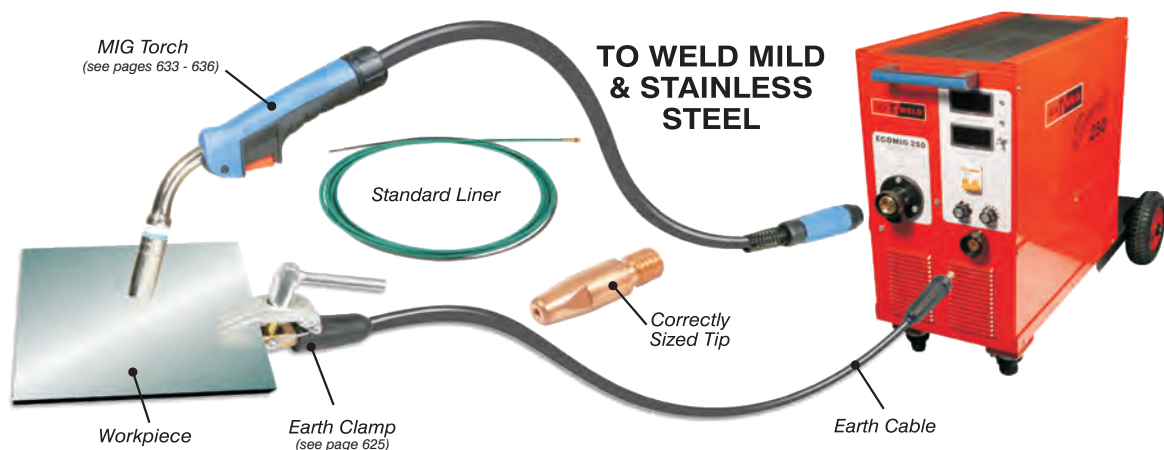
The MIG process is one of the most common methods of joining mild steel, stainless steels and aluminium used in industry today.

Metal Inert Gas or MIG welding gets its name from the inert shielding gas used instead of flux. It is also often referred to as CO₂ Welding owing to the fact that for many years carbon dioxide was the shielding gas of choice. Today various different mixed gasses are used, these gasses are predominantly CO₂ to which other gasses have been added to increase the efficiency of the gas.

In the MIG process a roll of continuous wire is fed through a MIG Torch or Gun to the work piece. On contact with the parent metal this wire creates the arc as well as provides the filler material for the weld.

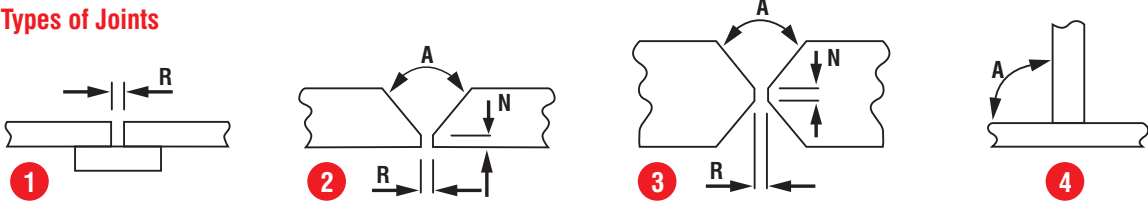
MIG welding is fast and efficient with good quality welds being achieved on most weldable materials.

MIG WELDING TORCHES & ACCESSORIES



MIG WELDING TABLES

Types of Joints



Indicative data for welding carbon steel in gas atmosphere (CO₂)

THICKNESS OF METAL SHEET (MM)	TYPES OF JOINTS	TYPES OF WELDING	R (mm)	A	Ø WIRE (mm)	SPEED WIRE (m/min)	WELDING VOLTAGE (V)	WELDING CURRENT (A)	WELDING SPEED (m/min)	N° OF PASSES
0,9	1 & 4	PO, VD, ST	0	-	0,8	2,6	16-18	50-60	0,48-0,6	1
1,6	1 & 4	PVD	0	-	0,8	3,4	16-19	80-90	0,6	1
2	4	P	0	-	0,8	2,9	17-19	60	0,4	1
	4	O	0	-	0,8	2,3	16-18	45	0,4	1
	4	V	0	-	0,8	3,25	15-18	65	0,5	1
	4	ST	0	-	0,8	3	16-18	60	0,45	1
2,5	4	P	0	-	0,8	6,3	18-22	115	0,7	1
	4	P	0	-	1	4,8	20-24	140	0,8	1
	4	O, V	0	-	0,8	4,1	18-20	80	0,55	1
	4	O, V	0	-	1	4,6	20-23	135	0,8	1
	4	V	0	-	0,8	5,2	17-21	100	0,6	1
	4	V	0	-	1	4,8	20-24	140	0,9	1
	4	ST	0	-	0,8	4,4	18-20	85	0,5	1
	4	ST	0	-	1	4,5	20-23	135	0,85	1
3	1	P	0,8	-	0,8	5	20	120	0,5	1
	1	VD	1,6	-	0,8	5	20	120	0,5	1
	4	P	0	-	0,8	9,9	19-23	155	0,7	1
	4	O, V	0	-	0,8	5,7	18-21	105	0,4	1
	4	V	0	-	0,8	3,5	16-18	70	0,3	1
	4	ST	0	-	0,8	5,6	18-20	105	0,4	1
	4	P	0	-	1	6,6	22-26	180	0,8	1
	4	O, V	0	-	1	4,6	20-23	135	0,5	1
	4	V	0	-	1	2,6	18-20	90	0,3	1
	4	ST	0	-	1	6	21-25	165	0,7	1
	4	P	0	-	1,2	3	20	140	0,6	1
	4	O, V	0	-	1,2	4	20-23	150	0,5	1
	4	V	0	-	1,2	2,3	17-20	100	0,4	1
	4	ST	0	-	1,2	3,2	19-22	130	0,4	1
6	2	P	0	60°	0,8	6,4	18-22	115	0,1	2
	4	O, V	0	-	0,8	6,8	19-22	140	0,2	1
	4	V	0	-	0,8	6,5	17-22	115	0,2	1
	4	ST	0	-	0,8	7	19-22	150	0,2	2
	4	P	0	-	1	4,8	20-24	140	0,2	1
	4	O, V	0	-	1	6,7	22-26	180	0,1	1
	4	V	0	-	1	3,8	20-22	120	0,2	1
	4	ST	0	-	1	4,5	20-23	135	0,2	1
	2	P	0	60°	1,2	3,3	20	150	0,3	2
	1	VD	0	-	1,2	3,3	20	150	0,3	2
	4	P	0	-	1,2	5	22-26	180	0,2	1
	4	O, V	0	-	1,2	5,9	24-28	200	0,3	1
	4	V	0	-	1,2	3,9	19-22	150	0,25	1
	4	ST	0	-	1,2	4,1	20-23	155	0,2	1
	4	V	0	-	1,6	1,9	18-21	160	0,2	1
	4	ST	0	-	1,6	2	19-21	160	0,15	1
10	4	P	0	-	0,8	9,9	19-23	155	0,1	2
					0,8	6,5	18-22	115	0,07	2
	4	O, V	0	-	1	6,7	22-26	180	0,1	1
	4	V	0	-	1	5,3	20-25	150	0,1	1
	2	P	0,8	60°	1,2	3,3	19-21	150	0,2	3
	2	V	1,6	60°	1,2	3,3	19-21	150	0,2	3
	4	O, V	0	-	1,2	4,7	18-21	170	0,1	1
	4	V	0	-	1,2	3,9	20-23	150	0,1	1
	4	ST	0	-	1,2	4,1	20-23	135	0,08	2
	4	V	0	-	1,6	1,9	18-21	160	0,2	1
	4	ST	0	-	1,6	2	19-22	160	0,15	1

NOTES:
P = Level VD = Vertical Downwards
O = Horizontal ST = Overhead
V = Vertical

THICKNESS OF METAL SHEET (MM)	TYPES OF JOINTS	TYPES OF WELDING	R (mm)	A	Ø WIRE (mm)	SPEED WIRE (m/min)	WELDING VOLTAGE (V)	WELDING CURRENT (A)	WELDING SPEED (m/min)	N° OF PASSES
12	4	O, V	0	-	1	4,6	20-23	135	0,04	3
	4	V	0	-	1	3,1	18-20	100	0,05	1
	4	ST	0	-	1	4,5	20-23	135	0,05	4
	1	V	1,6	60°	1,2	3,3	20-21	150	0,2	4
	4	O, V	0	-	1,2	4,7	18-21	170	0,1-0,2	3
	4	V	0	-	1,2	3,9	19-22	150	0,05	2
	4	ST	0	-	1,2	4,1	20-23	155	0,06	3
	2	V	1,6	60°	1,6	2	20-22	160	0,2	4
	4	V	0	-	1,6	2,3	19-22	185	0,05	1
	4	ST	0	-	1,2	2	19-22	160	0,05	4
18	2	V	1,6	60°	1,2	3,3	19-21	150	0,2	4
	1	P	0	-	1,2	4,65	20-23	170	0,03	4
	4	O, V	0	-	1,2	4,7	18-21	170	0,03	8
	4	V	0	-	1,2	3,9	19-22	150	0,03	4
	4	ST	0	-	1,2	4,1	20-23	155	0,03	9
	3	V	1,6	60°	1,6	2	20-22	160	0,2	4
	4	V	0	-	1,6	2,3	19-22	185	0,03	2
	4	ST	0	-	1,6	2	19-22	160	0,05	4

Operational Parameters for "SPRAY-ARC" welding:

THICKNESS OF METAL SHEET (MM)	TYPES OF JOINTS	TYPES OF WELDING	R (mm)	A	Ø WIRE (mm)	SPEED WIRE (m/min)	WELDING VOLTAGE (V)	WELDING CURRENT (A)	WELDING SPEED (m/min)	N° OF PASSES
6	1	P	0,8	-	1,2	11-12	29-32	330	0,5	1
	4	O, V	0	-	1,2	5,9	24-28	200	0,3	1
10	4	P	0	-	1,0	9,2	24-28	230	0,2	2
	4	O, V	0	-	1,0	8,8	23-27	220	0,15	3
	2	P	1,6	30°	1,6	5	30-33	370	0,4	1
	4	P	0	-	1,6	5,2	31-35	250	0,2	1
	4	O, V	0	-	1,6	3,6	22-26	265	0,5	3
12	4	P	0	-	1,0	9,2	24-28	230	0,08	3
	1	P	0,8	-	1,2	12,5	30-33	330	0,4	2
	4	P	0	-	1,2	6	26-35	210	0,08	2
	4	P	0	-	1,2	8,5	29-33	270	0,1	1
	4	O, V	0	-	1,2	8,7	28-30	270	0,14	3
	2	O	1,6	30°	1,6	5,5	32-35	400	0,5	2
	4	O	0	-	1,6	3,6	25-28	270	0,08	2
	4	O	0	-	1,6	5,2	31-35	350	0,1	21
	4	O, V	0	-	1,6	3,6	22-26	265	0,08	3
18	2	P	0	50°	1,2	12,5	30-34	330	0,3	3
	4	P	0	-	1,2	7,5	38-34	300	0,05	3
	4	O, V	0	-	1,2	8,7	28-32	270	0,06	7
	4	O, V	0	-	1,6	3,6	22-26	265	0,04	8
	2	P	0	50°	1,6	6,3	32-34	400	0,3	3
	4	P	0	-	1,6	3,7	25-28	270	0,04	3
	4	P	0	-	1,6	5,3	31-35	350	0,05	2
25	4	P	0	-	1,2	7,8	32-35	300	0,04	6
	4	O, V	0	-	1,2	6,6	24-28	210	0,02	10
	4	O, V	0	-	1,2	8,7	28-32	270	0,03	10
	2	P	0	50°	1,6	6,3	33-35	430	0,3	5
	4	P	0	-	1,6	3,7	25-28	270	0,02	8
	4	P	0	-	1,6	5,3	31-35	350	0,03	4
	4	O, V	0	-	1,6	3,6	22-26	265	0,02	14
40	2	P	0	50°	1,6	6,3	32-35	430	0,3	7

BNZ STYLE MIG TORCH BNZ 15

Features

- High duty cycle
- Ergonomic design
- Lightweight for maximum operator comfort
- Compact design allows for easy access to hard to reach areas

Applications

- Light engineering
- Exhaust shops
- Panel beaters
- Sheet metal fabricators
- Burglar bar & security door manufacturers

Duty Cycle: 60%
Wire Ø: 0.6 - 1.0mm
Rating: 150 Amp Mixed Gas
Length: 4 Meters

Code	Rating
MAT5300	150A

Matweld's BNZ 15 MIG/MAG torch combines quality, design and performance to ensure optimum hassle-free operation. Quality Italian designed and manufactured power cables ensure maximum flexibility and abrasion resistance. Cable design allows for optimal cooling thus ensuring maximum duty cycles.

The BNZ 15 is ideally suited for light engineering applications. Its compact design finds favour with those in the automotive and panel repair industries who require ease of access.

BNZ STYLE MIG TORCH BNZ 25

Features

- High duty cycle
- Ergonomic design
- Lightweight for maximum operator comfort
- Compact design allows for easy access to hard to reach areas

Applications

- Light engineering
- Exhaust shops
- Panel beaters
- Sheet metal fabricators
- Burglar bar & security door manufacturers

Duty Cycle: 60%
Wire Ø: 0.8 - 1.2mm
Rating: 230 Amp Mixed Gas
Length: 4 Metres

Code	Rating
MAT5305	230A

Matweld's BNZ 25 MIG/MAG torch combines quality, design and performance to ensure optimum hassle-free operation. Quality Italian designed and manufactured power cables ensure maximum flexibility and abrasion resistance. Cable design allows for optimal cooling thus ensuring maximum duty cycles. The BNZ 25 is ideally suited for light to medium duty engineering applications. It's compact design finds favour with those in the automotive and panel repair industries who require ease of access.

