# FARIS.

#### GAS APPARATUS & FLOW CONTROL EQUIPMENT

From a small shop on Cleveland Ohio's west side to our high-tech factory in Gainesville, Georgia, Harris History is as impressive as the products we produce.

HARRIS CALORIFIC CO., a pioneer in the production of gas welding and cutting apparatus was founded by John Harris, who discovered the oxyacetylene method of cutting in 1899 while conducting research on the manufacture of synthetic rubies. His discovery led to the manufacture of the nation's first flame-cutting torch.

After exhibiting his cutting torch at the 1904 St. Louis World's Fair he established the company in 1905. Harris continued to refine its gas torches and began to produce related accessories, such as gas pressure regulators.

The U.S. Welding Co. of Minnesota purchased Harris in 1926. U.S. Welding's founder Lorne Campbell, Jr., served as President until the 1950's when Clarence Taylor assumed the position.

After World War 11, the company found new markets for its products in research laboratories, aircraft and missile manufactures. Under Clarence Taylor, Harris expanded national distribution, developed new equipment, stepped up advertising, and established subsidiaries and distributorships abroad.

Harris Australia/New Zealand is a proud member of the global family and is staffed by an excellent team. Their vast collection of knowledge is readily available to support the Harris products/spare parts/demo's/ gas audits/onsite training/productivity accesments and cost reduction programs.



### Acetylene Kits

### **Craftsman**

The Regulators are ideally suited for the mobile light trade.

Flexible tip allows the operator to get into tight places.

The HARRIS mixing system uses gas at much lower pressures which provides gas savings and increased safety.

Operator's will enjoy the front mounted valves, providing the ability to alter flame one handed.

Also includes Reg-End Flashback Arrestors and Flashguards on Handle.

Includes 10 metres of 6mm Harris Oxy/Acet Hose.

Part No 19660116



### **Contractors Gaugeless**

As above with larger regulators Model 818 which are ideal on the back of trucks and utes as there are no gauges to be damaged.

Part No 1968186





AS 4267 **AS 4839** tandards

6RBTH10M+F

### **Contractors**

Model 801 regulators with large diameter easy to read gauges.

Hard hats are available to protect the gauges whilst on the back of a truck or a ute.

> Part No 19680116 19680126 (Side Entry OXY)





# urone

**D50C** 

019038

00908N

H192S

1390-3N

1390-5N

### LPG Kits

### **Craftsman**

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Includes 10 metres of 6mm Harris Oxy/LPG Hose.

Part No 19660117



### **Contractors Gaugeless**

As above with larger regulators Model 818 which are ideal on the back of trucks and utes as there are no gauges to be damaged.

Part No 1968187





188TAL



#### **Contractors**

Model 801 regulators with large diameter easy to read gauges.

Hard hats are available to protect the gauges whilst on the back of a truck or a ute.

> Part No 19680117 19680127 (Side Entry OXY)





### K i t

50905

50903

362

3690 0AC

3690 1AC

188TAL

019038

00908

H192E

188TAR

## Acetylene Upgrade Kit

### Craftsman

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Part No 193660116



### **Contractors Gaugeless**

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#### Part No 19368186



### **Contractors**

Model 801 regulators with large diameter easy to read gauges.

Hard hats are available to protect the gauges whilst on the back of a truck or a ute.

Part No 193680116 193680126 (Side Entry OXY)







## 1390-3N 1390-5N **D50C** 00908N 3690 OP H192S 3690 1P 362 **188TAR 188TAL** 019038

6BOTH10M+F

### LPG Upgrade Kit

#### **Craftsman**

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Part No 193660117



### **Contractors Gaugeless**

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#### Part No 19368187



### **Contractors**

Model 801 regulators with large diameter easy to read gauges.

Hard hats are available to protect the gauges whilst on the back of a truck or a ute.

Part No 193680117 193680127 (Side Entry OXY)





urope

### Acetylene Compatible Kit

### Classic kit-B/W/H/C



The Regulators are ideally suited for the mobile light trade. The HARRIS mixing system uses gas at a lower pressure i.e. 40Kpa on Acet which provides gas savings and increased safety. Operator's will enjoy that the handle, suits right or left hand. Cutting attachment has a built in "ease-on" valve, for less sparks when starting and hot tips ensure quick starting. Kit includes Reg-End Flashback Arrestors and Flashguards on Handle.

Includes 10 metres of 6mm Harris Oxy/Acet Hose.



801E150AC21



Part No 637380116HC





omplies to AS 4267 AS 4839 Standards

**Flashguards** 



Part No 637380126HC (Side entry Oxy)



### LPG Compatible Kit

### Classic kit-B/H/C



The Regulators are ideally suited for the mobile light trade.

The HARRIS mixing system uses gas at a lower pressure i.e. 40Kpa on Acet which provides gas savings and increased safety.

Operator's will enjoy that the handle, suits right or left hand.

Cutting attachment has a built in "ease-on" valve, for less sparks when starting and hot tips ensure quick starting.

Kit includes Reg-End Flashback Arrestors and Flashguards on Handle.

Includes 10 metres of 6mm Harris Oxy/LPG Hose.





801E1000OX13

801Z005

### Part No 637380117HC



Complies to AS 4267 AS 4839 Standards

**Flashguards** 

632HC



Part No 637380127HC

(Side entry Oxy)

Made in Europe

### Acetylene Original Kit

### Classic kit-B/W/H/C



**E43** 

733



Kit includes Reg-End Flashback Arrestors and Flashguards on Handle.

Includes 10 metres of 6mm Harris Oxy/Acet Hose.

**Flashguards** 



801E150AC21



801E1000OX13





Part No 637380116





Complies to ISO 5172 AS 4267 AS 4839 Standards



8011000OX13

Part No 637380126

(Side entry Oxy)



1390-5N

B435

1390-8N

493F

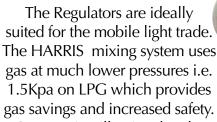
Made in Europe

**188TAR** 

188TAL

### LPG Original Kit

### Classic kit-B/H/C



Operator's will enjoy that the handle, fitting right or left hand. Cutting attachment has a built in "ease-on" valve for less sparks when starting and hot tips ensure quick starting.

Includes Reg-End Flashback Arrestors and Flashguards on Handle.

Includes 10 metres of 6mm Harris Oxy/LPG Hose.





801E1000OX13

### Part No 634980117

632

Flashguards

Complies to ISO 5172 AS 4267 AS 4839 Standards





6BOTH10M+F



Part No 634980127

(Side entry Oxy)

733

### Acetylene Original Kit

Made in Europe

### Pro kit-B/W/H/C



**E43** 

The Regulators are ideally suited for mobile heavy duty applications.

Snap Safe Protection is the answer to lifting safety to a new level. The HARRIS mixing system uses gas at lower pressure i.e. 40Kpa on Acetylene which provides gas savings and increased safety.

Operator's will enjoy that the high flow handle, suits right or left hand. Cutting attachment has a built in "ease-on" valve, for less sparks when starting and hot tips ensure quick starting. Kit includes Reg-End Flashback Arrestors and Flashguards on the Handle.





Part No 437382516

Snap Safe \_



043013

Complies to ISO 5172 AS 4267 AS 4839 Standards



Flashguards

### Part No 437382526

(Side entry Oxy)



6RBTH10M+F

#### FIRE & SAFETY HAZARD

When a cylinder falls over the regulator can break off, gas escapes, threatening fire, explosion and injury

Snap Safe = Solution!



### LPG Original **Kit**

### Pro kit-B/H/C

urope



1390-8N

The Regulators are ideally suited for mobile heavy duty applications. Snap Safe Protection is the answer to lifting safety to a new level. The HARRIS mixing system uses gas at much lower pressure i.e. 1.5Kpa on LPG which provides gas savings and increased safety.

Operator's will enjoy that the high flow handle, will suit right hand and left hand users. Cutting attachment has a built in "ease-on" valve, for less sparks when starting and hot tips ensure quick starting. Kit includes Reg-End Flashback Arrestors and Flashguards on the Handle.





B435

Part No 434982517

**Flashguards** 

**Snap Safe Protection** 



825EX1000OX3

**188TAR** 

493F

**188TAL** 

043013

**Complies** to **ISO 5172 AS 4267 AS 4839** Standards





6BOTH10M+F

### Part No 434982527

(Side entry Oxy)

#### **FIRE & SAFETY HAZARD**

When a cylinder falls over the regulator can break off, gas escapes, threatening fire, explosion and injury

Snap Safe = Solution!

### LPG Fab Kit C/H/G

Made in Europe

ARRIS

Part No 14282517 (Vertical Inlet Oxy) **Part No 14282527** (Side Entry Oxy)

This kit suits boilermaker workshops, the performance of this equipment enhances Oxy/Propane as a real low cost alternative.

#### Cut/heat/Gouge in one safe kit!

#### Features include -

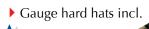
**Hot Tip** echnology

1NX

- ▶ Harris quality in every item
- ▶ Solid and tough
- ▶ Tips and spare parts readily available

3GG

▶ Hose included in kits



▶ Large diaphragm improves sensitivity



142033



#### 825EX1000OX3

Two piece, pull apart cutting tip

Hot/quick gouging/heating

H622P

Complies to ISO 5172 AS 4267 **AS 4839** Standards

Easy to read gauges





1882TAL

Ease-on cutting valve

515mm x 435mm x 225

Operates on very low fuel pressure

825Z005

S

Europe

### HARRIS

### Pressure Regulators

#### Model 601

This regulator is primarily designed for the small industry i.e. home handyman where light use and lower cost are the main concerns. Made in Harris Europe complies to EN ISO 2503

#### Features Include- Wt. 0.8kg

- ▶ Tough solid metal body & bonnet
- Filter
- ▶ Built-in relief
- ▶ Clear colour coding
- ▶ Easy to read metal cased gauges
- ▶ Special threads and seals-reduces leaks



Point of purchase display. Either hangs or self standing on a shelf



This conventional gauge regulator is designed to control pressure and flow. Typical **Harris** design permits a small, compact, rugged regulator with unusually high flow and the following:

#### Features Include- Wt. 1.3kg

- ▶ Tough solid metal body & bonnet
- Monel filter
- Built-in burst relief
- ▶ Clear colour coding
- Large, easy to read gauges, with safety seal
- Conforms to AS 4267
- Rated to 240 bar
- Oxygen Fitted with internal self reseating relief valve

801E150AC21 801E10000X13 80110000X13 801Z005 Acetylene 150K Vertical Inlet Oxygen 1000K Vertical Inlet Oxygen 1000K Side Inlet Propane 350K Side Inlet (one gauge)

### Model 818

This Regulator is identical to the 801 but without gauges. Cylinder pressure is shown on the indicator. Delivery pressure is set by turning the black knob on the calibrated (engraved) bonnet, lining up with the pressure mark. Ideal for working in tough conditions. Fits onto side or vertical outlet cylinders.

