



# We Thank You For Choosing Our Quality Gas Equipment

Beginning in 1988, Tesuco® has established itself as a specialist equipment supplier for all gas welding, heating and cutting applications. Tesuco® is proud to be 100% Australian owned and has been quality endorsed by SAI Global to the AS/NZS ISO 9001 Standard since 1995.

Tesuco® continues to introduce new and exciting products from the best Australian and overseas manufacturers. This booklet introduces you to our range of welding, heating and cutting equipment, available through our extensive distributor network both here and abroad.



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Scan QR code to view our complete range of gas equipment.



Only trained operators may use this equipment.

# Australian & New Zealand Standards

There are many Australian standards covering gas equipment, however one of the most important is AS 4839 – "The Safe Use of Portable and Mobile Oxy-Fuel Systems for Welding, Cutting, Heating and Allied Processes". It covers items like cylinder handling and transportation, gases, hoses and hose length, regulators, flashback arrestors, blowpipes, tips and nozzles and includes a guide on maintenance and testing of the equipment.

For peace of mind Tesuco® equipment conforms to all of the relevant Australian and New Zealand standards. In some products, such as our oxygen regulators, our testing is beyond that of many in the marketplace. Not all oxygen regulator have passed the promoted ignition test (referred to as the bomb test) as listed in AS 4267. To ensure ultimate safety, Tesuco® oxygen regulators have passed this test.

# **Acetylene Withdrawal Rates**

Choice of equipment may be restricted by the size or number of acetylene cylinders you use. Acetylene cylinders must display the maximum withdrawal rate on the cylinder label. Further to this, continuous withdrawal (over 20 minutes) and depletion of cylinder contents will reduce the available withdrawal rate. Exceeding the maximum withdrawal rate of acetylene cylinders may cause flashbacks, serious damage to equipment and/or injury to the operator. The correct cylinder size or number of cylinders must be used relevant to the gas consumption of the tip. To simplify this, flow rate information to safely use each tip/nozzle is supplied in this booklet and a guide for cylinders to be used.

# **LPG Withdrawal Rates**

As with acetylene, flow rate for LPG is restricted by the size of the cylinder used. For example, the maximum continuous draw off @ 21°C for a 45 kg cylinder is 56.6 L/min. As a result it may be dangerous to use some equipment if the gas supply is not sufficient. It is imperative that the operator selects the correct gas supply for the equipment being used. Failure to do this may cause flashbacks, serious damage to equipment and/or injury to the operator.

# Regulators

Australian Standards

Australian Standard AS 4267

Previously, regulators from most suppliers have only been available in bottom entry. Cylinders, however may have either a top or side outlet valve. To cater for this Tesuco® regulators are available in both bottom and side entry configuration. This ensures the appropriate regulator can be used to maintain the correct orientation of the regulator and gauges during operation, making it easier to read and adjust pressures.

Tesuco® made sure the oxygen regulator passed the promoted ignition test as listed in AS 4267 - Appendix A.



# Flashback Arrestors

Australian Standards

Australian Standard AS 4603

All Ibeda flashback arrestors are 100% production tested for leaks with helium and are flashback tested. Independently approval is from "BAM" in Germany.





# Goggles

Australian & New Zealand Standards

Australian Standard AS/NZS 1337.1 and AS/NZS 1338.1

The soft PVC material used on the Flame Pro® goggles from Tesuco® is environmentally friendly and complies with international regulations such as REACH SVHC/California Proposition 65/TSCA/POPs and will not cause irritation to the skin.



