

## Catalog

## OOOOb/c Smart Enclosed Combustors

with

Integrated Continuous Monitoring

10 EPA certified models 4 High-Volume models

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
<ul> <li>Vapor Recovery Units:</li> <li>Compression-base: Screw, Vane Compressors, Plunger Lift Pumps</li> <li>Activated Carbon-based Vapor Recovery Systems</li> <li>Enclosed Combustion:</li> <li>Quad O Combustors (98% DRE), Thermal Oxidizers, Vapor Combustion Units (99.9% DRE), CEB® (99.99% DRE, low NOx)</li> <li>Smokeless Flares:</li> <li>High Efficiency Assisted (air, steam, gas), Utility, Derrick, Ground Flares, DreamDuo.</li> </ul>	<ul> <li>Production and processing:</li> <li>Modular Production Packages</li> <li>Separator</li> <li>Gas Filtration</li> <li>Glycol Dehydration</li> <li>Gas Production Units</li> <li>Oil and Gas Heaters</li> <li>Heater Treaters</li> <li>Vapor Recovery Towers</li> <li>BTEX Eliminators</li> <li>Plunger Lift Pumps</li> <li>API Tanks</li> </ul>	<ul> <li>Field Services:</li> <li>Startup &amp; Maintenance</li> <li>Spare parts</li> <li>Lease/Rentals</li> <li>LDAR Detection</li> </ul> Continuous Monitoring: <ul> <li>Burner Management Systems</li> <li>Emissions Control Continuous Monitoring at Source-Level</li> <li>DRE optimization (DRE-MAX®)</li> <li>Thief Hatch Continuous Monitoring (NOVENT®)</li> <li>Autonomous Al-driven Video Monitoring</li> </ul>

## **Segments and Applications**

Oil & Gas Focus Areas	Expanded Focus Areas for Combustion Applications
<ul> <li>Upstream:</li> <li>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</li> <li>Midstream:</li> <li>Gas Processing applications to include gas dehydration, gas filtration, gas line heaters, flares combustion, BTEX Eliminators</li> </ul>	<ul> <li>Biogas</li> <li>Agricultural</li> <li>Landfill</li> <li>Wastewater Treatment</li> <li>Coal Mines</li> <li>Industrial</li> </ul>
<ul> <li>Downstream:</li> <li>Loading Terminal Vapor Combustors, Carbon Vapor Recovery, Refinery spec Flares &amp; Combustors</li> </ul>	Aerospace



Item Pricing/Delivery							
ltem	Combusto	or Description	ı	Mir	n/Max Fl	ow Rate*	Lead time***
footpri do not	B enclosed combustors are an int. These combustors have lo t have flame cells. Because o the radiating heat while in o	ow pressure dr	op burners, are hers should contr	made entire	ly of stair ss and de	nless steel, are licate equipm	not insulated and
1	AB20 - Low Volume			Min.	8 – Max.	36 MSCFD	7 weeks
2	AB100 - High Volume			Min. 3	30 – Max.	144 MSCFD	5 weeks
3	AB200 - High Volume			Min. 4	40 – Max.	196 MSCFD	5 weeks
	Opti Link – Integrated Cont	inuous Monito	oring (3 months fr	ee after star	tup)		
These of choice	H units are also are an excelle combustors have low pressure when temperature is high c I control the access to the eq	e drop burners and varies wid	and are internately. However th	lly insulated ese units do	with cera not have	mic, which ma any flame c	akes them a better ells and customers
4	Hy-Bon CH2.5 - Low Volume	e		Min.	8 – Max.	36 MSCFD	6 weeks
5	Hy-Bon CH10 - High Volume	e		Min. 3	34 – Max.	100 MSCFD	6 weeks
	Opti Link – Integrated Cont	inuous Monito	oring (3 months fr	ee after star	tup)		
	loading, BTEX, low vapors ap been field tested to be well a Cimarron - 24" - Low Volum	bove 98% DRE		h integratec	l continuo		
7	Cimarron - 30" - Low Volum	le		Min.	3 – Max.	15 MSCFD	4 weeks
8	Cimarron - 48" - Low Volum	e		Min.	5 – Max.	30 MSCFD	4 weeks
9	Cimarron - 60" - Low Volum	Ie		Min.	12 – Max.	57 MSCFD	4 weeks
10	Cimarron - 48" - High Volume			Min.	13 – Max.	109 MSCFD	4 weeks
11	Cimarron - 60" - High Volum	ne		Min. 3	30 – Max.	200 MSCFD	8 weeks
12	Cimarron - 72" - Ultra High \	/olume		Min. 4	40 – Max.	300 MSCFD	8 weeks
13	Cimarron - 84" - Ultra High \	/olume		Min. S	55 – Max.	550 MSCFD	8 weeks
14	Cimarron - 96" - Ultra High Volume Min. 100 – Max. 625 MSCFD 1			16 weeks			
	Opti Link – Integrated Cont	inuous Monito	pring (3 months fr	ee after star	tup)		
** Disc	n and max flow rate depend o counts are available, as well o ad time varies based on avail	as numerous a	options. Ask for a	formal quot	e that fits		
Comb	oustor Type	98% DRE	Low Pressure Drop burner	Insulated Stack	Flame Cells	High Turndown	Real Time Monitoring

Combustor	Туре	98% DRE	Low Pressure Drop burner	Insulated Stack	Flame Cells	High Turndown	Real Time Monitoring
AB	Enclosed flares	$\checkmark$	$\checkmark$	×	×	×	✓ with Opti Link
СН	Enclosed flares	$\checkmark$	$\checkmark$	$\checkmark$	×	×	✓ with Opti Link
Cimarron	Burner tray/multi jets	$\checkmark$	×	$\checkmark$	✓	$\checkmark$	✓ with Opti Link



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### A Smart Enclosed Combustor with Integrated Continuous Monitoring

- The Cimarron Smart Combustor is **a standalone system** that can eliminate fugitive emissions while continuously monitoring its performance.
- Cimarron's manufacturer tested Combustors demonstrate **control efficiency of 98%+** that surpasses the required 95%.
- The Cimarron Smart Combustor is equipped with continuous pilot with pilot auto-reignition (BMS).
- The Cimarron Smart Combustor uses **continuous pilot flame sensing** with digital records saved every 5 minutes or less.
- The Cimarron Smart Combustor is equipped with a stack thermocouple and **it monitors the stack temperature**.
- The Cimarron Smart Combustor can monitor and send alerts to company control room and/or to the cloud for performance monitoring with actionable intelligence.
- The Cimarron Smart Combustor is **flowmeter ready**. An inlet gas flowmeter can be installed, and flow rates monitored and recorded through the Smart Combustor. Alerts can be sent for out-of-range flow rates.
- All monitored data are 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<sup>®</sup> 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.





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### 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<sup>®</sup> 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:

- Unparallelled, 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.



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Empower Human



### The Sytelink360<sup>®</sup> solutions

ARC<sup>™</sup> (Auto-Reignition Controller for Pilots and Burners) NOVENT<sup>®</sup>

Opti Link (Alert Monitoring)

360 Monitoring (Performance Guaranteed)

DRE-MAX® (Smart Controller for Air-Assisted Flares)

IQR (Identify, Quantify, Rectify)

Autonomous365 by CleanConnect.ai

#### Value

Burner Management System Thief Hatch Status Remote Monitoring Flares, Combustors, VRUs Remote Monitoring Alert Monitoring + 24/7 Response & Service Team Flare Blower Optimizer Actual emissions measurement/LDAR Autonomous Al-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)	✓	$\checkmark$	×	$\checkmark$	~	×
NOVENT <sup>®</sup> (Thief Hatch Tilt Sensor Monitoring)*	~	$\checkmark$	×	×	×	$\checkmark$
Opti Link™ (Source-Level Real Time Monitoring)*	<ul> <li>Image: A start of the start of</li></ul>	$\checkmark$	✓	$\checkmark$	~	$\checkmark$
360 Performance Monitoring (High Uptime Guarantee)*	~	$\checkmark$	✓	$\checkmark$	~	$\checkmark$
DRE-MAX® (Smart VFD Controller – 99%+ DRE)	~	×	×	(Air assisted flares only)	×	×
IQR (LDAR/Emissions Measurement)	×	×	✓	$\checkmark$	✓	$\checkmark$
AUTONOMOUS365 (Autonomous 24/7 Al-driven LDAR)	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$



Catalog

## OOOOb/c Smart Enclosed Combustors

with

## Integrated Continuous Monitoring

10 EPA certified models 4 High-Volume models



## **Enclosed Combustor - AB20**

## OOOOb/c Certified Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

### **Combustion Chamber**

- 20" Diameter enclosed combustion chamber, 12 feet overall height
- Single piece design for ease of transportation and installation
- Material of Construction:
  - Flare Stack Enclosure: 304SS

### Internal Burner Nozzle Assembly

- Proprietary design promotes air induction & complete combustion
- Requires no assist gas, no steam, no premixing, and no blowers
- 2" x 150# RFSO stainless steel inlet nozzle for waste gas
- 304 stainless steel piping
- Gas fittings in accordance with NFPA, UL, and/or CSA

- Flare inlet line (shipped loose for field installation) including pneumatic SDV & deflagration arrestor, see below for instrument details.

