



TORCHES & EQUIPMENT

*In
Business
Since
1959*



FLAME ENGINEERING, INC.

Over 55 Years Manufacturing the Original Red Dragon® Torch . . .



. . . and So Much More!

- COMPLETE TORCH KITS
- PATIO LIGHTS
- AGRICULTURAL EQUIPMENT
- ROOFING TORCHES & EQUIP.
- CONSTRUCTION HEATERS
- ENGINE PREHEATERS
- FLARES & CUSTOM WORK
- CYLINDER DOLLIES
- TORCHES
- PARTS & ACCESSORIES
- PROPANE INFORMATION



FLAME ENGINEERING, INC. GENERAL PRODUCTS CATALOG

Catalog #05-16

From the development of a single, hand-held farm torch over 50 years ago, 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 Berm 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 engine pre-heater for Alaskan bush pilots. We now sell the same heaters across the United States and Canada. Again answering our customers' requests, we manufactured an extremely durable Hot Box construction heater. Our Patio Lights are unique 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**

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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!



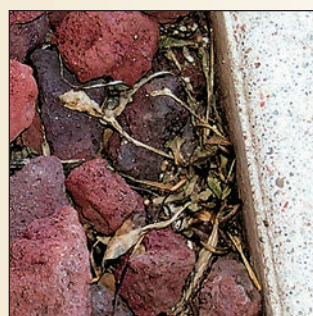
A quick pass with the torch is usually enough to damage leaves and ultimately kill weeds.



A quick thumb print test determines if significant cell damage has occurred.



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 desirable 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.

**VIDEO
AVAILABLE
ONLINE!**

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).

*“I wish I had bought one sooner. Weed Control is so much easier. Thank you.”
Phil Prikett,
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.”
Scott Lee,
Oakland City, IN*

*“Bought for burning brushpiles in wintertime and blueberries in spring.”
Lawrence Laligerte,
Richmond, ME*

*“Last year, two of us spent half a day lying on frozen concrete under a hydro dam rake carriage draped with tarps shielding space heaters and hair dryers. This year, one person spent 1 1/2 hours with the Dragon and a hammer! YES!”
Joanna Bombadil,
Montpelier, VT*

*“This torch is one of the greatest ideas and handiest that has come along in a long time.”
Robert W. Jones,
Washington, IL*

- **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.

*“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.”
Brian Casebolt,
Garwin, IA*

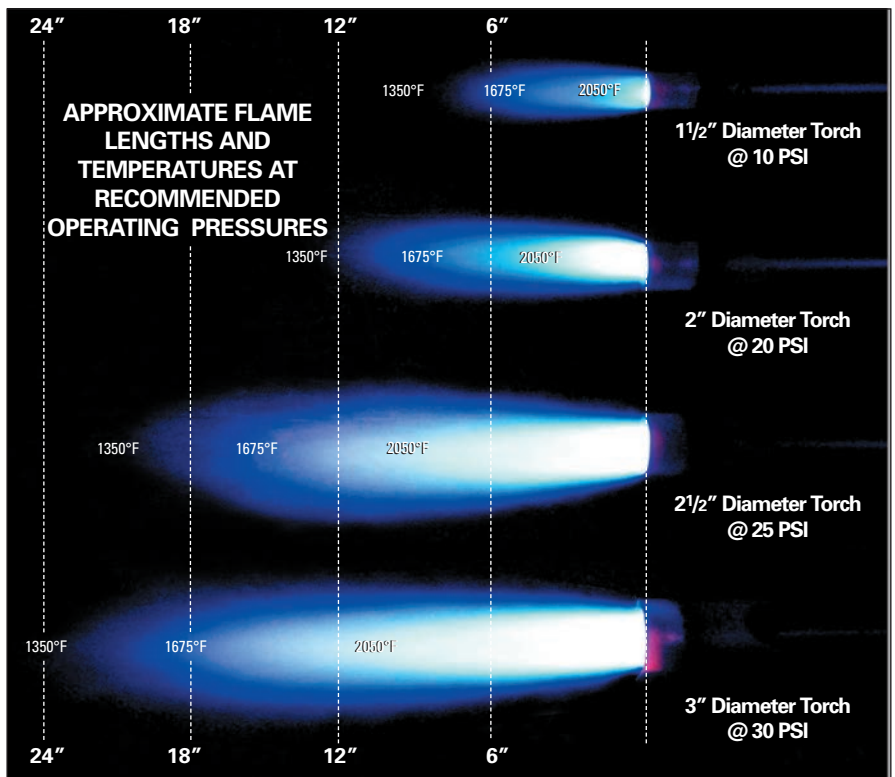
*“My husband and I don’t want to use weed sprays in our yard because we have two beloved dogs. The Weed Dragon allows us to have a beautiful lawn and healthy, happy pets!”
Jessica Trivett,
Elk Park, NC*

*“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.”
Samuel Covey,
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.”
Dale Geist,
Mertztown, PA*

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”, 2 1/2”, 2”, 1 1/2” 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 it’s utmost efficiency.





In Business Since 1959

Flame Engineering is pleased to be celebrating over 50 years in business.



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

Simple, lightweight, easy to use and very effective:

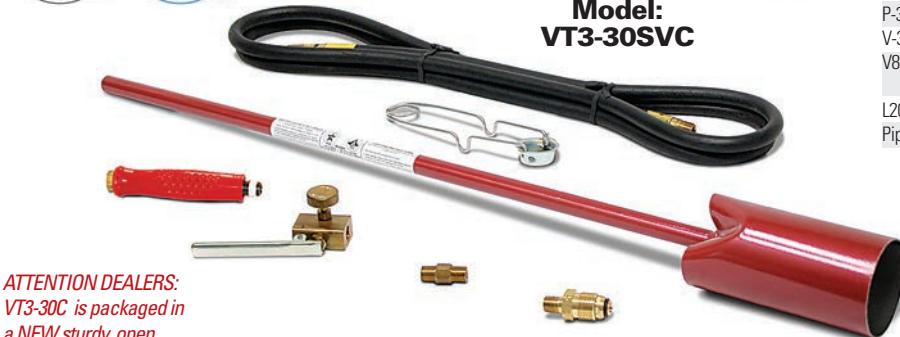
The VT3-30C is our most versatile “weed burner” and the most popular torch kit in America. At 500,000 BTU/hr, this kit really delivers the heat for weed burning, thawing, heating or whatever the job may require. A 28” handle and all-new flame adjusting valve make the VT3-30C our Deluxe Torch of choice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

VT3-30 C 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.



Model: VT3-30C



Model: VT3-30SVC

ATTENTION DEALERS:
 VT3-30C is packaged in a NEW sturdy, open faced 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 48 for more information about the rugged CD-100 Cylinder Dolly.

TORCH KIT ORDER INFORMATION			
Order SKU #	Wt Each	Case Qty	Case Wt
VT3-30C	4.5 lbs	6	27.0 lbs
VT3-30SVC*	5.0 lbs	1	5.0 lbs
CYLINDER DOLLY COMBO KIT ORDER INFORMATION			
VT3-30COMBO	19.0 lbs	1	19.0 lbs
VT3-30SVCOMBO	19.5 lbs	1	19.5 lbs

Visit us at www.FlameEngineering.com for special offerings!

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



VT3-30 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 @ 30 P.S.I.	10.13 lbs/hr
Maximum Fuel Consumption	23.3 lbs/hr
Fuel Inlet	1/4" NPT
Torch Bell Diameter	3"
Handle Length	28"
Overall Torch Length	33 1/2"

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 w/Adjustable Pilot. (SVC Model)
L2002*	Spark Lighter
	Pipe Thread Sealant



RED DRAGON® TORCHES ARE





VT2¹/₂-30C & VT2¹/₂-30SVC – 400,000 BTU

Simple, lightweight, easy to use and very effective:

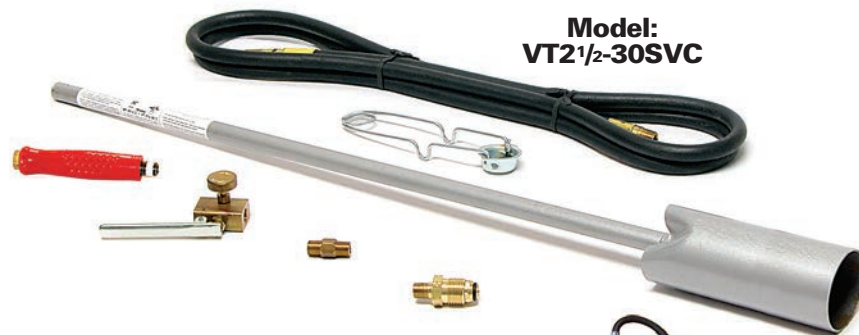
The VT2¹/₂-30C is a small step down from the VT3-30C with a 400,000 BTU/hr rating and a smaller diameter torch head creating a slightly more concentrated flame. It is a very effective kit and is a great choice for jobs which don't require the power of the VT3-30C.

VT2¹/₂-30C 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 VT2¹/₂-30SVC.

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



**Model:
VT2¹/₂-30C**



**Model:
VT2¹/₂-30SVC**

ATTENTION DEALERS:
VT2¹/₂-30C 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 48 for more information about the rugged CD-100 Cylinder Dolly.

TORCH KIT ORDER INFORMATION			
Order SKU #	Wt Each	Case Qty	Case Wt
VT2 ¹ / ₂ -30C	4.3 lbs	6	24.4 lbs
VT2 ¹ / ₂ -30SVC	5.0 lbs	1	5.0 lbs
CYLINDER DOLLY COMBO KIT ORDER INFORMATION			
VT2 ¹ / ₂ -30COMBO	19.0 lbs	1	19.0 lbs
VT2 ¹ / ₂ -30SVCOMBO	19.5 lbs	1	19.5 lbs

Visit us at
www.FlameEngineering.com
for special offerings!

**Model:
VT2¹/₂-30SVCOMBO**
20 lb. Cylinder Not Included.



VT2¹/₂-30 Vapor Torch Specifications:

Maximum Capacity	400,000 BTU/hr
Normal Operating Pressure	25 P.S.I.
Operating Pressure Range	5-90 P.S.I.
Approximate Flame Temperature	2050°F
Fuel Consumption @ 25 P.S.I.	9.03 lbs/hr
Maximum Fuel Consumption	16 lbs/hr
Fuel Inlet	1/4" NPT
Torch Bell Diameter	2 1/2"
Handle Length	28"
Overall Torch Length	33"

Kits Include:

Part No.	Description
VT2 ¹ / ₂ -30	400,000 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
V-880P/H-1	Squeeze Valve & Handle w/Adjustable Pilot (SVC Model)
L2002*	Spark Lighter
	Pipe Thread Sealant



RED DRAGON® TORCHES ARE





VT2-23C – 100,000 BTU Torch Kit

NEW! VT2-23SVC – 100,000 BTU Torch Kit w/Squeeze Valve
America's Favorite Home & Garden Torch Kits

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.**



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	27 1/2"

Weed Dragon® Kits Includes:

Part No.	Description
VT2-23	Vapor Torch w/plastic grip
HP-10TMM	10' U.L. Listed LP Gas Hose
P-W795	Hand-Tighten U.L. Listed Excess Flow P.O.L.
V-3055	Flame Adjusting Needle Valve (VT2-23C)
V-880P/H-1	Squeeze Valve w/Adjustable Pilot & Handle (VT2-23SVC)
R-700C	U.L. Listed Regulator
L2002*	Spark Lighter

MAKE IT A COMBO!

Order either kit complete with a CD-100 Cylinder Dolly. Visit our website for special offerings. See page 48 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!



20 lb. Cylinder Not Included.



TORCH KIT ORDER INFORMATION			
Order SKU #	Wt Each	Case Qty	Case Wt
VT2-23C	5.0 lbs	6	31.0 lbs
VT2-23SVC	5.5 lbs	1	5.5 lbs
CYLINDER DOLLY COMBO KIT ORDER INFORMATION			
VT2-23COMBO	19.5 lbs	1	19.5 lbs
VT2-23SVCOMBO	20.0 lbs	1	20.0 lbs

"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!!!!"
 Michael Gravot – Paulsboro, New Jersey

RED DRAGON® TORCHES ARE





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.**



**Model:
BP223C**



**Model:
BP223SVC**



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

RED DRAGON® TORCHES ARE



*"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."
 Allan Beck – Tulare, CA*

Weed Dragon® Back Pack Kits Include:

Part No.	Description
VT2-23	Vapor Torch
HP5	5' U.L. Listed LP Gas Hose
P-W795	Hand-Tighten U.L. Listed Excess Flow P.O.L.
V-3055	Flame Adjusting Needle Valve
V-880P/H-1	Squeeze Valve & Handle w/Adjustable Pilot (BP223SVC)
BP2512	Back Pack Frame w/Straps
R-700C	U.L. Listed Regulator
C-11	10 lb Fuel Cylinder (3 gal. capacity)
L2002*	Spark Lighter
	Cylinder Bracket

See VT2-23 Torch Specifications on page 5.

Order SKU #	Wt Each	Case Qty
BP223C	22 lbs	1
BP223SVC	22.5 lbs	1

Each kit ships in one carton.



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

This kit includes the VT2¹/₂-30 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.**

Model: BP2512C



Both Models Include a 10 Pound Cylinder!

Model: BP2512SVC



“I had such a problem with weeds growing up in my driveway – tried everything – then found your weed burner and ZAP! The weeds are gone. We also got rid of lots of ice – being from the Midwest this is a common problem. Thank you for your wonderful product.”
Pat Mahoney – Waukon, Iowa

Each kit ships in one carton.

BP2512C & BP2512SVC Kits Include:

Part No.	Description
VT2 ¹ / ₂ -30	Vapor Torch
HP5C	5' U.L. Listed LP Gas Hose
P-3200W	U.L. Listed Excess Flow P.O.L. Fitting
V-3055	Flame Adjusting Needle Valve
V-880P/H-1	Squeeze Valve & Handle w/Adjustable Pilot (BP2512SVC)
BP2512	Back Pack Frame w/Straps
C-11	10 lb. Fuel Cylinder (3 gal. capacity)
L2002*	Spark Lighter
	Cylinder Bracket
	Pipe Thread Sealant

See VT2¹/₂-30 Torch Specifications on Page 4.

Order SKU #	Wt Each	Case Qty
BP2512C	22 lbs	1
BP2512SVC	22.5 lbs	1



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!**

Safety Excess Flow P.O.L. Fitting



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

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

VT3-60C Kit Includes:

Part No.	Description
VT3-60	65" Vapor Torch
HP25	25' U.L. Listed LP Gas Hose
P-3200W	U.L. Listed Excess Flow P.O.L.Fitting
V-334	Flame Adjusting Valve
567RC	U.L. Listed Regulator
L2001	Spark Lighter w/5 flints
Pipe Thread Sealant	

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.