Wt. 1.2kg

818Z001 Acetylene 150kPa Vert. Inlet

**818Z002** Propane 350kPa Side Inlet

818Z003 Oxygen 800kPa Vert. Inlet





### Flow Control Regulators

#### **Model 801**

**801E30L** Argon 30LPM Flowgauge Vertical Inlet

**80130LKCD271** C02 30LPM Flowgauge Side Inlet

**80130LKAR211** Argon 30LPM Flowgauge Side Inlet

#### Features include- Wt. 1.3kg

- ▶ Easy to read gauges
- ▶ Inlet filter to trap impurities
- Accurate
- Fitted with internal self reseating safety relief valve
- ▶ Forged brass body for maximum strength
- ▶ Smooth, steady adjustment
- ▶ Special threads and seals to reduce risk of leaking expensive odourless gas
- ▶ **Harris** capsule seat with filter for reliability

Filter before outlet nipple to ensure flow



#### Model 821DB

Ideal for MIG or TIG applications where different flowrates are required from the one devise. This design provides accurate regulation to both flowmeters.

#### Features include -

- Proven high pressure seat
- ▶ Tamper proof, self reseating safety relief valve
- ▶ Precise flow regulation
- Large, easy to read gauge in kPa
- ▶ Quality, accurate measurement
- Precise needle valves for accurate adjustment

821DB1 CO2, regulator (rear inlet) + 2 flowmeters
821DB2 Argon, regulator (vert. inlet) + 2 flowmeters
821DB3 Argon, regulator (rear inlet) + 2 flowmeters

### Model 811

A heater and flow regulator in one neat unit. **Both** items manufactured by Harris to ensure long life.

#### Features include -

- ▶ Proven high pressure seat
- ▶ Tamper proof, self reseating safety relief valve
- Large, easy to read gauges
- Conforms to EN 562
- Assures high safety levels, long life

**81130LH** CO2, flow regulator with heater





### Flow Control Regulators

#### Features include -

- ▶ **CE** marked
- ▶ Two independent heating elements controlled by thermostat
- Stabilized temperature up to 30 LPM
- Overheating protection with reseatable thermal fuse
- ▶ Insulation IP 64 (EN 60529)
- Voltage: 240
- ▶ 3 meters long power cable

811800KH CO2, pressure regulator with heater

NOTE: Can be modified by Harris to accept flow meters



#### Model 601

The 601 flow gauge regulator is designed for the home handyman user. Adjustment is 0-30 Lpm with value for money is a key factor.

Features include- Wt. 0.8kg

- ▶ Brass body & Bonnet
- ▶ Metal Case Gauges
- Complies with EN13918
- ▶ Harris manufactured to ISO 9002
- ▶ Special threads/sealing to reduce risk of leaks
- ▶ Fits E or D cylinders

**601-FM** Pre-set, 601 Vert Inlet reg with 30Lpm model 866 flowmeter **601FM-R** Pre-set, 601 Rear Inlet suit side inlet and small cylinders 30Lpm flowmeter

No Photo

601R30L



#### Model 801 Preset

Specifically engineered to perform reducing task prior to fitting of flowmeter. Includes safety relief valve to protect flowmeter.

801Z017 Argon, Pre-set, Side Inlet

801Z018 C02, Pre-set, Side Inlet

801Z019 Argon, Pre-set, Vert. Inlet

**801Z020** Argon, Pre-set, Vert. Inlet + 86630L

**801Z021** Argon, Pre-set, Vert. Inlet + 86615L

**801Z022** Argon, Pre-set, Side Inlet + 86630L

**801Z023** Argon, Pre-set, Side Inlet + 86615L

### Model 866 Flowmeter

Evolved from our medical range into an industrial configuration, it's degree of accuracy and quality will bring enhanced measurement to any application.

Features include- Wt. 0.4kg

- Easy to read
- ▶ Virtually unbreakable outer tube
- ▶ UV Stabilize plastics
- ▶ Needle valve for smooth adjustments
- ▶ Inlet/outlet 5/8"
- Fits 801Z017, 801Z018 & 801Z019 or pipelines

**86630L** Flowmeter 0-30 LPM Flowmeter 0-15 LPM

### Pressure Regulators



#### Model 825

In this Regulator you get extra strength, safety and large flows with excellent regulating characteristics. Combined with the latest in design, safety and quality.

#### **Features Include-**Wt. 1.8kg

- Rugged all metal construction
- Monel filter to improve life; easily changed
- Accurate full cylinder pressure is controlled by the large 70mm diaphragm
- Large flows
- ▶ Safe, modern, proven seat design
- Large, easy to read colour coded gauges with safety seals
- Complies to AS 4267
- Built in burst relief
- Unique extra safety of the Snap Safe valve, built into inlet stem. Protects if a cylinder falls over. Applies to regs with an S in description





825EX150AC33 825Z016 825EX10000X3 825X10000X33	Acetylene 150K S Vert. Inlet Oxygen 400 K S Vert. Inlet Oxygen 1000K S Vert. Inlet Oxygen 1000K S Side Inlet
825Z005	Propane 400 K S Side Inlet
825Z064 825Z070	Oxygen 1500K Vert.Inlet Oxygen 1500K Side Inlet
825 <b>Z</b> 084	Nitrogen 1000K Side Inlet
825 <b>Z</b> 085	Nitrogen 1500K Side Inlet
825EX1000ARG	Argon 1000K S Vert. Inlet
825EA1000HE	Helium 1000K Vert. Inlet
825EA1000H30	Hydrogen 1000K Vert. Inlet
8251000CD206	C02 1000K Side Inlet
825Z080 825Z066 825Z112	Nit 4000K SS diaphram Side Inlet HP SS diaphragm1000K Vert. Inlet HP SS diaphragm1000K Side Inlet
825ET800OX23	Oxygen 800K Sav 'T' Lock V.I.

\*CO2 400K Sav 'T' Lock 825DT400CDII

\*Internal self reseating safety relief valve



### High Flow Pressure Regulators







### Model H25 (Cylinder)

In some applications there is a requirement for high flow, high pressure and high purity. This cylinder regulator offers unparalleled features at exceptional value for money. It suits applications which are specifically designed for high flow requirements for feeding industrial gas pipelines for plasma, and laser cutting systems.

For example, supplying Acetylene into a factory via a pipeline starts with having the right regulator at the manifold. At **Harris**, we set out to design and manufacture a regulator for exactly this purpose, which delivers large flow over a variety of pressures, even when cylinder pressure is low.

#### Features include -

- Conforms to EN ISO 2503
- Capsule valve, Stainless Steel filter
- ▶ Stainless Steel diaphragm (not Acetylene)
- Maximum inlet 300 bar
- Outlet pressure 1.5, 15 and 40 bar
- ▶ Heavy duty body machined from bar stock
- ▶ Large G. 1/2" or G. 3/8" outlet connection
- Side and vertical inlet connection
- External safety relief valve (not Acetylene)
- Flow over 700 m3/h (maximum)

 H251.5AC-SE
 150 kPa Side Inlet

 H251.5BAC
 150 kPa Vert. Inlet

 H2515B
 1500 kPa Side Inlet

 H2540B
 4000 kPa Side Inlet

Note: (1)

- (1) Specify gas when ordering.
- (2) Vertical inlet models are available on request.
- (3) Outlet can be reduced from 1/2" npt to 1/4" npt on request

### **Model H47 (Pipeline)**

This high flow regulator is designed for installation in a pipeline. The high flow and high purity levels are ideal for some laser and plasma applications, as well as other applications.

#### Features include -

- Maximum inlet of 60 bar/6000kpa
- Outlet pressure 10, 15, 25 and 40 bar
- ▶ Rear inlet connections
- Flow over 370 m3/h (maximum)
- Other features are the same as series H25

**H4715B** 15 bar 1500 kPa Rear Inlet **H4740B** 40 bar 4000 kPa Rear Inlet

### Flow Control Regulators



#### Model 825 Sav 'T'Lock

This unique Cylinder Regulator is part of the **Sav T'Lock** range, and as such, has many **features and benefits** which are significant for the end user:

#### Features Include- Wt. 1.8kg

- ▶ Large diaphragm
- Large easy to read gauges
- Precise control of Gas used
- ▶ Set 'N' Forget
- ▶ Key lockable

We install

pipeline

systems

xpect 25%

gas savings

- ▶ Reduces the amount of surging
- ▶ Based on the Model 25
- Complies to AS4267

825ET30LAR21 Argon 0-30LPM Vertical Inlet

825T30LAR211 Argon 0-30LPM Side Inlet

825T30LCD111 CO2 0-30LPM Side Inlet

**NOTE:** Sold without keys; as you could have many regulators in a workshop and only 2 keys. Keys are under *Accessories*, Part No. A825ES Page 46

### Model 847 Sav 'T'Lock Pipeline

An extension of the **Sav 'T'Lock** range - designed to operate in a pipeline application.

#### Features Include- Wt. 1.5kg

- ▶ Suitable for low pressure inlet (range 400-2500kPa)
- Outlet at 6 o'clock
- Large diaphragm
- Large easy to read gauges
- Control over amount of gas used
- Key lockable
- Reduces the amount of surging
- ▶ Burst relief built-in
- Easily handles pressure fluctuations
- Maintain constant work procedures
- ▶ Complies to AS4840-2001

847T30LAR237 Argon/C02/Mixtures 0-30LPM

**Note:** Sold without keys; Keys are under *Accessories*, Part No. A825ES Page 46



Expect 25%

gas savings





### Pipeline Regulators



pipeline

systems

### Model 847

As Pipelines become more common in the work place, it is important that each outlet has a regulator specifically designed to handle the lower pressures (compared to cylinders) and also to supply a constant supply of gas through the outlet of the regulator. As many will agree, there is nothing worse than the power supply fluctuation while drilling. The same can be said for gas! Therefore you need a regulator to meet the conditions of a pipeline - the **Model 847**.

#### Features include - Wt. 1.5kg

- ▶ Brass Body
- ▶ High flow
- Precise flow regulation
- Large 70mm diaphragm
- Large, easy to read gauge in kPa
- ▶ Repair simple, fast and easy
- ▶ Complies to AS4840-2001

\* NOTE: a) 1/4" NPT female connection in rear

b) Can be fitted with adaptor to suit a point valve

847150AC797 Acetylene, 0-150kPa Rear Inlet

847400LP818 Propane/LPG/Nat. Gas 0-400kPa Rear Inlet

**84710000X812** Oxygen, 0-1000kPa Rear Inlet

**84715000X807** Oxygen, 0-1500kPa Rear Inlet

### Pipeline Regulator Kit

This is a new concept which allows the purchase of a complete unit ready for installation. As Pipelines are becoming more popular (as a cost saving for industry), a Kit with the following features is required.

#### Features include - Wt. 2.2kg

- ▶ Model 847 Large flow regulator etc, See Above
- Large flow flash back arrestor
- Pipeline assembly purposely designed for the application and ease of installation
- Easy, visual notice of which ones are on/off
- Easy to turn off in emergency

8470607FBAAC 8470607FBAOX 8470607FBAPR 8470607FBANA Acetylene, 0-150kPa Pipeline Kit Oxygen, 0-1000kPa Pipeline Kit Propane, 0-400kPa Pipeline Kit Natural, 0-150kPa Gas Pipeline Kit

Note: Can be supplied on a backing board. New version of assembly not shown in photo.

