



Catalog

OOOOb/c Smart Smokeless Flares

with

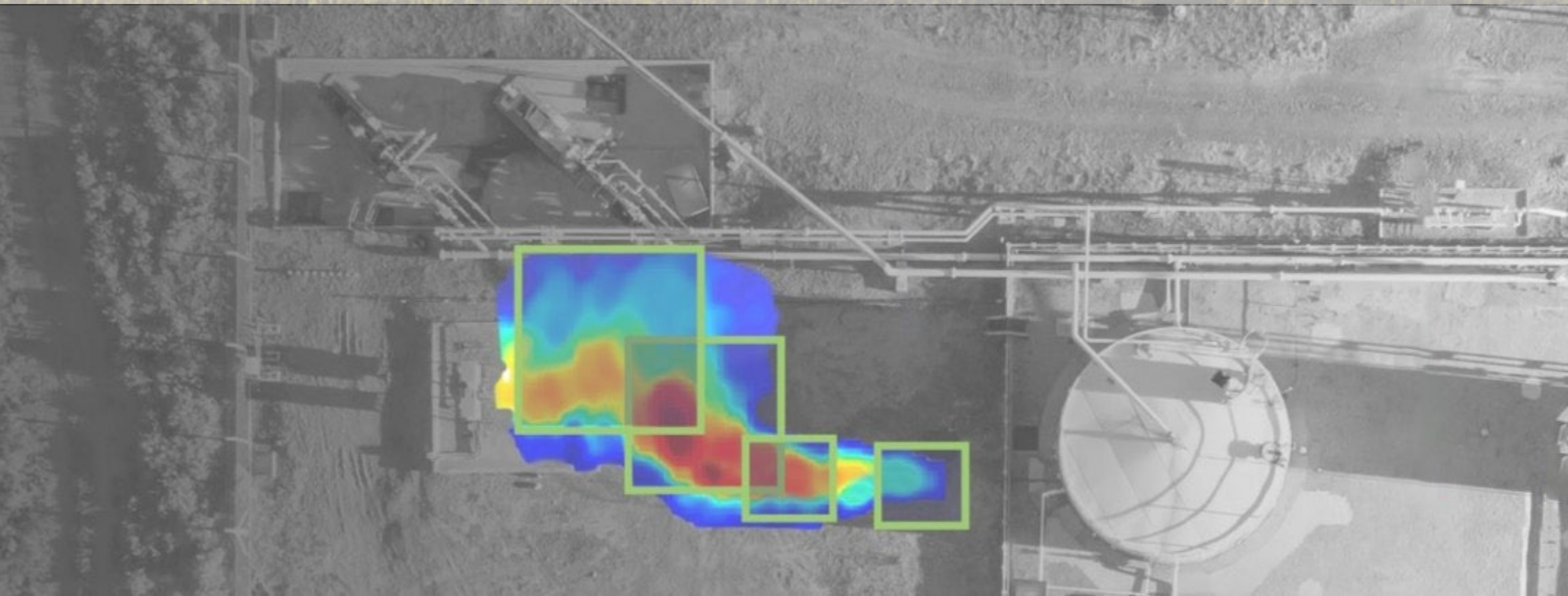
Integrated Continuous Monitoring

11 standard models

+

- DRE-MAX® – Smart VFD Controller for Air-Assisted Flares
- Tip retrofits

May 2024



Cimarron’s product and service offering has greatly expanded following the recent acquisitions of HY-BON and Aereon and their associated brands of products:

Products and Services

Emissions Control	Oil and Gas Processing	Services
<p>Vapor Recovery Units:</p> <ul style="list-style-type: none"> Compression-base: Screw, Vane Compressors, Plunger Lift Pumps Activated Carbon-based Vapor Recovery Systems <p>Enclosed Combustion:</p> <ul style="list-style-type: none"> Quad O Combustors (98% DRE), Thermal Oxidizers, Vapor Combustion Units (99.9% DRE), CEB® (99.99% DRE, low NOx) <p>Smokeless Flares:</p> <ul style="list-style-type: none"> High Efficiency Assisted (air, steam, gas), Utility, Derrick, Ground Flares, DreamDuo. 	<p>Production and processing:</p> <ul style="list-style-type: none"> Modular Production Packages Separator Gas Filtration Glycol Dehydration Gas Production Units Oil and Gas Heaters Heater Treaters Vapor Recovery Towers BTEX Eliminators Plunger Lift Pumps API Tanks 	<p>Field Services:</p> <ul style="list-style-type: none"> Startup & Maintenance Spare parts Lease/Rentals LDAR Detection <p>Continuous Monitoring:</p> <ul style="list-style-type: none"> Burner Management Systems Emissions Control Continuous Monitoring at Source-Level DRE optimization (DRE-MAX®) Thief Hatch Continuous Monitoring (NOVENT®) Autonomous AI-driven Video Monitoring

Segments and Applications

Oil & Gas Focus Areas	Expanded Focus Areas for Combustion Applications
<p>Upstream:</p> <ul style="list-style-type: none"> Wellhead Oil and Gas Handling Production equipment to include separator packages, heater treaters, gas production units (GPUs), Line Heaters, Tanks, Tank Vapor Combustors, Flares, Mechanical Vapor Recovery <p>Midstream:</p> <ul style="list-style-type: none"> Gas Processing applications to include gas dehydration, gas filtration, gas line heaters, flares combustion, BTEX Eliminators <p>Downstream:</p> <ul style="list-style-type: none"> Loading Terminal Vapor Combustors, Carbon Vapor Recovery, Refinery spec Flares & Combustors 	<ul style="list-style-type: none"> Biogas Agricultural Landfill Wastewater Treatment Coal Mines Industrial Aerospace

Item Pricing/Delivery					
Item	Flare Model #	Blower size	Max Flow LP*	Max Flow HP*	Lead time***
The MOMENTUM Variable Mach (VariMach) sonic flare delivers low-radiation, smokeless combustion over a full range of flow conditions. Spring-actuated variable sonic nozzles technology guarantees sufficient inspiration of air to ensure 100% smokeless combustion and infinite turndown. Radiation levels are minimized throughout the entire range of flow, yielding shorter stack heights and reducing material costs. Additionally, the VariMach has the lowest purge rate of any flare technology on the market, minimizing utility costs while maintaining flashback protection. Each flare comes with integrated continuous monitoring.					
1	MOMENTUM Series Flare - VMSA-03 x 20'		N/A	1 MM	5 weeks
2	MOMENTUM Series Flare - VMSA-06 x 30'		N/A	10 MM	5 weeks
3	MOMENTUM Series Flare - VMSA-08 x 40'		N/A	25 MM	5 weeks
4	MOMENTUM Series Flare - VMSA-08 x 60'		N/A	50 MM	5 weeks
Opti Link™ – Integrated Continuous Monitoring (3 months free after startup)					\$100 per month
The CYCLONE air-assist flare utilizes a proprietary burner tip for the HP gas stream to aggressively disperse the HP gas into the flame zone, initiating intense mixing with the LP gas and air to provide for smokeless performance. This design comes with a VFD for the air blower, providing the best overall performance for handling dual gas process streams in the industry. The optional DRE-Max® smart controller can be used to automatically adjust the blower frequency based on variable flow rates to achieve optimized combustion (99%+). Each flare comes with integrated continuous monitoring.					
5	CYCLONE Series Air Flare MAVP-0416 x 25'	5 HP	0.3 MM	4 MM	5 weeks
6	CYCLONE Series Air Flare MAVP-0616 x 40'	5 HP	0.6 MM	8 MM	5 weeks
7	CYCLONE Series Air Flare SFVP-0824 x 40'	20 HP	1 MM	25 MM	5 weeks
8	CYCLONE Series Air Flare SFVP-0824 x 60'	20 HP	1 MM	50 MM	5 weeks
DRE-MAX® – Smart VFD Controller for Air-Assisted Flares					2 weeks
Opti Link™ – Integrated Continuous Monitoring (3 months free after startup)					\$100 per month
The patented DreamDuo™ air-assist flare is designed with an innovate LP/HP dual tip that is based on the Variable Mach (VariMach) exceptional performance. This dual tip delivers low-radiation, smokeless combustion while handling a wide range of High Pressure (HP) and Low Pressure (LP) gases. The optional DRE-MAX® smart controller can be used to automatically adjust the blower frequency based on variable flow rates to achieve optimized combustion (99%+). Each flare comes with integrated continuous monitoring.					
9	DREAMDUO Series Air Flare DDAA-06410 x 30'	5 HP	0.6 MM	10 MM	5 weeks
10	DREAMDUO Series Air Flare DDAA-08610 x 40'	5 HP	1.2 MM	25 MM	5 weeks
11	DREAMDUO Series Air Flare DDAA-10820 x 70'	10 HP	2.5 MM	70 MM	5 weeks
DRE-MAX® – Smart VFD Controller for Air-Assisted Flares					2 weeks
Opti Link™ – Integrated Continuous Monitoring (3 months free after startup)					\$100 per month
* LP = Low Pressure gas stream, HP = High Pressure gas stream. ** Discounts are available, as well as numerous options. Ask for a formal quote that fits your applications. *** Lead time varies based on availability of inventory on the ground. Ask for a formal quote for updated lead times.					

