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A man with a beard and short hair, wearing a blue and black high-visibility work jacket with reflective yellow stripes, is shown from the chest up. He is holding a black welding torch and its associated cables over his right shoulder. The background is a plain, light grey.

# SET-UP AND MAINTENANCE GUIDE

## INDUSTRIAL SERIES

**INTELLIGENT**  
TORCH SOLUTIONS

ARC M MULTIJUST SERIES

## Contents

### Multijust Industrial Series

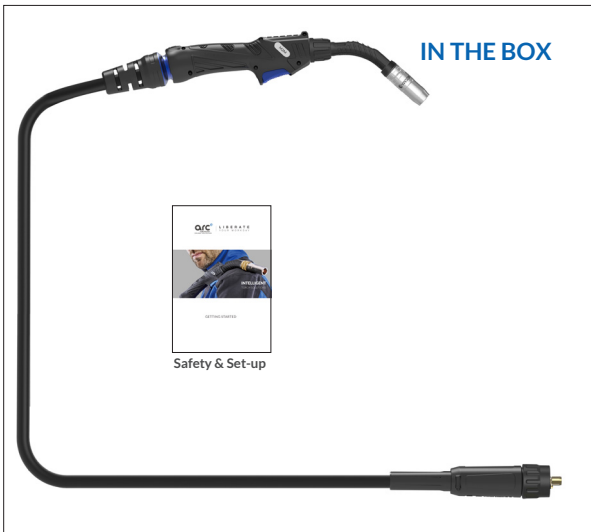
<b>M2M</b>	
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# M2M Air-Cooled Multijust Mig Welding Torch



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Ideal for 0.8-1.0mm hard wires and industrial environments.  
Fitted with a longer neck with 360° rotation, perfect for multiple positions in difficult to reach areas.



## TECHNICAL SPECIFICATIONS

IEC/EN 60974-7

### M2M

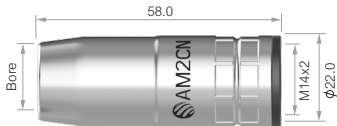
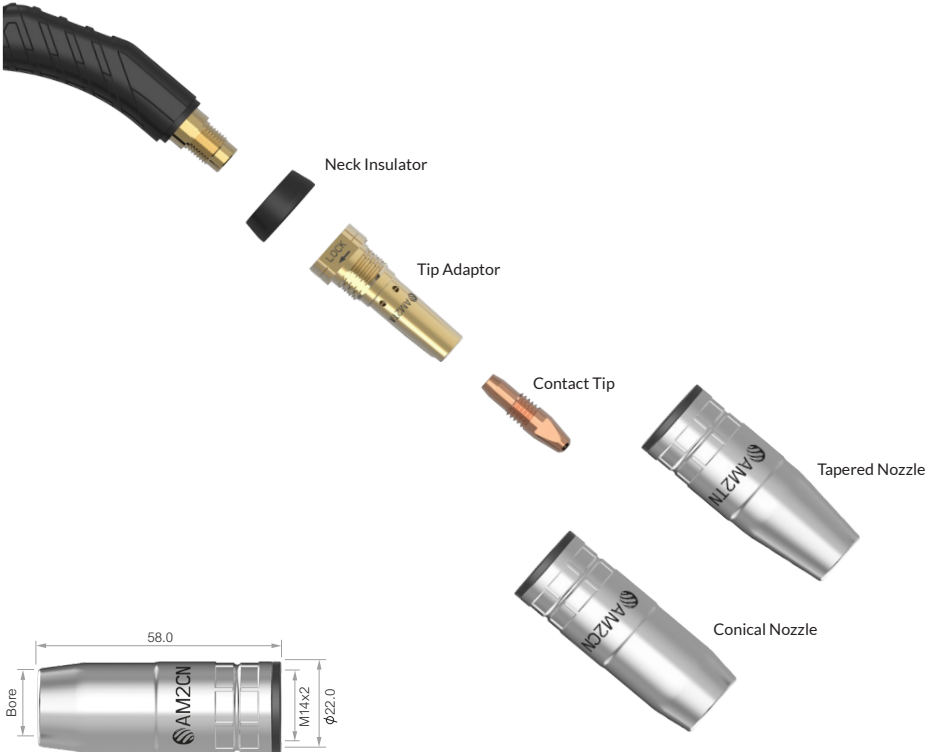
Cooling Method	Air-Cooled	
Rating:	CO <sub>2</sub>	230A
	Mixed Gas M21	200A
	Pulse	110A
Duty Cycle	60%	
Wire Size	0.8-1.2mm	

