



TORCHES & EQUIPMENT



FLAME ENGINEERING, INC.

50 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
-  ERGONOMIC WORK BENCHES
-  CYLINDER DOLLIES
-  TORCHES
-  PARTS & ACCESSORIES
-  PROPANE INFORMATION



FLAME ENGINEERING, INC. GENERAL PRODUCTS CATALOG

Catalog #1109

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.

We design eternal flame systems for museums, cemeteries and memorial sites. From an Olympic look to a more somber, memorial flame, Flame Engineering's goal is to provide the customer with just the right appearance and flame pattern. 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**
- **National Roofing Contractors Association**
- **Western States Roofing Contractors Association**
- **Midwest Roofing Contractors Association**
- **Western Kansas Manufacturers Association**
- **Mid-American Manufacturing Technology Center**
- **National Association of Manufacturers**

◆ Red Dragon Torch Kits	
Vapor Torch Kits	2
Jet Torch Kits	10
Liquid Torch Kits	11
◆ Patio Lights	12
◆ Agricultural Equipment	
Tow Hitches	14
Poultry House Flame Sanitizer	16
Vineyard/Orchard Flamers	18
Row Crop Flamers	20
Potato Vine Flamers	22
Alfalfa Flamers	23
◆ Propane Flares	
Manual Flare	24
Electronic Flare	25
◆ Ergonomic Work Benches	
Stock Benches	26
Accessories & Custom Benches	27
◆ Roofing Torches & Equip.	
Roofing Torch Kits	28
Non-Contact Infrared Thermometers	28
Modified Bitumen Applicators	29
Roof Dryers	29
◆ Engine Preheaters	
12 Volt DC Units	30
115 Volt AC Units	31
Self Contained Units	31
Preheater Parts & Accessories	32
◆ Construction Heaters	33
◆ Torches	
Liquid Torches	34
Jet Torches	37
Liquid Spray Torches	37
Vapor Torches	38
◆ Parts & Accessories	
Squeeze Valves & Torch Handle	39
Needle Valves	39
Ball Valves	39
Regulators	40
Pressure Gauge	40
Quick Connectors	40
LP Gas Hose	41
Propane Hookup Kit	41
POL & Type1 Fittings	41
Solenoid Valves	42
Pull Valves	42
Safety Valves	42
Thermocouples	42
Brass Fittings	43
Disposable Cylinder Adaptors	43
Piezo Ignitors	43
Spark Lighter	43
◆ Cylinder Dollies & LP Gas Cylinders	44
◆ Propane Information	45
◆ Additional Customer Information	46
◆ Order Information, Terms & Conditions	48
◆ Custom Work and Eternal Flame	

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 non-flammable objects.

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

Flame Weeding 101:

**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.

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 decreases 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.



Days later, weed decay is obvious. FLAMING WORKS!

**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 (Red Dragon Torches are not 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*

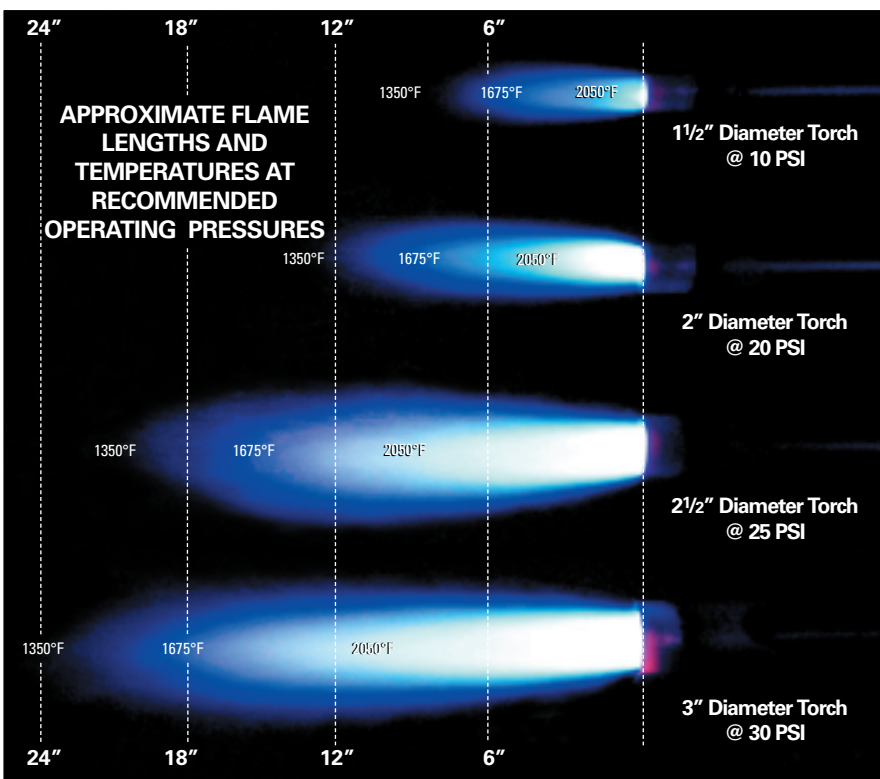
*“My husband and I don’t want to use weed sprays in our yard because we have to beloved dogs. The Weed Dragon allows us to have a beautiful lawn and healthy, happy pets!”
Jessica Trivett,
Elk Park, NC*

*“We have tried all kinds of things to control wees 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 18,000 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.





Flame Engineering is pleased to be celebrating 50 years in business. In recognition of our golden anniversary, the Original Red Dragon VT 3-30 C Torch Kits are now shipping in red! They look so sharp it may become permanent!

VT 3-30 C & VT 3-30 SVC – 500,000 BTU
The “Original” RED DRAGON Torch Kits

Simple, lightweight, easy to use and very effective:

The VT 3-30 C 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 VT 3-30 C our Deluxe Torch of choice for farmers, ranchers, construction professionals and property owners.

VT 3-30 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 VT 3-30 SVC.

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

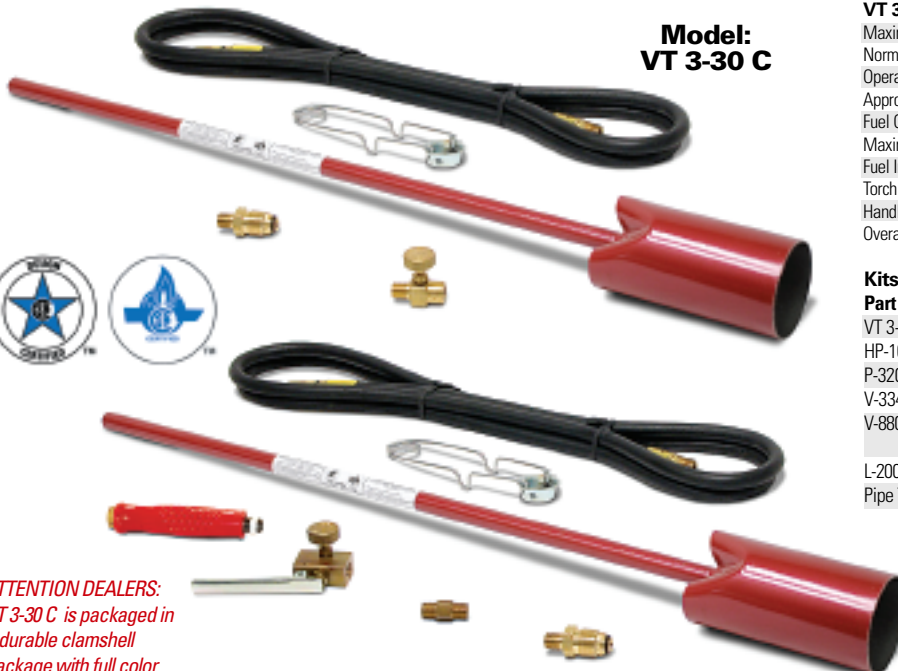


VT 3-30 Vapor Torch Specifications:

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
VT 3-30	500,000 BTU Vapor Torch
HP-10 C	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-880 PH1	Squeeze Valve & Handle w/Adjustable Pilot. (SVC Model)
L-2002	Spark Lighter
Pipe Thread Sealant	



**Model:
VT 3-30 C**

**Model:
VT 3-30 SVC**

ATTENTION DEALERS:
 VT 3-30 C is packaged in a durable clamshell package with full color graphic insert.

MAKE IT A COMBO!

Order either kit complete with a CD-100 Cylinder Dolly. Visit our web site for a special offer on all COMBO Kits. See page 44 for more information about the rugged CD-100 Cylinder Dolly.



RED DRAGON TORCHES ARE



TORCH KIT ORDER INFORMATION				
Order SKU #	Wt Each	Case Qty	Case Wt	
VT 3-30 C	4.5 lbs	6	27.0 lbs	
VT 3-30 SVC	5.0 lbs	1	5.0 lbs	
CYLINDER DOLLY COMBO KIT ORDER INFORMATION				
VT 3-30 C COMBO	19.0 lbs	1	19.0 lbs	
VT 3-30 SVC COMBO	19.5 lbs	1	19.5 lbs	

1/4 PALLET DISPLAY ORDER INFORMATION		
Pallet SKU #	Qty Per Pallet	Pallet Wt
VT 3-30 CQP	12 (VT 3-30 C) Kits	62.0 lbs

They are also available in 1/4 pallet display packs which ship with 12 kits. Just set the quarter pallet container where you want it, remove the outer cover, set the enclosed header and sell!

Visit our web site at www.FlameEngineering.com for a special offering on the COMBO Kits!

**Model:
VT 3-30 C COMBO**
 20 lb. Cylinder Not Included.



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



VT 2 1/2-30 C & VT 2 1/2-30 SVC – 400,000 BTU

Simple, lightweight, easy to use and very effective:

The VT 2 1/2-30 C is a small step down from the VT 3-30 C 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 VT 3-30 C.

VT 2 1/2-30 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 VT 2 1/2-30 SVC.

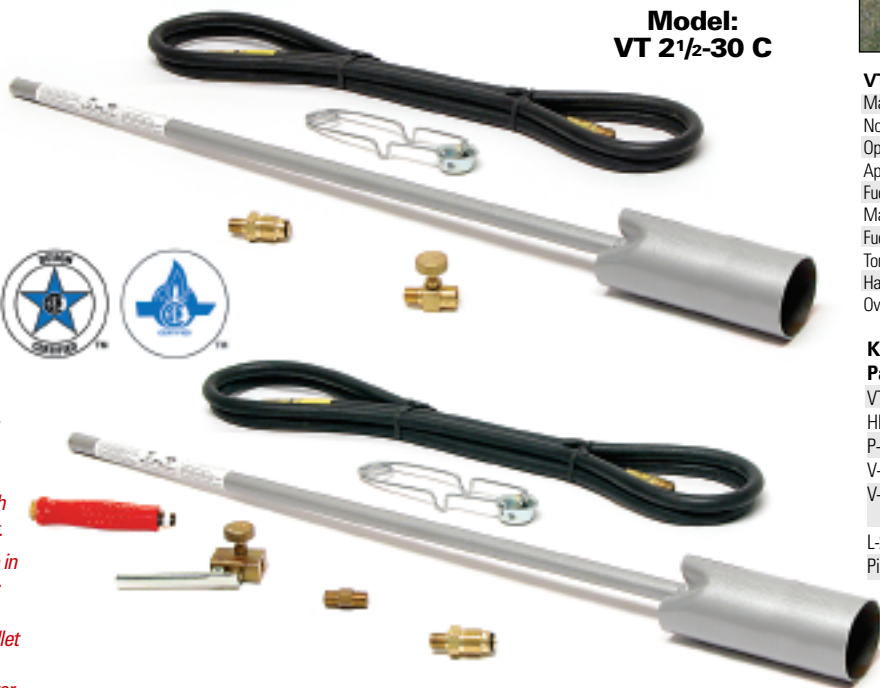
Torch kits are CSA Certified for the United States and Canada on tank pressure and do not require the use of a regulator.



