About FLAME ENGINEERING, INC.

From the development of a single, hand-held farm torch in 1959, to over 100 products which serve many industries today, Flame Engineering combines simplicity, function, practicality and affordability to create some of the most unique products available.

Our top priority has always been Red Dragon® Torches and flaming equipment. We are the first manufacturer ever to receive American Gas Association and Canadian Gas Association certification on hand-held torch kits used with a remote fuel supply. Throughout the years, Flame Engineering has been at the front lines, developing new products and listening to the people who use them. Our patented Liquid Propane Spray process, for example, provided more flame length, width and volume than vapor torches or the old coil-type liquid torches could offer. More recently, the Row Crop and Grapevine Bern Flamers are the only systems in the agricultural sector today which utilize our unique vaporizing liquid torch designs. No other manufacturer offers such a diverse line which serves the needs of all.

In addition to torches, Flame Engineering developed the highly successful and extremely durable Hot Box construction heater. Our Patio Lights are open flame lights which are copied by others, but never equaled. The elegance of the Patio Lights continue to delight homeowners, restaurants, resorts and outdoor enthusiasts.

On a grander scale, the propane flare used to evacuate liquid and vapor tanks for valve change-outs, re-certifications or emergency flare-offs, has been well received in Canada and the U.S. With flame sensing and complete safety shutdown in case of a flame-out, we combine high capacity flaring with convenience and safety, making it a very unique product in the propane and emergency industries.

In order to be successful, we believe that the product must be easy to sell at the distributor level and reliable at the customer level. In addition, we provide a good deal of advertising, internet information and toll free customer service to support our distributors and inform the end users. We welcome your comments and suggestions and look forward to hearing from you.

Call us at 800-255-2469!

Members Of:
• National Propane Gas Association
• North American Retail Hardware Association
• Propane Marketers Association of Kansas
• National Association of Manufacturers
• Western Kansas Manufacturers Association
• Mid-American Manufacturing Technology
• National Roofing Contractors Association
• Western States Roofing Contractors Association
• Midwest Roofing Contractors Association
• Organic Trade Association
• US Poultry & Egg Association
• Hemp Association of America

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Put A Red Dragon® Torch To Work For You – Hundreds of Uses Year Round

**FLAME** weeds in your yard, garden, concrete cracks, rock gardens, driveways, and along fence lines. Perfect for controlling growth along the chainlink fence. Flaming reduces or eliminates spraying chemicals and is a lot more fun than pulling weeds.

**BURN** heavy weeds and brush, stumps, debris and more. Perfect to burn off irrigation and road ditches, fields, culverts, etc. Start charcoal, campfires, burn barrels and back fires.

**THAW** frozen water pipes. Melt snow and ice off steps, sidewalks, driveways and nonflammable surfaces.

**HEAT** metal castings, pipe and tubing, branding irons, pots, kettles, tar, asphalt and roofing materials.

**STERILIZE** bird and animal cages, pens and other non-flammable confinement areas.

**DRY** or thaw sand, dirt and other materials used in construction and excavation.

**REMOVE** paint, grease, oil, plastic and other residues from metal, concrete and other nonflammable objects.

**MUCH MORE!**

**FIND OUT WHAT A RED DRAGON® TORCH CAN DO FOR YOU TODAY!**

---

**Flame Weeding 101:** (Always read and follow Safety Instructions)

**A Quick Guide To Weed Control With A Red Dragon® Torch. Get There Early!**

A quick pass with the torch is usually enough to damage leaves and ultimately kill weeds.

Shortly after flaming, the weed turns a dark green and shows stress and wilting.

Days later, weed decay is obvious. FLAMING WORKS!

When flame weeding, the most effective method is to catch weeds early, from 1-4 inches. At this small stage, flaming is very near 100% effective, whereas weeds over 4 inches are more difficult to kill without an extended dose of heat.

By destroying cell structure in the plant leaf, the weed will no longer put energy toward growth, so even on big weeds, you will see a stunting effect or even a kill, depending on how established the root system is and how long the plant was exposed to heat.

On smaller weeds a slow walk is usually the best pace – just a split second blast of heat should kill unwanted weeds and grasses – you don’t need to burn them to a crisp. By nature some grasses will return following a flaming. Repeat applications, however, will usually do the trick. For best results, increase exposure to heat if weeds are wet from dew. Water on the leaves acts as insulation and de-creases cell damage unless exposure time is increased.

It’s important to remember when flaming in and around desireable plants that heating those leaves can cause damage as well, so be careful around flowers and shrubs – particularly evergreens. Conifers are very flammable and should be avoided. Poison ivy should also be avoided – the smoke from burned leaves will cause a rash.

---

**Which Red Dragon® Torch Kit Is Right For You?**

Most likely you want a Vapor Torch Kit. We offer these in a variety of BTU ratings and sizes to suit most job requirements. Vapor Torch Kits require a standard vapor withdrawal cylinder (like a gas grill bottle) and are sold in a variety of sizes. Only mini Dragon® torches are to be used with disposable propane cylinders.

If you plan on using your torch continuously for great lengths of time or if you plan on using it in sub-zero climates you will need to use a Liquid Torch Kit. Liquid Torch Kits require a propane tank equipped with a liquid withdrawal valve. Talk to your local propane dealer for more information about this.

If you want something more like a flame thrower for hard to reach areas or heavy brush, check out our Jet Torches. Jet Torches require a vapor withdrawal propane cylinder (we recommend no less than a 100 lb. cylinder).
From page 2 of the catalog:

**Vapor Torch Kits** – The Best Torch Kits For Weed Control, Heating, Thawing & More

- Red Dragon® Torches are made of durable, lightweight steel and complete kits include all parts necessary for safe operation.
- BTU Capacities Ranging From 50,000 to 500,000
- Many Sizes and Lengths To Choose From – One Is Perfect For You
- Models For Farm & Ranch, Home and Garden, Manufacturing, Construction and More
- Individually Tested Before Leaving The Factory • Made In The U.S.A.

**Red Dragon® Vapor Torch Kits**

Red Dragon® Vapor Torches have been designed with you, the customer, in mind. High quality, rugged all steel construction assures that these torches will be around for many years. You may select from bell diameters of 3”, 2½”, 2”, 1½” and 1” with maximum BTU capacities ranging from 25,000 to 500,000.

This graphic illustrates flame temperatures and lengths at normal operating pressures. Flame length will vary depending on tank pressure and the flame adjusting valve setting. All Red Dragon® Vapor Torches emit flames up to 2050°F. When choosing a torch, keep in mind that optimum heat is not at the torch head, but beyond as illustrated here. By directing a 3 inch diameter torch at a weed from 12 inches away, for example, you’re using the torch at its utmost efficiency.

---

**“I wish I had bought one sooner. Weed Control is so much easier. Thank you.”**

P.P., Mason, NV

**“This colder than average December left our unloading augers in blocks of ice. I took the propane bottle from our gas grill, assembled my Red Dragon, and melted through the ice with no equipment damage and in less time than it took to go buy it.”**

S.L., Oakland City, IN

**“Great Products. Been using to burn fence lines, brush piles and leaf piles. Fantastic all purpose piece of equipment. Very Pleased. Should have had one years ago. Thank you.”**

B.C., Garwin, IA

**“My husband and I don’t want to use weed sprays in our yard because we have two beloved dogs. The Weed Dragon allows us to have a beautiful lawn and healthy, happy pets!”**

J.T., Elk Park, NC

**“We have tried all kinds of things to control weeds on our 2 1/2 acres. This thing works great. Best of all, no harmful pesticides going into the ground.”**

S.C., Ely, NV

**“Great torch. Used for the first time and I was simply amazed at its performance. Liked it so much, I hated to shut it off but it got dark.”**

D.G., Mertztown, PA
Complete Vapor Torch Kits – The Best Torch Kits For Weed Control, Heating, Thawing & More

VT3-30C & VT3-30SVC – 500,000 BTU
The “Original” Red Dragon® Torch Kits

Simple, lightweight, easy to use and very effective:
The VT3-30C is our most versatile “weed burner” and the most popular torch kit in America. At 500,000 BTU/hr, this kit really delivers the heat for weed burning, thawing, heating or whatever the job may require. A 28” handle and all-new flame adjusting valve make the VT3-30C our Deluxe Torch of choice for farmers, ranchers, construction professionals and property owners.

VT3-30C is also available with a flame control squeeze valve and handle! Perfect for spot weeding and instances where full flame is not continuously required. The valve will quickly pay for itself in propane savings! Order VT3-30SVC.

Torch kits are CSA Certified for the United States and Canada on tank pressure and do not require the use of a regulator.

Kits Include:
- Part No. Description
  - VT3-30 500,000 BTU Vapor Torch
  - HP10C 10’ U.L. Listed LP Gas Hose
  - P-3200W U.L. Listed Excess Flow P.O.L.Fitting
  - V-334 Flame Adjusting Needle Valve
  - V880P/H-1 Squeeze Valve & Handle with Adjustable Pilot (SVC Model)
  - L2002* Spark Lighter
  - Pipe Thread Sealant

VT3-30 Vapor Torch Specifications:
- Maximum Capacity: 500,000 BTU/hr
- Normal Operating Pressure: 30 PSI
- Operating Pressure Range: 5-90 PSI
- Approximate Flame Temperature: 2050°F
- Fuel Consumption @ 30 PSI: 10.13 lbs/hr
- Maximum Fuel Consumption: 23.3 lbs/hr
- Fuel Inlet: 1/4" NPT
- Torch Bell Diameter: 3"
- Handle Length: 28" (C)
- Overall Torch Length: 33 1/2"

ATTENTION DEALERS:
VT3-30C is packaged in a NEW sturdy box, with full color graphics.

MAKE IT A COMBO!
Order either kit complete with a CD-100 Cylinder Dolly. Visit our website for special offerings. See page 42 for more information about the rugged CD-100 Cylinder Dolly.

<table>
<thead>
<tr>
<th>Model: VT3-30C</th>
<th>Model: VT3-30SVC</th>
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<th>TORCH KIT ORDER INFORMATION</th>
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<td>Order SKU #</td>
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<tr>
<td>VT3-30C</td>
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<tr>
<td>VT3-30SVC</td>
<td>5.0 lbs</td>
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| CYLINDER DOLLY COMBO KIT ORDER INFORMATION | |
|---------------------------------------------|
| Order SKU # | Wt Each | Case Qty | Case Wt |
| VT3-30COMBO | 19.0 lbs | 1 | 19.0 lbs |
| VT3-30SVCOMBO | 19.5 lbs | 1 | 19.5 lbs |

Model: VT3-30COMBO
20 lb. Cylinder Not Included.

ATTENTION DEALERS:
VT3-30C is packaged in a NEW sturdy box, with full color graphics.

Visit us at www.FlameEngineering.com for special offerings!
Complete Vapor Torch Kits – The Best Torch Kits For Weed Control, Heating, Thawing & More

VT2$\frac{1}{2}$-30C & VT2$\frac{1}{2}$-30SVC – 400,000 BTU

Simple, lightweight, easy to use and very effective:
The VT2$\frac{1}{2}$-30C is a small step down from the VT3-30C with a 400,000 BTU/hr rating and a smaller diameter torch head creating a slightly more concentrated flame. It is a very effective kit and is a great choice for jobs which don’t require the power of the VT3-30C.

VT2$\frac{1}{2}$-30C is also available with a flame control squeeze valve and handle! Perfect for spot weeding and instances where full flame is not continuously required. The valve will quickly pay for itself in propane savings! Order VT2$\frac{1}{2}$-30SVC.

Torch kits are CSA Certified for the United States and Canada on tank pressure and do not require the use of a regulator.

ATTENTION DEALERS:
VT2$\frac{1}{2}$-30C are packaged in a sturdy, full color graphic box.

Model: VT2$\frac{1}{2}$-30C

Model: VT2$\frac{1}{2}$-30SVC

ATTENTION DEALERS:
VT2$\frac{1}{2}$-30C are packaged in a sturdy, full color graphic box.

MAKE IT A COMBO!

Order either kit complete with a CD-100 Cylinder Dolly. Visit our website for special offerings. See page 42 for more information about the rugged CD-100 Cylinder Dolly.

<table>
<thead>
<tr>
<th>Kit Description</th>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
<th>Case Wt</th>
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</thead>
<tbody>
<tr>
<td>VT2$\frac{1}{2}$-30C</td>
<td>VT2$\frac{1}{2}$-30</td>
<td>5.0 lbs</td>
<td>2</td>
<td>10.0 lbs</td>
</tr>
<tr>
<td>VT2$\frac{1}{2}$-30SVC</td>
<td>VT2$\frac{1}{2}$-30SVC</td>
<td>10.0 lbs</td>
<td>1</td>
<td>10.0 lbs</td>
</tr>
<tr>
<td>CYLINDER DOLLY COMBO KIT ORDER INFORMATION</td>
<td>L2002*</td>
<td>1</td>
<td>1</td>
<td>1.0 lbs</td>
</tr>
</tbody>
</table>

Visit us at www.FlameEngineering.com for special offerings!
Fully assembled and ready to go, the Weed Dragon® is great for around the home & garden. We’ve regulated the flame and BTU down for homeowners who don’t need the power of a farm torch. A great way to reduce or eliminate herbicide use where children and pets could be exposed. Use with a large or small cylinder (not for use with a 1 lb. cylinder). And now this great kit is available with a flame control squeeze valve! Perfect for spot weeding and instances where full flame is not continuously required. The valve will quickly pay for itself in propane savings! CSA Certified for the United States and Canada.

**MAKE IT A COMBO!**
Order either kit complete with a CD-100 Cylinder Dolly. Visit our website for special offerings. See page 42 for more information about the rugged CD-100 Cylinder Dolly.

**ATTENTION DEALERS:**
VT2-23C Weed Dragon® kits are packaged in a sturdy, full color graphic box.

**Model: VT2-23COMBO**
Visit us at www.FlameEngineering.com for special offerings!

<table>
<thead>
<tr>
<th>TORCH KIT ORDER INFORMATION</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Order SKU #</td>
<td>Wt Each</td>
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<tr>
<td>VT2-23C</td>
<td>5.0 lbs</td>
</tr>
<tr>
<td>VT2-23SVC</td>
<td>5.5 lbs</td>
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<tr>
<td>CYLINDER DOLLY COMBO KIT ORDER INFORMATION</td>
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</tr>
<tr>
<td>VT2-23COMBO</td>
<td>19.5 lbs</td>
</tr>
<tr>
<td>VT2-23SVCOMBO</td>
<td>20.0 lbs</td>
</tr>
</tbody>
</table>

“No set up, no chemicals. Just light and go. Now after all these years, I am ahead of my weed problems, especially in sidewalk and curb cracks. Well worth the money. No more spraying for me!!!!”
M.G. – Paulsboro, NJ

**Red Dragon® Torches Are Made In The USA**

**Weed Dragon® Kits Includes:**
<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT2-23</td>
<td>Vapor Torch w/plastic grip</td>
</tr>
<tr>
<td>HP-10TMM</td>
<td>10' U.L. Listed LP Gas Hose</td>
</tr>
<tr>
<td>P-W795</td>
<td>Hand-Tighten U.L. Listed Excess Flow P.O.L.</td>
</tr>
<tr>
<td>V-334</td>
<td>Flame Adjusting Needle Valve (VT2-23C)</td>
</tr>
<tr>
<td>V-880P/H-1</td>
<td>Squeeze Valve w/Adjustable Pilot &amp; Handle (VT2-23SVC)</td>
</tr>
<tr>
<td>R-700C</td>
<td>U.L. Listed Regulator</td>
</tr>
<tr>
<td>L2002**</td>
<td>Spark Lighter</td>
</tr>
</tbody>
</table>

**VT2-23 Vapor Torch Specifications:**
- Maximum Capacity: 100,000 BTU/hr
- Normal Operating Pressure: 18 P.S.I.
- Operating Pressure Range: 5-25 P.S.I.
- Approximate Flame Temperature: 2050°F
- Fuel Consumption @ 18 P.S.I.: 2.25 lbs/hr
- Maximum Fuel Consumption: 4.6 lbs/hr
- Fuel Inlet: 1/4" NPT
- Torch Bell Diameter: 2"
- Handle Length: 23"
- Overall Torch Length: 27¼"
Complete Vapor Torch Kits – The Best Torch Kits For Weed Control, Heating, Thawing & More

BP223C & BP223SVC
100,000 BTU Back Pack Torch Kit
Our #1 Selling Torch Kits For Home & Garden Use are Now Available In Back Pack Kits! These kits are the same as the Weed Dragon® Kits shown on page 5 only now we’ve packaged them with a durable back pack and 10 lb. cylinder to make your weed flaming even easier. Torch kit and back pack frame are fully assembled and the tank quickly fastens to the frame once filled. CSA Certified for the United States and Canada.

