INTERNATIONAL

HARRIS

A LINCOLN ELECTRIC COMPANY

Equipment Catalogue

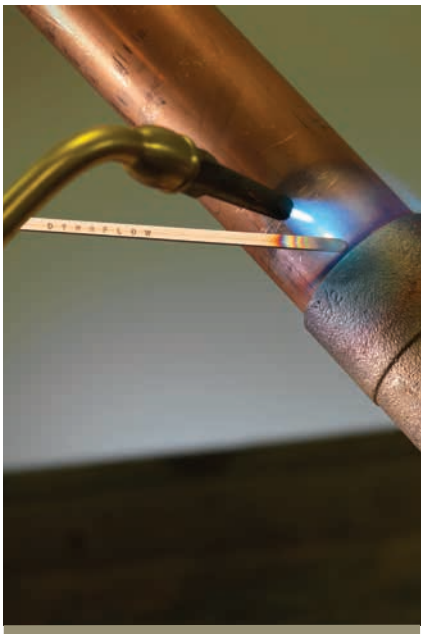
HARRIS

A LINCOLN ELECTRIC COMPANY

GAS APPARATUS & FLOW CONTROL

CUTTING

HEATING



BRAZING

SOLDERING

WELDING

CONTENTS

The Harris Products Group 4

PRESSURE REGULATORS

Model 601 9
Model 801 9
Model 821 10
Model 841 10
Model 842 11
Model 814 11
Model 818 12
Model 829 12
Model 25GX 13
Model S45 14
Model 94 14
Model 891 15
Model 896 15
Model 899 16

SERIES 900 - 300 BAR REGULATORS

Model 901 16
Model 941 17
Model 942 17
Model 914 18
Model 918 18
Model 925 19
Model 996 19

FLOWMETER REGULATORS

Model 601D-F 21
Model 351 21
Model 801D-F 22
Model 821D-F 22
Model 825D-F 23
Model 411 23
Model 811DB-F 24

SERIES 900 - 300 BAR FLOWMETER REGULATORS

Model 901D-F 24
Model 925D-F 25
Model 911DB-F 25

FLOWGAUGE REGULATORS

Model 601-L 26
Model 842-L 26
Model 801D-L 27
Model 814D-L 27
Model 818D-L 28
Model 25GX-L 28
Model 811DB-L 29

SERIES 900 - 300 BAR FLOWGAUGE REGULATORS

Model 901D-L 30
Model 942-L 30
Model 914D-L 31
Model 918D-L 31
Model 925D-L 32
Model 911DB-L 32

HIGH PERFORMANCE REGULATORS

Model 825DS & 825ARS 33
Model 896DS 33

SERIES 900 - 300 BAR HIGH PERFORMANCE REGULATORS

Model 925DS & 925ARS 34
Model H25 34
Model 987 35
Model 8700 35
Model HP750 36

PIPELINE REGULATORS

Model 353 37
Model H47 37
Model 847 38
Model 845 38
Model 846 39

NITROGEN PURGING REGULATOR

Model 601 HVAC 39

SHIELDING GAS SAVERS

Models 603 and 803P 40
Model 651 41
Model 653 41

BEVERAGE REGULATORS

Models 802/822D 42

BALLOON FILLING REGULATOR

Model HELIFILLER 42

HIGH PURITY GAS REGULATORS

Model 904 43

HAND CUTTING TORCHES

Hand Cutting Torches overview 46
Model 62 48
Model 242 49
Model 42 49
Model 980 50
Model 980-NM 50
Model 242-NM 51
Model H28 51
Model 28 51
Model 6000 52
Model 136-2 52
Accessories for Model 6000 & Model 136-2 53

CUTTING ATTACHMENTS

Model 73 56
Model 49 56
Model 273 57
Model 273-NM 57
Model 72 57
Model 36 57

TORCH HANDLES

Model 43 58
Model 263 60
Model 543 62
Model 85 64
Model 50 65
Model 19 66
Model 15 67
Model 105 68

SPECIAL APPLICATION TORCHES

Model 189-2 69
Flame Straightening Multi-Tip Torches 70
Model 187 72

FLAME EQUIPMENT

MIXERS

Mixers "E" Type 73
Mixers "F" Type 74

ACETYLENE WELDING, BRAZING & HEATING EQUIPMENT

Acetylene Welding and Brazing Tubes/Tips/ Assemblies 75
Acetylene Heating Tips and Assemblies 76
Acetylene Flame Cleaning Tips 76

ALTERNATIVE FUEL WELDING, BRAZING & HEATING EQUIPMENT

Alternative Fuel Brazing and Heating Tips 77
Alternative Fuel Heating and Cleaning Heads ... 78

CUTTING TIPS

Acetylene Cutting Tips 79
Alternative Fuel Cutting Tips 81

TIP MIX CUTTING TIPS

Acetylene Cutting Tips 83
Alternative Fuels Cutting Tips 83

SPECIALTY TIPS 84

COMPATIBLE STYLES

VICTOR®* Compatible Equipment 85
AIRCO®* Compatible Equipment 89
OXWELD®* Compatible Equipment 89
SMITH®* Compatible Equipment 90
CIGWELD®* Compatible Equipment 90
MESSER®* Compatible Equipment 91
SAF®* Compatible Equipment 91

MACHINE CUTTING

Model 133/198/98 Machine Torches 92
Machine Cutting Tips 94
Machine Cutting Accessories 96

PORTABLE CUTTING SYSTEMS

Harris Super 98
Harris Plus 99
Harris HA 100

OUTFITS & ACCESSORIES

Inferno® 101
Welding and Cutting Kits 102
Flashback Arrestors 107
Check Valves 108
Quick Action Couplings 108
Flowmeters Models 861 & 866 109
Gauges 110
Outlet Nipples for regulators 112
Tip Nuts 113
Roller Guides & Circle Cutting Attachments 113
Converters 113
Needle Valves 113
"Y" Pieces 114
Stems & Nuts 114
Brazing Goggles 114
Wrenches 114
Lighter with flint 114
Tip Cleaners 115
Hose Connectors 115
Hose Assemblies 116
Hoses 116
Gauge Guards 117
Point of Purchase Displays 118

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THE HARRIS PRODUCTS GROUP

The Harris Products Group was formed by combining two strong names in the welding business - Harris Calorific and J.W. Harris. The Harris Products Group is a world leader in metalworking products used in the brazing, soldering, welding, cutting and gas distribution industries. The combined company offers excellence in the manufacture of:

- Gas welding and cutting equipment
- Industrial and specialty gas regulation equipment
- Gas distribution systems
- Brazing and soldering alloys
- Welding alloys
- Pre-formed bends, rings and return bends

The Harris Products Group is a wholly-owned subsidiary of The Lincoln Electric Company. Lincoln Electric has 63 manufacturing locations, including operations and joint ventures in 23 countries, and a worldwide network of distributors and sales offices reaching over 160 countries.

THE HARRIS PRODUCTS GROUP HISTORY

1889
John Harris, founder, invents the first flame-cutting torch.

1904
Harris exhibits his invention at the World's Fair in St. Louis, Missouri (USA).

1926
U.S. Welding Co. of Minnesota purchases Harris Calorific and becomes part of Emerson Electric Co. in 1973.

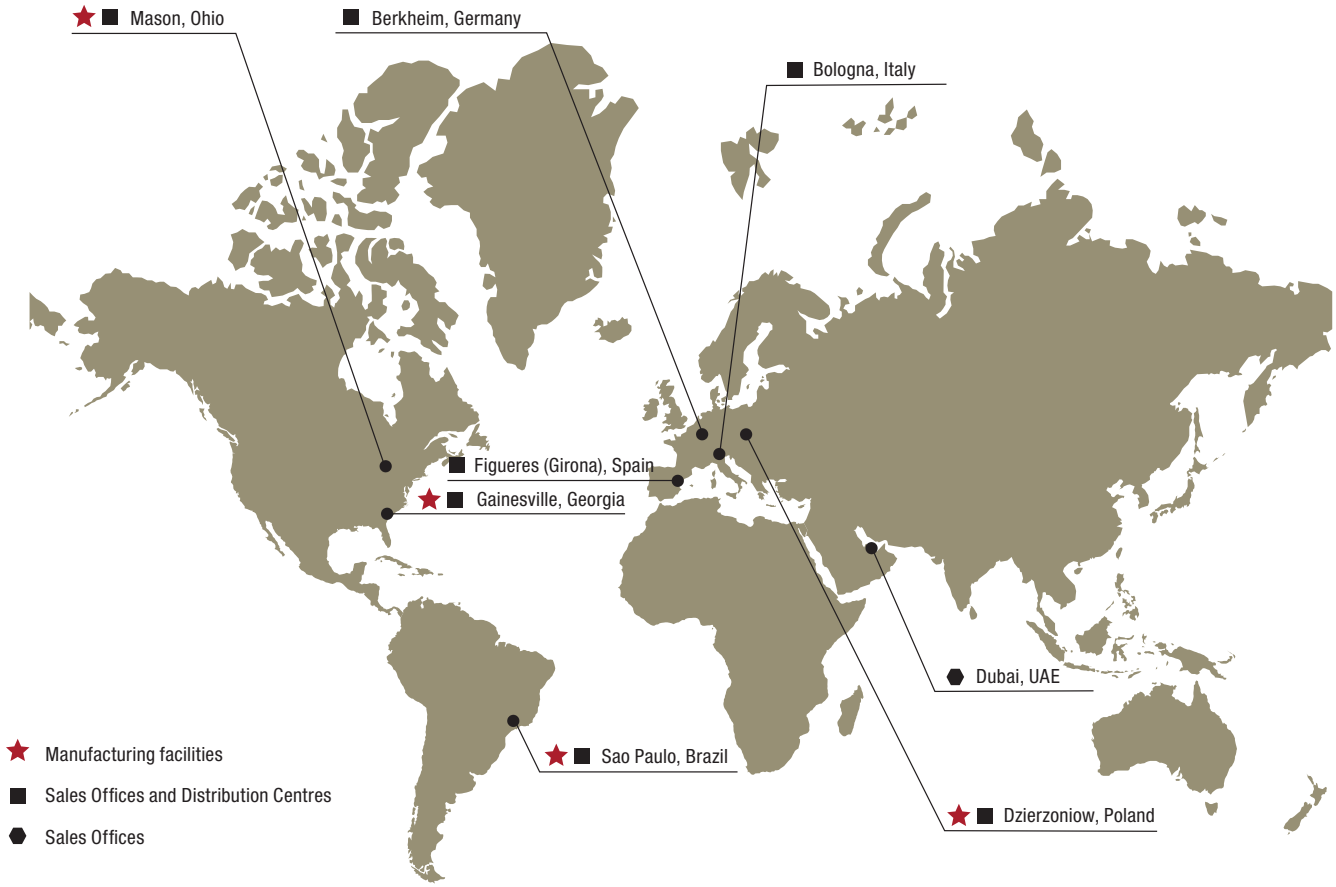
1890 1900 1910 1920 1930 1940 1950

1905
John Harris establishes The Harris Calorific Company. Harris continues to refine its gas torches and starts manufacturing related accessories, including gas pressure regulators.

1914
Joseph W. Harris founds the J.W. Harris Company, specializing in the distribution and repair of specialized parts for automotive and farm vehicles. The company later expands into welding alloys and accessories.

MANUFACTURING FACILITIES

Based in Mason, Ohio, The Harris Products Group has four manufacturing locations in three countries and a worldwide network of distributors and sales offices covering more than 90 countries.



1960-1980
Both Harris companies expand around the world.

1990
Lincoln Electric purchases Harris Calorific from Emerson Electric.

1998
Harris Calorific founds the Specialty Gas Division.

2005
Lincoln Electric purchases the privately-held J.W. Harris Company.

2006
Harris Calorific and J.W. Harris combine, creating The Harris Products Group.

2008
The Harris Products Group purchases Brastak in Brazil.

2012
Harris expands their equipment offerings to include new innovative products specifically designed for production brazing including new Perfect Flame™ technology. Harris introduces the 7-Year Warranty Plan for the industrial regulators.

2017
Harris opens the new clean room in Poland built in accordance with ISO class 7 standards. International launch of the new Specialty Gases equipment range.

1960 1970 1980 1990 2000 2010

WHY
FOR OVER 100 YEARS PROFESSIONAL TRADESMEN TURN TO HARRIS

EXPERIENCE

We know your industry. Our customers worldwide will attest that Harris products improve their processes, drive down costs and increase profits. We understand your business and the challenges you face every day.

COMMITMENT

The Harris Products Group is committed to a continuous pursuit of improvement in manufacturing excellence through the implementation of "lean manufacturing" concepts. Incorporated in our lean manufacturing initiatives are the principal concepts of continuous flow, pull demand, elimination of waste and pursuit of a system that is responsive to customers but lean in inventory, labour and manufacturing costs. Tools we currently use in this effort include Six Sigma, statistical process control, preventive maintenance, Kanban and Kaizen.

In addition to our lean manufacturing efforts we have also implemented automation systems, robotic systems and an incentive pay system. We use a rigorous financial planning process in conjunction with disciplined project management for the implementation of planned cost reductions for material, labour and overhead, as well as new product development.

QUALITY

Each of Harris manufacturing plant is certified to ISO 9001. Quality is an integral part in all processes of the company from development, planning, design and manufacturing to sales and service activities.
Harris' quality system is regularly audited on both an internal and external basis to ensure that consistent business processes are applied.
All Harris equipment is 100% tested, 100% of the time for both workmanship and performance.

EXPERTISE

Good companies become great companies when their employees are passionate about the company and the products they produce. Harris makes it their business to know your company so that we can provide the right products for your processes.
Our sales team is comprised of product application engineers that can complete on-site evaluations and surveys. They work closely with you to provide a total solution. This also includes support for our customers after the sale through our safety and factory training.

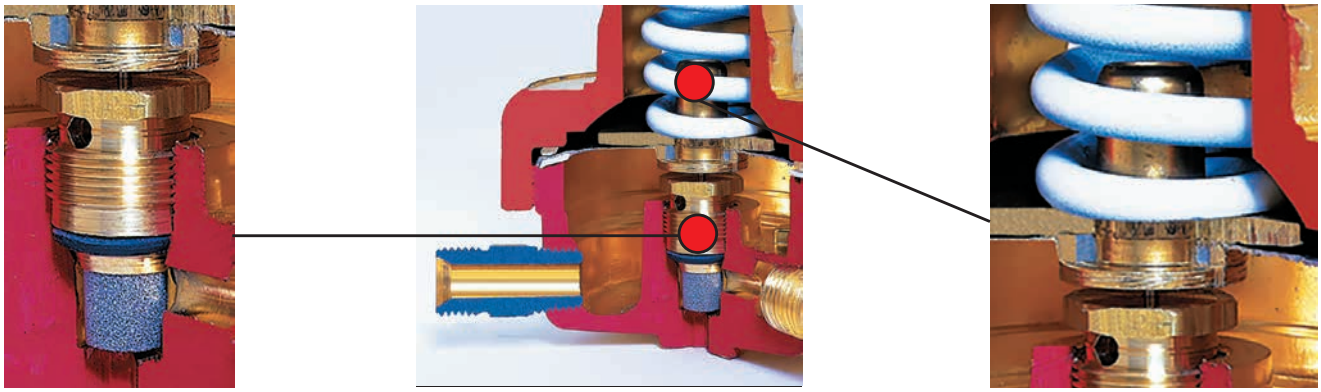
CERTIFICATIONS

The Harris Products Group is committed to environmental stewardship and resource conservation throughout the world.
All Harris facilities are certified to ISO 14001.
Each of our manufacturing plants is certified to ISO 9001.
Quality is an integral part in all processes of the company from development, planning, design and manufacturing to sales and service activities.
Harris products are designed and manufactured according to the most recent international standards:
- Regulators: ISO 2503 (cylinder pressure and flow control regulators), ISO 5171 (pressure gauges);
- Torches: ISO 5172.

GENERAL FEATURES:

Harris regulators are designed and manufactured according to the most recent international standards: ISO 2503 (cylinder pressure and flow control regulators) and ISO 5171 (pressure and flow gauges).

- Made from the highest quality industrial grade components
- Designed to withstand the harshest environments
- 100% tested prior to shipment
- High pressure capsule seat with PTFE (Teflon®*) sealing surface
- "D" version with tamperproof self-reseating internal safety relief valve (IRV)
- 7 year warranty for all Harris industrial regulators
- All regulators supplied with inlet and outlet to suit country



One piece encapsulated seat with internal filter

Tamper proof, self reseating internal safety relief valve (IRV)

Harris offers a wide range of single-stage and two-stage regulators to meet your application and budget.

All regulators are designed to reduce the inlet pressure to a desired working pressure. The regulator can reduce the pressure in either one step or two steps. A single-stage regulator reduces the pressure in one step and a two-stage regulator reduces the pressure in two steps.

When is a two-stage regulator required?

- Applications where the delivery pressure rise from cylinder pressure decay cannot be tolerated.
- Situations where proper pressure is critical and the cylinders in use are in a remote or difficult to monitor location.
- Typically are not required when using gases from low pressure (<30 bar) sources.

Why to use single-stage regulators?

- Smaller size
- Lighter weight
- Lower cost
- Higher gas flows

* Teflon® is a registered trademark of The Chemours Company

601 MODEL

COMPACT SINGLE-STAGE CYLINDER REGULATOR

MODEL SHOWN: **601-1.5-AC**

APPLICATIONS:

- Light duty cutting, welding and brazing

FEATURES:

- Compact and economical
- Maximum inlet pressure of 230 bar
- Forged brass body and bonnet
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Rear inlet connection (side entry optional)
- 50 mm safety gauges
- 7 year warranty

MODEL NO.	VERSION	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
601-1.5-AC	-	Acetylene	25	0 - 1,5	7	0 - 2,5	0 - 40
601-4-LP	-	Propane	25	0 - 4	20	0 - 6	0 - 40
601P-4-LP	one gauge	Propane	25	0 - 4	20	0 - 6	
601D-10-OX	-	Oxygen	230	0 - 10	42	0 - 16	0 - 315
601D-10**	-	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 10	42	0 - 16	0 - 315

801 MODEL

SINGLE-STAGE CYLINDER REGULATOR

MODEL SHOWN: **801DB-10-OX**

APPLICATIONS:

- Medium duty cutting, heating and welding

FEATURES:

- Maximum inlet pressure of 230 bar
- Enough flow to cut up to 300 mm steel
- Smooth adjustment, with high precision
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Side inlet connection
- Standard version with chrome-plated bonnet and gold painted gauge case
- "B" version fitted with black bonnet and black gauge case
- 7 year warranty

MODEL NO.	VERSION	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
801-1.5-AC **801B-1.5-AC**	-	Acetylene	25	0 - 1,5	30	0 - 2,5	0 - 40
801-4-LP **801B-4-LP**	-	Propane	25	0 - 4	16,5	0 - 6	0 - 40
801P-4-LP **801BP-4-LP**	one gauge	Propane	25	0 - 4	16,5	0 - 6	
801D-4-OX **801DB-4-OX**	-	Oxygen	230	0 - 4	100	0 - 6	0 - 315
801D-4** **801DB-4****	-	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 4	100	0 - 6	0 - 315
801D-10-OX **801DB-10-OX**	-	Oxygen	230	0 - 10	155	0 - 16	0 - 315
801D-10** **801DB-10****	-	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 10	155	0 - 16	0 - 315

* Teflon® is a registered trademark of The Chemours Company
**The regulator is available for all the listed gases. When ordering always specify gas.

821 MODEL

SINGLE-STAGE REGULATOR WITH REAR ENTRY

MODEL SHOWN:
821D-10-OX

APPLICATIONS:

- Medium duty cutting, heating and welding

FEATURES:

- Maximum inlet pressure of 230 bar
- Enough flow to cut up to 300 mm steel
- Smooth adjustment with high precision
- Forged brass body for maximum strength
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Rear inlet connection ideal for better visibility on small cylinder
- "B" version fitted with black bonnet and black gauge case
- 7 year warranty

MODEL NO.	VERSION	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
821-1.5-AC **821B-1.5-AC**	-	Acetylene	25	0 - 1,5	30	0 - 2,5	0 - 40
821-4-LP **821B-4-LP**	-	Propane	25	0 - 4	16,5	0 - 6	0 - 40
821P-4-LP **821BP-4-LP**	one gauge	Propane	25	0 - 4	16,5	0 - 6	
821D-10-OX **821DB-10-OX**	-	Oxygen	230	0 - 10	155	0 - 16	0 - 315
821D-10** **821DB-10****	-	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 10	155	0 - 16	0 - 315

841 MODEL

SINGLE-STAGE CYLINDER REGULATOR

MODEL SHOWN:
841D-10-OX

APPLICATIONS:

- Medium duty cutting, heating and welding

FEATURES:

- Maximum inlet pressure of 230 bar
- Enough flow to cut up to 300 mm steel
- Downward knob improves operator safety
- Outlet valve
- Smooth adjustment with high precision
- Forged brass body for maximum strength
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Chrome-plated bonnet and gold painted gauge case
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
841-1.5-AC	Acetylene	25	0 - 1,5	30	0 - 2,5	0 - 40
841-4-LP	Propane	25	0 - 4	16,5	0 - 6	0 - 40
841D-10-OX	Oxygen	230	0 - 10	155	0 - 16	0 - 315

* Teflon® is a registered trademark of The Chemours Company
**The regulator is available for all the listed gases. When ordering always specify gas.

842 MODEL

SINGLE-STAGE CYLINDER REGULATOR

MODEL SHOWN:
842D-10-OX

APPLICATIONS:

- Medium duty cutting, heating and welding

FEATURES:

- Maximum inlet pressure of 230 bar
- Enough flow to cut up to 300 mm steel
- Downward knob improves operator safety
- Smooth adjustment with high precision
- Forged brass body for maximum strength
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Black bonnet and black gauge case
- Without regulation outlet valve
- "W" version fitted with outlet valve
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
842-1.5-AC	Acetylene	25	0 - 1,5	30	0 - 2,5	0 - 40
842-4-LP	Propane	25	0 - 4	16,5	0 - 6	0 - 40
842D-10-OX	Oxygen	230	0 - 10	155	0 - 16	0 - 315
842DW-10-OX	Oxygen	230	0 - 10	155	0 - 16	0 - 315
842D-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 10	155	0 - 16	0 - 315
842DW-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 10	155	0 - 16	0 - 315

814 MODEL

SINGLE-STAGE REGULATOR WITH SINGLE GAUGE

MODEL SHOWN:
814D-10-OX

APPLICATIONS:

- Medium duty cutting, heating and welding

FEATURES:

- Maximum inlet pressure of 230 bar
- Enough flow to cut up to 300 mm steel
- Smooth adjustment with high precision
- Forged brass body for maximum strength
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Side inlet connection
- Delivery pressure set by turning the knob on calibrated bonnet
- Cylinder pressure shown on HP pressure gauge
- "B" version fitted with black bonnet and black gauge case
- 7 year warranty

Bonnet calibration

MODEL NO.	VERSION	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	SUPPLY PRESSURE GAUGE (bar)
814-1.5-AC **814B-1.5-AC**	one gauge	Acetylene	25	0 - 1,5	30	0 - 40
814-4-LP **814B-4-LP**	one gauge	Propane	25	0 - 4	16,5	0 - 40
814D-10-OX **814DB-10-OX**	one gauge	Oxygen	230	0 - 10	155	0 - 315
814D-10** **814DB-10****	one gauge	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 10	155	0 - 315

* Teflon® is a registered trademark of The Chemours Company
**The regulator is available for all the listed gases. When ordering always specify gas.

818 MODEL

SINGLE-STAGE GAUGELESS REGULATOR

MODEL SHOWN: **818D-10-OX**

APPLICATIONS:

- Medium duty cutting, heating and welding
- Designed for all industrial applications in the toughest working conditions

FEATURES:

- Maximum inlet pressure of 230 bar
- Enough flow to cut up 300 mm steel
- Smooth adjustment with high precision
- Forged brass body for maximum strength
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Side inlet connection
- Cylinder pressure shown on indicator with polycarbonate cover
- Delivery pressure set by turning the knob on calibrated bonnet
- "B" version fitted with black bonnet
- 7 year warranty

Indicator

Bonnet calibration

MODEL NO.	VERSION	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)
818-1.5-AC **818B-1.5-AC**	gaugeless	Acetylene	25	0 - 1,5	30
818-4-LP **818B-4-LP**	gaugeless	Propane	25	0 - 4	16,5
818D-10-OX **818DB-10-OX**	gaugeless	Oxygen	230	0 - 10	155
818D-10** **818DB-10****	gaugeless	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 10	155

829 MODEL

SINGLE-STAGE GAUGELESS REGULATOR

MODEL SHOWN: **829-1.5-AC**

APPLICATIONS:

- Heavy duty cutting, designed for the really rough industrial applications in the toughest working conditions

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure of 230 bar
- Enough flow to cut up to 400 mm steel
- Large Ø 70 mm diaphragm stabilizes working pressure
- Durable chrome-plated bonnet
- Cylinder pressure shown on indicator with polycarbonate cover
- Delivery pressure set by turning the knob on calibrated bonnet
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

Indicator

Bonnet calibration

MODEL NO.	VERSION	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)
829-1.5-AC	gaugeless	Acetylene	25	0 - 1,5	35
829-3,5-LP	gaugeless	Propane	25	0 - 3,5	25
829-8-OX	gaugeless	Oxygen	230	0 - 8	160

* Teflon® is a registered trademark of The Chemours Company
**The regulator is available for all the listed gases. When ordering always specify gas.

ON THE HUNT FOR AN ALL-AROUND REGULATOR? CHECK OUT THE HARRIS MODEL 25GX.

The Harris Model 25GX is a legendary American classic. It is a medium to heavy duty with a time-proven design that is built for those who want an economical, high-performance regulator. It features larger, easier to read gauges and an ergonomic adjusting knob that also shields the adjusting mechanism from contaminants.

The 25GX is designed to be the next generation workhorse of the Harris industrial regulator line.

MODEL 25GX

ORIGIN:
Made in the European Union in an ISO 9001 and 14001 certified facility

QUALITY:
100% tested, 100% of the time

SAFETY:
Meets or exceeds all relevant industry standards - ISO 2503 (cylinder pressure and flow control regulators) and ISO 5171 (pressure gauges)

CAPACITY:
Medium to heavy duty

RELIABILITY:
One-piece encapsulated seat prevents damaging particles from entering the high pressure valve seat

DESIGN:
Ergonomic modern design allows for precise pressure adjustments. Knob offers additional protection by shrouding the bonnet housing. Outlet angle designed for LP cylinder clearance.

DELIVERY PRESSURES:
0 – 1,5; 0 – 4; 0 – 10; 0 – 15 bar

PRESSURE REGULATION:
Excellent pressure regulation from full to empty cylinder

WARRANTY:
7 year

25GX MODEL

7 YEAR LIMITED WARRANTY

SINGLE-STAGE CYLINDER REGULATOR

MODEL SHOWN:
25GX-1.5-AC

APPLICATIONS:

- Heavy duty, large, strong regulator for the professionals

FEATURES:

- Maximum inlet pressure of 230 bar
- Enough flow to cut up to 400 mm steel
- Large Ø 70 mm diaphragm stabilizes working pressure
- Forged brass body for maximum strength
- Durable chrome-plated bonnet
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Side entry
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
25GX-1.5-AC	Acetylene	25	0 - 1,5	52	0 - 2,5	0 - 40
25GX-4-LP	Propane	25	0 - 4	25	0 - 6	0 - 40
25GX-D4-OX	Oxygen	230	0 - 4	112	0 - 6	0 - 315
25GX-D4**	Argon, CO_2, Nitrogen, Air, Methane	230	0 - 4	112	0 - 6	0 - 315
25GX-AD-4**	Helium, Hydrogen	230	0 - 4	112	0 - 6	0 - 315
25GX-D10-OX	Oxygen	230	0 - 10	170	0 - 16	0 - 315
25GX-D10**	Argon, CO_2, Nitrogen, Air, Methane	230	0 - 10	170	0 - 16	0 - 315
25GX-AD-10**	Helium, Hydrogen	230	0 - 10	170	0 - 16	0 - 315
25GX-D15-OX	Oxygen	230	0 - 15	275	0 - 25	0 - 315
25GX-D15**	Argon, CO_2, Nitrogen, Air, Methane	230	0 - 15	275	0 - 25	0 - 315
25GX-AD-15**	Helium, Hydrogen	230	0 - 15	275	0 - 25	0 - 315

* Teflon® is a registered trademark of The Chemours Company
**The regulator is available for all the listed gases. When ordering always specify gas.

S45 MODEL

SINGLE-STAGE WITH STAINLESS STEEL DIAPHRAGM

MODEL SHOWN:
S45S-1.5-AC

APPLICATIONS:

- Heavy duty, large, strong regulator for the professionals

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure of 230 bar
- Enough flow to cut up to 400 mm steel
- Large Ø 70 mm diaphragm stabilizes working pressure
- Side entry (vertical optional)
- Stainless steel diaphragm
- Brass T-screw handle
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
S45S-1.5-AC	Acetylene	25	0 - 1,5	52	0 - 2,5	0 - 40
S45S-4-LP	Propane	25	0 - 4	25	0 - 6	0 - 40
S45DS-4-0X	Oxygen	230	0 - 4	112	0 - 6	0 - 315
S45DS-4**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 4	112	0 - 6	0 - 315
S45DS-10-0X	Oxygen	230	0 - 10	170	0 - 16	0 - 315
S45DS-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 10	170	0 - 16	0 - 315

94 MODEL

SINGLE-STAGE REGULATOR WITH LARGE DIAPHRAGM

MODEL SHOWN:
94-1.5-AC

APPLICATIONS:

- Ideal for heavy duty applications in industrial and laboratory environment

FEATURES:

- Solid forged brass body and bonnet
- Maximum inlet pressure of 230 bar
- Large Ø 90 mm diaphragm accurately controls delivery pressure
- Sintered metal inlet filter
- Tough pressure gauge with easy-to-read calibration
- Brass T-screw handle
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
94-1.5-AC	Acetylene	25	0 - 1,4	35	0 - 2,5	0 - 40
94-10-0X	Oxygen	230	0 - 10	155	0 - 16	0 - 315

* Teflon® is a registered trademark of The Chemours Company
**The regulator is available for all the listed gases. When ordering always specify gas.

891 MODEL

TWO-STAGE REGULATOR

MODEL SHOWN:
891DB-10-OX

APPLICATIONS:

- For demanding applications where constant outlet pressure over a wide range of inlet pressures is required. Ideal for quality cutting applications, laboratory systems or precision machine cutting.

FEATURES:

- Maximum inlet pressure of 230 bar
- Brass barstock body for minimalizing contamination or moisture absorption and easy purging
- First stage reduces full cylinder pressure by approximately 90%
- Enough flow to cut up to 300 mm steel
- Smooth adjustment with high precision
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
891B-1.5-AC	Acetylene	25	0 - 1,5	12	0 - 2,5	0 - 40
891B-4-LP	Propane	25	0 - 4	9	0 - 6	0 - 40
891DB-4-OX	Oxygen	230	0 - 4	30	0 - 6	0 - 315
891DB-4**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 4	30	0 - 6	0 - 315
891DB-10-OX	Oxygen	230	0 - 10	42	0 - 16	0 - 315
891DB-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 10	42	0 - 16	0 - 315

896 MODEL

TWO-STAGE REGULATOR FOR INCREASED DELIVERY PRESSURE CONTROL

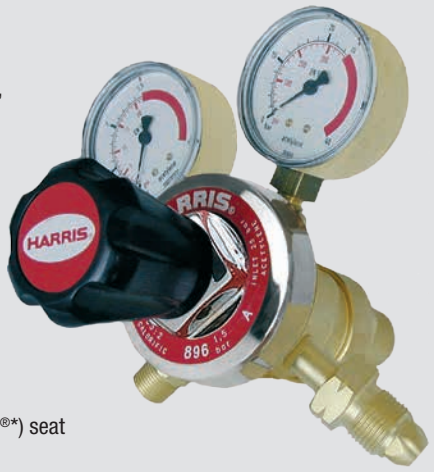
MODEL SHOWN:
896-1.5-AC

APPLICATIONS:

- For demanding applications where constant outlet pressure over a wide range of inlet pressures is required. Ideal for quality cutting applications, laboratory systems or precision machine cutting. Also ideal for heavy machine cutting, hand cutting and gouging.

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure of 230 bar
- First stage reduces full cylinder pressure by approximately 90%
- Large Ø 70 mm second stage diaphragm accurately controls delivery pressure
- Durable chrome-plated bonnet
- Side entry (vertical optional)
- "B" version fitted with black bonnet and black gauge case
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty



MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
896-1.5-AC	Acetylene	25	0 - 1,5	25	0 - 2,5	0 - 40
896-4-LP	Propane	25	0 - 4	19	0 - 6	0 - 40
896D-4-OX	Oxygen	230	0 - 4	95	0 - 6	0 - 315
896D-4**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 4	95	0 - 6	0 - 315
896D-10-OX	Oxygen	230	0 - 10	100	0 - 16	0 - 315
896D-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 10	100	0 - 16	0 - 315
896D-15-OX	Oxygen	230	0 - 15	120	0 - 25	0 - 315
896D-15**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	230	0 - 15	120	0 - 25	0 - 315

* Teflon® is a registered trademark of The Chemours Company
**The regulator is available for all the listed gases. When ordering always specify gas.

CYLINDER PRESSURE REGULATORS

899 MODEL

TWO-STAGE GAUGELESS REGULATOR

MODEL SHOWN: **899-1.5-AC**

APPLICATIONS:

- For demanding applications where constant outlet pressure over a wide range of inlet pressures is required. Ideal for quality cutting applications, laboratory systems or precision machine cutting. Also ideal for heavy machine cutting, hand cutting and gouging.

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure of 230 bar
- First stage reduces full cylinder pressure by approximately 90%
- Large Ø 70 mm second stage diaphragm accurately controls delivery pressure
- Durable chrome-plated bonnet
- Cylinder pressure shown on indicator with polycarbonate cover
- Delivery pressure set by turning the knob on calibrated bonnet
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

Indicator

Bonnet calibration

MODEL NO.	VERSION	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)
899-1.5-AC	gaugeless	Acetylene	25	0 - 1,5	35
899D-10-OX	gaugeless	Oxygen	230	0 - 8	90

SERIES 900 - 300 BAR PRESSURE CONTROL REGULATORS

901 MODEL

SINGLE-STAGE CYLINDER REGULATOR

MODEL SHOWN: **901D-10-OX**

APPLICATIONS:

- Medium duty cutting, heating and welding

FEATURES:

- Maximum inlet pressure of 300 bar
- Enough flow to cut up to 300 mm steel
- Forged brass body for maximum strength
- Smooth adjustment with high precision
- High pressure capsule seat with Kel-F (CTFE) sealing surface
- "B" version fitted with black bonnet
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
901D-4-OX	Oxygen	300	0 - 4	105	0 - 6	0 - 400
901D-4**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	300	0 - 4	105	0 - 6	0 - 400
901D-10-OX	Oxygen	300	0 - 10	175	0 - 16	0 - 400
901D-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	300	0 - 10	175	0 - 16	0 - 400

* Teflon® is a registered trademark of The Chemours Company
**The regulator is available for all the listed gases. When ordering always specify gas.

941 MODEL

SINGLE-STAGE CYLINDER REGULATOR

MODEL SHOWN:
941D-10-0X

APPLICATIONS:

- Medium duty cutting, heating and welding

FEATURES:

- Maximum inlet pressure of 300 bar
- High pressure capsule seat with Kel-F (CTFE) sealing surface
- Downward knob improves operator safety
- Outlet valve
- Smooth adjustment with high precision
- Forged brass body for maximum strength
- Durable chrome-plated bonnet and gold painted gauge case
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
941D-10-0X	Oxygen	300	0 - 10	155	0 - 16	0 - 400

942 MODEL

SINGLE-STAGE CYLINDER REGULATOR

MODEL SHOWN:
942DW-10

APPLICATIONS:

- Medium duty cutting, heating and welding

FEATURES:

- Maximum inlet pressure of 300 bar
- High pressure capsule seat with Kel-F (CTFE) sealing surface
- Downward knob improves operator safety
- Smooth adjustment with high precision
- Forged brass body for maximum strength
- Black bonnet and black gauge case
- Without regulation outlet valve
- "W" version fitted with outlet valve
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
942D-10-0X	Oxygen	300	0 - 10	155	0 - 16	0 - 400
942D-10*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	300	0 - 10	155	0 - 16	0 - 400
942DW-10-0X	Oxygen	300	0 - 10	155	0 - 16	0 - 400
942DW-10*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	300	0 - 10	155	0 - 16	0 - 400

*The regulator is available for all the listed gases. When ordering always specify gas.

914 MODEL

SINGLE-STAGE REGULATOR WITH SINGLE GAUGE

MODEL SHOWN:
914D-10-0X

APPLICATIONS:

- Medium duty cutting, heating and welding

FEATURES:

- Maximum inlet pressure of 300 bar
- Enough flow to cut up to 300 mm steel
- Forged brass body for maximum strength
- High pressure capsule seat with Kel-F (CTFE) sealing surface
- Smooth adjustment with high precision
- Side inlet connection (rear entry optional)
- Delivery pressure set by turning the knob on calibrated bonnet
- Cylinder pressure shown on HP pressure gauge
- "B" version fitted with black bonnet
- 7 year warranty

Bonnet calibration

MODEL NO.	VERSON	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	SUPPLY PRESSURE GAUGE (bar)
914D-4-0X	one gauge	Oxygen	300	0 - 4	105	0 - 400
914D-4**	one gauge	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	300	0 - 4	105	0 - 400
914D-10-0X	one gauge	Oxygen	300	0 - 10	175	0 - 400
914D-10**	one gauge	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	300	0 - 10	175	0 - 400

918 MODEL

SINGLE-STAGE GAUGELESS REGULATOR

MODEL SHOWN:
918D-10-0X

APPLICATIONS:

- Medium duty cutting, heating and welding
- Designed for all industrial applications in the toughest working conditions

FEATURES:

- Maximum inlet pressure of 300 bar
- Enough flow to cut up to 300 mm steel
- Forged brass body for maximum strength
- High pressure capsule seat with Kel-F (CTFE) sealing surface
- Smooth adjustment with high precision
- Side inlet connection
- Cylinder pressure shown on indicator with polycarbonate cover
- Delivery pressure set by turning the knob on calibrated bonnet
- "B" version fitted with black bonnet
- 7 year warranty

Indicator

Bonnet calibration

MODEL NO.	VERSON	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)
918D-4-0X	gaugeless	Oxygen	300	0 - 4	105
918D-4*	gaugeless	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	300	0 - 4	105
918D-10-0X	gaugeless	Oxygen	300	0 - 10	175
918D-10*	gaugeless	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	300	0 - 10	175

*The regulator is available for all the listed gases. When ordering always specify gas.

925 MODEL

SINGLE-STAGE REGULATOR WITH TWO GAUGES

MODEL SHOWN: 925D-10-OX

APPLICATIONS:

- Heavy duty cutting, heating and welding
- Large, strong regulator for the professionals

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure of 300 bar
- Enough flow to cut up to 400 mm steel
- Large Ø 70 mm diaphragm stabilizes working pressure
- High pressure capsule seat with Kel-F (CTFE) sealing surface
- Side entry (vertical optional)
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
925D-4-OX	Oxygen	300	0 - 4	115	0 - 6	0 - 400
925D-4**	Argon, CO_2, Nitrogen, Air, Methane	300	0 - 4	115	0 - 6	0 - 400
925AD-4**	Helium, Hydrogen	300	0 - 4	115	0 - 6	0 - 400
925D-10-OX	Oxygen	300	0 - 10	185	0 - 16	0 - 400
925D-10**	Argon, CO_2, Nitrogen, Air, Methane	300	0 - 10	185	0 - 16	0 - 400
925AD-10**	Helium, Hydrogen	300	0 - 10	185	0 - 16	0 - 400
925D-15-OX	Oxygen	300	0 - 15	325	0 - 25	0 - 400
925D-15**	Argon, CO_2, Nitrogen, Air, Methane	300	0 - 15	325	0 - 25	0 - 400
925AD-15**	Helium, Hydrogen	300	0 - 15	325	0 - 25	0 - 400

996 MODEL

TWO-STAGE REGULATOR WITH TWO GAUGES

MODEL SHOWN: 996D-10-OX

APPLICATIONS:

- For demanding applications where constant outlet pressure over a wide range of inlet pressures is required. Ideal for quality cutting applications, laboratory systems or precision machine cutting. Also ideal for heavy machine cutting, hand cutting and gouging.

FEATURES:

- Forged brass body for maximum strength
- High pressure capsule seat with Kel-F (CTFE) sealing surface
- First stage reduces full cylinder pressure by approximately 90%
- Large Ø 70 mm second stage diaphragm accurately controls delivery pressure
- Durable chrome-plated bonnet
- Side entry (vertical optional)
- "B" version fitted with black bonnet and black gauge case
- Brass T-screw handle
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX AIR FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
996D-4-OX	Oxygen	300	0 - 4	85	0 - 6	0 -4 00
996D-4**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	300	0 - 4	85	0 - 6	0 - 400
996D-10-OX	Oxygen	300	0 - 10	100	0 - 16	0 - 400
996D-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	300	0 - 10	100	0 - 16	0 - 400
996D-15-OX	Oxygen	300	0 - 15	120	0 - 25	0 - 400
996D-15**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	300	0 - 15	120	0 - 25	0 - 400

* Teflon® is a registered trademark of The Chemours Company
**The regulator is available for all the listed gases. When ordering always specify gas.

DEVICES FOR GAS FLOW CONTROL

OVERVIEW

There are two basic types of flow control devices, generally referred to as "fixed pressure / variable orifice" and "variable pressure / fixed orifice". A typical flowmeter regulator is a "fixed pressure / variable orifice" device, pressure fixed at the factory to a "compensated" or "calibrated" pressure, depending on the flow range desired and the gases being used.

A third type of flow regulator is called a "zero" or "non-compensated" flowmeter regulator. It shares some features and advantages of both flow meter and flow gauge regulators. It uses a flowmeter as an indicator, but generally functions as a variable pressure flowgauge regulator.

FLOWGAUGE REGULATOR	FLOWMETER REGULATOR	"ZERO" COMPENSATED FLOWMETER REGULATOR
Zero compensated Variable pressure / fixed orifice	Pressure compensated Fixed pressure / variable orifice	Zero compensated Variable pressure / fixed orifice
New	Traditional	New
$$	$$$	$
Tolerates more abuse	Exposed components susceptible to damage	Compact less susceptible to damage
No flow indicator	Indicates when flowing	Indicates when flowing
All position	Vertical only	Vertical only
Common parts	Unique parts	Few unique parts
Accuracy = ± max 2,5 % of full scale	Accuracy = ± 5% of full scale @ mid range	Accuracy = ± 5% of full scale @ mid range
Surge control capability	No surge control capability	Surge control capability

CYLINDER FLOWMETER REGULATORS

GENERAL FEATURES:

- Conform to ISO 2503
- Accurate pressure compensated design flowmeter for precise flow
- Flowmeter with easy-to-read polycarbonate outer tube cover for strength and 360° visibility
- Factory pre-set outlet pressure at 3,5 bar (apart from Model 351)

601D-F MODEL

COMPACT FLOWMETER REGULATOR

MODEL SHOWN: 601D-15-F

APPLICATIONS:

- Light duty welding

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 230 bar
- Factory pre-set outlet pressure at 3,5 bar
- Flowmeter with easy-to-read polycarbonate outer tube cover for strength and 360° visibility
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Rear inlet connection (side inlet optional)
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
601D-15-F-AR/CD	Argon / CO_2	230	0 - 15	0 - 315	0 - 15
601D-30-F-AR/CD	Argon / CO_2	230	0 - 30	0 - 315	0 - 30

351 MODEL

ECONOMICAL ZERO COMPENSATED FLOWMETER REGULATOR

MODEL SHOWN: 351-30L-CD

APPLICATIONS:

- Light duty welding

FEATURES:

- Built smart and priced economically
- Compact design, forged brass body for maximum strength
- Design is more resistant to CO_2 freeze-up and gauge damage than typical flow control devices
- Saves gas - operates at pressures lower than typical
- Maximum inlet pressure 230 bar
- Flowmeter with easy-to-read polycarbonate outer tube cover for strength and 360° visibility
- Non-compensated
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
351-30L-AR	Argon	230	0 - 30	0 - 315	0 - 30
351-30L-CD	CO_2	230	0 - 30	0 - 315	0 - 30

* Teflon® is a registered trademark of The Chemours Company.

