



**ECO-STAR 25 - 50**

**60 Hz Aggregate Drying Ratings**

<i>Natural Gas</i>				
Burner Model	Maximum Capacity (MM Btu/hr)	Main Air Flow (scfh)	Natural Gas Flow (scfh)	Capacity w/FGR (MM Btu/hr)
ES 25	37	458,000	36,200	30
ES 50	63	766,000	60,500	50

<i>No. 2 Fuel Oil (Low Pressure Atomization)</i>				
Burner Model	Maximum Capacity (MM Btu/hr)	Primary Air Flow at 36 osig (scfh)	Main Air Flow (scfh)	No. 2 Fuel Oil Flow (gph)
ES 25	36	20,000	458,000	258
ES 50	60	20,000	766,000	425

<i>No. 2 Fuel Oil (Compressed Air Atomization)</i>				
Burner Model	Maximum Capacity (MM Btu/hr)	Compressed Air Flow at 60 psig (scfh)	Main Air Flow (scfh)	No. 2 Fuel Oil Flow (gph)
ES 25		Consult Hauck		
ES 50		Consult Hauck		

<i>Liquid Propane</i>					
Burner Model	Maximum Capacity (MM Btu/hr)	Primary Air Flow at 36 osig (scfh)	Main Air Flow (scfh)	LP Flow (gph)	Capacity w/FGR (MM Btu/hr)
ES 25	39	20,000	458,000	425	31
ES 50	64	20,000	766,000	700	51

(Application Notes on Reverse Side)

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

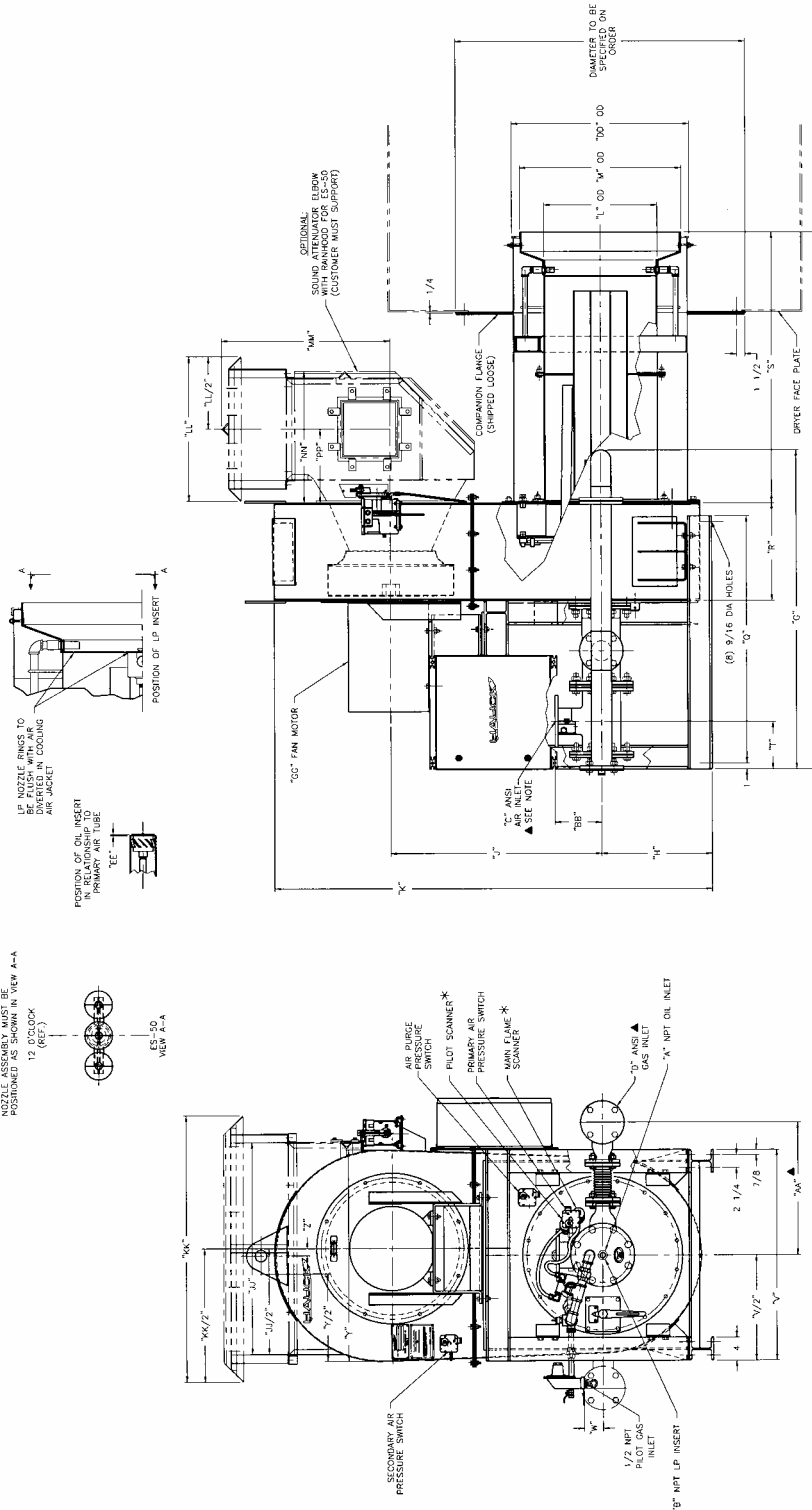
## Asphalt Application Notes:

1. Burner capacity is based on 60Hz power and scfh (standard cubic feet per hour) 60°F air at sea level. Correction factors must be applied for variations in altitude, temperature, or frequency; consult Hauck. An altitude correction table is available in Hauck Application Sheet GJ75.
2. Natural gas capacities based on higher heating value of 1,034 Btu per cubic foot, 2-4 psig manifold pressure, 30% excess air, and stoichiometric ratio of 9.74 cubic feet air/cubic foot of natural gas.
3. No. 2 fuel oil capacities based on higher heating value of 141,146 Btu per gallon, 35% excess air, and stoichiometric ratio of 1371.1 cubic feet air/gallon of No. 2 oil.
4. Liquid propane capacities based on higher heating value of 90,912 Btu per gallon, 30% excess air, and stoichiometric ratio of 864 cubic feet air/gallon of liquid propane.
5. The exhaust fan must be able to provide a slight negative pressure (suction in the range of 0.25 to 1" wc) at the burner breech plate to exhaust the products of combustion.
6. Eco-StarII™ Burner airflow can be accurately monitored using the body pressure tap on either side of the burner air plenum downstream of the outlet damper. An accurate device capable of reading up to 30" wc will be required for this measurement.
7. All burner fuel manifolds are supplied with fuel flow measuring devices. Liquid fuel manifolds are equipped with an inline flow meter. Gaseous fuel manifolds are equipped with a gas orifice meter that can be accurately checked for gas flow by measuring the differential pressure across the orifice meter with a U-tube device (manometer) capable of reading in the range of 0 to 20"wc.
8. Low pressure atomizing air, used for firing low pressure fuel oil or LP, is provided by a 36 psi Hauck high efficiency Turbo Blower. The low pressure air is used to not only atomize liquid fuels, but also improve mixing speed in the combustion zone.
9. High pressure compressed air, used for firing heavy oils or any fuel oil at high elevations, must be supplied by the customer at a nominal 60 psig to the burner nozzle, for optimum fuel oil atomization.



# DIMENSIONS

## ECO-STAR™ ES-25 – ES-50



Y6931  
(NOT TO SCALE)

MODEL	A	B	C	D	G	H	J	K	L	M	P	Q	R	S	T	V	W	Y	Z													
ES-25	1/2	3/8	4	2 1/2	51	7/8	15	29	5/16	61	21	3/32	14	1/2	23	86	39	7/8	15	7/8	44	1/8	9	1/8	32	4	3/8	35	2			
ES-50	3/4	3/4	3	3	55	19	36	3/16	75	3/16	19	1/2	28	1/2	92	1/2	41	5/8	17	1/8	46	3/4	8	1/4	36	1/2	1	5/8	36	1/2	1	7/32