VT3-60 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 @ 30 P.S.I.	10.13 lbs/hr
Maximum Fuel Consumption	23.2 lbs/hr
Fuel Inlet	1/4" NPT
Torch Bell Diameter	3"
Handle Length	59"
Overall Torch Length	65"



Order SKU #	Wt Each	Case Qty
VT3-60C	8.0 lbs	1

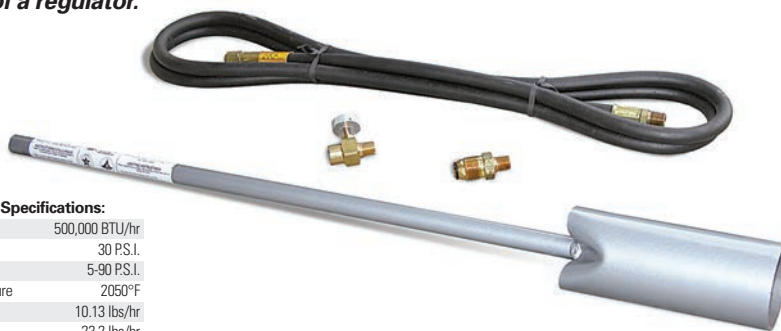
Ships in two boxes.

"Works Great! Should have bought one sooner. Will be put to great use. Thanks for a great product"
John D. Baskin Sr., Anchorage, AK

VT2^{1/2}-24CE & VT2^{1/2}-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.



VT2^{1/2}-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 @ 25 P.S.I.	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

Order SKU #	Wt Each	Case Qty	Case Wt
VT2 ^{1/2} -24CE	3.5	8	28.0 lbs
VT2 ^{1/2} -24SVC	4	8	32.0 lbs

Distributors: Order 24 Kits For Best Price.



Kits Include:

Part No.	Description
VT2 ^{1/2} -24	Vapor Torch
HP10T	10' U.L. Listed Thermoplastic LP Hose
P-3200W	U.L. Listed Excess Flow P.O.L.Fitting
V-3055	Flame Adjusting Needle Valve
Pipe Thread Compound	
V-880P/H-1	Squeeze Valve & Handle w/Adjustable Pilot (SVC Model)





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

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:

Part No.	Description
HT11/2-10	Vapor Hand Torch w/plastic grip
HP-10TMM	10' U.L. Listed LP Gas Hose
P-3200W	U.L. Listed Excess Flow P.O.L.Fitting
V-3055	Flame Adjusting Needle Valve
R-700C	U.L. Listed Regulator
TB-4	Torch Stand
L2001	Spark Lighter w/5 flints
	Pipe Thread Sealant

HT11/2-10 Vapor Torch Specifications:

Maximum Capacity	50,000 BTU/hr
Normal Operating Pressure	18 P.S.I.
Operating Pressure Range	5-25 P.S.I.
Approximate Flame Temperature	2050°F
Fuel Consumption @ 25 P.S.I.	1.25 lbs/hr
Maximum Fuel Consumption	2.5 lbs/hr
Fuel Inlet	1/4" NPT
Torch Bell Diameter	1 1/2"
Handle Length	10 1/2"
Overall Torch Length	15"



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



Order SKU #	Wt Each	Case Qty	Case Wt
HT11/2-10CR	4.5 lbs	6	27.0 lbs



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 Vapor Torch Specifications:

Maximum Capacity	50,000 BTU/hr
Normal Operating Pressure	10 P.S.I.
Operating Pressure Range	5-25 P.S.I.
Approximate Flame Temperature	2050°F
Fuel Consumption @ 10 P.S.I.	1.25 lbs/hr
Maximum Fuel Consumption	2.5 lbs/hr
Fuel Inlet	1/4" NPT
Torch Bell Diameter	1 1/2"
Handle Length	10 1/2"
Overall Torch Length	15"

VT11/2-12C Kit Includes:

Part No.	Description
VT11/2-12	Vapor Torch
HP10C	10' U.L. Listed LP Gas Hose
P-3200W	U.L. Listed Excess Flow P.O.L.Fitting
V-3055	Flame Adjusting Needle Valve
	Pipe Thread Sealant

Order SKU #	Wt Each	Case Qty	Case Wt
VT11/2-12C	2.9 lbs	6	20.0 lbs

RED DRAGON® TORCHES ARE



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 43.



FOR YOUR PROTECTION . . .



All Red Dragon® Vapor Torch Kits include a capsule of pipe thread sealant. Always apply this at all connections (except the P.O.L. to tank) when assembling your torch kit. Always leak check your torch before lighting by spraying soapy water on all connections. If you have a leak, turn off the tank, and correct the leak before proceeding.

Vapor Torch Flame Comparison

Please see the graphic and information on page 2 for more detailed information about Red Dragon® Torches.



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

Comes Fully Assembled



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.**

For use with standard 1 lb. propane cylinders with a minimum 14 oz. capacity.



VT1-32C Kits Include:

Part No.	Description
VT1-32	Vapor Torch
V-144-80*	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.



SL-32C Hose Kits Include:

Part No.	Description
HP10T	10' U.L. Listed LP Gas Hose
P-3200W	U.L. Listed Excess Flow P.O.L.
F-140	Cylinder Adaptor



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

VT1-20C mini Dragon JR™ Specifications:

Maximum Capacity	25,000 BTU/hr
Torch Bell Diameter	1 1/2"
Handle Length	20"



Propane Cylinder Not Included

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...)



VT1-20C Kits Include:

Part No.	Description
VT1-20	Vapor Torch
V-3055	Flame Adjusting Valve
L2002*	Spark Lighter

- Adjustable Flame
- Easy & Effective
- Non-Slip Grip
- No Lighter Fluid

• 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.

LT2¹/₂-30C – 250,000 BTU

Use the Red Dragon® LT2¹/₂-30C 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.

LT2¹/₂-30 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	2 1/2"
Handle Length	26"
Overall Torch Length	36"



LT2¹/₂-30C Kit Includes:

Part No.	Description
LT2 ¹ / ₂ -30	Liquid Torch
HP10C	10' U.L. Listed LP Gas Hose
P-3200W	U.L. Listed Excess Flow P.O.L.Fitting
V-3055	Flame Adjusting Valve
Pipe Thread Sealant	

Order SKU #	Wt Each	Case Qty	Case Wt
LT2 ¹ / ₂ -30C	5.6 lbs	6	35.2 lbs

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 43.

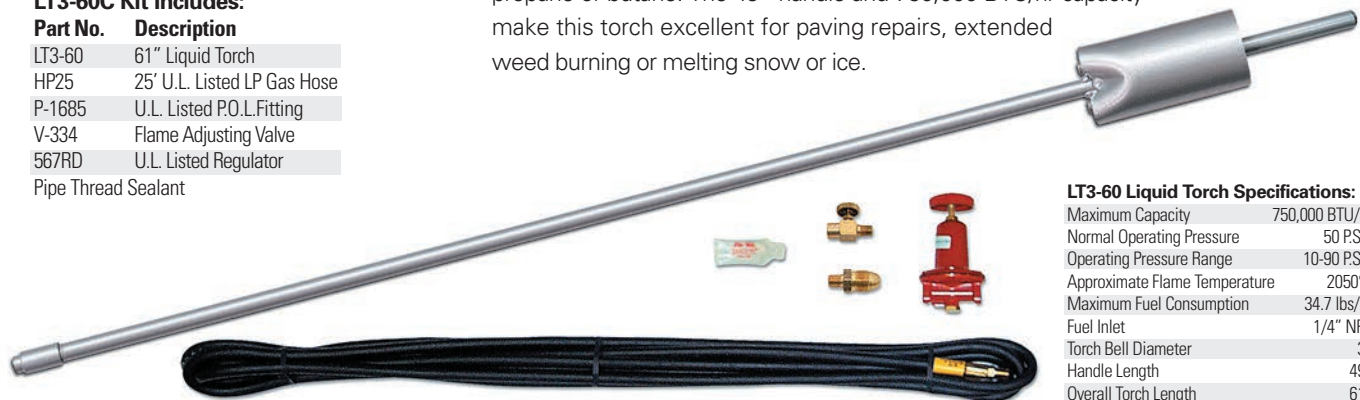


LT3-60C – 750,000 BTU

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.

LT3-60C Kit Includes:

Part No.	Description
LT3-60	61" Liquid Torch
HP25	25' U.L. Listed LP Gas Hose
P-1685	U.L. Listed P.O.L.Fitting
V-334	Flame Adjusting Valve
567RD	U.L. Listed Regulator
Pipe Thread Sealant	



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"

Order SKU #	Wt Each	Case Qty
LT3-60C	10.9 lbs	1

Ships in two boxes.

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.

RED DRAGON® TORCHES ARE



JET8C – 2,000,000 BTU



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 Kit Includes:

Part No.	Description
JET8	84” Jet Torch w/Squeeze Valve
HP25	25’ U.L. Listed LP Gas Hose
P-1685	U.L. Listed P.O.L.Fitting
567RD	U.L. Listed Regulator
V-314-2	Squeeze Valve
Pipe Thread Sealant	

JET8 Torch Specifications:

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

COMPLETE JET TORCH KIT ORDER INFORMATION

Order SKU #	Description	Wt Each	Case Qty	Case Wt
JET8C	84” Jet Torch w/25’ Hose	9.5 lbs	1	
JET4C	40 1/2” Jet Torch w/25’ hose	8.0 lbs	1	

JET 8 C ships in two boxes.

JET4C



JET4C

Part No.	Description
JET4	40 1/2” Jet Torch w/Squeeze Valve
HP25	25’ U.L. Listed LP Gas Hose
P-1685	U.L. Listed P.O.L.Fitting
567RD	U.L. Listed Regulator
V-314-2	Squeeze Valve
Pipe Thread Sealant	

JET4 Torch Specifications:

Maximum Capacity	1,000,000 BTU/hr
Normal Operating Pressure	60 P.S.I.
Operating Pressure Range	30 P.S.I. - Tank Press
Max Flame Length	5’
Approximate Flame Temperature	2050°F
Maximum Fuel Consumption	40 lbs/hr
Fuel Inlet	1/4” NPT
Overall Torch Length	40 1/2”

JET TORCH ONLY ORDER INFORMATION

Order SKU #	Description	Wt Each	Case Qty
JET8	Overall Length 84”	4.0 lbs	1
JET4	Overall Length 40 1/2”	2.5 lbs	1

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.

- *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.*



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



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 Liquid Spray Process In Action!

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

Bill Lovitt - Ransom, KS

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,

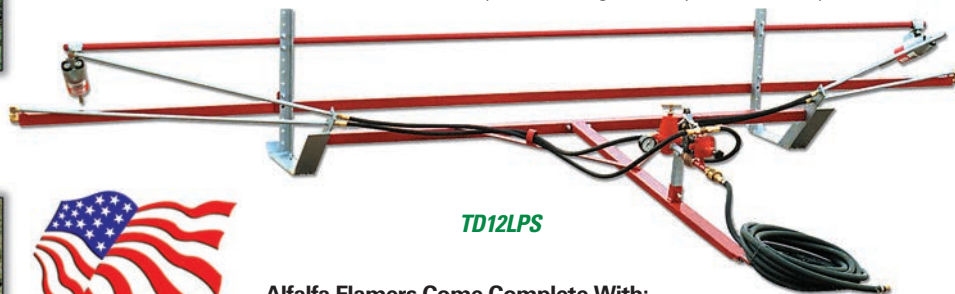
immediately following the first cutting. This will not hurt the alfalfa but may delay the second cutting by a few days.

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.



TD12LPS



Alfalfa Flamers Come Complete With:

- Complete Control Head Assembly with electronic solenoid valve
- Cab Control Box with master shut-off switch
- (2) LT3-12T Liquid Pilot Torches
- All necessary hoses with brass fittings

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

Order SKU #	Description	Wt Each
TD12LPS	Alfalfa Field Flamer	153.0 lbs

Ships Unassembled by UPS.

NEW Multi-Purpose Flamer – Great For Larger Flaming Jobs



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 GF-2011 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.



GF-2011 Units Include:

Part No.	Description
VT2 1/2-0	5 - 400,000 BTU Vapor Heads
2 - 5/8" Axles	24" in length (allows for versatility to adjust wheel width)
V-3055	Adjusting Needle Valve
HP2S	2' Rubber LP Gas Hose
HP48HG	48" Rubber LP Gas Hose
G-25	Liquid Gauge
567RC	U.L. Listed Regulator
P-3200W	U.L. Listed P.O.L. Fitting
GFW-24	1 Set - 24" Diameter Solid Wheels
1" x 1" Steel Square Tube	L Shaped Handle (which can be placed on either side with adjustable height)

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"*



GREAT REASONS TO CHOOSE RED DRAGON® TORCHES & EQUIPMENT:

- **You'll be buying the CSA Certified Torch Kits that lead North America in safety, reliability and durability. In all, we have 22 certified products!**
 - **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!**
 - **OVER 50 YEARS IN BUSINESS & 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!



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



Patented Design

“Since using the Poultry House Sanitizer, I have seen eliminations 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 with out one. I bought this equipment for the disease problems and it has worked.”
Joe Lynn-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.”
Mervin Trull-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.”
Ray Fiseher-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.”
Brian Betts-Cookville, TX

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

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 1/2 mph (.805 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!"
Bobby McGee-Bunker, AR



Complete assembly includes 120 gallon tank.



- Complete Unit Includes:**
- Category 1 or 2 - 3 point hitch connection
 - Complete Manifold Assemblies with electronic solenoids
 - Cab Control Box with master shut-off switch
 - All Torches Needed
 - All necessary hose assemblies
 - Fuel Strainer
 - Red Dragon® Vapor Torch Kit for lighting torches & sterilizing corners and edges

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



Each unit comes complete with 12 volt solenoids which allow the operator to go from pilot to full flame with the flip of a switch.

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 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.*



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



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.

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.

By applying a quick blast of intense heat from specially designed propane torches, weeds and grasses soon disappear. You DO NOT have to burn weeds to a crisp! Flaming has no adverse effects on vines and trees and is safe to use around irrigation lines, sprinklers and protective vine covers as long as you are moving and there is no dry residue.

All GP-Series Equipment feature the operator control box, allowing electronic control and shutdown at the operator's fingertips.