### Hoses

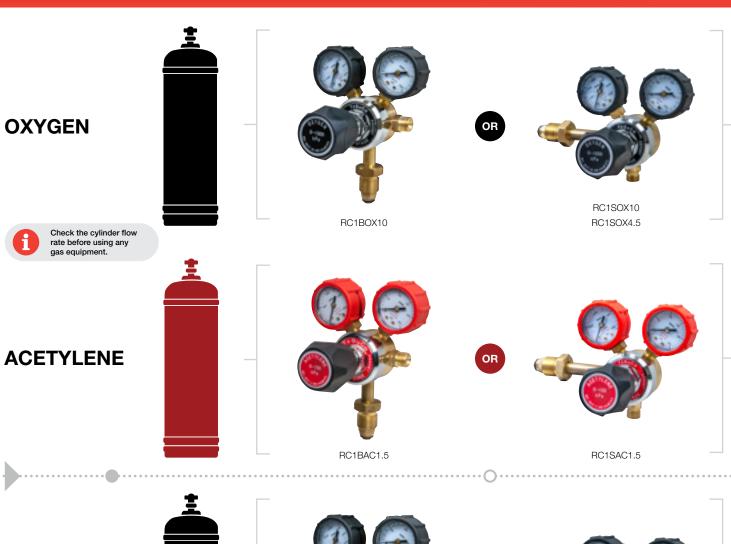
Australian & New Zealand Standards

Australian standard AS/NZS 1335

Tesuco® 5 mm ID hoses suit welding, brazing and cutting while 10 mm ID hoses suit gouging and heating applications due to flow rates. This requires the hoses to be branded as a ISO standard number.

















RC1SOX10 RC1SOX4.5

Check the cylinder flow rate before using any gas equipment.

**LPG** 





RC1RLP4

# Flow Diagram



























Flow Diagram

# **WELDING**

# **CUTTING GOUGING**

- GWGNA32 GWGNA32S
- GWGNA48

\*Not recommended on single cylinders. Manifold systems only.



● ■ GWCNA06 GWCNA08 GWCNA12 GWCNA15

GWHTA1 GWHTA2

- GWCNA20
- GWCNA06B GWCNA08B GWCNA12B GWCNA15B







GWHBS735

GWHBS700

GWHBS450

# **HEATING**

# **BRAZING**

# **CUTTING GOUGING**



GWHTLH3

GWHTLH4 GWHTLH5



# GWGNL32 GWGNL32S GWGNL48





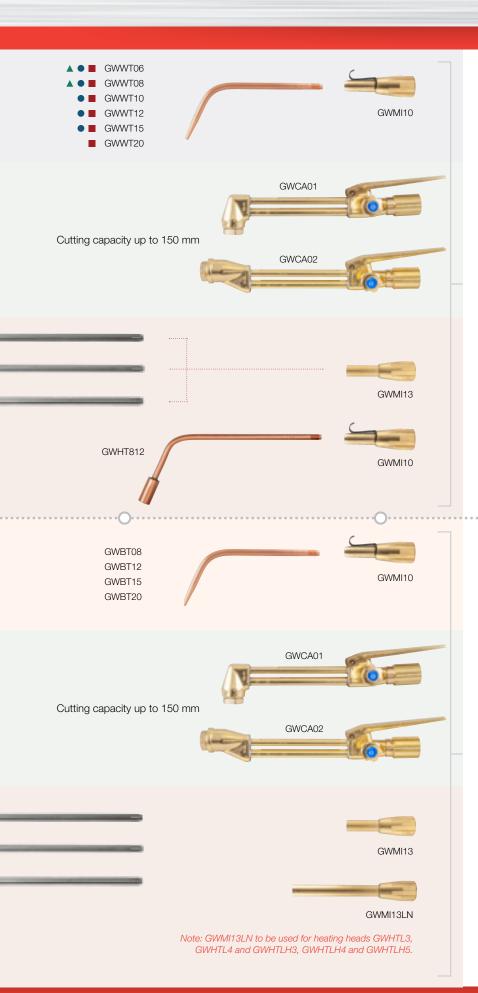
GWHBS735

GWHBS700

GWHBS450

# Flow Diagram





# **OXYGEN/ACETYLENE**



Acetylene cylinder guide for safe use, refer to your gas supplier.







The available withdrawal rate of acetylene from a cylinder limits the equipment that may be used. It is the operators responsibility to choose correct equipment.

Flashback arrestors must be fitted to both the regulator and blowpipe, as stated in AS 4839 to protect the operator and the equipment.

# **OXYGEN/LPG**



The available withdrawal rate of LPG from a cylinder limits the equipment that may be used. It is the operators responsibility to choose correct equipment.

Flashback arrestors must be fitted to both the regulator and blowpipe, as stated in AS 4839 to protect the operator and the equipment.





# Accessories

### **WELDING GOGGLES**

### Shade 5

**GWGCL** 

Flame Pro® goggles are the flip up design, which can be operated using one hand. When the shaded lenses are flipped up the user is still protected by a set of clear lenses. This also saves having to remove them in-between welding, brazing and cutting operations.