**Note:** Fittings to suit existing /new piping can be fitted by Harris

### Pipeline Regulators Cont.



8470607ARGON Argon/C02 0-30LPM Pipeline Kit

0607ARGON 0607OXYGEN 0607ACET 0607PROPANE Argon Pipeline Assembly Oxygen Pipeline Assembly Acetylene Pipeline Assembly Propane Pipeline Assembly

84790LHLPG

Model 847 - 90° Adaptor, Left Hand

for Inlet, to suit point valves

84790RHOXY Model 847 - 90° Adaptor, Right Hand for

Inlet, to suit point valves



Ideal system to ensure flowmeter within a pipeline is accurate and flow is consistent

601866-30L Reg with 1/2"bsp nipple and 30LPM flowmeter
 601866-15L Reg with 1/2"bsp nipple and 15LPM flowmeter
 601Z052 Mini Regulators to fit excisting flowmeter/pipeline

### Pressure Regulators



### Model 896 (Multistage Cylinder)

A cylinder regulator which has outstanding pressure/ flow characteristics, it has become a standard (worldwide) by which regulators are judged. Two regulators in one tough forged body, enables cylinder pressure to be reduced by up to 90% prior to entering second stage where the outlet pressure is set. Ideal for users requiring high accuracy; especially for quality welding, cutting, metal spraying and industrial laboratory use.

#### Features include - Wt. 2.4kg

- Accurate two stages
- ▶ Reliable proven design
- ▶ Tough forged brass body
- Safe built in relief devices
- ▶ Gauges kPa
- Long lasting
- Complies to AS4267

896E150AC21 896ED10000X1 896ED10000X2744 896ED1000ARG Acetylene 0-150K Vertical Inlet Oxygen 0-1000K Vertical Inlet Oxygen 0-1000K Side Inlet Argon 0-1000K Bottom Inlet

Europe



### Pressure Regulators

**896ED1000HEL** Helium 0-1000K Vertical Inlet

**896ED1000HYD** Hydrogen 0-1000K Vertical Inlet

896ED15000X3 Oxygen 0-1500K Vertical Inlet

**896ED1500ARG** Argon 0-1500K Vertical Inlet

896ED1500NIT Nitrogen 0-1500K Vertical Inlet

**896ED1500HEL** Helium 0-1500K Vertical Inlet

**896ED1500HYD** Hydrogen 0-1500K Vertical Inlet

**896D1000NIT** Nitrogen 0-1000K Side Inlet

**896D15000X12** Hydrogen 0-1500K Side Inlet

**896D15000X39** Oxygen 0-1500K Side Inlet

**896D1500ARG** Argon 0-1500K Side Inlet

**896D1500NIT** Nitrogen 0-1500K Side Inlet

896EDS25000X Oxygen 0-2500K Vertical Inlet

**NOTE:** Regulators can be made for most gases or mixtures/also to customer's specifications. Contact your local **Harris** distributor for details.



This range of multistage regulators are suited for 300bar inlet pressure and will provide excellent pressure and flow characteristics from this high pressure inlet to a lower pressure application. Features include Stainless Steel diaphragm in both stages.

996D1000OX Oxygen 0-1000Kpa Side Inlet

996D1000OX Oxygen 0-1000Kpa Vertical Inlet

**NOTE:** Regulators can be made for most gases or mixtures/ also to customer's specifications. Contact your local **Harris** distributor for details.



Spare parts are available for all products

### Pressure Regulators Cont.







#### Model 987

The Model 987 High Pressure Cylinder Regulator is designed specially for applications that require a range of delivery pressures from 0-10,000kPa and 0-17,000kPa accurately and safely. Available for all non-corrosive gases used in oil refineries, chemical plants, research laboratories, defence and general industry where high working pressures are required.

Suitable for hydro-generation, catalytic reductions, accelerated testing and pressure testing.

#### Features Include- Wt. 2.2kg

- High delivery range
- ▶ Stainless steel diaphragm for strength and accuracy
- Large easy to read gauges
- ▶ Brass bonnet & body maximum safety, strength
- ▶ Sintered monel metal inlet filter to trap impurities
- ▶ Rated to 380 Bar for Inert Gases

987Z078 Nitrogen, Oxygen, 0-10,000kPa Side Inlet
987Z079 Nitrogen, Oxygen, 0-17,000kPa Side Inlet
3200326 Nitrogen, Self relieving, 21000kPa Side Inlet

#### Model HP750

The Model HP750 series regulator is a high pressure, high flow regulator system. The key to the performance of this regulator is the servo-dome load technology. The servo-dome load feature allows the regulator to supply high flow rates with straight line pressure regulation.

Applications include: Laser assist gases, Pressure transfer, Blanketing & High flow manifolds

3000869

0-7000kPa outlet and 38500kPa inlet (other specs are available on request)

#### **Model 3500**

This speciality designed Regulator provides huge flows from cylinders and manifold gas supply systems. (Oxygen max inlet 240 Bar)

#### Features include - Wt. 2.5kg

- Designed to operate on HP Cylinders of up to 385 bar
- ▶ Additional high capacity 3/8" NPT outlet
- ▶ Forged brass body and bonnet
- ▶ Self seating internal safety relief valve
- ▶ Meets CGA E-4 Standard for Gas Pressure Regulators

3003541 Nitrogen 4200kPa (Ideal for motor racing)

### Hospitality Regulators



#### Model 601

Many regulators on the market are Oxygen regulators relabelled for Helium. Harris engineered this regulator for the specific task of balloon filling with Helium.

Helium is a very light gas that is expensive and has its own safety considerations. This regulator captures these issues and provides a better proposition for the user.

#### Features Include- Wt. 0.8kg

- Forged brass body and bonnet
- ▶ High pressure Helium capsule seat
- ▶ Internal safety devise on diaphragm
- Fixed pressure preset at 30 psi-kPa
- ▶ Spring loaded tilt valve (leak proof seal when off)

### Model 601 Regulator

Designed for beer dispensing that does not require highflow e.g. Homebrew/Party hire. The application is often used in small rooms which can lead to a dangerous environment.

Harris believed that reducing gas leaks was a major concern in

Harris believed that reducing gas leaks was a major concern in the development of this regulator, and designed a regulator with special threads and safety seals.

#### Features include - Wt. 0.8kg

- Metal case gauges
- ▶ Made by Harris to ISO 9002
- ▶ Brass body & bonnet
- ▶ Smooth adjustment 0-400kPa
- Internal self reseating safety relief valve
- ▶ Special threads/seating to reduce risks of leaks





#### Model 801

Our 801Z378 is designed with a special C02 compatible capsule seat surrounded by a filter and is ideal for connecting to a cylinder, or as part of a regulator board.

#### Features include - Wt. 0.8kg

- Large easy to read gauge
- Complies to AS4267
- ▶ Harris engineering and quality
- ▶ Internal self reseating tamper proof SRV fitted
- Inlet & outlet 1/4" NPT female
- Preset 800kPa

### Hospitality Regulators







#### Model 802

Designed for C02 delivery for bars, pubs, wine bars and the servicing of beer or soft drink. It is also suitable for C02/Nit. mixtures, with a max inlet of 7000kPa.

#### Features include - Wt. 1.3kg

- ▶ Excellent flow
- Outlet 0-400kPa or 0-800kPa
- ▶ Forged brass body
- Standard Harris parts
- ▶ Safety relief with the ability to manually clean
- ▶ Outlet with special built-in ball type reverse flow valve, to avoid internal liquid contamination
- ▶ Safety pressure gauges calibrated in kPa with metal case
- Lock nut on pressure adjustment
- Inlet at 3 O'clock
- ▶ Ability to manifold up to three (3) regulators from one cylinder

802R400CDSingle C02 Regulator (beer)802R800CDSingle C02 Regulator (post mix)802R400CD/2Two C02 Regulators802R800CD/2Two C02 Regulators802R400CD/3Three C02 Regulators38A957Special Outlet Fitting Brass

### Model 821

This model regulator has been developed with input from the Industry. Its features are excellent.

#### Features include- Wt. 1.3kg

- ▶ Proven capsule seat design
- Large 63mm, easy to read, safety back gauge with safety seal
- Internal, self reseating, tamper proof safety relief valve
- ▶ Smooth 0-400kPa adjustment
- Accurate regulation
- ▶ Easy to repair/Clean

**821Z029** CO2 0-400kPa, rear inlet, capsule seat, two filters

**821Z035** CO2(T30 Inlet) 0-400kPa, rear inlet, capsule seat, twin gauge, two filters, cylinder regulator

**821Z041** Nitrogen (T50 Inlet) 0-400kPa, rear inlet, capsule seat, twin gauge, two filters, cylinder regulator



### Hospitality Regulators









A very exciting product with many unique features. The performance of this regulator will provide an improved beer distribution system for the Hospitality Industry.

#### Features include - Wt. 1.5kg

- Very large diaphragm
- Large flows; 32m<sup>3</sup> hr, at 500kPa inlet
- ▶ Smooth accurate pressure adjustment
- Large 63mm dia., easy to read gauge
- Forged high quality brass body
- ▶ Suit C02 Pipeline or cylinder pressure \*\*
- ▶ Built in, tamper proof, self reseating safety relief valve
- ▶ Sav T' Lock; adjustment by special Key (A825ES). This puts control back into the hands of the right person. Set 'N' Forget!
- ▶ Reduces <u>surge</u> when opening beer tap

**847DT400CD** C02 Rear Inlet 0-00kpa

**847DT800CD** C02 Rear Inlet 0-800kpa



### Model 847

This multistage cylinder Regulator is ideal for high flow applications where constant pressure is also required.

#### Features include - Wt. 1.3kg

- Proven seat design
- **Easy** connection
- Complete package
- Large, easy to read gauges
- Anti-surge feature
- Complies to AS 4840, AS 4267 & AS 5034
- Fixing the wire to a wall prevents regulator falling and being damaged
- Includes safety relief valve protection
- Non return valve protection included

### Hospitality Accessories

Brumby tap with 4" extension. Ideal for fridge

410851

Quick fit hand wheel connection + HP NRV + High pressure anti kink/ anti whip hose + C02 connection

C02-ASS-1.2





Liquid beer line with fittings 2.5 Metres



EK tap with 3" extension. Ideal for fridge or bar connection

connection



Beer gun tap available in Chrome or Stainless Steel. Ideal for portable systems



CO2 gas hose with connections, 2 metres



Splash back beer tray in Stainless Steel 15cm x 15cm



### Medical



# Made in Europe



#### Model 801 Medical

A compact, single stage regulator, which delivers a high level of accuracy needed in this application. The features are world class and compliment other products in this range.

#### Features include - Wt. 1.3kg

- Pressure gauges are fully chromed, steel cased 53mm dia. easy to read and colour coded. A precision mechanism for accuracy, safety back, and a one-piece virtual unbreakable polycarbonate lens. This ensures maximum strength, quality and durability
- Inlet connection to suit Australian Standards. With a filter, in Yoke/Bullnose, plus another filter surrounding the capsule seat
- Outlet connection complies with Australian Standards AS 2472-1996
- Body machined from forged brass for maximum strength and durability
- ▶ Heavy chrome plating for sanitation and appearance
- Proven encapsulated seat design for maximum accuracy, reliability and longlife
- ▶ Self reseating external safety relief valve included
- Complies to AS 2472-1996, AS 3840.1-1998 ISO 9002, ISO 14001.

801 <b>Z</b> 258	Preset Nitrous	Oxide with Yoke

801Z259	Preset Air reg	with Yoke
0U1ZZ39	rieset Ali reg	with toke

**801Z260** Preset Oxygen reg with Yoke



Y01870 Oxy Yoke

Y01910 Nitrous Oxide Yoke

**Y01940** CO2 Yoke

**Y01950** Air Yoke

### Medical Flow



#### **Medical Flowmeters**

**Harris** Flowmeters feature an integrated one-piece design with well defined calibrations which accurately measure flow.

