



NovaStar

Ultra Low NOx Burner for Aggregate Drying

NS-1
Edition 02-09



Hauck, a product brand
of the Elster Group



- Ultra low NOx emissions of < 15 ppm without FGR on natural gas and vaporized propane
- Precise air flow control via VFD and low horsepower design offers significant energy savings with no inlet or outlet damper required
- Compact modular design suitable for stationary or portable plants
- Easily adaptable to long-nose variations
- Easy to install, low maintenance construction
- Sealed-in construction for ultra quiet operation



Hauck's ultra low NOx NovaStar burner continues the company's high quality commitment to state of the art advancements for the aggregate drying industry.

Utilizing the latest lean burn premix technologies (patent pending), the NovaStar offers design and performance advantages with service accessibility and ease of installation.

Available in various sizes the NovaStar is ready to meet your production needs and even the most stringent air quality standards with ultra low nitrogen oxide (NOx) emissions on gaseous fuels - less than 15 ppm - without the added expense of flue gas recirculation (FGR) technology. The burner is capable of supporting a variety of gaseous fuels offering you ultimate flexibility in managing today's highly volatile fuel pricing.

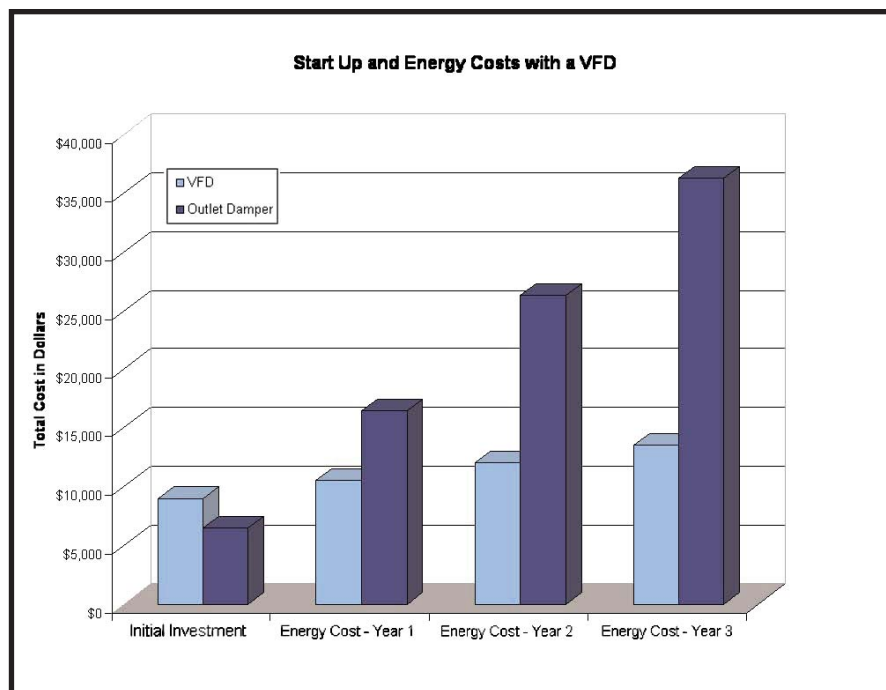
The NovaStar employs variable frequency drive (VFD) technology for precise air flow control over its entire operating range eliminating the need for inlet or outlet dampers. In addition to fuel savings, the NovaStar offers energy savings via reduced electricity consumption through the use of this VFD technology - as illustrated in the adjoining chart.

The burner can be easily operated and effectively managed with PLC-based control provided by Hauck's BCS products.

The burner produces a compact flame, eliminating the need for flame adjustment. All combustion is completed within the recommended combustion zone, further reducing emissions by eliminating flame quenching from process materials.

The NovaStar's sealed-in construction, coupled with its high efficiency aerodynamic design, significantly reduces operational noise.

The NovaStar is backed by our well respected service department and our more than 50 years of experience as a leader and partner to the aggregate drying industry.



Savings based on 2000 hour season at 14 cents per kWh with variable duty cycle times.