Flare type	Guaranteed smokeless	Retractable pilot	Infinite turndown	No power requirement	LP/HP (Dual)	99% DRE		Real Time Monitoring
						LP	HP	
MOMENTUM	✓	✓	✓	✓	✗	✗	✓	✓ with Opti Link™
CYCLONE	✓	✓	✗	✗	✓	✓ with DRE-MAX®		✓ with Opti Link™
DREAMDUO	✓	✓	✓	✗	✓	✓ with DRE-MAX®		✓ with Opti Link™

A Smart Flare with Integrated Continuous Monitoring

- The Cimarron Smart Flare is a **standalone system** that can eliminate fugitive emissions while continuously monitoring its performance.
- Cimarron Smart Flares were designed with a **control efficiency of 98%**.
- The Cimarron Smart Flare is equipped with continuous pilot with pilot auto-reignition (BMS).
- The Cimarron Smart Flare is equipped with a thermocouple for flame detection and it **monitors the pilot status** with digital records saved every 5 minutes or less
- The Cimarron Smart Flare is **flowmeter ready**. An inlet gas flowmeter can be installed, and flow rates monitored and recorded through the Smart Flare. Alerts can be sent for out-of-range flow rates.
- The Cimarron Smart Air-Assisted Flare can use the information of the flowmeters to automatically adjust the VFD frequency and adjust the amount of air mixed with the inlet gas to prevent smoking and venting through overaeration.
- The Cimarron Smart Flare can monitor and send alerts to company control room and/or to the cloud for performance monitoring with actionable intelligence.
- All monitored data saved on secured Cimarron data cloud storage solution (**redundant data storage**).
- **3 months subscription included at startup**. \$100 a month (not including Preventive Maintenance) after 3-month trial. Cancel anytime.
- **Performance guarantee requires Preventive Maintenance (PM monthly or quarterly)**.



Remote Management When You Need It

- If you need additional help with any technical matters, rest assured that our advanced remote monitoring and diagnostics capabilities enable us to identify and resolve any problems you may be experiencing quickly. This often eliminates the need for an on-site technician visit.
- Our experienced support team has the ability to monitor your connected devices, identify any that may be malfunctioning, and guide you through a speedy resolution process. We also perform a wide range of diagnostics to ensure you receive optimal service.

OOOOb and OOOOc compliance guarantee

- For emissions control and reduction to become an integral component of a sustainability strategy, it is crucial that your combustor and other emissions control equipment **consistently operate at the intended level of performance** and compliance, **with credible supporting data**.
- Cimarron's **Sytelink360®** Real Time Data Monitoring solution **combines software, hardware, and field services support** and provides customers with data feeds that enable **equipment optimization, data quantification, performance guarantees**, and emissions **remote monitoring and management**.

Sytelink360® can operate on a standalone basis or as a complement to customers' systems, regulatory compliance, and sustainability programs to provide **accurate and reliable data sets** that **increase production, reduce labor time, lower incident risk, and mitigate hazardous gas emissions**.

DRE-MAX™ – Smart VFD Controller for Air-Assisted Flares

PN: 1960-175

Are you getting the most out of your flare?

- DRE-MAX® contains a proprietary algorithm that uses your preprogrammed waste gas BTU values, combined with the gas flow rates measured in real time from one or two flow transmitters, and it automatically adjusts the air from a VFD controlled blower ensuring optimum combustion (Destruction and Removal Efficiency) from your air assisted flare.
- From minimum to maximum flow, DRE-MAX® prevents under-aeration that causes smoke, but it also prevents over-aeration that is the main cause of partial venting of methane to atmosphere.
- With DRE-MAX® you can trust that you are meeting or exceeding your compliance needs.
 - Fault detection of 4-20mA analog input
 - Quick connectors for ease of installation
 - Status LED for troubleshooting
 - Compatible with most VFDs and blower brands

****Requires VFD, Dedicated LP and HP Waste Gas Flow Meters with 4-20mA Output, Air-Assisted Flares Only****
****Shall be installed in Non-Classified Area****

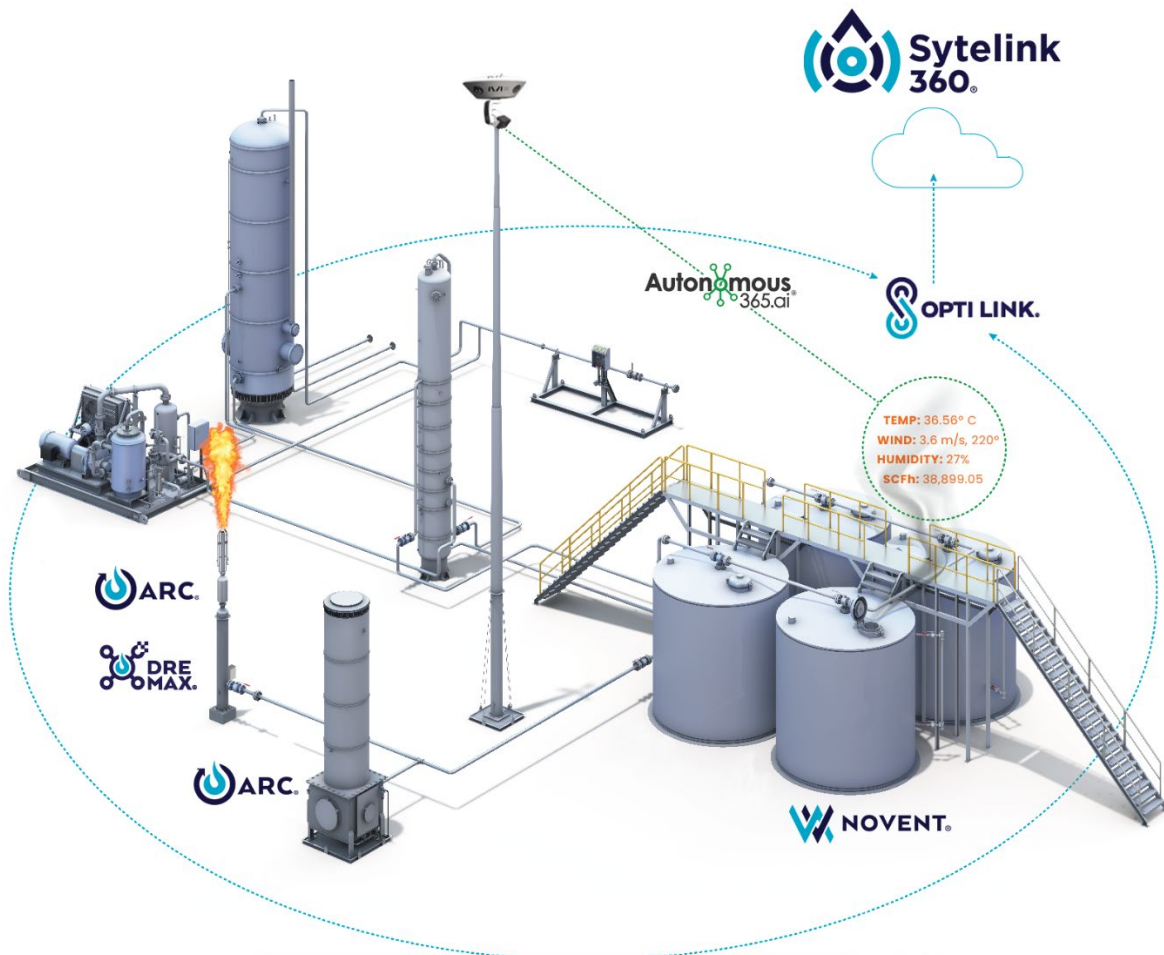
Value	Parameter
12VDC or 24VDC @2 amps	Power
4-20mA input from high-pressure flow meter	Input
4-20mA input from low-pressure flow meter	Input
4-20mA output to control blower	Output
VFD Isolated dry contact for alarm output	Output
Remote mounted to flare to minimize wire runs and maintain signal	Mechanical