### **Cimarron Standard Pilot**

- Electric Spark Ignition
- Pilot Monitored Via Ionization Rod
- Pilot Nozzle/Body 310/316SS
- Pilot Fuel Gas Assembly Line Including:
  - Pilot Isolation Ball Valve 1/2" 150# one-piece 304SST
  - Pilot Shutdown Solenoid Valve 1/4" 2-way 24vdc

### **Standard Accessories - Included**

Description	OEM	OEM Model #	QTY
Deflagration Arrestor Kit RF 3" CS X SST	Protego	SL 156897	1
Valve, Butterfly Pneumatic 2" LP IRON 304 SS	Cimarron	SL 108517	1
Pressure Transducer ½" NPT 0-50" H20 W/ 6" leads 304 SS	Cimarron	SL 104281	1
Sight Glass 2" MNPT without Reflector 304 SS	Generic	SL 104528	1
Stack Thermowell 9" X 0.260 bore ½" MNPT straight 304 SS	Generic	SL 104280	1
Stack Thermocouple 9" TYPE K 304 SS	Generic	SL 104279	1

	Utilities
Pilot Gas:	Propane: 15 SCFH @ 4 psig. If Natural Gas is used: 30 SCFH @ 8 - 10 psig (per ignitor). Max Inlet Pressure: 30 psig
Electrical: Instrument Air	24 VDC (Controls) 80 psig minimum

**ABUTEC 20** 



## **Optional Accessories**

Description	OEM	OEM Model #	QTY
Kit Bird Screen AB20	Cimarron	SL 161804	1
Weldment Stack Extension AB20 19"ODx96"	Cimarron	SL 2212401	1
6'x6'x6" Concrete Pad For AB-20	Cimarron	SL 115619	1
AB20 Air Intake / Windguard	Cimarron	SL 162611	1

#### Notes

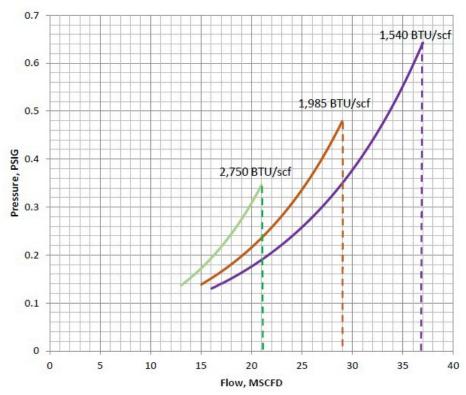
- OOOOa/b/c certified IAW USEPA 40 CFR 60, App. A, Source Emissions Test Methods.

- Cimarron Energy guarantees the Quad-O certified combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

Max water vapor content in the waste stream: Min temperature in the combustion chamber: Min Lower Heating Value (LHV) of the gas: Max Thermal Duty: 4% vol. 1400 F 800 BTU/scf Per Technic

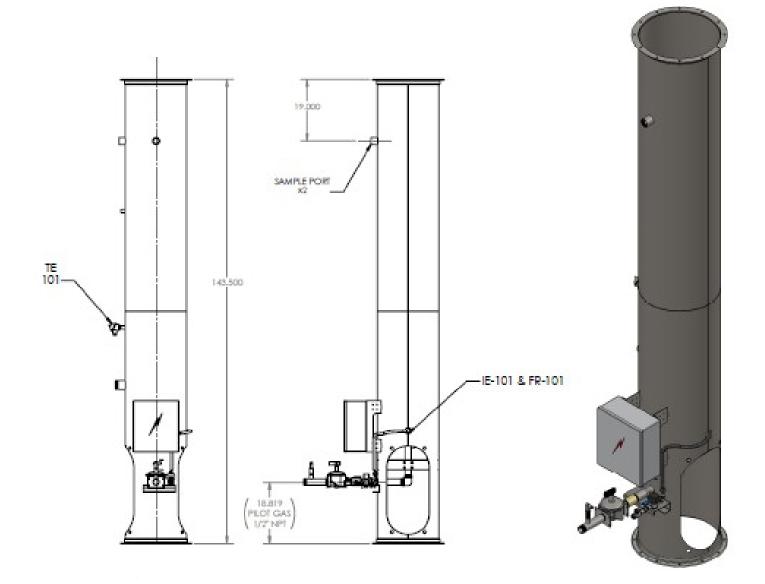
Per Technical Section of this Proposal

- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- This is a non-temperature-controlled unit, therefore NOx and CO emissions cannot be guaranteed.
- This unit is not insulated. Customer to inform if there are any special requirements regarding maximum allowable temperature around the unit.
- The unit may not meet all structural requirements, including Wind and Seismic ratings, of the end user.
- Customer to inform if there are any structural requirements to consider.



AB 20 Flow curve







## Enclosed Combustor – AB100

ABUTEC 100

## OOOOb/c Certified Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

### **Combustion Chamber**

- 33" Diameter enclosed combustion chamber, 20 feet overall height
- Single piece design for ease of transportation and installation
- Material of Construction:
  - Flare Stack Enclosure: 304SS

### Internal Burner Nozzle Assembly

- Proprietary design promotes air induction & complete combustion
- Requires no assist gas, no steam, no premixing, and no blowers
- 3" x 150# RFSO stainless steel inlet nozzle for waste gas
- 304 stainless steel piping
- Gas fittings in accordance with NFPA, UL, and/or CSA

- Flare inlet line (shipped loose for field installation) including pneumatic SDV & deflagration arrestor, see below for instrument details.

### **Cimarron Standard Pilot**

- Electric Spark Ignition
- Pilot Monitored Via Ionization Rod
- Pilot Nozzle/Body 310/316SS
- Pilot Fuel Gas Assembly Line Including:
  - Pilot Isolation Ball Valve 1/2" 150# one-piece 304SST
  - Pilot Shutdown Solenoid Valve 1/4" 2-way 24vdc

### **Standard Accessories - Included**

Description	OEM	OEM Model #	QTY
Deflagration Arrestor Kit RF 3" CS X SST	Protego	SL 156897	1
Valve, Butterfly Pneumatic 3" LP IRON 304 SS	Cimarron	SL 108517	1
Pressure Transducer ½" NPT 0-50" H20 W/ 6" leads 304 SS	Cimarron	SL 104281	1
Sight Glass 2" MNPT without Reflector 304 SS	Generic	SL 104528	1
Stack Thermowell 9" X 0.260 bore ½" MNPT straight 304 SS	Generic	SL 104280	1
Stack Thermocouple 9" TYPE K 304 SS	Generic	SL 104279	1

Utilities			
Pilot Gas:	Propane: 15 SCFH @ 4 psig. If Natural Gas is used: 30 SCFH @ 8 - 10 psig (per ignitor). Max Inlet Pressure: 30 psig		
Electrical: Instrument Air	24 VDC (Controls) 80 psig minimum		



## **Optional Accessories**

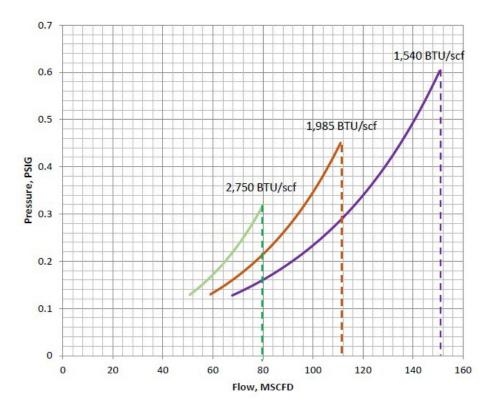
Description	OEM	OEM Model #	QTY
Kit Bird Screen AB100	Cimarron	IFS 104634	1
6'x6'x6" Concrete Pad For AB-100 No Anchors	Cimarron	SL 115619	1
AB100 Air Intake / Windguard	Cimarron	SL 159196	1