Both Models Come Fully Assembled And Include a 10 Pound Cylinder!

Weed Dragon® Back Pack Kits Include:

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>VT2-23</td>
<td>Vapor Torch</td>
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<tr>
<td>HP5</td>
<td>5’ U.L. Listed LP Gas Hose</td>
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<tr>
<td>P-W795</td>
<td>Hand-Tighten U.L. Listed Excess Flow P.O.L.</td>
</tr>
<tr>
<td>V-334</td>
<td>Flame Adjusting Needle Valve</td>
</tr>
<tr>
<td>V-880P/H-1</td>
<td>Squeeze Valve &amp; Handle w/Adjustable Pilot (BP223SVC)</td>
</tr>
<tr>
<td>BP2512</td>
<td>Back Pack Frame w/Straps</td>
</tr>
<tr>
<td>R-700C</td>
<td>U.L. Listed Regulator</td>
</tr>
<tr>
<td>C-11</td>
<td>10 lb Fuel Cylinder (3 gal. capacity)</td>
</tr>
<tr>
<td>L2002*</td>
<td>Spark Lighter</td>
</tr>
<tr>
<td></td>
<td>Cylinder Bracket</td>
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</tbody>
</table>

See VT2-23 Torch Specifications on page 5.

“[I own a house in Sonora, California where I have weeds growing in my rock driveway. The Weed Dragon® took care of doing away with the weeds and protecting my back from pain I would have by removing the weeds by hand. It was fun getting rid of weeds this way.”]

A.B. – Tulare, CA

Each kit ships in one carton.
Complete Vapor Torch Back Pack Kits – Great for Grounds Maintenance, Landscaping & More

BP2512C & BP2512SVC – 400,000 BTU Back Pack Torch Kit

This kit includes the VT2½-30 Torch Kit (page 4) packaged with a durable back pack and 10 lb. cylinder. A great kit for forest service, fire protection (to set backfires), farm, garden and municipalities – this back pack torch kit is versatile and easy to use! And now this great kit is also available with a flame control squeeze valve! Perfect for spot weeding and instances where full flame is not continuously required. The valve will quickly pay for itself in propane savings! Why pull weeds when you can flame them? These kits are CSA Certified for the United States and Canada on tank pressure and do not require the use of a regulator.

Both Models Include a 10 Pound Cylinder!

“Have an extra cylinder ready to go!”

C-11
10 lb. Vapor Withdrawal Propane Cylinder

This 10 lb. vapor withdrawal cylinder is opd equipped and meets all safety standards. Holds 2.4 gallons of propane when full and is the cylinder included with all our back pack torch kits. Has an overall height of 17.4 inches and a diameter of 8.9 inches. Features a durable powder coat finish.

Order SKU # Wt Each Case Qty
C-11 16.0 1

FOR YOUR PROTECTION:

CSA Certified Torch Kits include this safety P.O.L. which allows the safe flow of gas so long as the tank valve is turned on slowly. If you turn on the valve quickly, the P.O.L. will check (you may hear a click) just as it would if the hose ruptured. REMEMBER – always turn the cylinder valve on slowly!

BP2512C & BP2512SVC Kits Include:

<table>
<thead>
<tr>
<th>Part No.</th>
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<tr>
<td>VT2½-30</td>
<td>Vapor Torch</td>
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<tr>
<td>HP5C</td>
<td>5 U.L. Listed LP Gas Hose</td>
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<tr>
<td>P-3220W</td>
<td>U.L. Listed Excess Flow P.O.L. Fitting</td>
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<tr>
<td>V-334</td>
<td>Flame Adjusting Needle Valve</td>
</tr>
<tr>
<td>V-880P/H-1</td>
<td>Squeeze Valve &amp; Handle w/Adjustable Pilot (BP2512SVC)</td>
</tr>
<tr>
<td>BP2512</td>
<td>Back Pack Frame w/Straps</td>
</tr>
<tr>
<td>C-11</td>
<td>10 lb. Fuel Cylinder (3 gal. capacity)</td>
</tr>
<tr>
<td>L202X</td>
<td>Spark Lighter</td>
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<tr>
<td></td>
<td>Cylinder Bracket</td>
</tr>
<tr>
<td></td>
<td>Pipe Thread Sealant</td>
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</tbody>
</table>

Each kit ships in one carton.

Complete Vapor Torch Kits – The Best Torch Kits For Weed Control, Heating, Thawing & More

VT3-60C & VT3-60SVC
500,000 BTU

With a 5’ handle, this kit allows a good deal more in reach. Popular for paving repairs, ditch burning and general use, the VT3-60C comes with a 25’ hose and an adjustable regulator for more consistency when using for long periods of road repair or weed burning. Used by municipalities, highway departments and farmers.

Red Dragon®

Complete Vapor Torch Kits – The Best Torch Kits For Weed Control, Heating, Thawing & More

VT21/2-24CE & VT21/2-24SVC  Torch Kit – 500,000 BTU

This kit has a great low price and really delivers at 500,000 BTU/hr. For you dealers and distributors, there is no Co-op advertising allowance or other discounts. This is a net item.

This kit is CSA Certified for the United States and Canada on tank pressure and does not require the use of a regulator.

VT21/2-24 Vapor Torch Specifications:
- Maximum Capacity: 500,000 BTU/hr
- Normal Operating Pressure: 30 P.S.I.
- Operating Pressure Range: 5-90 P.S.I.
- Approximate Flame Temperature: 2050°F
- Fuel Consumption: 10.13 lbs/hr
- Maximum Fuel Consumption: 23.2 lbs/hr
- Fuel Inlet: 1/4" NPT
- Torch Bell Diameter: 2 1/2"
- Handle Length: 23"
- Overall Torch Length: 27 1/2"

TORCH KIT ORDER INFORMATION

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<td>8</td>
<td>28.0 lbs</td>
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<tr>
<td>VT21/2-24SVC</td>
<td>4</td>
<td>8</td>
<td>32.0 lbs</td>
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Distributors: Order 24 Kits For Best Price.
Complete Vapor Torch Kits – The Best Torch Kits For Weed Control, Heating, Thawing & More

HT11/2-10CR – 50,000 BTU

Our “Shop Torch”, the HT11/2-10CR is our most popular, small torch kit. Great for small jobs and detail work like removing paint and preheating metal. The 45° bend allows comfort and ease while doing close work. A very nice kit with plastic grip, preset regulator, spark lighter and torch stand. CSA Certified for the United States and Canada.

HT11/2-10CR Kit Includes:

<table>
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<td>Vapor Hand Torch w/plastic grip</td>
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<td>HP-10TMM</td>
<td>10’ U.L. Listed LP Gas Hose</td>
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<tr>
<td>P-3200W</td>
<td>U.L. Listed Excess Flow P.O.L. Fitting</td>
</tr>
<tr>
<td>V-334</td>
<td>Flame Adjusting Needle Valve</td>
</tr>
<tr>
<td>R-700C</td>
<td>U.L. Listed Regulator</td>
</tr>
<tr>
<td>TB-4</td>
<td>Torch Stand</td>
</tr>
<tr>
<td>L2002*</td>
<td>Spark Lighter</td>
</tr>
<tr>
<td>Pipe Thread Sealant</td>
<td></td>
</tr>
</tbody>
</table>

Order SKU # | Wt Each | Case Qty | Case Wt |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HT11/2-10CR</td>
<td>4.5 lbs</td>
<td>6</td>
<td>27.0 lbs</td>
</tr>
</tbody>
</table>

The HT torch is great for heating flat iron or metal tubing.

VT11/2-12C – 50,000 BTU

A few dollars less than the HT11/2-10CR, the VT11/2-12C is a very basic kit. Use where other torches prove to be too big or awkward. Perfect for starting campfires and charcoal, thawing pipes and more. The 15” overall length makes this our most compact kit. Use with a large or small tank (not for use with a disposable cylinder).

VT11/2-12 Kit Includes:

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT11/2-12</td>
<td>Vapor Torch</td>
</tr>
<tr>
<td>HP10C</td>
<td>10’ U.L. Listed LP Gas Hose</td>
</tr>
<tr>
<td>P-3200W</td>
<td>U.L. Listed Excess Flow P.O.L. Fitting</td>
</tr>
<tr>
<td>V-334</td>
<td>Flame Adjusting Needle Valve</td>
</tr>
<tr>
<td>Pipe Thread Sealant</td>
<td></td>
</tr>
<tr>
<td>L2002*</td>
<td>Spark Lighter</td>
</tr>
</tbody>
</table>

Order SKU # | Wt Each | Case Qty | Case Wt |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VT11/2-12C</td>
<td>2.9 lbs</td>
<td>6</td>
<td>20.0 lbs</td>
</tr>
</tbody>
</table>

The torch stand safely directs flame upward while not in use.

The torch stand safely directs flame upward while not in use.

Add a Squeeze Valve and Handle!

The V-880P/H-1 kit is the perfect addition to a Red Dragon® Torch Kit for spot weeding and instances where full flame is not continuously required. This kit will quickly pay for itself in propane savings. Find out more about this kit on page 37.
Complete Vapor Torch Kits – The Best Torch Kits For Weed Control, Heating, Thawing & More

NEW! VT1-32C mini Dragon™
25,000 BTU Vapor Torch Kit

The NEW mini Dragon™ provides the perfect pin-point flame for small jobs around the home & garden. Perfect for chemical free spot weeding, lighting charcoal, chimineas, campfires & more. For use with 1 pound propane cylinders. Cylinder not included. See the hook up kit below to use with larger refillable cylinders. CSA Certified for the United States and Canada.

VT1-32C Kits Include:
Part No. Description
VT1-32 Vapor Torch
V-144-S0* Flame Adjusting Needle Valve w/ 1 Pound Cylinder Connector
100-500-021 Cane Orifice
L2002* Spark Lighter

SL-32C Hose Kit
Use the SL-32C Hose Kit to connect the mini Dragon™ or mini Dragon JR™ to a larger, refillable cylinder for larger flaming jobs.

Order SKU # Description Wt Each Case Qty
VT1-32C mini Dragon™ Torch Kit 2.5 lbs 10
VT1-20C mini Dragon JR™ 2.0 lbs 6
SL-32C Propane Hook Up Kit 2.0 lbs 10

Introducing “The Ultimate Fire Starter”
VT1-20C mini Dragon JR™
25,000 BTU Vapor Torch Kit

Uniquely Designed, The mini Dragon JR™ offers:
• Extreme Portability
• Capable of fitting in a backpack
• No Assembly Required
• Light Weight 2 lbs.
• Connects to a standard 14-16 oz. propane cylinder
• Powerful 25K BTU’s
• Capable of starting a fire in extreme conditions in minutes
  - Damp/Wet Wood “No Problem”
  - Uncured Wood “No Problem”
  - Extreme Temperatures “No Problem”
• Many Uses throughout the Year
  - Campfire
  - Firepits
  - Chimineas
  - Charcoal Grills
  (evenly starts coals in minutes)
  - Thawing frozen pipes (above ground)
  - Thawing Watering tanks
  (cattle, horses and pets etc...)
• Adjustable Flame
• Easy & Effective
• Non-Slip Grip
• No Lighter Fluid

FLAME ENGINEERING, INC. • P.O. Box 577 • West Highway 4 • LaCrosse, KS 67548
800-255-2469 • 785-222-2873 • FAX: 785-222-3619 • www.FlameEngineering.com
**Complete Liquid Torch Kits – For Continuous Use Applications and Sub-Zero Climates**

- **Red Dragon® Liquid Torches Feature A Patented Vaporizing System**
- **Two Great Kits To Choose From • 250,000 to 750,000 BTU/hr • Made In The U.S.A.**

*Red Dragon® Liquid Torches require use with a liquid withdrawal cylinder.*

**LT2\(\frac{1}{2}\)-30C – 250,000 BTU**

Use the Red Dragon® LT2\(\frac{1}{2}\)-30C liquid torch kit in sub-zero temperatures or continuous use situations. The self-vaporizing torch is 36” in length and capable of producing up to 250,000 BTU/hr. This is an excellent kit for road repair, surface drying, preheating castings for welding, weed burning, and many other jobs.

**LT2\(\frac{1}{2}\)-30C Kit Includes:**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT2(\frac{1}{2})-30</td>
<td>Liquid Torch</td>
</tr>
<tr>
<td>HP10C</td>
<td>10' U.L. Listed LP Gas Hose</td>
</tr>
<tr>
<td>P-3200W</td>
<td>U.L. Listed Excess Flow P.O.L. Fitting</td>
</tr>
<tr>
<td>V-334</td>
<td>Flame Adjusting Valve</td>
</tr>
<tr>
<td>Pipe Thread Sealant</td>
<td></td>
</tr>
<tr>
<td>L2002*</td>
<td>Spark Lighter</td>
</tr>
</tbody>
</table>

**LT2\(\frac{1}{2}\)-30 Liquid Torch Specifications:**

- Maximum Capacity: 250,000 BTU/hr
- Normal Operating Pressure: 40 P.S.I.
- Operating Pressure Range: 5-70 P.S.I.
- Approximate Flame Temperature: 2050°F
- Maximum Fuel Consumption: 11.6 lbs/hr
- Fuel Inlet: 1/4" NPT
- Torch Bell Diameter: 21/2"
- Handle Length: 26”
- Overall Torch Length: 36”

**LT3-60C – 750,000 BTU**

This torch kit is perfect for heavy-duty use or where continuous operation is required. The torch and all other items contained in this kit are designed for use with liquid propane or butane. The 49” handle and 750,000 BTU/hr capacity make this torch excellent for paving repairs, extended weed burning or melting snow or ice.

**LT3-60 Liquid Torch Specifications:**

- Maximum Capacity: 750,000 BTU/hr
- Normal Operating Pressure: 50 P.S.I.
- Operating Pressure Range: 10-90 P.S.I.
- Approximate Flame Temperature: 2050°F
- Maximum Fuel Consumption: 34.7 lbs/hr
- Fuel Inlet: 1/4" NPT
- Torch Bell Diameter: 3"
- Handle Length: 49”
- Overall Torch Length: 61”

**Add a Squeeze Valve and Handle!**

The V-880P/H-1 kit is the perfect addition to a Red Dragon® Torch Kit for spot weedling and instances where full flame is not continuously required. This kit will quickly pay for itself in propane savings. Find out more about this kit on page 37.
Complete Jet Torch Kits – “Pear Burners” – For Heavy-duty Flaming of Large Weeds & Dense Brush

- Red Dragon® Jet Torches Produce Flames Up To 6’ In Length • Up To 2,000,000 BTU/hr
- As Close To A Flame Thrower As We Make • Made In The U.S.A.

Red Dragon® Jet Torches operate on vapor propane.

We recommend no less than a 100 lb. cylinder due to the high capacity of these torches.

Complete Jet Torch Kits

Use high capacity Red Dragon® Jet Torch Kits to knock down heavy weeds and brush fast and easy.

Jet Torches are perfect for flaming road ditches, fence rows, culverts and more. These torches are especially suitable as “pear burners” in the Southwest, where spines are flamed to make cactus edible for livestock.

Jet Torches maintain a pilot flame and are triggered to full flame with a convenient squeeze valve at the handle. Both feature a plastic grip and are easy to operate. JET8C and JET4C come with a 25’ hose.

JET8C – 2,000,000 BTU

JET8C Kit Includes:

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>JET8</td>
<td>84” Jet Torch w/Squeeze Valve</td>
</tr>
<tr>
<td>HP25</td>
<td>25’ U.L. Listed LP Gas Hose</td>
</tr>
<tr>
<td>P-1685</td>
<td>U.L. Listed P.O.L.Fitting</td>
</tr>
<tr>
<td>567RD</td>
<td>U.L. Listed Regulator</td>
</tr>
<tr>
<td>V-314-2</td>
<td>Squeeze Valve</td>
</tr>
<tr>
<td>L2002*</td>
<td>Spark Lighter</td>
</tr>
</tbody>
</table>

JET8C Torch Specifications:

- Maximum Capacity: 2,000,000 BTU/hr
- Normal Operating Pressure: 80 PS.I.
- Operating Pressure Range: 30 PS.I. – Tank Press
- Max Flame Length: 6’
- Approximate Flame Temperature: 2050°F
- Maximum Fuel Consumption: 40 lbs/hr
- Fuel Inlet: 1/4” NPT
- Overall Torch Length: 84”

Complete Jet Torch Kit Order Information

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Qty</th>
<th>Case Qty</th>
<th>Case Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>JET8C</td>
<td>84” Jet Torch w/25’ Hose</td>
<td>1</td>
<td>1</td>
<td>9.5 lbs</td>
</tr>
<tr>
<td>JET4C</td>
<td>40 1/2” Jet Torch w/25’ hose</td>
<td>1</td>
<td>1</td>
<td>8.0 lbs</td>
</tr>
</tbody>
</table>

JET8C ships in two boxes.

