EJC ENERJET COMBINATION BURNER

NATURAL GAS OPERATION

			MODEL NUMBER			
SPECIFICATIONS			115	120	130	140
HIGH FIRE	**Max. Input @ 10% Excess Air**	**(Btu/hr)**	**400**	**690**	**1,550**	**3,310**
	Primary Air Flow @ 16 osig	(scfh)	540	720	1,140	2,280
	Secondary Air Flow	(scfh)	3,600	6,420	14,940	31,980
	Air Orifice ΔP	("wc)	13.5	10.7	9.2	16.5
	Static Gas Pressure	("wc)	13.0	9.0	14.9	9.8
	Gas Orifice ΔP	("wc)	3.1	2.7	3.5	2.2
	Max. Excess Air	(%)	170	140	280	360
	Flame Length	(in)	11.0	11.0	23.0	36.0
	Flame Diameter	(in)	1.7	2.5	4.0	7.0
LOW FIRE	**Max. Input @ 10% Excess Air**	**(Btu/hr)**	**80**	**180**	**320**	**630**
	Primary Air Flow @ 16 osig	(scfh)	540	720	1,140	2,280
	Secondary Air Flow	(scfh)	360	1,060	2,150	4,270
	Air Orifice ΔP	("wc)	0.1	0.3	0.2	0.3
	Static Gas Pressure	("wc)	0.5	0.6	0.6	0.4
	Gas Orifice ΔP	("wc)	0.2	0.2	0.2	0.1

NOTES:

1. Capacities based on natural gas with HHV of 1034 Btu/ft^3, 0.59 S.G., and a stoichiometric air/gas ratio of 9.74:1 with burner firing into chamber under no pressure.
2. Air and gas flows based on 60°F @ sea level.
3. Static air pressures measured at the burner air inlet pressure tap.
4. Flame lengths measured from the end of the burner tile.
5. All data based on industry standard air and gas piping practices.
6. A lean air/fuel ratio is recommended at low fire.
7. Burners can be operated up to a static air pressure of 20 osig; consult Hauck.

(No. 2 Fuel Oil Operation on Reverse Side.)

No. 2 FUEL OIL OPERATION

			MODEL NUMBER			
SPECIFICATIONS			115	120	130	140
HIGH FIRE	**Max. Input @ 20% Excess Air**	**(Btu/hr)**	**360**	**640**	**1,410**	**2,910**
	Primary Air Flow @ 16 osig	(scfh)	540	720	1,140	2,280
	Secondary Air Flow	(scfh)	3,780	6,900	15,600	32,400
	Air Orifice ΔP	("wc)	15.0	12.5	10.0	17.5
	No. 2 Oil Flow	(gph)	2.6	4.6	10.2	21.1
	Max. Excess Air	(%)	230	440	450	400
	Flame length	(in)	14.0	18.0	25.0	42.0
	Flame Diameter	(in)	3.0	4.0	6.0	9.0
LOW FIRE	**Max. Input @ 20% Excess Air**	**(Btu/hr)**	**70**	**140**	**240**	**610**
	Primary Air Flow @ 16 osig	(scfh)	540	720	1,140	2,280
	Secondary Air Flow	(scfh)	350	910	1,580	4,940
	Air Orifice ΔP	("wc)	0.1	0.3	0.2	0.4
	No. 2 Oil Flow	(gph)	0.5	1.0	1.7	4.4

NOTES:

1. Capacities based on No. 2 fuel oil with HHV of 141,146 Btu/gal, 0.87 S.G., and a stoichiometric ratio of 1371.1 ft^3 air/gal No. 2 fuel oil with burner firing into chamber under no pressure.
2. Air and oil flows based on 60°F @ sea level; capacities for preheated air will differ from those shown.
3. Static air pressures measured at the burner air inlet pressure tap.
4. Flame lengths measured from the end of the burner tile.
5. All data based on industry standard air and oil piping practices.
6. A lean air/fuel ratio is recommended at low fire.
7. Excess fuel firing not recommended on No. 2 fuel oil.
8. Burners can be operated up to a static air pressure of 20 osig; consult Hauck.

PREHEATED AIR EJC-H ENERJET BURNERS
CAPACITY TABLE
(Air Flow @ 16 osig)

EJC Burner			Total Air Not Firing (scfm	Secondary Air Temperature (°F)				Exhaust Velocity (fpm)	
				100	400	650	800	Gas	Oil
H115	Primary Air Flow @ 16 osig	(scfh)	83	540	540	540	540	32500	22200
	Secondary Air Flow (Gas)	(scfh)		3600	2880	2580	2400		
	Natural Gas Flow	(scfh)		390	320	290	270		
	Secondary Air Flow (Oil)	(scfh)		3780	3060	2700	2520		
	Oil Capacity	(gph)		2.6	2.2	2.0	1.9		
H120	Primary Air Flow @ 16 osig	(scfh)	140	720	720	720	720	27400	20000
	Secondary Air Flow (Gas)	(scfh)		6420	5160	4560	4260		
	Natural Gas Flow	(scfh)		670	550	490	470		
	Secondary Air Flow (Oil)	(scfh)		6900	5580	4920	4620		
	Oil Capacity	(gph)		4.6	3.8	3.4	3.2		
H130	Primary Air Flow @ 16 osig	(scfh)	335	1140	1140	1140	1140	28700	23200
	Secondary Air Flow (Gas)	(scfh)		14940	12060	10620	9960		
	Natural Gas Flow	(scfh)		1500	1230	1100	1040		
	Secondary Air Flow (Oil)	(scfh)		15600	12600	11100	10380		
	Oil Capacity	(gph)		10.2	8.4	7.4	7.0		
H140	Primary Air Flow @ 16 osig	(scfh)	655	2280	2280	2280	2280	25800	22800
	Secondary Air Flow (Gas)	(scfh)		31980	25800	22740	21300		
	Natural Gas Flow	(scfh)		3200	2620	2340	2200		
	Secondary Air Flow (Oil)	(scfh)		32400	26160	23040	21600		
	Oil Capacity	(gph)		21.1	17.3	15.4	14.5		

PREHEATED AIR EJC-H ENERJET BURNERS
METRIC CAPACITY TABLE
(Air Flow @ 68.9 mbar)

EJC Burner			Total Air Not Firing (nm^3/hr)	Secondary Air Temperature (°C)				Exhaust Velocity (m/s)	
				38	200	350	425	Gas	Oil
H115	Primary Air Flow @ 68.9 mbar	(nm^3/hr)	2.2	14.5	14.5	14.5	14.5	165.1	112.8
	Secondary Air Flow (Gas)	(nm^3/hr)		96.4	77.1	69.1	64.3		
	Natural Gas Flow	(nm^3/hr)		10.4	8.6	7.8	7.4		
	Secondary Air Flow (Oil)	(nm^3/hr)		101.3	82.0	72.3	67.5		
	Oil Capacity	(L/h)		9.9	8.3	7.5	7.0		
H120	Primary Air Flow @ 68.9 mbar	(nm^3/hr)	3.8	19.3	19.3	19.3	19.3	139.2	101.6
	Secondary Air Flow (Gas)	(nm^3/hr)		172.0	138.2	122.2	114.1		
	Natural Gas Flow	(nm^3/hr)		17.9	14.7	13.2	12.5		
	Secondary Air Flow (Oil)	(nm^3/hr)		184.8	149.5	131.8	123.8		
	Oil Capacity	(L/h)		17.5	14.5	13.0	12.3		
H130	Primary Air Flow @ 68.9 mbar	(nm^3/hr)	9.0	30.5	30.5	30.5	30.5	145.8	117.9
	Secondary Air Flow (Gas)	(nm^3/hr)		400.2	323.1	284.5	266.8		
	Natural Gas Flow	(nm^3/hr)		40.2	33.0	29.4	27.8		
	Secondary Air Flow (Oil)	(nm^3/hr)		417.9	337.5	297.3	278.1		
	Oil Capacity	(L/h)		38.5	31.6	28.2	26.5		
H140	Primary Air Flow @ 68.9 mbar	(nm^3/hr)	17.5	61.1	61.1	61.1	61.1	131.1	115.8
	Secondary Air Flow (Gas)	(nm^3/hr)		856.7	691.1	609.2	570.6		
	Natural Gas Flow	(nm^3/hr)		85.7	70.2	62.6	59.0		
	Secondary Air Flow (Oil)	(nm^3/hr)		867.9	700.8	617.2	578.6		
	Oil Capacity	(L/h)		79.8	65.4	58.3	54.9		