# M2M SET-UP GUIDE

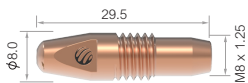


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M2M Torches are supplied “ready to weld” with all wear parts fitted in accordance with the items listed below •



• AM2CN	15mm	1.9mm	Copper
AM2TN	12mm	1.9mm	Copper



AM2CT08	M8*29.5	0.8 - 0.030"	Copper
AM2CT09	M8*29.5	0.9 - 0.035"	Copper
• AM2CT10	M8*29.5	1.0 - 0.040"	Copper
AM2CT12	M8*29.5	1.2 - 0.045"	Copper
AM2CT08A	M8*29.5	0.8 - 0.030"	Copper
AM2CT10A	M8*29.5	1.0 - 0.040"	Copper
AM2CT12A	M8*29.5	1.2 - 0.045"	Copper



• AM2TA	Brass
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• AM2AP

• Denotes torch package standard wear part set-up

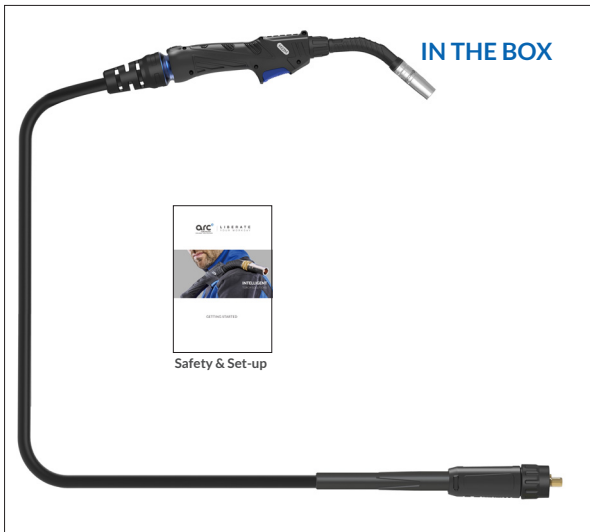
# M22M Air-Cooled Multijust Mig Welding Torch



MAKE WORK  
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A great all-round Industrial torch for high duty 200 Amp solid wires and low duty Pulse Mig Aluminium applications.

Fitted with a longer neck with 360° rotation, perfect for multiple positions in difficult to reach areas.



## TECHNICAL SPECIFICATIONS

IEC/EN 60974-7

### M22M

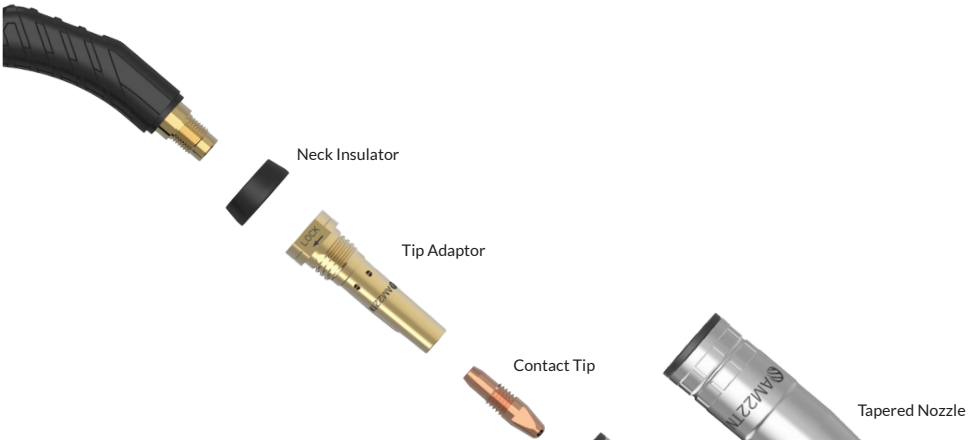
Cooling Method	Air-Cooled	
Rating:	CO <sub>2</sub>	250A
	Mixed Gas M21	220A
	Pulse	120A
Duty Cycle	60%	
Wire Size	0.8-1.2mm	