#### Features include - Wt. 0.4kg

- Precision engineered
- Pressure compensated design accurately measures flow
- ▶ Soft seating valve to ensure on/off function
- Easy to read
- Scratch resistant
- Virtually unbreakable transparent cover tube
- ▶ Handwheel grip is designed to be easily operated with gloves
- ▶ Colour coded handwheel
- Complies to AS 3840.1-1998

**86615LOX** Oxygen flowmeter 0-15LPM

**86515LAIR** Air flowmeter 0-15LPM

### **Model 1500**

The model 1500 is an oxygen regulator designed for the home healthcare, hospital and pediatric application.

#### Features include - Wt. 360grams

- Lightweight aluminium body with brass internal components
- Precise dial-in flow control
- Permanent laser etch markings
- Sintered inlet filter for safety and regulator life
- Barb outlet
- ▶ 1.4" diameter gauge with protective boot
- Conforms to CGA F8 and ASTMG175

Contorn	ns to CGA E8 and ASTMG175
3500339	0-8LPM with Yoke inlet and Barb outlet ranges: .5, 1, 1.5, 2, 2.5, 3, 4, 5, 6, 8
3500340	0-8LPM with Bull Nose and Barb outlet ranges as above
3500343	0-15LPM with Yoke inlet and Barb outlet ranges: .5, 1, 1.5, 2, 3, 4, 6, 8, 10, 15
3500347	0-1LPM Pediatric Yoke inlet and Barb outlet ranges: 1/32, 1/16, 1/8, 1/4, 3/8, 1/2, 5/8, 3/5, 7/8, 1
4309618	Electronic oxygen conserving device which saves gas (up to 7:1 ratio) by not delivering during the latter part of inhalation. No photo available at time of printing

4309619 Single Lumen tubing

**4309633** Supply tubing, 7ft



### **Hand Cutting Torches**



#### Model 142

A traditional one piece cutting torch that has become an industry standard. Be aware of low quality copies that don't comply to ISO standards, ask for **Harris original**.

#### Features include- Wt. 1.9kg

- ▶ Top mounted stainless steel cutting lever with hold-down button
- ▶ Solid brass head/body/handle
- Ease on for heavy cuts/piercing
- Universal pressure mixing, fuel gas 1.5kPa
- Well balanced
- Accepts flat seating tips, reducing head popping
- Complete with flash-guards

142033 1 pce Hand Cutt Torch

Propane, LPG, Natural Gas

Cuts up to 200mm

**Ideal** - Engineering shops, Mines, Maintenance shops Includes Flashguards

**Z142037** 1 pce Hand Cutt Torch **Acet** 

Cuts up to 200mm

Ideal - Engineering shops, Mines,

Maintenance shops Includes Flashguards



**Z142038** Our popular 142 Torch with the head manufactured to suit

tapered seating tips. Suitable for

any fuel gas

**Note:** Not universal mixing

1) All Propane Torches 624FL & 142F also operate on L.P.G. and Natural Gas.

- 2) With Propane Torches, Heating Tips up to Size 3 (H623P) can be screwed onto a Torch. Meaning you can cut, gouge and heat just by changing the Tip.
- 3) All Torches are fitted with Flashguards to enhance safety and add value.

**Note:** Harris type 41 and 44 tips are available refer price list.



### Hand Cutting Torches



#### **Model 625**

#### Features include- Wt. 1.5kg

- ▶ Finger control stainless steel cutting lever
- ▶ Solid brass head/body/handle
- Well balanced for easy piercing/heavy cutting
- Universal pressure mixing, fuel gas 1.5kPa
- Accepts flat seating tips reduces head popping.
- ▶ Complete with flashguards
- ▶ Ease on cutting Oxygen makes piercing/starting easier

062Z019 1 pce Hand Cutt Torch Acet Cuts up to 300mm Ideal - Engineering shops Includes Flashguards

062Z084 1 pce Hand Cutt Torch Propane, LPG, Natural Gas Cuts up to 300mm Ideal - Engineering shops, Scrap cutting Includes Flashguards

062Z088 1 pce Hand Cutt Torch Propane
Cuts up to 300mm - 90° Head
1000mm length
Ideal - Cutting in hard to
reach places, Scrap cutting
Includes Flashguards Wt. 1.9kg

1 pce Hand Cutt Torch Propane
Cuts up to 300mm - 180° Head
1000mm length
Ideal - Where there is a need
for the tip to be straight out of the torch.
Includes Flashguards Wt. 1.9kg

**062Z106 90° Head** x 1250mm **062Z107 90° Head** x 1500mm **062Z109 90° Head** x 2000mm

This torch is designed to aid an operator cutting "out of position". The under-hung lever allows an operator to easily hold the torch and operate the cutting process.

No tired thumbs!



### **Machine Cutting Torches**



#### Oxy/Propane/LPG/Natural Gas

The **Harris** range of machine cutting torches offers the ultimate in gas mixing, performance, ease of adjustment and safety desired by the profile industry. Various diameters, lengths etc. are available to allow low cost updating/retrofitting of machines. For further advise or training contact **Harris**.

Torches are available in the following lengths; 65/110/250/460mm. Most are supplied with individual valves (per gas) and are in diameters of 30/32/35.

2 hose design torches are available to suit straight line cutting machines refer to Harris for details.

A special torch has been designed to fit the square barrel of some profile machines. Refer to picture Z198028

NOTE: 1)

- 1) All Torches are three tube design; needed for high speed Tips.
- 2) Torch length can be altered. Charges apply.
- 3) Check Harris stock holdings before ordering.
- 4) Refer to Harris Price List for Part No, description and size

### Machine Cutting Accessories

### Model BV-98-2

Bevelling Head Increases speed of quality bevel cuts. Preheat tip swivels for either left or right travel. Equipped with 1390-3H heating tip. Use with natural gas or propane (cutting tip not included)



#### Model S-98-C

Adjustable Tip Adaptor Adjust tip to any angle without moving the torches (cutting tip not included).

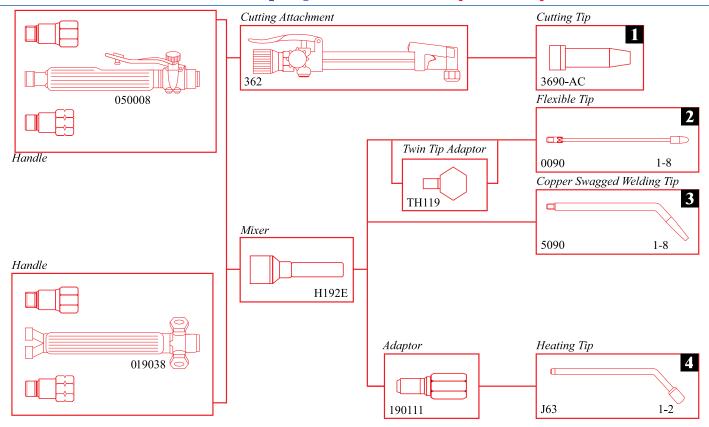


#### **Model TH-98**

Adjustable Twin Tip Holder For making two cuts simultaneously with one torch. Adjusts from 1 1/2" to 12" width.

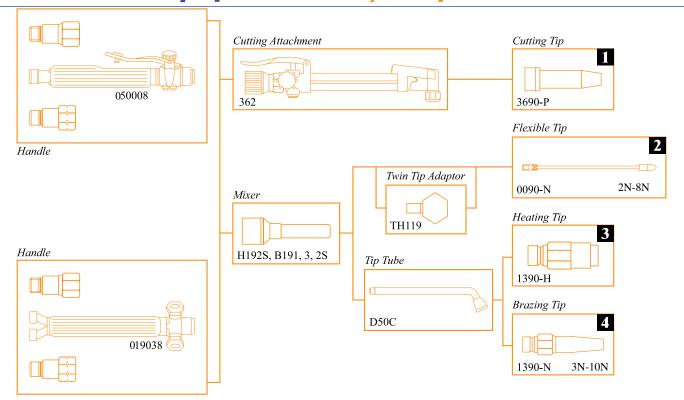


### Contractors Equipment - Oxy Acetylene



1 = Cutting 2 = Welding with Flexible Tip - Medium Pressure 3 = Welding with Single Flame - Medium Pressure 4 = Multi-Flame Heating - Medium Pressure

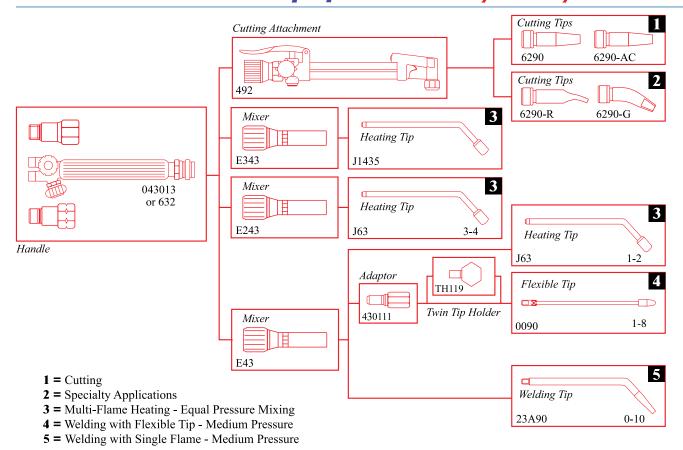
### Contractors Equipment - Oxy Propane



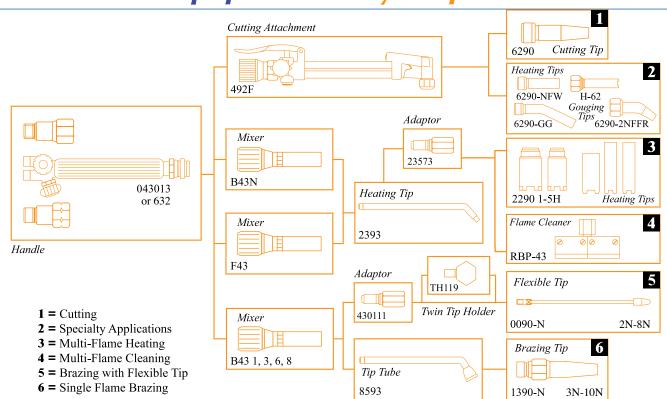
1 = Cutting 2 = Brazing with Flexible Tip 3 = Multi-Flame Heating 4 = Single Flame Brazing



### Professional Equipment - Oxy Acetylene



### Professional Equipment - Oxy Propane



### Straight Line Cutting Machine

The Harris straight line can be used for flame and plasma cutting. Included with every machine is a quick acting manifold which eliminates the need to reset the torch when flame cutting. The machine is compact, lightweight and has a convenient carry handle. The Harris cutting torch and tip is renowned for smooth and fast cutting.