NOTES

1. Fuel capacity based on natural gas at 1040 Btu/ft^3 and light oil at 138,000 Btu/gal.

2. Fuel flows at stoichiometric air: fuel ratio.

3. Primary air flow stated at ambient temperature at 16 osig. Do not heat primary air.

4. When firing on gas, minimum primary air pressure is 1 osig. Maximum gas flow reduces to less than listed in capacity table when primary air is 1 osig.

5. Combustion air capacities at 16 osi total pressure. Air flows at lower pressure proportional to $\sqrt{P/16}$.

   Air flows at intermediate temperature proportional to $\sqrt{\frac{860}{T_h+460}}$ times the flow at 400°F.

6. Include sensible heat or preheated air when computing total burner heat output. Sensible heat Btu/hr = scfm x 1.11 xΔT(°F).

7. Exhaust velocity (fps) approximated at 650°F combustion air temperature.

8. Turndown and excess air rates vary substantially depending on specific burner model, preheat temperature, primary air pressure, and fuel. Consult Hauck for specific information.

9. To size pipe for preheated air, compute acfm = scfm ($\frac{T+460}{520}$).

10. When supervising flame, provide approximately 16 osig ambient purge air (1.5 - 2 cfm) to standard scanner purge assembly.

11. When sizing blower, consider application and operation so as to prevent overloading the blower motor at ambient or not firing scfm.

EJC ENERJET COMBINATION BURNER

NATURAL GAS OPERATION

			MODEL NUMBER			
SPECIFICATIONS			115	120	130	140
HIGH FIRE	**Max. Input @ 10% Excess Air**	**(kW)**	**110**	**190**	**420**	**910**
	Primary Air Flow @ 68.9 mbar	(nm^3/hr)	14	19	31	61
	Secondary Air Flow	(nm^3/hr)	96	172	400	857
	Air Orifice ΔP	(mbar)	33.6	26.6	22.9	41.0
	Static Gas Pressure	(mbar)	32.3	22.4	37.1	24.4
	Gas Orifice ΔP	(mbar)	7.7	6.7	8.7	5.5
	Max. Excess Air	(%)	170	140	280	360
	Flame Length	(mm)	280	280	580	580
	Flame Diameter	(mm)	40	60	100	180
LOW FIRE	**Max. Input @ 10% Excess Air**	**(Btu/hr)**	**20**	**50**	**90**	**170**
	Primary Air Flow @ 68.9 mbar	(nm^3/hr)	14	19	31	61
	Secondary Air Flow	(nm^3/hr)	10	28	58	114
	Air Orifice ΔP	(mbar)	30	80	50	80
	Static Gas Pressure	(mbar)	120	150	149	100
	Gas Orifice ΔP	(mbar)	50	50	50	30

NOTES:

1. Capacities based on natural gas with LHV of 36.74 MJ/nm^3, 0.59 S.G., and a stoichiometric air/gas ratio of 9.74:1 with burner firing into chamber under no pressure.
2. Air and gas flows based on 0°C @ sea level.
3. Static air pressures measured at the burner air inlet pressure tap.
4. Flame lengths measured from the end of the burner tile.
5. All data based on industry standard air and gas piping practices.
6. A lean air/fuel ratio is recommended at low fire.
7. Burners can be operated up to a static air pressure of 8620Pa; consult Hauck.

(No. 2 Fuel Oil Operation on Reverse Side.)

CAPACITIES (kW)

No. 2 FUEL OIL OPERATION

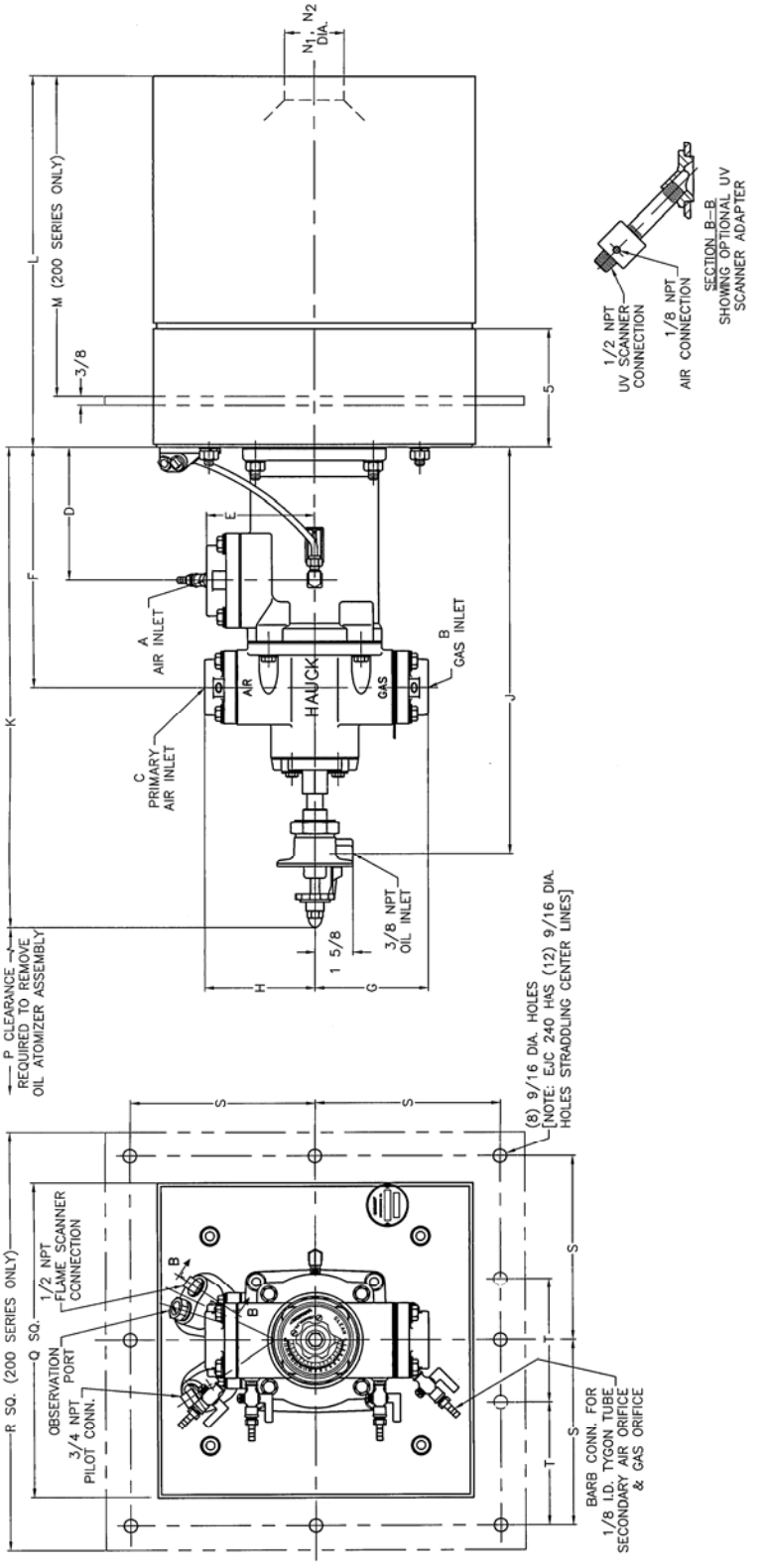
			MODEL NUMBER			
SPECIFICATIONS			115	120	130	140
HIGH FIRE	**Max. Input @ 10% Excess Air**	**(kW)**	**100**	**170**	**390**	**790**
	Primary Air Flow @ 68.9 mbar	(nm^3/hr)	14	19	31	61
	Secondary Air Flow	(nm^3/hr)	101	185	418	868
	Air Orifice ΔP	(mbar)	37.3	31.1	24.9	43.5
	No. 2 Oil Flow	(L/hr)	9.8	17.4	38.6	79.9
	Max. Excess Air	(%)	230	440	450	400
	Flame length	(mm)	360	460	640	1070
	Flame Diameter	(mm)	80	100	150	230
LOW FIRE	**Max. Input @ 20% Excess Air**	**(kW)**	**20**	**40**	**60**	**170**
	Primary Air Flow @ 68.9 mbar	(nm^3/hr)	14	19	31	61
	Secondary Air Flow	(nm^3/hr)	9	24	42	132
	Air Orifice ΔP	(mbar)	30	80	50	100
	No. 2 Oil Flow	(L/hr)	1.9	3.8	6.4	16.7