ATTENTION DEALERS:

VT 2 1/2-30 C are packaged in a durable clamshell package with full color graphic insert.

They are also available in 1/4 pallet display packs which ship with 12 kits. Just set the quarter pallet container where you want it, remove the outer cover, set the enclosed header and sell!



**Model:
VT 2 1/2-30 C**



VT 2 1/2-30 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
VT 2 1/2-30	400,000 BTU Vapor Torch
HP-10 C	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-880 PH1	Squeeze Valve & Handle w/Adjustable Pilot (SVC Model)
L-2002	Spark Lighter
	Pipe Thread Sealant

**Model:
VT 2 1/2-30 SVC**

MAKE IT A COMBO!

Order either kit complete with a CD-100 Cylinder Dolly. Visit our web site for a special offer on all COMBO Kits. See page 44 for more information about the rugged CD-100 Cylinder Dolly.

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

1/4 PALLET DISPLAY ORDER INFORMATION		
Pallet SKU #	Qty Per Pallet	Pallet Wt
VT 2 1/2-30 CQP	12 (VT 2 1/2-30 C) Kits	60.0 lbs

Visit our web site at www.FlameEngineering.com for a special offering on the COMBO Kits!

**Model:
VT 2 1/2-30 SVC COMBO**

20 lb. Cylinder Not Included.



RED DRAGON TORCHES ARE



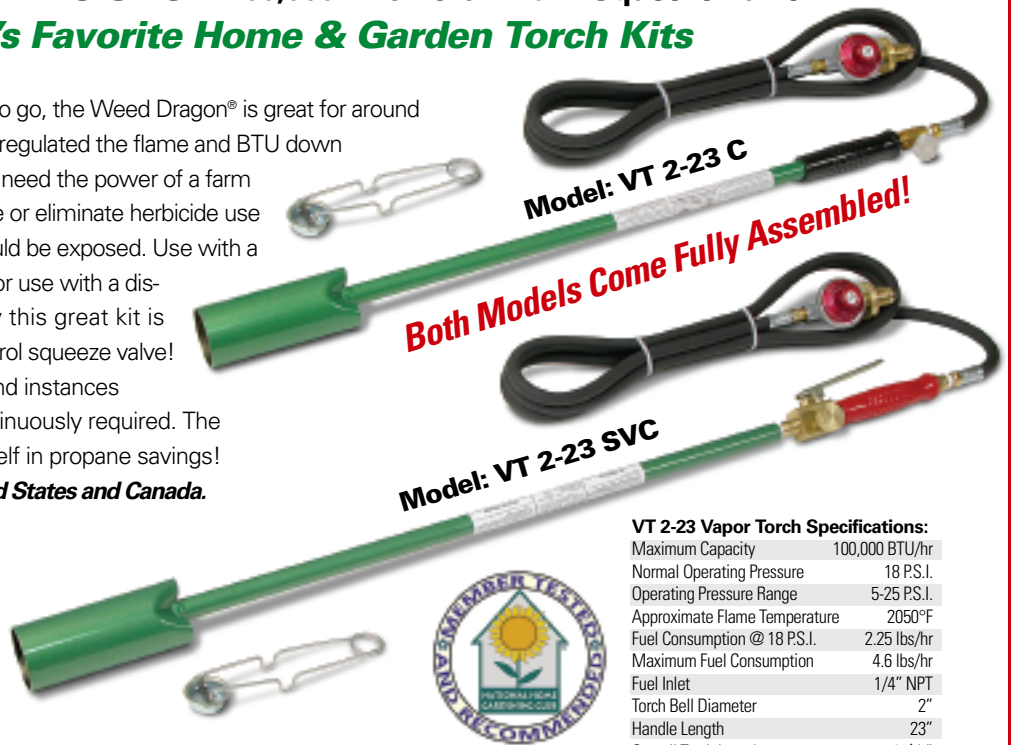


VT 2-23 C – 100,000 BTU Torch Kit

NEW! VT 2-23 SVC – 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 disposable 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.**



Model: VT 2-23 C
Both Models Come Fully Assembled!

Model: VT 2-23 SVC

VT 2-23 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
VT 2-23	Vapor Torch w/plastic grip
HP-10TMM	10' U.L. Listed LP Gas Hose
P-W 795	Hand-Tighten U.L. Listed Excess Flow P.O.L.
V-3055	Flame Adjusting Needle Valve (VT 2-23 C)
V-880 PH1	Squeeze Valve w/Adjustable Pilot & Handle (VT-23SVC)
R-700 C	U.L. Listed Regulator
L-2002	Spark Lighter

MAKE IT A COMBO!

Order either kit complete with a CD-100 Cylinder Dolly. Visit our web site for a special offer on all COMBO Kits. See page 44 for more information about the rugged CD-100 Cylinder Dolly.

ATTENTION DEALERS:

VT 2-23 C Weed Dragon® kits are packaged in a sturdy, full color graphic box.

They are also available in 1/4 pallet display packs which ship with 18 kits. Just set the quarter pallet container where you want it, remove the outer cover, set the enclosed header and go!

Model: VT 2-23 C COMBO

Visit our web site at www.FlameEngineering.com for a special offering on the COMBO Kits!



20 lb. Cylinder Not Included.



TORCH KIT ORDER INFORMATION

Order SKU #	Wt Each	Case Qty	Case Wt
VT 2-23 C	5.0 lbs	6	31.0 lbs
VT 2-23 SVC	5.5 lbs	1	5.5 lbs

CYLINDER DOLLY COMBO KIT ORDER INFORMATION

VT 2-23 C COMBO	19.5 lbs	1	19.5 lbs
VT 2-23 SVC COMBO	20.0 lbs	1	20.0 lbs

1/4 PALLET DISPLAY ORDER INFORMATION

Pallet SKU #	Qty Per Pallet	Pallet Wt
VT 2-23 CQP	18 (VT 2-23 C) Kits	82.0 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



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



NEW! VT 1-32 C Mini Dragon 18,000 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.

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



VT 1-32 C Mini Dragon Kits Include:

Part No.	Description
VT 1-32	Vapor Torch
V-3055	Flame Adjusting Needle Valve
F-144	1 Pound Cylinder Connector
L-2002	Spark Lighter

SL-32C Hose Kit



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

SL-32C Hose Kits Include:

Part No.	Description
HP-10T	10' U.L. Listed LP Gas Hose
P-3200 W	U.L. Listed Excess Flow P.O.L. Cylinder Adaptor

Order SKU #	Description	Wt Each	Case Qty
VT 1-32 C	Mini Dragon Torch Kit	2.5 lbs	10
SL-32 C	Propane Hook Up Kit	2.0 lbs	10



BP 223 C & BP 223 SVC 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.**



"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



**Model:
BP 223 SVC**

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



**Model:
BP 223 C**

Weed Dragon Back Pack Kits Include:

Part No.	Description
VT 2-23	Vapor Torch
HP-5 C	5' U.L. Listed LP Gas Hose w/hex nipple
P-W 795	Hand-Tighten U.L. Listed Excess Flow P.O.L.
V-3055	Flame Adjusting Needle Valve
V-880 PH1	Squeeze Valve & Handle w/Adjustable Pilot (BP 223 SVC)
BP 2512	Back Pack Frame
R-700 C	U.L. Listed Regulator
C-11	10 lb Fuel Cylinder (3 gal. capacity)
L 2002	Spark Lighter
	Cylinder Bracket

See VT 2-23 Torch Specifications on page 5.

Order SKU #	Wt Each	Case Qty
BP 223 C	22 lbs	1
BP 223 SVC	22.5 lbs	1

Each kit ships in one carton.



BP 2512 C & BP 2512 SVC – 400,000 BTU Back Pack Torch Kit

This kit includes the VT 2 1/2-30 Torch Kit (page 4) packaged with a durable back pack and 10 lb. cylinder. A great kit for forest service, fire protection (to set back-fires), 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:
BP 2512 C**



*“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*



**Model:
BP 2512 SVC**



**Both Models
Include a
10 Pound
Cylinder!**



Each kit ships in one carton.

BP 2512 C & BP 2512 SVC Kits Include:

Part No.	Description
VT 2 1/2-30	Vapor Torch
HP-5 C	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-880 PH1	Squeeze Valve & Handle w/Adjustable Pilot (BP 2512 SVC)
BP 2512	Back Pack Frame
C-11	10 lb. Fuel Cylinder (3 gal. capacity)
L 2002	Spark Lighter
	Cylinder Bracket
	Pipe Thread Sealant

See VT 2 1/2-30 Torch Specifications on Page 4.

Order SKU #	Wt Each	Case Qty
BP 2512 C	22 lbs	1
BP 2512 SVC	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**

RED DRAGON TORCHES ARE



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

VT 3-60 C – 500,000 BTU

VT 3-60 C Kit Includes:

Part No.	Description
VT 3-60	65" Vapor Torch
HP-25	25' U.L. Listed LP Gas Hose
P-3200W	U.L. Listed Excess Flow P.O.L. Fitting
V-334	Flame Adjusting Valve
567-RC	U.L. Listed Regulator
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 VT 3-60 C 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.

VT 3-60 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
VT 3-60 C	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

VT 2 1/2-24 CE Economy Torch Kit – 500,000 BTU

This kit has a great low price and really delivers at 500,000 BTU/hr. To save on cost, we use a shorter handle, thermoplastic rubber hose and a lower priced needle valve. 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.



VT 2 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
VT 2 1/2-24 CE	3.5	8	28.0 lbs

Distributors: Order 24 Kits For Best Price.

1/4 PALLET DISPLAY ORDER INFORMATION		
Order SKU #	Qty Per Pallet	Pallet Wt
VT 2 1/2-24 CEQP	24	93.0 lbs

VT 2 1/2-24 CE Kit Includes:

Part No.	Description
VT 2 1/2-24	Vapor Torch
HP-10 T	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	



ATTENTION DEALERS:
 VT 2 1/2-24 CE kits are packaged in a sturdy, full color graphic box.

They are also available in 1/4 pallet display packs which ship with 24 kits. Just set the quarter pallet container where you want it, remove the outer cover, set the enclosed header and go!

Add a Squeeze Valve and Handle!

The V-880 PH1 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 39.





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

HT 1 1/2-10 CR – 50,000 BTU

Our “Shop Torch”, the HT 1 1/2-10 CR 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.

