

**In
Business
Since
1959**



- COMPLETE ROOFING TORCH KITS**
- SOLDERING IRON KIT**
- MODIFIED BITUMEN APPLICATORS**
- ROOF DRYER**
- CYLINDER DOLLY**
- ROOFING TOOLS**
- PARTS & ACCESSORIES**

ROOFING TORCHES & EQUIPMENT CATALOG



**Professional Tools
for the
Professional Roofer!**



Manufactured with pride by FLAME ENGINEERING, INC. in LaCrosse, Kansas.

Catalog #01-23

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

Our top priority has always been Red Dragon® Torches and flaming equipment. We are the first manufacturer ever to receive American Gas Association and Canadian Gas Association certification on hand-held torch kits used with a remote fuel supply. Throughout the years, Flame Engineering has been at the front lines, developing new products and listening to the people who use them. Our patented Liquid Propane Spray process, for example, provided more flame length, width and volume than vapor torches or the old coil-type liquid torches could offer. More recently, the Row Crop and Grapevine 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.

Our Patio Lights are unique, backyard products which are copied by others, but never equaled. Its elegance continues to delight homeowners, restaurants, resorts and outdoor enthusiasts. We designed 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** • **Western States Roofing Contractors Association**
- **Midwest Roofing Contractors Association** • **Western Kansas Manufacturers Association**
- **Mid-American Manufacturing Technology Center** • **National Association of Manufacturers**

The Complete Red Dragon® Roofing Products Catalog

About The Red Dragon® Roofing Products Catalog

We are pleased to introduce this new, full color, Roofing Products Catalog. We have always been advocates of safe practices while using torches on the roof and would like to call your attention to the important Safety Data on page 16.

Please note, we have also improved the Red Dragon® Roof Dryer found on page 8. It now has even more drying power with a larger horsepower engine and higher rpm blower.

Attention Red Dragon® Distributors

Helping our distributors is a top priority and we continue to do this in a number of ways. Flame Engineering promotes Red Dragon® products through an extensive advertising plan and aggressive trade show participation. We encourage you to advertise! We have a complete photography file of our products on CD-Rom, available to anyone wishing to advertise or include Red Dragon® products in their catalog. Please call today for more information about co-op advertising.

Thank you for choosing RED DRAGON®!

TABLE OF CONTENTS

Roofing Torch Kits	1 - 5
Torch Kits Assembly Diagram	1,2 & 5
Soldering Iron Kit	5
Modified Bitumen Applicators	6 - 7
Roof Dryers	8
Cylinder Dolly	9
Roofing Tools	10
Roll Hook	10
Roofing Trowels	10
Spark Lighter	10
Roofing Torch Parts And Accessories	10 - 15
Replacement Torches	10-11
Squeeze Valve	12
Quick Connector	12
P.O.L.'s	12 - 13
M.O.P.'s	13
Needle Valve	13
Adapters & Couplings	13
Pressure Gauge	14
Regulators	14
LP Gas Hose	14
LP Gas Vapor Cylinders	14
Propane Properties And Safety Data	15



* **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 certification.

COMPLETE ROOFING TORCH KITS

- ▶ **RED DRAGON® TORCHES** are made of durable, lightweight steel and contain all parts necessary to torch down modified bitumen.
- ▶ Each product is tested prior to leaving the factory and is guaranteed in quality and workmanship.
- ▶ We stock a complete line of parts and accessories available for immediate delivery, all of which include standard American fittings.

RED DRAGON® RTCOMBO

Other manufacturers have unsuccessfully attempted to copy the **RTCOMBO**. This kit is truly the choice of professional roofers. Be certain to ask for all kits by name and number and you'll be sure to receive genuine **RED DRAGON® TORCHES** – the best tools for the trade.

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

CSA Certified for U.S and Canada.

Also available in a **Lightweight Model – RTComboLW.**

KIT INCLUDES:

Qty	Part #	Description
1	RT2 ¹ / ₂ -20	400,000 BTU Field Torch w/Male Quick Connect Adaptor
	or RT2 ¹ / ₂ -20LW	400,000 BTU Field Torch w/Male Quick Connect Adaptor
1	RT1 ¹ / ₂ -10	50,000 BTU Detail Torch w/Male Quick Connect Adaptor
<small>(see Replacement Parts and Accessories for Torch Components)</small>		
1	HN-5	U.L. Listed Female Quick Connect
1	HP25	U.L. Listed 25' LP Gas Hose
1	567RC	U.L. Listed Regulator
1	P-W795	U.L. Listed Hand Tighten POL
1	G-23	Pressure Gauge
2	TB-4	Welded Torch Stand
1	L2001	Spark Lighter and Flints

