



Parweld Limited
Bewdley Business Park
Long Bank
Bewdley
Worcestershire
England

tel. +44 1299 266800
fax. +44 1299 266900

www.parweld.com
info@parweld.co.uk



Installation and Operator's Guide



XP8 Installation and Operation Manual



Introduction

Thank you for choosing your Parweld XP8 Mig Torch.

The XP8 has been carefully manufactured, assembled and factory tested prior to shipment.

This manual contains general information on the successful operation and maintenance of the XP8, please read it prior to installation.

Should you experience any problems with installation or performance, please refer to the 'Troubleshooting Guide' at the rear of this book.

Warranty

Warranty is extended to the original distributor purchasing the material from Parweld for resale.

Parweld warrants that the product will be free from defects in material and workmanship for a period of six months from the date of the sale to the buyer. The manufacturer's sole obligation under this warranty is limited to making replacement or repairs, or to refund the purchase price of the product with defects.

This warranty does not cover product malfunctions or damages, which result from the product being tampered, misused or abused. The operation instructions must have been followed; failure to do so will void the warranty. The manufacturer is not responsible for any indirect damage, which arises from the use of the product.

Genuine XP8 consumables must have been used at all times and any failure to do so will invalidate the warranty.

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XP8 200A

200A, 6kW Mixed Gas
0.6mm to 1.2mm wire
80% duty cycle



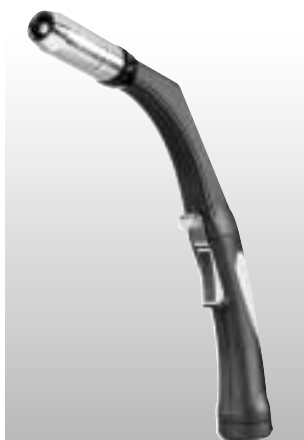
XP8 300A

300A, 8.7kW Mixed Gas
0.8mm to 1.2mm wire
80% duty cycle



XP8 350A

350A, 10.5kW Mixed Gas
1.0mm to 1.6mm wire
80% duty cycle



XP8 400A

400A, 12kW Mixed Gas
1.2mm to 2.4mm wire
80% duty cycle



XP8 320W

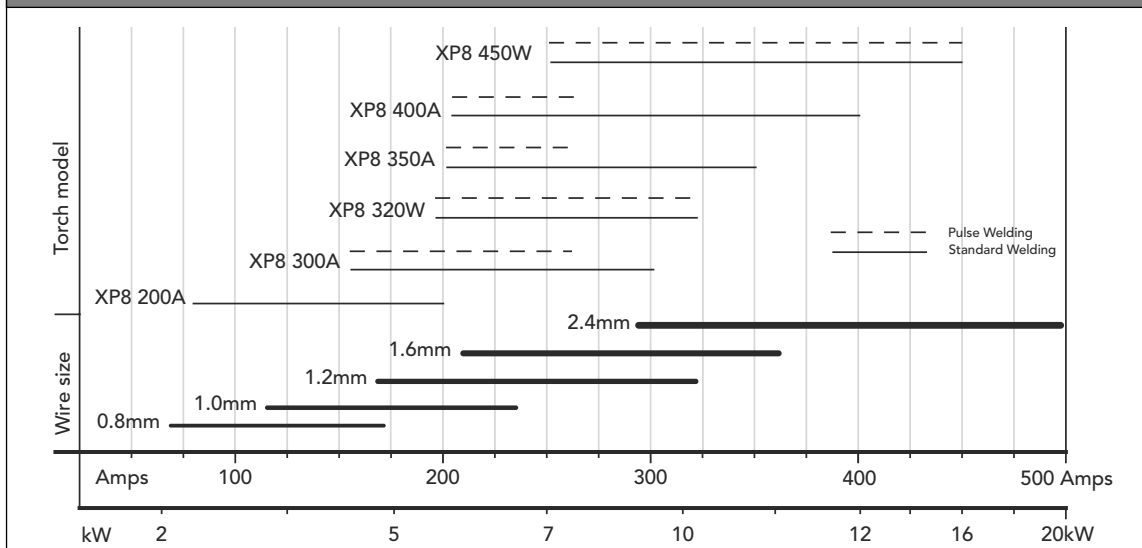
320A, 9.6kW Mixed Gas
0.6mm to 1.6mm wire
100% duty cycle



XP8 450W

450A, 15.8kW Mixed Gas
1.0mm to 2.4mm wire
100% duty cycle

Torch Selector Chart



Achieving The Ultimate In Productivity

XP8 is rated in Kilowattage – Why?

Amperages and duty cycles alone are arbitrary measures of a torches capability.

For a more accurate appreciation wire type, gas type, flow rate and welding voltage must all be taken into consideration.

The XP8 is rated in Amps as a guideline but the Kilowattage requirement of a given application provides a far more accurate method for calculating torch selection.

Kilowattage represents the total power rating required and is calculated as follows:

$$\frac{\text{Welding Amps x Welding Volts}}{1000} = \text{kW}$$

(Amps x Volts = Watts , 1000 Watts = 1 kW)

How do I select a torch using Kilowattage?

If a torch is required to weld at 300 Amps with a welding voltage of 34 volts the kilowattage is 10.2 kW.

$$\text{ie } \frac{\text{Welding Amps } 300 \times \text{Welding Volts } 34}{1000} = 10.2 \text{ kW}$$

Ideal torches for the applications would therefore be the XP8 350A for an air cooled 80% duty requirement or the XP8 450W for a water cooled 100% application.

Torch selector table for mild steel wires (80/20) Argon/CO² shielding gas.

Model	Mixed Gas (80/20)		Duty Cycle	Maximum Wire Size
	Amps	Kw		
XP8-200A	200	6.0	80%	1.2mm
XP8-300A	300	8.7	80%	1.2mm
XP8-350A	350	10.5	80%	1.6mm
XP8-400A	400	12.0	80%	2.4mm
XP8-320W	320	9.6	100%	1.6mm
XP8-450W	450	15.8	100%	2.4mm

Note: All ratings quoted are based on a nominal gas flow of 18lpm.

Will the gas I use affect the performance of the torch?

The simple answer is yes.

The use of different gas types can have a marked effect on the performance of air cooled torches.

Generally the higher the content of CO₂ in the shielding gas the better the performance of the Mig torch.

Table to show the affect on XP8 performance when using alternate gas types

Model	Mixed Gas (80/20)		Mixed Gas (95/5)		100% CO ²	
	Amps	kW	Amps	kW	Amps	kW
XP8-200	200	6.0	200	6.0	260	7.8
XP8-300	300	8.7	280	8.4	375	11.7
XP8-350	350	10.5	300	9.0	425	14.9
XP8-400	400	12.0	300	9.0	480	17.2
XP8-320W	320	9.6	320	9.6	320	9.6
XP8-450W	450	15.8	450	15.8	450	15.8

Note: All ratings are based on a nominal gas flow of 18lpm. A lower gas flow will result in an increase in working temperature but it will not have any adverse affect as long as the gas flow is within the accepted limits for the welding amperage.

Will the wire type affect the performance of the torch?

Basically yes, but not to the same extent as changes in any other variables.

Table to show the affect on XP8 performance when using alternate wire types

Model	Cycle	Steel Wire (80/20)		Aluminium Wire (100% AR)		Cored Wire (80/20)	
		Amps	kW	Amps	kW	Amps	kW
XP8-200	80%	200	6.0	200	6.0	200	6.2
XP8-300	80%	300	8.7	280	8.4	300	9.3
XP8-350	80%	350	10.5	300	9.0	350	10.5
XP8-400	80%	400	12.0	300	9.0	400	12.0
XP8-320W	100%	320	9.6	320	9.6	320	9.6
XP8-450W	100%	450	15.8	450	15.8	450	15.8

Will a pulse welding process affect the performance of the torch?

The affect of pulse welding on all air cooled torches is dramatic.

In the XP8 the affect is similar for all wire types when using the pulse process.

Table to show the affect on XP8 performance when using pulse welding

Model	Mixed Gas (95/5)		
	Amps	kW	Duty Cycle
XP8-200	200	6.0	80%
XP8-300	260	9.0	80%
XP8-350	260	9.0	80%
XP8-400	260	9.0	80%
XP8-320W	320	9.6	100%
XP8-450W	450	15.8	100%

Installation

Your Parweld XP8 Welding Torch has been supplied ready to weld. It has been supplied with the standard consumables denoted (*) in this booklet on the relevant torch model page.

To connect the torch to the power source:

1. Remove the tip adaptor and contact tip.
2. Inch the wire from the exit of the wire guide on the feed unit as **Figure 1**. Ensure that it does not short out on any machine panels.
3. Carefully slide the electrode wire into the torch liner and slowly locate the torch gun plug body into the feed unit central connector and tighten the gun plug nut as **Figure 2**.

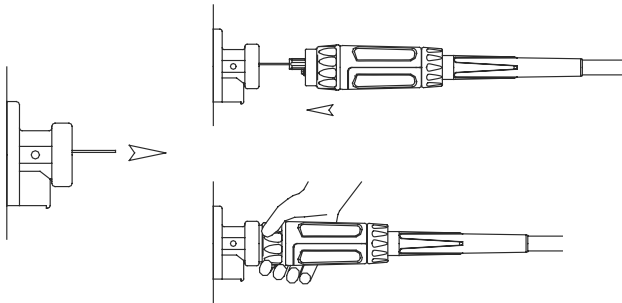


Figure 1.

Figure 2.

Note: To aid the initial location of a new torch and to prevent damage to the gas nipple O-ring a very light application of grease to the O Ring is beneficial.

4. Keeping the torch as straight as possible, use the power source inch facility or torch trigger to feed the electrode wire 50mm from the end of the liner conduit as **Figure 3**.

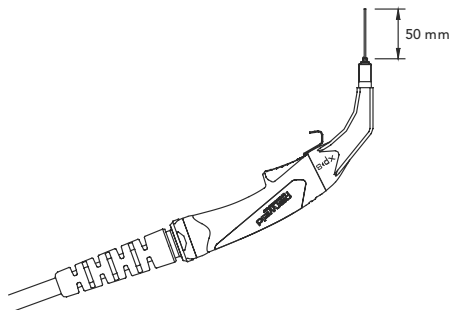


Figure 3.

Once the electrode wire has stopped, refit the tip adaptor, diffuser, contact tip and gas nozzle.

Trim the electrode wire to within 5mm of the face of the nozzle, this will facilitate jolt free arc initiation.

Press the gas purge button and check the gas flow is adequate for your application.

An inexpensive flow meter is available from Parweld reference 806001.

5. If you are installing a water-cooled torch ensure you have the recommended water flow rate.

Note. It is essential to ensure adequate flow of clean, cool water to prevent irreparable torch failure, a minimum of 1.2 l/m is recommended.

Parweld recommend the use of its XTS water recirculation system designed specifically for use with all water cooled Mig, Tig and Plasma welding torches.

Note. Water flows into the torch through the hose marked **In** ◀ on the housing hose support. The **In** ◀ hose delivers cold water directly to the prime source of heat, the swan neck and consumables. The recirculated water is then passed through the torch power cable to cool the power cable as it is returned to the cooler through the hose marked **out** ▶ on the housing hose support.

Ensure all air is removed from the water cooling circuit before welding.

Operation

Once the installation guidelines have been followed you are ready to weld. When using the torch do not exceed the published current carrying capacity and duty cycle rating.

Note. Due to the increased efficiency of current transfer throughout the XP8, it may be necessary to reduce the welding voltage at the power source to compensate for the reduced torch resistance.

Key Performance Relationships

Once the duty cycle limitations are understood, there are 3 key areas to understand for continual problem free productivity.

1. Liner Specification

Liner performance is subject to many process variables, torch length, wire size, rigidity of liner material, surface characteristics of filler metal, the severity of cable kinkages, the duty cycle and heat generation of the process.

Ideally a liner should be as stiff as possible, maintain a tight tolerance over the electrode material without removing surface deposits or causing it to jar, and not suffer undue wear and tear as a reaction to the surface characteristics of the wire.

There are three liner types available for the XP8.

High Tensile Steel Liner

Ideal for General Purpose Wires

Manufactured using carbon steel the XP8 standard liner gives good wire feeding performance on general purpose welding wires including flux and metal-cored wires.

Polyamide Liner with Steel Neck Liner

Ideal for Hard Wires and High Deposition

Applications

Manufactured using polyamide, this liner is fitted with a floating collet arrangement at the back end, which allows the liner to be inserted all the way to the feed rollers.

The polyamide construction is ideal for feeding hard wires such as Chrome and Nickel alloys and also general-purpose wires at high speed where consistent smooth wire feed is essential.

The Steel Neck liner resists wear and heat in the neck area.

Polyamide Liner with Copper Neck Liner

Ideal for Soft Wires

Manufactured using polyamide this liner is also fitted with a floating collet allowing the liner to be inserted all the way to the feed rollers.

The polyamide construction is ideal for feeding soft wires such as Aluminium and Copper alloys.

The Copper Neck liner resists wear and heat in the neck area.

2. Drive Roll to Contact Tip Junctions

There are 3 junctions at which wire feed problems might occur in a torch circuit.

- a. At the point where the electrode wire is fed from the drive rolls through the wire guide.
- b. The point at which the wire leaves the wire guide and enters the torch.
- c. The point at which the wire leaves the torch liner and enters the tip adaptor.

It is imperative that there are no spaces at any of these junctions where the electrode wire can 'free wheel.'