HT 1 1/2-10 CR Kit Includes:

Part No.	Description
HT 1 1/2-10	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-700 C	U.L. Listed Regulator
TB-4	Torch Stand
L 2001	Spark Lighter w/5 flints
	Pipe Thread Sealant

HT 1 1/2-10 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
HT 1 1/2-10 CR	4.5 lbs	6	27.0 lbs



VT 1 1/2-12 C – 50,000 BTU

A few dollars less than the HT 1 1/2-10 CR, the VT 1 1/2-12 C 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).



VT 1 1/2-12 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”

VT 1 1/2-12 C Kit Includes:

Part No.	Description
VT 1 1/2-12	Vapor Torch
HP-10 C	10’ U.L. Listed LP Gas Hose
P-3200 W	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
VT 1 1/2-12 C	2.9 lbs	6	20.0 lbs

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.



RED DRAGON TORCHES ARE



Add a Squeeze Valve and Handle!

The V-880 PH1 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 39.



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 • Made In The U.S.A.**

Red Dragon Jet Torches operate on **vapor propane** at 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.

RED DRAGON TORCHES ARE



JET 8 C – 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. JET 8 C and JET 4 C come with a 25’ hose while the JET 410 C is packaged with a 10’ hose.

JET 8 C Kit Includes:

Part No.	Description
JET 8	84” Jet Torch w/Squeeze Valve
HP-25	25’ U.L. Listed LP Gas Hose
P-1685	U.L. Listed P.O.L.Fitting
567-RD	U.L. Listed Regulator
V314	Squeeze Valve
	Pipe Thread Sealant

JET 8 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
JET 8 C	84” Jet Torch w/25’ Hose	9.5 lbs	1	
JET 4 C	40 1/2” Jet Torch w/25’ hose	8.0 lbs	1	
JET 410 C	40 1/2” Jet Torch w/10’ hose	5.06 lbs	6	31.4

JET 8 C ships in two boxes.

JET 4 C & JET 410 C – 1,000,000 BTU



JET 4 C & JET 410 C Kits Include:

Part No.	Description
JET 4	40 1/2” Jet Torch w/Squeeze Valve
HP-25 (JET 4 C)	25’ U.L. Listed LP Gas Hose
or HP-10 (JET 410 C)	10’ U.L. Listed LP Gas Hose
P-1685	U.L. Listed P.O.L.Fitting
567-RD	U.L. Listed Regulator
V314	Squeeze Valve
	Pipe Thread Sealant

JET 4 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
JET 8	Overall Length 84”	4.0 lbs	1
JET 4	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.

• 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.

LT 2 1/2-30 C – 250,000 BTU

Use the Red Dragon LT 2 1/2-30 C 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.

LT 2 1/2-30 Liquid Torch Specifications:

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



LT 2 1/2-30 C Kit Includes:

Part No.	Description
LT 2 1/2-30	Liquid Torch
HP-10 C	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
LT 2 1/2-30 C	5.6 lbs	6	35.2 lbs

Add a Squeeze Valve and Handle!

The V-880 PH1 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 39.



LT 3-60 C – 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.

LT 3-60 C Kit Includes:

Part No.	Description
LT 3-60	61" Liquid Torch
HP-25	25' U.L. Listed LP Gas Hose
P-1685	U.L. Listed P.O.L.Fitting
V-334	Flame Adjusting Valve
567-RD	U.L. Listed Regulator
Pipe Thread Sealant	



LT 3-60 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
LT 3-60 C	10.9 lbs	1

Ships in two boxes.



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)		Natural Gas Usage (6.5 oz)	
@49,000 BTU (max)	.5 gal./hr.	@49,000 BTU (max)	49 cu. ft./hr.
@18,000 BTU (min)	.2 gal./hr.	@18,000 BTU (min)	18 cu. ft./hr.

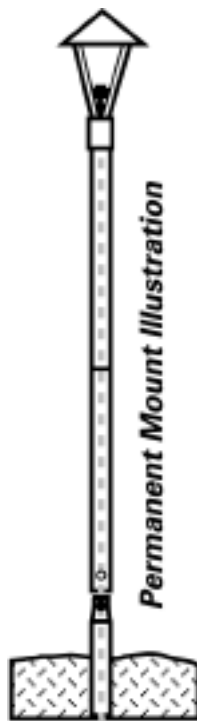
Patio Light Head Clearance Requirements
3 Feet Radius 6 Feet Height

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 oz



POINT OF PURCHASE PACKAGING!
Patio Lights ship in attractive boxes with full color graphics.

PATIO LIGHTS ARE FOR OUTDOOR USE ONLY.

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

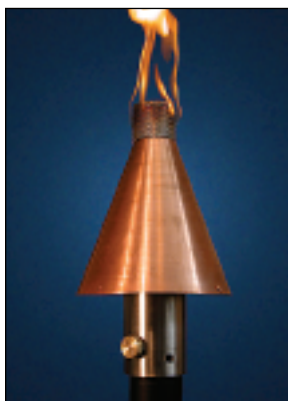


Curled Finger Style Head
Head Dimensions: 14" Tall x 6" Diameter

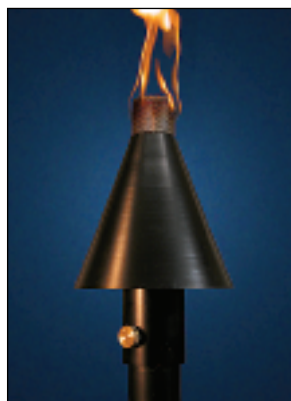


Fin Style Head
Head Dimensions: 16 1/4" Tall x 10" Diameter

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
PT 300-6 C	Gas Light	30.0 lbs	90 1/2"	1
PT 301-6 C	Curled Finger	30.0 lbs	86"	1
PT 302-6 C	Fin	30.0 lbs	89 1/2"	1
PT 311-6 C	Cone	30.0 lbs	85 1/2"	1
PT 411-6 C	Copper Cone	30.0 lbs	85 1/2"	1

PERMANENT MOUNT PATIO LIGHTS

(NOTE: Pressure Requirement At Base of Light is 11 wc for LP Gas and 6.5 oz for Natural Gas)

Order SKU #	Head Style	Wt Each	Approx. Installed Height	Std Qty
PT 300-6 PM	Gas Light	21.0 lbs	90 1/2"	1
PT 301-6 PM	Curled Finger	21.0 lbs	86"	1
PT 302-6 PM	Fin	21.0 lbs	89 1/2"	1
PT 311-6 PM	Cone	21.0 lbs	85 1/2"	1
PT 411-6 PM	Copper Cone	21.0 lbs	85 1/2"	1

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



- **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



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

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.

**EZ 203-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 EZ 203-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
EZ 203-B	Frame Mount EZ Hitch	65.2 lbs	1

Packaged One Per Carton

RED DRAGON HITCHES ARE



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**



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

Patented Design

**Dimensions:
 87" W x 60" L**

Unit will weigh approximately 1700 lbs with a full tank of fuel.

"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

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 LT 2 x 8 Liquid Propane torches that project intense, sweeping flames under a sturdy enclosed steel hood. The unit produces heat over 2000° F and maintains heat approximately 1400° F.

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 propane tank. In field testing, fuel consumption was approximately 25 gallons when flaming a 40' x 500' house moving at 1/2 mph. 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 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



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.

Order SKU #	Description	Wt Each
PL8750	Poultry House Flame Sanitizer	960.0 lbs

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

For More Information About RED DRAGON Flaming Equipment please call 800-255-2469 or visit our website at www.FlameEngineering.com

Vineyard & Orchard Flamers – 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 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.



RED DRAGON GP-Series Flamers Are Safe And Easy To Use.

All GP Complete Units and 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 GP-750 *Recommended for use on 40 acres or less.*

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



GP-750 Boom Arm Extension Span: 6'4" to 10'
Outside Wheel Width: 4'

LP-Tank Not Included. Flame Engineering does stock the 58 gallon tank required for this unit. Please order part #C-185 (see page 19) or consult your local propane dealer.

The GP-750 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. The sturdy trailer is designed to hold a 58 gallon tank and rides on wide flotation tires which

reduce soil compaction. 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.

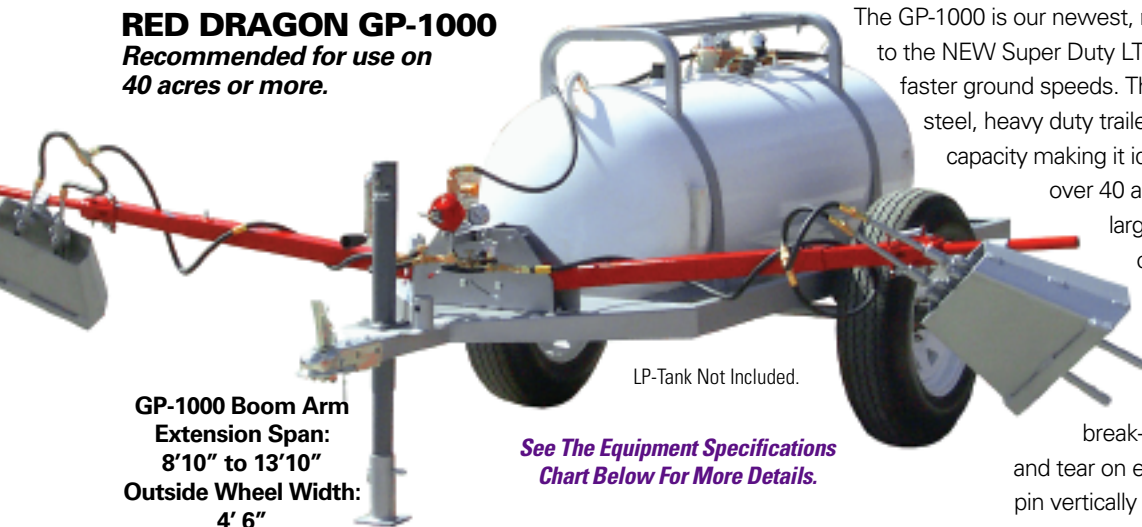
All GP-Series Equipment feature the operator control box, allowing electronic control and shutdown at the operator's fingertips.



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

RED DRAGON GP-1000

Recommended for use on 40 acres or more.



The GP-1000 is our newest, most popular berm flamer due to the NEW Super Duty LT 6 x 18 Torches which allow faster ground speeds. The GP-1000 features an all steel, heavy duty trailer with 120 or 125 gallon tank capacity making it ideal for vineyards and orchards over 40 acres. It is easily pulled behind a larger ATV or small tractor and comes equipped with a 2" ball hitch and a clevis 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.

LP-Tank Not Included.

See The Equipment Specifications Chart Below For More Details.

GP-1000 Boom Arm Extension Span:
8'10" to 13'10"
Outside Wheel Width:
4' 6"

The RED DRAGON GP-Series Berm Flaming Kits and Alley Attachments



The GPK 1054 Kit includes the same break-away boom arms and torches as featured on the GP-1000 Complete Unit. Kit also includes boom arm mast, electronic solenoid controls, control box, fuel strainer, fittings and hoses.



The GPK 454 Kit includes the same break-away boom arms and torches as featured on the GP-750 Complete Unit. Kit also includes boom arm mast, electronic solenoid controls, control box, fuel strainer, fittings and hoses.



