

Flame Technologies, Inc. P.O. Box 1776 Cedar Park, TX 78630

http://www.flametechnologies.com

Phone: 512-219-8481 Toll Free: 800-749-3682

Fax: 512-219-8477 Toll Free: 800-460-8474

©2011 Flame Technologies, Inc. All rights reserved.

Updated 01/02/14.

Harris® is a registered trademark of The Lincoln Electric Co., USA. Victor® is a registered trademark of Thermadyne Industries, USA. Smith Equipment® is a registered trademark of Illinois Tool Works, USA. Airco® is a registered trademark of Airco Welding Products Div. of BOC Group, USA. Oxweld® and Purox® are registered trademarks of ESAB Welding & Cutting Products, USA. GEGA® is a registered trademark of GeGa Lotz GmbH, Germany. Alba® is a registered trademark of A.L.B.A. s.r.l., Italy. KOIKE® is a registered trademark of Koike Aronson, Inc., USA. MESSER GREISHEIM® is a registered trademark of Messer Greisheim Corporation, USA. REGO® is a registered trademark of Engineered Controls International, Inc., USA. REXARC® is a registered trademark of Rexarc International, Inc., USA. Flame Technologies, Inc.® is not affiliated with or endorsed by the aforementioned companies.

Contents

| Machine Torches & Nozzles | . 1 |
|-------------------------------------|------|
| Heavy Duty Hand Cutting Torches | . 16 |
| Heavy Duty Line & Station Equipment | .32 |
| Drop Station Regulator Enclosures | .35 |
| Safety Accessories | .46 |

Don't see what you want? GIVE US A CALL!

We can manufacture custom equipment to the specifications you provide.

-or-

We can provide engineering services to create equipment for ideas you have.

Call Toll Free: 800-749-3682

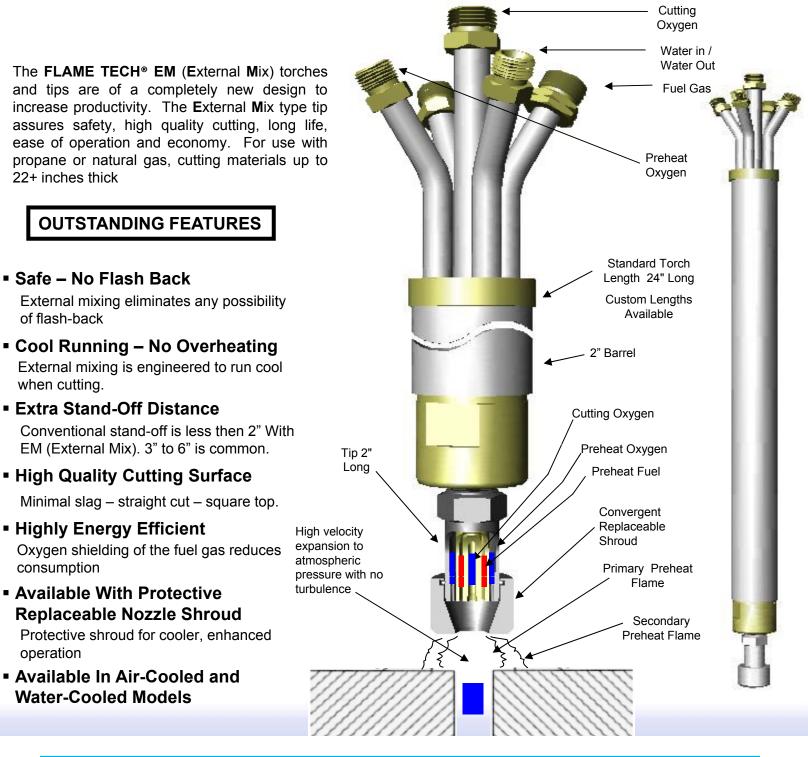






Machine Torches & Nozzles

EM 2600 (EXTERNAL MIX) TORCHES & NOZZLES HIGH VOLUME, WATER COOLED, CASTER MACHINE TORCH







EM 300-2 (EXTERNAL MIX) TORCHES & NOZZLES HIGH VOLUME, AIR COOLED, CASTER MACHINE TORCH

The **FLAME TECH EM** (External Mix) torches and tips are of a completely new design to increase productivity. The External Mix type tip assures safety, high quality cutting, long life, ease of operation and economy. For use with propane or natural gas, cutting materials up 22+ inches thick

OUTSTANDING FEATURES

Safe – No Flash Back

External mixing eliminates any possibility of flash-back

Cool Running – No Overheating

External mixing is engineered to run cool when cutting.

Extra Stand-Off Distance

Conventional stand-off is less then 2" With EM (External Mix). 3" to 6" is common.

High Quality Cutting Surface

Minimal slag – straight cut – square top.

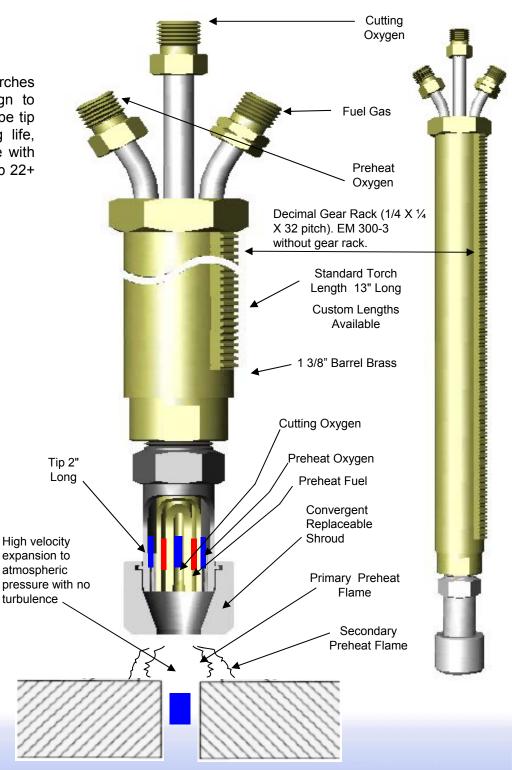
Highly Energy Efficient

Oxygen shielding of the fuel gas reduces consumption

 Available With Protective Replaceable Nozzle Shroud
Protective shroud for cooler, enhanced

operation

 Available in Air-Cooled and Water-Cooled Models





Tel: 800-749-3682 Fax: 800-460-8474

Steel Industry Products



EM-300-4C (EXTERNAL MIX) TORCHES & NOZZLES HIGH VOLUME, AIR COOLED TORCH, STRAIGHT & BEVEL CUTTING

The **FLAME TECH EM**[®] (External **M**ix) torches and tips are of a completely new design to increase productivity. The External **M**ix type tip assures safety, high quality cutting, long life, ease of operation and economy. For use with propane, propylene or natural gas, cutting materials up 22+ inches thick

OUTSTANDING FEATURES

Safe – No Flash Back

External mixing eliminates any possibility of flash-back

Cool Running – No Overheating

External mixing is engineered to run cool when cutting.

Extra Stand-Off Distance

Conventional stand-off is less then 2" With EM (External Mix). 5" to 6" is common.

High Quality Cutting Surface

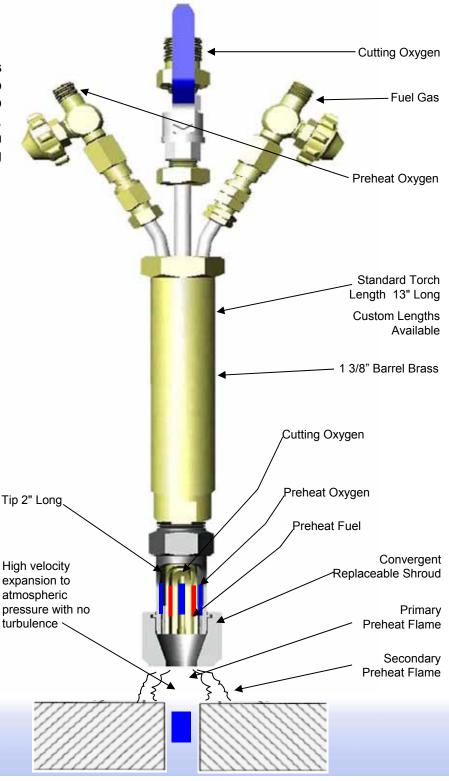
Minimal slag – straight cut – square top.

Highly Energy Efficient

Oxygen shielding of the fuel gas reduces consumption

 Available With Protective Replaceable Nozzle Shroud

Protective shroud for cooler, enhanced operation







FLAME TECH® EM (External Mix) MACHINE TORCHES

EM 300-1 High volume, air-cooled, machine torch for use with the EM tips - with metric gear rack. EM 300-2 Same as EM 300-1, but with a decimal gear rack (1/4 x 1/4 x 32 pitch), for use with most domestic torch holders. EM 300-3 Same as **EM** 300-1, but without gear rack - for most steel mill, hot billet, cutting, applications. EM 600-3 Water cooled, without gear rack. Standard Torch Length 13" - Custom Lengths Available EM 2600 High volume, water-cooled, machine torch 2" (50mm) Barrel for use with the EM tips. Standard Torch Length 24" - Custom Lengths Available FLAME TECH[®] EM (External Mix) TIPS Two (2) piece natural gas - propane tip with External Mixing design for thick plate and hot EM-XXX billet Cutting sizes 100, 200, 300, 600, and 800. ES-2 Snap-on Shroud for EM nozzles

EXTERNAL MIX OPERATIONAL DATA AND INSTRUCTIONS FOR USE

The **EM** cutting torch is a external mixing design permitting the fuel gas and oxygen to be mixed externally at the exit end of the torch and tip. No internal mixing of fuel gas or oxygen occurs in the torch or tip. External mixing occurs due to the distribution of preheat gases and shielding gases around the cutting oxygen stream. Thus the **cutting oxygen stream must be turned on for the proper mixing of gases and preheating to occur**. This type of process produces an extremely long preheating zone, allowing high standoff of torch and tip to steel. The **EM** torch was designed for automatic cut-off operations, such as hot and cold sitting, continuous casting, billets, slab cuts, and end cropping.

The following are general instructions for use on typical conditions for cutting steel at temperatures of 1400 degrees Fahrenheit. Cold steel and non-typical conditions will require some adjustment to the procedures. Cut quality can vary depending on temperature and carbon content of steel, casting speed, steel quality, pressures, cutting speed, purity of oxygen, etc. Specific information for any cutting application should be obtained directly from. **Flame Technologies, Inc.**®

1. After connecting torch to machine and securing fuel and oxygen lines, screw the **EM** nozzle and shroud into torch and adjust to a height of 5-6 inches from steel. Open all valves and check the tip and all connections for fuel and oxygen leaks.

2. Adjust the automatic torch holder and travel mechanism to allow for a slight pause (2-5 seconds) at the billet edge and travel time in accordance with the chart above.

3. Set preheat oxygen and fuel gas with the chart above. Open preheat oxygen and fuel gas valves and light the gas at about 2 inches below the tip end. The preheat flame should be blue in color by the tip end, and yellow in color as it gets further away. The whole preheat flame will be large, very soft and lazy when compared to the harsh, sharp cone preheats of conventional cutting torches. Adjust pressure at the regulator if necessary. The pressures given in the EM performance chart may be used as a starting point. Depending on conditions, small adjustments may be necessary for best performance.

4. Set cutting oxygen pressure with the EM performance chart. Set the timer to allow the cutting oxygen to come on 2 seconds before the pause at the edge of the billet. The cutting oxygen will cause the preheat flame to sharpen and is vital to successful performance. Adjust cutting oxygen to the pressure which will yield the most slag free cut.