Performance Guarantee and Continuous Monitoring

The Cimarron Smart Combustor requires an optional monthly paid subscription plan to be active. The subscription includes:

- Autonomous realtime performance monitoring
- 3 months subscription included at startup:
 - ✓ Realtime alarms
 - ✓ Monthly report
 - ✓ Data redundancy
- **Cimarron will guarantee 99% uptime** on combustors with a preventive maintenance contract based on actionable intelligence including, but not limited to:
 - ✓ Complete system inspection
 - ✓ Cleanout air cells to optimize air flow
 - ✓ Clean up burner for clogged up orifices
 - ✓ Check all connections for leak
 - ✓ Check BMS functionalities
 - ✓ Check rechargeable batteries life cycle
 - ✓ Solar panel maintenance
 - ✓ Replace thermocouple twice a year (bi-annually)



The most comprehensive emissions management solution offered in the market today

- Cimarron and CleanConnect.ai. are pleased to announce the formation of a new strategic alliance which will provide customers with an advanced and comprehensive emissions management and performance optimization solution. The combined offering is designed to assure regulatory compliance and more efficient operations based on source- level visual automation and real time data analytics supported from machine learning to provide methane emissions reduction as well as data integrity and reporting.
- The combination of Cimarron's proven Sytelink360® advanced technology for emissions management and performance optimization, along with CleanConnect's visual automation suite, Autonomous365, represents the most comprehensive solution offered in the market today.



Benefits to our customers and industry participants include:

- ✓ Unparalleled, holistic approach to cost effective methane emissions management and reductions based on complementary technologies which are available as a single, integrated solution.
- ✓ Real-time performance optimization based on source-level visual quantification of methane emissions and real-time automation to provide timely and actionable intelligence to maintain optimal throughput and assured regulatory compliance.
- ✓ Third party verification and certification with substantive data supporting accuracy and timeliness of reporting metrics to regulatory agencies.
- ✓ Best-in-class technology provides a robust system to detect and measure emissions as well as to identify the source and duration of those emissions.

The Sytelink360® solutions **Value**

ARC™ (Auto-Reignition Controller for Pilots and Burners)	Burner Management System
NOVENT®	Thief Hatch Status Remote Monitoring
Opti Link™ (Alert Monitoring)	Flares, Combustors, VRUs Remote Monitoring
360 Monitoring (Performance Guaranteed)	Alert Monitoring + 24/7 Response & Service Team
DRE-MAX® (Smart Controller for Air-Assisted Flares)	Flare Blower Optimizer
IQR (Identify, Quantify, Rectify)	Actual emissions measurement/LDAR
Autonomous365 by CleanConnect.ai	Autonomous AI-driven LDAR facility monitoring

A Data-Driven Solution for Reducing Lifecycle Total Cost of Ownership

- With our Sytelink360® Real Time Data Monitoring service, we provide customers with real-time data gathering capabilities, backed by our in-house expertise and skilled service crews. This proactive approach enables us to efficiently manage monitored emissions control equipment and ensure sustainable and optimized uptime. Our preventative maintenance is intelligently prompted by real-time data and trends, allowing for a data-driven schedule. For instance, in Vapor Recovery Units, lubrication oil is changed based on actual hours of operation tracked in real time, and any anomalies in the data prompt immediate preventative maintenance calls. Moreover, troubleshooting can be conducted remotely and promptly, equipping our field service crews with precise information before they arrive on site. This significantly reduces the billable time spent on location, streamlining the maintenance process for maximum efficiency:

- Detect, Quantify & Reduce Emissions
- Streamline Maintenance Programs
- Optimize Equipment Uptime & Performance
- Reduce Risk & Operational Cost

SYTELINK360® bundle	Data Logging	SCADA	Vapor Recovery Unit	Flare	Enclosed Combustor	Storage Tank
ARC™ (Burner Management System)	✓	✓	✗	✓	✓	✗
NOVENT® (Thief Hatch Tilt Sensor Monitoring)*	✓	✓	✗	✗	✗	✓
Opti Link™ (Source-Level Real Time Monitoring)*	✓	✓	✓	✓	✓	✓
360 Performance Monitoring (High Uptime Guarantee)*	✓	✓	✓	✓	✓	✓
DRE-MAX® (Smart VFD Controller – 99%+ DRE)	✓	✗	✗	✓ <small>(Air assisted flares only)</small>	✗	✗
IQR (LDAR/Emissions Measurement)	✗	✗	✓	✓	✓	✓
AUTONOMOUS 365 (Autonomous 24/7 AI-driven LDAR)	✓	✓	✓	✓	✓	✓

* NOVENT™, Alert Monitoring, Autonomous365 and 360 Performance Monitoring require a cell signal that is part of the monthly fee

Catalog

OOOOB/c Smart Smokeless Flares

with

Integrated Continuous Monitoring

11 standard models

+

DRE-MAX® – Smart VFD Controller for Air-Assisted Flares
Tip retrofits

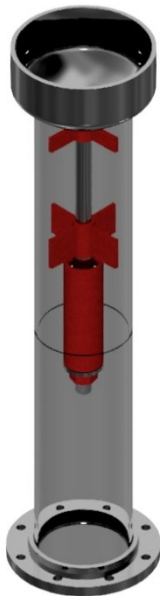
Cimarron Flare Tip Retrofit

You can upgrade your existing flare tips

- Most existing air-assisted flares (brand X) can be retrofitted with one of our MOMENTUM (MVSA type), or DREAMDUO tips for a fraction of the cost of a new flare.
- Most non-air assist flares can be upgraded to air-assist.
- Most gas-assist flares can be upgraded to air-assist.

Value added by upgrading to a Cimarron tip

- Some air-assist flare tips can create back pressures on the fuel line outlets, and trigger thief hatches or other pressure relief valves. As a result, the blower has to be run at a reduced speed. This limits the smokeless capacity that the VFD is able to provide.
- Replacing the tip with a better air-assist flare tip design can provide higher smokeless capacity with the same blower, due to better mixing between the fuel gas and combustion air.
- Inversely, for a given smokeless capacity, with a better air-assisted flare tip design, the blower can be operated at a slower speed, resulting in savings in operational costs.
- In combination with DRE-MAX®, the VFD setting is optimized to avoid over aeration, and most of all to avoid inadvertently blowing out the flare and venting 100% of the waste gas.
- Retrofitting a flare with the DREAMDUO tip is also an upgrade as low pressure waste gas can now be combusted in the same flare as the high pressure gas, optimizing wellsite footprint.