JET4C

JET4C Only Order Information

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Qty</th>
<th>Case Qty</th>
<th>Case Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>JET8</td>
<td>Overall Length 84”</td>
<td>1</td>
<td>1</td>
<td>4.0 lbs</td>
</tr>
<tr>
<td>JET4</td>
<td>Overall Length 40 1/2”</td>
<td>1</td>
<td>1</td>
<td>2.5 lbs</td>
</tr>
</tbody>
</table>

Have additional questions about Red Dragon® Torch Kits?
Please feel free to contact us at 1-800-255-2469.
One of our customer service representatives will be glad to help you.
TD12LPS Alfalfa Flamer – The Best Control For Weeds, Grass and Weevil

- Kills Weeds, Grasses and Weevil
- Effectively Treats Field Dodder
- Produce More Weed Free Alfalfa
- Burns Clean, Efficient Propane
- Safe For The Environment – No Runoff or Ground Water Contamination
- Adds Productive Years To Your Alfalfa Stand
- Durable and Low Maintenance
- Great for Organic & Conventional Producers with USDA Approval for Organic Growers
- Made In The U.S.A.

Red Dragon® Alfalfa Flamers

offer producers a single solution for what is usually a two part problem. One flame application replaces insecticide treatment for weevil and replaces herbicide treatment for unwanted weeds and grasses.

Due to the fact that weevil lay eggs all winter, flaming is normally done in late winter or early spring, just before or during greenup. Flaming usually takes between 20 - 30 gallons (75 - 114 liters) of propane per acre, depending on the outside temperature when flaming. A second application can be applied, if necessary, immediately following the first cutting. This will not hurt the alfalfa but may delay the second cutting by a few days.

Flame Engineering’s Patented liquid propane spray process was developed in the 1960s and still works today. By directing the spray at ground level, all plants and insects are subjected to high temperature thus burning out old growth, making way for new and eliminating weevils. Tall stubble will require slower ground speeds and higher pressures, however, it takes just a split second to kill weeds, grasses and insects.

Red Dragon® Alfalfa Flamers Are Safe And Easy To Use.

TD12LPS Flamers are designed to skid behind the tank cart (tank & cart are not included) and come standard with electronic solenoid and cab controls allowing the operator to control the liquid spray from the driver’s seat. Each unit is 12’ in width – to connect two or more, call for advisement on pressures, ground speeds and capabilities.

TD-12 LPS Alfalfa Flaming Units Include:

- Complete Control Head Assembly with electronic solenoid valve
- Cab Control Box with master shut-off switch (solenoid units)
- (2) LF-3-12T Liquid Pilot Torches
- All necessary hoses cut to length with brass fittings
- Valve Protector
- Red Dragon® Vapor Torch Kit for lighting

IMPORTANT NOTE: Please call Flame Engineering, Inc. at 1-800-255-2469 for tank specifications and requirements.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>TD12LPS</td>
<td>Alfalfa Field Flamer</td>
<td>153.0 lbs</td>
</tr>
</tbody>
</table>

Ships Unassembled by UPS.

"The Alfalfa Flamer wiped out the mustard and really did a job on grasses. It made a believer out of me."

B.L. - Ransom, KS

The Liquid Spray Process In Action!

You can clearly see where the flame application ended on this test plot. The flamed plot was thick, healthy and free of wild mustard.

The sample to the left came from an unaflamed patch. The sample on the right came from a flamed field.

"The Alfalfa Flamer wiped out the mustard and really did a job on grasses. It made a believer out of me."

B.L. - Ransom, KS
Flame Engineering, Inc. is always making efforts to improve and expand it's Earth Friendly product line. Now we are happy to introduce the new Multi-purpose Flamer. This great new tool is perfect for small acreages, large scale gardening and commercial landscape use when a hand torch is too small.

The five burner unit easily rolls where you want it and makes quick work of a multitude of flame applications. Perfect for pre-emergent treatments of garden seed beds and pre-seeding treatments of lawns. Also great for larger flame weeding projects such as driveways and long stretches of sidewalk or walkways. Also use for melting and drying thin layers of dangerous ice off sidewalks and driveways in the winter.

**NEW Multi-Purpose Flamer – Great For Larger Flaming Jobs**

**BRAND NEW!**

**MADE IN THE USA**

<table>
<thead>
<tr>
<th>GF-2011 Units Include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part No.</td>
</tr>
<tr>
<td>VT2/½-0</td>
</tr>
<tr>
<td>2 - 3/4” Axles 24” in length</td>
</tr>
<tr>
<td>V-334</td>
</tr>
<tr>
<td>HP-25</td>
</tr>
<tr>
<td>HP-48HG</td>
</tr>
<tr>
<td>G-25</td>
</tr>
<tr>
<td>567RC</td>
</tr>
<tr>
<td>P-3200W</td>
</tr>
<tr>
<td>GFW-24</td>
</tr>
<tr>
<td>1” x 1” Steel Square Tube L Shaped Handle</td>
</tr>
</tbody>
</table>

**Order SKU # Ship Wt Each Case Qty**

| GF-2011 | 115.0 lbs | 1 |

*Ships Truck Only.*

Propane Cylinder Not Included

As pictured:
- Adjustable inside wheel to wheel distance 24” - 48”
- Torch manifold width 27”
- Flaming area range 30” to 36’
NEW Multi-Purpose Flamer – Great For Larger Flaming Jobs

GREAT REASONS TO CHOOSE RED DRAGON® TORCHES & EQUIPMENT:

• CUSTOMER SERVICE second to none! Our Customer Service Representatives handle each call personally.

• STABILITY: In this day and age, you never know which of your manufacturers will be here tomorrow or who will own them. We’re not going anywhere!

• IN BUSINESS SINCE 1959 & MADE IN THE USA!
Poultry House Flame Sanitizer – The Natural Solution for Commercial Poultry Confinement Areas.

- Effective – Intense Heat Kills Pathogens & Flares Off Ammonia Vapors
- Safe & Easy to Operate with Complete Control from the Tractor Seat
- Economical – Less Expensive Than Chemical with Immediate Results
- Environmentally Sound – No Run-off, Residues or Water Contamination
- Great for Organic & Conventional Producers with USDA Approval for Organic Growers
- Proven Success By Producers

The Key To Sustainability is Natural Proven Techniques!

Dimensions:
87” W x 60”L
(2.21 meters x 1.27 meters)

See This Equipment In Action!
Ask About Our DVD & Video or Download it from our Website!
FlameEngineering.com

“Since using the Poultry House Sanitizer, I have seen reductions to my mortality rate. I am now finishing in the top 3rd in the company. I am happy with the results overall. I wouldn’t do without it. I bought this equipment for the disease problems and it has worked.”  J.L.-Linden, TX

“I’ve had a noticeable reduction in ammonia after treating with The Poultry House Sanitizer. I think this process is a great idea. I recommend this process to others because I believe it will take care of the bacteria problems.”  M.T.-Duback, LA

“I’ve been very happy with the ammonia control. The mortality has been less the last two or three weeks of the flock. Also I have noticed more weight gain. Another reason to use The Poultry House Sanitizer is that its one less chemical in the litter. I would recommend it to other chicken house owners.”  R.F.-Linden, TX

“This process has lowered my mortality rate a percent. I am now finishing 5th in the company compared to before in 15th. I have increased my settlement payments by $10,000. I am happy with the overall results and highly recommend this process to others.”  B.B.-Cookville, TX

Unit will weigh approximately 1700 lbs (760 Kilos) with a full tank of fuel.
Poultry House Flame Sanitizer – The Natural Solution for Commercial Poultry Confinement Areas.

The Red Dragon® Poultry House Flame Sanitizer is the fast, easy and effective way to sanitize poultry houses. The Red Dragon® is designed to flame bare floors and litter. For best results flame bare floors after clean out and after each de-caking.

The flamer utilizes six LT2x8 Liquid Propane torches that project intense, sweeping flames under a sturdy enclosed steel hood. The unit produces heat over 2000° F (1094° C) and maintains heat approximately 1400° F (761° C).

The sanitizer is a snap to use. Connect the unit to your tractor using the three point hitch and connect the 12 volt wires to the tractor battery and you are ready to go. The flamer is designed to hold a standard 120 gallon (454 liter) propane tank. In field testing, fuel consumption was approximately 25 gallons (95 liters) when flaming a 40’ x 500’ (12.2 meters x 152.43 meters) house moving at 0.5 mph (0.8 Kph). Fuel consumption will vary depending upon ambient temperature.

“I’ve had a noticeable reduction in ammonia after treating with The Poultry House Sanitizer. It has lowered my mortality rate. I have seen an increase in bird weight. I have increased my ranking in the growers group up 2 places since using this process. I have increased my settlement payments. I am happy with overall results of this process and the benefits are great!”

B.M.-Bunker, AR

Complete assembly includes 120 gallon tank.

Order SKU # | Description | Wt Each
---|---|---
PL8750 | Poultry House Flame Sanitizer | 1380.0 lbs

IMPORTANT NOTE:
Please call Flame Engineering, Inc. at 1-800-255-2469 for tank specifications and requirements.

For More Information About Red Dragon® Flaming Equipment please call 800-255-2469 or visit our website at www.FlameEngineering.com
Vineyard & Orchard Complete Unit & Flaming Kits – The Best Solution For Weeds, Grasses, Insects and More!

- Kills Weeds, Grasses and Destroys Insect Habitat On Vineyard & Orchard Berms
- Lower Cost Than Herbicide
- Burns Clean, Efficient Propane
- Safe For The Environment – No Runoff or Ground Water Contamination
- Break-away Boom Arms Save Wear & Tear
- Save Time & Money Over Manual & Mechanical Weed Control Methods
- Repeat Applications At A Low Cost
- Complete Units & Kits To Fit Your Needs
- Great For Organic & conventional producers with USDA Approval for Organic Growers.

Red Dragon® GP-Series Flamers offer producers many options for weed & pest control while reducing or eliminating pesticide usage. Flamers burn clean, efficient propane, so there is no residue, run-off or contamination to worry about. GP-Series flamers use between 3 - 6 gallons (11 - 23 liters) of fuel per acre, reducing input cost over other weed control methods.

Flaming can be done at regular intervals to maintain weed free berms while the weeds are small and vulnerable. Flaming at slower speeds also works great for fall and winter clean-up, removing debris and eliminating vital cover for insect habitat.

Red Dragon® GP-Series Flamers Are Safe And Easy To Use.
All GP Complete Kits come with electronic solenoids and operator control box, allowing safety and reliability. Use one side only or both sides, all controlled from the operator’s fingertips.

The Red Dragon® GP750
See The Equipment Specifications Chart on Page 19 For More Details.

Flaming applies intense heat to weeds and grass causing the cell structure of the plant to be destroyed. You do not have to burn weeds to a crisp.

The GP750 is perfect for smaller vineyard and orchard operations or for those who need a smaller unit to get in and out of tight rows. The compact size and lightweight but durable construction make it easy to pull behind any ATV or small tractor. The GP750 features an all steel, heavy duty trailer with a 2” ball hitch and a 120 gallon (454 liter) tank capacity. Boom arms are adjustable in length and height and feature a spring loaded break-away system. Pin boom arms vertically for safe and easy transport.
Vineyard & Orchard Complete Unit & Flaming Kits – The Best Solution For Weeds, Grasses, Insects and More!

Red Dragon® GP1000

The GP1000 is our most popular berm flamer due to the NEW Super Duty LT6x18 Torches which allow faster ground speeds. The GP1000 features an all steel, heavy duty trailer with 120 (454 liter) tank capacity making it ideal for vineyards and orchards over 40 acres. It is easily pulled behind a small tractor and comes equipped with a 2” ball hitch. The boom arms can be adjusted in length and in height and feature a spring loaded break-away system, to save wear and tear on equipment. The boom arms also pin vertically for safe and easy transport.

The GP1000 Complete Unit

- (2) LT6x18 Liquid Torches 3,000,000 BTU/hr per torch
- Average Gal/Acre 4-6
- Application Speed 5 m.p.h.
- Weight 835 lbs.

The GP1000 is our most popular berm flamer due to the NEW Super Duty LT6x18 Torches which allow faster ground speeds. The GP1000 features an all steel, heavy duty trailer with 120 (454 liter) tank capacity making it ideal for vineyards and orchards over 40 acres. It is easily pulled behind a small tractor and comes equipped with a 2” ball hitch. The boom arms can be adjusted in length and in height and feature a spring loaded break-away system, to save wear and tear on equipment. The boom arms also pin vertically for safe and easy transport.

The Red Dragon® GP-Series Berm Flaming Kits and Alley Attachments

The GP1054 Kit includes the same break-away boom arms and torches as on the GP1000 Complete Unit. Kit also includes boom arm mast, electronic solenoid controls, control box, fuel strainer, fittings, hoses, torch kit and valve guard.

The GP454 Kit includes the same break-away boom arms and torches as on the GP750 Complete Unit. Kit also includes boom arm mast, electronic solenoid controls, control box, fuel strainer, fittings, hoses and valve guard.

The GP020 & GP010

The GP020 Alley Attachment mounts on the back of Trailer and includes six LT2x8 Torches allowing up to 9’ of coverage. The GP010 includes four LT2x8 Torches allowing up to 6’ of coverage. Both kits include mounting rack, electronic solenoid controls, operator control box, fittings and hoses.

GPK1054 GPK454

GPK1054 Boom Arm Extension Span:
8’10” to 13’10”
Outside Wheel Width: 4’ 6”

See The Equipment Specifications Chart Below For More Details.

GP-Series Equipment Specifications

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
<th>Tank Carrying Capacity</th>
<th>Standard Burners</th>
<th>Maximum BTU/hr per torch</th>
<th>Average Gal/Acre</th>
<th>Maximum Application Speed</th>
<th>Shipping Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>GPT1000</td>
<td>Trailer</td>
<td>C-185 or C-120</td>
<td>(2) LT6x18 Liquid Torches</td>
<td>3,000,000</td>
<td>4-6</td>
<td>5 m.p.h.</td>
<td>432 lbs.</td>
</tr>
<tr>
<td>GPK1054</td>
<td>Berm Flaming Kit</td>
<td>N/A</td>
<td>(2) LT6x18 Liquid Torches</td>
<td>3,000,000</td>
<td>4-6</td>
<td>5 m.p.h.</td>
<td>144 lbs.</td>
</tr>
<tr>
<td>GPK454</td>
<td>Berm Flaming Kit</td>
<td>N/A</td>
<td>(4) LT2x8 Liquid Torches</td>
<td>1,150,000</td>
<td>3-5</td>
<td>3 m.p.h.</td>
<td>79 lbs.</td>
</tr>
<tr>
<td>GP020</td>
<td>Alley Flaming Attachment</td>
<td>N/A</td>
<td>(6) LT2x8 Liquid Torches</td>
<td>1,150,000</td>
<td>3-5</td>
<td>3 m.p.h.</td>
<td>66 lbs.</td>
</tr>
<tr>
<td>GP010</td>
<td>Alley Flaming Attachment</td>
<td>N/A</td>
<td>(4) LT2x8 Liquid Torches</td>
<td>1,150,000</td>
<td>3-5</td>
<td>3 m.p.h.</td>
<td>46 lbs.</td>
</tr>
<tr>
<td>GP1000</td>
<td>Complete Unit</td>
<td>C-120</td>
<td>(2) LT6x18 Liquid Torches</td>
<td>3,000,000</td>
<td>4-6</td>
<td>5 m.p.h.</td>
<td>835 lbs.</td>
</tr>
<tr>
<td>GP750</td>
<td>Complete Unit</td>
<td>C-120</td>
<td>(4) LT2x8 Liquid Torches</td>
<td>1,150,000</td>
<td>3-5</td>
<td>3 m.p.h.</td>
<td>675 lbs.</td>
</tr>
</tbody>
</table>

GP-Series Tank Requirements

All GP-Series Flaming Equipment require propane tanks equipped with a liquid propane withdrawal valve. It is also very important that you start with a clean, purged tank. IMPORTANT NOTE: Please Contact Flame Engineering, Inc. for the tank specifications and requirements.