# M22M SET-UP GUIDE



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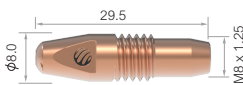
M22M Torches are supplied “ready to weld” with all wear parts fitted in accordance with the items listed below •



•AM22CN	16mm	1.75mm	Copper
AM22TN	14mm	1.75mm	Copper



AM22CNHD	16mm	2.00mm	Copper
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AM2CT08	M8*29.5	0.8 - 0.030"	Copper
AM2CT09	M8*29.5	0.9 - 0.035"	Copper
•AM2CT10	M8*29.5	1.0 - 0.040"	Copper
AM2CT12	M8*29.5	1.2 - 0.045"	Copper
AM2CT08A	M8*29.5	0.8 - 0.030"	Copper
AM2CT10A	M8*29.5	1.0 - 0.040"	Copper
AM2CT12A	M8*29.5	1.2 - 0.045"	Copper



• AM22TA	Brass
----------	-------



• AM2AP

• Denotes torch package standard wear part set-up

# LINER OPTIONS



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## Liners

### Filler Metal

**Steel Liner** Recommended for: Fe, Fe-MC/FC. Light and medium duty applications

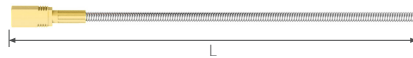
Part No.	Description	Wire Size mm	M2M	M22M
AM1535-30	Steel Liner x 3mt	0.6-0.9	●	●
AM1535-40	Steel Liner x 4mt	0.6-0.9	●	●
AM1535-50	Steel Liner x 5mt	0.6-0.9	●	●



AM2524-30	Steel Liner x 3mt	1.0-1.2	●	●
AM2524-40	Steel Liner x 4mt	1.0-1.2	●	●
AM2524-50	Steel Liner x 5mt	1.0-1.2	●	●



AM2MJL	Neck Jump Liner - Hard Wire (L:170mm)	0.8-1.2	●	●
AM22MJL	Neck Jump Liner - Hard Wire (L:186.5mm)	0.8-1.2	●	●



**Al - Soft Wire Liner** Recommended for: Air-cooled torches with AlMg. Can be used for SS-MC/FC wires

AM1564A-30	Soft Wire Liner x 3mt	0.8-1.2	●	●
AM1564A-40	Soft Wire Liner x 4mt	0.8-1.2	●	●
AM1564A-50	Soft Wire Liner x 5mt	0.8-1.2	●	●



AM2MJL-B	Neck Jump Liner - Soft Wire (L:170mm)	0.8-1.2	●	●
AM22MJL-B	Neck Jump Liner - Soft Wire (L:186.5mm)	0.8-1.2	●	●



### Welding with Soft Wires

For welding with Aluminum wires use a Soft Wire Liner.  
Optimum installation is achieved when using the Combi-liner set-up kit.

- Standard wear part range
- Torch package standard wear part set-up

# NECK LINER SET-UP

Hard Wire/Soft Wire



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## Installing/Replacing a Neck Liner (Hard Wire/Soft Wire)

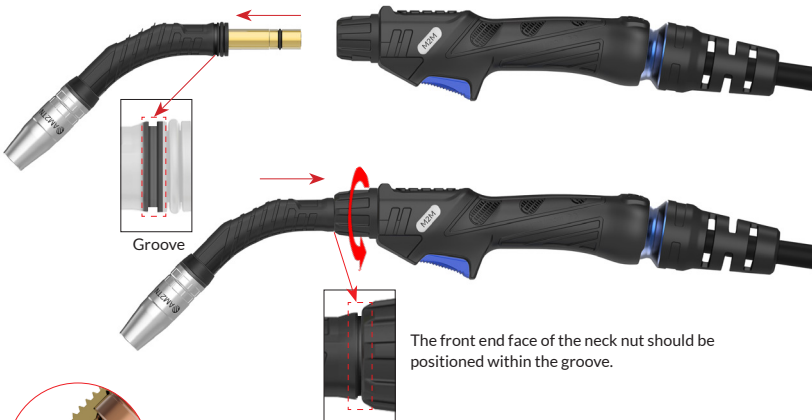
- Unscrew the neck nut anti-clockwise by one turn.
- Remove the swan neck by pulling it out.

