

MATRIX

Gas-Fired High Efficiency
Unit Heater

Discover unparalleled performance and unmatched efficiency, with Matrix.



MATRIX

Gas-Fired High Efficiency Unit Heater

With Sterling HVAC's 70+ years of gas-fired unit heater experience coupled with modern day technologies, Matrix provides the ultimate combination of high performance and durability in a very cost-conscious package.

Boasting a +93% thermal efficiency rating, Matrix is the perfect solution for today's energy-efficient light commercial and commercial applications.

Designed, engineered, and manufactured in the USA, Sterling HVAC continues to provide industry leading, high-quality products to customers across the globe. Matrix high efficiency unit heaters help minimize the carbon footprint through reduced fuel usage and low emissions while providing a significant cost-savings each heating season.

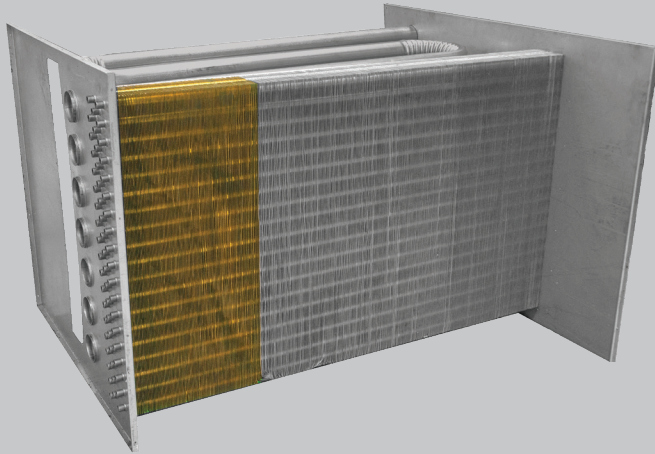
Built not only for performance, Matrix utilizes a unique corrosion resistant ZAM treated cabinet making it the most durable piece of equipment available today, even in the harshest of environments. Matrix is not only perfect for traditional applications including loading docks, garages and warehouses but it is ideal for more corrosive environments like greenhouses and agricultural buildings.



Features & Benefits

- +93% Efficiency at Full Input
- 50,000 - 400,000 BTU/h (14.6 - 117.2 kW)
- ZAM Treated Corrosion Resistant Cabinet
- Tri-Metal Heat Exchanger for Improved Thermal Heat Transfer
- Separated or Standard Combustion All-In-One Units
- Optional Gas Conversion Kit (NG or LP)
- In-Shot Burners
- PVC/CPVC Vent Compatible
- Multiple Voltage Configurations
- Condensate Float Switch and Trap Standard
- Optional Condensate Pump and Condensate Neutralizer
- Single Stage Gas Control
- 10-Year Heat Exchanger, Flue Collector and Burner Warranty

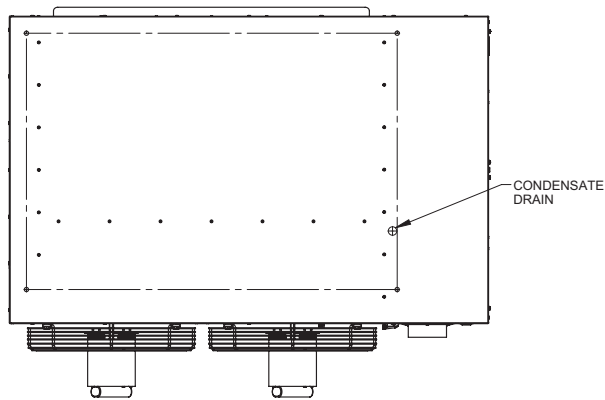




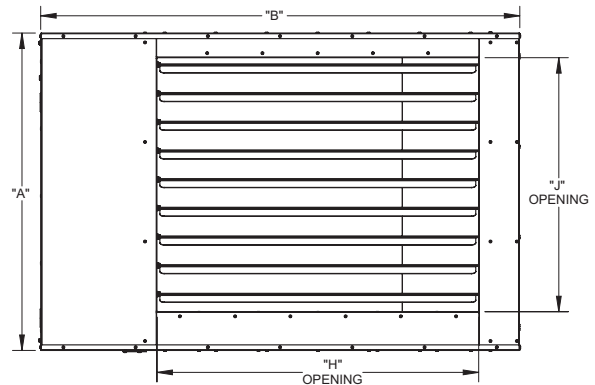
Tri-Metal Heat Exchanger

The Matrix uses an exclusive tri-metal stainless steel heat exchanger which maximizes heat transfer for class-leading operating efficiencies. The Matrix heat exchanger comes with a full 10-year warranty.