C-120 - 120 Gallon (454 Liter) Liquid Withdrawal Horizontal Propane Tank

This is the tank we recommend for use with the Berm Flaming Unit. Conforms to the latest edition and addenda of the ASME Code for Pressure Vessels, Section VIII Division 1. Complies with NFPA 58 and is listed by Underwriters Laboratories, Inc. Comes pre-purged and ready to be filled. Features a durable powder coat finish. Rated at 250 psig from -20° F. to 125° F. Tank may be evacuated to a full (14.7 psi) vacuum. Tank is 66 inches long and has a diameter of 24 inches.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-120</td>
<td>250 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>
ROW CROP FLAMERS – Effective, Economical and Chemical Free Weed Control In The Row

- Propane Torches Kill Weeds, Grasses And Destroy Insect Habitat In The Row Without Risk To The Crop
- Save Up To 50% Over Chemical Applications
- Burn Clean, Efficient Propane
- Safe For The Environment – No Runoff or Ground Water Contamination
- Safe For The Operator: Electronic Shutdown From The Driver’s Seat
- Flame Applications Can Be Applied When It’s Too Wet To Cultivate
- Complete Units and Kits To Fit Your Needs
- Great For Organic & conventional producers with USDA Approval for Organic Growers.

Red Dragon® Row Crop Flamers offer producers many options for weed control while reducing or eliminating herbicide usage. Flamers burn clean, efficient propane, so there is no residue, run-off or contamination to worry about. Row crop flamers use 4 - 7 gallons (15 - 27 Liters) of propane per acre, making the application roughly half the cost of herbicides in a normal year. Flaming can be done pre-emerge and post emergence and has been proven effective on a wide variety of crops, including corn, milo, sorghum, soy-beans, cotton, carrots and more.

By staggering torches and directing torches at the base of the crop, the crop leaves are not exposed and each plant stalk receives only a split second of intense heat. Small weeds and grasses die almost instantly. Larger weeds die or are stunted, allowing the row crop to shade out competitive weeds and grasses. In addition, repeat applications pick up stragglers with no adverse effects on the crop, all at a lower cost than chemical.

“...the target pests of grass and small velvet leaf were virtually eliminated. The results were amazing! ...I will definitely be using this as one of the weapons in my war on weeds.”
S.M. – Gothenburg, NE
Used a Red Dragon® Row Crop Flamer on Popcorn

STAGGERED CROSS FLAMING

Electronic Control Valves
Each Row Crop Flamer Unit and Kit comes complete with 12 volt solenoids and controls which are easily operated from the tractor seat.

Torching torces are staggered when moving through the row so as not to collide with the flame from the opposite torch. By directing flame into the crop row from both sides, more complete coverage and faster ground speeds are possible.

Torch are initially set at an angle of 30 to 60 degrees from horizontal and 4 to 10 inches from the crop.
ROW CROP FLAMERS – Complete Units and Kits Available To Fit Your Needs

Red Dragon® Complete Row Crop Flaming Units

come with everything you need to get started. Available in 2, 4, 6 and 8 row models, featuring skid style tool bar legs.

**Complete Units Include:**
- Complete roll cage protection for tank & control heads
- Tank straps with valve guard assembly
- Category 2 - 3 point hitch connection
- Tool bar complete with skid leg mounting brackets
- Hydraulics for tool bar (standard on 8-RU and 6-RU)
- Complete Manifold Assemblies with electronic solenoids
- Cab Control Box with master shut-off switch
- Skid Style Tool Bar Leg Assemblies
- All Torches Needed
- All necessary hoses cut to length with brass fittings
- Fuel Strainer
- Red Dragon Vapor Torch Kit for lighting of torches

Red Dragon® Row Crop Flaming Kits

are available in a skid leg style to be mounted on your tool bar and are available in 2, 4, 6, 8, 12 and 16 row models with either skid style legs or drop legs. You will be responsible for devising your own safe tank mounting system and control protection. Kits include everything else you need to connect to your tank, including custom mounting brackets for the tool bar legs - just let us know the dimensions of your tool bar.

**Choose From 3 Torch Styles Depending on your Row Spacing**

**LT1½x2x8D**
This optional Row Crop Torch projects a sweeping flame up to 10" wide and 30" long. The recommended burner for 30" row spacing.

**LT2x8**
This optional Row Crop Torch projects a sweeping flame up to 18" wide and 36" long. The suggested burner for 36" row spacing.

**LT1½x2x6**
This optional Row Crop Torch projects a concentrated flame up to 6" wide and 16" long. The suggested burner for 24" row spacing.

When ordering kits, please indicate tool bar size and configuration.

**Detail of an assembled skid leg (left). Note how the torches are staggered and how torch height and angle can be easily adjusted.**

**Complete Row Crop Units**

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-RU</td>
<td>2 Row Unit</td>
<td>1360 lbs</td>
</tr>
<tr>
<td>4-RU</td>
<td>4 Row Unit</td>
<td>1560 lbs</td>
</tr>
<tr>
<td>6-RU</td>
<td>6 Row Unit</td>
<td>1810 lbs</td>
</tr>
<tr>
<td>8-RU</td>
<td>8 Row Unit</td>
<td>2010 lbs</td>
</tr>
</tbody>
</table>

**SKID LEG ROW CROP KITS**

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-RKS</td>
<td>2 Row Kit</td>
<td>220 lbs</td>
</tr>
<tr>
<td>4-RKS</td>
<td>4 Row Kit</td>
<td>312 lbs</td>
</tr>
<tr>
<td>6-RKS</td>
<td>6 Row Kit</td>
<td>450 lbs</td>
</tr>
<tr>
<td>8-RKS</td>
<td>8 Row Kit</td>
<td>560 lbs</td>
</tr>
<tr>
<td>12-RKS</td>
<td>12 Row Kit</td>
<td>900 lbs</td>
</tr>
<tr>
<td>16-RKS</td>
<td>16 Row Kit</td>
<td>1120 lbs</td>
</tr>
</tbody>
</table>

**6-RU Shown Here w/ Hydraulic Tool bar. 250 Gallon (946 Liter) Tank Shown Here.**

**IMPORTANT NOTE:** Please call Flame Engineering, Inc. at 1-800-255-2469 for tank specifications and requirements.
Potato Flamers – Chemical Free Potato Desiccation

- One Application Desiccation
- Effective & Affordable Treatment of Blight Spore
- Preemergence weed control
- Burn Clean, Efficient Propane
- Safe For The Environment – No Runoff, Soil or Ground Water Contamination
- Great for Organic & Conventional Producers with USDA Approval for Organic Growers
- Made In The U.S.A.

Red Dragon® Potato Vine Flamers offer producers a totally organic way to desiccate potato vines to stop the growth and set the skins of potatoes. Flamers burn clean, efficient propane, so there is no residue, run-off or contamination to worry about due to chemical or acid use.

This flaming process uses our patented liquid spray torches which are specially designed to spray liquid propane into the vines where combustion takes place. The canopy of vines and foliage help hold the heat helping to make more efficient use of the fuel. The intense heat thermally shocks the green vines and destroys cell tissues in the leaves, destroying the plant’s ability to conduct photosynthesis.

Flaming is also a very effective weapon for blight control. Chemical treatments are expensive, and not an option for organic growers. Flaming to desiccate or renovation will help control blight spores.

Fuel consumption averages 20 to 30 gallons (75 - 114 liters) per acre and is affected by both the pressure supplied to the spray nozzles and by the ground speed. Ground speeds range from 3 to 5 m.p.h. Heavy foliage must be desiccated at a higher pressure and a slower speed and light foliage can be flamed at a higher speed and lower fuel pressure. This allows the operator to gauge the LP gas used to the amount of foliage, thus conserving fuel and reducing costs.

Safe And Easy To Use.
All Red Dragon® Potato Vine Flamers come with electronic solenoids allowing flame control and immediate shut down from the driver’s seat.

FLAMING UNITS

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>2PVF</td>
<td>5 ft. Unit</td>
<td>1360 lbs</td>
</tr>
<tr>
<td>4PVF</td>
<td>10 ft. Unit</td>
<td>1560 lbs</td>
</tr>
<tr>
<td>6PVF</td>
<td>15 ft. Unit</td>
<td>1810 lbs</td>
</tr>
<tr>
<td>8PVF</td>
<td>20 ft. Unit</td>
<td>2010 lbs</td>
</tr>
</tbody>
</table>

Potato flaming kits include (PVFC):
Complete Manifold Assemblies with electronic solenoids
Cab Control Box with master shut-off switch
All torches needed
All necessary hoses cut to length with brass fittings
Fuel Strainer
Red Dragon® Vapor Torch Kit for lighting torches

Cab Control Box

IMPORTANT NOTE: Please call Flame Engineering, Inc. at 1-800-255-2469 for tank specifications and requirements.
Vegetable Bed Flamers – Chemical Free Weed Control

- Great For Sterile Seed Bed & Pre-emergent Flaming.
- Units Designed for 5’ up to 20’ Widths.
- Flaming Kills Weed, Grasses, Insects and Insect Habitat.
- Uses Clean Efficient Propane.
- Safe For the Environment - No Runoff or Water Contamination.
- Safe For the Operator: Electronic Shutdown from the Drivers Seat.
- Flame Applications Can Be Done Directly Ahead of the Planter. No Need To Wait Unlike Spraying.
- Flame Applications Can Be Done When It Is Too Wet To Cultivate.
- Great For Conventional and Organic Growers.
- USDA Approved Organic Method.

Red Dragon® Vegetable Bed Flamers offer producers many options for weed control while reducing or eliminating herbicide usage. Flamers burn clean, efficient propane, so there is no residue, run-off or contamination to worry about. Row crop flamers use 4 - 7 gallons (15 - 27 Liters) of propane per acre, making the application roughly half the cost of herbicides in a normal year. Flaming can be done pre-emerge and post emergence and has been proven effective on a wide variety of crops, including corn, milo, sorghum, soy-beans, cotton, carrots and more.

The Red Dragon® Vegetable Bed Flamer can be used on all crops pre-planting to produce a sterile seed bed. Crops like corn and soybeans can be flamed a second time as the crop emerges to kill weeds that emerge with the crop. Potatoes can be flamed at 2-3 leaf stage to kill weeds and Colorado Potato Beetle.

Carrots and other raised bed crops can be flamed pre-plant and again before plant emergence. Any flaming where a broadcast type application is required. It is also a great tool for strawberry renovation.

Red Dragon® Vegetable Bed Flaming Units come with everything you need to get started. Available in 2, 4, 6 and 8 row models.

**Safe And Easy To Use.**
All Red Dragon® Vegetable Bed Flamers come with electronic solenoids allowing flame control and immediate shut down from the driver’s seat.

VEGETABLE BED FLAMING UNITS

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-VBF</td>
<td>5 ft. Unit</td>
<td>1360 lbs</td>
</tr>
<tr>
<td>4-VBF</td>
<td>10 ft. Unit</td>
<td>1560 lbs</td>
</tr>
<tr>
<td>6-VBF</td>
<td>15 ft. Unit</td>
<td>1810 lbs</td>
</tr>
<tr>
<td>8-VBF</td>
<td>20 ft. Unit</td>
<td>2010 lbs</td>
</tr>
</tbody>
</table>

Video & Instruction Manuals Available Online

Product Videos as well as Instruction Manuals for Red Dragon® Products are available from our web-site at www.flameengineering.com

Vegetable bed flaming kits include (VBFC):
- Complete Manifold Assemblies with electronic solenoids
- Cab Control Box with master shut-off switch
- Toolbar leg assemblies
- All burners required for your configuration
- All necessary hoses cut to length with brass fittings
- Fuel Strainer
- Custom Mounting Brackets for the Toolbar legs
- Valve Protector
- Red Dragon® Vapor Torch Kit for lighting torches

Kits available in widths 5’ - 30’
**Red Dragon® Tow Hitches**

- **Red Dragon® Hitches Make Field Work A One Man Job**
- **Three Great Styles To Choose From**
- **Mount on Pickups, Light Trucks and Jeeps**
- **Rugged, All Steel Construction for Years of Dependable Service**
- **Durable Powder Coat Finish**
- **Made In The U.S.A.**

**TF-300 Turntable Tow Hitch**

Hooks up anywhere in a 7 1/2 square foot radius.

The Red Dragon® Turntable Hitch features an easy-to-use design which allows the tow bar to be adjusted in length and rotate on an axis making hook-up troubles a thing of the past. Just get it close! The TF-300 features heavy duty steel construction for years of dependable service and is a favorite among farmers and ranchers.

The Turntable Hitch is designed to mount directly to the vehicle frame and folds up and locks securely in front of the grill when not in use. A heavy duty, one inch hitch pin is included and is ideal for towing behind large implements and tractors.

Turn Table Hitch comes complete with instructions, mounting bolts and hitch pin. Maximum draw weight is 6,000 pounds. Tow length is 49.”

**EZ203-B Tow Hitch**

Easy Hookup and Convenient Storage.

This unique & sturdy tow bar mounts to the vehicle frame and stays neatly folded under the bumper – barely noticeable when not in use. The hitch arms snap out and away from the bumper when needed for quick and easy hookup and then lock securely in place while towing.

The Red Dragon® EZ203-B features heavy duty, all steel construction for years of dependable service.

Comes complete with instructions, mounting bolts and hitch pin. Maximum draw weight is 6,000 pounds. Tow length is 36.”

---

**Order SKU #**

<table>
<thead>
<tr>
<th>Description</th>
<th>Wt Each</th>
<th>Std Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>TF-300 Frame Mount Turntable Hitch</td>
<td>60.0 lbs</td>
<td>1</td>
</tr>
<tr>
<td>EZ203-B Frame Mount EZ Hitch</td>
<td>65.2 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

Packaged One Per Carton

---

**IMPORTANT INFORMATION ABOUT RED DRAGON® HITCHES:**

**CAUTION:** Always use a safety chain and comply with local ordinances when towing a vehicle.

**NOTE:** All Red Dragon® Frame Mount Hitches come complete with a universal mounting bracket. Due to the wide variances in vehicle frames, it may be necessary to adapt the hitch to the pickup. Red Dragon® Hitches are NOT vehicle specific.

**NOTE:** All Red Dragon® Hitches are designed expressly for agricultural towing and are not intended for high speed use. Maximum draw weight is 6,000 pounds.

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Visit our website for downloadable instructions.

FLAME ENGINEERING, INC. • P.O. Box 577 • West Highway 4 • LaCrosse, KS 67548
800-255-2469 • 785-222-2873 • FAX: 785-222-3619 • www.FlameEngineering.com
CH-220-QC Series “Hot Box” – The Original Red Dragon® Construction Heater – Strong, Stackable & Stable

Don’t Try This With Just Any Heater!

- Perfect for temporary indoor heating of warehouses, buildings under construction, garages, shop areas, machine sheds and remodeling areas.
- Unique & efficient design forces heat downward to keep the work area warmer
- Heavy gauge steel construction – built to last
- Low profile prevents tipping • Full safety features
- Hose Attaches to Heater with Quick Connect Fittings
- One bolt removes burner and controls
- Nest & stack for easy storage – perfect for the rental industry!
- Burns clean efficient propane • Made in the U.S.A.
- 100 lb. Cylinder Required • 5-8 Hour Run Time • Clearance 4’ each side, 8’ above
- Call for Area Distributors • Ships 18 per Pallet

CH220-QC – 200,000 BTU

Connect the CH220-QC to a minimum 100 lb. cylinder and you’re all set. Takes the chill out of the air and will get you out of your jacket. There is no hotter or tougher unit on the market!

Three hose lengths to choose from. All heaters feature a quick connection fitting for easy hose connection/disconnection.