Matweld BNZ 15 Shroud

Code	Rating/Size
MAT5100	-



Matweld BNZ 15 Contact Tips

Code	Rating/Size
MAT5180	M6 x 0.8mm
MAT5185	M6 x 0.9mm
MAT5190	M6 x 1.0mm



Matweld BNZ 15 Tip Adaptor

Code	Rating/Size
MAT5140	M6



Matweld BNZ 15 Swan Neck

Code	Rating/Size
MAT5250	-



Matweld BNZ 15 Handle & Switch

Code	Rating/Size
MAT5010	Handle & Switch
MAT5015	Switch Only



Matweld BNZ 15 Power Cable

Code	Rating/Size
MAT5360	4m



Matweld BNZ 15 Liner

Code	Rating/Size
MAT5050	4m 0.9-1.2mm



Matweld BNZ 15 Central Adaptor

Code	Rating/Size
MAT5000	-



Matweld BNZ 15 Gun Body/Plug Nut

Code	Rating/Size
MAT5005	Gun Body
MAT5006	Plug Nut



Matweld BNZ 25 Shroud

Code	Rating/Size
MAT5105	-



Matweld BNZ 25 Contact Tips

Code	Rating/Size	Code	Rating/Size
MAT5180	M6 x 0.8mm	MAT5190	M6 x 1.0mm
MAT5185	M6 x 0.9mm	MAT5195	M6 x 1.2mm



Matweld BNZ 25 Tip Adaptor

Code	Rating/Size
MAT5145	M6



Matweld BNZ 25 Swan Neck

Code	Rating/Size
MAT5255	-



Matweld BNZ 25 Handle & Switch

Code	Rating/Size
MAT5010	Handle & Switch
MAT5015	Switch Only



Matweld BNZ 25 Power Cable

Code	Rating/Size
MAT5365	4m



Matweld BNZ 25 Liner

Code	Rating/Size
MAT5050	4m 0.9-1.2mm



Matweld BNZ 25 Central Adaptor

Code	Rating/Size
MAT5000	-



Matweld BNZ 25 Gun Body/Plug Nut

Code	Rating/Size
MAT5005	Gun Body
MAT5006	Plug Nut



BNZ STYLE MIG TORCH BNZ 36

Features

- High duty cycle
- Ergonomic design
- Lightweight for maximum operator comfort

Applications

- Medium to heavy engineering
- Truck builders
- Ship building
- Construction

Duty Cycle: 60%	Wire Ø: 0.8 - 1.2mm	Code	Rating
Rating: 270 Amp Mixed Gas	Length: 4 Meters	MAT5310	270A

Matweld's BNZ 36 MIG/MAG torch combines quality, design and performance to ensure optimum hassle-free operation. Quality Italian designed and manufactured power cables ensure maximum flexibility and abrasion resistance. Cable design allows for optimal cooling thus ensuring maximum duty cycles.

The BNZ 36 offers the versatility of both M6 and M8 contact tips and is the perfect intermediate torch for both medium and heavy duty applications.

Matweld BNZ 36 Shroud

Code	Rating/Size
MAT5110	-



Matweld BNZ 36 Contact Tips

Code	Rating/Size	Code	Rating/Size
MAT5180	M6 x 0.8mm	MAT5200	M8 x 0.9mm
MAT5185	M6 x 0.9mm	MAT5205	M8 x 1.0mm
MAT5190	M6 x 1.0mm	MAT5210	M8 x 1.2mm
MAT5195	M6 x 1.2mm		



Matweld BNZ 36 Tip Adaptors

Code	Rating/Size	Code	Rating/Size
MAT5150	M6	MAT5155	M8



Matweld BNZ 36 Gas Diffuser

Code	Rating/Size
MAT5400	-



Matweld BNZ 36 Swan Neck

Code	Rating/Size
MAT5260	-



Matweld BNZ 36 Handle & Switch

Code	Rating/Size
MAT5010	Handle & Switch
MAT5015	Switch Only



Matweld BNZ 36 Power Cable

Code	Rating/Size
MAT5370	4m



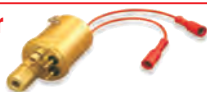
Matweld BNZ 36 Liner

Code	Rating/Size	Code	Rating/Size
MAT5050	4m 0.9-1.2mm	MAT5056	Teflon 2.5mm
MAT5051	Teflon 1.5mm	MAT5060	4.5m 2.4mm
MAT5055	4m 1.2-2.0mm		



Matweld BNZ 36 Central Adaptor

Code	Rating/Size
MAT5000	-



Matweld BNZ 36 Gun Body/Plug Nut

Code	Rating/Size
MAT5005	Gun Body
MAT5006	Plug Nut



BNZ STYLE MIG TORCH BNZ 40

Features

- High duty cycle
- Ergonomic design
- Lightweight for maximum operator comfort

Applications

- Heavy engineering
- Truck builders
- Ship building
- Construction

Duty Cycle: 60%	Wire Ø: 1.0 - 2.4mm
Rating: 320 Amp Mixed Gas	Length: 4 Metres

Code	Rating
MAT5311	400A

Matweld's BNZ 40 MIG/MAG torch combines quality, design and performance to ensure optimum hassle-free operation. Quality Italian designed and manufactured power cables ensure maximum flexibility and abrasion resistance. Cable design allows for optimal cooling thus ensuring maximum duty cycles.

The BNZ 40 is ideally suited to heavy duty applications in engineering shops.

Matweld BNZ 40 Shroud

Code	Rating/Size
MAT5120	-



Matweld BNZ 40 Contact Tips

Code	Rating/Size	Code	Rating/Size
MAT5200	M8 x 0.9mm	MAT5215	M8 x 1.6mm
MAT5205	M8 x 1.0mm	MAT5220	M8 x 2.0mm
MAT5210	M8 x 1.2mm	MAT5225	M8 x 2.4mm



Matweld BNZ 40 Tip Adaptor

Code	Rating/Size
MAT5120	M8



Matweld BNZ 40 Gas Diffuser

Code	Rating/Size
MAT5405	-



Matweld BNZ 40 Swan Neck

Code	Rating/Size
MAT5261	-



Matweld BNZ 40 Power Cable

Code	Rating/Size
MAT5375	4m



Matweld BNZ 40 Liner

Code	Rating/Size
MAT5050	4m 0.9-1.2mm
MAT5051	Teflon 1.5mm
MAT5055	4m 1.2-2.0mm
MAT5056	Teflon 2.5mm
MAT5060	4.5m 2.4mm



BNZ STYLE MIG TORCH

BNZ 501

WATER COOLED

Features

- High duty cycle
- Ergonomic design
- Lightweight for maximum operator comfort
- Optimum cooling extends torch life

Applications

- Heavy engineering
- Truck builders
- Ship building
- Construction

Code	Rating
MAT5315	500A

Duty Cycle: 100%
Wire Ø: 1.0 - 2.0mm
Rating: 500 Amp Mixed Gas
Length: 4 Metres

Matweld's BNZ 501 MIG/MAG torch combines quality, design and performance to ensure optimum hassle free operation. Quality Italian designed and manufactured power cables ensure maximum flexibility and abrasion resistance. This water cooled torch allows for optimal cooling thus ensuring the maximum duty cycle.

The BNZ 501 is ideally suited to heavy duty applications in engineering shops.

Matweld BNZ 501 Shroud

Code	Rating/Size
MAT5115	-

Matweld BNZ 501 Contact Tips

Code	Rating/Size	Code	Rating/Size
MAT5200	M8 x 0.9mm	MAT5215	M8 x 1.6mm
MAT5205	M8 x 1.0mm	MAT5220	M8 x 2.0mm
MAT5210	M8 x 1.2mm		

Matweld BNZ 501 Tip Adaptor

Code	Rating/Size
MAT5165	M8

Matweld BNZ 501 Gas Diffuser

Code	Rating/Size
MAT5410	-

Matweld BNZ 501 Swan Neck

Code	Rating/Size
MAT5265	-

Matweld BNZ 501 Power Cables - 4m

Code	Rating/Size
MAT5380	BNZ 501 Power Cable
MAT5382	BNZ 501 Power Conduit
MAT5385	BNZ Power Gas
MAT5387	BNZ 501 Power Complete Assy

Matweld BNZ 501 Liner

Code	Rating/Size
MAT5050	4m 0.9-1.2mm
MAT5051	Teflon 1.5mm
MAT5055	4m 1.2-2.0mm
MAT5056	Teflon 2.5mm
MAT5060	4.5m 2.4mm

TWC STYLE MIG TORCH

TWC No.4

Features

- High duty cycle
- Ergonomic design
- Lightweight for maximum operator comfort

Applications

- Heavy engineering
- Truck builders
- Ship building
- Construction

Code	Rating
MAT5312	Euro/360A

Duty Cycle: 60%
Wire Ø: 0.8 - 1.6mm
Rating: 360 Amp
Length: 4 Metres

Matweld's TWC No. 4 MIG/MAG torch combines quality, design and performance to ensure optimum hassle free operation. Quality Italian designed and manufactured power cables ensure maximum flexibility and abrasion resistance.

This Heavy Duty torch is based on the original American TWC MIG gun and all Matweld parts are fully interchangeable. The TWC No. 4 is ideally suited to heavy duty applications in engineering shops and is available with either the European style central adaptor or original TWC type connection.

Matweld TWC No4 Contact Tips

Code	Rating/Size	Code	Rating/Size
MAT5500	0.9 #4	MAT5503	1.4 #4
MAT5501	1.0 #4	MAT5504	1.6 #4
MAT5502	1.2 #4		

Matweld TWC No4 Gas Diffuser

Code	Rating/Size
MAT5570	54A #4

Matweld TWC No4 Nozzles

Code	Rating/Size
MAT5517	24CT75 #4
MAT5540	23,62 #4
MAT5545	24CT62 #4

Matweld TWC No4 Nozzle Insulator

Code	Rating/Size
MAT5543	34CT #4

Matweld TWC No4 Swan Neck

Code	Rating/Size
MAT5575	64A60 #4

Matweld TWC No4 Liner

Code	Rating/Size
MAT5580	4,5m 2.1 #4

TWC STYLE MIG TORCH

TWC No.5

Features

- High duty cycle
- Ergonomic design
- Lightweight for maximum operator comfort

Applications

- Heavy engineering
- Truck builders
- Ship building
- Construction

Duty Cycle: 60%
 Wire Ø: 1.0 - 2.4mm
 Rating: 420 Amp
 Length: 4 Metres

Code	Rating
MAT5314	Euro/420A

Matweld's TWC No.5 MIG/MAG torch combines quality, design and performance to ensure optimum hassle free operation. Quality Italian designed and manufactured power cables ensure maximum flexibility and abrasion resistance.

This heavy duty torch is based on the original American TWC MIG gun and all Matweld parts are fully interchangeable. The TWC No.5 is ideally suited to heavy duty applications in engineering shops and is available with either the European style central adaptor or original TWC type connection.

Matweld TWC No5 Contact Tips

Code	Rating/Size	Code	Rating/Size
MAT5520	1.0 #5	MAT5523	1.6 #5
MAT5521	1.2 #5	MAT5524	2.0 #5
MAT5522	1.4 #5	MAT5525	2.4 #5

Matweld TWC No5 Gas Diffuser

Code	Rating/Size
MAT5557	55 #5
MAT5558	55H #5

Matweld TWC No5 Nozzles

Code	Rating/Size
MAT5552	25CT62 #5
MAT5555	25CT75 #5

Matweld TWC No4 Nozzle Insulator

Code	Rating/Size
MAT5550	35CT #5

Matweld TWC No4 Swan Neck

Code	Rating/Size
MAT5559	65A60 #5

Matweld TWC No4 Liner

Code	Rating/Size
MAT5565	2.6 x 4.5m #5

TWC CONTACT TIPS

Code	Description	Pack	Code	Description	Pack
MAT5500	14H35 0,9 #4	10	MAT5520	15H40 1,0 #5	10
MAT5501	14H40 1,0 #4	10	MAT5521	15H45 1,2 #5	10
MAT5502	14H45 1,2 #4	10	MAT5522	15H52 1,4 #5	10
MAT5503	14H52 1,4 #4	10	MAT5523	15H116 1,6 #5	10
MAT5504	14H116 1,6 #4	10	MAT5524	15H564 2,0 #5	10
MAT5505	14H564 2,0 #4	10	MAT5525	15H332 2,4 #5	10

GAS DIFFUSERS

Code	Type
MAT5570	54A MOD 4
MAT5557	55 MOD 5
MAT5558	55H MOD 5

NOZZLES / SHROUDS

Code	Description
MAT5517	24CT75 #4
MAT5540	23,62 #4
MAT5543	Insul. 34CT #4
MAT5545	24CT62 #4
MAT5550	35CT #5
MAT5552	25CT62 #5
MAT5555	25CT75 #5

LINERS

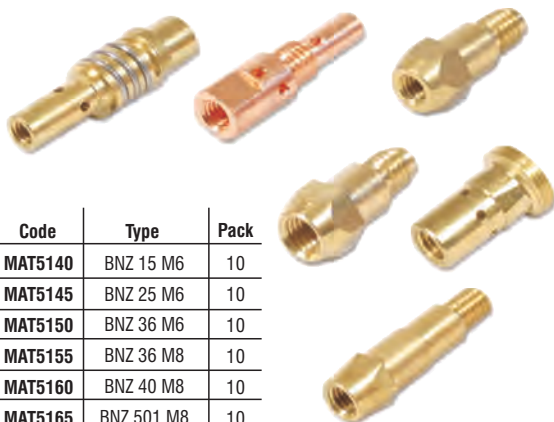
Code	Description
MAT5565	4,5m 2,6 #5
MAT5580	4,5m 2,1 #4

SWAN NECKS / CONDUCTOR TUBES

Code	Description
MAT5575	64A60 #4
MAT5559	65A60 #5



Code	Type	Pack
MAT5100	BNZ 15	5
MAT5105	BNZ 25	5
MAT5110	BNZ 36	5
MAT5120	BNZ 40	5
MAT5115	BNZ 501/38	5



Code	Type	Pack
MAT5140	BNZ 15 M6	10
MAT5145	BNZ 25 M6	10
MAT5150	BNZ 36 M6	10
MAT5155	BNZ 36 M8	10
MAT5160	BNZ 40 M8	10
MAT5165	BNZ 501 M8	10



Code	Type	Size	Pack
MAT5180	BNZ	M6 x 0.8	10
MAT5185	BNZ	M6 x 0.9	10
MAT5190	BNZ	M6 x 1.0	10
MAT5195	BNZ	M6 x 1.2	10
MAT5200	BNZ	M8 x 0.9	10

Code	Type	Size	Pack
MAT5205	BNZ	M8 x 1.0	10
MAT5210	BNZ	M8 x 1.2	10
MAT5215	BNZ	M8 x 1.6	10
MAT5220	BNZ	M8 x 2.0	10
MAT5225	BNZ	M8 x 2.4	10

Code	Type	Colour
MAT5400	BNZ 36	White
MAT5405	BNZ 40	Black
MAT5410	BNZ 501/38	White

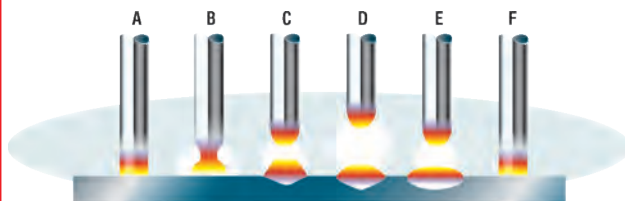

Short Circuit Transfer

In this process the wire actually short circuits or touches the base metal usually between 90 - 200 times per second.