### Notes

- OOOOa/b/c certified IAW USEPA 40 CFR 60, App. A, Source Emissions Test Methods.
- Cimarron Energy guarantees the Quad-O certified combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

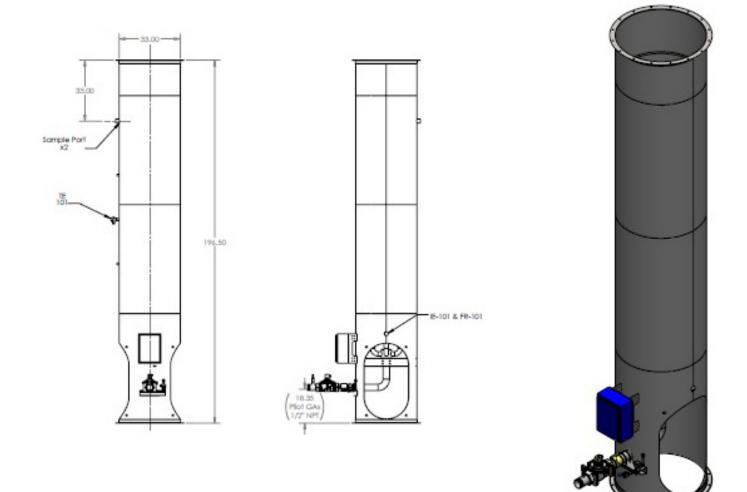
Max water vapor content in the waste stream: Min temperature in the combustion chamber: Min Lower Heating Value (LHV) of the gas: Max Thermal Duty: 4% vol. 1400 F 800 BTU/scf Per Technical Section of this Proposal

- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- This is a non-temperature-controlled unit, therefore NOx and CO emissions cannot be guaranteed.
- This unit is not insulated. Customer to inform if there are any special requirements regarding maximum allowable temperature around the unit.
- The unit may not meet all structural requirements, including Wind and Seismic ratings, of the end user.
- Customer to inform if there are any structural requirements to consider.



### AB 100 Flow curve







## **Enclosed Combustor – AB200**

ABUTEC 200

## OOOOb/c Certified Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

### **Combustion Chamber**

- 47" Diameter enclosed combustion chamber, 20 feet overall height
- Single piece design for ease of transportation and installation
- Material of Construction:
  - Flare Stack Enclosure: 304SS

### Internal Burner Nozzle Assembly

- Proprietary design promotes air induction & complete combustion
- Requires no assist gas, no steam, no premixing, and no blowers
- 3" x 150# RFSO stainless steel inlet nozzle for waste gas
- 304 stainless steel piping
- Gas fittings in accordance with NFPA, UL, and/or CSA

- Flare inlet line (shipped loose for field installation) including pneumatic SDV & deflagration arrestor, see below for instrument details.

### **Cimarron Standard Pilot**

- Electric Spark Ignition
- Pilot Monitored Via Ionization Rod
- Pilot Nozzle/Body 310/316SS
- Pilot Fuel Gas Assembly Line Including:
  - Pilot Isolation Ball Valve 1/2" 150# one-piece 304SST
  - Pilot Shutdown Solenoid Valve 1/4" 2-way 24vdc

### **Standard Accessories - Included**

Description	OEM	OEM Model #	QTY
Deflagration Arrestor RF 3" CS X SST	Protego	SL 156527	1
Valve, Butterfly Pneumatic 3" LP IRON 304 SS	Cimarron	SL 108517	1
Pressure Transducer ½" NPT 0-50" H20 W/ 6" leads 304 SS	Cimarron	SL 104281	1
Sight Glass 2" MNPT without Reflector 304 SS	Generic	SL 201061	1
Stack Thermowell 9" X 0.260 bore ½" MNPT straight 304 SS	Generic	SL 157953	1
Stack Thermocouple 9" TYPE K 304 SS	Generic	SL 157952	1

	Utilities
Pilot Gas:	Propane: 15 SCFH @ 4 psig. If Natural Gas is used: 30 SCFH @ 8 - 10 psig (per ignitor). Max Inlet Pressure: 30 psig
Electrical: Instrument Air	24 VDC (Controls) 80 psig minimum



## **Optional Accessories**

Description	OEM	OEM Model #	QTY
Kit Bird Screen AB200	Cimarron	SL 201068	1
Weldment Stack Extension AB200 47"ODx60"	Cimarron	SL 3503805	1
8'x8'x8" Concrete Pad For AB-200 No Anchors	Cimarron	SL 119524	1
AB200 Air Intake / Windguard	Cimarron	SL 159193	1

### Notes

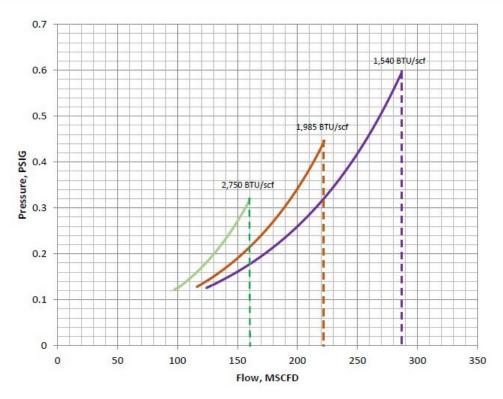
- OOOOa/b/c certified IAW USEPA 40 CFR 60, App. A, Source Emissions Test Methods.

- Cimarron Energy guarantees the Quad-O certified combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

Max water vapor content in the waste stream: Min temperature in the combustion chamber: Min Lower Heating Value (LHV) of the gas: Max Thermal Duty: 4% vol. 1400 F 800 BTU/scf Per Technico

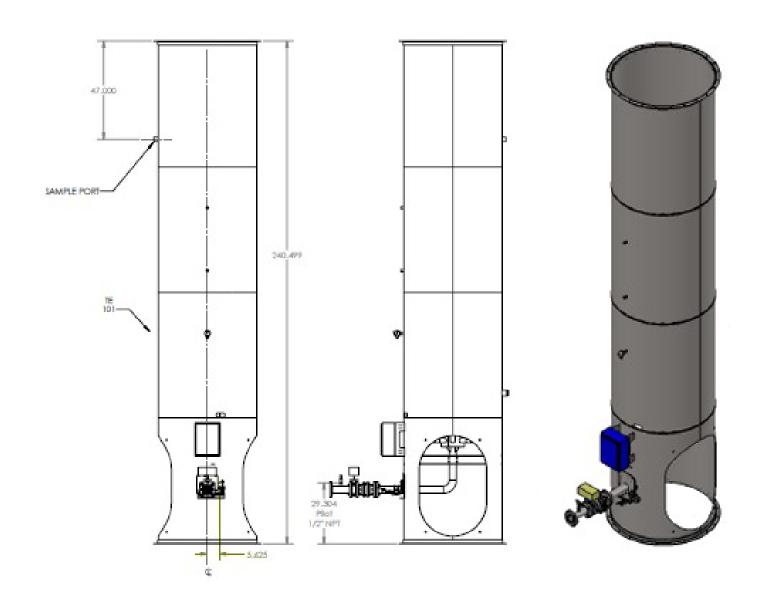
Per Technical Section of this Proposal av still be able to quarantee 98% DRE for applications where some o

- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- This is a non-temperature-controlled unit, therefore NOx and CO emissions cannot be guaranteed.
- This unit is not insulated. Customer to inform if there are any special requirements regarding maximum allowable temperature around the unit.
- The unit may not meet all structural requirements, including Wind and Seismic ratings, of the end user.
- Customer to inform if there are any structural requirements to consider.



#### AB 200 Flow curve







## Enclosed Combustor – CH2.5

CH2.5

## OOOOb/c Certified Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

Combustor & Associated Equipment		
Certification:	EPA 40 CFR 60, Quad O Compliant	
Burner Size:	2.5 MMBTU/hr	
Nominal Operating Temperature:	1500 °F	
Minimum Inlet Pressure:	1.5 oz/in <sup>2</sup>	
Dimensions:	34" OD x 16' H (20' w/ extension)	
Turndown:	Scalable	
Stack Insulation:	Ceramic	

External

Paint

Default Color: Noble Tan unless other color chosen as option

### **Standard Accessories - Included**

Description	OEM	OEM Model #	QTY
Bird Screen - Stainless Steel	Generic	Generic	1
Pilot Assembly, Flame Ionization, 31 SCFH @ 4 psig Consumption	Generic	Generic	1

### **Optional Accessories**

Description	OEM	OEM Model #	QTY
2" Inlet Piping with Waste Gas/Pilot ESDs, Gauges, Regulators	Cimarron	SL 350923	1
2" NPT Flame Arrestor, 5 minutes burn time	Wenco	SL 112907	1
Skid	Generic	SL 115619	1
4' Stack Extension	Cimarron	Generic	1
Thermal Mass Flow Meter	Cimarron	SL 155353	1

### Notes

- Pilot Consumption: Propane: 15 SCFH @ 4 psig, Natural Gas: 30 SCFH @ 8 - 10 psig (per ignitor).

