

**VILLAGE OF ORLAND PARK
SMART ENERGY FUND AGREEMENT**

THIS AGREEMENT, entered into this 28 day of November, 2010
between the Village of Orland Park, Illinois (hereinafter referred to as "Village") and the
following designated Owner/Lessee, to witness:

Owner's Name: La Grange Enterprises, LLC.

Lessee's Name: N/A

Name of Business: Fat Ricky's

DEC 20 2010

Tax ID#/Social Security #: #20-0377729

Address of Property to be Improved: 16255 S. La Grange Road

PIN Number: 27-22-102-015

WITNESSETH:

WHEREAS, the Village of Orland Park has established a Smart Energy Fund for application within the Village of Orland Park (the "Village") and funded it through the American Recovery and Reinvestment Act of 2009 via the United States Department of Energy's Energy Efficiency and Conservation Block Grant (EECBG); and

WHEREAS, said Smart Energy Fund is administered by the Village for the purposes of helping property owners and tenants of commercial structures within the Village to conserve resources and install high performance, energy efficient and renewable energy systems; and

WHEREAS, pursuant to the Smart Energy Fund the Village, subject to its sole discretion, will reimburse Owners/Lessees for the cost of eligible energy efficiency/ renewable energy improvements to commercial structures within the Village up to a maximum of one-half (1/2) of the approved contract cost of such improvements or \$20,000.00, whichever is less; and

WHEREAS, the Owner/Lessee's property is located within the Village, and the Owner/Lessee desires to participate in the Smart Energy Fund pursuant to the terms and provisions of this Agreement.

NOW, THEREFORE, in consideration of the mutual covenants and agreements obtained herein, the Village and the Owner/Lessee do hereby agree as follows:

SECTION 1

With respect to energy efficiency/ renewable energy improvements, the Village shall reimburse an Owner/Lessee for the cost of improvements to the Owner/Lessee's property at the rate of fifty percent (50%) of such cost.

The actual total reimbursement amounts per this Agreement shall not exceed \$20,000.00. The improvement costs that are eligible for Village reimbursement include all labor, materials, equipment, and other contract items necessary for the proper execution and completion of the scope of work as shown on the plans, design drawings, specifications and estimates approved by the Village. Such plans, design drawings, specifications, estimates and scope of work are attached hereto as Exhibit A.

The energy efficiency/ renewable energy improvements to be performed pursuant to this Agreement are:

Per Quality Filter Service bid:

- Install six (6) heat exchanging grease filters (Thermal Recovery Heat Capture Systems);
- Install two (2) Cyclone HE model BTX-80 Water Heaters (50 gallons);
- Install four (4) Heil Quiet Comfort DXT+ Two-Stage Air Conditioners;
- Install four (4) Heil Quiet Comfort VS 95 Series Gas Furnaces;
- Install new energy efficient lighting.

Four (4) Heil Quiet Comfort VS 95 Series Gas Furnaces

- 95% Annual Fuel Utilization Efficiency (AFUE);
- Energy Star Qualified;
- Variable speed furnaces, 100,000 BTU;
- 30%-35% more efficient than older units
- 50%-75% less electricity than regular blowers;

Four (4) Heil Quiet Comfort DXT+ Two-Stage Air Conditioners

- 16 SEER (Seasonal Energy Efficiency Ratio);
- Energy Star Qualified;
- Two-stage condenser units;
- 44% more efficient than older units;

Two (2) Cyclone HE model BTX-80 Water Heaters

- 50 Gallon;
- 90% Thermal efficiency rating represents 10%-20% savings over minimum standards;
- Contractors note Energy Star qualified;
- Specification sheets note systems meet or exceed thermal efficiency and standby loss requirements of the US Department of Energy and Current Edition of ASHRAE/IESNA 90.1;

Six (6) Heat Capture Hood Filters

- Thermal Heat Recovery Systems for heat exchanging grease filters;
- Filters channel potable water through the hood using the exhaust air to heat the water before it is sent to the water heater or to another exchanger in the make-up air unit or furnace.

- 25% savings in natural gas use;
- Proprietary innovative technology by Quality Filter Service Inc. has obtained Nicor Gas (gas utility) approval on this technology through Nicor's Energy Efficiency Program;

New Energy Efficient Lighting Summary

- 36 Outside LED lighting;
- 2 Outside lighting wall pack;
- 62 Cold Cathode lights;
- 4 Inductive lights;
- 3 Sign retro-fit lights;

SIMKAR WSS Series 11 Inch Wallpacks (Lighting Fixture)

- CFL 13-32w
- Only CFL lamps permitted;
- Catalog Numbers: WSS-313-1*(b); WSS0318-U*(b); WSS0326-U*(b); WSS0332-U*(b); WSS0323-1*(b)
- ComEd Smart Ideas for Your Business (SIYB) qualified;

US Lighting Tech Parker Area Lighting (Lighting Fixture)

- 80w;
- 120V/277V/480V
- 50Hz-60Hz
- Induction lighting;
- ComEd SIYB qualified;

EIKO Certified Green LEDP/PAR30LN-FL-30K (Lighting Fixture)

- PAR30 12w Power LED 3000k 120 Degrees;
- Bar Code: 05735;
- Indoor locations;
- ComEd SIYB qualified;

5-Watt Micro-Brite Cold Cathode C11 CAND LO White 2850K (Lighting Fixture)

- Part Number: MB-541DP;
- ComEd SIYB qualified;
- Dimmable light;

5-Watt Micro-Brite Cold Cathode A19 MED LO White 2250K (Lighting Fixture)

- Part Number: MB-501DL;
- ComEd SIYB qualified;
- Dimmable light;

SECTION 2

No improvement work shall be undertaken until its design has been submitted to and approved by the Village. Following approval, the Owner/Lessee shall contract for the work and shall commence and complete all such work within ninety (90) days from the date of such approval.