For use on noncombustible surfaces and well ventilated areas only. Not designed for home heating.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Ea.</th>
<th>Std Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>CH220-QC</td>
<td>Heater w/10’ Hose &amp; Quick Connect</td>
<td>49.3 lbs</td>
<td>18</td>
</tr>
<tr>
<td>CH225-QC</td>
<td>Heater w/25’ Hose &amp; Quick Connect</td>
<td>51.7 lbs</td>
<td>18</td>
</tr>
<tr>
<td>CH250-QC</td>
<td>Heater w/50’ Hose &amp; Quick Connect</td>
<td>54.1 lbs</td>
<td>18</td>
</tr>
<tr>
<td>CH2100-QC</td>
<td>Heater w/100’ Hose &amp; Quick Connect</td>
<td>60 lbs</td>
<td>18</td>
</tr>
<tr>
<td>HP100QC</td>
<td>10’ QC Hose w/Regulator &amp; P.O.L.</td>
<td>2.2 lbs</td>
<td>1</td>
</tr>
<tr>
<td>HP250QC</td>
<td>25’ QC Hose w/Regulator &amp; P.O.L.</td>
<td>3.8 lbs</td>
<td>1</td>
</tr>
<tr>
<td>HP500QC</td>
<td>50’ QC Hose w/Regulator &amp; P.O.L.</td>
<td>5.0 lbs</td>
<td>1</td>
</tr>
<tr>
<td>HP1000QC</td>
<td>100’ QC Hose w/Regulator &amp; P.O.L.</td>
<td>9.2 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

Packed One Per Carton – Ships 18 Per Pallet

Please call for quote on orders exceeding 72 units. No UPS Shipments.
Red Dragon® Patio Lights provide a soft, golden glow, enhancing any outdoor setting. NO oily mess or fragile mantles, just the soothing, romantic light from an open flame.

Now available in five decorative head styles and featuring durable, lightweight, all steel construction. Portable Patio Lights assemble in just minutes. Simply attach a 20 lb. propane cylinder (not included) and enjoy hours of natural, open flame. Each Patio Light includes a sturdy cylinder cart which makes relocating the light a snap.

Patio Lights are also available in permanent mount kits which operate on either propane or natural gas. Each comes complete with an 18” pole base to be mounted in the ground. All Patio Lights are rated up to 49,000 BTU/hr and stand 7½ - 8 feet tall.

**Features:**
- Soft, Golden, Adjustable Flame
- Quick, Easy Set Up
- Lightweight Steel Construction
- Durable Powder Coated™ Finish
- No Oily Mess or Fragile Mantles
- Burns Clean Efficient Propane or Natural Gas

**Patio Light Specifications:**

<table>
<thead>
<tr>
<th>LP Gas Usage (11 wc)</th>
<th>Natural Gas Usage (6.5 wc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>249,000 BTU (max) .5 gal./hr.</td>
<td>249,000 BTU (max) 49 cu. ft./hr.</td>
</tr>
<tr>
<td>18,000 BTU (min) 2 gal./hr.</td>
<td>18,000 BTU (min) 18 cu. ft./hr.</td>
</tr>
</tbody>
</table>

**Patio Light Head Clearance Requirements**
- 3 Feet Radius
- 6 Feet Height

**Patio Light Pole Dimensions**
- All Poles are 2½” in Diameter
- Portable Poles Approx. 73/4” Tall
- Permanent Poles Approx. 82½” Tall

**Permanent Patio Light Pressure Requirements at the Base of the Light**
- LP Gas - 11 wc
- Natural Gas - 6.5 wc

**Patio Lights are for Outdoor Use Only.**

Not UL/CSA Certified

Installation Information Available Online:

www.FlameEngineering.com

Outdoor Patio Lights
Patio Light Setup Instruction

NOTE: We strongly recommend Professional Installation of all Permanent Mount Patio Lights.
Red Dragon® Patio Lights provide hours of enjoyment for the whole family and enhance any outdoor setting.

**Perfect Outdoor Lighting For:**
- Patios
- Decks
- Pools
- Hot Tubs
- Back Yards
- Walkways
- Restaurants
- Beachfronts
- Resorts
- Ski Lodges
- Camp Sites
- And Much More!

Red Dragon® Patio Lights

<table>
<thead>
<tr>
<th>PORTABLE PATIO LIGHTS</th>
<th>PERMANENT MOUNT PATIO LIGHTS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Order SKU #</strong></td>
<td><strong>Head Style</strong></td>
</tr>
<tr>
<td>PT300-6C</td>
<td>Gas Light</td>
</tr>
<tr>
<td>PT301-6C</td>
<td>Curled Finger</td>
</tr>
<tr>
<td>PT302-6C</td>
<td>Fin</td>
</tr>
<tr>
<td>PT311-6C</td>
<td>Cone</td>
</tr>
<tr>
<td>PT411-6C</td>
<td>Copper Cone</td>
</tr>
<tr>
<td>PT300-6PM</td>
<td>Gas Light</td>
</tr>
<tr>
<td>PT301-6PM</td>
<td>Curled Finger</td>
</tr>
<tr>
<td>PT302-6PM</td>
<td>Fin</td>
</tr>
<tr>
<td>PT311-6PM</td>
<td>Cone</td>
</tr>
<tr>
<td>PT411-6PM</td>
<td>Copper Cone</td>
</tr>
</tbody>
</table>

**NOTE:** Pressure Requirement at Base of Light is 11 wc for LP Gas and 6.5 wc for Natural Gas.

**NOTE:** We strongly recommend Professional Installation of all Permanent Mount Patio Lights.

**FLAME ENGINEERING, INC.**
- P.O. Box 577 • West Highway 4 • LaCrosse, KS 67548
- 800-255-2469 • 785-222-2873 • FAX: 785-222-3619 • www.FlameEngineering.com
Manual Propane Flares – Make Evacuating Propane Tanks Quick, Safe and Easy

- Flare Up To 529 Gallons/Hr
- No Electricity Required
- Compact & Portable Design
- Quick & Easy Setup
- Simple To Use
- Great For Emergency Evacuation Situations
- Stable & Sturdy Construction
- Made In The U.S.A.

The Red Dragon® Manual Propane Flare allows you to evacuate bulk tanks, bobtails and other tanks anywhere quickly, safely and without venting raw propane into the atmosphere. This compact, durable unit is quick to set up, very simple to use and requires no electricity making it perfect for emergency crews, haz mat teams and fire departments who need to act fast and in remote locations. Keep one on hand in case emergency flare-off is necessary. Also great for propane distributors and dealers flaring off tanks so that valves and gauges may be changed out, saving you time and money. Comes with everything necessary except the vapor cylinder for pilot torch operation.

FEATURES OF ALL MANUAL FLARES

- Flares liquid or vapor propane
- Telescoping flare tower sets up fast & stands 9’ above the ground keeping the flame at a safe distance
- Convenient valve box & simple design featuring quick connectors & flared fittings make set up quick & easy
- 25’ U.L. listed evacuation hose with bulk adaptor
- 10’ U.L. listed pilot hose & regulator
- Stable triangular base & ground stakes for set up on any terrain
- Quick, easy setup & operation

FLARE SPECIFICATIONS:

1/2” Flare
48,300,000 BTU/hr Max
Flares up to 529 gal/hr

Parts list for Red Dragon® Flare Towers is available on our website.

Another Great Red Dragon® Product For The LP Industry!
Electronic Propane Flares – Make Evacuating Propane Tanks Quick, Safe and Easy

- Flare Up To 529 Gallons/Hr  
- Full Safety Features  
- Quick & Easy Setup  
- Stable & Sturdy Construction  
- Use Prior To Installing OPD Valves  
- Made In The U.S.A.

Red Dragon® Electronic Propane Flares allow you to evacuate bulk tanks, bobtails and other tanks quickly, safely and without venting raw propane into the atmosphere. The full-safety control features provide propane flare-off without worry. Great for flaring off tanks so you can change out valves and gauges, saving you time and money. Keep one on hand in case emergency flare-off is necessary. A must for propane distributors and dealers. Burns up to 48,300,000 BTU/hr. Comes with everything necessary except the vapor cylinder for pilot torch operation.

FEATURES OF ELECTRONIC FLARE
- Electronic ignition and proof of flame  
- Safety feature allows automatic relight attempt with complete shutdown if unsuccessful  
- Flares liquid or vapor propane  
- Telescoping flare tower sets up fast & stands 9’ above the ground keeping the flame at a safe distance  
- 12’ power cord for 115 volt A.C.  
- 20’ remote switch cord  
- 25’ U.L. Listed Evacuation Hose With Bulk Adaptor  
- 10’ U.L. Listed Pilot Hose & Regulator  
- Stable Triangular Base  
- Quick and Easy Setup

FLARE SPECIFICATIONS:
1/2” Flare  
48,300,000 BTU/hr Max  
Flares up to 529 gal/hr

IMPORTANT NOTE: Not for use with portable generators.

Order SKU # | Description | Wt Each | Std Qty
--- | --- | --- | ---
PF-16LPS | 1/2” Flare | 108 lbs | 1

Ships as an over-size package.

Parts list for Red Dragon® Flare Towers is available on our website.

According To The NFPA (3-2.4.8 and 4-3.1), you must NOT vent LP Gas into the atmosphere.

The Control Box Comes Fully Assembled And Provides Numerous Features Making This The Safest Way To Evacuate Propane Tanks.
Complete Roofing Torch Kits – Red Dragon® . . . The Best Tools For The Trade

RTCOMBO – 400,000 BTU/50,000 BTU

This combination field and detail torch kit is our most popular model. The handy quick connect feature enables the operator to switch from a stand-up to detail torch in a snap – without tools and while still using the same LP gas hose, regulator and tank.

Also available in a Lightweight Model – RTCOMBOLW. CSA Certified for the United States and Canada.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
<th>Case Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>RTCOMBO</td>
<td>9.3 lbs</td>
<td>4</td>
<td>39.0 lbs</td>
</tr>
<tr>
<td>RTCOMBOLW</td>
<td>9.0 lbs</td>
<td>4</td>
<td>37.8 lbs</td>
</tr>
</tbody>
</table>

RTCOMBO Kit Includes:

- RT21/2-20 400,000 BTU Field Torch with Male Quick Connect
- RT11/2-10 50,000 BTU Detail Torch with Male Quick Connect
- HN-5 Female Quick Connect
- HP25 25' U.L. Listed LP Gas Hose
- 567RC U.L. Listed Regulator
- P-W795 U.L. Listed Hand Tighten P.O.L. Fitting
- G-23 Pressure Gauge
- (2) TB-4 Welded Torch Stands
- L2001 Spark Lighter and Flints
- Pipe Thread Sealant

Order SKU # Wt Each Case Qty Case Wt
RTCOMBO 9.3 lbs 4 39.0 lbs
RTCOMBOLW 9.0 lbs 4 37.8 lbs

RT21/2-20C – 400,000 BTU

The work horse of all Red Dragon® Roofing Torch Kits, the RT21/2-20C performs stand-up work with ease and is noted for durability and efficiency on the job. This kit excels in balance and flame control and has an overall length of 29.”

Also available in a Lightweight Model – RT21/2-20LWC.

CSA Certified for the United States and Canada.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
<th>Case Wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>RT21/2-20C</td>
<td>8.5 lbs</td>
<td>4</td>
<td>35.0 lbs</td>
</tr>
<tr>
<td>RT21/2-20LWC</td>
<td>8.2 lbs</td>
<td>4</td>
<td>33.8 lbs</td>
</tr>
</tbody>
</table>

RT21/2-20C Kit Includes:

- RT21/2-20 400,000 BTU Field Torch
- RT11/2-10 50,000 BTU Detail Torch
- HP25 25' U.L. Listed LP Gas Hose
- 567RC U.L. Listed Regulator
- P-W795 U.L. Listed Hand Tighten P.O.L. Fitting
- G-23 Pressure Gauge
- TB-4 Welded Torch Stand
- L2001 Spark Lighter and Flints
- Pipe Thread Sealant

Order SKU # Wt Each Case Qty Case Wt
RT21/2-20C 8.5 lbs 4 35.0 lbs
RT21/2-20LWC 8.2 lbs 4 33.8 lbs
ROOFING TORCHES & EQUIPMENT

### Modified Bitumen Applicators & Roof Dryers

#### SPA1000 Modified Bitumen Applicator

By customer request, we are now offering a two-handle wagon design modernized by Red Dragon® technology. Features include a stainless steel manifold and framework and 7 durable vapor torches. Each torch has a flame adjusting needle valve for total flame control and the manifold easily moves to and from the roll. Light weight and American made. For use by professional roofing contractors.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
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</thead>
<tbody>
<tr>
<td>SPA1000</td>
<td>54.0 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

#### SPA540A & SPA740A Modified Bitumen Applicators

The Red Dragon® SPA540A & SPA740A feature five (SPA540A) and seven (SPA740A) torches, one-handle design and complete manifold adjustability, making these wagons the most requested in the business. Each torch has a flame adjusting needle valve for total flame control and the manifold moves to and from the roll with a simple twist of the handle. The manifold angle can also be adjusted to allow the proper flaming angle. Side shields and superior design concentrate the heat on the material – not the operator. Use on APP and SBS systems.

**Reduce Application Time Up To 75%**

**SPA540A & SPA740A Include:**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT2-1/2-0</td>
<td>400,000 BTU Vapor Heads</td>
</tr>
<tr>
<td>V-334</td>
<td>Adjusting Needle Valves</td>
</tr>
<tr>
<td>HP50</td>
<td>50' U.L. Listed LP Gas Hose</td>
</tr>
<tr>
<td>R-499</td>
<td>U.L. Listed Regulator</td>
</tr>
<tr>
<td>P-1885</td>
<td>U.L. Listed POL Fitting</td>
</tr>
<tr>
<td>V-880P/H</td>
<td>Squeeze Valve/Handle Assembly</td>
</tr>
<tr>
<td>G-23</td>
<td>Pressure Gauge</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Std Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPA540A</td>
<td>90.0 lbs</td>
<td>1</td>
</tr>
<tr>
<td>SPA740A</td>
<td>83.0 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

Ships in two packages – UPS or Truck. Buy 3 and we’ll assemble free of charge. (3 assembled units ship by truck only, in one box).

#### RD6009 Roof Dryer

The Red Dragon® Roof Dryer defrosts, dries and gets you back on the job with minimum effort. The rugged design and user friendly features make the Red Dragon® Roof Dryer the perfect choice for professional contractors. Use to dry surfaces after ponding water has been removed or to remove morning dew, frost, or light debris.

The Roof Dryer combines high heat (up to 350°F) and a 200 MPH airstream to facilitate quick drying and reduce costly downtime. There are no electrical cords or danger of electrical shock. Rely on a Red Dragon® when mother nature tries to delay your work day.

**RD6009 Blower Specifications**

NEW 5.5 HP Honda GX Overhead Cam Premium 4-Cycle engine with recoil start. Powerful 200 MPH airstream, up to 1600 cubic feet per minute.

**Heating System Specifications**

VT1-12S burner, up to 250,000 BTU/hr, mixes with air to provide the desired drying effect up to 350°F.

**Roof Dryers Also Include:**

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT1-12S</td>
<td>Vapor Torch Head</td>
</tr>
<tr>
<td>HP25</td>
<td>25' U.L. Listed LP Gas Hose</td>
</tr>
<tr>
<td>R-700C</td>
<td>18 PSI I. Regulator</td>
</tr>
<tr>
<td>P-2200W</td>
<td>U.L. Listed P.D.L. Fitting</td>
</tr>
<tr>
<td>V-880P</td>
<td>Squeeze Valve</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Std Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>RD6009</td>
<td>125.0 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

Ships in one package – Truck Only.

For a complete catalog of all Red Dragon® Roofing Torch Kits & Equipment, please call 800-255-2469 or visit our website at www.FlameEngineering.com
**Liquid Torches – For Continuous Use Applications, Sub-Zero Climates & Agricultural Flaming**

The following four V-shaped liquid torches are designed to project wide sweeping flames and are used for agricultural applications such as row crop flaming, vineyard and orchard flaming and flaming fencelines. All models include a mounting bracket with 3/8” set screw to mount to a 1” OD bar.

**LT2x8 Liquid Torch**

- **1,150,000 BTU**
- Produces a flame up to 18” wide x 36” long.
- Bracket Fits 1” Outside Diameter Tool Bars.

This high out-put torch is standard on the GPK454 berm flamer and alley attachment (see pages 18 & 19). The LT2x8 works well in orchards, vineyards, nutgroves, hops fields and along fence rows.

**LT2x8 Specifications:**
- Maximum Capacity: 1,150,000 BTU/hr
- Normal Operating Pressure: 50 P.S.I.
- Operating Pressure Range: 20-90 P.S.I.
- Approximate Flame Temperature: 2050°F
- Maximum Fuel Consumption: 53.3 lbs/hr
- Fuel Inlet: 1/4” NPT
- Overall Length: 14 1/4”

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT2x8</td>
<td>4.9 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

**LT1 1/2x8D Liquid Torch**

- **480,000 BTU**
- Produces a flame up to 10” wide x 33” long.
- Bracket Fits 1” Outside Diameter Tool Bars.