NOTES:

1. Capacities based on No. 2 fuel oil with LHV of 36.99 MJ/liter, 0.87 S.G., and a stoichiometric ratio of 9.70 nm^3 air/liter No. 2 fuel oil with burner firing into chamber under no pressure.
2. Air flows based on 0°C @ sea level and oil flows based on 15.5°C @ sea level; capacities for preheated air will differ from those shown.
3. Static air pressures measured at the burner air inlet pressure tap.
4. Flame lengths measured from the end of the burner tile.
5. All data based on industry standard air and oil piping practices.
6. A lean air/fuel ratio is recommended at low fire.
7. Excess fuel firing not recommended on No. 2 fuel oil.
8. Burners can be operated up to a static air pressure of 8620 Pa; consult Hauck.

EJC ENERJET COMBINATION BURNER

EJC 100 & 200 SERIES



MODEL NO.	A	B	C	D	E	F	G	H	J	K
EJC-_V115-215	1 1/2 NPT	1 NPT	1 NPT	5 11/16	4 1/8	9 15/16	4 1/2	4 3/8	16 15/16	20 1/16
EJC-_V120-220	2 NPT	1 1/4 NPT	1 1/4 NPT	5 5/8	4 1/2	10 1/8	4 3/4	4 5/8	17 1/8	20 5/16
EJC-_V130-230	3 NPT	1 1/2 NPT	1 1/2 NPT	8 1/8	6	14	5 5/8	5 1/2	21 1/2	24 5/8
EJC-_V140-240	4 NPT	2 NPT	2 NPT		6 1/8					24 5/8

MODEL NO.	L	M	N1	N2	P	Q	R	S	T	APPROX. NET WT. 100	APPROX. NET WT. 200
EJC-_V115-215	15 11/16	13 1/2	2 1/8	1 3/4	13 3/4	11 1/2	15 9/16	6 3/4		197 LB	209 LB
EJC-_V120-220			3	2 1/2	14	13 1/2	17 9/16	7 3/4		252 LB	265 LB
EJC-_V130-230			4 5/8	3 7/16	17 1/8	15 1/2	19 9/16	8 23/32	5 13/16	265 LB	278 LB
EJC-_V140-240	19 11/16	18	5 5/8	5						415 LB	430 LB

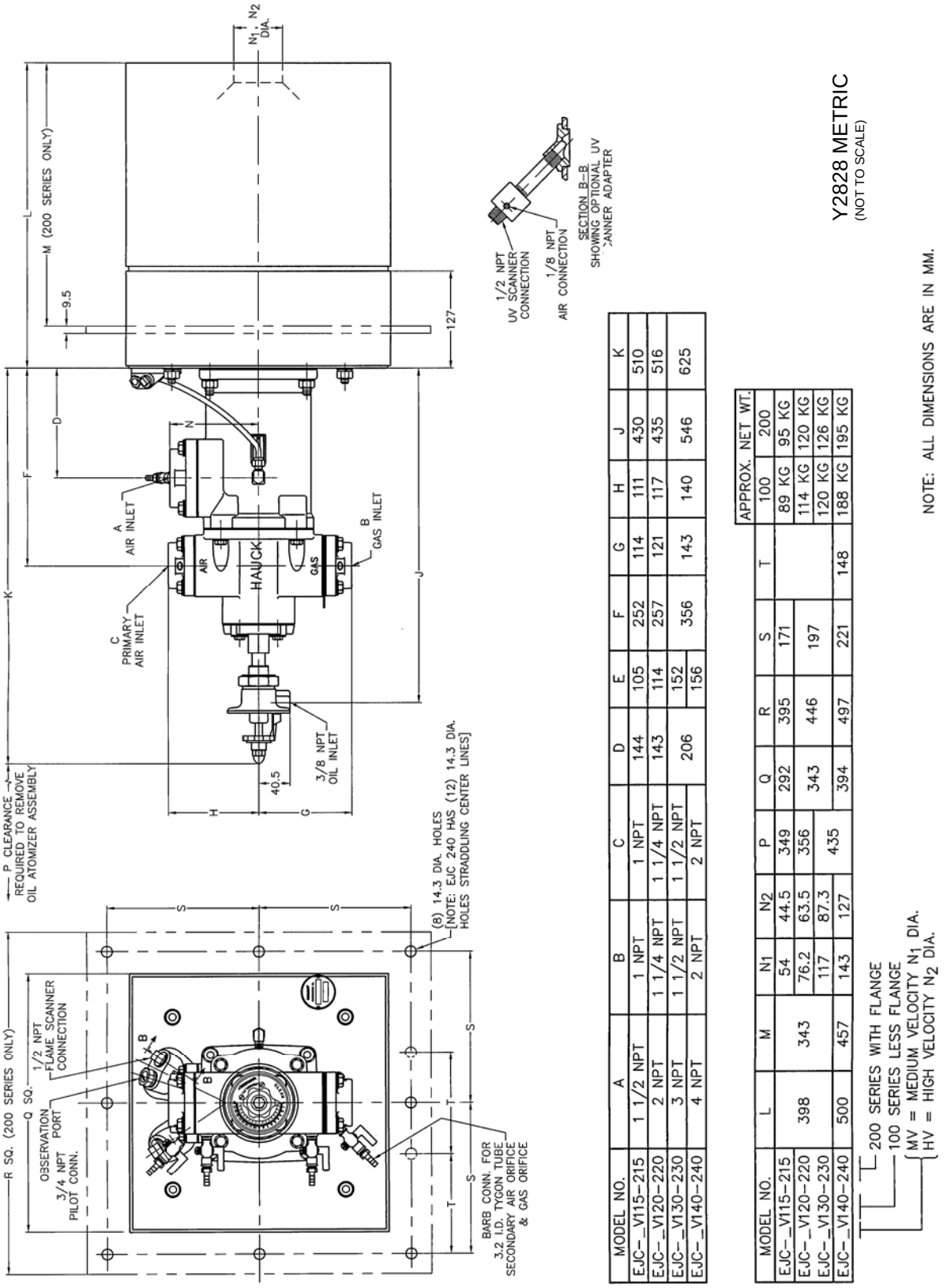
200 SERIES WITH FLANGE
100 SERIES LESS FLANGE
MV = MEDIUM VELOCITY N_1 DIA.
HV = HIGH VELOCITY N_2 DIA.