When in short circuit transfer the wire feed speeds, voltages, and deposition rate is usually lower than with other types of metal transfer. Short circuit transfer is very versatile process allowing the welder to weld on thin or thick metals in any position.

Its limitations are a relatively low deposition rate, lack of fusion on thicker metals and increased weld spatter

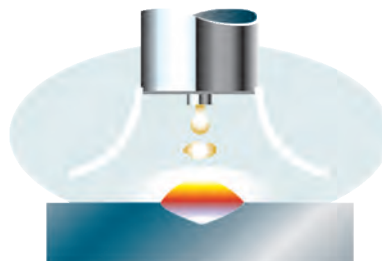
- The MIG wire is short circuited to base metal. There is no current and thus no arc.
- There is an increase in resistance resulting in the heating of the wire. This results in the wire melting and the bottle neck effect
- The wire separates from weld pool, creating the arc. A small piece of wire is deposited which forms a weld pool.
- Arc length and voltage are at their maximum while the resulting heat generated by the arc is flattens the pool.
- Wire feed speed overcomes the heat of the arc and wire approaches base metal again.
- Arc is off and the short circuit cycle starts again.


Globular Transfer

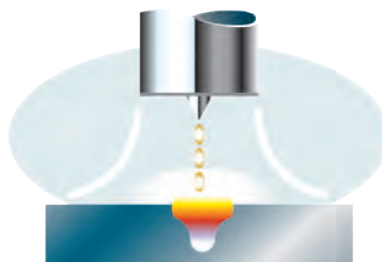
Globular transfer is the state of transfer between short-circuiting and spray arc transfer. Large globules of wire are ejected off the end of the wire and enter the weld pool.

Globular transfer requires that the voltage, amperage and wire feed speed are higher than the settings for short circuit transfer.

The limitations of globular transfer are the presence of spatter. Welding is limited to flat positions and horizontally fillet welds and only for material thicker than 3mm


Spray Arc Transfer

Spray arc transfer "sprays" a stream of tiny molten droplets across the arc, from the wire to the base metal. Spray arc transfer uses higher voltage, wire feed speeds and amperage values in relation to the above mentioned transfer modes. It also requires an Argon rich shielding gas mixture. The advantage of spray arc transfer is a high deposition with good fusion and penetration. A good weld bead appearance with very little spatter. Its limitations are that it can only be used on thicker materials in the flat and horizontal positions.



TIG welding torches & accessories

GTAW or Gas Tungsten Arc Welding is more commonly referred to as TIG or Tungsten Inert Gas.

In TIG welding a non consumable Tungsten electrode (held in a TIG Torch) provides an electric welding arc with the parent metal.

Shielding Gas, most commonly Argon is delivered via the same TIG Torch to protect the weld pool. In this process welds can be made by additionally adding filler material or in the case of Fusion welding not require any additional filler.

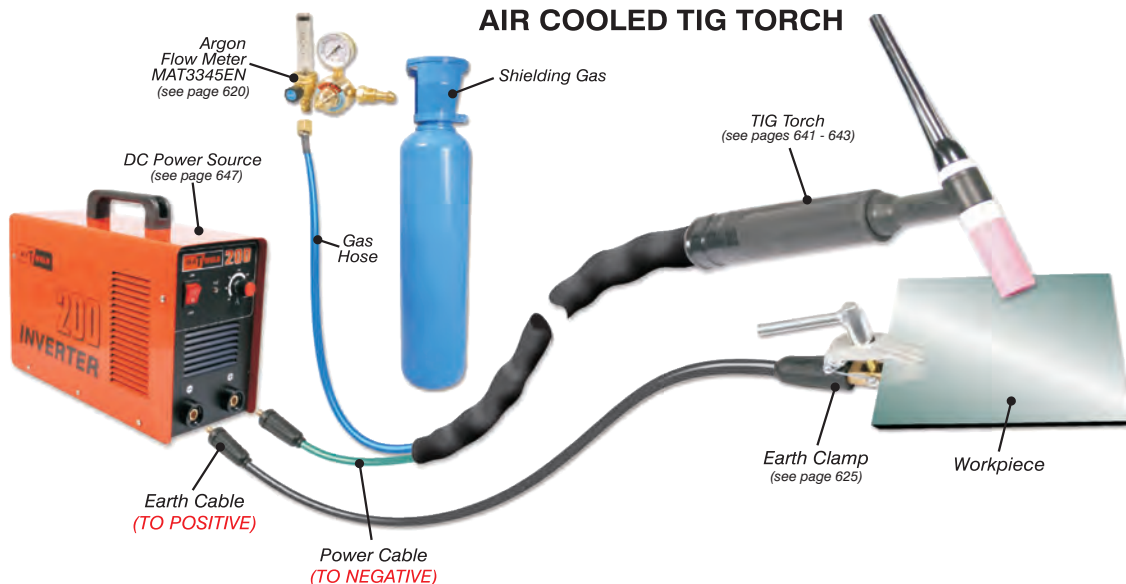
TIG welding is one of the most precise ways to join metals and is the hardest of all the processes to master.

Most materials require a DC power source to facilitate TIG welding and these can be as simple as the Matweld 160 or 200 Amp scratch start machines to purpose built TIG units such as the MAT9051K or MAT9052K.

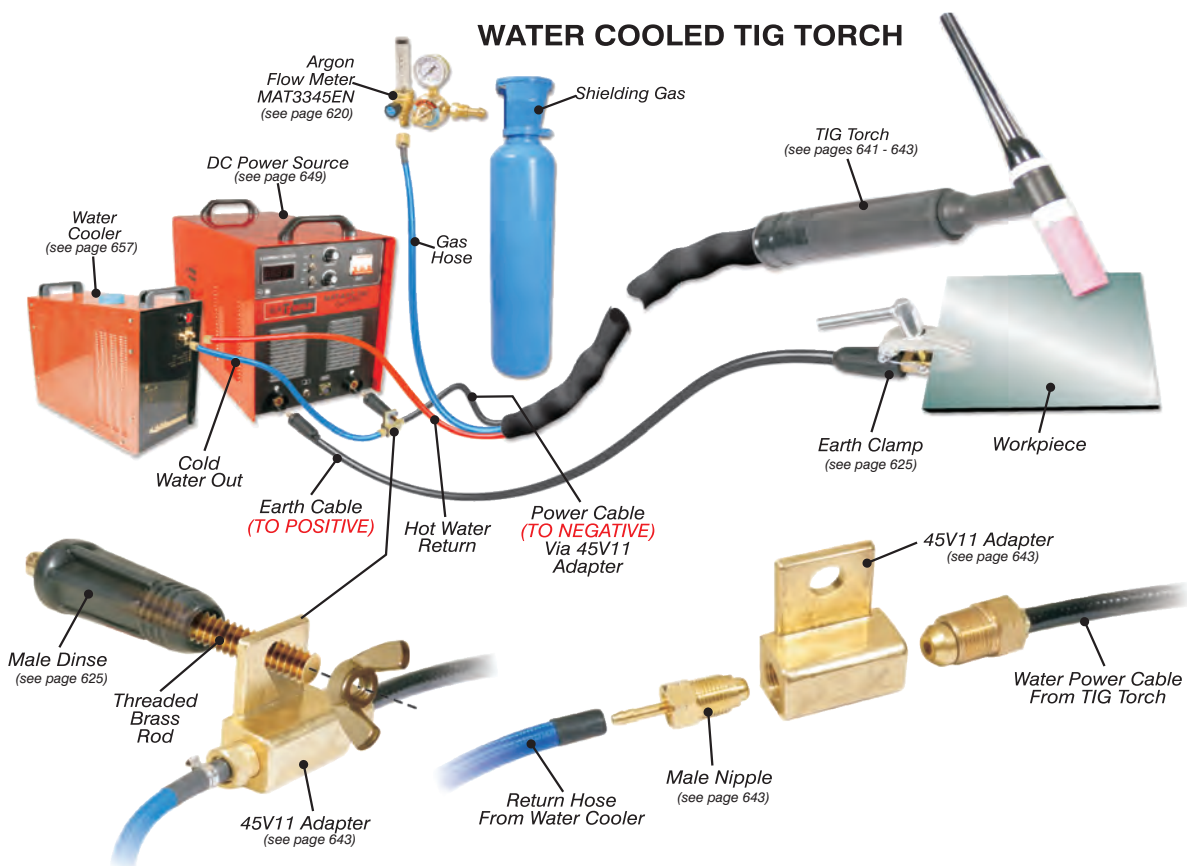
Aluminium and its alloys however require an AC/DC High Frequency unit which are generally far more expensive than their DC counterparts.

TIG WELDING TORCHES & ACCESSORIES

AIR COOLED TIG TORCH



WATER COOLED TIG TORCH



TIG WELDING CALCULATION CHARTS

Aluminium...Manual Welding...Alternating Current - High Frequency

Metal Thickness	Joint Type	Tungsten Electrode Diameter	Filler Rod Diameter	Amperage	Gas Type
1.6mm	Butt	1.6mm	1.6mm	60-85	Argon
	Lap	1.6mm	1.6mm	70-90	Argon
	Corner	1.6mm	1.6mm	60-85	Argon
	Fillet	1.6mm	1.6mm	75-100	Argon
3.25mm	Butt	2.4mm - 3.25mm	2.4mm	125-150	Argon
	Lap	2.4mm - 3.25mm	2.4mm	130-160	Argon
	Corner	2.4mm - 3.25mm	2.4mm	120-140	Argon
	Fillet	2.4mm - 3.25mm	2.4mm	130-160	Argon
5.0mm	Butt	3.25mm - 4.0mm	3.25mm	180-225	Argon
	Lap	3.25mm - 4.0mm	3.25mm	190-240	Argon
	Corner	3.25mm - 4.0mm	3.25mm	180-225	Argon
	Fillet	3.25mm - 4.0mm	3.25mm	190-240	Argon
6.0mm	Butt	4.0mm - 6.0mm	5.0mm	240-280	Argon
	Lap	4.0mm - 6.0mm	5.0mm	250-320	Argon
	Corner	4.0mm - 6.0mm	5.0mm	240-280	Argon
	Fillet	4.0mm - 6.0mm	5.0mm	250-320	Argon

Stainless Steel...Manual Welding...Direct Current - Straight Polarity

Metal Thickness	Joint Type	Tungsten Electrode Diameter	Filler Rod Diameter	Amperage	Gas Type
1.6mm	Butt	1.6mm	1.6mm	40-60	Argon
	Lap	1.6mm	1.6mm	50-70	Argon
	Corner	1.6mm	1.6mm	40-60	Argon
	Fillet	1.6mm	1.6mm	50-70	Argon
3.25mm	Butt	2.4mm	2.4mm	65-85	Argon
	Lap	2.4mm	2.4mm	90-110	Argon
	Corner	2.4mm	2.4mm	65-85	Argon
	Fillet	2.4mm	2.4mm	90-110	Argon
5.0mm	Butt	2.4mm	3.25mm	100-125	Argon
	Lap	2.4mm	3.25mm	125-150	Argon
	Corner	2.4mm	3.25mm	100-125	Argon
	Fillet	2.4mm	3.25mm	125-150	Argon
6.0mm	Butt	3.25mm	4.0mm	135-160	Argon
	Lap	3.25mm	4.0mm	160-180	Argon
	Corner	3.25mm	4.0mm	135-160	Argon
	Fillet	3.25mm	4.0mm	160-180	Argon

Mild Steel...Manual Welding...Direct Current - Straight Polarity

Metal Thickness	Joint Type	Tungsten Electrode Diameter	Filler Rod Diameter	Amperage	Gas Type
1.6mm	Butt	1.6mm	1.6mm	60-70	Argon
	Lap	1.6mm	1.6mm	70-90	Argon
	Corner	1.6mm	1.6mm	60-70	Argon
	Fillet	1.6mm	1.6mm	70-90	Argon
3.25mm	Butt	1.6mm - 2.4mm	2.4mm	80-100	Argon
	Lap	1.6mm - 2.4mm	2.4mm	90-115	Argon
	Corner	1.6mm - 2.4mm	2.4mm	80-100	Argon
	Fillet	1.6mm - 2.4mm	2.4mm	90-115	Argon
5.0mm	Butt	2.4mm	3.25mm	115-135	Argon
	Lap	2.4mm	3.25mm	140-165	Argon
	Corner	2.4mm	3.25mm	115-135	Argon
	Fillet	2.4mm	3.25mm	140-165	Argon
6.0mm	Butt	3.25mm	4.0mm	160-175	Argon
	Lap	3.25mm	4.0mm	170-200	Argon
	Corner	3.25mm	4.0mm	160-175	Argon
	Fillet	3.25mm	4.0mm	170-200	Argon

MATWELD TIG TORCHES **17 Series**



17 Series torches are supplied with a 1.6 mm Collet, Collet body, tungsten, alumina cup and long back cap.

Power cables are fitted with a 10/25 male Dinse type cable connector for easy connection to a small panel socket such as found on the MAT9050K Inverter

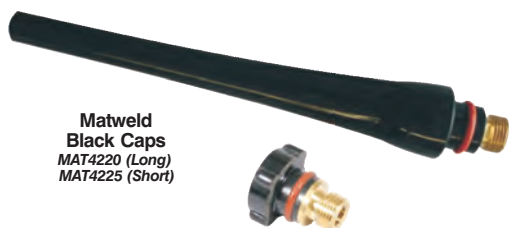
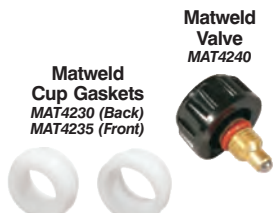
The gas hose is fitted with a 3/8" right hand thread female nut and tail which connects to the MAT3345EN Argon Flowmeter or the MAT3501 'Y' piece (see page 620).