- OOOOa/b/c certified IAW USEPA 40 CFR 60, App. A, Source Emissions Test Methods.
- Cimarron Energy guarantees the Quad-O certified combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

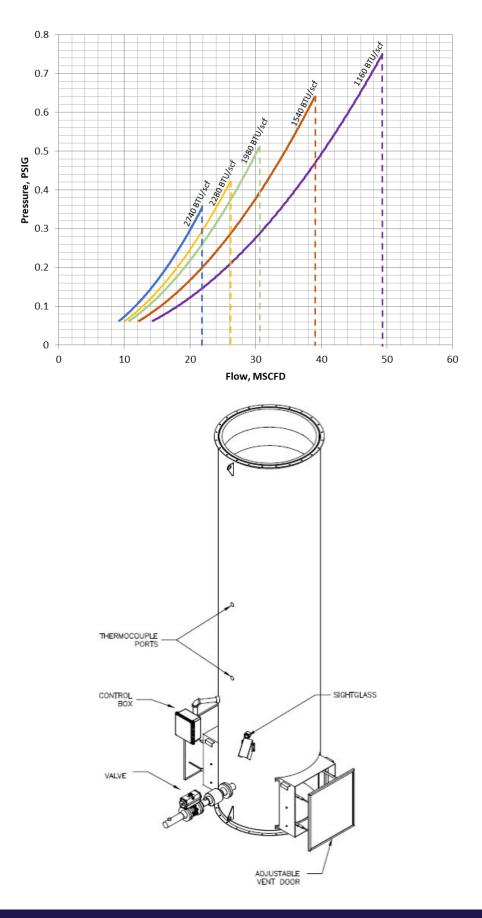
Max water vapor content in the waste stream: Min temperature in the combustion chamber: Min Lower Heating Value (LHV) of the gas: Max Thermal Duty:

4% vol. 1400 F 800 BTU/scf Per Technic

Per Technical Section of this Proposal

- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- The unit may not meet all structural requirements, including Wind and Seismic ratings, of the end user.
- Customer to inform if there are any structural requirements to consider.









CH10

## OOOOb/c Certified Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

## Combustor & Associated Equipment

Certification: Burner Size: Nominal Operating Temperature: Minimum Inlet Pressure: Dimensions: Turndown: Stack Insulation: EPA 40 CFR 60, Quad O Compliant 10.0 MMBTU/hr 1500 °F 1.5 oz/in<sup>2</sup> 54" OD x 20' H (25' w/ extension) Scalable Ceramic

External

Paint

Default Color: Noble Tan unless other color chosen as option

### **Standard Accessories - Included**

Description	OEM	OEM Model #	QTY
Bird Screen - Stainless Steel	Generic	Generic	1
Pilot Assembly, Flame Ionization, 31 SCFH @ 4 psig Consumption	Generic	Generic	1

### **Optional Accessories**

Description	OEM	OEM Model #	QTY
3" Inlet Piping with Waste Gas/Pilot ESDs, Gauges, Regulators	Cimarron	SL 3503912	1
3" NPT Flame Arrestor, 5 minutes burn time	Wenco	SL 112908	1
8'x8'x8" Concrete Block No Anchors	Generic	SL 119524	1
5' Stack Extension	Cimarron	SL 153508	1
Thermal Mass Flow Meter	Cimarron	SL 155353	1

### Notes

- Pilot Consumption: Propane: 15 SCFH @ 4 psig, Natural Gas: 30 SCFH @ 8 - 10 psig (per ignitor).

- OOOOa/b/c certified IAW USEPA 40 CFR 60, App. A, Source Emissions Test Methods.

- Cimarron Energy guarantees the Quad-O certified combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

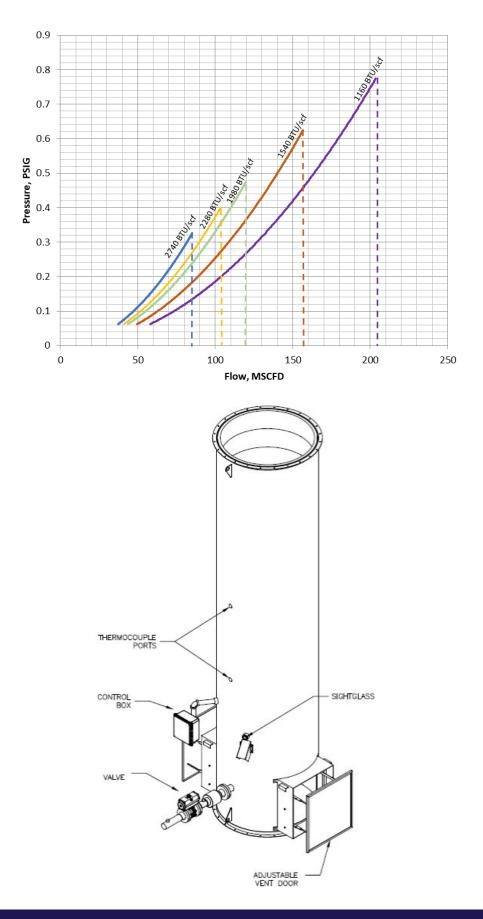
Max water vapor content in the waste stream: Min temperature in the combustion chamber: Min Lower Heating Value (LHV) of the gas: Max Thermal Duty:

4% vol. 1400 F 800 BTU/scf Per Technic

Per Technical Section of this Proposal

- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- The unit may not meet all structural requirements, including Wind and Seismic ratings, of the end user.
- Customer to inform if there are any structural requirements to consider.







## Enclosed Combustor - 24" OD x 8' x 0.98MMBTU/HR

ECD24STD

## OOOOb/c Certified Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

Data	Parameter				
Size	24" OD x 8'				
Capacity (Third Party Verified)	8 MSCFD @ 10 oz/in using SG 1.52/2500 BTU/SCF				
Heat Duty Rating		0.98 MMBTU/HR I	Мах		
Burner Size		64 Orifices, 15"L x	16" W		
Stack		Un-insulated			
Stack Internal Operating Temperature	500-1200°F				
Inlet Temp	-20-1200°F				
Pressure Rating	Atmospheric				
Electrical Classification	Non-Hazardous				
Wind Load	N/A, <20' OAL				
Estimated Weight (No Concrete Block):	720 lbs				
Connection Schedule	QTY	Size	Туре		

Connection Schedule	QTY	Size	Туре
Waste Gas Inlet	1	3"	NPT
Pilot Gas (7 psig setpoint)	1	1/4''	NPT
Handhole Cover	1	8''	Assembly
Aux Pilot Automation (plugged)	1	3/4"	NPT

Paint

Coated with silicone resin, Hi-Heat Industrial Black

### Notes

- Pilot Consumption: Propane: 15 SCFH @ 4 psig, Natural Gas: 30 SCFH @ 8 10 psig (per ignitor).
- OOOOa/b/c certified IAW USEPA 40 CFR 60, App. A, Source Emissions Test Methods.

## - Cimarron Energy guarantees the Quad-O certified combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

Мс	ax water vapor content in the waste stream:	4% vol.
Mir	n temperature in the combustion chamber:	1400 F
Mir	n Lower Heating Value (LHV) of the gas:	800 BTU/scf
Mc	ax Thermal Duty:	Per Technical Section of this Proposal

- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- The unit may not meet all structural requirements, including Wind and Seismic ratings, of the end user.
- Customer to inform if there are any structural requirements to consider.