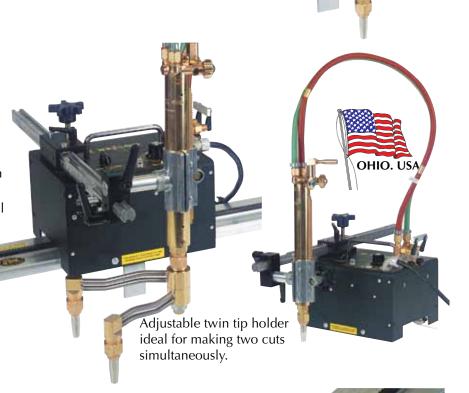
#### Features include -

- Positive rack and pinion drive
- ▶ Wide speed range (127-2540mm/min)
- Dynamic brake
- Convenient carry handle
- ▶ Harris torch and tip
- Twin cutter
- Manifold
- ▶ Heavy duty rail (8')
- Quick set up

#### **Technical Data**

- ▶ Power requirements 240v
- ▶ Speed variable 127-2540mm/min
- Load capacity (6.8kg) Vertical (27.3kg) Horizontal
- Magnet holding capacity (68kg) per assembly
- ▶ Tool Kit





Other types/models are available contact Harris







**IN POP** 

**HANG** 

**SELL** 

#### Model 362 LIGHT/MEDIUM DUTY

A well designed robust attachment with outstanding cutting capacity of 75mm. Sets the standard for smaller torch use.

#### Features include-Wt. 0.4kg

- Head/body in solid forged brass
- Triangular stainless steel gas tubes for maximum strength and safety
- Equal pressure mixing
- Solid brass lever with stainless steel plunger
- Unique tapered 'O' ring sealing for safety
- Suits all gases

362 Contractors Cutt Att. Acetylene/Propane. To suit Harris Handle 019038

**Note:** Tip nut is **9008437** 

#### Model 733/493F HEAVY DUTY

A truly professional cutting attachment suited for the toughest workshop conditions. Its many features are unmatched by other manufacturers.

#### Features include-Wt. 0.8kg

- Triangular stainless steel gas tubes for maximum strength, safety and operator comfort
- ▶ Tapered 'O' ring sealing for longlife/safety
- Accessible injector allows simple change over to other gases
- Cuts to 150mm
- Accepts flat seating tips, greatly reducing head popping
- Positive pressure mixing. Fuel gas 40kPa (733)
- Universal pressure mixing. Fuel gas 1.5kPa (493F)
- Head, lever, body solid brass for long life
- Ease-on built in for better starts and piercing

**493F** Professional Cutt Att. *Propane, LPG, Natural Gas* to suit Harris original Handle 632, 043013

Note: Tip nut to suit both is 6259B

Part of the classic series, medium pressure Acetylene cutting attachment. The tough solid construction surpasses others in the market. Cuts to 100mm.

493F

733

Spare parts are available for all < products

### **Cutting Attachments**



Follows the design of the professional (493F) cutting attachment specs, and is made to be **compatible** with other brands. The compatible range is easily identified. The tightening sleeve is machined differently to the 493F (refer P29).

#### Features include- Wt. 0.8kg

- Triangular stainless steel gas tubes for maximum strength and safety
- ▶ Slide 'O' ring sealing makes it compatible
- Accessible injector allows simple change over to other gases.
- Accepts flat seating tips, greatly reducing head popping.
- ▶ Built in safety plug in head
- ▶ Universal mixing for maximum economy, fuel gas 1.5kPa
- ▶ Head, lever, body solid brass construction for long life
- Cuts to150mm.
- ▶ Ease-on built in for better starts and piercing

**1492FHC** 

\* Professional Cutt Att. Propane, LPG, Natural Gas to suit **Harris** "Compatible" Handle and other manufacturers.

AVAILABLE IN POP HANG SELL

**733HC** 

**1492HC** \* Profession

\* Professional Cutt Att. *Acetylene,* to suit **Harris** 

Handle (I432HC). Fits most makes of

Handles."Compatible"

**6259B** Tip nut

The **733HC** is an expansion of the above Professional range and is considered the toughest in the market:

#### Features include- Wt. 0.8kg

- ▶ Triangular stainless steel gas tubes
- ▶ Solid brass head
- Accepts standard taper seating tips
- Solid brass body
- ▶ Solid brass lever
- One mixer for all fuel gases
- ▶ Compatible with other manufacturers
- Made in Europe
- Ease-on built in for better starts and piercing

**9005218** Tip nut to suit

Note: Harris type 41 and 44 tips are available refer price list.



# Handles







AVAILABLE IN POP HANG SELL



### **Model 19-6**

This lightweight, all metal handle is ideal for the handyman, plumber, panel beater and the like.

### Features include- Wt. 0.8kg

- Front mounted valves for fast flame adjustment with the ability to change flame one handed, by using thumb
- Two separate stainless steel gas tubes
- Front/rear pieces of forged brass
- ▶ Good flow for lightweight handle
- Complete with flashguards

### **Model 50-10**

The **Harris** automatic torch handles feature a unique gas control to reduce operating costs and improve safety and convenience. The thumb operated on/off gas control and adjustable pilot light eliminate relighting and flame readjustment each time the torch is used. An alternative set-up is the on/off feature which enables the torch to function as a dead man switch, a fantastic safety feature for the operator. Ideal for brazing with Oxy-LPG gas.

### Features include- Wt. 0.4kg

- Automatic on/off gas control
- Adjustable pilot light
- Can be set-up with a deadman switch
- High or low flame flick of a lever
- ▶ Complete with flashguards

### **Model 43-2**

Professional handle with **Harris original** stainless steel head, supplying extra high flow required for large heating applications. Its toughness and design will add another dimension to safety in the workshop.

### Features include- Wt. 0.7kg

- ▶ Tough extruded brass handle
- ▶ Tube within a tube for high flow
- Stainless steel connector for long life
- No screws or soldered joints for easy maintenance
- ▶ Unique tapered 'O' ring sealing for extra safety
- ▶ Large flow valves
- ▶ Stainless steel ball valves
- ▶ Flashguards included
- Designed for right or left hand use
- Fuel gas valve easily reached for emergency shut down





### Model 632

This Classic series 632 Handle is designed for normal workshop use. It operates heating tips up to a size 3, which will suit most applications. The handle comes in two Configurations - Compatible

- Harris Original

### Features include-Wt. 1.0kg

- ▶ Tough extruded brass handle
- Brass connector
- Slide 'O' ring fitment (compatible 632HC)
- ▶ Tapered 'O' ring seal (original 632)
- S.S. ball valves
- ▶ Flashguards included
- Comfortable
- Made for right hand or left hand use
- Fuel gas valve easily accessible in the event of a flashback

**Acetylene Mixers** 

Mixing the gas is very important to the flame. Harris is proud of its range and the many uses, via tips and adaptors, that are available. **Note:** The mixers and tip thread, only accept **Harris** tips, which are designed to give the best in gas sealing and safety.

H192E Precision Equal Pressure Acetylene Mixer for 5090, 1390, 0090 Tips & J63 2 Heating Tip

**E43** Professional Equal Pressure Acetylene Mixer for 23A90 0-10,1390 0-10, 0090

1,3,5,6,8 Tips and J63 2 Heating Tip

**E43HC** Professional Equal Pressure

Acetylene Mixer for 23A90 0-10,

1390 0-10, 0090 1,3,5,6,8 Tips and J63 2 Heating Tip. Compatible range fits most brands of Handles.

**E243** Professional Equal Pressure

Acetylene Mixer for 23A90 13, 15 &

J633/J634 Heating Tips

E343 Professional Equal Pressure

Acetylene Mixer for J143-5 Heating Tip

# Propane Mixers









Accurate mixing is vital for a good flame with these fuel gases. If possible, use the mixer for the tip range to achieve the best flame characteristics. The Harris range is truly world class and will open up applications for the end user, making for an easier, safer workplace.

### Propane, LPG, Natural Gas

- H192S Precision Universal Pressure Mixer for 1390N, 1390 H, 0090 Tips\*
- **B**191 Precision Universal Pressure Mixer for 1390 00N-2N, 0090 2N Tips. Gives precise mixing, and better flame for these Tip sizes\*
- **B193** Precision Universal Pressure Mixer for 1390 4N-10N, 1390 H, 4N,6N,8N. Gives precise mixing and better flame for these Tip sizes\*
- **B433** Professional Universal Pressure Mixer for 1390 00-3N, 0090 2N Gives Precise mixing, and better flame\*
- **B435** Professional Universal Pressure Mixer for 1390 4N-7N, 0090 4N, 6N. Gives precise mixing, and better flame\*
- **B438** Professional Universal Pressure Mixer for 1390 8N-10N
- NOTE: Use B435 as a general purpose mixer, all sizes. Flame mixing not as precise as the correct size matched with tip. \* See above - will still operate on other sizes.
- **B43N** Professional Universal Pressure Mixer for Oxy/Natural Gas, using large volume 2290 1H-3H Oxy/Propane Tips. Fits 043013, 632
- F43 Professional Mixer for heating, using large volume 2290 1H-5H Propane Tips. Fits 043013, 632



# **Cutting Tips**



# Oxy/Acetylene

These two piece tips are very popular. Their flame characteristics, plus the ease of cleaning, make them ideal for Plumbers, Panel Beaters and other Contractors.

To suit 362 Cutting Att.

Size			Precision Series	
	3690	00AC	Cuts 0-6mm Steel	
	3690	OAC	Cuts 6-13mm Steel	
	3690	1AC	Cuts 13-25mm Steel	
	3690	2AC	Cuts 25-75mm Steel	





# Oxy/Acetylene

This Professional tip offers exceptionally quick starting for the operator. Combined with the ability to pull apart for cleaning. The flat seating allows easy reseating on-site with a rub with wet/dry - a very unique product. This flat seating tip greatly reduces the occurrence of tip popping. Precise gas flutes control the amount of gas being used.

### To suit 492 Cutt.Att., 142 & 624L Torches

	Professional Series Cuts 0-5mm Steel (One pce copper)
00AC	Cuts 5-10mm Steel
0AC	Cuts 10-15mm Steel
1AC	Cuts 15-25mm Steel
2AC	Cuts 25-50mm Steel
3AC	Cuts 50-100mm Steel
4AC	Cuts 100-175mm Steel
5AC	Cuts 175-250mm Steel
6AC	Cuts 250-300mm Steel

**NOTE:** Standard 5mm Hose does limit good cutting to 100mm. For thicker steel, use larger diameter Hose.





# **Cutting Tips**



# AVAILABLE IN POP HANG SELL



# Oxy/Propane/LPG/Natural Gas

Opens up avenues for the Contractor who is using LPG/Propane as his fuel gas. A high performance product, which will give quick starts and quality cutting.

### To suit 362 Cutting Attachment

	Size	Precision
3690	00P	Cuts 0-6mm Steel
3690	<b>OP</b>	Cuts 6-13mm Steel
3690	1P	Cuts 13-25mm Steel
3690	2P	Cuts 25-75mm Steel

# **Professional Oxy/Propane/LPG**The design of these Tips is superb and adds a new dimension

The design of these Tips is superb and adds a new dimension to cutting, using Oxy/ LPG, Propane, Natural Gas. Develops very **quick starts** and also **precise control** over the amount of gas used. Every Tip is flame is tested before leaving the factory.

### To suit I492FHC, 492F Cutt. Att., 142F & 624FL.

Size Profes	sional
000NX	Cuts 0-5mm Steel
00NX	Cuts 5-10mm Steel
0NX	Cuts 10-15mm Steel
1NX	Cuts 15-25mm Steel
2NX	Cuts 25-50mm Steel
3NX	Cuts 50-75mm Steel
4NX	Cuts 75-150mm Steel
5NX	Cuts 150-200mm Stee

# Professional Oxy/Natural Gas

Cuts 200-300mm Steel

NFF Cutting tips specially designed for Natural gas use. Providing extra heat in the start up process.