For additional information on this product, visit our website at:

www.hauckburner.com

Hauck Manufacturing Company
POB 90
Lebanon, PA 17042

T +1 717-272-3051
F +1 717-273-9882
info@hauckburner.com

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NOVASTAR NS-75 – NS-125

NovaStar-75								
Burner Body Static Air Pressure ("wc)	VFD Output (Hz)	Main Air Flow (scfh)	Firing Rate (MMBtu/hr)	Gas Flow (scfh)	Burner Gas Pressure ("wc)	Excess Air Limit (%)	Flame Length (ft)	Flame Diameter (ft)
0.8	16	310,000	22	21,000	3.3	70	5	4
1.3	20	385,000	27	26,000	4.7	70	5	4
1.9	25	520,000	37	36,000	9.1	80	6	3
2.9	30	650,000	46	44,000	13.3	85	7	3.5
5.1	40	805,000	57	55,000	21	70	8	4
7.8	50	1,015,000	72	69,000	32.8	60	9	4
11.1	60	1,210,000	86	83,000	45	60	9	4
NovaStar-100								
Burner Body Static Air Pressure ("wc)	VFD Output (Hz)	Main Air Flow (scfh)	Firing Rate (MMBtu/hr)	Gas Flow (scfh)	Burner Gas Pressure ("wc)	Excess Air Limit (%)	Flame Length (ft)	Flame Diameter (ft)
0.7	16	374,000	26	26,000	3	130	5	3
1.2	20	470,000	33	32,000	6.6	80	4	4
1.8	25	575,000	41	39,000	9.7	115	4	4
2.7	30	680,000	48	47,000	14.2	110	5	4
4.4	40	890,000	63	61,000	23.3	88	6	5
8.1	50	1,200,000	85	82,000	37.7	88	7	5
11.1	60	1,410,000	100	97,000	48.5	75	10	6
NovaStar-125								
Burner Body Static Air Pressure ("wc)	VFD Output (Hz)	Main Air Flow (scfh)	Firing Rate (MMBtu/hr)	Gas Flow (scfh)	Burner Gas Pressure ("wc)	Excess Air Limit (%)	Flame Length (ft)	Flame Diameter (ft)
0.6	16	475,000	34	33,000	3.1	90	4	3
1	20	605,000	43	41,000	7.6	98	5	3
1.5	25	750,000	53	51,000	11.7	78	5	3
2.1	30	910,000	64	62,000	17.3	86	6	4
3.8	40	1,220,000	86	84,000	31.9	83	7	4
5.5	50	1,560,000	110	107,000	49.1	81	8	5
8	60	1,820,000	129	125,000	74.1	80	10	5

NOTES:

- Capacities based on natural gas with a higher heating value of 1,042 Btu/ft³, 0.59 S.G., and a stoichiometric air/gas ratio of 9.74:1.
- Air and gas flows based on 60°F @ sea level.
- Burner body static air pressure measured upstream of gas boost.
- Gas pressure to burner control valve and bypass is 8 psi.

(See Reverse Side for Metric Capacities)

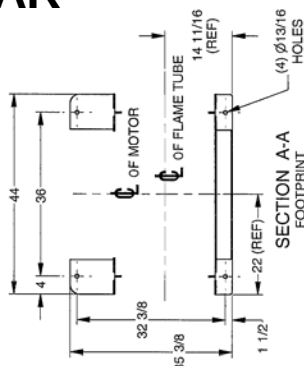
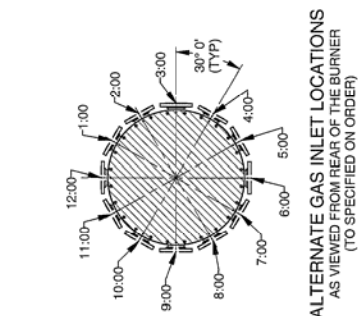
In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.



MORTERA Y COMPAÑIA, S. A DE C. V.