SECTION 3

The Development Services Director shall periodically review the progress of the contractor's work on the energy efficiency/ renewable energy improvements pursuant to this Agreement. Such inspections shall not replace any required permit inspections by the Building Inspectors. All work which is not in conformance with the approved plans, design drawings and specifications shall be immediately remedied by the Owner/Lessee and deficient or improper work shall be replaced and made to comply with the approved plans, design drawings and specifications and the terms of this Agreement.

SECTION 4

Upon completion of the improvements and upon their final inspection and approval by the Development Services Director or his/her designee, the Owner/Lessee shall submit to the Village a properly executed and notarized contractor sworn statement showing the full cost of the work, as well as each separate component amount due to the contractor and each and every subcontractor involved in furnishing labor, materials or equipment in the work. In addition, the Owner/Lessee shall submit to the Village proof of payment of the contract cost pursuant to the contractor's statement and final lien waivers from all contractors and subcontractors. The Owner/Lessee shall also submit to the Village a copy of all of the invoices for professional services fees for preparation of plans and specifications. The Village shall, within thirty (30) days of receipt of the contractor's statement, proof of payment and lien waivers, and the professional services statement, issue a check to the Owner/Lessee as reimbursement for one-half (1/2) of the approved construction cost estimate or one-half (1/2) of the actual construction cost, whichever is less, subject to the limitations set forth in Section 1 hereof.

SECTION 5

If the Owner/Lessee or his contractor fails to complete the improvement work provided for herein in conformity with the time limitation, approved plans, design drawings and specifications and the terms of this Agreement, then upon written notice being given by the Development Services Director to the Owner/Lessee, by certified mail to the address listed above, this Agreement shall terminate and the financial obligation on the part of the Village shall cease and become null and void.

SECTION 6

Upon completion of the improvement work pursuant to this Agreement, the Owner/Lessee shall be responsible for properly maintaining such improvements in finished form and without change or alteration thereto, as provided in this Agreement, unless changes are submitted for review and are approved by the Village Board. Such approval shall not be unreasonably withheld if the proposed changes do not substantially alter the original design concept of the improvements as specified in the plans, design drawings and specifications approved pursuant to this Agreement.

In the event the approved energy efficiency/ renewable energy improvements are not properly maintained or alterations are made to the improvements without prior consent from the Village, the Village reserves the right to terminate this Agreement, hold the applicant liable for any architectural design and consultant fees incurred by the Village, and require reimbursement in full for all monies expended towards the project through this Smart Energy Fund.

SECTION 7

This Agreement shall be binding upon the Village and upon the Owner/Lessee and its successors, to said property for a period of ten (10) years from and after the date of completion and approval of the energy efficiency/ renewable energy improvements provided for herein. It shall be the responsibility of the Owner/Lessee to inform subsequent Owner/Lessee(s) of the provisions of this Agreement, and to be aware of the requirement for prior Village approval of any alteration whatsoever to the building energy systems funded by the Smart Energy Fund.

SECTION 8

The Owner/Lessee releases the Village from, and covenants and agrees that the Village shall not be liable for, and covenants and agrees to indemnify and hold harmless the Village and its officials, officers, employees and agents from and against, any and all losses, claims, damages, liabilities or expenses, of every conceivable kind, character and nature whatsoever arising out of, resulting from or in any way connected directly or indirectly with the energy efficiency/ renewable energy improvement(s), including but not limited to actions arising from the Prevailing Wage Act (820 ILCS 30/0.01 et seq.) and the Davis-Bacon Act (40 U.S.C. 3141 *et seq.*) The Owner/Lessee further covenants and agrees to pay for or reimburse the Village and its officials, officers, employees and agents for any and all costs, reasonable attorneys' fees, liabilities or expenses incurred in connection with investigating, defending against or otherwise in connection with any such losses, claims, damages, liabilities, or causes of action. The Village shall have the right to select legal counsel and to approve any settlement in connection with such losses, claims, damages, liabilities, or causes of action. **The provisions of this Section 8, as well as Sections 6 and 7, above, shall survive the completion of said façade improvement(s).**

SECTION 9

Nothing herein is intended to limit, restrict or prohibit the Owner/Lessee from undertaking any other work in or about the subject premises, which is unrelated to the energy efficiency/ renewable energy improvements provided for in this Agreement.

SECTION 10

This Agreement shall be enforceable by any action at law or in equity, including actions for specific performance and injunctive relief. The laws of the State of Illinois shall control the construction and enforcement of this Agreement. The parties agree that all actions instituted on this Agreement shall be commenced and heard in the Circuit Court of Cook County, Illinois, and hereby waive venue in any other court of competent jurisdiction. Before any failure of any party to perform any obligation arising from this Agreement shall be deemed to constitute a breach, the

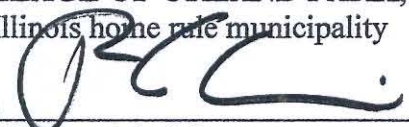
party claiming the breach shall notify the defaulting party and demand performance. No breach of this Agreement shall be found to have occurred if performance is commenced to the satisfaction of the complaining party within thirty (30) days of the receipt of such notice.

IN WITNESS THEREOF, the parties hereto have executed this Agreement on the date first appearing above.

OWNER



VILLAGE OF ORLAND PARK,
an Illinois home rule municipality

By: 
Village Administrator

LESSEE (if applicable)

ATTEST: 
Village Clerk



Quality Filter Service Inc.
Innovative Environmental Solutions
www.qualityfilterservice.com
554 Anderson Dr Suite H
Romeoville, IL 60446 (p) 815-290-4670 (f) 815-293-4671

GOING GREEN IS GOOD BUSINESS

**Energy Use Analysis Write-Up
for the Energy Efficiency Retrofit of**

**Fat Ricky's of Orland Park
16255 South LaGrange Road
Orland Park, IL 60467**

The following equipment will be installed:

Heat Capture Hood Filters **\$10,750.00**

Six (6) heat exchanging grease filters will be installed. These filters will channel potable water through the hood using the exhaust air to heat the water before it is sent to the water heater or to another exchanger in the make-up air unit or furnace. These filters will yield a 25% savings in natural gas use.