This is our standard row crop flaming torch designed for in-the-row weed control on corn, cotton, soybeans, milo and a variety of vegetables.

**LT1 1/2x8D Specifications:**
- Maximum Capacity: 480,000 BTU/hr
- Normal Operating Pressure: 30 P.S.I.
- Operating Pressure Range: 20-50 P.S.I.
- Approximate Flame Temperature: 2050°F
- Maximum Fuel Consumption: 21 lbs/hr
- Fuel Inlet: 1/4” NPT
- Overall Length: 8”

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT1 1/2x8D</td>
<td>4.0 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

**LT1 1/2x6 Liquid Torch**

- **220,000 BTU**
- Produces a flame up to 6” wide x 16” long.
- Bracket Fits 1” Outside Diameter Tool Bars.

Another option for row crop flaming when a smaller, more concentrated flame is required.

**LT1 1/2x6 Specifications:**
- Maximum Capacity: 220,000 BTU/hr
- Normal Operating Pressure: 30 P.S.I.
- Operating Pressure Range: 20-50 P.S.I.
- Approximate Flame Temperature: 2050°F
- Maximum Fuel Consumption: 8 lbs/hr
- Fuel Inlet: 1/4” NPT
- Overall Length: 7”

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT1 1/2x6</td>
<td>4.0 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

**LT6x18 Liquid Torch – 3,000,000 BTU**

This is the standard torch on our GPK1054 berm flamer (see page 19) and is the highest rated liquid torch we manufacture. The torch produces a much larger flame and allows for coverage of greater surface area and faster ground speeds. Includes a mounting bracket with 3/8” set screw to mount to a 1” OD round bar.

**LT6x18 Specifications:**
- Maximum Capacity: 3,000,000 BTU/hr
- Approximate Flame Temperature: 2050°F
- Maximum Fuel Consumption: 110 lbs/hr
- Fuel Inlet: 1/4” NPT
- Overall Length: 24 1/2”

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT6x18</td>
<td>34.0 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

Bracket Fits 1” Outside Diameter Tool Bars.
Liquid Torches – For Continuous Use Applications, Sub-Zero Climates & Agricultural Flaming

- Solid, All Steel Torches are Built To Last - BTU Capacities Ranging From 49,000 to 5,000,000
- Individually Tested Before Leaving The Factory - Made In The U.S.A.

Red Dragon® Liquid Torches

Red Dragon® Liquid Torches feature a unique, patented vaporizing system and are available in a wide range of BTU ratings. Most liquid torches are intended for stationary mounting, however, two models, LT3-60 and LT2½-30 are manufactured with handles for convenient hand held operation. These torches will operate from any fuel container capable of delivering liquid propane or liquid butane.

3 Inch Diameter Liquid Torches – 750,000 BTU

Our 750,000 BTU, 3 inch diameter liquid torches come as a torch only or with a 49 inch handle. The long handled LT3-60 keeps the operator a comfortable distance from the flame. Road and street repair crews find this torch especially useful.

LT3-12 Torch Specifications:
Maximum Capacity 750,000 BTU/hr
Normal Operating Pressure 50 P.S.I.
Operating Pressure Range 10-90 P.S.I.
Approximate Flame Temperature 2050°F
Maximum Fuel Consumption 34.7 lbs/hr
Fuel Inlet 1/4” NPT
Torch Bell Diameter 3”

LT3-12T Torch Specifications:
Bracket Fits 1” Outside Diameter Tool Bars.

The LT3-12 only is great for heaters, road oil distributors, furnaces, roofing tar vats, etc. May be disassembled for cleaning.

The LT3-12T has a 1 inch diameter tool bar mounting bracket and is the replacement pilot torch for the TD12LPS Alfalfa Field Flamer on page 13.

Order SKU # Description Wt Each Case Qty
LT3-60 49” Handle – Overall Length 61” 6.3 lbs 1
LT3-12 Torch Head – Overall Length 14½” 2.0 lbs 1
LT3-12T Torch Head w/bracket – Overall Length 14½” 2.6 lbs 1

LT3-12HD Liquid Torch – 1,000,000 BTU

A heavy-duty, high capacity torch designed for road oil distributors, roofing tar vats, mounting into a flue and many other uses. Torch is easily dis-assembled for cleaning.

LT3-12HD Torch Specifications:
Maximum Capacity 1,000,000 BTU/hr
Normal Operating Pressure 50 P.S.I.
Operating Pressure Range 5-90 P.S.I.
Approximate Flame Temperature 2050°F
Maximum Fuel Consumption 46.3 lbs/hr
Fuel Inlet 1/4” NPT
Torch Bell Diameter 3”
Overall Length 12”

Order SKU # Wt Each Case Qty
LT3-12HD 2.4 lbs 1
**Liquid Torches – For Continuous Use Applications, Sub-Zero Climates & Agricultural Flaming**

### 21/2 Inch Diameter Liquid Torches – 250,000 BTU

Our 250,000 BTU, 21/2 inch diameter liquid torches are great for a number of uses where you still need a high output torch, but not as high as our 3" diameter liquid torches.

The heavy-duty LT21/2-30 comes with a 26” handle and is a great torch for cold climate snow/ice melting, road repair or extended weed burning.

**LT21/2-30**

See Page 11 for Complete Kit

**21/2" Liquid Torch Specifications:**
- **Maximum Capacity:** 250,000 BTU/hr
- **Normal Operating Pressure:** 40 PSI
- **Operating Pressure Range:** 5-70 PSI
- **Approximate Flame Temperature:** 2050°F
- **Maximum Fuel Consumption:** 11.6 lbs/hr
- **Fuel Inlet:** 1/4" NPT
- **Torch Bell Diameter:** 21/2"

**Order SKU #**

<table>
<thead>
<tr>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT21/2-30 26” Handle – Overall Length 35”</td>
<td>3.9 lbs</td>
<td>10</td>
</tr>
<tr>
<td>LT21/2-12 Torch Head – Overall Length 11”</td>
<td>1.75 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

The LT21/2-12 is the torch head only version and is used for heating road oil or tar pots, firebrick flues and road repair.

### LT2-12 Liquid Torch – 49,000 BTU

The LT2-12 is a compact torch for use where a high capacity liquid torch is required but space is limited. Uses include heating road oils, de-icing, heating kilns, and other applications.

**LT2-12**

**2" Liquid Torch Specifications:**
- **Maximum Capacity:** 49,000 BTU/hr
- **Normal Operating Pressure:** 25 PSI
- **Operating Pressure Range:** 5-60 PSI
- **Approximate Flame Temperature:** 2050°F
- **Maximum Fuel Consumption:** 2.3 lbs/hr
- **Fuel Inlet:** 1/4" NPT
- **Torch Bell Diameter:** 2"
- **Overall Length:** 11"

**Order SKU #**

<table>
<thead>
<tr>
<th>SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>LT2-12</td>
<td>1.5 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

### Installation of a Red Dragon® LT3-12, LT3-12HD or LT21/2-12 in a flue

**It is necessary to deliver LIQUID Propane or LIQUID Butane to the torch.**

**Normal operation pressures are as follows:**

- **5” Flue – 35 PSI or Less**
- **6” Flue – 40 PSI or Less**

**Excessive pressure may increase heating time.**
**Liquid Spray Torches** – For Dense, Heavy Brush, Potato Vine Desiccation and Hard-To-Reach Areas

- Red Dragon® Liquid Spray Torches Produce Flames Up To 6’ wide and 12’ long
- Flame At Speeds Up To 10 M.P.H. • Save Money By Getting The Job Done Fast

Liquid Spray Torches must be attached to a cylinder or tank capable of withdrawing liquid propane or butane. We recommend no less than a 100 lb. cylinder.

**LT21/2-12LPS**

Patented Red Dragon® Liquid Spray Torches operate by spraying liquid propane or butane from a special nozzle which is then ignited by a self-vaporizing liquid torch. As liquid propane is directed toward the ground it ignites and produces a tremendous amount of heat that destroys the base of the vegetation. The spray pattern may be altered by changing spray nozzle and/or input pressure.

The LT21/2-12LPS has a single spray nozzle and can be attached to a boom for flaming fence lines or a manifold for potato vine flaming. LT21/2-12LPS is the standard torch on all Red Dragon® Potato Vine Flamers (see page 22).

The LT3-12LPS is a high capacity torch featuring twin spray nozzles and is ideal for boom mounting for flaming ditches, setting backfires and large weeds. This powerful torch is capable of producing a spectacular flame and allows for ground speeds in excess of 10 m.p.h.

Both models include a mounting bracket with 3/8” set screw to mount to a 1” OD round bar.

**LT3-12LPS**

Produces a flame up to 6’ wide x 12’ long.

**Jet Torches** – “Pear Burners” – Flame Large Weeds, Dense Brush and Hard To Reach Areas

- Red Dragon® Jet Torches Produce Flames Up To 6’ In Length
- Up To 2,000,000 BTU/hr • Made In The U.S.A.

Red Dragon® Jet Torches operate on vapor propane up to tank pressures. We recommend no less than a 100 lb. cylinder due to the high capacity of these torches. As close to a flame thrower as we make.

**JET8** – 2,000,000 BTU

See Page 12 for Complete Kit

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Ship Wt</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>JET8</td>
<td>Overall Length 84”</td>
<td>6.0 lbs</td>
<td>9.0 lbs</td>
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</tr>
</tbody>
</table>

**JET4** – 1,000,000 BTU

See Page 12 for Complete Kit

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Ship Wt</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>JET4</td>
<td>Overall Length 40½”</td>
<td>2.5 lbs</td>
<td>7.0 lbs</td>
<td>1</td>
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**JET8 Torch Specifications:**

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Maximum Capacity</td>
<td>2,000,000 BTU/hr</td>
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<tr>
<td>Normal Operating Pressure</td>
<td>80 PSI</td>
</tr>
<tr>
<td>Operating Pressure Range</td>
<td>30-58 PSI</td>
</tr>
<tr>
<td>Max Flame Length</td>
<td>6’</td>
</tr>
<tr>
<td>Approximate Flame Temperature</td>
<td>2050°F</td>
</tr>
<tr>
<td>Maximum Fuel Consumption</td>
<td>80 lbs/hr</td>
</tr>
<tr>
<td>Fuel Inlet</td>
<td>1/4” NPT</td>
</tr>
<tr>
<td>Overall Torch Length</td>
<td>84”</td>
</tr>
</tbody>
</table>

**JET4 Torch Specifications:**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Maximum Capacity</td>
<td>1,000,000 BTU/hr</td>
</tr>
<tr>
<td>Normal Operating Pressure</td>
<td>80 PSI</td>
</tr>
<tr>
<td>Operating Pressure Range</td>
<td>30-58 PSI</td>
</tr>
<tr>
<td>Max Flame Length</td>
<td>5’</td>
</tr>
<tr>
<td>Approximate Flame Temperature</td>
<td>2050°F</td>
</tr>
<tr>
<td>Maximum Fuel Consumption</td>
<td>40 lbs/hr</td>
</tr>
<tr>
<td>Fuel Inlet</td>
<td>1/4” NPT</td>
</tr>
<tr>
<td>Overall Torch Length</td>
<td>40”</td>
</tr>
</tbody>
</table>
Vapor Torches – The Best Torches For Weed Burning, Heating, Thawing & More

3 Inch Diameter Vapor Torches – 500,000 BTU

3 inch diameter vapor torches are available as a torch only or with 4 different handle lengths. Each has a maximum BTU capacity of 500,000. With this high capacity we suggest using a 30-pound cylinder (8 gallon) or larger, although a 20 pound cylinder (5 gallon) will be adequate at low pressure or for short periods of use.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT3-0</td>
<td>Torch Head Only – Overall Length 6&quot;</td>
<td>1.2 lbs</td>
<td>6</td>
</tr>
<tr>
<td>VT3-6</td>
<td>6&quot; Handle – Overall Length 11&quot;</td>
<td>1.4 lbs</td>
<td>6</td>
</tr>
<tr>
<td>VT3-12</td>
<td>11¾&quot; Handle – Overall Length 16½&quot;</td>
<td>1.4 lbs</td>
<td>6</td>
</tr>
<tr>
<td>VT3-30</td>
<td>28&quot; Handle – Overall Length 33½&quot;</td>
<td>1.9 lbs</td>
<td>10</td>
</tr>
<tr>
<td>VT3-60</td>
<td>60&quot; Handle – Overall Length 65&quot;</td>
<td>3.4 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

See Page 3 for Complete Kit

VT3-12S High Capacity Vapor Torch – 750,000 BTU

A high capacity, 3" diameter vapor torch. Use this torch on special applications such as preheating large castings prior to welding. Torch head only. Overall length 8".

Order SKU # | Description            | Wt Each | Case Qty |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>VT3-12S</td>
<td>Torch Head Only – Overall Length 8&quot;</td>
<td>1.5 lbs</td>
<td>6</td>
</tr>
</tbody>
</table>

See Page 8 for Complete Kit

2½ Inch Diameter Vapor Torches – 400,000 BTU

2½ inch diameter vapor torches are available as a torch only or with 3 different handle lengths. They all have a maximum BTU capacity of 400,000. With this high capacity we suggest using a 20-pound cylinder (5 gallon) or larger.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT2½-0</td>
<td>Torch Head Only – Overall Length 5½&quot;</td>
<td>0.9 lbs</td>
<td>6</td>
</tr>
<tr>
<td>VT2½-6</td>
<td>6&quot; Handle – Overall Length 10½&quot;</td>
<td>1.0 lbs</td>
<td>6</td>
</tr>
<tr>
<td>VT2½-12</td>
<td>11¾&quot; Handle – Overall Length 16½&quot;</td>
<td>1.1 lbs</td>
<td>6</td>
</tr>
<tr>
<td>VT2½-30</td>
<td>28&quot; Handle – Overall Length 33½&quot;</td>
<td>1.6 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

See Page 4 for Complete Kit

2 Inch Diameter Vapor Torches – 100,000 BTU

Two inch diameter vapor torches are available in three lengths. Each has a maximum capacity of 100,000 BTU/hr. making them excellent medium-duty torches. We recommend an operating pressure of 20 PSI and a 12 lb. (3 gallon) or larger fuel cylinder.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT2-0</td>
<td>Torch Head Only – Overall Length 5½&quot;</td>
<td>0.75 lbs</td>
<td>6</td>
</tr>
<tr>
<td>VT2-6</td>
<td>6&quot; Handle – Overall Length 10½&quot;</td>
<td>0.8 lbs</td>
<td>6</td>
</tr>
<tr>
<td>VT2-12</td>
<td>11½&quot; Handle – Overall Length 15½&quot;</td>
<td>0.9 lbs</td>
<td>6</td>
</tr>
</tbody>
</table>

See Page 9 for Complete Kit

1½ Inch Diameter Vapor Torches – 50,000 BTU

1½ inch diameter vapor torches are available in 4 different lengths. Although small, they still have a 50,000 BTU capacity and are perfect for close, detail work. We recommend an operating pressure of 10 PSI and a 6 lb. (1.5 gallon) or larger fuel cylinder.