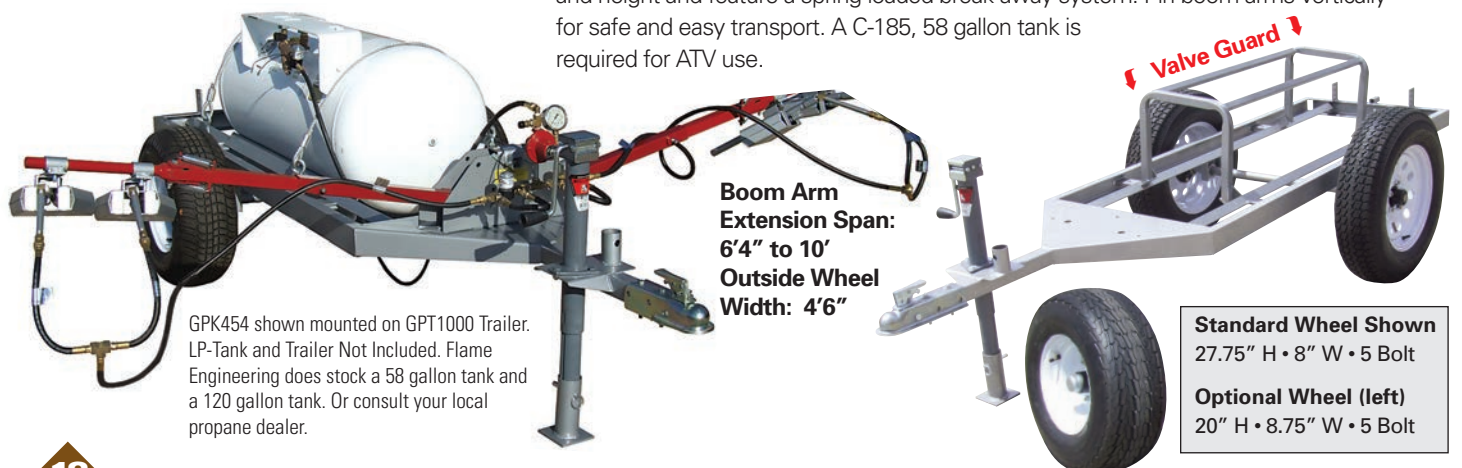
Red Dragon® GP-Series Flamers Are Safe And Easy To Use.

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® GPK454
Recommended for use on 40 acres or less.

See The Equipment Specifications Chart on Page 19 For More Details.

The GPK454 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. Comes standard with a 2" ball hitch and a clevis hitch. 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. A C-185, 58 gallon tank is required for ATV use.



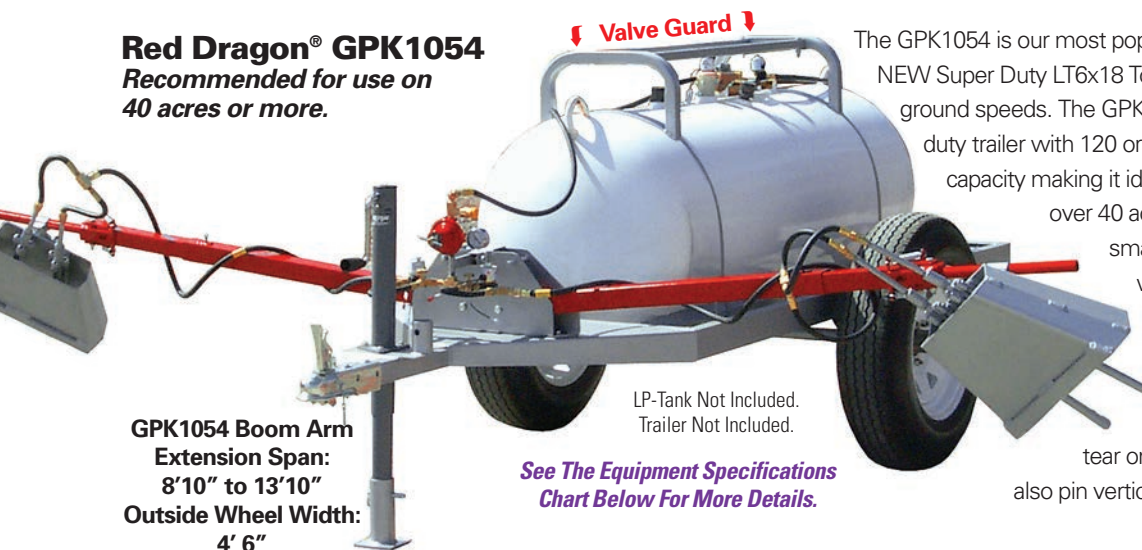
Boom Arm Extension Span: 6'4" to 10'
Outside Wheel Width: 4'6"

GPK454 shown mounted on GPT1000 Trailer. LP-Tank and Trailer Not Included. Flame Engineering does stock a 58 gallon tank and a 120 gallon tank. Or consult your local propane dealer.

Standard Wheel Shown
 27.75" H • 8" W • 5 Bolt
Optional Wheel (left)
 20" H • 8.75" W • 5 Bolt

Vineyard & Orchard Flaming Kits – The Best Solution For Weeds, Grasses, Insects and More!

Red Dragon® GPK1054
 Recommended for use on
 40 acres or more.



The GPK1054 is our most popular berm flamer due to the NEW Super Duty LT6x18 Torches which allow faster ground speeds. The GPK1054 features an all steel, heavy duty trailer with 120 or 125 gallon (454 or 473 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.

GPK1054 Boom Arm
 Extension Span:
 8'10" to 13'10"
 Outside Wheel Width:
 4' 6"

LP-Tank Not Included.
 Trailer Not Included.

*See The Equipment Specifications
 Chart Below For More Details.*

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



The GPK1054 Kit includes boom arm mast, electronic solenoid controls, control box, fuel strainer, fittings, hoses and valve guard.



The GPK454 Kit includes the same break-away boom arms and torches as featured on the GP750 Complete Unit. Kit also includes boom arm mast, electronic solenoid controls, control box, fuel strainer, fittings, hoses and valve guard. (shown above)



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.

GP-Series Equipment Specifications

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

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 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.



Tank Size Requirement For GP-1000
 120 gallon tank with a max length of 70" and max diameter of 24".

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

Order SKU #	Wt Each	Case Qty
C-120	250 lbs	1

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.”

Scott McPheeters – Gothenburg, NE

Used a Red Dragon® Row Crop Flamer on Popcorn



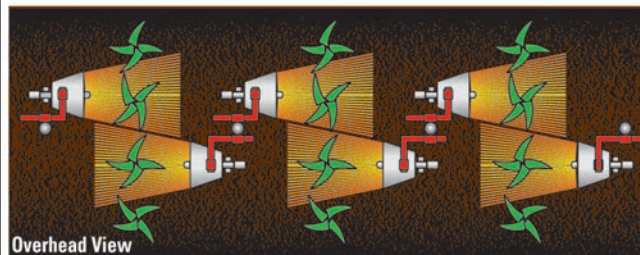
Cab Control Box



Electronic Control Valves

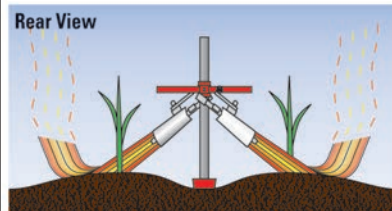
Each Row Crop Flamer Unit and Kit comes complete with 12 volt solenoids and controls which are easily operated from the tractor seat.

STAGGERED CROSS FLAMING



Overhead View

Generally torches 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.



Rear View

Torches 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 (except for the liquid withdrawal tank). 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



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.

Choose From 3 Torch Styles Depending on your Row Spacing

LT1¹/2x8D
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.

LT1¹/2x6
This optional Row Crop Torch projects a concentrated flame up to 6" wide and 16" long. The suggested burner for 24" row spacing.

Red Dragon® Row Crop Flaming Kits

are available in two styles 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, roll cage 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. Example: 4" x 4" square.

All Kits Include:

- Complete Manifold Assemblies with electronic solenoids
- Cab Control Box with master shut-off switch
- Skid or Drop Style Tool bar Leg Assemblies
- Custom Tool Bar Leg Brackets
- All Torches Needed
- All necessary hoses cut to length with brass fittings
- Fuel Strainer
- Valve Guard



4 Row Skid Leg Kit (4-RKS) Shown Here. RKS kits feature the same tool bar legs as our complete units and allow the torches to remain at a consistent height while flaming.

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

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



4 Row Drop Leg Kit (4-RK) Shown Here. Drop legs do not touch the ground.

COMPLETE ROW CROP UNITS		
Order SKU #	Description	Wt Each
2-RU	2 Row Unit	802 lbs
4-RU	4 Row Unit	1000 lbs
6-RU	6 Row Unit	1250 lbs
8-RU	8 Row Unit	1450 lbs

SKID LEG ROW CROP KITS		
Order SKU #	Description	Wt Each
2-RKS	2 Row Kit	220 lbs
4-RKS	4 Row Kit	312 lbs
6-RKS	6 Row Kit	450 lbs
8-RKS	8 Row Kit	560 lbs
12-RKS	12 Row Kit	900 lbs
16-RKS	16 Row Kit	1120 lbs

DROP LEG ROW CROP KITS		
Order SKU #	Description	Wt Each
2-RK	2 Row Kit	89 lbs
4-RK	4 Row Kit	136 lbs
6-RK	6 Row Kit	214 lbs
8-RK	8 Row Kit	254 lbs
12-RK	12 Row Kit	428 lbs
16-RK	16 Row Kit	508 lbs

Potato/Blueberry Flamers – Chemical Free Potato Desiccation and Blueberry Renovation

- 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.



The patented liquid spray flaming process in action.

BLUEBERRY FLAMING



One application flame renovation.

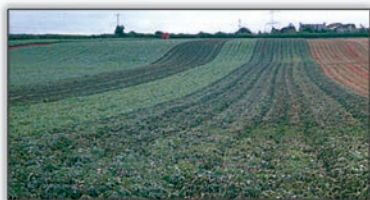


Safe for the environment – no runoff, soil or ground water contamination.

POTATO FLAMING



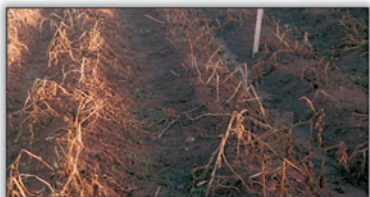
Flaming in action in chopped potato vines.



The dark rows were flamed 10 minutes prior to the photograph.



5 days after flaming the results are obvious.



12 days after flaming.

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.



Cab Control Box

PVF 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 leg mounting brackets
- Hydraulics for tool bar (standard on 8PVF - Optional on 6PVF)
- 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

IMPORTANT NOTE:

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

FLAMING UNITS

Order SKU #	Description	Wt Each
2PVF	6 ft. Unit	802 lbs
4PVF	11 ft. Unit	1000 lbs
6PVF	16 ft. Unit	1250 lbs
8PVF	21 ft. Unit	1450 lbs

Potato bed flaming kits include (PVC)

- 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

Kits available in widths 5' - 65'

Vegetable Bed Flamers – Chemical Free Weed Control

- **Great For Sterile Seed Bed & Pre-emergent Flaming.**
- **Units Designed for 6' up to 24' 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 (except for the liquid withdrawal tank). 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.



VBFC 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 leg mounting brackets
- Hydraulics for tool bar (standard on 8PVF - Optional on 6PVF)
- 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

IMPORTANT NOTE:

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

VEGETABLE BED FLAMING UNITS

Order SKU #	Description	Wt Each
2-VBF	6 ft. Unit	802 lbs
4-VBF	11 ft. Unit	1000 lbs
6-VBF	16 ft. Unit	1250 lbs
8-VBF	21 ft. Unit	1450 lbs

Videos & 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
- Kits available in widths 5' - 65'*

Tobacco Flamers – Chemical Free Weed Control

Growing weed free tobacco without chemicals (organic) has been a tremendous challenge for the tobacco farmer. Flame Engineering, Inc. La Crosse, KS has partnered with local farmers in the Sumnter, SC area and made flaming in tobacco a reality. The organic tobacco farmer has a new tool in his arsenal for natural weed control.

Red Dragon® Tobacco 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 has been proven effective on both pre emerge and post emergence.

Red Dragon® Tobacco Flamers

are set up on a 3 – LT2x8 torch system. Each leg is equipped with 3 torches allowing one to flame the middle of the row and the other 2 pointing at each side of the row flaming the base of the crop. This allows the entire row to get enough heat to kill most weeds and grasses. For best results, repeat application to pick up stragglers with no adverse effects on the crop, all at a lower cost than chemical.



3 Row Skid Leg Kit (3-RKT) Shown Here.



Before Flaming



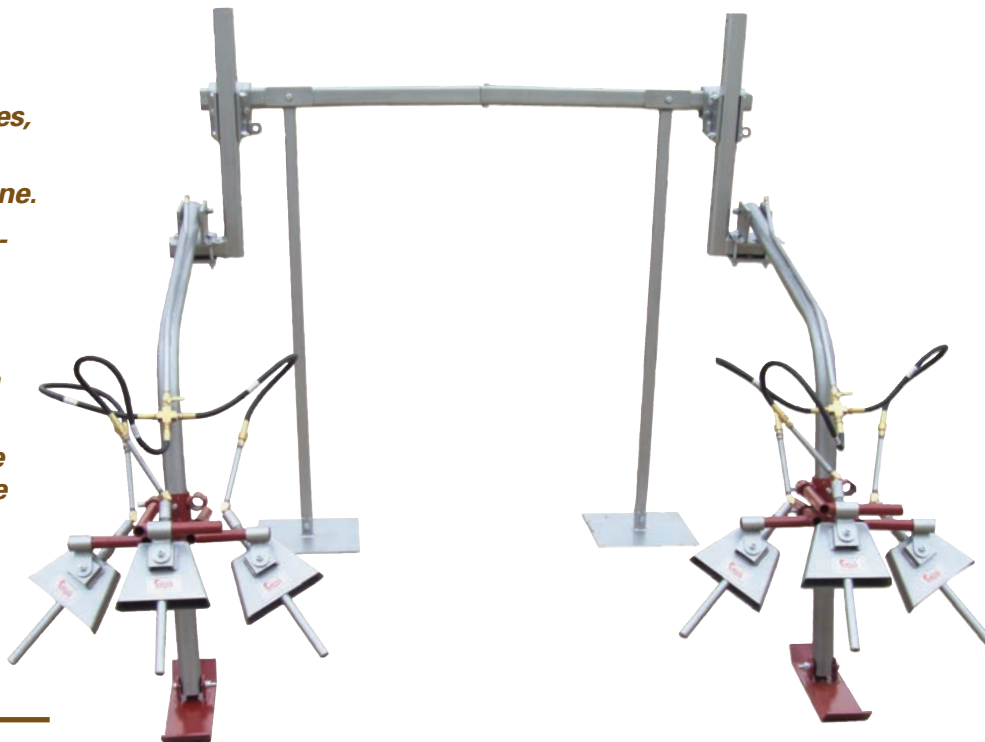
After Flaming

IMPORTANT NOTE:

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

Tobacco Flamers – Chemical Free Weed Control

- Kits Designed for 3, 5 or 7 Rows.
- 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.