Energy Efficient Lighting **\$10,842.00**

The lighting in the restaurant will be retrofitted or installed with energy efficient bulbs and fixtures, such as cold cathode, Wall-Pak and LED bulbs. These lights represent an 80% energy savings over traditional incandescent and fluorescent lights and can last 10-25 times as long, producing less waste.

Water Heater **\$4,825.00**

Two (2) 50 gallon water heaters will be installed. They are Cyclone® HE model BTX-80 Water Heaters. These units have a 90% thermal efficiency rating, which represents a 10%-20% savings over minimum standards. Their burner design reduces NOx emissions to less than 40ng/j requirements for low NOx.

HVAC **\$30,000.00**

Four (4) furnaces will be installed. They are Heil Quiet Comfort™ VS 95 Series Gas Furnaces. These units have a 95% AFUE rating which is 30%-35% better than older, less efficient units. They have a variable speed circulation blower that uses 50%-75% less electricity than ordinary blowers.

Four (4) air conditioners will be installed. They are Heil Quiet Comfort™ DXT+ Two-Stage Air Conditioners. These units have a 16 SEER rating, which will save up to 44% on energy use compared to older units.

Total Smart Energy Fund Project, all in **\$60,806.28**

Requested Rebate **\$30,403.14**



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Innovative Environmental Solutions
www.qualityfilterservice.com
554 Anderson Dr Suite H
Romeoville, IL 60446 (p) 815-290-4670 (f) 815-293-4671

GOING GREEN IS GOOD BUSINESS

QUOTE

September 29 2010

Business Name: Fat Ricky's of Orland Park	Business Phone:	Cell Phone:	
Street Address: 16255 Lagrange Rd	City: Orland Park	State: IL	Zip:
Contact Name: John			

Quote (good for 30 days from presentation)

BATHROOM

Item(s) / Service(s)	Qty	List Cost/Each	Total	Village rebate	Utility rebate
Heat Cap System	1	10,000.00	\$10,000.00	\$5,000.00	\$3,000.00
Outside lighting LED	36	94.00	\$3,384.00	\$1,692.00	\$360.00
Outside lighting wall pack	2	189.00	\$378.00	\$189.00	\$20.00
Cold cathode	62	20.00	\$1,240.00	\$620.00	\$186.00
Sign Retro fit	3	480.00	\$1,440.00	\$720.00	\$208.00
Inductive lighting	4	1,100.00	\$4,400.00	\$2,200.00	\$800.00
Energy Efficient water heater	2	4,875.00 tot	\$4,875.00	\$2,437.50	\$300.00
Energy efficient HVAC	1	30,000.00	\$30,000.00	\$15,000.00	\$1,200.00
Installation	1	940.00	\$940.00	\$470.00	
Sales tax	1	7.5%	\$4,149.28		
Grand Total					\$60,806.28
Payback	Monthly	Annual	Bulb savings	ROI	
Heat cap	\$150.00	\$1,800.00		13.3 months	
LED Outside	\$44.12	\$529.44	\$175.00 year	22.69 months	
Wall Pack	\$3.50	\$7.00	\$30.00	28.16 months	
Cold Cathode	\$57.93	\$695.19	\$62.00	6.8 months	
Signage	\$108.00	\$1,296.00			

Payment Method

☒ Check (payable to Quality Filter Service)

QFS Representative Signature: Michael Holmes	QFS Representative Printed Name: Michael Holmes	Date: * 9-29-10
Customer Representative Signature: X	Customer Printed Name	Date:

***installation includes hanging and electrical to 6 feet, permits by others

Select Plumbing Corporation

13400 S. Rt 59
Ste. 116-137
Plainfield, IL 60585

Voice: 815-715-2979
Fax: 815-782-4306

QUOTATION

Quote Number: ~~1333~~ **M314**
Quote Date: Sep 24, 2010
Page: 1

Quoted To:

~~The Irish Patriot~~ **Fat Rick's**
~~9635 W. 145th St~~ **16255 S. Lorraine**
~~Orland Park, IL~~ **Orland park**

Customer ID	Good Thru	Payment Terms	Sales Rep
The Irish Patriot	10/24/10	C.O.D.	Pierce, Jeff

Quantity	Description	Unit Price	Amount
2.00	AO Smith BTX 80 50 gallon energy star water heater	2,100.00	4,200.00
	Labor and miscellaneous material to install above water heaters in parallel		625.00
Subtotal			4,825.00
Sales Tax			
TOTAL			4,825.00

Murray Mechanical LLC
309 Foxworth Ct.
Aurora, IL 60502

Fat Ricky's
16255 South LaGrange Rd
Orland Park, IL

Murray Mechanical recommends replacing four rooftop units with Heil high efficiency four ton rooftops and curb adapters to fit. Reconnect electric. Run new condensate drains.

- **Labor and Materials: \$7500.00 per unit**
- **\$30,000 for four units**

Sincerely,

James Murray
Murray Mechanical LLC
309 Foxworth Ct
Aurora, IL 60502

QUOTATION # A6-1964

DATE: 09-29-2010

PAGE = 1

*** GATEWAY ELECTRICAL SALES CO., INC.

Phone:314-842-4374

*** 9120 Watson Rd.

Fax:314-842-3850

*** St. Louis, MO

63126

To:

Project:FAT RICKYS OF ORLAND PARK

FAT RICKY'S OF ORLAND PARK

16255 LAGRANGE RD

ORLAND PARK, IL

Bid Date:

Architect:

Engineer:

Specifier:

Contract:

Remarks:

Qty	Type	Mfg	Description	Unit Price
Extd.	Price			

36	LIGHTING		OUTSIDE LED	105.62	\$3802.32
2	PACK		OUTSIDE WALL	424.72	\$849.44
62	CATHODE		COLD	22.47	\$1393.14
3	KIT		SIGN RETRO	539.33	\$1617.99
4	LIGHTING		INDUCTIVE	1235.96	\$4943.84
1			INSTALLATION		1056.18
\$1056.18					

PLUS TAX AND FREIGHT

Total
\$13,661.00

F.O.B. Per MFG
WEEKS

Terms: Net 30 Days

Lead time: 4-6

Prices firm for entry by: 11-13-10
10

Shipment by: 12-08-

Subject to manufacturer's published terms and conditions of sale.
Quotation is void if changed.