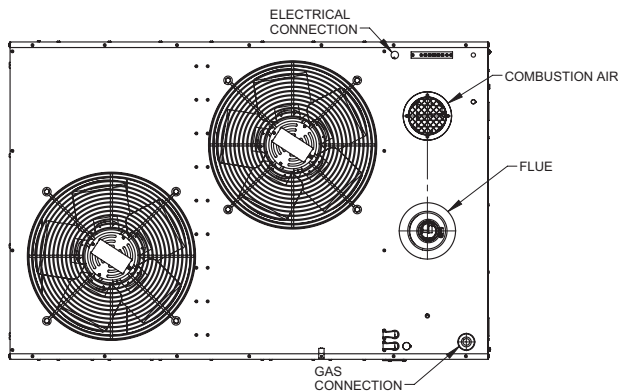
Dimensional Data



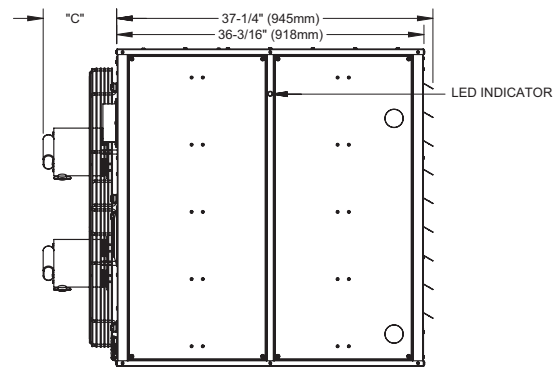
Bottom View



Front View



Rear View



Side View

		XH050	XH100	XH150	XH200	XH250	XH300	XH350	XH400
DIMENSIONS									
"A" Unit Height	INCH	15-1/16	20-3/8	20-3/8	20-3/8	27-9/16	27-9/16	37-5/16	37-5/16
	MM	383	518	518	518	700	700	948	948
"B" Jacket Width of Unit	INCH	46-7/16	46-7/16	56-3/8	56-3/8	56-3/8	56-3/8	56-3/8	56-3/8
	MM	1180	1180	1179	1179	1179	1179	1179	1179
"C" Depth to Rear of Housing	INCH	4-1/2	7-7/8	7-7/8	7-7/8	8-5/8	8-5/8	8-5/8	8-5/8
	MM	115	201	201	201	220	220	220	220
"H" Discharge Opening Width	INCH	27-7/8	27-7/8	37-7/8	37-7/8	37-7/8	37-7/8	37-7/8	37-7/8
	MM	708	708	962	962	962	962	962	962
"J" Discharge Opening Height	INCH	7-5/16	10-15/16	13-3/4	17-1/16	20-1/4	23-9/16	26-15/16	29-7/8
	MM	186	278	349	434	515	598	684	759
Weight	LBS	195	245	300	330	400	413	490	504
	KG	113.4	138.3	163.3	176.9	210.9	210.9	254.0	256.3

