

Catalog 106
Rev May 2023



BURNERS INCORPORATED

MANUFACTURERS OF QUALITY PRODUCTS FOR MORE THAN 60 YEARS

TURNING YOUR IDEA ... INTO PRODUCT ...

Burners, Inc. is more than a manufacturer. We are also setup to run single piece, or small lot production runs. We work with our customers and have turned many of their designs into working systems.

DESIGN and CONSULTATION

ENGINEERING and QUALITY

PROTO-TYPE DEVELOPMENT

PRODUCTION and MANUFACTURING

AUTOMATION and INTERGRATION



Send us your specifications or requirements for review. We will contact you immediately to discuss your project.

Turning your ideas into working product.

CONTINUOUS IMPROVEMENT ...

We live in a changing world. Everyday we see advances in industries all around us.



At Burners, Inc., we are always looking at different design principals in the hopes to improve on our existing products and production methods. From simple fabrication designs—to sophisticated automated control and information management systems, investigating the latest available technology is a standard practice in our product design and manufacturing development.

Let us show you how we can help you.

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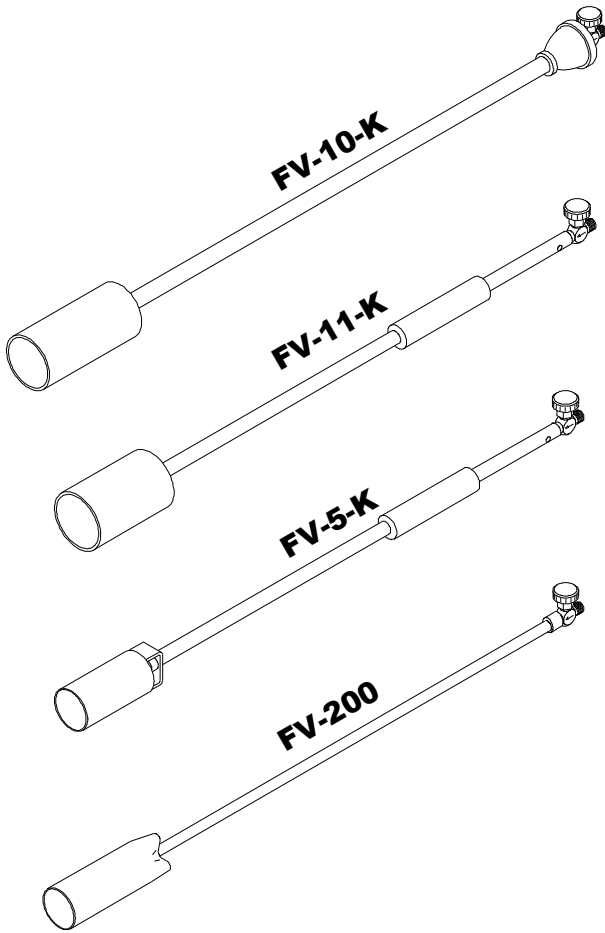
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Vapor Propane Utility Torches - Tank Pressure

Burners, Inc. utility torches are built tough, with all welded and steel construction. All of our torches are ideal for weed burning, asphalt feathering, stump burning, spot drying, heating & thawing, as well as many other commercial and agricultural uses.

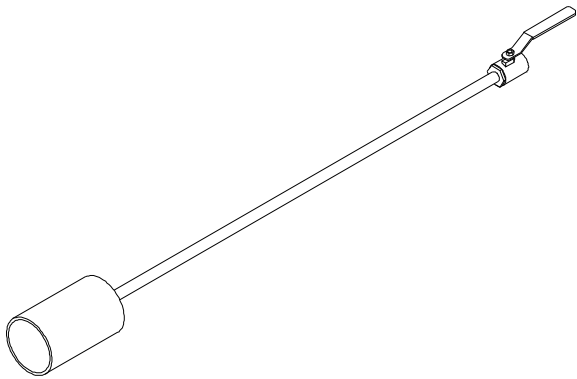
With the ability to operate on tank pressure, these torches are designed for simple convenience. Complete with tank connectors, 10 feet of LPG hose and striker, all you need is a propane tank and you're ready to go.

| M/N | BTU RATING | PRES. | DIA. | LGTH | HOSE | TORCH WT. |
|---|---------------|-------|--------|------|--------|-----------|
| Contractor Grade - Heavy Duty - High Output | | | | | | |
| FV-10-K | 600,000 btu/h | tank | 3" | 36" | 10 ft | 4.8 lbs. |
| Commercial Grade - Built Tough with a cushion grip | | | | | | |
| FV-11-K | 400,000 btu/h | tank | 3" | 32" | 10 ft | 3.0 lbs. |
| Utility Grade - Compact with a cushion grip | | | | | | |
| FV-5-K | 300,000 btu/h | tank | 1-7/8" | 32" | 10 ft" | 3.0 lbs. |
| Utility Grade - Economical & Efficient | | | | | | |
| FV-200 | 200,000 btu/h | tank | 1-7/8" | 32" | 10 ft" | 2.8 lbs. |

All kits include:

- LP Gas (propane) Torch
- 1/4" x 10 foot UL Listed LPG Hose
- Tank Connector (POL style) - Fits most tanks
- Flint Striker
- Instruction Manual

* - Some torches may also be purchased individually, without hose & connectors.

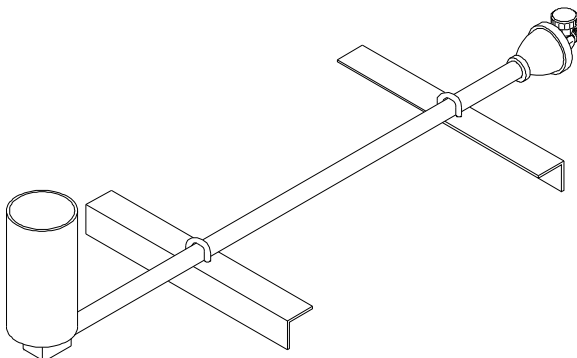


Vapor Propane Utility Torches - Standard

These utility torches are great, economical sources of portable heat. Used for a wide variety of spot heating such as weed burning, pre-heating, thawing, stump burning & melting.

A gas pressure regulator is required for proper operation.

| M/N | BTU RATING | PRES. | DIA. | LGTH | TORCH WT. |
|-------|---------------|--------|--------|------|-----------|
| FV-20 | 200,000 btu/h | 30 psi | 2-3/4" | 30" | 2.0 lbs. |
| FV-21 | 200,000 btu/h | 30 psi | 2-3/4" | 42" | 2.5 lbs. |
| FV-30 | 300,000 btu/h | 30 psi | 3-1/2" | 32" | 3.0 lbs. |
| FV-31 | 300,000 btu/h | 30 psi | 3-1/2" | 44" | 3.5 lbs. |
| FV-50 | 500,000 btu/h | 30 psi | 4-1/2" | 51" | 6.5 lbs. |



Vapor Propane Utility Torch/Burner

The FV-12-K Torch / Burner Kit is ideal for boiling and cooking large quantities of water & food.

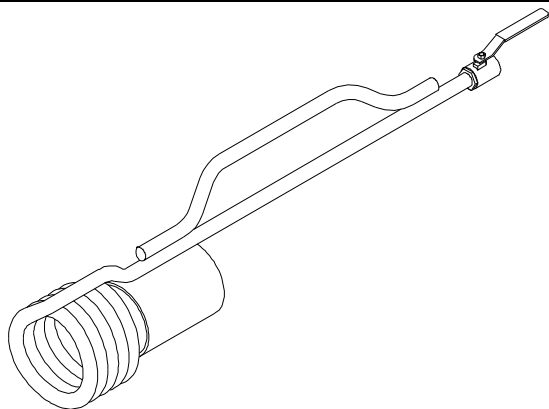
With less than 9" of vertical height, the FV-12 is designed to slide under most outdoor cooking equipment.

Our remote valve keeps your hands away from the heat when adjusting the flame height or intensity.

The FV-12-K can be used with or without a pressure regulator.

Complete with Torch/Burner, (2) adjustable mounting stands, 10 feet of hose, LP Gas propane tank connector and a flint striker.

| M/N | BTU RATING | PRES. | DIA. | LGTH | HEIGHT | WEIGHT |
|---------|---------------|-------|------|------|--------|---------|
| FV-12-K | 500,000 btu/h | Tank | 3" | 41" | 9" | 10 lbs. |



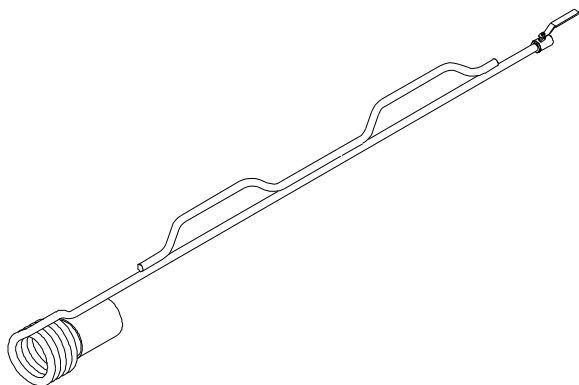
Liquid Propane Utility Torches - Standard

Liquid propane torches are used when quick spot heating is required. Our short handle style allows the operator mobility and portability. Liquid propane torches work great at any temperature and won't cause the tank to freeze up.

With the ability to operate on a wide variety of pressures, these torches are designed for steady operation - regardless of fuel level or ambient temperatures.

A gas pressure regulator & hydrostatic relief valve are required for proper operation.

| M/N | BTU RATING | PRES. | DIA. | LGTH | TORCH WT. |
|--------|---------------|--------|--------|------|-----------|
| FL-10 | 100,000 btu/h | 30 psi | 2-7/8" | 27" | 2.0 lbs. |
| FL-6-S | 200,000 btu/h | 30 psi | 3-1/2" | 27" | 4.0 lbs. |
| FL-3-S | 500,000 btu/h | 30 psi | 4-3/4" | 28" | 6.0 lbs. |



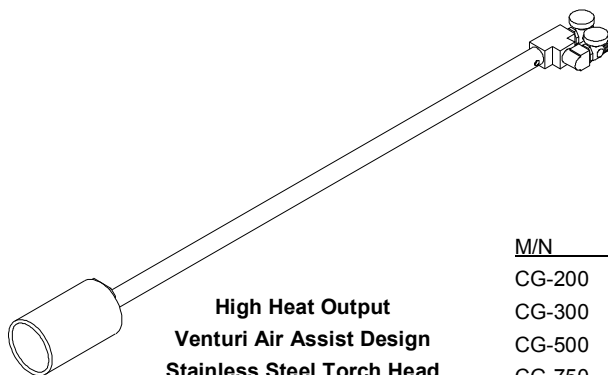
Liquid Propane Utility Torches - Long

Long style propane torches give the same great benefits as the short except the long handle gives the operator the convenience of using two hands to hold the torch, when extended periods of operation are required.

With the ability to operate on a wide variety of pressures, these torches are designed for steady operation - regardless of fuel level or ambient temperatures.

A gas pressure regulator & hydrostatic relief valve are required for proper operation.

| M/N | BTU RATING | PRES. | DIA. | LGTH | TORCH WT. |
|--------|---------------|--------|--------|------|-----------|
| FL-6-L | 200,000 btu/h | 30 psi | 3-1/2" | 57" | 7.0 lbs. |
| FL-3-L | 500,000 btu/h | 30 psi | 4-3/4" | 60" | 8.0 lbs. |
| FL-8 | 2.0 mil btu/h | 30 psi | 6" | 62" | 15.0 lbs. |



High Heat Output
Venturi Air Assist Design
Stainless Steel Torch Head
Over 2,000°F Flame Temperature

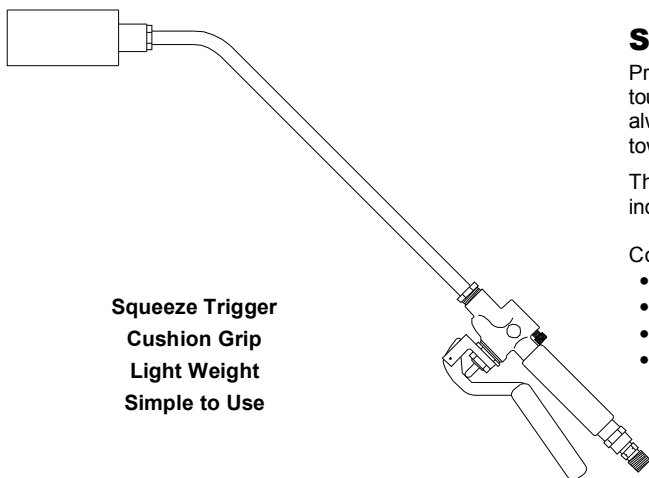
Compressed Air - Gas Utility Torch

The CG series Compressed Air & Gas Utility Torches are designed for high intensity direct heating applications. By using compressed air and a venturi mixer, the CG series torches mix either LPG or Natural Gas into a concentrated and directional flame output.