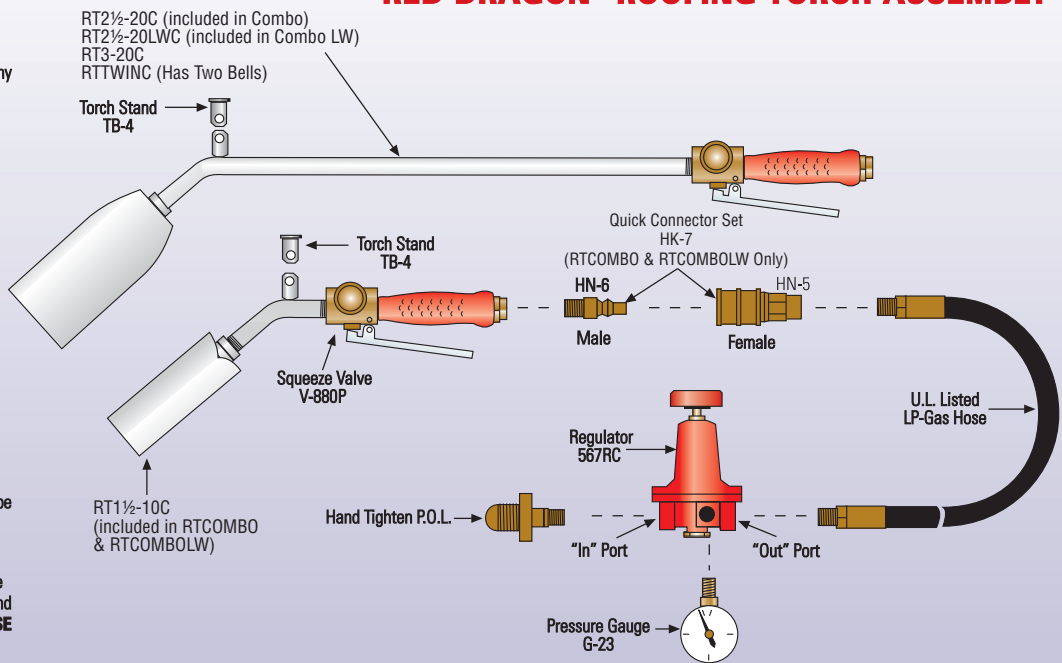


The **QUICK CONNECT** feature allows the operator to instantly switch from stand-up to detail torch with no tools while continuing to use the same LP gas hose, regulator and tank!

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

RED DRAGON® ROOFING TORCH ASSEMBLY

1. On the RTCombo and RTComboLW (all others hose to torch), assemble LP gas hose to female quick connector. Apply thread compound included with kit or any thread compound suitable for use with LP-gas. Tighten fitting securely with a wrench but do not over tighten.
2. Thread LP-gas hose onto the regulator OUT fitting. Use thread compound and tighten securely.
3. Assemble P.O.L. (brass left hand fitting that screws into propane tank) into IN fitting of the regulator. Use thread compound and tighten securely with a wrench.
4. Remove plug from port on side of regulator (not necessary on RTBASIC). Install pressure gauge in port using thread compound sparingly. Tighten securely with a wrench.
5. Attach TB-4 torch stand to extension tube bracket, adjust to desired setting and tighten.
6. Insert the P.O.L. fitting into the propane supply tank (remember this is a left hand fitting) and tighten securely. **DO NOT USE THREAD COMPOUND.**



RED DRAGON® RT2¹/₂-20C



The work horse of all Red Dragon® roofing torch kits, the RT2¹/₂-20C performs stand up work with ease and is noted for durability and efficiency on the job. This kit excels in balance and flame control and has an overall torch length of 29". One size fits all!

CSA Certified for U.S and Canada.

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

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



KIT INCLUDES:

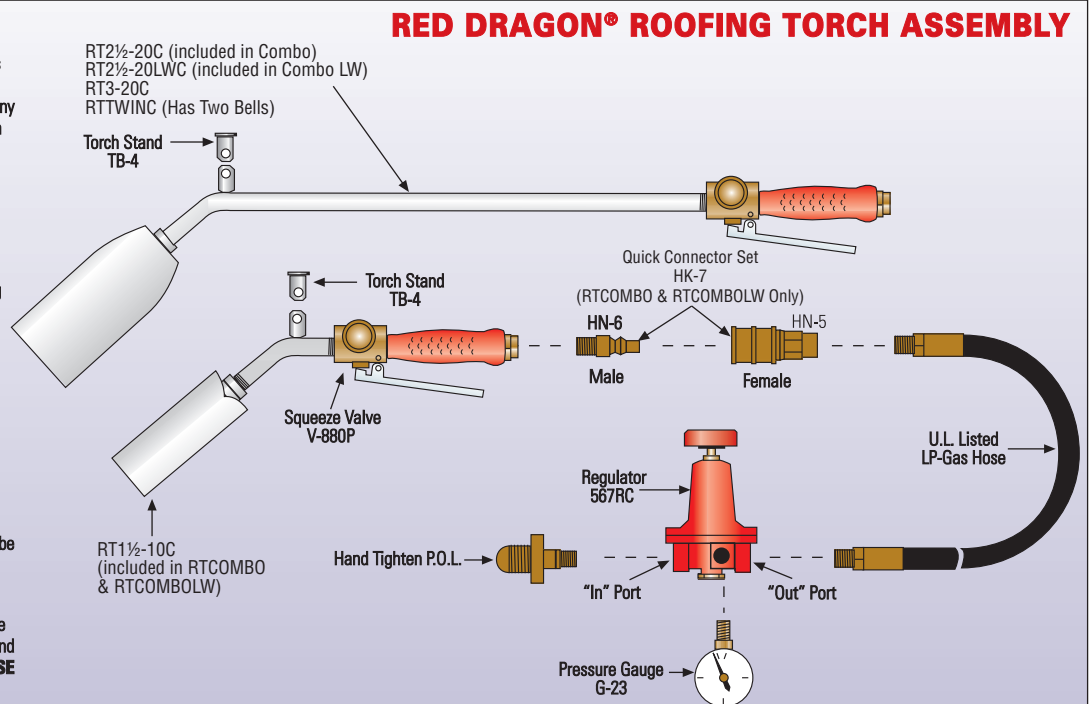
Qty	Part #	Description
1	RT2 ¹ / ₂ -20	400,000 BTU Field Torch
	or RT2 ¹ / ₂ -20LW	400,000 BTU Field Torch
<i>(see Replacement Parts and Accessories for Torch Components)</i>		
1	HP25	U.L. Listed 25' LP Gas Hose
1	567RC	U.L. Listed Regulator
1	P-W795	U.L. Listed Hand Tighten POL
1	G-23	Pressure Gauge
1	TB-4	Welded Torch Stand
1	L2001	Spark Lighter and Flints



All torch kits listed this page are CSA Certified for the U.S. & Canada.

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

1. On the RTCombo and RTComboLW (all others hose to torch), assemble LP gas hose to female quick connector. Apply thread compound included with kit or any thread compound suitable for use with LP-gas. Tighten fitting securely with a wrench but do not over tighten.
2. Thread LP-gas hose onto the regulator OUT fitting. Use thread compound and tighten securely.
3. Assemble P.O.L. (brass left hand fitting that screws into propane tank) into IN fitting of the regulator. Use thread compound and tighten securely with a wrench.
4. Remove plug from port on side of regulator (not necessary on RTBASIC). Install pressure gauge in port using thread compound sparingly. Tighten securely with a wrench.
5. Attach TB-4 torch stand to extension tube bracket, adjust to desired setting and tighten.
6. Insert the P.O.L. fitting into the propane supply tank (remember this is a left hand fitting) and tighten securely. **DO NOT USE THREAD COMPOUND.**



RED DRAGON® RTTWINC

This power house is perfect for the roofer who prefers the high, 600,000 BTU output of the dual VT2¹/₂-0 burner system. This durable and very effective kit is sure to increase productivity and is still very affordable. (May require a 100 lb. or larger LP Cylinder).