Quotation is subject to specifier approval.

Printed 09/29/10 09:30:02

Per: JASON WILL

PLEASE NOTE OUR NEW ADDRESS AND NUMBERS

Jason Will

Gateway Electrical Sales, Inc

1724 A Westpark Center Dr

Fenton, MO 63021

Ph: 636-600-1010

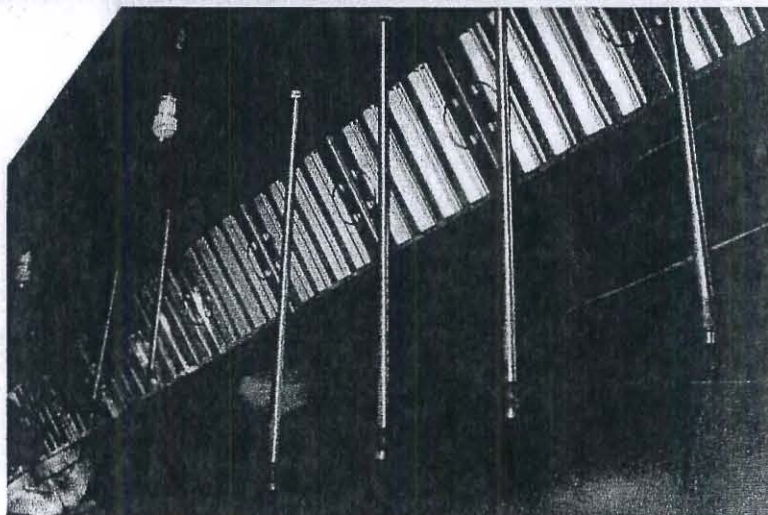
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HEAT CAPTURE FILTERS

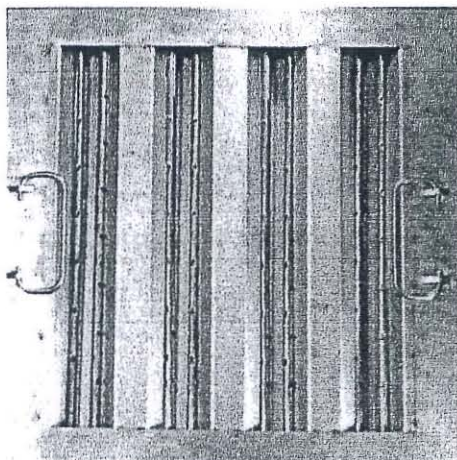
Recycle Restaurant Cook-Line Heat to Make Free Hot Water

Product Description

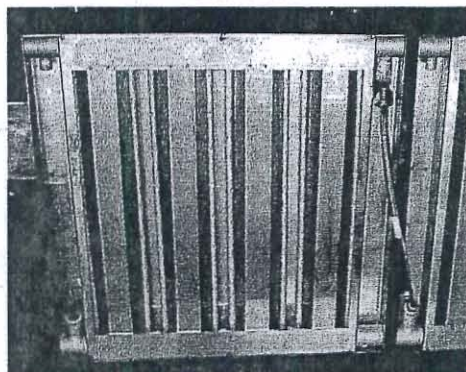
Heat Capture filters, or Heat Caps, conduct potable water through small Teflon-coated dimpled copper tubes that line the filter's air vents. The filters are interconnected on the back side with 1/2" diameter stainless steel braided hoses using heavy duty dripless stainless steel quick connects. The water is heated by the hood exhaust air to temperatures ranging from 90-130°F and either sent to the water heater or used directly where hot water is needed.



Front View



Back View



Product Specifications

Dimensions

Model	Size	Mfg P/N	Weight
HCF16	15.5"H x 19.5"W x 1.5"D	89002	12.85 lbs (dry)
HCF20	19.5"H x 19.5"W x 1.5"D	89001	14.95 lbs (dry)

Materials

Tubes	Teflon Coated Commercial Grade Copper
Baffles	20 Gauge Stainless Steel
Fittings/Connects	Stainless Steel
End Spacers	Stainless Steel

Performance

Heat Recovery	Up to 80%
Air Flow	300 CFM - 0.10 In. H ₂ O air pressure drop 600 CFM - 0.38 In. H ₂ O air pressure drop 900 CFM - 1.22 In. H ₂ O air pressure drop

Special Features

- Hemmed edges to eliminate sharpness
- Stainless steel handles for easy removal and replacement
- UL/CUL Certification Number R 26353
- 1 Year Manufacturer Defect Warranty (subject to inspection prior to replacement)



Heat Capture Systems, Inc
www.HeatCaptureSystems.com



"What a great idea!"

WE GET THAT A LOT.

Thank goodness for the patents.

So how much can I save?



Rule of Thumb: About 25% of Your Monthly Gas Bill

Savings estimates can be more accurately calculated by using water and gas utility bills.

Water Usage From Water Bill (in CCF - hundred cubic feet)	100.0	
Number of Days on Water Bill	30	
Estimated Hot Water % of Total Water Use (Avg. 80-90%)	80%	
Total Estimated Hot Water Used Monthly (in Gallons)		59,840
Average Measured Hot Hood Temperature (°F)	150°F	
Average % of Temperature Recovered by Heat Caps	80%	
Heat Capture Filters Water Temperature (°F) to Water Heater		120°F
City Inlet Water Temperature (°F) to Water Heater		45°F
Desired Hot Water Temperature (°F)		140°F
Local Cost Per Therm of Natural Gas		\$1.20
Monthly Hot Water Cost Before (75°F ΔT) *		\$569.00
Monthly Hot Water Cost With Heat Caps (20°F ΔT) *		\$120.00

Total Heat Caps Monthly Savings \$449.00

* Hot Water Cost = total gallons x 8.3 lbs/gal x ΔT + 100,000 btu/therm x cost/therm



A SOUND INVESTMENT

Most customers will see that a cash purchase of a Heat Capture Filter System will pay for itself in 1-2 years.