Features include, dual adjustable gas & air valves & stainless steel torch head.

REQUIRES COMPRESSED AIR SUPPLIED AT 25psi - 120 psi

| M/N | BTU RATING | GAS PRES. | AIR RATE | DIA. | LGTH | TORCH WT. |
|---------|---------------|--------------|----------|--------|------|-----------|
| CG-200 | 200,000 btu/h | 1/2 - 30 psi | 3 cfm | 1-7/8" | 31" | 4.0 lbs. |
| CG-300 | 300,000 btu/h | 1/2 - 30 psi | 5 cfm | 2-3/8" | 33" | 5.0 lbs. |
| CG-500 | 500,000 btu/h | 1/2 - 30 psi | 10 cfm | 2-7/8" | 45" | 6.0 lbs. |
| CG-750 | 750,000 btu/h | 1/2 - 30 psi | 20 cfm | 3-3/8" | 59" | 7.0 lbs. |
| CG-1000 | 1.0 mil btu/h | 1/2 - 30 psi | 25 cfm | 4" | 66" | 9.0 lbs. |
| CG-1500 | 1.5 mil btu/h | 1/2 - 30 psi | 40 cfm | 4-1/2" | 73" | 11.0 lbs. |



Squeeze Trigger
Cushion Grip
Light Weight
Simple to Use

Squeeze Trigger Hand Torch - Standard

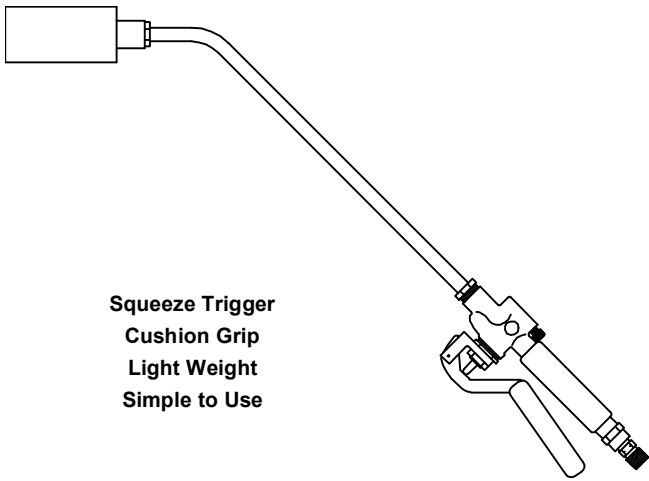
Primarily designed for the roofing & paving industries, the FV-15 hand torch is built tough and easy to use. With an adjustable standing pilot flame, the FV-15 torch is always ready to go, just squeeze the trigger, and a full force flame is released towards your work area.

The FV-15 torch has been used for other applications as well, like shrink wrapping, industrial processing, floor & road drying.

Complete with:

- FV-15 Torch Assembly
- Adjustable propane gas regulator
- 25 feet of propane gas hose
- Striker, Stand & Instruction Manual

| M/N | BTU RATING | PRES. | DIA. | LGTH | TORCH WT. |
|---------|---------------|--------|------|------|-----------|
| FV-15-K | 520,000 btu/h | 55 psi | 2" | 32" | 2.4 lbs. |



Squeeze Trigger
Cushion Grip
Light Weight
Simple to Use

Squeeze Trigger Hand Torch - Standard

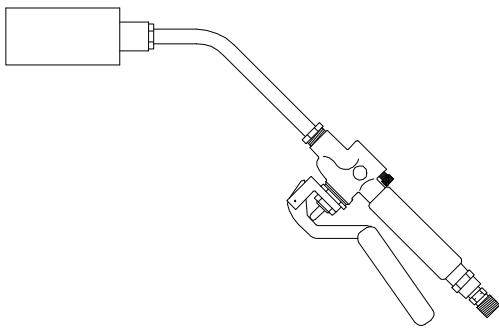
Primarily designed for the roofing & paving industries, the FV-15 hand torch is built tough and easy to use. With an adjustable standing pilot flame, the FV-15 torch is always ready to go, just squeeze the trigger, and a full force flame is released towards your work area.

The FV-15 torch has been used for other applications as well, like shrink wrapping, industrial processing, floor & road drying.

Complete with:

- FV-15 torch assembly
- Adjustable propane gas regulator
- 25 feet of propane gas hose
- Striker, stand & instruction manual

| M/N | BTU RATING | PRES. | DIA. | LGTH | TORCH WT. |
|---------|---------------|--------|------|------|-----------|
| FV-15-K | 520,000 btu/h | 55 psi | 2" | 32" | 2.4 lbs. |



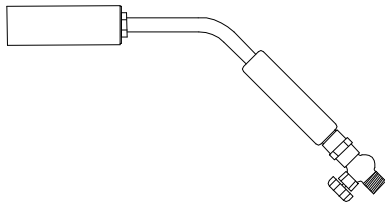
Squeeze Trigger Hand Torch - Short

The FV-16 is a shorter version of our standard squeeze trigger torch and has all the same features & benefits with reduced BTU output.

Complete with:

- FV-16 torch assembly
- Adjustable propane gas regulator
- 25 feet of propane gas hose
- Striker, stand & instruction manual

| M/N | BTU RATING | PRES. | DIA. | LGTH | TORCH WT. |
|---------|---------------|--------|------|------|-----------|
| FV-16-K | 420,000 btu/h | 55 psi | 2" | 24" | 2.3 lbs. |



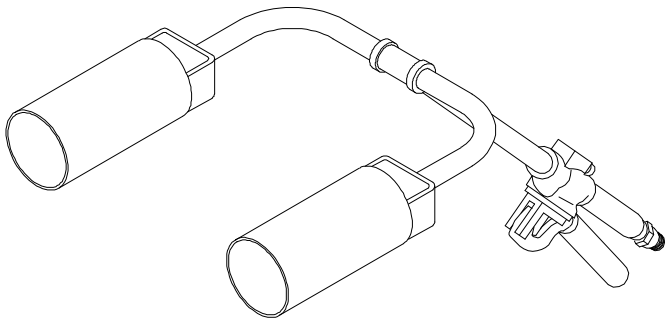
Detail Hand Torch

When you only have a small heating job, the FV-1 Hand Torch is the perfect choice. Small enough for the hard to reach areas, but hot enough to solder. Choose the FV-1-K for your next project.

Complete with:

- FV-1 torch assembly
- Adjustable propane gas regulator
- 10 feet of propane gas hose, striker, stand & instruction manual

| M/N | BTU RATING | PRES. | DIA. | LGTH | TORCH WT. |
|--------|--------------|--------|------|------|-----------|
| FV-1-K | 14,000 btu/h | 30 psi | 1.2" | 15" | 1.4 lbs. |



Twin Head - Double Power

Twin Head, Squeeze Trigger Torch

Designed for professional roofers, the FV-17 Twin Head Torch is like having a blast furnace in your hands. It also works great for spot drying.

With the standing, adjustable pilot flame and squeeze trigger, The FV-17 Torch will give you instant performance, tough enough for every job.

* For best torch performance, we strongly recommend using this torch with multiple tank installations. Please consult your LP Gas dealer for details.

Complete with:

- FV-17 torch assembly
- Adjustable propane gas regulator
- 25 feet of propane gas hose
- Striker, stand & instruction manual

| M/N | BTU RATING | PRES. | DIA. | LGTH | TORCH WT. |
|---------|---------------|--------|---------|------|-----------|
| FV-17-K | 800,000 btu/h | 55 psi | (x2) 2" | 32" | 3.2 lbs. |

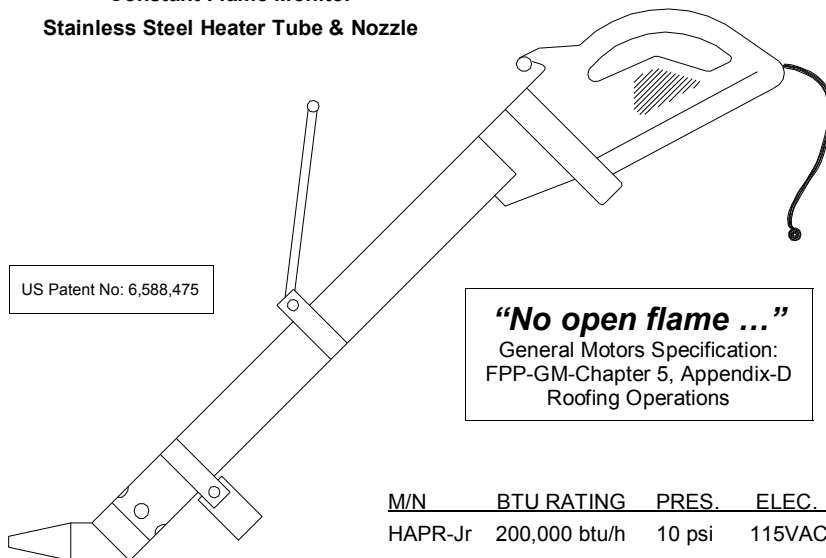
Hot Air "Ply-Rite" Handheld Heater

Applicator & Roof Dryer

With the *Hot Air Ply-Rite* Flameless Roofing Application System, you can now take your roofing project to the next level in performance and safety.

Flameless Modified Bitumen Installation and Roof Drying.

- 1,200°F Hot Air
- 100 mph Air Flow
- Automatic Ignition
- Constant Flame Monitor
- Stainless Steel Heater Tube & Nozzle



Complete with:

- Hand-held, hot air roofing heater assembly
- Propane gas regulator
- 25 feet of propane gas hose
- Adjustable handle, stand & instruction manual

Using the energy of LP Gas, and the convenience of standard 115VAC electricity, the *Hot Air Ply-Rite Jr.* generates a large amount of hot air that can be directed at the roof deck.

Simply turn *ON* the switch and the start-up process begins automatically and runs while under constant monitoring by the on-board safety management controller.

One Tool - Many Uses - Simple to Use

Hot Air Ply-Rite ...

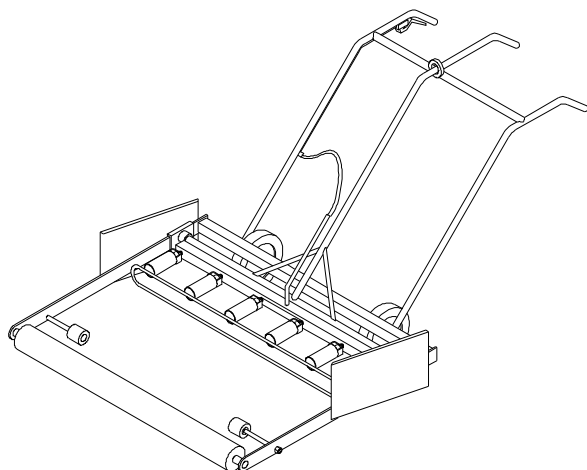
| M/N | BTU RATING | PRES. | ELEC. | DISCHARGE. | LGTH | HGTH | WDTH | TORCH WT. |
|---------|---------------|--------|--------|------------|------|------|------|-----------|
| HAPR-Jr | 200,000 btu/h | 10 psi | 115VAC | 1/2" x 12" | 52" | 12" | 8" | 13 lbs. |

Coming Soon ...
No open flame Wagon and Mini
Applicator & Dryer

Propane Roofing Wagon

Modified Bitumen Applicator & Roof Dryer

Just one look at the Burners, Inc. Roofing Wagon, and you'll recognize the quality. Made from structural iron, this wagon is built to last. We offer the Roofing Wagon in both a standard vapor model (PR-7-V) and a liquid version (PR-7-L) for use in colder weather. When ordering, please ask a sales consultant which model is right for you. The PR-7 series wagons all come with the 6-head torch wagon, 50 feet of hose, an adjustable pressure regulator and operating instructions.