801D-F MODEL

FLOWMETER REGULATOR

MODEL SHOWN:
801DB-30-F

APPLICATIONS:

- Ideal for all welding applications

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 230 bar
- Factory pre-set outlet pressure at 3,5 bar
- Flowmeter with easy-to-read polycarbonate outer tube cover for strength and 360° visibility
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- "B" version fitted with black bonnet and black gauge case
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
801D-15-F-AR/CD **801DB-15-F-AR/CD**	Argon / CO_2	230	0 - 15	0 - 315	0 - 15
801D-30-F-AR/CD **801DB-30-F-AR/CD**	Argon / CO_2	230	0 - 30	0 - 315	0 - 30
801D-20-F-FG **801DB-20-F-FG**	Forming gas	230	0 - 20	0 - 315	0 - 20
801D-50-F-FG **801DB-50-F-FG**	Forming gas	230	0 - 50	0 - 315	0 - 50

821D-F MODEL

PRECISION ENGINEERED DOUBLE FLOWMETER REGULATOR

MODEL SHOWN:
821DB-30-F

APPLICATIONS:

- Ideal for light and medium duty welding

FEATURES:

- One regulator / cylinder for two gas supply sources with separate flow control
- Two flowmeters (knob at 180° to inlet) with soft seat needle valve for smooth and precise control, easy-to-read polycarbonate outer tube cover for strength and 360° visibility
- Factory pre-set outlet pressure at 3,5 bar
- Maximum inlet pressure 230 bar
- Forged brass body for maximum strength
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Rear entry
- "B" version fitted with black bonnet and black gauge case
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
821D-15-F-AR/CD 821DB-15-F-AR/CD	Argon / CO_2	230	0 - 15	0 - 315	0 - 15
821D-30-F-AR/CD 821DB-30-F-AR/CD	Argon / CO_2	230	0 - 30	0 - 315	0 - 30
821D-20-F-FG 821DB-20-F-FG	Forming gas	230	0 - 20	0 - 315	0 - 20
821D-50-F-FG 821DB-50-F-FG	Forming gas	230	0 - 50	0 - 315	0 - 50

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825D-F

MODEL

FLOWMETER REGULATOR

MODEL SHOWN:
825D-30-F

APPLICATIONS:

- Large, strong regulator for the welding professionals, suitable for all welding and laboratory applications

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 230 bar
- Large Ø 70 mm diaphragm for accurate flow and pressure regulation
- Factory pre-set outlet pressure at 3,5 bar
- Flowmeter with easy to read polycarbonate outer tube cover for strength and 360° visibility
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
825D-15-F-AR/CD	Argon / CO_2	230	0 - 15	0 - 315	0 - 15
825D-30-F-AR/CD	Argon / CO_2	230	0 - 30	0 - 315	0 - 30

411

MODEL

FLOWMETER REGULATOR WITH INCREASED RESISTANCE TO CO_2

MODEL SHOWN:
411-30

APPLICATIONS:

- CO_2 gas-shielded welding and other industrial applications

FEATURES:

- Maximum inlet pressure of 230 bar
- Multi finned black aluminium body design provides a high rate of heat transfer into the regulator
- Requires no electrical power
- Increased resistance to CO_2 freeze-up
- Accurate pressure compensated design for precise flow
- Flowmeter with easy to read polycarbonate outer tube cover for strength and 360° visibility
- Factory pre-set outlet pressure at 3,5 bar
- Side entry (vertical optional)
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
411-15	CO_2	230	0 - 15	0 - 315	0 - 15
411-30	CO_2	230	0 - 15	0 - 315	0 - 15

* Teflon® is a registered trademark of The Chemours Company.

CYLINDER FLOWMETER REGULATORS

811DB-F MODEL

ELECTRICALLY HEATED FLOWMETER REGULATOR

MODEL SHOWN: **811DB-30-F**

APPLICATIONS:

- Ideal for all welding applications where high and continuous flow of CO_2 is required with accurate flow control

FEATURES:

- Maximum inlet pressure 230 bar
- CE marked
- Forged brass body for maximum strength
- Two independent heating elements controlled by thermostat
- Stabilized temperature up to 30 lpm continuous CO_2 flow
- Overheating protection with resettable thermal fuse
- Insulation IP 64 (EN 60529)
- Voltage: 110 and 240 volts versions
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 3 meters long power cable without plug
- Factory pre-set outlet pressure at 3,5 bar
- Flowmeter with easy-to-read polycarbonate outer tube cover for strength and 360° visibility
- 7 year limited warranty (excluding electrical components)

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
811DB-15-F	CO_2	230	0 - 15	0 - 315	0 - 15
811DB-30-F	CO_2	230	0 - 30	0 - 315	0 - 30

CYLINDER FLOWMETER REGULATORS - 300 BAR

901D-F MODEL

FLOWMETER REGULATOR

MODEL SHOWN: **901D-30-F**

APPLICATIONS:

- Ideal for all welding applications

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 300 bar
- Factory pre-set outlet pressure at 3,5 bar
- High pressure capsule seat with Kel-F (CFTE) sealing surface
- Flowmeter with easy to read polycarbonate outer tube cover for strength and 360° visibility
- “B” version fitted with black bonnet
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
901D-15-F-AR/CD	Argon / CO_2	300	0 - 15	0 - 400	0 - 15
901D-30-F-AR/CD	Argon / CO_2	300	0 - 30	0 - 400	0 - 30
901D-20-F-FG	Forming gas	300	0 - 20	0 - 400	0 - 20
901D-50-F-FG	Forming gas	300	0 - 50	0 - 400	0 - 50

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925D-F

MODEL

7 YEAR WARRANTY

FLOWMETER REGULATOR

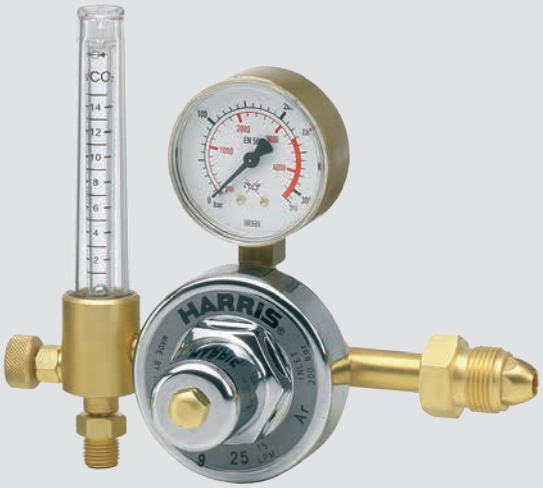
MODEL SHOWN: 925D-15-F

APPLICATIONS:

- Large, strong regulator for the welding professionals, suitable for all welding and laboratory applications.

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 300 bar
- Large Ø 70 mm diaphragm for accurate flow and pressure regulation
- High pressure capsule seat with Kel-F (CFTE) sealing surface
- Factory pre-set outlet pressure at 3,5 bar
- Flowmeter with easy-to-read polycarbonate outer tube cover for strength and 360° visibility
- 7 year warranty



MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
925D-15-F-AR/CD	Argon / CO_2	300	0 - 15	0 - 400	0 - 15
925D-30-F-AR/CD	Argon / CO_2	300	0 - 30	0 - 400	0 - 30

911DB-F

MODEL

7 YEAR WARRANTY

ELECTRICALLY HEATED FLOWMETER REGULATOR

MODEL SHOWN: 911DB-30-F

APPLICATIONS:

- Ideal for all welding applications where high and continuous flow of CO_2 are required with accurate flow control

FEATURES:

- Maximum inlet pressure 300 bar
- CE marked
- Two independent heating elements controlled by thermostat
- Stabilized temperature up to 30 lpm continuous CO_2
- Overheating protection with resettable thermal fuse
- Insulation IP 64 (EN 60529)
- Voltage: 110 and 240 volts versions
- 3 meters long power cable without plug
- 7 year limited warranty (excluding electrical components)

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
911DB-15-F	CO_2	300	0 - 15	0 - 400	0 - 15
911DB-30-F	CO_2	300	0 - 30	0 - 400	0 - 15

FLOWGAUGE REGULATORS

GENERAL FEATURES:

- Accurate flows through outlet calibrated orifice
- Flow set by adjusting knob

601-L MODEL

COMPACT SINGLE-STAGE FLOWGAUGE REGULATOR

MODEL SHOWN: **601D-30-L**

APPLICATIONS:

- Ideal for light duty welding

FEATURES:

- Maximum inlet pressure 230 bar
- Forged brass body and bonnet
- 50 mm safety gauge
- Complete with hose connection diameter hose 5 to 6 mm
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Rear inlet connection
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
601D-15-L-AR/CD	Argon / CO_2	230	0 - 15	0 - 315	0 - 15
601D-30-L-AR/CD	Argon / CO_2	230	0 - 30	0 - 315	0 - 30

842-L MODEL

SINGLE-STAGE FLOWGAUGE REGULATOR

MODEL SHOWN: **842-30L**

APPLICATIONS:

- Suitable for all light and medium duty welding

FEATURES:

- Maximum inlet pressure of 230 bar
- Enough flow to cut steel up to 300 mm thickness
- Smooth adjustment with high precision
- Forged brass body for maximum strength
- Downward knob improves operator safety
- Black bonnet and black gauge case
- "W" version fitted with outlet valve
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
842-15L-AR/CD	Argon / CO_2	230	0 - 15	0 - 315	0 - 15
842-30L-AR/CD	Argon / CO_2	230	0 - 30	0 - 315	0 - 30
842-30L-FG	Forming gas	230	0 - 30	0 - 315	0 - 30
842-50L-FG	Forming gas	230	0 - 50	0 - 315	0 - 50
842W-15L-AR/CD	Argon / CO_2	230	0 - 15	0 - 315	0 - 15
842W-30L-AR/CD	Argon / CO_2	230	0 - 30	0 - 315	0 - 30
842W-30L-FG	Forming gas	230	0 - 30	0 - 315	0 - 30
842W-50L-FG	Forming gas	230	0 - 50	0 - 315	0 - 50

* Teflon® is a registered trademark of The Chemours Company.

801D-L

MODEL

FLOWGAUGE REGULATOR

MODEL SHOWN:
801DB-30-L

APPLICATIONS:

- Suitable for all light and medium duty welding

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 230 bar
- Smooth adjustment with high precision
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Side inlet connection
- "B" version fitted with black bonnet and black gauge case
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
801D-15-L-AR/CD	Argon / CO_2	230	0 - 15	0 - 315	0 - 15
801D-30-L-AR/CD	Argon / CO_2	230	0 - 30	0 - 315	0 - 30
801D-50-L-AR/CD	Argon / CO_2	230	0 - 50	0 - 315	0 - 50
801D-30-L-FG	Forming gas	230	0 - 30	0 - 315	0 - 30
801D-50-L-FG	Forming gas	230	0 - 50	0 - 315	0 - 50
801DB-15-L-AR/CD	Argon / CO_2	230	0 - 15	0 - 315	0 - 15
801DB-30-L-AR/CD	Argon / CO_2	230	0 - 30	0 - 315	0 - 30
801DB-50-L-AR/CD	Argon / CO_2	230	0 - 50	0 - 315	0 - 50
801DB-30-L-FG	Forming gas	230	0 - 30	0 - 315	0 - 30
801DB-50-L-FG	Forming gas	230	0 - 50	0 - 315	0 - 50

814D-L

MODEL

FLOWGAUGE REGULATOR WITH SINGLE GAUGE

MODEL SHOWN:
814D-50-L

APPLICATIONS:

- Suitable for all light and medium duty welding

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 230 bar
- Smooth adjustment with high precision
- Delivery flow set by turning the knob on calibrated bonnet
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- "B" version fitted with black bonnet and black gauge case
- 7 year warranty

Bonnet calibration

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
814D-15-L-AR/CD **814DB-15-L-AR/CD**	Argon / CO_2	230	0 - 15	0 - 315	0 - 15
814D-50-L-AR/CD **814DB-50-L-AR/CD**	Argon / CO_2	230	0 - 50	0 - 315	0 - 50

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818D-L MODEL

GAUGELESS FLOWGAUGE REGULATOR

MODEL SHOWN:
818D-15-L

APPLICATIONS:

- Suitable for all light and medium duty welding
- Designed for all industrial applications in the toughest working conditions

FEATURES:

- Forged brass body for maximum strength
- Smooth adjustment with high precision
- Maximum inlet pressure 230 bar
- Delivery flow set by turning the knob on calibrated bonnet
- Cylinder pressure shown on indicator with polycarbonate cover
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- "B" version fitted with black bonnet
- 7 year warranty

Indicator

Bonnet calibration

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	FLOWGAUGE (lpm)
818D-15-L-AR/CD **818DB-15-L-AR/CD**	Argon / CO_2	230	0 - 15	0 - 15
818D-50-L-AR/CD **818DB-50-L-AR/CD**	Argon / CO_2	230	0 - 50	0 - 50

25GX-L MODEL

FLOWGAUGE REGULATOR

MODEL SHOWN:
25GX-L

APPLICATIONS:

- Heavy duty, large, strong flowgauge regulator for gas-shielded welding

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 230 bar
- Large Ø 70 mm diaphragm stabilizes working pressure
- Durable chrome-plated bonnet
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
25GX-15-L-AR/CD	Argon / CO_2	230	0 - 15	0 - 315	0 - 15
25GX-30-L-AR/CD	Argon / CO_2	230	0 - 30	0 - 315	0 - 30
25GX-50-L-AR/CD	Argon / CO_2	230	0 - 50	0 - 315	0 - 50

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811DB-L

MODEL

ELECTRICALLY HEATED FLOWGAUGE REGULATOR

MODEL SHOWN:
811DB-30-L

APPLICATIONS:

- Ideal for all welding applications where high and continuous flows of CO_2 are required with accurate flow control

FEATURES:

- Maximum inlet pressure 230 bar
- Forged brass body for maximum strength
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Outlet gauge enables direct low pressure reading
- CE marked
- Two independent heating elements controlled by thermostat
- Stabilized temperature up to 30 lpm continuous CO_2
- Overheating protection with resettable thermal fuse
- Insulation IP 64 (EN 60529)
- Voltage: 110 and 240 volt versions
- 3 meters long power cable without plug
- 7 year limited warranty (excluding electrical components)

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
811DB-15-L-CD	CO_2	230	0 - 15	0 - 315	0 - 15
811DB-30-L-CD	CO_2	230	0 - 30	0 - 315	0 - 30

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HARRIS®
A LINCOLN ELECTRIC COMPANY

7 YEAR WARRANTY LIMITED

"Harris makes products that are durable and built to last, that's why we offer a 7- year warranty on our most popular industrial regulators."

901D-L MODEL

SINGLE-STAGE FLOWGAUGE REGULATOR

MODEL SHOWN:
901D-30-L

APPLICATIONS:

- Suitable for all light and medium duty welding

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 300 bar
- High pressure capsule seat with Kel-F (CFTE) sealing surface
- Standard version with chrome-plated bonnet and gold painted gauge case
- "B" version fitted with black bonnet
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
901D-30-L-FG	Forming gas	300	0 - 30	0 - 400	0 - 30
901D-50-L-FG	Forming gas	300	0 - 50	0 - 400	0 - 50
901D-15-L-AR/CD	Argon / CO_2	300	0 - 15	0 - 400	0 - 15
901D-30-L-AR/CD	Argon / CO_2	300	0 - 30	0 - 400	0 - 30
901D-50-L-AR/CD	Argon / CO_2	300	0 - 50	0 - 400	0 - 50

942-L MODEL

SINGLE-STAGE FLOWGAUGE REGULATOR

MODEL SHOWN:
942W-30L-AR

APPLICATIONS:

- Suitable for all light and medium duty welding

FEATURES:

- Maximum inlet pressure of 300 bar
- Downward knob improves operator safety
- Smooth adjustment with high precision
- Forged brass body for maximum strength
- High pressure capsule seat with Kel-F (CFTE) sealing surface
- Black bonnet
- Without regulation outlet valve
- "W" version fitted with outlet valve
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
942-15L-AR/CD	Argon / CO_2	300	0 - 15	0 - 400	0 - 15
942-30L-AR/CD	Argon / CO_2	300	0 - 30	0 - 400	0 - 30
942-30L-FG	Forming gas	300	0 - 30	0 - 400	0 - 30
942-50L-FG	Forming gas	300	0 - 50	0 - 400	0 - 50
942W-15L-AR/CD	Argon / CO_2	300	0 - 15	0 - 400	0 - 15
942W-30L-AR/CD	Argon / CO_2	300	0 - 30	0 - 400	0 - 30
942W-30L-FG	Forming gas	300	0 - 30	0 - 400	0 - 30
942W-50L-FG	Forming gas	300	0 - 50	0 - 400	0 - 50

914D-L MODEL

FLOWGAUGE REGULATOR WITH SINGLE GAUGE

MODEL SHOWN: 914D-50-L

APPLICATIONS:

- Suitable for all light and medium duty welding

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 300 bar
- Smooth adjustment with high precision
- High pressure capsule seat with Kel-F (CFTE) sealing surface
- Delivery flow set by turning the knob on calibrated bonnet
- "B" version fitted with black bonnet
- 7 year warranty

Bonnet calibration

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
914D-15-L-AR/CD	Argon / CO_2	300	0 - 15	0 - 400	0 - 15
914D-50-L-AR/CD	Argon / CO_2	300	0 - 30	0 - 400	0 - 30

918D-L MODEL

FLOWGAUGE REGULATOR GAUGELESS

MODEL SHOWN: 918D-50-L

APPLICATIONS:

- Suitable for all light and medium duty welding
- Designed for all industrial applications in the toughest working conditions

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 300 bar
- Smooth adjustment with high precision
- Delivery flow set by turning the knob on calibrated bonnet
- Cylinder pressure shown on indicator with polycarbonate cover
- High pressure capsule seat with Kel-F (CFTE) sealing surface
- "B" version fitted with black bonnet
- 7 year warranty

Indicator

Bonnet calibration

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	FLOWGAUGE (lpm)
918D-15-L-AR/CD	Argon / CO_2	300	0 - 15	0 - 15
918D-50-L-AR/CD	Argon / CO_2	300	0 - 50	0 - 50

925D-L MODEL

FLOWGAUGE REGULATOR

MODEL SHOWN: 925D-30-L

APPLICATIONS:

- Large size flowgauge regulator for gas-shielded welding

FEATURES:

- Forged brass body for maximum strength
- Maximum inlet pressure 300 bar
- Large Ø 70 mm diaphragm for accurate flow and pressure regulation
- Durable chromed bonnet
- High pressure capsule seat with Kel-F (CFTE) sealing surface
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
925D-15-L-AR/CD	Argon / CO_2	300	0 - 15	0 - 400	0 - 15
925D-30-L-AR/CD	Argon / CO_2	300	0 - 30	0 - 400	0 - 30
925D-50-L-AR/CD	Argon / CO_2	300	0 - 50	0 - 400	0 - 50

911DB-L MODEL

ELECTRICALLY HEATED FLOWGAUGE REGULATOR

MODEL SHOWN: 911DB-30-L

APPLICATIONS:

- Ideal for all welding applications where high and continuous flows of CO_2 are required with accurate flow control

FEATURES:

- Maximum inlet pressure 300 bar
- Outlet gauge enables direct low pressure reading
- CE marked
- Two independent heating elements controlled by thermostat
- Stabilized temperature up to 30 lpm continuous CO_2 flow
- Overheating protection with resettable thermal fuse
- Insulation IP 64 (EN 60529)
- Voltage: 110 and 240 volts versions
- 3 meters long power cable without plug
- 7 year limited warranty (excluding electrical components)

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
911DB-15-L-CD	CO_2	300	0 - 15	0 - 400	0 - 15
911DB-30-L-CD	CO_2	300	0 - 30	0 - 400	0 - 30

GENERAL FEATURES:

- Stainless steel diaphragm - no internal contamination

DS ARS 825 MODEL

SINGLE-STAGE CYLINDER PRESSURE REGULATOR

MODEL SHOWN:
825ARS-40

APPLICATIONS:

- All applications where high outlet pressure is required
- Ideal for high pressure plasma cutting

FEATURES:

- Forged brass body
- Maximum inlet pressure 230 bar
- Stainless steel diaphragm - no internal contamination
- Enough oxygen flow to cut up to 400 mm steel
- Large Ø 70 mm diaphragm stabilizes working pressure
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Side entry (vertical optional)
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
825DS-20**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	230	0 - 20	300	0 - 40	0 - 315
825DS-25**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	230	0 - 25	350	0 - 40	0 - 315
825ARS-40**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	230	0 - 40	400	0 - 60	0 - 315
825ARS-50**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	230	0 - 50	450	0 - 100	0 - 315

DS 896 MODEL

TWO-STAGE WITH STAINLESS STEEL DIAPHRAGM

MODEL SHOWN:
896DS

APPLICATIONS:

- Used where outlet pressure must be held within strict limits. Ideal for quality cutting applications, laboratory system or precision machine cutting. Also ideal for heavy machine cutting, hand cutting, and gouging.

FEATURES:

- Forged brass body
- Maximum inlet pressure 230 bar
- Stainless steel diaphragm on first stage - no internal contamination
- Enough oxygen flow to cut up to 400 mm steel
- Large Ø 70 mm second stage diaphragm accurately controls delivery pressure
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Stainless steel T- screw handle
- Side entry (vertical optional)
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
896DS-25**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	230	0 - 25	150	0 - 40	0 - 315

* Teflon® is a registered trademark of The Chemours Company.
**The regulator is available for all the listed gases. When ordering always specify gas.

DS ARS 925 MODEL

HIGH FLOW WITH STAINLESS STEEL DIAPHRAGM

MODEL SHOWN: 925ARS-40

APPLICATIONS:

- All applications where high outlet pressure is required. Ideal for high pressure plasma cutting

FEATURES:

- Forged brass body
- Maximum inlet pressure 300 bar
- Stainless steel diaphragm on first stage- no internal contamination
- Enough oxygen flow to cut up to 400 mm steel
- Large Ø 70 mm diaphragm accurately controls delivery pressure
- High pressure capsule seat with Kel-F (CTFE) sealing surface
- Stainless steel T- screw handle
- Side entry (vertical optional)
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
925DS-20*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 20	380	0 - 40	0 - 400
925DS-25*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 25	400	0 - 40	0 - 400
925ARS-40*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 40	500	0 - 60	0 - 400
925ARS-50*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 50	600	0 - 100	0 - 400

H25 MODEL

SINGLE-STAGE WITH STAINLESS STEEL DIAPHRAGM

MODEL SHOWN: H25ARS-40

APPLICATIONS:

- Specially designed for high flow requirements. Ideal for feeding plasma and laser cutting systems

FEATURES:

- Forged brass body
- Maximum inlet pressure 300 bar
- High pressure capsule seat with Kel-F (CTFE) sealing surface
- Stainless steel T- screw handle
- Air flow up to 700 m^3/h
- External safety relief valve
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
H25DS-15*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 15	450	0 - 25	0 - 400
H25DS-25*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 25	500	0 - 40	0 - 400
H25ARS-40*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 40	720	0 - 60	0 - 400

*The regulator is available for all the listed gases. When ordering always specify gas.

987 MODEL

HIGH PRESSURE CYLINDER REGULATOR

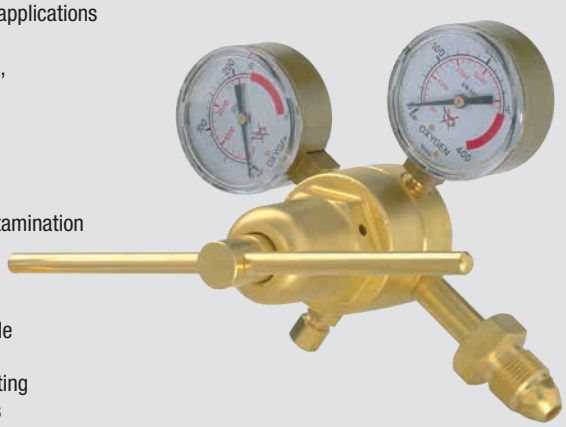
MODEL SHOWN:
987AS-170

APPLICATIONS:

- Designed to operate with high pressure cylinder. Typical applications include high pressure testing, charging accumulators, pressurizing aircraft struts, oil refineries, chemical plants, research laboratories and general industry.
- Ideal also for high pressure manifold distribution.

FEATURES:

- Maximum inlet pressure 300 bar
- Stainless steel diaphragm on first stage- no internal contamination
- High pressure capsule seat with Kel-F (CTFE) sealing surface
- Corrosion resistant, forged brass, body and bonnet
- Bronze bonnet bushing and stainless steel T-screw handle
- Heavy duty inlet 15 mm thread with metal-to-metal seal
- Outlet ¼" external diameter copper tube compression fitting
- Models available for all non-corrosive compressed gases
- Same regulator used for lightweight gases, without vibration
- 7 year warranty



MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
987S-100*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 100	400	0 - 315	0 - 400
987AS-170*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 170	500	0 - 315	0 - 400
CLIMATESTER	Nitrogen	300	0 - 55	120	0 - 70	0 - 400

8700 MODEL

HIGH PRESSURE CYLINDER REGULATOR

MODEL SHOWN:
8700

APPLICATIONS:

- Designed to operate in high pressure cylinder. Typical applications include high pressure testing, charging accumulators and pressurizing aircraft struts.

FEATURES:

- Maximum inlet pressure 380 bar
- One piece encapsulated valve with CTFE seats and internal filter
- Elastomeric diaphragm for longer life
- Ergonometric knob for improved grip
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
8700 3000 psi*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	380	0 - 205	330	0 - 280	0 - 400
8700 4500 psi*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	380	0 - 300	330	0 - 400	0 - 400

*The regulator is available for all the listed gases. When ordering always specify gas.

HP750

MODEL

7 YEAR WARRANTY LIMITED

HIGH FLOW & HIGH PRESURE SERVO DOME LOADED REGULATOR

MODEL SHOWN:
HP-750

APPLICATIONS:

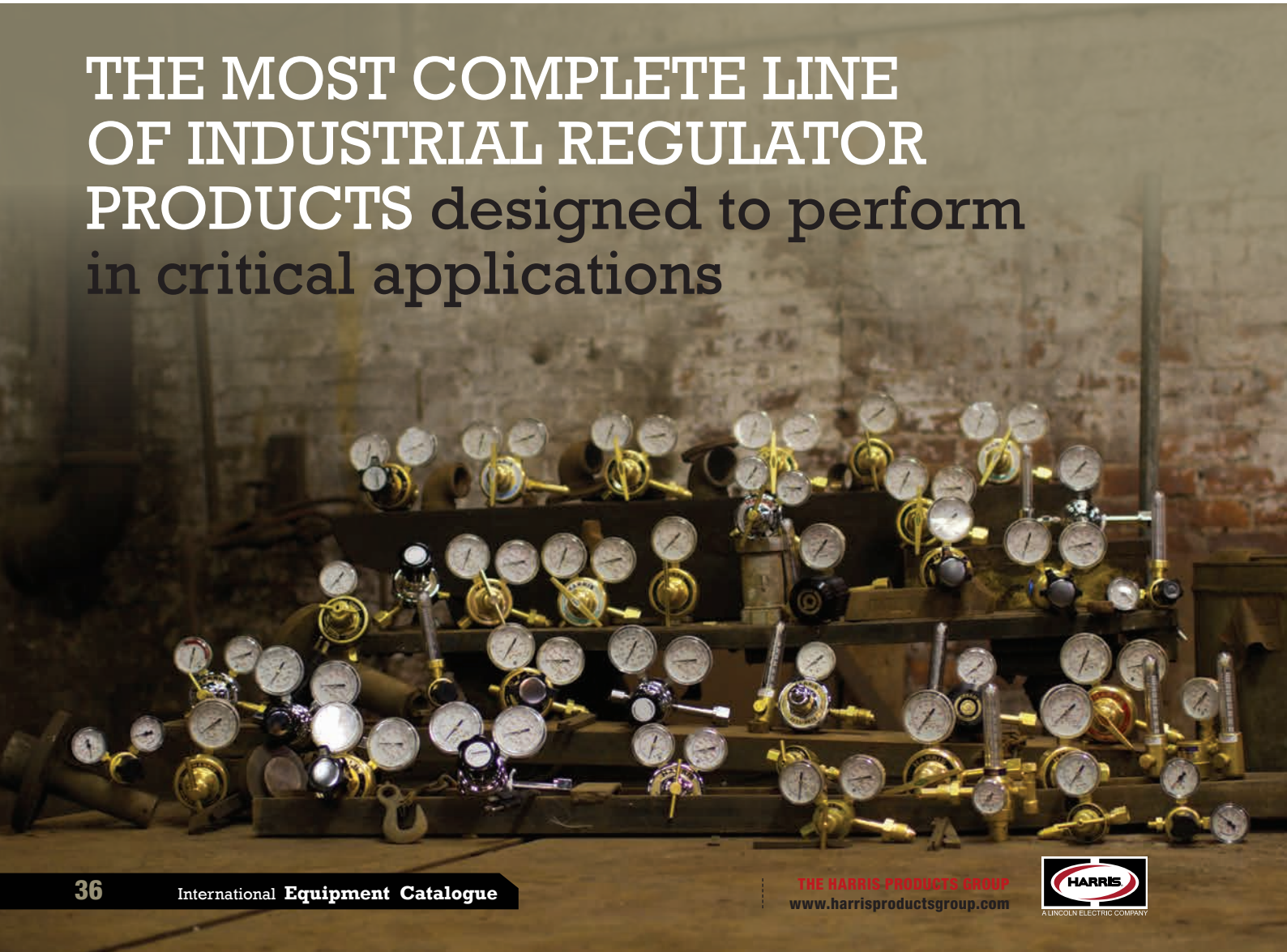
- Laser assist gases, pressure transfer, blanketing and high flow manifolds

FEATURES:

- High pressure, high flow regulator
- Maximum inlet pressure 380 bar
- One piece encapsulated seat design with 10 micron filtration
- Servo dome load technology. The regulator has an internal pressure feedback sensing line which monitors the outlet pressure and constantly opens or closes the regulator valve to maintain the internal pressure balance. The result is a constant delivery pressure regardless of the flow rate or inlet pressure conditions
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
HP750-17 (3000867)*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	380	0 - 17	> 1000	0 - 28	0 - 400
HP750-35 (3000868)*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	380	0 - 35	> 1000	0 - 42	0 - 400
HP750-70 (3000869)*	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	380	0 - 70	> 1000	0 - 138	0 - 400

*The regulator is available for all the listed gases. When ordering always specify gas.



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353 MODEL

ECONOMICAL PIPELINE REGULATOR

MODEL SHOWN:
353-30FLAR

APPLICATIONS:

- Designed for light duty welding from industrial pipeline points

FEATURES:

- Built smart and priced economically
- Compact design, forged brass body for maximum strength
- Design is more resistant to CO_2 freeze-up and gauge damage than typical flow control devices
- Saves gas - operates at pressures lower than typical
- Maximum inlet pressure 10 bar
- Flowmeter with easy-to-read polycarbonate outer tube cover for strength and 360° visibility
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	FLOWMETER (lpm)
353-30FLAR	Argon / CO_2	10	0 - 30	0 - 30

H47 MODEL

HIGH FLOW PIPELINE REGULATOR

MODEL SHOWN:
H47AS-40

APPLICATIONS:

- Designed for high flow requirement for feeding industrial gas pipelines for plasma and laser cutting

FEATURES:

- Maximum inlet pressure 60 bar
- Rear inlet connection
- Air flow over 370 m^3/h
- Stainless steel diaphragm
- T- screw handle provides smooth turning action and long service life
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)
H47DS-15**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	60	0 - 15	330	0 - 25
H47DS-25**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	60	0 - 25	350	0 - 40
H47AS-40**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	60	0 - 40	390	0 - 60

* Teflon® is a registered trademark of The Chemours Company.
**The regulator is available for all the listed gases. When ordering always specify gas.

847 MODEL

PIPELINE REGULATOR

MODEL SHOWN:
847-30-L

APPLICATIONS:

- Specially designed to allow high flow rate from industrial and laboratory pipeline points. Particularly suited to machine cutting where more than one torch is used. Also for heavy cutting and heating.

FEATURES:

- High flow and outlet pressure (up to 15 bar) line regulator
- Forged brass body for maximum strength
- Sintered alloy inlet filter to trap impurities
- Maximum inlet pressure 25 bar
- 15 lpm, 30 lpm and 50 lpm versions with single or double flowmeter available for argon and CO_2
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

Model 847 with a double flowmeter

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
847-1.5-AC	Acetylene	25	0 - 1,5	13	0 - 2,5	-
847-4-LP	Propane	25	0 - 4	76	0 - 6	-
847-10-OX	Oxygen	25	0 - 10	95	0 - 16	-
847-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	25	0 - 10	95	0 - 16	-
847-15-OX	Oxygen	25	0 - 15	135	0 - 25	-
847-15**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	25	0 - 15	135	0 - 25	-
847-15-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 15
847-30-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 30
847-50-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 50

845 MODEL

PIPELINE REGULATOR

MODEL SHOWN:
845-10-OX

APPLICATIONS:

- Specially designed to allow high flow rate from industrial and laboratory pipeline points

FEATURES:

- High flow
- Outlet pressure up to 10 bar
- Forged brass body for maximum strength
- Maximum inlet pressure 25 bar
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
845-1.5-AC	Acetylene	25	0 - 1,5	13	0 - 2,5	-
845-4-LP	Propane	25	0 - 4	76	0 - 6	-
845-10-OX	Oxygen	25	0 - 10	95	0 - 16	-
845-10**	Argon, CO_2, Nitrogen, Air, Helium, Oxygen, Methane	25	0 - 10	95	0 - 16	-
845-15-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 15
845-30-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 30
845-50-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 50

* Teflon® is a registered trademark of The Chemours Company.
**The regulator is available for all the listed gases. When ordering always specify gas.

846 MODEL

PIPELINE REGULATOR

MODEL SHOWN:
846-10-OX

APPLICATIONS:

- Specially designed to allow high flow rate from industrial and laboratory pipeline points

FEATURES:

- High flow and outlet pressure (up to 10 bar) line regulator
- Forged brass body for maximum strength
- Sintered alloy inlet filter to trap impurities
- Downward knob improves operator safety
- Maximum inlet pressure 25 bar
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	FLOWGAUGE (lpm)
846-1.5-AC	Acetylene	25	0 - 1,5	13	0 - 2,5	-
846-4-LP	Propane	25	0 - 4	76	0 - 6	-
846-10-OX	Oxygen	25	0 - 10	95	0 - 16	-
846-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Methane	25	0 - 10	95	0 - 16	-
846-15-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 15
846-30-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 30
846-50-L-AR/CD	Argon / CO_2	25	-	-	-	0 - 50

HVAC 601 MODEL

COMPACT SINGLE-STAGE CYLINDER PRESSURE REGULATOR FOR HVAC&R APPLICATIONS

MODEL SHOWN:
601-30

APPLICATIONS:

- HVAC purging, pressure testing and blanketing with nitrogen or other inert gases

FEATURES:

- Allows to perform leak test (HVAC&R pressure testing) - maximum delivery pressure 55 bar
- Compact and economical
- Forged brass body and bonnet
- Maximum inlet pressure of 230 bar
- Side inlet connection (rear entry optional)
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

Model shown with additional accessories to be ordered separately

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
601-55	Nitrogen	230	55	0 - 100	0 - 315
601-30	Nitrogen	230	30	0 - 40	0 - 315

* Teflon® is a registered trademark of The Chemours Company.
**The regulator is available for all the listed gases. When ordering always specify gas.

603 & 803P

MODEL

SHIELDING GAS GUARDS

MODEL SHOWN:
603 & 803P

APPLICATIONS:

- ▶ Designed to eliminate pressure surge at the beginning of each weld in MIG/MAG and TIG welding
- ▶ Maintains constant flow and pressure with each weld
- ▶ Provides gas savings up to 60%

FEATURES:

Harris Gas Guards are designed to save shielding gases in two ways:

- by reducing the gas surge when a MIG/MAG gun or TIG torch is activated. They are designed to reduce the pressure held in supply hose. Gas waste is reduced when the gun or torch is triggered;
- by delivering a controlled flow rate.

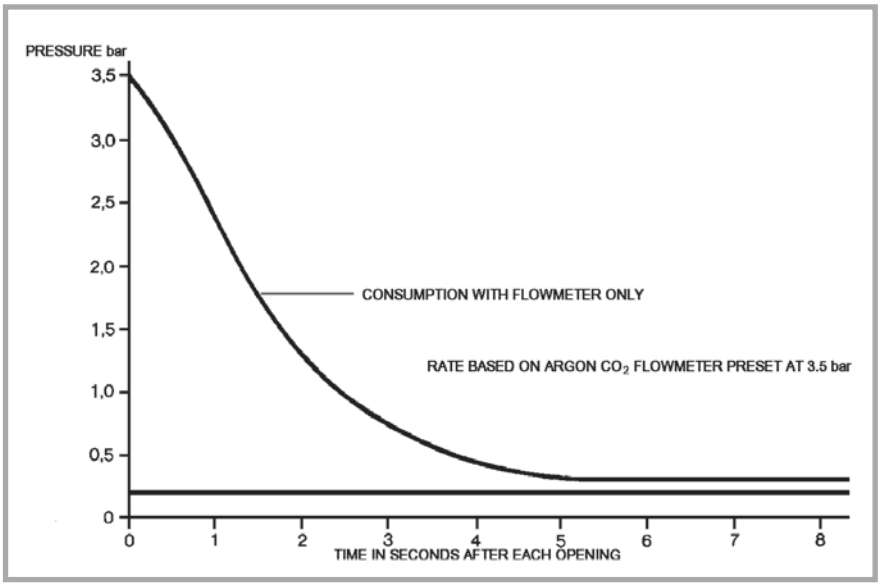
Operators will typically set shielding gas flow rates higher than necessary for a welding operation. Once set by a supervisor, the Gas Guard delivers the precise amount of flow for the operation, eliminating the needless waste of gas.

- ▶ Forged brass body for maximum strength
- ▶ 7 year warranty

WHERE TO USE:

- ▶ Connect Models 603 and 803-P between your existing flowmeter and hose to torch

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	INLET	OUTLET
603Z-001	Argon / CO_2	15	1,1 – 1,4	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
603Z-002	Argon / CO_2	15	1,1 – 1,4	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
603Z-003	Argon / CO_2	15	1,1 – 1,4	G 1/4"-RH-UNI ISO 228	G 1/4" A-RH-UNI ISO 228
803P-001	Argon / CO_2	15	0,6 - 0,9	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
803P-002	Argon / CO_2	15	0,6 - 0,9	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
803P-003	Argon / CO_2	15	0,6 - 0,9	G 1/4"-RH-UNI ISO 228	G 1/4" A-RH-UNI ISO 228



- ▶ The curve on this chart illustrates the extent of costly shielding gas waste that can occur each time a MIG/MAG gun or TIG torch is activated. Conversely, the line illustrates how Harris Gas Guard can significantly reduce gas waste by delivering a set flow of shielding gas.
- ▶ Actual argon, carbon dioxide and other shielding gas savings will vary depending upon the specific requirements of the MIG/MAG or TIG welding operation.
- ▶ Factory pre-set output pressure of 0,8 bar (Model 803P) and 1,1 bar (Model 603), with maximum flow rate of 15 lpm.

651 MODEL

TWO-STAGE FLOWMETER REGULATOR WITH SHIELDING GAS SAVING FEATURE

MODEL SHOWN:
651-30L-AR

APPLICATIONS:

- All types of welding
- Designed to deliver high accuracy gas flow and to reduce the consumption of shielding gas

FEATURES:

- Two-stage flowmeter regulator
- Forged brass body for maximum strength
- Cylinder gas supplied
- Inlet filter to protect against contamination
- Precise gas flow control
- Strong flowmeter resistant to mechanical damages
- Polycarbonate outer tube cover with good 360° visibility
- Side entry
- First stage - capsule valve with Kel-F (CTFE) seat
- Second stage - one-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Lockable version available
- 7 year warranty

Lockable version

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	SUPPLY PRESSURE GAUGE (bar)	FLOWMETER (lpm)
651-30L-AR	Argon / CO_2	300	0 - 30	0 - 400	0 - 34
651-20L-AR	Argon / CO_2	300	0 - 20	0 - 400	0 - 20
651-20L-ARH	Argon / H_2	300	0 - 20	0 - 400	0 - 20

653 MODEL

PIPELINE FLOWMETER WITH SHIELDING GAS SAVING FEATURE

MODEL SHOWN:
653-30FLAR

APPLICATIONS:

- All types of welding
- Designed to deliver high accuracy gas flow and to reduce the consumption of shielding gas

FEATURES:

- Forged brass body for maximum strength
- Pipeline gas supplied
- Inlet filter to protect against contamination
- Precise gas flow control
- Strong flowmeter resistant to mechanical damages
- Polycarbonate outer tube cover with good 360° visibility
- Side entry
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- Lockable version available
- 7 year warranty

Lockable version

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	FLOW (lpm)	FLOWMETER (lpm)
653-30FLAR	Argon / CO_2	10	0 - 30	0 - 34

* Teflon® is a registered trademark of The Chemours Company.

802/822D MODEL

BEVERAGE REGULATOR FOR CYLINDER

MODEL SHOWN: 802D

APPLICATIONS:

- Ideal for breweries, beverage manufacturers, wholesale distribution for use in bars, pubs and wineries

FEATURES:

- High flow beverage regulator for CO_2, nitrogen or mixtures
- Model 802 side entry Model 822 rear entry
- Compression fitting outlet (7/16"-20-UNF) for 1/4" plastic hose (special reverse flow valve to avoid internal liquid contamination upon request)
- Safety pressure gauge with dual scale bar/kPa
- Forged brass body and bonnet
- Maximum inlet pressure of 230 bar
- One-piece encapsulated seat design with internal filter and PTFE (Teflon®*) seat
- 7 year warranty

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
802D-4-CD side inlet	CO_2	100	0 - 4	0 - 6	0 - 100
802D-4-N side inlet	Nitrogen	230	0 - 4	0 - 6	0 - 315
802D-8-CD side inlet	CO_2	100	0 - 8	0 - 10	0 - 100
802D-8-N side inlet	Nitrogen	230	0 - 8	0 - 10	0 - 315
802R-4-CD side inlet	CO_2	100	0 - 4	0 - 6	0 - 100
802R-4-N side inlet	Nitrogen	230	0 - 4	0 - 6	0 - 315
802R-8-CD side inlet	CO_2	100	0 - 8	0 - 10	0 - 100
802R-8-N side inlet	Nitrogen	230	0 - 8	0 - 10	0 - 315
822D-4-CD rear inlet	CO_2	100	0 - 4	0 - 6	0 - 100
822D-4-N rear inlet	Nitrogen	230	0 - 4	0 - 6	0 - 315
822D-8-CD rear inlet	CO_2	100	0 - 8	0 - 10	0 - 100
822D-8-N rear inlet	Nitrogen	230	0 - 8	0 - 10	0 - 315
822R-4-CD rear inlet	CO_2	100	0 - 4	0 - 6	0 - 100
822R-4-N rear inlet	Nitrogen	230	0 - 4	0 - 6	0 - 315
822R-8-CD rear inlet	CO_2	100	0 - 8	0 - 10	0 - 100
822R-8-N rear inlet	Nitrogen	230	0 - 8	0 - 10	0 - 315

HELIFILLER MODEL

COMPACT SINGLE-STAGE BALLOON FILLER REGULATOR

MODEL SHOWN: HELIFILLER

APPLICATION:

- Balloon filler designed for helium and helium mixtures

FEATURES:

- Forged brass body and bonnet
- High pressure capsule seat with PTFE (Teflon®*) sealing surface
- Fixed pressure pre-set at 2 bar (30 psi / 200 kPa)
- Complete with rubber coated "tilt valve". When vertical the valve is closed, when pulled to the side it opens
- Side inlet connection
- 7 year warranty

MODEL NO.	VERSION	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)
HELIFILLER	Gaugeless, tilt valve	Helium and helium mixtures	230	2 (pre-set)

904 MODEL

TWO GAUGE CYLINDER REGULATOR

MODEL SHOWN:
904D-10

APPLICATION:

- Ideal for quality applications where high purity gas is required

FEATURES:

- Recommended purity levels of grade up to 5.0 (99,999%)
- External safety relief valve with 1/4" NPT female thread for external release hose connection
- 302 stainless steel diaphragm eliminates contamination from diffusion or outgassing
- One piece encapsulated seat design includes a sintered filter to protect the seat from particulate contamination
- Forged brass body fully chromed
- Chrome plated bonnet and fittings
- Maximum inlet pressure 300 bar
- Stainless steel diaphragm - no internal contamination
- Capsule seat with Kel-F (CTFE) sealing surface

MODEL NO.	GAS	MAX INLET PRESSURE (bar)	DELIVERY PRESSURE (bar)	MAX (AIR) FLOW (m^3/h)	DELIVERY PRESSURE GAUGE (bar)	SUPPLY PRESSURE GAUGE (bar)
904D-1.5**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 1,5	24	0 - 2,5	0 - 400
904D-4**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 4	48	0 - 6	0 - 400
904D-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 10	100	0 - 16	0 - 400
904R-1.5**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 1,5	24	0 - 2,5	0 - 400
904R-4**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 4	48	0 - 6	0 - 400
904R-10**	Argon, CO_2, Nitrogen, Air, Helium, Hydrogen, Oxygen, Methane	300	0 - 10	100	0 - 16	0 - 400

* Teflon® is a registered trademark of The Chemours Company.
**The regulator is available for all the listed gases. When ordering always specify gas.