External Mix Nozzle Operational and Performance Data

| Metal Thickness | Metal Thickness | Nozzle Size | Cutting | g Oxygen | | -Heat ygen | Natu | ral Gas | Speed (| in/min) | Kerf Width * |
|------------------------|-----------------------|----------------|---------|----------|-----|---------------|------|---------|---------|---------|-----------------|
| (Inches) Cold Steel | (Inches) Hot Steel | | PSI | CFH | PSI | CFH | PSI | CFH | COLD | нот | |
| 2 - 4 | | 100 | 90 | 750 | 10 | 700 | 20 | 600 | 14 | | .190 |
| 4 - 6 | | 100 | 130 | 900 | 15 | 800 | 25 | 700 | 10 | | .190 |
| 4 - 6 | | 200 | 110 | 1200 | 15 | 800 | 25 | 700 | 12 | | .220 |
| | 4 - 6 | 100 | 120 | 850 | 15 | 800 | 25 | 700 | | 12 | .200 |
| | 4 - 6 | 200 | 110 | 1000 | 15 | 800 | 25 | 700 | | 16 | .220 |
| 6 - 8 | | 200 | 130 | 1200 | 15 | 900 | 30 | 800 | 10 | | .225 |
| | 6 - 8 | 200 | 110 | 1000 | 15 | 900 | 30 | 800 | | 12 | .235 |
| | 6 - 8 | 300 | 110 | 1400 | 15 | 900 | 30 | 800 | | 14 | .275 |
| 8 - 10 | | 200 | 130 | 1200 | 15 | 900 | 30 | 800 | 8 | | .250 |
| 8 - 10 | | 300 | 120 | 1700 | 15 | 900 | 30 | 800 | 10 | | .295 |
| | 8 - 10 | 200 | 140 | 1300 | 15 | 900 | 30 | 800 | | 10 | .260 |
| | 8 - 10 | 300 | 120 | 1600 | 15 | 900 | 30 | 800 | | 12 | .310 |
| 10 - 14 | | 300 | 130 | 1900 | 15 | 1100 | 35 | 950 | 6 | | .325 |
| | 10 - 14 | 300 | 120 | 1700 | 15 | 900 | 35 | 950 | | 8 | .325 |
| 14 – 18+ | | 600 | 130 | 2600 | 15 | 1100 | 35 | 950 | 4 | | .375 |
| | 14 – 22+ | 600 | 130 | 2600 | 15 | 1100 | 35 | 950 | | 6 | .375 |

* - NOTES: Kerf width measured when used with ES-2 converging shroud

Bottom surface of ES-2 Shroud should be 5 - 6 inches above top surface of billet





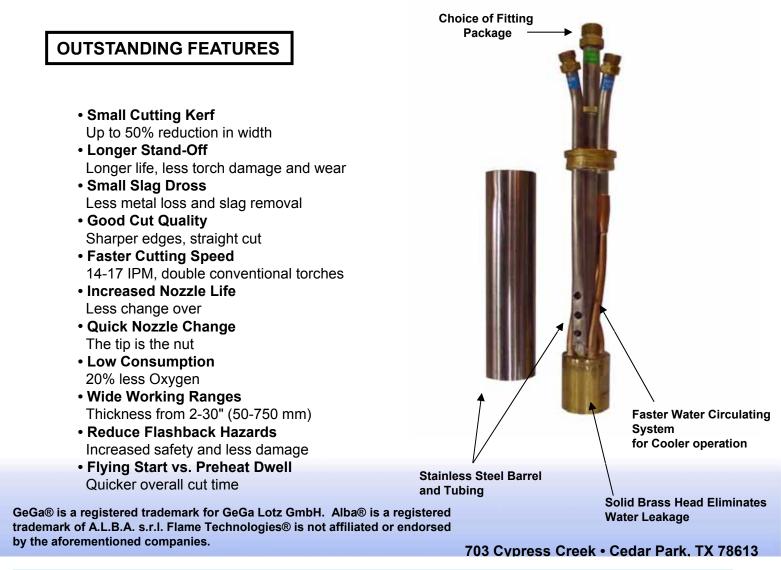
SMFT TORCH & SMFN (L) NOZZLE

(GEGA® COMPATIBLE SB-500F SERIES) & (GEGA® COMPATIBLE SDS SERIES)

SMFT TORCH (COMPATIBLE REPLACEMENT FOR GEGA® SB-500F)

FLAME TECH'S SMFT (Steel Mill FlatTorch) is the state-of-the-art cutting torch for steel mill cut-off and secondary cutting operations. The Torch body is stainless steel for longer life. The solid brass head and large volume water cooled body allows for cooler operation and gives increased torch life. The supply tubes support ring lessens fitting or tube damage due to torch change over or accidental impacts.

See Factory Remanufacturing & Exchange Program Available for Torches & Nozzles





Tel: 800-749-3682 Fax: 800-460-8474

SMFT TORCH & SMFN (L) NOZZLE

(GEGA® COMPATIBLE SB-500F SERIES)

(GEGA® COMPATIBLE SDS SERIES)

SMFT TORCH (COMPATIBLE REPLACEMENT FOR GEGA® SB-500F)

• The **SMFT** (Steel Mill Flat Torch) is the state-of-the-art cutting torch for steel mill cut-off and secondary cutting operations. The torch body is stainless steel for longer life. The solid brass head and large volume water cooled body allows for cooler operation and gives increased torch life in limited water loss environment. The supply tubes support ring lessens fitting or tube damage due to torch change over or accidental impacts. *Factory Remanufacturing Program Available for Torches.*

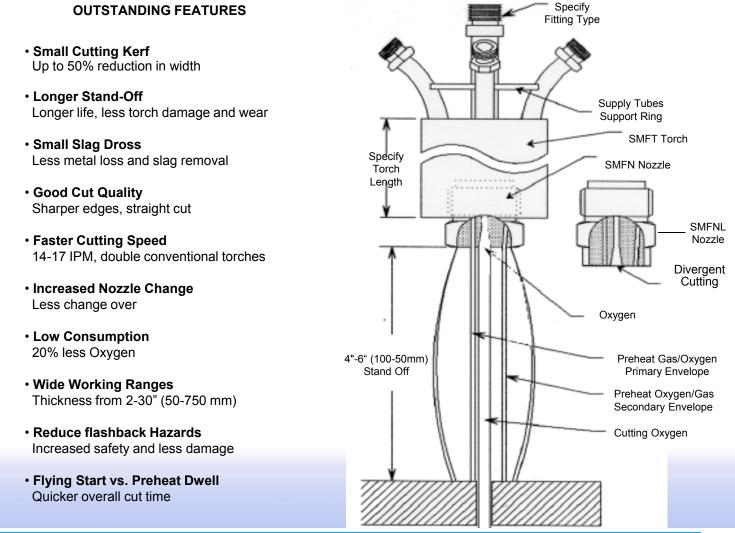
• Flame Tech® can supply the SMFT torch in any required length and can design and supply specialty torch configurations upon request.

SMFN NOZZLE (COMPATIBLE REPLACEMENT FOR GEGA® SDS SERIES)

• The SMFN (Steel Mill Flat Nozzle) is a heavy duty cutting nozzle for all machine or specialty cut-off applications. It is designed for a wide range of thickness, up to 30" and operates with most available fuel and oxygen supplies.

SMFNL NOZZLE (DESIGNED AS A COMPATIBLE REPLACEMENT TO GEGA® SDS SERIES)

• The SMFNL (Steel Mill Flat Nozzle Long) is the state-of-the-art nozzle designed to perform at the higher end speed range, while at the low end pressure range yielding a narrower kerf thereby increasing efficiency. The nozzle pre-mixing/post-mixing design and use of a well defined diverged cutting oxygen stinger allows for faster starts, narrower kerfs, lower consumption and a longer stand-off. *Factory Remanufacturing Program Available for Nozzles.*







| FLA | | HNOLOGIES | STEEL MILL | CUTTING NOZZL | ES OPERATING | CHARACTERISTIC | S |
|------------------------------------|--------|---------------------|--------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| NOZZLE STYLE (GEGA® Compatible) | | RINGFIRE (RSD-1) | SMCN-1 (SDK- 1) | SMFN-1 (SDS-26F) SMFNL-1 | SMFN-2 (SDS-33F) SMFNL-2 | SMFN-3 (SDS-36F) SMFNL-3 | SMFN-4 (SDS-40F) SMFNL-4 |
| THICKNESS | (IN) | 2 - 12 | 2 - 12 | 2 - 20 | 2 - 30 | 2 - 30 | 2 - 30 |
| THORNESS | (MM) | 50 - 300 | 50 - 300 | 50 - 250 | 50 - 750 | 50 - 750 | 50 - 750 |
| CUTTING OXYGEN | (PSI) | 100 - 150 | 130 - 200 | 140 - 250 | 115 - 200 | 115 - 160 | 130 - 175 |
| PRESSURE | (BAR) | 6.9 - 10.4 | 9.0 - 3.9 | 9.7 - 17.4 | 8.0 - 13.9 | 8.0 - 11.1 | 9.0 - 12.0 |
| P/H OXYGEN | (PSI) | 35 - 40 | 30 - 35 | 30 - 45 | 30 - 45 | 30 - 45 | 30 - 45 |
| PRESSURE | (BAR) | 2.4 - 3.1 | 2.1 - 2.4 | 2.0 - 3.0 | 2.0 - 3.0 | 2.0 - 3.0 | 2.0 - 3.0 |
| PROPANE | (PSI) | 4 - 6 | 4 - 10 | 7 - 10 | 7 - 10 | 7 - 10 | 7 - 12 |
| PRESSURE | (BAR) | 0.3 - 0.4 | 0.3 - 0.7 | 0.5 - 0.7 | 0.5 - 0.7 | 0.5 - 0.7 | 0.5 - 0.8 |
| NATURAL GAS | (PSI) | 8 - 10 | 15 - 25 | 15 - 30 | 15 - 30 | 15 - 30 | 15 - 30 |
| PRESSURE | (BAR) | 0.6 - 0.7 | 1.0 - 1.7 | 1.0 - 2.1 | 1.0 - 2.1 | 1.0 - 2.1 | 1.0 - 2.1 |
| COKE OVEN GAS | (PSI) | 30 - 35 | 25 - 30 | 25 - 35 | 25 - 35 | 25 - 35 | 25 - 35 |
| PRESSURE | (BAR) | 2.1 - 2.4 | 1.7 - 2.1 | 1.7 - 2.4 | 1.7 - 2.4 | 1.7 - 2.4 | 1.7 - 2.4 |
| CUTTING SPEED | IN/MM | 10 - 12 | 10 - 12 | 6 - 11 | 7 - 9 | 7 - 9 | 7 - 11 |
| @ 20C-170F | MM/MIN | 250 - 300 | 250 - 300 | 150 - 280 | 180 - 240 | 180 - 240 | 180 - 280 |
| CUTTING SPEED | IN/MM | 16 - 18 | 14 - 17 | 11 - 17 | 12 - 16 | 12 - 16 | 12 - 20 |
| @ 750C-1400F | MM/MIN | 400 -450 | 350 - 420 | 280 - 440 | 300 - 400 | 300 - 400 | 300 - 520 |
| KERF WIDTH | (IN) | 0.40 - 0.47 | 0.40 - 0.55 | 0.21 - 0.28 | 0.21 - 0.30 | 0.28 - 0.35 | .3140 |
| @ 20C-70F | (MM) | 10.0 - 12.0 | 10.0 - 14.0 | 5.5 - 7.0 | 5.5 - 7.5 | 7.0 - 9.0 | 8.0 - 10.0 |
| KERTH WIDTH | (IN) | 0.40 - 0.55 | 0.47 - 0.63 | 0.20 - 0.26 | 0.24 - 0.31 | 0.28 - 0.35 | 0.35 - 0.43 |
| @750C-1400F | (MM) | 12.0 - 14.0 | 12.0 - 16.0 | 5.0 - 6.5 | 6.0 - 8.0 | 7.0 - 9.0 | 9.0 - 11.0 |
| NOZZLE | (IN) | 2 - 5 | 2 - 5 | 4 - 6 | 4 - 6 | 4 - 6 | 4 - 6 |
| DISTANCE | (MM) | 60 - 120 | 60 - 120 | 100 - 140 | 100 - 140 | 100 - 140 | 100 - 140 |
| BEARD WIDTH | (IN) | 0.9 - 1.1 | 0.6 - 0.7 | 0.6 - 0.7 | 0.6 - 0.7 | 0.7 - 0.9 | 0.7 - 0.9 |
| @ 750C-1400F | (MM) | 22 - 27 | 14 - 18 | 14 - 18 | 15 - 19 | 18 - 22 | 18 - 2 |
| BEARD THICKNESS | (IN) | 0.5 - 0.6 | 0.6 - 0.7 | 0.2 - 0.3 | 0.3 - 0.4 | 0.3 - 0.4 | 0.35 - 0.5 |
| @ 750C-1400F | (MM) | 12 - 15 | 15 - 18 | 6 - 8 | 7 - 9 | 7 - 11 | 9 - 13 |
| NOISE LEVED dBA | (MM) | 108 - 115 | 105 - 112 | 102 - 109 | 100 - 106 | 100 - 106 | 100 - 106 |

• Cutting speeds, kerf thickness and widths are based on 8 inch (200 mm) thickness - mild carbon steel material.

• Pressures are recommended optimum conditions, it may be necessary to make adjustments based on material.

• The SMFNL's are designed to perform at the higher end speed range, while at the low end pressure range, yielding a narrower Kerf thereby increasing efficiency.

FLAME TECHNOLOGIES® MILL CUTTING EQUIPMENT "GEGA®" COMPATIBLE CROSS REFERENCE

| GEG | A® COMPATIBLE NUMBER | FLAME TECH® NUMBER | DESCRIPTION |
|--------|----------------------|-------------------------|---|
| ES | SB-500F | GFT-500F | Water Cooled Gega® Compatible Design |
| 동 | N/A | SMFT <u>-XX*</u> | Water Cooled Flame Tech® Design |
| TORCHE | N/A | SMFT-A <u>-XX *</u> | Air Cooled Flame Tech® Design |
| TO | | *NOTE XX DENOTES LENGTH | |
| | SDS-26F | SMFN-1 | Flat Seat Nozzle |
| S | SDS-33F | SMFN-2 | Flat Seat Nozzle |
| Щ | SDS-33FP | SMFNP-2 | Flat Seat Nozzle-Pow der Cutting |
| ZZ | SDS-36F | SMFN-3 | Flat Seat Nozzle |
| NOZZI | SDH-40F | SMFN-4 | Flat Seat Nozzle |
| 2 | N/A | SMFN-1-4 | Flame Tech Design Extended Length Flat Seat Nozzle |



Tel: 800-749-3682 Fax: 800-460-8474

SMFN(L) GEGA® & ALBA® COMPATIBLE SERIES CONTINUOUS CASTER CUT-OFF NOZZLES

INTRODUCING THE LATEST GENERATION STEEL INDUSTRY PRODUCT CUTTING NOZZLE SMFNL For users of the (SMFN) Gega® Compatible SDS series nozzle

Flame Tech[®] has developed the latest generation of the extremely successful SMFN flat seat cutting nozzle. The new nozzle incorporates all the features of the SMFN (Gega® SDS series) and the new features that have been requested for years. The SMFNL is a direct replacement for the Flame Tech[®] or Gega® compatible series tips and requires no modifications.