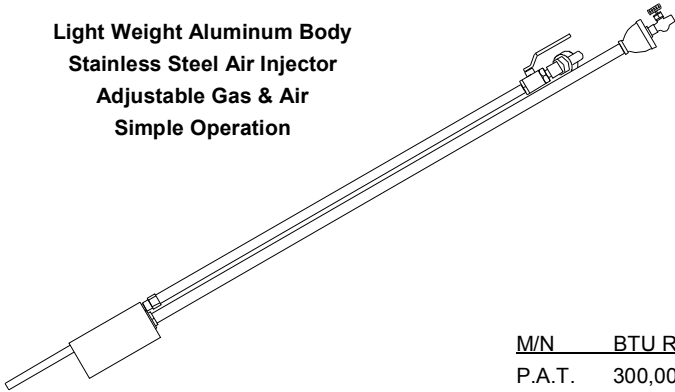
FEATURES:

- 6 high output, wind resistant burner heads
- 35# weighted roller bar - for even pressure on the roll
- Adjustable burner head angle pitch
- Adjustable burner to roll distance
- Squeeze Trigger - Instant On - and adjustable standing pilot
- Intermediate boogie wheels to guide roll during installation

Six Burner Heads - Heavy-Duty Design - Built to Last

| M/N | BTU RATING | PRES. | FUEL | LGTH | WDTH | HGT | WGHT. |
|--|---------------|--------|--------|------|------|-----|----------|
| PR-7-L | 800,000 btu/h | 25 psi | Liquid | 70" | 43" | 38" | 185 lbs. |
| (Uses Liquid Propane - Great for cold weather use.) | | | | | | | |
| PR-7-V | 800,000 btu/h | 25 psi | Vapor | 70" | 43" | 38" | 183 lbs. |
| (Uses Vapor Propane - The same tanks as your torches.) | | | | | | | |

Light Weight Aluminum Body
Stainless Steel Air Injector
Adjustable Gas & Air
Simple Operation



Crack Sealing - Paving Torch

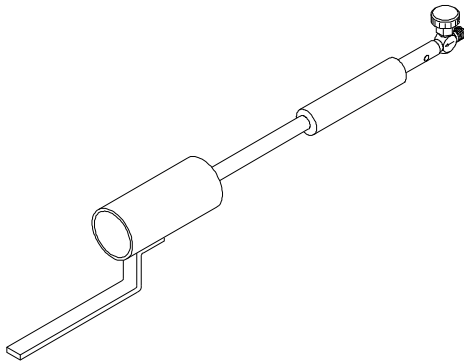
P.A. Torch

Combined with your air compressor and propane tank, this powerhouse generates a high intensity flame output, along with a high temperature heat blast to clean and dry any crack in the paved work area.

Complete with:

- P.A. torch assembly
- Adjustable propane gas regulator
- 50 feet of propane gas hose
- Striker & instruction manual

| M/N | BTU RATING | GAS PRES. | DIA. | LGTH | AIR CONN. | TORCH WT. |
|--------|---------------|-----------|--------|------|--------------------|-----------|
| P.A.T. | 300,000 btu/h | 55 psi | 2-7/8" | 58" | 1/4 turn Twist-Loc | 7.0 lbs. |



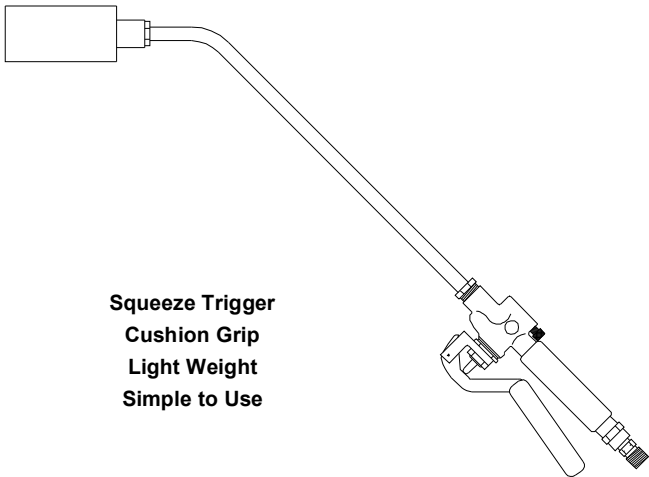
Patcher Kettle Torch & Burner

This torch was designed for use in small, portable patching and asphalt kettles. The steel torch head "Z" bracket is used to support the FV-11-S Torch as it is aimed into a firing chamber. The torch can also be easily removed and used to spot heat your work area.

Complete with:

- FV-11-S torch assembly
- Adjustable propane gas regulator
- 10 feet of propane gas hose
- Striker & instruction manual

| M/N | BTU RATING | PRES. | DIA. | LGTH | TORCH WT. |
|-----------|---------------|--------|--------|------|-----------|
| FV-11-S-K | 150,000 btu/h | 30 psi | 2-3/8" | 25" | 4.0 lbs. |



Squeeze Trigger
Cushion Grip
Light Weight
Simple to Use

Squeeze Trigger Hand Torch - Standard

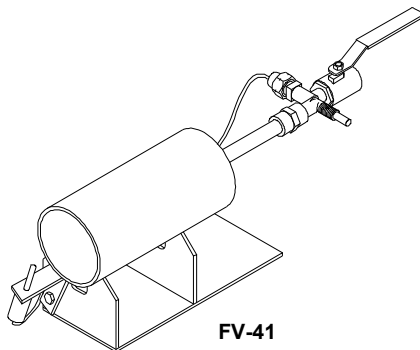
Primarily designed for the roofing & paving industries, the FV-15 hand torch is built tough and easy to use. With an adjustable standing pilot flame, the FV-15 torch is always ready to go, just squeeze the trigger, and a full force flame is released towards your work area.

The FV-15 torch has been used for other applications as well, like shrink wrapping, industrial processing, floor & road drying.

Complete with:

- FV-15 torch assembly
- Adjustable propane gas regulator
- 25 feet of propane gas hose
- Striker, stand & instruction manual

| M/N | BTU RATING | PRES. | DIA. | LGTH | TORCH WT. |
|---------|---------------|--------|------|------|-----------|
| FV-15-K | 520,000 btu/h | 55 psi | 2" | 32" | 2.4 lbs. |



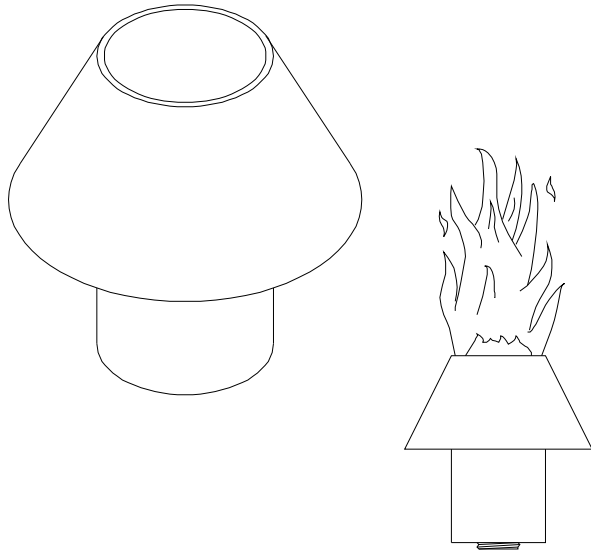
FV-41

Vapor Propane Burners—Sleeve Style—With 100% Safety

Our FV series, vapor burners are used for general purpose heating applications where the system is constantly monitored for proper operation. and includes a 100% gas shut-off valve (thermocouple response) to monitor the flame heat and shut down if the thermocouple is cooled down (due to the loss of flame).

These burners are perfect replacements for melters and patchers

| M/N | BTU RATING | PRES. | DIA. | LGTH | HEIGHT | WEIGHT |
|-------|---------------|--------|--------|---------|--------|---------|
| FV-91 | 100,000 btu/h | 25 psi | 2" | 13-1/2" | 4-1/2" | 4 lbs. |
| FV-41 | 200,000 btu/h | 25 psi | 2-3/4" | 14-1/2" | 5-1/4" | 5 lbs. |
| FV-61 | 300,000 btu/h | 25 psi | 3-1/2" | 14-1/2" | 5-7/8" | 5 lbs. |
| FV-71 | 500,000 btu/h | 25 psi | 4-1/2" | 17-1/2" | 9-3/8" | 10 lbs. |



Tiki Torch Burner

An economical alternative to high priced decorative flame features. Our Tiki Torch series is a building block for your custom look. You supply the gas line and valve, install the Tiki Torch Burner, and you've got a flame feature everyone will admire.

Features Include:

- Brushed finish
- Stainless steel burner chamber
- Solid brass gas jet & orifice
- Simple design, easy 3-piece assembly
- Available in both LPG & natural gas version

FOR OUTDOOR USE ONLY.

TO BE INSTALLED BY TRAINED FLAMMABLE GAS PROFESSIONALS ONLY.

| M/N | BTU RATING | GAS PRES. | DIA | LGTH | GAS CONN |
|--------|--------------|----------------|-----|------|----------|
| TT-3-P | 12,000 btu/h | 11"WC (LPG) | 6" | 6" | 3/8" fpt |
| TT-3-N | 12,000 btu/h | 8"WC (Natural) | 6" | 6" | 3/8" fpt |

Q - What does a North Carolina Spartan, the 2002 Winter Games, and Inspector Gadget's, Gadget Mobile all have in common?

A - They all use flame effects designed by Burners, Inc.



For your next outdoor event, landscape feature, special promotion, or celebration consider using a Burners, Inc. flame effect to enhance & brighten the atmosphere.

Our designers have decades of experience in combustion technology, applying safe and reliable, fully automated flame management systems, to spectacular flame effect features.



Some examples of flame effects:

- Eternal flames & monuments
- Patio fire pits
- Outdoor sculptures and fire
- Pond and waterscape features with flame
- Special effects with fire bursts

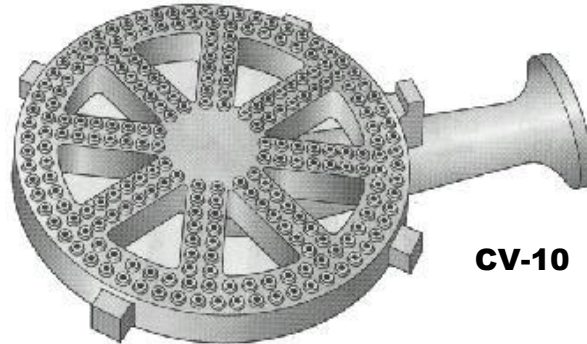
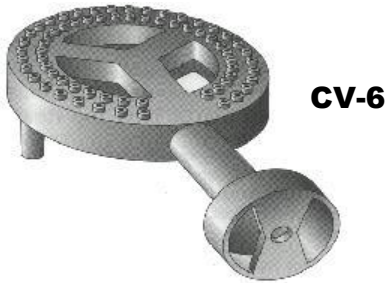
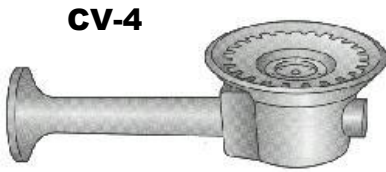
Contact our technical support department to discuss your flame effect design.

(800) 878-BURN - (248) 676-9141 - techsupport@burnersinc.com



Vapor Propane Burner—Cast Iron—Vertical Fire

Our cast iron, vapor propane burners are designed to provide dependable, high volumes of heat. Originally designed for portable and commercial cooking, these burners have also been used in a wide variety of other applications, including fish cookers, popcorn kettles, asphalt heating systems, industrial welding preheat tables, barbecues & smokers. These burners are perfect for round, adjustable flame patterns.



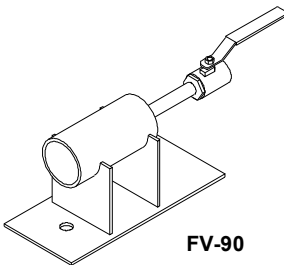
| M/N | BTU RATING | PRES. | DIA. | LGTH | HGHT | WEIGHT |
|--------|---------------|-------------|--------|--------|--------|---------|
| CV-4 | 13,000 btu/h | 4" - 14" WC | 4-1/4" | 12" | 3-1/4" | 5 lbs. |
| CV-4-H | 150,000 btu/h | 25 psi | 4-1/4" | 12" | 3-1/4" | 5 lbs. |
| CV-6 | 13,000 btu/h | 4" - 14" WC | 6" | 9-1/2" | 2-3/4" | 5 lbs. |
| CV-10 | 70,000 btu/h | 4" - 14" WC | 10" | 15" | 6" | 20 lbs. |

IMPORTANT NOTE - All CV series burners must be ordered with an appropriate orifice spud, or valve/orifice assembly for proper operation.

