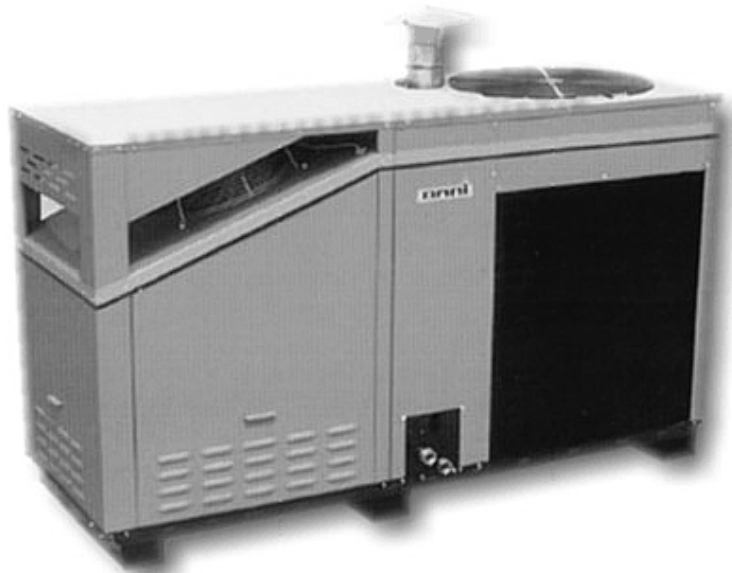




WASTE-OIL FIRED EQUIPMENT By **EconoHeat**



OMNI WASTE OIL FIRED 5-TON AIR CONDITIONING UNIT

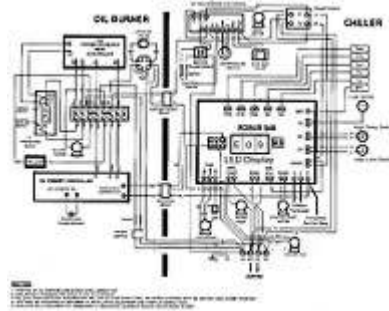
	<p>High Grade Stainless Steel with galvanized sheeted cabinets for long life in outside applications</p> <p>Patented, waste oil direct-fired absorption Air Conditioner Design. We successfully adapted our waste oil burner technology to the time tested and proven gas fired air conditioner design. Its performance exceeded our engineers' expectations!</p>
	<p>Easy Access</p> <p>Lift out 3 large cabinet doors and removal of 2 securing nuts on swing out combustion chamber is all that is needed to allow easy access for occasional cleaning and service, when needed.</p>
<p>Dual Purpose Air Blast Self Cleaning and Back Up Gas Propane Firing Manifolds</p>	<p>Dual Purpose Manifolds</p> <p>When burning waste oil, timed air blast manifolds self-clean the generator keeping ash deposit build up to a minimum, thus reducing required cleaning intervals. As backup to waste oils, automatically our manifolds will burn gas or propane to ensure constant cooling, while performing routine cleaning.</p>



Self Diagnostic Processing Circuit Board



LED
Read-out
Display



Circuit Board Description:

1. THM - Water Outlet Temperature
2. THR - Water Inlet Temperature
3. TCN - Condenser Temperature
4. TA - Ambient Temperature
5. TG - Generator Temperature
6. FL - Flow Switch
7. MI - Hi Temp Switch
8. NPH - Pressure Limit Switch
9. 24VDC - Power to Board
10. RV - Thermostat Connection
11. PLUMP - Hydraulic Pump
12. MMV - 208/230V Input
13. CWIC - Exit Water Pump Connection
14. FAN - Fan Motor
15. SRT - Pump Rotation Sensor

Circuit Board Error Codes:

- E01 - MI Safety Open
- E02 - NPH Safety Open
- E03 - THM > 3 Degree C
- E04 - TCN - TA > 15 Degree C for 60 Sec
- E05 - TA < 45 Degree C
- E06 - TA < 10 Degree C
- E07 - TG > 160 Degree C
- E08 - TG > 100 Degree C
- E09 - General Burner Malfunction
- E10 - FL Open for 15 Sec
- E11 - SRT Closed for 15 Sec
- E12 - Flame Control Unit Blocked
- E15 - THM
- E17 - THR
- E18 - TCN
- E19 - TA
- E20 - TG

- = Auto Reset at End of Condition
* = Reset with R-Y Open
† = Reset Switching Off and On

**All Inclusive Standard Equipment
for Easy Installation**

Chilled water type A-Coil
air handler/exchanger

Built-in 3-speed 3/4 hp
direct drive squirrel
cage blower

Direct drive motor and
insulated cabinet

Standard Water
Circulator Pump
Suitable in 80%
of installation applications
(May need larger pump
depending on application,
at an additional cost)

Room Thermostat

Thermal P/T wells
(pressure/temperature)

Unit can be mounted
horizontal or vertical

Easily adapts to
existing duct work or
new construction

Chilled Water in/out
piping hookups
Depending on mounting
direction

Water in/out
regulators

Water in/out
pressure gauges

Air Purge Vent
(at highest point
of water piping)

**Pictured above is the free standing type A-Coil Air
Handler / Exchanger that can be used alone or
interfaced with your ductwork.**

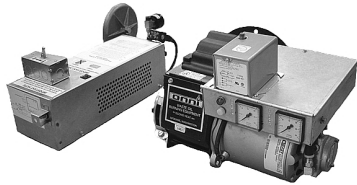


Waste-oil Fired Equipment by **EconoHeat**

Utilizing Our Patented



Econo Heat designed and constructed waste oil burning equipment that reached a level of performance the industry considers unattainable!



Our patented complete waste oil burning system with a universal burner-mounting flange allows easy retrofit of our burner system to various configuration and sizes of combustion chambers. Initial flame adjustment is all that is needed with complete control thereafter.



Oil Flow Supply Pump variably controlled, A/C converted, D/C gear motor driven waste oil pump. This Remote flow control pump supplies the exact gallons of oil per hour to each waste oil-burning appliance, regardless of viscosity. This pump is to be located at oil supply tank and is capable of pushing 100's of feet to the used oil-firing unit.

Oil Heater Block and controller continue the stabilization of the waste oil viscosity by holding oil and air temperatures that pass through it exact. Resulting in the most thorough and complete burn. **OIL HEATER BLOCK WILL NOT BUILD UP CARBON INSIDE ITS OIL PASSAGES!**

Our System Results in these benefits:

- **Non-carboning oil heater block - cleaning not required**
- **A thorough burn - greatly reducing ash deposit accumulation**
- **Only system that can burn straight 90 weight oils**
- **Less stress on metals - can't over fire. No target burn-out**
- **Clean heater once a season under normal conditions**
- **The most *reliable, consistent* operation**
- **Greater efficiency**