(See Reverse Side for Metric Dimensions)

METRIC DIMENSIONS

EJC ENERJET COMBINATION BURNER

EJC 100 & 200 SERIES



MODEL NO.	A	B	C	D	E	F	G	H	J	K
EJC-_V115-215	1 1/2 NPT	1 NPT	1 NPT	144	105	252	114	111	430	510
EJC-_V120-220	2 NPT	1 1/4 NPT	1 1/4 NPT	143	114	257	121	117	435	516
EJC-_V130-230	3 NPT	1 1/2 NPT	1 1/2 NPT	206	152	356	143	140	546	625
EJC-_V140-240	4 NPT	2 NPT	2 NPT		156					

MODEL NO.	L	M	N1	N2	P	Q	R	S	T	APPROX. NET WT. 100	APPROX. NET WT. 200
EJC-_V115-215	398	343	54	44.5	349	292	395	171		89 KG	95 KG
EJC-_V120-220			76.2	63.5	356	343	446	197		114 KG	120 KG
EJC-_V130-230			117	87.3	435					120 KG	126 KG
EJC-_V140-240	500	457	143	127		394	497	221	148	188 KG	195 KG

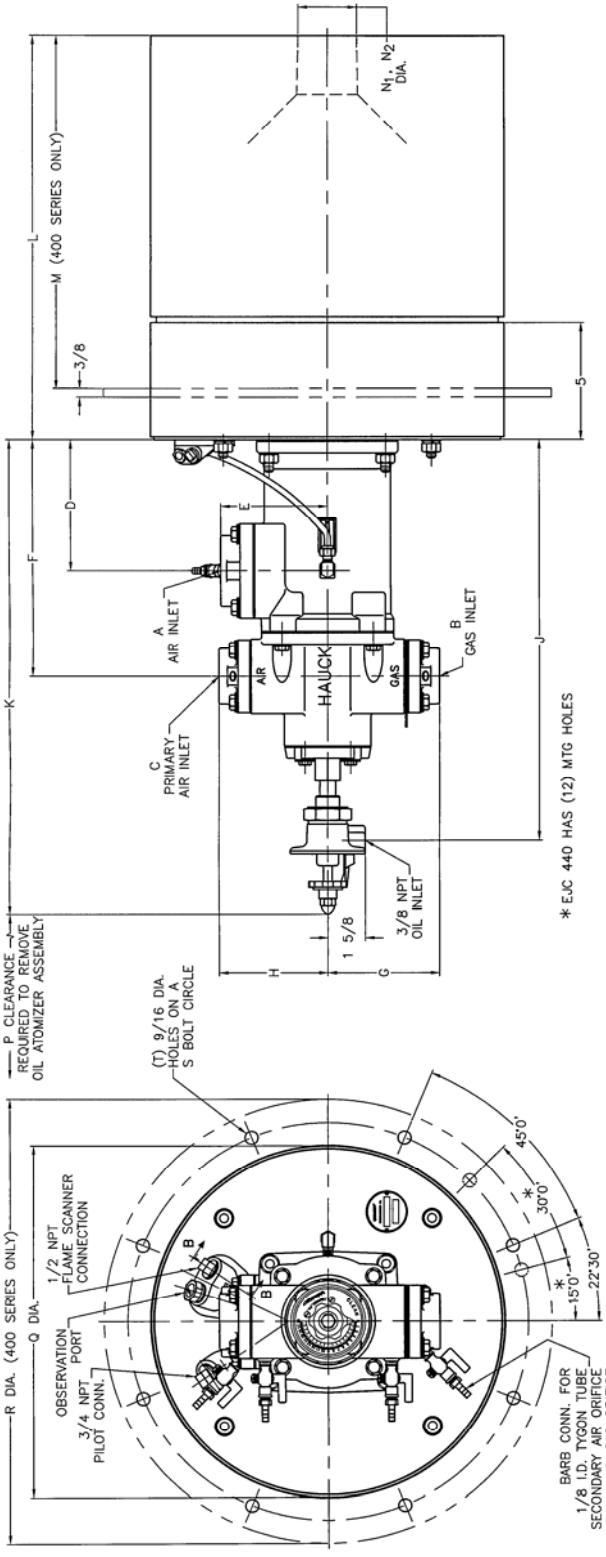
200 SERIES WITH FLANGE
100 SERIES LESS FLANGE
MV = MEDIUM VELOCITY N_1 DIA.
HV = HIGH VELOCITY N_2 DIA.

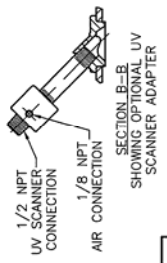
Y2828 METRIC
(NOT TO SCALE)

NOTE: ALL DIMENSIONS ARE IN MM.

EJC ENERJET COMBINATION BURNER

EJC 300 & 400 SERIES





Y3367
(NOT TO SCALE)

MODEL NO.	A	B	C	D	E	F	G	H	J	K
EJC–_V315–415	1 1/2 NPT	1 NPT	1 NPT	5 11/16	4 1/8	9 15/16	4 1/2	4 3/8	16 15/16	20 1/16
EJC–_V320–420	2 NPT	1 1/4 NPT	1 1/4 NPT	5 5/8	4 1/2	10 1/8	4 3/4	4 5/8	17 1/8	20 5/16
EJC–_V330–430	3 NPT	1 1/2 NPT	1 1/2 NPT	8 1/8	6	14	5 5/8	5 1/2	21 1/2	24 5/8
EJC–_V340–440	4 NPT	2 NPT	2 NPT		6 1/8					24 5/8

MODEL NO.	L	M	N1	N2	P	Q	R	S	T	APPROX. NET WT. 300	APPROX. NET WT. 400
EJC–_V315–415	16 3/4	14 9/16	2 1/8	1 3/4	12 7/8	13	17	15	8	197 LB	209 LB
EJC–_V320–420	17 1/4	15 1/16	3	2 1/2	13 1/8	15	19	17		252 LB	265 LB
EJC–_V330–430			4 5/8	3 7/16	16 1/4	15 1/2	19 1/2	17 1/2	12	265 LB	278 LB
EJC–_V340–440	21 1/4	19 1/16	5 5/8	5						415 LB	430 LB