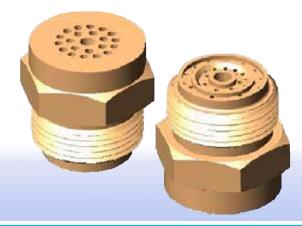
The SMFNL (improved design - long life, extended length, low pressure range) nozzle is designed to operate at the maximum cutting speed range, while operating at the low end of the oxygen pressure range. The nozzle operates at the same pressure range as the standard SMFN series nozzle. The longer overall length of the tip allows for the maximization of the cutting stream jet length to hole diameter ratio. Test have shown a 10-20% increase in cutting speed with no loss of cut quality. Actual cutting speed increases may vary due to individual caster conditions.

Features & Benefits:

- Made from Tellurium Copper for Strength and Durability
- " L" Series is the "state-of-the-art" Design to Perform at the Higher Speed Range of Cutting
- Produces Smaller Kerfs with a Greater Standoff Distance for Longer Life
- Wide Working Range for Overall Cost Effectiveness
- Refurbishing Program Available Upon Request for Maximum Savings

SMFNL & SMFN

Steel Mill Flat-Seat Nozzle (Long) Steel Mill Flat-Seat Nozzle







SMFNL SERIES CONTINUOUS CASTER CUT-OFF NOZZLE

INTRODUCING

THE LATEST GENERATION STEEL INDUSTRY PRODUCT

CUTTING NOZZLE SMFNL

FOR USERS OF THE SMFN or Gega® Compatible SDS series Nozzle

Flame Tech[®] has developed the latest generation of the extremely successful SMFN flat seat cutting nozzle. The new nozzle incorporates all the features of the SMFN (Gega® SDS series) and the new features that have been requested for years. The SMFNL is a direct replacement for the Flame Tech[®] or Gega® series tips and requires no modifications.

The **SMFNL** (improved design - Long Life, extended Length, Low pressure range) nozzle is designed to operate at the maximum cutting speed range, while operating at the low end of the pressure range. The nozzle operates at the same pressure range as the standard SMFN series nozzle. The longer overall length of the tip allows for the maximization of the cutting stream jet length to hole diameter ratio. Test have shown a 10-20% increase on cutting speed with no loss of cut quality. Actual cutting speed increases may vary due to individual caster conditions.

The **SMFNL** nozzle has been field tested in the U.S., Australia and Mexico and is now available in all sizes. **Flame Tech**[®] has a policy welcoming any and all suggestions from our customers regarding product improvements or complaints. **Flame Tech**[®] will respond to all customer input and is able to react to our customers needs in a timely, positive manner.

We would like to take this opportunity to thank you for interest in **Flame Tech**[®] products - give us a call!!!

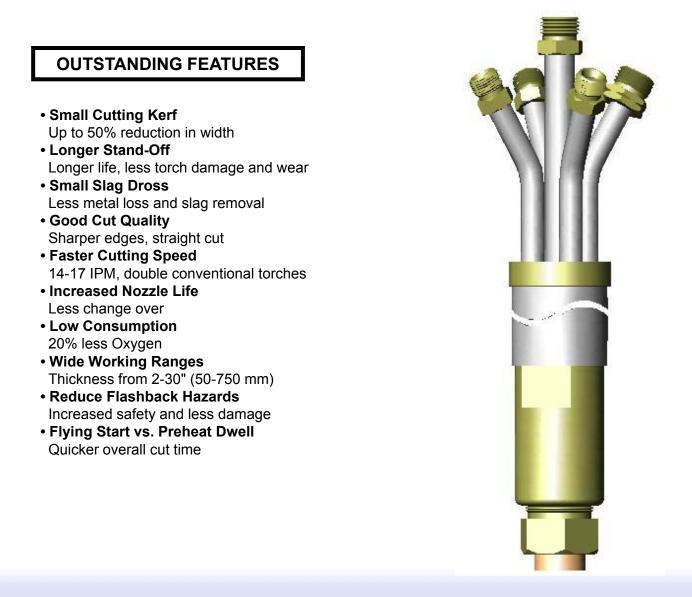
| FLAME TECH® (GE Standard | | NEW GENERATION – FLAME TECH® Long Length |
|-----------------------------|-----------|---|
| PART NU | MBERS | FLAME TECH® PART NUMBERS |
| FLAME TECH® | GEGA® | SMFNL-1 |
| SMFN-1 | (SDS-26F) | SMFNL-2 |
| SMFN-2 | (SDS-33F) | SMFNL-3 |
| SMFN-3 | (SDS-36F) | SMFNL-4 |
| SMFN-4 | (SDH-40F) | |



MG 651 D STYLE TORCH & NOZZLE

The MG (Messer Griesheim®) Torch is the state-of-the-art cutting torch for steel mill cut-off and secondary cutting operations. The torch body is stainless steel for longer life. The solid brass head and large volume water cooled body allows for cooler operation and gives increased torch life in limited water loss environment. The supply tubes support ring lessens fitting or tube damage due to torch change over or accidental impacts. *Factory Remanufacturing Program Available for Torches.*

Flame Tech® can supply the MG torch in any required length and can design and supply specialty torch configurations upon request.



MESSER GREISHEIM® EQUIPMENT is a registered trademark of Messer Greisheim Corporation, USA. FLAME TECHNOLOGIES, INC.® is not affiliated with or endorsed by the aforementioned company.





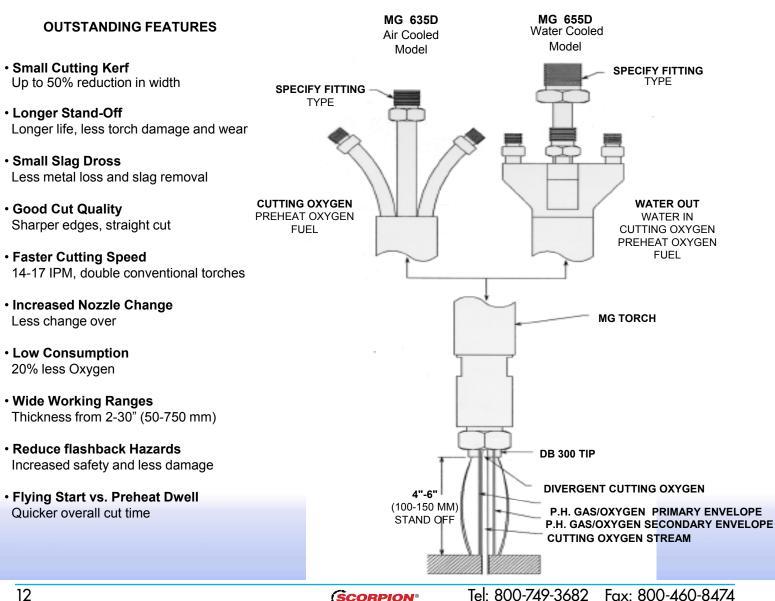
MG STYLE TORCH & NOZZLE

MG STYLE TORCH

The **MG** (Messer Griesheim®) **Torch** is the state-of-the-art cutting torch for steel mill cut-off and secondary cutting operations.

The torch body is stainless steel for longer life. The solid brass head and large volume water cooled body allows for cooler operation and gives increased torch life in limited water loss environment. The supply tubes support ring lessens fitting or tube damage due to torch change over or accidental impacts. Factory Remanufacturing Program Available for Torches.

Flame Tech® can supply the MG torch in any required length and can design and supply specialty torch configurations upon request.

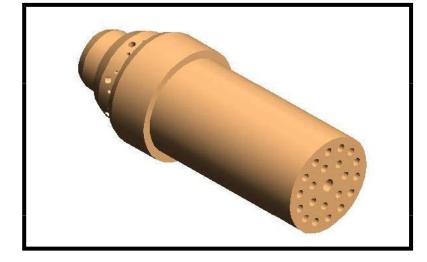




GAS APPARATUS

Tel: 800-749-3682 Fax: 800-460-8474

MG (Messer Griesheim®) STYLE NOZZLE



Factory Remanufacturing Program Available for Nozzles.

OUTSTANDING FEATURES

•CUTTING WITH AN ULTRA-THIN KERF

Allows for cutting material with a kerfs as thin as >25 inches. Reducing waste and saving money

DURABILITY AND DEPENDABILITY

The high nozzle standoff of 4-5 inches reduces slagsplatter build up on the nozzle. Increases the life of the nozzle and the torch.

•REDUCES PRODUCTION TIME

Cutting time is reduced with the robust heat flame produced. Reduces or eliminates non productive preheat time. High quality cutting surface, minimal slag, straight cut, square top.

IMPROVED SAFETY

Increased cutting efficiency is directly related to improve safety. The internal mixing nozzle enhances safety. Heating Oxygen and fuel gas are mixed individually in each preheat opening within the nozzle. This prevents any ignitable mixture of fuel gas and oxygen within the torch.

OPERATIONAL & PERFORMANCE DATA

| | | | GAS PRESSURE (PSIG) | | | | | | | |
|--------|-----------|---------|---------------------|------|----------|--------|----------|--------|------------|--|
| NOZZLE | STEEL | | FUEL GAS | | HEATING | OXYGEN | CUTTING | OXYGEN | | |
| TYPE | THICKNESS | TYPE | PRESSURE | FLOW | PRESSURE | FLOW | PRESSURE | FLOW | KERF WIDTH | |
| DB-218 | | NATRUAL | 3.5 | 258 | 15 | 445 | 75 | 1300 | .34 | |
| 0020 | 2"-8" | PROPANE | 1.5 | 70 | 15 | 355 | 75 | 1300 | .34 | |
| | | NATURAL | 3.5 | 375 | 10 | 300 | 75 | 1300 | .34 | |
| | 2"-4" | PROPANE | 1.5 | 85 | 10 | 240 | 75 | 1300 | .34 | |
| DB-300 | | NATURAL | 7.5 | 600 | 15 | 445 | 75 | 1300 | .34 | |
| | 4"-6" | PROPANE | 3 | 160 | 15 | 355 | 75 | 1300 | .34 | |
| | | NATURAL | 7.5 | 600 | 15 | 445 | 115 | 2020 | .34 | |
| | 6"-12" | PROPANE | 3 | 160 | 15 | 355 | 115 | 2020 | .34 | |
| DB-318 | | NATRUAL | 7.5 | 600 | 15 | 445 | 150 | 1775 | .253 | |
| 88 616 | 4"-12" | PROPANE | 3 | 160 | 15 | 355 | 150 | 1775 | .253 | |
| | | NATURAL | 5 | 495 | 12 | 355 | 75 | 2300 | .45 | |
| | 12"-15" | PROPANE | 3 | 460 | 9 | 310 | 75 | 2300 | .45 | |
| | | NATURAL | 6 | 550 | 16 | 425 | 95 | 2825 | .45 | |
| DB-600 | 15"-19" | PROPANE | 4 | 210 | 13 | 370 | 95 | 2825 | .45 | |
| DB-000 | | NATURAL | 7.5 | 675 | 19 | 480 | 115 | 3550 | .56 | |
| | 19"-22" | PROPANE | 5 | 235 | 15 | 420 | 115 | 3550 | .56 | |
| | | NATURAL | 11 | 815 | 26 | 570 | 150 | 4250 | .56 | |
| | 22"-24" | PROPANE | 6 | 285 | 21 | 495 | 150 | 4250 | .56 | |

ENGINEERING SUPPORT AND SERVICE

Flame Tech's Line of Steel Products also includes: Continuous Caster Cut-Off Torches and Tips, Continuous Caster Carriages, Full Line of Manifold and Station Regulators, Torch and Tip Repair, and Engineering Support and Service.



HEAVY DUTY MACHINE TORCH

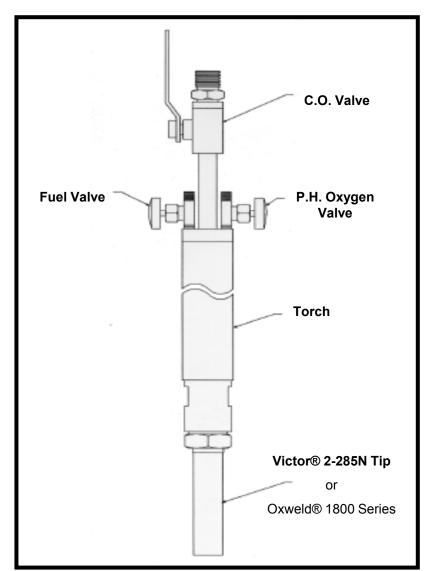
The FLAME TECH® Heavy Duty Machine Torch is a rugged high capacity torch designed for heavy duty mechanized cutting in foundries, steel mills, scrap yards or anywhere durability and large cutting requirements are desired. The torch has a separate cutting oxygen supply to enable the cutting of material thickness up to 60". Available with or without valves and uses "C" cutting oxygen and "B" preheat and fuel.