MOMENTUM
Sonic Flare Tip



CYCLONE
MAVP & SFVP Air-Assisted Flare Tip



DREAMDUO
Air-Assisted Sonic Flare Tip

1. MOMENTUM - VMSA-03 x 20' - Smokeless Flare

FLRSTDVMSA03X20

OOOOb/c Smokeless Flare Integrated Continuous Monitoring | Performance Guarantee

VMSA-03 Utility Flare Tip

- 4 feet x 3 inch Tip
- Spring-Actuated, Variable Crown Design
- Ultra-Low Radiation Design
- 3 inch x 150# RF CS Mating Flange
- Tip Material:
 - Top 2 Ft 304 Stainless Steel
 - Bottom 2 ft A-53-B Carbon Steel

Self-Supported Flare Riser

- 16 feet x 3 inch (20 feet Total Height)
- 3 inch Gas Riser made of flanged sections
- Guywire Eyelet Assemblies
- Material – A-106B or Equivalent
- Cimarron Standard On-Shore Paint System

HP1500 Pilot (QTY 1):

- HP1500 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fixed Pilot
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Burner Management System:

- ARC™ Burner Management System with UL Certification
- Auto-Ignition and Thermocouple Monitoring System
- Weatherproof Enclosure Rated for Class 1, Division 2 Area
- Includes Opti Link Continuous Monitoring System with Alarm

Utility Piping Package for 20 ft Flare (QTY 1):

- Utility Piping for Fixed Pilot
- Electrical Wiring in Conduit to Base of Flare
- Pilot Gas Piping to Base of Flare, Carbon Steel

Complete Guy-wire Package

- All Required Hardware
- Soil anchors included

Utilities

Pilot Gas:	45,000 BTU/Hr required per pilot If Natural Gas is used: 45 SCFH @ 8 - 10 psig (per ignitor).
Purge Gas:	3 SCFH
Electrical:	See Technical Summary Page (Controls)

Flare Accessories (optional)

Pilot Gas Valve Train

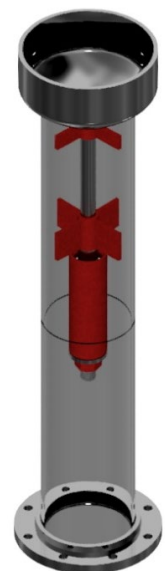
- Aluminum Body Regulator
- Ball Valve and Strainer
- Pressure Gauge

3" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 3 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

Flamex Pilot (Replaces HP1500):

- Model 850 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 310 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel



MOMENTUM
Sonic Flare Tip

2. MOMENTUM - VMSA-06 x 30' - Smokeless Flare

FLRSTDVMSA06X30

OOOOb/c Smokeless Flare Integrated Continuous Monitoring | Performance Guarantee

VMSA-06 Utility Flare Tip

- 4 feet x 6 inch Tip
- Spring-Actuated, Variable Crown Design
- Ultra-Low Radiation Design
- 6 inch x 150# RF CS Mating Flange
- Tip Material:
 - Top 2 Ft 304 Stainless Steel
 - Bottom 2 ft A-53-B Carbon Steel

Guyed Flare Riser (Flanged Sections)

- 26 feet x 6 inch (30 feet Total Height)
- 6 inch Gas Riser made of flanged sections
- Guywire Eyelet Assemblies
- Material – A-106B or Equivalent
- Cimarron Standard On-Shore Paint System

Duraspark Pilot (QTY 1):

- Model XD-1000 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Burner Management System:

- ARC™ Burner Management System with UL Certification
- Thermocouple Monitoring System & Alarm
- Weatherproof Enclosure Rated for Class 1, Division 2 Area
- Includes Opti Link Continuous Monitoring System

Retractability Package for 30 ft Flare (QTY 1):

- Allows Pilot to be Maintained from Grade Level
- Electrical Wiring Harness
- Track Assembly, Manual Winch, Winch Cable and Pulley Assembly

Complete Guy-wire Package

- All Required Hardware
- Soil anchors included

Utilities

Pilot Gas:	45,000 BTU/Hr required per pilot If Natural Gas is used: 45 SCFH @ 8 - 10 psig (per ignitor).
Purge Gas:	6 SCFH
Electrical:	See Technical Summary Page (Controls)

Flare Accessories (optional)

Pilot Gas Valve Train

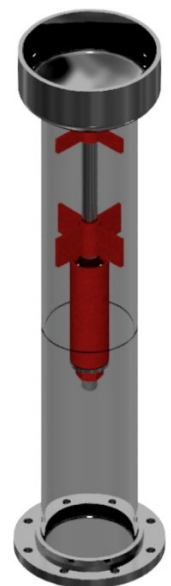
- Aluminum Body Regulator
- Ball Valve and Strainer
- Pressure Gauge

6" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 6 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

Flamex Pilot (Replaces updated Duraspark Pilot):

- Model 850 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 310 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel



MOMENTUM
Sonic Flare Tip

3. MOMENTUM - VMSA-08 x 40' - Smokeless Flare

FLRSTDVMSA08X40

OOOOb/c Smokeless Flare Integrated Continuous Monitoring | Performance Guarantee

VMSA-08 Utility Flare Tip

- 4 feet x 8 inch Tip
- Spring-Actuated, Variable Crown Design
- Ultra-Low Radiation Design
- 8 inch x 150# RF CS Mating Flange
- Tip Material:
 - Top 2 Ft 304 Stainless Steel
 - Bottom 2 ft A-53-B Carbon Steel

Guyed Flare Riser (Flanged Sections)

- 36 feet x 6 inch (40 feet Total Height)
- 8 inch Gas Riser made of flanged sections
- Guywire Eyelet Assemblies
- 8 inch x 150# RF CS Inlet Flange
- Material – A-106B or Equivalent
- Cimarron Standard On-Shore Paint System

Duraspark Pilot (QTY 1):

- Model XD-1000 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 310 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Burner Management System:

- ARC™ Burner Management System with UL Certification
- Thermocouple Monitoring System & Alarm
- From C-Dry Contacts for Pilot Failure Alarm
- Includes Opti Link Continuous Monitoring System

Retractability Package for 40 ft Flare (QTY 1):

- Allows Pilot to be Maintained from Grade Level
- Electrical Wiring Harness
- Track Assembly, Manual Winch, Winch Cable and Pulley Assembly

Complete Guy-wire Package

- All Required Hardware
- Soil anchors included

Utilities

Pilot Gas:	45,000 BTU/Hr required per pilot If Natural Gas is used: 45 SCFH @ 8 - 10 psig (per ignitor).
Purge Gas:	8 SCFH
Electrical:	See Technical Summary Page (Controls)

Flare Accessories (optional)

Pilot Gas Valve Train

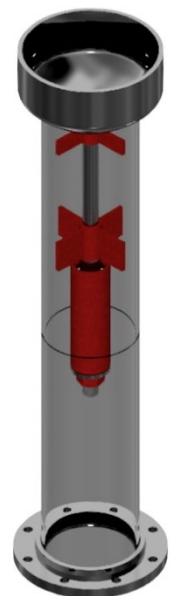
- Aluminum Body Regulator
- Ball Valve and Strainer
- Pressure Gauge

8" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 8 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

Flamex Pilot (Replaces updated Duraspark Pilot):

- Model 850 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 310 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel



MOMENTUM
Sonic Flare Tip

4. MOMENTUM Flare - VMSA-08 x 60'

FLRSTDVMSA08X60

OOOOb/c Smokeless Flare Integrated Continuous Monitoring | Performance Guarantee

VMSA-08 Utility Flare Tip

- 4 feet x 8 inch Tip
- Spring-Actuated, Variable Crown Design
- Ultra-Low Radiation Design
- 8 inch x 150# RF CS Mating Flange (Reduction to 6 inch at the inlet)
- Tip Material:
 - Top 2 Ft 304 Stainless Steel
 - Bottom 2 ft A-53-B Carbon Steel

Guyed Flare Riser (Flanged Sections)

- 56 feet x 6 inch (60 feet Total Height)
- 8 inch or 6 inch Gas Riser made of flanged sections
- Guywire Eyelet Assemblies
- 8 inch or 6 inch x 150# RF CS Inlet Flange
- Material – A-106B or Equivalent
- Cimarron Standard On-Shore Paint System

Duraspark Pilot (QTY 1):

- Model XD-1000 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 310 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Burner Management System:

- ARC™ Burner Management System with UL Certification
- Thermocouple Monitoring System & Alarm
- Weatherproof Enclosure Rated for Class 1, Division 2 Area
- Includes Opti Link Continuous Monitoring System

Retractability Package for 60 ft Flare (QTY 1):

- Allows Pilot to be Maintained from Grade Level
- Electrical Wiring Harness
- Track Assembly, Manual Winch, Winch Cable and Pulley Assembly