3. Contact Tips

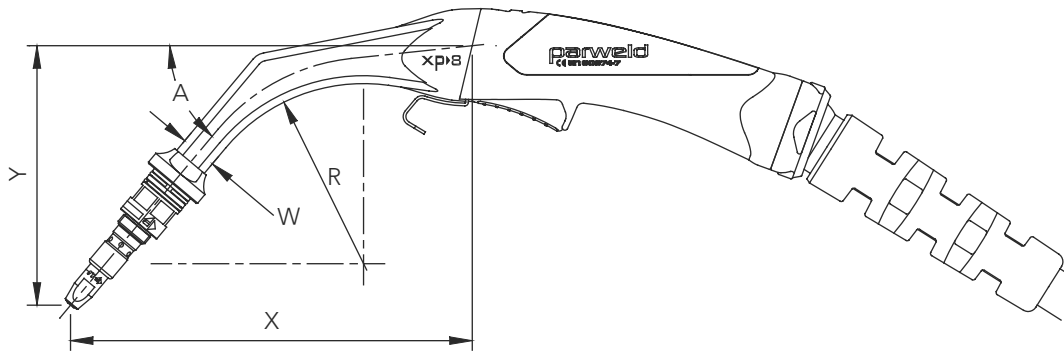
It is important for trouble free arc conditions to maintain a smooth transition of the filler metal through the contact tip whilst maintaining maximum contact for current transfer.

As the working temperature of a contact tip increases, the component material expands in all directions, therefore shrinking the bore.

Contact tips are manufactured with strict bore tolerances to provide the best possible current transfer. Normal tolerances allow for bore shrinkage as the tip gets hot. However under certain process variations, particularly aluminium welding in argon gas, the tip bore constricts to the point at which wire feed problems occur. When this happens you should change up to the next available bore size.

XP8 Range – Technical Data

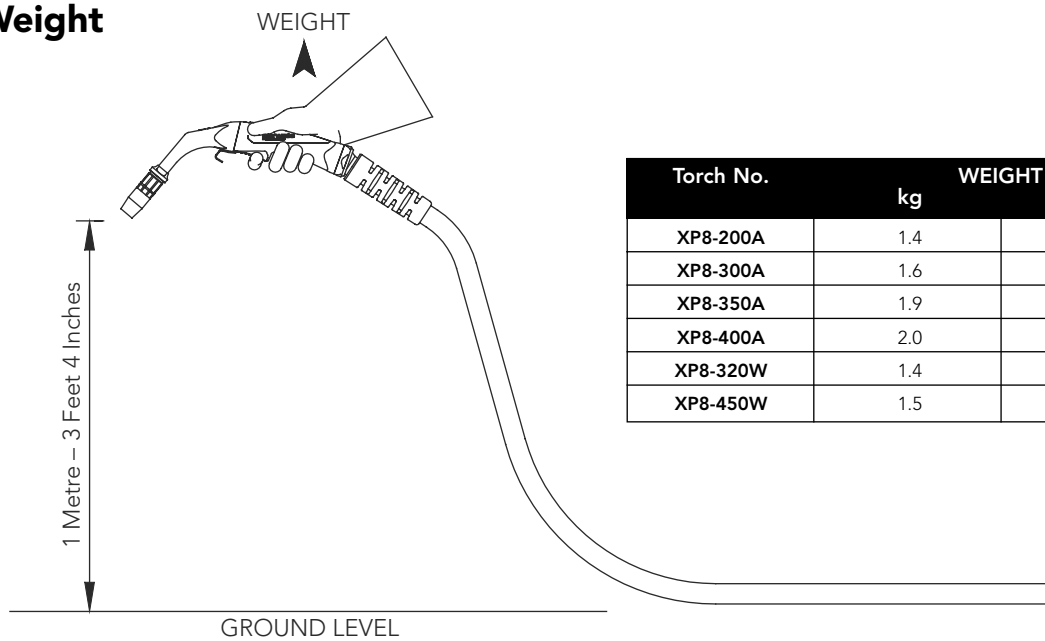
Swan Neck Dimensions



Torch No.	Neck Part No.	LENGTH (X) mm	LENGTH (Y) mm	RADIUS (R) mm	WIDTH (W) mm	ANGLE (A) Degrees
XP8-200A	XP2001	137 ~ 5.4"	91 ~ 3.6"	60 ~ 2.4"	16 ~ 0.62"	50
XP8-300A	XP3001	174 ~ 6.8"	110 ~ 4.3"	80 ~ 3.2"	16 ~ 0.62"	
XP8-350A	XP3501	179 ~ 7.0"	115 ~ 4.5"	80 ~ 3.2"	19 ~ 0.75"	
XP8-400A	XP4001	205 ~ 8.0"	118 ~ 4.6"	110 ~ 4.3"	19 ~ 0.75"	
XP8-320W	XP3201	156 ~ 6.2"	113 ~ 4.4"	60 ~ 2.4"	16 ~ 0.62"	
XP8-450W	XP4501	179 ~ 7.0"	115 ~ 4.5"	80 ~ 3.2"	19 ~ 0.75"	

Note: Nozzle dimensional information can be found on the relevant model page.

Torch Weight



Torch No.	WEIGHT	
	kg	lbs
XP8-200A	1.4	3.1
XP8-300A	1.6	3.5
XP8-350A	1.9	4.2
XP8-400A	2.0	4.4
XP8-320W	1.4	3.1
XP8-450W	1.5	3.3

Liner Recommendation Chart

		XP200	XP300	XP320W	XP350	XP400	XP450W
Standard wires & flux cored wires	0.6mm	XP2024-09	XP2024-09	XP2024-09	XP2024-09	XP2024-09	XP2024-09
	0.8mm	XP2024-09	XP2024-09	XP2024-09	XP2024-09	XP2024-09	XP2024-09
	1.0mm	XP2024-12	XP2024-12	XP2024-12	XP3524-12	XP3524-12	XP3524-12
	1.2mm	XP2024-12	XP2024-12	XP2024-12	XP3524-12	XP3524-12	XP3524-12
	1.4mm	N/A	XP2024-16	XP3524-16	XP3524-16	XP3524-16	XP3524-16
	1.6mm		N/A	N/A	XP4024-24	XP4024-24	XP4024-24
2.4mm	N/A		N/A	XP4024-24	XP4024-24	XP4024-24	
Soft wires ie aluminium & copper	0.8mm	XP2024PC-12	XP2024PC-12	XP2024PC-12	XP2024PC-12	XP2024PC-12	XP2024PC-12
	1.0mm	XP2024PC-12	XP2024PC-12	XP2024PC-12	XP2024PC-12	XP2024PC-12	XP2024PC-12
	1.2mm	XP2024PC-12	XP2024PC-12	XP2024PC-12	XP2024PC-12	XP2024PC-12	XP2024PC-12
	1.4mm	XP3524PC-16	XP3524PC-16	XP3524PC-16	XP3524PC-16	XP3524PC-16	XP3524PC-16
	1.6mm	XP3524PC-16	XP3524PC-16	XP3524PC-16	XP3524PC-16	XP3524PC-16	XP3524PC-16
Hard wires ie stainless steel nickel alloys & high deposition rates	0.8mm	XP2024PS-12	XP2024PS-12	XP2024PS-12	XP2024PS-12	XP2024PS-12	XP2024PS-12
	1.0mm	XP2024PS-12	XP2024PS-12	XP2024PS-12	XP2024PS-12	XP2024PS-12	XP2024PS-12
	1.2mm	XP2024PS-12	XP2024PS-12	XP2024PS-12	XP2024PS-12	XP2024PS-12	XP2024PS-12
	1.4mm	XP3524PS-16	XP3524PS-16	XP3524PS-16	XP3524PS-16	XP3524PS-16	XP3524PS-16
	1.6mm	XP3524PS-16	XP3524PS-16	XP3524PS-16	XP3524PS-16	XP3524PS-16	XP3524PS-16
	2.0mm	N/A	N/A	N/A	XP4024PS-20	XP4024PS-20	XP4024PS-20

Small Series 200A, 300A, 320W

NOZZLE	PART NO.	DESCRIPTION	BORE (B)	TIP RECESS	LENGTH (L) mm	DIAMETER (D) mm	HEAD SIZE (H) mm
	XP2002-10	Tapered Nozzle	10mm ~ 3/8"	FLUSH	65.0	24.5	19.0
	XP2002-13	Tapered Nozzle	13mm ~ 1/2"	2.5mm ~ 3/32"	67.5		
	XP2002-16	Conical Nozzle	16mm ~ 5/8"				
	XP2002-16L	Conical Nozzle ~Extended	16mm ~ 5/8"	6.5mm ~ 1/4"	71.5		
	XP2002-19	Large Bore Nozzle	19mm ~ 3/4"	2.5mm ~ 3/32"	67.5		
	XP2002-19L	Large Bore Nozzle ~Extended	19mm ~ 3/4"	6.5mm ~ 1/4"	71.5		

Note: Standard nozzles give a tip recess of 2.5mm or 3.0mm which is ideal for the majority of welding applications. The long series nozzles have a 6.5mm recess which should be used for core wire welding, pulse welding and high amperage welding requiring long wire stick outs. Torches are shipped with standard consumables, however when using the torch at its maximum rating or for pulse welding it is recommended that you use HD consumables for improved performance and consumable life.

Large Series 300A, 350A, 320W, 400A, 450W

NOZZLE	PART NO.	DESCRIPTION	BORE (B)	TIP RECESS	LENGTH (L) mm	DIAMETER (D) mm	HEAD SIZE (H) mm
	XP3002-13	Tapered Nozzle	13mm ~ 1/2"	3.0mm ~ 1/8"	75.0	27.0	21.0
	XP3002-16	Conical Nozzle	16mm ~ 5/8"				
	XP3002-16L	Conical Nozzle ~Extended	16mm ~ 5/8"	6.5mm ~ 1/4"	78.5		
	XP3002-19	Large Bore Nozzle	19mm ~ 3/4"	3.0mm ~ 1/8"	75.0		
	XP3002-19L	Large Bore Nozzle ~Extended	19mm ~ 3/4"	6.5mm ~ 1/4"	78.5		

TIP DIMENSIONS	PART NO.	WIRE SIZE	THREAD (T)	DIAMETER (D) mm	LENGTH (L) mm	MATERIAL			
	XP2003-06	0.6mm ~ 0.023"	M8 x 1.25	8.0	38.0	CuCrZr			
	XP2003-08	0.8mm ~ 0.030"							
	XP2003-09	0.9mm ~ 0.035"							
	XP2003-10	1.0mm ~ 0.040"							
	XP2003-10A	1.0mm ~ 0.040"							
	XP2003-12	1.2mm ~ 0.045"							
	XP2003-12A	1.2mm ~ 0.045"							
	XP2003-13	1.3mm ~ 0.052"							
	XP2003-14	1.4mm ~ 0.055"							
	XP3003-08	0.8mm ~ 0.030"					M10 x 1.5	10.0	45.0
	XP3003-09	0.9mm ~ 0.035"							
	XP3003-10	1.0mm ~ 0.040"							
	XP3003-10A	1.0mm ~ 0.040"							
	XP3003-12	1.2mm ~ 0.045"							
	XP3003-12A	1.2mm ~ 0.045"							
	XP3003-13	1.3mm ~ 0.052"							
	XP3003-14	1.4mm ~ 0.055"							
	XP3003-16	1.6mm ~ 0.063"							
	XP3003-18	1.8mm ~ 0.071"							
	XP3003-20	2.0mm ~ 0.080"							
	XP3003-24	2.4mm ~ 0.095"							

Note: When using aluminium wires, core wires, pulse or high deposition applications it is recommended to use an A Series Contact Tip (ie XP2003-10A for 1.0mm wire).

XP8 Recommended Torch Set ups

Standard wires

Steel liner and contact tip selected to match wire size.

Standard wires, high wire feed rates

Polyamide liners with steel neck liner, contact tip selected to match wire size.

Soft wires (Aluminium, Copper)

Always use HD spares. Use A series contact tips or next size up from the wire size. Liner should be Polyamide with copper neck liner.

Pulse welding

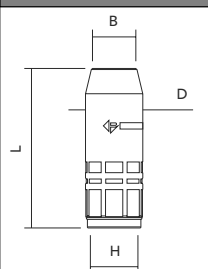
Always use HD spares. Use A series contact tips or next size up from the wire size. Use standard liners.

Flux cored and Metal cored wires

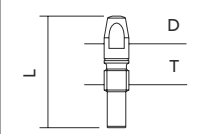
Set up as per standard wires but for wire sizes of 1.2mm and over use the next liner size up to improve wire feeding. Contact tip should be matched to the wire size.

Hard Wires (Stainless Steel, Nickel Alloys)

Select spares to match wire size. Liner should be polyamide with steel neck liner.

NOZZLE DIMENSIONS	PART NO.	BORE (B)	LENGTH (L) mm	TIP RECESS	DIAMETER (D) mm	HEAD SIZE (H) mm
	XP2002-10	10mm ~ 3/8"	65.0	FLUSH	24.5	19.0
	XP2002-13	13mm ~ 1/2"	67.5	2.5mm ~ 3/32"		
	XP2002-16	16mm ~ 5/8"				
	XP2002-19	19mm ~ 3/4"				
	XP2002-16L	16mm ~ 5/8"	71.5	6.5mm ~ 1/4"		
	XP2002-19L	19mm ~ 3/4"				

Note: Standard nozzles give a tip recess of 2.5mm which is ideal for the majority of welding applications. The long series nozzles have a 6.5mm recess which should be used for core wire welding, pulse welding and high amperage welding requiring long wire stick outs.

TIP DIMENSIONS	PART NO.	WIRE SIZE	THREAD (T)	DIAMETER (D) mm	LENGTH (L) mm	MATERIAL
	XP2003-06	0.6mm ~ 0.023"	M8 x 1.25	8.0	38.0	CuCrZr
	XP2003-08	0.8mm ~ 0.030"				
	XP2003-09	0.9mm ~ 0.035"				
	XP2003-10	1.0mm ~ 0.040"				
	XP2003-10A	1.0mm ~ 0.040"				
	XP2003-12	1.2mm ~ 0.045"				
	XP2003-12A	1.2mm ~ 0.045"				

Note: When using aluminium wires, core wires, pulse or high deposition applications it is recommended to use an A Series Contact Tip (ie XP2003-10A for 1.0mm wire).