CSA Certified for U.S and Canada.



The Twin Heads produce 600,000 BTU allowing you to handle those special jobs which require wider flame coverage and more heat output.



KIT INCLUDES:

Qty	Part #	Description
1	RTTwin	600,000 BTU Field Torch w/Ignitor on Torch Bell (see Replacement Parts and Accessories for Torch Components)
1	HP25	U.L. Listed 25' LP Gas Hose
1	567RC	U.L. Listed Regulator
1	P-W795	U.L. Listed Hand Tighten POL
1	G-23	Pressure Gauge
1	TB-4	Welded Torch Stand
1	L2001	Spark Lighter and Flints



All torch kits listed on pages 2 and 3 are CSA Certified for the U.S. & Canada.

Order SKU #	Wt Each	Case Qty
RTTWINC	9.4 lbs	4

RED DRAGON® RT3-20C

This heavy duty kit is perfect for the roofer who requires higher BTU output. At 500,000 BTU this kit increases flame width, length and overall heat coverage with a single torch head.

CSA Certified for U.S and Canada.



KIT INCLUDES:

Qty	Part #	Description
1	RT3-20	500,000 BTU Field Torch w/Ignitor on Torch Bell (see Replacement Parts and Accessories for Torch Components)
1	HP25	U.L. Listed 25' LP Gas Hose
1	567RC	U.L. Listed Regulator
1	P-W795	U.L. Listed Hand Tighten POL
1	G-23	Pressure Gauge
1	TB-4	Welded Torch Stand
1	L2001	Spark Lighter and Flints

Order SKU #	Wt Each	Case Qty
RT3-20C	8.1 lbs	4

RED DRAGON® RTBASIC

The RTBASIC is available for the price conscious roofer who wants a great torch but the very basic requirements in features and accessories. P.O.L. fitting requires wrench tightening, no pressure gauge, and no spark lighter included.

CSA Certified for U.S and Canada.



KIT INCLUDES:

Qty	Part #	Description
1	RT2 $\frac{1}{2}$ -20LW	400,000 BTU Field Torch
(see Replacement Parts and Accessories for Torch Components)		
1	HP25	U.L. Listed 25' LP Gas Hose
1	567RC	U.L. Listed Regulator
1	P-3200W	U.L. Listed Safety POL
1	TB-4	Welded Torch Stand

Order SKU #	Wt Each	Case Qty
RTBASIC	7.2 lbs	4

RED DRAGON® RT1 $\frac{1}{2}$ -10C DETAIL TORCH KIT

Need a detail torch to make easy work around flashings, walls, and other obstacles? Ask for the RT1 $\frac{1}{2}$ -10C torch kit. Overall length is 15", the preference of professional roofers today. Use this kit with one of our hand trowels (TW-5 & TW-7 on page 10) for easy patch work and cleanup.

CSA Certified for U.S and Canada.



IMPORTANT NOTE:
 WE DON'T MANUFACTURE HOT AIR TORCHES FOR THIS REASON; Visible or invisible, heat can be dangerous if not used safely and properly. All hot air torches generate sufficient heat to burn if left in one place long enough. We promote the safe use of all torches.

KIT INCLUDES:

Qty	Part #	Description
1	RT1 $\frac{1}{2}$ -10	50,000 BTU Detail Torch
(see Replacement Parts and Accessories for Torch Components)		
1	HP25	U.L. Listed 25' LP Gas Hose
1	567RC	U.L. Listed Regulator
1	P-W795	U.L. Listed Hand Tighten POL
1	G-23	Pressure Gauge
1	TB-4	Welded Torch Stand
1	L2001	Spark Lighter and Flints

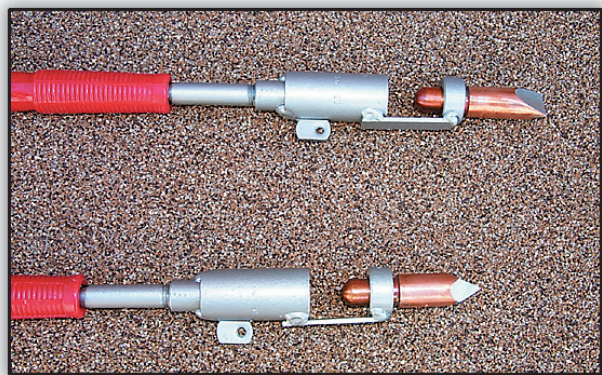
Order SKU #	Wt Each	Case Qty
RT1 $\frac{1}{2}$ -10C	7.0 lbs	4

RED DRAGON® ST1-12C PROPANE SOLDERING IRON

The Red Dragon® Soldering Iron kit stays hot, enabling you to solder consistently and quickly. No electricity or acetylene bottles necessary here – just a refillable propane cylinder. Each kit is equipped with a Diamond Point Tip. Optional Chisel Point Tip available upon request. Solder flashings, gutters, copper, and more with the ST1-12C.