LEASING PAYS BACK NOW!

With our \$1 buyout lease options, your monthly payments will be a fraction of your monthly savings. Use other people's money to save your own.



BETTER GREASE COLLECTION

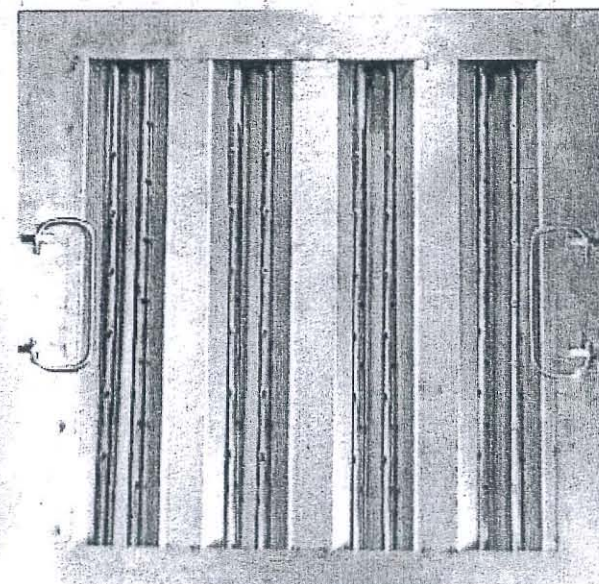
You'll definitely need a larger grease trap pan. Better grease collection means less money spent on regular hood and roof cleaning.



UL® Approved



Teflon™ Coated



THERMAL RECOVERY SYSTEMS, INC.

P.O. BOX 325, Lakewood, WI 54138

www.HeatCaps.com

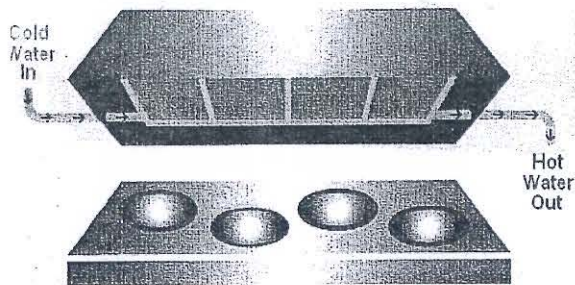


To Find or Become a Distributor, Contact:

MBC - MARTH BROTHERS

866.575-5950

info@marthbrothers.com



RECYCLE COOK LINE HEAT TO HEAT WATER

Heat Capture Filters are specially ducted and connected together with stainless steel mesh hoses. Cold water coming in from outside is pumped through the filters. As the hot air drawn up by the hood passes through the filter, it heats the water which is then circulated to a small storage tank connected to the water heater. Now the water heater has only to heat the water a few degrees rather than the 90-100 degrees it would normally. The result is big savings on your monthly gas bill.

OUR MODEL

This was the original prototype for using exhaust heat to heat water. After a long hot soak, our founder Bob, an executive chef, was thinking if only he could use this water to wash his dishes in his restaurant, he could save a lot of money. Then one day he was whippin' up some food... and it hit him, or dripped on him to be more precise...



NEW CUSTOMERS ARE LOOKING FOR MORE THAN JUST GOOD FOOD AND DÉCOR

According to the National Restaurant Association...

- 56 percent of adults say they are more likely to visit a restaurant that offers food grown or raised in an organic or environmentally friendly way.
- 57 percent of adults say they are likely to make a restaurant choice based on how much a restaurant supports charitable active ties and the local community.



- More than 1,800 professional chefs, members of the American Culinary Federation, ranked nearly 215 food and beverage items, preparation methods and culinary themes to reveal the hottest restaurant menu trends in 2010.

Sustainability, local sourcing and nutrition ranked number one!

Proudly distributed by:



MBC - MARTH BROTHERS

INNOVATIVE GREEN RESTAURANT SOLUTIONS

866.575.5950

info@marthbrothers.com

catch HEAT



don't WASTE it

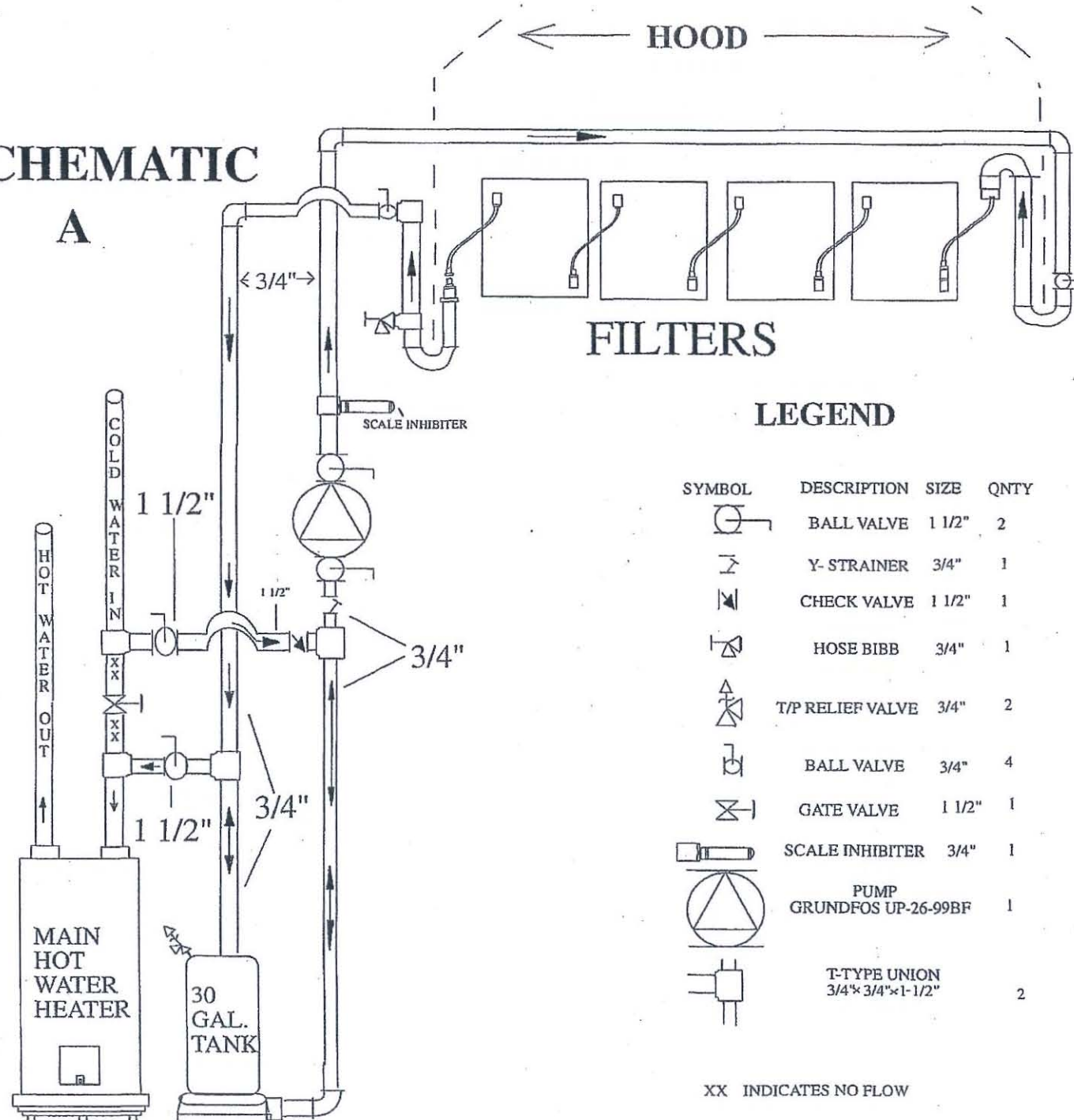
HEAT CAPTURE FILTERS



THERMAL RECOVERY SYSTEMS, INC.

SCHEMATIC

A



LEGEND

SYMBOL	DESCRIPTION	SIZE	QNTY
	BALL VALVE	1 1/2"	2
	Y-STRAINER	3/4"	1
	CHECK VALVE	1 1/2"	1
	HOSE BIBB	3/4"	1
	T/P RELIEF VALVE	3/4"	2
	BALL VALVE	3/4"	4
	GATE VALVE	1 1/2"	1
	SCALE INHIBITER	3/4"	1
	PUMP GRUNDFOS UP-26-99BF		1
	T-TYPE UNION 3/4" x 3/4" x 1-1/2"		2

XX INDICATES NO FLOW

Natural Gas Savings - Nicor Gas Custom Incentive Calculator

HEAT CAPS PROJECT COST ESTIMATE

Storage Tank	\$500
Pump	\$300
Hood Filter Spacers	\$300
Plumbing Supplies	\$700
Equipment Sub-Total	\$1,800
 # of Filters Needed	 6
Cost per Filter	\$1,000
Cost per hose and quick connect	\$100
Total Filters Cost	\$6,600
 # of Plumber Hours Needed for install	 20
Cost Per Plumber Hour	\$80
Total Plumbing Cost	\$1,600
 TOTAL PROJECT COST	 \$10,000

People's Gas Incentive is \$0.71/therm capped at 50% of project cost.
Payback must be greater than 12 months.

Payback Period in Months	45.2
50% of Project Cost Cap	\$3,000

Nicor Gas Incentive Amount **\$3,000**

ESTIMATED ANNUAL SAVINGS

Water Usage From Water Bill (gallons)	109,000.0
Number of Days on Water Bill	33
Est. % of Total Usage for Hot Water (Avg. 80-90%)	70%
Total Estimated Hot Water Gallons Used Monthly	69,364
 City Inlet Water Temperature (°F)	 45
 Hot Hood Temperature	 150
% of Temperature Recovered	80%
TRS Inlet Water Temperature (°F)	120
 Desired Hot Water Temperature (°F)	 140
 Average Cost Per Therm	 \$0.51
 Annual Water Heating Cost Without Heat Caps	 \$3,366
Annual Water Heating Cost With Heat Caps	\$709
TOTAL ANNUAL SAVINGS	\$2,657

First Year Therm Savings	5209.8
Incentive Dollar Amount Per Therm	\$1.00
Nicor GAS THERMS SAVINGS INCENTIVE	\$5,210

THE ULTIMATE IN EFFICIENCY BY DESIGN



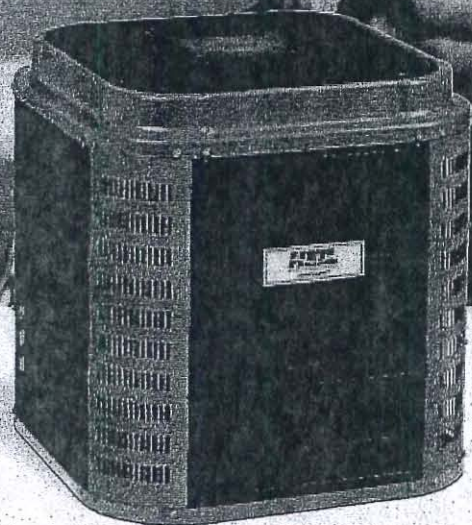
**QUIETCOMFORT™
DXT+ TWO-STAGE
AIR CONDITIONER**



Action required.
Please see warranty certificate for details.



Action required.
Please see warranty certificate for details.



HEAT
HEATING & COOLING PRODUCTS®

The Strength Behind The Brand

Choosing a Heil® air conditioner means more than just selecting a brand. It means selecting a product backed with tremendous assets in design engineering, quality manufacturing, and service support—as well as

a 100-year tradition of excellence. We're dedicated to bringing you home comfort products that meet and exceed your expectations for high quality, energy efficiency, and reliability. You can depend on us.