Complete Guy-wire Package

- All Required Hardware
- Soil anchors included

Utilities

Pilot Gas:	45,000 BTU/Hr required per pilot If Natural Gas is used: 45 SCFH @ 8 - 10 psig (per ignitor).
Purge Gas:	8 SCFH
Electrical:	See Technical Summary Page (Controls)

Flare Accessories (optional)

Pilot Gas Valve Train

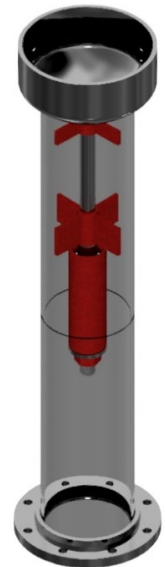
- Aluminum Body Regulator
- Ball Valve and Strainer
- Pressure Gauge

8" Detonation Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 8 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

Flamex Pilot (Replaces updated Duraspark Pilot):

- Model 850 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 310 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel



MOMENTUM
Sonic Flare Tip

5. CYCLONE - MAVP-0416 X 25' - Air-Assisted Flare

FLRSTDMAVP0416X25

OOOOb/c Smokeless Flare Integrated Continuous Monitoring | Performance Guarantee

MAVP-0416 Air Flare Tip (for HP stream)

- 4 feet x 4 inch Nominal Diameter Flare Tip
- Annular Tip Design for Evenly Distributed Air Flow
- Concentric Air-Assisted Tip with "Spider" Style Burner
- Drilled Pattern Provide a Large Air / Fuel Boundary
- 10 inch Carbon Steel Plate Flange Connection to Air Riser
- Built-in Tandem LP Flare Tip
 - 4 ft x 2 inch Nominal Diameter Tandem Flare Tip (for LP stream)
 - Shared Blower with Main Flare
 - 2 inch X 150# RFSO Inlet Flange Connection to Tandem Riser
- Tip Material - 304 Stainless Steel

16 inch (25 ft total height) Tri-Pod Air Flare Riser:

- 16 inch Diameter Air-Assist Outer Riser And Flare Structure
 - 16 inch Plate Flange Connection for Air Riser Tip
 - Guywire Eyelet Assemblies
 - Lifting & Tailing Lugs
- 4 inch, Main Flare Gas Riser:
 - 21 ft x 4 inch Nominal Diameter Riser
 - Concentric to Air Riser
 - Shop Weld Connection to Inner Tip
 - 4 inch X 150# RFSO Inlet Flange Connection
 - Inlet Elevation: 5'-0"
- 2 inch, LP Tandem Flare Riser:
 - 2 inch Nominal Diameter Tandem Gas Riser
 - 2 inch X 150# Flange Connection to Tandem LP Tip
 - 2 inch x 150# RFSO Inlet Flange Connection
 - Inlet Elevation: 9'
- Material – API-5LB, A-53B and A-36 Carbon Steel
- Cimarron Standard On-Shore Paint System



CYCLONE
 MAVP Air-Assisted Flare Tip

Duraspark Pilot (QTY 1):

- Model XD-1000 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 310 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Burner Management System:

- ARC™ Burner Management System with UL Certification
- Thermocouple Monitoring System & Alarm
- Weatherproof Enclosure Rated for Class 1, Division 2 Area
- Includes Opti Link Continuous Monitoring System

Complete Guy-wire Package

- All Required Hardware
- Soil anchors included

Retractability Package for 25 ft Flare (QTY 1):

- Allows Pilot to be Maintained from Grade Level
- Electrical Wiring Harness
- Track Assembly, Manual Winch, Winch Cable and Pulley Assembly

High Volume/High Pressure Blower

- Direct Drive
- 5 HP Blower with TEFC or TEAO Motor
- Motor starter not included

Utilities

Pilot Gas:	45,000 BTU/Hr required per pilot If Natural Gas is used: 45 SCFH @ 8 - 10 psig (per ignitor).
Purge Gas:	13 SCFH (4" inlet) 6 SCFH (2" inlet)
Electrical:	See Technical Summary Page (Controls)

Flare Accessories (optional)

Pilot Gas Valve Train

- Aluminum Body Regulator
- Ball Valve and Strainer
- Pressure Gauge

4" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 4 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

2" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 2 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

Flamex Pilot (Replaces updated Duraspark Pilot):

- Model 850 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Variable Frequency Drive & Controls for 5 HP Blower

- NEMA 4X Enclosure
- Adjusts Blower Speed
- Required Upstream Signal Provided By Others
- Supplied Loose for Installation in Motor Control Center (MCC)

Blower Motor Starter & Controls

- 5HP 3Ø 480VAC NEMA 4X Enclosure

Flowmeter with Integrated Transmitter

- Ship Loose Flow Meter with Integrated Transmitter 1/2In MNPTx12In NEMA 4X 120 VAC

DRE-MAX® Smart Controller for Air-Assisted Flares

- With DRE-MAX® you can trust that you are meeting or exceeding your compliance needs. DRE-MAX® uses a proprietary algorithm that uses your preprogrammed gas BTU values, reads gas flow rates from one or two flow transmitters, and adjusts the air from a VFD controlled blower ensuring optimum combustion from your air assisted flare. With a VFD, a flow transmitter, and our DRE-MAX® your compliance problems are over.

- Fault detection of 4-20mA analog input
- Quick connectors for ease of installation
- Status LED for troubleshooting
- **See additional specs page 4**

6. CYCLONE - MAVP-0616 X 40' - Air-Assisted Flare

FLRSTDMAVP0616X40

OOOOb/c Smokeless Flare Integrated Continuous Monitoring | Performance Guarantee

MAVP-0616 Air Flare Tip (for HP stream)

- 4 feet x 6 inch Nominal Diameter Flare Tip
- Annular Tip Design for Evenly Distributed Air Flow
- Concentric Air-Assisted Tip with "Spider" Style Burner
- Drilled Pattern Provide a Large Air / Fuel Boundary
- 16 inch Carbon Steel Plate Flange Connection to Air Riser
- Built-in Tandem LP Flare Tip
 - 4 ft x 6 inch Nominal Diameter Tandem Flare Tip (for LP stream)
 - Shared Blower with Main Flare
 - 6 inch X 150# RFSO Inlet Flange Connection to Tandem Riser
- Tip Material - 304 Stainless Steel

16 inch (40 ft total height) Tri-Pod Air Flare Riser:

- 16 inch Diameter Air-Assist Outer Riser And Flare Structure
 - 16 inch Plate Flange Connection for Air Riser Tip
 - Guywire Eyelet Assemblies
 - Lifting & Tailing Lugs
- 6 inch, Main Flare Gas Riser:
 - 36 ft x 6 inch Nominal Diameter Riser
 - Concentric to Air Riser
 - Shop Weld Connection to Inner Tip
 - 6 inch X 150# RFSO Inlet Flange Connection
 - Inlet Elevation: 11'-6"
- 6 inch, LP Tandem Flare Riser:
 - 6 inch Nominal Diameter Tandem Gas Riser
 - 6 inch X 150# Flange Connection to Tandem LP Tip
 - 6 inch x 150# RFSO Inlet Flange Connection
 - Inlet Elevation: 13'
- Material – API-5LB, A-53B and A-36 Carbon Steel
- Cimarron Standard On-Shore Paint System



CYCLONE
MAVP Air-Assisted Flare Tip

Duraspark Pilot (QTY 1):

- Model XD-1000 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 310 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Burner Management System:

- ARC™ Burner Management System with UL Certification
- Thermocouple Monitoring System & Alarm
- Weatherproof Enclosure Rated for Class 1, Division 2 Area
- Includes Opti Link Continuous Monitoring System

Complete Guy-wire Package

- All Required Hardware
- Soil anchors included

Retractability Package for 40 ft Flare (QTY 1):

- Allows Pilot to be Maintained from Grade Level
- Electrical Wiring Harness
- Track Assembly, Manual Winch, Winch Cable and Pulley Assembly

High Volume/High Pressure Blower

- Direct Drive
- 5 HP Blower with TEFC or TEAO Motor
- Motor starter not included