Rated 150 Amps. Available in either 4 or 8 metre lengths, Matweld offers the right torch for the job every time.



Code	Rating
MAT4600	17V/150AMP 4m
MAT4605	17V/150AMP 8m

MATWELD ACCESSORIES BELOW ARE FOR TORCHES ABOVE



Part No.	Description	Ref.	Rating/Size
MAT4000	ALUMINA CUP No 4	10N50	6mm
MAT4005	ALUMINA CUP No 5	10N49	8mm
MAT4010	ALUMINA CUP No 6	10N48	9mm
MAT4015	ALUMINA CUP No 7	10N47	11mm
MAT4020	ALUMINA CUP No 8	10N46	13mm
MAT4025	ALUMINA CUP No 10	10N45	16mm
MAT4100	COLLET 1.6	10N23	1.6mm
MAT4105	COLLET 2.4	10N24	2.4mm
MAT4130	COLLET BODY 1.6	10N31	1.6mm
MAT4135	COLLET BODY 2.4	10N32	2.4mm
MAT4220	BACK CAP LONG	57Y02	LONG
MAT4225	BACK CAP SHORT	57Y04	SHORT
MAT4235	CUP GASKET ALL TORCH FRONT	-	FRONT
MAT4240	VALVE	VS2	17V
MAT4250	HANDLE RIBBED	17V	SMALL
MAT4335	SWITCH	SW-1F	-
MAT4337	SWITCH BOOT RUBBER	-	SMALL
MAT4355	NUT & NIPPLE FEMALE	-	R/H 3/8
MAT4360	CLAMP OETIGER	-	9.5mm
MAT4361	TIG CONNECTOR CABLE/HOSE 2PC	-	2PC
MAT4280	TORCH BODY C/W HANDLE	WP17V	-
MAT4400	TUNGSTEN THORIATED 1.6 mm RED	-	1.6mm
MAT4410	TUNGSTEN ZIRCONIATED 3.2mm RED	-	3.2mm
MAT4405	TUNGSTEN THORIATED 2.4 mm RED	-	2.4mm
MAT4415	TUNGSTEN ZIRCONIATED 1.6 mm WHITE	-	1.6mm
MAT4420	TUNGSTEN ZIRCONIATED 2.4mm WHITE	-	2.4mm
MAT4425	TUNGSTEN ZIRCONIATED 3.2mm RED	-	3.2mm
MAT4430	TUNGSTEN ZIRCONIATED 4.0mm WHITE	-	4.0mm

MATWELD TIG TORCHES **26 Series**



26 Series torches are supplied with a 2.4mm Collet, Collet body, tungsten, alumina cup and long back cap.

Power cables are fitted with a 35/50 male Dinse type cable connector for easy connection to a large panel socket.

The gas hose is fitted with a 3/8th right hand thread female nut and tail which connects to the MAT3345EN Argon Flow Meter or the MAT3501 Y piece (see page 620)

Rated 200 AMPS

Available in either 4 or 8 metre lengths



Code	Rating
MAT4610	26V/200AMP 4m
MAT4615	26V/200AMP 8m

MATWELD ACCESSORIES BELOW ARE FOR TORCHES ABOVE

Matweld Alumina Cup Gas Lens
MAT4030-45



Matweld Alumina Cup Nozzles
MAT4000-4025

Matweld Alumina Cup Gas Lens Collet Body
MAT4175/85



Matweld Collets
MAT4100/10

Matweld Collet Bodies
MAT4130/40



Matweld Tungstens
MAT4400-30



Matweld Valve
MAT4240



Matweld Cup Gaskets
MAT4230 (Back)
MAT4235 (Front)

Matweld Black Caps
MAT4220 (Long)
MAT4225 (Short)



Matweld Torch Handles

MAT 4255/65



Matweld Switch
MAT4335



Matweld Switch Boots
MAT4337

Matweld Nut, Tail & Nipple
MAT4355



Matweld Hose & Cable Connector
MAT4361



Matweld Oetiger Clamp
MAT4360



Matweld Torch Heads
MAT4290
MAT4295



Part No.	Description	Ref.	Rating/Size
MAT4621	Torch 26 x 4m 2 Piece C/W Switch	-	4m
MAT4000	Alumina Cup No 4	10N50	6mm
MAT4005	Alumina Cup No 5	10N49	8mm
MAT4010	Alumina Cup No 6	10N48	9mm
MAT4015	Alumina Cup No 7	10N47	11mm
MAT4020	Alumina Cup No 8	10N46	13mm
MAT4025	Alumina Cup No 10	10N45	16mm
MAT4030	Alumina Cup Gas Lens No 5	54N17	8mm
MAT4035	Alumina Cup Gas Lens No 6	54N16	10mm
MAT4040	Alumina Cup Gas Lens No 7	54N15	11mm
MAT4045	Alumina Cup Gas Lens No 8	54N14	12mm
MAT4100	Collet 1.6	10N23	1.6mm
MAT4105	Collet 2.4	10N24	2.4mm
MAT4110	Collet 3.2	10N25	3.2mm
MAT4130	Collet Body 1.6	10N31	1.6mm
MAT4135	Collet Body 2.4	10N32	2.4mm
MAT4140	Collet Body 3.2	10N28	3.2mm
MAT4175	Collet Body Gas Lens 1.6mm	45V25	1.6mm
MAT4180	Collet Body Gas Lens 2.4mm	45V26	2.4mm
MAT4185	Collet Body Gas Lens 3.2mm	45V27	3.2mm
MAT4220	Back Cap Long	57Y02	Long
MAT4225	Back Cap Short	57Y04	Short
MAT4235	Cup Gasket All Torch Front	-	Front
MAT4245	Valve	26V	-
MAT4255	Handle Ribbed	-	Large
MAT4265	Handle Smooth	18/26	Large
MAT4335	Switch	SW-1F	-
MAT4336	Boot Rubber	13/26	Large
MAT4355	Nut & Nipple Female	-	R/H 3/8"
MAT4360	Clamp Oetiger	-	9.5mm
MAT4361	Hose and Cable Connector	-	2pc
MAT4362	TIG Connector Cable/Hose 2 Piece	-	2pc
MAT4295	Torch Body 26V C/W Handle	WP26V	-
MAT4290	Torch Body 26 C/W Handle	-	-
MAT4400	Tungsten Thoriated 1.6mm Red	-	1.6mm
MAT4405	Tungsten Thoriated 2.4mm Red	-	2.4mm
MAT4410	Tungsten Thoriated 3.2mm Red	-	3.2mm
MAT4415	Tungsten Zirconiated 1.6mm White	-	1.6mm
MAT4420	Tungsten Zirconiated 2.4mm White	-	2.4mm
MAT4425	Tungsten Zirconiated 3.2mm White	-	3.2mm
MAT4430	Tungsten Zirconiated 4.0mm White	-	4.0mm

MATWELD TIG TORCHES **18 Series** **WATER COOLED**

18 Series torches are supplied with a 2.4 mm Collet, Collet body, tungsten, alumina cup and long back cap.

In this water cooled torch the power cable carries not only the current but also the water for cooling. It is fitted with a large USA Male nut for connection to a 45v11 adaptor block (MAT4365)

The gas hose is fitted with a 3/8th right hand thread male nipple and tail while the water hose has a 3/8th left hand thread male nipple and tail

Rated 350 Amps Available in either 4 or 8 metre lengths, Matweld offers the right torch for the job every time.



Code	Rating
MAT4630/1	18V/350AMP 4m
MAT4635/6	18V/350AMP 8m

MATWELD ACCESSORIES BELOW ARE FOR TORCHES ABOVE

Matweld Alumina Cup Gas Lens **MAT4030-45**



Matweld Alumina Cup Nozzles **MAT4000-4025**

Matweld Alumina Cup Gas Lens Collet Body **MAT4175 - 4190**



Matweld Collets **MAT4100/15**

Matweld Collet Bodies **MAT4130/45**



Matweld Adaptor Block **MAT4365**



Matweld Cup Gaskets **MAT4230 (Back)** **MAT4235 (Front)**



Matweld Black Caps **MAT4220 (Long)** **MAT4225 (Short)**



Matweld Torch Handles

MAT 4250/60



Matweld Switch **MAT4335**



Matweld Switch Boots **MAT4337**



Nuts & Nipples **MAT4350** **MAT4345**



Matweld Oetiger Clamp **MAT4360**



Matweld Torch Head **MAT4285**



Matweld Tungstens **MAT4400-20**



Part No.	Description	Ref.	Rating/Size
MAT4631	Torch 18 x 4m C/W Switch	-	4m
MAT4636	Torch 18 x 8m C/W Switch	-	8m
MAT4000	Alumina Cup No 4	10N50	6mm
MAT4005	Alumina Cup No 5	10N49	8mm
MAT4010	Alumina Cup No 6	10N48	9mm
MAT4015	Alumina Cup No 7	10N47	11mm
MAT4020	Alumina Cup No 8	10N46	13mm
MAT4025	Alumina Cup No 10	10N45	16mm
MAT4030	Alumina Cup Gas Lens No 5	54N17	8mm
MAT4035	Alumina Cup Gas Lens No 6	54N16	10mm
MAT4040	Alumina Cup Gas Lens No 7	54N15	11mm
MAT4045	Alumina Cup Gas Lens No 8	54N14	12mm
MAT4100	Collet 1.6	10N23	1.6mm
MAT4105	Collet 2.4	10N24	2.4mm
MAT4110	Collet 3.2	10N25	3.2mm
MAT4115	Collet 4.0	54N20	4.0mm
MAT4130	Collet Body 1.6	10N31	1.6mm
MAT4135	Collet Body 2.4	10N32	2.4mm
MAT4140	Collet Body 3.2	10N28	3.2mm
MAT4145	Collet Body 4.0	406488	4.0mm
MAT4175	Collet Body Gas Lens 1.6mm	45V25	1.6mm
MAT4180	Collet Body Gas Lens 2.4mm	45V26	2.4mm
MAT4185	Collet Body Gas Lens 3.2mm	45V27	3.2mm
MAT4190	Collet Body Gas Lens 4.0mm	45V28	4.0mm
MAT4220	Back Cap Long	57Y02	Long
MAT4225	Back Cap Short	57Y04	Short
MAT4235	Cup Gasket All Torch Front	-	Front
MAT4255	Handle Ribbed	-	Large
MAT4265	Handle Smooth	-	Large
MAT4335	Switch	SW-1F	-
MAT4336	Boot Rubber	-	Large
MAT4350	Male Nut & Nipple	-	3/8" LH
MAT4345	Male Nut & Nipple	-	3/8" RH
MAT4360	Clamp Oetiger	-	9.5mm
MAT4365	Adaptor Block	45V11	
MAT4285	Torch Body 18 C/W Handle	WP18	
MAT4320	Power / Water Cable 4m	PC18	
MAT4325	Power / Water Cable 8m	PC18	
MAT4400	Tungsten Thoriated 1.6mm Red	-	1.6mm
MAT4405	Tungsten Thoriated 2.4mm Red	-	2.4mm
MAT4410	Tungsten Thoriated 3.2mm Red	-	3.2mm
MAT4415	Tungsten Zirconiated 1.6mm White	-	1.6mm
MAT4420	Tungsten Zirconiated 2.4mm White	-	2.4mm
MAT4425	Tungsten Zirconiated 3.2mm White	-	3.2mm
MAT4430	Tungsten Zirconiated 4.0mm White	-	4.0mm

ALUMINA CUP NOZZLES

- Manufactured from high strength alumina
- Displays good electrical insulation properties
- High heat and impact resistance



Part No.	Size	No.	Code
MAT4000	6mm	#4	10N50
MAT4005	8mm	#5	10N49
MAT4010	9mm	#6	10N48
MAT4015	11mm	#7	10N47
MAT4020	13mm	#8	10N46
MAT4025	16mm	#10	10N45

ALUMINA CUP GAS LENS

- Manufactured from high strength alumina
- Displays good electrical insulation properties
- High heat and impact resistance
- Vastly reduces turbulence in the shield gas stream



Part No.	Size	No.	Code
MAT4030	8mm	#5	54N17
MAT4035	10mm	#6	54N16
MAT4040	11mm	#7	54N15
MAT4045	12mm	#8	54N14

ALUMINA CUP GAS LENS COLLET BODY

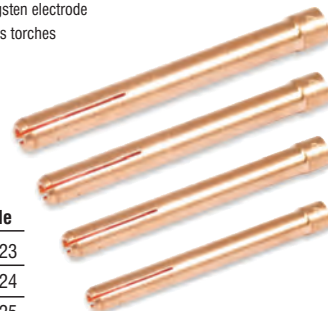
- Vastly reduces turbulence in the shield gas stream
- Used in conjunction with Matweld alumina cup gas lenses
- Allows for electrode to be extended further for better visibility



Part No.	Size	Code
MAT4175	1.6mm	45V25
MAT4180	2.4mm	45V26
MAT4185	3.2mm	45V27
MAT4190	4.0mm	45V28

COLLETS

- Used to securely clamp the tungsten electrode
- For use with 17/26 and 18 series torches



Part No.	Size	Code
MAT4100	1.6mm	10N23
MAT4105	2.4mm	10N24
MAT4110	3.2mm	10N25
MAT4115	4.0mm	54N20

COLLET BODIES

- Used to securely clamp the tungsten electrode
- For use with 17/26 and 18 series torches



Part No.	Size	Code
MAT4130	1.6mm	10N31
MAT4135	2.4mm	10N32
MAT4140	3.2mm	10N28
MAT4145	4.0mm	40B488
MAT4150	Stubby	17CB2024

TORCH HEAD

- Heavy duty copper construction
- High current capabilities and maximum heat dissipation
- Resilient silicone rubber insulation
- Replaceable teflon nozzle and cup gaskets
- All torch heads supplied with handles