KIT INCLUDES:

Qty	Part #	Description
1	ST1-12	25,000 BTU Soldering Iron Assembly
1	ST-11	Diamond Point Tip
1	HP10	U.L. Listed 10' LP Gas Hose
1	567RC	U.L. Listed Regulator
1	V-334	Flame Adjusting Valve
1	P-3200W	Soft Nose Excess Flow POL
1	G-23	Pressure Gauge
1	ST1-B	Welded Torch Stand
•	Optional ST-13	Chisel Point Tip

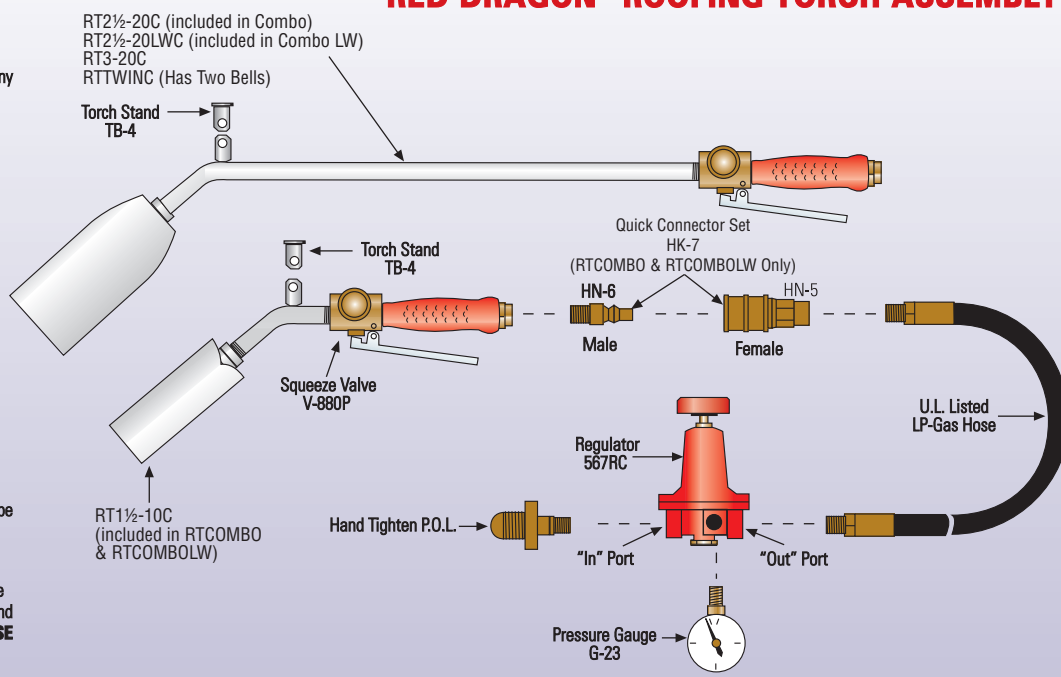


Order SKU #	Wt Each	Case Qty
ST1-12 C Soldering Kit	7.2 lbs	4
ST-11 Diamond Point Tip	0.4 lbs	1
ST-13 Chisel Point Tip	0.4 lbs	1

The ST1-12 shown with optional ST-13 Chisel Point Tip and standard ST-11 Diamond point tip. Please specify upon ordering.

RED DRAGON® ROOFING TORCH ASSEMBLY

1. On the RTCombo and RTComboLW (all others hose to torch), assemble LP gas hose to female quick connector. Apply thread compound included with kit or any thread compound suitable for use with LP-gas. Tighten fitting securely with a wrench but do not over tighten.
2. Thread LP-gas hose onto the regulator OUT fitting. Use thread compound and tighten securely.
3. Assemble P.O.L. (brass left hand fitting that screws into propane tank) into IN fitting of the regulator. Use thread compound and tighten securely with a wrench.
4. Remove plug from port on side of regulator (not necessary on RTBASIC). Install pressure gauge in port using thread compound sparingly. Tighten securely with a wrench.
5. Attach TB-4 torch stand to extension tube bracket, adjust to desired setting and tighten.
6. Insert the P.O.L. fitting into the propane supply tank (remember this is a left hand fitting) and tighten securely. **DO NOT USE THREAD COMPOUND.**



- ▶ **RED DRAGON® MODIFIED BITUMEN APPLICATORS CAN GREATLY REDUCE APPLICATION TIME!**
- ▶ **ARE MADE OF DURABLE, LIGHTWEIGHT STEEL CONSTRUCTION . ▶ APPLY 3/4, 1 AND 1 1/2 SQUARE ROLLS.**

RED DRAGON® SPA540A & SPA740A MODIFIED BITUMEN APPLICATORS

Both the Red Dragon® SPA540A (5 burners) & SPA740A (7 burners) feature one-handle design and complete manifold adjustability, making these wagons the most requested in the industry. 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 and side shields and superior design concentrate the heat on the material – not the operator. Use on APP systems.

THE FIRST CHOICE OF PROFESSIONAL ROOFING CONTRACTORS!



SPA540A

SPA740A

UNIT INCLUDES:

Qty	Part #	Description
5 or 7	VT21/2-0	400,000 BTU Vapor Torch Head
5 or 7	V-334	Flame Adjusting Needle Valve
1	HP50	U.L. Listed 25' LP Gas Hose
1	R-499	U.L. Listed Regulator
1	P-1685	U.L. Listed POL
1	V-880P	Squeeze Valve
1	G-23	Pressure Gauge
1	L2001	Spark Lighter

Order SKU #	Wt Each	Case Qty
SPA540A	82.0 lbs	1
SPA740A	84.0 lbs	1

(shipped in 2 boxes)

Torch and manifold adjustments are easily made on the SPA540A & 740A. Each torch has a needle valve, and the manifold moves back and forth by rotating the handle.

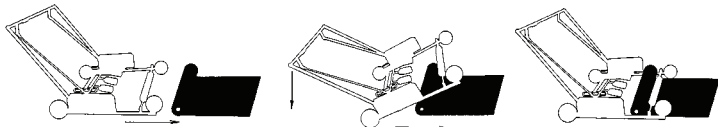


Now apply bitumen with the trailing wheels on or off the roll.



*This **NEW** design allows the trailing wheels to be assembled inside or outside the frame on the SPA540A & SPA740A, as some modified bitumen manufacturers specify no wheels on the seam.*

SPA540A & SPA740A
both feature the easy roll mounting system.
As Easy as One, Two, Three!