• **MT-48** uses Victor® style 2-285N nozzles (suitable replacement for Victor® MT 1500 torch).

• **MT-60** uses Oxweld® style 1800 series nozzles.

FEATURES

- Air cooled standard torch has a 12" barrel, 1 3/4" diameter barrel, 27" overall length.
- Separate preheat and cutting supply for faster start and increased cutting capacity.
- Custom lengths available.
- Torch without valves available.
- 1 3/4" torch holders available.



LAME TECH

ORDERING INFORMATION

| MODEL PART NUMBER | | DESCRIPTION | | |
|-------------------|---------|---|--|--|
| MT-48 30-0707 | | Heavy duty machine torch with valves | | |
| MT-48 WOV 30-0308 | | Heavy duty machine torch without valves | | |
| MT-60 30-0709 | | Heavy duty machine torch with valves | | |
| MT-60 | 30-0710 | Heavy duty machine torch without valves | | |

VICTOR® is a registered trademark for Thermadyne Industries, USA ; OXWELD® is a registered trademark for ESAB Welding & Cutting Products, USA. FLAME TECHNOLOGIES, INC.® is not affiliated with or endorsed by the aforementioned companies.



TORCH REPAIR PROGRAM

Flame Tech® offers a complete repair program on all steel mill cutting torches. Just send the torch back to us with a complete description of the problem, the company name and contact. Flame Tech® will prepare a repair estimate within 48 hours. All torch estimates and torches are held for 60 days. If no authorization is received the torches will be sent back or discarded

Contact our Customer Service & Technical Assistance Call: 1-800-749-3682 or 512-219-8481







Heavy Duty Hand Cutting Torches

HEAVY DUTY HAND







7500 SERIES CUTS UP TO 14" OF STEEL



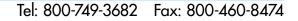






8600 SERIES CUTS UP TO 36" OF STEEL







CUTTING TORCHES

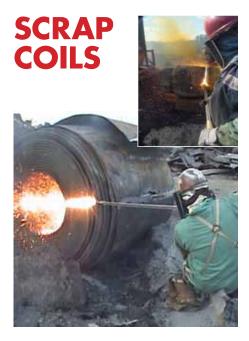
Designed for rugged environments and customized the way you want it. Hand cutting torches suggested for scrap yards, mills and foundries.

9600 SERIES CUTS UP TO 48" OF STEEL





LADLE SKULLS





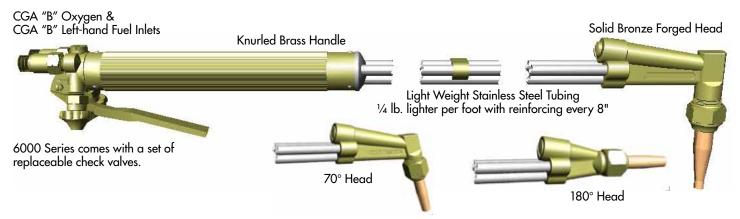
HC48L SERIES CUTS UP TO 48" OF STEEL

orders@flametechnologies.com





6000 SERIES-CUTS UP TO 8", GAS TYPE IS MODEL DEPENDENT (SEE BELOW)



SOLID BRONZE FORGED HEAD

- Long life, resists distortion from abuse
- Maximum service with minimum maintenance

INJECTOR/MIXER

- Mixer in head to reduce burn back in tubes
- Safer than tube mixing designs

EXTERNAL CHECK VALVES

- Easily replaced on the job & prevents reverse flow.
- Flame Tech[®] recommends flash arrestors style GG/DGN

See check valves & flash arrestors section in this catalog.

LIGHT WEIGHT, STAINLESS TUBES

• Maximum design strength—1/4 lb. per foot lighter

MODELS & SIZES

Flame Tech's 6000 series torches are designed for heavy duty hand held applications for the steel mill, foundry or scrap yard environment where up to 8" cutting is required. These torches come in 21, 27, 36, 48, 72, 96, & 120 inch lengths. Custom lengths are also available upon request. See our 7000, 8000 and 9000 series for 14", 36" & 48" cutting capabilities. These torches have built-in mixers, and as such must be ordered according the gas type to be used. Different gas usage requires a different torch. See "Part Numbering Example."

ORDERING & PART NUMBERS

Flame Tech® uses an identification system that consists of numbers and letters to identify the manufacture model, size, gas, and style head on our torches. Below are examples for our Heavy Duty Hand Torches. See our price list for complete offering.

OEM COMPATIBILITY

- 6200 Series-Compatible with Harris® Seat
- 6300 Series-Compatible with Victor® Seat
- 6400 Series—Compatible with Oxweld[®] Seat

PART NUMBERING EXAMPLE

- 6321-A90 = "63" indicates the series of torch you are ordering (Victor® compatible torch)
- 63<u>21</u>-A90 = "21" indicates the length of torch you are ordering (21" long)
- 6321-<u>A</u>90 = "A" indicates <u>A</u>cetylene gas "F" indicates alternate <u>F</u>uel gases only (not for acetylene) for maximum performance
- 6321-A<u>90</u> = "90" indicates the degree of the head (70°, 90°, or 180°)

» SEE PAGE 21 FOR SCRAPPER TIP INFORMATION

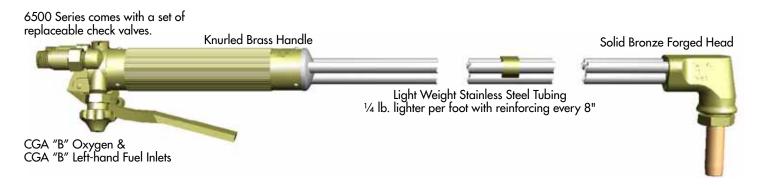


CAUTION

ALWAYS USE ASH BACK ARRESTORS

(purchased separately)

6500 SERIES-CUTS UP TO 8", USES ACETYLENE OR ALT. FUEL GASES



FEATURES

- Solid Bronze Head
- Heavy Duty Tip-Mixing Torch
- Three Stainless Tubes in Triangular Format
- Light Weight Multi-Tasking Torch

BENEFITS

- Safety First Reduced Flashback
- Maximum Strength, Greater Rigidity
- Low Maintenance, Longer Lasting
- Ease of Operation

CAPABILITIES

Flame Tech's 6500 Hand Cutting Torch is a heavy duty torch designed for rugged environments. This torch features a safe, tip-mix design. The 6500 series torch uses Flame Tech's "A-Scrapper" or Airco[®] compatible cutting tips, and is ideal for heavy cutting in scrap yards and steel mill operations. This heavy duty torch when using these tips can hand cut up to 8" of steel.

- Can be used with any Fuel Gas
- Single lever actuated torch control
- Uses common CGA "B" size oxygen supply and LH CGA "B" size fuel supply to minimize the hose and regulator requirements.

PART NUMBERING EXAMPLE

- 6548-70 = "65" indicates the torch series you are ordering
- $65\underline{48}$ -70 = "48" indicates the length of the torch you are ordering (48" long)
- 6548-<u>70</u> = "70" indicates the degree of the head (70°, 90°, or 180°)

Standard lengths are 21, 27, 36, 48, 60, 72, 96 & 120 inches. Custom lengths available. 70°, 90° or 180° available.

» SEE PAGE 21 FOR SCRAPPER TIP INFORMATION







7500 SERIES-CUTS UP TO 14", USES ACETYLENE OR ALT. FUEL GASES



FEATURES

- Solid Bronze Head
- Heavy Duty Nozzle Mixing Torch
- Three Stainless Tubes in Triangular Format
- Light Weight Multi-Tasking Torch

Specify 70°, 90° or 180° Head

BENEFITS

- Safety First Reduced Flashback
- Maximum Strength, Greater Rigidity
- Low Maintenance, Longer Lasting
- Ease of Operation

CAPABILITIES

Flame Tech's 7500 Hand Cutting Torch is a heavy duty torch designed for rugged environments. This torch features a safe, tip-mix design. The 7500 series torch uses Flame Tech's "A-Scrapper" or Airco[®] compatible cutting tips, and is ideal for heavy cutting in scrap yards and steel mill operations. This heavy duty torch when using these tips can hand cut up to 14" of steel.

- Can be used with any Fuel Gas
- Single lever actuated torch control
- Uses common CGA "B" size oxygen supply and LH CGA "B" size fuel supply to minimize the hose and regulator requirements

PART NUMBERING EXAMPLE

- <u>75</u>48-70 = "75" indicates the torch series you are ordering
- 75<u>48</u>-70 = "48" indicates the length of the torch you are ordering (48" long)
- 7548-<u>70</u> = "70" indicates the degree of the head (70°, 90° or 180°)

Standard lengths are 21, 27, 36, 48, 60, 72, 96 & 120 inches. Custom lengths available. 70°, 90° or 180° available.

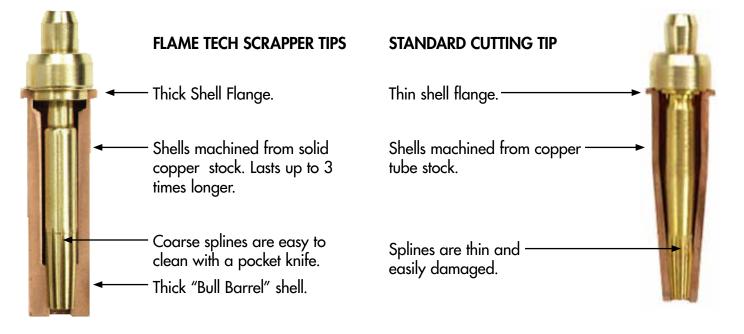
» SEE PAGE 21 FOR SCRAPPER TIP INFORMATION



FLAME TECH® SCRAPPER TIPS-6000, 6500 & 7500 SERIES TORCHES

SEE THE DIFFERENCE YOURSELF WITH FLAME TECH'S FAMOUS "SCRAPPER" CUTTING TIPS

- Larger preheats reduce start time and help to "maintain the cut."
- Coarse "V" internal splines do not clog easily and can be cleaned with a pocket knife.
- Ideal for working on rusty, scaly, painted surfaces.
- Compatible with standard OEM torches.

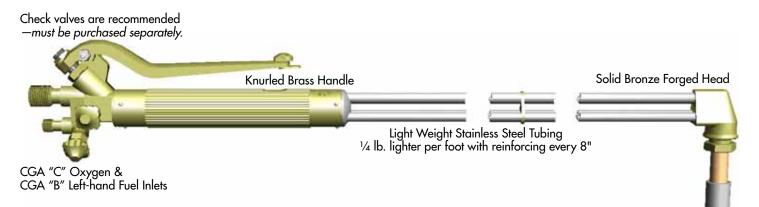


| METAL | TIP | SIZE | ΟΧΥ | GEN | | | KEDE |
|-----------------------|------------|------------|----------------|----------------|-----------------|-----------|---------------|
| THICKNESS (INCHES) | TIP NO. | DRILL SIZE | CUTTING PSI | PREHEAT PSI | FUEL GAS PSI | SPEED IPM | KERF WIDTH |
| 1/8 | 5/0 | 74 | 20-30 | 5-9 | 2-5 | 18-26 | .035 |
| 3/16 | 4/0 | 71 | 30-40 | 5-9 | 2-5 | 18-25 | .04 |
| 1/4 | 000 | 68 | 30-40 | 5-9 | 3-5 | 17-24 | .05 |
| 3/8 | 00 | 64 | 35-45 | 5-10 | 3-5 | 17-23 | .06 |
| 1/2 | 001/2 | 62 | 35-45 | 5-10 | 3-6 | 16-22 | .065 |
| 5/8 | 0 | 60 | 35-45 | 5-10 | 3-6 | 15-20 | .07 |
| 3/4 | 01/2 | 58 | 35-50 | 5-10 | 3-6 | 15-19 | .075 |
| 1 | 1 | 56 | 35-50 | 5-10 | 3-6 | 14-18 | .08 |
| 11/2 | 11/2 | 54 | 40-55 | 10-17 | 4-8 | 12-16 | .09 |
| 2 | 2 | 52 | 40-55 | 10-17 | 4-8 | 10-14 | .10 |
| 21/2 | 2 ½ | 50 | 40-55 | 10-17 | 5-9 | 9-13 | .105 |
| 3 | 3 | 48 | 45-60 | 10-17 | 6-10 | 8-11 | .11 |
| 4 | 4 | 44 | 50-65 | 10-17 | 6-10 | 7-10 | .13 |
| 6 | 5 | 39 | 60-75 | 10-17 | 8-12 | 5-8 | .15 |
| 8 | 6 | 31 | 60-75 | 30-43 | 9-15 | 4-6 | .19 |
| 9 | 7 | 28 | 55-65 | 30-43 | 9-15 | 3-5 | .22 |
| 10 | 8 | 25 | 50-65 | 30-43 | 9-15 | 3-4 | .24 |
| 12 | 10 | 13 | 45-60 | 30-43 | 10-18 | 2-3 | .34 |
| 14 | 12 | 5 | 40-55 | 30-43 | 10-18 | 1-2 | .40 |





8600 SERIES-CUTS UP TO 36", USES BI-METAL & TRI-METAL TIP SERIES



FEATURES

- Solid Bronze Head
- Heavy Duty Nozzle Mixing Torch
- Three Stainless Tubes in Triangular Format
- Uses Flame Tech® Designed BI-METAL or TRI-METAL 80 Series Tip-Mixing Nozzles
- Light Weight Multi-Tasking Torch

BENEFITS

- Safety First Reduced Flashback
- Maximum Strength, Greater Rigidity
- Low Maintenance, Longer Lasting
- Ease of Operation

CAPABILITIES

Flame Tech's 8600 Hand Cutting Torch is a heavy duty torch designed for rugged environments. This torch features a safe, tip-mix design. The 8600 series torch uses Flame Tech's proprietary BI-METAL or TRI-METAL cutting nozzles, and is ideal for heavy cutting in scrap yards and steel mill operations. This heavy duty torch, when using the BI-METAL or TRI-METAL 80 series nozzles, can hand cut up to 36" of steel.