Part No.	Type	Code
MAT4280	17 with Valve	WP17V

TORCH HEAD

- Heavy duty copper construction
- High current capabilities and maximum heat dissipation
- Resilient silicone rubber insulation
- Replaceable teflon nozzle and cup gaskets
- All torch heads supplied with handles



Part No.	Type	Code
MAT4295	26 with Valve	WP26V

TORCH HEAD

- Heavy duty copper construction
- High current capabilities and maximum heat dissipation
- Resilient silicone rubber insulation
- Replaceable teflon nozzle and cup gaskets
- All torch heads supplied with handles



Part No.	Type	Code
MAT4290	26 no Valve	Wp26

TORCH HEADS

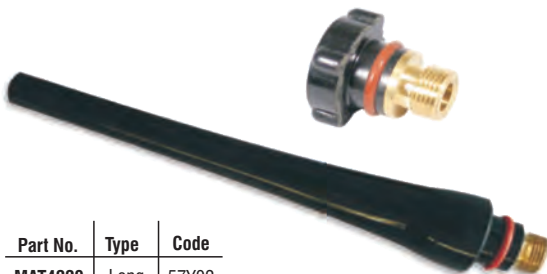
- Heavy duty copper construction
- High current capabilities and maximum heat dissipation
- Resilient silicone rubber insulation
- Replaceable teflon nozzle and cup gaskets
- All torch heads supplied with handles



Part No.	Type	Code
MAT4285	18 no Valve	WP18

BACK CAPS

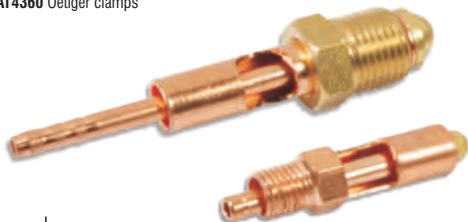
- For use with 17/26 and 18 series torches



Part No.	Type	Code
MAT4220	Long	57Y02
MAT4225	Short	57Y04

2 PCE HOSE & CABLE CONNECTORS

- Two piece connector connects current cable and gas hose to torch head
- Use **MAT4360** Oetiger clamps



Part No.	Size
MAT4361	17
MAT4362	26

TORCH HANDLES

- Available in both smooth and ribbed handles



Part No.	Size	Handle
MAT4250	17V	Ribbed
MAT4255	18/26/26V	Ribbed
MAT4260	17V	Smooth
MAT4265	18/26/26V	Smooth

SWITCH & SWITCH BOOTS

- Rubber switch boots available in large (26/18) and small (17)
- Both take same switch **MAT4335**



Part No.	Size
MAT4336	18/26
MAT4337	17
MAT4335	17/18/26

OETIGER CLAMP

- One piece clamp crimps hose securely onto connectors and tails



Part No.	Size
MAT4360	9.5mm

NUTS, TAILS & NIPPLES

- Male nipple and tails with left or right hand threads
- Female 3/8" thread nut and tail for connection to argon flow meter
- Use **MAT4360** Oetiger clamps



Part No.	Type	Size
MAT4345	Male RH	3/8"
MAT4350	Male LH	3/8"
MAT4355	Female RH	3/8"

TUNGSTEN ELECTRODES

- Highest quality ground finish
- 2% thoriated (red tip) for mild & stainless steel
- 2% zirconiated (white tip) for aluminium
- 150mm long

Part No.	Size
MAT4400	1.6 Red
MAT4405	2.4 Red
MAT4410	3.2 Red
MAT4415	1.6 White
MAT4420	2.4 White
MAT4425	3.2 White
MAT4430	4.0 White



welding machines

Over the last 6 years Matweld has built up a solid reputation for providing quality affordable Welding machines. Offering solutions from entry level DIY oil cooled welders to state of the art Inverter based TIG machines the Matweld range offers the right machine for the job at hand. Matweld welding machines are sourced from both local and overseas suppliers and are often modified to meet the needs of local conditions. Matweld Welders carry a one year warranty on parts and workmanship and are backed up by service departments in the four major centres around South Africa



SINGLE PHASE 220V AC AIR COOLED ARC WELDER - MMA - 180A

- Suitable for DIY and light engineering applications
- Moveable core transformer type welder
- Thermal overload protection
- **Supplied with welding cables, face shield, chipping hammer/brush**



Technical Data	ARC1200 MAT9040
Input Power Voltage	Single Phase AC 220V
No Load Voltage	47 - 50V
Output Current Range	60 - 180A
Electrode Sizes	2.0 - 4.0mm
Duty Cycle %	10%
Weight	21Kg
Dimensions (LWH)	520 x 220 x 335mm

Rating Indicator



SINGLE PHASE 220V DC INVERTERS MMA / TIG - 200A

- Compact and lightweight
- Stable Arc with excellent striking capabilities
- Hot Start MMA
- Over Voltage and Over Current protection
- Carry Handle and Convenient Shoulder strap
- Suitable for Scratch Start TIG welding
- **Supplied with welding cables**



Technical Data	ARC 200 MAT9055K
Input Power Voltage	Single Phs AC220V±10%
Rated Input Power Capacity	5.3 KVA
No Load Voltage	63V
Output Current Range	20-200A
Rated Output Voltage	26.2
Duty Cycle %	60%
Weight	8kg
Dimensions (LWH)	371 x 155 x 295mm



SINGLE PHASE 220V DC INVERTERS MMA / TIG - 160A

- Compact and lightweight
- Stable Arc with excellent striking capabilities
- Hot Start MMA
- Over Voltage and Over Current protection
- Carry Handle and Convenient Shoulder strap
- Suitable for Scratch Start TIG welding
- **Supplied with welding cables**



Technical Data	ARC160 MAT9050K
Input Power Voltage	Single Phs AC220V±10%
Rated Input Power Capacity	5.3 KVA
No Load Voltage	56V
Output Current Range	20-155A
Rated Output Voltage	26.2
Duty Cycle %	60%
Weight	8Kg
Dimensions (LWH)	371 x 155 x 295mm



SINGLE PHASE 220V DC INVERTERS MMA / TIG - 160A WITH VRD

- Compact and lightweight
- Stable Arc with excellent striking capabilities
- Hot Start MMA
- Over Voltage and Over Current protection
- Carry Handle and Convenient Shoulder strap
- Suitable for Scratch Start TIG welding
- **Supplied with welding cables**



- VRD stands for Voltage Reduction Device
- A VRD reduces the maximum open circuit voltage across the output terminals to below 15 volts
- This is a safety requirement of most mines in South Africa when the unit is to be operated underground or in damp conditions
- The presence of a VRD can however cause difficulty in the striking and re-striking of the arc with less skilled operators. This is because the machine has to rapidly change from the reduced open circuit voltage of below 15 volts to the open circuit voltage of around 56 volts necessary to strike the arc.

Technical Data	ARC160 MAT9050VRD
Input Power Voltage	Single Phs AC220V±10%
Rated Input Power Capacity	5.3 KVA
No Load Voltage	9V
Output Current Range	20-155A
Rated Output Voltage	26.2
Duty Cycle %	60%
Weight	8Kg
Dimensions (LWH)	371 x 155 x 295mm

SINGLE PHASE 220V DC INVERTERS MMA / TIG - 200A WITH VRD

- Compact and lightweight
- Stable Arc with excellent striking capabilities
- Hot Start MMA
- Over Voltage and Over Current protection
- Carry Handle and Convenient Shoulder strap
- Suitable for Scratch Start TIG welding
- **Supplied with welding cables**



- VRD stands for Voltage Reduction Device
- A VRD reduces the maximum open circuit voltage across the output terminals to below 15 volts
- This is a safety requirement of most mines in South Africa when the unit is to be operated underground or in damp conditions
- The presence of a VRD can however cause difficulty in the striking and re-striking of the arc with less skilled operators. This is because the machine has to rapidly change from the reduced open circuit voltage of below 15 volts to the open circuit voltage of around 56 volts necessary to strike the arc.

Technical Data	ARC 200 MAT9055VRD
Input Power Voltage	Single Phs AC220V±10%
Rated Input Power Capacity	5.3 KVA
No Load Voltage	9V
Output Current Range	20-200A
Rated Output Voltage	26.2
Duty Cycle %	60%
Weight	8kg
Dimensions (LWH)	371 x 155 x 295mm

SINGLE PHASE 220V DC INVERTER IGBT MMA / TIG - 220A

- Advanced IGBT technology
- Suitable for use with power generators
- High 60% duty cycle
- Digital display
- Supplied with welding cables
- Suitable for lift Arc TIG welding



Technical Data

	MAT-ARC210 IGBT MAT9046
Input Power Voltage	220V ±15%
Frequency	50/60HZ
Rated Input Power Capacity	7.5 KVA
No Load Voltage	65V
Output Current Range	26-220A
Rated Output Voltage	28.5V
Duty Cycle %	60%
Dimensions (LWH)	350 x 140 x 260mm
Weight	7.5 Kg
Welding Rod Diameter	2.5 - 4.0mm

SINGLE PHASE 220V DC INVERTER IGBT MMA / TIG - 170A

- Advanced IGBT technology
- Suitable for use with power generators
- High 60% duty cycle
- Digital display
- Supplied with welding cables
- Suitable for lift Arc TIG welding



Technical Data

	MAT-ARC170 IGBT MAT9045
Input Power Voltage	220V ±15%
Frequency	50/60HZ
Rated Input Power Capacity	4.9 KVA
No Load Voltage	65V
Output Current Range	15 - 170A
Rated Output Voltage	20.8V - 26.8V
Duty Cycle %	60%
Dimensions (LWH)	360 x 138 x 200mm
Weight	7.2 Kg
Welding Rod Diameter	2.0 - 3.15mm

THREE PHASE 380V DC INVERTERS MMA / TIG / GOUGING - 250A

- Stable Arc with excellent striking capabilities
- Hot Start MMA
- Over Voltage and Over Current protect
- Adjustable Arc Force
- Suitable for Scratch Start TIG welding
- Carbon Arc Gouging capabilities with 500 Amp unit
- Digital display
- Supplied with welding cables
- Remote control units available separately



Technical Data

	MAT-ARC 250 MAT9056K
Input Power Voltage	380V ±10%
Frequency	50/60HZ
Rated Input Power Capacity	9.5 KVA
No Load Voltage	15V (VRD)
Output Current Range	20 - 250A
Rated Output Voltage	30V
Duty Cycle %	60%
No-load Consumption	60W
Efficiency	85%
Arc Force Adjustment	0 - 60A
Welding Rod Diameter	1.6 - 4.0mm
Weight	18Kg
Dimensions (LWH)	490 x 200 x 340mm

THREE PHASE 380V DC INVERTERS MMA / TIG / GOUGING - 300A

- Stable Arc with excellent striking capabilities
- Hot Start MMA
- Over Voltage and Over Current protect
- Adjustable Arc Force
- Suitable for Scratch Start TIG welding
- Carbon Arc Gouging capabilities with 500 Amp unit
- Digital display
- Supplied with welding cables
- Remote control units available separately



Technical Data	MAT-ARC 300 MAT9057K
Input Power Voltage	380V $\pm$ 10%
Frequency	50/60HZ
Rated Input Power Capacity	12.1 KVA
No Load Voltage	15V (VRD)
Output Current Range	20 - 300A
Rated Output Voltage	32V
Duty Cycle %	60%
No-load Consumption	60W
Efficiency	85%
Arc Force Adjustment	0 - 60A
Welding Rod Diameter	1.6 - 5.0mm
Weight	19Kg
Dimensions (LWH)	540 x 210 x 340mm

THREE PHASE 380V DC INVERTERS MMA / TIG / GOUGING - 500A

- Stable Arc with excellent striking capabilities
- Hot Start MMA
- Over Voltage and Over Current protect
- Adjustable Arc Force
- Suitable for Scratch Start TIG welding
- Carbon Arc Gouging capabilities with 500 Amp unit
- Digital display
- Supplied with welding cables
- Remote control units available separately



Technical Data	MAT-ARC 500 MAT9058K
Input Power Voltage	380V $\pm$ 10%
Frequency	50/60HZ
Rated Input Power Capacity	25.3 KVA
No Load Voltage	15V (VRD)
Output Current Range	20 - 500A
Rated Output Voltage	40V
Duty Cycle %	60%
No-load Consumption	100W
Efficiency	85%
Arc Force Adjustment	0 - 130A
Welding Rod Diameter	1.6 - 6.0mm
Weight	38Kg
Dimensions (LWH)	570 x 330 x 480mm

SINGLE PHASE 220V TIG/MMA WELDER - 200A

- Compact and lightweight
- Advanced Inverter based technology
- High Frequency start TIG Welding
- Pulsed TIG facility
- Adjustable ARC Force in MMA welding
- Not suitable for Aluminum TIG welding
- Supplied with ARC cables and TIG torch



Stainless/Mild Steel

Technical Data	MATTIG 200 MAT9051K
Input Power Voltage	220V $\pm$ 15%
Frequency	50/60HZ
Rated Input Power Capacity	4.5 KVA
No Load Voltage	56V
Output Current Range	10 - 200A
Rated Output Voltage	18V
Duty Cycle %	60%
No-load Consumption	40W
Efficiency	85%
Arc starting	HF
Welding Thickness	0.3 - 8.0mm
Post-gas	2 - 10S
Down-slope Time	0 - 5 Sec
Pulse Frequency	MF50-200 LF0.5-2
Weight	9kg
Dimensions (LWH)	435 x 205 x 350mm



THREE PHASE 380V TIG/MMA WELDER - 315A



Stainless/Mild Steel

- Compact and lightweight
- Advanced Inverter based technology
- Industrial TIG welder with adjustable parameters
- High Frequency start TIG Welding
- Pulsed TIG facility
- Adjustable ARC Force in MMA welding
- Not suitable for Aluminum TIG welding
- Supplied with ARC cables and TIG Torch
- Requires water cooler MAT9010 (sold separately) see page 657