Shade 5 goggles are required when using any gas welding, brazing, heating and cutting applications to protect your eyes.

Goggle clear cover lens (pair)

PART NO	DESCRIPTION
GWGP	Gas welding goggles Flame Pro® Shade 5
GWGS5	Goggle filter lens shade 5 (pair)



### TRIPLE FLINT LIGHTER

Tesuco® triple flint lighter is designed for safe use to light any gas welding, brazing, heating and cutting tip or nozzle.

The cup pockets the gas for easy and quick lighting. It has three flints that can be rotated as one wears out. Replacement triple flints are available in four pack.



PART NO DESCRIPTION		QTY	
GWTF	Flint gun triple flint	1	
GWTFR	Triple flint replacement	4	

### **SPARKI**

Hands free igniter for welding and cutting torches. Simply attach to the work bench or anywhere that is metal on the work site, turn on the fuel gas then push the tip into the igniter to light the flame and then adjust the oxygen at the same time without the need to hold the lighter.



PART NO	DESCRIPTION
SPT031	30 mm Magnetic base
SPT051	50 mm Magnetic base
SPT101	100 mm Steel base

# **TIP CLEANING SET**

Tesuco® cleaner set are design to be used on all tips and nozzles.

During operation, cutting, heating, brazing and welding nozzles and tips can become blocked with slag deposits. The tip cleaning set comprises 13 sizes of round wires and a file to clear the hole of debris for longer life.





# **COMBINATION SPANNER**

**PART NO** 

GWS



# **NOZZLE NUT**

PART NO	DESCRIPTION
SPCANN	
SPCANND	Twin pack



# Accessories



# **INSTRUCTION MANUAL**

Gas Equipment



**REGULATOR GAUGE PROTECTORS** 

Twin Pack



# **PART NO**

**GWKIM** 

# **ROLLER GUIDE & RADIUS BAR**

PART NO	DESCRIPTION
GWRB	Radius bar
GWRG	Roller guide
GWRGR	Roller guide with radius bar

GWRB

Note: Circles up to 860 mm diameter with radius bar

# **REGULATOR OUTLET 90° ELBOW**







PART NO	INLET	OUTLET
G-AD90RH58	5/8-18UNF RH Female	5/8-18UNF RH Male
G-AD90LH58	5/8-18UNF LH Female	5/8-18UNF LH Male

# **FLASHBACK ARRESTOR** WITH Q/A COUPLER HOSE JOINER





# **COUPLING PINS TO EN 561**







QPQDM5





OPEDE5

PART NO	DESCRIPTION	TYPE
QPFDM5	Fuel Gas Male	LH
QPODM5	Oxygen Male	RH
QPFDF5	Fuel Gas Female	LH
QPODF5	Oxygen Female	RH

### **HOSE CONNECTION & JOINER**





GWLP240LH





GWLP112RH

GWHC34 GWHC35

PART NO	SIZE	DESCRIPTION	TYPE
GWLP112U	5 mm	Right hand	LP112
GWLP240U	5 mm	Left hand	LP240
GWLP265U	5 mm		LP265
GWHCF	5 mm	Left hand	
GWHCI	5 mm	Right hand	
GWHCF10	10 mm	Left hand	
GWHCI10	10 mm	Right hand	
GWHC34		Right hand hose joiner	WB34
GWHC35		Left hand hose joiner	WB35



# **Selection Guide**

Welding & Brazing Tips

# **OXYGEN/ACETYLENE**

Style 551



PR	EG	CI.	IDI	E /	LP2

# TYPICAL CONSUMPTION (L/min)

PART NO	TIP SIZE	WELD THICKNESS	OXYGEN	ACETYLENE	OXYGEN / FUEL GAS	
GWWT06	6	1.2	50	50	1.5	
GWWT08	8	2	50	50	2	
GWWT10	10	2.6	50	50	3	•
GWWT12	12	3.2 / 4	50	50	4	•
GWWT15	15	5 / 6.5	50	50	6.5	•
GWWT20	20	8.2 / 10	50	50	12	

Acetylene cylinder guide for safe use, refer to your gas supplier.











Typical consumption rates have been listed. These may vary depending on settings by the operator and environmental conditions.