RED DRAGON® SPA1000 MODIFIED BITUMEN APPLICATOR



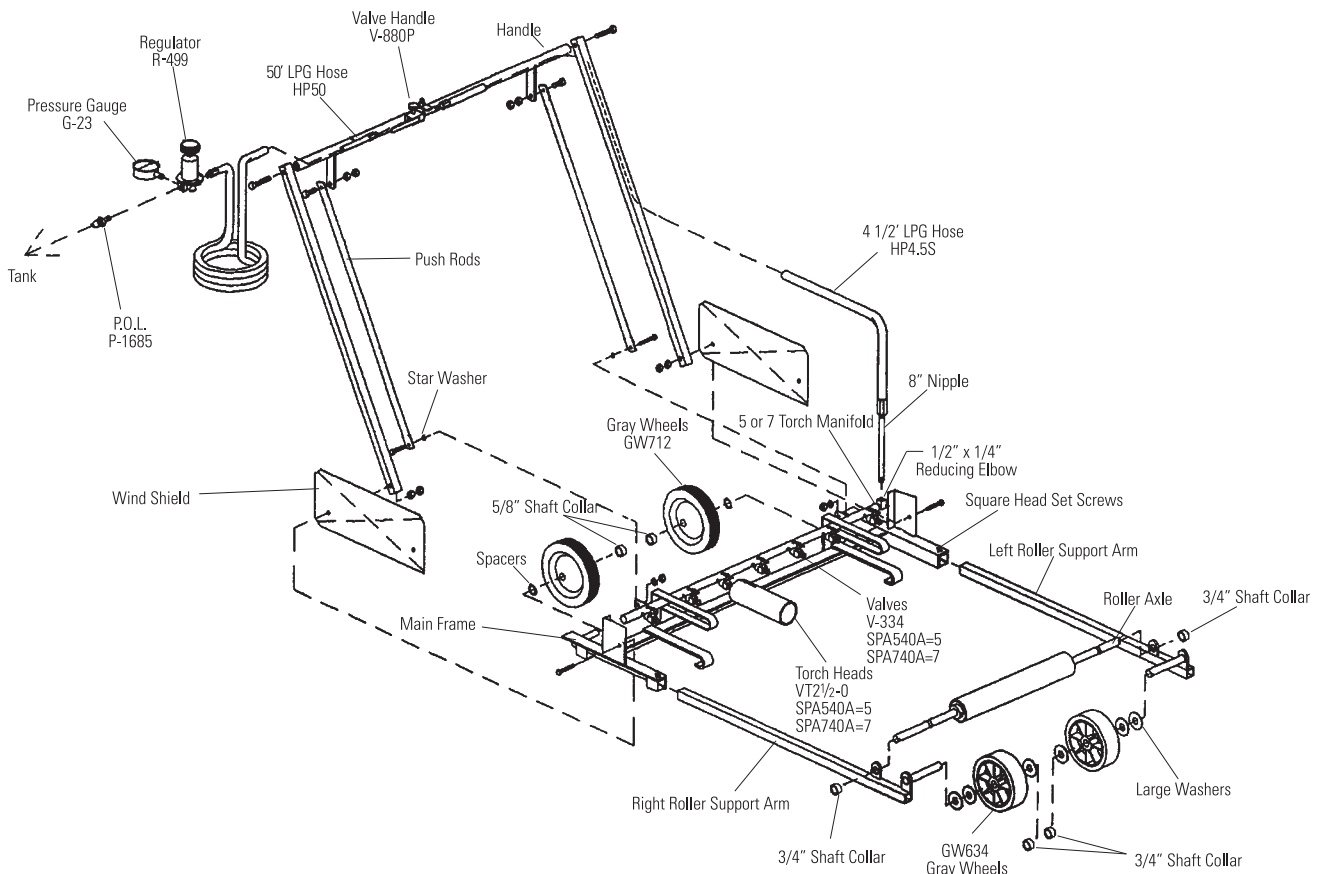
By customer request we are offering a new wagon. The older style two handle design modernized by Red Dragon® technology. Features include a stainless steel manifold and framework and 7 durable vapor torches. Each torch has a flame adjusting needle valve for total flame control and the manifold easily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

UNIT INCLUDES:

Qty	Part #	Description
2	VT21/2-0	400,000 BTU Vapor Torch Head
5	VT2-0	100,000 BTU Vapor Torch Head
7	V-334	Flame Adjusting Needle Valve
1	HP50	U.L. Listed 50' LP Gas Hose
1	R-499	U.L. Listed Regulator
1	P-1685	U.L. Listed POL
1	V-880P/H-1	Squeeze Valve/Handle Assembly
1	G-23	Pressure Gauge

Order SKU #	Wt Each	Case Qty
SPA1000	54.0 lbs	1

RED DRAGON® SPA540A & SPA740A ASSEMBLY DIAGRAM



- ▶ **SAVE LABOR** ▶ **EASY TO OPERATE** ▶ **REMOVE FROST & DEW** ▶ **SAFE, NO ELECTRICITY REQUIRED**
- ▶ **DRY WET SURFACES** ▶ **REDUCE COSTLY DOWN TIME** ▶ **CLEAR LIGHT DEBRIS**



RED DRAGON® RD6009 ROOF DRYER

The Red Dragon® RD6009 Roof Dryer defrosts, dries and get you back on the job with minimum effort. Its rugged design and user friendly features make it the perfect choice for professional roofing contractors. Use to dry surfaces after ponding water has been removed or to remove morning dew, frost or light debris.

NEW MODEL HAS MORE HORSEPOWER!

6.5 HP KOHLER ENGINE

COMMERCIAL GRADE "LITTLE WONDER" BLOWER



Ergonomic Cushioned Handle Grip

Rugged Steel Handle

25 ft LP-Gas Hose

Easy Maneuverability with Pneumatic Rear Wheels

250,000 BTU Burner

The Roof Dryers work by combining high heat (up to 350° F) and a 153 MPH airstream to facilitate quick drying and reduce costly downtime. No electrical cords or danger of electrical shock. Rely on Red Dragon® Roof Dryers when mother nature tries to delay your work day.

Blower Specification RD6009:

6.5 HP Kohler GC/60 motor.
Powerful 153 MPH airstream, up to 1600 cubic feet per minute.

Heating System Specifications:

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

UNIT ALSO INCLUDES:

Qty	Part #	Description
1	VT3-12S	250,000 BTU Vapor Torch Head
1	HP25	U.L. Listed 25' LP Gas Hose
1	P-3200	U.L. Listed POL Fitting
1	V-880P	Squeeze Valve
1	R-700C	18 P.S.I. Regulator

Order SKU #	Wt Each	Case Qty
RD6009	125.0 lbs	1

Ships in one package - Truck Only.