More information about this product range can be found in our Specialty Gas Equipment Catalogue.

DISCOVER OUR NEW FAMILY OF PRODUCTS DEDICATED TO SPECIALTY GASES

REGULATOR ORDERING INFORMATION

CODE FOR REGULATOR MODEL PART
801 / 901
904
802
814 / 914
818 / 918
821
822
25 GX / 825 / 925 / H25
829
841
842
845 / 846
847 / H47
848
987
891 / 896 / 996
S45

WHEN SELECTING MORE THAN ONE OPTION, MAINTAIN ORDER INDICATED

TYPE CODE (Only if non-standard)	
-	Horizontal entry (standard)
V	Placed in Kit
E	Vertical entry
A	Anti vibrator (lightweight gases)
D	IRV Diaphragm safety relief valve
R	External safety relief valve
S	Stainless steel diaphragm
B	Black-painted gauges
P	Without HP gauge
N	1/4" NPT gauge (std is 1/4" G)
G	Inlet connection 3/8"
W	Outlet valve (when not standard)
T	With lock "T" screw
X	With inlet stem valve "SNAP SAFE"

NOMINAL PRESSURE OR FLOW		
bar	1,5	
	4	
	8	
	10	
	15	Only for 825, 847, 896
	25	Only for 896
	40	Only for 825
kPa	150	
	400	
	800	
	1000	
	1500	Only for 825, 847, 896
	2500	Only for 896
	4000	Only for 825
lpm	15	
	30	
	50	

CALIBRATION	
-	Pressure gauges calibrated bar or kPa
L	Flow gauge or indicator calibrated, (lpm)
F	Flowmeter, (lpm)
LK	Flow gauge or indicator in (lpm), Pressure gauge in kPa
FK	Flowmeter in (lpm), Pressure gauge in kPa

GAS	
OX	Oxygen
AC	Acetylene
AIR	Air
AR	Argon
CD	Carbon Dioxide
N	Nitrogen
N2O	Nitrous oxide
H	Hydrogen
LP	Propane
PG	Pratical Gas
ARC	ARCD
HE	Helium
FG	Forming gas

PROGRESSIVE NUMBER PERSONALIZES
xxx

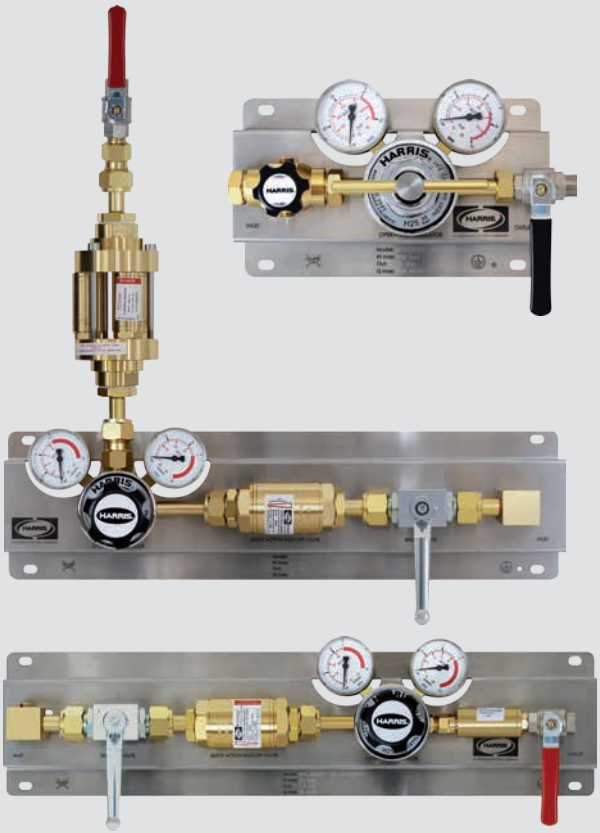
801	E	10		OX	xxx

GAS CONTROL SYSTEMS

LET THE EXPERTS AT HARRIS SHOW YOU HOW YOU CAN RAISE PRODUCTIVITY, LOWER OPERATIONAL COST, AND IMPROVE THE QUALITY OF YOUR PRODUCTS BY CHOOSING THE RIGHT GASES AND EQUIPMENT FOR YOUR SPECIFIC APPLICATION. WHETHER YOU ARE WORKING WITH OXYGEN, HYDROGEN, NITROGEN, OR ANY OF THE FUEL GASES, HARRIS OFFERS A COMPLETE LINE OF GAS CONTROL SYSTEMS COUPLED WITH EXPERIENCED ENGINEERS AND TECHNICAL SPECIALIST THAT ARE READY TO ASSIST YOU FROM THE GAS SUPPLY TO THE FLAME.

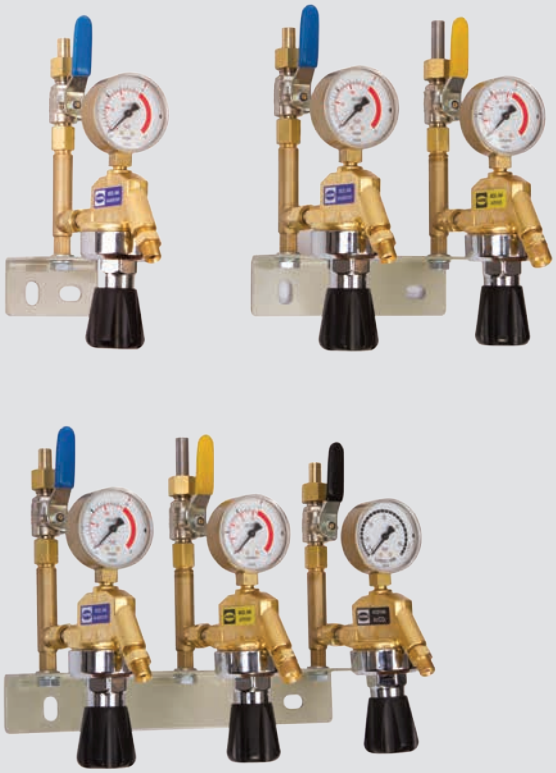
GAS SUPPLY MANIFOLDS

the first stage of a gas reduction, provide continuous gas flow from a single cylinder or bank of cylinders.



POINT-OF-USE STATIONS

the second stage of a gas reduction, installed directly off the pipeline.



More information about this product range can be found in our Industrial Gas Distribution Systems Catalogue.

OVERVIEW

For over 100 years Harris' technology has produced numerous product innovations that are now industry standards. Harris pioneered and perfected the low pressure injector mixer that maximizes performance when using alternate fuels. All cutting torches are 100% tested.

- Harris torches are available for use with all fuel gases and with cutting capacities up to 890 mm
- Designed and manufactured according to ISO 5172

HARRIS OFFERS TORCHES SPECIFICALLY DESIGNED FOR THE BEST PERFORMANCE POSSIBLE WITH EACH FUEL GAS.

EQUAL PRESSURE SYSTEM WITH ACETYLENE AND ALTERNATIVE FUELS:

- Head mixing
- Equal pressure mixing of oxygen and fuel gas is extremely resistant to backfire
- Torch can be used with all fuel gases - just change the tips
- All torches are supplied as standard with threads 9/16”-18-UNF-3A-RH

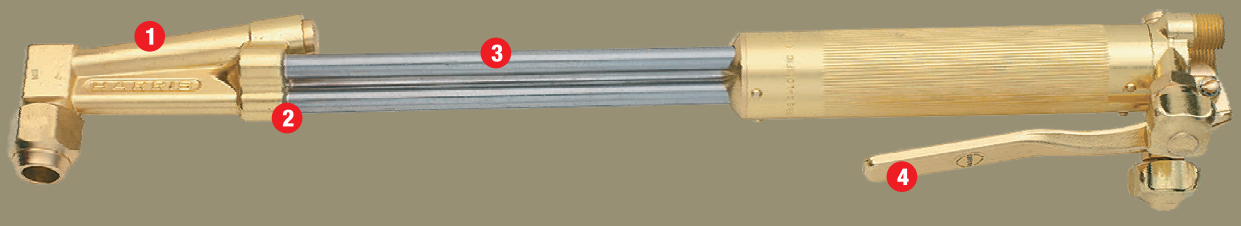
LOW PRESSURE SYSTEM WITH PROPANE, LPG AND MAPP®*:

- Injector style
- Low pressure head mixing - fuel gas can be used at pressures as low as 0,015 bar
- Steady preheat flame during cutting
- Less fuel gas intake during cutting
- Pays for itself by drawing all fuel gas out of cylinder

Standard torches are not supplied with inlet hose connections or cutting tips.

* MAPP® is a registered trademark of Messer Group GmbH.

STANDARD HARRIS® CUTTING EQUIPMENT ADVANTAGES



1 SOLID FORGED HEAD WITH MIXER
- Resists abuse; less subject to distortion
- Resists flashback damage
- Easily accessible mixer

2 BRAZED CONSTRUCTION
- Prevents leaks
- Superior strength
- Longer service life

3 TRIANGULAR TUBE CONSTRUCTION
- Lightweight with strength and rigidity
- Longer service life

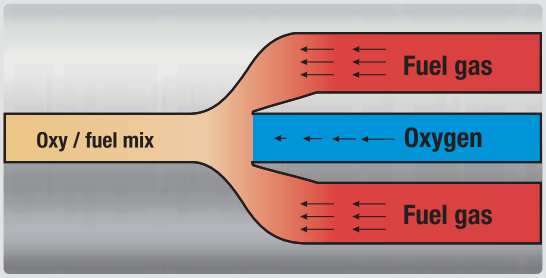
4 SOLID BRASS FORGED LEVER
- Exceptional strength and durability
- Flips forward for safety and convenience

FUEL MIXER

- Harris Calorific offers two types of oxy / fuel mixers. Equal or positive pressure mixers are referred to as “E” type mixers. Low pressure injector mixers are referred to as “F” mixers.
- The type of mixer which best suits the need depends on the application and the available fuel gas supply. The features and benefits of each mixer type are detailed below.

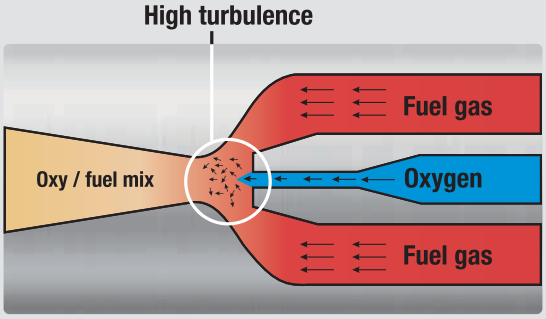
TYPICAL “E” MIXER DESIGN

- To thoroughly mix the oxygen and fuel gas, “E” mixer designs rely on equal pressure control of both oxygen and fuel gas.
- Both gases enter the mixing chamber at controlled pressures. “E” mixers provide the end-user with greater control of the oxy / fuel ratio. This feature has an advantage in applications where a very carburizing or oxidizing flame is required. Also, due to their higher potential flow rates, “E” mixers are required for high flow heating applications. This design is primarily used with acetylene, but can also be used with alternative fuels when positive pressure control of the fuel gas is available.



TYPICAL “F” MIXER DESIGN

- “F” or low pressure injector mixers require that only the oxygen has a positive pressure control. The oxygen exits a specially designed chamber at a very high velocity causing the fuel gas to be aspirated into the mixing chamber.
- Because of the aspirating effect on the fuel gas, positive control of the fuel gas is not required. In fact, the mixers in the Harris Calorific line are designed to operate at fuel gas pressures as low as 0,015 bar. “F” mixers tend to produce a more homogenous oxy / fuel mixture because of the high turbulence in the mixing chamber. This feature is most important when using the more difficult to mix alternative fuels. “F” mixers tend to have a narrower operating range than “E” mixers but because of their superior mixing capabilities they tend to maximize calories output within that range. “F” mixers are used primarily with low pressure natural gas. However, they are also recommended for use with alternative fuels when maximum calories output is needed and / or positive pressure control of the fuel gas is not available.



WHATEVER THE TORCH LENGTH

WHATEVER THE METAL

WHATEVER THE THICKNESS

WHATEVER THE FUEL GAS

HARRIS MAKES A TORCH FOR THAT!

62
MODEL

HEAVY DUTY STRAIGHT CUTTING TORCH

MODEL SHOWN:
62-5F

- The Model 62-5 is a heavy duty straight cutting torch that is the most recognizable Harris® torch. The 62-5 has become an industry standard. It is known as less expensive to own and operate and it is safer to use. Its triangular tube design and brazed connections offer strength, safety and a long service life.
- The Model 62-5E can be used with any fuel gas.
- The 62-5F is designed to provide maximum performance using low-cost alternate fuel gases.* Harris® special "F" injector can produce the hottest flame possible at the lowest gas pressures, making it the safest, most efficient design in the industry.

FEATURES:

- Cuts up to 300 mm steel
- Solid forged brass head and lever
- Triangular tube design
- Brazed connections
- Head mixing
- Use with 6290 tips (see pages 85-88)

HEAD ANGLES

70° Head

90° Head

180° Head

62-5E EQUAL PRESSURE "E" TORCHES (FOR ACETYLENE AND ALTERNATIVE FUELS)

90°HEAD		70°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	PART NO.	WEIGHT (kg)	
62-5E	1,27	62-5AE	1,25	460
62-5EL	1,32	62-5AEL	1,31	530
62-5EL-1000	1,73	62-5AEL-1000	1,58	900

62-5F LOW PRESSURE "F" INJECTOR TORCHES (FOR MAXIMUM PERFORMANCE WITH ALTERNATIVE FUELS)

90°HEAD		70°HEAD		180°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	PART NO.	WEIGHT (kg)	PART NO.	WEIGHT (kg)	
62-5F	1,27	62-5AF	1,25	62-5BF	1,14	460
62-5FL	1,32	62-5AFL	1,31	62-5BFL	1,18	530
62-5FL-835	1,59	62-5AFL-835	1,58	62-5BFL-835	1,42	835
62-5FL-1000	1,70	62-5AFL-1000	1,69	62-5BFL-1000	1,52	900
62-5FL-1250	1,82	62-5AFL-1250	1,80	62-5BFL-1250	1,63	1210
62-5FL-1500	2,00	62-5AFL-1500	1,98	62-5BFL-1500	1,79	1500
62-5FL-2000	2,50	62-5AFL-2000	2,50	62-5BFL-2000	2,30	2000

62-5 LOW PRESSURE TORCHES (FOR ACETYLENE)

90°HEAD		70°HEAD		180°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	PART NO.	WEIGHT (kg)	PART NO.	WEIGHT (kg)	
62-5	1,27	62-5A	1,25	62-5B	1,14	460
62-5L	1,32	62-5AL	1,31	62-5BL	1,18	530
62-5L-835	1,59	62-5AL-835	1,58	62-5BL-835	1,42	835
62-5L-1000	1,70	62-5AL-1000	1,69	62-5BL-1000	1,52	900
62-5L-1250	1,82	62-5AL-1250	1,80	62-5BL-1250	1,63	1210
62-5L-1500	2,00	62-5AL-1500	1,98	62-5BL-1500	1,79	1500

All models available with G 3/8" A-UNI ISO 228 inlet threads, add "GB" to product code when ordering.
* Propane or Propylene based fuels and natural gas.

242 MODEL

STRAIGHT CUTTING HAND TORCH

MODEL SHOWN: 242-2

FEATURES:

- Cutting capacity up to 200 mm
- Total versatility - one torch suitable for use with all fuel gases: simply change tip for cutting, heating, gouging
- Available to suit all tip styles
- Long life torch - thought design, triangular stainless steel tubes, solid forged brass head
- Ease-on cutting oxygen control for smoother starts
- Head mixing and equal pressure design for maximum operator safety
- Stainless steel lever
- Fast heating and cutting
- Spare parts and accessories readily available
- Extended lengths available upon request
- Use with 6290 tips (see pages 85-88)

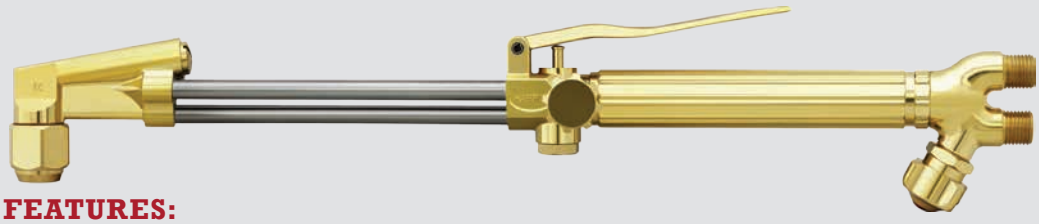
242 EQUAL PRESSURE TORCHES (FOR ACETYLENE AND ALTERNATIVE FUELS)

90°HEAD		70°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	PART NO.	WEIGHT (kg)	
242-2	1,15	**242-2A**	1,30	460
242-2L	1,20	**242-2AL**	1,35	530
242-2L36	1,40	**242-2AL36**	1,55	915

42 MODEL

STRAIGHT CUTTING HAND TORCH

MODEL SHOWN: 42-4



FEATURES:

- Cuts up to 200 mm
- Lightweight
- Solid forged head and lever
- Triangular tube design
- Brazed tube connections
- Head mixing
- Use with 6290 tips (see pages 85-88)

HANDWHEEL VALVE

Model 42 available with handwheel valve. Add "V" to product code when ordering.

42-4F LOW PRESSURE "F" INJECTOR TORCHES (FOR MAXIMUM PERFORMANCE WITH ALTERNATIVE FUELS)

90°HEAD		70°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	PART NO.	WEIGHT (kg)	
42-4F	1,02	**42-4AF**	1,02	420
42-4FL	1,06	**42-4AFL**	1,06	500
42-3FL-835	1,21	**42-3AFL-835**	1,21	835
42-3FL-1000	1,35	**42-3AFL-1000**	1,35	1000

42-4E EQUAL PRESSURE "E" TORCHES (FOR ACETYLENE AND ALTERNATIVE FUELS)

90°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	
42-4E	0,99	420
42-4EL	1,04	500

42-4 LOW PRESSURE TORCHES (FOR ACETYLENE)

90°HEAD		70°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	PART NO.	WEIGHT (kg)	
42-4	1,03	**42-4A**	1,04	420
42-4L	1,07	**42-4AL**	1,07	500
42-3L-835	1,28	**42-3AL-835**	1,25	835
42-3L-1000	1,35	**42-3AL-1000**	1,35	1000

Available with G 3/8" A-UNI ISO 228 inlet threads, add "GB" to product code when ordering.

980 MODEL

STRAIGHT CUTTING HAND TORCH

MODEL SHOWN:
980

FEATURES:

- Cuts up to 200 mm
- Stainless steel cutting lever with „hold-on" button
- Protected internal tip nut threads
- Needle valves for accurate flame control
- Solid forged brass head and lever
- In-line tube design
- Metal handle coated with tough black polyurethane
- Brazed tube connections
- Head mixing
- Use with 6290 tips (see pages 85-88)

980 EQUAL PRESSURE "E" TORCH (FOR ACETYLENE)

90°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	
980	1,11	480

980-F LOW PRESSURE "F" INJECTOR TORCH (FOR MAXIMUM PERFORMANCE ALTERNATIVE FUELS)

90°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	
980-F	1,09	480

980-NM MODEL

STRAIGHT CUTTING HAND TORCH

MODEL SHOWN:
980NM

FEATURES:

- Cuts up to 200 mm
- Stainless steel cutting lever with „hold-on" button
- Protected internal tip nut threads
- Needle valves for accurate flame control
- Solid forged brass head and lever
- In-line tube design
- Metal handle coated with tough black polyurethane
- Brazed tube connections
- Tip mixing
- Use with 8290 tips (see page 89)

980-NM EQUAL PRESSURE TIP MIX TORCHES (FOR ACETYLENE AND ALTERNATIVE FUELS)

90°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	
980-NM	1,12	480

242-NM MODEL

STRAIGHT CUTTING HAND TORCH

MODEL SHOWN: 242NM

FEATURES:

- Cutting capacity 200 mm
- One torch suitable for use with all fuel gases
- Toughest design - triangular stainless steel tubes
- Solid forged brass head
- Stainless steel cutting oxygen lever
- Brazed tube connections
- Tip mixing
- Use with 8290 tips (see page 89)

242-NM EQUAL PRESSURE TIP MIX TORCHES (FOR ACETYLENE OR ALTERNATIVE FUELS)

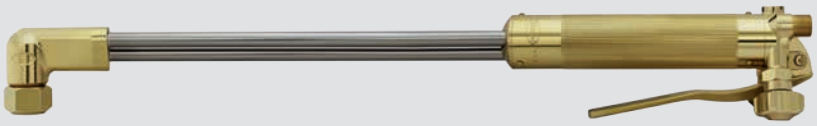
90°HEAD		70°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	PART NO.	WEIGHT (kg)	
242-2NM	1,10	242-2NM-A	1,25	460
242-2NML	1,16	242-2NM-AL	1,31	530
242-2NML36	1,35	242-2NM-AL36	1,50	915

Available with G 3/8" A-UNI ISO 228 inlet threads, add "GB" to product code when ordering.

H28 MODEL

HEAVY DUTY HAND CUTTING TORCH

MODEL SHOWN: H28



FEATURES:

- Cutting capacity 350 mm*
- Toughest design – triangular stainless steel tubes
- Solid forged brass head and lever
- Fast heating and cutting
- Operates with acetylene or alternative fuels
- Brazed tube connections
- Tip mix principle
- Use with 2890 tip mix tips (see page 89)

H28 EQUAL PRESSURE TIP MIX TORCHES (FOR ACETYLENE OR ALTERNATIVE FUELS)

90°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	
H28	1,25	500
H28-L	1,55	820

28 MODEL

HEAVY DUTY HAND CUTTING TORCH

MODEL SHOWN: 28-2L

FEATURES:

- Cuts up to 400 mm with acetylene*
- Cuts up to 500 mm with propane*
- Operates with acetylene or alternative fuels
- Stainless steel in-line tube design
- Brazed tube connections
- Tip mix principle
- Use with 2890 tip mix tips (see page 89)

28 EQUAL PRESSURE TIP MIX TORCHES (FOR ACETYLENE OR ALTERNATIVE FUELS)

90°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	
28-2	1,42	500
28-2L	1,60	660

* For maximum cutting capacity it is recommended to use bulk oxygen back-up

6000 MODEL

HEAVY DUTY FOUNDRY HAND CUTTING TORCHES

MODEL SHOWN: 6000

APPLICATIONS:

- Heavy duty cutting, scarfing and emergency cut-off for continuous cast

FEATURES:

- Cuts up to 890 mm (35") for standard models, 1270 mm (50") and above - 3-hose torch inlet model available for a special order*
- Tip mix torch for propane or natural gas
- Well balanced for operator comfort
- Extra high flow capacity
- Ridged triangular tube arrangement
- Stainless steel head and tubes
- Built to specified lengths up to 1800 mm
- Available with 70°, 90° and 180° head angles
- Use with 213 or 250 tip mix tips (see next page)

Model 6075R
Scarfing torch with Rod Feed

PART NO.	HEAD ANGLE	WEIGHT (kg)	LENGTH (mm)
6000-FL1200**	90°	3,6	1200
6000-FL1500**	90°	3,8	1500
6000-FL1800**	90°	4,1	1800
6000-AFL1200	70°	3,2	1200
6000-AFL1500	70°	3,4	1500
6000-AFL1800	70°	3,7	1800
6000-BFL1200	180°	3,2	1200
6000-BFL1500	180°	3,4	1500
6000-BFL1800	180°	3,7	1800
6075R-AFL 1200	75°	3,2	1200
6075R-AFL 1500	75°	3,4	1500
6075R-AFL 1800	75°	3,7	1800

* Torch stand (skid) for 90° model. To use this option requires a torch head with the factory welded bracket. Please inform us when ordering the torch if you wish to use a torch skid in the future.

136 MODEL

HEAVY DUTY FOUNDRY HAND CUTTING TORCHES

MODEL SHOWN: 136-2FL

APPLICATIONS:

- Foundry and special heavy cutting applications

FEATURES:

- Cuts up to 685 mm (27") for ½" oxygen hose (1HZADT-1 Hose Adaptor required) or 580 mm (23") for 3/8" oxygen hose
- Robust - stainless steel head and tubes
- Triangular tube design offers more stability to the operator
- Tip mix torch for oxygen/propane or natural gas (not to be used with acetylene)
- Requires oxygen and fuel gas hoses with minimum 3/8" internal diameter
- Internal tip nut

PART NO.	HEAD ANGLE	WEIGHT (kg)	LENGTH (mm)
136-2FL1200	90°	2,2	1200
136-2AFL1200	70°	2,2	1200
136-2BFL1200	180°	2,2	1200

NOTE:

Maximum cutting capacity is for reference only, due to many variables beyond our control we are not able to guarantee that the operator will achieve this thickness. These torches cannot be used with single gas cylinders. Proper pressure regulators, flashback arresters and gas hoses have to be used to achieve proper gas flows and trouble-free operation. For additional information please contact your local distributor or our technical specialists team.

ACCESSORIES FOR MODEL 6000 & MODEL 136-2

HIGH CAPACITY TIPS

213 CUTTING TIPS FOR OXY-PROPANE, NATURAL GAS*

MODEL SHOWN: 213

- For Model 6000 torch

PART NO.	PLATE THICKNESS (mm)	OPERATING PRESSURE (bar)		GAS FLOW (l/h)	
		OXYGEN	GAS	OXYGEN	GAS
213-10	500	5,5 - 8,2	1,0 - 1,4	113000 - 156000	3600 - 10000
213-15	1000	5,5 - 9,0	1,0 - 1,4	142000 - 184000	4200 - 11300
213-20	1250	5,5 - 8,2	1,0 - 1,4	170000 - 226000	5100 - 13000

250 SCRAFING TIP FOR PROPANE, NATURAL GAS*

MODEL SHOWN: 250

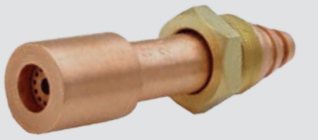
- For Models 6000 and 6075R
- Oxygen supply and oxygen regulator must be capable of flows shown on cutting tip chart

PART NO.	SCARF WIDTH (mm)	OPERATING PRESSURE (bar)		GAS FLOW (l/h)	
		OXYGEN	GAS	OXYGEN	GAS
250-18	up to 60	5,5 - 8,3	1,0 - 1,4	113000 - 156000	3600 - 10000
250-20	up to 75	5,5 - 8,3	1,0 - 1,4	170000 - 226000	3600 - 10000

136 ONE-PIECE TIPS FOR OXY-PROPANE, NATURAL GAS*

MODEL SHOWN: 136

- For Model 136 torch
- Increased tip life - heavy shell with shroud
- "U" spline standard preheat



PART NO.	PLATE THICKNESS (mm)	OPERATING PRESSURE (bar)		GAS FLOW (l/h)	
		OXYGEN	GAS	OXYGEN	GAS
136-11	500	4,0 - 5,5	0,5 - 1,0	27000 - 82000	1700 - 3400
136-13	700	4,0 - 5,5	0,7 - 1,0	59000 - 113000	1700 - 3400
136-15	900	5,5 - 7,0	1,0 - 1,4	71000 - 136000	2200 - 4200

140 ONE-PIECE TIPS FOR OXYGEN-PROPANE / NATURAL GAS*

MODEL SHOWN: 140

- For Model 136 torch
- Non-shrouded
- "V" spline heavy preheat
- High speed “D” versions

PART NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	FUEL GAS (bar)
140-1	250 - 400	4,5 - 6,0	0,8 - 1,0
140-2	400 - 500	4,5 - 6,0	0,8 - 1,0
140-3	500 - 600	4,5 - 6,0	0,8 - 1,0
140-4	600 - 700	4,5 - 6,0	1,0 - 1,2
140-1D	250 - 400	6,2 - 9,0	0,8 - 1,0
140-2D	400 - 500	6,2 - 9,0	0,8 - 1,0
140-3D	500 - 600	6,2 - 9,0	0,8 - 1,0

* Not for use with Acetylene.

NUT & TWIN HOSES

MODEL SHOWN:
6000-DM and 136-DM

PART NO.	DESCRIPTION
6000-DM	Nut for Model 6000
136-DM	Nut for Model 136

MODEL SHOWN:
214460

PART NO.	DESCRIPTION	LENGTH (mm)	HOSE DIAMETER (mm)		THREADING	
			OXYGEN	FUEL GAS	OXYGEN	FUEL GAS
214460/10	Twin hoses	10	12,5	9,0	G 1/2"RH	G 3/8" RH
214460/20	Twin hoses	20	12,5	9,0	G 1/2"RH	G 3/8" RH

WHEN YOU NEED THE MAXIMUM VERSATILITY IN METALWORKING EQUIPMENT, CHOOSE HARRIS. OUR COMBINATION OUTFITS INCLUDE EVERYTHING YOU NEED TO CUT, WELD, BRAZE AND SOLDER.

TORCH HANDLES

OVERVIEW

When you buy a HARRIS handle, you can be sure that it is the best that money can buy. Our handles are designed to give the best performance, made of the best materials by the best manufacturer in the industry.

MODEL SHOWN:
85

For most applications HARRIS combination torch handles have silver-brazed twin inner tube construction for strength, light weight and maximum leak integrity.

MODEL SHOWN:
43

For special applications where gas flow requirements are critical and light weight can be compromised, HARRIS uses tube-within-a-tube construction to fulfill those requirements while still maintaining the strength and leak integrity that these applications require.

CUTTING ATTACHMENTS

OVERVIEW

HARRIS cutting attachments have the best features in the Industry. All HARRIS and HARRIS "V" series have the same great features for safety, reliability and long life and are suitable for industrial use.

MODEL SHOWN:
72-3

GENERAL FEATURES:

- Solid forged brass head resists abuse and distortion
- Triangular tube design is compact and lightweight providing exceptional strength and rigidity
- Brazed tube connections prevent leaks
- Protected torch union nut protects seats and O-rings from abuse
- Solid forged brass lever for exceptional strength
- Ease-on cutting oxygen control for smoother starts

WHEN CONSTRUCTION MATTERS USING HARRIS MAKES THE DIFFERENCE.

73 MODEL

EQUAL PRESSURE "E" CUTTING ATTACHMENTS

MODEL SHOWN: 73-3

FEATURES:

- Heavy duty equipment
- For acetylene and alternative fuels
- Cuts up to 150 mm
- Handwheel valve option

Handwheel valve

73 EQUAL PRESSURE "E" FOR ACETYLENE AND ALTERNATIVE FUELS

PART NO.	HEAD ANGLE	COMPATIBLE CUTTING TIPS	COMPATIBLE HANDLE	WEIGHT (kg)	LENGTH (mm)
73-3	90°	6290	43-2; 263; 543	0,638	227
73-3B	180°	6290	43-2; 263; 543	0,630	253
73-3V*	90°	6290	43-2; 263; 543	0,650	227

49-3 MODEL

LOW PRESSURE CUTTING ATTACHMENTS

MODEL SHOWN: 49-3

FEATURES:

- Heavy duty equipment
- Model 49 for acetylene
- Model 49-F for alternative fuels
- Cuts up to 150 mm
- Handwheel valve option

Handwheel valve

49 LOW PRESSURE FOR ACETYLENE

PART NO.	HEAD ANGLE	COMPATIBLE CUTTING TIPS	COMPATIBLE HANDLE	WEIGHT (kg)	LENGTH (mm)
49-3	90°	6290	43-2; 263; 543	0,678	248
49-3A	70°	6290	43-2; 263; 543	0,686	258
49-3L360	90°	6290	43-2; 263; 543	0,728	348
49-3L500	90°	6290	43-2; 263; 543	0,750	490
49-3V*	90°	6290	43-2; 263; 543	0,692	248

49-F LOW PRESSURE "F" FOR ALTERNATIVE FUELS

PART NO.	HEAD ANGLE	COMPATIBLE CUTTING TIPS	COMPATIBLE HANDLE	WEIGHT (kg)	LENGTH (mm)
49-3AF	70°	6290	43-2; 263; 543	0,674	258
49-3AFV*	70°	6290	43-2; 263; 543	0,700	258
49-3F	90°	6290	43-2; 263; 543	0,678	248
49-3FL360	90°	6290	43-2; 263; 543	0,736	348
49-3FL500	90°	6290	43-2; 263; 543	0,804	490
49-3FV*	90°	6290	43-2; 263; 543	0,688	248

* "V" handwheel valve instead of lever.

273 MODEL

EQUAL PRESSURE CUTTING ATTACHMENTS

MODEL SHOWN: 273

FEATURES:

- Medium - heavy duty equipment
- Equal pressure mixing
- For acetylene and alternative fuels
- Cuts up to 150 mm

273 BRAZED IN MIXER

PART NO.	HEAD ANGLE	COMPATIBLE CUTTING TIPS	COMPATIBLE HANDLE	WEIGHT (kg)	LENGTH (mm)
273-2	**90°**	6290	43-2; 263; 543	0,840	230
273-2A	**70°**	6290	43-2; 263; 543	0,845	230

273-NM

PART NO.	HEAD ANGLE	COMPATIBLE CUTTING TIPS	COMPATIBLE HANDLE	WEIGHT (kg)	LENGTH (mm)
273-2-NM	**90°**	8290	43-2; 263; 543	0,800	230

72 MODEL

EQUAL PRESSURE "E" CUTTING ATTACHMENTS

MODEL SHOWN: 72

Handwheel valve

FEATURES:

- Medium duty equipment
- For acetylene and alternative fuels
- Cuts up to 100 mm
- Handwheel valve option

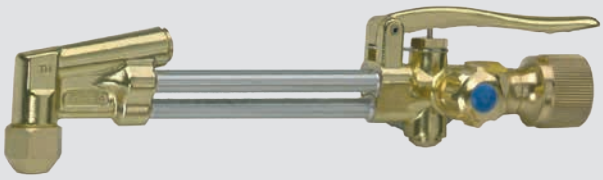
72 EQUAL PRESSURE "E" FOR ACETYLENE AND ALTERNATIVE FUELS

PART NO.	HEAD ANGLE	COMPATIBLE CUTTING TIPS	COMPATIBLE HANDLE	WEIGHT (kg)	LENGTH (mm)
72-3	**90°**	6290	85	0,636	227
72-3V*	**90°**	6290	85	0,642	227

36 MODEL

EQUAL PRESSURE "E" CUTTING ATTACHMENTS

MODEL SHOWN: 36-2



FEATURES:

- Light duty equipment
- For acetylene and alternative fuels
- Cuts up to 75 mm

36 EQUAL PRESSURE "E" FOR ACETYLENE AND ALTERNATIVE FUELS

PART NO.	HEAD ANGLE	COMPATIBLE CUTTING TIPS	COMPATIBLE HANDLE	WEIGHT (kg)	LENGTH (mm)
36-2	**90°**	3690	19-6	0,326	189

* "V" handwheel valve instead of lever.

43 MODEL

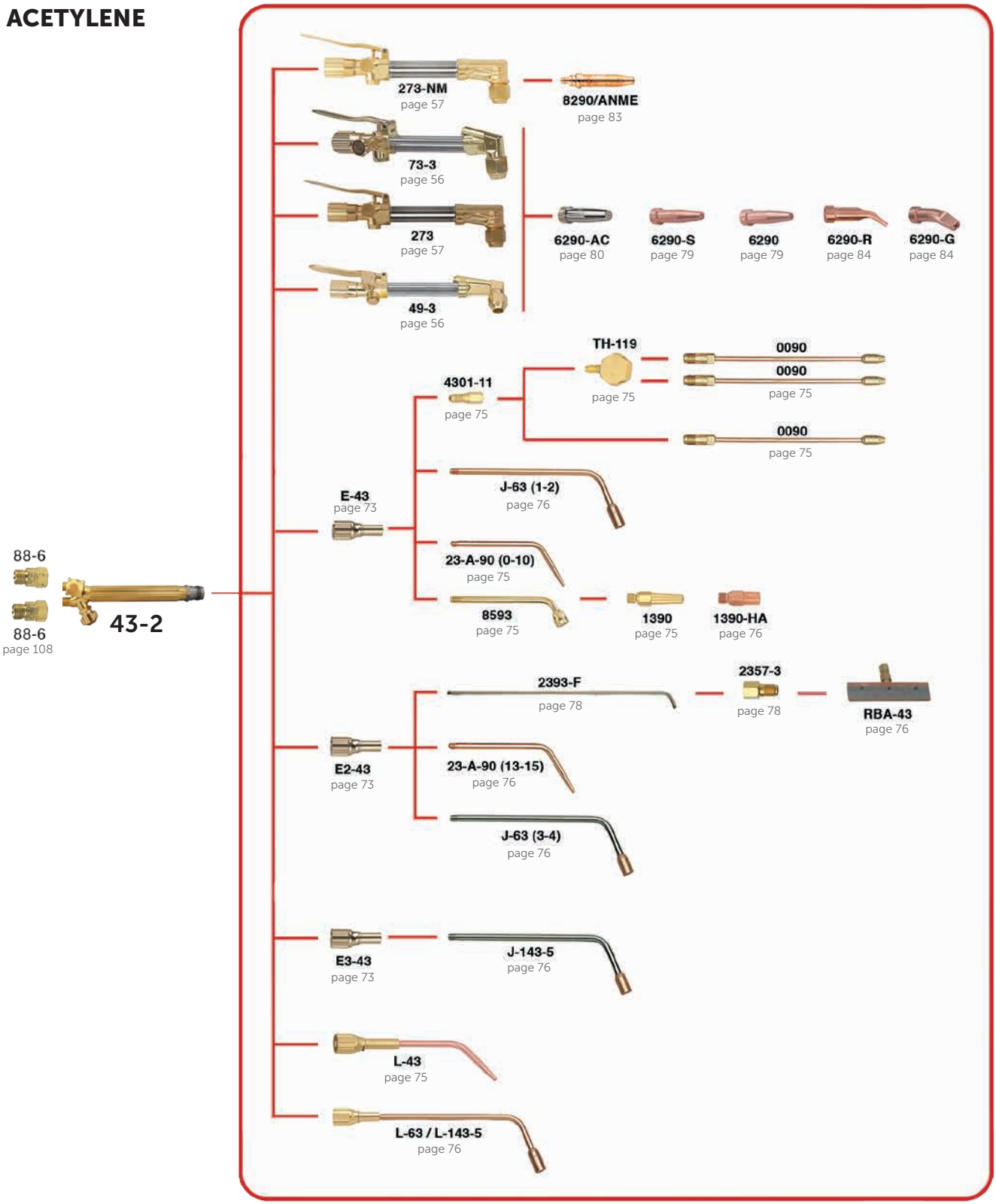
HIGH CAPACITY COMBINATION HANDLE

MODEL SHOWN:
43-2

FEATURES:

- Welds up to 50 mm
- Cuts up to 150 mm
- For acetylene or alternative fuel gases
- Stainless steel head
- Tough extruded brass handle
- Stainless steel ball valves
- No screws or soldered parts for easier maintenance

ACETYLENE



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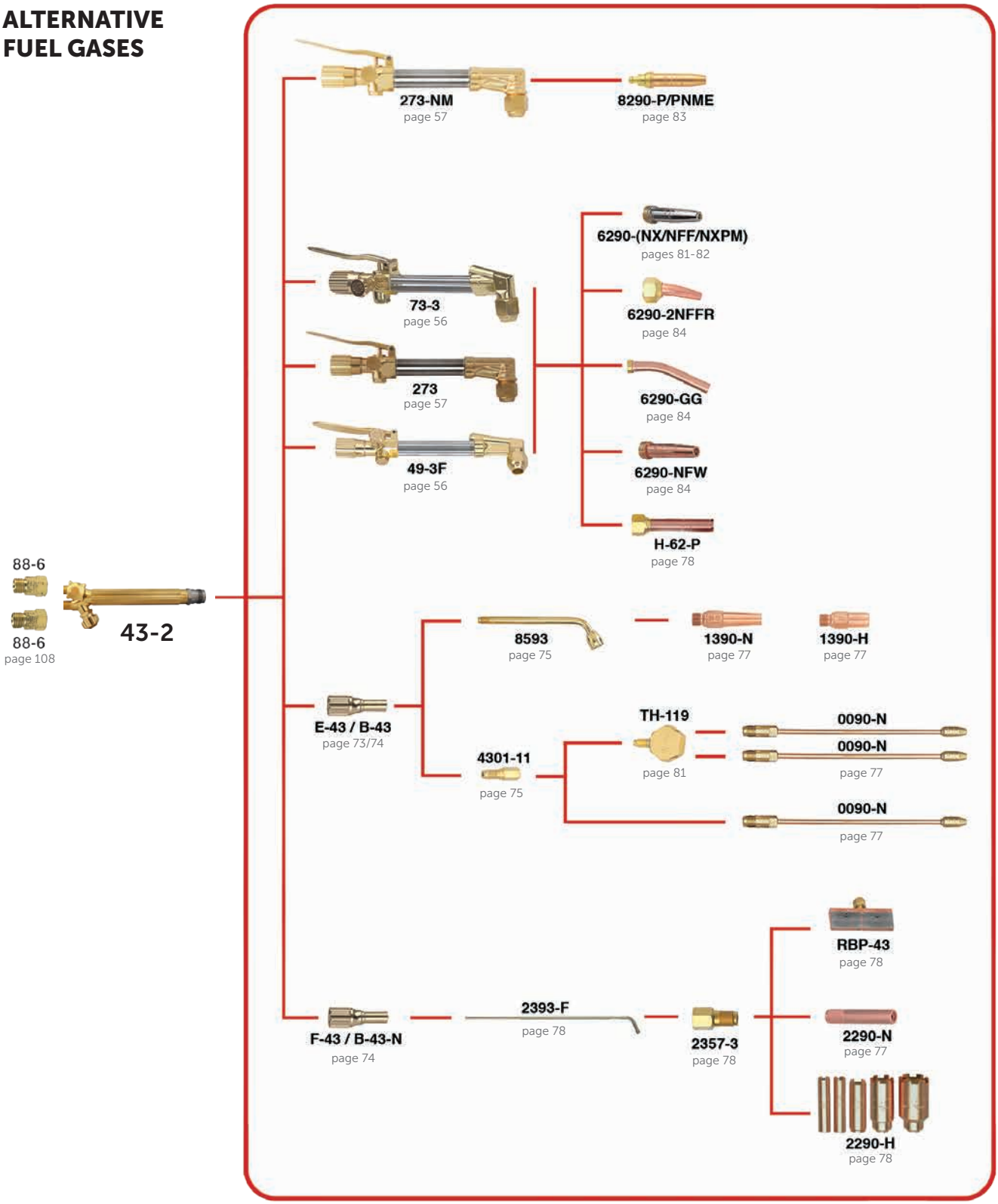
PART NO.	COMPATIBLE CUTTING ATTACHMENT	THREAD OXYGEN	THREAD FUEL GAS	WEIGHT (kg)	LENGTH (mm)
43-2	49-3; 59-3; 73-3; 273	9/16"-18-UNF-3A-RH	9/16"-18-UNF-3A-LH	0,550	208
43-2GB	49-3; 59-3; 73-3; 273	G 3/8" A-RH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228	0,558	208