1NFF	15-25mm
2NFF	25-50mm
3NFF	50-75mm
4NFF	75-150mm
5NFF	150-200mm
6NFF	200-300mm

6NX

# Heating Tips

### Oxy/Acetylene

Heating with Oxy /Acet is used in industry in many different applications. When using the J633 and above, that procedures and methods become critical. Contact Harris for advise.

We believe our heating tips are the hottest in the industry.

### Size

<b>J63</b>	2	Multi Flame Heating
163	3	Multi Flame Heating
<b>J63</b>	4	Multi Flame Heating
J143	5	Multi Flame Heating

- **NOTE:** 1) Tip is silver soldered to stainless steel Tip Tube. Comes as a complete item (J633 & J634, J1435).
  - Size 2 (copper) suits E43 Mixers.
  - Sizes 3 & 4 (as shown in photo) suit E243 Mixer only.
  - 4) J632 can be fitted to H192E Mixer by using 190111 Adaptor.
  - 5) J633,4 will cause some problems with 5mm hose (restricts flow). Suggest 8/10mm hose and manifold Acetylene cylinders.
  - J1435 requires 10mm Hose and manifold Acetylene cylinders.



**J633** 

**Professional Oxy/Propane**The shape, performance, and characteristics of the flame are effected/controlled in some way by the tip. Harris tips are designed and manufactured to give the very best flame. Our quality is assured, as every tip is flame tested.

### Size

2290	1H Multi Flame Oxy/Propane Heating Tip
2290	<b>2H</b> Multi Flame Oxy/Propane Heating Tip
2290	<b>3H</b> Multi Flame Oxy/Propane Heating Tip
2290	<b>4H</b> Multi Flame Oxy/Propane Heating Tip
2290	<b>5H</b> Multi Flame Oxy/Propane Heating Tip

NOTE:

- Tip Tube 2393 is needed, as well as the correct Mixer - F43 Propane/LPG, B43N Natural Gas.
- Standard 5mm Hose limits size to 2290 1H, 2H, 3H.
- Enormous heat is available with the above range of Tips.

### Size

H62	<ul><li>1P Heating Tip</li><li>2P Heating Tip</li><li>3P Heating Tip</li></ul>	<b>NOTE:</b> 1) Can attach to Professional Cutt Att. and Hand Cutting Torches.
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Nipple - Use with 2393 Tip Tube before fitting 23573 heating Tip for protection of the threads

23579 Adapts 2290 Heating Tips to Competitors S/S Tip Tubes





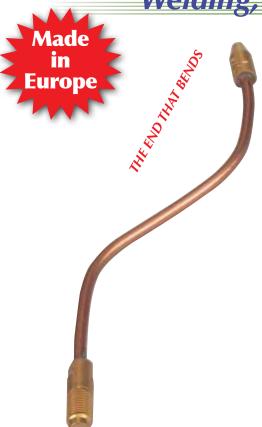
# Tip Tubes



Range, gas sealing and construction help to make these products an ideal addition to the safe use of gas equipment.

Designed for Professional Fits E43, E43HC, B433,B436, B438 Mixers plus 1390 Tips.  Stainless Steel - 710mm  Stainless Steel - 380mm  Stainless Steel Straight 1040mm  NOTE:  23933F is the most popular size.	D50C	Designed for Precision Handle Fits H192E, H192S, B191, B193 Mixers plus 1390 Tips.
<ul> <li>23933F Stainless Steel - 380mm</li> <li>23935F Stainless Steel Straight 1040mm</li> </ul>	8593	Fits E43, E43HC, B433,B436,
23935F Stainless Steel Straight 1040mm	23932F	Stainless Steel - 710mm
	23933F	Stainless Steel - 380mm
<b>NOTE:</b> 23933F is the most popular size.	23935F	Stainless Steel Straight 1040mm
	NOTE:	23933F is the most popular size.

# Welding, Brazing Tips



# Oxygen Acetylene

0090	Size 1	<b>Precision or Professional</b> Flexible Welding/Brazing
0090	3	Flexible Welding/Brazing
0090	5	Flexible Welding/Brazing
0090	6	Flexible Welding/Brazing
0090	8	Flexible Welding/Brazing

**NOTE:** To suit H192E Mixer. Precision Series. Adaptor 430111 needed for E43, E43HC Mixers, Professional Series.

# HARRIS

# Welding, Brazing Tips





5090	i <b>ize</b> 1	<b>Precision</b> Copper Swaged Welding/Brazing
5090	3	Copper Swaged Welding/Brazing
5090	5	Copper Swaged Welding/Brazing
5090	6	Copper Swaged Welding/Brazing
5090	8	Copper Swaged Welding/Brazing

**NOTE:** 1) To suit H192E Mixer. Part of Precision Series.

- 2) Common sizes shown. Smaller sizes are available starting at 00 (ie Jewellery use).
- 3) Presicion is also know as Craftsman/Contractors when in kit form.

23A90	<b>Size</b> 0 1	Classic/Professional Copper Swaged Welding/Brazing
23A90	0 3	Copper Swaged Welding/Brazing
23A90	0 5	Copper Swaged Welding/Brazing
23A90	0 6	Copper Swaged Welding/Brazing
23A90	0 8	Copper Swaged Welding/Brazing
23A90	0 10	Copper Swaged Welding/Brazing
NOTE	<b>:</b>	1) To suit E43, E43HC Mixers. Part of Professional Series.

holdings.

2) Shown are the most popular sizes. Other sizes (up to 23A90 15) are

available on request and subject to stock



# **Brazing Heating Tips**

Size



# Brazing, Heating Tips Oxygen/Propane/LPG/Natural Gas

The shape, performance and characteristics of the flame are affected/controlled in some way by the tip. **Harris** tips are designed and manufactured to give the very best flame with every tip flame tested to ensure quality and consistency.

**Precision or Professional** 

0090	2N	Flexible Brazing Tip
0090	4N	Flexible Brazing Tip
0090	6N	Flexible Brazing Tip
0090	8N	Flexible Brazing Tip
TH119		Twin Tip Holder - Ideal for 0090 Flexible

**NOTE:** To suit H192S, B191, B193 Mixer Adaptor 430111 needed to suit B433, B436, B438 Mixer

1390	Size 3N	<b>Precision or Professional</b> Screw-in Brazing
1390	5N	Screw-in Brazing
1390	6N	Screw-in Brazing
1390	8N	Screw-in Brazing
1390	10N	Screw-in Brazing



# Gouging Tips



This range of Gouging Tips gives the end user terrific scope for repair or weld preparation. The quick starting and speed is a real feature of the design. It is often said

"The better the flame the better and easier the job". Never truer than with these tips.

# Oxy/Acetylene To suit 492 Cutt. Att., 142& 623Torches

Size 1G	<b>Precision or Professional</b> Gouging 3 x 6mm
2G	Gouging 5 x 10mm
3 <b>G</b>	Gouging 6 x 13mm

# Oxy/Propane/LPG/Natural Gas To suit 1492FHC, 492F Cutt. Att., 142& 623FLTorches

Precision or Professional Gouging 3 x 6mm
Gouging 5 x 10mm
Gouging 6 x 13mm

# Super Hi speed M. C. Tips Acetylene

Hi speed Acetylene machine cutting tips specifically designed to enhance profile cutting with Acetylene. Flat seating for less tip popping and ease of re-seating.

Cutting steel quickly is the aim in profile cutting. The quality of the flame is a major factor in the process. Harris engineers spend considerable energy in perfecting flame shape, resulting in higher speeds, quality cutting and reduced gas costs.



### Size

1VAX	Acetylene Hi-Speed Cuts 0 - 8mm
2VAX	Acetylene Hi-Speed Cuts 8 - 15mm
3VAX	Acetylene Hi-Speed Cuts 15 - 35mm
4VAX	Acetylene Hi-Speed Cuts 35 - 75mm
5VAX	Acetylene Hi-Speed Cuts 75 - 150mm
6VAX	Acetylene Hi-Speed Cuts 150 - 200mm



# Super Hi speed M. C. Tips



# 

# **TRAINING**

Harris can conduct a professional, structured, profile cutting training course which will improve

- **▶** Quality
- **▶** Increase Speed
- **Lower Operation Costs**
- **▶** Increase Staff Morale

For further details contact your "local" Harris Distributor

### Propane, LPG, Natural Gas

The **Harris** tip has become accepted world wide as "The Tip" for profile machine cutting. Flame shape, gas consumption, flame consistency and flat seating make this range an ideal choice for any business.

Size

**5/0VVC** Hi-Speed Cuts 0 - 4mm

**4/0VVC** Hi-Speed Cuts 4 - 6mm

**3/0VVC** Hi-Speed Cuts 6 - 9mm

**2/0VVC** Hi-Speed Cuts 9 - 12.5mm

**NOTE:** The sizing of the above Tips is expressed in this manner rather than showing them as - eg. 6290-00000VVC. Tip and box only display size.

Size

**OVVC** Hi-Speed Cuts 12.5 - 20mm

**0.5VVC** Hi-Speed Cuts 20 - 35mm

**1VVC** Hi-Speed Cuts 35 - 60mm

**1.5VVC** Hi-Speed Cuts 60 - 75mm

**2VVC** Hi-Speed Cuts 75 - 125mm

**2.5VVC** Hi-Speed Cuts 125 - 150mm

**3VVC** Hi-Speed Cuts 150 - 175mm

**4VVC** Hi-Speed Cuts 175 - 200mm

5VVC Hi-Speed Cuts 200 - 225mm

**5.5VVC** Hi-Speed Cuts 225 - 250mm

### **Heavy Duty**

6NH Heavy Duty Cuts 250 - 275mm

7NH Heavy Duty Cuts 275 - 300mm

8NH Heavy Duty Cuts 300-380mm



# Specialty Tips



These Tips have many uses and are an added benefit to the **Harris** Range. For many end users, rivet cutting, used for cutting brackets from bulkheads; rivet washing for a straight gouging tip, etc can enhance the use of the torch as a tool. Our 8" long Tips, are ideal in hard to reach places or in Profile machines cutting 'H' Beams.

### To suit Professional Series

	Size	<b>Professional Series</b>
6290	NFW	Rivet Washing

6290	2NFFR	Propane Rivet Cutting
6290	R	Acetylene Rivet Cutting

1501051 Professional Size 4NFFL 8" long Tip 1501053 Professional Size 2NFFL 8" long Tip

# Flashguards





Shown attached to a handle

# Flashguards/Checkvalves/Non-Return Valves

886AL1	Fuel Gas 5/8" Inlet/Outlet suitstandard Australian Torches - all makes
886AR1	Oxy Gas 5/8" Inlet/Outlet Suit standard Australian Torches - all makes
886AL	Fuel Gas 5/8" Hose End 9/16" Suit 432, 623, 142, 196.
886AR	Oxy Gas 5/8" Hose End 9/16" Suit 432, 623, 142, 196.
C98V2	Oxy Hi Flow valve for cutting

Oxy on Machine Cutting Torches



# Flashback Arrestors



Flashback arrestors are an important product in making the operator and industry a much safer workplace. Combine this product with Flashguards, (on Torches) and FBA on Regulators and you raise the level of safety to world standards.