Utilities

Pilot Gas:	45,000 BTU/Hr required per pilot If Natural Gas is used: 45 SCFH @ 8 - 10 psig (per ignitor).
Purge Gas:	13 SCFH (4" inlet) 6 SCFH (2" inlet)
Electrical:	See Technical Summary Page (Controls)

Flare Accessories (optional)

Pilot Gas Valve Train

- Aluminum Body Regulator
- Ball Valve and Strainer
- Pressure Gauge

6" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 6 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

4" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 4 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

Flamex Pilot (Replaces updated Duraspark Pilot):

- Model 850 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Variable Frequency Drive & Controls for 5 HP Blower

- NEMA 4X Enclosure
- Adjusts Blower Speed
- Required Upstream Signal Provided By Others
- Supplied Loose for Installation in Motor Control Center (MCC)

Blower Motor Starter & Controls

- 5HP 3Ø 480VAC NEMA 4X Enclosure E0MFF4

Flowmeter with Integrated Transmitter

- Ship Loose Flow Meter with Integrated Transmitter 1/2in MNPTx12in NEMA 4X 120 VAC

DRE-MAX® Smart Controller for Air-Assisted Flares

- With DRE-MAX® you can trust that you are meeting or exceeding your compliance needs. DRE-MAX® uses a proprietary algorithm that uses your preprogrammed gas BTU values, reads gas flow rates from one or two flow transmitters, and adjusts the air from a VFD controlled blower ensuring optimum combustion from your air assisted flare. With a VFD, a flow transmitter, and our DRE-MAX® your compliance problems are over.

- Fault detection of 4-20mA analog input
- Quick connectors for ease of installation
- Status LED for troubleshooting
- **See additional specs page 4**

7. CYCLONE - SFVP-0824 X 40' - Air-Assisted Flare

FLRSTDSFVP0824MX40

OOOOb/c Smokeless Flare Integrated Continuous Monitoring | Performance Guarantee

SFVP-0824 Air Flare Tip (for HP stream)

- 6 feet x 8 inch Nominal Diameter Flare Tip
- Annular Tip Design for Evenly Distributed Air Flow
- Concentric Air-Assisted Tip with “Spider” Style Burner
- Drilled Pattern Provide a Large Air / Fuel Boundary
- 24 inch Carbon Steel Plate Flange Connection to Main Riser
- Built-in Tandem LP Flare Tip
 - 4 ft x 6 inch Nominal Diameter Tandem Flare Tip (for LP stream)
 - Shared Blower with Main Flare
 - 6 inch X 150# RFSO Inlet Flange Connection to Tandem Riser
- Tip Material - 304 Stainless Steel

34 feet x 24 inch (40 ft total height) Tri-Pod Air-Assist Flare Riser:

- 24 inch Diameter Air-Assist Outer Riser And Flare Structure
 - 24 inch x 150# Carbon Steel Plate Flange Connection to Tip
 - Guywire Eyelet Assemblies
 - Lifting & Tailing Lugs
- 8 inch, Main Flare Gas Riser:
 - 34 ft x 8 inch Nominal Diameter Riser
 - Concentric to Air Riser
 - Shop Weld Connection to Inner Tip
 - 8 inch X 150# RFSO Inlet Flange Connection
 - Inlet Elevation: 15'-0"
- 6 inch, LP Tandem Flare Riser:
 - 18.5 ft to 6 inch Nominal Diameter Tandem Gas Riser
 - 6 inch X 150# RF Inlet Flange Connection
 - Inlet Elevation: 16'
- Material – API-5LB, A-53B and A-36 Carbon Steel
- Cimarron Standard On-Shore Paint System



CYCLONE
SFVP Air-Assisted Flare Tip

Duraspark Pilot (QTY 2):

- Model XD-1000 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Burner Management System:

- ARCT™ Burner Management System with UL Certification
- Thermocouple Monitoring System & Alarm
- Weatherproof Enclosure Rated for Class 1, Division 2 Area
- Includes Opti Link Continuous Monitoring System

Complete Guy-wire Package

- All Required Hardware
- Soil anchors included

Retractability Package for 40 ft Flare (QTY 2):

- Allows Pilot to be Maintained from Grade Level
- Electrical Wiring Harness
- Track Assembly, Manual Winch, Winch Cable and Pulley Assembly

High Volume/High Pressure Blower

- 20 HP Direct Drive Motor
- Motor starter and control not included

Utilities

Pilot Gas:	45,000 BTU/Hr required per pilot If Natural Gas is used: 45 SCFH @ 8 - 10 psig (per ignitor).
Purge Gas:	52 SCFH (8" Riser) 29 SCFH (6" inlet)
Electrical:	See Technical Summary Page (Controls) 3PH / 50 – 60 Hz / 480 VAC (blowers)

Flare Accessories (optional)

Pilot Gas Valve Train

- Aluminum Body Regulator
- Ball Valve and Strainer
- Pressure Gauge

8" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 8 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

6" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 6 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

Flamex Pilot (QTY 2) (Replaces updated Duraspark Pilot):

- Model 850 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Variable Frequency Drive & Controls for 20 HP Blower

- NEMA 4X Enclosure
- Adjusts Blower Speed
- Required Upstream Signal Provided By Others
- Supplied Loose for Installation in Motor Control Center (MCC)

Blower Motor Starter & Controls

- 20HP 3Ø 480VAC NEMA 4X Enclosure

Flowmeter with Integrated Transmitter

- Ship Loose Flow Meter with Integrated Transmitter 1/2in MNPTx12in NEMA 4X 120 VAC

DRE-MAX® Smart Controller for Air-Assisted Flares

- With DRE-MAX® you can trust that you are meeting or exceeding your compliance needs. DRE-MAX® uses a proprietary algorithm that uses your preprogrammed gas BTU values, reads gas flow rates from one or two flow transmitters, and adjusts the air from a VFD controlled blower ensuring optimum combustion from your air assisted flare. With a VFD, a flow transmitter, and our DRE-MAX® your compliance problems are over.
 - Fault detection of 4-20mA analog input
 - Quick connectors for ease of installation
 - Status LED for troubleshooting
 - **See additional specs page 4**

8. CYCLONE - SFVP-0824 X 60' - Air-Assisted Flare

FLRSTDSFVP0824SX60

OOOOb/c Smokeless Flare Integrated Continuous Monitoring | Performance Guarantee

SFVP-0824 Air Flare Tip (for HP stream)

- 6 feet x 8 inch Nominal Diameter Flare Tip
- Annular Tip Design for Evenly Distributed Air Flow
- Concentric Air-Assisted Tip with “Spider” Style Burner
- Drilled Pattern Provide a Large Air / Fuel Boundary
- 24 inch Carbon Steel Plate Flange Connection to Main Riser
- Built-in Tandem LP Flare Tip
 - 4 ft x 6 inch Nominal Diameter Tandem Flare Tip (for LP stream)
 - Shared Blower with Main Flare
 - 6 inch X 150# RFSO Inlet Flange Connection to Tandem Riser
- Tip Material - 304 Stainless Steel

54 Feet x 24 inch (60 ft total height) Tri-Pod Air-Assist Flare Riser:

- 24 inch Diameter Air-Assist Outer Riser And Flare Structure
 - 24 inch x 150# Carbon Steel Plate Flange Connection to Tip
 - Guywire Eyelet Assemblies
 - Lifting & Tailing Lugs
- 8 inch, Main Flare Gas Riser:
 - 54 ft x 8 inch Nominal Diameter Riser
 - Concentric to Air Riser
 - Shop Weld Connection to Inner Tip
 - 8 inch X 150# RFSO Inlet Flange Connection
 - Inlet Elevation: 15'-0"
- 6 inch, LP Tandem Flare Riser:
 - 38.5 ft to 6 inch Nominal Diameter Tandem Gas Riser
 - 6 inch X 150# RF Inlet Flange Connection
 - Inlet Elevation: 16'
- Material – API-5LB, A-53B and A-36 Carbon Steel
- Cimarron Standard On-Shore Paint System



CYCLONE
 SFVP Air-Assisted Flare Tip

Duraspark Pilot (QTY 2):