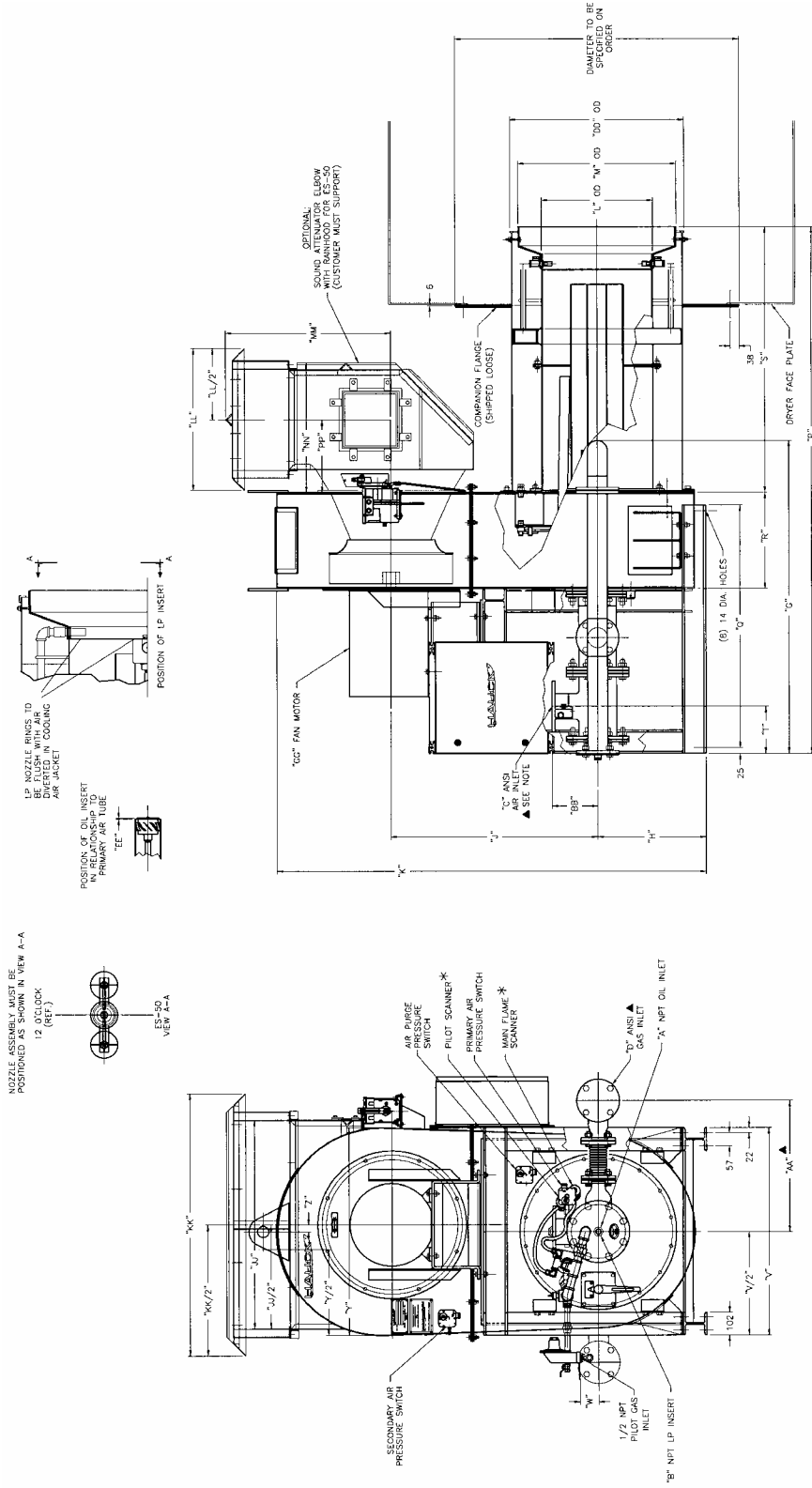
  

MODEL	AA	BB	CC	DD	EE	GG	HH	JJ	KK	LL	MM	NN	PP	QQ	RR														
ES-25	22	1/4	6	12	33	0	254I-20HP	1	1/2	---	---	---	---	---	---														
ES-50	23	8	8	12	35	30	3/8	3/16	284IS-30HP	4	36	13/16	46	24	13/16	29	22	11/16	12	3/4	45	45	45	45	45	45	45	45	46

NOTES:  
 ▲ AIR INLET MAY BE LOCATED IN ANY POSITION, GAS INLET MAY BE LOCATED AT EITHER LEFT OR RIGHT SIDE OF CHAMBER.  
 \* SCANNERS ARE SHIPPED LOOSE-MUST BE ASSEMBLED PRIOR TO FIRING.