Vapor Propane Burners—Sleeve Style—Straight Fire

Our FV series, vapor burners are used for general purpose heating applications where the system is constantly monitored for proper operation. With solid bases, permanently mounted, these burners are built solid and are economically priced.

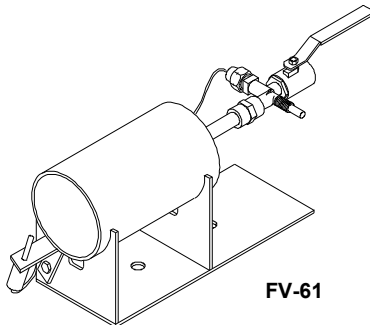
These burners are also available in stainless steel (add a -SS to the part number).



| M/N | BTU RATING | PRES. | DIA. | LGTH | HEIGHT | WEIGHT |
|-------|---------------|--------|--------|------|--------|--------|
| FV-90 | 100,000 btu/h | 25 psi | 2" | 11" | 4-1/2" | 3 lbs. |
| FV-40 | 200,000 btu/h | 25 psi | 2-3/4" | 12" | 5-1/4" | 4 lbs. |
| FV-60 | 300,000 btu/h | 25 psi | 3-1/2" | 12" | 5-7/8" | 4 lbs. |
| FV-70 | 500,000 btu/h | 25 psi | 4-1/2" | 15" | 9-3/8" | 9 lbs. |

Vapor Propane Burners—Sleeve Style—With 100% Safety

This series of burners are the same as the above burners and include a 100% gas shut-off valve (thermocouple response) to monitor the flame and shut down if the thermocouple is cooled down (due to the loss of flame).



| M/N | BTU RATING | PRES. | DIA. | LGTH | HEIGHT | WEIGHT |
|-------|---------------|--------|--------|---------|--------|---------|
| FV-91 | 100,000 btu/h | 25 psi | 2" | 13-1/2" | 4-1/2" | 4 lbs. |
| FV-41 | 200,000 btu/h | 25 psi | 2-3/4" | 14-1/2" | 5-1/4" | 5 lbs. |
| FV-61 | 300,000 btu/h | 25 psi | 3-1/2" | 14-1/2" | 5-7/8" | 5 lbs. |
| FV-71 | 500,000 btu/h | 25 psi | 4-1/2" | 17-1/2" | 9-3/8" | 10 lbs. |

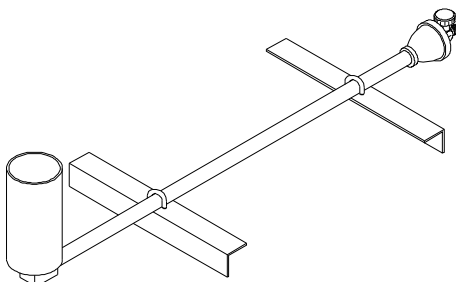
Vapor Propane Utility Torch/Burner

The FV-12-K Torch / Burner Kit is ideal for boiling and cooking large quantities of water & food. With less than 9" of vertical height, the FV-12 is designed to slide under most outdoor cooking equipment.

Our remote valve keeps your hands away from the heat when adjusting the flame height or intensity.

The FV-12-K can be used with or without a pressure regulator.

Complete with Torch/Burner, 10feet of hose, a LP Gas (propane tank connector) and a flint striker.



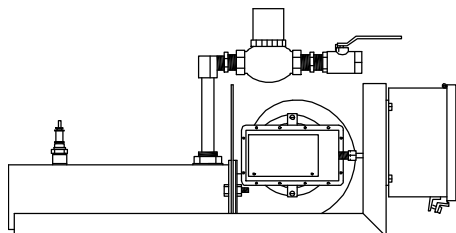
| M/N | BTU RATING | PRES. | DIA. | LGTH | HEIGHT | WEIGHT |
|---------|---------------|-------|------|------|--------|---------|
| FV-12-K | 500,000 btu/h | Tank | 3" | 41" | 9" | 10 lbs. |

Vapor LP Gas or Natural Gas Power Burner

Our NG series, vapor burners are used for general purpose heating applications where the system may be unattended and full flame monitoring is required. Some of the features included with this burner system are:

- Full flame monitoring and direct spark ignition
- Combustion air blower with positive air flow sensing
- Inline, electric gas solenoid
- Stainless steel burner and combustion chamber
- Heavy-duty spark ignitor
- Solid steel chassis & NEMA rated electrical enclosure

The NG series burners can operate on either LP Gas or Natural Gas and require 115VAC electrical power.



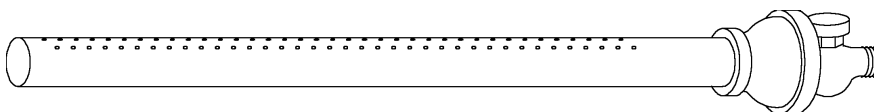
| M/N | BTU RATING | PRES. (min.) | ELEC. | DIA. | LGTH | HEIGHT | WEIGHT |
|--------|---------------|------------------|--------|--------|------|---------|---------|
| NG-300 | 300,000 btu/h | 4" WC (nat. gas) | 115VAC | 3-1/2" | 24" | 14-1/2" | 35 lbs. |

PIPE BURNERS

Burners, Inc. pipe burners are manufactured for many commercial & industrial uses and fit a variety of applications. They are custom made to meet your specifications. We offer a wide selection of pipe diameters and your pipe burner can be made to any length. A Burners, Inc. technical support representative can assist you in determining the correct specifications for your application. Our pipe burners are available in both mild steel and stainless steel. Please specify at time of order.

The sizes shown are standard sizes and outputs. Please consult our technical support staff for pipe burners with non-standard lengths or outputs.

| Pipe Size | Flame Lgth | Total Lgth | BTU / hr (x 1000) | Pipe Size | Flame Lgth | Total Lgth | BTU / hr (x 1000) | Pipe Size | Flame Lgth | Total Lgth | BTU / hr (x 1000) |
|-----------|------------|------------|-------------------|-----------|------------|------------|-------------------|-----------|------------|------------|-------------------|
| 1/2 | 12 | 17 | 6 | 1-1/4 | 30 | 39 | 19 | 1-1/2 | 48 | 59 | 47 |
| 1/2 | 16 | 21 | 7 | 1-1/4 | 36 | 45 | 22 | 1-1/2 | 54 | 65 | 51 |
| 1/2 | 20 | 25 | 8 | 1-1/4 | 42 | 51 | 26 | 2 | 36 | 50 | 61 |
| 3/4 | 12 | 18 | 9 | 1-1/4 | 48 | 57 | 30 | 2 | 42 | 56 | 65 |
| 3/4 | 18 | 24 | 10 | 1-1/4 | 54 | 63 | 34 | 2 | 48 | 62 | 67 |
| 3/4 | 24 | 30 | 11 | 1-1/2 | 18 | 29 | 24 | 2 | 54 | 68 | 71 |
| 3/4 | 30 | 36 | 13 | 1-1/2 | 24 | 35 | 31 | 2 | 60 | 74 | 73 |
| 1 | 18 | 26 | 11 | 1-1/2 | 30 | 41 | 39 | 2 | 66 | 80 | 76 |
| 1 | 24 | 32 | 14 | 1-1/2 | 36 | 47 | 43 | 2 | 72 | 86 | 79 |
| 1 | 30 | 38 | 17 | 1-1/2 | 42 | 53 | 45 | 2 | 84 | 98 | 82 |
| 1 | 36 | 44 | 19 | | | | | | | | |
| 1 | 42 | 50 | 20 | | | | | | | | |
| 1 | 48 | 56 | 21 | | | | | | | | |
| 1-1/4 | 24 | 33 | 15 | | | | | | | | |



All pipe burners come complete with valve, mixer, air shutter & engineered pipe. The standard inlet connection, for most burners is 9/16"-18 LH. - However, we can provide any inlet gas connection you request. Please specify at time of order

PIPE BURNER F.A.Q.

What size do I need?

That's a good question, and should be considered carefully. Our technical support team will help you determine the length of flame and the BTU output for your job. Please have the overall dimension of the heating area, and the desired temperature you would like to achieve, along with the description of your heating application.

How do you know how many holes to drill?

The hole position & location is very important on a pipe burner. You should always consult our engineering dept. for the best configuration to fit your application.

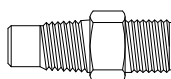
Can I buy separate parts?

Yes, we carry spare parts for everything we manufacture, however we strongly discourage anyone from buying components and building any burner or torch from "scratch". THIS IS DANGEROUS - SERIOUS INJURY MAY RESULT !!!

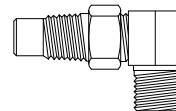
"CV" series & Pipe Burner Valve/Orifice Assemblies

We offer both a standard orifice assembly (CV series) and a combination Valve/Orifice Assembly (FV-11 style) for our CV series cooker burners and pipe burners. All of our orifices are made in our factory and can be ordered with a wide variety of inlet connections. Our standard inlet connections are 9/16"-18LH hose inlet and 1/4" mpt pipe thread inlet.

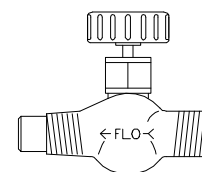
Please specify the burner model number and BTU rating at the time of ordering.



CV series
Orifice Assembly



EL series
Orifice Assembly



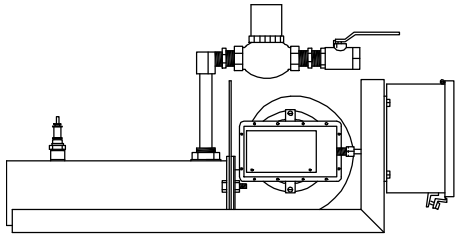
FV-11 series
Valve/Orifice Assembly

Vapor LP Gas or Natural Gas Power Burner

Our NG series, vapor burners are used for general purpose heating applications where the system maybe unattended and full flame monitoring is required. Some of the features included with this burner system are:

- Full flame monitoring and direct spark ignition
- Combustion air blower with positive air flow sensing
- Inline, electric gas solenoid
- Stainless steel burner and combustion chamber
- Heavy-duty spark ignitor
- Solid steel chassis & NEMA rated electrical enclosure

The NG series burners can operate on either LP Gas or Natural Gas and require 115VAC electrical power.

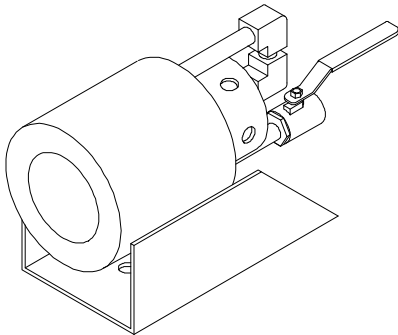


| M/N | BTU RATING | PRES. (min.) | ELEC. | DIA. | LGTH | HEIGHT | WEIGHT |
|--------|---------------|------------------|--------|--------|------|---------|---------|
| NG-300 | 300,000 btu/h | 4" WC (nat. gas) | 115VAC | 3-1/2" | 24" | 14-1/2" | 35 lbs. |

High Temperature—Liquid Propane Burners—Sleeve Style—Straight Fire

High temperature, liquid propane sleeve style burners are used in many applications where high radiant temperatures reflect back onto the burner. Typical installations include asphalt reclamation and ceramic kilns.

* ALL HIGH TEMPERATURE BURNERS ARE MADE OF **STAINLESS STEEL**.



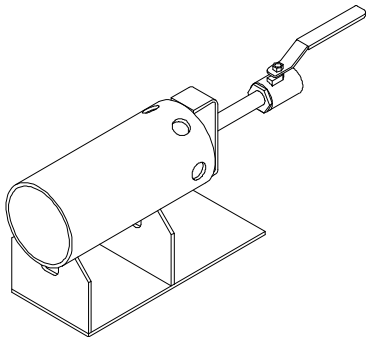
| M/N | BTU RATING | PRES. | DIA. | LGTH | HEIGHT | WEIGHT |
|------------|---------------|--------|--------|------|--------|---------|
| TK-10-A-SS | 100,000 btu/h | 25 psi | 2-7/8" | 16" | 5-1/2" | 5 lbs. |
| MK-1-SS | 450,000 btu/h | 5 psi | 4-1/2" | 10" | 5-7/8" | 8 lbs. |
| MK-2-SS | 800,000 btu/h | 5 psi | 5" | 12" | 7-1/4" | 13 lbs. |

High Temperature—Vapor Propane Burners—Sleeve Style

High temperature, vapor propane sleeve style burners are used in many applications where high radiant temperatures reflect back onto the burner. Typical installations include asphalt reclamation and ceramic kilns.