### Step 1



- Unscrew the existing neck liner and replace with new neck liner.
- Remove the liner retaining nut, and pull out the existing torch liner about 10cm.
- Ensure that the swan neck is located to the position (Groove) marked on the swan neck. Screw tight.
- No need to trim the neck liner

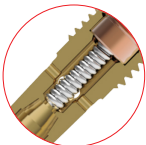
### Step 2



Groove



The front end face of the neck nut should be positioned within the groove.



The neck liner front-end sits inside the tip adaptor as shown



# TORCH LINER SET-UP - HARD WIRES

## Installing a Torch Liner

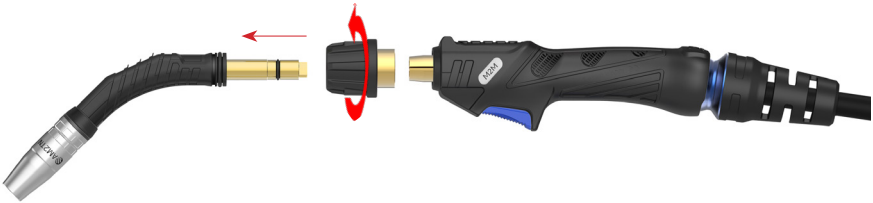
### Prepare the Torch

### Step 1

- Lay the torch out flat and straight.
- Unscrew swan neck retaining nut , pull out the swan neck and remove swan neck retaining nut.
- Remove the liner retaining nut , twist and pull out the old liner.

#### Important:

Liners should not be fitted if the torch is bent or coiled



### Install the New Liner

### Step 2

- Feed in the new liner in short strokes 20cm per time. (Fig 1)
- Continue to feed until the liner nipple is inside the gun plug body.  
Fit liner retaining nut.(Fig 2)
- Trim the excess steel liner align with swan neck holder's front end. (Fig 3)

#### Important:

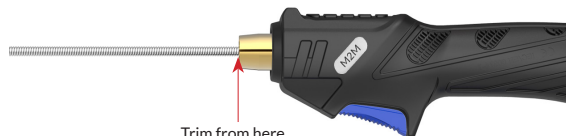
Do not use a kinked liner



Fig 1



Fig 2



Trim from here

Fig 3

## Install the New Liner

## Step 3

- Pull out the liner from the Torch , and trim liner 30mm from front end.(Fig 1)
- Remove sharp burr from any internal and external surfaces from liner front-end with a file or a grinder.(Fig 2)
- Assemble swan neck retaining nut to swan neck holder, assemble swan neck to swan neck holder. Be careful not to damage the O-Ring. Make sure the swan neck is in position. Finally tighten the swan neck retaining nut. (The torque is 5N.m) (Fig 3)
- Feed in the new liner in short strokes 20cm per time. (Fig 4)
- Fit liner nut. The torque is 2.5N.m. (Fig 5)
- The liner front-end sits inside the neck liner nipple as shown (Fig 6)

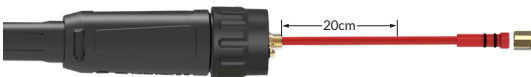
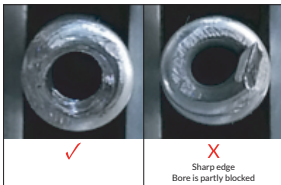
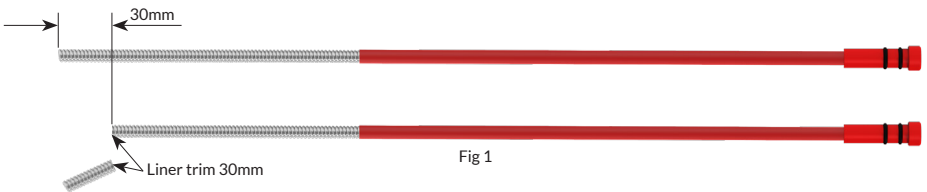
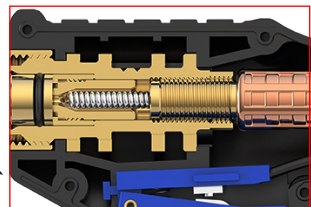
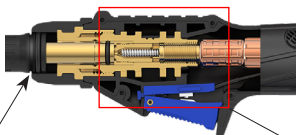