CD-505 CYLINDER DOLLY

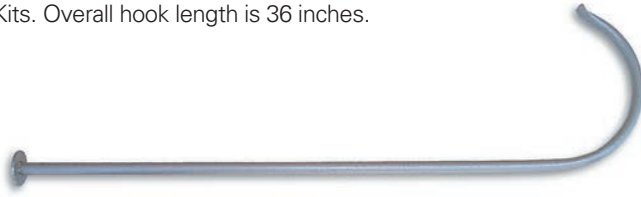
The Red Dragon® CD-505 Cylinder Dolly is specifically designed for transporting 100 pound cylinders. The ergonomic design features handles that are set wide and angled outward, making it easy to push, pull, or turn.

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	37.2 lbs	1

RED DRAGON® HR836 ROLL HOOK

This lightweight hook allows the roofer to hand torch rolls without walking on the membrane. Simply push or pull the roll as necessary. Perfect for use with Red Dragon® Roofing Torch Kits. Overall hook length is 36 inches.



Order SKU #	Wt Each	Std Qty
HR836	9.0 lbs	1

L2001 SPARK LIGHTER

The convenient and safe way to light LP Gas torches. The L2001 Spark Lighter produces up to 1,500 ignitions per flint and comes with a free 5 pack of replacement flints.

Order SKU #	Wt Each	Std Qty
L2001	0.2 lbs	10
L2012 (pack of 5 flints)	0.03 lbs	24

RED DRAGON® ROOFING TROWELS

These round nosed trowels feature polished, tempered steel blades and a durable hardwood handle. Available with 5" and 7" blades. Perfect for use with Red Dragon® Detail Torches.



Order SKU #	Wt Each	Std Qty
TW-5 (5" Blade)	0.3 lbs	12
TW-7 (7" Blade)	0.5 lbs	12



RT2¹/₂-20 ROOFING TORCH

The RT2¹/₂-20 is the premier torch used in the roofing industry and is the main component in most of our complete roofing torch kits. At 400,000 BTU, it performs stand-up work with ease and is noted for durability and efficiency on the job. See VT2¹/₂-0 in the next column for burner specifications. Also available in a Light Weight model - RT2¹/₂-20LW.



Order SKU #	Wt Each	Std Qty
RT2 ¹ / ₂ -20	2.6 lbs	6
RT2 ¹ / ₂ -20LW	2.3 lbs	6

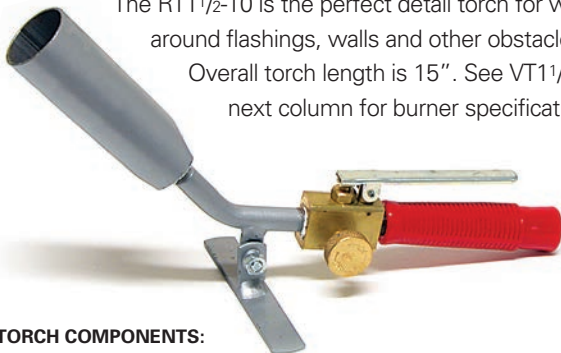
TORCH COMPONENTS:

Qty	Part #	Description
1	VT2 ¹ / ₂ -0	400,000 BTU 2 ¹ / ₂ " Diameter Torch Head
1	ET-20	18" Torch Extension
1	V-880P	Squeeze Valve w/Adjustable Pilot
1	H-1	Rubber Grip Handle
1	TB-4	Torch Stand

RT1¹/₂-10 DETAIL ROOFING TORCH

The RT1¹/₂-10 is the perfect detail torch for work around flashings, walls and other obstacles.

Overall torch length is 15". See VT1¹/₂-0 in the next column for burner specifications.



TORCH COMPONENTS:

Qty	Part #	Description
1	VT1 ¹ / ₂ -0	50,000 BTU 1 ¹ / ₂ " Diameter Torch Head
1	ET-4	4" Torch Extension
1	V-880P	Squeeze Valve w/Adjustable Pilot
1	H-1	Rubber Grip Handle
1	TB-4	Torch Stand

Order SKU #	Wt Each	Std Qty
RT1 ¹ / ₂ -10	1.25 lbs	6

VT3-0 VAPOR TORCH

When an increased BTU output is desired, use this replacement torch on Red Dragon® Roofing Torches and Red Dragon® SPA Modified Bitumen Applicators.



Max Capacity	500,000 BTU	Max Fuel Consumption	23.2 lbs/hr
Normal Operating Pressure	30 PSIG	Fuel Inlet	1/4" NPT
Operating Pressure Range	5-90 PSIG	Bell Diameter	3 inches
Fuel Consumption @ 30 PSIG	10.13 lbs/hr	Bell Length	6 inches
Approximate Flame Temperature	2050°F		

Order SKU #	Wt Each	Std Qty
VT3-0	1.2 lbs	6

VT2^{1/2}-0 VAPOR TORCH

This is the standard replacement torch head for RT2^{1/2}-20 torches and all Red Dragon® SPA Modified Bitumen Applicators.



Max Capacity	400,000 BTU	Max Fuel Consumption	18.5 lbs/hr
Normal Operating Pressure	25 PSIG	Fuel Inlet	1/4" NPT
Operating Pressure Range	5-50 PSIG	Bell Diameter	2.5 inches
Fuel Consumption @ 30 PSIG	9.03 lbs/hr	Bell Length	5.5 inches
Approximate Flame Temperature	2050°F		

Order SKU #	Wt Each	Std Qty
VT2 ^{1/2} -0	0.9 lbs	6
VT2 ^{1/2} -0LW	0.6 lbs	6

VT2-0 VAPOR TORCH

This vapor torch will reduce the maximum BTU rating on Red Dragon® roofing torches and SPA Modified Bitumen Applicators and increase BTU on the RT1^{1/2}-10.