- Model XD-1000 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Burner Management System:

- ARC™ Burner Management System with UL Certification
- Thermocouple Monitoring System & Alarm
- Weatherproof Enclosure Rated for Class 1, Division 2 Area
- Includes Opti Link Continuous Monitoring System

Complete Guy-wire Package

- All Required Hardware
- Soil anchors included

Retractability Package for 60 ft Flare (QTY 2):

- Allows Pilot to be Maintained from Grade Level
- Electrical Wiring Harness
- Track Assembly, Manual Winch, Winch Cable and Pulley Assembly

High Volume/High Pressure Blower

- 20 HP Direct Drive Motor
- Motor starter and control not included

Utilities

Pilot Gas:	45,000 BTU/Hr required per pilot If Natural Gas is used: 45 SCFH @ 8 - 10 psig (per ignitor).
Purge Gas:	52 SCFH (8" Riser) 29 SCFH (6" inlet)
Electrical:	See Technical Summary Page (Controls) 3PH / 50 – 60 Hz / 480 VAC (blowers)

Flare Accessories (optional)

Pilot Gas Valve Train

- Aluminum Body Regulator
- Ball Valve and Strainer
- Pressure Gauge

8" Detonation Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 8 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any detonation arrestor pressure drop shall be additive to the flare system pressure drop

6" Detonation Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 6 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any detonation arrestor pressure drop shall be additive to the flare system pressure drop

Flamex Pilot (QTY 2) (Replaces updated Duraspark Pilot):

- Model 850 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Variable Frequency Drive & Controls for 20 HP Blower

- NEMA 4X Enclosure
- Adjusts Blower Speed
- Required Upstream Signal Provided By Others
- Supplied Loose for Installation in Motor Control Center (MCC)

Blower Motor Starter & Controls

- 20HP 3Ø 480VAC NEMA 4X Enclosure EOMFF8-A-860

Flowmeter with Integrated Transmitter

- Ship Loose Flow Meter with Integrated Transmitter 1/2in MNPTx12in NEMA 4X 120 VAC

DRE-MAX® Smart Controller for Air-Assisted Flares

- With DRE-MAX® you can trust that you are meeting or exceeding your compliance needs. DRE-MAX® uses a proprietary algorithm that uses your preprogrammed gas BTU values, reads gas flow rates from one or two flow transmitters, and adjusts the air from a VFD controlled blower ensuring optimum combustion from your air assisted flare. With a VFD, a flow transmitter, and our DRE-MAX® your compliance problems are over.
 - Fault detection of 4-20mA analog input
 - Quick connectors for ease of installation
 - Status LED for troubleshooting
 - **See additional specs page 4**

9. DREAMDUO - DDAA-6410 x 30'

VMSA/Air Assist HP/LP Smokeless Dual Flare

FLRSTDDAA06410x30

OOOOb/c Smokeless Flare Integrated Continuous Monitoring | Performance Guarantee

DDAA-6410x30 VMSA Flare Tip (for HP Stream)

- 4 feet x 6 inch Nominal Diameter, with Mixing Chamber (304SS) at Top
- Spring-Actuated, Variable Crown Design
- Smokeless, Ultra-Low Radiation Design
- Located at the Center of the Tip
- Sleeve Cylinder
- 6 inch x 150# RFSO 304 Stainless Steel Mating Flange
- Concentric Air-Assisted LP Flare Tip
 - Annular Tip Design for Evenly Distributed Air Flow
 - LP and Air-Assist Exit Concentric to HP and LP Tips
 - 4 inch x 150# RFWN 304 Stainless Steel Mating Flange for LP Tip
 - 10 inch x 150# RFWN 304 Stainless Steel Mating Flange for Air-Assist Tip
- Tip Material - 304 Stainless Steel

26 Feet (30 ft Total Height) Guyed Flare Riser

- 6 inch Main Process Riser:
 - 26 feet x 6 inch Nominal Diameter Riser
 - 6 inch x 150# RFWN Inlet Flange Connection
 - Guywire Eyelet Assemblies
 - Inlet Elevation: 13'-6"
- 4 inch, LP Tandem Flare Riser:
 - 11.25 ft x 4 inch Nominal Diameter Tandem Gas Riser
 - 4 inch X 150# RFSO Inlet Flange Connection
 - Inlet Elevation: 14'-6"
- 10 inch Air Riser
- Material: A-53B, A-36 Carbon Steel or Equivalent
- Base Plate Assembly
- Blower Stand
- Cimarron Standard On-Shore Paint System



DREAMDUO
Air-Assisted Sonic Flare Tip

Duraspark Pilot (QTY 1):

- Model XD-1000 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Burner Management System:

- ARC™ Burner Management System with UL Certification
- Thermocouple Monitoring System & Alarm
- Weatherproof Enclosure Rated for Class 1, Division 2 Area
- Includes Opti Link Continuous Monitoring System

Complete Guy-wire Package

- All Required Hardware
- Soil anchors included

Retractability Package for 30 ft Flare (QTY 1):

- Allows Pilot to be Maintained from Grade Level
- Electrical Wiring Harness
- Track Assembly, Manual Winch, Winch Cable and Pulley Assembly

High Volume/High Pressure Blower

- 5 HP Direct Drive Motor
- Motor starter and control not included

Utilities

Pilot Gas:	45,000 BTU/Hr required per pilot If Natural Gas is used: 45 SCFH @ 8 - 10 psig (per ignitor).
Purge Gas:	6 SCFH (6" Riser) 13 SCFH (4" inlet)
Electrical:	See Technical Summary Page (Controls) 3PH / 50 – 60 Hz / 480 VAC (blowers)

Flare Accessories (optional)

Pilot Gas Valve Train

- Aluminum Body Regulator
- Ball Valve and Strainer
- Pressure Gauge

6" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 6 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

4" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 4 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

Flamex Pilot (QTY 1) (Replaces updated Duraspark Pilot):

- Model 850 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Variable Frequency Drive & Controls for 5 HP Blower

- NEMA 4X Enclosure
- Adjusts Blower Speed
- Required Upstream Signal Provided By Others
- Supplied Loose for Installation in Motor Control Center (MCC)

Flowmeter with Integrated Transmitter

- Ship Loose Flow Meter with Integrated Transmitter 1/2in MNPTx12in NEMA 4X 120 VAC

DRE-MAX® Smart Controller for Air-Assisted Flares

- With DRE-MAX® you can trust that you are meeting or exceeding your compliance needs. DRE-MAX® uses a proprietary algorithm that uses your preprogrammed gas BTU values, reads gas flow rates from one or two flow transmitters, and adjusts the air from a VFD controlled blower ensuring optimum combustion from your air assisted flare. With a VFD, a flow transmitter, and our DRE-MAX® your compliance problems are over.

- Fault detection of 4-20mA analog input
- Quick connectors for ease of installation
- Status LED for troubleshooting
- **See additional specs page 4**

10. DREAMDUO - DDAA-8610 x 40' VMSA/Air Assist HP/LP Smokeless Dual Flare

FLRSTDDAA08610x40

OOOOb/c Smokeless Flare Integrated Continuous Monitoring | Performance Guarantee

DDAA-8610x40 VMSA Flare Tip (for HP Stream)

- 4 feet x 8 inch Nominal Diameter, with Mixing Chamber (304SS) at Top
- Spring-Actuated, Variable Crown Design
- Smokeless, Ultra-Low Radiation Design
- Located at the Center of the Tip
- Sleeve Cylinder
- 8 inch x 150# RFSO 304 Stainless Steel Mating Flange
- Concentric Air-Assisted LP Flare Tip
 - Annular Tip Design for Evenly Distributed Air Flow
 - LP and Air-Assist Exit Concentric to HP and LP Tips
 - 6 inch x 150# RFWN 304 Stainless Steel Mating Flange for LP Tip
 - 10 inch x 150# RFWN 304 Stainless Steel Mating Flange for Air-Assist Tip
- Tip Material - 304 Stainless Steel