ALTERNATIVE FUEL GASES



263 MODEL

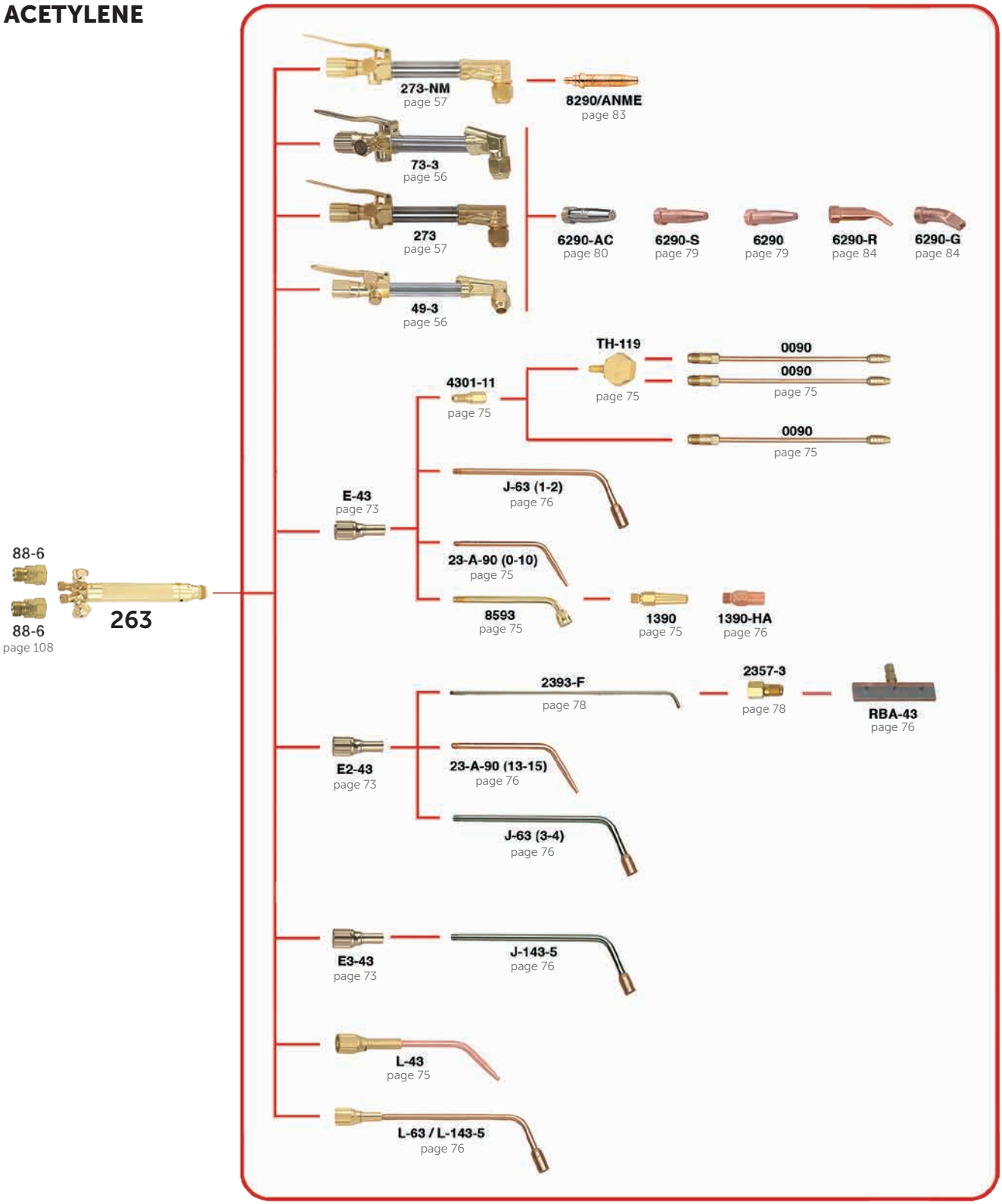
HIGH CAPACITY COMBINATION HANDLE

MODEL SHOWN: 263

FEATURES:

- Welds up to 50 mm
- Cuts up to 150 mm
- For acetylene or alternative fuel gases
- High precision ball valves
- Two separate gas tubes
- Brass handle

ACETYLENE



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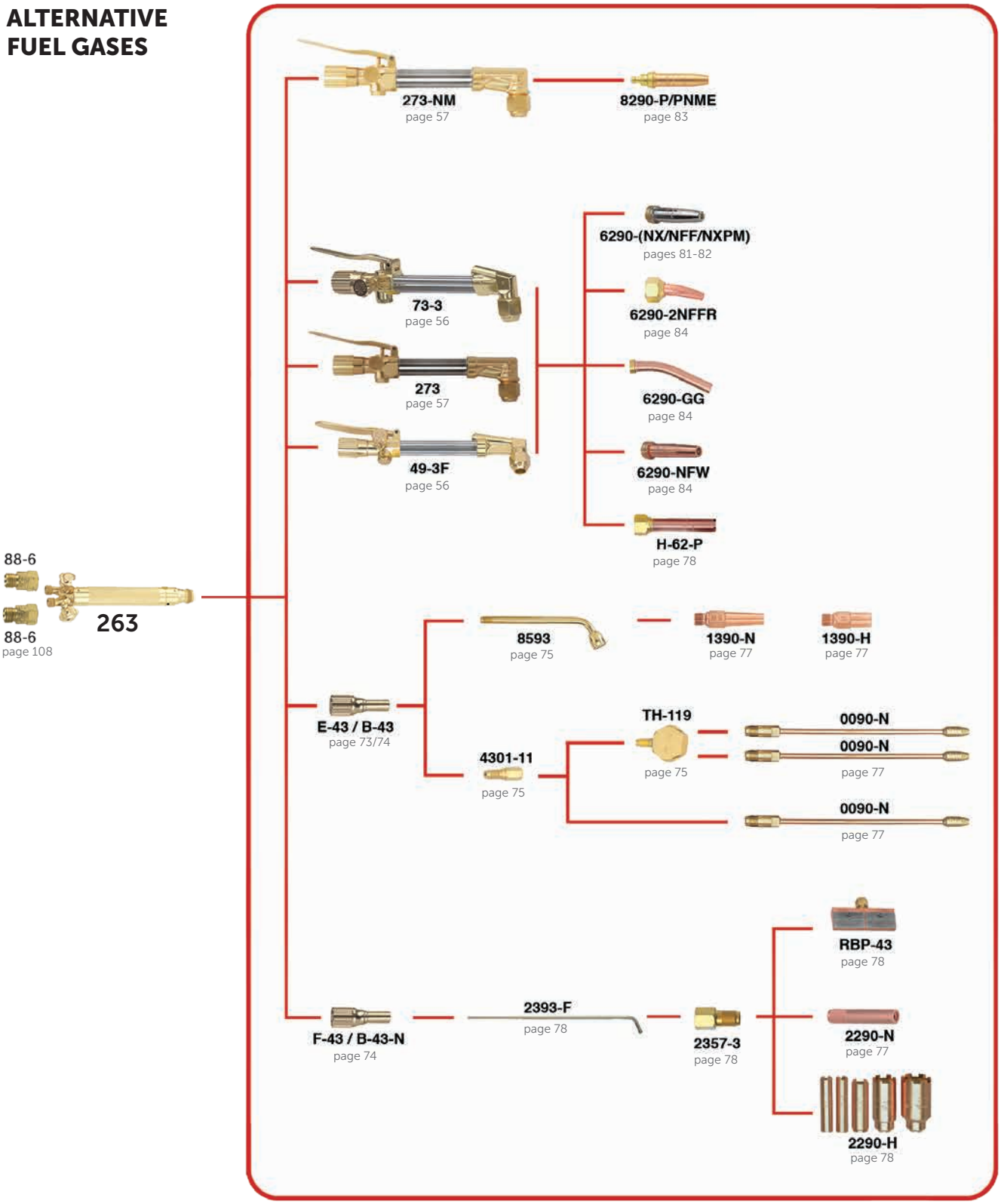
PART NO.	COMPATIBLE CUTTING ATTACHMENT	THREAD OXYGEN	THREAD FUEL GAS	WEIGHT (kg)	LENGTH (mm)
263	49-3; 59-3; 73-3; 273	9/16"-18-UNF-3A-RH	9/16"-18-UNF-3A-LH	0,550	208
263-GB	49-3; 59-3; 73-3; 273	G 3/8" A-RH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228	0,558	208

ALTERNATIVE FUEL GASES



543 MODEL

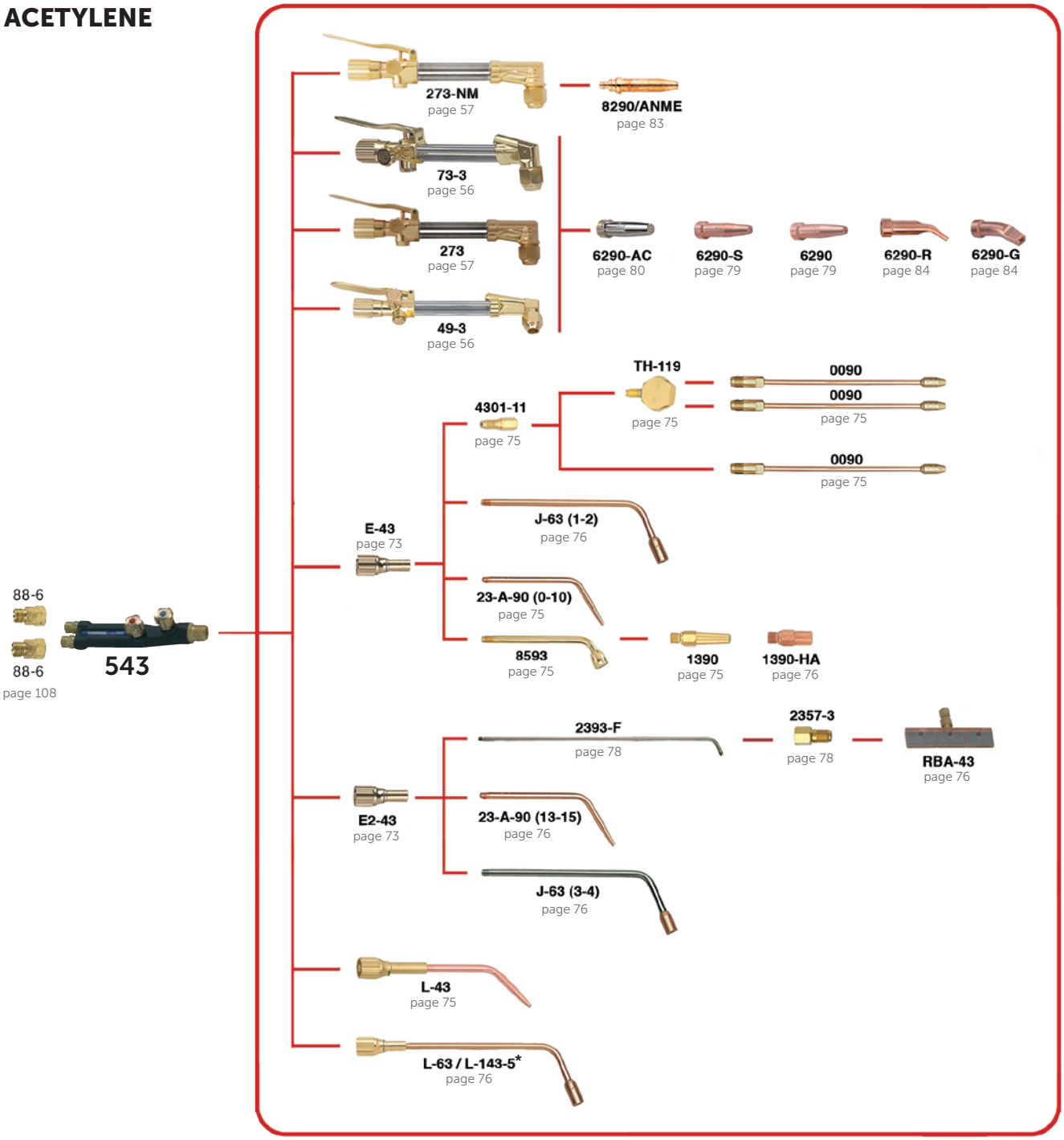
ERGONOMIC COMBINATION HANDLE

MODEL SHOWN: 543

FEATURES:

- Welds up to 50 mm
- Cuts up to 150 mm
- For acetylene or alternative fuel gases
- Ergonomic design with front valves
- Forged aluminium alloy body
- High precision ball valves
- Coated with tough black polyurethane for longer life

ACETYLENE



* Caution: exceeds the withdrawal capacity of the one standard acetylene cylinder

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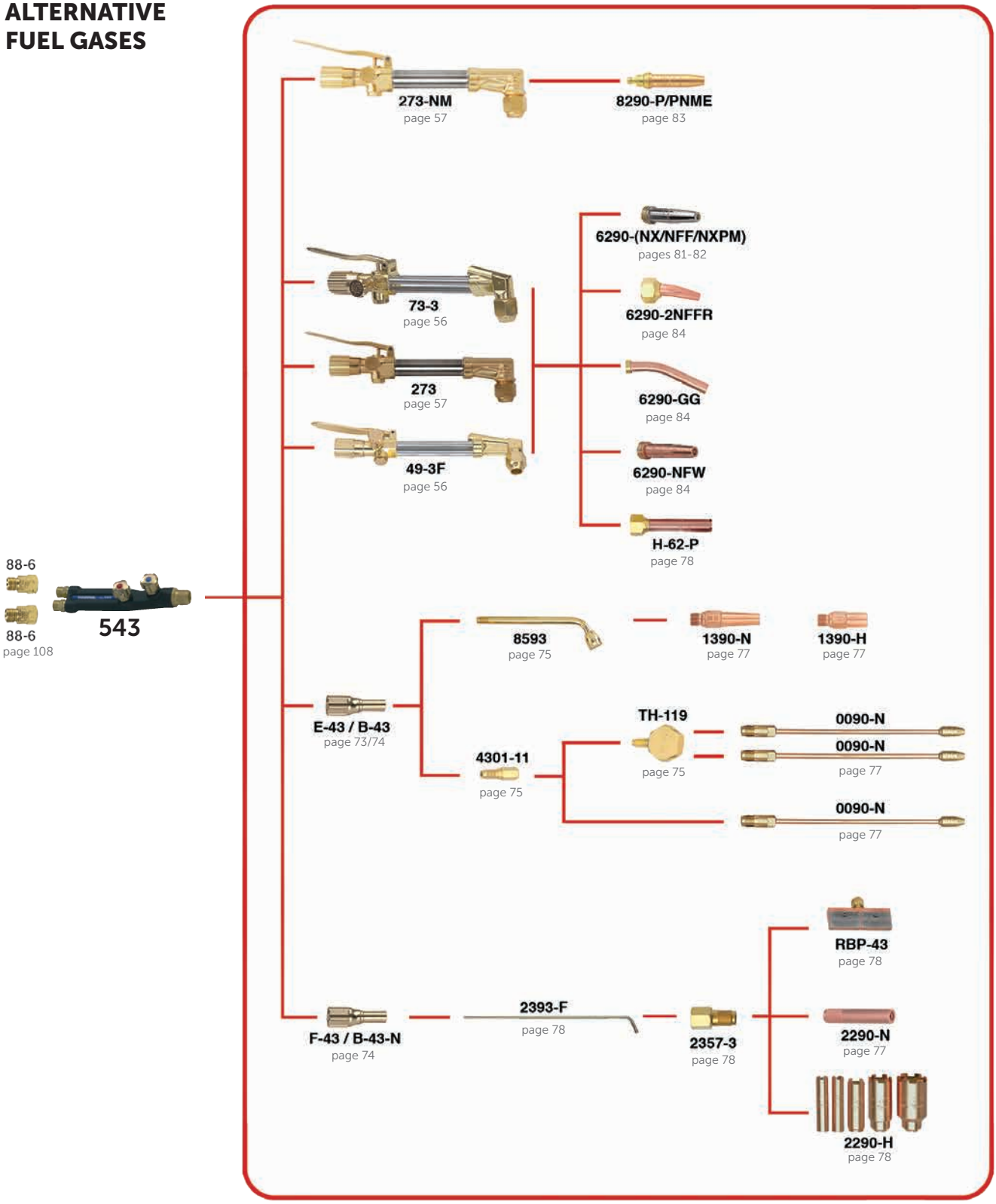
PART NO.	COMPATIBLE CUTTING ATTACHMENT	THREAD OXYGEN	THREAD FUEL GAS	WEIGHT (kg)	LENGTH (mm)
543	49-3; 59-3; 73-3; 273	9/16"-18-UNF-3A-RH	9/16"-18-UNF-3A-LH	0,502	211
543D	49-3; 59-3; 73-3; 273	G 1/4" A-RH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228	0,503	211
543GB	49-3; 59-3; 73-3; 273	G 3/8" A-RH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228	0,507	211

ALTERNATIVE FUEL GASES



85 MODEL

MEDIUM DUTY COMBINATION HANDLE

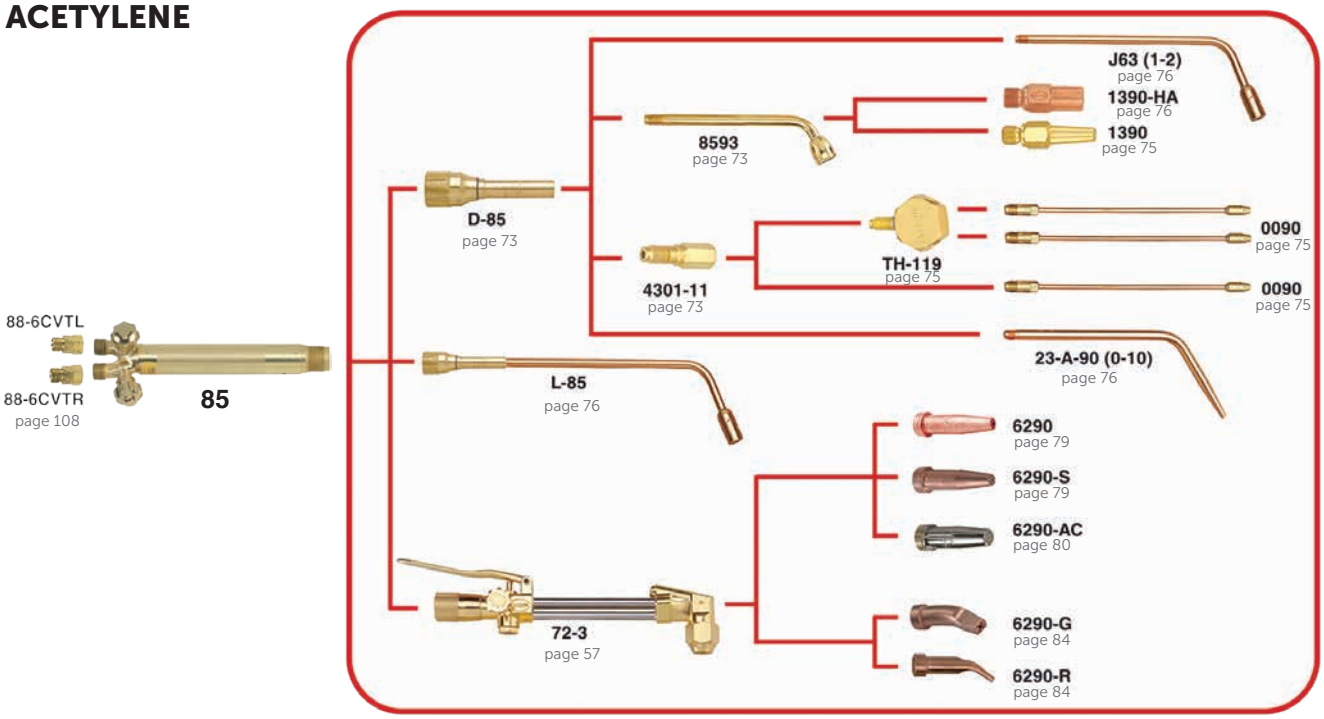
MODEL SHOWN: 85

FEATURES:

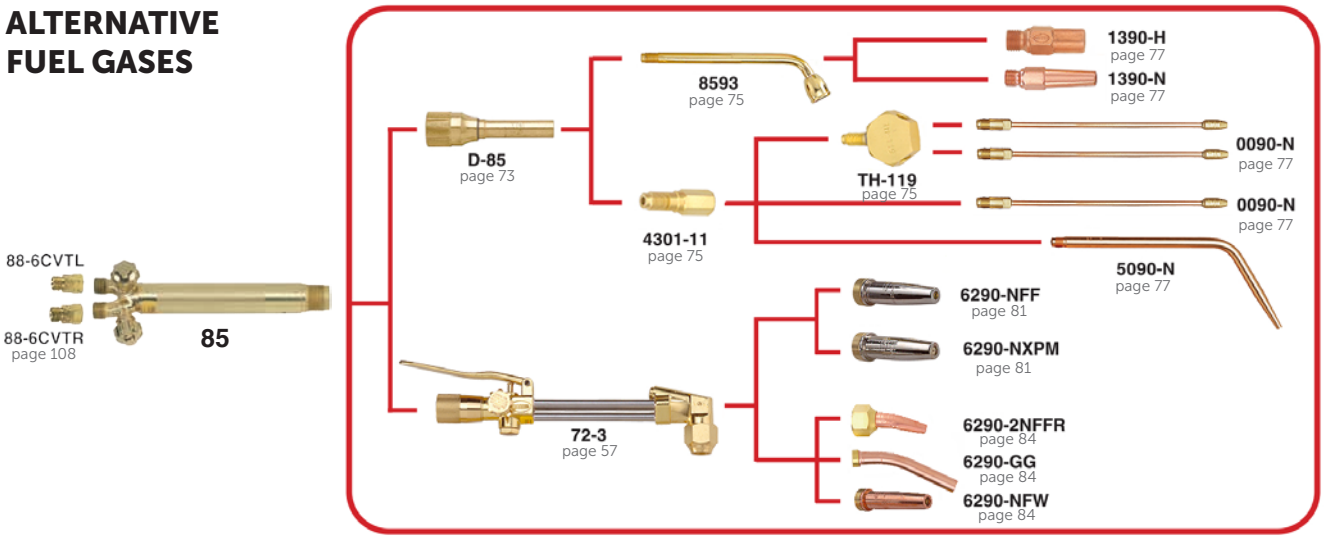
- Welds up to 20 mm
- Cuts up to 100 mm
- For acetylene or alternative fuel gases
- Brass torch handle
- Silver brazed twin tube construction for safety and durability
- Ball valve for fast and accurate flame adjustment

PART NO.	COMPATIBLE CUTTING ATTACHMENT	THREAD OXYGEN	THREAD FUEL GAS	WEIGHT (kg)	LENGTH (mm)
85	72-3	9/16"-18-UNF-3A-RH	9/16"-18-UNF-3A-LH	0,362	183

ACETYLENE



ALTERNATIVE FUEL GASES



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50 MODEL

AUTOMATIC TORCH HANDLE FOR WELDING AND BRAZING

MODEL SHOWN: 50

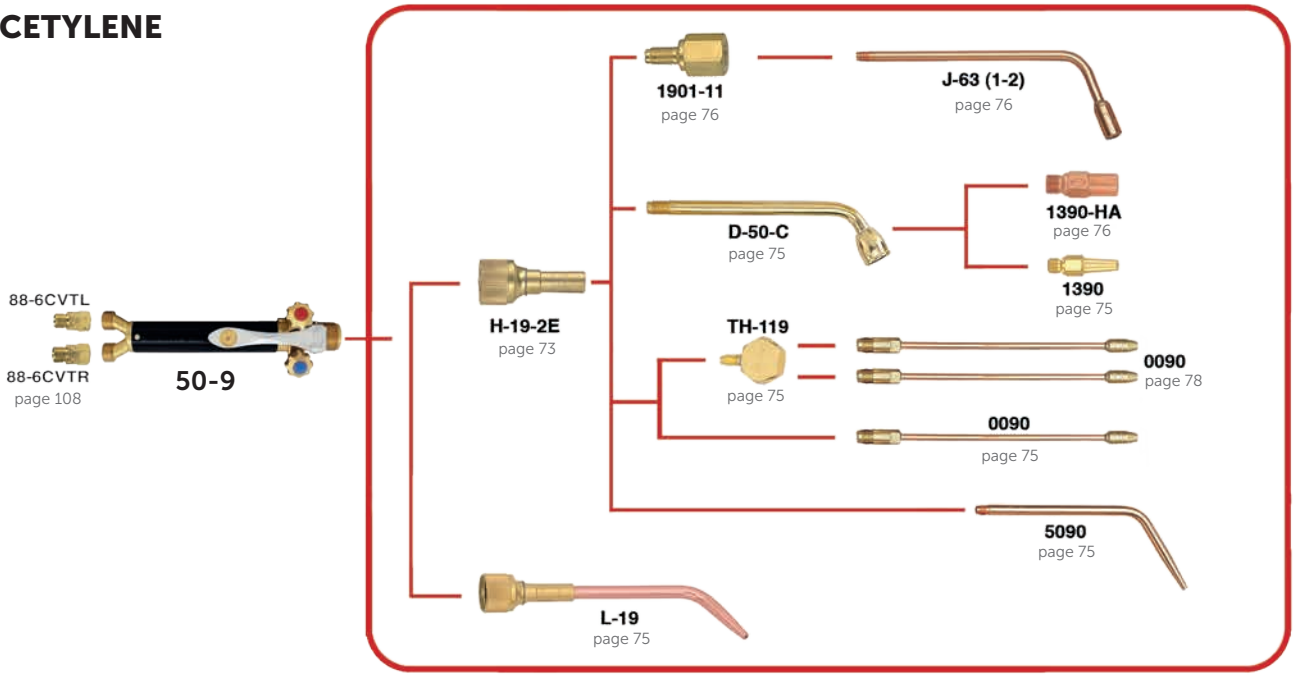
The Harris 50-9 and 50-10 automatic torch handles feature unique gas control systems to reduce operating time and improve safety and convenience. The thumb operated gas control on/off and adjustable pilot light eliminate relighting and flame readjustment each time the torch is used. The on/off feature can be used for cutting, brazing, and welding with all oxy fuel gases. The pilot flame light feature is not recommended when using cutting attachments or heating tips.

FEATURES:

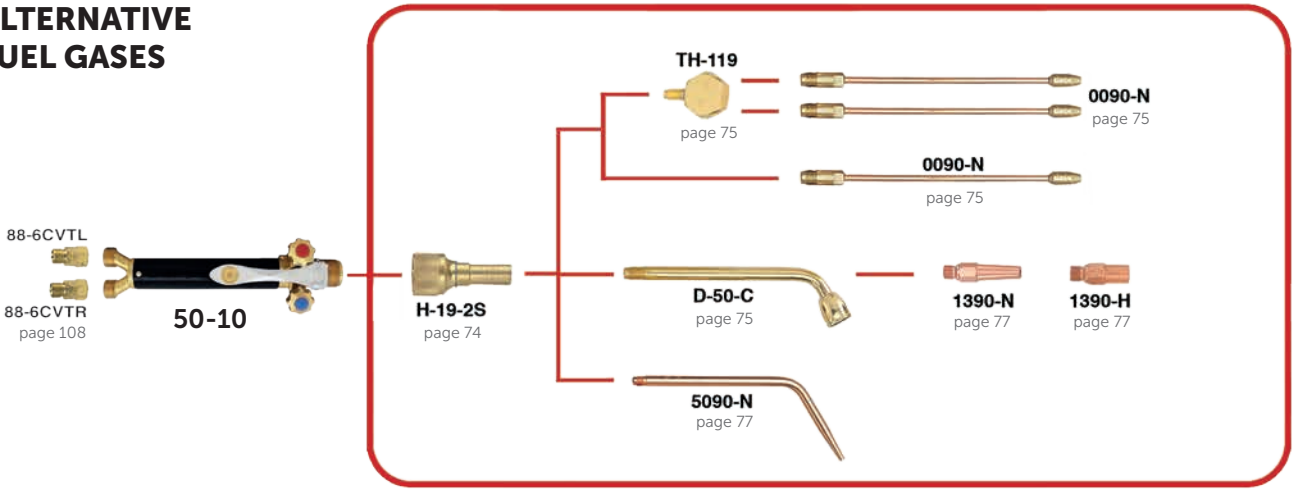
- Welds up to 14 mm
- Automatic on/off gas control
- Adjustable pilot light
- Model 50-9 for acetylene
- Model 50-10 for alternative fuel gases

PART NO.	COMPATIBLE CUTTING ATTACHMENT	THREAD OXYGEN	THREAD FUEL GAS	WEIGHT (kg)	LENGTH (mm)
50-9	36-2	9/16"-18-UNF-3A-RH	9/16"-18-UNF-3A-LH	0,310	169
50-9-GB	36-2	G 1/4" A-RH-UNI ISO 228	G 1/4" A-LH-UNI ISO 228	0,308	169
50-10	36-2	9/16"-18-UNF-3A-RH	9/16"-18-UNF-3A-LH	0,310	169
50-10-GB	36-2	G 1/4" A-RH-UNI ISO 228	G 1/4" A-LH-UNI ISO 228	0,308	169

ACETYLENE



ALTERNATIVE FUEL GASES



Note: For additional welding / brazing equipment see our Brazing and Soldering Guide or Production Brazing Catalogue

19 MODEL

MEDIUM DUTY COMBINATION HANDLE

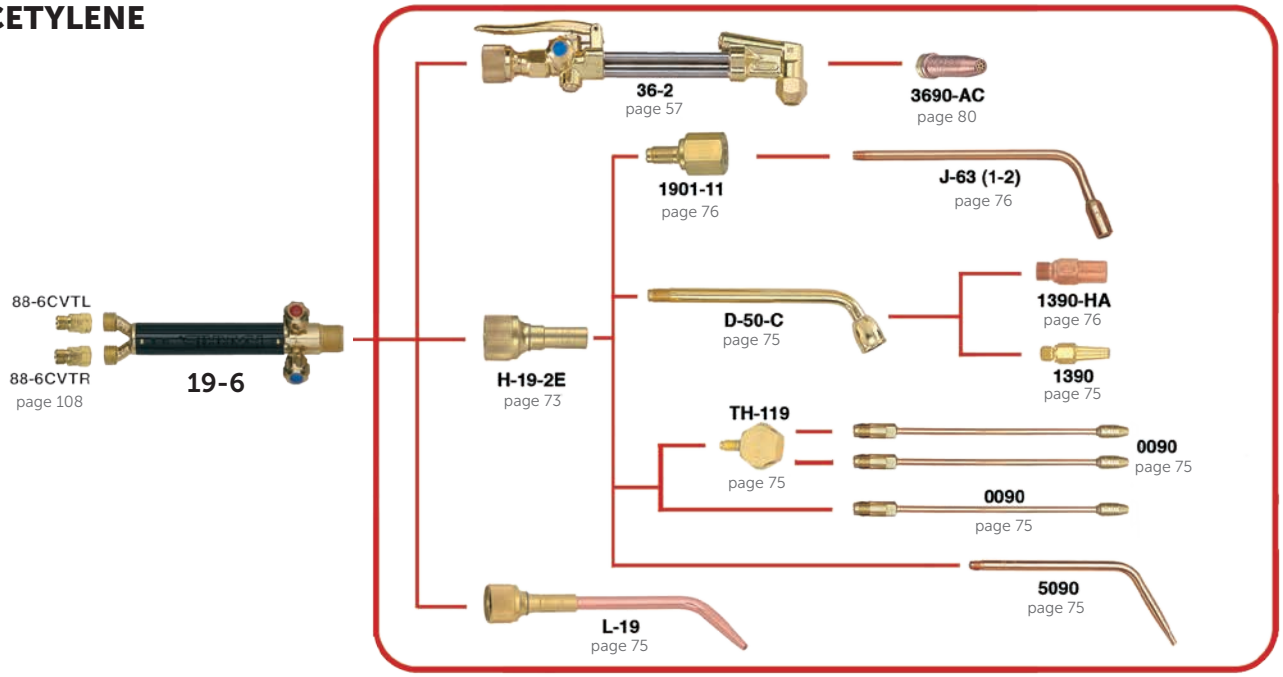
MODEL SHOWN: 19

FEATURES:

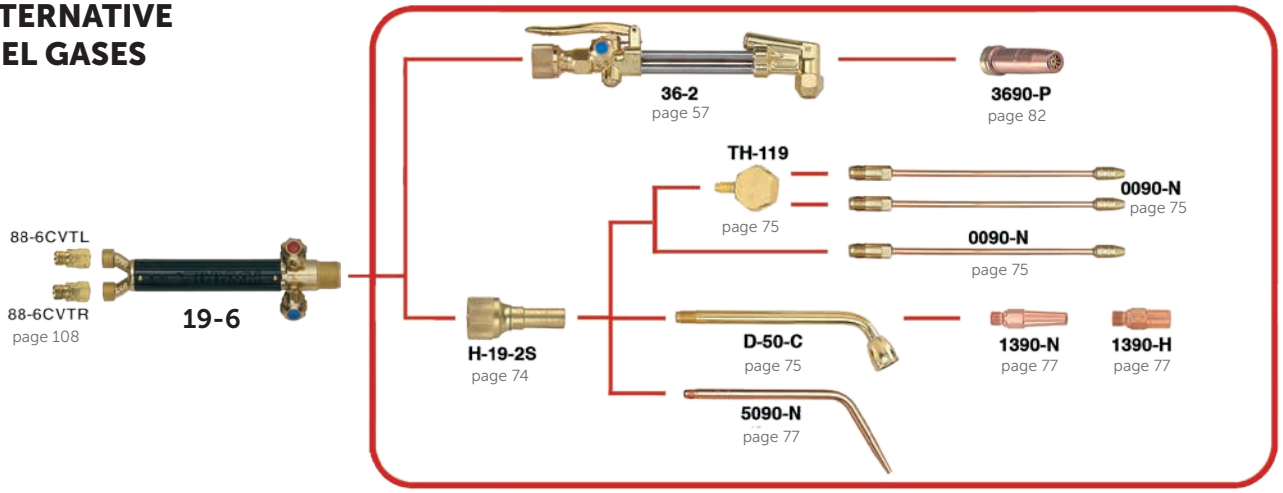
- Welds up to 14 mm
- Cuts up to 75 mm
- For acetylene or alternative fuel gases
- Lightweight handle
- Silver brazed twin tube construction for safety and durability
- Valves located at the front of handle for more precise control while brazing

PART NO.	COMPATIBLE CUTTING ATTACHMENT	THREAD OXYGEN	THREAD FUEL GAS	WEIGHT (kg)	LENGTH (mm)
19-6	36-2	9/16"-18-UNF-3A-RH	9/16"-18-UNF-3A-LH	0,240	154
19-6-GB	36-2	G 1/4" A-RH-UNI ISO 228	G 1/4" A-LH-UNI ISO 228	0,238	154

ACETYLENE



ALTERNATIVE FUEL GASES



Note: For additional welding / brazing equipment see our Brazing and Soldering Guide or Production Brazing Catalogue

15 MODEL

AUTOMATIC TORCH HANDLE FOR WELDING AND BRAZING

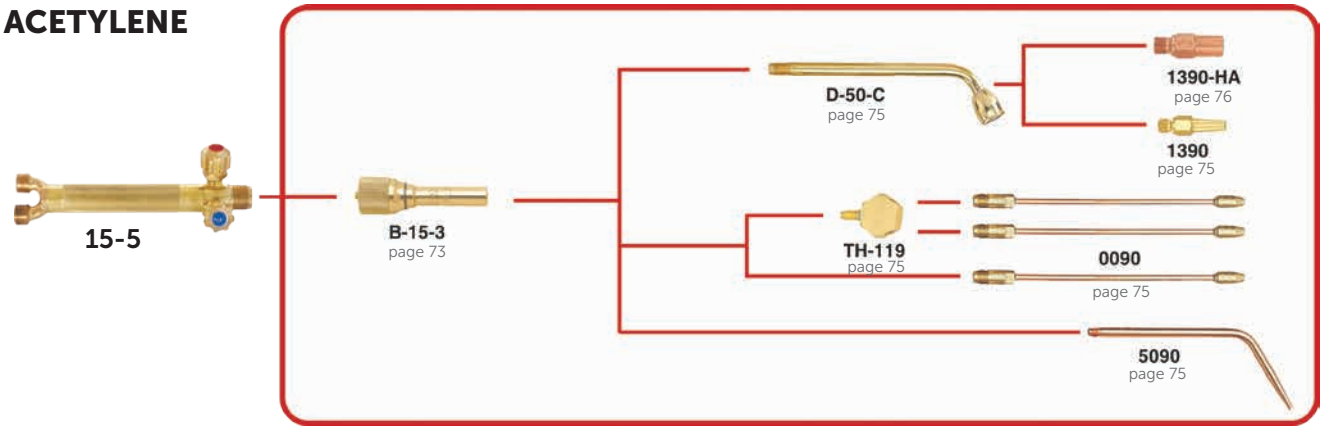
MODEL SHOWN:
15-5

FEATURES:

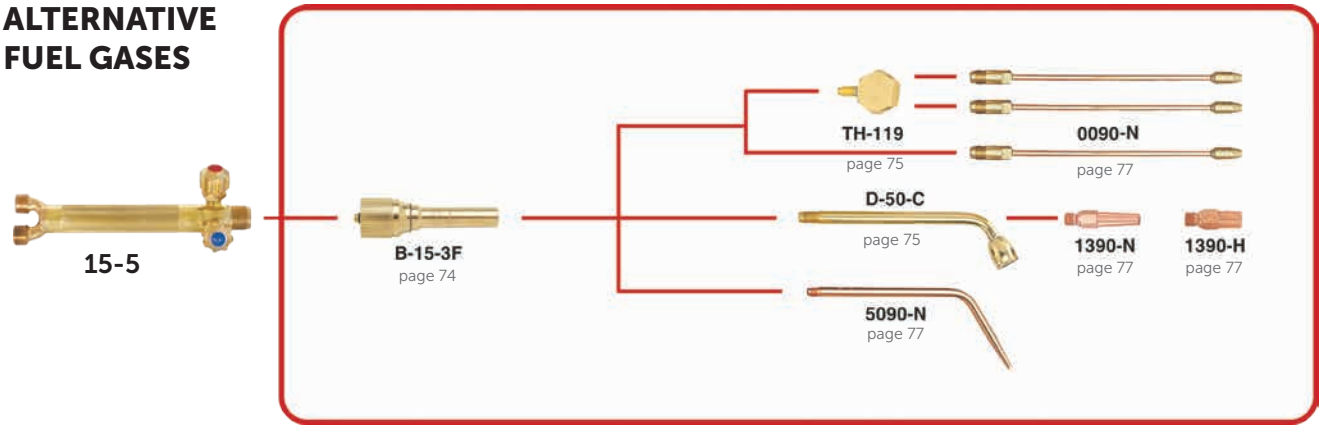
- Welds up to 7,9 mm
- Versatile, for all gasses
- Lightweight and compact design
- Ergonomic
- Front valves for convenient adjustment
- Permits changing flame settings with one hand

PART NO.	THREAD OXYGEN	THREAD FUEL GAS	WEIGHT (kg)	LENGTH (mm)
15-5	3/8" - 24 - UNF	3/8" - 24 - UNF	0,227	146
15-5GB	G 1/4" A-RH-UNI ISO 228	G 1/4" A-LH-UNI ISO 228	0,227	146

ACETYLENE



ALTERNATIVE FUEL GASES



Note: For additional welding / brazing equipment see our Brazing and Soldering Guide or Production Brazing Catalogue

105 MODEL

EXTRA LIGHTWEIGHT TORCH HANDLE FOR WELDING, BRAZING, SOLDERING AND LIGHT HEATING

MODEL SHOWN: 105

FEATURES:

- Welds up to 6 mm (with acetylene)
- For acetylene or alternative fuel gases
- High flow
- Ergonomic
- Lightweight – only 115 g (105B)
- Compact design
- Length – 150 mm
- Front gas valves allow precise one-hand flame adjustment
- Excellent for production brazing
- Use with 5 mm (105A) or 3,2 mm (105B) internal diameter gas hoses
- In order to use a full range of Harris brazing tips connect the 10501 adapter to the mixer or replace the M105 mixer by B-15-3 (B-15-3F)

105A

105B

PART NO.	HOSE CONNECTION (mm)	FUEL GAS	MIXER	MIXING SYSTEM	TIP TUBE	ACETYLENE WELDING/ BRAZING TIPS	ALTERNATIVE GASES BRAZING TIPS
105A	5	Acetylene, Alternative gases	M105	E	10593	105900, 105901, 105903, 105905, 105906	105900N, 105901N, 105903N, 105905N, 105906N
105B	3,2	Acetylene, Alternative gases	M105	E	10593	105900, 105901, 105903, 105905, 105906	105900N, 105901N, 105903N, 105905N, 105906N

ACETYLENE

ALTERNATIVE FUEL GASES

Note: For additional welding / brazing equipment see our Brazing and Soldering Guide or Production Brazing Catalogue

189-2 MODEL

AUTOMATIC SOLDERING AND HEATING ASSEMBLY FOR PROPANE OR NATURAL GAS

MODEL SHOWN: **189-2**

The Harris 189-2 heating and soldering torch is designed to operate with natural gas (0,015 bar or more) or propane in combination with 3 to 7 bar of compressed air only.
The 189-2 is completely automatic. Once adjusted to the proper flame, the pilot light can be retained during down time and full flame returned instantly by pressing the hand lever. The pilot light can be enlarged to a full “smoothing on” secondary flame when used for soldering. The tip can be positioned in any direction.

FEATURES:

- Large area soft soldering
- Preheating castings for welding
- Heating pipes in chemical plants
- Mould drying
- Metal cleaning (brewery, vats, rubber mould, etc.)
- Burning paint
- Heating forming dies prior to hard facing
- Stress relieving die shoes
- Annealing copper tubing
- For use with compressed air only

PART NO.	HEATTING TIP	THREAD AIR	THREAD FUEL GAS	WEIGHT (kg)	LENGTH (mm)
1892	81-12	9/16"-18-UNF-3A-RH	9/16”-18-UNF-3A-LH	0,85	326
1892GB	81-12	G 3/8” A-RH-UNI ISO 228	G 3/8” A-LH-UNI ISO 228	1,16	342
1892A600	81-12	9/16"-18-UNF-3A-RH	9/16"-18-UNF-3A-RH	1,25	716

81-12 MODEL

HEATING TIP

MODEL SHOWN: **81-12 TIP**

The 81-12 heating tip is a special bell-shaped tip made of heat resistant stainless still.

FEATURES:

- Designed to operate with natural gas or propane in combination with compressed air
- Tip can be swiveled in any direction

PART NO.	HEAT OUTPUT (Kcal/h)	COMPRESSED AIR		FUEL GAS	
		PRESSURE (bar)	FLOW (l/h)	PRESSURE (bar)	FLOW (l/h)
			PROPANE		
81-12	66000	7	45000	0,3	3000
			NATURAL GAS		
81-12	83000	7	40000	0,015	9000

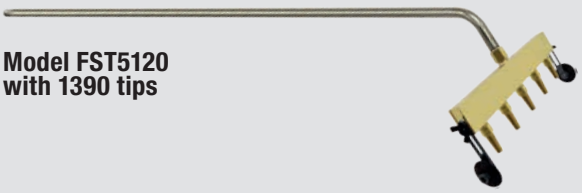
Caution: This torch should never be connected to oxygen or acetylene.