**Depend
On Heil.®**

Cool, Quiet Comfort At Its Best

Designed to deliver the ultimate in cool, quiet comfort, the Heil® QuietComfort™ DXT+ is the ideal partner for a QuietComfort 80% to 95% AFUE[†] variable-speed, two-stage gas furnace or variable-speed fan coil. A variety of features make the DXT+ one of the quietest air conditioners around.

The two-stage Copeland® Scroll UltraTech™ compressor with a deluxe sound blanket is at the heart of this cooling machine. A two-speed fan motor that operates primarily on its quieter, lower setting is another winning feature. And operating sound is further minimized by advanced aerodynamic fan and air discharge systems. Plus, the DXT+ typically runs at lower speed, switching to higher operating levels as necessary to provide steady cooling when outdoor temperatures change.

Custom-matched with a variable-speed blower, this two-stage operation delivers whisper-quiet operating sound levels and superior humidity control season after season.

As part of a complete system, the DXT+ adjusts cooling levels to match the needs of your home, for a consistently comfortable flow of conditioned air.



R410A is an EPA-approved, environmentally sound refrigerant.

Raise Efficiency To Lower Bills

Boost your energy savings with matching equipment, which can deliver efficiencies up to 16 or 18 SEER[†] (the industry term used to measure energy efficiency). You could save up to 44% compared to many older units!

[†]AFUE stands for Annual Fuel Utilization Efficiency and SEER stands for Seasonal Energy Efficiency Ratio. Rating varies by model from 16 up to 18 SEER depending on indoor unit matches.

Capacity/SEER Chart

2 ton up to 16 SEER	4 ton up to 16 SEER
3 ton up to 18 SEER	5 ton up to 16 SEER

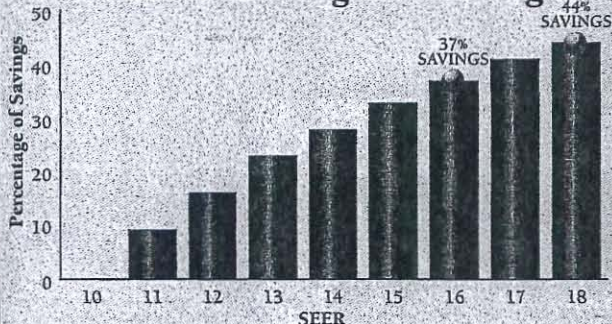
Built To Last, Backed To Prove It

Every Heil unit is backed by exceptional warranties, including our No Hassle Replacement™ limited warranty*, which gives you a replacement unit if the compressor or outdoor coil should fail within the first ten years. You also get up to a 10 year[§] parts and compressor limited warranty.* And don't forget to ask your dealer about HELP® extended service agreements for additional worry-free protection for parts and labor coverage.

*See published warranty for complete details. To learn more about all of these limited warranties, including the No Hassle Replacement limited warranty, go to Heil-HVAC.com.

§Subject to conditions. Ten year warranty requires timely registration. See detailed additional information on back page and Warranty Certificate at Heil-HVAC.com for complete details.

SEER vs. Cooling Cost Savings



TOTAL COMFORT IN ANY SEASON

To deliver optimum efficiency, savings and comfort, Heil Heating & Cooling Products requires that your dealer install this high-end, two-stage cooling product with a matching variable-speed fan coil, or with our top-of-the-line QuietComfort VS 80, VS 90 or VS 95 gas furnace featuring two-stage heating and variable-speed blower.

- Humidifier enhances comfort by reducing dryness in the air.
- Air Cleaner filters out many indoor air pollutants so the air in your home is cleaner.
- Set-Back Thermostat allows you to customize heating and cooling levels and also save energy.

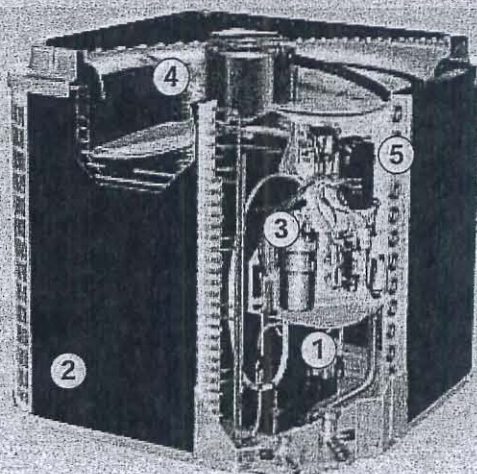


Action required.
Please see warranty certificate for details.

Homeowner's Extended Labor Program

ENERGY STAR

A CLOSER LOOK AT QUALITY COMFORT



- 1 Quiet**
The two-stage Copeland® Scroll UltraTech™ compressor operates most of the time at the quieter, lower stage, changing over to the higher stage at extreme outdoor temperatures to produce more cool air. A deluxe sound blanket also reduces compressor sound levels.
- 2 Durable**
The painted, galvanized steel cabinet features a powder-coat, baked-on finish and a coated inlet grille with narrower spacing to provide maximum protection as it allows for proper airflow and easy coil cleaning.
- 3 Efficient**
The Copeland® Scroll UltraTech™ compressor and the 7 mm copper tubing with aluminum fin coils work collectively to save on energy.
- 4 Smooth Operation**
The two-speed fan motor operates most of the time on the quieter, lower speed. Aerodynamic air discharge design reduces operating sounds. The variable-speed indoor fan allows for whisper-quiet indoor operation.
- 5 Service Friendly**
The Comfort Alert® II diagnostic system has all of the standard Comfort Alert® features. Plus, it can alert homeowners to call for service before a problem develops by working with an optional Comfort Alert® II compatible thermostat.

- d.** Variable-Speed Two-Stage Gas Furnace is designed for maximum comfort and high efficiency and built rugged for years of operation. Variable-speed runs quieter and maximizes inside humidity control. Two-stage adjusts heat output to match temperature, providing the ideal airflow.
- e.** Two-Stage Air Conditioner keeps your home cool and comfortable while saving on energy.
- f.** Evaporator/Indoor Coil, to match your Heil air conditioner and furnace, assures you of optimum performance.
- g.** UV Lights help prevent the growth of microbes on the coils.