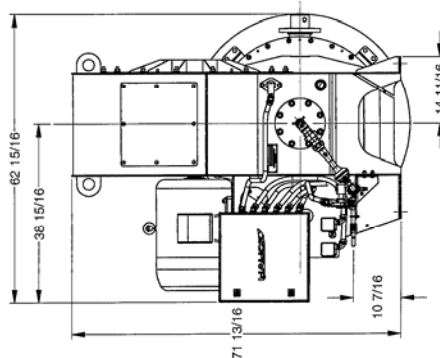
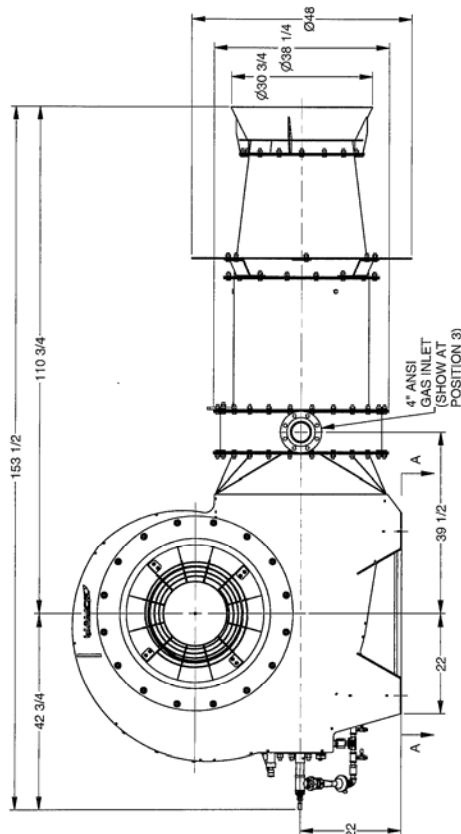
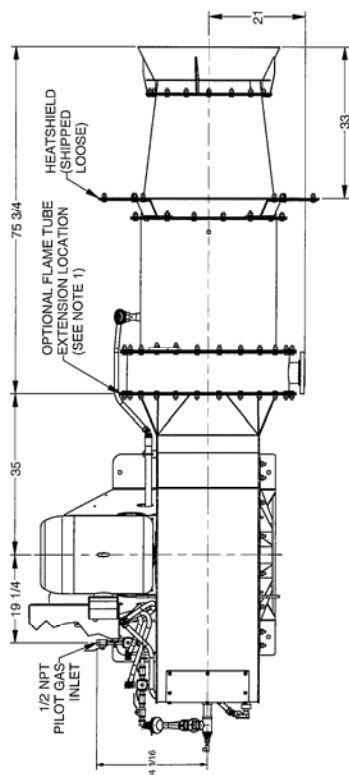
DIMENSIONS

NOVASTAR



Y8358
(NOT TO SCALE)

NOVASTAR-75



NOTES:

1. LONG NOSE BURNERS TO BE EXTENDED BETWEEN THE BURNER AIR HOUSING AND THE GAS MANIFOLD AS INDICATED IN THE TOP VIEW. BURNER EXTENSIONS TO BE SPECIFIED ON ORDER IN 1 FOOT INCREMENTS.
2. ESTIMATED BURNER WEIGHT WITH TEFC MOTOR = 3200LB

In accordance with Hauck's commitment to Total Quality Improvement, Hauck reserves the right to change the specifications of products without prior notice.