# **OXYGEN/LPG**

Style 554



			PRESSUI	RE (kPa)	TYPICAL CONSUMPTION (L/min)
PART NO	TIP SIZE	<b>BRAZING THICKNESS</b>	OXYGEN	LPG	OXYGEN / FUEL GAS
GWBT08	8	2	50	50	0.5
GWBT12	12	3.2 / 4	50	50	2
GWBT15	15	5 / 6.5	50	50	3
GWBT20	20	8.2 / 10	50	50	5



Typical consumption rates have been listed. These may vary depending on settings by the operator and environmental conditions.

# **Selection Guide**

# Heating Nozzles









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# WARNING

Due to flow rates required for heating heads, refer to your gas supplier for safe acetylene use.

10 mm ID Twin hose and high flow flashback arrestors must be used on all heating equipment.

### PRESSURE (kPa)

### TYPICAL CONSUMPTION (L/min)

PART NO	TIP SIZE	OXYGEN	ACETYLENE	OXYGEN	<b>FUEL GAS</b>	<b>HEAT OUTPUT</b> (MJ/h)
GWHT812	8 x 12	150	100	45 - 58	41 - 55	180
GWHTA1	8 x 12	150	100	45 - 58	41 - 55	180
GWHTA2	12 x 12	200	100	74	65	215



Typical consumption rates have been listed. These may vary depending on settings by the operator and environmental conditions.

# **OXYGEN/LPG**







TLH5 GWHBA Adaptor

PRESSURE (kPa)
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# TYPICAL CONSUMPTION (L/min)

PART NO	TIP SIZE	OXYGEN	LPG	OXYGEN	<b>FUEL GAS</b>	<b>HEAT OUTPUT</b> (MJ/h)
GWHTL1	18 x 12	500	100	200	50	280
GWHTL2	36 x 12	600	100	300	75	420
GWHTL3	48 x 12	600	100	400	100	560
GWHTL4	48 x 15	1000	300	600	150	840
GWHTLH1	H1	100 - 200	50	67 - 117	17 - 33	186
GWHTLH2	H2	200 - 300	50	98 - 213	25 - 53	298
GWHTLH3	НЗ	200 - 500	100	142 - 382	37 - 95	532
GWHTLH4	H4	300 - 600	100	233 - 473	60 - 118	663
GWHTLH5	H5	400 - 800	100-200	283 - 662	72 - 167	934
GWHBA	Adaptor – mus	t be used in GWHTLH1	to 5			



Typical consumption rates have been listed. These may vary depending on settings by the operator and environmental conditions.



# **Selection Guide**

# **Cutting Nozzles**

### **OXYGEN/ACETYLENE**

Copper oxygen/acetylene cutting nozzles perform the same as traditional brass ones but have the advantage of better heat dissipation and less slag adherence. Nozzles are marked according to the requirements in AS 4839.

Maximum cutting with a GWCA01 and GWCA02 cutting attachment is 150 mm. For cutting up to 300 mm, use Tesuco® one piece cutting torches.





PART NO	MAX PLATE THICKNESS	NOZZLE	PRES	SURE (kPa)		PICAL PTION (L/min)	
Note: Add 'B' to part number for brass finish.	(mm)	SIZE	OXYGEN	ACETYLENE	OXYGEN	ACETYLENE	
GWSMNA6	Sheet metal	6	200	100	9	1.5	
GWCNA06 (B)	6	6	200	100	11	2	
GWCNA08 (B)	10	8	200	100	20	3.5	
GWCNA12 (B)	20	12	250	100	38	4	•
GWCNA15 (B)	75	15	350	100	75	7	
GWCNA20 (B)	125	20	400	100	134	9	

# **OXYGEN/LPG**

Oxygen/LPG cutting nozzles perform extremely well for certain applications. Due to less carbon in LPG, there is less slag adherence to the bottom of the cut. Nozzles are marked according to the requirements in AS 4839.

Maximum cutting with a GWCA01 and GWCA02 cutting attachment is 150 mm. For cutting up to 300 mm, use Tesuco® one piece cutting torches.