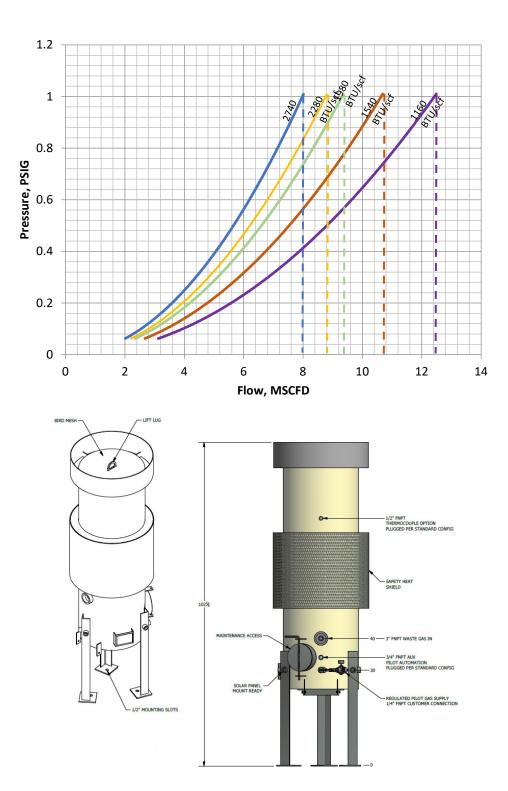
### Accessories – Included

Description	OEM	OEM Model #	QTY
Pilot Regulator, 1/4"	Fisher	67CR-206	1
Pilot Isolation Ball Valve 1/4 STL 2000# FP	Chemoil	2027WC-02	1

External



Description	OEM	OEM Model #	QTY
ECD24STD/ECD30STD: Standard Inlet Piping (with 2" arrestor)	Cimarron	3500101	1
ECD24STD/ECD30STD: Inlet Piping with SDV (with 2" arrestor)	Cimarron	3500111	1
3'x3'x6" Concrete Block No Anchors	Generic	SL 114199	1





## Enclosed Combustor - 30" OD x 8' x 1.6 MMBTU/HR

ECD30STD

## OOOOb/c Certified Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

Data	Parameter			
Size	30" OD x 8'			
Capacity (Third Party Verified)	11 MSCFD	@ 10 oz/in using SG 1.	52/2500 BTU/SCF	
Heat Duty Rating		1.6 MMBTU/HR Mo	XC	
Burner Size		88 Orifices, 19"L x 16	5" W	
Stack		Un-insulated		
Stack Internal Operating Temperature	500-1200°F			
Inlet Temp	-20-1200°F			
Pressure Rating	Atmospheric			
Electrical Classification	Non-Hazardous			
Wind Load	N/A, <20' OAL			
Estimated Weight (No Concrete Block):	810 lbs			
Connection Schedule	QTY	Size	Туре	
Waste Gas Inlet	1	.3"	NPT	

Q I I	JIZE	Iype
1	3"	NPT
1	1/4"	NPT
1	8''	Assembly
1	3/4"	NPT
	1 1 1 1	1 3" 1 1/4" 1 8"

Paint

Coated with silicone resin, Hi-Heat Industrial Black

#### Notes

- Pilot Consumption: Propane: 15 SCFH @ 4 psig, Natural Gas: 30 SCFH @ 8 10 psig (per ignitor).
- OOOOa/b/c certified IAW USEPA 40 CFR 60, App. A, Source Emissions Test Methods.

## - Cimarron Energy guarantees the Quad-O certified combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

Max water vapor content in the waste stream:	4% vol.
Min temperature in the combustion chamber:	1400 F
Min Lower Heating Value (LHV) of the gas:	800 BTU/scf
Max Thermal Duty:	Per Technical Section of this Proposal

- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- The unit may not meet all structural requirements, including Wind and Seismic ratings, of the end user.
- Customer to inform if there are any structural requirements to consider.

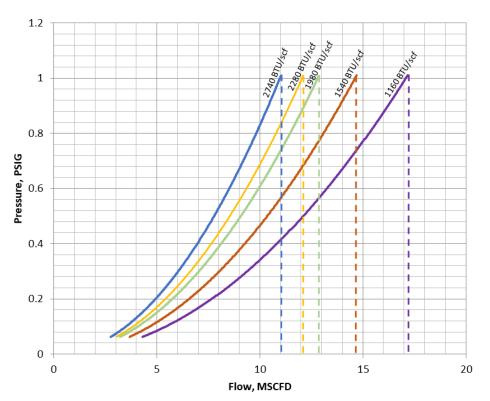
### Accessories – Included

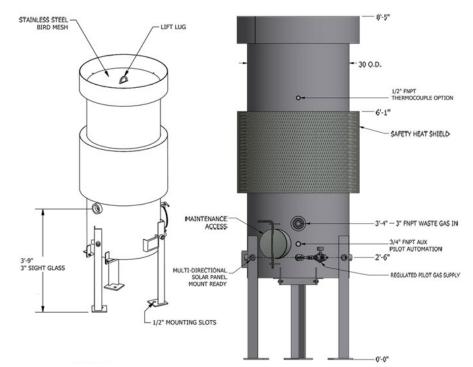
Description	OEM	OEM Model #	QTY
Pilot Regulator, 1/4"	Fisher	67CR-206	1
Pilot Isolation Ball Valve 1/4 STL 2000# FP	Chemoil	2027WC-02	1

External



Description	OEM	OEM Model #	QTY
ECD24STD/ECD30STD: Standard Inlet Piping (with 2" arrestor)	Cimarron	3500101	1
ECD24STD/ECD30STD: Inlet Piping with SDV (with 2" arrestor)	Cimarron	3500111	1
4'x4'x6" Concrete Block No Anchors	Generic	SL 120450	1







## Enclosed Combustor - 48" OD x 11.5' x 3.2 MMBTU/HR

ECD48STD

## OOOOb/c Certified Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

Data	Parameter			
Size	48" OD x 11.5'			
Capacity (Third Party Verified)	30 MSCFE	D @ 10 oz/in using SG 1	1.52/2500 BTU/SCF	
Heat Duty Rating		3.2 MMBTU/HR N	1ax	
Burner Size	210 Orifices, 26"L x 27" W			
Stack	Un-insulated			
Stack Internal Operating Temperature	500-1200°F			
Inlet Temp	-20-1200°F			
Pressure Rating	Atmospheric			
Electrical Classification	Non-Hazardous			
Wind Load	N/A, <20' OAL			
Estimated Weight (No Concrete Block):		1,750 lbs		
Connection Schedule	QTY	Size	Туре	

Connection Schedule	QTY	Size	Туре
Waste Gas Inlet	1	3"	NPT
Pilot Gas (7 psig setpoint)	1	1/4"	NPT
Handhole Cover	1	8''	Assembly
Aux Pilot Automation (plugged)	1	3/4"	NPT

Paint

Coated with silicone resin, Hi-Heat Industrial Black

### Notes

- Pilot Consumption: Propane: 15 SCFH @ 4 psig, Natural Gas: 30 SCFH @ 8 10 psig (per ignitor).
- OOOOa/b/c certified IAW USEPA 40 CFR 60, App. A, Source Emissions Test Methods.

## - Cimarron Energy guarantees the Quad-O certified combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

Max water vapor content in the waste stream:	4% vol.
Min temperature in the combustion chamber:	1400 F
Min Lower Heating Value (LHV) of the gas:	800 BTU/scf
Max Thermal Duty:	Per Technical Section of this Proposal

- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- The unit may not meet all structural requirements, including Wind and Seismic ratings, of the end user.
- Customer to inform if there are any structural requirements to consider.