Max Capacity	100,000 BTU	Max Fuel Consumption	9.3 lbs/hr
Normal Operating Pressure	20 PSIG	Fuel Inlet	1/4" NPT
Operating Pressure Range	5-40 PSIG	Bell Diameter	2 inches
Fuel Consumption @ 30 PSIG	4.5 lbs/hr	Bell Length	5.5 inches
Approximate Flame Temperature	2050°F		

Order SKU #	Wt Each	Std Qty
VT2-0	0.75 lbs	6

VT1^{1/2}-0 VAPOR TORCH

This head is the standard replacement for the RT1^{1/2}-10 torch.



Max Capacity	50,000 BTU	Max Fuel Consumption	3.1 lbs/hr
Normal Operating Pressure	10 PSIG	Fuel Inlet	1/4" NPT
Operating Pressure Range	5-25 PSIG	Bell Diameter	1.5 inches
Fuel Consumption @ 30 PSIG	2.25 lbs/hr	Bell Length	4.5 inches
Approximate Flame Temperature	2050°F		

Order SKU #	Wt Each	Std Qty
VT1 ^{1/2} -0	0.5 lbs	6

ET-2B TWIN BURNER ADAPTOR

The ET-2B adaptor allows you to add a second burner to any Red Dragon® Roofing Torch. Simply remove the burner from the torch, install the adaptor, then install the original burner and one additional burner at each elbow.



Order SKU #	Wt Each	Std Qty
ET-2B	0.4 lbs	6

ET-20 & ET-4 TORCH EXTENSIONS

The ET-20 is 18" overall and is the standard tube connecting the valve to the torch head on all RT2^{1/2}-20 torches. Connects with 1/4" MPT on each end. Comes complete with a TB-4 Torch Stand.

The ET-4 is a 4" tube and is standard on all RT1^{1/2}-10 torches. Connects with 1/4" MPT on each end. Comes complete with a TB-4 Torch Stand.



Order SKU #	Wt Each	Std Qty
ET-20	0.75 lbs	6
ET-4	0.3 lbs	6

H-1 TORCH HANDLE

A replacement handle for all Red Dragon® Roofing Torches. Connects to the squeeze valve.



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

TB-4 TORCH STAND

The TB-4 attaches to the extension tube of all Red Dragon® Roofing Torches, supporting the torch while directing the flame upward when not in use. Bolt, nut and lockwasher included.

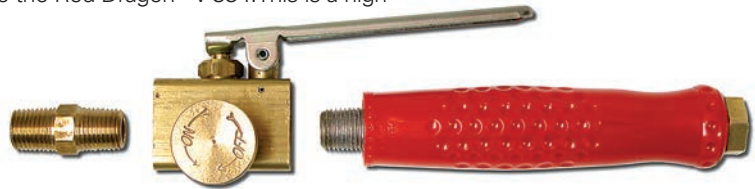


Order SKU #	Wt Each	Std Qty
TB-4	0.2 lbs	6

V-880P/H-1 – SQUEEZE VALVE WITH ADJUSTABLE PILOT & TORCH HANDLE KIT

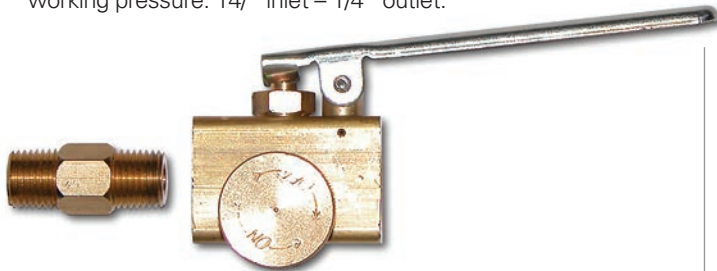
The Red Dragon® V-880P/H-1 allows you to add a squeeze valve and handle to any Red Dragon® Vapor Torch Kit. Perfect for those who use a Red Dragon® Torch Kit for roofing and instances where full flame is not continuously required. This kit will quickly pay for itself in propane savings if this is how 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.

Order SKU #	Wt Each	Std Qty
V-880P/H1	0.6 lbs	10



V-880P SQUEEZE VALVE WITH ADJUSTABLE PILOT

This all brass squeeze valve features an adjustable pilot and is used on all Red Dragon® Roofing Torches and Red Dragon® Modified Bitumen Applicators. It is tested to 350 pounds of working pressure. 1/4" inlet – 1/4" outlet.



Order SKU #	Wt Each	Std Qty
V-880P	0.6 lbs	10

VALVE REPAIR KITS AND LEVER ASSEMBLY FOR V-880P

These 3 kits will allow you to repair either the pilot valve, the main valve or the lever assembly on any V-880P Squeeze Valve.

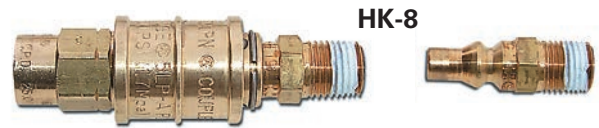
TJP-123 PILOT VALVE REPAIR KIT **TC-42-7 MAIN VALVE REPAIR KIT**



TSTE131-2 LEVER ASSEMBLY

Order SKU #	Wt Each	Std Qty
TJP-123 Pilot Valve Repair Kit	0.1 lbs	1
TC-42-7 Main Valve Repair Kit	0.1 lbs	1
TSTE131-2 Lever Assembly	0.1 lbs	1

QUICK CONNECTOR SETS U.L. Listed



HK-8



HK-7



HN-5



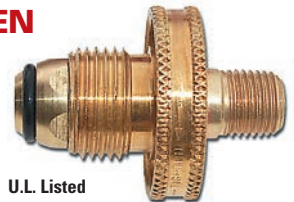
HN-6

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	Std 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

P-W795 HAND TIGHTEN EXCESS FLOW P.O.L.

No wrenches needed with this soft nose P.O.L. It is all brass and can be hand-tighten for easy connection or disconnection from any LP-gas cylinder. The standard replacement fitting for most Red Dragon® Roofing Torch Kits. Outlet is 1/4" MPT.



U.L. Listed

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

TO PLACE AN ORDER:

Contact Your Local **Red Dragon®** Roofing Distributor or Call Flame Engineering, Inc. Today!

P-3200W SOFT NOSE EXCESS FLOW P.O.L.