(Metric Dimensions on Reverse Side)

# METRIC DIMENSIONS



**Y6931 METRIC**  
(NOT TO SCALE)

MODEL	A	B	C	D	G	H	J	K	L	M	P	Q	R	S	T	V	W	Y	Z
ES-25	1/2	3/8	4	2	1/2	1318	381	745	1566	368	2184	1013	403	1121	232	813	111	889	51
ES-50	3/4	3/4	3	3	1397	483	919	1910	495	724	2350	1057	435	1187	210	927	41	927	31

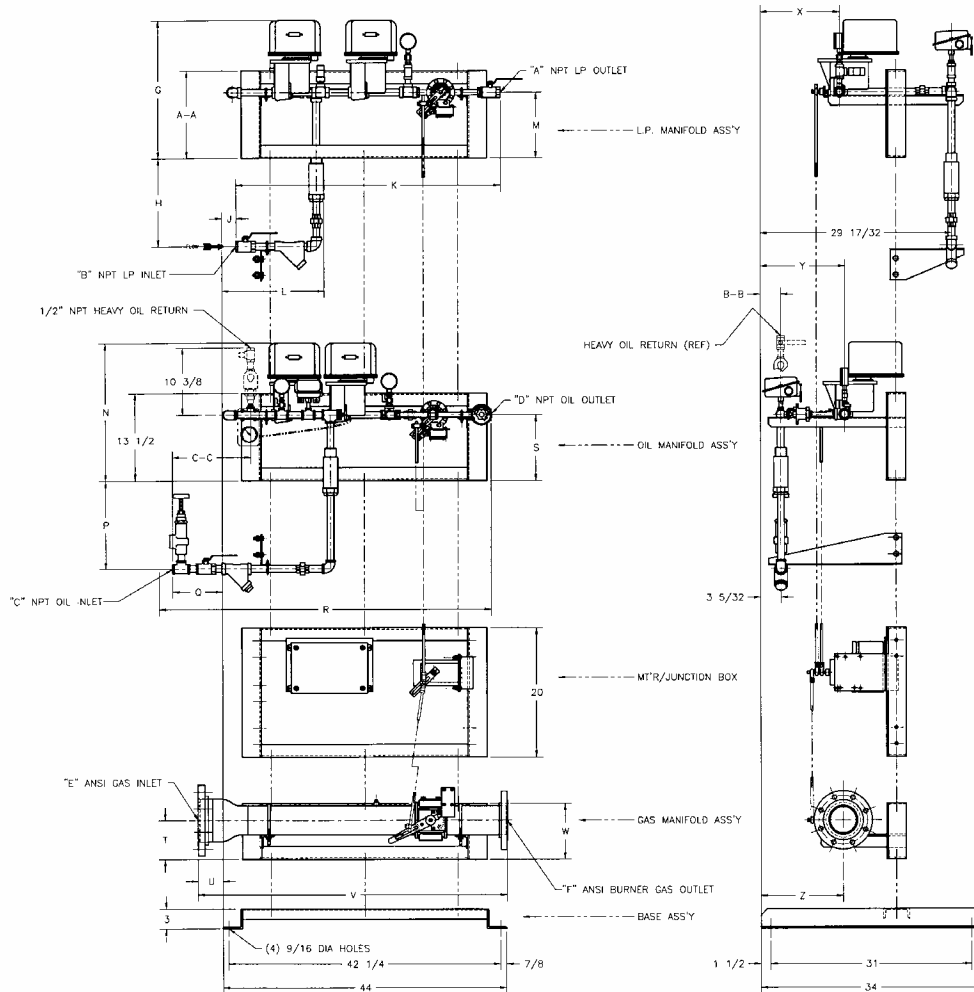
MODEL	AA	BB	DD	EE	CG	JJ	KK	LL	MM	NN	PP	QQ	RR
ES-25	565	152	651	0	254T-20HP	---	---	---	---	---	---	---	---
ES-50	584	203	772	5	284TS-30HP	935	1168	630	737	576	324	1143	1168

NOTES:  
 DIMENSIONS ARE IN MM.  
 ▲ AIR INLET MAY BE LOCATED IN ANY POSITION. GAS INLET MAY BE LOCATED AT EITHER LEFT OR RIGHT SIDE OF CHAMBER.  
 \* SCANNERS ARE SHIPPED LOOSE—MUST BE ASSEMBLED PRIOR TO FIRING.