The GP 020 Alley Attachment mounts on the back of GP-1000 Units and includes six LT 2x8 Torches allowing up to 9' of coverage. The GP 010 mounts on GP-750 Units and includes four LT 2x8 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
GP-1000	Berm Flaming Unit w/trailer	120-125 Gallon	(2) LT 6 x 18 Liquid Torches	3,000,000	4-6	5 m.p.h.	585 lbs.
GP-750	Berm Flaming Unit w/trailer	58 Gallon	(4) LT 2 x 8 Liquid Torches	1,150,000	3-5	3 m.p.h.	290 lbs.
GPK 1054	Berm Flaming Kit	N/A	(2) LT 6 x 18 Liquid Torches	3,000,000	4-6	5 m.p.h.	144 lbs.
GPK 454	Berm Flaming Kit	N/A	(4) LT 2 x 8 Liquid Torches	1,150,000	3-5	3 m.p.h.	79 lbs.
GP 020	Alley Flaming Attachment	N/A	(6) LT 2 x 8 Liquid Torches	1,150,000	4-6	3 m.p.h.	66 lbs.
GP 010	Alley Flaming Attachment	N/A	(4) LT 2 x 8 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-185 - 58 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 48 inches long and has a diameter of 21 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-185	180.0 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 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 Tank Shown In Photo.

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

LT 1 1/2 x 8 D



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

LT 2 x 8



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

LT 1 1/2 x 6



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



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 Vine Flamers – Chemical Free Potato Vine Desiccation

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



The patented liquid spray flaming process in action.



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 scorching the ground right before harvest will help control blight spores.

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

Fuel consumption averages 20 to 30 gallons 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

POTATO VINE FLAMING UNITS

Order SKU #	Description	Wt Each
2 PVF	2 Row Unit	802 lbs
4 PVF	4 Row Unit	1000 lbs
6 PVF	6 Row Unit	1250 lbs
8 PVF	8 Row Unit	1450 lbs



IMPORTANT NOTE:

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

- 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 of propane per acre, depending on the outside temperature when flaming. A second application can be applied, if necessary,

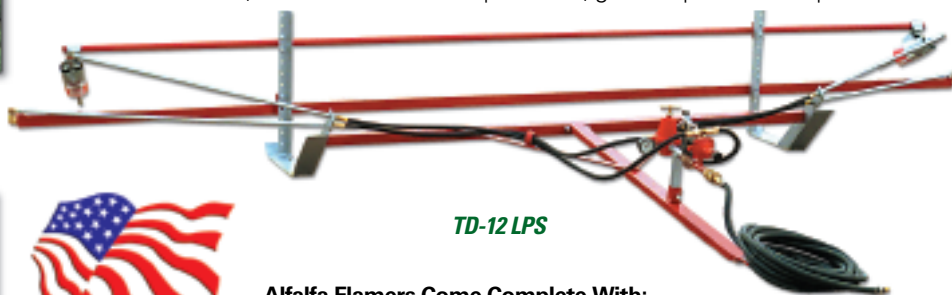
immediately following the first cutting. This will not hurt the alfalfa but may delay the second cutting by a few days.

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.

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



TD-12 LPS



Alfalfa Flamers Come Complete With:

- Complete Control Head Assembly with electronic solenoid valve (a manual control pull valve which can be shut off with a rope is available upon request)
- Cab Control Box with master shut-off switch (solenoid units)
- (2) LT 3-12 T Liquid Pilot Torches
- All necessary hoses cut to length 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
TD-12 LPS	Alfalfa Field Flamer	153.0 lbs

Electronic solenoid control is standard. Please specify when ordering, if you would rather have the manual pull valve option. Ships In Two Cartons

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 5 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



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



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

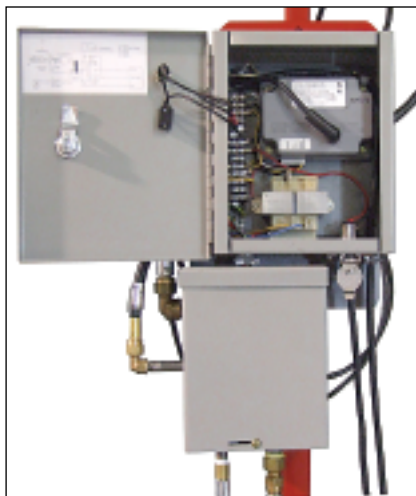
Ships as an over-size package.

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

- 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. Available with 3 fuel line sizes burning up to 48,300,000 BTU/hr. Comes with everything necessary except the vapor cylinder for pilot torch operation.

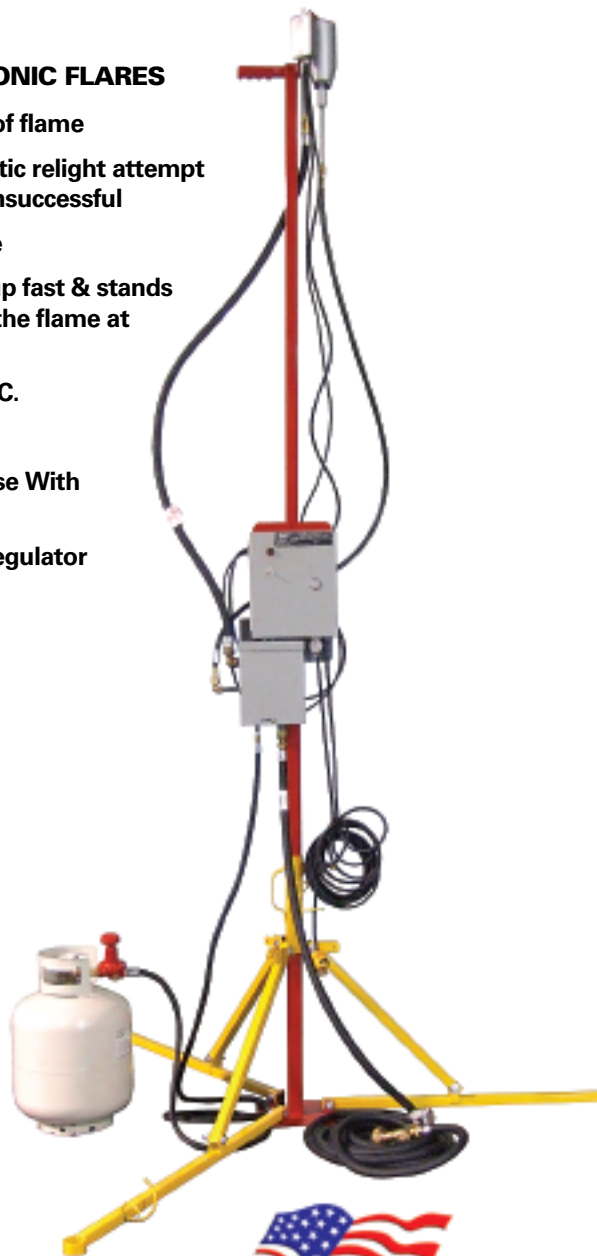
FEATURES OF ALL ELECTRONIC FLARES

- 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:

- 1/4" Flare**
6,900,000 BTU/hr Max
Flares up to 75 gal/hr
- 3/8" Flare**
38,000,000 BTU/hr Max
Flares up to 416 gal/hr
- 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-12 LPS	1/4" Flare	98 lbs	1
PF-14 LPS	3/8" Flare	100 lbs	1
PF-16 LPS	1/2" Flare	108 lbs	1

Ships as an over-size package.

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



Flame Engineering is pleased to offer Red Dragon Benches, the newest addition to our product line. These industrial strength, all steel work benches offer ergonomic features designed to accommodate any user. We offer standard models and numerous accessories to create the ideal work station for you. We also specialize in helping you design and manufacture a bench or work station to your specifications.

- **Height Adjustable** • **Industrial Construction** • **Standard & Custom**
- **Ergonomic** • **Perfect For Manufacturing, Automotive, Electronics, Racing and Aircraft Industries**



CEAW36
Manual Lift Bench

HEIGHT ADJUSTABLE BENCHES

Red Dragon Height Adjustable Benches feature heavy gauge, all steel construction. The work surface is 3' x 6' and can be adjusted from a table top height of 28" up to 42" providing the most productive and comfortable positions whether sitting or standing. The bench features a shelf under the table top which doubles as a foot rest, further adding to the comfort and convenience of the unit.

Height adjustable benches are available with choice of manual, or electric lift mechanisms. These sturdy benches come standard with forklift sleeves for easy mobility. The standard color is hammer tone gray.

Manual Lift System:

The Manual Lift System uses the combination of two screw jacks and a high leverage hand crank for quick and easy height adjustment. The manual bench is rated to lift and hold up to 1000 pounds, making it perfect for almost any job.

Electric Lift System:

The Electric Lift System features a 1/3 horse power, 110 volt motor and is rated to lift and hold up to 400 pounds. The control switch is conveniently mounted at table top height for quick and easy height adjustment.

SITTING POSITION & WHEEL CHAIR ACCESSIBLE HEIGHT ADJUSTABLE BENCH



The SP-34 Bench provides plenty of leg room and height adjustment at the push of a button.

The Red Dragon SP-34 Bench provides plenty of leg room allowing the user to work comfortably and maneuver easily. This bench, like all Red Dragon Benches, features heavy gauge, all steel construction that will provide years of service. The work surface is 3' x 4' and is adjustable from 28" up to 42."

The SP-34 Bench is available with an electric lift system or manual lift system. Both push button controls or manual crank are easily accessed by the operator. Standard color is hammer tone gray.



SP-34
(Shown In Custom Color Scheme)



FHW35
(Shown with custom power strip)



ARAW-36 "Assembly Required" Manual Crank Height Adjustable Bench
(Shown unassembled and assembled)

For more information about Red Dragon Benches call 800-255-2469 or visit our website at www.FlameEngineering.com

Order SKU #	Description	Wt Each
CEAW 36	3' x 6' Table Top, Manual Lift, Height Adjustable Bench	400.0 lbs
EEAW 36	3' x 6' Table Top, Electric Lift, Height Adjustable Bench	425.0 lbs
SP-34	Sitting Position - 3' x 4' Table Top, Electric Lift, Height Adjustable Bench	425.0 lbs
SP-34CRANK	Sitting Position - 3' x 4' Table Top, Manual Lift, Height Adjustable Bench	400 lbs.
FHW 35	3' x 5' Table Top, Fixed Height Bench	220.0 lbs
ARAW-36	Assembly Required - 3' x 6' Manual Crank, Height Adjustable Bench	400.0 lbs