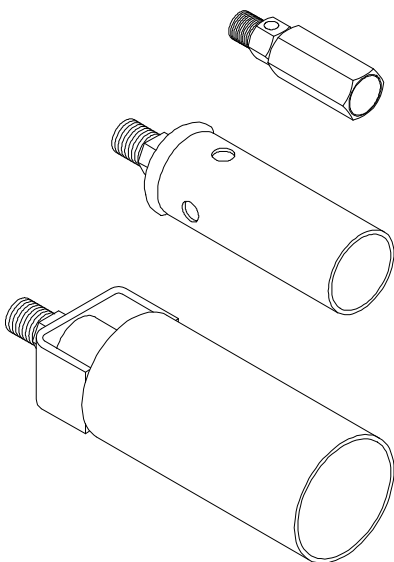
Available with 100% safety and on-board pilot burner.

* ALL HIGH TEMPERATURE BURNERS ARE MADE OF **STAINLESS STEEL**.



| M/N | BTU RATING | PRES. | DIA. | LGTH | HEIGHT | WEIGHT |
|-----------------|---------------|-------|--------|------|--------|--------|
| SK-1-SS | 450,000 btu/h | 5 psi | 2-7/8" | 14" | 5-1/2" | 5 lbs. |
| SK-1-SS w/PILOT | 453,000 btu/h | 5 psi | 2-7/8" | 21" | 5-1/2" | 6 lbs. |

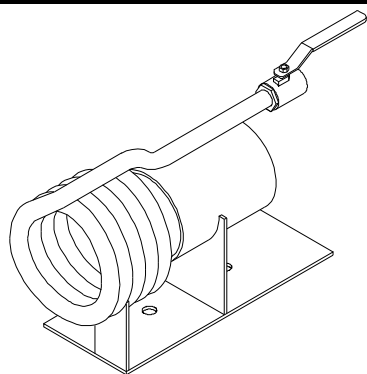
These small replacement burner heads are used for a wide variety of applications, including patchers, screeds and feathering torches. All of these burners operate on vapor propane with operating pressures between 5 - 35 psi. They are a perfect replacement or retro-fit.



| HP PILOT BURNER | |
|---|-------------------|
| (2 part p/n - 129510 & 129520) | |
| Normal Operating Output..... | 4,400 btu @ 30psi |
| Inlet Connection..... | 1/8" mpt |
| Diameter..... | 5/8" |
| Length..... | 2 1/8" |

| FV-1-S BURNER HEAD | |
|------------------------------|--------------------|
| p/n - 129420 | |
| Normal Operating Output..... | 14,000 btu @ 30psi |
| Inlet Connection..... | 1/4" mpt |
| Diameter..... | 1 1/4" |
| Length..... | 4 3/4" |

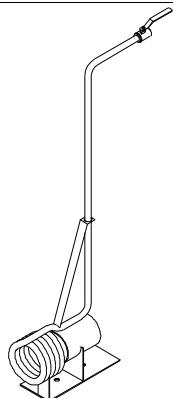
| PR series BURNER HEAD | |
|------------------------------|---------------------|
| p/n - 728588 | |
| Normal Operating Output..... | 125,000 btu @ 30psi |
| Inlet Connection..... | 1/4" mpt |
| Diameter..... | 2" |
| Length..... | 6 1/8" |



Liquid Propane Burners—Coil Style—Straight Fire

Liquid propane coil style burners are used in many applications like roofing & paving kettles, agricultural weed flaming, welding & process heating, commercial cooking, and special effects. Our burners range from 100,000 btu's to 6 million btu's nominal ratings and can be adjusted to operate higher or lower than the nominal ratings.

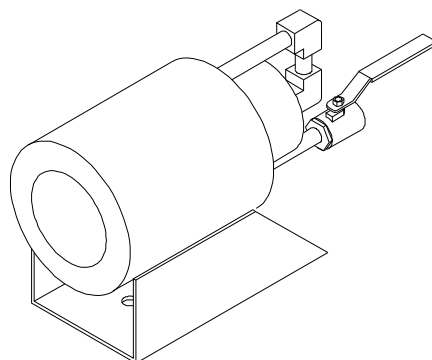
| M/N | BTU RATING | PRES. | O.D. | LGTH | HEIGHT | WEIGHT |
|--------|---------------|--------|--------|------|--------|---------|
| FL-9 | 100,000 btu/h | 25 psi | 2-1/4" | 11" | 5" | 5 lbs. |
| FL-7-S | 200,000 btu/h | 25 psi | 3-1/2" | 10" | 6-1/2" | 5 lbs. |
| FL-1 | 500,000 btu/h | 25 psi | 4-3/4" | 13" | 7-1/2" | 7 lbs. |
| FL-4 | 2.0 mil btu/h | 25 psi | 6" | 18" | 12" | 9 lbs. |
| FL-6-M | 6.0 mil btu/h | 25 psi | 6-1/2" | 23" | 8-1/2" | 20 lbs. |



Liquid Propane Burners—Coil Style—Well Fire

Liquid propane well fire burners are used in kettle applications like roofing & paving. When the heating flues are down inside a well or chamber, a well fire style burner works great. Make sure the center line of the flue and the center line of the burner are aligned before you begin.

| M/N | BTU RATING | PRES. | O.D. | LGTH | HEIGHT | WEIGHT |
|------|---------------|--------|--------|------|--------|---------|
| FL-7 | 200,000 btu/h | 25 psi | 3-1/2" | 17" | 34" | 6 lbs. |
| FL-2 | 500,000 btu/h | 25 psi | 4-3/4" | 19" | 37" | 8 lbs. |
| FL-5 | 2.0 mil btu/h | 25 psi | 6" | 24" | 37" | 16 lbs. |

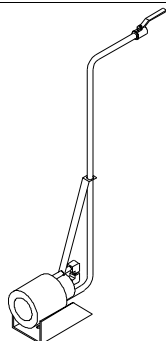


Liquid Propane Burners—Sleeve Style—Straight Fire

Liquid propane sleeve style burners are used in many applications where a longer, narrow flame is required. Typical installations include roofing & paving kettles, asphalt reclamation*, ceramic kilns*, and special effects.

* High heat systems, like ceramic kiln & asphalt reclamation require a stainless steel version. Add "-SS" to the end of the model number for stainless steel option. (example, TK-30-A-SS)

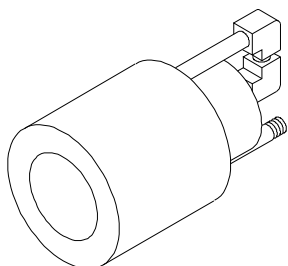
| M/N | BTU RATING | PRES. | O.D. | LGTH | HEIGHT | WEIGHT |
|------------|---------------|--------|--------|------|--------|---------|
| TK-10-A-SS | 100,000 btu/h | 25 psi | 2-7/8" | 16" | 5-1/2" | 5 lbs. |
| TK-30-A | 500,000 btu/h | 25 psi | 4-1/2" | 10" | 5-7/8" | 8 lbs. |
| TK-40-A | 1.2 mil btu/h | 25 psi | 5" | 12" | 7-1/4" | 13 lbs. |
| TK-50-A-SS | 2.0 mil btu/h | 25 psi | 5" | 15" | 7-1/4" | 16 lbs. |



Liquid Propane Burners—Sleeve Style—Well Fire

Liquid propane well fire burners are used in kettle applications like roofing & paving. A well fire style burner is typically used when the heating flues are down inside a well or chamber. Make sure the center line of the flue and the center line of the burner are aligned before you begin.

| M/N | BTU RATING | PRES. | O.D. | LGTH | HEIGHT | WEIGHT |
|------------|---------------|--------|--------|------|--------|---------|
| TK-31-A | 500,000 btu/h | 25 psi | 4-1/2" | 16" | 36" | 9 lbs. |
| TK-41-A | 1.2 mil btu/h | 25 psi | 5" | 12" | 36" | 14 lbs. |
| TK-51-A-SS | 2.0 mil btu/h | 25 psi | 5" | 15" | 36" | 17 lbs. |



Liquid Propane Burners—Sleeve Style—Burner Only

Liquid propane sleeve style burner heads can be used as replacements for existing sleeve style burner applications.

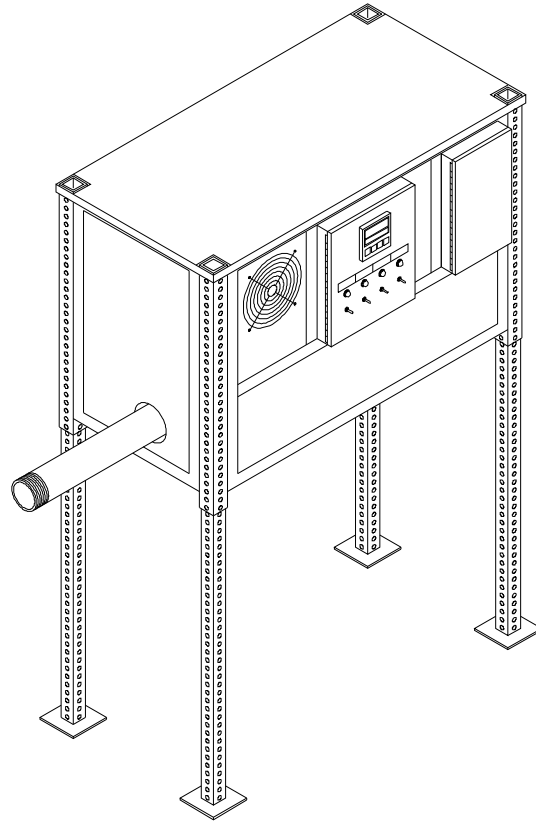
* High heat systems, like ceramic kiln & asphalt reclamation require a stainless steel version. Add "-SS" to the end of the model number for stainless steel option. (example, TK-30-SS)

| M/N | BTU RATING | PRES. | O.D. | LGTH | HEIGHT | WEIGHT |
|----------|---------------|--------|--------|------|--------|---------|
| TK-30 | 500,000 btu/h | 25 psi | 4-1/2" | 9" | 4-1/2" | 6 lbs. |
| TK-40 | 1.2 mil btu/h | 25 psi | 5" | 10" | 5" | 11 lbs. |
| TK-50-SS | 2.0 mil btu/h | 25 psi | 5" | 13" | 5" | 14 lbs. |

Portable Hot Gas Generator - Standard Output

| Model HG-300 | |
|--------------------------------|-------------|
| BTU Output | 300,000 btu |
| Hot Gas Discharge | 3½" OD |
| Fuel Type | LPG or Nat. |
| Fuel Delivery Pressure | 20 psig |
| Electrical - Voltage | 460-480 VAC |
| Electrical - Power (no blower) | 7 amps |
| Weight | 360 lbs. |

| Model HG-500 | |
|--------------------------------|-------------|
| BTU Output | 500,000 btu |
| Hot Gas Discharge | 4" OD |
| Fuel Type | LPG or Nat. |
| Fuel Delivery Pressure | 20 psig |
| Electrical - Voltage | 460-480 VAC |
| Electrical - Power (no blower) | 7 amps |
| Weight | 365 lbs. |



The HG series, standard output Test Furnaces are designed for use on component and small exhaust system hot gas testing. They are self contained, compact and portable. The only requirements are electricity and fuel.

The HG furnaces are fully adjustable !!!

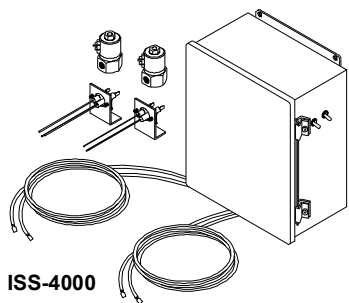
Adjust the discharge height using telescopic & locking legs. Air flow and discharge temperature are controlled using solid-state PID controllers. Fine tune the temperature window using adjustable fuel pressure regulators.