- Single lever actuated torch control.
- Uses CGA "C" size oxygen supply and LH CGA "B" size fuel supply to minimize the hose and regulator requirements.
- For alternative fuel only <u>NOT FOR ACETYLENE</u>.

PART NUMBERING EXAMPLE

- <u>86</u>48-70 = "86" indicates the torch series you are ordering
- $86\underline{48}$ -70 = "48" indicates the length of the torch you are ordering (48" long)
- 8648-<u>70</u> = "70" indicates the degree of the head (70°, 90° or 180°)

Standard lengths are 36, 48, 60, 72, 96 & 120 inches. Custom lengths available. 70°, 90° or 180° available.

» SEE PAGE 23 FOR 80 SERIES BI-METAL & TRI-METAL TIP INFORMATION





80 SERIES BI-METAL & TRI-METAL TIP-MIX CUTTING NOZZLES



HOSE & REGULATOR REQUIREMENTS

When cutting over 20", use 1/2" ID hose.

Oxygen supply and oxygen regulator must be capable of flows mentioned on cutting tip chart shown below.

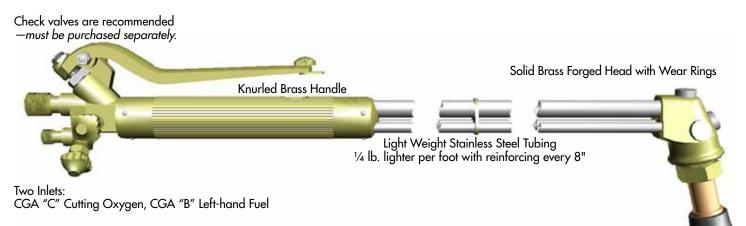
| 4 | Brass seat for longer life and better structural integrity. Brass increases quality over copper in the drilling of the seat mixer. | |
|---|---|-------------------|
| • | Copper barrel for better transfer- ence and dissipation of heat away from the cutting zone. | \longrightarrow |
| | Stainless wear ring for longer life. | |
| | CAUTION ALWAYS USE FLASH BACK ARRESTORS (purchased separately) | |

| | 80 SERIES | NOZZLES | | GAS PR (PS | RESSURE IG) | GAS CONS (CF | |
|------|-----------------|------------------|--------------------|---------------|----------------|-----------------|----------|
| SIZE | BI-METAL P/N | TRI-METAL P/N | METAL THICKNESS | OXYGEN | FUEL GAS | OXYGEN | FUEL GAS |
| 12 | BM80-12 | TM80-12 | 10-12 | 60-100 | 5-15 | 750-1650 | 80-120 |
| 16 | BM80-16 | TM80-16 | 12-16 | 60-100 | 5-15 | 1000-1950 | 80-120 |
| 20 | BM80-20 | TM80-20 | 16-20 | 60-100 | 5-15 | 1600-2500 | 100-160 |
| 24 | BM80-24 | TM80-24 | 20-24 | 60-100 | 5-15 | 1800-3000 | 100-160 |
| 36 | BM80-36 | TM80-36 | 24-36 | 60-100 | 5-15 | 2100-3600 | 100-160 |





9500 SCARFING-CUTS UP TO 36", USES TRI-METAL 95 SERIES TIPS



FEATURES

- Solid Brass Head
- Heavy Duty Nozzle Mixing Torch
- Three Stainless Tubes in Triangular Format
- Uses Flame Tech® Designed TRI-METAL TMS95-62 Tip-Mixing Scarfing Nozzle
- Light Weight Multi-Tasking Torch



BENEFITS

- Safety First Reduced Flashback
- Maximum Strength, Greater Rigidity
- Low Maintenance, Longer Lasting
- Ease of Operation

Strategically Located Hardened Alloy Wear Inserts



CAPABILITIES

The 9500 scarfing torch, when using the TRI-METAL scarfing nozzle, is ideal for operations where wide, shallow passes are required in order to remove cracks, seams, or other defects in steel slabs, ingots.

- Scarfing path width $2\frac{1}{2}$ " through 3 3/8" width
- Single leaver actuated torch control
- Uses common CGA "C" ¹/₂" cutting oxygen supply and CGA "B" 3/8" size fuel.
- Cutting up to 36" when using BM90-36 cutting nozzles (see BI-METAL chart after 9600 torch)

PART NUMBERING EXAMPLE

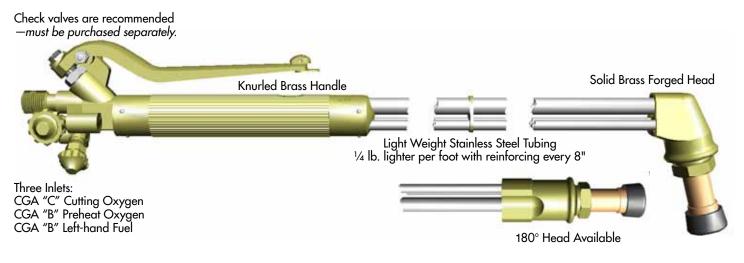
- 9542 Hand Scarfing 42" 70 Degree Head for Alternative Fuel Gas
- 9548 Hand Scarfing 48" 70 Degree Head for Alternative Fuel Gas
- 9542WF Hand Scarfing With Wire Feed 42" 70 Degree Head for Alternative Fuel Gas
- 9548WF Hand Scarfing With Wire Feed 48" 70 Degree Head for Alternative Fuel Gas

The 9500 torch is is available in custom lengths over 48" with or without rod feed.

» SEE PAGE 26 FOR TMS95-62 SCARFING NOZZLE INFORMATION



9600 SERIES-CUTS UP TO 48", USES BI-METAL & TRI-METAL TIP SERIES



FEATURES

- Solid Brass Head
- Heavy Duty Nozzle Mixing Torch
- Three Stainless Tubes in Triangular Format
- Uses Flame Tech® Designed BI-METAL or TRI-METAL 90 Series Tip-Mixing Nozzles
- Light Weight Multi-Tasking Torch

BENEFITS

- Safety First Reduced Flashback
- Maximum Strength, Greater Rigidity
- Low Maintenance, Longer Lasting
- Ease of Operation

CAPABILITIES

Flame Tech's 9600 Hand Cutting Torch is a heavy duty torch designed for rugged steel mill environments. This heavy duty torch features a safe, tip-mix design. The 9600 series torch uses the Flame Tech's BI-METAL or TRI-METAL nozzles can hand cut up to 48" of steel.

- Three hose input into tail body.
- Uses common CGA "C" cutting oxygen supply , CGA "B" preheat oxygen, LH CGA "B" fuel inlets.
- Single lever actuated torch control.
- For alternative fuel only <u>NOT FOR ACETYLENE</u>

PART NUMBERING EXAMPLE

- 9648-70 = 96 indicates the torch series you are ordering
- $\overline{9648}$ -70 = 48 indicates the length of the torch you are ordering (48" long)
- 9648- $\underline{70}$ = 70 indicates the degree of the head (70° or 180°)

Standard lengths are 36, 48, 60, 72, 96 & 120 inches. Custom lengths available. 70° and 180° only.

»SEE PAGE 26 FOR 90 SERIES BI-METAL & TRI-METAL TIP INFORMATION





90 SERIES & 95 SCARFING BI- & TRI-METAL TIP-MIX CUTTING NOZZLES



HOSE & REGULATOR REQUIREMENTS

When cutting over 20", use 1/2" ID hose.

Oxygen supply and oxygen regulator must be capable of flows mentioned on cutting tip chart shown below.



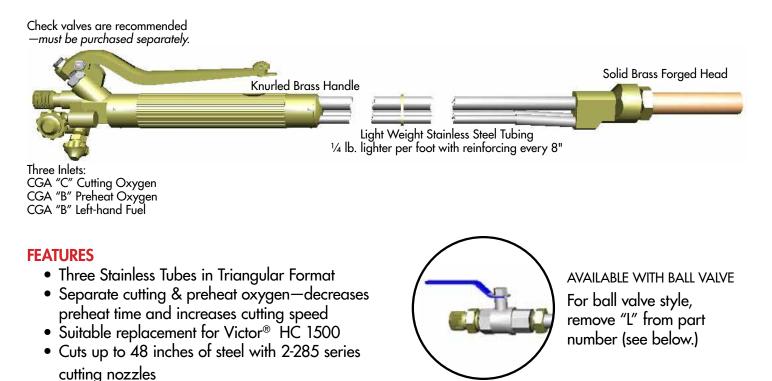
| 9 <u>0</u> SERIES NOZZLES | | | | | GAS PRESSUR (PSIG) | GAS CONSUMPTION (CFH) | | |
|---------------------------|-----------------|------------------|--------------------|---------------------------|------------------------|---------------------------|-----------|-------------|
| SIZE | BI-METAL P/N | TRI-METAL P/N | METAL THICKNESS | OXYGEN PRE-HEAT OXYGEN | | FUEL GAS | OXYGEN | FUEL GAS |
| 24 | BM90-24 | TM90-24 | 18-24 | 25-45 | 25-50 | 13-25 | 2200-3400 | 80-160 |
| 30 | BM90-30 | TM90-30 | 24-30 | 20-40 | 25-50 | 13-25 | 2200-3800 | 80-160 |
| 36 | BM90-36 | TM90-36 | 30-36 | 20-40 | 25-50 | 13-25 | 2300-4400 | 80-160 |
| 48 | BM90-48 | TM90-48 | 36-48 | 15-35 | 25-50 | 13-25 | 2400-5000 | 80-160 |

ALWAYS USE FLASH BACK ARRESTORS (purchased separately)

| 9 <u>5</u> | 9 <u>5</u> SCARFING TRI-METAL NOZZLE | | | OXYGEN | NATURAL GAS | | |
|------------|--------------------------------------|------------------------|--------------------|------------|--------------------|------------|--|
| SIZE | TRI-METAL P/N | SCARFING PATH WIDTH | PRESSURE (PSIG) | FLOW (CFH) | PRESSURE (PSIG) | FLOW (CFH) | |
| 62 | TMS95-62 | 2-1/4 x 3-3/8 | 20 | 4300 | 5 | 40 | |



HC48 HIGH CAPACITY SCRAPPER TORCH-CUTS UP TO 48"



HIGH CAPACITY HAND CUTTING TORCH FOR VICTOR® COMPATIBLE 2-285N NOZZLES

Flame Tech's HC series hand cutting torch is designed for rugged, heavy duty applications in foundries, scrap yards and steel mills. It is ideal for emergency billet cutting, removes skulls and risers or any heavy hand cutting requirements. Off-set 180° head allows the operator to widen the cut kerf by rotating the head and deepening the cut.

ORDERING INFORMATION

- HC48L-60-180 = 60" long, 180° Head with Lever
- HC48-60-180 = 60" long, 180° Head with Ball Valve

Standard length is 60 inches. Custom lengths available. 180° only.

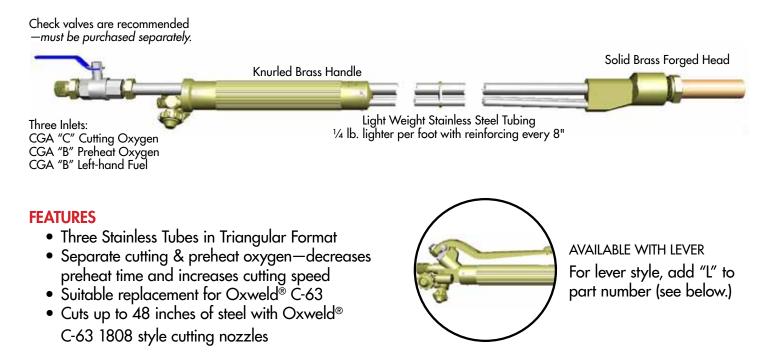
» SEE PAGE 29 FOR HIGH CAPACITY CUTTING NOZZLES







HC60 HIGH CAPACITY SCRAPPER TORCH-CUTS UP TO 48"



HIGH CAPACITY HAND CUTTING TORCH FOR ESAB® AND VICTOR® COMPATIBLE 1808 NOZZLES

Flame Tech's HC series hand cutting torch is designed for rugged, heavy duty applications in foundries, scrap yards and steel mills. It is ideal for emergency billet cutting, removes skulls and risers or any heavy hand cutting requirements. Off-set 180° head allows the operator to widen the cut kerf by rotating the head and deepening the cut.