188GGAR	Torch end Oxygen normal flow*
188GGAL	Torch end fuel gas normal flow
1882UAAR	Torch end (off set) Oxygen high flow
1882UAAL	Torch end (off set) fuel gas high flow* Shown in Photo
188TAR	Oxygen regulator end normal flow
188TAL	Fuel gas regulator end normal flow*
1882TAR	Oxygen regulator end high flow
1882TAL	Fuel gas regulator end high flow*
R-FBA-PAK	Two reg and FBA in hanging display pack
T-FBA-FBA	Two torch and FBA in hanging display pack

**SAFETYPAK 1** Two Reg end FBA plus two Torch end flashguards to fit torches with standard 5/8" threads this is the minimum requirement for the AS 4839-2001

**SAFETYPAK 4** Two Reg end FBA plus two Torch end FBA this is the optimal requirement for the AS 4839-2001

### NOTE:

\* Normal flow/use \*\* Bigger flow - ideal for large flow Heating Tips. Both regulator types are fitted with a unique thermal cut-off valve.

Manifold flashback arrestors are available. Please provide details of the applications so that the right product can be quoted.

1697 Twin Wheels and Circle Bars twin for 362, Cutt. Att. and 3690 tips.

Twin Wheels and Circle Bar. Angle cutts 450, Torches/Cutt.Att. 624, 624FL, 142, I492HC, 492, 492F and 6290 Tips.



Twin Wheels and Inside/Outside Circle Bar. Torches/Cutt.Att. 624L, 624FL, 142, 1492HC, 492, 492F and 6290 Tips.

IR693B-HC to suit 733HC



# Specialty Torches and Tips



### Model 89-3 Compressed Air/Propane Torch

This Torch has a built-in Pilot Flame which can be adjusted to small for economy, or increased to a full flame. Can also be set up as a deadman shut-off lever for added safety. Tip can be swivelled in any direction. Ideal for soft soldering, preheating castings, mould drying, burning paint, heating for the hard surfacing process, annealing copper tubing, and many other heating applications.

**HC1892** Heating Torch complete with

Stainless Steel Tip Wt. 1.2kg

**8112** Heating Tip for HC1892

### Model KT Air/Propane Assembly

This torch is ideal for heating up steel, driveways, burning weeds, curing cement, and heating plastic. Any application where heat is required.





### Model 187 Powder Spray Torch

A hot Puddle Torch for the Powder Spraying process. Ideal for most maintenance workshops. Kit comprises Handle, Mixer Powder Attachment, Tip Tube, Three Tips and Plastic Powder Tank.

**Z187003** Powder Spray Torch Kit **Wt.1.0kg** 

**18781LT** Plastic Tank

**1879045H** Powder Spray Tip No. 45

**1879048H** Powder Spray Tip No. 48

**1879053H** Powder Spray Tip No. 53

**B187** Powder Spray Tip Tube



# Self Lighting Air/Mapp Pro Torch



### **Features**

- Operates on Mapp,
  Propane & Propylene
- Durable Cast Aluminium Construction
- **✓** Swirl Combustion Tip
- **✓** Operates in any Position
- Trigger Lock for Brazing& Soldering
- **✓** Built-in Ignition
- **POP Hanging Clam Case**
- Fits Disposable Cylinder

MAPP PRO CYLINDER 4300672 MAPP PRO
DISPOSABLE CYLINDER\*\*
\*\*AVAILABLE IN CARTONS OF 12
ONLY

Tradesmen Deserve it.....
Accountants love it

# HARRIS

# Powertorch Air/Lpg



KIT P/N: 4400051 KIT P/N Air Acetylene: 4400051

### **Features**

- **Swirl Tip**
- Stainless Steel Tip
- **V** Quick Connect Tips to Handle
- Ergonomic Handle
- **✓** Positive on/off Valve
- **✓** Operates in any Position
- **V** Quality Hose 6 Mtr
- **✓** Compact LPG Regulator
- Harris Renowned Quality
- **✓** 382AL Fitted to Handle





- Swirl Tip
- Stainless Steel Tip
- **POP Hanging Clam Case**

Tradesmen Deserve it.....

Accountants love it



# Scorcher Air/Lpg



Tradesmen Deserve it..... Accountants love it



# LPG Cylinders



LPG4.5KG

# **Features**

- AGA Approved
- **✓** Complies to AS2469
- Cost of gas is much cheaper than SWAP & GO
- **V** Powder Coated



**PRODUCTS** 

LPG9KG



# Cylinder Bracket Holders



### **Features**

- Made of Steel with Baked Enamel Finish
- ✓ Anti Static Strip
- Strong WebbingStrap with a SteelCinch
- Cylinder Bracket is easily bolted to a vertical surface

4302650

Drain Holes

Tradesmen Deserve it.....
Accountants love it



# SpecialtyTorches

Harris has an extensive range of heavy duty cutting torches shown below is just one example of what is available.

### Features include-

- ▶ Tip mix design
- Well balanced for operator comfort
- Extra high flow capacity
- ▶ Stainless steel head & tubes
- ▶ Built to specified lengths up to 18 feet
- ▶ Available in two or three hose configurations

pan |

- ▶ Available with 70°, 90° and 180° heads
- ▶ Cuts 50"



Emergency cut of torch stand

### Hose Parts

mose i ai	
6RBTH100M/S	6mm acet/oxy twin hose in a easy roll 100M spool
6RBTH5M+F	5M long and Harris fittings/tagged in a box
6RBTH10M+F	10M - Harris fittings/tagged in a box
6RBTH15M+F	15M - Harris fittings/tagged in a box
6BOTH100M/S	6mm LPG/Oxy hose on a easy roll 100M spool
6BOTH5M+F	5M –Harris fittings/tagged in a box
6BOTH10M+F	10M – Harris fittings/tagged in a box
6BOTH15M+F	15M – Harris fittings/tagged in a box
8RBTH100M/S	8mm Acet/Oxy twin hose on a easy roll 100M spoo
8RBTH10M+F	10M – Harris fittings/tagged in a box
8RBTH15M+F	15M – Harris fittings/tagged in a box
8BOTH100M/S	8mm LPG/Oxy twin hose on a easy roll spool
8BOTH10M+F	10M- Harris fittings/tagged in a box

10BOTH15M+F
 15M -Harris fittings/tagged in a box
 10BSH100M/S
 10mm Oxygen single hose on a easy roll spool
 12BSH100M/S
 10mm Oxygen single hose on a easy roll spool
 10mm Acetylene single hose on a easy roll spool

15M – Harris fittings/tagged in a box

10mmLPG /Oxy twin hose on a easy roll spool

10OSH100M/S 10mm LPG single hose on a easy roll spool 5ABSH100M/S 5mm Argon single hose on a easy roll spool

# Quick Connect Couplings

HC33PF	Coupler pin and left hand Nut
HC22PF	Coupler pin and right hand Nut
HC32PH	Coupler pin and hose Nipple
HC22PH	Coupler pin and hose Nipple
HC33SF	Coupler
HC22SF	Coupler

# **Tip Cleaners**

<b>E9</b>	Tip cleaner bent wire type,
	cleans cutting Oxygen
<b>C9</b>	Tip Cleaner, RAT Tail Files

8BOTH15M+F

10BOTHM/S



# Associated Items



### **Accessories**

MS-STR-4 Teflon thread tape 1/4" suitable for all gas applications

MS-SNOOP Leak detector with extension tube for easy direction of

the solution, suitable for all gases, not corrosive and

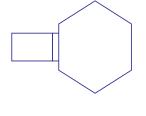
acceptable in Food grade

# Regulator Key

**A825ES** Key - Sav 'T' Lock Regulators







**382AL** 9/16" to 5/8" Adaptor L/H **382AR** 9/16" to 5/8" Adaptor R/H

TWA290 Taper Seat Tip Adaptor

190111 Adapts J632 to H192E Mixer190112 Adapts J633 to Precision

**430111** Fits TH119 into Professional Mixers E43,

E43HC, B433, 6, 8

TH119 Twin Tip Holder ideal for 0090 Flexible Tips. Fits H192E, H192S, B191, B192S B193 Mixers

Nipple. Use with 2393 Tip Tube before fitting

heating Tips.

23579 Adapts 2290 Heating Tips to competitors S/S Tip Tubes

37AO2 'Y' Piece - Right Hand 37AA2 'Y' Piece - Left Hand

AD256S LPG Straight Extension Adaptor

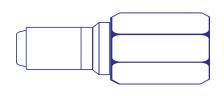
**847 90° LH** Adaptor for Inlet **847 90° RH** Adaptor for Inlet

**HCRGS** Allows **Harris** Cutting Tip into competitors

Roller Guides

37AO2 Right hand 'Y' Piece

37AA2 Left hand 'Y' Piece



# HARRIS



Note: Below is only a small percentage of our range. Please contact Harris for more information



Model HP703 High purity pipeline regulator <u>stocked</u> in 0-15PSI/50/PSI/125PSI



Model HP701 High purity single stage cylinder regulator stocked in 0-15PSI/50/PSI/125PSI

Model HP702 High purity multistage cylinder regulator <u>stocked</u> in 0-15PSI/50/PSI/125PSI

# **Manifold Systems**

SG 960

### **Fully Automatic Switchover**

The SG 960 Fully Automatic Switchover Manifold for high purity gases. The SG 960 HP can be used with oxygen, inert or fuel compressed gases. The SG 960 LE can be used with cryogenic liquid type cylinders. The SG 960 LAM is for applications for delivery pressure up to 400 PSI. Applications include Laser Resonator Gases, GC and MS Analytical Instruments, Process Analytical Equipment and Applications requiring 24/7 monitoring.

**Made** 

USA

- Fully automatic operation, no knob or levels to turn
- Separate control box, mechanical box and remote alarm allows for flexibility in installation.
- Telemetry contact for web messages and monitoring. Also provides remote monitoring of system plus consumption data.
- Email, phone and text messaging notification, optional modem required
- Modular system designed for expansion





SG alarm box





# High Pressure Hose Leads

Harris distributes a range of High Pressure Hose products. Our range of product is extensive and would simply not fit in this catalogue.

These high-pressure hose leads are of the highest quality with <u>unique</u> features and benefits designed with 'real' engineering advantages for the user/application.

Our prices are very attractive for this product. Especially when you consider the benefits and the safety issues "built-in" as standard.



### Features include-

- ▶ Teflon lined inner core
- Anti Kink
- ▶ Double stainless steel braided
- Anti whip-armour cased
- Each hose pressure tested
- ▶ Stamped with date and pressure rating
- Made in the USA
- ▶ Available in variety of lengths
- Corrugated metal inner core also available
- ▶ Extra high pressure also available



### **Inert Pipelines**

In this range of products we have an easy, low cost range of pipe and fittings that allow a building to be fitted with a reticulation system. It is so easy to do, many end-users do the install themselves. If this is not in your plans, Harris has experienced, trained gas fitters should you require their services. Their knowledge is of value for any type of pipeline or application.

The savings from a pipeline are "dramatic"......in some cases, costs have been lowered by **40**%.

Harris believes that this system, combined with our antisurge key lock regulator (Model 847), can produce savings of 25% minimum.

Please consider this concept and contact Harris or the local distributor for more details. Prior to contact, measure your floor layout and the length of your droppers and contact Harris or your local distributor for an all-inclusive quote.