HAUCK MANUFACTURING CO., P.O. Box 90 Lebanon, PA 17042-0090 717-272-3051

6/09

www.hauckburner.com

Fax: 717-273-9882

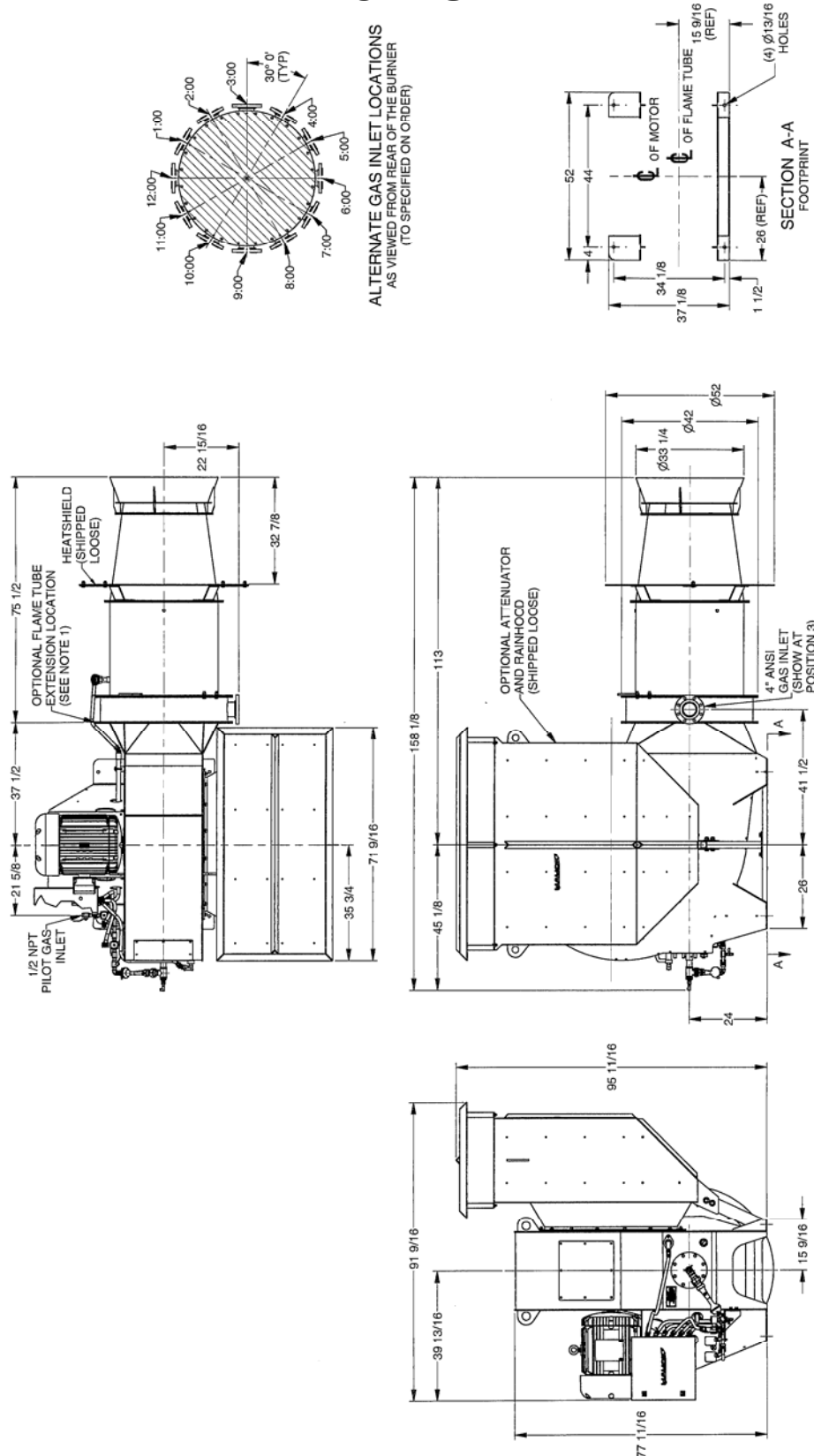
www.morterahauck.com

ventas@morterahauck.com

NS-3

NOVASTAR

NOVASTAR-100



Y8359
(NOT TO SCALE)

NOTES:

1. LONG NOSE BURNERS TO BE EXTENDED BETWEEN THE BURNER AIR HOUSING AND THE GAS MANIFOLD AS INDICATED IN THE TOP VIEW. BURNER EXTENSIONS TO BE SPECIFIED ON ORDER IN 1 FOOT INCREMENTS.
2. APPROXIMATE BURNER WEIGHT WITH TEFC MOTOR = 3600 LB
APPROXIMATE ATTENUATOR WEIGHT = 750 LB