Fig 4

Fig 5



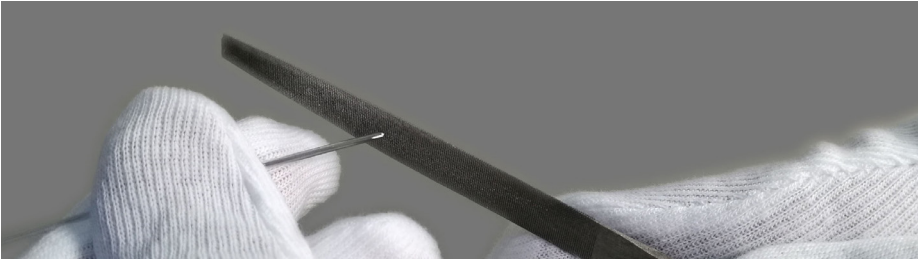
The front end face of the neck nut should be positioned within the groove.

## Feeding Wire Through the Torch

### Preparing the Wire

### Step 1

- Inch the wire out through the machine by 15-20cm. Using a file remove all sharp burrs from the leading edge of the filler metal.
- Feed the wire directly into the torch liner, carefully pulling the torch towards the machine if necessary.
- Mount the torch to the machine or feed unit

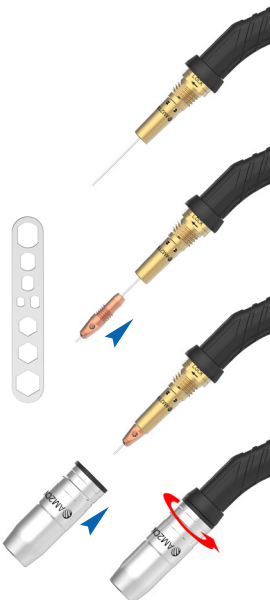


### Feeding the Wire Through the Torch

### Step 2

- Slowly inch the wire through the torch until it appears at the end of the tip adaptor.
- Feed the wire through the tip being careful not to scratch the bore.
- Tighten the contact tip and refit the nozzle.

**You are ready to weld!**



# TORCH LINER SET-UP - SOFT WIRES



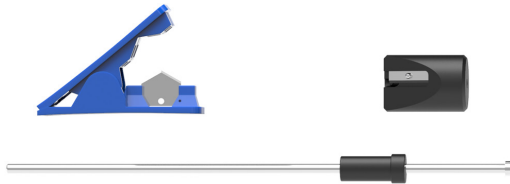
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The Arc M Combi liner system has been developed specifically for aluminium welding wires. It picks up the filler metal directly at the drive rolls and delivers it to the contact tip.

In order to achieve the most reliable torch performance and weld quality it is essential to follow the correct liner set-up procedure.



Optimum installation is achieved when using the Combi-liner set-up kit - stock code reference : AMCLST-KIT



## Installing/Replacing a Neck Liner (Soft Wires)

- Lay the torch out flat and straight.
- Remove the liner retaining nut, pull out the old liner.
- Installing/Replacing a Neck Liner (Soft Wires) see Page 6 “Neck Liner Set-Up”

## Installing a Torch Liner

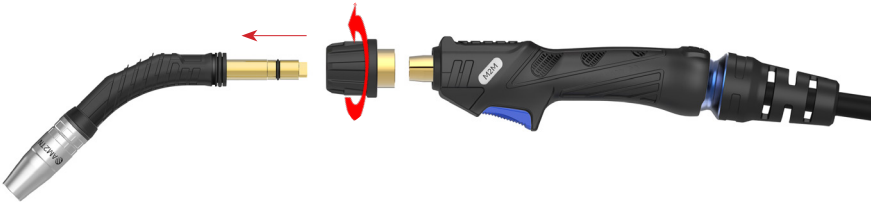
### Prepare the Torch

### Step 1

- Lay the torch out flat and straight.
- Unscrew swan neck retaining nut , pull out the swan neck and remove swan neck retaining nut.
- Remove the liner retaining nut , twist and pull out the old liner.