ORDERING INFORMATION

- HC60L-60-180 = 60" long, 180° Head with Lever
- HC60-60-180 = 60" long, 180° Head with Ball Valve

Standard length is 60 inches. Custom lengths available. 180° only.

» SEE PAGE 29 FOR HIGH CAPACITY CUTTING NOZZLES



HIGH CAPACITY CUTTING NOZZLES—HC SERIES TORCHES

2-285N CUTTING NOZZLE

2-285N series nozzles are made from two pieces, with a solid copper shell & a brass internal, designed for fast starts and lower gas consumption.





| NOZZLE | | | GAS PRESSURE (PSI) | | | GAS CONSUMPTION (CFH) | | |
|-------------------------------|-------------|--------------------|-----------------------|-------------|--------------------|--------------------------|-------------|--------------------|
| CUTTING OXYGEN DIAMETER | P/N | METAL THICKNESS | CUTTING OXYGEN | FUEL GAS | PRE-HEAT OXYGEN | CUTTING OXYGEN | FUEL GAS | PRE-HEAT OXYGEN |
| .250 | .250-2-285N | 14"-20" | 25-45 | 15-25 | 25-50 | 1500-2400 | 60-120 | 250-400 |
| .312 | .312-2-285N | 20"-26" | 25-45 | 15-25 | 25-50 | 2300-3500 | 60-120 | 250-401 |
| .375 | .375-2-285N | 26"-34" | 25-45 | 15-25 | 25-50 | 2300-3900 | 60-121 | 250-402 |
| .437 | .437-2-285N | 34"-48" | 25-45 | 15-25 | 25-50 | 2400-4500 | 60-122 | 250-403 |

1808 CUTTING NOZZLE

1808 series nozzles are single piece solid copper nozzles. The single piece solid copper design allows for rapid heat transfer and longer rugged life.





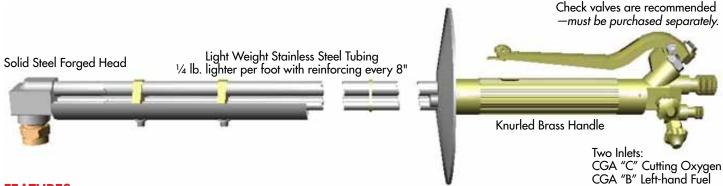
| NOZZLE | | | GAS PRESSURE (PSI) | | GAS CONSUMPTION (CFH) | | CLEANING DRILL SIZE | |
|--------|---------|--------------------|-----------------------|----------------|--------------------------|----------------|------------------------|---------|
| SIZE | P/N | METAL THICKNESS | OXYGEN | NATURAL GAS | OXYGEN | NATURAL GAS | PREHEAT | CUTTING |
| 30 | 1808-30 | 20"-40" | 65 | 21 | 5400 | 330 | #50 | 19/64" |
| 40 | 1808-40 | 40"-50" | 70 | 23 | 7700 | 360 | #49 | "X" |
| 50 | 1808-50 | OVER 50" | 75 | 24 | 9700 | 375 | #47 | 1/2" |



FLAME TECH®

EC-69F HEAVY DUTY EMERGENCY CUT-OFF TORCH-CUTS UP TO 30"

The Flame Tech's EC-69F is the latest state-of-the-art steel mill emergency cut-off torch. It offers the features and operational characteristics of a machine cut-off, yet is light enough to be easily handled.



FEATURES

- Custom Lengths—For 10' or longer, a reinforcing tube is recommended.
- Light Weight-Lengths up to 16' can be handled by a single operator.
- Fast Start-Rapid preheat, using cutting oxygen to assist start, decreases overall cutting time.
- Improved Cut Quality-By utilizing the same tip as our caster torches, a superior edge is achieved.
- Longer Stand-Off-Gives longer tip life and less torch damage and wear.

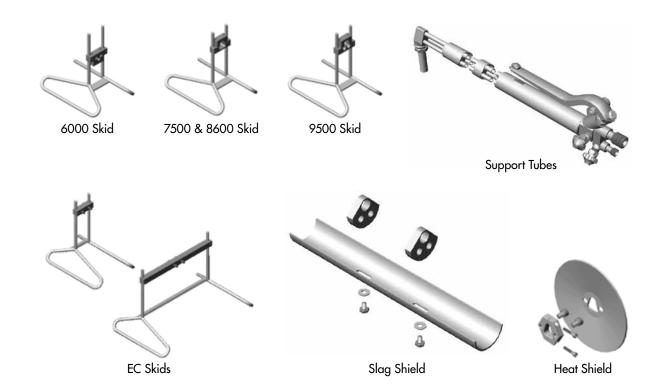


EC-69F NOZZLES

| STYLE | | SMCN-1 | SMCN-2 | SMCN-1 | SMCN-2 |
|--------------------------------|------|-----------|-----------|-----------|------------|
| | | (SDS-26F) | (SDS-33F) | (SDS-36F) | (SDS-403F) |
| (GEGA [®] COMPATIBLE) | | SMFNL-1 | SMFNL-2 | SMFNL-3 | SMFNL-4 |
| THICKNESS | in | 2–30 | 2–30 | 2–30 | 2–30 |
| INICKINESS | mm | 50–250 | 50–750 | 50–750 | 50–750 |
| CUTTING OXYGEN | psi | 140–250 | 115–200 | 115–160 | 130–175 |
| PRESSURE | bar | 9.7–17.4 | 8.0–13.9 | 8.0–11.1 | 9.0–12.0 |
| NATURAL GAS | psi | 15–30 | 15–30 | 15–30 | 15–30 |
| PRESSURE | bar | 1.0-2.1 | 1.0-2.1 | 1.0-2.1 | 1.0-2.1 |
| CUTTING SPEED | in/s | 6–11 | 7–9 | 7–9 | 7–11 |
| @ 20°C (170°F) | mm/s | 150-280 | 180-240 | 180–240 | 180–280 |
| CUTTING SPEED | in/s | 11–17 | 12–16 | 12–16 | 12–20 |
| @ 750°C (1400°F) | mm/s | 280-440 | 300-400 | 300-400 | 300–520 |
| NOZZLE DISTANCE | in | 4–6 | 4–6 | 4–6 | 4–6 |
| NOLLE DISTANCE | mm | 100–140 | 100–140 | 100–140 | 100–140 |



CUTTING TORCH SKID ASSEMBLIES & ACCESSORIES



| PART # | DESCRIPTION |
|-----------|---|
| 84925003 | SKID ASSEMBLY FOR 9500 & 9600 SERIES TORCHES |
| 84901011 | SKID CLAMP ONLY FOR 9500 & 9600 SERIES TORCHES |
| 84925002 | SKID ASSEMBLY FOR 6500, 8600 & 7500 SERIES |
| 84901010 | SKID CLAMP ONLY FOR 6500, 8600 & 7500 SERIES TORCHES |
| 84980001 | SKID ASSEMBLY FOR 6000 SERIES TORCHES, EXCEPT 6500 |
| 84901012 | SKID CLAMP ONLY FOR 6000 SERIES TORCHES, EXCEPT 6500 |
| 84901005 | SKID ONLY FOR 6000, 7500, 8500, 8600, 9500 & 9600 TORCHES |
| EC-SKID | SKID ASSEMBLY FOR EC SERIES TORCH |
| 84901013 | SKID ONLY FOR EC TORCH - WIDE |
| 84901007 | CLAMP ONLY FOR EC TORCH - WIDE |
| EC-L-SKID | SKID ASSEMBLY FOR EC SERIES 34" LONG FOR "I" BEAM BILLETS |
| 84901009 | SKID ONLY FOR 34" LONG FOR EC-L TORCH |
| 84901015 | CLAMP ONLY FOR EC 34 FOR EC-L TORCH |
| 83900002 | SLAG SHIELD |
| 93001129 | SUPPORT TUBE |
| 82700005 | HEAT SHIELD ASSEMBLY |
| 82700002 | HEAT SHIELD CLAMP ONLY FOR 82700005 |
| 82700001 | HEAT SHIELD ONLY FOR 82700005 |





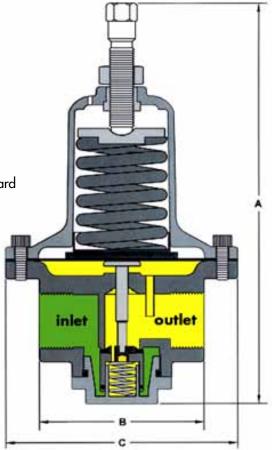
Heavy Duty Line & Station Equipment <u>FLAME TECH® LINE REGULATORS (FTLR) SERIES</u>

FTLR regulators provide reliable, precise pressure control in the most demanding applications. Flame Tech's FTLR regulators have a fully balanced design which virtually eliminates delivery pressure fluctuations due to inlet pressure variations. All regulators are 100% factory tested.



MATERIALS

- Body & Spring Chamber: Forged Brass
- Diaphragm: GLT Viton on Nomex Diaphragm
- Adjustment Spring : Color Coded, Chrome Vanadium
- Valve Spring: 302 Stainless Steel
- Other Valve Parts: Brass
- Seat & O-Rings: GLT Viton is standard



FEATURES

Optimized venturi and spring design assures high flow with extremely low droop characteristics.

Solid non-tied diaphragm and all brass construction guarantees leak-free long lasting performance.

Maintains a steady down stream pressure across a range of inlet pressures commonly provided by a cryogenic bulk tank.

Corrosion resistant stainless steel trim.

TECHNICAL DATA

Maximum inlet pressure is 400 PSIG.

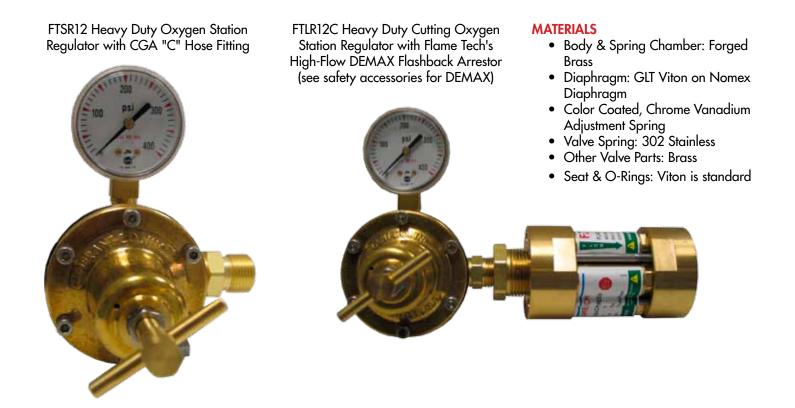
Effect of inlet pressure variation less than .25 PSIG/100 PSIG change.

Cleaned per CGA G-4.1 for oxygen service.



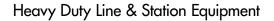
FLAME TECH® STATION REGULATORS (FTSR) SERIES

Flame Tech® Station Regulators (FTSR) series provide reliable, precise pressure control in the most demanding applications. Flame Tech's FTSR regulators have a fully balanced design which virtually eliminates delivery pressure fluctuations due to inlet pressure variations. All regulators are 100% factory tested.



| | P/N | DESCRIPTION |
|----------|----------|--|
| Fuel Gas | FTSR12-A | 5-55 PSI REGULATOR, 1/2"NPT INLET, LH CGA "B" HOSE FITTING |
| ruel Gas | FISRIZ-A | COMPLETE WITH FT5575-GP PRESSURE GAUGE, 1-60 PSI RANGE |
| Oxygen | FTSR12-B | 40-110 PSI REGULATOR, 1/2"NPT INLET, RH CGA "B" HOSE FITTING, |
| | | COMPLETE WITH FTS1679 PRESSURE GAUGE, 1-200 PSI RANGE |
| | FTSR12-C | 100-200 PSI REGULATOR, 1/2"NPT INLET, RH CGA "C" HOSE FITTING, |
| | | COMPLETE WITH FT15578-GP PRESSURE GAUGE, 1-400 PSI RANGE |





FTLR14 (1/4") & FTLR12 (1/2")

HEAVY DUTY STATION REGULATORS

Flame Tech® Station Regulators (FTSR) series provide reliable, precise pressure control in the most demanding applications. Flame Tech's FTSR regulators have a fully balanced design which virtually eliminates delivery pressure fluctuations due to inlet pressure variations. All regulators are 100% factory tested.