Nozzles

Part Number	Description
A XP2002-10	Tapered Nozzle 10mm / 3/8"
XP2002-13	Tapered Nozzle 13mm / 1/2"
XP2002-16*	Conical Nozzle 16mm / 5/8"
XP2002-16L	Conical Nozzle 16mm / 5/8" - Extended
XP2002-19	Large Bore Nozzle 19mm / 3/4"
XP2002-19L	Large Bore Nozzle 19mm / 3/4" - Extended

Contact Tips

Part Number	Description
B XP2003-06	Contact Tip 0.6mm / 0.023" M8 CuCrZr
XP2003-08	Contact Tip 0.8mm / 0.030" M8 CuCrZr
XP2003-09	Contact Tip 0.9mm / 0.035" M8 CuCrZr
XP2003-10*	Contact Tip 1.0mm / 0.040" M8 CuCrZr
XP2003-10A	Contact Tip 1.0mm / 0.040" Aluminium M8 CuCrZr
XP2003-12	Contact Tip 1.2mm / 0.045" M8 CuCrZr
XP2003-12A	Contact Tip 1.2mm / 0.045" Aluminium M8 CuCrZr

Liners

Part Number	Description
C XP2024-09-30	Steel Liner 0.6mm / 0.023" - 0.9mm / 0.035" x 3m / 10ft
XP2024-09-40	Steel Liner 0.6mm / 0.023" - 0.9mm / 0.035" x 4m / 13ft
XP2024-09-50	Steel Liner 0.6mm / 0.023" - 0.9mm / 0.035" x 5m / 16ft
XP2024-12-30*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 3m / 10ft
XP2024-12-40*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 4m / 13ft
XP2024-12-50*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 5m / 16ft
D XP2024PC-12-30	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 3m / 10ft
XP2024PC-12-40	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 4m / 13ft
XP2024PC-12-50	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 5m / 16ft
XP2024PS-12-30	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 3m / 10ft
XP2024PS-12-40	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 4m / 13ft
XP2024PS-12-50	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 5m / 16ft

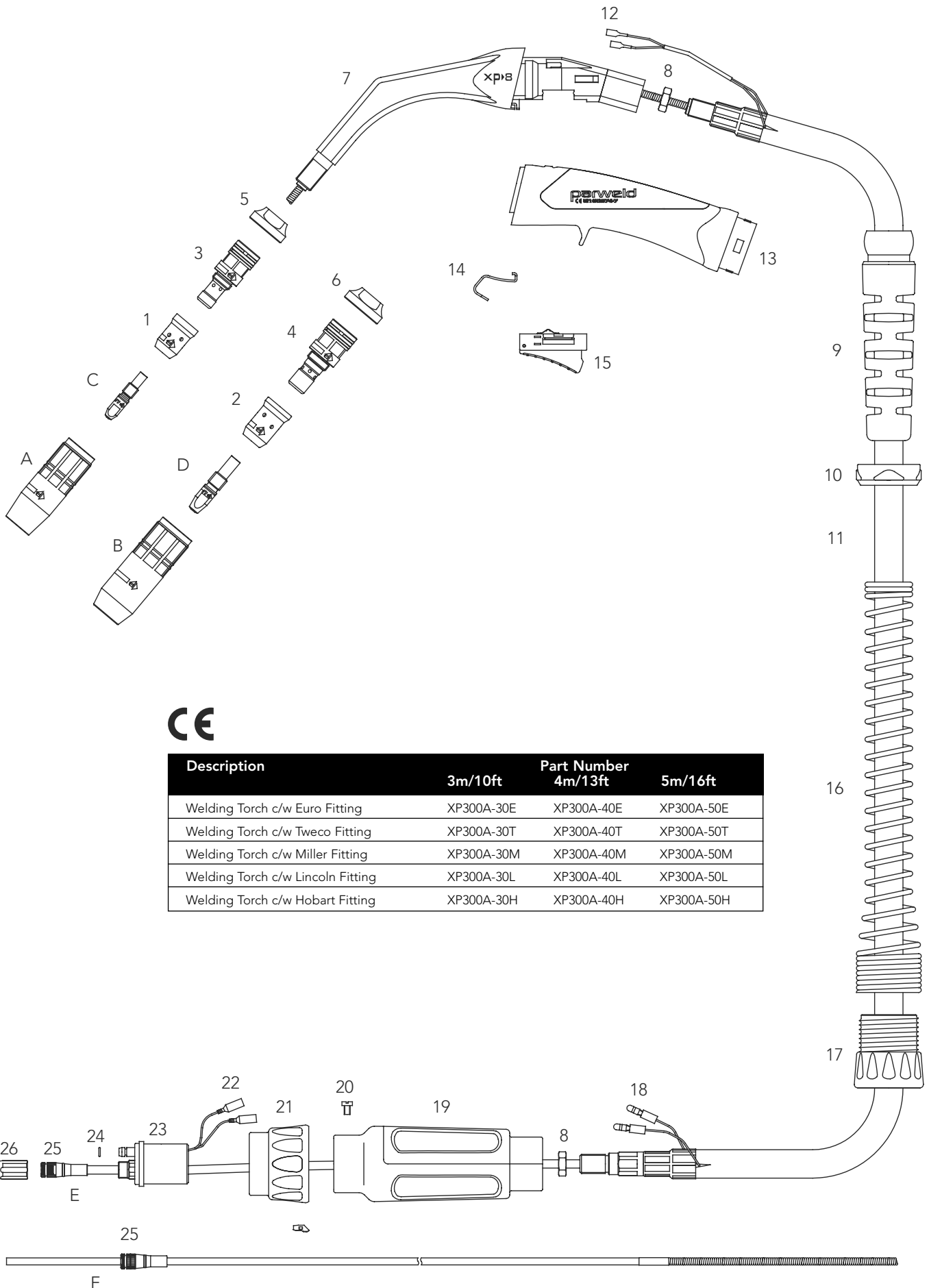
Note: Recommended torch set up advice is available on page 8.

Components

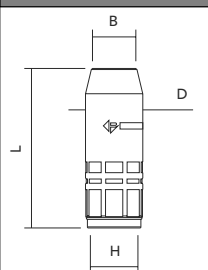
Part Number	Description
1 XP2004B*	Diffuser - Moulded
XP2004C	Diffuser - Ceramic
2 XP2005*	Head Assembly - M8 Tips
3 XP2006B*	Heat Shield
4 XP2001	Swan Neck
5 XP2016	Lock Nut M12
6 XP2008	Ball Joint and Cable Support
7 XP2009	Handle Lock Nut
8 XP2010-30	Cable Assembly x 3m / 10ft
XP2010-40	Cable Assembly x 4m / 13ft
XP2010-50	Cable Assembly x 5m / 16ft
9 XP2011	Cable Terminal - Female
10 XP2012	Handle Kit c/w Lock Nut
11 XP2013	Hanger Hook
12 XP2014	Trigger
13 XP2017	Cable Support
14 XP2015	Cable Terminal - Male
15 XP2018	A/C Gun Plug Housing c/w Nut
16 XP2019	Gun Plug Screw
17 XP2020	Gun Plug Nut
18 XP2021	Gun Plug Terminal
19 XP2022	A/C Gun Plug Body
20 XP2023	Gun Plug Body O Ring
21 XP2025	Liner Nipple O Ring
22 XP2026	Liner Retaining Nut

*Denotes Standard Build

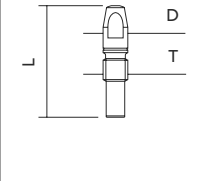
Rating: 300A, 8.7kW, Mixed Gas (80/20), EN60974-7 @ 80% Duty Cycle. 0.8mm to 1.2mm wires



Description	3m/10ft	Part Number 4m/13ft	5m/16ft
Welding Torch c/w Euro Fitting	XP300A-30E	XP300A-40E	XP300A-50E
Welding Torch c/w Tweco Fitting	XP300A-30T	XP300A-40T	XP300A-50T
Welding Torch c/w Miller Fitting	XP300A-30M	XP300A-40M	XP300A-50M
Welding Torch c/w Lincoln Fitting	XP300A-30L	XP300A-40L	XP300A-50L
Welding Torch c/w Hobart Fitting	XP300A-30H	XP300A-40H	XP300A-50H

NOZZLE DIMENSIONS	PART NO.	BORE (B)	LENGTH (L) mm	TIP RECESS	DIAMETER (D) mm	HEAD SIZE (H) mm
	XP2002-10	10mm ~ 3/8"	65.0	FLUSH	24.5	19.0
	XP2002-13	13mm ~ 1/2"	67.5	2.5mm ~ 3/32"		
	XP2002-16	16mm ~ 5/8"				
	XP2002-19	19mm ~ 3/4"				
	XP2002-16L	16mm ~ 5/8"	75.0	6.5mm ~ 1/4"		
	XP2002-19L	19mm ~ 3/4"				
	XP3002-13	13mm ~ 1/2"	75.0	3.0mm ~ 1/8"		
	XP3002-16	16mm ~ 5/8"				
	XP3002-19	19mm ~ 3/4"				
	XP3002-16L	16mm ~ 5/8"			78.5	6.5mm ~ 1/4"
XP3002-19L	19mm ~ 3/4"					

Note: Standard nozzles give a tip recess of 2.5mm or 3.0mm which is ideal for the majority of welding applications. The long series nozzles have a 6.5mm recess which should be used for core wire welding, pulse welding and high amperage welding requiring long wire stick outs. Torches are shipped with standard consumables, however when using the torch at its maximum rating or for pulse welding it is recommended that you use HD consumables for improved performance and consumable life.

TIP DIMENSIONS	PART NO.	WIRE SIZE	THREAD (T)	DIAMETER (D) mm	LENGTH (L) mm	MATERIAL
	XP2003-08	0.8mm ~ 0.030"	M8 x 1.25	8.0	38.0	CuCrZr
	XP2003-09	0.9mm ~ 0.035"				
	XP2003-10	1.0mm ~ 0.040"				
	XP2003-10A	1.0mm ~ 0.040"				
	XP2003-12	1.2mm ~ 0.045"				
	XP2003-12A	1.2mm ~ 0.045"				
	XP2003-13	1.3mm ~ 0.052"	M10 x 1.5	10.0	45.0	
	XP3003-10	1.0mm ~ 0.040"				
	XP3003-10A	1.0mm ~ 0.040"				
	XP3003-12	1.2mm ~ 0.045"				
	XP3003-12A	1.2mm ~ 0.045"				
	XP3003-13	1.3mm ~ 0.052"				

Note: When using aluminium wires, core wires, pulse or high deposition applications it is recommended to use an A Series Contact Tip (ie XP2003-10A for 1.0mm wire).

Nozzles	
Part Number	Description
A XP2002-10	Tapered Nozzle 10mm / 3/8"
XP2002-13	Tapered Nozzle 13mm / 1/2"
XP2002-16*	Conical Nozzle 16mm / 5/8"
XP2002-16L	Conical Nozzle 16mm / 5/8" - Extended
XP2002-19	Large Bore Nozzle 19mm / 3/4"
XP2002-19L	Large Bore Nozzle 19mm / 3/4" - Extended
B XP3002-13	Tapered Nozzle 13mm / 1/2"
XP3002-16	Conical Nozzle 16mm / 5/8"
XP3002-16L	Conical Nozzle 16mm / 5/8" - Extended
XP3002-19	Large Bore Nozzle 19mm / 3/4"
XP3002-19L	Large Bore Nozzle 19mm / 3/4" - Extended

Contact Tips	
Part Number	Description
C XP2003-08	Contact Tip 0.8mm / 0.030" M8 CuCrZr
XP2003-09	Contact Tip 0.9mm / 0.035" M8 CuCrZr
XP2003-10*	Contact Tip 1.0mm / 0.040" M8 CuCrZr
XP2003-10A	Contact Tip 1.0mm / 0.040" Aluminium M8 CuCrZr
XP2003-12	Contact Tip 1.2mm / 0.045" M8 CuCrZr
XP2003-12A	Contact Tip 1.2mm / 0.045" Aluminium M8 CuCrZr
XP2003-13	Contact Tip 1.3mm / 0.052" M8 CuCrZr
D XP3003-08	Contact Tip 0.8mm / 0.030" M10 CuCrZr
XP3003-09	Contact Tip 0.9mm / 0.035" M10 CuCrZr
XP3003-10	Contact Tip 1.0mm / 0.040" M10 CuCrZr
XP3003-10A	Contact Tip 1.0mm / 0.040" Aluminium M10 CuCrZr
XP3003-12	Contact Tip 1.2mm / 0.045" M10 CuCrZr
XP3003-12A	Contact Tip 1.2mm / 0.045" Aluminium M10 CuCrZr
XP3003-13	Contact Tip 1.3mm / 0.052" M10 CuCrZr