FLAME STRAIGHTENING MULTI-TIP TORCHES

FEATURES:

- For acetylene or alternative fuel gases
- Three or five single flame models
- High heat density in a restricted area
- Rapid heat transfer
- Safe operation
- Wide range of stainless tip tubes lengths from which to select the best for each job
- Equipped with wheel-car for easy movement
- For repairing damaged, distorted steel, nickel, copper, brass, aluminium caused by welding, collisions, fires, etc

Model FST3380
with 1390 tips

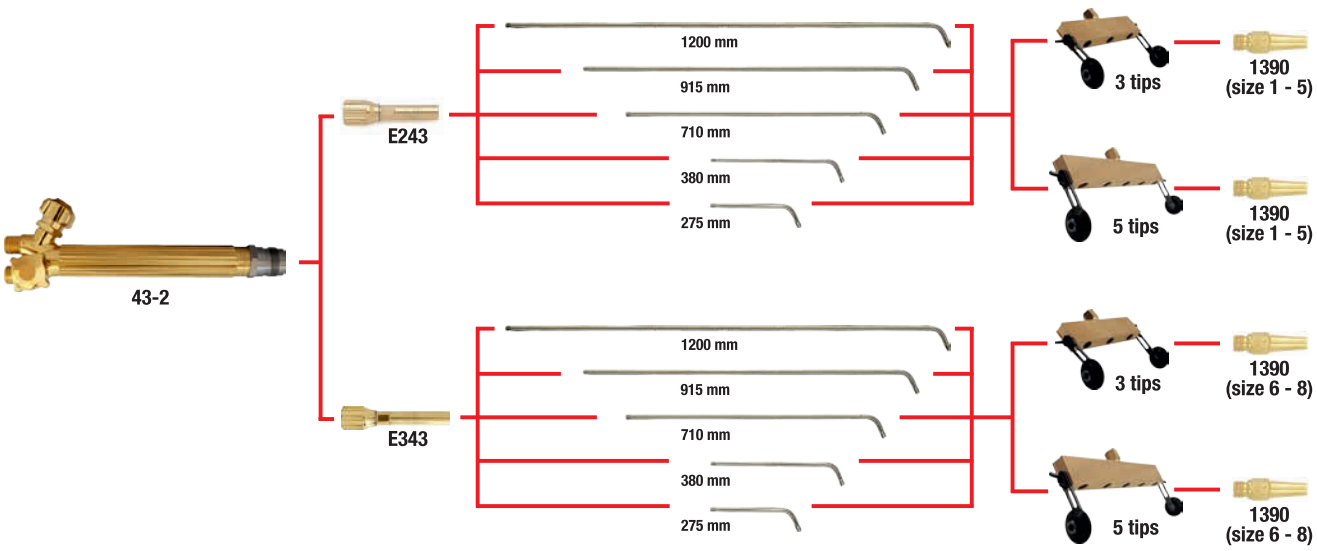


Model FST5120
with 1390 tips

ACETYLENE TIPS PERFORMANCE DATA CHART

TIP MODEL	OXYGEN (bar)	ACETYLENE (bar)	FLOW (l/h) 3 TIP FLAME	HEATING OUTPUT (Kcal/h) 3 TIP FLAME	FLOW (l/h) 5 TIP FLAME	HEATING OUTPUT (Kcal/h) 5 TIP FLAME
1390-00	0,3 - 0,8	0,3 - 0,8	60	730	130	1650
1390-0	0,3 - 0,8	0,3 - 0,8	100	1320	230	2950
1390-1	0,3 - 0,8	0,3 - 0,8	150	1900	330	4300
1390-2	0,3 - 0,8	0,3 - 0,8	230	2950	510	6600
1390-3	0,3 - 0,8	0,3 - 0,8	360	4700	810	10530
1390-4	0,3 - 0,8	0,3 - 0,8	560	7300	1270	16560
1390-5	0,3 - 0,8	0,3 - 0,8	790	10250	1770	23030
1390-6	0,3 - 0,8	0,3 - 0,8	1130	14650	2530	32900
1390-7	0,3 - 0,8	0,3 - 0,8	1580	20500	3550	46070
1390-8	0,3 - 0,8	0,3 - 0,8	2250	29250	5060	65800

Oxy - Acetylene Flame Straightening



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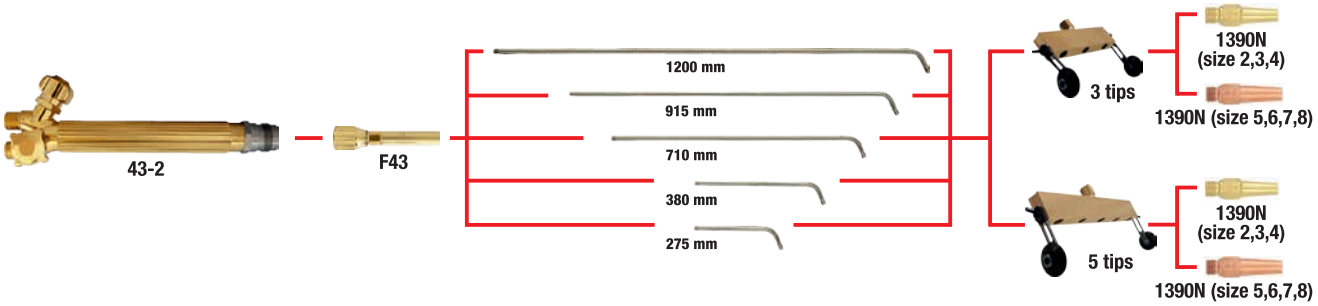
Oxy - Alternative Fuels Flame Straightening



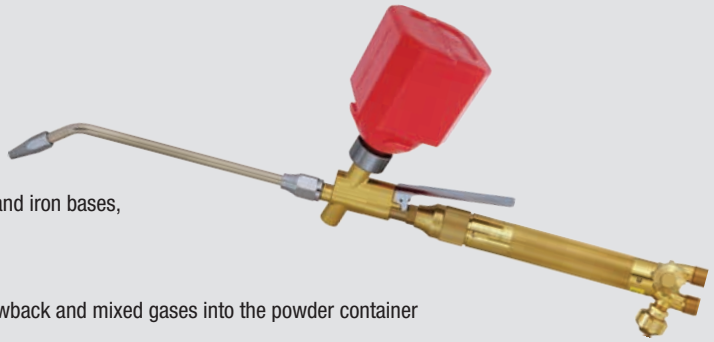
ALTERNATIVE FUEL TIPS PERFORMANCE DATA CHART						
TIP MODEL	OXYGEN (bar)	FUEL GAS (bar)	FLOW (l/h) 3 TIP FLAME	HEATING OUTPUT (Kcal/h) 3 TIP FLAME	FLOW (l/h) 5 TIP FLAME	HEATING OUTPUT (Kcal/h) 5 TIP FLAME
1390-2N	0,3 - 1,0	0,3 - 1,0	160	3400	330	7200
1390-3N	0,3 - 1,0	0,3 - 1,0	300	6400	620	13450
1390-4N	0,3 - 1,0	0,3 - 1,0	370	7800	780	16790
1390-5N	0,3 - 1,0	0,3 - 1,0	470	10270	1000	21580
1390-6N	0,3 - 1,0	0,3 - 1,0	580	12550	1220	26380
1390-7N	0,3 - 1,0	0,3 - 1,0	730	15750	1530	33100
1390-8N	0,3 - 1,0	0,3 - 1,0	790	17110	1660	35980

187 MODEL

METAL POWDER SPRAYING ASSEMBLY FOR OXY-ACETYLENE FLAME

MODEL SHOWN: 187

The Model 187 is designed to provide optimum uniform powder flow commensurate with required gas flow and tip size used. Powder recoveries of up to 95% are common, depending on the part being hardfaced and type and grade of powder being used. The torch is lightweight, thereby reducing operator fatigue to a minimum.
The torch is safe to operate. A special safety feature of the torch provides a venturi tube within the hopper that directs blowback outside and not into the hopper. Whether blowback is caused by simple back flushing to clean the powder passages or by accidental backfiring there is little chance of powder blowing into an operator's face or of accumulating mixed gases in the hopper.



FEATURES:

- Metal spraying with cobalt, nickel and iron bases, tungsten carbide and tribaloy
- Operates with acetylene
- Lightweight design
- Safety system to avoid powder blowback and mixed gases into the powder container
- Uses standard Model 85 handle

PART NO.	THREAD OXYGEN	THREAD FUEL GAS	WEIGHT (kg)	LENGTH (mm)	ACCESSORIES INCLUDED
187	9/16"-18-UNF-3A-RH	9/16”-18-UNF-3A-LH	0,45	484	18790-45H Tip 18790-48H Tip 18790-53H Tip 18781LT Powder Container

18790 MODEL

TIPS

MODEL SHOWN: 18790-45H

Tip assembly can rotate 360° to allow for spray operations in any desired direction

PART NO.	OXYGEN PRESSURE (bar)		ACETYLENE PRESSURE (bar)		OXYGEN FLOW (l/h)		ACETYLENE FLOW (l/h)		HEATING POWER (Kcal/h)	
18790-45H	3,0	5,0	0,5	0,8	1125	1875	600	1000	13550	183600
18790-48H	2,0	3,5	0,3	0,5	750	1300	400	600	8130	110160
18790-53H	1,5	2,5	0,2	0,4	600	1000	300	500	6780	91870

18781LT MODEL

POWDER CONTAINER

MODEL SHOWN: 18781LT

FEATURES:

- Powder container capacity of 0,45 kg ideal for small jobs
- Powder recoveries of up to 95%

EQUAL PRESSURE "E" TYPE MIXERS

E-43

E-243

E3-43/F-43

D-85

H-19-2E

M105

B-15-3

PART NO.	FITS HANDLE	GAS	WELDING TIPS	HEATING TIPS	BRAZING TIPS	FLAME CLEANING TIPS
M105	105	Oxy-acetylene	1059 (00, 01, 03, 05, 06) + tube 10593	-	-	-
M105	105	Oxy-propane	-	-	1059N (00, 01, 03, 05, 06) + tube 10593	-
B-15-3	15-3, 15-4, 15-4GB, 15-5, 15-5GB	Oxy-acetylene	5090 tips: 0, 1, 2, 3, 4, 5, 6, 7, 8	1390-HA (+tube D-50-C)	-	-
B-15-3	15-3, 15-4, 15-4GB, 15-5, 15-5GB	Oxy-acetylene	1390 tips: 00, 0, 1, 2, 3, 4, 5, 6, 7, 8	1390-HA (+tube D-50-C)	-	-
B-15-3	15-3, 15-4, 15-4GB, 15-5, 15-5GB	Oxy-acetylene	0090 tips: 1,3, 5, 6, 8 (+ tip holder TH-119)	1390-HA (+tube D-50-C)	-	-
E-43	43-2, 263, 543	Oxy-acetylene	23A90 tips 0,1,3,5,6,8,9,10	J-63 tips 1,2	-	-
E-43	43-2, 263, 543	Oxy-acetylene	0090 tips 1,3,5,6,8 (+adapter 4301-11+TH-119)	1390-HA (+tube 8593)	-	-
E-43	43-2, 263, 543	Oxy-acetylene	1390 tips 00,0,1,3,5,6,8,9,10 (+tube 8593)	-	-	-
E-43	43-2, 263, 543	Oxy-propane	-	-	1390-N tips 2,3,4,5,6,7,8,9,10 (+ tube 8593)	-
E-43	43-2, 263, 543	Oxy-propane	-	-	0090-N tips 2,4,6,8 (+adapter 4301-11 +TH-119)	-
E2-43	43-2, 263, 543	Oxy-acetylene	23A90 tips 13,15	J-63 tips 3,4	-	RBA-43 tips 2,4,6 (+tube 2393+2357-3)
E3-43	43-2, 263, 543	Oxy-acetylene		J-143-5	-	-
D-85	85	Oxy-acetylene	23A90 tips 0,1,3,5,6,8,9,10	J-63-tips 1,2	-	-
D-85	85	Oxy-acetylene	0090 tips 1,3,5,6,8, (+adapter 4301-11+TH-119)	1390-HA (+tube 8593)	-	-
D-85	85	Oxy-acetylene	1390 tips 00,0,1,3,5,6,8,9,10 (+tube 8593)	-	-	-
H-19-2E	19-6, 50-9	Oxy-acetylene	5090 tips 0,1,3,5,6,8,9,10	J-63-tips 1,2 (+adapter 1901-11)	-	-
H-19-2E	19-6, 50-9	Oxy-acetylene	0090 tips 1,3,5,6,8 (+tip holder TH-119)	1390-HA (+tube 8593)	-	-
H-19-2E	19-6, 50-9	Oxy-acetylene	1390 tips 00,0,1,3,5,6,8,9,10 (+tube D-50-C)	-	-	-
H-19-2E	19-6, 50-9	Oxy-acetylene	0090 tips 1,3,5,6,8	-	-	-
F-43	43-2, 263, 543	Oxy-propane	-	2290-H tips 1,2,3,4,5 (+ tube 2393+2357-3)	2290-N tips 13,15,20,30,80 (+tube 2393+2357-3)	RBP-43 tips 2,4,6 (+tube 2393+2357-3)

LOW PRESSURE “F” TYPE MIXERS

B-43-N

H-19-2S

B-43-1/2/3/5/6/8/9/10

B-15-3F

PART NO.	FITS HANDLE	GAS	HEATING TIPS	BRAZING TIPS	FLAME CLEANING TIPS
B-15-3F	15-3, 15-4, 15-4GB, 15-5, 15-5GB	Oxy-hydrogen	1390-H (+tube D-50-C)	5090N tips: 3, 5, 8	-
B-15-3F	15-3, 15-4, 15-4GB, 15-5, 15-5GB	Oxy-propane/ butan		1390N tips: 2, 3, 4, 5, 6, 7, 8 (+tube D-50-C)	-
B-15-3F	15-3, 15-4, 15-4GB, 15-5, 15-5GB	Oxy- natural gas / methane		0090N tips: 2, 4, 6, 8	-
B-43-N	43-2, 263, 543	Oxy-propane	2290-H tips 1,2,3,4 (+ tube 2393)	2290-N tips 13,15,20,30,80 (+tube 2393+2357-3)	RBP-43 tips 2,4,6 (+tube 2393+2357-3)
B-43-1	43-2, 263, 543	Oxy-propane	-	1390-2N (+tube 8593) 0090-2N (+adapter 4301-11+tip holder TH-119)	-
B-43-3	43-2, 263, 543	Oxy-propane	-	1390-3N/4N (+tube 8593) 0090-4N (+adapter 4301-11+tip holder TH-119)	-
B-43-5	43-2, 263, 543	Oxy-propane	-	1390-5N (+tube 8593)	-
B-43-6	43-2, 263, 543	Oxy-propane	-	1390-6N/7N (+tube 8593) 0090-6N (+adapter 4301-11+tip holder TH-119)	-
B-43-8	43-2, 263, 543	Oxy-propane	-	1390-8N/H (+tube 8593) 0090-8N (+adapter 4301-11+tip holder TH-119)	-
B-43-9	43-2, 263, 543	Oxy-propane	-	1390-9N (+tube 8593)	-
B-43-10	43-2, 263, 543	Oxy-propane	-	1390-10N (+tube 8593)	-
H-19-2S	19-6, 50-10	Oxy-propane	1390-H (+tube D-50-C)	1390-N tips 2,3,4,5,6,7,8,9,10 (+tube D-50-C)	-
H-19-2S	19-6, 50-10	Oxy-propane		0090-N tips 2,4,6,8	-

ACETYLENE WELDING AND BRAZING CONFIGURATIONS

D-50-C TIP TUBE

8593 TIP TUBE

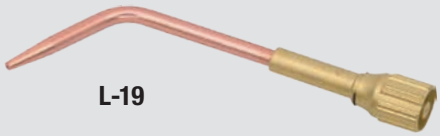
4301-11 ADAPTER

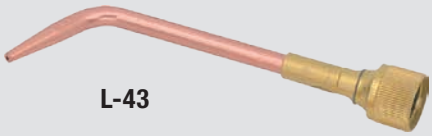
TH-119 TWIN TIP HOLDER

10593 TIP TUBE

HANDLE	MIXER	TIP TUBE/ADAPTER	TIP	WELDING ASSEMBLY
43-2, 263, 543	E2-43	-	23-A-90 (13-15)	L-43
43-2, 263, 543	E-43	8593	1390	L-43
43-2, 263, 543	E-43	4301-11+TH-119	0090	L-43
43-2, 263, 543	E-43	-	23-A-90 (0-10)	L-43
85	D-85	8593	1390	-
85	D-85	4301-11+TH-119	0090	-
85	D-85	-	23A-90 (0-10)	-
19-6, 50-9	H-19-2E	D-50-C	1390	L-19
19-6, 50-9	H-19-2E	TH-119	0090	L-19
19-6, 50-9	H-19-2E	-	5090	L-19
15-5	B-15-3	D-50-C	1390	-
15-5	B-15-3	TH-119	0090	-
15-5	B-15-3	-	5090	-
105	M105	10593	10590	-

ACETYLENE WELDING AND BRAZING ASSEMBLIES


L-19


L-43

WELDING / BRAZING				PRESSURE	
ASSEMBLY L-19	ASSEMBLY L-43	FLOW (L/h)	THICKNESS (mm)	OXYGEN (bar)	ACETYLENE (bar)
L-19-0	**L-43-0**	45	0,2 - 0,5	2,5	0,015 - 0,2
L-19-1	**L-43-1**	65	0,5 - 1,0	2,5	0,015 - 0,2
L-19-3	**L-43-3**	160	1,0 - 2,0	2,5	0,015 - 0,2
L-19-5	**L-43-5**	350	2,0 - 4,0	2,5	0,015 - 0,2
L-19-6	**L-43-6**	500	4,0 - 6,0	2,5	0,015 - 0,2
L-19-8	**L-43-8**	1000	6,0 - 9,0	2,5	0,015 - 0,2
L-19-9	**L-43-9**	1500	9,0 - 14,0	2,5	0,015 - 0,2
L-19-10	**L-43-10**	2000	14,0 - 20,0	2,5	0,015 - 0,2
-	**L-43-13**	3000	20,0 - 30,0	2,5	0,015 - 0,2
-	**L-43-15**	4000	30,0 - 50,0	2,5	0,015 - 0,2

ACETYLENE WELDING AND BRAZING TIPS

23-A-90

5090

1390

10590

0090

WELDING / BRAZING							EQUAL PRESSURE		LOW PRESSURE	
TIPS 23-A-90	TIPS 5090	FTIPS 1390	FLEXIBLE TIPS 0090	TIPS 10590	FLOW (l/h)	THICKNESS (mm)	OXYGEN (bar)	ACETYLENE (bar)	OXYGEN (bar)	ACETYLENE (bar)
-	**-**	1390-00	-	-	25	-	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
23-A-90-0	**5090-0**	1390-0	-	10590-0	45	0.2 - 0.5	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
23-A-90-1	**5090-1**	1390-1	0090-1	10590-1	65	0.5 - 1.0	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
-	**5090-2**	1390-2	-	-	100	-	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
23-A-90-3	**5090-3**	1390-3	0090-3	10590-3	160	1.0 - 2.0	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
-	**5090-4**	1390-4	-	-	250	-	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
23-A-90-5	**5090-5**	1390-5	0090-5	10590-5	350	2.0 - 4.0	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
23-A-90-6	**5090-6**	1390-6	0090-6	10590-6	500	4.0 - 6.0	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
-	**5090-7**	1390-7	-	-	700	-	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
23-A-90-8	**5090-8**	1390-8	0090-8	-	1000	6.0 - 9.0	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
23-A-90-9	**5090-9**	1390-9	-	-	1500	9.0 - 14.0	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
23-A-90-10	**5090-10**	1390-10	-	-	2000	14.0 - 20.0	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
23-A-90-13	**-**	-	-	-	3000	20.0 - 30.0	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2
23-A-90-15	**-**	-	-	-	4000	30.0 - 50.0	0,3 - 0,8	0,3 - 0,8	2,5	0,015 - 0,2

ACETYLENE HEATING TIPS AND ASSEMBLIES

L - 63

1901-11
ADAPTER

J - 63

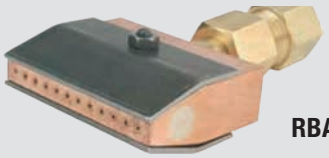
1390-HA

PART NO.					EQUAL PRESSURE		LOW PRESSURE		FLOW		HEATING OUTPUT (Kcal/h)
HANDLE	TIP-MIXER ASSEMBLY	MIXER	ADAPTER / TIP TUBE	TIP	OXYGEN (bar)	ACETYLENE (bar)	OXYGEN (bar)	ACETYLENE (bar)	OXYGEN (l/h)	ACETYLENE (l/h)	
43-2 263 543	L-63-1	B-43-9		J-63-1			2,5	0,015 - 0,2	600 - 1100	600 - 1000	7450 - 13000
		E-43		J-63-1	0,15 - 0,4	0,15 - 0,4					
	L-63-2	B-43-10		J-63-2			2,5	0,015 - 0,2	900 - 1550	850 - 1400	11100 - 18700
		E-43		J-63-2	0,2 - 0,5	0,2 - 0,5					
	L-63-3	B-43-15		J-63-3			3	0,015 - 0,2	1550 - 2500	1400 - 2250	18500 - 29800
		E2-43		J-63-3	0,3 - 0,6	0,3 - 0,6					
	L-63-4	E2-43		J-63-4	0,6 - 1,0	0,6 - 1,05			2500 - 4300	2250 - 3950	29800 - 52000
	L-143-5	E3-43 / F-43		J-143-5*	0,8 - 1,4	0,6 - 1,05			5000 - 9350	4500 - 8500	59500 - 111500
		E-43	8593	1390-HA	0,35	0,35			1100	1000	
85	L-85-1	D-85		J-63-1	0,15 - 0,4	0,15 - 0,4			600 - 1100	600 - 1000	7450 - 13000
	L-85-2	D-85		J-63-2	0,2 - 0,5	0,2 - 0,5			900 - 1550	850 - 1400	11100 - 18700
		D-85	8593	1390-HA	0,35	0,35			1100	1000	
19-6 50-9		H-19-2E	1901-11	J-63-1	0,15 - 0,4	0,15 - 0,4			600 - 1100	600 - 1000	7450 - 13000
		H-19-2E	1901-11	J-63-2	0,2 - 0,5	0,2 - 0,5			900 - 1550	850 - 1400	11100 - 18700
		H-19-2E	D-50-C	1390-HA	0,35	0,35			1100	1000	
15-4		B-15-3	D-50-C	1390-HA	0,35	0,35			1100	1000	

*Caution: exceeds the withdrawal capacity of the one standard acetylene cylinder

ACETYLENE FLAME CLEANING TIPS

Model RBA flame cleaning heads are designed specifically for cleaning rust, mill scale and paint from metal surfaces prior to welding, painting, etc. They can also be used for general surface heating or spalling using oxy-acetylene. Features steel-scraping plate on either side of the tip.



RBA-43

HANDLE	MIXER	TIP TUBE/ADAPTER	TIP
43-2, 263, 543	E2-43	2393+2357-3	RBA-43

Select Model 2393 tip tube and adapter from page 84.

PART NO.	LENGTH (mm)	PRESSURE		FLOW		HEATING OUTPUT (Kcal/h)
		OXYGEN (bar)	ACETYLENE (bar)	OXYGEN (l/h)	ACETYLENE (l/h)	
RBA-43-2	50	0,4 - 0,7	0,4 - 0,7	800 - 1130	700 - 900	9300 - 11900
RBA-43-4	100	0,7 - 0,9	0,7 - 0,9	1550 - 1650	1400 - 1500	18500 - 19900

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ALTERNATIVE FUEL TIPS

- 1390-N, 5090-N, 0090-N & 10590N Brazing Tips
- 2290-N & 1390-H Heating Tips

1390-N2 to 4

1390-N5 to 10

1390-H

5090-N

10590-N

2290-N

0090-N

HANDLE	MIXER		TIP TUBE	TIP
43-2, 263, 543	E-43	B-43-1	8593	1390-2N
43-2, 263, 543	E-43	B-43-3	8593	1390-3N
43-2, 263, 543	E-43	B-43-3	8593	1390-4N
43-2, 263, 543	E-43	B-43-5	8593	1390-5N
43-2, 263, 543	E-43	B-43-6	8593	1390-6N
43-2, 263, 543	E-43	B-43-6	8593	1390-7N
43-2, 263, 543	E-43	B-43-8	8593	1390-8N/1390-H
43-2, 263, 543	E-43	B-43-9	8593	1390-9N
43-2, 263, 543	E-43	B-43-10	8593	1390-10N
19-6, 50-10	-	H-19-2S	D-50-C	1390-N/1390-H/ 5090-N
15-5	-	B-15-3F	D-50-C	1390-N/1390-H/ 5090-N
105	-	M105	10593	10590-0N-1N-3N-5N-6N

HANDLE	MIXER	ADAPTER	0090-N TIPS
43-2, 263, 543	B-43-1	4301-11	0090-2N
43-2, 263, 543	B-43-3	4301-11	0090-4N
43-2, 263, 543	B-43-6	4301-11	0090-6N
43-2, 263, 543	B-43-8	4301-11	0090-8N
19-6, 50-10	H-19-2S	-	0090-2N-4N-6N-8N
15-5	B-15-3F	-	0090-2N-4N-6N-8N

Select Model 2393 tip tube and adapter from page 74.

HEAVY DUTY HANDLE	MIXER	TIP TUBE	2290-N TIPS
43-2, 263, 543	F-43, B-43-N	2393+2357-3	2290-13N
43-2, 263, 543	F-43, B-43-N	2393+2357-3	2290-15N
43-2, 263, 543	F-43, B-43-N	2393+2357-3	2290-20N
43-2, 263, 543	F-43, B-43-N	2393+2357-3	2290-30N
43-2, 263, 543	F-43, B-43-N	2393+2357-3	2290-80N

PART NO.				LOW PRESSURE		EQUAL PRESSURE		FLOW (l/h)	
				OXYGEN (bar)	FUEL GAS (bar)	OXYGEN (bar)	FUEL GAS (bar)	OXYGEN	FUEL GAS
-	-	-	**10590-0N**	1,0	0,015 - 0,2	0,3 - 1	0,3 - 1	120	30
-	-	-	**10590-1N**	1,0	0,015 - 0,2	0,3 - 1	0,3 - 1	200	50
1390-2N	**0090-2N**	-	-	1,0	0,015 - 0,2	0,3 - 1	0,3 - 1	300	75
1390-3N	-	**5090-3N**	**10590-3N**	1,0	0,015 - 0,2	0,3 - 1	0,3 - 1	550	140
1390-4N	**0090-4N**	-	-	1,4	0,015 - 0,2	0,3 - 1	0,3 - 1	700	175
1390-5N	-	**5090-5N**	**10590-5N**	1,8	0,015 - 0,2	0,3 - 1	0,3 - 1	900	225
1390-6N	**0090-6N**	-	**10590-6N**	1,8	0,015 - 0,2	0,3 - 1	0,3 - 1	1100	275
1390-7N	-	-		2,1	0,015 - 0,2	0,3 - 1	0,3 - 1	1350	345
1390-8N	**0090-8N**	**5090-8N**		2,1	0,015 - 0,2	0,3 - 1	0,3 - 1	1500	375
1390-9N	-	-		2,5	0,015 - 0,2	0,3 - 1	0,3 - 1	1650	415
1390-10N	-	-		2,8	0,015 - 0,2	0,3 - 1	0,3 - 1	2000	500
	2290-13N			1,2	0,015 - 0,2	0,3 - 1	0,3 - 1	3400	850
	2290-15N			1,2	0,015 - 0,2	0,3 - 1	0,3 - 1	4200	1050
	2290-20N			1,2	0,015 - 0,2	0,3 - 1	0,3 - 1	6000	1500
	2290-30N			2,3	0,015 - 0,2	0,3 - 1	0,3 - 1	8000	2000
	2290-80N			2,3	0,015 - 0,2	0,3 - 1	0,3 - 1	9600	2400
	1390-H			3,5	0,5	3,5	0,1 - 0,5	4200	1050

Note: For additional welding / brazing equipment see our Brazing and Soldering Guide or Production Brazing Catalogue

ALTERNATIVE FUEL HEATING TIPS

- 2290-H Heating Tips
- H-62-P Heating Tips

2290-H

H-62-P

	PRESSURE (bar)		FLOW (l/h)		APPROX. HEATING OUTPUT (KCal/h)
PART NO.	OXYGEN	FUEL GAS	OXYGEN	FUEL GAS	
2290-1H	1 - 2	0,5	4000 - 7000	1000 - 2000	22300 - 44600
2290-2H	2 - 3	0,5	5900 - 12800	1500 - 3200	33500 - 71400
2290-3H	2 - 5	1,0	8500 - 22900	2200 - 5700	49000 - 127100
2290-4H	3 - 6	1,0	14000 - 28400	3600 - 7100	80300 - 158000
2290-5H	4 - 8	1,0 - 2,0	17000 - 39700	4300 - 10000	96000 - 223000
H-62-1P	3.0	0,5	4000 - 7000	1000 - 2000	22300 - 44600
H-62-2P	3,5	0,5	5900 - 12800	1500 - 2200	38500 - 71400
H-62-3P	4,0	1,0	8500 - 22900	2200 - 5700	49000 - 127100

H-62-P to be used with cutting attachment and cutting torches

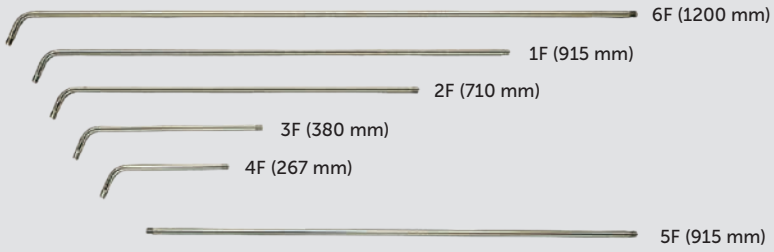
RBP-43 OXY-PROPANE, PROPYLENE BASED & NATURAL GAS FLAME CLEANING HEADS

Model RBP flame cleaning heads are designed specifically for removing rust, paint and mill scale from metal surface before welding, painting, etc. They are also used for general surface heating and spalling using oxy-propane or natural gas. Features steel scraping plates on either side of tip.

RBP-43 Tips

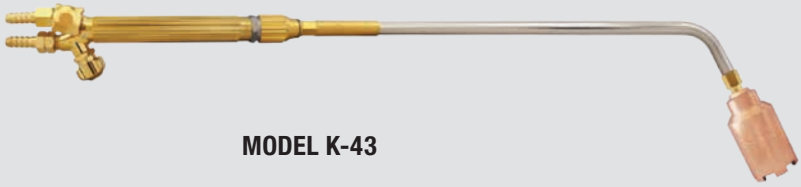
PART NO.	LENGHT (mm)	OXYGEN PRESSURE (bar)	PROPANE PRESSURE (bar)	OXYGEN FLOW (l/h)	PROPANE FLOW (l/h)	HEATING OUTPUT (Kcal/h)
RBP-43-2	50	0,5 - 1,0	0,5	2550 - 3400	700 - 1050	15600 - 23400
RBP-43-4	100	1,0 - 1,5	0,5 - 1,5	6350 - 8500	1850 - 2500	41200 - 55600
RBP-43-6	150	2 - 3	1,0 - 1,5	13900 - 18100	3000 - 4150	66800 - 92300

2393-F TIP TUBES



PART NO.	DESCRIPTION	DESIGN	LENGHT (mm)
1800200	2393-1F 36"	curved	915
1800210	2393-2F 28"	curved	710
1800220	2393-3F 15"	curved	380
1800230	2393-4F 10 1/2"	curved	267
1800240	2393-5F 36"	straight	915
1800207	2393-6F	curved	1200
1800206	2393-6F 48"	straight	1200

HEATING ASSEMBY CONFIGURATION



MODEL K-43

2357-3
TIP ADAPTER

HANDLE	MIXER	TIP TUBE/ ADAPTER	TIP
43-2, 263, 543	B-43-N, F-43	2393+2357-3	2290-H, RBP-43

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6290 MODEL

GENERAL PREHEAT ONE-PIECE OXY-ACETYLENE TIPS

A single-piece acetylene cutting tip for cutting relatively clean steel.

CONSTRUCTION:

One-piece

PREHEAT TYPE:

General

WHERE USED:

Fabrication, maintenance, etc.

CLEANING INSTRUCTIONS:

Use tip cleaner C-9

6290

PART NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	ACETYLENE EQUAL PRESSURE (bar)	ACETYLENE LOW PRESSURE (bar)	CUTTING OXYGEN FLOW (l/h)	PREHEAT OXYGEN FLOW (l/h)	ACETYLENE FLOW (l/h)
6290-000	0 - 5	1,0 - 2,0	0,3 - 0,8	0,015 - 0,2	600 - 800	280 - 560	260 - 510
6290-00	5 - 10	1,0 - 2,0	0,3 - 0,8	0,015 - 0,2	800 - 1000	280 - 560	260 - 510
6290-0	10 - 15	1,5 - 2,5	0,3 - 0,8	0,015 - 0,2	1000 - 1500	280 - 560	260 - 510
6290-1	15 - 25	2,0 - 3,5	0,3 - 0,8	0,015 - 0,2	1500 - 2500	420 - 560	385 - 515
6290-2	25 - 50	3,0 - 4,5	0,3 - 0,8	0,015 - 0,2	4000 - 6000	420 - 560	385 - 515
6290-3	50 - 100	3,0 - 4,5	0,3 - 0,8	0,015 - 0,2	5000 - 7000	420 - 560	385 - 515
6290-4	100 - 175	3,5 - 5,5	0,3 - 0,8	0,015 - 0,2	9000 - 14000	420 - 560	385 - 515

6290-S MODEL

HEAVY PREHEAT ONE-PIECE OXY-ACETYLENE TIPS

A single-piece acetylene tip with a heavy preheat to facilitate cutting steel that is painted, rusted or has a heavily scaled surface.

CONSTRUCTION:

One-piece

PREHEAT TYPE:

Heavy

WHERE USED:

Demolition, maintenance, repair, etc.

CLEANING INSTRUCTIONS:

Use tip cleaner C-9

6290-S

PART NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	ACETYLENE EQUAL PRESSURE (bar)	ACETYLENE LOW PRESSURE (bar)	CUTTING OXYGEN FLOW (l/h)	PREHEAT OXYGEN FLOW (l/h)	ACETYLENE FLOW (l/h)
6290-1S	15 - 25	2,0 - 3,5	0,3 - 0,8	0,015 - 0,2	1500 - 2500	560 - 1130	510 - 1030
6290-2S	25 - 50	3,0 - 4,5	0,3 - 0,8	0,015 - 0,2	4000 - 6000	560 - 1130	510 - 1030
6290-3S	50 - 100	3,0 - 4,5	0,3 - 0,8	0,015 - 0,2	5000 -7000	560 - 1130	510 - 1030
6290-4S	100 - 175	3,5 - 5,5	0,3 - 0,8	0,015 - 0,2	9000 - 14000	560 - 1130	510 - 1030
6290-5S	175 - 250	4,5 - 5,5	0,3 - 0,8	0,015 - 0,2	13000 - 16000	990 - 1700	900 - 1540
6290-6S	250 - 300	5,0 - 6,5	0,3 - 0,8	0,015 - 0,2	15000 - 19000	990 - 1700	900 - 1540

AC 6290 MODEL

HEAVY PREHEAT TWO-PIECE OXY-ACETYLENE TIPS

A two-piece acetylene tip with a heavy preheat to facilitate cutting steel that is painted, rusted or has a heavily scaled surface.

CONSTRUCTION:

Two-piece, plated shell

PREHEAT TYPE:

Heavy

WHERE USED:

Demolition, maintenance, acetylene machine cutting

CLEANING INSTRUCTIONS:

Use tip cleaner E-9

6290-AC

PART NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	ACETYLENE EQUAL PRESSURE (bar)	ACETYLENE LOW PRESSURE (bar)	CUTTING OXYGEN FLOW (l/h)	PREHEAT OXYGEN FLOW (l/h)	ACETYLENE FLOW (l/h)
6290-00AC	5 - 10	1,0 - 2,0	0,3 - 0,8	0,015 - 0,2	800 - 1000	280 - 560	260 - 510
6290-0AC	10 - 15	1,5 - 2,5	0,3 - 0,8	0,015 - 0,2	1000 - 1500	280 - 560	260 - 510
6290-1AC	15 - 25	2,0 - 3,5	0,3 - 0,8	0,015 - 0,2	1500 - 2500	560 - 1130	510 - 1030
6290-2AC	25 - 50	3,0 - 4,5	0,3 - 0,8	0,015 - 0,2	4000 - 6000	560 - 1130	510 - 1030
6290-3AC	50 - 100	3,0 - 4,5	0,3 - 0,8	0,015 - 0,2	5000 - 7000	560 - 1130	510 - 1030
6290-4AC	100 - 175	3,5 - 5,5	0,3 - 0,8	0,015 - 0,2	9000 - 14000	560 - 1130	510 - 1030
6290-5AC	175 - 250	4,5 - 5,5	0,3 - 0,8	0,015 - 0,2	13000 - 16000	990 - 1700	900 - 1540
6290-6AC	250 - 300	5,0 - 6,5	0,3 - 0,8	0,015 - 0,2	15000 - 19000	990 - 1700	900 - 1540

AC 3690 MODEL

OXY-ACETYLENE TIPS

Acetylene cutting tips specifically used with the Harris Model 36 series of cutting attachments.

CONSTRUCTION:

Two-piece, unplated shell

PREHEAT TYPE:

Heavy

WHERE USED:

HVAC, maintenance, metal art, etc.

CLEANING INSTRUCTIONS:

Use tip cleaner E-9

3690-AC

PART NO.	METAL THICKNESS (mm)	OXYGEN (bar)	ACETYLENE EQUAL PRESSURE (bar)	WHERE USED
3690-00AC	0 - 6	1,0 - 2,0	0,3 - 0,8	36-2 cutting attachment
3690-0AC	6 - 13	1,5 - 2,5	0,3 - 0,8	36-2 cutting attachment
3690-1AC	13 - 25	2,0 - 3,5	0,3 - 0,8	36-2 cutting attachment
3690-2AC	25 - 75	3,0 - 4,5	0,3 - 0,8	36-2 cutting attachment

TWO-PIECE OXY-ACETYLENE CUTTING TIPS

Commonly one-piece tips are used for oxy-acetylene cutting and two-piece tips are used for cutting with alternative fuels such as natural gas, propane and propylene. Harris, however, offers both one and two-piece tips for acetylene cutting.

WHAT ARE THE ADVANTAGES OF HARRIS AC TWO-PIECE ACETYLENE TIPS?

Two-piece acetylene tips are less expensive, easier to clean, and produce a special high pre-heat for fast cutting of dirty, scaled and/or heavily rusted plate. AC tips are also highly recommended for acetylene machine cutting.

6290 NX MODEL

GENERAL PREHEAT OXY-PROPANE, NATURAL GAS TIPS

Propane/natural gas cutting tips for the most popular Harris hand torches, machine torches and cutting attachments. Feature a general preheat for a relatively clean plate.

CONSTRUCTION:

Two-piece, plated shell

PREHEAT TYPE:

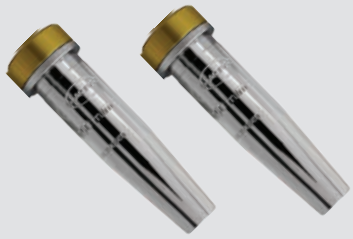
General

WHERE USED:

Steel fabricating, demolition, shipbuilding, etc.

CLEANING INSTRUCTIONS:

Use tip cleaner E-9



6290-NX

PART NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	FUEL GAS EQUAL PRESSURE (bar)	FUEL GAS LOW PRESSURE (bar)	CUTTING OXYGEN FLOW (l/h)	PREHEAT OXYGEN FLOW (l/h)	PROPANE FLOW (l/h)	HEATING POWER (Kcal/h)
6290-000NX	0 - 5	1,0 - 2,0	0,3 - 0,8	0,015 - 0,2	650 - 870	870	210	4683
6290-00NX	5 - 10	1,5 - 2,0	0,3 - 0,8	0,015 - 0,2	870 - 1080	1000	270	6021
6290-0NX	10 - 15	2,0 - 3,0	0,3 - 0,8	0,015 - 0,2	1080 - 1600	1080	270	6021
6290-1NX	15 - 25	2,5 - 3,5	0,3 - 0,8	0,015 - 0,2	1600 - 2700	1080	270	6021
6290-2NX	25 - 50	3,0 - 4,0	0,3 - 0,8	0,015 - 0,2	4300 - 6500	1200	330	7359
6290-3NX	50 - 75	3,0 - 4,5	0,3 - 0,8	0,015 - 0,2	5400 - 7600	1200	330	7359
6290-4NX	75 - 150	3,5 - 5,5	0,3 - 0,8	0,015 - 0,2	9850 - 15150	1500	390	8697
6290-5NX	150 - 200	4,5 - 5,5	0,3 - 0,8	0,015 - 0,2	14100 - 17350	1800	450	10035
6290-6NX	200 - 300	5,0 - 6,5	0,3 - 0,8	0,015 - 0,2	16200 - 20600	2100	540	12042

Note: when using natural gas fuel rates will double (approx.).

6290 NFF MODEL

HEAVY PREHEAT OXY-PROPANE, NATURAL GAS TIPS

Propane/natural gas cutting tips with a heavy preheat for hand cutting steel with rusted, painted or heavily scaled surfaces.

CONSTRUCTION:

Two-piece, plated shell

PREHEAT TYPE:

Heavy

WHERE USED:

Demolition, maintenance, etc.

CLEANING INSTRUCTIONS:

Use tip cleaner E-9

6290-NFF

PART NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	FUEL GAS EQUAL PRESSURE (bar)	FUEL GAS LOW PRESSURE (bar)	CUTTING OXYGEN FLOW (l/h)	PREHEAT OXYGEN FLOW (l/h)	PROPANE FLOW (l/h)	HEATING POWER (Kcal/h)
6290-1NFF	6 - 25	2,5 - 3,5	0,3 - 0,8	0,015 - 0,2	1600 - 2700	2500	700	15600
6290-2NFF	25 - 50	3,0 - 4,0	0,3 - 0,8	0,015 - 0,2	4300 - 6500	3000	800	17800
6290-3NFF	50 - 75	3,0 - 4,5	0,3 - 0,8	0,015 - 0,2	5400 - 7600	3600	900	20100
6290-4NFF	75 - 150	3,5 - 5,5	0,3 - 0,8	0,015 - 0,2	9800 - 15200	4100	1000	22300
6290-5NFF	150 - 200	4,5 - 5,5	0,3 - 0,8	0,015 - 0,2	14100 - 17300	4800	1200	26800
6290-6NFF	200 - 300	5,0 - 6,5	0,3 - 0,8	0,015 - 0,2	16300 - 20600	5500	1400	31200

Note: when using natural gas fuel rates will double (approx.)

NXPM 6290 MODEL

OXY-MAPP®* AND OXY-PROPYLENE TIPS

A general preheat hand cutting tip designed for long life and excellent performance when using propylene or MAPP®*gas.

CONSTRUCTION:
Two-piece, plated shell

PREHEAT TYPE:
General

WHERE USED:
Fabrication, shipbuilding, etc.