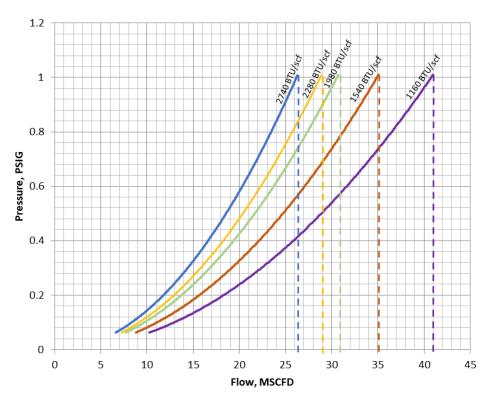
## Accessories – Included

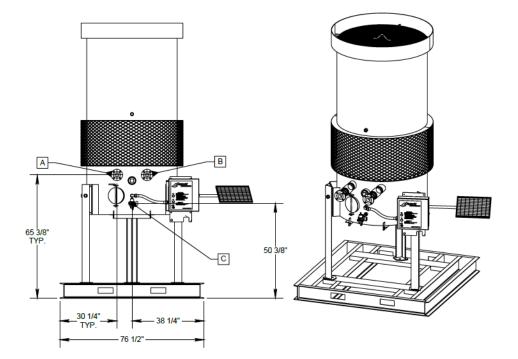
Description	OEM	OEM Model #	QTY
Pilot Regulator, 1/4"	Fisher	67CR-206	1
Pilot Isolation Ball Valve 1/4 STL 2000# FP	Chemoil	2027WC-02	1

External



Description	OEM	OEM Model #	QTY
ECD48STD/ECD60STD: Standard Inlet Piping (with 2" arrestor)	Cimarron	3500610	1
ECD48STD/ECD60STD: Inlet Piping with SDV (with 2" arrestor)	Cimarron	3500111	1
6'x6'x6" Concrete Block No Anchors	Generic	SL 115619	1







## Enclosed Combustor - 60" OD x 13' x 6.1 MMBTU/HR

ECD60STD

## OOOOb/c Certified Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

Data	Parameter			
Size	60" OD x 13'			
Capacity (Third Party Verified)	57.6 MSCFI	D @ 10 oz/in using SG 1	.52/2500 BTU/SCF	
Heat Duty Rating		6.1 MMBTU/HR Mc	х	
Burner Size		440 Orifices, 34"L x 4	1'' W	
Stack		Insulated		
Stack Internal Operating Temperature	600-2000°F			
Inlet Temp	-20-1200°F			
Pressure Rating	Atmospheric			
Electrical Classification	Non-Hazardous			
Wind Load	N/A, <20' OAL			
Estimated Weight (No Concrete Block):	2,150 lbs			
Connection Schedule	QTY	Size	Туре	
Waste Gas Inlet	1	3"	NPT	

1	3"	NPT
1	1/4"	NPT
1	8''	Assembly
1	3/4"	NPT
	1 1 1 1	1 1/4" 1 8"

Paint

Coated with silicone resin, Hi-Heat Industrial Black

#### Notes

- Pilot Consumption: Propane: 15 SCFH @ 4 psig, Natural Gas: 30 SCFH @ 8 10 psig (per ignitor).
- OOOOa/b/c certified IAW USEPA 40 CFR 60, App. A, Source Emissions Test Methods.

## - Cimarron Energy guarantees the Quad-O certified combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

4% vol.
1400 F
800 BTU/scf
Per Technical Section of this Proposal

- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- The unit may not meet all structural requirements, including Wind and Seismic ratings, of the end user.
- Customer to inform if there are any structural requirements to consider.

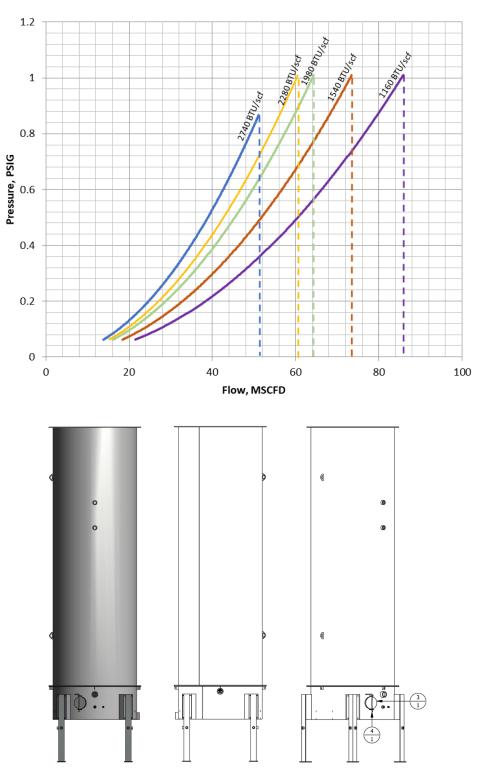
## Accessories – Included

Description	OEM	OEM Model #	QTY
Pilot Regulator, 1/4"	Fisher	67CR-206	1
Pilot Isolation Ball Valve 1/4 STL 2000# FP	Chemoil	2027WC-02	1

External



Description	OEM	OEM Model #	QTY
ECD48STD/ECD60STD: Standard Inlet Piping (with 2" arrestor)	Cimarron	3500610	1
ECD48STD/ECD60STD: Inlet Piping with SDV (with 2" arrestor)	Cimarron	3500111	1
8'x8'x8" Concrete Block No Anchors	Generic	SL 119524	1





## ECD- High Volume - 48" x 25' x 11.7 MMBTU/HR

ECD48HV

## OOOOb/c Certified Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

Data		Parameter	
Size		48'' OD x 25'	
Capacity (Third Party Verified)	109 MSCFE	D @ 10 oz/in using SG	1.52/2500 BTU/SCF
Heat Duty Rating		11.7 MMBTU/HR N	Лах
Burner Size		90 F-90 Orifices, 28"L	x 27'' W
Stack		Insulated	
Stack Internal Operating Temperature		800-2000°F	
Inlet Temp		-20-1200°F	
Pressure Rating		Atmospheric	
Electrical Classification		Non-Hazardou	S
Wind Load	90 mph 3sec Wind Gust per ASCE 7-05 (see note below)		
Estimated Weight (No Concrete Block):		4,380 lbs	
Connection Schedule	QTY	Size	Туре
Waste Gas Inlet	1	3"	NPT
Flow Test/Automation (plugged as option)	2	2"	NPT
Stack/Burner Sight Glass	1	2"	NPT
Aux Sight Glass Location (plugged as opt.)	1	2"	NPT
Pilot Sight glass	1	3"	NPT
Aux Sight Glass Location (plugged as opt.)	1	3"	NPT
Pilot Gas In	1	1/4"	NPT
Pilot Gas In Ignitor Cable (plugged as option)	1 1	1/4'' 1/2''	NPT NPT
	1 1 1		
Ignitor Cable (plugged as option)	1 1 1 1	1/2"	NPT
Ignitor Cable (plugged as option) Thermocouple or Automation (plugged as opt.)	1 1 1 1	1/2" 1"	NPT NPT

Paint

External

### Notes

- Pilot Consumption: Propane: 15 SCFH @ 4 psig, Natural Gas: 30 SCFH @ 8 10 psig (per ignitor).
- OOOOa/b/c certified IAW USEPA 40 CFR 60, App. A, Source Emissions Test Methods.
- Cimarron Energy guarantees the Quad-O certified combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

Max water vapor content in the waste stream: Min temperature in the combustion chamber: Min Lower Heating Value (LHV) of the gas: Max Thermal Duty: 4% vol. 1400 F 800 BTU/scf Per Technical Section of this Proposal

Default Color: Noble Tan unless other color chosen as option

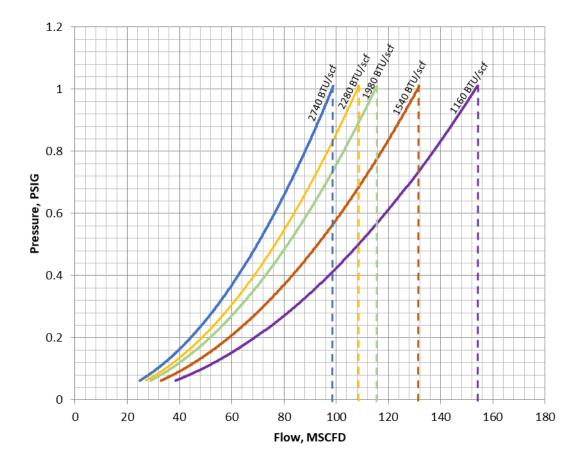
- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- Structure certified per ASCE 7-05 & IBC 2006 stds (pre-mounted concrete base required for compliance).
- Customer to inform if there are any structural requirements to consider.