IMPORTANT NOTE:

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

TOBACCO FLAMING KITS

Order SKU #	Description	Wt Each
3-RKT	3 Row Kit Tobacco	212 lbs
5-RKT	5 Row Kit Tobacco	362 lbs
7-RKT	7 Row Kit Tobacco	512 lbs

Tobacco Flaming Kits include

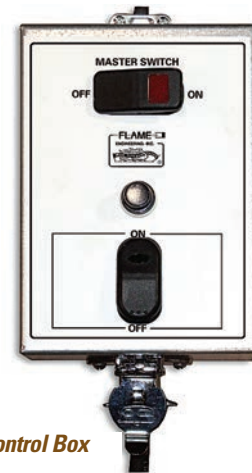
- Complete Manifold Assemblies with electronic solenoids
- Cab Control Box with master shut-off switch
- Toolbar Leg Assemblies
- All burners required for your configuration
- All necessary hoses cut to length with brass fittings
- Fuel Strainer
- Custom Mounting Brackets for the Toolbar Legs
- Red Dragon® Vapor Torch Kit for lighting torches

Red Dragon® Tobacco Flaming Kits

are available in 3, 5 and 7 row models in skid style legs. You will be responsible for devising your own safe tank mounting system, roll cage 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.

Safe And Easy To Use.

All Red Dragon® Tobacco Flamers come with electronic solenoids allowing flame control and immediate shut down from the driver’s seat.



Cab Control Box

TESTIMONIALS

"Controlling weeds in an organic environment where you can't use any herbicide is a challenge that tobacco farmers have been struggling with for years and years."

"I have been amazed with the systems' capabilities. Even tobacco farmers who are not certified organic are experiencing benefits from using this method."

Lee Newman - Organic Tobacco Producer





- **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.**

Self-Aligning Flex Tow Hitches – Hook up anywhere in a 9 square foot area.



Simply connect the Red Dragon® Flex Tow Hitch to the draw bar of the towing vehicle or implement anywhere within a 9 square foot area and let your self-aligning hitch do the rest . . . effortlessly and in seconds. The unique telescoping design allows the operator to make the hook-up in seconds and provides perfect alignment every time. Manufactured with square tubing, the flex tow hitches have been in use for many successful years.

Choose from either the frame mount model, F-100 or the bumper mount model, B-100 (B-100 is not recommended on vehicles with fiberglass bumpers or airbags). Both models fold up and lock securely in front of the grill when not in use.

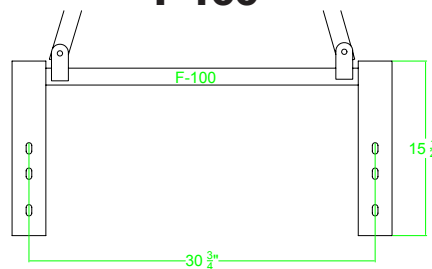
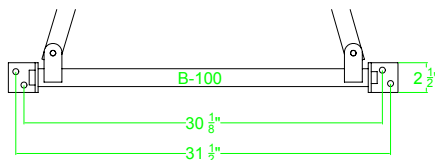
Flex Tow Hitches come complete with instructions, mounting bolts and hitch pin. Maximum draw weight is 6,000 pounds. Tow length is 42.”



B-100



F-100



RED DRAGON® HITCHES ARE



Order SKU #	Description	Wt Each	Std Qty
F-100	Frame Mount Flex Tow Hitch	41.9 lbs	1
B-100	Bumper Mount Flex Tow Hitch	33.7 lbs	1

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.



TF-300 Turntable Tow Hitch – Hooks up anywhere in a 7 1/2 square foot radius.

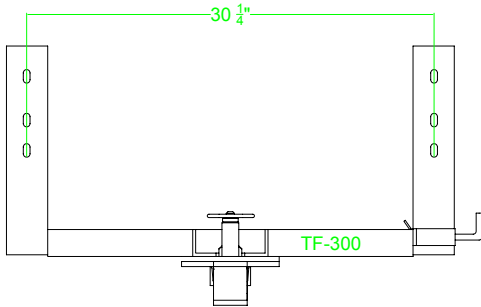


The Red Dragon® Turntable Hitch features an easy-to-use design which allows the tow bar to be adjusted in length and rotate on an axis making hook-up troubles a thing of the past. Just get it close! The TF-300 features heavy duty steel construction for years of dependable service and is a favorite among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



Order SKU #	Description	Wt Each	Std Qty
TF-300	Frame Mount Turntable Hitch	60.0 lbs	1

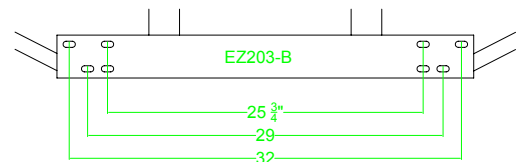
Packaged One Per Carton

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 #	Description	Wt Each	Std Qty
EZ203-B	Frame Mount EZ Hitch	65.2 lbs	1

Packaged One Per Carton

Visit our website for downloadable instructions.



PATIO LIGHTS

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, light-weight, 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 7 1/2 - 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**

RED DRAGON® PATIO LIGHTS



PATIO LIGHT SPECIFICATIONS:

LP Gas Usage (11 wc) @49,000 BTU (max) .5 gal./hr. @18,000 BTU (min) .2 gal./hr.	Natural Gas Usage (6.5 wc) @49,000 BTU (max) 49 cu. ft./hr. @18,000 BTU (min) 18 cu. ft./hr.
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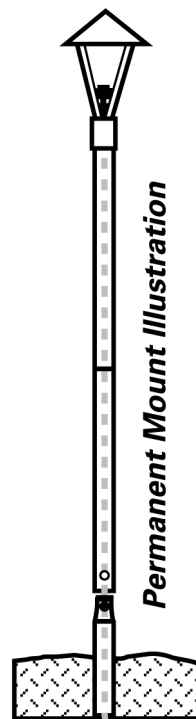
Patio Light Head Clearance Requirements
3 Feet Radius 6 Feet Height

Patio Light Pole Dimensions

- All Poles are 2 1/2" in Diameter
- Portable Poles Approx. 73 3/4" Tall
- Permanent Poles Approx. 82 1/4" Tall

Permanent Patio Light Pressure Requirements at the Base of the Light

LP Gas - 11 wc • Natural Gas - 6.5 wc



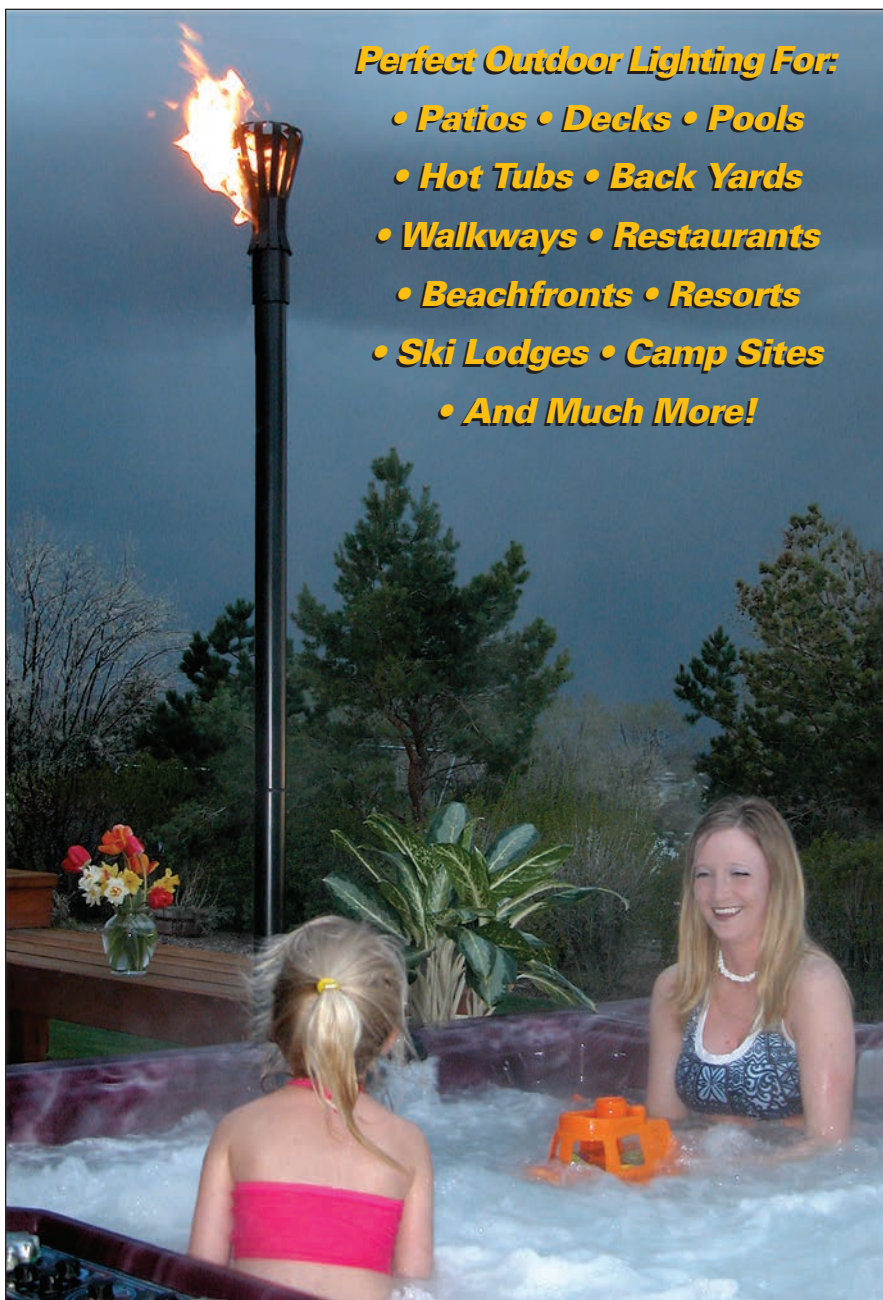
PATIO LIGHTS ARE FOR OUTDOOR USE ONLY.

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.



Perfect Outdoor Lighting For:

- Patios • Decks • Pools
- Hot Tubs • Back Yards
- Walkways • Restaurants
- Beachfronts • Resorts
- Ski Lodges • Camp Sites
- And Much More!



Gas Light Style Head
Head Dimensions: 19" Tall x 9" Diameter

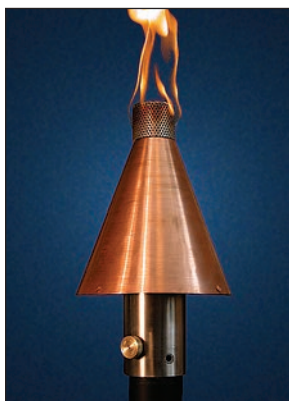


Curled Finger Style Head
Head Dimensions: 14" Tall x 6" Diameter



Fin Style Head
Head Dimensions: 16 1/4" Tall x 10" Diameter

Red Dragon® Patio Lights provide hours of enjoyment for the whole family and enhance any outdoor setting.



Copper Cone Style Head
Head Dimensions: 13" Tall x 7 1/2" Diameter



Cone Style Head
Head Dimensions: 13" Tall x 7 1/2" Diameter

PORTABLE PATIO LIGHTS				
Order SKU #	Head Style	Wt Each	Total Height	Std Qty
PT300-6C	Gas Light	30.0 lbs	90 1/2"	1
PT301-6C	Curled Finger	30.0 lbs	86"	1
PT302-6C	Fin	30.0 lbs	89 1/2"	1
PT311-6C	Cone	30.0 lbs	85 1/2"	1
PT411-6C	Copper Cone	30.0 lbs	85 1/2"	1
PERMANENT MOUNT PATIO LIGHTS				
<small>(NOTE: Pressure Requirement At Base of Light is 11 wc for LP Gas and 6.5 wc for Natural Gas)</small>				
Order SKU #	Head Style	Wt Each	Approx. Installed Height	Std Qty
PT300-6PM	Gas Light	21.0 lbs	90 1/2"	1
PT301-6PM	Curled Finger	21.0 lbs	86"	1
PT302-6PM	Fin	21.0 lbs	89 1/2"	1
PT311-6PM	Cone	21.0 lbs	85 1/2"	1
PT411-6PM	Copper Cone	21.0 lbs	85 1/2"	1

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

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

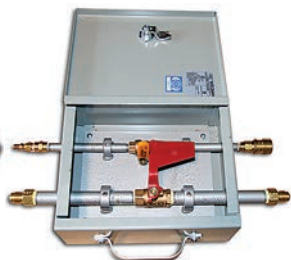
allows you to evacuate bulk tanks, bobtails and other tanks anywhere quickly, safely and without venting raw propane into the atmosphere. This compact, durable unit is quick to set up, very simple to use and requires no electricity making it perfect for emergency crews, haz mat teams and fire departments 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

Another Great Red Dragon® Product For The LP Industry!

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



All components fit neatly into a durable carry bag. The valve box features quick connections and flared fittings making set up fast & easy.



PFM-31 Fittings Kit Available!

Kit comes complete with 6 fittings shown and canvas carry bag. Fittings are: • 2 1/4" Female ACME
• 1 3/4" ACME Equalizer • 1 1/4" Female ACME
• 1 1/4" ACME Lift Truck Tank Connection
• Full Flow P.O.L. • Full Flow Red TYPE 1

Pilot Cylinder Not Included.



FLARE SPECIFICATIONS:

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



Order SKU #	Description	Wt Each	Std Qty
PFM-16LPS	1/2" Manual Flare	96 lbs	1
PFM-25	25' Hose Extension Kit	12.5 lbs	1
PFM-31	Flare Fittings Kit	4.5 lbs	1

Ships as an over-size package.

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

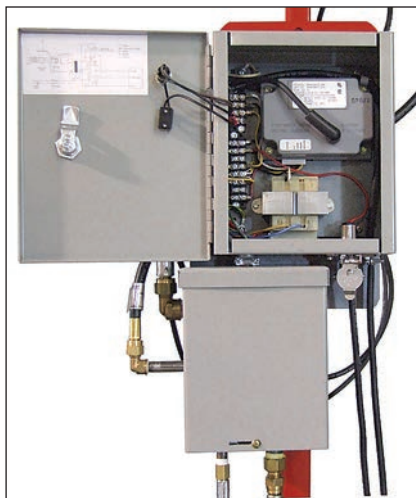


25' Extension Hose Kit is available. Comes complete with durable carry bag.