CLEANING INSTRUCTIONS:
Use tip cleaner E-9

6290-NXPM

PART NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	FUEL GAS EQUAL PRESSURE (bar)	FUEL GAS LOW PRESSURE (bar)	CUTTING OXYGEN FLOW (l/h)	PREHEAT OXYGEN FLOW (l/h)	FUEL GAS FLOW (l/h)
6290-000NXPM	0 - 5	1,0 - 2,0	0,3 - 0,8	0,015 - 0,2	10 - 13	13,3	5,0
6290-00NXPM	5 - 10	1,5 - 2,0	0,3 - 0,8	0,015 - 0,2	13 - 17	13,3	5,0
6290-0NXPM	10 - 15	2,0 - 3,0	0,3 - 0,8	0,015 - 0,2	17 - 25	14,2	5,5
6290-1NXPM	15 - 25	2,5 - 3,5	0,3 - 0,8	0,015 - 0,2	25 - 42	15,0	5,8
6290-2NXPM	25 - 50	3,0 - 4,0	0,3 - 0,8	0,015 - 0,2	67 - 100	15,8	6,0
6290-3NXPM	50 - 75	3,0 - 4,5	0,3 - 0,8	0,015 - 0,2	83 - 117	16,7	6,3
6290-4NXPM	75 - 150	3,5 - 5,5	0,3 - 0,8	0,015 - 0,2	150 - 233	18,3	7,0
6290-5NXPM	150 - 200	4,5 - 5,5	0,3 - 0,8	0,015 - 0,2	217 - 267	19,2	7,3
6290-6NXPM	200 - 300	5,0 - 6,5	0,3 - 0,8	0,015 - 0,2	250 - 317	20,0	7,7

3690-P MODEL

3690-P OXY-PROPANE, NATURAL GAS TIPS

Propane / natural gas cutting tips specifically designed for Harris Model 36 series cutting attachments.

CONSTRUCTION:
Two-piece, unplated shell

PREHEAT TYPE:
General

WHERE USED:
HVAC, metal art, maintenance, etc.

CLEANING INSTRUCTIONS:
Use tip cleaner E-9

3690-P

PART NO.	METAL THICKNESS (mm)	OXYGEN (bar)	FUEL GAS (bar)	WHERE USED
3690-00P	0-6	1,0 - 2,0	0,3 - 0,8	36-2 cutting attachment
3690-0P	6-13	1,5 - 2,5	0,3 - 0,8	36-2 cutting attachment
3690-1P	13-25	2,0 - 3,5	0,3 - 0,8	36-2 cutting attachment
3690-2P	25-75	3,0 - 4,5	0,3 - 0,8	36-2 cutting attachment

**MAPP® is a registered trademark of Messer Group GmbH

ANME 8290 MODEL

ANME OXY-ACETYLENE TIP MIX CUTTING TIPS

8290

PART NO. 8290	PART NO. 8290-ANME	SIZE	PLATE THICKNESS (mm)	OXYGEN (bar)	ACETYLENE (bar)	CUTTING OXYGEN FLOW (l/h)	PREHEAT OXYGEN FLOW (l/h)	ACETYLENE FLOW (l/h)	WHERE USED
1504800	1504884	1	0 - 6	1,5	0,5	850	310 - 510	280 - 480	242NM NM-250 980-NM cutting torches
1504801	1504885	2	6 - 12	2,0	0,5	1850	340 - 620	340 - 570	
1504802	1504886	3	12 - 75	3,0	0,5	4530	420 - 800	400 - 710	
1504803	1504887	4	75 - 150	3,0	1,0	7080	570 - 850	510 - 800	
1504804	1504888	5	150 - 200	4,0	1,0	10620	850 - 1220	800 - 1100	273 NM cutting attachment
1504805	1504889	6	200 - 250	4,5	1,0	14720	1080 - 1560	990 - 1420	
1504806	1504890	7	250 - 300	5,5	1,0	24070	1280 -1560	1130 - 1420	

2890-F MODEL

OXY-ACETYLENE TIP MIX CUTTING TIPS

2890-F

PART NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	ACETYLENE (bar)	WHERE USED
2890-1F	0 - 10	1,0 - 1,5	0,2	28-2 H28 28-2L cutting torches
2890-2F	10 - 50	1,5 - 2,5	0,3	
2890-3F	50 - 100	3,0 - 4,5	0,5	
2890-4F	100 - 125	5,0 - 5,5	0,7	
2890-5F	125 - 150	5,5 - 6,0	0,7	
2890-6F	150 - 200	6,0 - 6,5	0,7	
2890-7F	200 - 300	7,0 - 9,0	1,0	

P & PNME 8290 MODEL

OXY-PROPANE, LPG & MAPP®*TWO PIECE TIP MIX CUTTING TIPS

8290-PNME

PART NO. 8290-P	PART NO. 8290-PNME	SIZE	PLATE THICKNESS (mm)	OXYGEN (bar)	FUEL GAS (bar)	CUTTING OXYGEN FLOW (l/h)	PREHEAT OXYGEN FLOW (l/h)	PROPANE FLOW (l/h)	WHERE USED
1504870	1504858	1	0 - 6	1,5	0,5	850	680 - 1360	170 -340	242NM NM-250 980-NM cutting torches
1504871	1504859	2	6 - 12	2,0	0,5	1840	910 - 1360	220 - 340	
1504872	1504860	3	12 - 75	3,0	0,5	4810	1360 - 2490	340 - 620	
1504873	1504861	4	75 - 150	3,0	1,0	7360	1590 - 2550	450 - 620	
1504874	1504862	5	150 - 200	4,0	1,0	9900	1810 - 2550	620 - 900	273 NM cutting attachment
1504875	1504863	6	200 - 250	4,5	1,0	14720	2550 - 3680	710 - 900	
1504876	1504864	7	250 - 300	5,5	1,0	21240	2830 - 3680	990 - 1080	

Note: when using natural gas fuel rates will double (approx.)

2890-P MODEL

OXY-PROPANE, LPG & MAPP®* TWO PIECE TIP MIX CUTTING TIPS

2890-P

PART NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	FUEL GAS (bar)	WHERE USED
2890-0P	0 - 10	1,5 - 2,0	0,2	28-2 H28 28-2L cutting torches
2890-1P	10 - 25	2,0 - 2,5	0,4	
2890-2P	25 - 50	2,0 - 3,0	0,4	
2890-3P	50 - 75	2,5 - 3,0	0,4	
2890-4P	75 - 100	3,0 - 4,0	0,5	
2890-5P	100 - 200	3,0 - 5,0	0,5	
2890-6P	200 - 300	5,0 - 7,0	0,6	
2890-7P	300 - 400	6,0 - 7,0	0,7	
2890-8P	400 - 500	7,0 - 8,0	0,8	

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SPECIALTY TIPS FOR HARRIS CUTTING TORCHES

G & R 6290 MODEL

OXY-ACETYLENE SPECIALTY TIPS

Acetylene 6290 specialty tips are made available to add more versatility to the Harris cutting torch line. Specialty tips allow the use of existing torches to heat gouge and rivet cut without the need to purchase additional equipment.

DUTY:

Heavy*

WHERE USED:

Metalworking, gouging, rivet cutting

CLEANING INSTRUCTIONS:

Use tip cleaner C-9

6290-G 6290-R

PART NO.	APPLICATION	OXYGEN (bar)	ACETYLENE EQUAL PRESSURE (bar)	ACETYLENE LOW PRESSURE (bar)	WHERE USED
6290-1G	Gouging 3 x 6 mm wide	2,5	0,3 - 0,8	0,015 - 0,2	Recommended for straight cutting torches
6290-2G	Gouging 5 x 10 mm wide	3,5	0,3 - 0,8	0,015 - 0,2	Recommended for straight cutting torches
6290-3G	Gouging 6 x 13 mm wide	3,5	0,3 - 0,8	0,015 - 0,2	Recommended for straight cutting torches
6290-R	Rivet cutting	3,0	0,3 - 0,8	0,015 - 0,2	Recommended for straight cutting torches

G G NFFR NFW 6290 MODEL

OXY-PROPANE, PROPYLENE, NATURAL GAS & MAPP®** GAS SPECIALTY TIP

Model 6290 alternate fuel specialty tips are designed to allow additional performance from Harris straight cutting torches. Applications like heating, rivet washing, rivet cutting, gouging and extended reach cutting can be performed using standard cutting torches, eliminating the need for separate handles, tip tubes etc. Tips are designed for use with alternative fuels (not for use with acetylene). Especially useful where storage space is at a premium.

DUTY:

Heavy*

WHERE USED:

Metalworking, beam cutting and weld repair etc.

CLEANING INSTRUCTIONS:

Use tip cleaner C-9

6290-GG 6290-2NFFR

6290-NFW

PART NO.	APPLICATION	OXYGEN (bar)	FUEL GAS EQUAL PRESSURE (bar)	FUEL GAS LOW PRESSURE (bar)	WHERE USED
6290-1GG	Gouging 3 x 6 mm wide	2,5	0,3 - 0,8	0,015 - 0,2	Recommended for straight cutting torches
6290-2GG	Gouging 5 x 10 mm wide	3,5	0,3 - 0,8	0,015 - 0,2	Recommended for straight cutting torches
6290-3GG	Gouging 6 x 13 mm wide	3,5	0,3 - 0,8	0,015 - 0,2	Recommended for straight cutting torches
6290-4GG	Gouging 10 x 19 mm wide	4,0	0,3 - 0,8	0,015 - 0,2	Recommended for straight cutting torches
6290-2NFFR	Rivet cutting	3,0	0,3 - 0,8	0,015 - 0,2	Recommended for straight cutting torches
6290-NFW	Rivet washing	3,5	0,3 - 0,8	0,015 - 0,2	Recommended for straight cutting torches

*For maximum performance Harris recommends the use of tips only with straight cutting torches.
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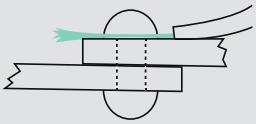
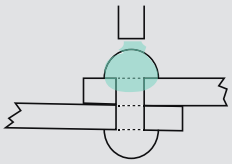
**CUTTING.
WASHING.
GOUGING.**

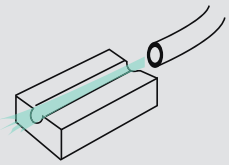
RIVET CUTTING



RIVET WASHING



GOUGING



VH31
MODEL

VICTOR®* COMPATIBLE COMBINATION HANDLE

MODEL SHOWN:
VH31

The Model VH31 is a Victor®* compatible heavy duty combination handle for welding, brazing, heating and cutting. It is designed to offer the highest flow possible allowing the use of larger tips. The handle is designed with tube-within-a-tube construction and is O-ring sealed for greater strength and higher capacity.

FEATURES:

- Welds up to 50 mm
- Cuts up to 200 mm
- Tough extruded brass handle

PART NO.	COMPATIBLE CUTTING ATTACHMENT	THREAD OXYGEN	THREAD FUEL GAS	WEIGHT (kg)	LENGTH (mm)
VH31	VH24	9/16”-18-UNF-RH	9/16”-18-UNF-LH	0,751	283

VH24
MODEL

VICTOR®* COMPATIBLE CUTTING ATTACHMENT

MODEL SHOWN:
VH24

The Model VH24 is a Victor®* compatible heavy duty cutting attachment. The mixer design resists damage due to flashback. It is equipped with a durable stainless steel lever, has a coupling nut with locking ring to protect cutting the attachment seat and the cutting oxygen valve has an ease-on feature for more precise control.

FEATURES:

- Cuts up to 200 mm
- Spiral mix system
- Designed for maximum operator safety
- Stainless steel tubes
- Use with 1-101-HV and GPN tips (see page 88)

PART NO.	HEAD ANGLE	COMPATIBLE CUTTING TIPS	COMPATIBLE HANDLE	WEIGHT (kg)	LENGTH (mm)
VH24	90°	1-101-HV & GPN	VH31	0,855	253

*Victor® is registered trademark owned by Victor Technologies, Inc.

WHAT IS V-SERIES?

The Harris "V" Series products allow users of Victor® style cutting torches, handles, cutting attachments, mixers and tips to inexpensively convert to and enjoy the benefits of genuine Harris designed gas apparatus.

V242

MODEL

VICTOR®* COMPATIBLE HAND CUTTING TORCH FOR USE WITH ALL FUEL GASES

MODEL SHOWN:
V242

The Model V242 is a Victor®* compatible medium duty straight cutting torch designed for use with all fuel gases. The V242 features stainless steel cutting lever, ease-on cutting valve and triangular tube design.

FEATURES:

- Cuts up to 200 mm
- Head mixing and equal pressure design for maximum operator safety
- Triangular tube design
- Brazed tube connections
- Use with 1-101-HV and GPN tips (see page 94)

V242 EQUAL PRESSURE TORCHES (FOR ACETYLENE AND ALTERNATIVE FUELS)

90°HEAD		70°HEAD		LENGTH (mm)
PART NO.	WEIGHT (kg)	PART NO.	WEIGHT (kg)	
V242-2	1,30	V242-2A	1,30	470
V242-2L	1,35	V242-2A-L	1,35	530
V242-2L-36	1,70	V242-2A-L-36	1,70	900

V-SERIES CUTTING ATTACHMENTS

Models V273, V-2460, V49-3F are Victor® compatible classicly Harris designed cutting attachments. The brazed triangular stainless steel tubes, makes it lightweight while still providing exceptional strength and rigidity. The captive union nut protects the seats and O-rings from damage. It features a fold-forward cutting lever allowing easier connection, even with gloves on. The ease-on cutting valve provides smoother controlled starts. The forged solid brass head provides years of safe, dependable service, even under the most abusive conditions.

FEATURES:

- Cuts up to 150 mm
- Triangular tube design
- Brazed tube connections

Model V273

Model V-2460

Model V49-3F

PART NO.	HEAD ANGLE	COMPATIBLE CUTTING TIPS	COMPATIBLE HANDLE	WEIGHT (kg)	LENGTH (mm)
Equal pressure “E” cutting attachment (for acetylene and alternative fuels)					
V273-2	90°	GPN, 1101- HV	V-315-CH, V263	0,500	220
V2460	90°	GPN, 1101- HV	V-315-CH, V263	0,658	225
Low pressure “F” cutting attachment (for alternative fuels)					
V49-3F	90°	6290	V-315-CH, V263	0,678	248
V2460F	90°	GPN	V-315-CH, V263	0,638	227
V2460AF	70°	GPN	V-315-CH, V263	0,638	227

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V-SERIES HANDLES

Models V-315C and V236 are Victor®* compatible combination handles for welding, brazing, heating and cutting. These heavy-duty handles are compatible with all fuel gases and feature tube-within-a-tube construction. Model V-315-CH features a tough extruded brass handle with stainless steel ball valves. Model V236 features high precision ball valves and is made of high quality brass.

FEATURES:

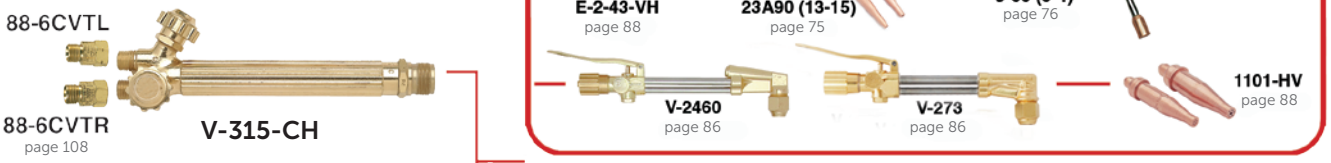
- Welds up to 50 mm
- Cuts up to 150 mm

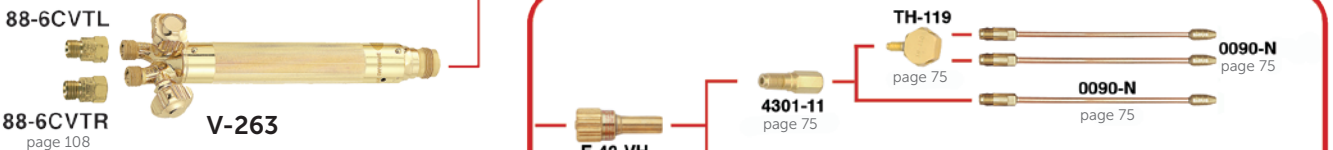
Model V-315-CH

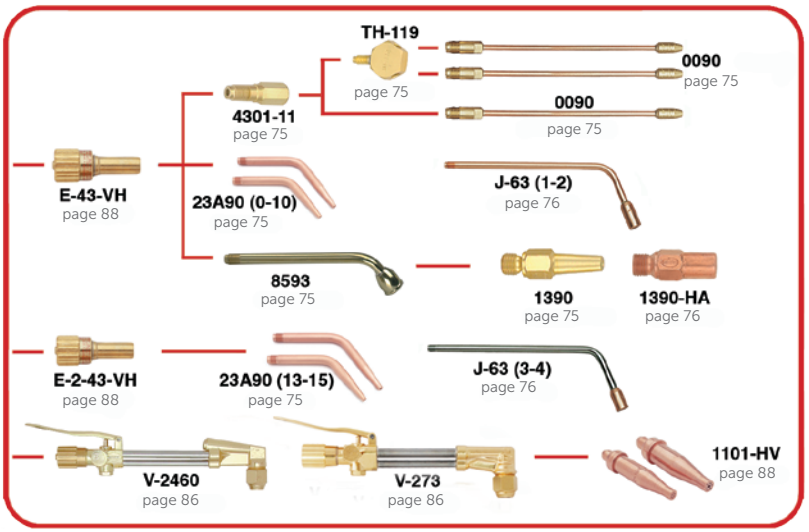
Model V263

PART NO.	COMPATIBLE CUTTING ATTACHMENT	THREAD OXYGEN	THREAD FUEL GAS	WEIGHT (kg)	LENGTH (mm)
V-315-CH	V273, V-2460, V2460 F, V2460 AF, V493 F	9/16"-18-UNF-3A-RH	9/16"-18-UNF-3A-LH	0,552	205
V263	V273, V-2460, V2460 F, V2460 AF, V493 F	9/16"-18-UNF-3A-RH	9/16"-18-UNF-3A-LH	0,506	219

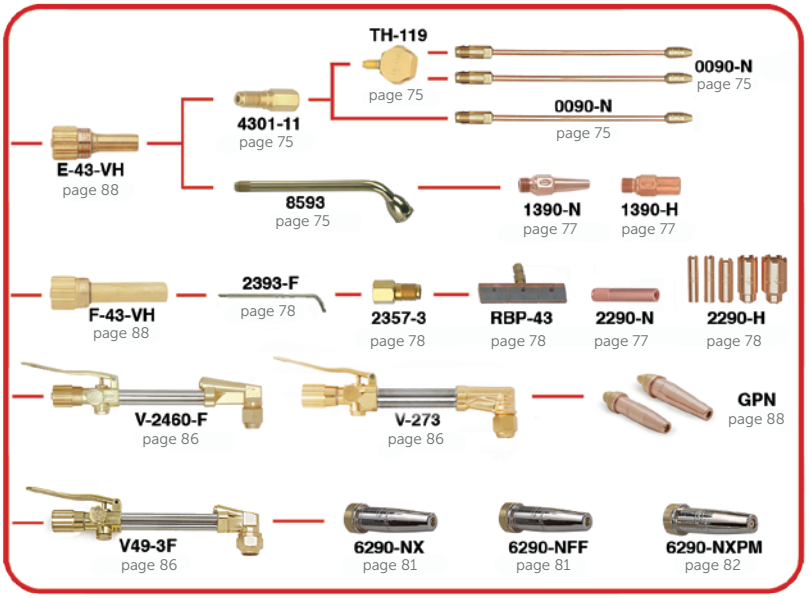
ACETYLENE







ALTERNATIVE FUEL GASES



*Victor® is registered trademark owned by Victor Technologies, Inc.

V-SERIES EQUAL PRESSURE "E" TYPE MIXERS

E2-43-VH

F3-43-VH

PART NO.	FITS HANDLE	GAS	WELDING TIPS	HEATING TIPS	BRAZING TIPS	FLAME CLEANING TIPS
E-43-VH	V-315-CH, V-263	Oxy-acetylene	23A90 tips 0,1,3,5,6,8,9,10	J-63 tips 1,2	-	-
E-43-VH	V-315-CH, V-263	Oxy-acetylene	0090 tips 1,3,5,6,8 (+adapter 4301-11+TH-119)	1390-HA (+tube 8593)	-	-
E-43-VH	V-315-CH, V-263	Oxy-acetylene	1390 tips 00,0,1,3,5,6,8,9,10 (+tube 8593)	-	-	-
E-43-VH	V-315-CH, V-263	Oxy-propane	-	-	1390-N tips 2,3,4,5,6,7,8,9,10 (+tube 8593)	-
E-43-VH	V-315-CH, V-263	Oxy-propane	-	-	0090-N tips 2,4,6,8 (+adapter 4301-11+TH-119)	-
E2-43-VH	V-315-CH, V-263	Oxy-acetylene	23A90 tips 13,15	J-63 tips 3,4	-	RBA-43 tips 2,4,6 (+tube 2393+2357-3)
F-43-VH	V-315-CH, V-263	Oxy-propane	-	2290-H tips 1,2,3,4,5 (+tube 2393+2357-3)	2290-N tips 13,15,20,30,80 (+tube 2393+2357-3)	RBP-43 tips 2,4,6 (+tube 2393+2357-3)

ACETYLENE HAND CUTTING TIPS

General preheat one-piece V-series hand cutting tips

A single-piece acetylene hand cutting tip for relatively clean steel. The V1-101-HV is compatible with V-Series and Victor®* style torches.

Model 1-101-HV

CONSTRUCTION:
One-piece

PREHEAT TYPE:
General

WHERE USED:
Metal fabrication, shipbuilding

CLEANING INSTRUCTIONS:
Use tip cleaner C-9 Tip

PART NO.	PLATE THICKNESS (mm)	TIP SIZE	OXYGEN (bar)	ACETYLENE (bar)
1-101-000HV	0 - 3	000	1,4 - 1,7	0,20 - 0,35
1-101-00HV	3 - 8	00	1,4 - 1,7	0,20 - 0,35
1-101-0HV	8 - 15	0	1,7 - 2,4	0,20 - 0,35
1-101-1HV	15 - 25	1	2,1 - 2,4	0,20 - 0,35
1-101-2HV	25 - 50	2	2,4 - 3,1	0,20 - 0,50
1-101-3HV	50 - 75	3	2,8 - 3,4	0,30 - 0,70
1-101-4HV	75 - 100	4	2,8 - 3,4	0,35 - 0,70
1-101-5HV	100 - 150	5	3,1 - 3,8	0,50 - 0,90
1-101-6HV	150 - 200	6	3,1 - 3,8	0,50 - 1,00

PROPANE / NATURAL GAS HAND CUTTING TIPS

General preheat two-piece V-series hand cutting tips

A two-piece propane / natural gas hand cutting tip for relatively clean steel.

Model GPN

CONSTRUCTION:
Two-piece

PREHEAT TYPE:
General

WHERE USED:
Metal fabrication, shipbuilding, construction

CLEANING INSTRUCTIONS:
Use tip cleaner E-9

PART NO.	PLATE THICKNESS (mm)	TIP SIZE	OXYGEN (bar)	FUEL GAS (bar)
GPN-000	0 - 3	000	1,4 - 1,7	0,15 - 0,35
GPN-00	3 - 8	00	1,4 - 1,7	0,15 - 0,35
GPN-0	8 - 15	0	1,7 - 2,4	0,20 - 0,35
GPN-1	15 - 25	1	2,1 - 2,4	0,20 - 0,40
GPN-2	25 - 50	2	2,4 - 3,1	0,20 - 0,55
GPN-3	50 - 75	3	2,8 - 3,4	0,30 - 0,60
GPN-4	75 - 100	4	2,8 - 3,4	0,40 - 0,60
GPN-5	100 - 150	5	3,1 - 3,8	0,40 - 0,70
GPN-6	150 - 200	6	3,1 - 3,8	0,40 - 0,80

*Victor® is registered trademark owned by Victor Technologies, Inc.

AIRCO®* COMPATIBLE EQUIPMENT

MODEL NO.	DESCRIPTION	WEIGHT (kg)	LENGTH (mm)
242-2NM	Cutting torch, head angle 90°	1,250	460 (for 530 mm length please add “L” to the model number)
242-2NMA	Cutting torch, head angle 70°	1,250	470 (for 530 mm length please add “L” to the model number)
263	Handle	0,500	220
273-2NM	Cutting attachment	0,800	230

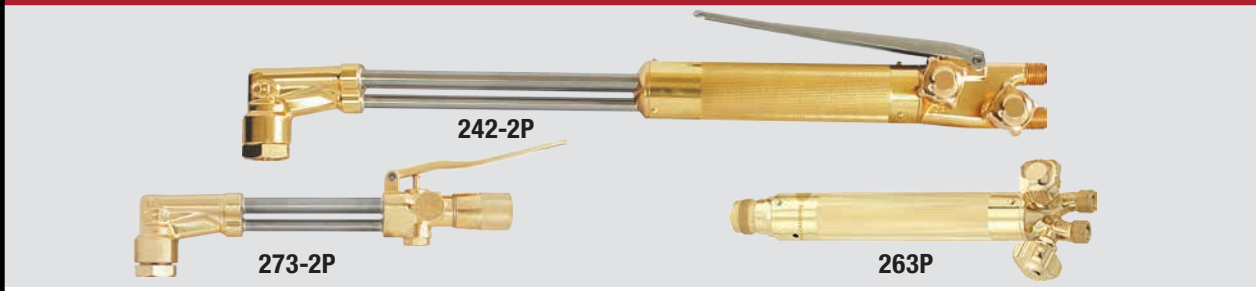
8290ANME

MODEL NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	ACETYLENE (bar)
8290-1	0 - 6	1,5	0,5
8290-2	6 - 12	2,0	0,5
8290-3	12 - 75	3,0	0,5
8290-4	75 - 150	3,0	1,0
8290-5	150 - 200	4,0	1,0

8290PNME

MODEL NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	FUEL GAS (bar)
8290-P1	0 - 6	1,5	0,5
8290-P2	6 - 12	2,0	0,5
8290-P3	12 - 75	3,0	0,5
8290-P4	75 - 150	3,0	1,0
8290-P5	150 - 200	4,0	1,0

OXWELD®** COMPATIBLE EQUIPMENT



MODEL NO.	DESCRIPTION	WEIGHT (kg)	LENGTH (mm)
242-2P	Cutting torch, head angle 90°	1,250	460 (for 530 mm length please add “L” to the model number)
242-2PA	Cutting torch, head angle 70°	1,250	470 (for 530 mm length please add “L” to the model number)
263P	Handle	0,500	220
273-2P	Cutting attachment	0,800	230

CT1502

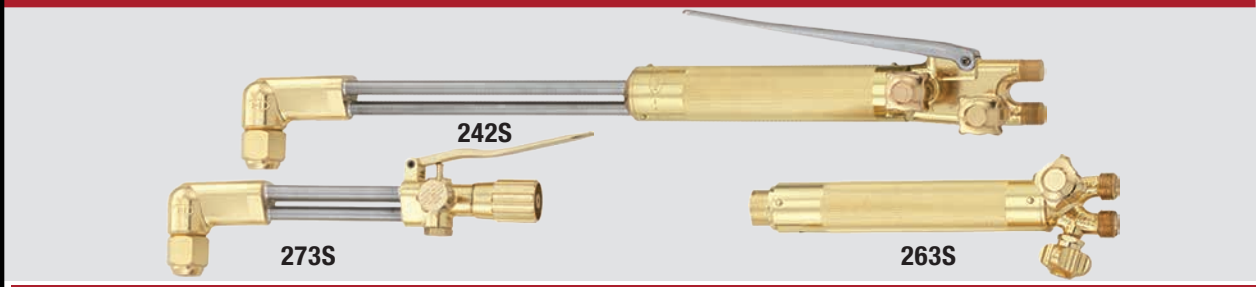
MODEL NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	ACETYLENE (bar)
CT1502-2	0 - 5	2,5	0,4
CT1502-3	5 - 10	2,5	0,4
CT1502-4	10 - 20	3,0	0,4
CT1502-6	20 - 50	3,0	0,4
CT1502-8	50 - 130	4,0	0,6
CT1502-10	130 - 200	5,0	0,7

CT1503

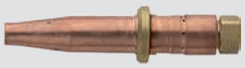
MODEL NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	FUEL GAS (bar)
CT1503-4	10 - 20	2,5	0,45
CT1503-6	20 - 50	3,0	0,45
CT1503-8	50 - 130	3,5	0,45
CT1503-10	130 - 200	4,5	0,80

* AIRCO® is a registered trademark of Airco Welding Products Div. of BOC Group.
** OXWELD® is a registered trademarks of ESAB Welding & Cutting Products.

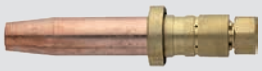
SMITH®* COMPATIBLE EQUIPMENT



MODEL NO.	DESCRIPTION	WEIGHT (kg)	LENGTH (mm)
242S	Cutting torch, head angle 90°	1,200	460 (for 530 mm length please add “L” to the model number)
242SA	Cutting torch, head angle 70°	1,200	470 (for 530 mm length please add “L” to the model number)
263S	Handle	0,600	220
273S	Cutting attachment	0,800	250

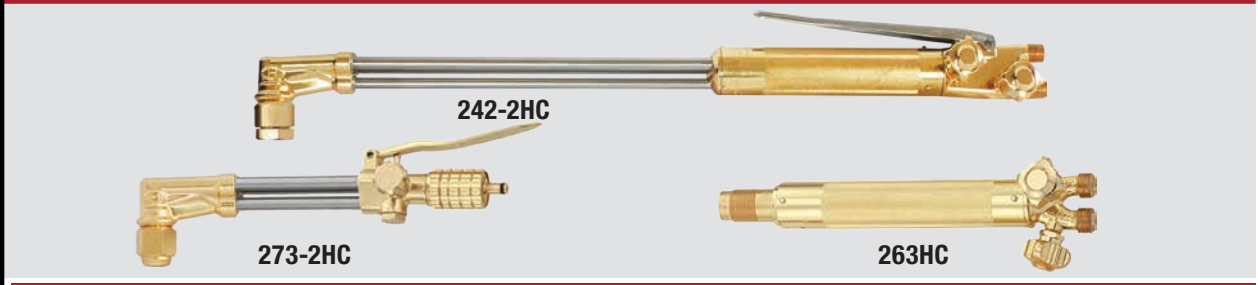
CTSC12 

MODEL NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	ACETYLENE (bar)
CTSC12-0	0 - 10	2,5	0,30
CTSC12-1	10 - 20	3,0	0,30
CTSC12-2	20 - 35	3,5	0,30
CTSC12-3	35 - 60	3,5	0,35
CTSC12-4	60 - 120	4,0	0,35
CTSC12-5	120 - 200	5,0	0,40

CTSC50A 

MODEL NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	FUEL GAS (bar)
CTSC50A-0	0 - 10	2,5	0,35
CTSC50A-1	10 - 20	3,0	0,40
CTSC50A-2	20 - 35	3,5	0,40
CTSC50A-3	35 - 60	3,5	0,45
CTSC50A-4	60 - 120	4,0	0,45
CTSC50A-5	120 - 200	5,0	0,50

CIGWELD®** COMPATIBLE EQUIPMENT



MODEL NO.	DESCRIPTION	WEIGHT (kg)	LENGTH (mm)
242-2HC	Cutting torch, head angle 90°	1,350	470 (for 530 mm length please add “L” to the model number)
242-2HCA	Cutting torch, head angle 70°	1,350	480 (for 530 mm length please add “L” to the model number)
263HC	Handle	0,500	230
273-2HC	Cutting attachment	0,850	250

CT41

MODEL NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	ACETYLENE (bar)
CT41-6	0 - 6	2,0	1,0
CT41-8	6 - 12	2,0	1,0
CT41-12	12 - 20	2,5	1,0
CT41-15	25 - 75	3,5	1,0
CT41-20	100 - 125	4,5	1,0
CT41-24	150 - 200	5,0	1,0

CT44

MODEL NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	FUEL GAS (bar)
CT44-6	0 - 6	2,0	1,0
CT44-8	6 - 12	2,0	1,0
CT44-12	12 - 20	2,5	1,0
CT44-15	25 - 75	3,5	1,0
CT44-20	100 - 125	4,5	1,0
CT44-24	150 - 200	5,0	1,0

* SMITH® is a registered trademark of Illinois Tool Works.
** CIGWELD® is a registered trademark of ESAB Welding & Cutting Products.

MESSER®* COMPATIBLE EQUIPMENT

MODEL NO.	DESCRIPTION	WEIGHT (kg)	LENGTH (mm)
242-2D	Cutting torch, head angle 90°	1,300	460 (for 530 mm length please add "L" to the model number)
242-2DA	Cutting torch, head angle 70°	1,300	470 (for 530 mm length please add "L" to the model number)
543HCD17	Handle	0,500	220
273-2D	Cutting attachment	0,800	250

AB

MODEL NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	ACETYLENE (bar)
AB1	3 - 10	3,0	0,5
AB2	10 - 25	3,5	0,5
AB3	25 - 40	4,0	0,5
AB4	40 - 60	4,5	0,5
AB5	60 - 100	5,0	0,5
AB6	100 - 200	6,0	0,5

SAF®** COMPATIBLE EQUIPMENT

MODEL NO.	DESCRIPTION	WEIGHT (kg)	LENGTH (mm)
980G1	Cutting torch, head angle 90°	1,100	480 (for 530 mm length please add "L" to the model number)
242-2G1	Cutting torch, head angle 90°	1,300	470 (for 530 mm length please add "L" to the model number)
242-2G1A	Cutting torch, head angle 70°	1,300	480 (for 530 mm length please add "L" to the model number)
543 G1	Handle	0,500	220
273-2G1	Cutting Attachment	0,800	230

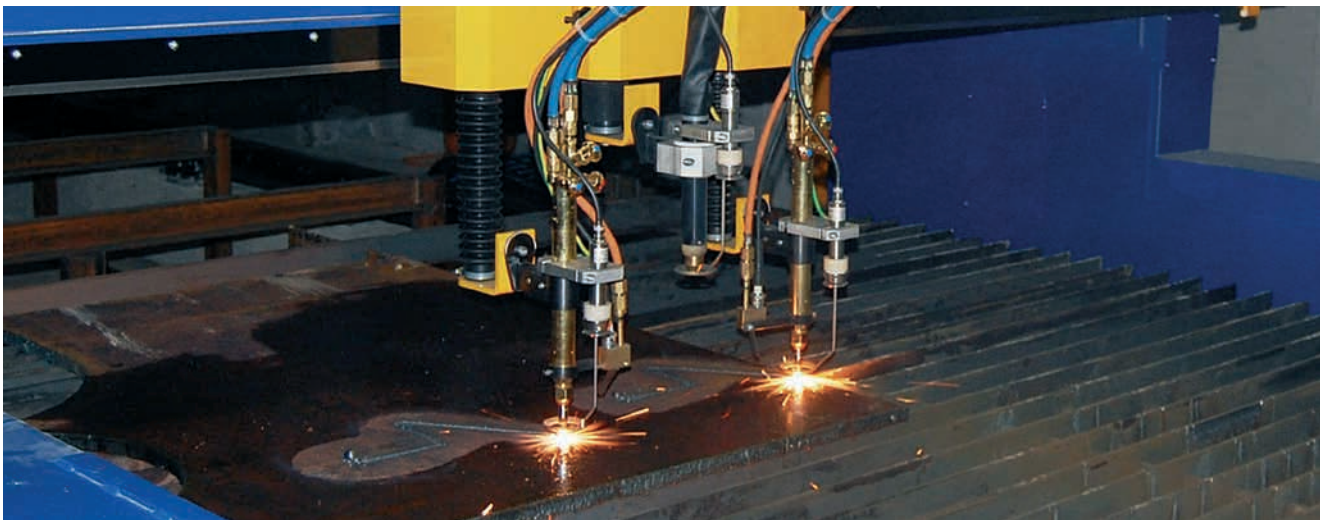
G1A

G1P

MODEL NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	ACETYLENE (bar)
G1A-7	3 - 10	2 - 3	0,5
G1A-10	10 - 25	2 - 3	0,5
G1A-12	25 - 50	2 - 3	0,5
G1A-16	50 - 80	3 - 5	0,5
G1A-20	80 - 120	3 - 5	0,5
G1A-25	120 - 200	5 - 8	0,5

MODEL NO.	PLATE THICKNESS (mm)	OXYGEN (bar)	FUEL GAS (bar)
G1P-7	3 - 10	2 - 3	0,5
G1P-10	10 - 25	2 - 3	0,5
G1P-12	25 - 50	2 - 3	0,5
G1P-16	50 - 80	3 - 5	0,5
G1P-20	80 - 120	3 - 5	0,5
G1P-25	120 - 200	5 - 8	0,5

* MESSER® is a registered trademark of Messer Group GmbH.
** SAF® is a registered trademark of SAF Welding and Cutting Products.



MODEL
133/198/98

MACHINE CUTTING TORCHES

Harris® machine cutting torches are designed to handle all types of machine cutting applications.
Rugged and dependable, these torches provide up to 380 mm cutting capacity. Harris machine cutting torches are available in two-tube and three-tube design for all fuel gases at pressures as low as 0,015 bar.

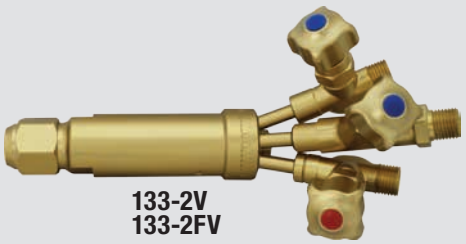
GENERAL FEATURES:

- Solid head for maximum strength
- Standard 32 mm or 35 mm diameter barrel
- All torches have inlet threads 9/16"-18-UNF
- Use with 6290 machine cutting tips (see pages 81-82)

133-2
133-2F

MODEL 133-2/133-2F FEATURES:

- Three-tube valveless design for pipe bevelling, multiple bevelling and similar applications
- Cutting capacity up to 200 mm



133-2V
133-2FV

MODEL 133-2V/133-2FV FEATURES:

- Three-tube with three valves
- Cutting capacity up to 200 mm

LOW PRESSURE "F" INJECTOR TYPE TORCHES (FOR MAXIMUM PERFORMANCE WITH ALTERNATIVE FUEL)				
PART NO.	STYLE	WEIGHT (kg)	LENGTH (mm)	BARREL Ø (mm)
133-2F	3 tube	0,68	65	30
133-2F-28	3 tube	0,63	65	28
133-2FV	3 tube	1,07	65	30
133-2FV-28	3 tube	1,02	65	28

LOW PRESSURE TORCHES (FOR ACETYLENE)				
PART NO.	STYLE	WEIGHT (kg)	LENGTH (mm)	BARREL Ø (mm)
133-2	3 tube	0,68	65	30
133-2-28	3 tube	0,62	65	28
133-2V	3 tube	1,05	65	30
133-2V-28	3 tube	1,02	65	28

SHAPE CUTTING

BEVEL CUTTING

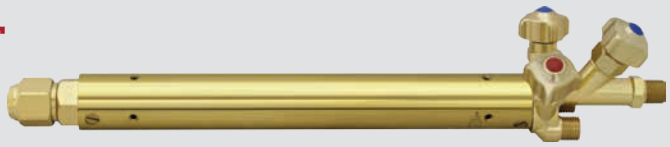
STRAIGHT CUTTING

THE HARRIS PRODUCTS GROUP
www.harrisproductsgroup.com
HARRIS
A LINCOLN ELECTRIC COMPANY

MACHINE CUTTING TORCHES

MODEL 198-2T/198-2TR/198-2TF
FEATURES:

- Quick opening cutting oxygen valve for immediate full flow
- Separate preheat and cutting oxygen valves for high and low preheat control
- Cutting capacity up to 380 mm
- Use with 6290 cutting tips (see pages 81-82)



198-2T
198-2TF

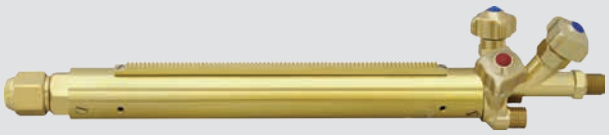
MODEL 198-2/198-2F
FEATURES:

- Cutting capacity up to 200 mm
- One inlet connection for oxygen and cutting oxygen

198-2
198-2F

MODEL 198-4/98-4
FEATURES:

- Same characteristics as 198-2T, but valveless



198-2TR
(with rack)

198-4
98-4

EQUAL PRESSURE "E" TYPE TORCHES (FOR ACETYLENE AND ALTERNATIVE FUELS)

PART NO.	STYLE	WEIGHT (kg)	LENGTH (mm)	BARREL Ø (mm)
198-2E	2-tube	1,30	250	32
198-2E-35	2-tube	1,41	250	35
198-2E-35R	2-tube & rack	1,47	250	35
198-2ER	2-tube	1,34	250	32
198-2TAE	3-tube	1,67	450	32
198-2TAE-30	3-tube	1,55	450	30
198-2TAE-35	3-tube	1,68	450	35
198-2TE	3-tube	1,33	250	32
198-2TE-30	3-tube	1,20	250	30
198-2TE-30R	2-tube & rack	1,26	250	30
198-2TE-35	3-tube	1,43	250	35
98-4BE	3-tube	0,73	200	35

LOW PRESSURE TORCHES (FOR ACETYLENE)

PART NO.	STYLE	WEIGHT (kg)	LENGTH (mm)	BARREL Ø (mm)
198-2	2-tube	1,30	250	32
198-2-30	2-tube	1,18	250	30
198-2-35	2-tube	1,39	250	35
198-2-35R	2-tube & rack	1,44	250	35
198-2A	2-tube	1,62	460	32
198-2T	3-tube	1,32	250	32
198-2T-30	3-tube	1,20	250	30
198-2T-30R	3-tube & rack	1,29	250	30
198-2TA	3-tube	1,67	460	32
198-2TA-30	3-tube	1,55	460	30
198-2TA-35	3-tube	1,78	460	35
198-2TA-35R	3-tube & rack	1,90	460	35
198-2TAR	3-tube & rack	1,75	460	32
198-2TR	3-tube & rack	1,38	250	32
198-4	3-tube	0,65	110	32
198-4B	3-tube G 1/4"	0,65	110	32
98-4	3-tube	0,73	110	35
98-4B	3-tube G 1/4"	0,73	110	35

LOW PRESSURE "F" INJECTOR TYPE TORCHES (FOR MAXIMUM PERFORMANCE WITH ALTERNATIVE FUELS)

PART NO.	STYLE	WEIGHT (kg)	LENGTH (mm)	BARREL Ø (mm)
198-2F	2-tube	1,28	250	32
198-2F-35	2-tube	1,38	250	35
198-2F-35R	2-tube & rack	1,44	250	35
198-2FR	2-tube & rack	1,34	250	32
198-2TAF	3-tube	1,64	460	32
198-2TAF-30	3-tube	1,55	460	30
198-2TAF-35	3-tube	1,78	460	35
198-2TAF-35R	3-tube & rack	1,90	460	35
198-2TAFR	3-tube & rack	1,76	460	32
198-2TF	3-tube	1,33	250	32
198-2TF-30	3-tube	1,20	250	30
198-2TF-30R	3-tube & rack	1,25	250	30
198-2TF-35	3-tube	1,43	250	35
198-2TF-35R	3-tube & rack	1,49	250	35
198-2TFR	3-tube & rack	1,39	250	32
198-4BF	3-tube	0,65	110	32
198-4F	3-tube	0,65	110	32
98-4BF	3-tube G 1/4"	0,73	110	35
98-4F	3-tube	0,73	110	35

VVC NH 6290 MODEL

MACHINE CUTTING TIPS

FEATURES:

- High-speed oxy-alternative fuel gas cutting tips
- Minimalize kerf
- Increased cutting speeds, reduced heat input
- High quality machine cuts, reduces afterwork
- Use with low cost fuel gases
- 6290-VVC plated shell, 6290-NH unplated

6290-VVC 6290-NH

OXY-PROPANE CUTTING

PART NO.	PLATE THICKNESS (mm)	CUTTING SPEED (mm/min)	CUTTING OXY PRESSURE (bar)	PREHEAT OXY PRESSURE (HIGH[1] - LOW) (bar)	CUTTING OXY FLOW (l/h)	PREHEAT OXY FLOW (HIGH - LOW) (l/h)	PREHEAT FUEL FLOW (HIGH - LOW) (l/h)	HEATING POWER (HIGH - LOW) (Kcal/h)	KERF WIDTH (mm)
6290-5/0VVC	1 - 4	750 - 550	4,0	0,7 - 0,4	650	1410 - 900	350 - 230	7800 - 5100	1,3
6290-4/0VVC	4 - 6	700 - 520	2,5	1,0 - 0,5	1130	1410 - 900	350 - 230	7800 - 5100	1,5
6290-3/0VVC	6 - 9	650 - 480	5,0	2,5 - 0,7	2260	2800 - 1200	700 - 300	15600 - 6700	1,8
6290-00VVC	9 - 12,5	630 - 450	5,0	2,5 - 0,7	2540	2800 - 1200	700 - 300	15600 - 6700	1,8
6290-0VVC	12,5 - 20	600 - 400	6,0	2,5 - 0,7	3530	2800 - 1200	700 - 300	15600 - 6700	2,0
6290-0½VVC	20 - 35	550 - 360	7,0	2,5 - 0,7	4000	2800 - 1200	700 - 300	15600 - 6700	2,0
6290-1VVC	35 - 60	480 - 220	7,0	2,5 - 0,7	5560	2800 - 1200	700 - 300	15600 - 6700	2,3
6290-1½VVC	60 - 75	310 - 200	6,5	2,5 - 0,7	7070	2800 - 1200	700 - 300	15600 - 6700	2,8
6290-2VVC	75 - 100	280 - 190	6,5	2,5 - 0,7	8000	2800 - 1300	700 - 330	15600 - 7400	3,0
6290-2VVC	100 - 125	240 - 180	7,0	2,5 - 0,7	9000	2800 - 1300	700 - 330	15600 - 7400	3,0
6290-2½VVC	125 - 150	200 - 160	6,5	2,5 - 0,7	11170	2800 - 1300	700 - 330	15600 - 7400	3,3
6290-3VVC	150 - 175	180 - 150	7,0	2,5 - 0,7	12000	2800 - 1300	700 - 330	15600 - 7400	3,5
6290-4VVC	175 - 200	180 - 150	6,5	2,5 - 0,7	14850	3000 - 1300	750 - 330	16700 - 7400	4,0
6290-5VVC	200 - 225	150 - 130	6,0	2,8 - 0,7	16410	3000 - 1510	750 - 380	16700 - 8500	5,0
6290-5½VVC	225 - 250	130 - 110	6,0	2,8 - 0,7	16980	3000 - 1630	750 - 410	16700 - 9100	6,4
6290-5NH	225 - 250	130 - 110	4,0	2,8 - 0,7	16980	3000 - 1880	750 - 470	16700 - 10500	6,4
6290-6NH	250 - 275	130 -110	4,0	2,8 - 0,7	19520	3000 - 1880	750 - 470	16700 - 10500	6,4
6290-7NH	275 - 300	120 - 100	4,5	3,5 - 0,7	23340	3580 - 2510	900 - 630	20100 - 14000	6,4
6290-8NH	300 - 380	110 - 90	4,5	3,5 - 0,7	26170	3580 - 2510	900 - 630	20100 - 14000	7,6

OXY-METHANE AND NATURAL GAS CUTTING

PART NO.	PLATE THICKNESS (mm)	CUTTING SPEED (mm/min)	CUTTING OXY PRESSURE (bar)	PREHEAT OXY PRESSURE (HIGH[1] - LOW) (bar)	CUTTING OXY FLOW (l/h)	PREHEAT OXY FLOW (HIGH - LOW) (l/h)	PREHEAT FUEL FLOW (HIGH - LOW) (l/h)	HEATING POWER (HIGH - LOW) (Kcal/h)	KERF WIDTH (mm)
6290-5/0VVC	1 - 4	610 -510	3,0	1,0 - 0,6	420	1410 - 850	710 - 430	6200 - 3700	1,3
6290-4/0VVC	4 - 6	560 - 510	3,5	1,0 - 0,7	1130	1410 - 1000	710 - 500	6200 - 4400	1,5
6290-3/0VVC	6 - 9	560 - 450	5,0	2,5 - 0,7	2260	2540 - 1000	1270 - 500	11000 - 4400	1,8
6290-00VVC	9 - 12,5	510 - 460	5,0	2,5 - 0,7	2540	2540 - 1000	1270 - 500	11000 - 4400	1,8
6290-0VVC	12,5 - 20	460 - 330	6,5	2,5 - 0,7	3530	2540 - 1000	1270 - 500	11000 - 4400	2,0
6290-0½VVC	20 - 35	410 - 350	7,0	2,5 - 0,9	4000	2540 - 1130	1270 - 570	11000 - 5000	2,0
6290-1VVC	35 - 60	380 - 330	7,0	2,5 - 0,9	5560	2540 - 1130	1270 - 570	11000 - 5000	2,3
6290-1½VVC	60 - 75	300 - 230	7,0	2,5 - 0,9	7070	2540 - 1130	1270 - 570	11000 - 5000	2,8
6290-2VVC	75 - 100	300 - 180	7,0	2,5 - 0,9	9000	2540 - 1130	1270 - 570	11000 - 5000	3,0
6290-2½VVC	125 - 150	200 - 150	7,0	2,5 - 0,9	11170	2540 - 1130	1270 - 570	11000 - 5000	3,3
6290-3VVC	150 - 175	180 - 125	7,0	2,5 - 0,9	12000	2830 - 1130	1420 - 570	12400 - 5000	3,5
6290-4VVC	175 - 200	180 - 125	7,0	2,5 - 0,9	14850	2830 - 1130	1420 - 570	12400 - 5000	4,0
6290-5VVC	200 - 225	150 - 100	6,5	2,8 - 1,2	16410	2830 - 1510	1420 - 760	12400 - 6600	5,0
6290-5½VVC	225 - 250	125 - 100	6,5	2,8 - 1,3	16980	2830 - 1630	1420 - 820	12400 - 7100	6,4
6290-5NH	225 - 250	125 - 100	4,0	2,8 - 1,5	16980	2830 - 1880	1420 - 940	12400 - 8200	6,4
6290-6NH	250 - 275	120 - 100	4,0	2,8 - 1,5	19520	2830 - 1880	1420 - 940	12400 - 8200	6,4
6290-7NH	275 - 300	110 - 100	4,5	3,5 - 2,0	23340	2830 - 2510	1420 - 1260	12400 - 11000	6,4
6290-8NH	300 - 380	100 - 75	4,5	3,5 - 2,0	26170	2830 - 2510	1420 - 1260	12400 - 11000	7,6

[1] For a fast start, necessary when performing piercing and / or cutting thicknesses over 200 mm, use “high preheat”.
For thickness up to 200 mm, switch from high to low preheat - just cut, it has started
All pressures are measured at torch inlet
Use minimum 0,3 (bar) fuel gas pressure for equal pressure torches
Use maximum 0,2 (bar) fuel gas pressure for injector equipment.