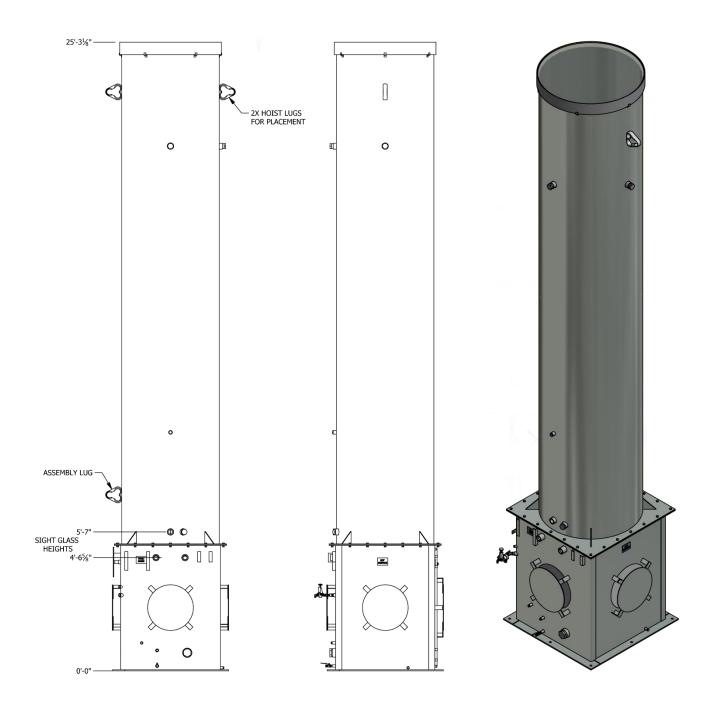
### Accessories – Included

Description	OEM	OEM Model #	QTY
Pilot Regulator, 1/4"	Fisher	67CR-206	1
Pilot Isolation Ball Valve 1/4 STL 2000# FP	Chemoil	2027WC-02	1
Accessories – Options			
	<b>6-</b> 14		<b>ATV</b>

Description	OEM	OEM Model #	QTY
8'x8'x8'' Concrete Block No Anchors	Generic	SL 119524	1
48" HV Bird Cone	Generic	123935	1









## ECD- High Volume - 60" x 26' x 20.6 MMBTU/HR

ECD60HV

## 98% DRE Guaranteed Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

Data		Parameter		
Size	68.5" OD x 26'			
Capacity (Third Party Verified)	200 MSCF	D @ 10 oz/in using SG	1.52/2500 BTU/SCF	
Heat Duty Rating		20.8 MMBTU/HR 1	Мах	
Burner Size		156 jets – 304 S	S	
Stack		Insulated		
Stack Internal Operating Temperature		800-2000°F		
Inlet Temp	-20-1200°F			
Pressure Rating	Atmospheric			
Electrical Classification	Non-Hazardous			
Wind Load	90 mph 3sec	Wind Gust per ASCE	7-05 (see note below)	
Estimated Weight (No Concrete Block):		8,200 lbs		
Connection Schedule	QTY	Size	Туре	
Waste Gas Inlet	1	3"	NPT	
Flow Test/Automation (plugged as option)	2	4''	NPT	
Stack/Burner Sight Glass	1	3"	NPT	

Stack/Burner Sight Glass	I	3	NPI
Thermocouple or Automation (plugged as opt.)	3	2"	NPT
Pilot Gas In	1	1/4"	NPT
Pressur Transmitter	1	1/2"	NPT
Base Drain (plugged as option)	1	1/2"	NPT

Paint

External

Default Color: Noble Tan unless other color chosen as option

### Notes

- Pilot Consumption: Propane: 15 SCFH @ 4 psig, Natural Gas: 30 SCFH @ 8 - 10 psig (per ignitor).

- Cimarron Energy guarantees the combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

Max water vapor content in the waste stream: Min temperature in the combustion chamber: Min Lower Heating Value (LHV) of the gas: Max Thermal Duty: 4% vol. 1400 F 800 BTU/scf Per Technic

Max Thermal Duty: Per Technical Section of this Proposal - Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the

above conditions are not met. For these applications, please contact the Application Engineering Team.

- Guarantee applies only to new units purchased after December 1, 2021.

- Structure certified per ASCE 7-05 & IBC 2006 stds (pre-mounted concrete base required for compliance).

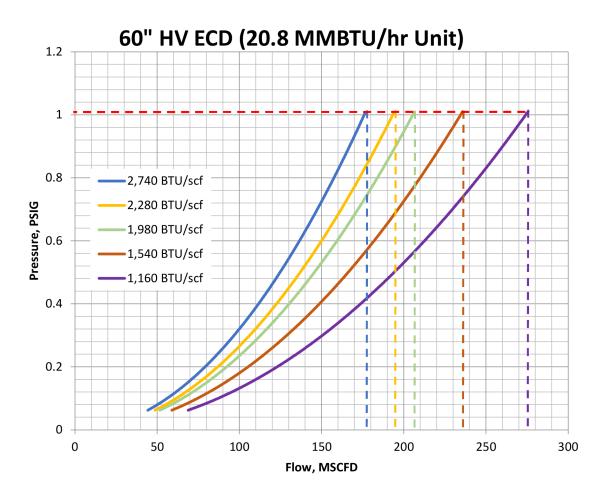
- Customer to inform if there are any structural requirements to consider.



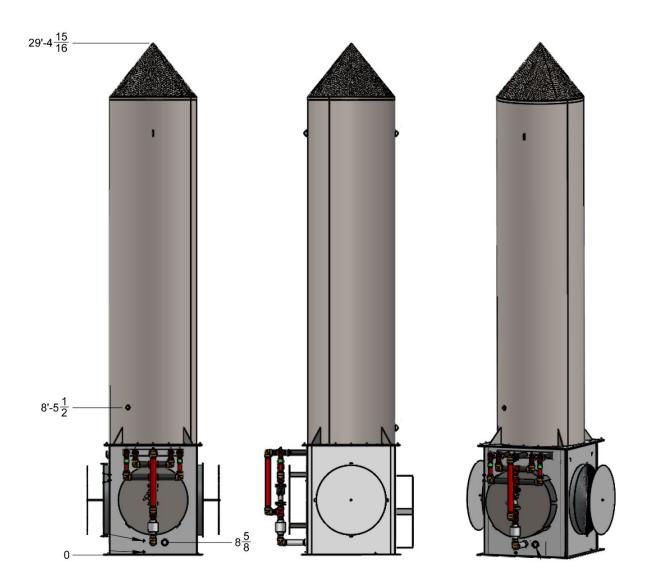
### Accessories – Included

Description	OEM	OEM Model #	QTY
Pilot Regulator, 1/4"	Fisher	67CR-206	1
Pilot Isolation Ball Valve 1/4 STL 2000# FP	Chemoil	2027WC-02	1
60" HV Bird Cone	Generic	SL 142708	1

Description	OEM	OEM Model #	QTY
ECD60HV: Inlet Piping Standard (with 3" arrestor) & SDV	Cimarron	SL 3502105	1
ECD60HV: 4" Inlet Piping (with 4" arrestor) & SDV	Cimarron	SL 3502106	1
8'x8'x8" Concrete Block No Anchors	Generic	SL 119524	1









## ECD- High Volume - 72" x 30' x 31.3 MMBTU/HR

ECD72HV

## 98% DRE Guaranteed Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

Data		Parameter	
Size		72'' OD x 30'	
Capacity (Third Party Verified)	300 MSCF	D @ 10 oz/in using SG 1	.52/2500 BTU/SCF
Heat Duty Rating		31.3 MMBTU/HR M	ax
Burner Size	Stage	d combustion with Ren	novable Trays
Stack		Insulated	
Stack Internal Operating Temperature		1500-1700°F	
Inlet Temp		-20-1200°F	
Pressure Rating		Atmospheric	
Electrical Classification		Non-Hazardous	
Wind Load	90 mph 3sec	Wind Gust per ASCE 7-	05 (see note below)
Estimated Weight (No Concrete Block):		12,500 lbs	
Connection Schedule	QTY	Size	Туре
Maintenance Access	1	8"	iype
Waste Gas Inlet 'A'	1	3"	
Waste Gas Inlet 'B'	1	3"	
Burner Ignition Gas Inlet	1	]"	
Pilot Inlet 'A'	1	]"	
Pilot Inlet 'B'	1	]"	
Spare	2	]"	
Pilot	1	]"	
Sight Glass	2	3"	
	Paint		
External	Default Color: N	Noble Tan unless other c	color chosen as option.

Notes

- Pilot Consumption: Propane: 15 SCFH @ 4 psig, Natural Gas: 30 SCFH @ 8 - 10 psig (per ignitor).

- Cimarron Energy guarantees the combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

Max water vapor content in the waste stream:	4% vol.
Min temperature in the combustion chamber:	1400 F
Min Lower Heating Value (LHV) of the gas:	800 BTU/scf
Max Thermal Duty:	Per Technical Section of this Proposal

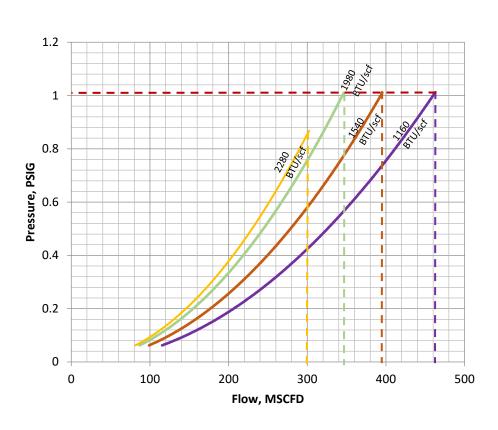
- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- Structure certified per ASCE 7-05 & IBC 2006 stds (pre-mounted concrete base required for compliance).
- Customer to inform if there are any structural requirements to consider.