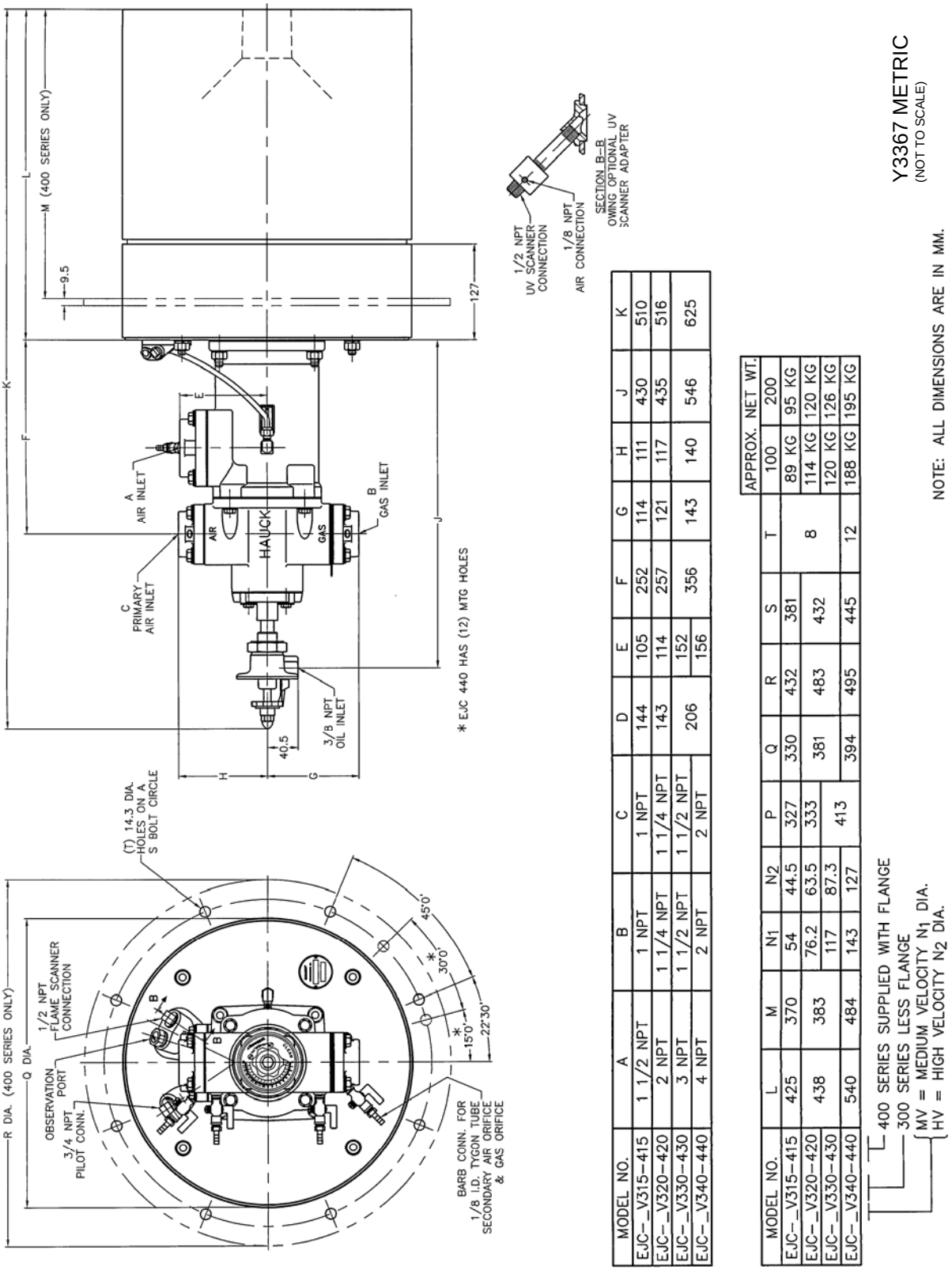
400 SERIES SUPPLIED WITH FLANGE
300 SERIES LESS FLANGE
MV = MEDIUM VELOCITY N_1 DIA.
HV = HIGH VELOCITY N_2 DIA.

(See Reverse Side for Metric Dimensions)

METRIC DIMENSIONS

EJC ENERJET COMBINATION BURNER

EJC 300 & 400 SERIES



MODEL NO.	A	B	C	D	E	F	G	H	J	K
EJC-_V315-415	1 1/2 NPT	1 NPT	1 NPT	144	105	252	114	111	430	510
EJC-_V320-420	2 NPT	1 1/4 NPT	1 1/4 NPT	143	114	257	121	117	435	516
EJC-_V330-430	3 NPT	1 1/2 NPT	1 1/2 NPT	206	152	356	143	140	546	625
EJC-_V340-440	4 NPT	2 NPT	2 NPT		156					

MODEL NO.	L	M	N1	N2	P	Q	R	S	T	APPROX. NET WT.
EJC-_V315-415	425	370	54	44.5	327	330	432	381	8	100 200
EJC-_V320-420	438	383	76.2	63.5	333	381	483	432		89 KG 95 KG
EJC-_V330-430			117	87.3	413					114 KG 120 KG
EJC-_V340-440	540	484	143	127		394	495	445	12	120 KG 126 KG
										188 KG 195 KG

400 SERIES SUPPLIED WITH FLANGE
300 SERIES LESS FLANGE
MV = MEDIUM VELOCITY N_1 DIA.
HV = HIGH VELOCITY N_2 DIA.

Y3367 METRIC
(NOT TO SCALE)

NOTE: ALL DIMENSIONS ARE IN MM.

EJC ENERJET COMBINATION BURNER

EJC-115-Gas Firing

Secondary Air			Primary Air		Total Air Flow (scfh)	Natural Gas			Million Btu/hr (with 10% Excess Air)	Flame		Max % XSA
Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)	Pressure ("wc)	Flow (scfh)		Inlet Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)		Length (in)	Diameter (in)	
34.6	17.0	4,020	34.6	600	4,620	15.8	3.7	430	**0.44**	12	1.7	160
27.7	13.5	3,600	27.7	540	4,140	13.0	3.1	390	**0.40**	11	1.7	170
20.8	9.4	3,050	27.7	540	3,590	9.9	2.4	340	**0.35**	11	1.7	100
13.8	5.9	2,440	27.7	540	2,980	6.7	1.7	280	**0.29**	10	1.7	80
6.9	2.7	1,680	27.7	540	2,220	3.8	0.9	210	**0.22**	7	1.7	40
1.7	0.6	790	27.7	540	1,330	1.2	0.3	120	**0.12**	5	1.7	40
0.4	0.1	360	27.7	540	900	0.5	0.2	80	**0.08**	3	1.7	--

EJC-120-Gas Firing

Secondary Air			Primary Air		Total Air Flow (scfh)	Natural Gas			Million Btu/hr (with 10% Excess Air)	Flame		Max % XSA
Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)	Pressure ("wc)	Flow (scfh)		Inlet Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)		Length (in)	Diameter (in)	
34.6	13.4	7,200	34.6	780	7,980	11.0	3.3	740	**0.77**	11	2.5	140
27.7	10.7	6,420	27.7	720	7,140	9.0	2.7	670	**0.69**	11	2.5	140
20.8	9.2	6,010	27.7	720	6,730	8.0	2.3	630	**0.65**	11	2.5	70
13.8	4.9	4,430	27.7	720	5,150	4.6	1.3	480	**0.50**	11	2.5	70
6.9	2.6	3240	27.7	720	3,960	2.7	0.8	370	**0.38**	11	2.5	35
1.7	0.8	1,850	27.7	720	2,570	1.2	0.3	240	**0.25**	6	2.5	--
0.4	0.3	1,060	27.7	720	1,780	0.6	0.2	170	**0.18**	In Tile	In Tile	--