The HT1½-10 is our deluxe “little torch” and features a plastic grip, flame adjusting valve, torch stand and an angled 10½” handle. Perfect for dozens of uses. A favorite of hobbyists, farmers, mechanics and plumbers.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>VT1½-0</td>
<td>Torch Head Only – Overall Length 4½&quot;</td>
<td>0.5 lbs</td>
<td>6</td>
</tr>
<tr>
<td>VT1½-6</td>
<td>6&quot; Handle – Overall Length 10&quot;</td>
<td>0.8 lbs</td>
<td>6</td>
</tr>
<tr>
<td>VT1½-12</td>
<td>11½&quot; Handle – Overall Length 15½&quot;</td>
<td>0.7 lbs</td>
<td>6</td>
</tr>
<tr>
<td>VT1½-30</td>
<td>10½&quot; Bent Handle – Overall Length 15&quot;</td>
<td>1.1 lbs</td>
<td>6</td>
</tr>
</tbody>
</table>

See Page 9 for Complete Kit

HT1½-10

See Page 9 for Complete Kit

3" Vapor Torch Specifications:

- Maximum Capacity: 500,000 BTU/hr
- Normal Operating Pressure: 30 PSI
- Operating Pressure Range: 5-90 PSI
- Approximate Flame Temperature: 2050°F
- Fuel Consumption @ 30 PSI: 10.13 lbs/hr
- Maximum Fuel Consumption: 23.2 lbs/hr
- Fuel Inlet: 1/4" NPT
- Torch Bell Diameter: 3"
Squeeze Valves, Needle Valves, Ball Valve and Handle

V-880P/H-1 – Squeeze Valve with Adjustable Pilot & Torch Handle Kit

The Red Dragon® V-880P/H-1 allows you to add a squeeze valve and handle to any Red Dragon® Vapor Torch Kit (excluding mini Dragon® and HT1/10CR Kit). Perfect for those who use a Red Dragon® Torch Kit for spot weeding and instances where full flame is not continuously required. This kit will quickly pay for itself in propane savings if this is how you will primarily use the torch kit. The all-brass squeeze valve has an adjustable pilot feature. The adjustable pilot is a needle valve assembly similar to the Red Dragon® V-334. This is a high pressure valve tested to 350 lbs working pressure.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-880P/H-1</td>
<td>Squeeze Valve w/Adjustable Pilot</td>
<td>0.5 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

V-880P – Squeeze Valve with Adjustable Pilot

An all-brass squeeze valve with an adjustable pilot feature. The adjustable pilot is a needle valve assembly similar to the V-334 valve. This is a high pressure valve tested to 350 lbs working pressure. Inlet and outlet are 1/4” female pipe thread.

V-880P Valve Repair Kits & Lever Assembly

TJP-123 – Pilot Valve Repair Kit

TC-42-7 – Main Valve Repair Kit

TSTE131-2 – Lever Assembly Kit

These three kits will allow you to repair either the pilot valve, the main valve or the lever assembly on any V-880P Squeeze Valve.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-880P</td>
<td>Squeeze Valve w/Adjustable Pilot</td>
<td>0.2 lbs</td>
<td>10</td>
</tr>
<tr>
<td>TJP-123</td>
<td>Pilot Valve Repair Kit</td>
<td>0.1 lbs</td>
<td>1</td>
</tr>
<tr>
<td>TC-42-7</td>
<td>Main Valve Repair Kit</td>
<td>0.1 lbs</td>
<td>1</td>
</tr>
<tr>
<td>TSTE131-2</td>
<td>Lever Assembly Kit</td>
<td>0.1 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

V-6591 – Squeeze Valve

A brass-bodied valve that provides positive shut-off for any of the Red Dragon® torches. The trigger must be depressed for any fuel to flow. This provides an added safety feature where needed. Inlet and outlet are 1/4” pipe thread. For use on all liquid and vapor Red Dragon® torches. The H-1 Handle (Shown Below) is a great addition in many cases.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-6591</td>
<td>Squeeze Valve</td>
<td>0.2 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

H-1 – Torch Handle

A replacement handle for Red Dragon® Torches with squeeze valves. A must if you want to add a squeeze valve to a torch. 1/4” male pipe thread x 1/4” female pipe thread.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-1</td>
<td>Torch Handle</td>
<td>0.25 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

Questions? Please feel free to contact us at 1-800-255-2469. One of our customer service representatives will be glad to help you.
Regulators, Pressure Gauges & Quick Connector Sets

567RC & 567RD
1/4” Medium Capacity – Liquid or Vapor
2.5 Million BTU/hr Capacity

567RC: A medium capacity regulator with precise regulating characteristics, designed for cylinder systems in liquid or vapor service. Both the inlet and outlet of this regulator are 1/4” female pipe thread. The 567RC is suitable for tar pot heaters, weed burners and other applications using either liquid or vapor cylinders. Delivery pressures are adjustable from 0 to 60 PSI. Plugged gauge port.

567RD: The same characteristics and specifications as the 567RC except the delivery pressures are adjustable from 0-100 PSI.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>567RC</td>
<td>Regulator for 0-60 PSI Delivery</td>
<td>1.2 lbs</td>
<td>6</td>
</tr>
<tr>
<td>567RD</td>
<td>Regulator for 0-100 PSI Delivery</td>
<td>1.2 lbs</td>
<td>6</td>
</tr>
</tbody>
</table>

R-700C
1/4” High Pressure – Liquid or Vapor

R-700C: This regulator is ideal for use with our larger capacity construction heaters, the Weed Dragon® and more. The R-700C has the capacity to deliver nearly 500,000 BTU/hr and can be used as the first stage regulator of a two stage system. Straight through flow. Inlet and outlet connections are 1/4” female pipe thread. Delivery pressure is 18 PSI.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-700C</td>
<td>Regulator for 18 PSI Delivery</td>
<td>0.5 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

RSL-1 – 1/4” x 3/8” Low Pressure – Vapor Only

This low pressure (11” W.C) regulator is the type used on Patio Lights, stock tank heaters, campers and gas grills. The inlet port is 1/4” female pipe thread and the outlet is 3/8” female pipe thread. Capacity: 125,000 BTU/hr at 25 PSI inlet pressure. Use P-3200W O.P.L. fitting to connect to LP-gas cylinder. For vapor use only. Not for use on torches or high pressure equipment.

<table>
<thead>
<tr>
<th>SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSL-1</td>
<td>0.5 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

G-23 & G-24 – Pressure Gauges

G-23: A rugged steel cased gauge showing pressures from 0-100 PSI. The 1/4” male pipe stem allows it to be mounted on the 567RC, 567RD and R-499 regulators. Dial diameter is two inches.

G-24: The same characteristics and specifications as the G-23 except the range is from 0 to 200 PSI. Perfect for use with the R-1584H Regulator.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-23</td>
<td>Pressure gauge for 0-100 PSI</td>
<td>0.2 lbs</td>
<td>10</td>
</tr>
<tr>
<td>G-24</td>
<td>Pressure gauge for 0-200 PSI</td>
<td>0.2 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

G-499 – 1/4” High Pressure – Liquid or Vapor
4 Million BTU/hr Capacity

This regulator is used on the Red Dragon® Row Crop Flamer, Berm Flamers, tar pot kettles and weed burners. Known as a pound to pound regulator, the R-499 controls propane at elevated pressures. Inlet and outlet connections are 1/4” female pipe thread. Recommended delivery pressure range is from 40-100 PSI. Plugged gauge port.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-499</td>
<td>1.0 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

R-1584H – 1/2” High Capacity – Liquid or Vapor
8 Million BTU/hr Capacity

Precision built with a multi-million BTU capacity, these high quality regulators are perfect for big, tough jobs; crop dryers, alfalfa flamers, row crop flamers, asphalt batch mixing plants, ditch flamers, and other large industrial and commercial loads. Straight through flow provides high capacities and maximum resistance to freeze up. Inlet and outlet connection are 1/2” female pipe thread. Delivery pressure is from 45 to 125 PSI. Plugged gauge port.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-1584H</td>
<td>1.6 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

QUICK CONNECTOR SETS

HK-8

HK-7

HN-5

HN-6

This brass set allows connection and disconnection of the LP-Gas line to the torch without the use of tools. The unique design of the HK-7 set makes coupling under pressure possible with minimal loss of fuel. Both pieces are 1/4” pipe thread (HN-5 female & HN-6 male). For use up to 250 PSI.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>HK-8</td>
<td>complete set (2)HN-6 male (1)HN-5 female</td>
<td>0.53 lbs</td>
<td>10</td>
</tr>
<tr>
<td>HK-7</td>
<td>complete set (1)HN-6 male (1)HN-5 female</td>
<td>0.44 lbs</td>
<td>10</td>
</tr>
<tr>
<td>HN-5</td>
<td>female adaptor</td>
<td>0.25 lbs</td>
<td>10</td>
</tr>
<tr>
<td>HN-6</td>
<td>male adaptor</td>
<td>0.07 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

G-25 – Liquid Filled Pressure Gauge

A rugged liquid filled, steel cased gauge showing pressures from 0-300 PSI. The 1/4” male pipe stem allows it to be mounted on the 567RC, 567RD, R-1584H and R-499 regulators. Replacement gauge for all Red Dragon® Agricultural Flaming Equipment. Dial diameter is 2½ inches.

<table>
<thead>
<tr>
<th>SKU #</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-25</td>
<td>0.5 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>
LP Hose Assemblies, P.O.L. Fittings & Cylinder Connectors

HP-Series LP-Gas Hose – Liquid or Vapor

HP-series hose is U.L. Listed for use with either vapor or liquid LP-gas and is available in 5′, 10′, 25′ and 50′ lengths. Each hose is coupled with 1/4″ male pipe thread fittings on both ends*. Maximum working pressure of this hose is 350 PSI with a burst test of 1750 PSI. Hose I.D. is 1/4″.

*HP-5C & HP-10C come with one female end and one male end.
*HP25 & HP50 include a 1/4″ female brass coupling.

SL-1C – Propane Hook-up Kit - Vapor Only

This kit provides the connecting link between LP cylinder and a low pressure appliance such as a stock tank heater, Patio Light, RV and more. Not for use on torches or any high pressure equipment.

SL-1C Hook-up Kit Includes:

Part No. Description
P-3200W Excess Flow P.O.L. Attaches kit to LP cylinder
RSL-1 11″ WC (Approx 1/2 PSI) Regulator. Maintains constant, correct pressure
HP10LP 10′ Hose 3/8″ Flare swivel end attaches to most appliances designed to operate at 11″ WC.
Pipe Thread Sealant

SL-32C – Propane Hook-up Kit - Vapor Only

1 lb. connection to P.O.L.

Use the SL-32C Hose Kit to connect the mini Dragon™ Torch Kit to a larger, refillable cylinder. Works great with any other appliances such as lanterns, camp stoves etc, that normally use standard 1 lb. cylinders.

SL-32C Hook-up Kit Includes:

Part No. Description
P-3200W U.L. Listed Excess Flow P.O.L. Attaches kit to LP cylinder
F-140 Cylinder Adaptor attaches to appliance
HP-10T 10″ U.L. Listed LP Gas Hose

P-1685 – Standard P.O.L.

The fitting that adapts most LP cylinders to regulators and other fittings. The P.O.L. nut is the left hand fitting that threads into nearly all butane/propane cylinders and the other end of this connection is standard 1/4″ male pipe thread. This is a straight through flow design - No excess flow safety device installed in this P.O.L.

Order SKU # Wt Each Case Qty
P-1685 0.2 lbs 10

P-3200W – Excess Flow P.O.L.

A soft-nose P.O.L. connector incorporating an excess flow safety device and hex nut for positive tightening. The outlet on this fitting is 1/4″ male pipe thread. Flow rate is 1.8 gallons per minute.

Order SKU # Wt Each Case Qty
P-3200W 0.2 lbs 10

P-W795 – Hand Tighten Excess Flow P.O.L.

No wrenches needed with this soft nose P.O.L. This all-brass P.O.L. can be hand-tightened for easy connection to any LP-gas cylinder. Includes excess flow device for added safety. Outlet is 1/4″ male pipe thread. Flow rate is 1.8 gallons per minute.

Order SKU # Wt Each Case Qty
P-W795 0.3 lbs 10

Replacement O Rings for P.O.L. Fittings

Replacement O ring seals for P-1685, P-3200W and P-W795 P.O.L. fittings shown above.

Order SKU # Case Wt Case Qty
100-303-080 0.2 lbs 100
**Electric Solenoid Control Valves, Safety Valves & Thermocouples**

### 12 Volt D.C. Solenoid Valves

**S-121**

Electric control valves for use with LP-gas or natural gas at working pressures up to 312 PSI. A large orifice allows adequate flow on both liquid and vapor LP-gas. 1.1 amp nominal draw on 12 volts D.C. Inlet and outlet are female pipe threads.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-121</td>
<td>1/4” FPT inlet &amp; outlet</td>
<td>0.7 lbs</td>
<td>1</td>
</tr>
<tr>
<td>S-122</td>
<td>1/2” FPT inlet &amp; outlet</td>
<td>2.3 lbs</td>
<td>1</td>
</tr>
<tr>
<td>S-123</td>
<td>3/8” FPT inlet &amp; outlet</td>
<td>2.1 lbs</td>
<td>1</td>
</tr>
<tr>
<td>S-119</td>
<td>3/4” FPT inlet &amp; outlet</td>
<td>2.6 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

### 24 Volt A.C. Solenoid Valves

**S-125**

Electronic control valves for use with LP-gas or natural gas at working pressures up to 312 PSI. Used on the Red Dragon® Propane Flare and in custom ignition systems for eternal flames.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-124</td>
<td>1/4” FPT inlet &amp; outlet</td>
<td>1.6 lbs</td>
<td>1</td>
</tr>
<tr>
<td>S-125</td>
<td>3/8” FPT inlet &amp; outlet</td>
<td>2.3 lbs</td>
<td>1</td>
</tr>
<tr>
<td>S-126</td>
<td>1/2” FPT inlet &amp; outlet</td>
<td>2.1 lbs</td>
<td>1</td>
</tr>
<tr>
<td>S-127</td>
<td>3/4” FPT inlet &amp; outlet</td>
<td>2.3 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

### 115 Volt A.C. Solenoid Valves

**S-116**

Electronic control valves using 115 volt A.C. current. Control pressures up to 300 PSI with an operating differential of 0-60 PSI. Inlet and outlet are female pipe threads.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>S-115</td>
<td>1/4” FPT inlet &amp; outlet</td>
<td>1.4 lbs</td>
<td>1</td>
</tr>
<tr>
<td>S-116</td>
<td>3/8” FPT inlet &amp; outlet</td>
<td>2.5 lbs</td>
<td>1</td>
</tr>
<tr>
<td>S-117</td>
<td>1/2” FPT inlet &amp; outlet</td>
<td>2.5 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

### Replacement Piezo Ignitors

Replacement ignitors for Red Dragon® Construction Heaters, and HSH Roofing Torches. Complete with items listed.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model21</td>
<td>Piezo Ignitor Only</td>
<td>0.2 lbs</td>
<td>1</td>
</tr>
<tr>
<td>Model21C</td>
<td>Piezo ignitor, lead wire, spark plug &amp; spark plug connector for CH-220 Heaters</td>
<td>0.3 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>

### Thermocouple

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3012</td>
<td>12” Thermocouple</td>
<td>0.2 lbs</td>
<td>1</td>
</tr>
<tr>
<td>M3031</td>
<td>24” Thermocouple</td>
<td>0.3 lbs</td>
<td>1</td>
</tr>
<tr>
<td>M3032</td>
<td>36” Thermocouple</td>
<td>0.3 lbs</td>
<td>1</td>
</tr>
<tr>
<td>M3036</td>
<td>36” Heavy Duty Thermocouple</td>
<td>0.4 lbs</td>
<td>1</td>
</tr>
</tbody>
</table>
Brass Fittings, Cylinder Adaptors & Ignitors

**FPT Tees**

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-522</td>
<td>1/4” FPT x 1/4” FPT x 1/4” FPT</td>
<td>.15 lbs</td>
<td>10</td>
</tr>
<tr>
<td>F-533</td>
<td>3/8” FPT x 3/8” FPT x 3/8” FPT</td>
<td>.3 lbs</td>
<td>10</td>
</tr>
<tr>
<td>F-544</td>
<td>1/2” FPT x 1/2” FPT x 1/2” FPT</td>
<td>.45 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

**MPT x Male Flared Adapters**

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-726</td>
<td>1/4” MPT x 3/8” Flare</td>
<td>.1 lbs</td>
<td>10</td>
</tr>
<tr>
<td>F-736</td>
<td>3/8” MPT x 3/8” Flare</td>
<td>.1 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

**1/4” FPT 90° Elbow**

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-422</td>
<td>1/4” FPT x 1/4” FPT</td>
<td>.2 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

**9/16” Left Hand Adapters**

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-825</td>
<td>1/4” MPT x 9/16” Left Hand</td>
<td>.1 lbs</td>
<td>10</td>
</tr>
<tr>
<td>F-835</td>
<td>3/8” MPT x 9/16” Left Hand</td>
<td>.1 lbs</td>
<td>10</td>
</tr>
<tr>
<td>F-855</td>
<td>9/16” Left Hand x 9/16” Left Hand</td>
<td>.1 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

**1/4” FPT x 1/4” FPT Hex Coupling**

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-322</td>
<td>1/4” FPT x 1/4” FPT</td>
<td>.1 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

**MPT x MPT Hex Nipples**

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-222</td>
<td>1/4” MPT x 1/4” MPT</td>
<td>.1 lbs</td>
<td>10</td>
</tr>
<tr>
<td>F-233</td>
<td>3/8” MPT x 3/8” MPT</td>
<td>.1 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

**F-144 – Cylinder Connector**

Use to connect disposable cylinders to preheaters, torches and other equipment with 1/4” pipe thread inlet. Inlet is 1”-20 female thread which fits disposable cylinders. Outlet is 1/4” male pipe thread.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-144</td>
<td></td>
<td>.15 lbs</td>
<td>10</td>
</tr>
</tbody>
</table>

**L2001 – Spark Lighter w/Flints**

The convenient and safe way to light Red Dragon® Torches, welders and cutting torches. The L2001 Spark Lighter produces up to 1,500 ignitions per flint. The perfect tool when you need dependability, ease of operation and lightweight convenience. Pack of 5 FREE replacement flints included.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>L2001</td>
<td>Spark Lighter w/5 flints</td>
<td>.2 lbs</td>
<td>10</td>
</tr>
<tr>
<td>L2012</td>
<td>Pack of 5 flints</td>
<td>.03 lbs</td>
<td>24</td>
</tr>
</tbody>
</table>
Red Dragon® Cylinder Dollies & LP Gas Cylinders

CD-100 Cylinder Dolly

This cylinder dolly makes the perfect companion for any Red Dragon® torch kit and is ideally suited for LP Gas cylinders up to 40 pounds (10 gallons). The single handle allows the operator to use a torch and move the dolly simultaneously. When the torch is not in operation, it can be stored on the convenient torch bracket.