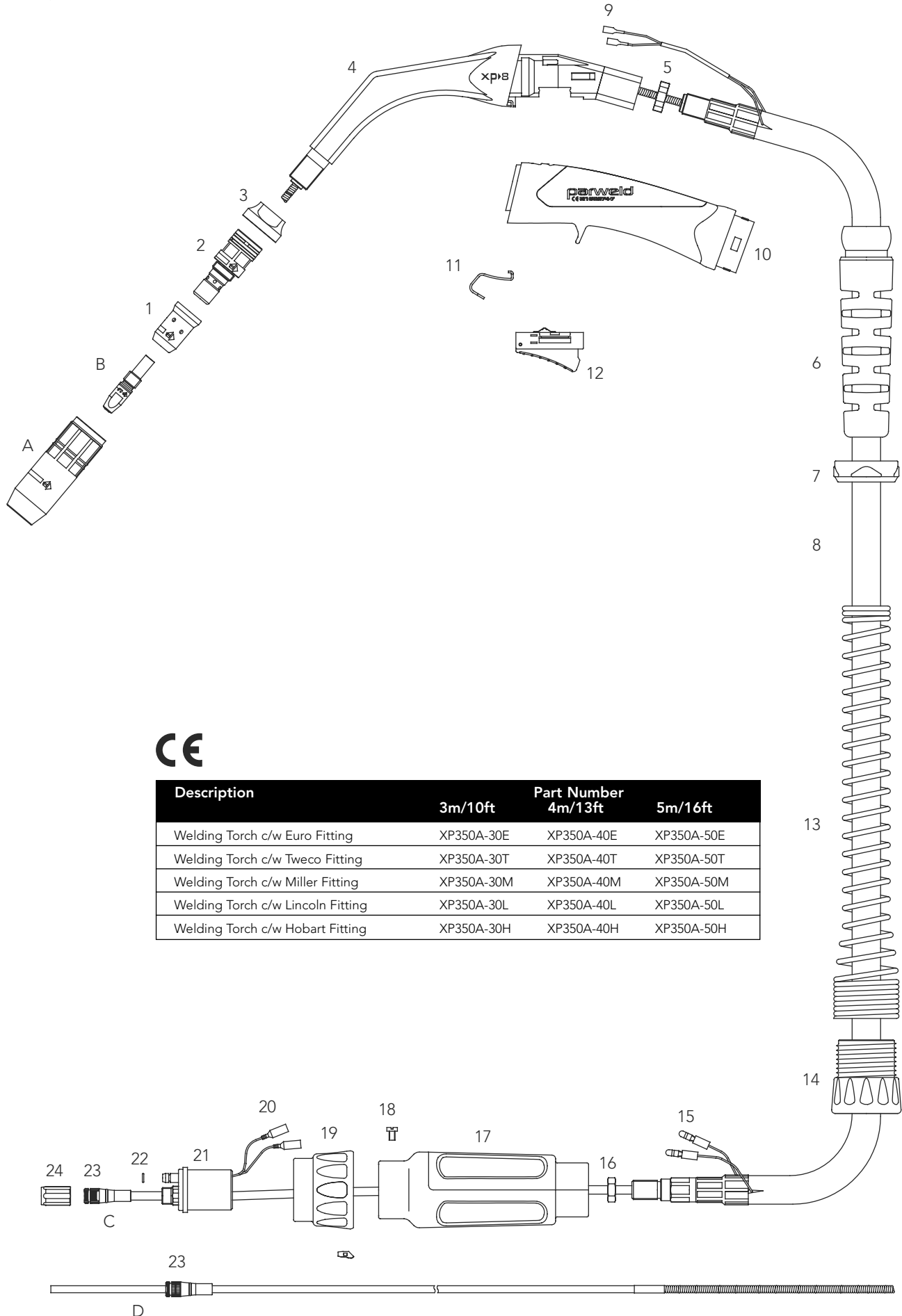
Liners	
Part Number	Description
E XP2024-09-30	Steel Liner 0.6mm / 0.023" - 0.9mm / 0.035" x 3m / 10ft
XP2024-09-40	Steel Liner 0.6mm / 0.023" - 0.9mm / 0.035" x 4m / 13ft
XP2024-09-50	Steel Liner 0.6mm / 0.023" - 0.9mm / 0.035" x 5m / 16ft
XP2024-12-30*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 3m / 10ft
XP2024-12-40*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 4m / 13ft
XP2024-12-50*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 5m / 16ft
F XP2024PC-12-30	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 3m / 10ft
XP2024PC-12-40	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 4m / 13ft
XP2024PC-12-50	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 5m / 16ft
XP2024PS-12-30	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 3m / 10ft
XP2024PS-12-40	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 4m / 13ft
XP2024PS-12-50	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 5m / 16ft

Note: Recommended torch set up advice is available on page 8.

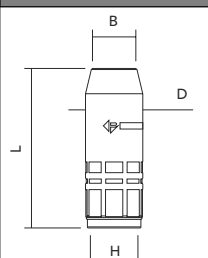
Components		
Part Number	Description	
1 XP2004C*	Diffuser - Ceramic - M8 Head	
2 XP3004C	Diffuser - Ceramic - M10 Head	
3 XP2005*	Head Assembly - M8 Tips	
4 XP3005	Head Assembly - M10 Tips	
5 XP2006B*	Heat Shield - M8 Head	
6 XP3006B	Heat Shield - M10 Head	
7 XP3001	Swan Neck	
8 XP2016	Lock Nut M12	
9 XP3008	Ball Joint and Cable Support	
10 XP2009	Handle Lock Nut	
11 XP3010-30	Cable Assembly x 3m	
XP3010-40	Cable Assembly x 4m	
XP3010-50	Cable Assembly x 5m	
12 XP2011	Cable Terminal - Female	
13 XP2012	Handle Kit c/w Lock Nut	
14 XP2013	Hanger Hook	
15 XP2014	Trigger	
16 XP3017	Cable Support	
17 XP3027	Cable Support Nut	
18 XP2015	Cable Terminal - Male	
19 XP2018	A/C Gun Plug Housing c/w Nut	
20 XP2019	Gun Plug Screw	
21 XP2020	Gun Plug Nut	
22 XP2021	Gun Plug Terminal	
23 XP2022	A/C Gun Plug Body	
24 XP2023	Gun Plug Body O Ring	
25 XP2025	Liner Nipple O Ring	
26 XP2026	Liner Retaining Nut	

* Denotes Standard Build

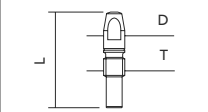
Rating: 350A, 10.5kW, Mixed Gas (80/20), EN60974-7 @ 80% Duty Cycle. 1.0mm to 1.6mm wires



Description	3m/10ft	Part Number 4m/13ft	5m/16ft
Welding Torch c/w Euro Fitting	XP350A-30E	XP350A-40E	XP350A-50E
Welding Torch c/w Tweco Fitting	XP350A-30T	XP350A-40T	XP350A-50T
Welding Torch c/w Miller Fitting	XP350A-30M	XP350A-40M	XP350A-50M
Welding Torch c/w Lincoln Fitting	XP350A-30L	XP350A-40L	XP350A-50L
Welding Torch c/w Hobart Fitting	XP350A-30H	XP350A-40H	XP350A-50H

NOZZLE DIMENSIONS	PART NO.	BORE (B)	LENGTH (L) mm	TIP RECESS	DIAMETER (D) mm	HEAD SIZE (H) mm
	XP3002-13	13mm ~ 1/2"	75.0	3.0mm ~ 1/8"	27.0	21.0
	XP3002-16	16mm ~ 5/8"				
	XP3002-19	19mm ~ 3/4"				
	XP3002-16L	16mm ~ 5/8"	78.5	6.5mm ~ 1/4"		
	XP3002-19L	19mm ~ 3/4"				

Note: Standard nozzles give a tip recess of 3.0mm which is ideal for the majority of welding applications. The long series nozzles have a 6.5mm recess which should be used for core wire welding, pulse welding and high amperage welding requiring long wire stick outs.

TIP DIMENSIONS	PART NO.	WIRE SIZE	THREAD (T)	DIAMETER (D) mm	LENGTH (L) mm	MATERIAL
	XP3003-10	1.0mm ~ 0.040"	M10 x 1.5	10.0	45.0	CuCrZr
	XP3003-10A	1.0mm ~ 0.040"				
	XP3003-12	1.2mm ~ 0.045"				
	XP3003-12A	1.2mm ~ 0.045"				
	XP3003-13	1.3mm ~ 0.052"				
	XP3003-14	1.4mm ~ 0.055"				
	XP3003-16	1.6mm ~ 0.063"				

Note: When using aluminium wires, core wires, pulse or high deposition applications it is recommended to use an A Series Contact Tip (ie XP2003-12A for 1.2mm wire).

Nozzles

Part Number	Description
A XP3002-13	Tapered Nozzle 13mm / 1/2"
XP3002-16*	Conical Nozzle 16mm / 5/8"
XP3002-16L	Conical Nozzle 16mm / 5/8" - Extended
XP3002-19	Large Bore Nozzle 19mm / 3/4"
XP3002-19L	Large Bore Nozzle 19mm / 3/4" - Extended

Contact Tips

Part Number	Description
B XP3003-10	Contact Tip 1.0mm / 0.040" M10 CuCrZr
XP3003-10A	Contact Tip 1.0mm / 0.040" Aluminium M10 CuCrZr
XP3003-12*	Contact Tip 1.2mm / 0.045" M10 CuCrZr
XP3003-12A	Contact Tip 1.2mm / 0.045" Aluminium M10 CuCrZr
XP3003-13	Contact Tip 1.3mm / 0.052" M10 CuCrZr
XP3003-14	Contact Tip 1.4mm / 0.055" M10 CuCrZr
XP3003-16	Contact Tip 1.6mm / 0.063" M10 CuCrZr

Liners

Part Number	Description
C XP3524-12-30*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 3m / 10ft
XP3524-12-40*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 4m / 13ft
XP3524-12-50*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 5m / 16ft
XP3524-16-30	Steel Liner 1.6mm / 0.063" x 3m / 10ft
XP3524-16-40	Steel Liner 1.6mm / 0.063" x 4m / 13ft
XP3524-16-50	Steel Liner 1.6mm / 0.063" x 5m / 16ft
D XP2024PC-12-30	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 3m / 10ft
XP2024PC-12-40	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 4m / 13ft
XP2024PC-12-50	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 5m / 16ft
XP3524PC-16-30	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 3m / 10ft
XP3524PC-16-40	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 4m / 13ft
XP3524PC-16-50	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 5m / 16ft
XP2024PS-12-30	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 3m / 10ft
XP2024PS-12-40	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 4m / 13ft
XP2024PS-12-50	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 5m / 16ft
XP3524PS-16-30	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 3m / 10ft
XP3524PS-16-40	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 4m / 13ft
XP3524PS-16-50	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 5m / 16ft

Note: Recommended torch set up advice is available on page 8.

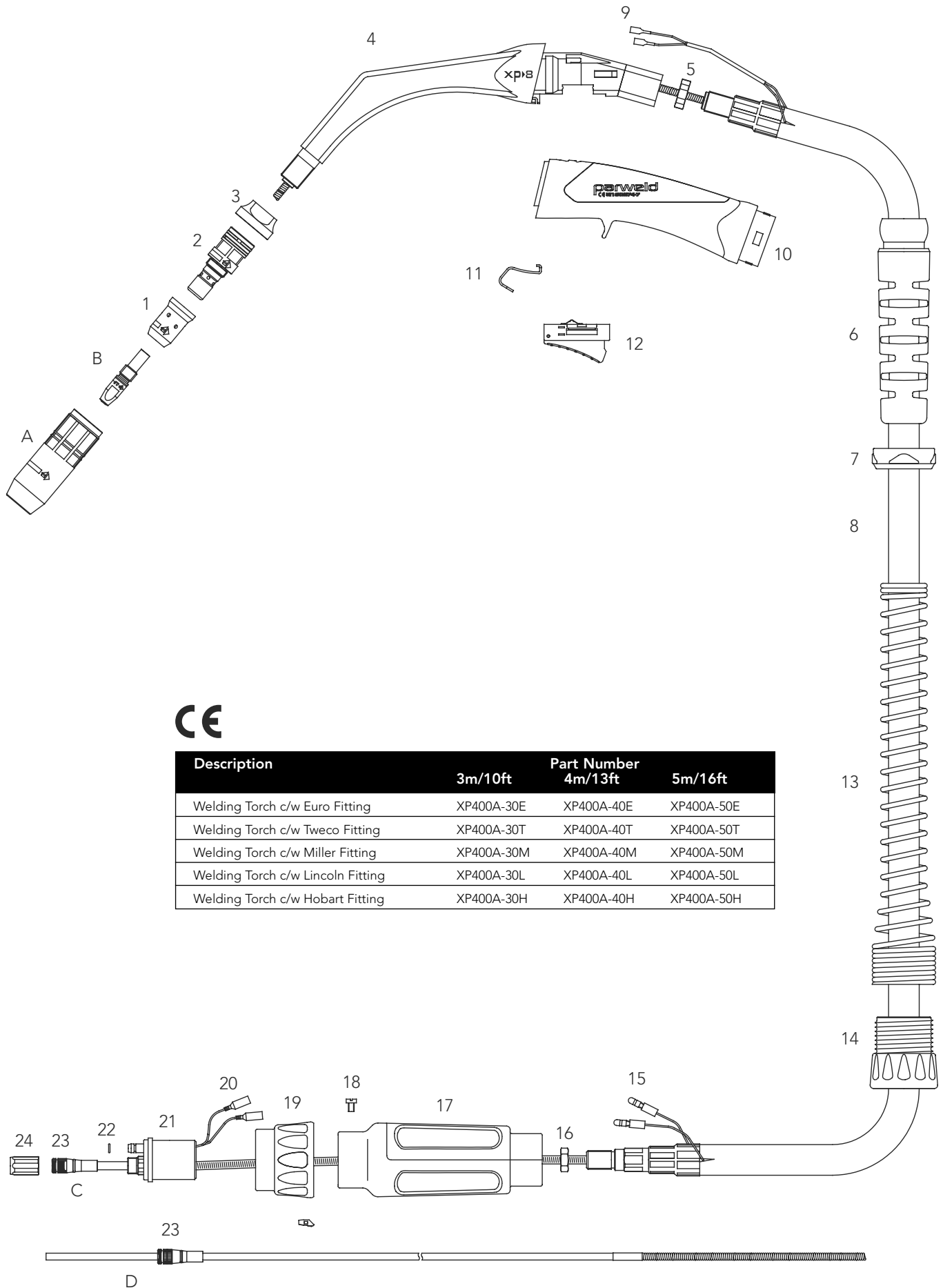
Components

Part Number	Description
1 XP3004C*	Diffuser - Ceramic
2 XP3505*	Head Assembly - M10 Tips
3 XP3506B*	Heat Shield
4 XP3501	Swan Neck
5 XP3507	Lock Nut M14
6 XP3008	Ball Joint and Cable Support
7 XP2009	Handle Lock Nut
8 XP3510-30	Cable Assembly x 3m
XP3510-40	Cable Assembly x 4m
XP3510-50	Cable Assembly x 5m
9 XP2011	Cable Terminal - Female
10 XP2012	Handle Kit c/w Lock Nut
11 XP2013	Hanger Hook
12 XP2014	Trigger
13 XP3017	Cable Support
14 XP3027	Cable Support Nut
15 XP2015	Cable Terminal - Male
16 XP2016	Lock Nut M12
17 XP2018	A/C Gun Plug Housing c/w Nut
18 XP2019	Gun Plug Screw
19 XP2020	Gun Plug Nut
20 XP2021	Gun Plug Terminal
21 XP2022	A/C Gun Plug Body
22 XP2023	Gun Plug Body O Ring
23 XP2025	Liner Nipple O Ring
24 XP2026	Liner Retaining Nut

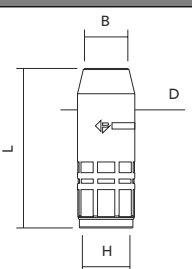
* Denotes Standard Build

XP 8 400A

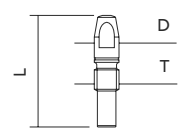
Rating: 400A, 12kW, Mixed Gas (80/20), EN60974-7 @ 80% Duty Cycle. 1.2mm to 2.4mm wires



Description	3m/10ft	Part Number	4m/13ft	5m/16ft
Welding Torch c/w Euro Fitting	XP400A-30E	XP400A-40E	XP400A-50E	
Welding Torch c/w Tweco Fitting	XP400A-30T	XP400A-40T	XP400A-50T	
Welding Torch c/w Miller Fitting	XP400A-30M	XP400A-40M	XP400A-50M	
Welding Torch c/w Lincoln Fitting	XP400A-30L	XP400A-40L	XP400A-50L	
Welding Torch c/w Hobart Fitting	XP400A-30H	XP400A-40H	XP400A-50H	

NOZZLE DIMENSIONS	PART NO.	BORE (B)	LENGTH (L) mm	TIP RECESS	DIAMETER (D) mm	HEAD SIZE (H) mm
	XP3002-13	13mm ~ 1/2"	75.0	3.0mm ~ 1/8"	27.0	21.0
	XP3002-16	16mm ~ 5/8"				
	XP3002-19	19mm ~ 3/4"				
	XP3002-16L	16mm ~ 5/8"	78.5	6.5mm ~ 1/4"		
	XP3002-19L	19mm ~ 3/4"				

Note: Standard nozzles give a tip recess of 3.0mm which is ideal for the majority of welding applications. The long series nozzles have a 6.5mm recess which should be used for core wire welding, pulse welding and high amperage welding requiring long wire stick outs.