EJC-130-Gas Firing

Secondary Air			Primary Air		Total Air Flow (scfh)	Natural Gas			Million Btu/hr (with 10% Excess Air)	Flame		Max % XSA
Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)	Pressure ("wc)	Flow (scfh)		Inlet Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)		Length (in)	Diameter (in)	
34.6	11.3	16,680	34.6	1,260	17,940	18.5	4.5	1,670	**1.73**	23	4.0	260
27.7	9.2	14,940	27.7	1,140	16,080	14.9	3.5	1,500	**1.55**	23	4.0	280
20.8	6.6	12,820	27.7	1,140	13,960	11.2	2.6	1,300	**1.34**	23	4.0	180
13.8	4.8	10,810	27.7	1,140	11,950	8.3	2.0	1,120	**1.16**	22	4.0	140
6.9	2.4	7,640	27.7	1,140	8,780	4.5	1.1	820	**0.85**	20	4.0	70
1.7	0.6	3,720	27.7	1,140	4,860	1.3	0.3	450	**0.47**	15	4.0	--
0.4	0.2	2,150	27.7	1,140	3,290	0.6	0.2	310	**0.32**	In Tile	In Tile	--

(OVER)

SUPPLEMENTAL DATA

EJC-140-Gas Firing

Secondary Air			Primary Air		Total Air Flow (scfh)	Natural Gas			Million Btu/hr (with 10% Excess Air)	Flame		Max % XSA
Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)	Pressure ("wc)	Flow (scfh)		Inlet Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)		Length (in)	Diameter (in)	
34.6	22	35,760	34.6	2,520	38,280	12.2	2.7	3,570	**3.69**	36	7.0	300
27.7	16.5	31,980	27.7	2,280	34,260	9.8	2.2	3,200	**3.31**	36	7.0	360
20.8	12.4	27,720	27.7	2,280	30,000	7.5	1.7	2,800	**2.90**	36	7.0	180
13.8	8.1	22,410	27.7	2,280	24,690	5.1	1.2	2,300	**2.38**	36	7.0	180
6.9	4.1	16,070	27.7	2,280	18,350	2.8	0.6	1,710	**1.77**	36	7.0	100
1.7	0.9	7,820	27.7	2,280	10,100	0.8	0.2	940	**0.97**	36	5.0	50
0.4	0.3	4,270	27.7	2,280	6,550	0.4	0.1	610	**0.63**	In Tile	In Tile	20

NOTES:

1. Capacities based on natural gas with HHV of 1034 Btu/ft^3, 0.59 S.G., and a stoichiometric air/gas ratio of 9.74:1 with burner firing into chamber under no pressure.
2. Air and gas flows based on 60°F @ sea level.
3. Static air pressures measured at the burner air inlet pressure tap.
4. Flame lengths measured from the end of the burner tile.
5. All data based on industry standard air and gas piping practices.

EJC ENERJET COMBINATION BURNER

EJC-115-Gas Firing

Secondary Air			Primary Air		Total Air Flow (nm^3/hr)	Natural Gas			kW (with 10% Excess Air)	Flame		Max % XSA
Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)	Pressure (mbar)	Flow (nm^3/hr)		Inlet Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)		Length (mm)	Diameter (mm)	
86.1	42.3	107.7	86.1	16.1	123.8	39.3	9.2	11.5	**130**	310	40	160
68.9	33.6	96.4	68.9	14.5	110.9	32.3	7.7	10.4	**118**	280	40	170
51.8	23.4	81.7	68.9	14.5	96.2	24.6	6.0	9.1	**103**	280	40	100
34.3	14.7	65.4	68.9	14.5	79.8	16.7	4.1	7.5	**85**	250	40	80
17.2	6.7	45.0	68.9	14.5	59.5	9.4	2.3	5.6	**64**	180	40	40
4.2	1.4	21.2	68.9	14.5	35.6	3.1	0.8	3.2	**36**	130	40	40
1.0	0.2	9.6	68.9	14.5	24.1	1.4	0.5	2.1	**24**	80	40	--

EJC-120-Gas Firing

Secondary Air			Primary Air		Total Air Flow (nm^3/hr)	Natural Gas			kW (with 10% Excess Air)	Flame		Max % XSA
Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)	Pressure (mbar)	Flow (nm^3/hr)		Inlet Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)		Length (mm)	Diameter (mm)	
86.1	33.3	192.9	86.1	20.9	213.8	27.3	8.2	19.8	**224**	280	60	140
68.9	26.6	172.0	68.9	19.3	191.3	22.4	6.7	17.9	**203**	280	60	140
51.8	22.9	161.0	68.9	19.3	180.3	19.8	5.7	16.9	**191**	280	60	70
34.3	12.2	118.7	68.9	19.3	138.0	11.5	3.2	12.9	**145**	280	60	70
17.2	6.5	86.8	68.9	19.3	106.1	6.8	1.9	9.9	**112**	280	60	35
4.2	2.0	49.6	68.9	19.3	68.9	2.9	0.8	6.4	**73**	150	60	--
1.0	0.8	28.4	68.9	19.3	47.7	1.4	0.4	4.6	**52**	In Tile	In Tile	--

EJC-130-Gas Firing

Secondary Air			Primary Air		Total Air Flow (nm^3/hr)	Natural Gas			kW (with 10% Excess Air)	Flame		Max % XSA
Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)	Pressure (mbar)	Flow (nm^3/hr)		Inlet Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)		Length (mm)	Diameter (mm)	
86.1	28.1	446.9	86.1	33.8	480.6	46.0	11.2	44.7	**506**	580	100	260
68.9	22.9	400.2	68.9	30.5	430.8	37.1	8.7	40.2	**455**	580	100	280
51.8	16.4	343.4	68.9	30.5	374.0	27.8	6.5	34.8	**394**	580	100	180
34.3	11.9	289.6	68.9	30.5	320.1	20.7	5.0	30.0	**339**	560	100	140
17.2	6.0	204.7	68.9	30.5	235.2	11.1	2.7	22.0	**249**	510	100	70
4.2	1.4	99.7	68.9	30.5	130.2	3.3	0.8	12.1	**136**	380	100	--
1.0	0.6	57.6	68.9	30.5	88.1	1.6	0.4	8.3	**94**	In Tile	In Tile	--

(OVER)

METRIC DATA

EJC-140-Gas Firing

Secondary Air			Primary Air		Total Air Flow (nm^3/hr)	Natural Gas			kW (with 10% Excess Air)	Flame		Max % XSA
Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)	Pressure (mbar)	Flow (nm^3/hr)		Inlet Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)		Length (mm)	Diameter (mm)	
86.1	54.7	958.0	86.1	67.5	1,025.5	30.3	6.7	95.6	**1,082**	910	180	300
68.9	41.1	856.7	68.9	61.1	917.8	24.4	5.5	85.7	**970**	910	180	360
51.8	30.9	742.6	68.9	61.1	803.7	18.7	4.2	75.0	**849**	910	180	180
34.3	20.2	600.4	68.9	61.1	661.4	12.6	2.9	61.6	**697**	910	180	180
17.2	10.2	430.5	68.9	61.1	491.6	7.0	1.6	45.8	**518**	910	180	100
4.2	2.3	209.5	68.9	61.1	270.6	2.1	0.5	25.2	**285**	910	130	50
1.0	0.7	114.4	68.9	61.1	175.5	0.9	0.2	16.3	**185**	In Tile	In Tile	20

NOTES:

1. Capacities based on natural gas with LHV of 36.74 MJ/nm^3, 0.59 S.G., and a stoichiometric air/gas ratio of 9.74:1 with burner firing into chamber under no pressure.
2. Air and gas flows based on 0°C @ sea level.
3. Static air pressures measured at the burner air inlet pressure tap.
4. Flame lengths measured from the end of the burner tile.
5. All data based on industry standard air and gas piping practices.