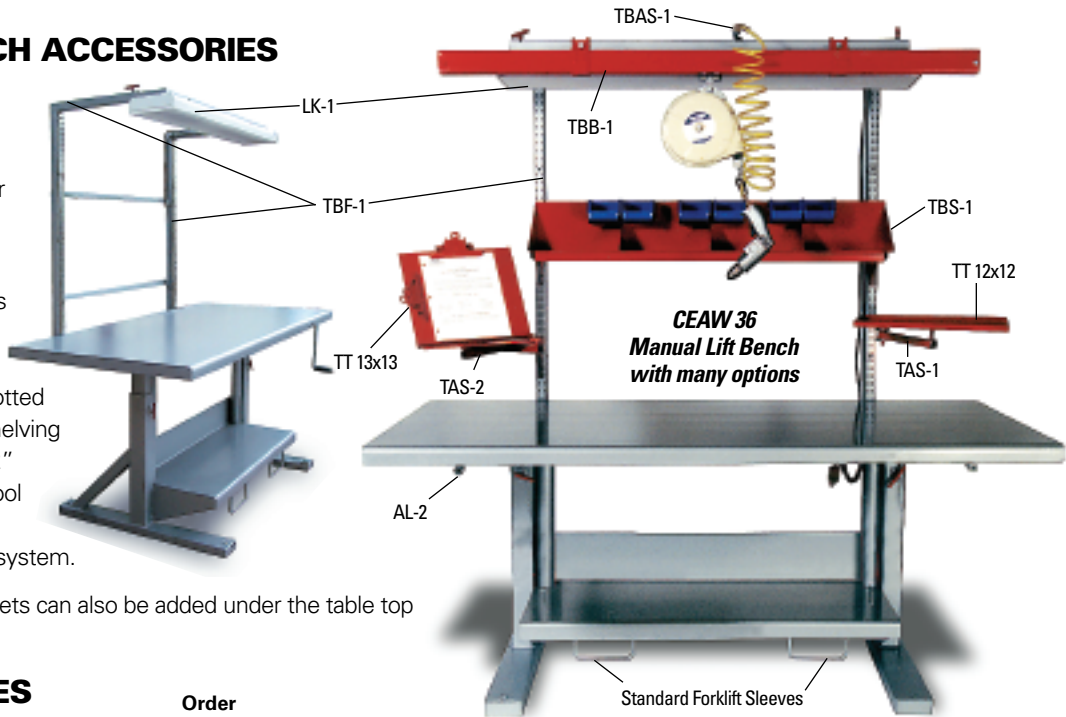


STANDARD BENCH ACCESSORIES

Red Dragon Benches are constructed with brackets which allow the optional frame with overhead tool bar to be easily added.

The 1 1/2" square tube frame can hold accessories such as shelving, electric outlets, air systems, tool trays, clipboards and more. Double slotted 16 gauge standards allow shelving and trays to be moved in 1/2" increments. The overhead tool bar allows for the addition of overhead lighting and an air system.

Air systems and electric outlets can also be added under the table top for added convenience.



CUSTOM BENCHES



Order SKU#	Description	Wt Each
ALUWS-2	Air Line for Under Bench Surface	10.0 lbs
EO	Electric Outlet – Can be mounted under bench surface or on tool bar frame	5.0 lbs
TBF-1	Tool Bar Frame w/double slotted 16 gauge standards and Overhead Tool Bar	45.0 lbs
LK-1	Overhead Light Kit – Mounts to Overhead Tool Bar	50.0 lbs
TBB-1	5' Tool Balance Bar Trolley Track – rated for 200 lbs. – Mounts to Overhead Tool Bar	20.0 lbs
TBAS-1	Tool Bar Air System – Mounts to Overhead Tool Bar or Tool Bar Frame	5.0 lbs
TBS-1	Bench Shelf – 45 1/2" long x 8" deep with a back height of 6" – Mounts to Tool Bar Frame	20.0 lbs
TBPB-2	Double Slotted Pin Bracket For Standards* – Use to mount Swing Tool Tray Arms to Tool Bar Frame	.5 lbs
TAS-1	Single Swing Tool Tray Arm	2.0 lbs
TAD-2	Double Swing Tool Tray Arm	4.0 lbs
TT 12x12	12" x 12" Tool Tray with 3/4" lip	4.5 lbs
TT 12x10	12" x 10" Tool Tray with 3/4" lip	3.0 lbs
TT 13x13	13" x 13" Clip Board Tray	3.0 lbs

*Custom applications may require a pin and clevis to be permanently affixed to the tool bar, for trays or tools that weigh more than 20 lbs.

Benches can be customized with features such as an electric tilt-top. We will also custom fabricate a bench or assembly area to your exact specifications, giving you the work area you need to fit a specific space, perform a certain task or lift heavy or awkward objects.



This custom work bench features a front drop lip, two rear feed bench shelves, tool bar frame-double standard, custom overhead air manifold, tool balance bar, and an overhead light.



This custom work bench features electric height adjustment, a split work surface with tilt on one half and a swinging arm control box.



This custom manual tilt and height adjustment table features an under work surface tray, adjustable overhead light, bench self, and under surface air outlets.

Complete Roofing Torch Kits – RED DRAGON . . . The Best Tools For The Trade

RT COMBO – 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 – RT COMBO LW. CSA Certified for the United States and Canada.

Order SKU #	Wt Each	Case Qty	Case Wt
RT COMBO	9.3 lbs	4	39.0 lbs
RT COMBO LW	9.0 lbs	4	37.8 lbs

RT COMBO Kit Includes:

Part No.	Description
RT 2 1/2-20	400,000 BTU Field Torch w/Male Quick Connect
or RT 2 1/2-20 LW	400,000 BTU Field Torch w/Male Quick Connect
RT 1 1/2-10	50,000 BTU Detail Torch w/Male Quick Connect
HN-5	Female Quick Connect
HP-25	25' U.L. Listed LP Gas Hose
567-RC	U.L. Listed Regulator
P-W 795	U.L. Listed Hand Tighten P.O.L. Fitting
G-23	Pressure Gauge
(2) TB-4	Welded Torch Stands
L-2001	Spark Lighter and Flints
	Pipe Thread Sealant



In recent tests, the RT 2 1/2-20 proved to be as hot or hotter than any competitive brand and capable of exceeding 400,000 BTU!

RT 2 1/2-20 C – 400,000 BTU



The work horse of all Red Dragon Roofing Torch Kits, the RT 2 1/2-20 C 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 – RT 2 1/2-20 LW C.**

CSA Certified for the United States and Canada.

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

RT 2 1/2-20 C Kit Includes:

Part No.	Description
RT 2 1/2-20	400,000 BTU Field Torch
or RT 2 1/2-20 LW	400,000 BTU Field Torch
HP-25	25' U.L. Listed LP Gas Hose
567-RC	U.L. Listed Regulator
P-W 795	U.L. Listed Hand Tighten P.O.L. Fitting
G-23	Pressure Gauge
TB-4	Welded Torch Stand
L-2001	Spark Lighter and Flints
	Pipe Thread Sealant



Roofers ask for Red Dragon Torches by name!

Non-contact Infrared Thermometers

Quickly, safely & accurately check for hot spots!



GT-2000

GT-1000

The GT-1000 and GT-2000 are perfect safety tools for all roofing crews. Quickly check the temperature of the roof where material has been applied. A great safety step at the end of the day. Both units are very accurate and simple to use. Just point, pull the trigger, and read the temperature on the display!

The GT-2000 features a larger temperature range plus the option of using a plug in K-Type thermocouple touch probe to take temperatures by physically touching the object or surface. Good for taking immersion temperatures of liquids.



Order SKU #	Wt Each	Case Qty
GT-1000	0.8 lbs	1
GT-2000	1.0 lbs	1

GT-1000 Features:

Temperature Range: -58°F to 750°F (-50°C to 400°C)
 Accuracy: Approximately 2% of reading or ±4°F / ±2°C
 Distance (D) to Spot Size (S) Ratio = 9:1
 Fixed Emissivity: Σ = 0.95
 Complete with two AAA Batteries.

GT-2000 Features:

Temperature Range: -76°F to 1400°F (-60°C to 760°C)
 Accuracy: Approximately 2% of reading or ±4°F / ±2°C
 Distance (D) to Spot Size (S) Ratio = 20:1
 Adjustable Emissivity: 0.3 to 0.99
 K-Type Temperature Range: -148°F to 752°F (-100°C to 400°C)
 K-Type Temperature Accuracy: ±0.75% of reading ±3°F (2°C)

GT-2000 Comes complete with:

2 AAA batteries
 K-Type Thermocouple Temperature Probe
 Carrying Case

Modified Bitumen Applicators & Roof Dryers

SPA 1000 Modified Bitumen Applicator

SPA 1000 INCLUDES:

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

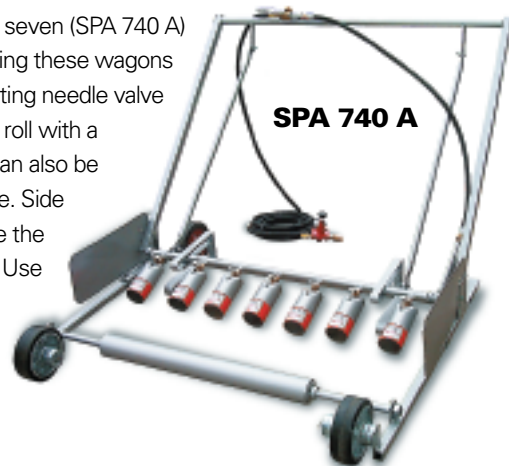
By customer request, we are now offering a two handle wagon design modernized by Red Dragon technology. Features include a stainless steel manifold and framework and 7 durable vapor torches. Each torch has a flame adjusting needle valve for total flame control and the manifold easily moves to and from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



Order SKU #	Wt Each	Case Qty
SPA-1000	54.0 lbs	1

SPA 540 A & SPA 740 A Modified Bitumen Applicators

The Red Dragon SPA 540 A & SPA 740 A feature five (SPA 540 A) and seven (SPA 740 A) 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.



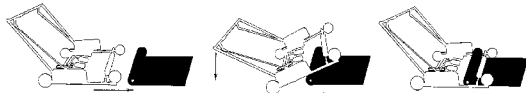
**Reduce Application Time
Up To 75%**

SPA 540 A & SPA 740 A Include:

Part No.	Description
VT 2 1/2-0 (5 or 7)	400,000 BTU Vapor Heads
V 3055 (5 or 7)	Adjusting Needle Valves
HP-25	25' U.L. Listed LP Gas Hose
567-RC	U.L. Listed Regulator
P-1685	U.L. Listed P.O.L. Fitting
V-880 P	Squeeze Valve
G-23	Pressure Gauge

Order SKU #	Wt Each	Std Qty
SPA 540 A	90.0 lbs	1
SPA 740 A	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.

RD 6005 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.

RD 6005 Blower Specifications

NEW 5 HP Honda GC Overhead Cam Premium 4-Cycle engine with recoil start. Powerful 200 MPH airstream, up to 1600 cubic feet per minute.

Heating System Specifications

VT 3-12 S 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
VT 3-12 S	Vapor Torch Head
HP-25	25' U.L. Listed LP Gas Hose
R-700 C	18 P.S.I. Regulator
P-3200 W	U.L. Listed P.O.L. Fitting
V-880 P	Squeeze Valve

Order SKU #	Wt Each	Std Qty
RD 6005	125.0 lbs	1

Ships in one package – Truck Only.



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



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

- **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



LT 2-12 MH-300 C



Requires Heavy Duty Ducting

LT 2-12 MH-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
LT 2-12 MH-300	12 Volt D.C. Preheater w/high limit heat sensor	16.0 lbs	1
LT 2-12 MH-300 C	12 Volt D.C. Preheater w/high limit heat sensor & hard carrying case	22.0 lbs	1
LT 2-12 MH-200	12 Volt D.C. Preheater	15.5 lbs	1
LT 2-12 MH-200 C	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



LT 2-12 MH-310 C



Requires Heavy Duty Ducting

LT 2-12 MH-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. A soft case is also available for easy transport.