### **Pressure Charts**

### **Contractor Equipment - Oxy Acetylene**

Oxy Acety				
Part No.	Size	Cutting Thickness mm	Oxy Pressure kPa	Fuel Pressure kPa
3690	00AC	0-6	100-200	35
3690	0AC	6-13	150-250	35
3690	1AC	13-25	200-350	35
3690	2AC	25-75	300-450	35

Oxy Propane Contractor					
Part No.	Size	Cutting Thickness mm	Oxy Pressure kPa	Fuel Pressure kPa	
3690	00P	0-6	100-200	35	
3690	0P	6-13	150-250	35	
3690	1P	13-25	200-350	35	
3690	2P	25-75	300-450	35	

Oxy Acetylene Weld, Heat & Braze Handle (19-6)				
Part No.	Size	Oxy Pressure kPa	Acetylene Pressure kPa	
0090	1, 3, 5, 6, 8	50	50	
1390	1, 3, 5, 6, 8	50	50	

Oxy Acetylene Weld, Heat & Braze Mixer (H192E)					
Part No.	Size	Oxy Pressure kPa	Acetylene Pressure kPa		
5090	1, 3, 5, 6, 8	50	50		
J63	1	40	40		
J63	2	50	50		

# **Useful Data**

kPa = Kilopascal	<b>psi</b> = Pound per square inch	mm = Millimetres	g = Gram
Mpa = Megapascal	ft3/h = Cubed feet per hour	<b>cm</b> = Centimetres	kg = Kilogram
<b>L/min</b> = Litres per minute	<b>Btu</b> = British thermal unit	in = inch	oz = Ounce
<b>bar</b> = A unit of pressure	cal = Calorie	$\mathbf{ft} = \mathbf{foot}$	<b>lb</b> = Pound

1 L/min	=	0.0353 t	ft <sup>3</sup> /min	=	2.118ft <sup>3</sup> /h
1 Btu	=	251.98c	al		
1 cal	=	3.968 x	10-3 Btu	l	
1 in	=	2.539cn	1		
1 ft	=	30.4cm			
1 oz	=	28.35g			
1 lb	=	0.4536k	g		
1 ft <sup>3</sup> /h	= 0.0283159	$m^3/h =$	28.3159	L/h	= 0.472L/mi
bar		kPa			psi
1 bar	=	100 kPa	. :	=	14.50 psi
0.01 bar	=	1 kPa	:	=	0.1450 psi
0.06896 b	ar =	6.896 k	Pa =	=	1 psi

Conversion					
From		То		Multiply By	
m <sup>3</sup> /h	»	L/min	X	16.7	
L/min	<b>»</b>	m <sup>3</sup> /h	X	0.06	
ft <sup>3</sup> /h	»	m <sup>3</sup> /h	X	0.028	
m <sup>3</sup> /h	<b>»</b>	ft <sup>3</sup> /h	X	35.31	
bar	»	kPa	X	100	
bar	»	Mpa	X	0.1	
bar	»	psi	X	14.5	
kPa	<b>»</b>	bar	X	0.01	
Mpa	»	bar	Х	10	
psi	»	bar	X	0.069	

NOTE: All tables are for use as a guide only. Specifications may change without notice. Gas abbreviations are not exact technical terms.



### Pressure Charts (continued)

### **Professional Equipment - Oxy Acetylene**

Oxy Acetylene Professional Equipment					
Part No.	No. Size C Th		Oxy Pressure kPa	Fuel Pressure kPa	
6290	000	0-5	100-200	1.5	
6290	00AC	5-10	100-200	1.5	
6290	0AC	10-15	150-250	1.5	
6290	1AC	15-25	200-350	1.5	
6290	2AC	25-30	300-450	1.5	
6290	3AC	50-100	300-450	1.5	
6290	4AC	100-175	300-550	1.5	
6290	5AC	175-200	300-550	1.5	
6290	6AC	250-300	300-550	1.5	

ONY Acceptance Well & Draze Handie (0+3013)					
Part No.	Size	Oxy Pressure kPa	Acetylene Pressure kPa	Mixer	
0090	1, 3, 5, 6, 8	50	50	E43, E43HC	
23A90	1, 3, 5, 6, 8	50	50	E43, E43HC	

Oxy Acetylene Gouge Torch (492,1492HC,Z142037,062043)					
Part No.	Size	Cutting Thickness mm	Oxy Pressure kPa	Fuel Pressure kPa	
6290	1G	3-6	250	1.5	
6290	2G	5-10	350	1.5	
6290	3G	6-13	350	1.5	

Part No.	Size	Oxy Pressure kPa	Acetylene Pressure kPa	Mixer
J63	1	40	40	E43, E43HC
J63	2	50	50	E43, E43HC
J63	3	60	60	E243
J63	4	140	120	E243
J143	5	140	120	E243

**NOTE:** For safety use large Bore 8mm or above with sizes 3, 4 and 5 tips. Size 3, 4 and 5 tips exceeds the capacity of one standard size G Acetylene cylinder (1/7 rule).

### **Oxy Propane Equipment**

<b>Oxy Propane Torch</b> (For 429F, 1492F, 142033, 062043)					
Part No.	Size	Cutting Thickness mm	Oxy Pressure kPa	Fuel Pressure kPa	
6290	000NX	0-5	100-200	1.5	
6290	00NX	5-10	150-200	1.5	
6290	0NX	10-15	200-300	1.5	
6290	1NX	15-25	250-350	1.5	
6290	2NX	25-50	300-400	1.5	
6290	3NX	50-75	300-450	1.5	
6290	4NX	75-150	350-550	1.5	
6290	5NX	150-200	350-550	1.5	
6290	6NX	200-300	350-550	1.5	

Part No.	Size	Cutting Thickness mm	Oxy Pressure kPa	Fuel Pressure kPa		
6290	1GG	3-6	250	1.5		
6290	2GG	5-10	350	1.5		
6290	3GG	6-13	350	1.5		
6290	4GG	10-19	400	1.5		

**Oxy Propane Gouge Torch** (For 429F, 1492F, 142033, 062043)

**NOTE:** The low fuel gas pressure is applicable when using Harris universal pressure mixing systems.

Oxy F	Propane (	Specialty T	<b>ip</b> (For 429, 1492F, 1	42033, 062043)

Part No.	Size	Cutting Thickness mm	Oxy Pressure kPa	Fuel Pressure kPa
6290	NFW	Rivet Washing	300	1.5
6290	2NFFR	Rivet Cutting	350	1.5

Oxy Propane Braze Tip							
Part No.	Size	Oxy Pressure kPa	Propane Pressure kPa	Remarks			
0090	2N, 4N, 6N, 8N	100-210	1.5	Universal Pressure			
1390	3N, 5N, 6N, 8N	100-210	1.5	Mixing			

Part No.	Size	Oxy Pressure kPa	Propane Pressure kPa	Max. MJ based on Flow
1390	Н	350	50	98 MJ/HR
2290	1H	100-200	50	186 MJ/HR
2290	2H	200-300	50	298 MJ/HR
2290	3H	200-500	100	532 MJ/HR
2290	4H	300-600	100	663 MJ/HR
2290	5H	400-800	100-200	934 MJ/HR

NOTE: All tables are for use as a guide only. Specifications may change without notice. Gas abbreviations are not exact technical terms.



NOTE: All tables are for use as a guide only. Specifications may change without notice.

### **Flow Rates**

### **Cylinder Regulators**

### **Cylinder Regulator Flow Rates**

	Q max <sup>∞</sup> m <sup>3</sup> /h						P3§	Flow	low m <sup>3</sup> /h	
Model	Ac	О	Air	Ni	Ar	Н	He	P3 bar	P	CO <sub>2</sub>
801-1.5, 821-1.5, 814-1.5, 818-1.4	14	-	-	-	_	-	-	4	15	-
801-4, 821-4, 814-4, 818-4	-	21	22	23	19	-	-	9	15	91
801-10, 821-10, 814-10, 818-10	-	54	57	58	48	-	-	21	-	91
825-1.5, 829-1.5	14	-	-	-	-	-	-	4	15	-
825-4, 829-4	-	21	22	22	19	84	59	9	15	91
825-10, 829-10	-	54	57	58	48	216	152	21	-	91
825-15	-	72	76	77	64	289	204	31	-	91
825-25	-	103	109	111	92	413	292	51	-	91
825-40	-	98	103	105	88	392	278	81	-	56
829-8	-	45	47	8	40	-	-	17	-	91
896-1.5	10	-	-	-	-	-	-	4	11	-
896-4	-	25	26	27	22	99	70	9	10	41
896-10	-	48	50	51	43	191	135	21	-	65
896-15	-	58	61	62	52	232	164	31	-	59
896-25	-	49	52	53	44	198	140	51	-	44

### **Pipeline Regulators**

Pipeline Regulator Flow Rates						
Model	Gas	Max. Delivery Pressure bar, kPa	Q max <sup>∞</sup> m <sup>3</sup> /h	P3 <sup>§</sup> Line Pressure bar, kPa		
847-1, 5	Ac	1.5bar, 150kPa	16	1.5bar, 150kPa		
847-4	P	4bar, 400kPa	32	5bar, 500kPa		
847-4	О	4bar, 400kPa	97	15bar, 1500kPa		
847-10	О	10bar, 1000kPa	107	15bar, 1500kPa		
847-15	0	15bar, 1500kPa	112	15bar, 1500kPa		

∞ Q max -	Measured at the regulator outlet with nearly empty
	cylinder pressure (P3). This is the minimum flow
	guaranteed during use from a full to empty cylin-
	der. Higher flows are obtainable with higher inlet
	pressure.

§ P3 - Inlet (line) pressure.

Flow - Propane and CO<sub>2</sub> are liquified gases so the flow is measured at inlet pressures 7bar (pure Propane) and 55bar (CO<sub>2</sub>). For CO<sub>2</sub> regulators a heater is needed for continuous flow over 1m<sup>3</sup>/h.

NOTE: All Flows shown are measured according to the most recent international standard (En-585, ISO2503). Hoses, valves and other equipment may reduce the actual flow and pressure at the point of use. For more information and details of regulators, refer to tables on previous pages.

$\mathbf{Ac} = Acetylene$	Ar = Argon	$\mathbf{F} = Fuel$	$\mathbf{H} = Hydrogen$	Ni = Nitrogen	$\mathbf{O} = Oxygen$
Air = Compressed Air	CO2 = Carbon Dioxide	He = Helium	NG = Natural Gas	NO2 = Nitrous Oxide	P = Propane

# **Comparison Charts**

Metal Thickness	Series 41 / 44 Tips	Harris Tips
1-6mm	6	00
6-12mm	8	0
12-20mm	12	1
25-75mm	15	2
100-125mm	20	3
150-200mm	24	4
175-250mm	-	5
225-300mm	32	6

Welding Tips					
Metal Thickness	Series 551 Tips	Harris Tips 5090, 23A90 & 1390			
0.2-0.5mm	-	0			
0.5-1mm	8	1			
1-2mm	10	3			
2-4mm	12	5			
4-6mm	15	6			
6-9mm	20	8			
9-14mm	-	9			
14-20mm	26	10			



# CONTACTS

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The Harris team is committed to providing you with the very best service and support. We believe in putting "you" first in everything we do.

Our plans are to support the Harris quality with ethical, professional management that "listens" to its customers. We can only learn and improve with your input, please feel free to contribute.

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