	MAX PLATE	NOZZLE	PRESSUI	RE (kPa)	TYPIC CONSUMPT	
PART NO	THICKNESS (mm)	SIZE	OXYGEN	LPG	OXYGEN	LPG
GWCNL06	6	6	200	100	17	2
GWCNL08	12	8	200	100	30	3.5
GWCNL12	20	12	250	100	68	4.5
GWCNL15	75	15	400	100	111	6
GWCNL20	125	20	400	100	171	6.5

Note: Typical consumption rates have been listed, but may vary depending on environmental conditions.



Maximum plate thickness for a cutting attachment is 150 mm.

# Gouging Nozzles



# **OXYGEN/ACETYLENE**



		NOZZLE	PRESS	SURE (kPa)		'PICAL IPTION (L/min)	
PART NO	TYPE	SIZE	OXYGEN	ACETYLENE	OXYGEN	ACETYLENE	
GWGNA32	Bent	32	500	100	61	15	
GWGNA32S	Straight	32	500	100	61	15	
GWGNA48	Bent	48	600	100	85	18	
Acetylene cylin	nder guide fo	or safe use, re	fer to your ga	s supplier.	G =	E = 0 D =	

### **OXYGEN/LPG**



		NOZZLE	PRESSU	<b>RE</b> (kPa)	TYPIC CONSUMPT	
PART NO	TYPE	SIZE	OXYGEN	LPG	OXYGEN	LPG
GWGNL32	Bent	32	500	100	94	12
GWGNL32S	Straight	32	500	100	94	12
GWGNL48	Bent	48	600	100	120	13



Typical consumption rates have been listed. These may vary depending on settings by the operator and environmental conditions.



## **GAS CONTROL**

Gas Control is a technologically advanced gas leakage detection spray, designed to test the hermetic sealing of any type of gas system. The liquid has a special formulation to inhibit corrosion when used on copper, brass and steel. The liquid, when applied will detect the slightest leak, forming bubbles or foam where it occurs.

## **FEATURES**

- Sold to distributors in a display pack of 12 units
- Aerosol with easy to use Acc-U-Sol valve
- Aluminum container
- Safety tear-off tab
- Small extension tube supplied for accurate application
- Approved by DVGW to DIN EN 14291

PART NO	DESCRIPTION
OTLDS	400g, UN 1950, aerosols, class 2.2

# NOT ALL GAS KITS ARE TO THE SAME HIGH STANDARDS AS TESUCO®



# GAS KIT **FEATURES**





### **REGULATORS** AS 4267

Gas kits can be ordered with bottom or side entry regulators. Oxygen regulator has been independently tested for the promoted ignition test and the oxygen shock-type test. All regulators have gauge protectors fitted for added protection.



### TWIN WELDING HOSE AS/NZS 1335

Has been independently tested to meet the requirement in AS/NZS 1335:2020.



### FLASHBACK ARRESTORS AS 4603

Torch and regulator end flashback arrestors have been independently tested to meet the requirement in AS 4603.



### WEI DING TIPS AS 4839

All welding tips are permanently marked to meet the requirements in AS 4839 standard.



### **CUTTING NOZZLES** AS 4839

All cutting nozzles are permanently marked to meet the requirements in AS 4839 standard.



### **WELDING GOGGLES**

Flame Pro® goggles have been independently tested to meet the requirements in AS/NZS 1337.1 and 1338.1. Product certification has been issued by SAI Global.



### **CUTTING ATTACHMENT, BLOWPIPE & MIXER** AS 4839

Cutting Attachment, Blowpipe and Mixer are permanently marked to meet the requirements in AS 4839 standard.



### **TIP CLEANERS**

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Tesuco<sup>®</sup> tip cleaners comprises various sizes of round files designed to clear the holes of debris ensuring long life of the nozzle or tip.



# **ROLLER GUIDE WITH RADIUS BAR**

Not all gas kits are supplied with a roller guide and radius bar. The roller guide will add extra life to the nozzles as your height from the work piece is maintained at all time.



# TRIPLE FLINT LIGHTER

The Tesuco® triple flint lighter has three flints that can rotate for use as one flint wears out.



## **COMBINATION SPANNER**

Designed to fit the hex sizes of all items in the gas kit.



# **INSTRUCTION MANUAL FOR GAS EQUIPMENT**



# **HEAVY DUTY RED KIT BOX WITH EQUIPMENT TRAY**

The foam insert at the base of the kit protects the regulator and the pressure gauge face against scratching.