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HARRIS
A LINCOLN ELECTRIC COMPANY

VAX
VPM
NHM
6290
MODEL

MACHINE CUTTING TIPS

FEATURES:

- High-speed oxy-fuel gas cutting tips
- Minimalize kerf
- Increased cutting speeds, reduced heat input
- High quality machine cuts, reduces afterwork
- 6290-VAX & 6290-VPM plated shell, 6290-NHM unplated

6290-VAX

6290-VPM

6290-NHM

OXY-ACETYLENE CUTTING

PART NO.	PLATE THICKNESS (mm)	CUTTING SPEED (mm/min)	CUTTING OXY PRESSURE (bar)	CUTTING OXY FLOW (l/h)	PREHEAT OXY FLOW (l/h)	ACETYLENE FLOW (l/h)	HEATING POWER (Kcal/h)
6290-1VAX	0 - 8	650	2,5 - 4,0	850 - 1250	400	350	4740
6290-2VAX	8 - 15	600	5,0	2400	450	420	5690
6290-3VAX	15 - 35	550	7,0	4000	500	440	5960
6290-4VAX	35 - 75	450	7,0	5000	580	500	6780
6290-5VAX	75 - 150	300	5,0	9000	660	600	8130
6290-6VAX	150 - 200	150	6,5	13500	600	800	10840

Use maximum 0,2 bar fuel gas pressure for injector equipment.
Use minimum 0,3 bar fuel gas pressure for equilibrated pressure torches.

OXY-MAPP®*, TETRENE AND PROPYLENE CUTTING

PART NO.	PLATE THICKNESS (mm)	CUTTING SPEED (mm/min)	CUTTING OXY PRESSURE[1] (bar)	PREHEAT OXY PRESSURE (HIGH - LOW) (bar)	PREHEAT OXY FLOW (LOW PRESSURE) (l/h)	CUTTING OXY FLOW (l/h)	PREHEAT FUEL FLOW[2] (l/h)	HEATING POWER (LOW) (Kcal/h)	KERF WIDTH (mm)
6290-0VPM	1 - 4	750	3,0	0,8 - 0,5	600	810	300	6300	1,3
6290-1VPM	4 - 8	700	3,5	0,8 - 0,5	1200	810	300	6300	1,5
6290-2VPM	8 - 15	620	5,0	1,7 - 0,5	2400	840	330	6930	1,8
6290-3VPM	15 - 35	550	7,0	1,7 - 0,5	4200	900	360	7560	2,0
6290-4VPM	35 - 75	450	7,0	1,7 - 0,7	5100	1020	400	8390	2,5
6290-5VPM	75 - 150	300	7,0	1,7 - 0,7	8400	1080	420	8820	3,0
6290-6VPM	150 - 200	150	7,0	2,0 - 0,7	14400	1140	450	9450	4,0
6290-7NHM	200 - 300	125	4,0	0,7 - 2,5	22300	1140	450	9450	6,9

[1] Cutting oxygen pressure are measured at torch inlet.
[2] Preheat flows are calculated for propylene / oxygen at 2.6 / 1 ratio.
Use minimum 0,3 bar fuel gas pressure for equal pressure torches.
Use maximum 0,2 bar fuel gas pressure for injector equipment.
* MAPP® is a registered trademark of Messer Group GmbH.

E-9

Machine cutting tips cleaning instructions: The wire brush included with tip cleaner E-9 should be used for cleaning preheat slots and for removing spatter from the tip face.
When cleaning the preheat slots, do not brush across the slots as this motion can damage the slots. Always brush along the length of the slot to remove dirt or spatter.

E9 Tip Cleaner

MACHINE CUTTING ACCESSORIES

TH-98 TWIN TIP ADAPTER

Adjustable twin adapter for two cuts simultaneously using one torch. Adjust from 30 mm to 305 mm wide (special widths available upon request), O-ring sealed, large capacity (up to 200 mm to each tip).

BV-98-2 BEVELLING HEAD

Use with natural gas or propane only. Increases speed and quality of bevel cuts. 6290 cutting tips can be used. Use specially designed 1390-3H replacement heating tip for optimum results.

S-98-C ADJUSTABLE TIP ADAPTER

Allows adjustment of tip to any angle without moving the sealed torch O-ring, large capacity (up to 200 mm), calibrated to 90°.

96-DC OXYGEN SAVER

Dual control oxygen saver for three hose torches. Connects to oxygen line. Moving the lever adjusts the flame from an extreme flame for piercing and quick starts to a soft small flame for economy and quality. Advantages are reduced oxygen and gas consumption, very high cut quality, square edges, slag-free cuts with fast starts.
Not recommended for acetylene.

C-98-V2 FLASH CHECK VALVE

Check valve for cutting oxygen inlet on three-hose torches. Stops reverse flow of gases.
Recommended when cutting oxygen valve is remote from torches.
Cutting capacity up to 200 mm.

88-6 CHECK VALVES

Reverse flow check valves for preheat only. Prevents dangerous reverse flow mixing of gas in hose and regulators (see page 113 for complete check valve information).

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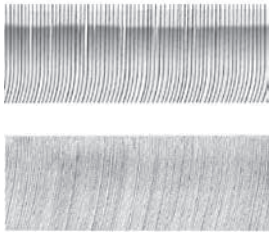
MACHINE CUTTING GUIDE

CORRECT CUTS



PERFECT CUT - Regular surface with slightly sloping drag lines indicates a perfect cut. A slight amount of scale at the top of the cut is caused by preheat flames and is easily removed. This surface can be used for many purposes without machining.

PRODUCTION CUT - Moderately sloping drag lines and a reasonably smooth surface characterize a production cut. For production operations a cut of this type represents the best combination of quality and economy.

DIRTY TIP

DIRTY TIP - Dirt or scale in the tip will deflect the oxygen stream and cause one or more of the following problems: excess slag on the steel, an irregular cut surface, pitting and undercutting.

CUTTING SPEED

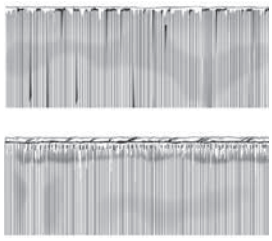
EXTREMELY FAST - Rake angle of drag lines shows extremely fast cutting speed. Top edge is good and cut face is smooth. However, slag adheres to the bottom side and there is danger of losing the cut. Not enough time is allowed for slag to blow out of the kerf. Cut face often slightly concave.

EXTREMELY SLOW - Pressure marks indicate too much oxygen for cutting conditions. Either the tip is too big, cutting oxygen pressure too high, or speed is too slow as shown by a rounded or beaded top edge as in this case. As oxygen volume nears correct proportions, pressure marks appear closer to the bottom edge until they finally disappear.

SLIGHTLY TOO FAST - Drag lines incline backwards, but a "drop cut" is still attained. Top edge is good. Cut face is smooth and slag free. Quality is satisfactory for most production work.

SLIGHTLY TOO SLOW - Cut is high quality although there is some surface roughness caused by vertical drag lines. Top edge is usually slightly beaded. Quality is generally acceptable, faster speeds are more desirable.

TIP DISTANCE



TOO CLOSE - Grooves and deep drag lines caused by unstable cutting action. Part of preheat cone burns inside kerf where normal gas expansion deflects oxygen cutting stream.

TOO HIGH - Top edge is beaded or rounded, cut face is not smooth and often is slightly beveled when preheat effectiveness is partially lost due to the tip being held too high. Cutting speed is reduced because of the danger of losing the cut.

GAS ADJUSTMENT

TOO MUCH CUTTING OXYGEN - Pressure marks are caused by too much cutting oxygen. When more oxygen is supplied than can be consumed in oxidation, the remainder goes around the slag creating gouges, or pressure marks. Correct this fault by lowering cutting oxygen pressure, increasing speed, or using a smaller tip. As oxygen volume nears correct proportion, pressure marks appear closer to the bottom edge until they finally disappear.

TOO HOT PREHEAT - Rounded top edge caused by too much preheat. Excess preheat does not increase cutting speed, it only wastes gases.

WHAT TO LOOK FOR IN BEVEL CUTTING

GOOD QUALITY - Top edge is excellent and cut face extremely smooth. Slag should be easy to remove and the cut part dimensionally accurate. Cutting speed is slower than vertical cutting because preheat effect is partially deflected from plate.

POOR QUALITY - Gouging is the most common fault. It is caused by either a speed that is too fast or preheat flames that are too mild. Another fault is a rounded top edge, caused by too much preheat, indicating excessive gas consumption.

HARRIS SUPER

MODEL

HARRIS PORTABLE CUTTING SYSTEM

Harris Super is an innovative machine with a body structure systematized for different types of oxy-fuel cutting and automatic welding work.

FEATURES

- Straight line and circle cutting or welding
- Double Cone Stepless Drive System, maintaining constant travel speed even with high temperatures and allowing greater speed control
- Plate Rider Torch Option, automatically maintains torch distance during cutting
- Modular straight 1800 mm rail sections (to be ordered separately)
- Circle rail Ø 40-360 mm and Ø 1150-2400 mm (to be ordered separately)
- Speed meter dial indication with conversion scale
- Cutting torch unit for square or V-bevel cutting, equipped with the Harris cutting torch Model 198-4
- Double or triple cutting torch unit available on request

PACKAGE INCLUDES

- Cutting machine with connecting lead and rubber connection hose from machine to cutting torch
- Harris cutting torch model 198 with 3 tips
- Tool set
- Operation manual

Model shown with additional accessories to be ordered separately

MODEL NO.	DESCRIPTION	NOTE
PCS-SUPER-110F	Harris Super 110 V	Propane
PCS-SUPER-220F	Harris Super 220 V	
PCS-SUPER-110	Harris Super 110 V	Acetylene
PCS-SUPER-220	Harris Super 220 V	
PCS RAIL	Straight rail 1800 mm	To be ordered separately
PCS CIRRAIL	Circle rail	

SPECIFICATIONS	
Cutting Thickness	Up to 300 mm
Cutting Speed	80-800 mm/min
Speed Control	Single cone speed system, mechanical regulation
Power Source	110 V, 220 V AC
Weight	11 kg
Overall Measurement	430 mm (L) x 170 mm (W) x 215 mm (H)
Cutting Torch	Propane: 198-4F Acetylene: 198-4
Cutting Tips*	Propane: 6290-VVC (size 5/0 to 5½) - 6290-NH (size 6-7) Acetylene: 6290-VAX (size 1 to 6)

* See pages 94-95

HARRIS PLUS

MODEL

HARRIS PORTABLE CUTTING SYSTEM

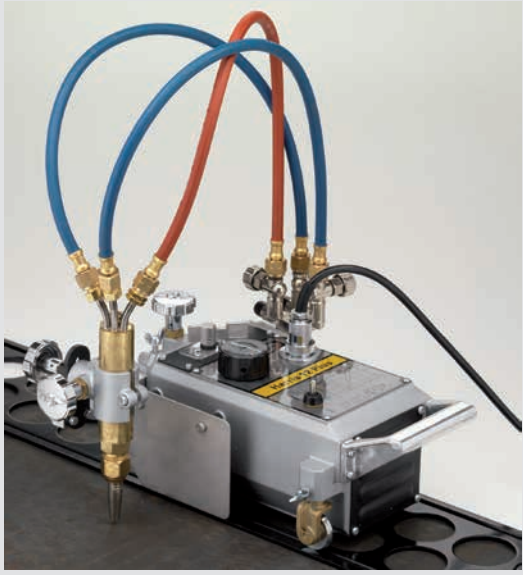
Harris Plus is a more portable version of the Harris Super, designed with the same precision and capabilities.

FEATURES

- Straight line and circle oxy fuel cutting
- Stepless Drive System, maintaining constant travel speed even with high temperatures and ensuring stable, trouble-free cutting
- Light weight - 9,5 kg - easy to carry and use
- Modular straight 1800 mm rail sections (to be ordered separately)

PACKAGE INCLUDES

- Cutting machine with connecting lead and rubber connection hose from machine to cutting torch
- Harris cutting torch Model 198 with 3 tips
- Tool set
- Operation manual



Model shown with additional accessories to be ordered separately

MODEL NO.	DESCRIPTION	NOTE
PCS-PLUS-110F	Harris Plus 110 V	Propane
PCS-PLUS-220F	Harris Plus 220 V	
PCS-PLUS-110	Harris Plus 110 V	Acetylene
PCS-PLUS-220	Harris Plus 220 V	
PCS RAIL	Straight rail 1800 mm	To be ordered separately

SPECIFICATIONS	
Cutting Thickness	3-150 mm
Cutting Speed	150-800 mm/min
Speed control	Single cone speed system, mechanical regulation
Power Source	110 V, 220 V AC
Weight	9,5 kg
Overall Measurement	360 mm (L) x 140 mm (W) x 175 mm (H)
Cutting Torch	Propane: 198-4F Acetylene: 198-4
Cutting Tips*	Propane: 6290-VVC (size 5/0 to 2½) Acetylene: 6290-VAX (size 1 to 5)

* See pages 94-95

HARRIS HA

MODEL

PORTABLE HAND CUTTING SYSTEM

Harris HA is a portable, hand cutting machine with integrated drive system. It is suitable as a hand-held cutter as well as an automated cutting machine. It allows the operator to cut all kinds of profiles in a simple and accurate manner. Because it is lightweight, Harris HA can be simply used as an ordinary hand cutting torch.

PART NO.	DESCRIPTION	NOTE
PCS-HAF	HARRIS HA 220 V	Propane
PCS-HA	HARRIS HA 220 V	Acetylene

SPECIFICATIONS	
Cutting thickness	3 - 30 mm
Running speed	200 - 700 mm/min
Input voltage	110V, 220V AC
Speed control	Transistor control
Overall length	500 mm
Weight	2,7 kg
Standard wheel	Attaches to machine body
Cutting Tips	Propane: HS106 (sizes 0 to 2) Actylene: HS102 (sizes 0 to 2)

INFERNO®

MODEL

PROPANE TORCH KIT

The Inferno Propane Torch Kit is great for burning brush and weeds, repairing road surfaces, removing paint, melting tar and asphalt for roofing applications and removing snow and ice. Equipped with quick shut-off valve for safety.

APPLICATIONS:

- Repairing road surfaces
- Removing paint
- Burning brush, weeds and stumps
- Melting snow and ice

FEATURES:

- Powerful 126 000 Kcal/h output
- Intense heat ideal for many projects
- Excess flow and shut off safety valve
- Brass valve for flame adjustment
- Includes 3 m propane gas hose and flint striker

LIGHT DUTY OXY-ACETYLENE KITS

Compact and lightweight, ideal for plumbers, DIY projects and small workshops

FEATURES:

- Model 19-6 handle with front valves for easy regulation
- Model 36-2 cutting attachment with triangular stainless steel tube construction for maximum strength
- Protected O-ring on cutting attachment, mixer and welding assembly
- Vast choice of accessories depending on kit version
- Packed in durable and portable steel case

19/36-S

19/36-SU

19/36-STD-UP

19/36-STD-EP2

CUTS UP TO 75 mm (EQUAL PRESSURE); WELDS UP TO 14 mm (ACETYLENE, EQUAL PRESSURE)

PART NO.	HANDLE	MIXER	HOSE CONNECTIONS	CUTTING ATTACHMENT	CUTTING TIPS	WELDING TIPS	HEATING TIP	ACCESSORIES	PACKAGING
19/36-S	19-6	H-19-2E	38-L3/R3	36-2	3690-0AC/1AC/2AC	5090-0/3/5/9	J-63-1	Wrench (I-62-X), Circle Cutting Attachment (I-69-7), Tip cleaner (C-9), Connector (1901-11)	Steel case (1943-K) Plastic Internal (1949-P)

CUTS UP TO 75 mm (EQUAL PRESSURE); WELDS UP TO 14 mm (ACETYLENE, LOW PRESSURE)

PART NO.	HANDLE	HOSE CONNECTIONS	CUTTING ATTACHMENT	CUTTING TIPS	WELDING ASSEMBLIES	ACCESSORIES	PACKAGING
19/36-SU	19-6	38-L3/R3	36-2	3690-0AC/1AC/2AC	L-19-1/3/5/6/9	Wrench (I-62-X), Circle Cutting Attachment (I-69-7), Tip cleaner (C-9)	Steel case (1943-K) Plastic Internal (1949-PUA))
19/36-STD-UP	19-6	38-L3/R3	36-2	3690-0AC/1AC/2AC	L-19-1/3/5/6/9	Wrench (I-62-X), Tip cleaner (C-9)	Steel case (1943-K) Plastic Internal (1949-PL)

CUTS UP TO 75 mm (EQUAL PRESSURE); WELDS UP TO 4 mm (ACETYLENE, EQUAL PRESSURE)

PART NO.	HANDLE	MIXER	HOSE CONNECTIONS	CUTTING ATTACHMENT	CUTTING TIPS	WELDING TIPS	HEATING TIP	ACCESSORIES	PACKAGING
19/36-STD-EP2	19-6	H-19-2E	38-L3/R3	36-2	3690-0AC/2AC	5090-0/3/5 0090-3	J-63-1	Wrench (I-62-X), Connector (1901-11)	Steel case (1943-KSR) Plastic Internal (1949-PSA))

HEAVY DUTY OXY-ACETYLENE KITS

Professional equipment designed for maximum safety and long life. Ideal for industry, workshops, shipyards, construction sites and oil industry.

FEATURES:

- Model 43-2 handle in forged brass with connection piece in stainless steel
- Cutting attachment with triangular stainless steel tube construction for maximum strength
- Head mixing for operator safety
- Flat-seat cutting tips for longer life
- Vast choice of accessories depending on kit version
- Packed in durable and portable steel case

43/73-STD-EP

43/49-STD-UP

43/49-SAC

43/49-SUAC

CUTS UP TO 50 mm (EQUAL PRESSURE); WELDS UP TO 9 mm (ACETYLENE, EQUAL PRESSURE)

PART NO.	HANDLE	MIXER	HOSE CONNECTIONS	CUTTING ATTACHMENT	CUTTING TIPS	WELDING TIPS	ACCESSORIES	PACKAGING
43/73-STD-EP	43-2	E-43	38-L2/R2	73-3	6290-2AC	23-A-90-3/5/8	Wrench I-62-X	Steel case (1943-K) Plastic Internal (4349-P)

CUTS UP TO 50 mm (LOW PRESSURE); WELDS UP TO 9 mm (ACETYLENE, LOW PRESSURE)

PART NO.	HANDLE	HOSE CONNECTIONS	CUTTING ATTACHMENT	CUTTING TIPS	WELDING ASSEMBLIES	ACCESSORIES	PACKAGING
43/49-STD-UP	43-2	38-L2/R2	49-3	6290-2AC	L-43/3/5/8	Wrench I-62-X	Steel case (1943-K) Plastic Internal (4349-PS)

CUTS UP TO 150 mm (LOW PRESSURE); WELDS UP TO 20 mm (ACETYLENE, EQUAL PRESSURE)

PART NO.	HANDLE	MIXER	HOSE CONNECTIONS	CUTTING ATTACHMENT	CUTTING TIPS	WELDING TIPS	HEATING TIP	ACCESSORIES	PACKAGING
43/49-SAC	43-2	E-43	38-L2/R2	49-3	6290-0AC/2AC/4AC	23-A-90-3/5/6/10	J-63-2	Wrench I-62-X. Twin wheel circle cutting attachment (I-69-6)	Steel case (1943-K) Plastic Internal (4349-P)

CUTS UP TO 150 mm (LOW PRESSURE); WELDS UP TO 20 mm (ACETYLENE, LOW PRESSURE)

PART NO.	HANDLE	HOSE CONNECTIONS	CUTTING ATTACHMENT	CUTTING TIPS	WELDING ASSEMBLIES	ACCESSORIES	PACKAGING
43/49-SUAC	43-2	38-L2/R2	49-3	6290-0AC/2AC/4AC	L-43-3/5/6/9/15	Wrench I-62-X. Twin wheel circle cutting attachment (I-69-6)	Steel case (1943-K) Plastic Internal (4349-PI)

MASTERLINE KITS

FEATURES:

- Fully equipped combination kits for welding, brazing, cutting and heating with acetylene
- Brass handle with large flow capacity for heavy duty applications
- Cutting attachment with triangular stainless steel tube design
- Equal pressure mixer for maximum safety
- Regulators with improved quality, performance and durability
- Kits complete with goggles, lighter with flints and 6 m long twin hose with fittings
- Carrying bag included

CUTS UP TO 150 mm (EQUAL PRESSURE); WELDS UP TO 9 mm (ACETYLENE, EQUAL PRESSURE)

PART NO.	HANDLE	MIXER	CUTTING ATTACHMENT	CUTTING TIPS	WELDING TIPS	HEATING TIPS	SINGLE STAGE OXYGEN REGULATOR	SINGLE STAGE FUEL GAS REGULATOR	ACCESSORIES
MASTERLINE DIAMOND	43-2	E-43	73-3	6290-2	23A90-3/5/8	J-63-2	94-10-OX	94-1,5-AC	6 m hose (4300591), Goggles (APS010), Lighter (26S), Flints (26L)
MASTERLINE PLATINUM	43-2	E-43	73-3	6290-2	23A90-3/5/8	J-63-2	25GX-10-OX	25GX-1.5-AC	

CUTS UP TO 150 mm (EQUAL PRESSURE); WELDS UP TO 4 mm (ACETYLENE, EQUAL PRESSURE)

PART NO.	HANDLE	MIXER	CUTTING ATTACHMENT	CHECK VALVES	CUTTING TIPS	WELDING TIPS	SINGLE STAGE OXYGEN REGULATOR	SINGLE STAGE FUEL GAS REGULATOR	ACCESSORIES
MASTERLINE GOLD	43-2	E-43	73-3	886-CVTR 886-CVTL	6290-1	23A90-5	94-10-OX	94-1,5-AC	6 m hose (4300591), Goggles (APS010), Lighter (26S), Flints (26L)
MASTERLINE SILVER	263	E-43	73-3	886-CVTR 886-CVTL	6290-1	23A90-5	25GX-10-OX	25GX-1.5-AC	

CUTS UP TO 100 mm (EQUAL PRESSURE); WELDS UP TO 4 mm (ACETYLENE, EQUAL PRESSURE)

PART NO.	HANDLE	MIXER	CUTTING ATTACHMENT	CHECK VALVES	CUTTING TIPS	WELDING TIPS	SINGLE STAGE OXYGEN REGULATOR	SINGLE STAGE FUEL GAS REGULATOR	ACCESSORIES
MASTERLINE BRONZE	85	D-85	72-3	886-CVTR 886-CVTL	6290-1	23A90-5	801-10-OX	801-1,5-AC	6 m hose (4300591), Goggles (APS010), Lighter (26S), Flints (26L)
FLAMEPOWER	85	D-85	72-3	-	6290-1AC	23A90-5	601-10-OX	601-1,5-AC	

IRONWORKER KITS

FEATURES:

- Fully equipped combination kits for cutting and welding with acetylene
- Compatible with VICTOR® equipment
- Spiral mix system
- Heavy duty S45 regulators
- Kit complete with goggles, lighter with flints and 6 m hose
- Carrying bag included

CUTS UP TO 150 mm; WELDS UP TO 20 mm

PART NO.	HANDLE	MIXER	CUTTING ATTACHMENT	CHECK VALVES	CUTTING TIPS	WELDING TIPS	SINGLE STAGE OXYGEN REGULATOR	SINGLE STAGE FUEL GAS REGULATOR	ACCESSORIES
IRONWORKER HEAVY DUTY	VH31	E-43HV	VH24	188SHTL 188SHTR	1-101-1 HV	23A90-3	S45-10-0X	S45-1,5-AC	6 m hose (4300591), Goggles (4304482), Lighter (26S), Flints (26L)
IRONWORKER MEDIUM DUTY	VH10	V-W1	VH13	Included	1-V3-101	23A90-5	801-10-0X	801-1,5-AC	6 m hose (4300591), Goggles (4304482), Lighter (26S), Flints (26L)

MASTERCUTTER KIT

FEATURES:

- Fully equipped cutting kit for cutting up to 300 mm with propane
- Cost effective low pressure injector mixing system
- Tough and solid Model 62-5F torch
- Heavy duty Model 25GX regulators
- Portable outer box
- Kit complete with goggles, lighter with flints and 6 m hose

CUTS UP TO 300 mm (PROPANE, LOW PRESSURE)

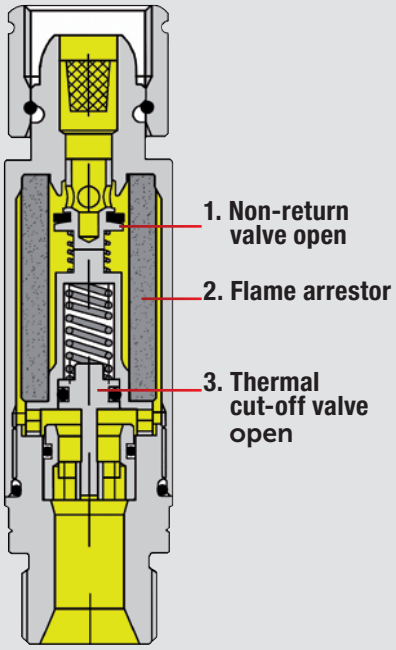
PART NO.	CUTTING TORCH	CHECK VALVES	CUTTING TIPS	WELDING TIPS	SINGLE STAGE OXYGEN REGULATOR	SINGLE STAGE FUEL GAS REGULATOR	ACCESSORIES
MASTERCUTTER	62-5F	886-CVTR/ CVTL	6290-1NX/2NX	25GX-10-0X	25GX-4-LP	25GX-4-LP	6 m hose (4300533), Goggles (APS010), Lighter (26S), Flints (26L)

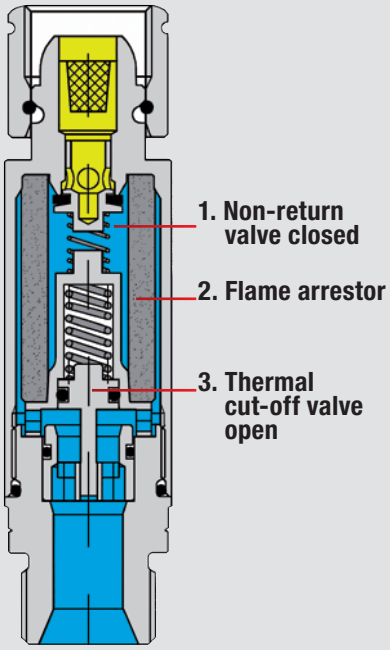
*Victor® is registered trademark owned by Victor Technologies, Inc.

SAFETY DEVICES

Harris safety devices help prevent:

- The entry of air or oxygen into the distribution line or single cylinders
- Flashback which is the rapid propagation of flame down the hose
- Further gas flow in the case of burnback





1. **Security against the reverse flow of gas**

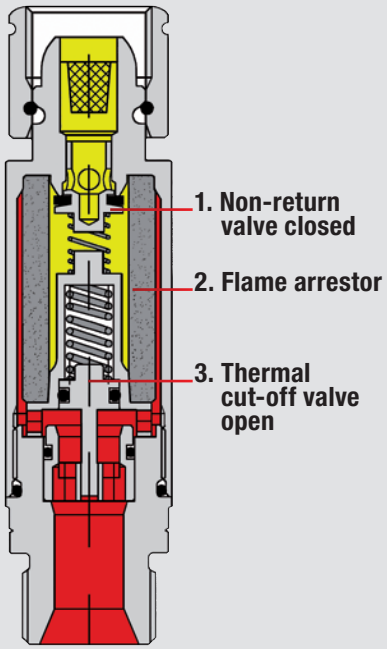
   The gas non-return valve prevents leakage or the sudden return of air or oxygen in the distribution line or single cylinders.

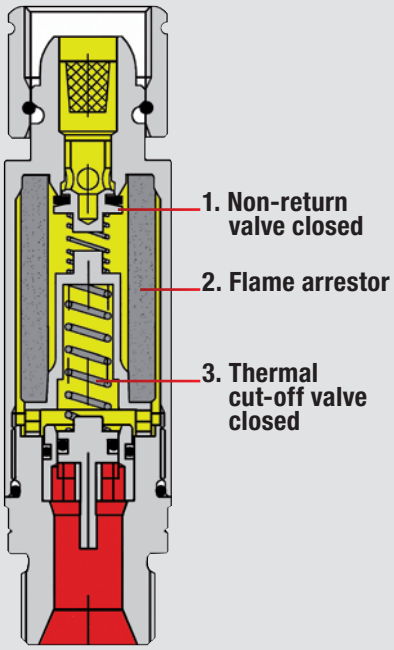
2. **Stops Flashbacks**

   A sintered stainless steel flame arrestor prevents flashback from the gas outlet side and cools the flame down to below the ignition temperature, so that the gas cannot re-ignite on the inlet side.

3. **Prevent Burnbacks**

   The temperature regulated thermal cut-off valve consists of a spring-loaded valve, which is held in the open position by a soldered element. In the case of excessive temperatures in the safety device due to flashbacks or burnbacks, the valve closes automatically and cuts off the gas flow and stops burnback.





FLASHBACK ARRESTORS

- Prevent reverse flow of gases with built-in check valve
- Extinguish flashback fire with sintered metal filter
- Thermal cut-off which positively shuts off the gas in case of hose fire, burn or repeated flashbacks (only "T" version)
- Pressure operated cut-off which positively shuts off the gas when outlet pressure exceeds inlet pressure (only "3T" version)

REGULATOR TYPE

PART NO.	GAS	MAX FLOW (l/h)	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
			OXY	AC	LPG	H_2		
188-L	Fuel gas	30 000	-	1,5	5	3,5	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-R	Ox	100 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-LGB	Fuel gas	30 000	-	1,5	5	3,5	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-RGB	Ox	100 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-2L	Fuel gas	60 000	-	1,5	5	4,0	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-2R	Ox	180 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-2AL	Fuel gas	60 000	-	1,5	5	4,0	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-2AR	Ox	180 000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-2LGB	Fuel gas	60 000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-2RGB	Ox	180 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-GL	Fuel gas	30 000	-	1,5	5	3,5	G 1/4"-LH-UNI ISO 228	G 1/4" A-LH-UNI ISO 228
188-GR	Ox	100 000	25	-	-	-	G 1/4"-RH-UNI ISO 228	G 1/4" A-RH-UNI ISO 228
188-FFL	Fuel gas	30 000	-	1,5	5	3,5	M16x1.5-6H-LH	M16x1.5-6g-LH
188-FFR	Ox	100 000	25	-	-	-	M16x1.5-6H-RH	M16x1.5-6g-RH

188- (L & R)

188-2 (L & R)

REGULATOR TYPE

PART NO.	GAS	MAX FLOW (l/h)	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
			OXY	AC	LPG	H_2		
188-TL	Fuel gas	30 000	-	1,5	5	3,5	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-TR	Ox	100 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-TAL	Fuel gas	30 000	-	1,5	5	3,5	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-TAR	Ox	100 000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-TLGB	Fuel gas	30 000	-	1,5	5	3,5	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-TRGB	Ox	100 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228
188-2TAL	Fuel gas	60 000	-	1,5	5	4,0	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-2TAR	Ox	180 000	25	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-2TL	Fuel gas	60 000	-	1,5	5	4,0	9/16"-18-UNF-2B-LH	9/16"-18-UNF-2A-LH
188-2TR	Ox	180 000	25	-	-	-	9/16"-18-UNF-2B-RH	9/16"-18-UNF-2A-RH
188-2TLGB	Fuel gas	60 000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-2TRGB	Ox	180 000	25	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228

188-T (L & R)

REGULATOR TYPE

PART NO.	GAS	MAX FLOW (l/h)	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
			OXY	AC	LPG	H_2		
188-3TLGB	Fuel gas	60 000	-	1,5	5	4,0	G 3/8"-LH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228
188-3TRGB	Ox	180 000	15	-	-	-	G 3/8"-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228

188-3T (LGB & RGB)

HOSE-TO-HOSE TYPE

PART NO.	GAS	MAX FLOW (l/h)	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
			OXY	AC	LPG	H_2		
188-TTL6	Fuel gas	20 000	-	1,5	4	4,0	Ø hose 1/4"(6 mm)	Ø hose 1/4"(6 mm)
188-TTR6	Ox	65 000	20	-	-	-	Ø hose 1/4"(6 mm)	Ø hose 1/4"(6 mm)
188-TTL8	Fuel gas	20 000	-	1,5	4	4,0	Ø hose 5/16"(8 mm)	Ø hose 5/16"(8 mm)
188-TTR8	Ox	65 000	20	-	-	-	Ø hose 5/16"(8 mm)	Ø hose 5/16"(8 mm)

*1 bar=100 kPa

188- TT (L6 & R6)

FLASHBACK ARRESTORS

TORCH TYPE								
PART NO.	GAS	MAX FLOW (l/h)	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
			OXY	AC	LPG	H_2		
188-1GBL6	Fuel gas	20 000	-	1,5	4	4,0	Ø hose 1/4"(6 mm)	G 3/8"-LH-UNI ISO 228
188-1GBR6	Ox	65 000	20	-	-	-	Ø hose 1/4"(6 mm)	G 3/8"-RH-UNI ISO 228
188-1GBL8	Fuel gas	20 000	-	1,5	4	4,0	Ø hose 5/16"(8 mm)	G 3/8"-LH-UNI ISO 228
188-1GBR8	Ox	65 000	20	-	-	-	Ø hose 5/16"(8 mm)	G 3/8"-RH-UNI ISO 228
188-1GL6	Fuel gas	20 000	-	1,5	4	4,0	Ø hose 1/4"(6 mm)	G 1/4"-LH-UNI ISO 228
188-1GR6	Ox	65 000	20	-	-	-	Ø hose 1/4"(6 mm)	G 1/4"-RH-UNI ISO 228
188-1L6	Fuel gas	20 000	-	1,5	4	4,0	Ø hose 1/4"(6 mm)	9/16"-18-UNF-2B-LH
188-1R6	Ox	65 000	20	-	-	-	Ø hose 1/4"(6 mm)	9/16"-18-UNF-2B-RH
188-1L8	Fuel gas	20 000	-	1,5	4	4,0	Ø hose 5/16"(8 mm)	9/16"-18-UNF-2B-LH
188-1R8	Ox	65 000	20	-	-	-	Ø hose 5/16"(8 mm)	9/16"-18-UNF-2B-RH
188-GGAL	Fuel gas	20 000	-	1,5	4	4,0	5/8"-18-UNF-LH	5/8"-18-UNF-LH
188-GGAR	Ox	65 000	15	-	-	-	5/8"-18-UNF-RH	5/8"-18-UNF-RH
188-GGGBL	Fuel gas	20 000	-	1,5	4	4,0	G 3/8" A-LH-UNI ISO 228	G 3/8"-LH-UNI ISO 228
188-GGGBR	Ox	65 000	15	-	-	-	G 3/8" A-RH-UNI ISO 228	G 3/8"-RH-UNI ISO 228
188-GGGL	Fuel gas	20 000	-	1,5	4	4,0	G 1/4" A-LH-UNI ISO 228	G 1/4"-LH-UNI ISO 228
188-GGGR	Ox	65 000	15	-	-	-	G 1/4" A-RH-UNI ISO 228	G 1/4"-RH-UNI ISO 228
188-GGL	Fuel gas	20 000	-	1,5	4	4,0	9/16"-18-UNF-2A-LH	9/16"-18-UNF-2B-LH
188-GGR	Ox	65 000	15	-	-	-	9/16"-18-UNF-2A-RH	9/16"-18-UNF-2B-RH

188-1G (L6 & R6)

188-GG (L & R)

CHECK VALVES

PART NO.	GAS	MAX PRESSURE (bar)*				INLET THREAD	OUTLET THREAD
		OXY	AC	LPG	H_2		
88-6SVL	Fuel gas	-	1,5	5	20	G 1/4" A-LH-UNI ISO 228	G 1/4"-LH-UNI ISO 228
88-6SVR	Ox	20	-	-	-	G 1/4" A-RH-UNI ISO 228	G 1/4"-RH-UNI ISO 228
88-4CVL**	Fuel gas	-	1,5	5	20	9/16"-18-UNF-3B-LH	9/16"-18-UNF-2A-LH
88-4CVR**	Ox	20	-	-	-	9/16"-18-UNF-3B -RH	9/16"-18-UNF-2A –RH
88-6AL	Fuel gas	-	1,5	5	20	.622"-18-UN-2A-LH	9/16"-18-UNF-3B-LH
88-6AL1	Fuel gas	-	1,5	5	20	.622"-18-UN-2A-LH	.622"-18-UN-LH
88-6AR	Ox	20	-	-	-	.622"-18-UN-2A-RH	9/16"-18-UNF-3B-RH
88-6AR1	Ox	20	-	-	-	.622"-18-UN-2A-RH	.622"-18-UN-RH
88-6CTL	Fuel gas	-	1,5	5	20	M16x1.5-6g-LH	M16x1.5-H-LH
88-6CTR	Ox	20	-	-	-	M16x1.5-6g-RH	M16x1.5-H-RH
88-6CVTL	Fuel gas	-	1,5	5	20	9/16"-18-UNF-2A-LH	9/16"-18-UNF-2B-LH
88-6CVTR	Ox	20	-	-	-	9/16"-18-UNF-2A-RH	9/16"-18-UNF-2B-RH
88-6FL	Fuel gas	-	1,5	5	20	M16x1.5-6g-LH	9/16"-18-UNF-3B-LH
88-6FR	Ox	20	-	-	-	M16x1.5-6g-RH	9/16"-18-UNF-3B-RH
88-6GBL	Fuel gas	-	1,5	5	20	G 3/8" A-LH-UNI ISO 228	G 3/8"-LH-UNI ISO 228
88-6GBR	Ox	20	-	-	-	G 3/8" A-RH-UNI ISO 228	G 3/8"-RH-UNI ISO 228
88-6GBR1	Ox	20	-	-	-	G 3/8" A-RH-UNI ISO 228	9/16"-18-UNF-3B-RH
88-6GL	Fuel gas		1,5	5	20	G 3/8" A-LH-UNI ISO 228	9/16"-18-UNF-3B-LH
88-6GR	Ox	20	-	-	-	G 1/4" A-RH-UNI ISO 228	9/16"-18-UNF-3B-RH

*1 bar=100 kPa **Regulator type

- Torch type (apart from 88-4CV);
- Help prevent dangerous reverse flow mixing of gas in the hose;
- Compact lightweight design provides extra operator safety.