TIP DIMENSIONS	PART NO.	WIRE SIZE	THREAD (T)	DIAMETER (D) mm	LENGTH (L) mm	MATERIAL
	XP3003-12	1.2mm ~ 0.045"	M10 x 1.5	10.0	45.0	CuCrZr
	XP3003-12A	1.2mm ~ 0.045"				
	XP3003-13	1.3mm ~ 0.052"				
	XP3003-14	1.4mm ~ 0.055"				
	XP3003-16	1.6mm ~ 0.063"				
	XP3003-20	2.0mm ~ 0.080"				
	XP3003-24	2.4mm ~ 0.095"				

Note: When using aluminium wires, core wires, pulse or high deposition applications it is recommended to use an A Series Contact Tip (ie XP2003-12A for 1.2mm wire).

Nozzles

Part Number	Description
A XP3002-13	Tapered Nozzle 13mm / 1/2"
XP3002-16*	Conical Nozzle 16mm / 5/8"
XP3002-16L	Conical Nozzle 16mm / 5/8" - Extended
XP3002-19	Large Bore Nozzle 19mm / 3/4"
XP3002-19L	Large Bore Nozzle 19mm / 3/4" - Extended

Contact Tips

Part Number	Description
B XP3003-10A	Contact Tip 1.0mm / 0.040" Aluminium M10 CuCrZr
XP3003-12*	Contact Tip 1.2mm / 0.045" M10 CuCrZr
XP3003-12A	Contact Tip 1.2mm / 0.045" Aluminium M10 CuCrZr
XP3003-13	Contact Tip 1.3mm / 0.052" M10 CuCrZr
XP3003-14	Contact Tip 1.4mm / 0.055" M10 CuCrZr
XP3003-16	Contact Tip 1.6mm / 0.063" M10 CuCrZr
XP3003-20	Contact Tip 2.0mm / 0.080" M10 CuCrZr
XP3003-24	Contact Tip 2.4mm / 0.095" M10 CuCrZr

Liners

Part Number	Description
C XP3524-12-30*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 3m / 10ft
XP3524-12-40*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 4m / 13ft
XP3524-12-50*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 5m / 16ft
XP3524-16-30	Steel Liner 1.6mm / 0.063" x 3m / 10ft
XP3524-16-40	Steel Liner 1.6mm / 0.063" x 4m / 13ft
XP3524-16-50	Steel Liner 1.6mm / 0.063" x 5m / 16ft
XP4024-24-30	Steel Liner 2.0mm / 0.080" - 2.4mm / 0.095" x 3m / 10ft
XP4024-24-40	Steel Liner 2.0mm / 0.080" - 2.4mm / 0.095" x 4m / 13ft
XP4024-24-50	Steel Liner 2.0mm / 0.080" - 2.4mm / 0.095" x 5m / 16ft
D XP3524PC-16-30	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 3m / 10ft
XP3524PC-16-40	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 4m / 13ft
XP3524PC-16-50	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 5m / 16ft
XP4024PC-20-30	Polyamide - Copper Liner 1.6 / 0.063" - 2.0mm / 0.080" x 3m / 10ft
XP4024PC-20-40	Polyamide - Copper Liner 1.6 / 0.063" - 2.0mm / 0.080" x 4m / 13ft
XP4024PC-20-50	Polyamide - Copper Liner 1.6 / 0.063" - 2.0mm / 0.080" x 5m / 16ft
XP3524PS-16-30	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 3m / 10ft
XP3524PS-16-40	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 4m / 13ft
XP3524PS-16-50	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 5m / 16ft
XP4024PS-20-30	Polyamide - Steel Liner 1.6 / 0.063" - 2.0mm / 0.080" x 3m / 10ft
XP4024PS-20-40	Polyamide - Steel Liner 1.6 / 0.063" - 2.0mm / 0.080" x 4m / 13ft
XP4024PS-20-50	Polyamide - Steel Liner 1.6 / 0.063" - 2.0mm / 0.080" x 5m / 16ft
XP3524PS-16-40	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 4m / 13ft
XP3524PS-16-50	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 5m / 16ft
XP4024PS-20-30	Polyamide - Steel Liner 1.6 / 0.063" - 2.0mm / 0.080" x 3m / 10ft
XP4024PS-20-40	Polyamide - Steel Liner 1.6 / 0.063" - 2.0mm / 0.080" x 4m / 13ft
XP4024PS-20-50	Polyamide - Steel Liner 1.6 / 0.063" - 2.0mm / 0.080" x 5m / 16ft

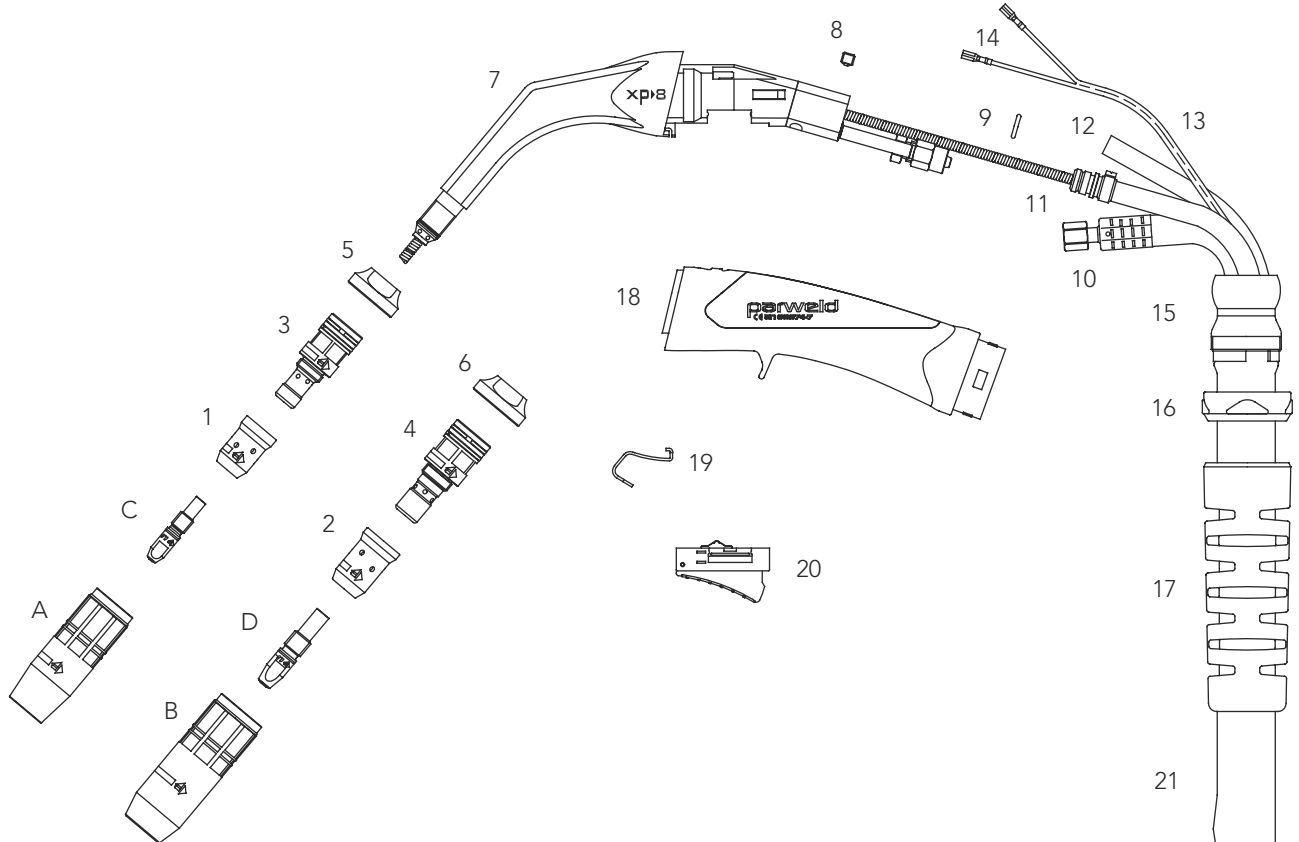
Components

Part Number	Description
1 XP3004C*	Diffuser - Ceramic
2 XP3505*	Head Assembly - M10 Tips
3 XP3506B*	Heat Shield
4 XP4001	Swan Neck
5 XP3507	Lock Nut M14
6 XP4008	Ball Joint and Cable Support
7 XP2009	Handle Lock Nut
8 XP4010-30	Cable Assembly x 3m
XP4010-40	Cable Assembly x 4m
XP4010-50	Cable Assembly x 5m
9 XP2011	Cable Terminal - Female
10 XP2012	Handle Kit c/w Lock Nut
11 XP2013	Hanger Hook
12 XP2014	Trigger
13 XP3017	Cable Support
14 XP3027	Cable Support Nut
15 XP2015	Cable Terminal - Male
16 XP2016	Lock Nut M12
17 XP2018	A/C Gun Plug Housing c/w Nut
18 XP2019	Gun Plug Screw
19 XP2020	Gun Plug Nut
20 XP2021	Gun Plug Terminal
21 XP2022	A/C Gun Plug Body
22 XP2023	Gun Plug Body O Ring
23 XP2025	Liner Nipple O Ring
24 XP2026	Liner Retaining Nut

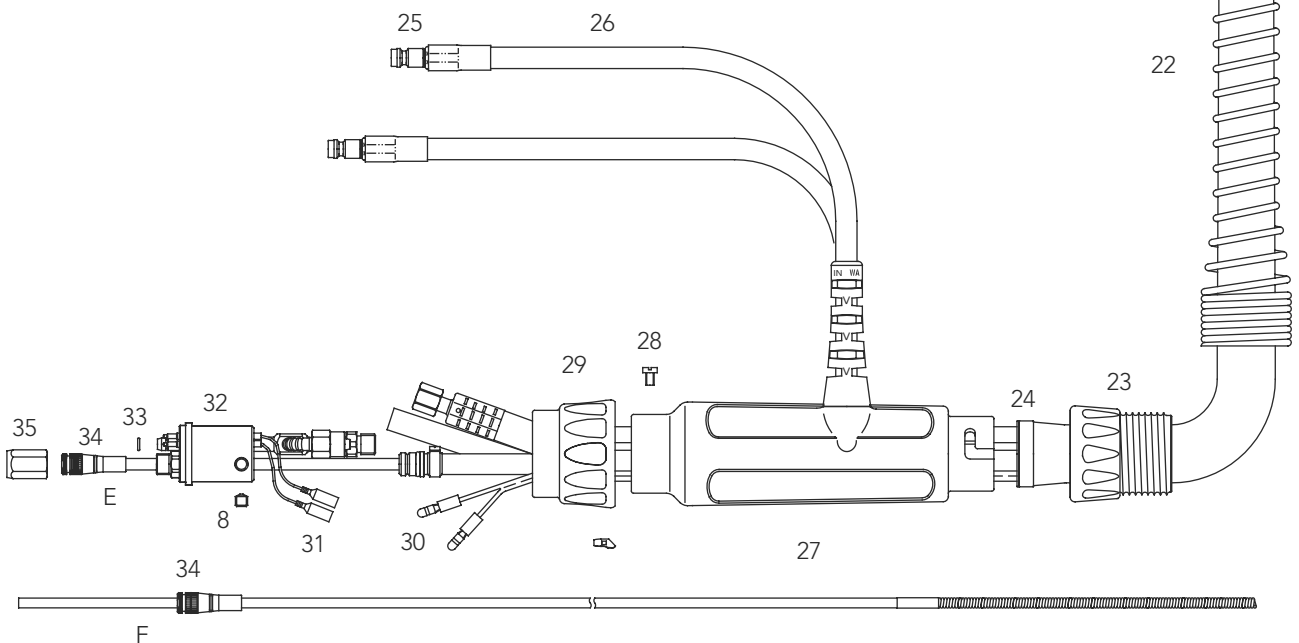
* Denotes Standard Build

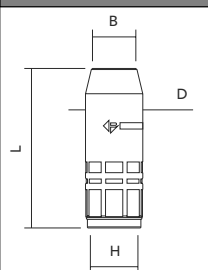
Note: Recommended torch set up advice is available on page 8.