On-board air flow control uses closed-loop control for accurate inlet air volume. Simply set your desired air flow rate and let the controller do the rest.

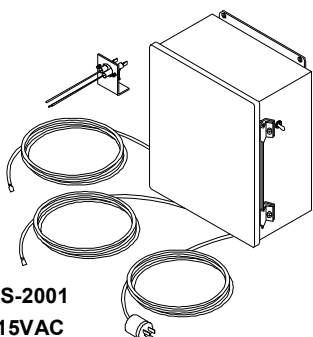
Using your remote mounted thermocouple, enables you to accurately control the desired temperature of your test. With an optional temperature profile controller, you can automate your heating requirements for a predetermined number of cycles.

We also have High-Output models available up to 2.0 mil btu/h output. Our optional blower selection includes flow rates up to 600 scfm and pressure capabilities up to 20 psi.

Contact our technical support department for detailed information on all of our Portable Hot Gas Generators.



ISS-4000
12VDC



ISS-2001
115VAC

Automatic Ignition & Safety Control Systems

Our "ISS" series, Automatic Ignition & Flame Monitoring Control Packages use the Fenwal solid-state ignition control module for reliable flame management. Optional temperature control is available:

- Oil filled capillary & bulb configuration for 50 - 500°F temperature range (5 foot capillary max.)
- Digital Control for 32 - 1472°F temperature range (10 foot lead length std. - longer leads are optional)

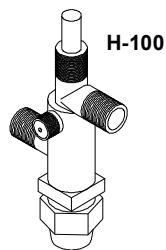
Built in NEMA-12 enclosures, these control packages are designed for tough environments (32-130°F) and comply with UL and CSA standards

All cable lead lengths are 6 feet, and come complete with universal ignitor & flame rod assemblies that require simple bending to adapt to your installation.

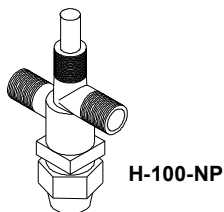
Features:

- Direct spark ignition & flame rectification monitoring
- High temperature wiring and protective sleeving
- Pre-assembled wiring harnesses with quick connect ends
- Simple installation and easy configuration

| M/N | BURNER CTRL | ELEC. | TEMP. CTRL | SOLENOID |
|-------------|-------------|--------|------------------|-------------------------------------|
| ISS-2000 | Single | 12 VDC | -none- | (1) 1/4" npt (500,000 btu @ 25 psi) |
| ISS-2000-T | Single | 12 VDC | 50-500°F (dial) | (1) 1/4" npt (500,000 btu @ 25 psi) |
| ISS-2000-DT | Single | 12 VDC | 32-1472°F (elec) | (1) 1/4" npt (500,000 btu @ 25 psi) |
| ISS-4000 | Dual | 12 VDC | -none- | (2) 1/4" npt (500,000 btu @ 25 psi) |
| ISS-4000-T | Dual | 12 VDC | 50-500°F (dial) | (2) 1/4" npt (500,000 btu @ 25 psi) |
| ISS-4000-DT | Dual | 12 VDC | 32-1472°F (elec) | (2) 1/4" npt (500,000 btu @ 25 psi) |
| ISS-2001 | Single | 115VAC | -none- | - sold separately - |
| ISS-2001-T | Single | 115VAC | 50-500°F (dial) | - sold separately - |
| ISS-2001-DT | Single | 115VAC | 32-1472°F (elec) | - sold separately - |
| ISS-4001 | Dual | 115VAC | -none- | - sold separately - |
| ISS-4001-T | Dual | 115VAC | 50-500°F (dial) | - sold separately - |
| ISS-4001-DT | Dual | 115VAC | 32-1472°F (elec) | - sold separately - |



H-100

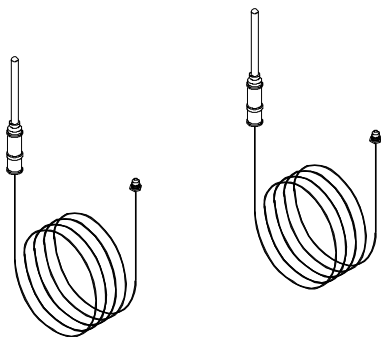


H-100-NP

Safety Control Valves

The "H" series solid brass, safety control valves are for VAPOR PROPANE service only. Similar in design use to the Johnson/Penn Baso "H19" series safety valves, these controls use standard commercial thermocouples for positive flame & heat detection. (maximum pressure is 25 psi)

| P/N | M/N | FLOW & PRESSURE | FITTING SIZE (in x out) | REF. |
|--------|----------|----------------------|--------------------------------------|---------|
| 214240 | H-100 | 500,000 btu @ 25 psi | 1/4" mpt x 1/4" mpt (1/8" mpt pilot) | H19NA-4 |
| 214225 | H-100-NP | 500,000 btu @ 25 psi | 1/4" mpt x 1/4" mpt | H19TA-3 |

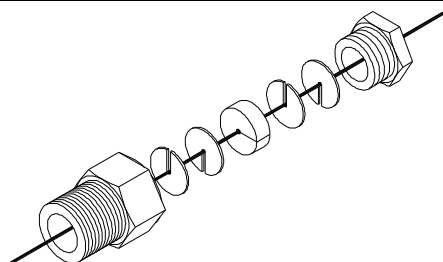


Thermocouples - Commercial Grade

Burners, Inc. uses commercial grade thermocouples for all of our manual safety burner system.

Johnson / Penn-Baso K15 and K16 series. (custom lengths are available)

| P/N | M/N | LENGTH | MV RANGE |
|--------|----------|--------|------------|
| 216118 | K15DS-18 | 18" | 20 - 28 mV |
| 216124 | K15DS-24 | 24" | 20 - 28 mV |
| 216136 | K15DS-36 | 36" | 20 - 28 mV |
| 216148 | K15WS-48 | 48" | 30 - 35 mV |
| 216160 | K16BA-60 | 60" | 25 - 35 mV |
| 216172 | K16WT-72 | 72" | 25 - 35 mV |



Packing Nut

This packing nut is used to allow a capillary tube or thermocouple wire to be safely routed into a thermowell and minimize the loss of high temp. oil.

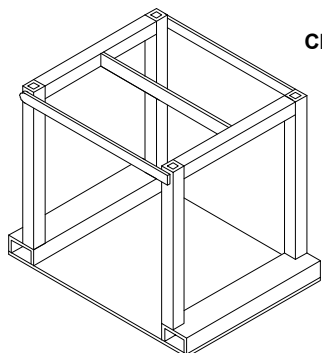
Using an all brass design with a high temperature, silicone gasket, this packing nut assembly is the best choice for sealing thermowells

| P/N | M/N | THREAD SIZE | GASKET | CAP. DIA. | Max Temp |
|--------|-----------|-------------|----------|-----------|----------|
| 307515 | F055-0088 | 1/2" mpt | Silicone | 0.080" | 500°F |

CYLINDER PALLETES

When cylinder lifting and transporting is needed, our cylinder pallets keep things safe. Safety yellow color, locking pins on gates, and heavy gauge lifting platform are all standard features of our CP-series cylinder pallets. The paint is baked on, for a long lasting finish. Our racks are built of **100% welded construction**. They come **fully assembled**, saving you costly set-up time and eliminates the chance of loose bolts.

Forklift Rails
Fully Assembled
Baked Safety Yellow



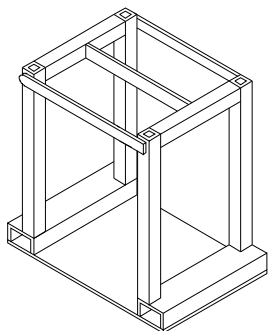
CP-4-100

Cylinder Pallet - 100# Propane Cylinders

Used for 100# LPG (propane) cylinders, these heavy-duty cylinder pallets can be used for lifting, moving and transporting. All steel construction, lock pin gates, and warning signs make the CP-100 series the perfect choice handling 100# LPG cylinders.

| M/N | CAPACITY | HGTH | WDTH | DEPTH | WGT |
|----------|----------------|------|------|-------|------|
| CP-4-100 | 4 - 100# Tanks | 40" | 49" | 33" | 245# |
| CP-6-100 | 6 - 100# Tanks | 40" | 49" | 49" | 340# |

Forklift Rails
Fully Assembled
Baked Safety Yellow



CP-4

Cylinder Pallet - Welding Cylinders

Designed for high-pressure welding gas cylinders, these cylinder pallets will accommodate almost all 9"-10" diameter cylinders that are at least 50" tall. All steel construction, lock pin gates, and warning signs make the CP series the perfect choice handling 50# high pressure cylinders.

| M/N | CAPACITY | HGTH | WDTH | DEPTH | WGT |
|------|---------------|------|------|-------|------|
| CP-4 | 4 - 50# Tanks | 40" | 37" | 26" | 175# |
| CP-6 | 6 - 50# Tanks | 40" | 37" | 38" | 240# |
| CP-8 | 8 - 50# Tanks | 40" | 37" | 49" | 300# |

CUSTOM FABRICATION SERVICE IS NOW AVAILABLE

Proto-type Development / Small -to- Medium Production Runs

Let Burners, Inc. custom fabrication department help you on your next project. Our in-house machining and custom build departments are ready to work with your design team to bring your concepts into reality.

CUTTING

- Precision Band Saws
- Hydraulic Shears
- Light gauge Sheet metal Shear
- Automated Plasma Torch

FORMING

- Hydraulic Breaks
- Sheet metal Pan Breaks
- Slip rollers (minimum diameter 1")
- Tubing Benders
- Tubing/Pipe Coilers

MACHINING

- Bridgeport Mills
- Lathes
- Automated Threading
- Pipe Threaders
- Drill Presses

FABRICATION

- Welder, TIG
- Welder, MIG (Mild & Stainless)
- Bench Grinders & Belt Sanders
- Finishing & Polishing Tables

TESTING

- Magna-Flux Weld Inspection
- Strain Gauge

FINISHING

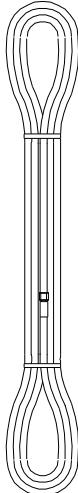
- Parts Cleaning
- Pressure Washer Tanks
- Paint Booth
- Baking Oven

SHIPPING

- Individual Part Boxing, Palletizing & Banding

Call us at (800) 878-2876, or visit our fabrication website at www.burnersinc.com/cutom-fabrication

All of Burners, Inc. accessories are available to provide your burner or torch with the best performance. Because of the wide variety of applications and situations, if you are not familiar with gas system design and/or operation, call your Burners, Inc. customer service representative for assistance.

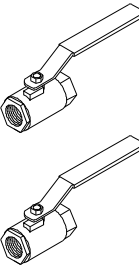


Hoses
Stock sizes are as follows with 9/16" LH swivel nut ends:

- 1/4" x 3 foot p/n-400030
- 1/4" x 10 foot p/n-400100
- 1/4" x 25 foot p/n-400250
- 1/4" x 50 foot p/n-400500
- 3/8" x 100 foot p/n-403000


We can assemble any quantity of any length with almost any end fitting, from 1/4", 5/16" braided, 3/8", 1/2", 3/4" & 1" UL listed rubber hose.

Use rubber hose for easy use and less tangle.





Valves
All of our valves are brass body, ball valves, 600WOG rated.