88-6CVT (L & R)

QUICK ACTION COUPLINGS

PART NO.	DESCRIPTION	CONNECTION TYPE	TYPE
CPL6	Male	Hose connection Ø 1/4" (6 mm)	Hose
CPR6	Male	Hose connection Ø 1/4" (6 mm)	Hose
CPL8	Male	Hose connection Ø 5/16" (8 mm)	Hose
CPR8	Male	Hose connection Ø 5/16" (8 mm)	Hose
CPL10	Male	Hose connection Ø 3/8" (9,5 mm)	Hose
CPR10	Male	Hose connection Ø 3/8" (9,5 mm)	Hose
CPLGB	Male	Threads G 3/8"-LH-UNI ISO 228	Torch
CPRGB	Male	Threads G 3/8"-RH-UNI ISO 228	Torch
CPL	Male	Threads 9/16"-18-UNF-2B-LH	Torch
CPR	Male	Threads 9/16"-18-UNF-2B-RH	Torch
QACL6	Female	Hose connection Ø 1/4" (6 mm)	Hose
QACR6	Female	Hose connection Ø 1/4" (6 mm)	Hose
QACL8	Female	Hose connection Ø 5/16" (8 mm)	Hose
QACR8	Female	Hose connection Ø 5/16" (8 mm)	Hose
QACL10	Female	Hose connection Ø 3/8" (9,5 mm)	Hose
QACR10	Female	Hose connection Ø 3/8" (9,5 mm)	Hose
QACL	Female	Threads 9/16"-18-UNF-2B-LH	Regulator
QACR	Female	Threads 9/16"-18-UNF-2B-LH	Regulator
QACLGB	Female	Threads G 3/8"-LH-UNI ISO 228	Regulator
QACRGB	Female	Threads G 3/8"-LH-UNI ISO 228	Regulator

- Long lasting stainless steel pin connection;
- Automatic gas cut-off to positively shut off the gas supply when disconnected;
- Durable brass and stainless steel construction.

CPL8

CPLGB

QACL8

QACLGB

THE HARRIS PRODUCTS GROUP
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A LINCOLN ELECTRIC COMPANY

FLOWMETERS MODELS 861 & 866

- Measure flow from 0 to 15 / 30 lpm for Ar/CO_2
- Measure flow from 0 to 20 / 50 lpm for forming gas
- Calibrated at 3,5 bar inlet pressure (optional 4 bar)
- Easy-to-read flow tube has virtually unbreakable transparent polycarbonate outer cover for maximum strength and 360° visibility
- Brass body and knob
- Needle valve for accurate flow adjustment
- Simplified choice of outlet connections on the body
- Calibration (bar / PSI)
- Inlet threads 1/4" NPT male (for other inlets refer to the table below)

PART NO. 861	PART NO. 866	FLOW (l/m)	GAS	OUTLET THREAD
861-15L-ARC	866-15L-ARC	15	Argon/CO_2	9/16"-18-UNF-2A-RH
861-30L-ARC	866-30L-ARC	30	Argon/CO_2	9/16"-18-UNF-2A-RH
861-15L-ARC-1	866-15L-ARC-1	15	Argon/CO_2	G 3/8" A-RH-UNI ISO 228
861-30L-ARC-1	866-30L-ARC-1	30	Argon/CO_2	G 3/8" A-RH-UNI ISO 228
861-15L-ARC-2	866-15L-ARC-2	15	Argon/CO_2	G 1/4" A-RH-UNI ISO 228
861-30L-ARC-2	866-30L-ARC-2	30	Argon/CO_2	G 1/4" A-RH-UNI ISO 228
861-15L-ARC-3	866-15L-ARC-3	15	Argon/CO_2	.622"-18-UN-RH
861-30L-ARC-3	866-30L-ARC-3	30	Argon/CO_2	.622"-18-UN-RH
861-15L-ARC-5	866-15L-ARC-5	15	Argon/CO_2	Hose connection 1/4" (6 mm)
861-30L-ARC-5	866-30L-ARC-5	30	Argon/CO_2	Hose connection 1/4" (6 mm)
861-15L-ARC-6	866-15L-ARC-6	15	Argon/CO_2	Hose connection 3/8" (10 mm)
861-30L-ARC-6	866-30L-ARC-6	30	Argon/CO_2	Hose connection 3/8" (10 mm)
861-15L-ARC-7	866-15L-ARC-7	15	Argon/CO_2	Hose connection 5/16" (8 mm)
861-30L-ARC-7	866-30L-ARC-7	30	Argon/CO_2	Hose connection 5/16" (8 mm)
861-15L-ARC-11	866-15L-ARC-11	15	Argon/CO_2	M16x1,5-6g-RH
861-30L-ARC-11	866-30L-ARC-11	30	Argon/CO_2	M16x1,5-6g-RH
861-20L-FG-8	866-20L-FG-8	20	Forming gas	9/16"-18-UNF-2A-LH
861-50L-FG-8	866-50L-FG-8	50	Forming gas	9/16"-18-UNF-2A-LH
861-20L-FG-4	866-20L-FG-4	20	Forming gas	G 3/8" A-LH-UNI ISO 228
861-50L-FG-4	866-50L-FG-4	50	Forming gas	G 3/8" A-LH-UNI ISO 228
861-20L-FG-9	866-20L-FG-9	20	Forming gas	G 1/4" A-LH-UNI ISO 228
861-50L-FG-9	866-50L-FG-9	50	Forming gas	G 1/4" A-LH-UNI ISO 228
861-20L-FG-5	866-20L-FG-5	20	Forming gas	Hose connection 1/4" (6 mm)
861-50L-FG-5	866-50L-FG-5	50	Forming gas	Hose connection 1/4" (6 mm)
861-20L-FG-6	866-20L-FG-6	20	Forming gas	Hose connection 3/8" (10 mm)
861-50L-FG-6	866-50L-FG-6	50	Forming gas	Hose connection 3/8" (10 mm)
861-20L-FG-7	866-20L-FG-7	20	Forming gas	Hose connection 5/16" (8 mm)
861-50L-FG-7	866-50L-FG-7	50	Forming gas	Hose connection 5/16" (8 mm)
861-15L-OX	866-15L-OX	15	Oxygen	9/16"-18-UNF-2A-RH
861-15L-OX-1	866-15L-OX-1	15	Oxygen	G 3/8" A-RH-UNI ISO 228
861-15L-OX-2	866-15L-OX-2	15	Oxygen	G 1/4" A-RH-UNI ISO 228
861-15L-OX-3	866-15L-OX-3	15	Oxygen	.622"-18-UN-RH
861-15L-OX-5	866-15L-OX-5	15	Oxygen	Hose connection 1/4" (6 mm)
861-15L-OX-6	866-15L-OX-6	15	Oxygen	Hose connection 3/8" (10 mm)
861-15L-OX-7	866-15L-OX-7	15	Oxygen	Hose connection 5/16" (8 mm)
861-15L-OX-11	866-15L-OX-11	15	Oxygen	M16x1,5-6g-RH

MODEL 861
90° inlet
& knob

MODEL 866
180° inlet
& knob

ALL PART NUMBERS CAN BE SUPPLIED ALSO WITH THE FOLLOWING INLET / FEATURE		
MODEL	MODEL	INLET THREAD / FEATURE
861A	866A	G 3/8"-UNI ISO 228 (female)
861B	866B	G 1/4"-UNI ISO 228 (female)
861C	866C	622"-18-UN (female)
	866D	Right hand (nameplate and scale at 270° from inlet)
861E	866E	Measuring scale 180° from inlet (standard is 90°)
861F	866F	9/16"-18-UNF-3B (female)
861G	866G	G 1/8"-UNI ISO 228 (male), only for model 601
861P	866P	Dia-index knob
861X	866X	Pressure 4 bar (60 psi)

For inlet connection refer to this table.
Please add the corresponding letter to the PART NO.
(Eg. 861A-15L-ARC for inlet G 3/8"-UNI ISO 228 female)

FLOWMETER REGULATORS
(see pages 21-25)

GAUGES

PART NO.	GAUGE SCALE	GAS	Ø & THREAD
8A-6001	0 - 15 l / min		Ø 63 - 1/4" NPT
8A-6002	0 - 50 l / min		Ø 63 - 1/4" NPT
8A-6003	0 - 30 l / min		Ø 63 - 1/4" NPT
8A-615	0 - 315 bar / 0 - 4568 psi		Ø 63 - 1/4" NPT
8A-615-OX	0 - 315 bar / 0 - 4568 psi	Oxygen	Ø 63 - 1/4" NPT
8A-617-AC	0 - 40 bar / 0 - 580 psi	Acetylene	Ø 63 - 1/4" NPT
8A-619-OX	0 - 16 bar / 0 - 232 psi	Oxygen	Ø 63 - 1/4" NPT
8A-6411-OX	0 - 25 bar / 0 - 362 psi	Oxygen	Ø 63 - 1/4" NPT
8A-686-AC	0 - 2,5 bar / 0 - 36 psi	Acetylene	Ø 63 - 1/4" NPT
8A-617	0 - 40 bar / 0 - 580 psi		Ø 63 - 1/4" NPT
8A-619	0 - 16 bar / 0 - 232 psi		Ø 63 - 1/4" NPT
8A-6411	0 - 25 bar / 0 - 362 psi		Ø 63 - 1/4" NPT
8A-686	0 - 2,5 bar / 0 - 36 psi		Ø 63 - 1/4" NPT
8A-661	0 - 6 bar / 0 - 87 psi		Ø 63 - 1/4" NPT
8E-6001	0 - 15 l / min		Ø 63 - G 1/4"
8E-6002	0 - 50 l / min		Ø 63 - G 1/4"
8E-6003	0 - 30 l / min		Ø 63 - G 1/4"
8E-615	0 - 315 bar / 0 - 4568 psi		Ø 63 - G 1/4"
8E-615-OX	0 - 315 bar / 0 - 4568 psi	Oxygen	Ø 63 - G 1/4"
8E-615K	0 - 30000 kPa		Ø 63 - G 1/4"
8E-615K-OX	0 - 30000 kPa	Oxygen	Ø 63 - G 1/4"
8E-617	0 - 40 bar / 0 - 580 psi		Ø 63 - G 1/4"
8E-617-AC	0 - 40 bar / 0 - 580 psi	Acetylene	Ø 63 - G 1/4"
8E-617K	0 - 4000 kPa		Ø 63 - G 1/4"
8E-617K-AC	0 - 4000 kPa	Acetylene	Ø 63 - G 1/4"
8E-619	0 - 16 bar / 0 - 232 psi		Ø 63 - G 1/4"
8E-619-OX	0 - 16 bar / 0 - 232 psi	Oxygen	Ø 63 - G 1/4"
8E-619K	0 - 1600 kPa		Ø 63 - G 1/4"
8E-619K-OX	0 - 1600 kPa	Oxygen	Ø 63 - G 1/4"
8E-621	0 - 400 bar / 0 - 5800 psi		Ø 63 - G 1/4"
8E-621-OX	0 - 400 bar / 0 - 5800 psi	Oxygen	Ø 63 - G 1/4"
8E-621K	0 - 40000 kPa		Ø 63 - G 1/4"
8E-623	0 - 100 bar / 0 - 1450 psi		Ø 63 - G 1/4"
8E-6411	0 - 25 bar / 0 - 362 psi		Ø 63 - G 1/4"
8E-6411-OX	0 - 25 bar / 0 - 362 psi	Oxygen	Ø 63 - G 1/4"
8E-6411K	0 - 2500 kPa		Ø 63 - G 1/4"
8E-6411K-OX	0 - 2500 kPa	Oxygen	Ø 63 - G 1/4"
8E-661	0 - 6 bar / 0 - 87 psi		Ø 63 - G 1/4"
8E-661-OX	0 - 6 bar / 0 - 87 psi	Oxygen	Ø 63 - G 1/4"
8E-661K	0 - 600 kPa		Ø 63 - G 1/4"
8E-661K-OX	0 - 600 kPa	Oxygen	Ø 63 - G 1/4"
8E-6620	0 - 60 bar / 870 psi		Ø 63 - G 1/4"
8E-6620-OX	0 - 60 bar / 870 psi	Oxygen	Ø 63 - G 1/4"
8E-6620-K	0 - 6000 kPa		Ø 63 - G 1/4"
8E-686	0 - 2,5 bar / 0 - 36 psi		Ø 63 - G 1/4"
8E-686-AC	0 - 2,5 bar / 0 - 36 psi	Acetylene	Ø 63 - G 1/4"
8E-686K	0 - 250 kPa		Ø 63 - G 1/4"
8E-686K-AC	0 - 250 kPa	Acetylene	Ø 63 - G 1/4"

FOR REGULATORS MODEL 802/822

PART NO.	GAUGE SCALE	Ø & THREAD
8A-802-1	0 - 100 bar	Ø 63 - 1/4" NPT
8A-802-2	0 - 10 bar	Ø 63 - 1/4" NPT
8A-802-3	0 - 6 bar	Ø 63 - 1/4" NPT
8A-802-4	0 - 315 bar	Ø 63 - 1/4" NPT

FOR REGULATORS MODEL 601

PART NO.	GAUGE SCALE	GAS	Ø & THREAD
8E-601-1	0 - 315 bar / 0 - 4568 psi		Ø 50 - G 1/8"
8E-601-1-OX	0 - 315 bar / 0 - 4568 psi	Oxygen	Ø 50 - G 1/8"
8E-601-2	0 - 30 l / min		Ø 50 - G 1/8"
8E-601-3	0 - 2,5 bar / 0 - 36 psi		Ø 50 - G 1/8"
8E-601-3-AC	0 - 2,5 bar / 0 - 36 psi	Acetylene	Ø 50 - G 1/8"
8E-601-4	0 - 40 bar / 0 - 580 psi		Ø 50 - G 1/8"
8E-601-4-AC	0 - 40 bar / 0 - 580 psi	Acetylene	Ø 50 - G 1/8"
8E-601-5	0 - 6 bar / 0 - 87 psi		Ø 50 - G 1/8"
8E-601-6	0 - 16 bar / 0 - 232 psi		Ø 50 - G 1/8"
8E-601-6-OX	0 - 16 bar / 0 - 232 psi	Oxygen	Ø 50 - G 1/8"
8E-601-7	0 - 15 l / min		Ø 50 - G 1/8"

- Safety gauge conforms to ISO 5171
- Easy-to-read dual scale gauges with polycarbonate lens for durability
- Steel case protected by oven baked corrosion resistant paint

Rubber Cover

CPR6333

8E-615

8A-802-1

Rubber Cover

CPR63332

for 8A-802... & 8E-601... gauges

8E-601-1

THE HARRIS PRODUCTS GROUP
www.harrisproductsgroup.com
HARRIS
A LINCOLN ELECTRIC COMPANY

GAUGES

PART NO.	GAUGE SCALE	GAS	Ø & THREAD
8G-6001	0 - 15 l / min		Ø 63 - 1/4" NPT
8G-6002	0 - 50 l / min		Ø 63 - 1/4" NPT
8G-6003	0 - 30 l / min		Ø 63 - 1/4" NPT
8G-615	0 - 315 bar / 0 - 4568 psi		Ø 63 - 1/4" NPT
8G-615-OX	0 - 315 bar / 0 - 4568 psi	Oxygen	Ø 63 - 1/4" NPT
8G-615K	0 - 30000 kPa		Ø 63 - 1/4" NPT
8G-615K-OX	0 - 30000 kPa	Oxygen	Ø 63 - 1/4" NPT
8G-617	0 - 40 bar / 0 - 580 psi		Ø 63 - 1/4" NPT
8G-617-AC	0 - 40 bar / 0 - 580 psi	Acetylene	Ø 63 - 1/4" NPT
8G-617K	0 - 4000 kPa		Ø 63 - 1/4" NPT
8G-617K-AC	0 - 4000 kPa	Acetylene	Ø 63 - 1/4" NPT
8G-619	0 - 16 bar / 0 - 232 psi		Ø 63 - 1/4" NPT
8G-619-OX	0 - 16 bar / 0 - 232 psi	Oxygen	Ø 63 - 1/4" NPT
8G-619K	0 - 1600 kPa		Ø 63 - 1/4" NPT
8G-619K-OX	0 - 1600 kPa	Oxygen	Ø 63 - 1/4" NPT
8G-621	0 - 400 bar / 0 - 5800 psi		Ø 63 - 1/4" NPT
8G-621-OX	0 - 400 bar / 0 - 5800 psi	Oxygen	Ø 63 - 1/4" NPT
8G-621K	0 - 40000 kPa		Ø 63 - 1/4" NPT
8G-623	0 - 100 bar / 0 - 1450 psi		Ø 63 - 1/4" NPT
8G-6411	0 - 25 bar / 0 - 362 psi		Ø 63 - 1/4" NPT
8G-6411-OX	0 - 25 bar / 0 - 362 psi	Oxygen	Ø 63 - 1/4" NPT
8G-6411K	0 - 2500 kPa		Ø 63 - 1/4" NPT
8G-6411K-OX	0 - 2500 kPa	Oxygen	Ø 63 - 1/4" NPT
8G-661	0 - 6 bar / 0 - 87 psi		Ø 63 - 1/4" NPT
8G-661-OX	0 - 6 bar / 0 - 87 psi	Oxygen	Ø 63 - 1/4" NPT
8G-661K	0 - 600 kPa		Ø 63 - 1/4" NPT
8G-661K-OX	0 - 600 kPa	Oxygen	Ø 63 - 1/4" NPT
8G-6620	0 - 60 bar / 870 psi		Ø 63 - 1/4" NPT
8G-6620-OX	0 - 60 bar / 870 psi	Oxygen	Ø 63 - 1/4" NPT
8G-6620-K	0 - 6000 kPa		Ø 63 - 1/4" NPT
8G-686	0 - 2,5 bar / 0 - 36 psi		Ø 63 - 1/4" NPT
8G-686-AC	0 - 2,5 bar / 0 - 36 psi	Acetylene	Ø 63 - 1/4" NPT
8G-686K	0 - 250 kPa		Ø 63 - 1/4" NPT
8G-686K-AC	0 - 250 kPa	Acetylene	Ø 63 - 1/4" NPT

- Safety gauge conforms to ISO 5171
- Easy-to-read dual scale gauges with polycarbonate lens for durability
- Steel case protected by oven baked corrosion resistant paint

8G-686-AC

8G-6411-OX

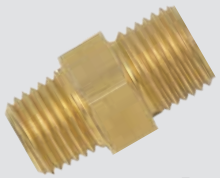
HARRIS
A LINCOLN ELECTRIC COMPANY

AS MANUFACTURERS STRIVE TO REDUCE OVERALL COSTS,
HARRIS CAN ASSIST IN THOSE EFFORTS.
OUR TECHNICAL TEAM IS FOCUSED ON COST REDUCTION SOLUTIONS FOR SPECIFIC APPLICATIONS IN YOUR PLANT.

OUTLET NIPPLES FOR REGULATORS

PART NO.	INLET THREAD	OUTLET THREAD	NOTES
957-L	1/4" NPT	9/16"-18-UNF-2A-LH	-
957-R	1/4" NPT	9/16"-18-UNF-2A-RH	-
957-SL	1/4" NPT	G 3/8" A-LH-UNI ISO 228	-
957-SR	1/4" NPT	G 3/8" A-RH-UNI ISO 228	-
957-AA	1/4" NPT	.622"-18-UN-LH	-
957-AO	1/4" NPT	.622"-18-UN-RH	-
F-957-L	1/4" NPT	M16 x 1,5-6g-LH	-
F-957-R	1/4" NPT	M16 x 1,5-6g-RH	-
G-957-1L	1/4" NPT	G 1/4" A-LH-UNI ISO 228	-
G-957-1R	1/4" NPT	G 1/4" A-RH-UNI ISO 228	-
60157-L	M11x1-6g-RH	9/16"-18-UNF-2A-LH	Only for Model 601
60157-R	M11x1-6g-RH	9/16"-18-UNF-2A-RH	Only for Model 601
60157-SL	M11x1-6g-RH	G 3/8" A-LH-UNI ISO 228	Only for Model 601
60157-SR	M11x1-6g-RH	G 3/8" A-RH-UNI ISO 228	Only for Model 601
60157-AA	M11x1-6g-RH	.622"-18-UN-LH	Only for Model 601
60157-AO	M11x1-6g-RH	.622"-18-UN-RH	Only for Model 601
60157-FL	M11x1-6g-RH	M16 x 1,5-6g-LH	Only for Model 601
60157-FR	M11x1-6g-RH	M16 x 1,5-6g-RH	Only for Model 601
60157-AL	M11x1-6g-RH	G 1/4" A-LH-UNI ISO 228	Only for Model 601
60157-AR	M11x1-6g-RH	G 1/4" A-RH-UNI ISO 228	Only for Model 601
60157-L-2	G 1/8" A-RH-UNI ISO 228	9/16"-18-UNF-2A-LH	Only for Model 601 L & flowmeters
60157-R-2	G 1/8" A-RH-UNI ISO 228	9/16"-18-UNF-2A-RH	Only for Model 601 L & flowmeters
60157-SL-2	G 1/8" A-RH-UNI ISO 228	G 3/8" A-LH-UNI ISO 228	Only for Model 601 L & flowmeters
60157-SR-2	G 1/8" A-RH-UNI ISO 228	G 3/8" A-RH-UNI ISO 228	Only for Model 601 L & flowmeters
60157-AA-2	G 1/8" A-RH-UNI ISO 228	.622"-18-UN-LH	Only for Model 601 L & flowmeters
60157-AO-2	G 1/8" A-RH-UNI ISO 228	.622"-18-UN-RH	Only for Model 601 L & flowmeters
60157-FL-2	G 1/8" A-RH-UNI ISO 228	M16 x 1,5-6g-LH	Only for Model 601 L & flowmeters
60157-FR-2	G 1/8" A-RH-UNI ISO 228	M16 x 1,5-6g-RH	Only for Model 601 L & flowmeters
60157-AL-2	G 1/8" A-RH-UNI ISO 228	G 1/4" A-LH-UNI ISO 228	Only for Model 601 L & flowmeters
60157-AR-2	G 1/8" A-RH-UNI ISO 228	G 1/4" A-RH-UNI ISO 228	Only for Model 601 L & flowmeters

957 - L



957 - R

CALIBRATED OUTLET NIPPLES FOR REGULATORS

PART NO.	GAS	MAX FLOW (l/m)	INLET THREAD	OUTLET THREAD	NOTES
957-AO15-ARCD	Argon/CO_2	15	1/4" NPT	.622"-18-UN-RH	
957-AO30-ARCD	Argon/CO_2	30	1/4" NPT	.622"-18-UN-RH	
957-AO50-ARCD	Argon/CO_2	50	1/4" NPT	.622"-18-UN-RH	
957-AR15-ARCD	Argon/CO_2	15	1/4" NPT	G 1/4" A-RH-UNI ISO 228	
957-AR15-N2O-M	Nitrous oxide	15	1/4" NPT	G 1/4" A-RH-UNI ISO 228	Chrome-plated
957-AR15-OX-M	Oxygen	15	1/4" NPT	G 1/4" A-RH-UNI ISO 228	Chrome-plated
957-AR30-ARCD	Argon/CO_2	30	1/4" NPT	G 1/4" A-RH-UNI ISO 228	
957-AR50-ARCD	Argon/CO_2	50	1/4" NPT	G 1/4" A-RH-UNI ISO 228	
957-FR15-ARCD	Argon/CO_2	15	1/4" NPT	M16 x 1,5-6g-RH	
957-FR30-ARCD	Argon/CO_2	30	1/4" NPT	M16 x 1,5-6g-RH	
957-FR50-ARCD	Argon/CO_2	50	1/4" NPT	M16 x 1,5-6g-RH	
957-R15-AIR-M	Oxygen	15	1/4" NPT	9/16"-18-UNF-2A-RH	Chrome-plated
957-R15-N2O-M	Nitrous oxide	15	1/4" NPT	9/16"-18-UNF-2A-RH	Chrome-plated
957-R15-ARCD	Argon/CO_2	15	1/4" NPT	9/16"-18-UNF-2A-RH	
957-R15-OX	Oxygen	15	1/4" NPT	9/16"-18-UNF-2A-RH	
957-R15-OX-M	Oxygen	15	1/4" NPT	9/16"-18-UNF-2A-RH	Chrome-plated
957-R30-ARCD	Argon/CO_2	30	1/4" NPT	9/16"-18-UNF-2A-RH	
957-R50-ARCD	Argon/CO_2	50	1/4" NPT	9/16"-18-UNF-2A-RH	
957-SL-30-FG	Forming gas	30	1/4" NPT	G 3/8" A-LH-UNI ISO 228	
957-SL-50-FG	Forming gas	50	1/4" NPT	G 3/8" A-LH-UNI ISO 228	
957-SL-50-H2	Hydrogen	50	1/4" NPT	G 3/8" A-LH-UNI ISO 228	
957-SR-15-ARCD	Argon/CO_2	15	1/4" NPT	G 3/8" A-RH-UNI ISO 228	
957-SR-15-N2O	Nitrous oxide	15	1/4" NPT	G 3/8" A-RH-UNI ISO 228	
957-SR-15-N2O-M	Nitrous oxide	15	1/4" NPT	G 3/8" A-RH-UNI ISO 228	Chrome-plated
957-SR-15-OX-M	Oxygen	15	1/4" NPT	G 3/8" A-RH-UNI ISO 228	Chrome-plated
957-SR-30-ARCD	Argon/CO_2	30	1/4" NPT	G 3/8" A-RH-UNI ISO 228	
957-SR-50-ARCD	Argon/CO_2	50	1/4" NPT	G 3/8" A-RH-UNI ISO 228	

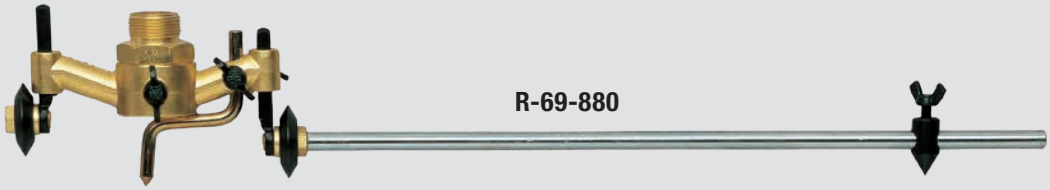
957 - AO15-ARCD

TIP NUTS

PART NO.	CUTTING TORCHES / CUTTING ATTACHMENTS	TIPS
6259B	133, 142, 198, 42-4, 49-3, 62-5, 72-3, 73-3, 242, 273	6290
2859	28, H28	2890
9008437	36-2	3690
4559	59-3, 880-NM, NM-250, 242-NM, 273-NM	8290
9002537	573, 980	6290
9005236	V-Series	1-101-HV
VH24593	VH24	1-101-HV

9002537 **6259B**

ROLLER GUIDES & CIRCLE CUTTING ATTACHMENTS



R-69-880

PART NO.	ANGLE	CONNECTION FOR TIPS	CUTTING ATTACHMENTS / CUTTING TORCHES	NOTES
I-69-4	90°	**6290**	142, 62-5, 42-3, 42-4, 49-3, 572, 72-3, 73-3, 242, 273	Single wheel guide
I-69-5	90°	**3690**	36-2	Single wheel guide
I-69-6	45° - 135°	**6290**	142, 62-5, 42-3, 42-4, 49-3, 572, 72-3, 73-3, 242, 273	
I-69-6-HV	45° - 135°	**1-101-HV**	V-Series	
I-69-7	45° - 135°	**3690**	36-2	
R-69-3B	90°	**6290**	142, 62-5, 42-3, 42-4, 49-3, 572, 72-3, 73-3, 242, 273	
R-69-4C	90°	**8290**	NM-250, 880-NM, 59-3, 242-NM, 273-NM	
R-69-880	90°	**6290**	880, 573	
R-69-A	90°	**2890**	28, H28	

CONVERTERS

PART NO.	FROM (FEMALE)	TO (MALE)
38-2AL	9/16”-18-UNF-3B-LH	.622”-18-UN-LH
38-2AR	9/16”-18-UNF-3B-RH	.622”-18-UN-RH
38-2FL	9/16”-18-UNF-3B-LH	M16 x 1,5-6g-LH
38-2FR	9/16”-18-UNF-3B-RH	M16 x 1,5-6g-RH
38-2GBL	9/16”-18-UNF-3B-LH	G 3/8” A-LH-UNI ISO 228
38-2GBR	9/16”-18-UNF-3B-RH	G 3/8” A-RH-UNI ISO 228
38-2GR	9/16”-18-UNF-3B-RH	G 1/4” A-RH-UNI ISO 228
38-4GL	9/16”-18-UNF-3B-LH	G 1/4” A-LH-UNI ISO 228
38-3FL	M16 x 1,5-4H-LH	9/16”-18-UNF-2A-LH
38-3FR	M16 x 1,5-4H-RH	9/16”-18-UNF-2A-RH
38-5GL	G 1/4”-LH-UNI ISO 228	9/16”-18-UNF-2A-LH
38-5GR	G 1/4”-RH-UNI ISO 228	9/16”-18-UNF-2A-RH
38-6GL	G 3/8”-LH-UNI ISO 228	9/16”-18-UNF-2A-LH
38-6GR	G 3/8”-RH-UNI ISO 228	9/16”-18-UNF-2A-RH

38-2GBL **38-2GBR**

NEEDLE VALVES

- Needle valve for precise flow control can replace outlet nipples on regulators
- Particularly recommended for laboratory installations

PART NO.	GAS	INLET	OUTLET
52-L	Fuel gas	1/4” NPT	9/16”-18-UNF-LH
52-R	Oxygen	1/4” NPT	9/16”-18-UNF-RH
52-DR	Oxygen	1/4” NPT	1/4” NPT

52-L

"Y" PIECES

► "Y" piece for attaching two-hose lines to same regulator. Assembly on regulator outlet

PART NO.	GAS	THREADS	NOTES
37-L	Fuel gas	9/16"-18-UNF-LH	with valves
37-R	Oxygen	9/16"-18-UNF-RH	with valves
37-FL	Fuel gas	M16 x 1,5-4H-LH	with valves
37-FR	Oxygen	M16 x 1,5-4H-RH	with valves
37-GBL	Fuel gas	G 3/8"-LH-UNI ISO 228	with valves
37-GBR	Oxygen	G 3/8"-RH-UNI ISO 228	with valves
37-L2	Fuel gas	9/16"-18-UNF-LH	without valves
37-R2	Oxygen	9/16"-18-UNF-RH	without valves
37-SL2	Fuel gas	G 3/8"-LH-UNI ISO 228	without valves
37-SR2	Oxygen	G 3/8"-RH-UNI ISO 228	without valves

37-L

STEMS & NUTS

► Inlet stems and nuts are supplied according to country specification

BRAZING GOGGLES

APS010

WRENCHES

I-62-X

D-1013

KH231

LIGHTER WITH FLINT

26-SL

TIP CLEANERS

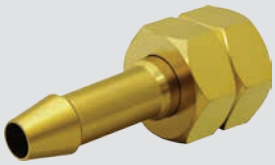
C-9 Standard calibrated tip cleaner

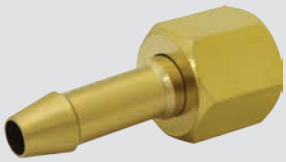
CLEANING INSTRUCTIONS: Care should be taken not to be too aggressive when cleaning tips. Always use the proper size tip cleaner and be careful not to enlarge or distort the original tip bore size.

E-9 Two-piece and divergent bore calibrated tip cleaner

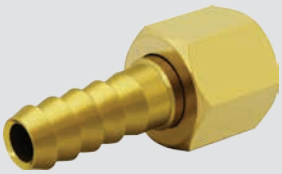
CLEANING INSTRUCTIONS: The wire brush included with tip cleaner E-9 should be used for cleaning preheat slots and for removing spatter from the tip face. When cleaning the preheat slots, do not brush across the slots as this motion can damage the slots. Always brush along the length of the slot to remove dirt or spatter.

HOSE CONNECTORS


G38L2


G38R2

38L2


38R2

	DESCRIPTION	
PART NO.	NUT	NIPPLE
G38L2	1/4" LH	8 mm
G38R2	1/4" RH	8 mm
G38L4	1/4" LH	6 mm
G38R4	1/4" RH	6 mm
S38L2	3/8" LH	8 mm
S38R2	3/8" RH	8 mm
E38L4	3/8" LH	6 mm
E38R4	3/8" RH	6 mm
38L2	9/16" LH	8 mm
38R2	9/16" RH	8 mm
38L3	9/16" LH	6 mm
38R3	9/16"RH	6 mm
F38L5	M16 x 1.5 LH	8 mm
F38R5	M16 x 1.5 RH	8 mm
F38L4	M16 x 1.5 LH	6 mm
F38R4	M16 x 1.5 RH	6 mm
38L1	9/16'' LH	9,5 mm (3/8") hose
38R1	9/16'' RH	9,5 mm (3/8") hose

TWIN HOSE ASSEMBLIES

Twin hoses assembled with fittings for oxygen / fuel gas. They are highly resistant to abrasion and flame.

4300591
1/4" x 1/4" twin hose 6 m with 9/16" fittings (red & green) - "R" grade

4300533
1/4" x 1/4" twin hose 6 m with 9/16" fittings (red & green) - "T" grade

TWIN HOSES

Twin hoses unassembled for oxygen / fuel gas. They are highly resistant to abrasion and flame.

TA8X8 (100 m) 8 mm x 8 mm (red & blue)

TA6X6 (100 m) 6 mm x 6 mm (red & blue)

TA8X8LP (100 m) 8 mm x 8 mm (orange and blue) for propane and LPG

TA6X6LP (100 m) 6 mm x 6 mm (orange and blue) for propane and LPG

SINGLE HOSES

Unassembled single hoses are available in 5 mm or 3,2 mm diameter for oxygen (blue), acetylene (red) or propane (orange) gases.

3,2 mm hoses **5 mm hoses**

GAUGE GUARDS

Designed to protect the gauges on Harris® regulators. The new Harris® Gauge Guards increase safety of user by helping to prevent damage to gauges. Damaged gauges can result in serious gas leakage. Made of shock absorbing ABS plastic Gauge Guards become extremely durable and safe for long periods of time.
Apart from increased safety, Harris® Gauge Guards save on gauge repair or replacement, saving time and money.

ADVANTAGES:

- Made from high impact ABS plastic
- Color coded front rings available in green, red, blue and gray
- Easy installation slip on and tighten with three screws
- For in-plant or job-site use

MODEL NO.	PART NO.	USE WITH REGULATOR MODEL	COLOUR
CPR1A	9007366	825 / 925 & 896	Gray
CPR1B	9007364	825 / 925 & 896	Red
CPR1D	9007367	825 / 925 & 896	Blue
CPR1G	9007365	825 / 925 & 896	Green
CPR2A	9007370	25GX	Gray
CPR2B	9007368	25GX	Red
CPR2D	9007371	25GX	Blue
CPR2G	9007369	25GX	Green
CPR4A	9007625	801 / 901	Gray
CPR4B	9007624	801 / 901	Red
CPR4D	9007623	801 / 901	Blue
CPR4G	9007626	801 / 901	Green

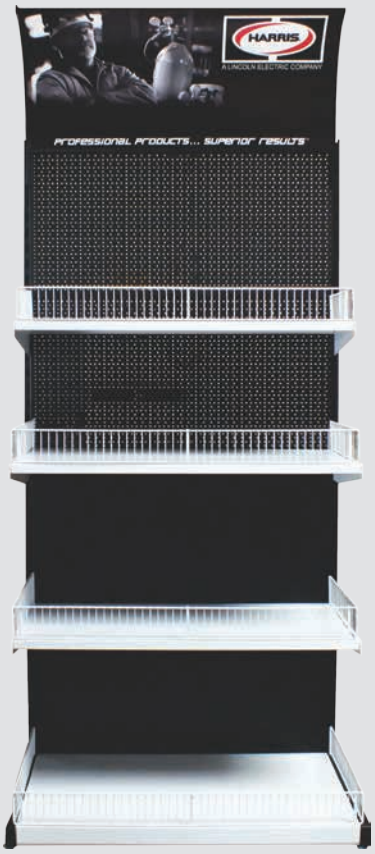
STAND 3

- Empty stand for displaying Harris products
- Can be fitted per customer's requirements
- Steel construction

WIDTH:
100 cm

DEPTH:
40 cm

HEIGHT:
240 cm



STAND 4

- Empty stand for displaying Harris products
- Can be fitted per customer's requirements
- Steel construction with one long and two short shelves
- Equipped with one long and two shorts shelves

WIDTH:
121 cm

DEPTH:
53 cm

HEIGHT:
157 cm

HARRIS
A LINCOLN ELECTRIC COMPANY

CAN'T FIND WHAT YOU ARE LOOKING FOR?

CONTACT YOUR HARRIS REPRESENTATIVE

FOR THE DEVICES THAT HAVE THE FEATURES AND BENEFITS THAT BEST FIT YOUR APPLICATION(S)

TO SEE MORE HARRIS® CHECK OUR:

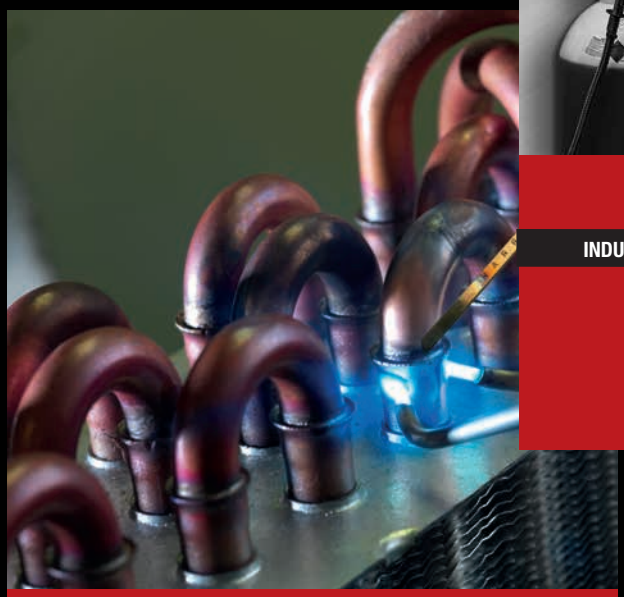
Specialty Gas Equipment Catalogue

HARRIS SPECIALTY GAS Equipment

INDUSTRIAL

HARRIS
A LINCOLN ELECTRIC COMPANY

Gas Distribution Systems



INTERNATIONAL GUIDE

HARRIS
A LINCOLN ELECTRIC COMPANY

Brazing & Soldering

Certificate

Standard **ISO 9001:2015**

Certificate Registr. No. 01 100 1332014

Certificate Holder:

HARRIS
A LINCOLN ELECTRIC COMPANY

Harris Calorific International Sp. z o.o.
ul. Strefowa 8
58-200 Dzierżoniów
Poland

Scope: design and development, production, sale, marketing and service of pressure regulators and flowmeters of industrial gases as well as torches and accessories for gas cutting, welding, brazing and heating

Proof has been furnished by means of an audit that the requirements of ISO 9001:2015 are met.

Validity: The certificate is valid from 2018-12-22 until 2021-12-21.
First certification 2012

2018-12-21

Grzegorz Grabka

TÜV Rheinland Cert GmbH
Am Grauen Stein · 51105 Köln

www.tuv.com

IAF MEMBER OF MULTILATERAL RECOGNITION ARRANGEMENT

DAkkS Deutsche Akkreditierungsstelle D-ZM-16031-01-00

TÜVRheinland®
Precisely Right.

USEFUL DATA – CONVERSION TABLE

VOLUME

	cu in	cu ft	cu yd	cu cm	cu meter	liter	US gal
1 cu in	1	-	16,387			0,02	
1 cu ft	1.728,00	1	0,037	28.317	0,028	28,32	7,481
1 cu yd	46.656	27	1	-	0,764	764,5	202
1 cu cm	0,06	-	-	1	-	0,001	-
1 cu meter	61.024	35,31	1,308	1.000.000	1	1.000	264,2
1 liter	61 .024	0,035	1		0,001	1	0,264
1 gallon (US)	231	0,133	0,004	3.785,40	0,003	3,785	1

PRESSURE

	psi	bar	atm	mm Hg	inch Hg	inch water	kPa
1 psi	1	0,068	0,068	51,713	2,035	27,68	6,895
1 bar	14,504	1	0,986	750,06	29,53	401:48:00	100
1 atm	14,696	1,013	1	760	29,921	406,8	101,325
1 mm Hg (torr)	0,019	0,001	0,001	1	0,039	0,535	0,133
1 in Hg	0,491	0,033	0,033	25,4	1	13,596	3
1 in water	5,202	0,358	0,002	269,02	10,591	1	35,808
1 kPa	0,145	0,01	0,009	7,519	0	4,015	1

WEIGHT

	grain	oz	lb	ton	gram	kg	metric ton
1 grain	1	0,002	-	-	0,064	-	-
1 ounce	437,5	1	0,062	-	28,35	0,028	-
1 pound	7.000	16	1	0,000	453,6	0,453	-
1 ton		32.000	2.000	1		907,2	0,907
1 gram	15,43	0,04	-	-	1	0,001	-
1 kilogram		35,274	2,205	-	1.000	1	0,001
1 metric ton	-	35,274	2.205	1,102	-	1.000	1

FLOW

	scc/min	lpm	SCFM	l/h	Nm^3/h	SCFH
1 scc/min	1	0,001	0,06			0,002
1 lpm	1.000	1	0,035	60	0,06	2,119
1 SCFM	28.317	26	1	1.699	1,699	60
1 l/h	16,667	0,016	1		0,001	0,035
1 Nm^3/h	16.667	16,667	0,589	1.000	1	35,314
1 SCFH	471,95	0,472	0,016	28,317	0,028	1

SCFM = Standard Cubic Feet per Minute

SCFH = Standard Cubic Feet per Hour

scc/min = Standard Cubic Centimeters per Minute

lpm = Liter per Minute

Nm^3/h = Normal Cubic Meter per Hour

ENERGY

	BTU	cal	watts-hour
1 BTU	1	251,98	0,293
1 cal	3.968x10-3	1	-
1 watts-hour	3,414	-	1

AIR ▶ to

	FACTOR	INVERSE
ACETYLENE (C_2H_2)	1,050	0,952
ARGON (Ar)	0,851	1,175
ARGON / CO_2 (75% Ar – 25% CO_2)	0,833	1,200
NITROGEN (N_2)	1,020	0,980
CARBON DIOXIDE (CO_2)	0,808	1,238
SULFUR DIOXIDE (SO_2)	0,660	1,515
BUTANE (C_4H_{10})	0,700	1,429
HELIUM (He)	2,695	0,371
ETHANE (C_2H_6)	0,980	1,020
ETHYLENE (C_2H_4)	1,010	0,990
FORMIER GAS (90% N_2 – 10% H_2)	1,300	0,769
HYDROGEN (H_2)	3,810	0,262
METHANE (CH_4)	1,350	0,741
METHYLAACETYLENE PROPADIENE (MPS – C_3H_4)	1,238	0,808
CARBON OXIDE (CO)	1,020	0,980
NEON (Ne)	1,200	0,833
OXYGEN (O_2)	0,950	1,053
PROPANE (C_3H_8)	0,800	1,250
PROPYLENE (C_3H_6)	1,237	0,808
NITROGEN PROTOXIDE (N_2O)	0,810	1,235

WARRANTY

The Company warrants each new product or part thereof to be free from defects in workmanship and material.
If any part thereof shall prove to be defective in workmanship or material within one year, unless stated otherwise, from the date of purchase by the user, as a result of normal use and service for purposes for which it was intended, as determined by the Company, the Company will replace the part or parts so determined by it to be defective with new parts, at Company's cost and expense.
This warranty is exclusive, and there are no other warranties or representations, expressed or implied.

NOTE:

We are constantly improving our products.
We therefore reserve the right to make changes in specifications without notice.
All the images represented in this catalogue are a version of the indicated products.

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