Rating: 320A, 9.6kW, Mixed Gas (80/20), EN60974-7 @ 100% Duty Cycle. 0.8mm to 1.6mm wires

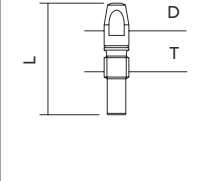


Description	Part Number		
	3m/10ft	4m/13ft	5m/16ft
Welding Torch c/w Euro Fitting	XP320W-30E	XP320W-40E	XP320W-50E
Welding Torch c/w Tweco Fitting	XP320W-30T	XP320W-40T	XP320W-50T
Welding Torch c/w Miller Fitting	XP320W-30M	XP320W-40M	XP320W-50M
Welding Torch c/w Lincoln Fitting	XP320W-30L	XP320W-40L	XP320W-50L



NOZZLE DIMENSIONS	PART NO.	BORE (B) mm	LENGTH (L)	TIP RECESS mm	DIAMETER (D) mm	HEAD SIZE (H)
	XP2002-10	10mm ~ 3/8"	65.0	FLUSH	24.5	19.0
	XP2002-13	13mm ~ 1/2"	67.5	2.5mm ~ 3/32"		
	XP2002-16	16mm ~ 5/8"				
	XP2002-19	19mm ~ 3/4"				
	XP2002-16L	16mm ~ 5/8"	75.0	6.5mm ~ 1/4"		
	XP2002-19L	19mm ~ 3/4"				
	XP3002-13	13mm ~ 1/2"	75.0	3.0mm ~ 1/8"		
	XP3002-16	16mm ~ 5/8"				
	XP3002-19	19mm ~ 3/4"				
	XP3002-16L	16mm ~ 5/8"			78.5	6.5mm ~ 1/4"
XP3002-19L	19mm ~ 3/4"					

Note: Standard nozzles give a tip recess of 2.5mm or 3.0mm which is ideal for the majority of welding applications. The long series nozzles have a 6.5mm recess which should be used for core wire welding, pulse welding and high amperage welding requiring long wire stick outs. Torches are shipped with standard consumables, however when using the torch at its maximum rating or for pulse welding it is recommended that you use HD consumables for improved performance and consumable life.

TIP DIMENSIONS	PART NO.	WIRE SIZE	THREAD (T)	DIAMETER (D) mm	LENGTH (L) mm	MATERIAL
	XP2003-09	0.9mm ~ 0.035"	M8 x 1.25	8.0	38.0	CuCrZr
	XP2003-10	1.0mm ~ 0.040"				
	XP2003-10A	1.0mm ~ 0.040"				
	XP2003-12	1.2mm ~ 0.045"				
	XP2003-12A	1.2mm ~ 0.045"				
	XP2003-13	1.3mm ~ 0.052"				
	XP3003-10	1.0mm ~ 0.040"	M10 x 1.5	10.0	45.0	
	XP3003-10A	1.0mm ~ 0.040"				
	XP3003-12	1.2mm ~ 0.045"				
	XP3003-12A	1.2mm ~ 0.045"				
	XP3003-13	1.3mm ~ 0.052"				
	XP3003-16	1.6mm ~ 0.063"				

Note: When using aluminium wires, core wires, pulse or high deposition applications it is recommended to use an A Series Contact Tip (ie XP2003-10A for 1.0mm wire).

Nozzles

Part Number	Description
A XP2002-10	Tapered Nozzle 10mm / 3/8"
XP2002-13	Tapered Nozzle 13mm / 1/2"
XP2002-16*	Conical Nozzle 16mm / 5/8"
XP2002-16L	Conical Nozzle 19mm / 3/4" - Extended
XP2002-19	Large Bore Nozzle 19mm / 3/4"
XP2002-19L	Large Bore Nozzle 19mm / 3/4" - Extended
B XP3002-13	Tapered Nozzle 13mm / 1/2"
XP3002-16	Conical Nozzle 16mm / 5/8"
XP3002-16L	Conical Nozzle 16mm / 5/8" - Extended
XP3002-19	Large Bore Nozzle 19mm / 3/4"
XP3002-19L	Large Bore Nozzle 19mm / 3/4" - Extended

Contact Tips

Part Number	Description
C XP2003-09	Contact Tip 0.9mm / 0.035" M8 CuCrZr
XP2003-10*	Contact Tip 1.0mm / 0.040" M8 CuCrZr
XP2003-10A	Contact Tip 1.0mm / 0.040" Aluminium M8 CuCrZr
XP2003-12	Contact Tip 1.2mm / 0.045" M8 CuCrZr
XP2003-12A	Contact Tip 1.2mm / 0.045" Aluminium M8 CuCrZr
XP2003-13	Contact Tip 1.3mm / 0.052" M8 CuCrZr
D XP3003-10	Contact Tip 1.0mm / 0.040" M10 CuCrZr
XP3003-10A	Contact Tip 1.0mm / 0.040" Aluminium M10 CuCrZr
XP3003-12	Contact Tip 1.2mm / 0.045" M10 CuCrZr
XP3003-12A	Contact Tip 1.2mm / 0.045" Aluminium M10 CuCrZr
XP3003-13	Contact Tip 1.3mm / 0.052" M10 CuCrZr
XP3003-16	Contact Tip 1.6mm / 0.063" M10 CuCrZr

Liners

Part Number	Description
E XP2024-12-30	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 3m / 10ft
XP2024-12-40	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 4m / 13ft
XP2024-12-50	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 5m / 16ft
XP3524-16-30	Steel Liner 1.6mm / 0.063" x 3m / 10ft
XP3524-16-40	Steel Liner 1.6mm / 0.063" x 4m / 13ft
XP3524-16-50	Steel Liner 1.6mm / 0.063" x 5m / 16ft
F XP2024PC-12-30	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 3m / 10ft
XP2024PC-12-40	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 4m / 13ft
XP2024PC-12-50	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 5m / 16ft
XP3524PC-16-30	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 3m / 10ft
XP3524PC-16-40	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 4m / 13ft
XP3524PC-16-50	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 5m / 16ft
XP2024PS-12-30	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 3m / 10ft
XP2024PS-12-40	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 4m / 13ft
XP2024PS-12-50	Polyamide - Steel Liner 0.8 / 0.030" - 1.2mm / 0.045" x 5m / 16ft
XP3524PS-16-30	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 3m / 10ft
XP3524PS-16-40	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 4m / 13ft
XP3524PS-16-50	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 5m / 16ft

Components

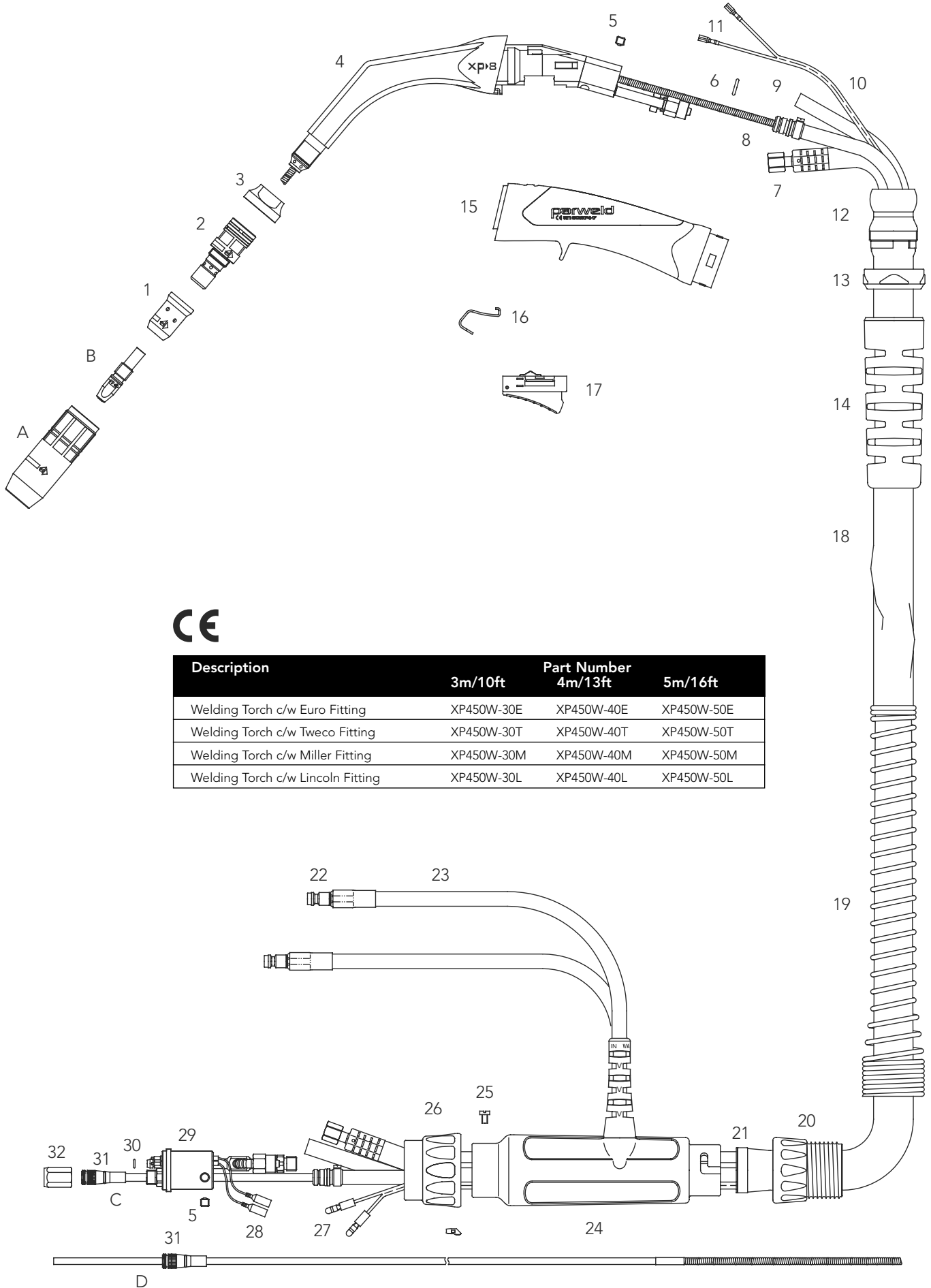
Part Number	Description
1 XP2004C*	Diffuser - Ceramic - M8 Head
2 XP3004C	Diffuser - Ceramic - M10 Head
3 XP2005*	Head Assembly - M8 Tips
4 XP3005	Head Assembly - M10 Tips
5 XP2006B*	Heat Shield - M8 Head
6 XP3006B	Heat Shield - M10 Head
7 XP3201	Swan Neck
8 XP3228	Grub Screw
9 XP3229	O Ring Pack
10 XP3230-30	Power Cable Assy x 3m
XP3230-40	Power Cable Assy x 4m
XP3230-50	Power Cable Assy x 5m
11 XP3231-30	Liner Conduit Assy x 3m
XP3231-40	Liner Conduit Assy x 4m
XP3231-50	Liner Conduit Assy x 5m
12 XP3232-30	Water Hose Assy x 3m
XP3232-40	Water Hose Assy x 4m
XP3232-50	Water Hose Assy x 5m
13 XP3233-30	Switch Lead Assy x 3m
XP3233-40	Switch Lead Assy x 4m
XP3233-50	Switch Lead Assy x 5m
14 XP2011	Cable Terminal - Female
15 XP3234	Ball Joint c/w Cover Clamp
16 XP2009	Handle Lock Nut
17 XP3208	Cable Support
18 XP2012	Handle Kit c/w Lock Nut
19 XP2013	Hanger Hook
20 XP2014	Trigger
21 XP3235-30	Canvas Cover x 3m
XP3235-40	Canvas Cover x 4m
XP3235-50	Canvas Cover x 5m
22 XP3017	Cable Support
23 XP3027	Cable Support Nut
24 XP3236	Canvas Cover Clamp & Retainer
25 XP3237	Water Hose Nipple
26 XP3238	Water Outlet Hose Assembly
27 XP3240	W/C Housing c/w Supports
28 XP2019	Gun Plug Screw
29 XP2020	Gun Plug Nut
30 XP2015	Cable Terminal - Male
31 XP2021	Gun Plug Terminals
32 XP3241	W/C Gun Plug Body
33 XP2023	Gun Plug Body O Ring
34 XP2025	Liner Nipple O Ring
35 XP2026	Liner Retaining Nut

* Denotes Standard Build

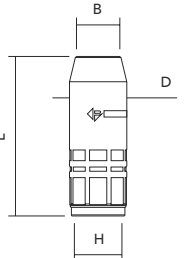
Note: Recommended torch set up advice is available on page 8.

XP 8 450W

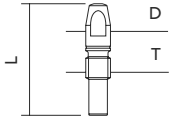
Rating: 450A, 15.8kW, Mixed Gas (80/20), EN60974-7 @ 100% Duty Cycle. 1.0mm to 2.4mm wires



Description	Part Number		
	3m/10ft	4m/13ft	5m/16ft
Welding Torch c/w Euro Fitting	XP450W-30E	XP450W-40E	XP450W-50E
Welding Torch c/w Tweco Fitting	XP450W-30T	XP450W-40T	XP450W-50T
Welding Torch c/w Miller Fitting	XP450W-30M	XP450W-40M	XP450W-50M
Welding Torch c/w Lincoln Fitting	XP450W-30L	XP450W-40L	XP450W-50L

NOZZLE DIMENSIONS	PART NO.	BORE (B)	LENGTH (L) mm	TIP RECESS	DIAMETER (D) mm	HEAD SIZE (H) mm
	XP3002-13	13mm ~ 1/2"	75.0	3.0mm ~ 1/8"	27.0	21.0
	XP3002-16	16mm ~ 5/8"				
	XP3002-19	19mm ~ 3/4"				
	XP3002-16L	16mm ~ 5/8"	78.5	6.5mm ~ 1/4"		
	XP3002-19L	19mm ~ 3/4"				

Note: Standard nozzles give a tip recess of 3.0mm which is ideal for the majority of welding applications. The long series nozzles have a 6.5mm recess which should be used for core wire welding, pulse welding and high amperage welding requiring long wire stick outs.