# **WARNING**

Tesuco® does not have a 8 x 12 heating tip in our kits, as it exceeds the safe withdrawal rate of acetylene from a "G" size cylinder.





# Oxygen/Acetylene Master Kit





01	Λ.	11/	0	Λ

PART NO	DESCRIPTION	GWKOA	<b>GWKOAS</b>
GWKITE	Heavy duty red kit box with equipment tray	•	•
RC1BOX10	Oxygen regulator – Bottom entry	•	
RC1SOX10	Oxygen regulator – Side entry		•
RC1BAC1.5	Acetylene regulator – Bottom entry	•	
RC1SAC1.5	Acetylene regulator – Side entry		•
FRSFD	Flashback arrestor, Regulator end, Standard flow, Fuel Gas	•	•
FRSOD	Flashback arrestor, Regulator end, Standard flow, Oxygen	•	•
GWTWOA10	Twin gas hose 10 m - Oxygen/Acetylene	•	•
FTSFD	Flashback arrestor, Torch end, Standard flow, Fuel Gas	•	•
FTSOD	Flashback arrestor, Torch end, Standard flow, Oxygen	•	•
GWWH01	Blowpipe	•	•
GWMI10	Mixer 10 mm	•	•
GWWT10	Welding tip, Oxygen/Acetylene, Size 10	•	•
GWWT12	Welding tip, Oxygen/Acetylene, Size 12	•	•
GWWT15	Welding tip, Oxygen/Acetylene, Size 15	•	•
GWWT20	Welding tip, Oxygen/Acetylene, Size 20	•	•
GWCA01	Cutting attachment	•	•
GWCNA08	Cutting nozzle, Oxygen/Acetylene, Size 8	•	•
GWCNA12	Cutting nozzle, Oxygen/Acetylene, Size 12	•	•
GWCNA15	Cutting nozzle, Oxygen/Acetylene, Size 15	•	•
GWRB	Radius bar and pivot	•	•
GWRG	Roller guide	•	•
GWGP	Welding goggles	•	•
GWTF	Flint lighter	•	•
GWTC	Tip cleaners	•	•
GWS	Combination spanner	•	•
GWKIM	Instruction manual for gas equipment	•	•

# Oxygen/LPG Master Kit







PART NO	DESCRIPTION	GWKOL	GWKOLS
GWKITE	Heavy duty red kit box with equipment tray	•	•
RC1BOX10	Oxygen regulator – Bottom entry	•	
RC1SOX10	Oxygen regulator – Side entry		•
RC1RLP4	LPG regulator – Rear entry	•	•
FRSFD	Flashback arrestor, Regulator end, Standard flow, Fuel Gas	•	•
FRSOD	Flashback arrestor, Regulator end, Standard flow, Oxygen	•	•
GWTWOL10	Twin gas hose 10 m – Oxygen/LPG	•	•
FTSFD	Flashback arrestor, Torch end, Standard flow, Fuel Gas	•	•
FTSOD	Flashback arrestor, Torch end, Standard flow, Oxygen	•	•
GWWH01	Blowpipe	•	•
GWMI10	Mixer 10 mm	•	•
GWBT08	Brazing tip, Oxygen/LPG, Size 8	•	•
GWBT12	Brazing tip, Oxygen/LPG, Size 12	•	•
GWBT15	Brazing tip, Oxygen/LPG, Size 15	•	•
GWBT20	Brazing tip, Oxygen/LPG, Size 20	•	•
GWCA01	Cutting attachment	•	•
GWCNL08	Cutting nozzle, Oxygen/LPG, Size 8	•	•
GWCNL12	Cutting nozzle, Oxygen/LPG, Size 12	•	•
GWCNL15	Cutting nozzle, Oxygen/LPG, Size 15	•	•
GWRB	Radius bar and pivot	•	•
GWRG	Roller guide	•	•
GWGP	Welding goggles	•	•
GWTF	Flint lighter	•	•
GWTC	Tip cleaners	•	•
GWS	Combination spanner	•	•
GWKIM	Instruction manual for gas equipment	•	•