115 Volt A.C. Red Dragon Engine Preheaters			
Order SKU #	Description	Wt Each	Std Qty
LT 2-12 MH-310	115 Volt A.C. Preheater w/high limit heat sensor	18.0 lbs	1
LT 2-12 MH-310 C	115 Volt A.C. Preheater w/high limit heat sensor & soft carrying case	20.0 lbs	1
LT 2-12 MH-210	115 Volt A.C. Preheater	17.5 lbs	1
LT 2-12 MH-210 C	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 LT 2-12 MH-300 or the LT 2-12 MH-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

Self Contained 12 Volt D.C. Preheater Features:

- Red Dragon LT 2-12 MH-300 Preheater
- or Red Dragon LT 2-12 MH-200 Preheater
- Cylinder Dolly w/Strap and Brackets
- 20 lb. LP Gas Cylinder
- 6' Heavy Duty Ducting
- Battery Box For 12 Volt Battery

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 115 Volt A.C. Preheaters

A complete preheater package with everything necessary to put your Red Dragon into operation* plus a sturdy dolly for easy transport. Perfect for wheeling the tank and preheater around the hangar, garage or machine shop. Comes equipped with either the LT 2-12 MH-310 or the LT 2-12 MH-210 Red Dragon Preheater (see 115 Volt A.C. Preheaters above for details). Also comes complete with a 20 lb. LP Gas Cylinder, and 6' of heavy duty ducting.

**Does not include fuel.*

Self Contained 115 Volt A.C. Preheater Features:

- Red Dragon LT 2-12 MH-310 Preheater
- or Red Dragon LT 2-12 MH-210 Preheater
- Cylinder Dolly w/Strap and Brackets
- 20 lb. LP Gas Cylinder
- 6' Heavy Duty Ducting

Self Contained 115 Volt A.C. Red Dragon Engine Preheaters			
Order SKU #	Description	Wt Each	Std Qty
H-175-310	Self Contained 115 Volt A.C. Preheater w/high limit heat sensor	58.4 lbs	1
H-175-210	Self Contained 115 Volt A.C. Preheater	57.6 lbs	1
H-125	Dolly and Brackets Only	18.5 lbs	1

Engine Preheater Parts & Accessories



Ref. Letter	Description	Order SKU #	Wt Each	Case Qty
A	Inlet ring & fan guard	M 3001	.25 lbs	1
B	Fan Housing, Base & Transition Support	M 3002	2.0 lbs	1
C	Blower wheel	M 3003	0.75 lbs	1
+ D	Motor mounting plate/12 volt motor	M 3004	0.3 lbs	1
* E	Motor mounting plate/115 volt motor	M 3005	0.3 lbs	1
+ F	Motor, 12 volt D.C. 4-6 amp draw	M 3006	2.8 lbs	1
* G	Motor, 115 volt A.C. 1-2 amp draw	M 3007	5.5 lbs	1
+ H	Switch	M 3008	0.1 lbs	1
+ I	Power cord w/alligator clips & covers	M 3009	0.6 lbs	1
J	Control Assembly, complete	M 3010	1.5 lbs	1
J1	Pressure Gauge	G-23	0.2 lbs	1
J2	Safety Control	H 19 H	0.6 lbs	1
J3	Regulator (0-25 PSI)	567 RB	0.5 lbs	1
K	Thermocouple	M 3012	0.25 lbs	1
L	Fuel supply hose w/ POL	M 3013	1.0 lbs	1
M	Fuel pipe assembly	M 3014	0.3 lbs	1
N	Torch Assembly	LT 2-12 H	1.4 lbs	1
O	Transition	M 3016	0.75 lbs	1
P	Carrying handle	M 3018	0.1 lbs	1
Q	Ignitor w/Lead Wire & Electrode	Model 21 P	0.3 lbs	1
R	Adjustable elbow	M 3021	0.3 lbs	1
• S	Thermocouple junction block	M 3025	0.1 lbs	1
• T	170° high limit control w/leads	M 3026	0.1 lbs	1
• U	High limit control shield	M 3027	0.1 lbs	1
•	High Limit Control Package (Includes M 3025, M 3026 and M 3027)	M 3024	0.4 lbs	1
V	Adjustable Ducting Clamp	M 3030	0.25 lbs	1

+ Used on all 12 volt D.C. models
LT 2-12 MH-200
LT 2-12 MH-300
H-175-300

* Used on all 115 volt A.C. models
LT 2-12 MH-210
LT 2-12 MH-310

• Used on
LT 2-12 MH-300
LT 2-12 MH-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
FT 4-12 HD	12' Heavy Duty Ducting	4.8 lbs	1
FT 4-6 HD	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.



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-73160	Disposable Cylinder Adaptor without valve	0.35 lbs	10
A-8412	Electrical Plug	0.1 lbs	10

cigarette lighter receptacle. Also use for charging the battery.

*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.**

Built To Last!

CH-220-QC Heaters Include:

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



CH-250-QC Shown Here
Dimensions: 16 1/2"H x 22 1/2"W x 26"D

CH-220-QC – 200,000 BTU

Connect the CH-220-QC to a 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
CH-220-QC	Heater w/10' Hose & Quick Connect	49.3 lbs	12
CH-225-QC	Heater w/25' Hose & Quick Connect	51.7 lbs	12
CH-250-QC	Heater w/50' Hose & Quick Connect	54.1 lbs	12

Packed One Per Carton – Ships 12 Per Pallet

Please call for quote on orders exceeding 72 units.

How Much Heat Do You Need?

CUBIC FEET OF SPACE TO BE HEATED**	TEMPERATURE RISE REQUIRED (°F)*				BTU CAPACITY REQUIRED
	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	

* 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

LT 3 x 3 Liquid Torch – 2,500,000 BTU



This high capacity torch can be mounted on a boom or tractor scoop for burning weeds in fence rows or irrigation ditches. Also great for heating sand, bending pipe, drying grain, etc. This torch has a 3/4" pipe thread mount.

LT 3 x 3 Specifications:

Maximum Capacity	2,500,000 BTU/hr
Normal Operating Pressure	50 P.S.I.
Operating Pressure Range	15-100 P.S.I.
Approximate Flame Temperature	2050°F
Maximum Fuel Consumption	115.8 lbs/hr
Fuel Inlet	1/4" NPT
Torch Bell Diameter	7"
Overall Length	21.5"

Order SKU #	Wt Each	Case Qty
LT 3 x 3	7.1 lbs	1

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.

LT 2 x 8 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 GP-750 berm flamer and alley attachment (see pages 18 & 19). The LT 2 x 8 works well in orchards, vineyards, nutgroves, hops fields and along fence rows.

LT 2 x 8 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
LT 2 x 8	4.9 lbs	1

LT 1 1/2 x 8 D 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.

LT 1 1/2 x 8 D 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
LT 1 1/2 x 8 D	4.0 lbs	1

LT 1 1/2 x 6 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.

LT 1 1/2 x 6 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
LT 1 1/2 x 6	4.0 lbs	1

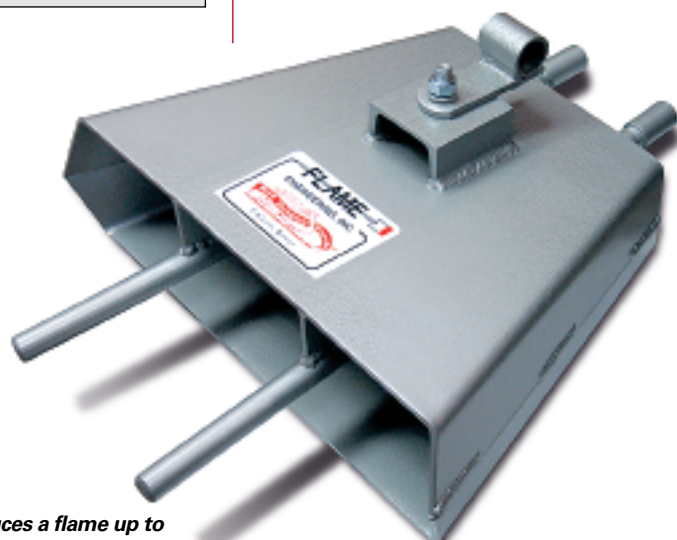
LT 6 x 18 Liquid Torch – 3,000,000 BTU

This is the standard torch on our new GP-1000 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.

LT 6 x 18 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
LT 6 x 18	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, LT 3-60 and LT 2 1/2-30 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



LT 3-60

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 LT 3-60 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"



LT 3-12

The LT 3-12 torch only is great for heaters, road oil distributors, furnaces, roofing tar vats, etc. May be disassembled for cleaning. Fits mounting bracket M-6, available at the bottom of this page.



LT 3-12 T

The LT 3-12 T has a 1 inch diameter tool bar mounting bracket and is the replacement pilot torch for the TD-12 LPS Alfalfa Field Flamer on page 23.

Bracket Fits 1" Outside Diameter Tool Bars.

Order SKU #	Description	Wt Each	Case Qty
LT 3-60	49" Handle – Overall Length 61"	6.3 lbs	1
LT 3-12	Torch Head – Overall Length 14 1/4"	2.0 lbs	1
LT 3-12 T	Torch Head w/bracket – Overall Length 14 1/2"	2.6 lbs	1

RED DRAGON TORCHES ARE

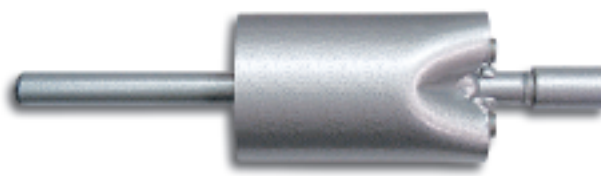


LT 3-12 HD Liquid Torch – 1,000,000 BTU

LT 3-12 HD 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"

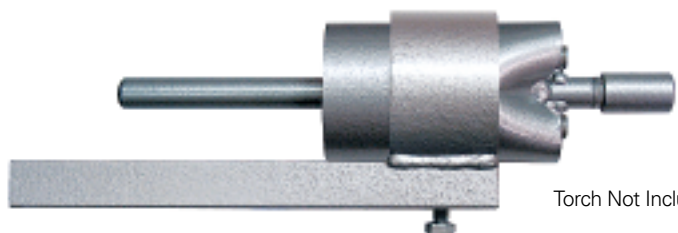
A heavy-duty, high capacity torch designed for road oil distributors, roofing tar vats, mounting into a flue and many other uses. Torch is easily dis-assembled for cleaning. Fits mounting bracket M 3-6 shown below.



LT 3-12 HD

Order SKU #	Wt Each	Case Qty
LT 3-12 HD	2.4 lbs	1

M 3-6 Torch Mounting Bracket – For all 3" diameter Red Dragon Torch Heads



Torch Not Included.

The M 3-6 Mounting Bracket is designed for mounting 3" diameter Red Dragon Torches into kettles or 6" to 8" firebrick flues. A set screw holds the torch firmly in place yet allows the torch to be easily removed for cleaning or maintenance. The M 3-6 also allows the torch position to be adjusted. Bracket may be welded or bolted into place.