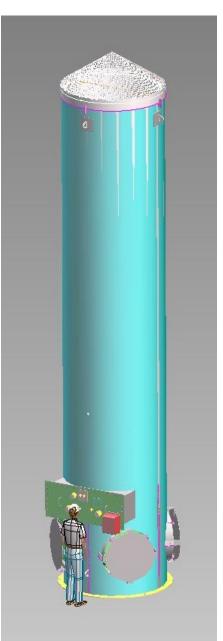


## Standard Accessories – Included

Description	OEM	OEM Model #	QTY
Pilot Regulator, 1/4"	Fisher	67CR-206	1
Pilot Isolation Ball Valve 1/4 STL 2000# FP	Chemoil	2027WC-02	1
Flamecells	Flameco	N/A	4

Description	OEM	OEM Model #	QTY
ECD72/84HV: Inlet Piping with Low DP SDV	Cimarron	SL 1404401	1
12'x12'x10" Concrete Block No Anchors	Generic	SL 146698	1







## ECD- High Volume - 84" x 32' x 53 MMBTU/HR

### ECD84HV

## 98% DRE Guaranteed Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

Data		Parameter	
Size		84" OD x 32'	
Capacity (Third Party Verified)	500 MSCFE	D @ 10 oz/in using SG	1.52/2500 BTU/SCF
Heat Duty Rating		53 MMBTU/HR M	lax
Burner Size	Staged	d combustion with Re	movable Trays
Stack		Insulated	
Stack Internal Operating Temperature		1500-1700°F	
Inlet Temp		-20-1200°F	
Pressure Rating		Atmospheric	
Electrical Classification	Non-Hazardous		
Wind Load	90 mph 3sec Wind Gust per ASCE 7-05 (see note below)		
Estimated Weight (No Concrete Block):	14,900 lbs		
Connection Schedule	QTY	Size	Туре
Maintenance Access	1	8"	
Waste Gas Inlet 'A'	1	3"	
Waste Gas Inlet 'B'	1	3"	
Burner Ignition Gas Inlet	1	1"	
Pilot Inlet 'A'	1	1"	
Pilot Inlet 'B'	1	1"	
Spare	2	1"	
Pilot	1	]"	
Sight Glass	2	3"	

External

## Notes

Default Color: Noble Tan unless other color chosen as option.

- Pilot Consumption: Propane: 15 SCFH @ 4 psig, Natural Gas: 30 SCFH @ 8 - 10 psig (per ignitor).

- Cimarron Energy guarantees the combustor proposed in this bid will meet a minimum Destruction Removal Efficiency (DRE) of 98% if all the below conditions are met:

Max water vapor content in the waste stream:	4% vol.
Min temperature in the combustion chamber:	1400 F
Min Lower Heating Value (LHV) of the gas:	800 BTU/scf
Max Thermal Duty:	Per Technical Section of this Proposal

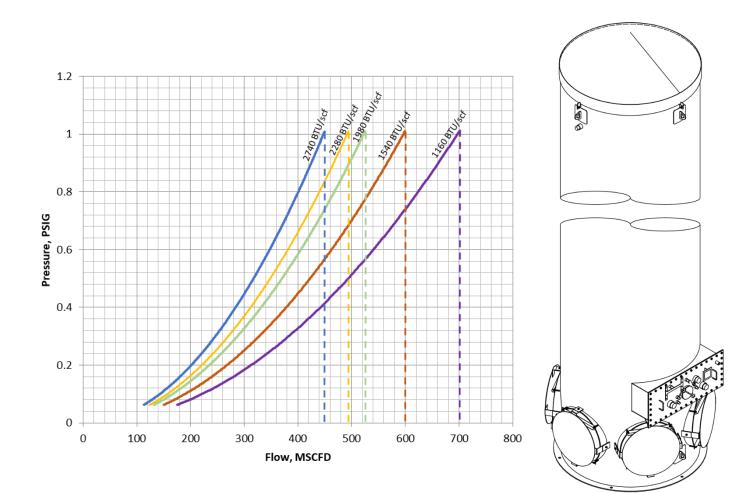
- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- Structure certified per ASCE 7-05 & IBC 2006 stds (pre-mounted concrete base required for compliance).
- Customer to inform if there are any structural requirements to consider.



## Standard Accessories – Included

Description	OEM	OEM Model #	QTY
Pilot Regulator, 1/4"	Fisher	67CR-206	1
Pilot Isolation Ball Valve 1/4 STL 2000# FP	Chemoil	2027WC-02	1
Flamecells	Flameco	N/A	6

Description	OEM	OEM Model #	QTY
ECD72/84HV: Inlet Piping with Low DP SDV	Cimarron	SL 1404401	1
12'x12'x10" Concrete Block No Anchors	Generic	SL 146698	1





## ECD- High Volume - 96" x 40' x 65 MMBTU/HR

### ECD84HV

3000# FNPT 3000# FNPT 3000# FNPT

## 98% DRE Guaranteed Enclosed Combustor Integrated Continuous Monitoring | Performance Guarantee

Data		Parameter		
Size	96" OD x 40'			
Capacity (Scalable)	625	5 MSCFD using SG 1.52/2	2500 BTU/SCF	
Heat Duty Rating		65 MMBTU/HR M	ax	
Burner Size		Multi-Nozzle Custom I	Burners	
Stack		Insulated		
Stack Internal Operating Temperature		1500-1700°F		
Inlet Temp		-20-1200°F		
Pressure Rating		Atmospheric		
Electrical Classification		Non-Hazardou	S	
Wind Load	115	5 mph 3sec Wind Gust p	er ASCE 7-16	
Estimated Weight (No Concrete Block):	26,700 lbs			
Connection Schedule	QTY	Size	Туре	
Waste Gas Inlet 'A'	1	4''	RFWN	
Waste Gas Inlet 'B'	1	4''	RFWN	
Pilot Inlet	1	4''	FF	
UV Scanner (Option)	1	4''	FF	

UV Scanner (Option)	I	4	
Sample Port	2	2"	
Thermocouple	2	3/4"	
Sight Glass	1	3"	

#### Paint

External

Default Color: Noble Tan unless other color chosen as option.

### Notes

- Pilot Consumption: Propane: 60 SCFH @ 4 psig, Natural Gas: 120 SCFH @ 8 - 10 psig (per ignitor).

- Cimarron Energy guarantees the combustor proposed in this bid will meet a minimum Destruction

Removal Efficiency (DRE) of 98% if all the below conditions are met:

Max water vapor content in the waste stream:	4% vol.
Min temperature in the combustion chamber:	1400 F
Min Lower Heating Value (LHV) of the gas:	800 BTU/scf
Max Thermal Duty:	Per Technical Section of this Proposal

- Please note that Cimarron may still be able to guarantee 98% DRE for applications where some of the above conditions are not met. For these applications, please contact the Application Engineering Team.
- Guarantee applies only to new units purchased after December 1, 2021.
- Structure certified per ASCE 7-16 & IBC 2018 stds.
- Customer to ensure soil & site foundation supports.

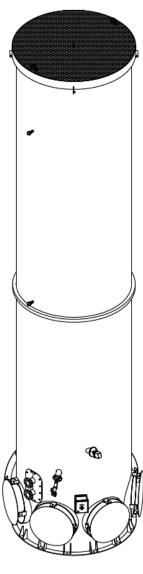


## Standard Accessories – Included

Description	OEM	OEM Model #	QTY
Pilot Regulator, 1/2"	Fisher	67CR-206	1
Pilot Isolation Ball Valve 1/2 STL 2000# FP	Chemoil	2027WC-02	1
Flame cells	Flameco	N/A	7

## Accessories – Options

Description	OEM	OEM Model #	QTY
ECD72/84HV: Inlet Piping with Low DP SDV	Cimarron	SL 1404401	1
12'x12'x10" Concrete Block No Anchors	Generic	SL 146698	1



ISOMETRIC VIEW