- 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.



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.

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.

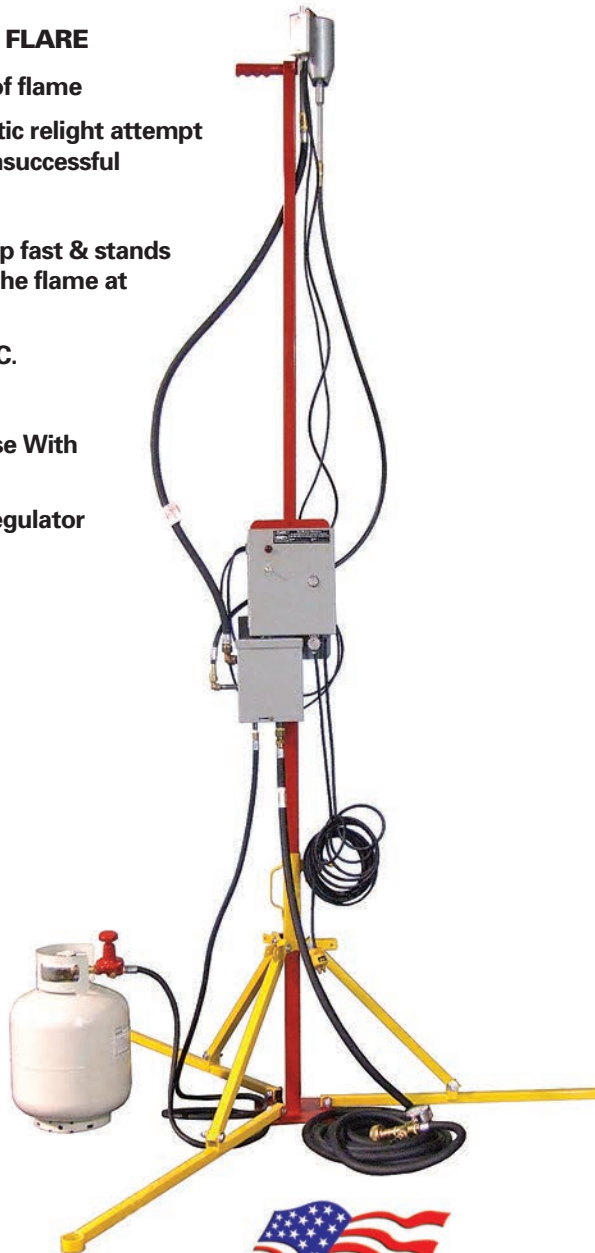
FEATURES OF ELECTRONIC FLARE

- 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.



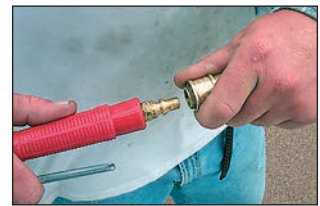
Order SKU #	Description	Wt Each	Std Qty
PF-16LPS	1/2" Flare	108 lbs	1

Ships as an over-size package.

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

Complete Roofing Torch Kits – Red Dragon® . . . The Best Tools For The Trade

RTCOMBO – 400,000 BTU/50,000 BTU



The QUICK CONNECT makes switching from stand-up to detail torch a snap!

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.

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

RTCOMBO Kit Includes:

Part No.	Description
RT2 ¹ / ₂ -20	400,000 BTU Field Torch w/Male Quick Connect
or RT2 ¹ / ₂ -20LW	400,000 BTU Field Torch w/Male Quick Connect
RT1 ¹ / ₂ -10	50,000 BTU Detail Torch w/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



In recent tests, the RT2¹/₂-20 proved to be as hot or hotter than any competitive brand and capable of exceeding 400,000 BTU!

RT2¹/₂-20C – 400,000 BTU



Roofers ask for Red Dragon® Torches by name!

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.

Order SKU #	Wt Each	Case Qty	Case Wt
RT2 ¹ / ₂ -20C	8.5 lbs	4	35.0 lbs
RT2 ¹ / ₂ -20LWC	8.2 lbs	4	33.8 lbs

RT2¹/₂-20C Kit Includes:

Part No.	Description
RT2 ¹ / ₂ -20	400,000 BTU Field Torch
or RT2 ¹ / ₂ -20LW	400,000 BTU Field 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



Modified Bitumen Applicators & Roof Dryers

SPA1000 Modified Bitumen Applicator

SPA1000 INCLUDES:

Qty	Part #	Description
2	VT2 1/2-0	400,000 BTU Vapor Torch Head
5	VT2-0	100,000 BTU Vapor Torch Head
7	V-3055	Flame Adjusting Needle Valve
1	HP50	U.L. Listed 50' LP Gas Hose
1	R-499	U.L. Listed Regulator
1	P-1685	U.L. Listed POL
1	V-880P/H-1	Squeeze Valve/Handle Assembly
1	G-23	Pressure Gauge

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.



Order SKU #	Wt Each	Case Qty
SPA1000	54.0 lbs	1

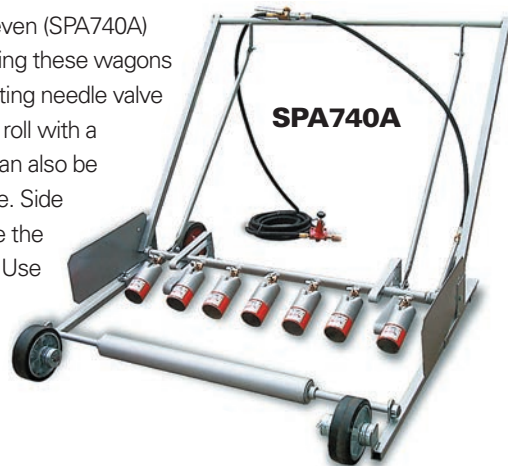
SPA540A & SPA740A Modified Bitumen Applicators

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:

Part No.	Description
VT2 1/2-0 (5 or 7)	400,000 BTU Vapor Heads
V-3055 (5 or 7)	Adjusting Needle Valves
HP50	50' U.L. Listed LP Gas Hose
R-499	U.L. Listed Regulator
P-1685	U.L. Listed P.O.L. Fitting
V-880P	Squeeze Valve
G-23	Pressure Gauge



Order SKU #	Wt Each	Std Qty
SPA540A	90.0 lbs	1
SPA740A	83.0 lbs	1

*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)*



Red Dragon® Modified Bitumen Applicators Feature Our Easy Roll Mount System.

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 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

VT3-12S burner, up to 250,000 BTU/hr, mixes with air to provide the desired drying effect up to 350°F.

Roof Dryers Also Include:

Part No.	Description
VT3-12S	Vapor Torch Head
HP25	25' U.L. Listed LP Gas Hose
R-700C	18 P.S.I. Regulator
P-3200W	U.L. Listed P.O.L. Fitting
V-880P	Squeeze Valve

Order SKU #	Wt Each	Std Qty
RD6009	125.0 lbs	1

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

Red Dragon® Roof Dryers are safe, easy to use and get you back to work fast.



- **Compact & Lightweight Design For Portability**
- **Full Safety Features**
- **Piezo Electric Ignitor For Clean, Reliable Ignition**
- **Sturdy Steel Construction**
- **Made In The U.S.A.**
- **For Outdoor Use Only**



Originally developed for Alaskan Bush Pilots,

Red Dragon® Engine Preheaters have been favored by pilots for over 30 years. Not just for aircraft, but for any engine subjected to low temperatures – perfect for construction and oil field equipment. All preheaters are safe, easy to use and burn clean efficient propane. Available in 12 volt or 115 A.C., Red Dragon® Preheaters are the best around.

SPECIFICATIONS FOR ALL MODELS:

- 49,000 BTU/hr
- Blower Fans are rated at 320 cubic feet per minute
- Motor pulls 4 amps from battery (12 volt D.C. Models)
- Use approximately 1/2 gallon of fuel per hour
- Preheats engines in approximately 15 minutes at 0° F
- Designed to burn liquid or vapor propane
- Dimensions: Approximately 8" wide x 9" high x 19" long
- Each preheater is tested before leaving the factory



12 Volt D.C. Preheaters



LT2-12MH-300C

Requires Heavy Duty Ducting Not Included See Page 36

LT2-12MH-200

12 Volt D.C. Preheater Features:

- Ships Fully Assembled
- Push Button Ignition
- Thermocouple Safety Control
- Regulator w/Pressure Gauge
- Excess Flow P.O.L. Fitting
- 10' Power Cord w/Alligator Clips
- 5' U.L. Listed LP-Gas Hose
- Optional High Limit Heat Sensor
- Optional Hard Carrying Case

12 Volt D.C. Red Dragon® Engine Preheaters are perfect for remote use where electrical outlets are not available. Portability, safety and reliable push button ignition make these preheaters our best sellers. Safety features include safety shutoff valve, adjustable regulator, and excess flow P.O.L. Each unit includes a 10' power cord with alligator clips to quickly attach to your battery source and a 5' fuel hose to connect to any refillable LP-Gas cylinder.

An optional high limit heat sensor located near the air outlet will shut off fuel to the burner if the preheater surface temperature exceeds safe levels. A hard case is also available for easy transport.

12 Volt D.C. Red Dragon® Engine Preheaters			
Order SKU #	Description	Wt Each	Std Qty
LT2-12MH-300	12 Volt D.C. Preheater w/high limit heat sensor	16.0 lbs	1
LT2-12MH-300C	12 Volt D.C. Preheater w/high limit heat sensor & hard carrying case	22.0 lbs	1
LT2-12MH-200	12 Volt D.C. Preheater	15.5 lbs	1
LT2-12MH-200C	12 Volt D.C. Preheater w/hard carrying case	21.5 lbs	1

“Thank you for providing me with your product that has been giving me maintenance-free service for the last five years. It not only preheats my Mooney aircraft that is hangered, but also preheats a lot of my friends aircraft also . . . I also like the dollars I am saving on engine repairs because when I start my engine it thinks it’s summertime. Keep up the good work.”

Michael Stachel, Doylestown, PA

“This preheater works wonderfully and it’s light enough for me to carry around! . . . I have been a flight instructor for several years, with the bulk of my instruction in little tail draggers. Consequently I have sorted out the products that are excellent versus the “so-so.” Your preheater is still the best I’ve run across.”

Sandra Sellers, Red Creek, NY

WE’LL WORK FOR FREE!

Return your Red Dragon® Engine Preheater during the months of June, July or August for a complete checkup. You pay only for freight and replacement parts.

FREE LABOR!

We will completely refurbish it to original specs – paint and all. It will look like a brand new unit.

115 Volt A.C. Preheaters



LT2-12MH-310C



Requires Heavy Duty Ducting Not Included See Page 36

LT2-12MH-210

115 Volt A.C. Preheater Features:

- Ships Fully Assembled
- Push Button Ignition
- Thermocouple Safety Control
- Factory Set Regulator w/Pressure Gauge
- Excess Flow P.O.L. Fitting
- 5' Power Cord
- 5' U.L. Listed LP-Gas Hose
- Optional High Limit Heat Sensor
- Optional Soft Carrying Case

115 Volt A.C. Red Dragon® Engine Preheaters are perfect anywhere electrical outlets are available. Safety features and reliable push button ignition makes these preheaters perfect for the hangar, garage or machine shop. Safety features include safety shutoff valve, adjustable regulator, and excess flow P.O.L. Each preheater includes a 5' power cord and a 5' fuel hose to connect to any refillable LP-Gas cylinder.

An optional high limit heat sensor located near the air outlet will shut off fuel to the burner if the preheater surface temperature exceeds safe levels.

115 Volt A.C. Red Dragon® Engine Preheaters			
Order SKU #	Description	Wt Each	Std Qty
LT2-12MH-310	115 Volt A.C. Preheater w/high limit heat sensor	18.0 lbs	1
LT2-12MH-310C	115 Volt A.C. Preheater w/high limit heat sensor & soft carrying case	20.0 lbs	1
LT2-12MH-210	115 Volt A.C. Preheater	17.5 lbs	1
LT2-12MH-210C	115 Volt A.C. Preheater w/soft carrying case	19.5 lbs	1

Self Contained 12 Volt D.C. Preheaters

A complete preheater package with everything necessary to put your Red Dragon® into operation* plus a sturdy dolly for easy transport. Comes equipped with either the LT2-12MH-300 or the LT2-12MH-200 Red Dragon® Preheater (see 12 Volt D.C. Preheaters on page 25 for details). Also comes complete with a 20 lb. LP Gas Cylinder, Battery Box and 6' of heavy duty ducting.
*Does not include 12 volt battery or fuel.



H-175-300

"Perfect for F.B.O."

Self Contained 12 Volt D.C. Red Dragon® Engine Preheaters			
Order SKU #	Description	Wt Each	Std Qty
H-175-300	Self Contained 12 Volt D.C. Preheater w/high limit heat sensor	58.4 lbs	1
H-175-200	Self Contained 12 Volt D.C. Preheater	57.6 lbs	1
H-125	Dolly and Brackets Only	18.5 lbs	1

Self Contained 12 Volt D.C. Preheater Features:

- Red Dragon® LT2-12MH-300 Preheater
- or Red Dragon® LT2-12MH-200 Preheater
- Cylinder Dolly w/Strap and Brackets
- 20 lb. LP Gas Cylinder
- 6' Heavy Duty Ducting
- Battery Box For 12 Volt Battery



Engine Preheater Parts & Accessories



Ref. Letter	Description	Order SKU #	Wt Each	Case Qty
A	Inlet ring & fan guard	M3001	.25 lbs	1
B	Fan Housing, Base & Transition Support	M3002	2.0 lbs	1
C	Blower wheel	M3003	0.75 lbs	1
+ D	Motor mounting plate/12 volt motor	M3004	0.3 lbs	1
* E	Motor mounting plate/115 volt motor	M3005	0.3 lbs	1
+ F	Motor, 12 volt D.C. 4-6 amp draw	M3006	2.8 lbs	1
* G	Motor, 115 volt A.C. 1-2 amp draw	M3007	5.5 lbs	1
+ H	Switch	M3008	0.1 lbs	1
+ I	Power cord w/alligator clips & covers	M3009	0.6 lbs	1
J	Control Assembly, complete	M3010	1.5 lbs	1
J1	Pressure Gauge	G-23	0.2 lbs	1
J2	Safety Control	H-19H	0.6 lbs	1
J3	Regulator (0-25 PSI)	567RB	0.5 lbs	1
K	Thermocouple	M3012	0.25 lbs	1
L	Fuel supply hose w/ POL	M3013	1.0 lbs	1
M	Fuel pipe assembly	M3014	0.3 lbs	1
N	Torch Assembly	LT2-12H	1.4 lbs	1
O	Transition	M3016	0.75 lbs	1
P	Carrying handle	M3018	0.1 lbs	1
Q	Ignitor w/Lead Wire & Electrode	Model21P	0.3 lbs	1
R	Adjustable elbow	M3021	0.3 lbs	1
• S	Thermocouple junction block	M3025	0.1 lbs	1
• T	170° high limit control w/leads	M3026	0.1 lbs	1
• U	High limit control shield	M3027	0.1 lbs	1
•	High Limit Control Package (Includes M3025, M3026 and M3027)	M3024	0.4 lbs	1
V	Adjustable Ducting Clamp	M3030	0.25 lbs	1

+ Used on all 12 volt D.C. models
LT2-12MH-200
LT2-12MH-300
H-175-300

* Used on all 115 volt A.C. models
LT2-12MH-210
LT2-12MH-310

• Used on
LT2-12MH-300
LT2-12MH-310

Preheater Accessories

Heavy Duty Ducting This heavy duty ducting is perfect for Red Dragon® Engine Preheaters and compresses to about 1/4 of normal length. Working temperature from -65° to 300° F.