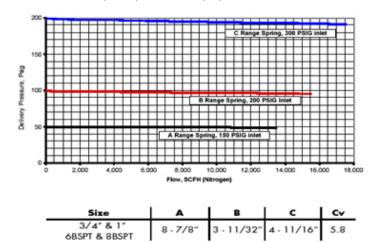
FLOW CURVE



Cv is stated at maximum inlet pressure and valve full open

FLOW CURVE

FTLR34 (3/4") & FTLR1 (1")



FLAME TECH®

ORDERING INFORMATION FTLR SERIES REGULATORS

| FLAME TECH | DELIVERY PRESSURE RANGE (PSIG) | PRESSURE GAUGE RANGE (PSI)* | GAUGE PART # | INLET & OUTLET (FNPT) |
|------------|--------------------------------------|---------------------------------|--------------|--------------------------|
| FTLR12A | 5-55 | 1-60 | FT5575-GP | 1/2" |
| FTLR12B | 40-110 | 1-200 | FTS1679 | 1/2" |
| FTLR12C | 100-200 | 1-400 | FT15578 | 1/2" |
| FTLR34A | 5-55 | 1-60 | FT5575-GP | 3/4" |
| FTLR34B | 40-110 | 1-200 | FTS1679 | 3/4" |
| FTLR34C | 100-200 | 1-400 | FT15578 | 3/4" |
| FTLR1A | 5-55 | 1-60 | FT5575-GP |]" |
| FTLR1B | 40-110 | 1-200 | FTS1679 | 1" |
| FTLR1C | 100-200 | 1-400 | FT15578 | 1" |

GAUGES

Gauges are sold separately. Order recommended gauge with selected regulator.

- FT5575-GP 0-60 psi
- FTS1679 0-200 psi
- FT15578 0-400 psi

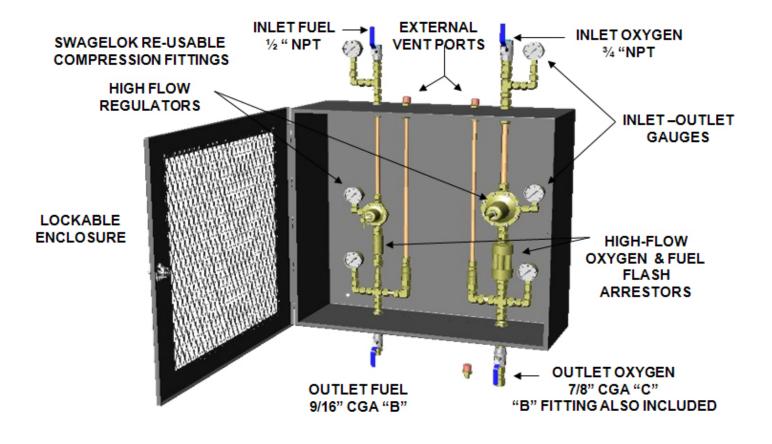




Drop Station Regulator Enclosures <u>2 HOSE OPERATION (DSE-2)</u>

The DSE-2 contains one (1) high flow cutting oxygen regulator and one (1) high flow fuel gas regulator. The DSE-2 also contains (1) DG91N (fuel) and (1) DEMAX (oxygen) Flash Arrestors as well as shutoff ball valves mounted outside the DSE-2 enclosure. Relief valves with an external vent port are connected to the fuel and oxygen lines. Swagelok re-usable compression fittings are used throughout the system to eliminate Teflon thread tape and to allow quick replacement of failed components. A lockable enclosure with an expanded-metal viewport allows operators to view the pressure gauges while allowing ventilation of the cabinet for safety purposes. Outlet valves come with end caps. The standard connector configuration for the DSE-2 is as follows:

- ³/₄" NPT Female oxygen inlet connection
- CGA "B" Male (9/16-18 UNF) oxygen outlet connection
- CGA "C" Male (7/8-14 UNF) adapter fitting is included with the DSE-2 to allow connections to CGA "C" hose fittings.
- $\frac{1}{2''}$ NPT Female fuel gas inlet connection
- CGA "B" LH Male (9/16-18 LH UNF) fuel gas outlet connection



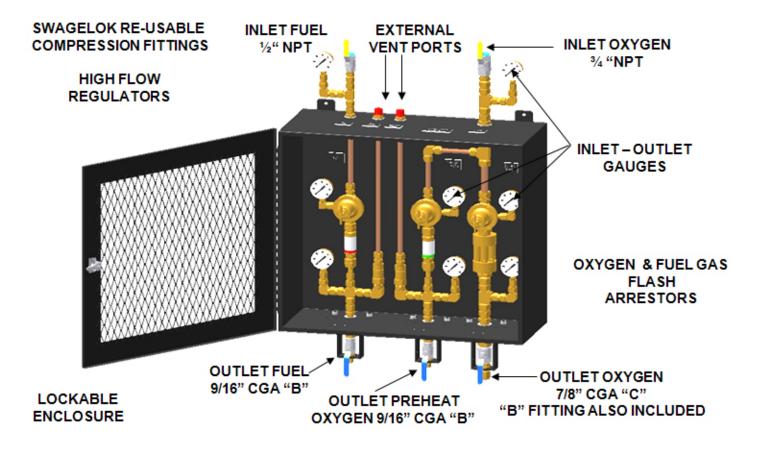




3 HOSE OPERATION (DSE-3)

The DSE-3 contains one (1) high flow cutting oxygen regulator, one (1) high flow pre-heat oxygen regulator, and one (1) high flow fuel gas regulator. The DSE-3 also contains two (2) DG91N Flash Arrestors (one preheat oxygen, one fuel) and one each DEMAX Cutting Oxygen Flash Arrestor as well as shutoff ball valves mounted outside the DSE-3 enclosure. Relief valves with external vent ports are connected to the fuel line and pre-heat oxygen lines. Swagelok re-usable compression fittings are used throughout the system to allow quick replacement of failed components. A lockable enclosure with an expanded-metal viewport allows operators to view the pressure gauges while allowing ventilation of the cabinet for safety purposes. Multiple pressure gauges provide readings on supply pressures, regulator pressures, and post-flash arrestor pressures to provide accurate readings throughout the system. The standard connector configuration for the DSE-3 is as follows:

- ³/₄" NPT Female oxygen inlet connection
- CGA "C" Male (7/8-14 UNF) cutting oxygen outlet connection
- CGA "B" Male (9/16-18 UNF) pre-heat oxygen outlet connection
- 1/2" NPT Female fuel gas inlet connection
- CGA "B" LH Male (9/16-18 LH UNF) fuel gas outlet connection



DROP STATION ENCLOSURE WITH REMOTE IGNITION (DSE-2-S)

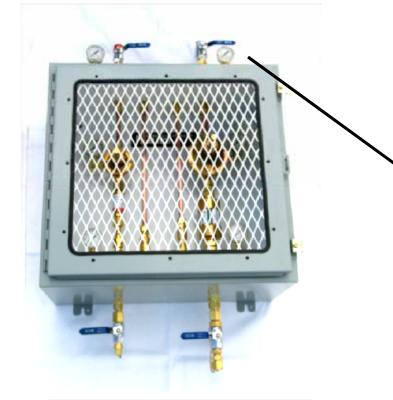


Remote Ignition Control Box





DROP STATION REGULATOR ENCLOSURE DSE 2

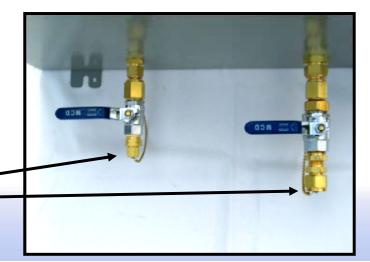


Inlet Pressure Gauges c/w shut-off valves



In-Line Flash Arrestors DG91N Fuel Gas & DEMAX Oxygen

Outlet valves c/w end caps





Tel: 800-749-3682 Fax: 800-460-8474

DROP-IN REPLACEMENT REGULATORS

FLAME TECH introduces the *GMR* (Gas Mizer Regulator) for Drop-In GeGa® compatible regulator replacement. The *GMR* series regulators are designed primarily for heavy duty manifold regulation of the primary Cutting Oxygen, Fuel Gas and the Preheat Fuel Gases for the Strand Cut-Off machine systems. The NEW *GMR* Series regulators have a balanced seat for constant delivery pressure regardless of inlet fluctuations. Constructed with oxygen compatible materials.

Replace your old GeGa® Regulators with Flame Tech's NEW Drop-In *GMR* Series (Same Dimensions & Fittings for ease of installation)



- Inlet and Outlet have ³/₄ NPT Female connections for quick drop in replacement and ease of service.
- Easily serviced and parts readily available
- Maintains a steady down stream of pressure across a range of inlet pressures commonly provided by a cryogenic bulk tank.
- Large seat and diaphragm areas provide high capacity with sensitive control of delivery pressure with low falloff.





FLAME TECH® GMR series regulators are designed primarily for heavy duty regulation of a variety of gases in industry piping systems, steel mill systems, and manifold systems. The GMR Series Regulators provide reliable, precise pressure control in the most demanding applications.

FEATURES:

Optimized venturi and spring design assures high flow with extremely low droop characteristics.

Solid non-tied diaphragm and all brass construction guarantees Leak-free long lasting performance.

Maintains a steady down stream pressure across a range of inlet pressure commonly provided by a cryogenic bulk tank.

TECHNICAL DATA:

Maximum inlet pressure is 400 psig

Effect of inlet pressure variation less than .25 Psig/100 Psig change

Cleaned per CGA G-4.1 for oxygen service

ORDERING INFORMATION

| PART # | DESCRIPTION |
|--------|--|
| GMR-F | Fuel Gas Regulator Replacement System |
| GMR-PO | Preheat Oxygen Regulator Replacement System |
| GMR-CO | Cutting Oxygen Regulator Replacement System |

GeGa® is a registered trademark for GeGa Lotz GmbH. Flame Technologies® is not affiliated or endorsed by the aforementioned company.



FLAME TECH®

GMR-F & GMR-PO



GMR-CO System uses Flame Tech's New GMR Series of Regulators



See Heavy Duty Steel Mill Regulators



MANIFOLDS & GAS FLOW SYSTEMS

Flame Tech manufactures a complete line of standard and Customized Manifold Stations for Steel Mill and Foundry applications. When was the last time you checked your manifold for accuracy and safety requirements?

MANIFOLDS

Flame Tech's manifold systems regulate pressures and flows of fuel gas and oxygen from the main supply to the cutting torches. Flame Tech's systems are designed for new applications, retrofit of existing systems, or turn-key replacements.

GAS MIZER™

LOWER GAS CONSUMPTION



Manifolds incorporating our "GAS MIZER" option manage Fuel Gas and Oxygen flow, which reduce gas consumption during torch stand-by mode. 70+% reduction in gas consumption has been realized in many applications saving from \$10K to several \$100K for Steel Mill caster operations and emergency cut-off stations.

DOES YOUR CASTER GAS CONTROL PANEL LOOK LIKE THIS?



BEFORE

PHOTO OF TYPICAL CASTER REGULATOR CONTROL SYSTEM

WHEN IT COULD LOOK LIKE THIS!



AFTER

PHOTO FEATURES FLAME TECH 4-TORCH GAS MIZER FTGM-4

Every installed part is cleaned for oxygen service and meets OSHA and UL requirements







4-Torch GAS MIZER™ FTGM-4



Expanded Metal Doors allow viewing of gages without opening locked doors



³⁄4"NPT outlet connections grouped by torch



All brass and copper components for long life. Swagelok reusable fittings for quick component replacement



Control Panel pre-wired and tested



1-1/2" NPT Inlet Connections for Oxygen and Fuel

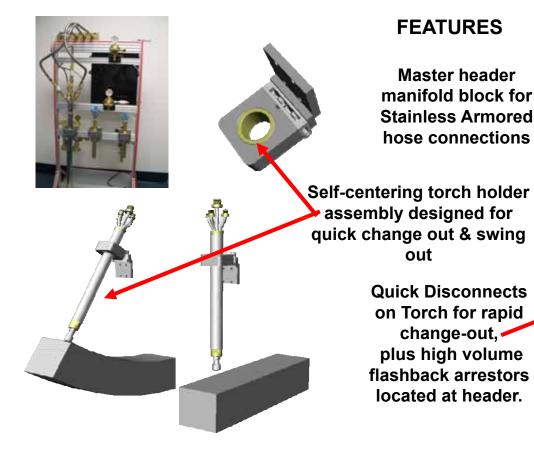


Every installed part is cleaned for oxygen service and meets OSHA and UL requirements



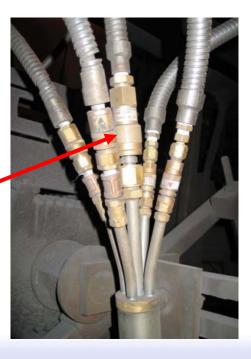
QUICK DISCONNECT Swing-Away-Torch Holder System

Swing away torch holder assembly is designed to Kick-Up and swing away in the event of billet impact PLUS, quick disconnect torch change out system.









ORDERING INFORMATION

CONTACT FLAME TECH FOR A CUSTOM PROPOSAL

orders@flametechnologies.com







This new swing away torch holder assembly is designed to Kick-Up and swing away in the event of billet impact.