XH - Specifications



		XH050	XH100	XH150	XH200	XH250	XH300	XH350	XH400
GENERAL PERFORMANCE DATA									
INPUT	BTU/HR	50,000	100,000	150,000	200,000	250,000	300,000	350,000	400,000
	KW	14.6	29.3	43.9	58.6	73.2	87.9	102.5	117.2
OUTPUT	BTU/HR	47,900	96,000	145,350	191,200	242,500	282,600	327,600	372,000
	KW	14.0	28.1	42.6	56.0	71.1	82.8	96.0	109.0
THERMAL EFFICIENCY		95.80%	96%	96.90%	95.60%	97%	94.20%	93.60%	93%
AIR TEMP RISE	DEG. F	64	50	47	50	53	56	51	58
	DEG. C	35.6	27.8	26.1	27.8	29.4	31.1	28.3	32.2
CONDENSATE PRODUCTION	GAL/HR	0.36	0.63	1.03	1.32	1.58	1.62	2.52	2.46
FUEL TYPE		NG/LP	NG/LP	NG/LP	NG/LP	NG/LP	NG/LP	NG/LP	NG/LP
VENTING CATEGORY		IV	IV	IV	IV	IV	IV	IV	IV
AIR FLOW	CFM	691	1830	2869	3567	4154	4675	6087	6124
	CU. M/S	0.326	0.863	1.354	1.683	1.960	2.206	2.872	2.890
OUTLET VELOCITY	FPM	489	855	799	795	777	753	854	760
AIR THROW @ 12' (3.66 M) MOUNTING HT	FT	17'*	53'	59'	61'	61'	59'	78'	65'
	M	5.18	16.15	17.98	18.59	18.59	17.98	23.77	19.81
MIN GAS PRESSURE NG	INCH W.C.	5	5	5	5	5	5	5	5
	KPA	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.24
MIN GAS PRESSURE LP	INCH W.C.	11	11	11	11	11	11	11	11
	KPA	2.74	2.74	2.74	2.74	2.74	2.74	2.74	2.74
GAS MBH PER ORIFICE (NG)		25	33	37.5	40	42	44.4	44.4	44.4
GAS MBH PER ORIFICE (LP)		25	33	37.5	40	42	44.4	44.4	44.4
FLUE LIMIT SET POINT	DEG. F	140	140	140	140	140	140	140	140
	DEG. C	60	60	60	60	60	60	60	60
GAS CONNECTION SIZE		1/2"	1/2"	1/2"	1/2"	3/4"	3/4"	3/4"	3/4"
CONDENSATE DISCHARGE SIZE		3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
CONDENSATE TRAP		YES	YES	YES	YES	YES	YES	YES	YES
COMBUSTION AIR INTAKE	INCH	2	2	3	4	4	4	4	4
	MM	50.8	50.8	76.2	101.6	101.6	101.6	101.6	101.6
COMBUSTION AIR INTAKE MATERIAL		PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC
FLUE SIZE	INCH	2	2	3	4	4	4	4	4
	MM	50.8	50.8	76.2	101.6	101.6	101.6	101.6	101.6
FLUE MATERIAL		PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC	PVC/CPVC
ELECTRICAL DATA									
SUPPLY VOLTAGE/PHASE		115V - 1PH	115V - 1 PH	115V - 1 PH	115V - 1 PH	115V - 1 PH	115V - 1 PH	115V - 1 PH	115V - 1PH
FULL LOAD AMPS		6.7 A	7.4 A	14.0 A	14.0 A	23.0 A	24.6 A	24.6 A	24.6 A
MIN CIRCUIT AMPS AT 120V		7.3 A	8.9 A	15.4 A	15.5 A	25.6 A	27.2 A	27.2 A	27.2 A
MOTOR DATA									
MOTOR HP	HP	1/14	1/2	1/2	1/2	1	1	1	1
	KW	0.05	0.37	0.37	0.37	0.74	0.74	0.74	0.74
MOTOR QTY		2	1	2	2	2	2	2	2
MOTOR RPM		1500	1500	1500	1500	1625	1625	1625	1625
MOTOR AMPS (TOTAL FAN MOTOR AMPS)		5.2	6	12	12	21.4	21.4	21.4	21.4
CLEARANCE SERVICE/COMBUSTIBLE									
AIR INTAKE BACK	INCH	36	36	36	36	36	36	36	36
	MM	914.4	914.4	914.4	914.4	914.4	914.4	914.4	914.4
AIR OUTLET FRONT	INCH	72	72	72	72	72	72	72	72
	MM	1828.8	1828.8	1828.8	1828.8	1828.8	1828.8	1828.8	1828.8
ACCESS SIDE	INCH	18	18	18	18	18	18	18	18
	MM	457.2	457.2	457.2	457.2	457.2	457.2	457.2	457.2
NON ACCESS SIDE	INCH	6	6	6	6	6	6	6	6
	MM	152.4	152.4	152.4	152.4	152.4	152.4	152.4	152.4
TOP	INCH	6	6	6	6	6	6	6	6
	MM	152.4	152.4	152.4	152.4	152.4	152.4	152.4	152.4
BOTTOM	INCH	6	6	6	6	6	6	6	6
	MM	152.4	152.4	152.4	152.4	152.4	152.4	152.4	152.4

*Throw data at 10' (3.05 m) mounting height