# DIMENSIONS

## ECO-STAR™ RACK MOUNTED FUEL MANIFOLD ES-25 – ES-50



**NOTES:**

1. ANY COMBINATION OF FUEL MODULES CAN BE SUPPLIED W/BASE AND MT'R/JUNCTION BOX AS SPECIFIED ON ORDER.

**Y5493**  
(NOT TO SCALE)

MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	P
ES-25	3/4	3/4	1/2	1/2	3	3	21 3/16	13 9/16	-5	49 9/16	14 5/16	10	21 1/8	13 9/16
ES-50				3/4	4		21 1/4					10 1/8		13

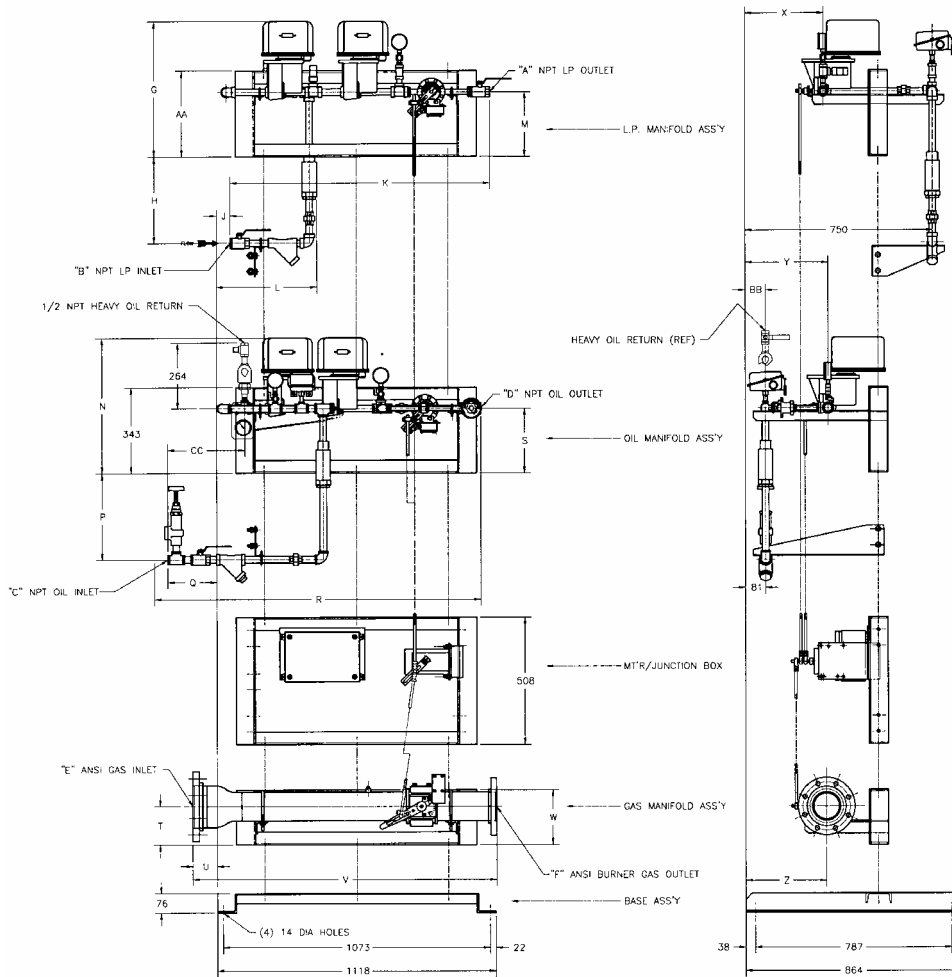
MODEL NO.	Q	R	S	T	U	V	W	X	Y	Z	A-A	B-B	C-C
ES-25	1/8	41 3/4	10	7 5/8	3/4	42 1/2	8 5/8	12 3/8	11 7/8	12 5/16	13 1/2	13 1/8	4 5/8
ES-50	1/4	42		3 3/4	-9/16	43 13/16			13 1/8				

(Metric Dimensions on Reverse Side)

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**

# METRIC DIMENSIONS



## NOTES:

1. DIMENSIONS ARE IN MM.
2. ANY COMBINATION OF FUEL MODULES CAN BE SUPPLIED W/BASE AND MTR/JUNCTION BOX AS SPECIFIED ON ORDER.

**Y5493 METRIC**  
(NOT TO SCALE)

MODEL NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	P
ES-25	3/4	3/4	1/2	1/2	3	3	538	344	-127	1259	364	254	537	344
ES-50				3/4	4		540					257		330

MODEL NO.	Q	R	S	T	U	V	W	X	Y	Z	AA	BB	CC
ES-25	3	1060	254	194	19	1080	219	314	302	313	343	333	117
ES-50	6	1067		95	14	1113			333				

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