FLAME TECH®



NEWI



PN# TC-138: Torch Collar Fits any 1 3/8" Barrel Torches

PN# TC-2: 2" Torch Collar Fits any 2" or 50 mm Torches

Flame Tech <u>Swing-Away-T</u>orch-<u>H</u>older

This new Swing-Away-Torch assembly is designed to swing up the torch in the event a warped or rogue billet hits the torch reducing torch damage. The Brass Collar attaches to the torch which allows for quick torch interchangeability, replacement or maintenance.



Torch quickly pulls up and away in the event replacement is necessary.

ORDERING INFORMATION

| ltem | Part # | Description |
|------|----------|---|
| 1 | SATH-2 | Swing-Away-Holder assembly with 2" brass collar |
| 2 | SATH-138 | Swing-Away-Holder assembly with 1-3/8" brass collar |
| 3 | TH-1 | Torch Holder Swing-Away Block Only |
| 4 | TC-2 | Torch Collar Brass 2" |
| 5 | 5C-138 | Torch Collar Brass 1-3/8" |



TUNDISH PLUGS





STEEL INDUSTRY PRODUCTS & SERVICES



Tundish Plugs

Flame Manufactures solid Copper Plugs In sizes 2 ¹/₂" to 5 ¹/₂". We also can manufacture custom sizes upon request. Contact Flame Tech for pricing and delivery.

BIG OR SMALL WE FIT THEM ALL





Safety Accessories

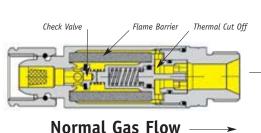
WHAT ARE FLASHBACK ARRESTORS

Flashback Arrestors prevent reverse flow of gases with built-in check valves and extinguishes flashback fire with a stainless steel sintered element.

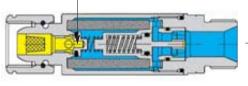
HOW FLASHBACK ARRESTORS WORK



Torch Type (GG)

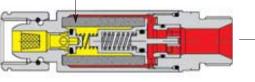


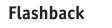
Built-in check valve stops the reverse flow of mixed gases



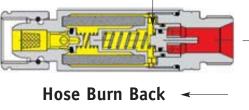
Reverse Gas Flow -

Flame barrier quenching flashback flame





Thermal shut off* cutting off gas flow to fire



* Regulator and Point of Supply (in line) arrestors only

through the flashback arrestor to torch, hose, or pipeline.

Normal gas flow shown in yellow flowing

Here the reverse flow of an explosive mixture of gases depicted in blue is stopped by the flashback arrestor's built in check valve. Reverse flow of gases is often caused by operator error, improper gas pressures, faulty or defective equipment, and/or obstruction at or after the point where gases mixed.

The next step is the ignition of the mixed gases called a flashback shown here in red. The flashback causes a rapid flame propagation upstream to the equipment and gas supply. Here it is stopped by the flame barrier. Flashback can cause serious personal injury and/or equipment damage.

Hose burn back shown here in red is an oxygen enriched fire or fuel gas decomposition in the hose or pipeline which flows back to the equipment and gas supply. In the illustration the hose burn back is stopped by the thermal cut off.





Regulator Type (DGN)



High Volume Type for In-Line and Point of Supply (SIMAX 3 & 5)



TORCH & REGULATOR FLASHBACK ARRESTORS

Prevent reverse flow of gases with built-in check valves. Extinguishes flashback fire with stainless steel sintered element.

FEATURES

- GG/DGN Series: For use up to size 6 cutting tip.
- DG91UA/DG91N Series: For use up to size 12 cutting tip.
- Quality Manufactured internal valve and spring made from stainless steel for longer life.
- 100% tested
- Conforms to OSHA Regulations

| GG AIRFLOW | | DGN AIRFLOW | | LOW | |
|-------------------------|------------------|-------------|-------------------------|------------------|---|
| INLET PRESSURE (PSI) | AIRFLOW (CFH) | | INLET PRESSURE (PSI) | AIRFLOW (CFH) | |
| 7.3 | 100.0 | | 7.3 | 141.0 | |
| 14.5 | 197.0 | | 14.5 | 268.0 | |
| 21.8 | 309.0 | | 21.8 | 390.0 | |
| 36.3 | 521.0 | | 36.3 | 651.0 | |
| 72.7 | 929.0 | | 72.7 | 1153.0 | Torch Type Regulator Type (GG) (DGN) |

STANDARD FLOW (UP TO SIZE 6 TIP)

HIGH FLOW (UP TO SIZE 12 TIP)

| DG91N & DG91UA AIRFLOW | | | |
|-------------------------|------------------|--|--|
| INLET PRESSURE (PSI) | AIRFLOW (CFH) | | |
| 7.3 | 231.0 | | |
| 14.5 | 465.0 | | |
| 21.8 | 725.0 | | |
| 36.3 | 1041.0 | | |
| 72.7 | 1933.0 | | |

Torch Type (DG91UA)









IN LINE AND POINT OF SUPPLY-DEMAX SERIES

The DEMAX Flame Tech Flash Arrestors are ideal for high volume gas flow applications in pipelines, manifolds and regulators. The DEMAX includes an inlet filter, reverse flow check valve, flame barrier, and thermal cut off in one compact brass body.

APPROVAL & SPECIFICATIONS

- Meets ANSI Z49.1 1999 Safety Guide Lines, OSHA, NFPA Guide Lines.
- UL Listed 23Y5.

SAFETY ELEMENTS

- One Inlet Filter Included (100 micron)
- Reverse Flow Check Valve
- Flame Barrier
- Thermal Cut Off

MATERIALS

- BODY: Brass, Alloy 360
- INTERNALS: Brass
- FLAME BARRIER: Stainless Steel
- ELASTOMERS: Neoprene (NPR)



DEMAX AIR FLOW

| INLET PRESSURE (PSIG) | AIRFLOW (CFH) |
|--------------------------|------------------|
| 4.6 | 265 |
| 14.6 | 920 |
| 21.9 | 1593 |
| 36 | 2100 |
| 72 | 4000 |
| 109 | 6125 |
| 145 | 8200 |
| 290 | 13,000 |

PART NUMBERS

- 0901-7000 Fuel Gas, 1" Female NPT Inlet/Outlet, DEMAX Style
- 0901-7001 Oxygen, 1" Female NPT Inlet/Outlet, DEMAX Style

WORKING PRESSURE

| GAS | PSIG |
|-----------|------|
| ACETYLENE | 15 |
| HYDROGEN | 50 |
| LPG | 50 |
| OXYGEN | 143 |



IN LINE AND POINT OF SUPPLY - SIMAX SERIES

The (SIMAX) Flame Tech Flash Arrestor series provide a full range of dry type (no water or fluid to check or replenish) flashback, gas reverse flow, and hose burn back protection in a compact economical package. SIMAX series flashback arrestors are approved safety devices under ANSI Z49.1999 safety guidelines and help meet OSHA, NFPA, and other strict industry Safety standards (see listings of approvals and specifications below). They are ideal for high volume gas flow applications in pipelines and manifolds. SIMAX units available in sizes 3, 5 & 8 with optional pipe away relief valve assemblies.

APPROVAL & SPECIFICATIONS

 UL Listed 23Y5, ISO 5175, BS 6158, EN 730 (BAM / DIN), AS 4603

SAFETY ELEMENTS

- Inlet filter (100 micron)
- Reverse Flow Check Valve
- Flame Barrier
- Thermal Cut Off Valve

MATERIALS

- BODY: Brass, Alloy 360
- INTERNALS: Brass
- FLAME BARRIER: Stainless Steel
- ELASTOMERS: Neoprene (NPR)

Relief Valve 0901-3007 Required by NFPA 51

GAS TYPE CONVERSION FACTORS

| GAS TYPE | FACTOR |
|---------------------|--------|
| ACETYLENE | 1.05 |
| BUTANE | 0.70 |
| HYDROGEN | 3.79 |
| PROPYLENE | 0.82 |
| METHANE/NATURAL GAS | 1.34 |
| OXYGEN | 0.95 |
| PROPANE | 0.80 |

Fuel Gas (SIMAX-3 Style)

Oxygen (SIMAX-5 Style)

| PSIG | 21.9 | 36.5 | 73 | 145.9 | 286 |
|---------|------|------|-------|-------|-------|
| BAR | 1.5 | 2.5 | 5 | 10 | 20 |
| SIMAX-3 | 1904 | 2618 | 5202 | 9860 | 20400 |
| SIMAX-5 | 3060 | 4352 | 8670 | 16150 | 33150 |
| SIMAX-8 | 5168 | 5670 | 13872 | 26180 | 53040 |





High Volume in line Flash Arrestors and Relief Valves

| PART # | DESCRIPTION |
|-----------|---|
| 0901-3000 | Fuel Gas, 1" NPT, SIMAX 3 Style |
| 0901-3001 | Oxygen, 1" NPT, SIMAX 3 Style |
| 0901-3007 | Propylene, Pipe-away "T" Relief Valve (75psi), SIMAX 3 Style |
| 0901-3010 | Fuel Gas, Flash Arrestor with attached Relief Valve,1" NPT, SIMAX 3 Style |
| 0901-3011 | Oxygen, Flash Arrestor with attached Relief Valve, 1" NPT, SIMAX 3 Style |
| 0901-5010 | Fuel Gas, Flash Arrestor with Relief Valve, 1" NPT, SIMEX 5 Style |
| 0901-5011 | Oxygen, Flash Arrestor with Relief Valve, 1" NPT, SIMAX 5 Style |

AIR FLOW TABLE (FT³ /h)

| PSIG | 21.9 | 36.5 | 73 | 145.9 | 286 |
|---------|------|------|-------|-------|-------|
| BAR | 1.5 | 2.5 | 5 | 10 | 20 |
| SIMAX-3 | 1904 | 2618 | 5202 | 9860 | 20400 |
| SIMAX-5 | 3060 | 4352 | 8670 | 16150 | 33150 |
| SIMAX-8 | 5168 | 5670 | 13872 | 26180 | 53040 |

GAS TYPE CONVERSION FACTOR

| ACETYLENE | 1.05 |
|---------------------|------|
| BUTANE | 0.7 |
| HYDROGEN | 3.79 |
| MAPP / PROPYLENE | 0.82 |
| METHANE/NATURAL GAS | 1.34 |
| OXYGEN | 0.95 |
| PROPANE | 0.8 |



QUICK CONNECTORS

FEATURES

- Long lasting stainless steel pin connection
- Automatic gas cut off feature to positively shut off the gas supply when disconnecting
- All brass construction with durable stainless steel coupling pins reduces breakage and wear plus they meet ISO 7289, EN561 standards
- Double O-ring seal
- Color coded for gas service
- Quick connectors available with built-in flashback arrestors

TORCH TYPE QUICK CONNECTORS

DKG/D1 CGA "B" Size, 9/16" UNF. Fuel Gas & Oxygen with Automatic Gas Shut-Off Quick Disconnect System.



Oxygen Fuel Gas Oxy-Fuel Set



0901-8101

0901-8100

0901-0092

PINS For Torches use D1 Pin. For Regulators use D4 Pin.



D1 Torch

D4 Regulator

D1 Pin Oxygen D1 Pin Fuel Gas D4 Pin Oxygen D4 Pin Fuel Gas



0901-00 0901-00 0901-00 0901-00

GKD/G1 "C" Size, 7/8" UNF. Fuel Gas & Oxygen with Automatic Gas Shut-Off Quick Disconnect System. For use with 3/8" hose.



|)08 | GKD/G1 Oxygen | 0901-6001 |
|-----|-----------------|-----------|
|)03 | GKD/G1 Fuel Gas | 0901-6000 |
|)09 | G1 Pin Oxygen | 0901-0004 |
|)05 | G1 Pin Fuel Gas | 0901-0006 |





OXYGEN & FUEL GAS LINE FILTERS



STANDARD CONNECTIONS:

- 1" NPT F / 1" NPT F
- Other connections available upon request

GAS-TYPES:

- Acetylene
- Natural Gas
- Oxygen
- Inert Gases

For installation in the gas supply lines to protect working tools and regulators against contaminations. Helps to increase the service life of downstream fittings and equipment.

Working Pressure: 600 PSI

Exchangeable 80 micron sintered metal filter.

OXYGEN FILTER

MODEL: FT-OF Filter Assembly P/N: 0901-5515 Replacement Cartridge: 0901-5335

One replacement cartridge is required per line filter.

FUEL GAS FILTER

MODEL: FT-GF Filter Assembly P/N: 0901-5500 Replacement Cartridge: 0901-5330

One replacement cartridge is required per line filter.

DESIGN:

- Body is Brass
- Cartridge housing is stainless steel
- Other materials on request

NOMINAL PRESSURES:

- Fuel Gas: 240 PSIG
- Oxidizers: 590 PSIG









For customer support or to place an order Call Toll Free: 800-749-3682 Fax Toll Free: 800-460-8474 SERVICE: customerservice@flametechnologies.com PURCHASE ORDERS: orders@flametechnologies.com

Flame Technologies, Inc.

P.O. Box 1776 Cedar Park, TX 78630 http://www.flametechnologies.com