Order SKU #	Description	Wt Each	Case Qty
FT4-12HD	12' Heavy Duty Ducting	4.8 lbs	1
FT4-6HD	6' Heavy Duty Ducting	2.6 lbs	1

Preheater Carrying Case

This hard shell carrying case is designed to accommodate any Red Dragon®, 12 Volt D.C. model.



Order SKU #	Description	Wt Each	Case Qty
C-921	Hard Shell Preheater Carrying Case	6.0 lbs	1

Preheater Carrying Case

This soft shell carrying case is designed to accommodate any Red Dragon®, 115 Volt A.C. Preheater. For Models:
LT2-12MH-310C
LT2-12MH-210C



Order SKU #	Description	Wt Each	Case Qty
C-923	Soft Shell Preheater Carrying Case	1.8 lbs	1

Disposable Cylinder Adaptor



This fitting allows use of disposable cylinders with Red Dragon® Preheaters. Connects to the P.O.L. fitting on the fuel inlet of the preheater. Available with or without a shut-off valve.

Electrical Plug



A handy accessory for obtaining 12 volts for any Red Dragon® Preheater using D.C. power. Eliminates opening the cowling or searching for a power source. Plugs into the aircraft or vehicle cigarette lighter receptacle. Also use for charging the battery.

Order SKU #	Description	Wt Ea.	Case Qty
A-76150	Disposable Cylinder Adaptor w/shut off valve	0.5 lbs	10
A-8412	Electrical Plug	0.1 lbs	10

*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

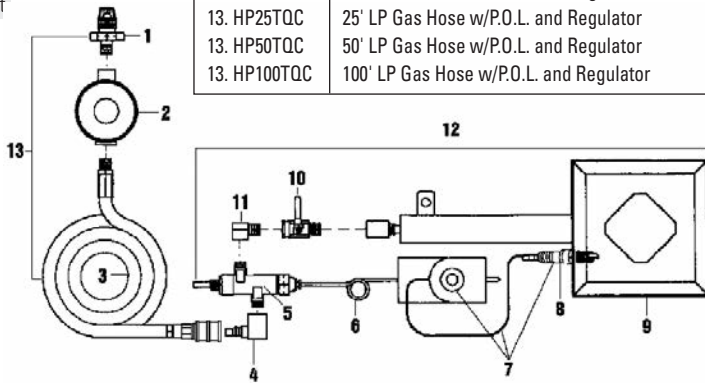


Built To Last!

CH220-QC Heaters Include:

- Thermocouple Safety Control
- Push Button Piezo Ignition
- Safety Excess Flow POL Fitting
 - Preset Regulator
- U.L. Listed Hose w/Quick Connect

Part No.	Description
1. P-W795	Hand Tighten Excess Flow P.O.L.
2. R-700C	18 P.S.I. Regulator
3. HP10TQC	10' LP Gas Hose w/Quick Connect
3. HP25TQC	25' LP Gas Hose w/Quick Connect
3. HP50TQC	50' LP Gas Hose w/Quick Connect
3. HP100TQC	100' LP Gas Hose w/Quick Connect
4. HN-7	3/8" Female Flare x Male Quick Connect Elbow
5. H-19H	Safety Control Valve
6. M3012	12" Thermocouple
7. Model21C	Ignitor with Lead Wire (3309) and Spark Plug
7. 3309	Lead Wire with Connector Ends Only
8. 332	Spark Plug Only
9. 101-CH221	Heater Burner
10. V-326	Flame Control Valve
11. F-422STS	1/4" Elbow
12. CH221QC	Complete Burner/Control Assembly (Includes everything except hose, regulator & P.O.L.)
13. HP10TQC	10' LP Gas Hose w/P.O.L. and Regulator
13. HP25TQC	25' LP Gas Hose w/P.O.L. and Regulator
13. HP50TQC	50' LP Gas Hose w/P.O.L. and Regulator
13. HP100TQC	100' LP Gas Hose w/P.O.L. and Regulator



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.

Order SKU #	Description	Wt Ea.	Std Qty
CH220-QC	Heater w/10' Hose & Quick Connect	49.3 lbs	18
CH225-QC	Heater w/25' Hose & Quick Connect	51.7 lbs	18
CH250-QC	Heater w/50' Hose & Quick Connect	54.1 lbs	18
CH2100-QC	Heater w/100' Hose & Quick Connect	60 lbs	18
HP10TQC	10' QC Hose w/Regulator & POL	2.2 lbs	1
HP25TQC	25' QC Hose w/Regulator & POL	3.8 lbs	1
HP50TQC	50' QC Hose w/Regulator & POL	5.0 lbs	1
HP100TQC	100' QC Hose w/Regulator & POL	9.2 lbs	1



Packed One Per Carton – Ships 18 Per Pallet
Please call for quote on orders exceeding 72 units.
No UPS Shipments.

How Much Heat Do You Need?

CUBIC FEET OF SPACE TO BE HEATED**	TEMPERATURE RISE REQUIRED (°F)*			
	20°	30°	40°	50°
5,000	14,000	20,000	27,000	34,000
7,000	19,000	28,000	38,000	47,000
10,000	27,000	40,000	54,000	67,000
15,000	40,000	60,000	80,000	100,000
20,000	54,000	80,000	107,000	133,000
30,000	80,000	120,000	160,000	200,000
50,000	133,000	200,000	266,000	333,000

BTU CAPACITY REQUIRED

* Temperature rise required is the difference between the actual temperature and the desired temperature.
** To determine cubic footage: length x width x height of structure.
Note: This chart is only a guide. Buildings vary according to construction materials, insulation, humidity, etc.

For more information about Red Dragon® Construction Heaters, special truck load pricing or to place an order, call 800-255-2469.

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"

Order SKU #	Wt Each	Case Qty
LT2x8	4.9 lbs	1

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"

Order SKU #	Wt Each	Case Qty
LT1 1/2x8D	4.0 lbs	1

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"

Order SKU #	Wt Each	Case Qty
LT1 1/2x6	4.0 lbs	1

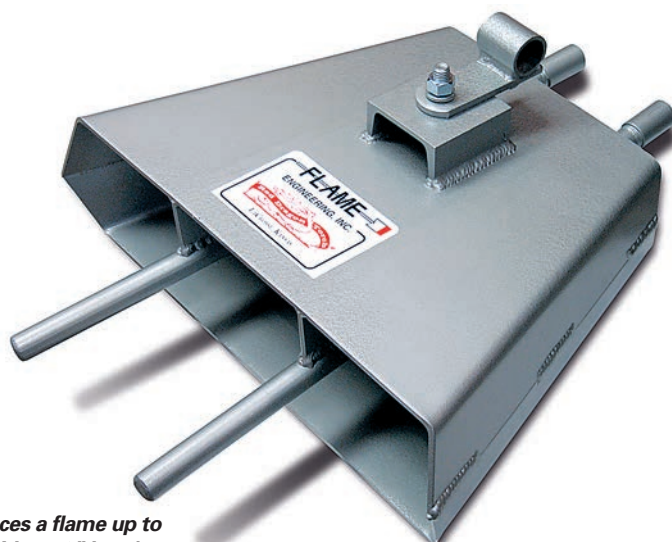
LT6x18 Liquid Torch – 3,000,000 BTU

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
Normal Operating Pressure	50 P.S.I.	Maximum Fuel Consumption	110 lbs/hr
Operating Pressure Range	20-90 P.S.I.	Fuel Inlet	1/4" NPT
		Overall Length	21 1/2"

Order SKU #	Wt Each	Case Qty
LT6x18	34.0 lbs	1



Produces a flame up to 24" wide x 48" long!

Bracket Fits 1" Outside Diameter Tool Bars.

- 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 LT21/2-30 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



LT3-60

See Page 11 for Complete Kit

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.

3" 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"



LT3-12

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



LT3-12T

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.

Bracket Fits 1" Outside Diameter Tool Bars.

Order SKU #	Description	Wt Each	Case Qty
LT3-60	49" Handle – Overall Length 61"	6.3 lbs	1
LT3-12	Torch Head – Overall Length 14 1/4"	2.0 lbs	1
LT3-12T	Torch Head w/bracket – Overall Length 14 1/2"	2.6 lbs	1

RED DRAGON® TORCHES ARE

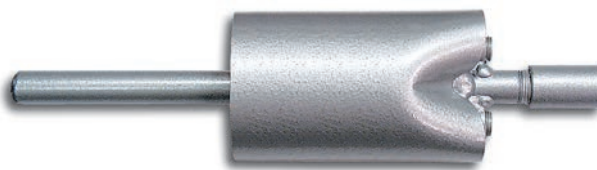


LT3-12HD Liquid Torch – 1,000,000 BTU

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"

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.

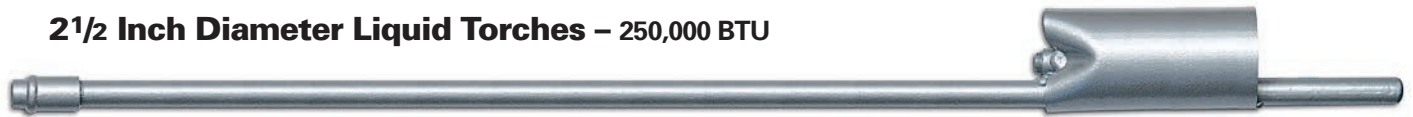


LT3-12HD

Order SKU #	Wt Each	Case Qty
LT3-12HD	2.4 lbs	1

Liquid Torches – For Continuous Use Applications, Sub-Zero Climates & Agricultural Flaming

2 1/2 Inch Diameter Liquid Torches – 250,000 BTU



Our 250,000 BTU, 2 1/2 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 LT2 1/2-30 comes with a 26" handle and is a great torch for cold climate snow/ice melting, road repair or extended weed burning.



LT2 1/2-12

The LT2 1/2-12 is the torch head only version and is used for heating road oil or tar pots, firebrick flues and road repair.

Order SKU #	Description	Wt Each	Case Qty
LT2 1/2-30	26" Handle – Overall Length 35"	3.9 lbs	10
LT2 1/2-12	Torch Head – Overall Length 11"	1.75 lbs	1

LT2 1/2-30

See Page 11 for Complete Kit

2 1/2" 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	2 1/2"

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LT2-12 Liquid Torch – 49,000 BTU

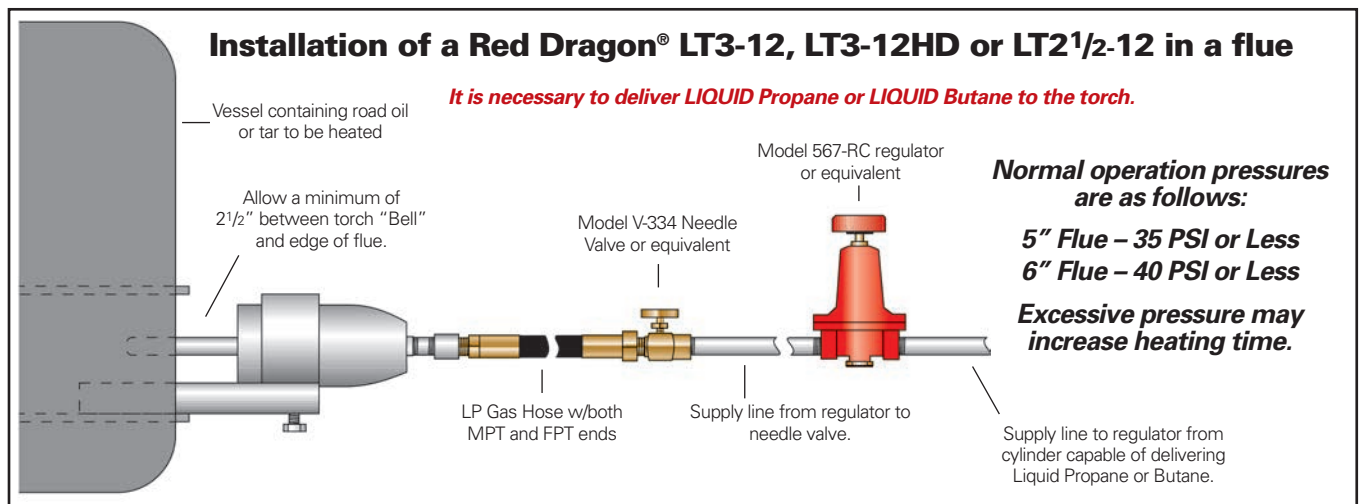


The LT2-12 is a compact torch for use where a high capacity liquid torch is required but space is limited. Uses include heating road oils, de-icing, heating kilns, and other applications.

Order SKU #	Wt Each	Case Qty
LT2-12	1.5 lbs	1

2" Liquid Torch Specifications:

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



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.**

LT2^{1/2}-12LPS



Produces a flame up to 2' wide x 6' long.

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 LT2^{1/2}-12LPS has a single spray nozzle and can be attached to a boom for flaming fence lines or a manifold for potato vine flaming. LT2^{1/2}-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.

LT2^{1/2}-12LPS Torch Specifications:

Normal Operating Pressure	
Spray Nozzle	.35 PSI
Torch	.10 PSI
Operating Pressure Range	
Spray Nozzle	.5 PSI to full tank pressure
Torch	5-25 PSI
Max Flame Length	Approximately 6'
Approximate Flame Temperature	2050°F
*Maximum Fuel Consumption	See note below
Fuel Inlet	1/4" NPT
Bell Diameter	2 1/2"
Overall Torch Length	11 1/4"

LT3-12LPS Torch Specifications:

Normal Operating Pressure	
Spray Nozzle	.50 PSI
Torch	.15 PSI
Operating Pressure Range	
Spray Nozzle	.5 PSI to full tank pressure
Torch	5-30 PSI
Max Flame Length	Approximately 12'
Approximate Flame Temperature	2050°F
*Maximum Fuel Consumption	See note below
Fuel Inlet	1/4" NPT
Bell Diameter	3"
Overall Torch Length	15"

** Limited only by maximum tank pressure and nozzle size*

Order SKU #	Description	Wt Each	Case Qty
LT2 ^{1/2} -12LPS	Torch w/single spray nozzle	2.9 lbs	1
LT3-12LPS	Torch w/twin spray nozzles	4.8 lbs	1

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 10 for Complete Kit



Use high capacity Red Dragon® Jet Torches 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.