EJC ENERJET COMBINATION BURNER

EJC-115-Oil Firing

Secondary Air			Primary Air		Total Air Flow (scfh)	No. 2 Fuel Oil Flow (gph)	Million Btu/hr (with 20% Excess Air)	Flame		Max % XSA
Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)	Pressure ("wc)	Flow (scfh)				Length (in)	Diameter (in)	
34.6	18.7	4,200	34.6	600	4,800	2.9	**0.40**	14.0	3.00	200
27.7	15.0	3,780	27.7	540	4,320	2.6	**0.36**	14.0	3.00	230
20.8	11.3	3,290	27.7	540	3,830	2.3	**0.32**	14.0	3.00	210
13.8	7.4	2,710	27.7	540	3,250	2.0	**0.27**	14.0	2.50	160
6.9	3.5	1,890	27.7	540	2,430	1.5	**0.20**	12.0	1.70	100
1.7	0.6	830	27.7	540	1,370	0.8	**0.11**	9.0	1.70	80
0.4	0.1	350	27.7	540	890	0.5	**0.07**	4.0	1.70	100

EJC-120-Oil Firing

Secondary Air			Primary Air		Total Air Flow (scfh)	No. 2 Fuel Oil Flow (gph)	Million Btu/hr (with 20% Excess Air)	Flame		Max % XSA
Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)	Pressure ("wc)	Flow (scfh)				Length (in)	Diameter (in)	
34.6	15.5	7,680	34.6	780	8,460	5.1	**0.71**	18.0	4.00	480
27.7	12.5	6,900	27.7	720	7,620	4.6	**0.64**	18.0	4.00	440
20.8	11.0	5,820	27.7	720	6,540	4.0	**0.55**	18.0	4.00	210
13.8	5.8	4,780	27.7	720	5,500	3.3	**0.46**	18.0	4.00	210
6.9	2.8	3,390	27.7	720	4,110	2.5	**0.34**	17.0	3.50	160
1.7	0.7	1,760	27.7	720	2,480	1.5	**0.21**	16.0	3.00	100
0.4	0.3	910	27.7	720	1,630	1.0	**0.14**	12.0	2.50	80

EJC-130-Oil Firing

Secondary Air			Primary Air		Total Air Flow (scfh)	No. 2 Fuel Oil Flow (gph)	Million Btu/hr (with 20% Excess Air)	Flame		Max % XSA
Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)	Pressure ("wc)	Flow (scfh)				Length (in)	Diameter (in)	
34.6	12.5	17,460	34.6	1,260	18,720	11.4	**1.57**	25.0	6.00	500
27.7	10.0	15,600	27.7	1,140	16,740	10.2	**1.40**	25.0	6.00	450
20.8	6.8	12,870	27.7	1,140	14,010	8.5	**1.18**	25.0	6.00	590
13.8	5.1	11,110	27.7	1,140	12,250	7.4	**1.03**	25.0	6.00	570
6.9	2.5	7,810	27.7	1,140	8,950	5.4	**0.75**	25.0	5.00	480
1.7	0.5	3,370	27.7	1,140	4,510	2.7	**0.38**	23.0	5.00	180
0.4	0.2	1,580	27.7	1,140	2,720	1.7	**0.23**	16.0	2.50	--

(OVER)

SUPPLEMENTAL DATA

EJC-140-Oil Firing

Secondary Air			Primary Air		Total Air Flow (scfh)	No. 2 Fuel Oil Flow (gph)	Million Btu/hr (with 20% Excess Air)	Flame		Max % XSA
Pressure ("wc)	Air Orifice ΔP ("wc)	Flow (scfh)	Pressure ("wc)	Flow (scfh)				Length (in)	Diameter (in)	
34.6	22.0	36,240	34.6	2,520	38,760	23.6	**3.25**	42.0	9.00	430
27.7	17.5	32,400	27.7	2,280	34,680	21.1	**2.91**	42.0	9.00	400
20.8	13.0	28,320	27.7	2,280	30,600	18.6	**2.57**	39.0	8.00	440
13.8	9.8	24,820	27.7	2,280	27,100	16.5	**2.27**	36.0	7.00	430
6.9	4.1	15,920	27.7	2,280	18,200	11.1	**1.53**	36.0	6.00	360
1.7	1.0	8,040	27.7	2,280	10,320	6.3	**0.87**	25.0	6.00	160
0.4	0.4	4,940	27.7	2,280	7,220	4.4	**0.61**	17.0	5.00	80

NOTES:

1. Capacities based on No. 2 fuel oil with HHV of 141,146 Btu/gal, 0.87 S.G., and a stoichiometric ratio of 1371.1 ft^3 air/gal No. 2 fuel oil with burner firing into chamber under no pressure.
2. Air and oil flows based on 60°F @ sea level; capacities for preheated air will differ from those shown.
3. Static air pressures measured at the burner air inlet pressure tap.
4. Flame lengths measured from the end of the burner tile.
5. All data based on industry standard air and oil piping practices.

EJC ENERJET COMBINATION BURNER

EJC-115-Oil Firing

Secondary Air			Primary Air		Total Air Flow (nm^3/hr)	No. 2 Fuel Oil Flow (lph)	kW (with 20% Excess Air)	Flame		Max % XSA
Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)	Pressure (mbar)	Flow (nm^3/hr)				Length (mm)	Diameter (mm)	
86.1	46.5	112.5	86.1	16.1	128.6	11.0	**118**	360	80	200
68.9	37.3	101.3	68.9	14.5	115.7	9.9	**106**	360	80	230
51.8	28.1	88.1	68.9	14.5	102.6	8.8	**94**	360	80	210
34.3	18.4	72.6	68.9	14.5	87.1	7.5	**80**	360	60	160
17.2	8.7	50.6	68.9	14.5	65.1	5.6	**60**	310	40	100
4.2	1.5	22.2	68.9	14.5	36.7	3.2	**34**	230	40	80
1.0	0.2	9.4	68.9	14.5	23.8	2.0	**22**	100	40	100

EJC-120-Oil Firing

Secondary Air			Primary Air		Total Air Flow (nm^3/hr)	No. 2 Fuel Oil Flow (lph)	kW (with 20% Excess Air)	Flame		Max % XSA
Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)	Pressure (mbar)	Flow (nm^3/hr)				Length (mm)	Diameter (mm)	
86.1	38.6	205.7	86.1	20.9	226.6	19.5	**208**	460	100	480
68.9	31.1	184.9	68.9	19.3	204.1	17.5	**187**	460	100	440
51.8	27.4	155.9	68.9	19.3	175.2	15.0	**161**	460	100	210
34.3	14.4	128.1	68.9	19.3	147.3	12.7	**135**	460	100	210
17.2	7.0	90.8	68.9	19.3	110.1	9.5	**101**	430	90	160
4.2	1.8	47.2	68.9	19.3	66.4	5.7	**61**	410	80	100
1.0	0.7	24.4	68.9	19.3	43.7	3.8	**40**	310	60	80