TIP DIMENSIONS	PART NO.	WIRE SIZE	THREAD (T)	DIAMETER (D) mm	LENGTH (L) mm	MATERIAL
	XP3003-10	1.0mm ~ 0.040"	M10 x 1.5	10.0	45.0	CuCrZr
	XP3003-10A	1.0mm ~ 0.040"				
	XP3003-12	1.2mm ~ 0.045"				
	XP3003-12A	1.2mm ~ 0.045"				
	XP3003-13	1.3mm ~ 0.052"				
	XP3003-14	1.4mm ~ 0.055"				
	XP3003-16	1.6mm ~ 0.063"				
	XP3003-20	2.0mm ~ 0.080"				
XP3003-24	2.4mm ~ 0.095"					

Note: When using aluminium wires, core wires, pulse or high deposition applications it is recommended to use an A Series Contact Tip (ie XP2003-12A for 1.2mm wire).

Nozzles

Part Number	Description
A XP3002-13	Tapered Nozzle 13mm / 1/2"
XP3002-16*	Conical Nozzle 16mm / 5/8"
XP3002-16L	Conical Nozzle 16mm / 5/8" - Extended
XP3002-19	Large Bore Nozzle 19mm / 3/4"
XP3002-19L	Large Bore Nozzle 19mm / 3/4" - Extended

Contact Tips

Part Number	Description
B XP3003-10	Contact Tip 1.0mm / 0.040" M10 CuCrZr
XP3003-10A	Contact Tip 1.0mm / 0.040" Aluminium M10 CuCrZr
XP3003-12*	Contact Tip 1.2mm / 0.045" M10 CuCrZr
XP3003-12A	Contact Tip 1.2mm / 0.045" Aluminium M10 CuCrZr
XP3003-13	Contact Tip 1.3mm / 0.052" M10 CuCrZr
XP3003-14	Contact Tip 1.4mm / 0.055" M10 CuCrZr
XP3003-16	Contact Tip 1.6mm / 0.063" M10 CuCrZr
XP3003-20	Contact Tip 2.0mm / 0.080" M10 CuCrZr
XP3003-24	Contact Tip 2.4mm / 0.095" M10 CuCrZr

Liners

Part Number	Description
C XP3524-12-30*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 3m / 10ft
XP3524-12-40*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 4m / 13ft
XP3524-12-50*	Steel Liner 1.0mm / 0.040" - 1.2mm / 0.045" x 5m / 16ft
XP3524-16-30	Steel Liner 1.6mm / 0.063" x 3m / 10ft
XP3524-16-40	Steel Liner 1.6mm / 0.063" x 4m / 13ft
XP3524-16-50	Steel Liner 1.6mm / 0.063" x 5m / 16ft
XP4024-24-30	Steel Liner 2.0mm / 0.080" - 2.4mm / 0.095" x 3m / 10ft
XP4024-24-40	Steel Liner 2.0mm / 0.080" - 2.4mm / 0.095" x 4m / 13ft
XP4024-24-50	Steel Liner 2.0mm / 0.080" - 2.4mm / 0.095" x 5m / 16ft
D XP2024PC-12-30	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 3m / 10ft
XP2024PC-12-40	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 4m / 13ft
XP2024PC-12-50	Polyamide - Copper Liner 0.8 / 0.030" - 1.2mm / 0.045" x 5m / 16ft
XP3524PC-16-30	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 3m / 10ft
XP3524PC-16-40	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 4m / 13ft
XP3524PC-16-50	Polyamide - Copper Liner 1.2 / 0.045" - 1.6mm / 0.063" x 5m / 16ft
XP4024PC-20-30	Polyamide - Copper Liner 1.6 / 0.063" - 2.0mm / 0.080" x 3m / 10ft
XP4024PC-20-40	Polyamide - Copper Liner 1.6 / 0.063" - 2.0mm / 0.080" x 4m / 13ft
XP4024PC-20-50	Polyamide - Copper Liner 1.6 / 0.063" - 2.0mm / 0.080" x 5m / 16ft
XP3524PS-16-30	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 3m / 10ft
XP3524PS-16-40	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 4m / 13ft
XP3524PS-16-50	Polyamide - Steel Liner 1.2 / 0.045" - 1.6mm / 0.063" x 5m / 16ft
XP4024PS-20-30	Polyamide - Steel Liner 1.6 / 0.063" - 2.0mm / 0.080" x 3m / 10ft
XP4024PS-20-40	Polyamide - Steel Liner 1.6 / 0.063" - 2.0mm / 0.080" x 4m / 13ft
XP4024PS-20-50	Polyamide - Steel Liner 1.6 / 0.063" - 2.0mm / 0.080" x 5m / 16ft

Note: Recommended torch set up advice is available on page 8.

Components

Part Number	Description
1 XP3004C*	Diffuser - Ceramic
2 XP3505*	Head Assembly - M10 Tips
3 XP3506B*	Heat Shield
4 XP4501	Swan Neck
5 XP3228	Grub Screw
6 XP3229	O Ring Pack
7 XP3230-30	Power Cable Assy x 3m
XP3230-40	Power Cable Assy x 4m
XP3230-50	Power Cable Assy x 5m
8 XP3231-30	Liner Conduit Assy x 3m
XP3231-40	Liner Conduit Assy x 4m
XP3231-50	Liner Conduit Assy x 5m
9 XP3232-30	Water Hose Assy x 3m
XP3232-40	Water Hose Assy x 4m
XP3232-50	Water Hose Assy x 5m
10 XP3233-30	Switch Lead Assy x 3m
XP3233-40	Switch Lead Assy x 4m
XP3233-50	Switch Lead Assy x 5m
11 XP2011	Cable Terminal - Female
12 XP3234	Ball Joint c/w Cover Clamp
13 XP2009	Handle Lock Nut
14 XP3208	Cable Support
15 XP2012	Handle Kit c/w Lock Nut
16 XP2013	Hanger Hook
17 XP2014	Trigger
18 XP3235-30	Canvas Cover x 3m
XP3235-40	Canvas Cover x 4m
XP3235-50	Canvas Cover x 5m
19 XP3017	Cable Support
20 XP3027	Cable Support Nut
21 XP3236	Canvas Cover Clamp & Retainer
22 XP3237	Water Hose Nipple
23 XP3238	Water Outlet Hose Assy
24 XP3240	W/C Housing c/w Supports
25 XP2019	Gun Plug Screw
26 XP2020	Gun Plug Nut
27 XP2015	Cable Terminal - Male
28 XP2021	Gun Plug Terminals
29 XP3241	W/C Gun Plug Body
30 XP2023	Gun Plug Body O Ring
31 XP2025	Liner Nipple O Ring
32 XP2026	Liner Retaining Nut

* Denotes Standard Build

- Always keep the torch cables as straight as possible during use. If any burnback occurs release the torch trigger immediately. Remove the contact tip, free the wire and clean or renew the contact tip as necessary. If the wire between the drive rolls has been scored it must be cut off and new wire fed through the torch. If this is not done the damaged wire will jam in the contact tip and cause another burnback.
- When installing a new reel of wire always blow out the torch liner with dry compressed air or shielding gas to clear any build up of dust or wire residue.
- Always ensure adequate gas and water flow prior to welding.
- The inclusion of a torch coolant containing corrosive retardants is strongly recommended in the water supply.
- If the torch has not been used for more than 10 minutes purge the gas hose before starting the next weld.
- Periodically remove the nozzle, diffuser and contact tip and inspect for wear or damage. Any worn or damaged parts should be replaced immediately.
- The regular use of an anti-spatter compound will prevent spatter build up and reduce adhesion to consumable parts.
- The use of silicon coated wipers over the wire, before the drive rolls helps prevent coating residue entering the torch liner.

Quick fault analysis of inoperative torch

In most cases, the process of elimination is best started by establishing if the problem is a mechanical fault or a torch fault. This is best done by removing the torch and checking the feed unit for wire feed and gas delivery by either using the feed systems gas purge and wire inch facilities or manually short circuiting the female sockets on the central connector.

Warning. The switch wire circuiting carries a potentially harmful voltage, ensure fully insulated pliers are used.

Once the torch or feed unit problem is identified follow this quick procedure.

- Check male pins of torch, if broken replace.
- Using appropriate test equipment check torch switch circuitry.

If the torch switch circuitry is **operative**, the problem must be the mating between the male pins on the torch and the female pins on the central connector. Improper care when fitting the torch to the feed unit will result in the female central connector sockets pushing back into the central connector. Once this has happened they must be replaced.

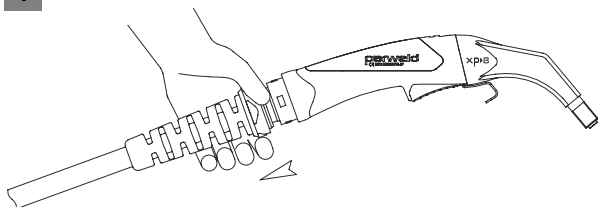
Parweld fit spring loaded contact pins to prevent this.

If the torch circuitry is **inoperative**.

- Check the torch switch.
- Check for switch wire break in the coaxial cable.

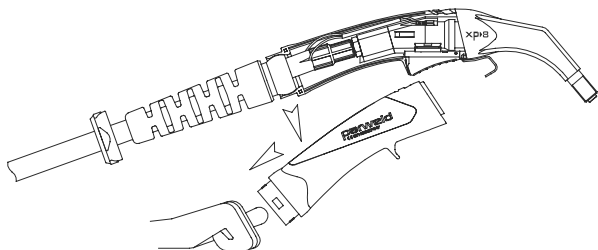
Handle Removal

1



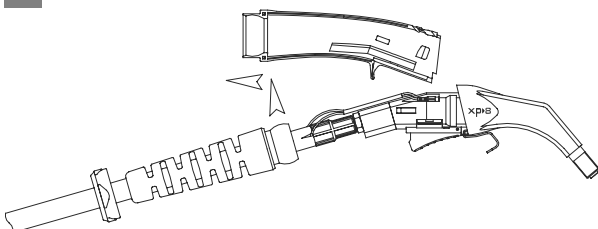
- TWIST THE LOCK NUT TO THE RELEASE POSITION
- SLIDE THE LOCK NUT BACK OFF THE HANDLE

2



- LEVER ONE HANDLE SIDE OFF THE SUPPORT SWIVEL JOINT
- REMOVE IT FROM THE SWAN NECK GROOVE

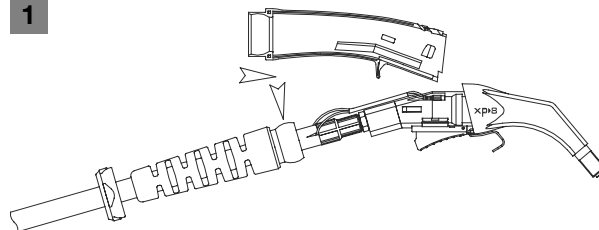
3



- LEVER THE OTHER HANDLE SIDE OFF THE SUPPORT SWIVEL JOINT
- REMOVE IT FROM THE SWAN NECK GROOVE

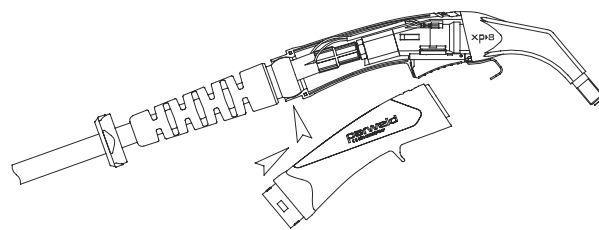
Handle Fitting

1



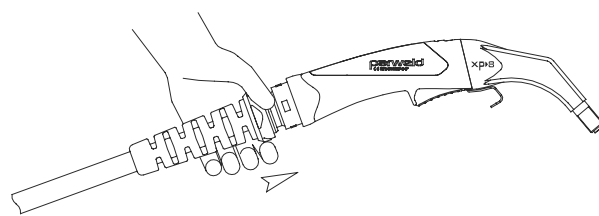
- PLACE A HANDLE SIDE INTO THE NECK GROOVE
- CLOSE AGAINST THE NECK AND SUPPORT SWIVEL JOINT

2



- PLACE OTHER HANDLE SIDE INTO THE NECK GROOVE
- CLOSE AGAINST THE NECK, SUPPORT SWIVEL JOINT AND OTHER SIDE HANDLE

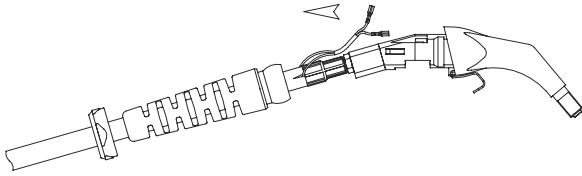
3



- SLIDE THE LOCK NUT OVER THE HANDLE
- TWIST THE NUT TO THE LOCK POSITION

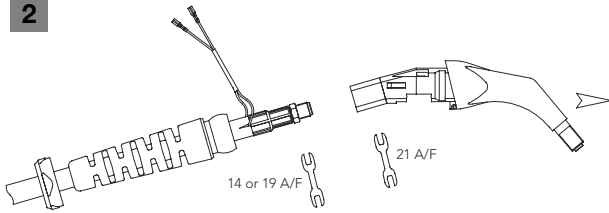
Swan Neck – Air Cooled Removal/Fitting

1



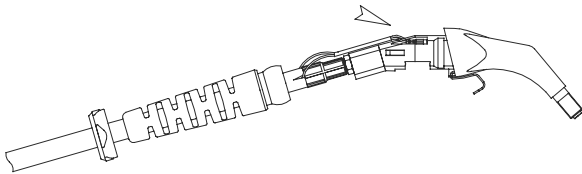
- FIRST REMOVE LINER, CONSUMABLES AND HANDLE
- DISCONNECT THE SWITCH WIRES FROM THE NECK

2



- UNDO THE CABLE END LOCK NUT AND UNSCREW THE SWAN NECK
- TO REFIT, SCREW THE SWAN NECK ON TO THE CABLE FITTING THEN TIGHTEN THE LOCK NUT WITH THE NECK IN THE CORRECT ORIENTATION

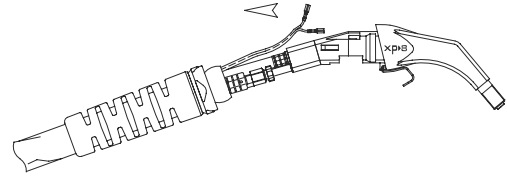
3



- CONNECT THE SWITCH WIRES TO THE NECK TERMINALS
- FIT HANDLE, LINER AND CONSUMABLES

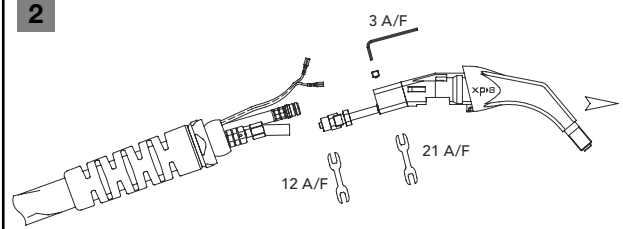
Swan Neck – Water Cooled Removal/Fitting

1



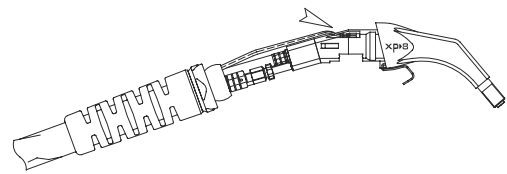
- FIRST REMOVE LINER, CONSUMABLES AND HANDLE
- DISCONNECT THE SWITCH WIRES FROM THE NECK

2



- UNDO THE CABLE AND HOSE NUTS AND UNSCREW THE CONDUIT GRUB SCREW TO RELEASE THE SWAN NECK
- TO REFIT, SCREW ON THE POWER CABLE, FIT THE LINER CONDUIT, TIGHTEN THE GRUB SCREW, FIT THE HOSE TO THE NIPPLES AND TIGHTEN NUT.