- 1/4" : p/n-952204
- 3/8" : p/n-952402
- 1/2" : p/n-952602
- 1/2" 3-way : p/n-952610
- 1" : p/n-952903




Gauges
All of our gauges are 2" dial face, 1/4" mpt with a bottom inlet

- 0-15 psi p/n-677016
- 0-30 psi p/n-677030
- 0-60 psi p/n-677060
- 0-100 psi p/n-677100
- 0-200 psi p/n-677200


Regulators
Vapor Propane

- 231-00 : 11" WC, 100,000 btu/h
- 1200-3057 : 3 - 30 psi 750,000 btu/h
- 1200-6057 : 10 - 60 psi 750,000 btu/h
- 67-BTK-970 : 3 - 35 psi w/gauge
800,000 btu/h
- 597FC-510 : 5 - 45 psi w/gauge
1.2 mil btu/h



Liquid Propane

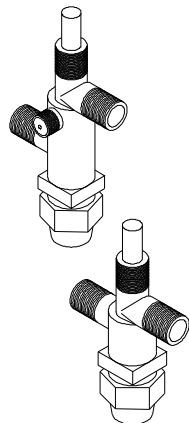
- 67-BTK-982 : 3 - 35 psi w/gauge
1.2 mil btu/h
- 597FB-555 : 3 - 30 psi w/gauge
2.0 mil btu/h



We also carry large, industrial rated regulators

BRASS FITTINGS

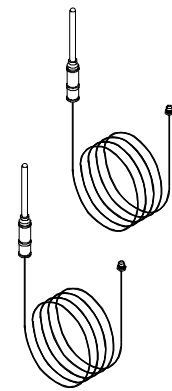
| | | | | |
|--|---|---|---|---|
| <p>Coupling</p> <ul style="list-style-type: none"> • 1/8" : p/n-372002 • 1/4" : p/n-372004 • 3/8" : p/n-372006 • 1/2" : p/n-372008 <p>Nipple, Hex</p> <ul style="list-style-type: none"> • 1/8" : p/n-375802 • 1/4" : p/n-375804 • 3/8" : p/n-375806 • 1/2" : p/n-375808 <p>Elbow, 90°</p> <ul style="list-style-type: none"> • 1/8" : p/n-372602 • 1/4" : p/n-372604 • 3/8" : p/n-372606 • 1/2" : p/n-372608 | <p>Street Elbow, 90°</p> <ul style="list-style-type: none"> • 1/8" : p/n-372622 • 1/4" : p/n-372624 • 3/8" : p/n-372626 • 1/2" : p/n-372628 <p>Street Elbow, 45°</p> <ul style="list-style-type: none"> • 1/8" : p/n-372642 • 1/4" : p/n-372644 • 3/8" : p/n-372646 • 1/2" : p/n-372648 <p>Tees</p> <ul style="list-style-type: none"> • 1/8" : p/n-373030 • 1/4" : p/n-373040 • 3/8" : p/n-373050 • 1/2" : p/n-373060 | <p>Crosses</p> <ul style="list-style-type: none"> • 1/8" : p/n-373205 • 1/4" : p/n-373210 • 3/8" : p/n-373220 • 1/2" : p/n-373230 <p>Locknuts</p> <ul style="list-style-type: none"> • 1/8" : p/n-374002 • 1/4" : p/n-374004 • 3/8" : p/n-374006 • 1/2" : p/n-374008 <p>Reducing Coupling</p> <ul style="list-style-type: none"> • 1/4" x 1/8" : p/n-372102 • 3/8" x 1/4" : p/n-372106 • 1/2" x 3/8" : p/n-372112 • 3/4" x 1/2" : p/n-372120 | <p>Reducing Bushing</p> <ul style="list-style-type: none"> • 1/4" x 1/8" : p/n-373802 • 3/8" x 1/8" : p/n-373804 • 3/8" x 1/4" : p/n-373806 • 1/2" x 1/8" : p/n-373808 • 1/2" x 1/4" : p/n-373810 • 1/2" x 3/8" : p/n-373812 • 3/4" x 1/4" : p/n-373816 • 3/4" x 3/8" : p/n-373818 • 3/4" x 1/2" : p/n-373820 <p>Flare Connections</p> <ul style="list-style-type: none"> • 3/8" flr x 1/4" mpt: p/n-378840 • 3/8" flr x 3/8" mpt: p/n-378842 • 3/8" flare nut : p/n-378850 | <p>Liquid Withdrawal CGA-555</p> <ul style="list-style-type: none"> • Liquid tank x 1/4"-2 pcs nut : p/n-374830 nipple : p/n-374831 <p>Vapor W/D - POL Fitting CGA-510</p> <ul style="list-style-type: none"> • POL x 1/4" : p/n-374810 • POL x 1/4" safety : p/n-375120 • POL x 9/16" : p/n-374815 • POL x 9/16" safety : p/n-375110 <p>9/16" LH Connectors</p> <ul style="list-style-type: none"> • 9/16" LH x 1/4" mpt p/n-376557 • 9/16" LH x 9/16" LH p/n-376526 |
|--|---|---|---|---|



Safety - Manual
Two different styles, 1/4"mpt inlet & outlet, brass body:

- H-100 with pilot port (similar to Johnson H19NA-4)
- H-100-NP no pilot (similar to Johnson H19TA-3)

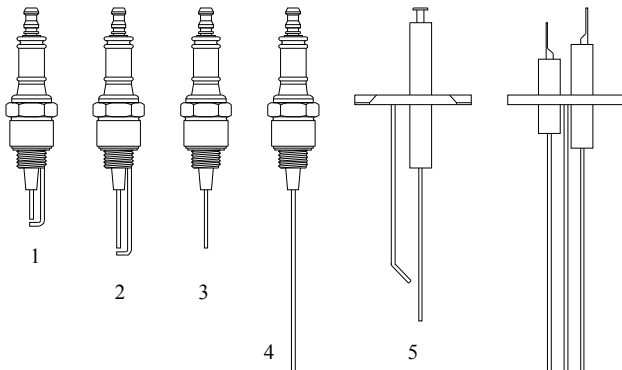
These safety controls must be used with a thermocouple and are only to be used for vapor service. Contact our customer service department for application assistance.



Thermocouples
Our thermocouples are manufactured by Johnson Controls and are UL Listed.

- 18" : p/n - 216118
- 24" : p/n - 216124
- 36" : p/n - 216130
- 48" : p/n - 216148
- 60" : p/n - 216260
- 72" : p/n - 216272

Ignitors & Flame Rods



- 1
- 2
- 3
- 4
- 5
- 6

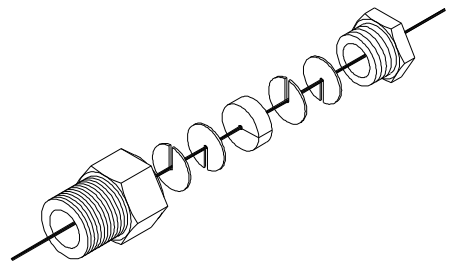
1. I-31, Spark Ignitor
2. I-31-1, Spark Ignitor
3. I-33, Flame Rod - 1"
4. I-33-4, Flame Rod - 4"
5. 659, Fenwal Ignitor
6. 593, Fenwal Ignitor / Flame Rod Assy

Packing Nut

This packing nut is used to allow a capillary tube or thermocouple wire to be safely routed into a thermowell and minimize the loose of high temp. oil.

1/2" mpt threads

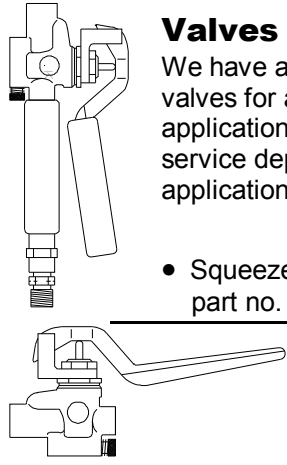
p/n: 307515



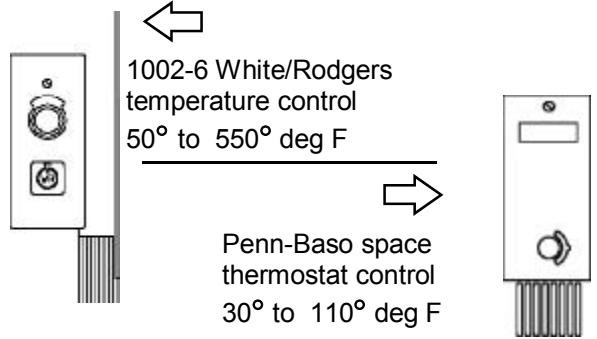
Valves - Special

We have a number of different specialty valves for a number of different applications. Please call our customer service department for assistance in your application

- Squeeze Trigger Valve Assy. part no. - 728140
- Brass valve body. p/n-954214
- Lever bracket only. p/n - 954950



Temperature Controls



1002-6 White/Rodgers temperature control
50° to 550° deg F


Penn-Baso space thermostat control
30° to 110° deg F

Solenoids

UL Listed, 1/4"npt inlet & outlet.

- 12VDC - p/n 956126
- 115VAC (vapor) - p/n 956125
- 115VAC (liquid) - p/n 956124

Other sizes available.

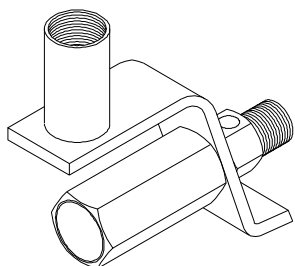


ORIFICES

| Burner / Torch | Orifice | Burner / Torch | Orifice | Burner / Torch | Orifice |
|----------------|---------|----------------|---------|----------------|---------|
| FL-1 | 127115 | FV-1 | 728036 | FV-70 | 127975 |
| FL-2 | 127115 | FV-15 | 728136 | FV-71 | 127975 |
| FL-3 (L or S) | 127115 | FV-16 | 728137 | FV-80 | 127985 |
| FL-4 | 127415 | FV-20 | 897550 | FV-90 | 127957 |
| FL-5 | 127415 | FV-21 | 897550 | FV-91 | 127957 |
| FL-6 (L or S) | 127715 | FV-30 | 897750 | MK-1 | 129251 |
| FL-6-M | 127615 | FV-31 | 897750 | MK-2 | 129252 |
| FL-6-MB | 127616 | FV-40 | 127945 | SK-1 | 129250 |
| FL-7 (S) | 127715 | FV-41 | 127945 | TK-10 | 129210 |
| FL-8 | 127415 | FV-50 | 897950 | TK-30 | 127115 |
| FL-9 | 127915 | FV-60 | 127965 | TK-40 | 129200 |
| FL-10 | 127915 | FV-61 | 127965 | TK-50 | 129201 |

High Pressure Pilot Assembly

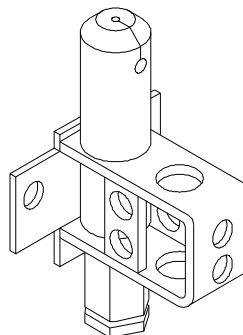
Our high pressure pilot assembly is used for a wide variety of applications. It is complete with a weldable mounting bracket & thermocouple holder. The inlet connection is a 1/4" copper compression or 1/8" mpt. Individual parts are also available.



- Complete Assembly**
p/n - 126200
- Orifice**
p/n - 129510
- Burner Head**
p/n - 129520
- Bracket**
p/n - 129530

Low Pressure Pilot Assembly

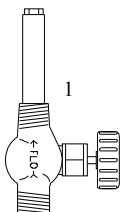
Our low pressure pilot assembly is used mainly for heater & furnace applications. It operates on propane or natural gas at pressures less than 1/2 psi. It includes a mountable bracket with thermocouple holder.
(thermocouple is not included)



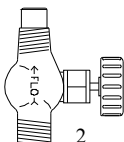
- Complete Assembly**
p/n - 126100
- Propane Orifice**
p/n - 129501
- Natural Gas Orifice**
p/n - 129502

Valve/Orifice Assembly

Our exclusive valve / orifice assemblies are used in the FV-5, FV-10, FV-11 and FV-12 Torches.



1. Valve/Orifice Assembly, 600,000 btu/h, used in the FV-10 and the FV-12 torch

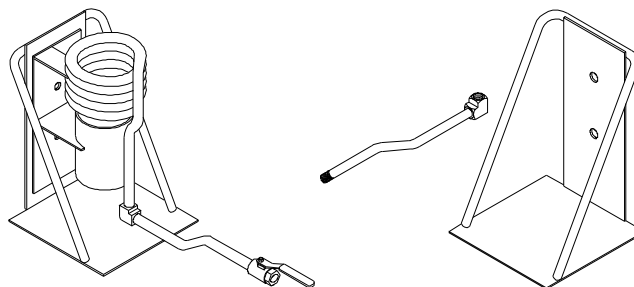


2. Valve/Orifice Assembly, 400,000 btu/h, used in the FV-5 and the FV-11 torch.

VERTICAL BURNER ADAPTER p/n - 125001

Designed to allow almost any FV series or FL series burner to be mounted & operated in the vertical position.

Not for use on the TK series burners, FL-6-M burner has a special adapter. Please call for assistance. Burner not included.