EJC-130-Oil Firing

Secondary Air			Primary Air		Total Air Flow (nm^3/hr)	No. 2 Fuel Oil Flow (lph)	kW (with 20% Excess Air)	Flame		Max % XSA
Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)	Pressure (mbar)	Flow (nm^3/hr)				Length (mm)	Diameter (mm)	
86.1	31.1	467.8	86.1	33.8	501.5	43.1	**460**	640	150	500
68.9	24.9	417.9	68.9	30.5	448.5	38.5	**412**	640	150	450
51.8	16.9	344.8	68.9	30.5	375.3	32.2	**344**	640	150	590
34.3	12.7	297.6	68.9	30.5	328.2	28.2	**301**	640	150	570
17.2	6.2	209.2	68.9	30.5	239.8	20.6	**220**	640	130	480
4.2	1.2	90.3	68.9	30.5	120.8	10.4	**111**	580	130	180
1.0	0.4	42.3	68.9	30.5	72.9	6.3	**67**	410	60	--

(OVER)

METRIC DATA

EJC-140-Oil Firing

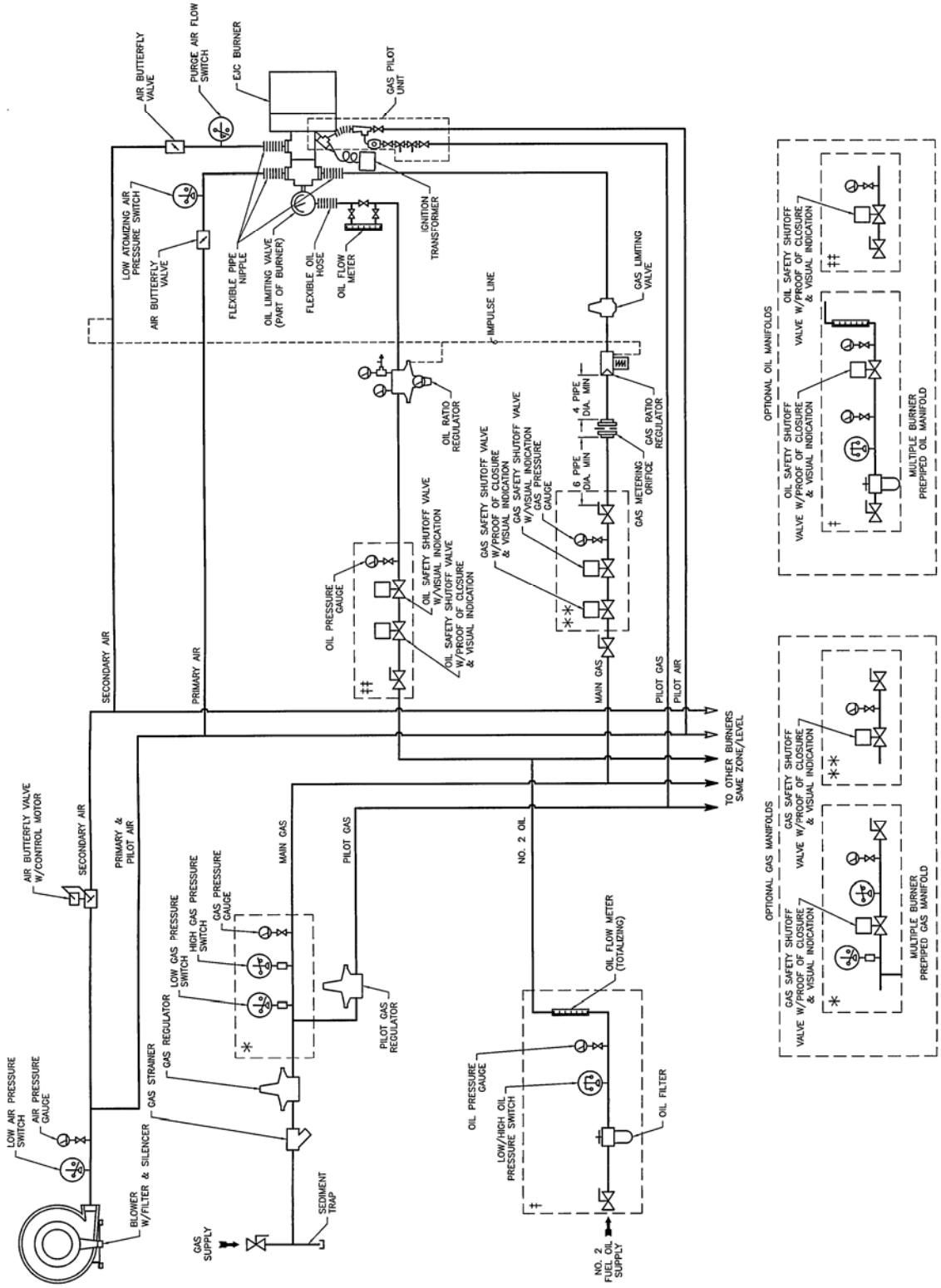
Secondary Air			Primary Air					Flame		
Pressure (mbar)	Air Orifice ΔP (mbar)	Flow (nm^3/hr)	Pressure (mbar)	Flow (nm^3/hr)	**Total Air Flow (nm^3/hr)**	**No. 2 Fuel Oil Flow (lph)**	**kW (with 20% Excess Air)**	Length (mm)	Diameter (mm)	**Max % XSA**
86.1	54.7	970.9	86.1	67.5	1,038.4	89.2	**953**	1070	230	430
68.9	43.5	868.0	68.9	61.1	929.1	79.8	**853**	1070	230	400
51.8	32.3	758.7	68.9	61.1	819.8	70.4	**752**	990	200	440
34.3	24.4	664.9	68.9	61.1	726.0	62.3	**666**	910	180	430
17.2	10.2	426.5	68.9	61.1	487.6	41.9	**447**	910	150	360
4.2	2.5	215.4	68.9	61.1	276.5	23.7	**254**	640	150	160
1.0	0.9	132.3	68.9	61.1	193.4	16.6	**178**	430	130	80

NOTES:

1. Capacities based on No. 2 fuel oil with LHV of 36.99 MJ/liter, 0.87 S.G., and a stoichiometric ratio of 9.70nm^3 air/liter No. 2 fuel oil with burner firing into chamber under no pressure.
2. Air and oil flows based on 0°C @ sea level; capacities for preheated air will differ from those shown.
3. Static air pressures measured at the burner air inlet pressure tap.
4. Flame lengths measured from the end of the burner tile.
5. All data based on industry standard air and oil piping practices.

EJC ENERJET COMBINATION BURNER

TYPICAL MULTIPLE BURNER SYSTEM RATIO CONTROL



NOTES:
1. OIL RATIO REGULATOR OUTLET CAN NOT BE LOCATED MORE THAN 6" (152MM) LOWER AND NEVER HIGHER THAN THE CENTER LINE OF THE BURNER OIL VALVE FOR HORIZONTALLY MOUNTED BURNERS. OIL RATIO REGULATOR MUST BE MOUNTED WITHIN 20' (6M) OR LESS OF THE OIL BURNERS. IF BURNERS IN THE ZONE ARE MOUNTED AT DIFFERENT ELEVATIONS, ADDITIONAL OIL RATIO REGULATORS ARE REQUIRED (CONSULT HAUCK).
2. OPTIONAL GAS AND OIL MANIFOLDS CAN BE UTILIZED FOR MULTIPLE BURNERS FIRING INTO A COMMON HEATING CHAMBER, HOWEVER, SPECIAL FEATURES ARE REQUIRED IN THE ASSOCIATED CONTROL SYSTEM (SEE HAUCK APPLICATION

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