Technical Data	MATTIG 315 MAT9052K
Input Power Voltage	3Phase AC380V $\pm$ 15%
Frequency	50/60Hz
Input Current	9A
No Load Voltage	54
Output Current Range	5-315A
Rated Output Voltage	23V
Post Flow Time	1-10 Secs
Up Slope Time	0-10 Secs
Down Slope Time	0-10 Secs
Starting Current	5-315A
Down Slope Current	315-5A
Pulse Frequency (MF)	25-250Hz
Pulse Frequency (LF)	0.25-2.5Hz
PB	10-90%
Arc Initiation	HF
Insulation Class	F
Protection Class	IP23
Duty Cycle	60%
Weight	15Kg
Dimensions (LWH)	565 x 283 x 495mm

SINGLE PHASE 220V TIG/MMA AC/DC WELDER - 200A AC/DC

- Compact and lightweight
- Advanced inverter based technology
- High frequency start TIG welding
- Pulsed TIG facility
- Adjustable Arc force in MMA welding
- Suitable for aluminium TIG welding
- Supplied with Arc cable, TIG torch and foot control
- Adjustable gas pre and post-flow
- Adjustable down slope
- 2T - 4T trigger function
- Air cooled TIG torch



Technical Data	MATTIG 200P AC/DC MAT9053K
Input Power Voltage	220V $\pm$ 15%
Frequency	50/60HZ
Rated Input Power Capacity	4.6 KVA
No Load Voltage	62V
Output Current Range	10 - 200A
Rated Output Voltage	18V
Duty Cycle %	60%
Arc starting	HF
Welding Thickness	0.5 - 5.0mm
Post-gas	0 - 10 Sec
Decline Time	0 - 10 Sec
Pre-flow Time	0 - 10 Sec
Remote Control	Yes
Pulse Frequency	0.5 - 300hz

Supplied with foot control
MAT9053FC3

Aluminium

THREE PHASE 380V TIG/MMA AC/DC WELDER - 315A AC/DC

- Compact and lightweight
- Advanced inverter based technology
- High frequency start TIG welding
- Pulsed TIG facility
- Adjustable Arc force in MMA welding
- Suitable for aluminium TIG welding
- Supplied with Arc cable, TIG torch and foot control
- Adjustable gas pre and post-flow
- Adjustable up and down slope
- 2T - 4T trigger function
- Water cooled TIG torch
- Requires water cooler MAT9010 (sold separately) see page 657



Technical Data	MATTIG 315P AC/DC MAT9054K
Input Power Voltage	380V $\pm$ 10%
Frequency	50/60HZ
Rated Input Power Capacity	9.0 KVA
No Load Voltage	45V
Output Current Range	10 - 315A
Rated Output Voltage	22.6V
Duty Cycle %	60%
Arc starting	HF
Welding Thickness	0.5 - 12.0mm
Post-gas	0 - 10 Sec
Decline Time	0 - 10 Sec
Pre-flow Time	0 - 10 Sec
Remote Control	Yes
Pulse Frequency	0.5 - 300hz

Supplied with foot control
MAT9053FC3

Aluminium

SINGLE PHASE 220V MULTI-PROCESS MIG/TIG/MMA - 250A

- Advanced IGBT inverter technology
- Constant current, constant voltage CC/CV
- Convenient 220V
- High 60% duty cycle at 40°C
- Three welding processes in one machine

MIG WELDING

- 250A MIG
- 2T - 4T trigger function
- Built-in wire feeder with 4 roll driver
- Wire inching facility
- 15kg spool capacity
- 0.8 - 1.0mm wires
- Suitable for mild steel, aluminium and stainless steel MIG welding

TIG WELDING

- 220A TIG
- Lift Arc TIG function
- One piece TIG torch (sold separately - see below)
- Trigger controlled gas solenoid
- Not suitable for aluminium TIG welding

MMA STICK WELDING

- 220A MMA
- DC stick welding
- Up to 4mm electrode



Technical Data	MULTIMIG 250 MAT9082
Input Power Voltage	220V $\pm$ 15%
Frequency	50/60HZ
Rated Input Power Capacity	MMA 8.8 KVA, MIG 8.4 KVA
No Load Voltage	65V
Output Current Range	MMA 10 - 220A, MIG 50 - 250A
Rated Output Voltage	MMA 20 - 29V, MIG 16.5 - 26.5V
Duty Cycle %	60%
Suitable Welding Wire	0.8/1.0mm
Diameter of Coil	270mm
Welding Thickness	at least 0.8mm
Post-gas	1 Sec
Type of Wire Feeder	Internal



MAT9082K Accessory kit for MMA & MIG sold separately

Aluminium

MAT4675 TIG Torch
sold separately



Welding

THREE PHASE 380/525V DUAL VOLTAGE MULTI-PROCESS MIG/TIG/MMA/GOUGING

- Advanced IGBT inverter technology
- Constant current constant voltage CC/CV
- Dual voltage 380/525V
- 4 welding processes in 1
- MIG/TIG/MMA/Goiging
- High duty cycle 60% @ 40°C
- For heavy industrial and mining applications
- Voltage reduction device VRD
- Wire feeder available separately



MIG



TIG



MMA



Gouging



Technical Data	Multi-Process 400 MAT9084K
Input voltage	380/525V $\pm 15\%$
Frequency	50/60 Hz
Rated input power capacity	-
Weight	40kg

	MIG	TIG	MMA
No load voltage	75V $\pm 5V$	75V $\pm 5V$	75V $\pm 5V$
Rated output voltage	10-40V	10.4-26V	20.4-36V
Rated output current	60-400A	10-400A	60-400A
Duty cycle	60%	60%	60%



Technical Data	Multi-Process 600 MAT9085K
Input voltage	380/525V $\pm 15\%$
Frequency	50/60 Hz
Rated input power capacity	35.2KVA
Weight	58kg

	MIG	TIG	MMA	ARC Gouging
No load voltage	80V $\pm 5V$	80V $\pm 5V$	80V $\pm 5V$	85V
Rated output voltage	10-44V	10.4-34V	20.4-44V	20.4-44V
Rated output current	60-600A	20-600A	20-600A	20-600A
Duty cycle	60%	60%	60%	60%

MIG WELDING

- Requires separate 4 roll wire feeder MAT9084WF (see right)
- 2T/4T trigger function
- Wire inching facility
- Suitable for flux cored wire
- Excludes MIG torch (MAT5314 air cooled) or (MAT5315 water cooled) available separately
- Excludes water cooler MAT9010 (available separately)

TIG WELDING

- Lift arc TIG function
- 10-400A (MAT9084)
- 20-600A (MAT9085)
- Not suitable for aluminum TIG welding
- Excludes TIG torch (MAT4610 air cooled or MAT4630 water cooled) available separately

MMA STICK WELDING

- DC stick welding
- Welds all electrode types
- Cables included

CARBON ARC GOUGING

- 600A unit suitable for gouging
- MAT1280 Gouging Torch available separately
- Up to 9.5mm carbons



Wire Feeder for
MULTIMIG 400 & 600
MAT9084WF

ACCESSORIES REQUIRED (SOLD SEPARATELY)

TIG Welding Air Cooled

- MAT4610 or MAT4615 up to 200 Amps (see page 642)
- Flow Meter MAT3345EN (see page 620)

TIG Welding Water Cooled

- Water Cooler MAT9010 (see page 657)
- MAT4630 or MAT4631 (see page 643)
- Flow Meter MAT3345EN (see page 620)

MIG Welding Air Cooled

- Wire Feeder MAT9084WF (see right)
- MIG Torch MAT5314 (see page 636)
- Flow Meter MAT3345EN (see page 620)

MIG Welding Water Cooled

- Wire Feeder MAT9084WF (see right)
- Water Cooler MAT9010 (see page 657)
- MIG Torch MAT5315 (see page 635)
- Flow Meter MAT3345EN (see page 620)

Carbon Arc Gouging

- Gouging Torch MAT1280 (see page 663)
- Compressor Minimum 550KPa with 700 LPM (see page 90)

*Welding Wire
Not Supplied
(see pages 660 - 661)*

SINGLE PHASE 220V INVERTER 200A & MIG WELDER

- Compact and lightweight
- Inverter based technology
- Industrial quality in convenient 220V single phase
- For welding carbon and stainless steels as well as aluminium
- High 60% Duty cycle
- Wire diameters from 0.8mm to 1.0mm
- **MAT9080K** Accessory kit sold separately



Accessory Kit for MAT9080 & MAT9081
MAT9080K

Technical Data	MATMIG 200 MAT9080
Input Power Voltage	Single Phase AC 220V $\pm 15\%$
Rated Input Power Capacity	5.1 KVA
No Load Voltage	42V
Output Current Range	50-200A
Rated Output Voltage	20.0
Duty Cycle %	60%
Weight	34kg
Dimensions	655 x 295 x 610mm

SINGLE PHASE 220V INVERTER 250A MIG WELDER

- Compact and lightweight
- Inverter based technology
- Industrial quality in convenient 220V single phase
- For welding carbon and stainless steels as well as aluminium
- High 60% Duty cycle
- Wire diameters from 0.8mm to 1.0mm
- **MAT9080K** Accessory kit sold separately



Accessory Kit for MAT9080 & MAT9081
MAT9080K

Technical Data	MATMIG 250 MAT9081
Input Power Voltage	Single Phase AC 220V $\pm 15\%$
Rated Input Power Capacity	7.1 KVA
No Load Voltage	42V
Output Current Range	50-250A
Rated Output Voltage	22.5
Duty Cycle %	60%
Weight	35kg
Dimensions	655 x 295 x 610mm

THREE PHASE 380V & 380V/525V DUAL VOLTAGE TRANSFORMER MIG WELDERS - 350A

- Fully Industrial Silicon rectifier type welders
- Heavy Duty applications
- Digital Volt and Current meters
- 350 & 500 Amp Separate feeder models with 5m interconnecting cable
- Available in 380V and 380/525V dual voltage
- 2T - 4T trigger function
- Wire inching



MAT9072K Accessory kit sold separately

Technical Data	MATMIG 350 MAT9072	MATMIG 350 Dual Voltage MAT9072DV
Input Power Voltage	Three Phase AC 380V $\pm 10\%$	Three Phase AC 380/525V $\pm 10\%$
Rated Input Power Capacity	15.9 KVA	15.9 KVA
No Load Voltage	19-40V	19-40V
Output Current Range	60-360A	60-360A
Duty Cycle %	60	60
Wire Feed Speed	1.5-15 m/min	1.5-15 m/min
Wire Diameters	1.0-1.6mm	1.0-1.6mm
Weight	143kg	143kg
Dimensions (LWH)	725 x 460 x 790mm	725 x 460 x 790mm

THREE PHASE 380V & 380V/525V DUAL VOLTAGE TRANSFORMER MIG WELDERS - 500A

- Fully Industrial Silicon rectifier type welders
- Heavy Duty applications
- Digital Volt and Current meters
- 350 & 500 Amp Separate feeder models with 5m interconnecting cable
- Available in 380V and 380/525V dual voltage
- 2T - 4T trigger function
- Wire inching



Air Cooled Configuration requires MAT9073K
Accessory kit sold separately

Water Cooled Configuration requires MAT9073KWC Accessory kit
and MAT9010 Water Cooler sold separately (see page 657)

Technical Data	MATMIG 500 MAT9073	MATMIG 500 Dual Voltage MAT9073DV
Input Power Voltage	Three Phase AC 380V $\pm 10\%$	Three Phase AC 380/525V $\pm 10\%$
Rated Input Power Capacity	32.6 KVA	32.6 KVA
No Load Voltage	21-53V	21-53V
Output Current Range	110-540A	110-540A
Duty Cycle %	60	60
Wire Feed Speed	1.5-15 m/min	1.5-15 m/min
Wire Diameters	1.2-1.6mm	1.2-1.6mm
Weight	191kg	191kg
Dimensions (LWH)	790 x 500 x 840mm	790 x 500 x 840mm

SINGLE PHASE 220V PLASMA CUTTER - 40A

- Compact and lightweight
- Industrial 220V Inverter type Plasma Cutter
- Cuts most metals
- 60% duty cycle
- Supplied with A51 Plasma Torch
- See page 654 for torch spares



Plasma Cutting is a process that is used to cut steel or other metals by combining compressed air and electricity. Compressed air is blown through a nozzle of a plasma torch in conjunction with an electrical arc which converts the air to plasma. Plasma is sufficiently hot to melt the metal being cut and moves fast enough to blow molten metal away from the cut.