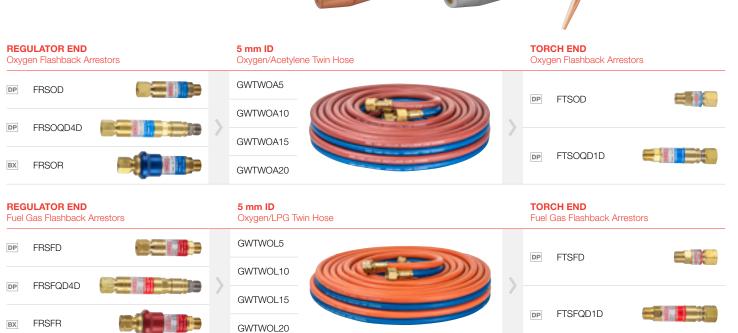


PART NO	DESCRIPTION	GWKOAT	<b>GWKOLT</b>
GWKITE	Heavy duty red kit box with equipment tray	•	•
RC1BOX10	Oxygen regulator – Bottom entry	•	•
RC1BAC1.5	Acetylene regulator – Bottom entry	•	
RC1RLP4	LPG regulator - Rear entry		•
FRSFD	Flashback arrestor, Regulator end, Standard flow, Fuel Gas	•	•
FRSOD	Flashback arrestor, Regulator end, Standard flow, Oxygen	•	•
GWTWOA5	Twin gas hose 5 m - Oxygen/Acetylene	•	
GWTWOL5	Twin gas hose 5 m - Oxygen/LPG		•
FTSFD	Flashback arrestor, Torch end, Standard flow, Fuel Gas	•	•
FTSOD	Flashback arrestor, Torch end, Standard flow, Oxygen	•	•
GWWH01	Blowpipe	•	•
GWMI10	Mixer 10 mm	•	•
GWWT10	Welding tip, Oxygen/Acetylene, Size 10	•	
GWWT12	Welding tip, Oxygen/Acetylene, Size 12	•	
GWBT08	Brazing tip, Oxygen/LPG, Size 8		•
GWBT12	Brazing tip, Oxygen/LPG, Size 12		•
GWCA01	Cutting attachment	•	
GWCNA08	Cutting nozzle, Oxygen/Acetylene, Size 8	•	
GWCNA12	Cutting nozzle, Oxygen/Acetylene, Size 12	•	
GWCNL08	Cutting nozzle, Oxygen/LPG, Size 8		•
GWCNL12	Cutting nozzle, Oxygen/LPG, Size 12		•
GWGP	Welding goggles	•	•
GWTF	Flint lighter	•	•
GWTC	Tip cleaners	•	•
GWS	Combination spanner	•	•
GWKIM	Instruction manual for gas equipment	•	•

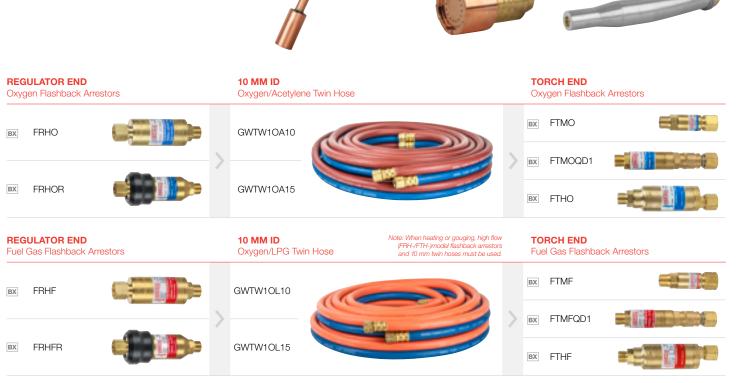
# Twin Hose Information & Flashback Arrestor Guide



For standard cutting, welding and brazing equipment with 5 mm ID hose, the following guide can be used:



For Heating and gouging equipment with 10 mm ID hose, the following guide can be used:



Note: Medium flow flashback arrestor can only be use on smaller heating and gouging nozzles.

Registered Trademarks

Tesuco®

Bevline®

Leakxpose®

Flame///Pro®

Flame Pro™

FLAME ( ) PRO



HOSPITALITY
GAS SAFETY
INDUSTRIAL
SCIENTIFIC
MEDICAL

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The information in this brochure is to be used as a guide only.

The ultimate responsibility for safe use of the equipment lies with the operator. In the interest of constant improvement in quality and design, product specifications may change at any time, without notice. E&OE

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