Features rugged welded tubular steel, with two seven-inch steel wheels and solid axle, assuring years of dependable use. Maximum load capacity is 100 pounds. Dimensions: 15”w x 44”h. Color may vary.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Std Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD-100</td>
<td>14.35</td>
<td>1</td>
</tr>
</tbody>
</table>

CD-100

(Torch Kit & Cylinder Not Included. Color may vary.)

CD-505 Cylinder Dolly

The Red Dragon® CD-505 Cylinder Dolly is specifically designed for transporting 100 pound cylinders. The ergonomic design features handles that are set wide and angled outward, making it easy to push, pull, or turn.

The CD-505 is constructed of heavy gauge square tubing. It features removable, two-ply pneumatic tires mounted on steel wheels with heavy duty roller bearings on a 1” steel axle.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Wt Each</th>
<th>Std Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>CD-505</td>
<td>43.0</td>
<td>1</td>
</tr>
</tbody>
</table>

C-6

5 lb. Vapor Withdrawal Propane Cylinder

This 5 lb. vapor withdrawal cylinder is opd equipped and meets all safety standards. Holds 1.2 gallons of propane when full and is perfect for a back-up grill cylinder or to take camping when space is an issue. Has an overall height of 12 inches and a diameter of 8 inches. Features a durable powder coat finish.

C-11

10 lb. Vapor Withdrawal Propane Cylinder

This 10 lb. vapor withdrawal cylinder is opd equipped and meets all safety standards. Holds 2.4 gallons of propane when full and is the cylinder included with all our back pack torch kits. Has an overall height of 17.4 inches and a diameter of 8.9 inches. Features a durable powder coat finish.

C-120

120 Gallon Liquid Withdrawal Horizontal Propane Tank

This is the tank we recommend for use with the GP-750 Berm Flaming Unit. Conforms to the latest edition and addenda of the ASME Code for Pressure Vessels, Section VIII Division I. Complies with NFPA 58 and is listed by Underwriters Laboratories, Inc. Comes pre-purged and ready to be filled. Features a durable powder coat finish. Rated at 250 psig from -20° F. to 125° F. Tank may be evacuated to a full (14.7 psi) vacuum. Tank is 66 inches long and has a diameter of 24 inches.

<table>
<thead>
<tr>
<th>Order SKU #</th>
<th>Description</th>
<th>Wt Each</th>
<th>Case Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-6</td>
<td>5 lb. Propane Cylinder</td>
<td>11.0 lbs</td>
<td>1</td>
</tr>
<tr>
<td>C-11</td>
<td>10 lb. Propane Cylinder</td>
<td>16.0 lbs</td>
<td>1</td>
</tr>
<tr>
<td>C-120</td>
<td>120 Gallon Tank</td>
<td>—</td>
<td>1</td>
</tr>
</tbody>
</table>

Questions? Please feel free to contact us at 1-800-255-2469.
One of our customer service representatives will be glad to help you.
# Propane & Safety Information

## Propane Vapor Pressure Chart, PSI

<table>
<thead>
<tr>
<th>OUTSIDE TEMPERATURE, DEGREES FAHRENHEIT</th>
<th>VAPOR PRESSURE, PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>-30°</td>
<td>100% Propane</td>
</tr>
<tr>
<td>-20°</td>
<td>6.8</td>
</tr>
<tr>
<td>-10°</td>
<td>11.5</td>
</tr>
<tr>
<td>0°</td>
<td>17.5</td>
</tr>
<tr>
<td>10°</td>
<td>24.5</td>
</tr>
<tr>
<td>20°</td>
<td>34</td>
</tr>
<tr>
<td>30°</td>
<td>42</td>
</tr>
<tr>
<td>40°</td>
<td>53</td>
</tr>
<tr>
<td>50°</td>
<td>65</td>
</tr>
<tr>
<td>60°</td>
<td>78</td>
</tr>
<tr>
<td>70°</td>
<td>83</td>
</tr>
<tr>
<td>80°</td>
<td>93</td>
</tr>
<tr>
<td>90°</td>
<td>110</td>
</tr>
<tr>
<td>100°</td>
<td>128</td>
</tr>
<tr>
<td>110°</td>
<td>150</td>
</tr>
<tr>
<td>120°</td>
<td>177</td>
</tr>
<tr>
<td>130°</td>
<td>204</td>
</tr>
</tbody>
</table>

### Vaporization Rate

100% Propane

<table>
<thead>
<tr>
<th>Pounds of propane in cylinder</th>
<th>Maximum continuous draw in BTU/hr at various temperatures in degrees F</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>113,000</td>
</tr>
<tr>
<td>90</td>
<td>104,000</td>
</tr>
<tr>
<td>80</td>
<td>94,000</td>
</tr>
<tr>
<td>70</td>
<td>83,000</td>
</tr>
<tr>
<td>60</td>
<td>75,000</td>
</tr>
<tr>
<td>50</td>
<td>64,000</td>
</tr>
<tr>
<td>40</td>
<td>55,000</td>
</tr>
<tr>
<td>30</td>
<td>45,000</td>
</tr>
<tr>
<td>20</td>
<td>36,000</td>
</tr>
<tr>
<td>10</td>
<td>28,000</td>
</tr>
</tbody>
</table>

### PROPAINE DATA

#### Properties of Propane:
- Chemical Formula: C\(_3\)H\(_8\)
- BTU per Gallon (Vaporized): 91,890
- BTU per Pound: 21,591
- Weight of Liquid per Gallon: 4.23
- Vaporization Temperature: 44°F
- Vapor Pressure at 100°F: 190 PSI
- Vapor Pressure at 0°F: 28 PSI
- Vapor Pressure at 70°F: 118,000 PSI
- Vapor Pressure at 100°F: 204 PSI
- Vaporization Temperature: -44°F
- Vaporization Rate: 272:1
- Ozone Depletion Potential: 0.51
- Temperature at which it evaporates: -30° to 110°
- Specific Gravity: Liquid = 0.51, Vapor = 1.53
- Combustion Data
- Limits of Flammability, % of Gas in Air: 2.3% to 9.5%
- Oxygen required to burn 1 Cu Ft Vapor: 4.9 Cu Ft
- Ignition Temperature: 920-1020°F
- Optimum Flame Temperature: 3000°F
- Vapor Pressure at 0°F: 28 PSI
- Vapor Pressure at 70°F: 118,000 PSI
- Vapor Pressure at 100°F: 204 PSI

#### SAFETY NOTES:
- When extinguishing a torch, shut off cylinder valve and allow gas to burn out of line.
- Be certain to comply with all safety guidelines and local ordinances regarding the use of an open flame.
- Please contact Flame Engineering, your local LP-Gas dealer or fire officials if you have questions regarding proper operating procedures & safety guidelines.

#### CAUTION:
- Propane is heavier than air which causes it to accumulate in low areas. Be certain all areas are well ventilated.
- Propane has a distinct odor. If you smell it, immediately discontinue work, extinguish all flames, find the leak and correct it.

#### WARNING:
Use extreme caution at all times. You are using an intense open flame. Disregard of safe practices can result in severe fire damage, serious personal injury or death.

**DO NOT OPERATE THIS EQUIPMENT IF:**
- You are subject to seizures, loss of consciousness, or fainting.
- You have been drinking alcohol, using illicit drugs, or prescription drugs that might affect your judgment or balance.
- You have not read or do not understand the operator's manual.
- You are not capable of safely operating this type of equipment.

**DO NOT ALLOW CHILDREN TO OPERATE THIS EQUIPMENT.**

---

## Daily Equipment Check List

1. Be sure you have a fire extinguisher (type ABC) on the job, easily accessible to each worker.
2. Check LP cylinders for dents, damage to collar, damage to valve or corroded footing. Never hoist a cylinder by the valve. Secure cylinders in an upright position. Know whether you are using LIQUID or VAPOR WITHDRAWAL.
3. Visually inspect all parts for damage and wear.
4. Using soapy water, check all connections and fittings for leaks. DO NOT use match or open flame.
5. Ignite torch. Check operation of valve and other adjustable parts.

---

## Safety Information

### Check List For Safe LP-Gas Use

1. DO NOT use torches on or near combustible materials.
2. Inspect equipment daily.
3. Secure cylinders in a level, upright position. DO NOT invert or lay cylinders on their sides.
4. Use only vapor equipment on cylinders equipped with vapor withdrawal valves. Use only liquid equipment on cylinders designed for liquid withdrawal. DO NOT invert vapor cylinders to dispense liquid.
5. DO NOT apply flame to cylinders to increase pressure.
6. DO NOT operate torches or any equipment if the odor of LP Gas (butane/propane) is evident. Immediately shut off all valves and, using soapy water, check all equipment for leaks.
7. LP Gas butane/propane) is heavier than air which causes it to accumulate in low areas. Check low areas for accumulation and ventilate. Be certain all work areas are well ventilated.
8. Keep torches, open flame, and sources of ignition away from cylinders, regulators, and hose.
9. Cylinder valves must be protected. DO NOT hoist cylinder by the valve.
10. Gloves should be used at all times. Long sleeves, long pants, and boots are recommended.
11. Never leave a lighted torch unattended.
12. For more detailed information, consult your local LP dealer, Flame Engineering, NPGA, NRCA, or NFPA Pamphlet 58. This information is provided as a general guide for safe LP-Gas use and in no way constitutes a complete safety program.

---

## Vaporization Rate – 100 lb. Propane Cylinders (Approximate)

<table>
<thead>
<tr>
<th>Pounds of propane in cylinder</th>
<th>Maximum continuous draw in BTU/hr at various temperatures in degrees F</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>113,000</td>
</tr>
<tr>
<td>90</td>
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<td>30</td>
<td>45,000</td>
</tr>
<tr>
<td>20</td>
<td>36,000</td>
</tr>
<tr>
<td>10</td>
<td>28,000</td>
</tr>
</tbody>
</table>

This chart shows the vaporization rate of containers in terms of the temperature of the liquid and the wet surface area of the container. When the temperature is lower or if the container has less liquid in it, the vaporization rate of the container is a lower value.
Additional Information for Distributors, Dealers and Customers

Dear Customer,

Within this catalog you’ll find the most complete line of propane torches, heaters, agricultural flamers and leisure products to be found anywhere. Whether your needs are vapor or liquid, big or small, conventional or unconventional, we’ve got the products, staff and experience to assist you. This is our general line catalog. We also offer a separate roofing catalog. In addition, we now have full color brochures (see below) for our distributors which include the agricultural equipment, construction heaters and leisure products. These brochures are very good sales tools so please don’t hesitate to call if you need them. In addition, we encourage our distributors to take advantage of our co-op advertising program and extensive photography file available on CD. Need a custom printed sales piece? Just give us a call. Thank you for choosing Red Dragon® Products.

OUR MISSION:
Flame Engineering, Inc. will provide safe, durable, American made quality products with support prior to and after the sale from our highly knowledgeable staff. We will create and maintain positive relationships while setting the standard for the industry as a visionary, with dedication and loyalty at every level of the organization.

 CSA Certified Products
Many Red Dragon® Products are CSA Certified. CSA International (formerly the American Gas Association and Canadian Gas Association) is an independent testing laboratory specializing in LP and Natural Gas Equipment for the United States and Canada. Flame Engineering was the first torch manufacturer to receive both American Gas Association and Canadian Gas Association certifications.

Flame Engineering, Inc. has been using wind energy for over 25 years!

Green Statement:
Flame Engineering, Inc. actively provides and promotes safe, sustainable products produced in an environmentally conscious work place supporting healthy surroundings by conserving, recycling and maintaining stewardship to the planet for the well-being of current and future generations.

Order Information, Terms and Conditions

PRICING POLICY
Prices are subject to change without notice. Prices charged will be those in effect at the time of order. Please call for a current price sheet.

SELLING POLICY:
Possession of our price list or discount sheet is not an offer to sell. All orders are subject to acceptance by the home office at LaCrosse, Kansas.

WARRANTY:
We warrant all goods to be free of defects in material and workmanship. We repair or replace defective merchandise returned upon authorization. DO NOT return goods without consent. Warranty does not apply to items altered or subjected to misuse or negligence.

PRODUCT CHANGES:
Flame Engineering, Inc. is constantly at work improving products. Therefore, in order to incorporate new engineering advances, we reserve the right to alter model designs and to change weights and specifications. Flame Engineering, Inc. shall not be required to modify equipment already sold or in service.

FREIGHT POLICY:
See current price lists for freight policy. Customers from Alaska, Hawaii and foreign countries will be allowed full freight only at the embarkation point and only if other requirements are fulfilled. We reserve the right to ship the most economical way.

RESTOCKING CHARGES:
No merchandise may be returned for credit without the sellers prior approval, and only with transportation charges prepaid. A 15% minimum restocking charge will be deducted from any credit issued.

PAYMENTS:
See current price list for payment terms and conditions. The seller reserves the right to ship C.O.D. while credit is being confirmed. Payment to be made only in U.S. currency.

PAST DUE ACCOUNT:
No shipments will be made to past due accounts. A service charge will be made on all past due invoices. Please refer to current price list for specific rate.

CLAIMS, SHORTAGES, AND DAMAGE:
Any claims for shortages or goods damaged in transit must be made within 10 days after receipt of the merchandise. All claims should be made to the delivering carrier by the consignee.

IMPORTANT NOTICE:
Should a product prove to be defective or unsuitable in any way, it is understood that Seller’s and Manufacturer’s limit of liability for all damages, including but not limited to incidental or consequential damages, shall be to repair defective product, to provide equivalent quantity of replacement product, or to refund the purchase price.

By placing an order with FLAME ENGINEERING, INC. for Red Dragon® Products, you accept these terms and conditions.
Flame Engineering – Where we can be Found

Flame Engineering products are sold in every state.

Countries that we currently service are highlighted in red.

Argentina, Australia, Bahamas, Barbados, Belgium, Brazil, Canada, Chile, Costa Rica, Denmark, Egypt, Estonia, Germany, Greece, Guatemala, Ireland, Israel, Jamaica, Mexico, New Zealand, Panama, Peru, Philippines, Poland, San Salvador, Saudi Arabia, Scotland, Serbia, Slovenia, South Africa, Switzerland, United Kingdom, Venezuela.
At Flame Engineering, Inc., we take pride in the quality and craftsmanship which becomes part of each and every product we manufacture. All torches are individually tested before leaving the facility to ensure safe and dependable use. In the unlikely event that you are unsatisfied with a product, for any reason, please call our toll-free number immediately and receive prompt assistance and satisfaction.

Thank you for choosing Red Dragon® Products.

We Stand Behind Our Products 100%!

At Flame Engineering, Inc., we take pride in the quality and craftsmanship which becomes part of each and every product we manufacture. All torches are individually tested before leaving the facility to ensure safe and dependable use. In the unlikely event that you are unsatisfied with a product, for any reason, please call our toll-free number immediately and receive prompt assistance and satisfaction.

Thank you for choosing Red Dragon® Products.

1-800-255-2469
www.FlameEngineering.com

Flame Engineering is celebrating nearly two decades of safety and health performance with continued recognition in OSHA’s Safety and Health Achievement Recognition Program!