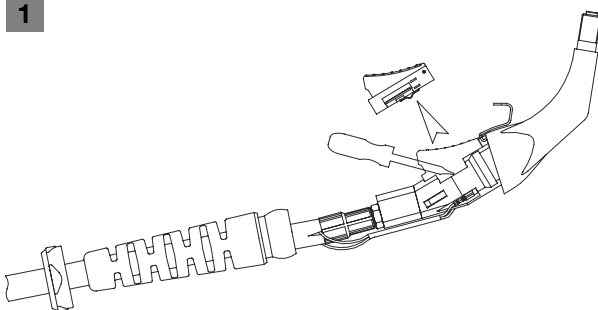
3



- CONNECT THE SWITCH WIRES TO THE NECK TERMINALS
- FIT HANDLE, LINER AND CONSUMABLES

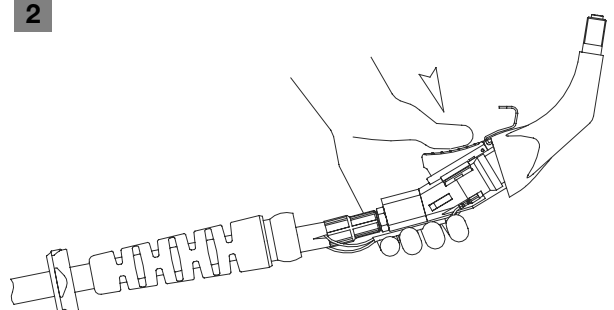
Trigger Removal and Fitting

1



- LEVER THE TRIGGER ON ALTERNATE SIDES TO LOOSEN
- PULL CLEAR FROM ITS RETAINING POCKET

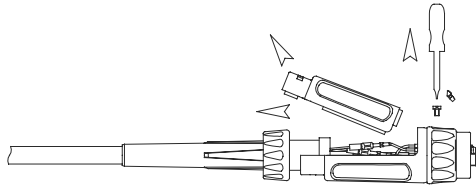
2



- SLIDE THE TRIGGER INTO THE RETAINING POCKET
- APPLY PRESSURE TO SNAP-FIT INTO PLACE

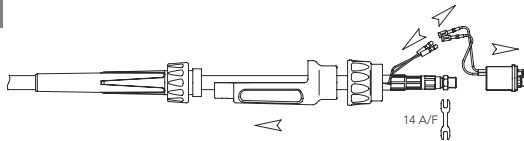
Air Cooled Rear End Removal/Fitting

1



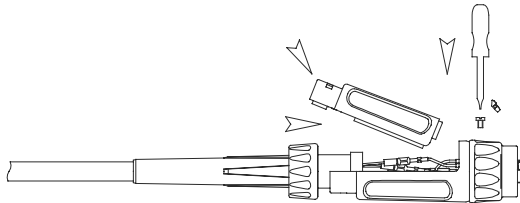
- TWIST THE LOCK NUT TO THE RELEASE POSITION
- SLIDE THE NUT OFF THE HOUSING
- LEVER THE COVER OFF THE HOUSING
- UNSCREW THE END RETAINING SCREW

2



- SLIDE THE HOUSING AND PLUG NUT BACK
- DISCONNECT THE SWITCH WIRES
- LOOSEN THE CABLE LOCK NUT
- UNSCREW THE END FROM THE CABLE FITTING
- TO REFIT FOLLOW STEPS IN THE REVERSE ORDER

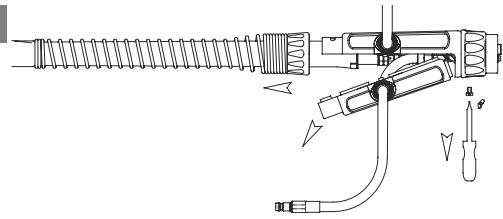
3



- WITH END LOCATED FIT THE RETAINING SCREW
- POSITION THE CABLE SUPPORT IN ITS LOCATION
- FIT AND CLOSE THE HOUSING COVER
- SLIDE THE NUT ON TO THE HOUSING
- TWIST THE LOCK NUT TO THE LOCK POSITION

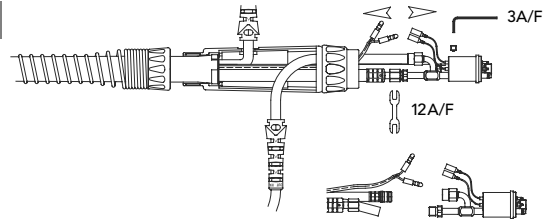
Water Cooled Rear End Removal/Fitting

1



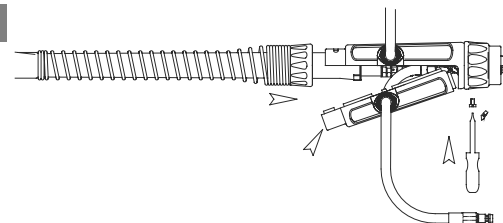
- TWIST THE LOCK NUT TO THE RELEASE POSITION
- SLIDE THE NUT OFF THE HOUSING
- LEVER THE COVER OFF THE HOUSING
- UNSCREW THE END RETAINING SCREW

2



- SLIDE THE HOUSING AND PLUG NUT BACK
- DISCONNECT THE SWITCH WIRES
- UNSCREW THE LINER CONDUIT GRUB SCREW
- UNSCREW THE RETURN HOSE NUT
- UNSCREW THE POWER CABLE FITTING NUT
- TO REFIT FOLLOW STEPS IN THE REVERSE ORDER

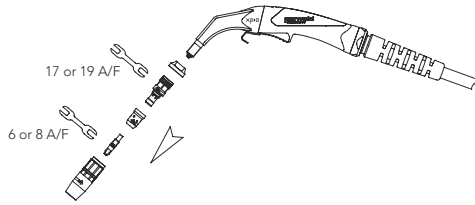
3



- WITH END LOCATED FIT THE RETAINING SCREW
- POSITION THE CABLE COVER IN ITS LOCATION
- FIT THE HOSE SUPPORTS TO THE HOUSING AND COVER
- FIT AND CLOSE THE HOUSING COVER TO THE HOUSING ADJUSTING THE HOSES
- SLIDE THE NUT ON TO THE HOUSING
- TWIST THE LOCK NUT TO THE LOCK POSITION

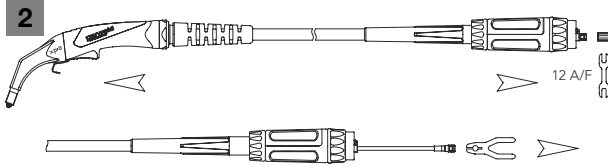
Liner Replacement

1



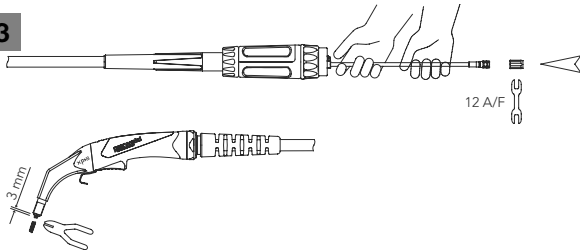
- REMOVE THE CONSUMABLES

2



- LAY THE TORCH OUT FLAT AND STRAIGHT
- REMOVE THE LINER RETAINING NUT
- TWIST AND PULL OUT THE LINER

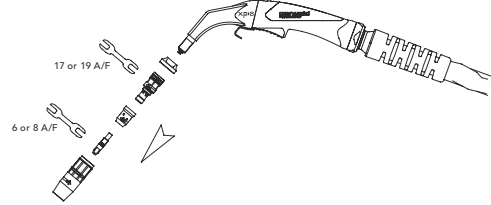
3



- FEED THE NEW LINER IN SHORT STROKES
- TWIST AND PUSH IF THE LINER STICKS
- FIT THE LINER RETAINING NUT
- TRIM THE EXCESS LINER TO SUIT THE HEAD
- FIT THE CONSUMABLES

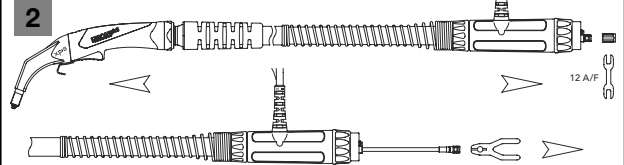
Polyamide Liner Fitting

1



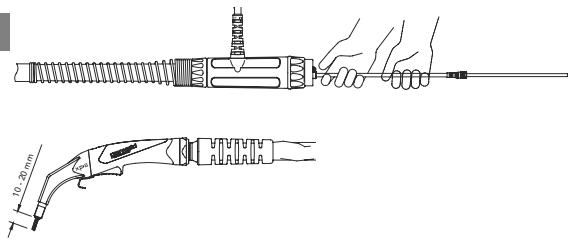
- REMOVE THE CONSUMABLES

2



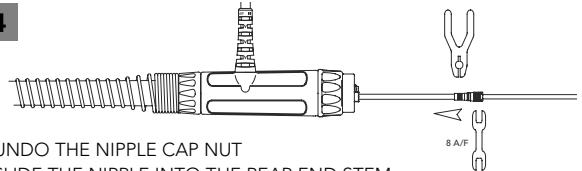
- LAY THE TORCH OUT FLAT AND STRAIGHT
- REMOVE THE LINER RETAINING NUT
- TWIST AND PULL OUT THE LINER

3



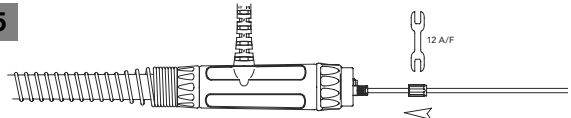
- FEED IN THE NEW LINER IN SHORT STROKES
- TWIST AND PUSH IF THE LINER STICKS
- KEEP FEEDING UNTIL THE END OF THE NECK LINER COMES OUT OF THE SWAN NECK

4



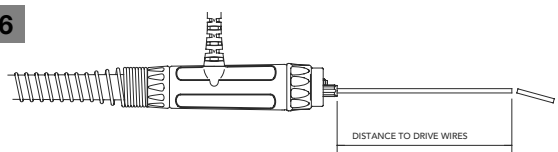
- UNDO THE NIPPLE CAP NUT
- SLIDE THE NIPPLE INTO THE REAR END STEM
- CHECK THE NECK LINER LENGTH, ADJUST AGAIN IF REQUIRED
- PULL LINER AND NIPPLE BACK, KEEP THE NIPPLE IN THE SAME POSITION ALONG THE LINER
- TIGHTEN THE NIPPLE CAP NUT

5

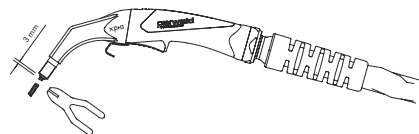


- PUSH THE LINER AND NIPPLE BACK INTO THE REAR END STEM
- FIT THE LINER NIPPLE RETAINING NUT AND TIGHTEN

6



- TRIM EXCESS POLYAMIDE LINER TO SUIT MACHINE



- TRIM THE EXCESS LINER TO SUIT THE HEAD
- FIT THE CONSUMABLES

Trouble Shooting Guide for MIG/MAG/GMAW Torches

1. Wire feed unit operates but no gas flow

- Gas cylinder empty
- Gas regulator closed
- Faulty solenoid
- Restriction in torch cables

2. Wire feed unit operates, but does not feed

- Burnback
- Bird nesting
- Insufficient drive roll pressure
- Blocked liner
- Incorrect liner
- Excessive wire spool brake tension

3. Bird nesting

- Contact tip overheating/Burnback
- Incorrect contact tip size
- Incorrect or blocked liner
- Restriction in torch cable
- Excessive cable kinkage
- Excessive feed roll pressure
- Misaligned drive rolls or wire guides

4. Burnback

- Improper voltage setting
- Contact tip overheating
- Incorrect or blocked liner
- Excessive cable kinking
- Erratic wire feed
- Improper stick out

5. Erratic Wire Feeding or Arc

- Adjust welding voltage
- Improper drive roll tension
- Improper drive roll size
- Worn drive rolls
- Incorrect or blocked liner
- Incorrect wire guide size
- Misaligned drive rolls or wire guide
- Gaps at liner or wire guide junctions
- Incorrect contact tip size
- Contact Tip overheating
- Spatter adhesion on exit geometry of tip bore
- Excessive cable kinkage
- Poor earth or cable connections
- Weld joint area dirty