JET8 Torch Specifications:

Maximum Capacity	2,000,000 BTU/hr
Normal Operating Pressure	80 P.S.I.
Operating Pressure Range	30 P.S.I. - tank press
Max Flame Length	6'
Approximate Flame Temperature	2050°F
Maximum Fuel Consumption	80 lbs/hr
Fuel Inlet	1/4" NPT
Overall Torch Length	84"

JET4 Torch Specifications:

Maximum Capacity	1,000,000 BTU/hr
Normal Operating Pressure	80 P.S.I.
Operating Pressure Range	30 P.S.I. - tank press
Max Flame Length	5'
Approximate Flame Temperature	2050°F
Maximum Fuel Consumption	40 lbs/hr
Fuel Inlet	1/4" NPT
Overall Torch Length	40 1/2"

JET4 – 1,000,000 BTU See Page 10 for Complete Kit



Order SKU #	Description	Wt Each	Ship Wt.	Case Qty
JET8	Overall Length 84"	6.0 lbs	9.0 lbs	1
JET4	Overall Length 40 1/2"	2.5 lbs	7.0 lbs	1

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.

3" 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 @ 30 P.S.I.	10.13 lbs/hr
Maximum Fuel Consumption	23.2 lbs/hr
Fuel Inlet	1/4" NPT
Torch Bell Diameter	3"

Order SKU #	Description	Wt Each	Case Qty
VT3-0	Torch Head Only – Overall Length 6"	1.2 lbs	6
VT3-6	6" Handle – Overall Length 11"	1.4 lbs	6
VT3-12	11 ³ / ₄ " Handle – Overall Length 16 ¹ / ₂ "	1.4 lbs	6
VT3-30	28" Handle – Overall Length 33 ¹ / ₂ "	1.9 lbs	10
VT3-60	60" Handle – Overall Length 65"	3.4 lbs	1

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
VT3-12S	Torch Head Only - Overall Length 8"	1.5 lbs	6

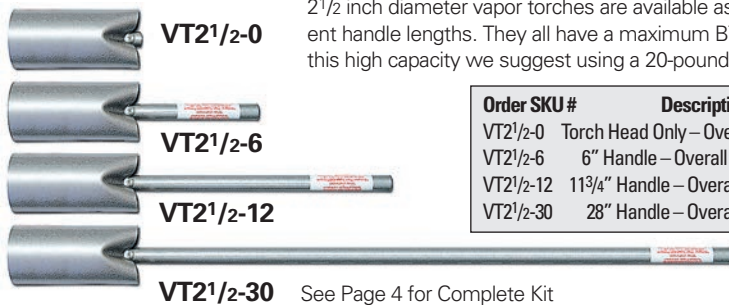
VT3-12S Specifications:

Maximum Capacity	750,000 BTU/hr
Normal Operating Pressure	30 P.S.I.
Operating Pressure Range	5-90 P.S.I.
Approximate Flame Temperature	2050°F
Fuel Consumption @ 30 P.S.I.	5.8 lbs/hr
Maximum Fuel Consumption	34.8 lbs/hr
Fuel Inlet	1/4" NPT
Torch Bell Diameter	3"

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2 1/2 Inch Diameter Vapor Torches – 400,000 BTU



2 1/2 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.

Order SKU #	Description	Wt Each	Case Qty
VT2 1/2-0	Torch Head Only – Overall Length 5 1/2"	0.9 lbs	6
VT2 1/2-6	6" Handle – Overall Length 10 1/4"	1.0 lbs	6
VT2 1/2-12	11 3/4" Handle – Overall Length 15 1/2"	1.1 lbs	6
VT2 1/2-30	28" Handle – Overall Length 33"	1.6 lbs	10

2 1/2" Vapor Torch Specifications:

Maximum Capacity	400,000 BTU/hr
Normal Operating Pressure	25 P.S.I.
Operating Pressure Range	5-90 P.S.I.
Approximate Flame Temperature	2050°F
Fuel Consumption @ 25 P.S.I.	9.3 lbs/hr
Maximum Fuel Consumption	16 lbs/hr
Fuel Inlet	1/4" NPT
Torch Bell Diameter	2 1/2"

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.

2" Vapor Torch Specifications:

Maximum Capacity	100,000 BTU/hr
Normal Operating Pressure	20 P.S.I.
Operating Pressure Range	5-40 P.S.I.
Approximate Flame Temperature	2050°F
Fuel Consumption @ 20 P.S.I.	2.5 lbs/hr
Maximum Fuel Consumption	4.7 lbs/hr
Fuel Inlet	1/4" NPT
Torch Bell Diameter	2"

Order SKU #	Description	Wt Each	Case Qty
VT2-0	Torch Head Only – Overall Length 5 1/2"	0.75 lbs	6
VT2-6	6" Handle – Overall Length 10 1/2"	0.8 lbs	6
VT2-12	11 3/4" Handle – Overall Length 15 1/2"	0.9 lbs	6

1 1/2 Inch Diameter Vapor Torches – 50,000 BTU

1 1/2 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 HT1 1/2-10 is our deluxe "little torch" and features a plastic grip, flame adjusting valve, torch stand and an angled 10 1/2" handle. Perfect for dozens of uses. A favorite of hobbyists, farmers, mechanics and plumbers.



See Page 9 for Complete Kit

1 1/2" Vapor Torch Specifications:

Maximum Capacity	50,000 BTU/hr
Normal Operating Pressure	10 P.S.I.
Operating Pressure Range	5-40 P.S.I.
Approximate Flame Temperature	2050°F
Fuel Consumption @ 10 P.S.I.	1.25 lbs/hr
Maximum Fuel Consumption	2.5 lbs/hr
Fuel Inlet	1/4" NPT
Torch Bell Diameter	1 1/2"

Order SKU #	Description	Wt Each	Case Qty
VT1 1/2-0	Torch Head Only – Overall Length 4 1/2"	0.5 lbs	6
VT1 1/2-6	6" Handle – Overall Length 10"	0.6 lbs	6
VT1 1/2-12	11 3/4" Handle – Overall Length 15"	0.7 lbs	6
HT1 1/2-10	10 1/2" Bent Handle – Overall Length 15"	1.1 lbs	6

HT1 1/2-10

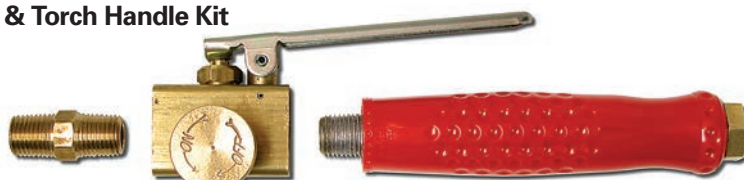
See Page 9 for Complete Kit



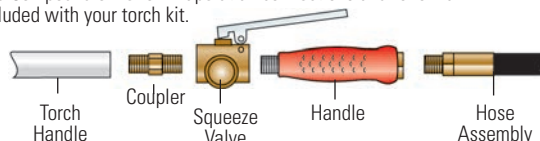
Squeeze Valves, Needle Valves, Ball Valve and Handle

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 HT1½-10CR 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.

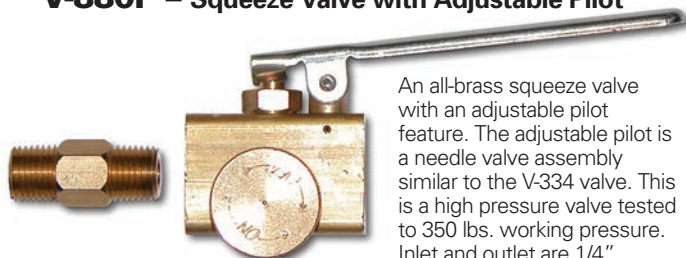


Use Pipe Thread Compound or Teflon® Tape at all connections and follow all instructions included with your torch kit.



Order SKU #	Wt Each	Case Qty
V-880P/H-1	0.5 lbs	10

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-334 – Needle Valve



This heavy-duty needle valve has been tested in excess of 350 lbs. and incorporates a thumb wheel for easy open or close. Both inlet (female end) and outlet (male end) are 1/4" standard pipe thread.

Order SKU #	Wt Each	Case Qty
V-334	0.25 lbs	10

V-880P Valve Repair Kits & Lever Assembly



TJP-123 – Pilot Valve Repair Kit

TSTE131-2 – Lever Assembly Kit

TC-42-7 – Main Valve Repair 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.

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

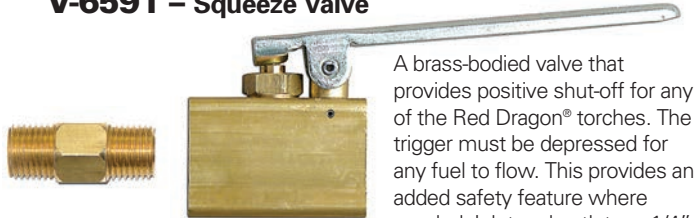
V-3055 – Needle Valve



A less expensive needle valve for use with LP-gas, air or water and other fluids. Both inlet (female end) and outlet (male end) are 1/4" standard pipe thread. This replaces the old V-3055 P needle valve with "T" handle.

Order SKU #	Wt Each	Case Qty
V-3055	0.2 lbs	10

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.

Order SKU #	Wt Each	Case Qty
V-6591	0.2 lbs	10

V-326 – 1/4" MPT x 1/4" FPT Inlet Ball Valve



This 1/4 turn, single direction flow ball valve has a maximum operating temp of 180° F. Features a plated metal handle and plated brass ball with a Teflon seat and Buna-N seals. Approved for Natural and LP Gas. Used on Red Dragon® Construction heaters.

Order SKU #	Wt Each	Case Qty
V-326	0.25 lbs	10

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.

Order SKU #	Wt Each	Case Qty
H-1	0.25 lbs	10

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

U.L. Listed



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.

Order SKU #	Description	Wt Each	Case Qty
567RC	Regulator for 0-60 PSI Delivery	1.2 lbs	6
567RD	Regulator for 0-100 PSI Delivery	1.2 lbs	6

R-700C & R-709C

1/4" High Pressure – Liquid or Vapor

U.L. Listed



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.

R-709C: The same characteristics and specifications as the R-700C except the delivery pressure is 9 PSI and delivers around 250,000 BTU.

Order SKU #	Description	Wt Each	Case Qty
R-700C	Regulator for 18 PSI Delivery	0.5 lbs	10
R-709C	Regulator for 9 PSI Delivery	0.5 lbs	10

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



U.L. Listed

This low pressure (11" WC) 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 P.O.L. fitting to connect to LP-gas cylinder. For vapor use only. Not for use on torches or high pressure equipment.

SKU #	Wt Each	Case Qty
RSL-1	0.5 lbs	10

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.

Order SKU #	Description	Wt Each	Case Qty
G-23	Pressure gauge for 0-100 PSI	0.2 lbs	10
G-24	Pressure gauge for 0-200 PSI	0.2 lbs	10

R-499 – 1/4" High Capacity – Liquid or Vapor

4 Million BTU/hr Capacity

U.L. Listed



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.

Order SKU #	Wt Each	Case Qty
R-499	1.0 lbs	1

R-1584H – 1/2" High Capacity – Liquid or Vapor

8 Million BTU/hr Capacity

U.L. Listed



Precision built with a multi-million BTU capacity, these high quality regulators are perfect for big, tough jobs; crop dryers, alfalfa flammers, row crop flammers, asphalt batch mixing plants, ditch flammers, 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.

Order SKU #	Wt Each	Case Qty
R-1584H	1.6 lbs	1

QUICK CONNECTOR SETS U.L. Listed



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.

Order SKU #	Description	Wt Each	Case Qty
HK-8	complete set (2)HN-6 male (1)HN-5 female	0.53 lbs	10
HK-7	complete set (1)HN-6 male (1)HN-5 female	0.44 lbs	10
HN-5	female adaptor	0.25 lbs	10
HN-6	male adaptor	0.07 lbs	10

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 2 1/2 inches.

SKU #	Wt Each	Case Qty
G-25	0.5 lbs	10

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".

*HP5C & HP10C come with one female end and one male end.
*HP25 & HP50 include a 1/4 female brass coupling.

Order SKU #	Description	Wt Each	Case Qty
HP5	5' Hose w/1/4" MPT on both ends	1.0 lbs	10
HP5C	5' Hose w/1/4" MPT & 1/4"FPT	1.0 lbs	10
HP10	10' Hose w/1/4" MPT on both ends	1.5 lbs	10
HP10C	10' Hose w/1/4" MPT & 1/4"FPT	1.5 lbs	10
HP25	25' Hose w/1/4" MPT on both ends	4.0 lbs	6
HP50	50' Hose w/1/4" MPT on both ends	6.1 lbs	4

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

Order SKU #	Wt Each	Case Qty
SL-1C	2.2 lbs	10

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

Order SKU #	Wt Each	Case Qty
SL-32C	2.0 lbs	10

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.**



U.L. Listed

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.



U.L. Listed

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.



U.L. Listed

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



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.

Order SKU #	Description	Wt Each	Case Qty
S-121	1/4" FPT inlet & outlet	0.7 lbs	1
S-122	1/2" FPT inlet & outlet	2.3 lbs	1
S-123	3/8" FPT inlet & outlet	2.1 lbs	1
S-119	3/4" FPT inlet & outlet	2.6 lbs	1

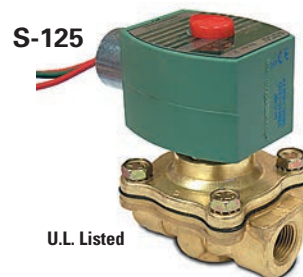
115 Volt A.C. Solenoid Valves



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.

Order SKU #	Description	Wt Each	Case Qty
S-115	1/4" FPT inlet & outlet	1.4 lbs	1
S-116	3/8" FPT inlet & outlet	2.5 lbs	1
S-117	1/2" FPT inlet & outlet	2.5 lbs	1

24 Volt A.C. Solenoid Valves



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.