36 Feet (40 ft Total Height) Guyed Flare Riser

- 8 inch Main Process Riser:
 - 36 feet x 8 inch Nominal Diameter Riser
 - 8 inch x 150# RFWN Inlet Flange Connection
 - Guywire Eyelet Assemblies
 - Inlet Elevation: 13'-6"
- 6 inch, LP Tandem Flare Riser:
 - 21.25 ft x 6 inch Nominal Diameter Tandem Gas Riser
 - 6 inch X 150# RFSO Inlet Flange Connection
 - Inlet Elevation: 13'-6"
- 10 inch Air Riser
- Material: A-53B, A-36 Carbon Steel or Equivalent
- Base Plate Assembly
- Blower Stand
- Cimarron Standard On-Shore Paint System



DREAMDUO
Air-Assisted Sonic Flare Tip

Duraspark Pilot (QTY 1):

- Model XD-1000 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 310 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Burner Management System:

- ARC™ Burner Management System with UL Certification
- Thermocouple Monitoring System & Alarm
- Weatherproof Enclosure Rated for Class 1, Division 2 Area
- Includes Opti Link Continuous Monitoring System

Complete Guy-wire Package

- All Required Hardware
- Soil anchors included

Retractability Package for 40 ft Flare (QTY 1):

- Allows Pilot to be Maintained from Grade Level
- Electrical Wiring Harness
- Track Assembly, Manual Winch, Winch Cable and Pulley Assembly

High Volume/High Pressure Blower

- 5 HP Direct Drive Motor
- Motor starter and control not included

Utilities

Pilot Gas:	45,000 BTU/Hr required per pilot If Natural Gas is used: 45 SCFH @ 8 - 10 psig (per ignitor).
Purge Gas:	8 SCFH (8" Riser) 29 SCFH (6" inlet)
Electrical:	See Technical Summary Page (Controls) 3PH / 50 – 60 Hz / 480 VAC (blowers)

Flare Accessories (optional)

Pilot Gas Valve Train

- Aluminum Body Regulator
- Ball Valve and Strainer
- Pressure Gauge

8" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 8 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

6" Deflagration Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 6 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any deflagration arrestor pressure drop shall be additive to the flare system pressure drop

Flamex Pilot (QTY 1) (Replaces updated Duraspark Pilot):

- Model 850 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Variable Frequency Drive & Controls for 5 HP Blower

- NEMA 4X Enclosure
- Adjusts Blower Speed
- Required Upstream Signal Provided By Others
- Supplied Loose for Installation in Motor Control Center (MCC)

Flowmeter with Integrated Transmitter

- Ship Loose Flow Meter with Integrated Transmitter 1/2in MNPTx12in NEMA 4X 120 VAC

DRE-MAX® Smart Controller for Air-Assisted Flares

- With DRE-MAX® you can trust that you are meeting or exceeding your compliance needs. DRE-MAX® uses a proprietary algorithm that uses your preprogrammed gas BTU values, reads gas flow rates from one or two flow transmitters, and adjusts the air from a VFD controlled blower ensuring optimum combustion from your air assisted flare. With a VFD, a flow transmitter, and our DRE-MAX® your compliance problems are over.

- Fault detection of 4-20mA analog input
- Quick connectors for ease of installation
- Status LED for troubleshooting
- **See additional specs page 4**

11. DREAMDUO - DDAA-10820 x 70' VMSA/Air Assist HP/LP Smokeless Dual Flare

FLRSTDDAA10820x70

OOOOb/c Smokeless Flare Integrated Continuous Monitoring | Performance Guarantee

DDAA-10820x70 VMSA Flare Tip (for HP Stream)

- 8 feet x 10 inch Nominal Diameter, with Mixing Chamber (304SS) at Top
- Spring-Actuated, Variable Crown Design
- Smokeless, Ultra-Low Radiation Design
- Located at the Center of the Tip
- Sleeve Cylinder
- 10 inch x 150# RFSO 304 Stainless Steel Mating Flange
- Concentric Air-Assisted LP Flare Tip
 - Annular Tip Design for Evenly Distributed Air Flow
 - LP and Air-Assist Exit Concentric to HP and LP Tips
 - 8 inch x 150# RFWN 304 Stainless Steel Mating Flange for LP Tip
 - 20 inch 304 Stainless Steel Mating Flange (by Plate) for Air-Assist Tip
- Tip Material - 304 Stainless Steel

62 Feet (70 ft Total Height) Guyed Flare Riser

- 10 inch Main Process Riser:
 - 62 feet x 10 inch Nominal Diameter Riser
 - 10 inch x 150# RFWN Inlet Flange Connection
 - Guywire Eyelet Assemblies
 - Inlet Elevation: 10'-0"
- 8 inch, LP Tandem Flare Riser:
 - 52 feet x 8 inch Nominal Diameter Tandem Gas Riser
 - 8 inch X 150# RFSO Inlet Flange Connection
 - Inlet Elevation: 10'-0"
- 20 inch Air Riser
- Material: A-53B, A-36 Carbon Steel or Equivalent
- Base Plate Assembly
- Blower Support Frame
- Cimarron Standard On-Shore Paint System



DREAMDUO
Air-Assisted Sonic Flare Tip

Duraspark Pilot (QTY 2):

- Model XD-1000 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 310 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Burner Management System:

- ARC™ Burner Management System with UL Certification
- Thermocouple Monitoring System & Alarm
- Weatherproof Enclosure Rated for Class 1, Division 2 Area
- Includes Opti Link Continuous Monitoring System

Complete Guy-wire Package

- All Required Hardware
- Soil anchors included

Retractability Package for 70 ft Flare (QTY 2):

- Allows Pilot to be Maintained from Grade Level
- Electrical Wiring Harness
- Track Assembly, Manual Winch, Winch Cable and Pulley Assembly

High Volume/High Pressure Blower

- 10 HP Direct Drive Motor
- Motor starter and control not included

Utilities

Pilot Gas:	45,000 BTU/Hr required per pilot If Natural Gas is used: 45 SCFH @ 8 - 10 psig (per ignitor).
Purge Gas:	10 SCFH (10" Riser) 52 SCFH (8" inlet)
Electrical:	See Technical Summary Page (Controls) 3PH / 50 – 60 Hz / 480 VAC (blowers)

Flare Accessories (optional)

Pilot Gas Valve Train

- Aluminum Body Regulator
- Ball Valve and Strainer
- Pressure Gauge

10" Detonation Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 10 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any detonation arrestor pressure drop shall be additive to the flare system pressure drop

8" Detonation Arrestor

- Carbon Steel Housing/Stainless Steel Internals
- Eccentric design
- 8 inch flanged connection for in-line installation
- To be installed at inlet nozzle
- Any detonation arrestor pressure drop shall be additive to the flare system pressure drop

Flamex Pilot (QTY 2) (Replaces updated Duraspark Pilot):

- Model 850 Pilot
- 120VAC Power Default (240VAC, 24VDC, Solar Options Available)
- Continuous High Energy Spark & Constant Flame Pilot
- Fully Retractable to Grade for Ease of Maintenance
- Type K Thermocouple (Dual Element)
- Materials of construction:
 - Ignitor Head – 316 Stainless Steel/ Body – 316 Stainless Steel
 - Transformer Enclosure – Carbon Steel

Variable Frequency Drive & Controls for 10 HP Blower

- NEMA 4X Enclosure
- Adjusts Blower Speed
- Required Upstream Signal Provided By Others
- Supplied Loose for Installation in Motor Control Center (MCC)

Flowmeter with Integrated Transmitter

- Ship Loose Flow Meter with Integrated Transmitter 1/2in MNPTx12in NEMA 4X 120 VAC

DRE-MAX® Smart Controller for Air-Assisted Flares

- With DRE-MAX® you can trust that you are meeting or exceeding your compliance needs. DRE-MAX® uses a proprietary algorithm that uses your preprogrammed gas BTU values, reads gas flow rates from one or two flow transmitters, and adjusts the air from a VFD controlled blower ensuring optimum combustion from your air assisted flare. With a VFD, a flow transmitter, and our DRE-MAX® your compliance problems are over.

- Fault detection of 4-20mA analog input
- Quick connectors for ease of installation
- Status LED for troubleshooting
- **See additional specs page 4**