Plasma Cutting as a technology grew out of plasma welding which was successfully used in the late 1960s. It emerged as a very productive way to cut sheet metal and plate in the 1980s and had advantages over traditional methods of metal cutting in that it was faster more accurate and didn't produce metal chips. Plasma cuts still produce significantly cleaner cuts than the Oxy Fuel process. The Plasma arc is extremely hot and is generally in the range of 25 000°C

Technical Data	MAT9091 Matcut 40
Input Voltage	Single Phase 220V $\pm 15\%$
Rated Input Power	4.9Kva
No Load Voltage	220V
Output Current	20-40A
Output Voltage	96V
Duty Cycle	60%
Max Cutting Thickness (Steel)	7mm
No Load Consumption	40W
Arc Initiation	HF

THREE PHASE 380V PLASMA CUTTER - 70A

- Compact and lightweight
- Industrial 380V Inverter type Plasma Cutter
- Cuts most metals
- 60% duty cycle
- MAT9092 Supplied with A81 Plasma Torch
- See page 654 for torch spares
- HF Arc start



Technical Data	MAT9092 Matcut 70
Input Voltage	Three Phase 380V $\pm 10\%$
Rated Input Power	9.6Kva
No Load Voltage	270V
Output Current	20-70A
Output Voltage	108V
Duty Cycle	60%
Max Cutting Thickness (Steel)	25mm
No Load Consumption	50W
Arc Initiation	HF

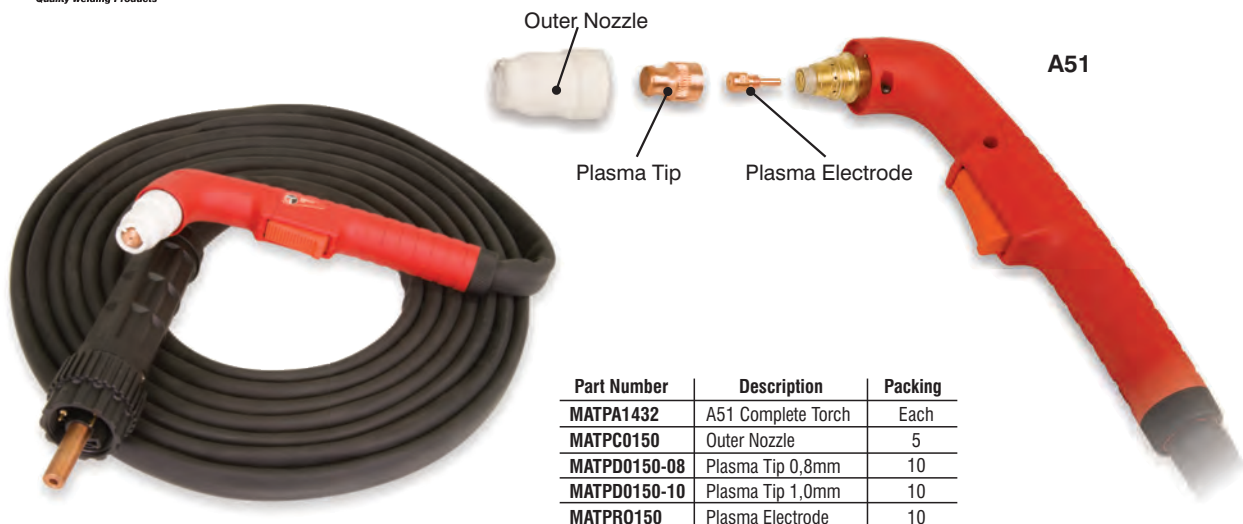
THREE PHASE 380V PLASMA CUTTER - 120A

- Compact and lightweight
- Industrial 380V Inverter type Plasma Cutter
- Cuts most metals
- 60% duty cycle
- MAT9092 Supplied with A81 Plasma Torch
- See page 654 for torch spares
- HF Arc start

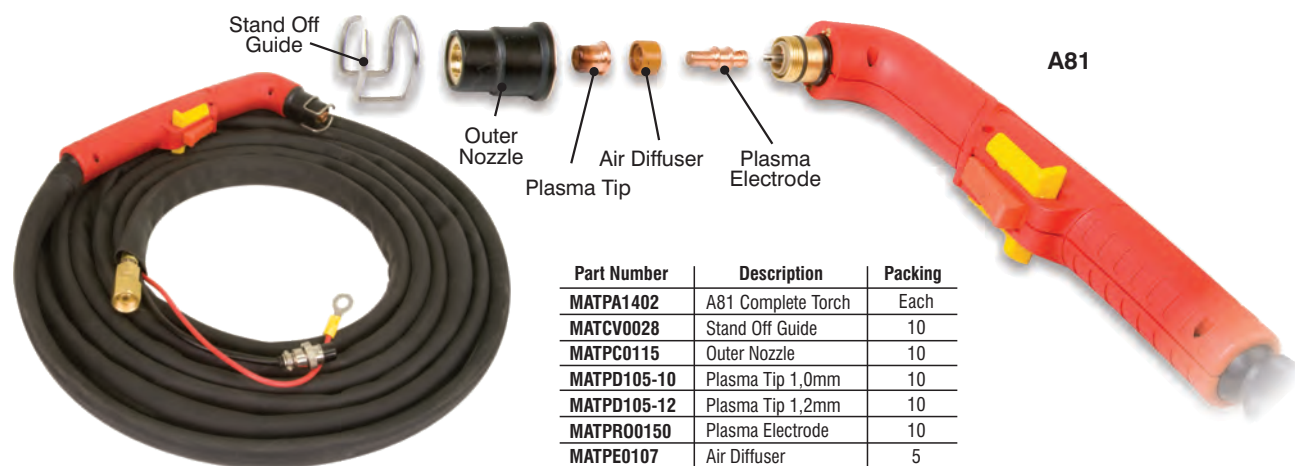


Technical Data	MAT9093 Matcut 120
Input Voltage	Three Phase 380V $\pm 10\%$
Rated Input Power	19.4Kva
No Load Voltage	340V
Output Current	20-120A
Output Voltage	128V
Duty Cycle	60%
Max Cutting Thickness (Steel)	35mm
No Load Consumption	40W
Arc Initiation	HF

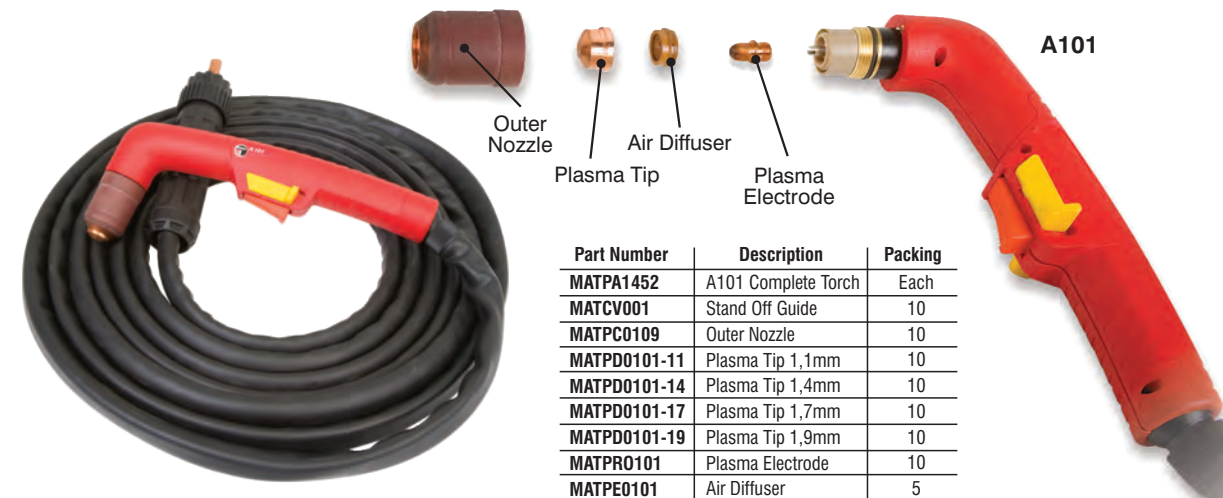
SINGLE PHASE 220V PLASMA TORCH & SPARES



THREE PHASE 380V PLASMA TORCH & SPARES



THREE PHASE 380V PLASMA TORCH & SPARES



ARC WELDER 140A 220V

- Robust and easy to use
- TV interference free
- Built to comply with current safety specifications
- Lifetime guarantee against burnout of transformer
- Oil cooled for best performance
- Duty cycle 20%



Code	Capacity	Voltage	Phase
TON1063	140 Amp	220	1

ARC WELDER 220A 220V

- Robust and easy to use
- TV interference free
- Built to comply with current safety specifications
- Lifetime guarantee against burnout of transformer
- Oil cooled for best performance
- Duty cycle 20%



Code	Capacity	Voltage	Phase
TON1065	220 Amp	220	1

TONCO cc ARC WELDER 160A 220V

- Robust and easy to use
- TV interference free
- Built to comply with current safety specifications
- Lifetime guarantee against burnout of transformer
- Oil cooled for best performance
- Duty cycle 20%



Code	Capacity	Voltage	Phase
TON0010	160 Amp	220	1

TONCO cc ARC WELDER 250A 220V

- Robust and easy to use
- TV interference free
- Built to comply with current safety specifications
- Lifetime guarantee against burnout of transformer
- Oil cooled for best performance
- Duty cycle 20%



Code	Capacity	Voltage	Phase
TON0005	250 Amp	220	1

TONCO cc ARC WELDER 250A 220-380V

- Robust and easy to use
- TV interference free
- Built to comply with current safety specifications
- Lifetime guarantee against burnout of transformer
- Oil cooled for best performance
- Duty cycle 20%



Code	Capacity	Voltage	Phase
TON1050	160 Amp	220/380	1/3

TONCO cc ARC WELDER 250A 380V

- Robust and easy to use
- TV interference free
- Built to comply with current safety specifications
- Lifetime guarantee against burnout of transformer
- Oil cooled for best performance
- Duty cycle 20%



Code	Capacity	Voltage	Phase
TON0045	300 Amp	380	2

TONCO cc ARC WELDER 300A 380V

- Robust and easy to use
- TV interference free
- Built to comply with current safety specifications
- Lifetime guarantee against burnout of transformer
- Oil cooled for best performance
- Duty cycle 20%



Code	Capacity	Voltage	Phase
TON1045	300 Amp	380	2

TONCO cc WELDING ACCESSORY KIT - 140AMP

- Comprises earth clamp, electrode holder, 3m black cable
- Cable fitted with lugs
- Flip-front helmet



Code
TON0030

TONCO cc WELDING ACCESSORY KIT - 160AMP

- Comprises earth clamp, electrode holder, 3m black cable
- Cable fitted with lugs
- Flip-front helmet



Code
TON0025

TONCO cc WELDING ACCESSORY KIT - 250AMP

- Comprises earth clamp, electrode holder, 3m black cable
- Cable fitted with lugs
- Flip-front helmet



Code
TON0020

TONCO cc WELDING ACCESSORY KIT - 300AMP

- Comprises earth clamp, electrode holder, 3m black cable
- Cable fitted with lugs
- Flip-front helmet



Code
TON1055

TONCO cc TRANSFORMER OIL

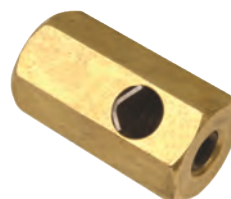
- Use in TONCO transformer type welding machines
- Acts as a transformer coolant



Code	Size
TON2000	1 litre

TONCO cc FEMALE CONNECTOR

- For connecting to welder



Code	Size
TON2035	160A
TON2040	250A

SINGLE PHASE 220V ELECTRODE OVEN - 100KG CAPACITY

Used to rebake electrodes prior to use

- Manufactured from the highest grade steel and insulation ensures constant temperature
- Incorporates a highly efficient heater and thermostat
- Cabinet manufactured from durable Electro galvanized plate

Technical Data	MAT9025
Input Voltage	220V
Temperature	50 - 400°C
Weight	46Kg
Capacity	100Kg
Inner Dimensions (LWH)	550 x 370 x 410 mm



SINGLE PHASE 220V HOT BOX - 8.5KG CAPACITY

Used to keep electrodes dry on site after rebaking in an electrode oven

- Manufactured from the highest grade steel and insulation ensures constant temperature
- Incorporates a highly efficient heater and thermostat
- For electrodes up to 450mm in length
- With convenient pull out handle and wheels for easy mobility

Technical Data	MAT9020
Input Voltage	220V
Temperature	50 - 300°C
Weight	14.2Kg
Capacity	8.5Kg
Outer Dimensions (LWH)	190 x 235 x 645 mm
Inner Dimensions (LWH)	110 x 160 x 530 mm



SINGLE PHASE 220V WATER COOLER

- 220 Volt Single Phase
- Suitable for MIG and TIG applications
- Compact Robust Design

Technical Data	MAT9010
Input Power Voltage	220V $\pm$ 10%
Volume	8 Litre
Rated Power	150W
Rated Input Current	2.4A
Maximum Flow in L/Min	1.5 - 5.3



electrodes & filler materials

Matweld offers a comprehensive range of Welding Electrodes for every application.

Welding electrodes are sourced both locally and abroad and often from more than one manufacturer depending on their area of expertise.

Matweld's locally manufactured Mild Steel General Purpose electrodes are SABS approved and are manufactured to stringent criteria.

Test Certificates are available for all Matweld Electrodes on request



Welding

AWS E 6013

- Promax SP E6013 is a high quality professional rutile coated electrode
- It is recognized by its green tip
- It offers excellent penetration with very good striking and re-striking characteristics and very little spatter
- The slag is easily detached and is often self lifting
- Promax GP E6013 General Purpose Electrodes are better suited to DIY and semi professional applications
- They are recognised by their red tip

Part Number	Size	Grade	Welding Current (Amps)	Weight
MAT5588	2.5mm	GP	55 - 85	1kg
MAT5590	3.2mm	GP	75 - 110	1kg
MAT5594	2.5mm	GP	55 - 85	5kg
MAT5596	3.2mm	GP	75 - 110	5kg
MAT5598	4.0mm	GP	90 - 140	5kg
MAT6012	2.0mm	GP	40 - 70	4kg
MAT6005	2.0mm	GP	-	1kg
MAT6000	2.5mm	GP	55 - 85	1kg
MAT6015	2.5mm	SP	55 - 85	5kg
MAT6010	3.15mm	SP	75 - 110	1kg
MAT6020	3.15mm	SP	75 - 110	5kg
MAT6025	4.0mm	SP	90 - 140	5kg

E309MoL - 16

- Matweld Stanox E309MoL-16 is a low carbon, high alloy rutile coated stainless steel electrode
- Matweld Stanox E309MoL-16 is suitable for all positions except vertical down
- Matweld Stanox E309MoL-16 is suitable for welding 309 and 309L stainless steel and the dissimilar welding of 300 series and selected 400 series stainless steels

Part Number	Size	Welding Current (Amps)	Weight
MAT6120	2.5mm	60 - 80	1kg
MAT6125	3.15mm	90 - 110	1kg
MAT6130	4.0mm	110 - 150	1kg

E7018 - 1

- Matweld E7018-1 is a basic coated hydrogen controlled electrode designed for welding in all positions
- Matweld E7018-1 has a low spatter and excellent re-strike characteristics
- The weld has an excellent bead profile and appearance and the slag is easily detached
- Used to weld C-Mn and low alloy steels requiring X-ray examination
- Matweld E7018-1 requires a minimum AC open circuit voltage of 70 Volts and must be baked at 180°C (350°F) for 2 hours prior to use

Part Number	Size	Welding Current (Amps)	Weight
MAT6050	2.5mm	70 - 110	4kg
MAT6055	3.15mm	80 - 140	4kg
MAT6060	4.0mm	130 - 190	4kg
MAT6065	5.0mm	172 - 250	5kg

E316L - 16

- Matweld Stanox E316-16 is a low carbon rutile coated stainless steel electrode suitable for all positions except vertical down
- Matweld Stanox E316-16 is used for the general purpose welding of 300 austenitic stainless steel series such as 301, 303 as well as 304 and 304L types