**TECHNICAL DATA**¹

PERFORMANCE RATINGS		
Nominal Cooling Capacity ²	Btu/hr	60,000
Natural Gas/Used Oil Input	Btu/hr	96,500
Maximum Ambient Operating Temperature	°F	131
Minimum Ambient Operating Temperature	°F	10
Condenser Air Flow, Nominal	CFM	6,000
Minimum	CFM	2,000
Chilled Water Entering Temperature, Nominal	°F	55
Chilled Water Leaving Temperature, Nominal	°F	45
Chilled Water Flow, Nominal	GPM	12
Maximum Allowable	GPM	16
Internal Pressure Drop	Feet of Head (psig)	13 (5.6)
ELECTRICAL RATINGS		
Required Voltage, 60 Hz, Single Phase ³	-	208/230
Condenser Fan Motor HP (Variable Speed)	-	1/2
Full Load / Locked Rotor Amps, Nominal	-	3.1 / 6.2
Hydraulic Pump Motor HP	-	1/2
Full Load / Locked Rotor Amps, Nominal	-	3.1 / 24.2
Premix Blower Motor HP	-	1/50
Full Load / Locked Rotor Amps, Nominal	-	.55 / .75
Burner Cooling Fan HP	-	1/4
Full Load Amps /Watts	-	.85/186.5
Burner/Pump Electrical Requirements	VAC	115
Voltage 60Hz	Amp	10.5
Current		
Total Electrical Operating Consumption (Unit only)	kW	1.4
Minimum Circuit Ampacity (MCA) (Unit only)	-	20.4
Maximum Over Current Protection (MOCP)	Amp	30
Qty (2) - Field Supplied		
PHYSICAL DATA		
Refrigerant Type	-	717
Unit Chilled Water Volume ⁴	Gallons	1.3
Chilled Water Entering and Leaving Connections ⁵	FPT	1
Gas Inlet Connection	FPT	1/2
Electrical Entrance Knockouts, Diameter	Inches	7/8
Shipping Weight	Pounds	980
Operating Weight	Pounds	930

Notes:

4.2 All illustrations and specifications contained herein are based on the latest information available at the time of publication approval. Econo Heat reserves the right to make changes at any time without notice, in materials, specifications, and models or to discontinue models.

4.2 Capacity at standard conditions of 95°F ambient. Actual capacity will vary with ambient (condenser) air temperature and leaving water temperature. Capacity characteristics are shown in the table below. Interpolations between tabled values are permissible, but do not extrapolate. For capacities at higher than 105°F ambient temperatures, contact Econo Heat or your authorized distributor.

4.2 Units are factory- wired for 230-volt operation. The unit can be field wired for 208-volt operation by placing the high voltage wire from the 230-volt termination to the 208-volt termination on the transformer.

4.2 "Chilled Water" refers to a solution of quality tap water and 20% by volume of inhibited permanent antifreeze. Higher antifreeze concentrations may be required in certain applications.

4.2 DO NOT USE FERROUS METAL PIPE OR TUBING in the chilled water circulating system.

Performance Data: Model OWC-5	<i>Specs</i>
Nominal Capacity (Tons) Standard Conditions of 95°	5
Delivered Cooling Capacity, BTU/H	60,000
Waste Oil, BTU/H input	250,00
Gal. per hr. Consumption	1.75
Chilled Water Data	
Return Water Temperature °F	55.0
Supply Water Temperature °F	45.0
Chilled Water Flow, GPM	12.0
Allowable External Friction Loss for Piping & Coil, Feet of Water	25
Unit Water Volume, Gallons Approximate	
Chiller Electrical	
Required Voltage, 60 Hz, Single Phase	208 / 230
Condenser Fan Motor Full Load/Locked Rotor Amps	1/2 hp 3.5 / 7.2
1 Free Air Fan 1@1/4 hp	1.0
Refrigerant Circuit Pump Motor Full Load/Locked Rotor Amps	
Chiller only KW Consumption	2.15
Minimum Circuit Ampacity (MCA)	9.81
Maximum Over Current Protection (MOCP) Field Supplied	20 amp
Electrical Entrance Knockouts, Diameter	7/8"
Waste Oil Burner Electrical	
Voltage 60 Hz (one leg)	230V
Burner Motor 1/4 hp	2.2
Transformer amps	.35
Oil Supply Pump Motor amps	.62
Heater Element amps	2.0
Oil Primary Control amps	.2
Burner amps avg.	6.7
Burner only KW	1.25
Combine Total unit amps Chiller with Burner	avg. 15.5
Combine Total unit kw Chiller with Burner	3.41
Dimensions L/H/W	91"/51"/33.5"
Weight	930
Shipping Weight	980



OMNI WASTE OIL FIRED A/C CHILLER UNIT

BENEFITS:

Costs of Operations

Conventional cooling A/C unit's electricity consumption is 3 times greater than waste oil fired A/C chiller unit, for every \$100 conventional system monthly costs, Omni's monthly cost is \$33. (The savings become larger the more you utilize waste oil to fire the A/C process, versus natural gas or propane). Our Chiller runs on waste oil, natural gas or propane.