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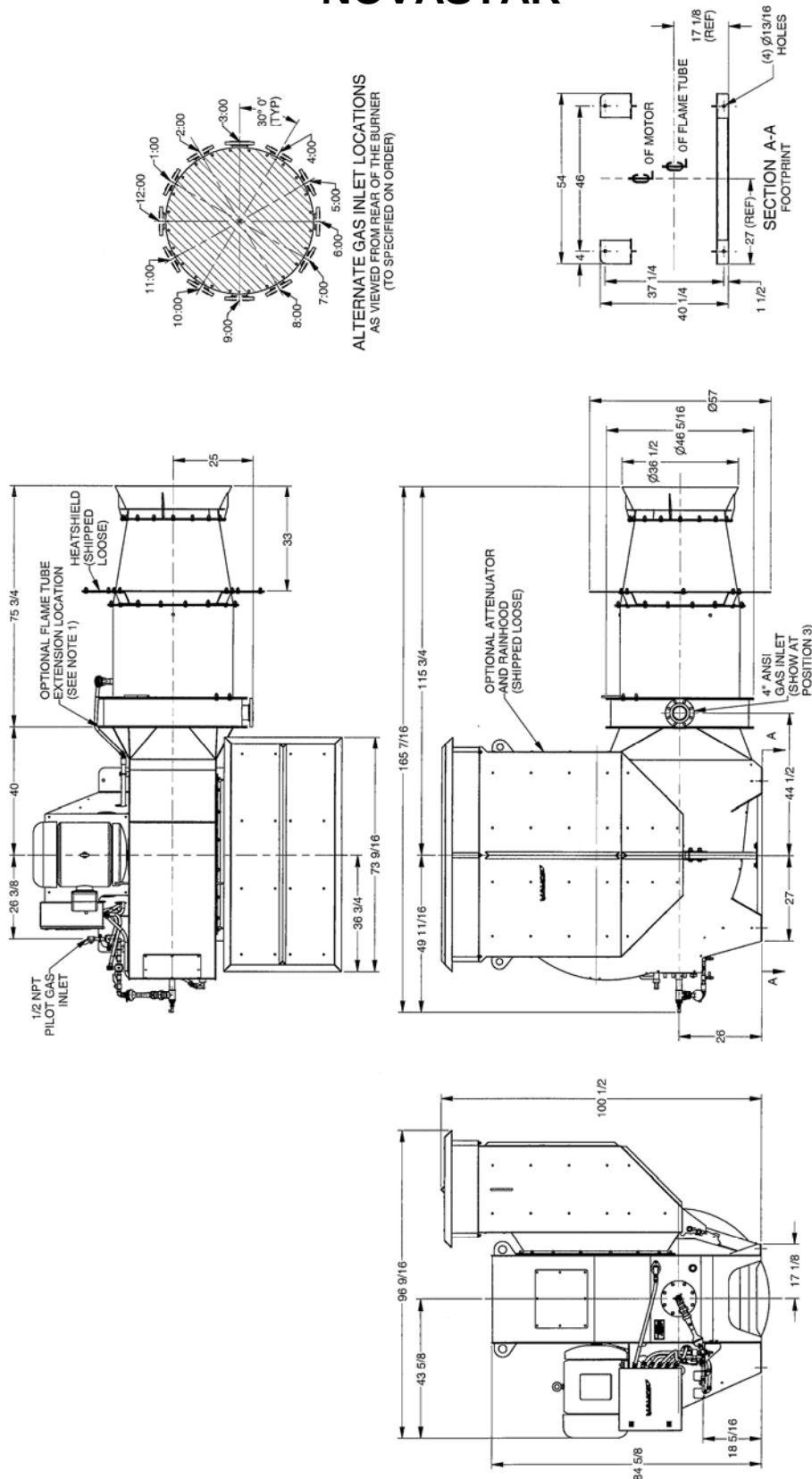


MORTERA Y COMPAÑÍA, S. A. DE C. V.

DIMENSIONS

NOVASTAR

NOVASTAR 125



NOTES:

1. LONG NOSE BURNERS TO BE EXTENDED BETWEEN THE BURNER AIR HOUSING AND THE GAS MANIFOLD AS INDICATED IN THE TOP VIEW. BURNER EXTENSIONS TO BE SPECIFIED ON ORDER IN 1 FOOT INCREMENTS.

2. ATTENUATOR TO BE SUPPORTED BY CUSTOMER.

Y8360
(NOT TO SCALE)

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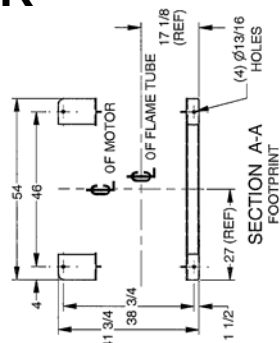
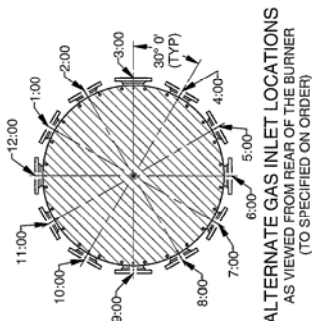
ventas@morterahauck.com