#### Important:

Liners should not be fitted if the torch is bent or coiled



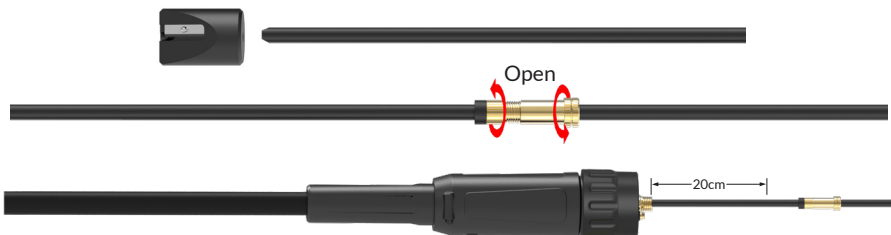
### Install the New Soft Wire Liner

### Step 2

- Use the liner sharpener provided to sharpen the front end of the liner. The sharpener is preset to the correct angle.
- Open the liner collet by twisting the two halves.
- Feed in the new soft wire liner in short strokes 20cm per time.
- Twist the handle if the liner sticks when feeding the liner through the swan neck.
- Continue to feed until the soft wire liner can be assembled in position.

#### Important:

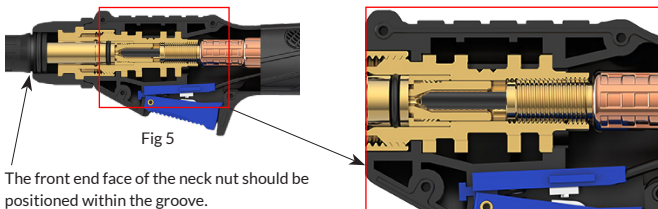
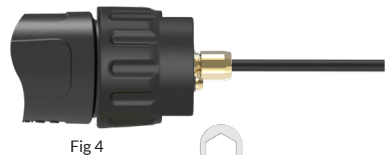
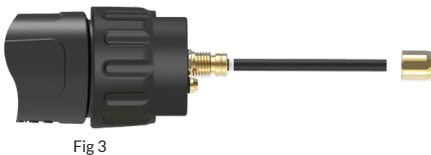
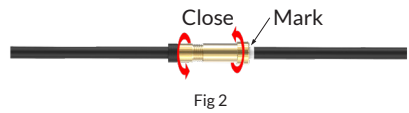
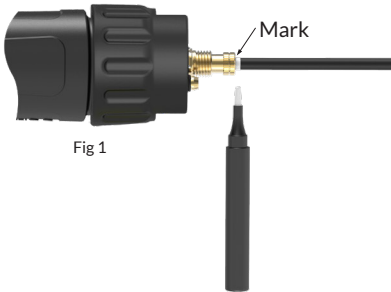
Do not use a kinked liner



### Install the New Liner, Cont.

## Step 3

- Ensure the liner is under slight compression within the torch conduit. Mark the position at the rear of the liner collet (Fig 1).
- Retract the liner back slightly and position the collet by tightening it to the liner at the marked position (Fig 2).
- Reposition and tighten the liner retaining nut (Fig 3,4).
- The liner front-end sits inside the neck liner nipple as shown (Fig 5)



## Preparing the Machine to Fit the Torch

### Measuring the Distance to the Drive Rolls

### Step 1

- Remove the old wire guide from the machine / wire feed unit if necessary.
- Insert the liner measuring jig supplied into the machine Euro socket as shown.



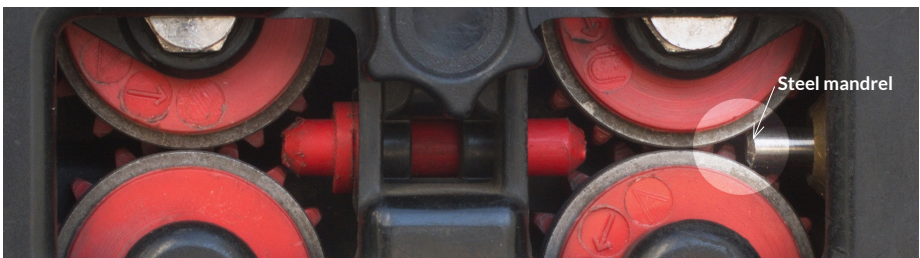
- Ensure there is no gap between the shoulder of the plastic gauge and the machine Euro socket.