Order SKU #	Wt Each	Case Qty
M 3-6	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 LT 2 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.

LT 2 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"



LT 2 1/2-12

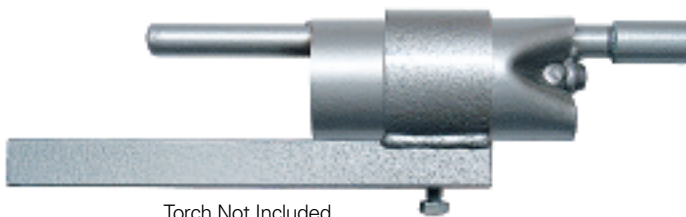
The LT 2 1/2-12 is the torch head only version and is used for heating road oil or tar pots, firebrick flues and road repair. Use with mounting bracket M 2 1/2-5 shown below.

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

RED DRAGON TORCHES ARE



**M 2 1/2-5 Torch Mounting Bracket
For all 2 1/2" diameter Red Dragon Torch Heads**



Torch Not Included.

The M 2 1/2-5 Mounting Bracket is designed for mounting 2 1/2" diameter Red Dragon Torches into kettles or 4" to 6" firebrick flues. A set screw holds the torch firmly in place yet allows the torch to be easily removed for cleaning or maintenance. The M 2 1/2-5 also allows the torch position to be adjusted. Bracket may be welded or bolted into place. Overall length - 10"

Order SKU #	Wt Each	Case Qty
M 2 1/2-5	2.3 lbs	1

LT 2-12 Liquid Torch – 49,000 BTU



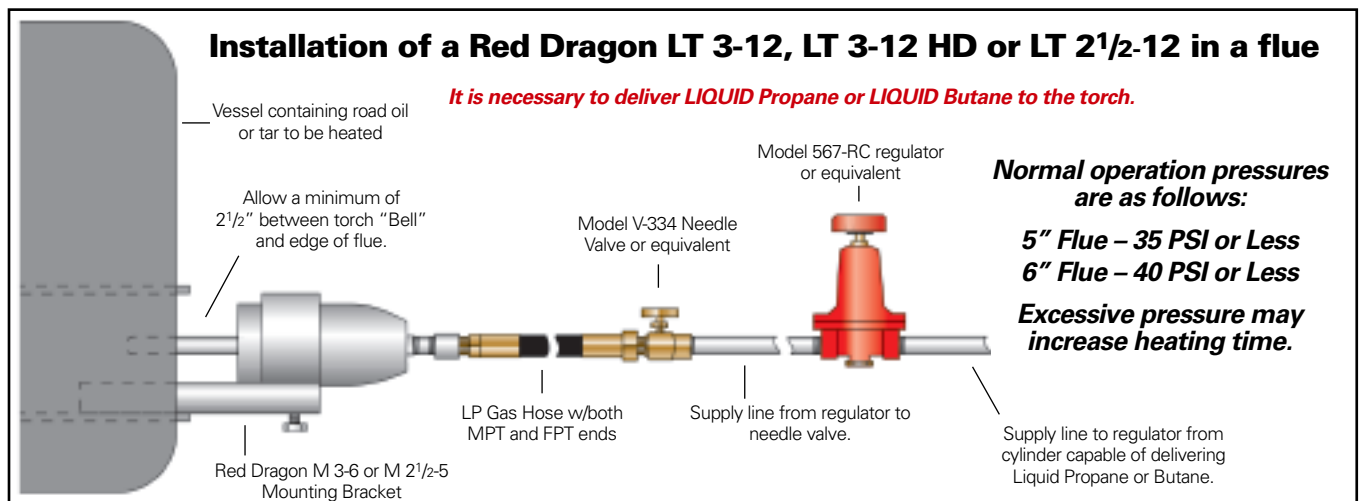
The LT 2-12 is a compact torch for use where a high capacity liquid torch is required but space is limited. Uses include heating road oils, de-icing, heating kilns, and other applications.

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"

Order SKU #	Wt Each	Case Qty
LT 2-12	1.5 lbs	1

Installation of a Red Dragon LT 3-12, LT 3-12 HD or LT 2 1/2-12 in a flue



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.

JET 8 – 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.

JET 8 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"

JET 4 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"

Order SKU #	Description	Wt Each	Ship Wt.	Case Qty
JET 8	Overall Length 84"	4.0 lbs	9.25 lbs	1
JET 4	Overall Length 40 1/2"	2.5 lbs	same	1

JET 4 – 1,000,000 BTU See Page 10 for Complete Kit

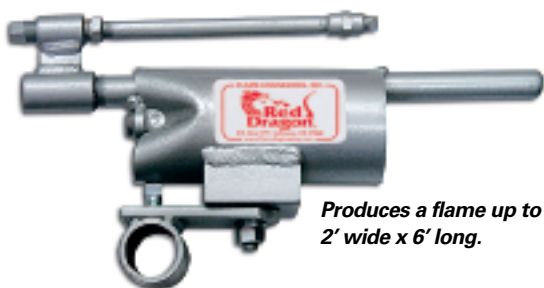


Liquid Spray Torches – For Dense, Heavy Brush, Potato Vine Desiccation and Hard-To-Reach Areas

- 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.**

LT 2 1/2-12 LPS



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 LT 2 1/2-12 LPS has a single spray nozzle and can be attached to a boom for flaming fence lines or a manifold for potato vine flaming. LT 2 1/2-12 LPS is the standard torch on all Red Dragon Potato Vine Flamers (see page 22).

The LT 3-12 LPS 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.

LT 2 1/2-12 LPS 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"

LT 3-12 LPS 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



LT 3-12 LPS
Produces a flame up to 6' wide x 12' long.

Order SKU #	Description	Wt Each	Case Qty
LT 2 1/2-12 LPS	Torch w/single spray nozzle	2.9 lbs	1
LT 3-12 LPS	Torch w/twin spray nozzles	4.8 lbs	1

Vapor Torches – The Best Torches For Weed Burning, Heating, Thawing & More

3 Inch Diameter Vapor Torches – 500,000 BTU



VT 3-0

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.



VT 3-6



VT 3-12



VT 3-30 See Page 3 for Complete Kit



VT 3-60 See Page 8 for Complete Kit

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
VT 3-0	Torch Head Only – Overall Length 6"	1.2 lbs	6
VT 3-6	6" Handle – Overall Length 11"	1.4 lbs	6
VT 3-12	11 ³ / ₄ " Handle – Overall Length 16 ¹ / ₂ "	1.4 lbs	6
VT 3-30	28" Handle – Overall Length 33 ¹ / ₂ "	1.9 lbs	10
VT 3-60	60" Handle – Overall Length 65"	3.4 lbs	1

VT 3-12 S 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
VT 3-12 S	Torch Head Only - Overall Length 8"	1.5 lbs	6

VT 3-12 S 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"

RED DRAGON TORCHES ARE



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



VT 2 1/2-0

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.



VT 2 1/2-6



VT 2 1/2-12



VT 2 1/2-30 See Page 4 for Complete Kit

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



VT 2-0

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.



VT 2-6



VT 2-12

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

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"

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 HT 1 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.



VT 1 1/2-0



VT 1 1/2-6



VT 1 1/2-12

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"

HT 1 1/2-10

See Page 9 for Complete Kit

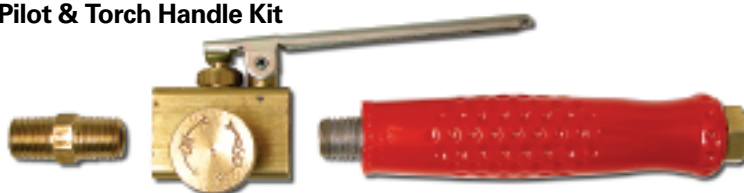


Order SKU #	Description	Wt Each	Case Qty
VT 1 1/2-0	Torch Head Only – Overall Length 4 1/2"	0.5 lbs	6
VT 1 1/2-6	6" Handle – Overall Length 10"	0.6 lbs	6
VT 1 1/2-12	11 ³ / ₄ " Handle – Overall Length 15"	0.7 lbs	6
HT 1 1/2-10	10 1/2" Bent Handle – Overall Length 15"	1.1 lbs	6

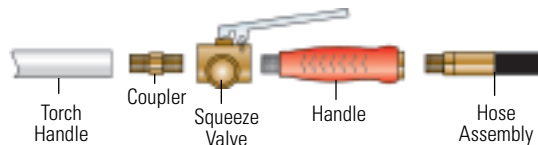
Squeeze Valves, Needle Valves, Ball Valve and Handle

V-880 PH-1 – Squeeze Valve with Adjustable Pilot & Torch Handle Kit

The Red Dragon V-880 PH-1 allows you to add a squeeze valve and handle to any Red Dragon Vapor Torch 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.

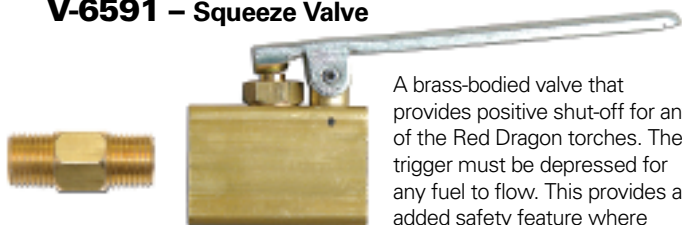


Use Pipe Thread Compound or Teflon® Tape at all connections and follow all instructions included with your torch kit.



Order SKU #	Wt Each	Case Qty
V-880 PH-1	0.5 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.

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

V-314 – Squeeze Valve



A replacement squeeze valve for Red Dragon Jet Torches.

Order SKU #	Wt Each	Case Qty
V-314	0.5 lbs	1

V-880 P – Valve Repair Kits & Lever Assembly



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

Order SKU #	Description	Wt Each	Case Qty
TJP-123	Pilot Valve Repair Kit	0.1 lbs	1
TC-42-7	Main Valve Repair Kit	0.1 lbs	1
TSTE 131-2	Lever Assembly	0.1 lbs	1

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-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

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

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

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

567 RC & 567 RD

1/4" Medium Capacity – Liquid or Vapor

2.5 Million BTU/hr Capacity

U.L. Listed



567 RC: 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 567 RC 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.

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

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

R-700 C & R-709 C

1/4" High Pressure – Liquid or Vapor



U.L. Listed

R-700 C: This regulator is ideal for use with our larger capacity construction heaters, the Weed Dragon® and more. The R-700 C 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-709 C: The same characteristics and specifications as the R-700 C except the delivery pressure is 9 PSI and delivers around 250,000 BTU.

Order SKU #	Description	Wt Each	Case Qty
R-700 C	Regulator for 18 PSI Delivery	0.5 lbs	10
R-709 C	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, the AG-85 construction heater, 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-3200 W 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 567 RC, 567 RD 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-1584 H 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-1584 H – 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 flamers, row crop flamers, asphalt batch mixing plants, ditch flamers, and other large industrial and commercial loads. Straight-through flow provides high capacities and maximum resistance to freeze up. Inlet and outlet connection are 1/2" female pipe thread. Delivery pressure is from 45 to 125 PSI. Plugged gauge port.