Part Number	Size	Welding Current (Amps)	Weight
MAT6145	2.5mm	40 - 70	1kg
MAT6150	3.15mm	75 - 110	1kg
MAT6155	4.0mm	110 - 150	1kg

E7024

- Matweld E7024 is a high quality heavily coated rutile iron powder electrode designed for the high speed welding of H-V fillets, flat butt joints and structural steel
- Matweld E7024 has very low spatter and its strike and re-strike characteristics are excellent
- Matweld E7024h as a very good weld appearance and the slag is easily detachable and in most cases self lifting

Part Number	Size	Welding Current (Amps)	Weight
MAT6085	3.15mm	100 - 160	5kg
MAT6090	4.0mm	160 - 220	5kg
MAT6095	5.0mm	190 - 320	5kg

AWS ENI - C1

- Matweld Stanox E308L-16 is a low carbon smooth running rutile coated stainless steel electrode
- Matweld Stanox E308L-16 is suitable for all positions except vertical down
- Matweld Stanox E308L-16 is suitable for welding 19Cr10Ni type steels including 201, 202, 301, 302, 304L and 308

Part Number	Size	Welding Current (Amps)	Weight
MAT6100	2.5mm	40 - 70	1kg
MAT6105	3.15mm	75 - 110	1kg
MAT6110	4.0mm	110 - 150	1kg

**STAINLESS STEEL E312-16;
AWS/ ASME SFA 5.4; E312-16;
DIN 8556 E29 9 LR 23**



- Matweld E312-16 is a rutile coated stainless steel electrode ideally suited to welding dissimilar steel such as stainless to carbon steel

Part Number	Size	Welding Current (Amps)	Weight
MAT6170	2.5mm	40 - 80	1kg
MAT6175	3.15mm	75 - 110	1kg
MAT6180	4.0mm	110 - 150	1kg

**CAST IRON ENIFE-CL;
AWS A5.15 ENIFE-CL;
DIN 8573 ENIFE-1 G24**



- Matweld Matcast50 is a graphite type coated electrode with a Fe-Ni alloy core
- Matweld Matcast50 provides a low expansion coefficient and good machining properties
- Matweld Matcast50 is suitable for welding ductile and malleable cast iron as well as grey cast iron material

Part Number	Size	Welding Current (Amps)	Weight
MAT6200	2.5mm	60 - 80	1kg
MAT6205	3.15mm	80 - 120	1kg
MAT6210	4.0mm	120 - 150	1kg

**CAST IRON ENI-CL;
AWS A5.15 ENI-CL;
DIN 8573 ENI G24**



- Matweld Matcast100 is a graphite type coated electrode with a pure nickel alloy core
- The weld provides excellent machineability and good tensile strength as well as good crack resistance
- Matweld Matcast100 is suitable for welding high pressure parts

Part Number	Size	Welding Current (Amps)	Weight
MAT6240	2.5mm	60 - 80	1kg
MAT6245	3.15mm	70 - 120	1kg
MAT6250	4.0mm	100 - 150	1kg

ALUMINIUM MIG WIRE - ER4043

- High quality 4043 grade aluminium MIG welding wire
- Contains 5% silicon
- ER4043 is one of the most widely used welding and brazing alloys and can be classified as a general-purpose filler alloy
- The silicon additions result in improved fluidity (wetting action) to make the alloy the preferred choice for welders
- The alloy is less sensitive to weld cracking and produces brighter, cleaner welds
- Can also be used for joining cast to wrought materials
- Non-heat treatable
- Softer than 5356 and slightly harder to feed, can be used on standard MIG torches



Part No.	Size	Grade	Weight
MAT7050	1,0mm	ER4043	6kg
MAT7055	1,2mm	ER4043	6kg

ALUMINIUM MIG WIRE - ER5356

- High quality 5356 grade aluminium MIG welding wire
- Contains 5% magnesium
- ER5356 is the most widely used welding alloy and can be classified as a general-purpose filler alloy
- It is typically chosen because of its relatively high shear strength
- The 5356 alloy base material has a weld pool chemistry greater than 3% Mg and service temperatures in excess of 6°C
- ER5356 gives a high strength weld deposit with very good crack resistance
- Corrosion resistance is very good especially in a marine environment
- Easy feeding wire, can be used on standard MIG torches



Part No.	Size	Grade	Weight
MAT7060	1,0mm	ER5356	6kg
MAT7065	1,2mm	ER5356	6kg

STAINLESS STEEL MIG WIRE - ER308LSi

- Designed for welding '18-8' type stainless steels such as 302/304/304L (wrought) and CF-3/CF-8 (cast)
- The deposit is highly resistant to oxidation and corrosion
- This all-position, quality MIG welding wire is ideally suited for joining common austenitic stainless steel grades
- It is specially processed to provide superior feeding and arc stability



Part No.	Size	Grade	Weight
MAT7000	1,0mm	ER308LSi	15kg
MAT7010	1,2mm	ER308LSi	15kg

- For welding 304L/309 (wrought) and CF-3/CH-20 (cast) base materials
- A high Cr austenitic stainless steel electrode for applications where improved corrosion and oxidation resistance are required
- Also used for dissimilar metals joining such as stainless steel to carbon/low alloy steel



Part No.	Size	Grade	Weight
MAT7015	1,0mm	ER309LSi	15kg
MAT7020	1,2mm	ER309LSi	15kg

- Optimised arc performance and feedability
- This MIG wire is designed for joining low carbon molybdenum bearing austenitic stainless steels, such as type 316 and 316L
- All-position stainless steel MIG welding wire



Part No.	Size	Grade	Weight
MAT7025	1,0mm	ER316LSi	15kg
MAT7030	1,2mm	ER316LSi	15kg

- Premium, all position, mild steel welding wire
- Designed for general purpose MIG welding
- Contains higher levels of Manganese and Silicon than other standard grades of MIG wire to produce high quality welds when used on rusted, dirty or oily steel
- This product requires a shielding gas, Co² and/or Argon/Co² mix



Part No.	Size	Grade	Weight
MAT6030	0,8mm	ER70-S6	15kg
MAT6031	0,8mm	ER70-S6	5kg
MAT6032	0,9mm	ER70-S6	15kg
MAT6033	0,9mm	ER70-S6	5kg
MAT6034	1,0mm	ER70-S6	15kg
MAT6035	1,2mm	ER70-S6	15kg

- High quality 4043 grade aluminium TIG welding wire
- Contains 5% silicon
- ER4043 is one of the most widely used welding and brazing alloys and can be classified as a general-purpose filler alloy
- The silicon additions result in improved fluidity (wetting action) to make the alloy the preferred choice for welders
- The alloy is less sensitive to weld cracking and produces brighter, cleaner welds
- Can also be used for joining cast to wrought materials
- Non-heat treatable
- Grade stamped



Part No.	Size	Grade	Weight
MAT6445	1,6mm	Er4043	5kg
MAT6450	2,4mm	ER4043	5kg
MAT6455	3,2mm	ER4043	5kg

- High quality 5356 grade aluminium TIG welding wire
- Contains 5% magnesium
- ER5356 is the most widely used welding alloy and can be classified as a general-purpose filler alloy
- It is typically chosen because of its relatively high shear strength
- The 5356 alloy base material has a weld pool chemistry greater than 3% Mg and service temperatures in excess of 6° C
- ER5356 gives a high strength weld deposit with very good crack resistance
- Corrosion resistance is very good especially in a marine environment
- Grade stamped



Part No.	Size	Grade	Weight
MAT6460	1,6mm	ER5356	5kg
MAT6465	2,4mm	ER5356	5kg
MAT6475	3,2mm	ER5356	5kg

- Premium, all position, mild steel welding wire
- Designed for general purpose TIG welding
- Contains higher levels of Manganese and Silicon than other standard grades of TIG wire to produce high quality welds when used on rusted, dirty or oily steel
- This product requires a shielding gas, Co₂ and/or Argon/Co₂ mix



Part No.	Size	Grade	Weight
MAT6038	1,6mm	ER70-S6	5kg
MAT6040	2,4mm	ER70-S6	5kg

- Designed for welding '18-8' type stainless steels such as 302/304/304L (wrought) and CF-3/CF-8 (cast)
- The deposit is highly resistant to oxidation and corrosion
- This all-position, quality TIG welding wire is ideally suited for joining common austenitic stainless steel grades
- It is specially processed to provide superior feeding and arc stability
- Grade stamped



Part No.	Size	Grade	Weight
MAT6400	1,6mm	ER308LSi	5kg
MAT6405	2,4mm	ER308LSi	5kg
MAT6410	3,2mm	ER308LSi	5kg

- For welding 304L/309 (wrought) and CF-3/CH-20 (cast) base materials
- A high Cr austenitic stainless steel electrode for applications where improved corrosion and oxidation resistance are required
- Also used for dissimilar metals joining such as stainless steel to carbon/low alloy steel
- Grade stamped



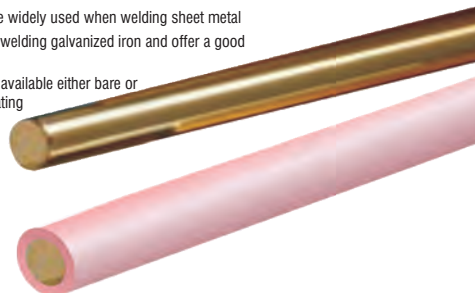
Part No.	Size	Grade	Weight
MAT6415	1,6mm	ER309LSi	5kg
MAT6420	2,4mm	ER309LSi	5kg
MAT6425	3,2mm	ER309LSi	5kg

- Optimised arc performance and feedability
- This TIG wire is designed for joining low carbon molybdenum bearing austenitic stainless steels, such as type 316 and 316L
- All-position stainless steel TIG welding wire



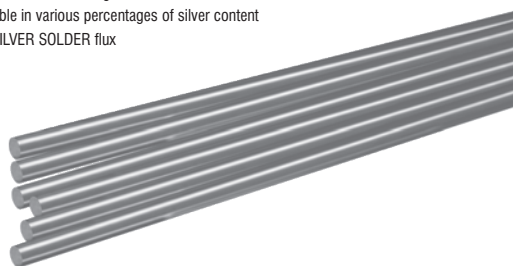
Part No.	Size	Grade	Weight
MAT6430	1,6mm	ER316LSi	5kg
MAT6435	2,4mm	ER316LSi	5kg
MAT6440	3,2mm	ER316LSi	5kg

- Matweld brazing rods are widely used when welding sheet metal
- They are also suitable for welding galvanized iron and offer a good tensile strength
- Matweld brazing rods are available either bare or with a convenient flux coating



Part No.	Size	Brazing Rod Type	Weight
MAT6305	1,6mm	Bare	10kg
MAT6315	2,0mm	Bare	10kg
MAT6325	3,0mm	Bare	10kg
MAY6311	2,0mm	Flux coated	5kg
MAT6321	3,0mm	Flux coated	5kg

- CADMIUM FREE
- Silver solder suitable for use on all ferrous and non-ferrous metals, except aluminium
- Can be used with a range of heat sources
- Available in various percentages of silver content
- Use SILVER SOLDER flux



Part No.	Size	% Silver	Weight
MAT6800	1,5mm	20	1kg
MAT6805	1,5mm	30	1kg
MAT6810	1,5mm	40	1kg
MAY6815	1,5mm	50	1kg

- Designed specifically for use with bare silver solder (above)
- Available in 500g tubs

Part No.	Size
MAT6999	500g

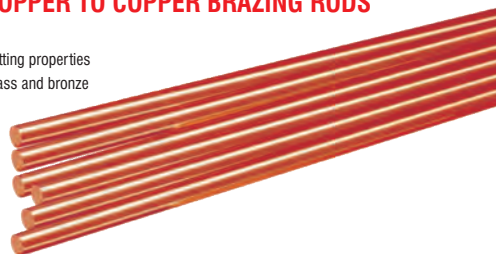


- Special fast flow flux improves base metal cleansing action
- CADMIUM FREE
- Silver solder suitable for use on all ferrous and non-ferrous metals, except aluminium
- Can be used with a range of heat sources
- Available in various percentages of silver content



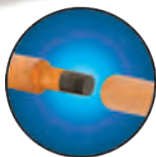
Part No.	Size	% Silver	Weight
MAT6825	1,5mm	20 (White)	1kg
MAT6830	1,5mm	30 (Blue)	1kg
MAT6835	1,5mm	40 (Yellow)	1kg

- Excellent flow and wetting properties
- For use on copper, brass and bronze
- Does not require flux
- Suitable for joining pipes and tubing and is widely used for electrical work



Part No.	Size	% Silver	Grade	Weight
MAT6850	2,0mm	0	AWS BCuP-2	1kg
MAT6855	3,0mm	0	AWS BCuP-2	1kg
MAT6860	2,0mm	2	AWS BCuP-6	1kg
MAT6865	3,0mm	2	AWS BCuP-6	1kg
MAT6870	2,0mm	5	AWS BCuP-3	1kg
MAT6875	3,0mm	5	AWS BCuP-3	1kg
MAT6880	2,0mm	15	AWS BCuP-5	1kg
MAT6885	3,0mm	15	AWS BCuP-5	1kg

- Top quality Gouging carbons
- Available in "Jointed" and "Non-Jointed" style
- Jointed carbons allow for longer reach
- One of the world's leading brands now available from Matweld
- Made in Taiwan



Part No.	Size	% Type	Packing
MAT6500	5.0mm	Non-Jointed	100 / Box
MAT6505	6.5mm	Non-Jointed	50 / Box
MAT6510	8.0mm	Non-Jointed	50 / Box
MAT6515	9.5mm	Non-Jointed	50 / Box
MAT6520	9.5mm	Jointed	50 / Box
MAT6525	13.0mm	Jointed	50 / Box

- General purpose carbon arc air gouging torch
- Gouging, cutting, beveling & piercing metal
- 15° torch angle
- 2 metre swivel cable
- Requires compressed air at 80 to 100psi
- Weight 2.4kg



Part No.	Type	Rating
MAT1275	K4	800 Amp

- Heavy Duty carbon arc air gouging torch
- Gouging, cutting, beveling & piercing metal
- Heavy duty foundry application
- 2 metre swivel cable
- Requires compressed air at 80 to 100psi
- Weight 2.4kg



Part No.	Type	Rating
MAT1280	K5	1000 Amp