(Example):30 day 24 hr. operation monthly expenditure

Conventional A/C unit.....	\$1000 per month.
Waste oil fired A/C unit.....	\$ 333 per month
	\$667 SAVINGS

Investment payback time frame normally 2-3 years, after which cooling costs are minimal.

Installation Costs

Conventional A/C units can require three phase 220-twice the cost of wiring installation.

Wiring of a waste oil fired A/C chiller unit is simpler with single phase 220V. Ammonia absorption system is not complicated and very reliable.

Cooling Area

Actual cooling output depends on amount of losses in building, quality of insulation, windows, doors, etc.

Our five-ton unit normally cools between 2500 to 4000 sq. ft depending on items listed above.

Flexibility of Cooling

Conventional cooling systems - very high cost for extra zones.
Waste oil fired A/C chiller - flexible capabilities of cooling multi zones at **minimal** cost.

Maintenance

No engines, no compressors. Only three moving parts in absorption cooling cycle.



Limited Warranty

Econo Heat (manufacturer) warrants to the purchaser of waste oil chiller will be free from defects in materials and workmanship for the durations specified below, which duration begins on the date of delivery to the customer. Customer is responsible for maintaining proof of date of delivery.

If return is deemed necessary for warranty evaluation and determination of repair or replacement, chiller is to be sent to the factory with freight prepaid. Econo Heat reserves the right to determine appropriate action for repair or replacement.

No parts will be accepted by Econo Heat without RA# (return authorization number) clearly marked on outside of shipping package. Obtaining RA# requires model and serial numbers, description of part being replaced and nature of defect. Call factory to receive RA#.

Warranty Covers:

Air Cooled Absorption Water Chiller

1. Three Years full repair or replacement (Parts Only)

Waste Oil Burner and Combustion Chamber

1. Combustion Chamber and Heat Exchanger five (5) years *full repair or replacement, additional five (5) years prorated. (Parts Only)
2. Oil Heater Block, twenty (20) years. (Parts Only)
3. Oil Heater Block Controller PCB, three (3) years. (Parts Only)
4. All other components, one (1) year. (Parts Only)

This warranty is void if:

1. Warranty registration card is not returned within thirty (30) days of purchase.
2. Any part or component subject to abuse or altered from original manufactures specifications.
3. Installation not in accordance with instructions.
4. Has not been properly maintained, operated or has been misused.
5. Wiring not in accordance with diagram furnished with chiller.
6. Chiller is operated in the presence of chlorinated vapors.

Warranty is limited to the original purchaser.

The above warranty is in lieu of all other warranties expressed or implied. Econo Heat does not authorize any person or representative to make or assume any other obligation or liability that is not in accordance with above warranty. **Econo Heat is not responsible for any labor cost unless prior authorization in writing has been obtained.**

NOTE: Combustion Chamber Warranty is specific to material and workmanship. Workmanship means Econo Heat warranties the welds are good and will hold. Material means they won't corrode through due to sulfur in the ash that accumulates during operation. Warranty does not apply to units that experience overheating stress cracks. These are not incurred because the materials are inadequate for the application nor are they a result of a weld broke lose because of bad penetration. Which is easily recognized by the material being left underneath the weld. These cracks occur as a direct result of improper draft, either by inadequate initial installation and setup which requires (1) establishing a proper draft during installation (2) back draft has occurred due to ash buildup, backing up hot gas passageways either in the exchangers, the stack, or both. (3) Over firing by setting oil supply pressure too high (see manual for proper setting) these are all cases of thermal overload.

** Under normal use only. If misuse or abuse is deemed apparent after inspection, warranty is void**