### Using the Liner Measuring Jig, Cont.

### Step 2

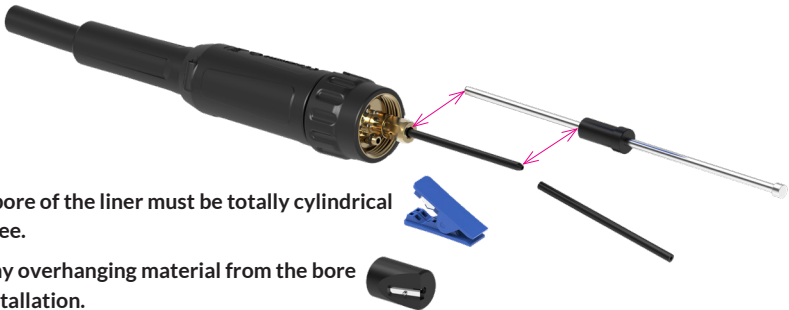
- Gently push the steel mandrel until the front-end touches the wire feed rollers.
- Remove the Jig from the machine ensuring there is no movement between the plastic gauge and the mandrel.



### Cutting and Trimming the Liner

## Step 3

- Offer the liner to the Jig and mark the point at the face of the plastic gauge.
- Cut the liner with the liner cutter provided.
- Use the liner sharpener provided to sharpen the leading edge of the liner.
- The sharpener is preset to the correct angle.



#### Important

The inner bore of the liner must be totally cylindrical and burr free.

Remove any overhanging material from the bore prior to installation.

### The Correct Set-up

## Step 4

- Refit the torch to the machine and tighten the torch lock nut slowly, being mindful of the interface between the end of the liner and the drive rolls.
- The liner should now sit close to the drive rolls.



#### Important:

The back end of the liner should be close to the drive rolls without touching them.



## Feeding Wire Through the Torch

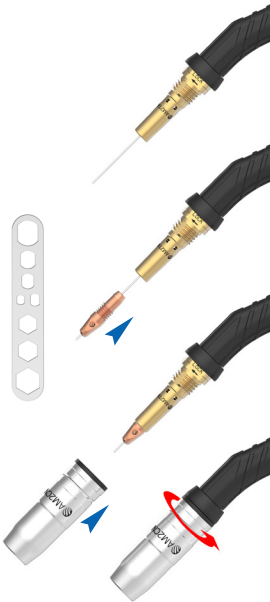
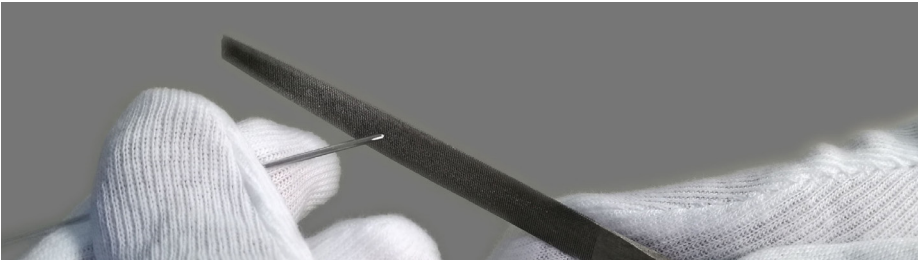
### Important:

Remove the torch from the machine / feed unit

## Step 1

### Preparing the Wire

- Inch the wire out through the machine by 15-20cm. Using a file remove all sharp burrs from the leading edge of the filler metal.
- Feed the wire directly into the torch liner, carefully pulling the torch towards the machine if necessary.
- Mount the torch to the machine or feed unit.



### Feeding the Wire Through the Torch

## Step 2

- Slowly inch the wire through the torch until it appears at the end of the tip adaptor.
- Feed the wire through the tip being careful not to scratch the bore.
- Tighten the contact tip and refit the nozzle.

**You are ready to weld!**

ARC M INDUSTRIAL MIG SERIES

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