"ISS" IGNITION / FLAME MONITORING

Electrical Control Parts

"ISS" series

These parts are used for repair or replacement of damaged Ignition Control ("ISS" series) components

**Ignition Control Module
Fenwal Brand**

| | |
|--------|--------|
| 12VDC | 309930 |
| 115VAC | 309951 |

Wiring Harness

| | |
|--------------|--------|
| 12VDC - only | 309935 |
|--------------|--------|

| | |
|-------------|--------|
| Fuse | 310961 |
|-------------|--------|

| | |
|-------------------|--------|
| Fuse Block | 310950 |
|-------------------|--------|

Toggle Switch

| | |
|---------------------|--------|
| Both 12VDC & 115VAC | 307230 |
|---------------------|--------|

| | |
|----------------------|--------|
| Ignition Wire | 308536 |
|----------------------|--------|

| | |
|---------------------------|--------|
| Flame Rod/Solenoid | 308534 |
|---------------------------|--------|

Cable Assembly

| | |
|------------------|--------|
| Enclosure | 301018 |
|------------------|--------|

| | |
|-----------------|--------|
| Subplate | 301050 |
|-----------------|--------|

Solenoid

| | |
|-------------------------|--------|
| 12VDC | 956126 |
| 115VAC (Vapor Only) | 956125 |
| 115VAC (Liquid Service) | 956124 |

Temperature Controls

| | |
|--|--------|
| Dial Type - W/R. 1002-6 (both 12VDC & 115VAC) | 307510 |
|--|--------|

| | |
|--|--------|
| Digital Display - Omega, CN-132 12VDC | 307511 |
|--|--------|

| | |
|---|--------|
| Digital Display - Omega, CN-132 115VAC | 307512 |
|---|--------|

| | |
|---|--------|
| Packing Nut (for 1/2"npt thermowell) | 307515 |
|---|--------|

Filters & Pressure Reliefs

For use with liquid & vapor propane gas trains.

Filter (Liquid or Gas)

| | |
|--|--------|
| #155 (1/4"ft in x 1/4"mpt out) (1.0 mil btu/h cap. on liquid) | 522060 |
|--|--------|

Pressure Relief Valve

| | |
|--|--------|
| 50 psi (1/4" mpt) | 958210 |
| 120 psi (1/4" mpt) | 958220 |
| 200 psi (1/4" mpt) (200 psi is used on liquid withdrawal systems) | 958110 |

Roofing Torch - Parts

Replacement parts available for the FV-1, FV-15, FV-16, FV-17 & Roofing Wagon.

Burner/Torch Head - Only

| | |
|----------------------------------|--------|
| FV-1 | 728034 |
| FV-15,16 & 17 & Roofing Wagon | 728121 |

Burner Head Assembly

| | |
|--------------------------|--------|
| Roofing Wagon | |
| Inner Burner (Normal) | 728588 |
| Outer Burner (Hi output) | 728589 |

Orifice / Nozzle

| | |
|-----------------------|--------|
| FV-1 | 728036 |
| FV-15 & FV-17 | 728136 |
| FV-16 | 728137 |
| Roofing Wagon (inner) | 728525 |
| Roofing Wagon (outer) | 728526 |

Jam Nut

| | |
|---|--------|
| FV-1 (1/4") | 374004 |
| FV-15, 16, 17 & Roofing Wagon (3/8") | 374006 |

Gas Tube

| | |
|--------------|--------|
| FV-1 | 728035 |
| FV-15 | 728114 |
| FV-16 | 728116 |
| FV-17 (dual) | 728118 |

Needle Valve - only

| | |
|------|--------|
| FV-1 | 954204 |
|------|--------|

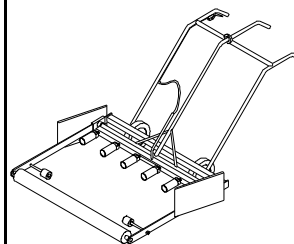
Squeeze Valve - only

| | |
|----------------------------------|--------|
| FV-15, 16, 17 & Roofing Wagon | 954214 |
|----------------------------------|--------|

Squeeze Valve Assembly

| | |
|----------------|--------|
| FV-15, 16 & 17 | 728140 |
|----------------|--------|

**FOR HOT AIR "Ply-Rite" SPARE PARTS
PLEASE CONTACT OUR SERVICE DEPT.**



For a complete parts breakdown sheet for either the **FV series** torches or the **Roofing Wagon**, contact our Customer or Technical Service departments. All parts breakdown sheets are faxable.

Fuel Gas Specifications

| Properties | Propane | Butane | Natural |
|---------------------------------|-------------------------------|--------------------------------|-----------------|
| Formula | C ₃ H ₈ | C ₄ H ₁₀ | CH ₄ |
| Boiling Point | -44°F | 31°F | -263°F |
| Sp.Gr. of Gas | 1.53 | 2.00 | 0.60 |
| Sp.Gr. of Liquid | 0.51 | 0.58 | -NA- |
| Lb / Gal of Liquid | 4.24 | 4.81 | -NA- |
| BTU / Gal. | 91,690 | 102,032 | -NA- |
| BTU / Lb. | 21,591 | 21,221 | -NA- |
| BTU / ft ³ | 2,516 | 3,280 | 1,035 |
| ft ³ / Gal. | 36.39 | 31.26 | -NA- |
| ft ³ / Lb. | 8.547 | 6.510 | -NA- |
| Lat heat of vap-btu/gal | 785.0 | 808.0 | -NA- |
| Comb Data / Air : Gas | 23.8 | 31.0 | 9.5 |
| Flash Point | -156°F | -76°F | -NA- |
| Ignition Temp. | 896°F | 788°F | 1076°F |
| Max flame temp - air | 3595°F | 3615°F | 3554°F |
| Max flame temp - O ₂ | 5108°F | 5200°F | 5090°F |
| Low limit of comb. | 2.1% | 1.8% | 5.0% |
| High limit of comb. | 10.1% | 8.4% | 15.0% |

Vapor Pressure of LP Gases

| Temperature (°F) | Propane | Butane |
|------------------|---------|--------|
| -40 | 3.6 | |
| -30 | 8.0 | |
| -20 | 13.5 | |
| -10 | 20.0 | |
| 0 | 28.0 | |
| 10 | 37.0 | |
| 20 | 47.0 | |
| 30 | 58.0 | |
| 40 | 72.0 | 3.0 |
| 50 | 86.0 | 6.9 |
| 60 | 102.0 | 11.5 |
| 70 | 127.0 | 17.0 |
| 80 | 140.0 | 22.0 |
| 90 | 165.0 | 29.0 |
| 100 | 196.0 | 37.0 |

LP Gas (propane) Cylinder Specifications

| TANK | Dimensions | Weight | Capacity | Vap. Cap |
|-----------|---------------------|--------|----------|-----------|
| 20# | 12" dia x 18" long | 18# | 4.72 | |
| 30# | 12" dia x 24" long | 26# | 7.08 | |
| 33# | 13" dia x 27" long | 35# | 7.78 | |
| 40# | 12" dia x 30" long | 26# | 9.43 | |
| 43# | 13" dia x 33" long | 41# | 10.14 | |
| 50# | 15" dia x 33" long | 48# | 11.79 | |
| 60# | 12" dia x 43" long | 48# | 14.15 | |
| 100# | 15" dia x 50" long | 72# | 23.58 | |
| 120 gal | 24" dia x 68" long | 288# | 96 | 235,000 |
| 150 gal | 24" dia x 84" long | 352# | 120 | 290,300 |
| 200 gal | 30" dia x 79" long | 463# | 160 | 341,280 |
| 250 gal | 30" dia x 94" long | 542# | 200 | 406,080 |
| 325 gal | 30" dia x 119" long | 672# | 260 | 514,100 |
| 500 gal | 37" dia x 119" long | 1062# | 400 | 634,030 |
| 1,000 gal | 41" dia x 192" long | 1983# | 800 | 1,088,470 |

Conversions

| Multiply | By | To Find |
|------------------|---------|------------------|
| Inches of water | 0.0361 | PSI |
| PSI | 27.67 | Inches of water |
| Celsius | 1.8 | Fahrenheit (+32) |
| Fahrenheit (-32) | .555 | Celsius |
| BTU | 0.252 | Calories |
| Calories | 3.968 | BTU |
| BTU | 0.00001 | Therms |
| Therms | 100,000 | BTU |
| BTU | 0.0029 | Kilowatt hour |
| Kilowatt hour | 3412 | BTU |
| Inches | 25.4 | Millimeters |
| Millimeters | 0.0393 | Inches |

What's the difference ???

Liquid Propane vs. Vapor Propane

One of the most common questions asked, is "Which type of fuel do I need, *Liquid or Vapor Propane*..."

Propane is a gas stored under pressure inside a tank. When propane is stored under pressure, it turns into a liquid. If you could look inside the tank, the propane would look just like water. As pressure is released (i.e. when an appliance is turned ON), some of the propane vaporizes and turns into gas.

There are two (2) different ways to get propane from a tank (or cylinder), vapor withdrawal or liquid withdrawal. The following two examples and illustrations will show you the difference between the two.

- **VAPOR WITHDRAWAL** - Vapor withdrawal is simply using the vaporized gas from the top of the propane storage tank (see fig. **A**). As propane vapor is used, the pressure in the tank decreases, which in turn causes the liquid propane in the tank to vaporize, replacing the vapors which have been used. This method is typically used when less than 100,000 btu/h is required and when the air temperature is 50° F or warmer.
- **LIQUID WITHDRAWAL** - Liquid withdrawal is the method which uses the liquid from the bottom of the tank. This is done with a special valve which is installed on a normal propane cylinder. The liquid withdrawal valve has a tube attached to it. This tube will allow the liquid propane to be removed from the propane storage tank (see fig. **B**). Because of the pressure in the tank, the liquid propane is forced through the tube whenever the valve is opened. This method is typically used when the required output is more than 100,000 btu/h. However, as the air temperature decreases, it becomes necessary to use liquid withdrawal for lower BTU applications.

IMPORTANT - You CAN NOT use liquid propane on a vapor propane appliance. Nor should you use vapor propane on a liquid propane appliance. Personal injury and/or death and property damage can occur. Also premature equipment failure will result.

REMEMBER - L.P. Gas means Liquefied Petroleum Gas, not liquid propane

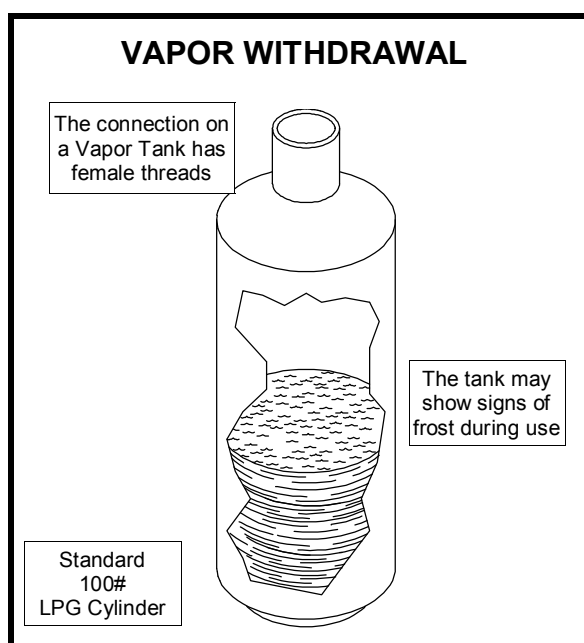


fig. A

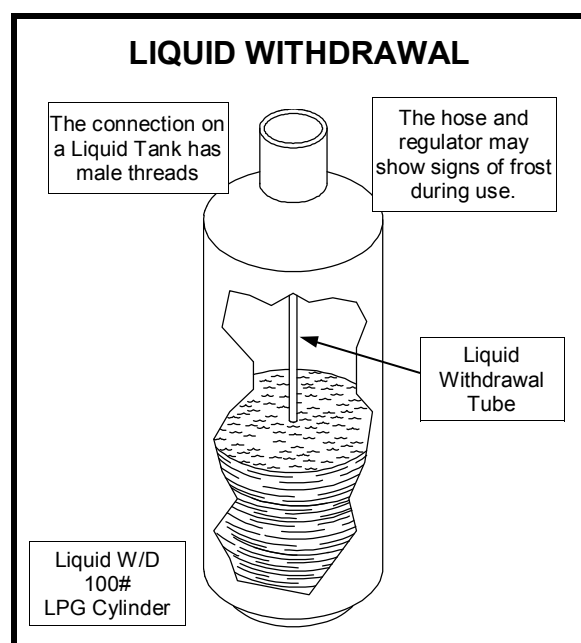


fig. B

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248-676-9141

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8:00am to 4:30pm EST
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United States

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