This P.O.L. connection with integral excess flow check valve offers an ideal safety device for use on Red Dragon® Roofing Torches, tar and asphalt burners and similar heating applications where portable LPG cylinders are used. The P.O.L. inlet end attaches directly to the outlet of the vapor cylinder valve while the outlet end is 1/4" MPT. Replacement P.O.L. for the RTBASIC torch kit.

U.L. Listed



Order SKU #	Wt Each	Std Qty
P-3200W	0.25 lbs	10

P-1685 STANDARD P.O.L. CONNECTION

The P-1685 adapts most LP cylinders to regulators and other fittings. The P.O.L. nut is the left hand fitting that threads into nearly all vapor butane/propane cylinders and the opposite end is standard 1/4" MPT. (No excess flow feature.) Replacement P.O.L. for Red Dragon® Modified Bitumen Applicators.

U.L. Listed



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

REPLACEMENT O RINGS FOR P.O.L.

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



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

M7273 WRENCH TIGHTEN M.O.P.

Same as M672-3 but must be tightened with a wrench. **Use with liquid torches only.**



Order SKU #	Wt Each	Std Qty
M7273	0.5 lbs	10

V-334 FLAME ADJUSTING VALVE

The V-334 is a heavy duty, all brass needle valve tested to 350 P.S.I. It incorporates a thumb wheel for easy open or close. Inlet (female) and outlet (male) are 1/4" standard pipe thread.



Order SKU #	Wt Each	Std Qty
V-334	0.25 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

567RC & 567RD REGULATORS

1/4" – Liquid or Vapor

567RC

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



567RD

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

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

G-23 PRESSURE GAUGE



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

Order SKU #	Wt Each	Std Qty
G-23	0.2 lbs	10

HP SERIES LP-GAS HOSE ASSEMBLIES

HP series hose is U.L. Listed for use with either vapor or liquid LP-gas and is available in 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 HP25 and HP50.



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

R-499 – 1/4" High Capacity

Liquid or Vapor – 4 Million BTU/hr Capacity



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

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

C-11 PROPANE CYLINDER

10 lb. Vapor Withdrawal

This 10 lb. vapor withdrawal cylinder is opd equipped and meets all safety standards. Holds 2.5 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	Std Qty
C-11	16.0 lbs	1

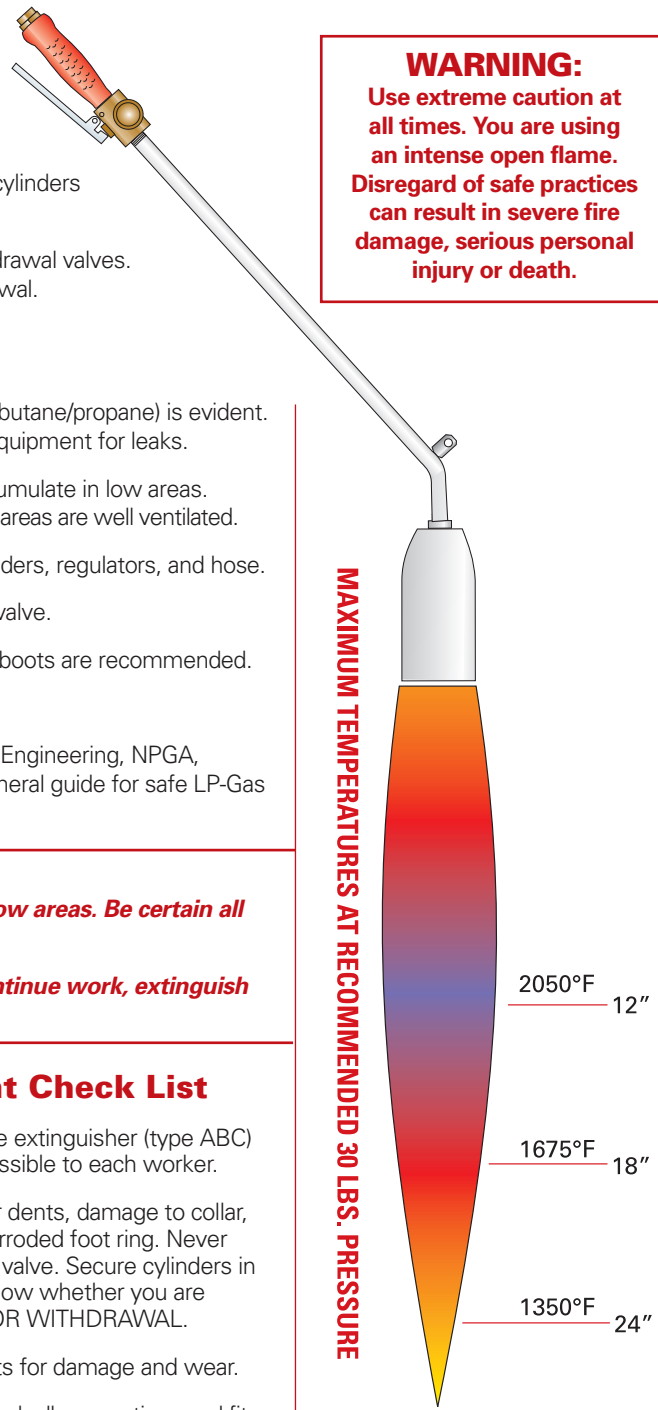
Contact Flame Engineering, Inc. for technical questions or to find the proper replacement part for your Red Dragon® Equipment. We have the best customer service available and we stand behind our products 100%.

800-255-2469

Check List For Safe LP-Gas Use

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

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.



MAXIMUM TEMPERATURES AT RECOMMENDED 30 LBS. PRESSURE

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.

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

Daily Equipment Check List

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

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

Available Training Resources:

Additional CERTA (Certified Torch Applicator) training is available through the Midwest Roofing Contractors Association. Please contact MRCA for further information at:

Midwest Roofing Contractors Association

4840 Bob Billings Parkway • Lawrence, Kansas 66049 • Phone: 866/275-6722 • Fax: 785/843-7555 • Email: mrca@mrca.org

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.



NOTES





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

We Stand Behind Our Products 100%!

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

Thank you for choosing RED DRAGON® Products.

800-255-2469



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www.FlameEngineering.com