Order SKU #	Wt Each	Case Qty
R-1584 H	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 567 RC, 567 RD, R-1584 H 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". A 1/4" female brass coupling is included with each hose.

*HP-10 C comes with one female end and one male end.

Order SKU #	Description	Wt Each	Case Qty
HP-5	5' Hose w/1/4" MPT on both ends	1.0 lbs	10
HP-5C	5' Hose w/1/4" MPT & 1/4" FPT	1.0 lbs	10
HP-10	10' Hose w/1/4" MPT on both ends	1.5 lbs	10
HP-10 C	10' Hose w/1/4" MPT & 1/4" FPT	1.5 lbs	10
HP-25	25' Hose w/1/4" MPT on both ends	4.0 lbs	6
HP-50	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, gas grill, 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
SL-1C*	10' Hose 3/8" Flare swivel end attaches to most grills and other 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

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-1C 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

U.L. Listed



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

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

P-3200 W – Excess Flow P.O.L.

U.L. Listed

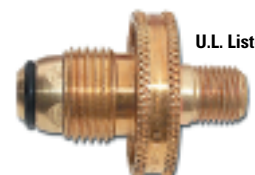


A soft-nose P.O.L. connector incorporating an excess flow safety device and hex nut for positive tightening. The outlet on this fitting is 1/4" male pipe thread. Flow rate is 1.8 gallons per minute.

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

P-W 795 – 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-W 795	0.3 lbs	10

Replacement O Rings for P.O.L. Fittings

Replacement O ring seals for P-1685, P-3200 W and P-W 795 P.O.L. fittings shown above.

Order SKU #	Case Wt	Case Qty
100-303-080	0.2 lbs	100



TYPE1-GR – Cylinder Connector

This TYPE I ACME appliance fitting (1-5/16 ACME X 1/4 MPT) is a wrenchless, user friendly, right hand connector. Features a thermally sensitive sleeve and excess flow device. 200,000 BTU/HR max output.



U.L. Listed

Order SKU #	Wt Each	Case Qty
TYPE1-GR	0.3 lbs	10

TYPE1-BL – Cylinder Connector

This TYPE 1 ACME appliance fitting is a wrenchless, user friendly, right hand connector. Features a thermally sensitive sleeve and excess flow device. Max output is 70,000 BTU/hr. Use to connect LP-Cylinders to regulators, hoses and other fittings. **Perfect for use with gas grills and other low pressure devices.**



U.L. Listed

Order SKU #	Wt Each	Case Qty
TYPE1-BL	0.3 lbs	10

Electric Solenoid Control Valves, Safety Valves & Thermocouples

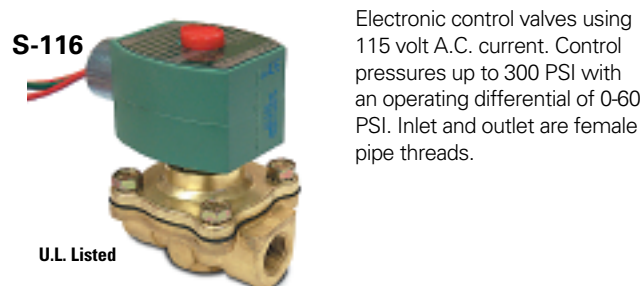
12 Volt D.C. Solenoid Valves



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

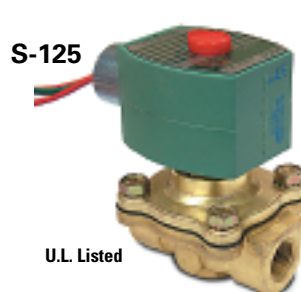
115 Volt A.C. Solenoid Valves



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
S-118	3/4" FPT inlet & outlet	2.3 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.

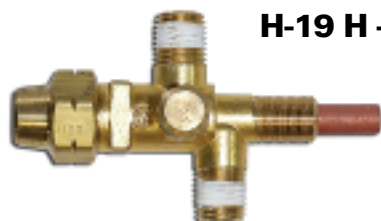
Order SKU #	Description	Wt Each	Case Qty
S-124	1/4" FPT inlet & outlet	1.6 lbs	1
S-125	3/8" FPT inlet & outlet	2.3 lbs	1
S-126	1/2" FPT inlet & outlet	2.1 lbs	1
S-127	3/4" FPT inlet & outlet	2.3 lbs	1

Single Pull, Quick Acting Control Valves



A quick acting control valve having many applications including the operating of Red Dragon torches, flammers, agricultural, and orchard sprayers. This valve provides positive control of either vapor or liquid butane or propane from a remote position, where flow of oil, air, gas, and water is needed. Recommended for pressures up to 350 PSI for maximum efficiency and ease of operation. Inlet and outlet are female pipe thread.

Order SKU #	Description	Wt Each	Case Qty
V-811 M	1/2" FPT inlet & outlet	1.6 lbs	1
V-812 M	3/4" FPT inlet & outlet	2.3 lbs	1
V-813 M	1" FPT inlet & outlet	2.1 lbs	1



H-19 H – Safety Valve

A brass-bodied, high pressure safety valve designed for commercial and industrial applications for gas pressures up to 25 PSI. This valve stops gas flow to the pilot and main burner in the event of flame failure.

Applications include use on industrial heaters, crop dryers, and heating torches. Can be used with all Red Dragon Torches and is the safety valve/thermocouple for Red Dragon CH-220 Heaters and Red Dragon Engine Preheaters. Inlet and outlet are 1/4" male pipe thread.



H-19 P – Safety Valve w/Pilot Outlet

A brass-bodied, high pressure safety valve designed for commercial and industrial applications for gas pressures up to 25 PSI. This valve stops gas flow to the pilot and main burner in the event of flame failure. Pilot must be lit to activate thermocouple before main burner will light. Replacement for Red Dragon AG-Series Construction Heaters. Inlet and outlet are 1/4" male pipe thread. Pilot outlet is 1/8" male pipe thread.

Applications include use on industrial heaters, crop dryers, and heating torches. Can be used with all Red Dragon Torches and is the safety valve/thermocouple for Red Dragon CH-220 Heaters and Red Dragon Engine Preheaters. Inlet and outlet are 1/4" male pipe thread. Pilot outlet is 1/8" male pipe thread.

Thermocouple



Order SKU #	Description	Wt Each	Case Qty
H-19 H	Safety Valve	0.5 lbs	1
H-19 P	Safety Valve w/Pilot Outlet	0.6 lbs	1
M-3012	12" Thermocouple	0.2 lbs	1
M-3031	24" Thermocouple	0.3 lbs	1
M-3032	36" Thermocouple	0.3 lbs	1
M-3036	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

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
Model 21	Piezo Ignitor Only	0.2 lbs	1
Model 21A	Piezo ignitor & lead wire for AG-Series Heaters	0.3 lbs	1
Model 21C	Piezo ignitor, lead wire, spark plug & spark plug connector for CH-220 Heaters	0.3 lbs	1
Model 21H	Piezo ignitor, electrode & wire for HSH 25 Torch	0.3 lbs	1
Model 21P	Piezo ignitor, electrode & wire for Preheaters	0.3 lbs	1

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

L-2001– Spark Lighter w/Flints



The convenient and safe way to light Red Dragon Torches, welders and cutting torches. The L 2001 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
L-2001	Spark Lighter w/5 flints	0.2 lbs	10
L-2012	Pack of 5 flints	0.03 lbs	24

Red Dragon Cylinder Dollies & LP Gas Cylinders



CD-100 Cylinder Dolly

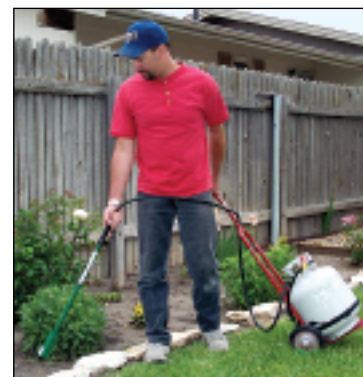
This cylinder dolly makes the perfect companion for any Red Dragon torch kit and is ideally suited for LP Gas cylinders up to 40 pounds (10 gallons). The single handle allows the operator to use a torch and move the dolly simultaneously. When the torch is not in operation, it can be stored on the convenient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



CD-505

**RED DRAGON
CYLINDERS & 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-185

58 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 48 inches long and has a diameter of 21 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-185	58 Gallon Propane Tank	180.0 lbs	1



C-6



C-11

C-185



**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 foot ring. 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.

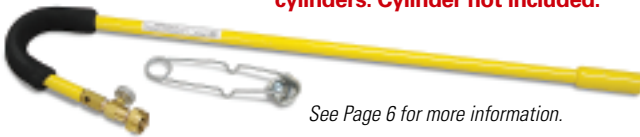


Flame Engineering is pleased to be celebrating 50 years in business. In recognition of our golden anniversary, the Original Red Dragon VT 3-30 C Torch Kits are now shipping in red! They look so sharp it may become permanent!

See Page 3 for more information.



Flame Engineering is pleased to introduce the all new 18,000 BTU Mini Dragon Torch Kit. It's pinpoint flame is perfect for spot weeding. Also great for other small jobs such as lighting charcoal, chimineas, campfires & more. For use with 1 pound propane cylinders. Cylinder not included.



See Page 6 for more information.

NEW MANUAL FLARE!

Flame Engineering is pleased to present our new PFM-16 LPS Manual Flare Tower. It is compact, portable and makes evacuating remoted propane cylinders quick, safe & easy!

See Page 24 for more information.



NEW DVD AVAILABLE!



Now you can see Red Dragon Row Crop Flammers, Alfalfa Flammers, Berm Flammers, and Poultry Sanitizers in action on our new informational DVD! Also includes a short segment featuring the Weed Dragon®.

Full Color Literature Available



Full Color Literature Available:

- Full line Roofing Catalog • Red Dragon Torch Flyer
- Row Crop Flaming Brochure • Alfalfa Flaming Brochure
- Vineyard Flaming Brochure • Poultry House Sanitizer Sales Sheet • Bench Brochure • Construction Heater Flyer
- Leisure Products Flyer • Engine Preheater Flyer
- Roofing Equipment Flyer

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.



Instruction Manuals Available

Instruction Manuals for Red Dragon Products are available from our web-site at www.flameengineering.com/PDF_Downloads.htm

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!**
 - **50 YEARS IN BUSINESS & MADE IN THE USA!**



Flame Engineering is pleased to present our most popular vapor torch kits in self contained 1/4 pallet display containers! Just set the container where you want it, remove the outer cover, set the enclosed header and go!

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.



ATTENTION DEALERS

We are pleased to offer many of our most popular fittings and accessories in attractive, full color packaging. They planogram great with Red Dragon Torch Kits and are sure to catch the consumer's eye.

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 fifteen percent 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.

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.



Custom Projects – Eternal & Decorative Flames, Agricultural Flamers, Fabrication & More!



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 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**





We Stand Behind Our Products 100 Percent!

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



P.O. Box 577 • W. Highway 4 • LaCrosse, KS 67548-0577
Toll Free: 800-255-2469 • 785-222-2873 • Fax: 785-222-3619
www.FlameEngineering.com