NS-3.2



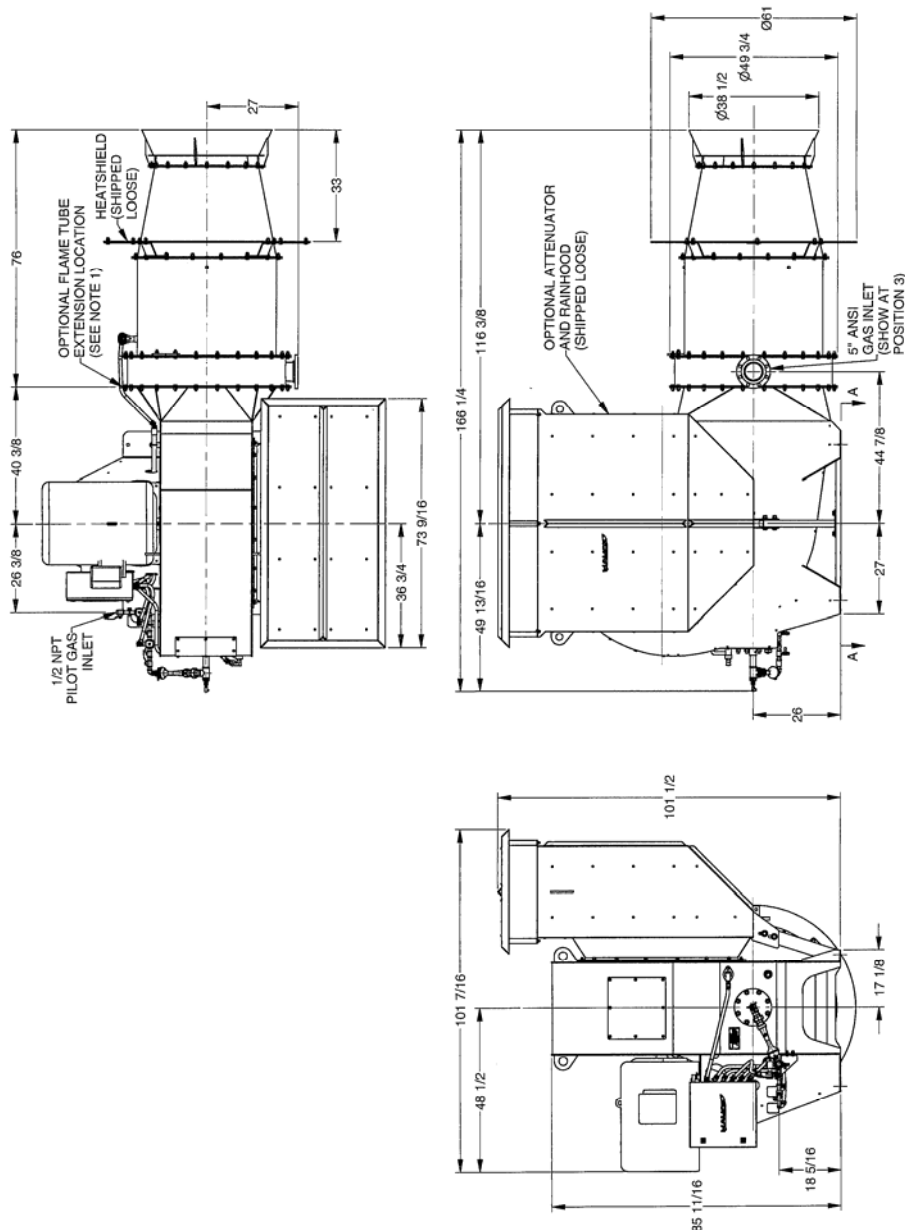
DIMENSIONS

NOVASTAR



Y8361
(NOT TO SCALE)

NOVASTAR 150



NOTES:

1. LONG NOSE BURNERS TO BE EXTENDED BETWEEN THE BURNER AIR HOUSING AND THE GAS MANIFOLD AS INDICATED IN THE TOP VIEW. BURNER EXTENSIONS TO BE SPECIFIED ON ORDER IN 1 FOOT INCREMENTS.
2. APPROXIMATE BURNER WEIGHT WITH TEFC MOTOR = 5000 LB
APPROXIMATE ATTENUATOR WEIGHT = 800 LB

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