Order SKU #	Description	Wt Each	Case Qty
S-124	1/4" FPT inlet & outlet	1.6 lbs	1
S-125	3/8" FPT inlet & outlet	2.3 lbs	1
S-126	1/2" FPT inlet & outlet	2.1 lbs	1
S-127	3/4" FPT inlet & outlet	2.3 lbs	1

Replacement Piezo Ignitors

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



Order SKU #	Description	Wt Each	Case Qty
Model21	Piezo Ignitor Only	0.2 lbs	1
Model21C	Piezo ignitor, lead wire, spark plug & spark plug connector for CH-220 Heaters	0.3 lbs	1
Model21H	Piezo ignitor, electrode & wire for HSH25 Torch	0.3 lbs	1
Model21P	Piezo ignitor, electrode & wire for Preheaters	0.3 lbs	1

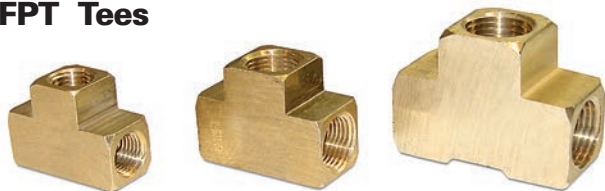
Thermocouple



Order SKU #	Description	Wt Each	Case Qty
M3012	12" Thermocouple	0.2 lbs	1
M3031	24" Thermocouple	0.3 lbs	1
M3032	36" Thermocouple	0.3 lbs	1
M3036	36" Heavy Duty Thermocouple	0.4 lbs	1

Brass Fittings, Cylinder Adaptors & Ignitors

FPT Tees



Order SKU #	Description	Wt Each	Case Qty
F-522	1/4" FPT x 1/4" FPT x 1/4" FPT	.15 lbs	10
F-533	3/8" FPT x 3/8" FPT x 3/8" FPT	.3 lbs	10
F-544	1/2" FPT x 1/2" FPT x 1/2" FPT	.45 lbs	10

1/4" FPT 90° Elbow



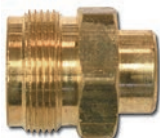
Order SKU #	Description	Wt Each	Case Qty
F-422	1/4" FPT x 1/4" FPT	.2 lbs	10

MPT x MPT Hex Nipples



Order SKU #	Description	Wt Each	Case Qty
F-222	1/4" MPT x 1/4" MPT	.1 lbs	10
F-233	3/8" MPT x 3/8" MPT	.1 lbs	10

F-140 – Cylinder Adaptor



Use to connect standard cylinders to small appliances such as lanterns & camp stoves, which normally connect to disposable cylinders. Hose and P.O.L. fitting required. Inlet is 1/4" female pipe thread and outlet is 1"-20 male thread.

Order SKU #	Wt Each	Case Qty
F-140	0.2 lbs	10

MPT x Male Flared Adapters



Order SKU #	Description	Wt Each	Case Qty
F-726	1/4" MPT x 3/8" Flare	.1 lbs	10
F-736	3/8" MPT x 3/8" Flare	.1 lbs	10

9/16" Left Hand Adapters



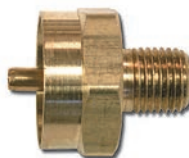
Order SKU #	Description	Wt Each	Case Qty
F-825	1/4" MPT x 9/16" Left Hand	.1 lbs	10
F-835	3/8" MPT x 9/16" Left Hand	.1 lbs	10
F-855	9/16" Left Hand x 9/16" Left Hand	.1 lbs	10

1/4" FPT x 1/4" FPT Hex Coupling



Order SKU #	Description	Wt Each	Case Qty
F-322	1/4" FPT x 1/4" FPT	.1 lbs	10

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.

Order SKU #	Wt Each	Case Qty
F-144	0.15 lbs	10

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.

Order SKU #	Description	Wt Each	Case Qty
L2001	Spark Lighter w/5 flints	0.2 lbs	10
L2012	Pack of 5 flints	0.03 lbs	24

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.

Order SKU #	Wt Each	Std Qty
CD-100	14.35 lbs	1

CD-100

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



The CD-100 lets you cover ground quickly and easily while using your Red Dragon® Torch.

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.

Order SKU #	Wt Each	Std Qty
CD-505	43.0 lbs	1



**RED DRAGON®
CYLINDER DOLLIES**



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.

Order SKU #	Description	Wt Each	Case Qty
C-6	5 lb. Propane Cylinder	11.0 lbs	1
C-11	10 lb. Propane Cylinder	16.0 lbs	1
C-120	120 Gallon Tank	—	1

C-11



C-6



C-120



**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 Vapor Pressure Chart, PSI

	OUTSIDE TEMPERATURE, DEGREES FAHRENHEIT														
	-30°	-20°	-10°	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°	110°
100% Propane	6.8	11.5	17.5	24.5	34	42	53	65	78	93	110	128	150	177	204
VAPOR PRESSURE, PSI															

Vaporization Rate – 100 lb. Propane Cylinders (Approximate)

Pounds of propane in cylinder	Maximum continuous draw in BTU/hr at various temperatures in degrees F.				
	0°	20°	40°	60°	70°
100	113,000	167,000	214,000	277,000	300,000
90	104,000	152,000	200,000	247,000	277,000
80	94,000	137,000	180,000	214,000	236,000
70	83,000	122,000	160,000	199,000	214,000
60	75,000	109,000	140,000	176,000	192,000
50	64,000	94,000	125,000	154,000	167,000
40	55,000	79,000	105,000	131,000	141,000
30	45,000	66,000	85,000	107,000	118,000
20	36,000	51,000	68,000	83,000	92,000
10	28,000	38,000	49,000	60,000	66,000

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.

Safety Information

Check List For Safe LP-Gas Use

- DO NOT use torches on or near combustible materials.
- Inspect equipment daily.
- Secure cylinders in a level, upright position. DO NOT invert or lay cylinders on their sides.
- 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.
- DO NOT apply flame to cylinders to increase pressure.
- 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.
- 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.
- Keep torches, open flame, and sources of ignition away from cylinders, regulators, and hose.
- Cylinder valves must be protected. DO NOT hoist cylinder by the valve.
- Gloves should be used at all times. Long sleeves, long pants, and boots are recommended.
- Never leave a lighted torch unattended.
- 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.

Daily Equipment Check List

- Be sure you have a fire extinguisher (type ABC) on the job, easily accessible to each worker.
- 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.
- Visually inspect all parts for damage and wear.
- Using soapy water, check all connections and fittings for leaks. DO NOT use match or open flame.
- Ignite torch. Check operation of valve and other adjustable parts.

PROPANE DATA

Properties of Propane:

Chemical Formula	C3H8
BTU per Gallon (Vaporized)	91,690
BTU per Pound	21,591
Weight per Gallon of Liquid	4.23
Vaporization Temperature	-44°F
Specific Gravity - Vapor (Air=1)	1.53
Specific Gravity - Liquid (Water=1)	0.51
Vaporization Rate (Liquid to Vapor)	272:1

Combustion Data

Limits of Flammability, % of Gas in Air	2.3% to 9.5%
Air required to burn 1 Cu Ft Vapor	23.5 Cu Ft
Oxygen required to burn 1 Cu Ft Vapor	4.9 Cu Ft
Ignition Temperature	920-1020°F
Optimum Flame Temperature	3500°F
Vapor Pressure at 0° F	28 PSI
Vapor Pressure at 70°F	122 PSI
Vapor Pressure at 100°F	190 PSI

SAFETY NOTES:

- When extinguishing a torch, shut off cylinder valve and allow gas to burn out of lines.
- 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 effect 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.

Additional Information for Distributors, Dealers and Customers

Dear Customer,

Within this catalog you'll find the most complete line of propane torches, heaters, agricultural flammers 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, engine pre-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.



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.



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.



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.

www.FlameEngineering.com

Be sure to visit our web site and find much more information, download video demos, download product instruction manuals, order Red Dragon® Torches and Equipment from our secure shopping cart and much more.

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 to 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.



The eternal flame at the September 11th Memorial in Battery Park, New York City.



The eternal flame at the U.S. Holocaust Memorial Museum in Washington D.C.



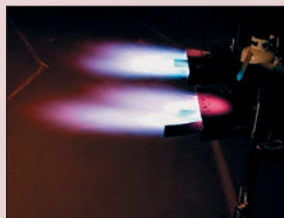
Some of our satisfied custom project customers:

- City of New York
- U.S. Holocaust Memorial Museum
- Boeing
- Lockheed Martin
- U.S. Navy
- U.S. Coast Guard
- Honey Baked Hams
- Carnival Innovations
- U.S. Immigration Service
- Northrup-King
- Thiokol Corporation
- DKD Design Studios
- American Legion

With over 50 years experience

creating and manufacturing various types of flaming devices, we are prepared to provide special or unusual flame producing equipment. Whether you need custom lighting for a special outdoor event or an eternal flame for a memorial, designing what you need is our specialty. We have taken on many unique projects such as eternal flames, movie special effects, fireplace burners, fire service training equipment, military simulators, explosives disposal devices, custom agricultural flamers, custom work benches, special manufacturing needs and more. Our experience, equipment and knowledge allow us to produce quality products at reasonable prices.

**Contact us today to discuss what we can do for you.
800-255-2469**





TESTIMONIALS

"RED DRAGON – I borrowed my neighbors – didn't want to be a moocher – bought my own – love it! Made in USA!"
K. Hart – Puyallup, WA

"RED DRAGON – Great product. Easy to use around my three acres."
J. Kirk – Ruffin, SC

"RED DRAGON – I have a hobby farm with a large vegetable garden. The Red Dragon allows me to maintain a chemical free environment. It's also great for melting ice. Keep up the good work!"
L. Childress – Sunderland, MD

"RED DRAGON – Great product. I absolutely love it. It is very easy to assemble and use. I am particularly impressed with how little fuel it uses. We have a large gravel drive and two gravel pads. With regular use, a tank of propane should last a full season. High quality product. Low cost to operate. No chemicals. No dead weed debris to pull up. If it had a cup holder it would be perfect."
P. Boyles – Lexington, KY

"RED DRAGON – The Red Dragon is an amazing product that's incredible versatile. I use it for weeds and patching the driveway pavement in the summer, and for melting snow and ice in the winter. It gets the BBQ charcoal ready for cooking in about 15 seconds!"
E. Alscher – Manotick, ON, Canada

"RED DRAGON – Pretty Cool! Well, HOT! I like keeping vegetation down around my cabin for fire break purposes. I didn't think I would be able to find a product like this, 'Made in the USA' is a major plus. That sold me. It works great!! Thanks!"
D. Johnson – Pocatello, ID

"RED DRAGON – Awesome product!! Flames our weeds to oblivion! Thanks for making a great product that is still made in the USA."
S. Strohmeier – Newburg, WI

"RED DRAGON – Great tool to get rid of the weeds in our yard and on our property....Beats weed killer of any kind all day long!!!!"
P. Middleton – Rockvale, CO

"RED DRAGON – Well made, easy to assemble, nice that it is made in the USA...."
D. Johnson – Burnsville, NC

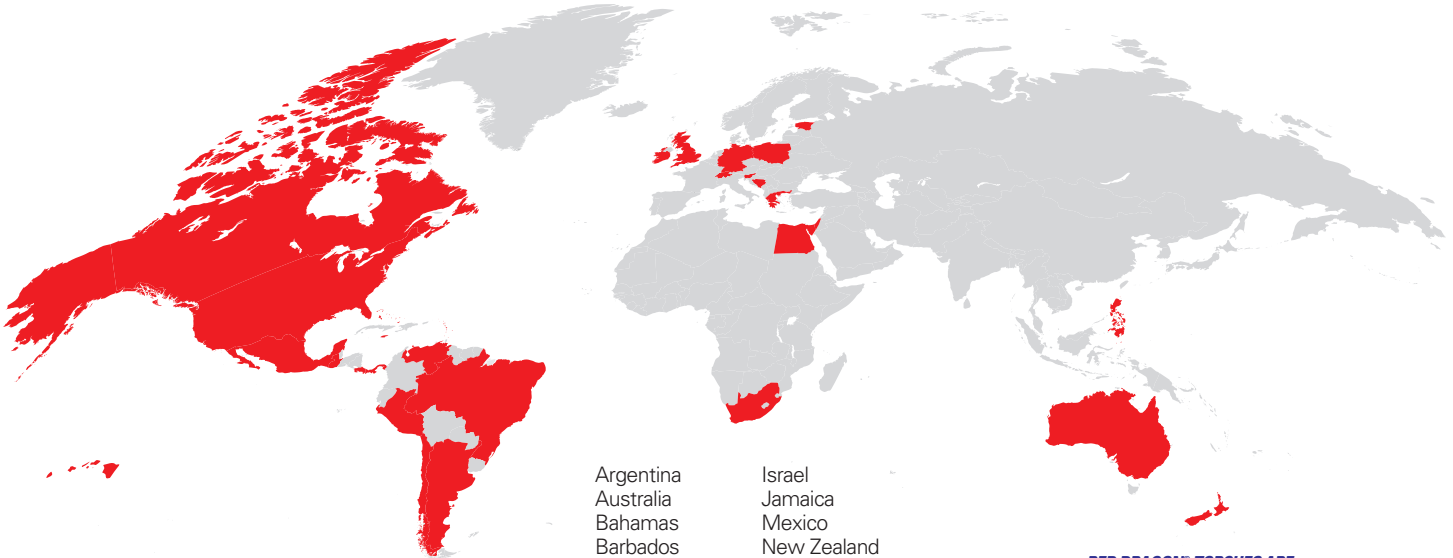
"RED DRAGON – GREAT product! Highly recommended for farm & ranch. Couldn't get rid of the pesky Sandburs (stickers) without it."
D. Maloney - New Braunfels, TX

"WEED DRAGON – Best weed killer I've ever used. Eliminated ALL weeds and crab grass from our gravel driveway. I'll never use chemical treatments again. Thanks for a GREAT product!"
A. Wadsack – Osage Beach, MO

Flame Engineering products are sold in every state.



Countries that we currently service are highlighted in red.



- | | |
|------------|----------------|
| Argentina | Israel |
| Australia | Jamaica |
| Bahamas | Mexico |
| Barbados | New Zealand |
| Brazil | Panama |
| Canada | Peru |
| Chile | Philippines |
| Costa Rica | Poland |
| Egypt | Serbia |
| Estonia | Slovenia |
| Germany | South Africa |
| Greece | Switzerland |
| Guatemala | United Kingdom |
| Ireland | Venezuela |

RED DRAGON® TORCHES ARE





Flame Engineering is celebrating over a decade of safety and health performance with continued recognition in OSHA's Safety and Health Achievement Recognition Program!

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



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Toll Free: 800-255-2469 • 785-222-2873 • Fax: 785-222-3619
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