HEIL
 HEATING & COOLING PRODUCTS®

MAINLINE MODELS

Heil Split System Comparison	DX 1300	DX 1400/ DX 1500	DXT+
HP MODEL SERIES	H4H3	HXH5	H4H5/ H4H7
AC MODEL SERIES	H4A3	H4A4	H4A6/ H4A8
REFRIGERANT	R410A	R410A	R410A
ENERGY SAVINGS SEER RATING*	13	14/15	15-18
ENERGY SAVINGS HSPF RATING* Heat Pumps Only	7.7	8.5	8.5
NO HASSLE REPLACEMENT™ Limited Warranty	1 YR	5 YR	10 YR
PARTS WARRANTY*	10 YR	10 YR	10 YR
COMPRESSOR WARRANTY*	10 YR	10 YR	10 YR
COMPRESSOR *Also includes sound jacket	Copeland Scroll*	Copeland Scroll*	Copeland Scroll UltraTech*
TWO-STAGE COMPRESSOR			•
COMFORT ALERT	•	•	•
ENHANCED AIR MANAGEMENT	•	•	•

* Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps must be matched with appropriate coil components to meet ENERGY STAR® criteria. Ask your contractor for details or visit www.energystar.gov.

* For information regarding furnace or fan coil options that can increase the energy efficiency of selected Heil air conditioners (SEER) and heat pumps (SEER and HSPF), go to Heil-HVAC.com and look for "Energy Savings" on the menu.

* This Heil product carries a ten (10) year limited warranty on parts, including compressor and coils, to original homeowner if installed in an owner-occupied, single-family residence and properly registered within ninety (90) days after original installation. Otherwise, the parts warranty period is five (5) years from the date of installation. Heat exchangers may carry longer limited warranty coverage that applies to original homeowners with timely registration. (See Warranty Certificate for registration instructions. Registration not required in all jurisdictions.)



All systems tested and listed by the appropriate agencies.



ISO 9001:
2000 Registered



As part of its commitment to quality, International Comfort Products, LLC, reserves the right to change specifications on its products without notice. Illustrations and photographs in this brochure are only representative. Some product models may vary.

H4A6/H4A8 Series
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650 Heil Quaker Ave. • Lewisburg, TN 37091

Heil-HVAC.com

Part No. 421-12-5701-06
Revised 01/10

THE ULTIMATE IN EFFICIENCY BY DESIGN

QUIETCOMFORT™
VS 95 SERIES
GAS FURNACE

95% AFUE



LIFETIME
STAINLESS STEEL
LIMITED WARRANTY
HEAT EXCHANGER
Action required.
Please see warranty certificate for details.



HEIL
HEATING & COOLING PRODUCTS®

The Strength Behind The Brand

Choosing a Heil® furnace means more than just selecting a brand. It means selecting a product backed with tremendous assets in design engineering, quality manufacturing, and service support—as well as a

100-year tradition of excellence. We're dedicated to bringing you home comfort products that meet and exceed your expectations for high quality, energy efficiency, and reliability. You can depend on us.

**Depend
On Heil.**

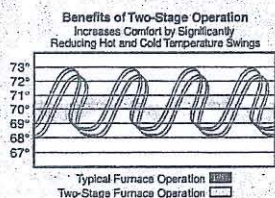
Consistent Comfort

Unlike single-stage furnaces—which heat up fast and shut down fast, going from too hot to too cold—the Heil® QuietComfort™ VS 95 delivers consistent heat and overall comfort. The two-stage system operates at low heat most of the time and automatically modulates to higher heat production if the temperature drops. Run the high efficiency fan continuously to improve indoor air quality. The variable-speed motor can also help increase comfort by maximizing moisture removal¹ during cooling (air conditioner) operation.

¹Used with a humidity-sensing thermostat or dehumidistat.

Designed To Keep Quiet

The QuietComfort VS 95's variable-speed motor runs much quieter than conventional motors. The unit's sturdy doors, burner enclosure and fully insulated cabinet also enhance quiet operation.



The QuietComfort VS 95 automatically adapts its operation to match your heating requirements. When the weather gets colder, the higher stage kicks in, modulating the speed of the circulation motor and the output of the burners to provide maximum warmth and comfort.

Top Efficiency For Lower Energy Bills

You get maximum energy savings with the 95% AFUE¹ rating of the QuietComfort VS 95. Older, less efficient units get just 60%–65% AFUE. The VS 95's variable-speed circulation blower uses 50%–75% less electricity than ordinary blowers. You can actually run it year round on continuous mode and still keep a lid on your energy bills!

¹AFUE stands for Annual Fuel Utilization Efficiency.

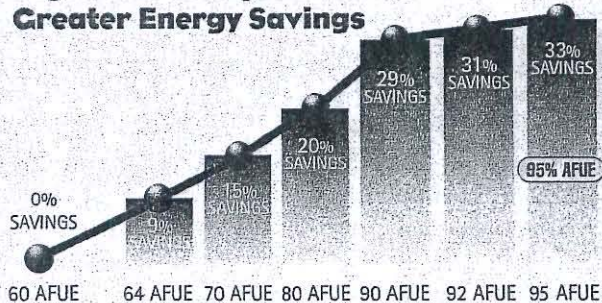
Warranty Protection For Security

Every Heil unit is backed by exceptional warranties, including our No Hassle Replacement™ limited warranty*, which gives you a replacement unit if the heat exchanger should fail within the first ten years. You also get up to a 10 year[§] parts limited warranty* and a lifetime[§] limited warranty* on the stainless steel heat exchanger. And don't forget to ask your dealer about HELP® extended service agreements for additional worry-free protection for parts and labor coverage.

*See published warranty for complete details. To learn more about all of these limited warranties, including the No Hassle Replacement limited warranty, go to Heil-HVAC.com.

[§]Subject to conditions. Ten year warranty requires timely registration. See detailed additional information on back page and Warranty Certificate at Heil-HVAC.com for complete details.

Higher AFUE Equals Greater Energy Savings

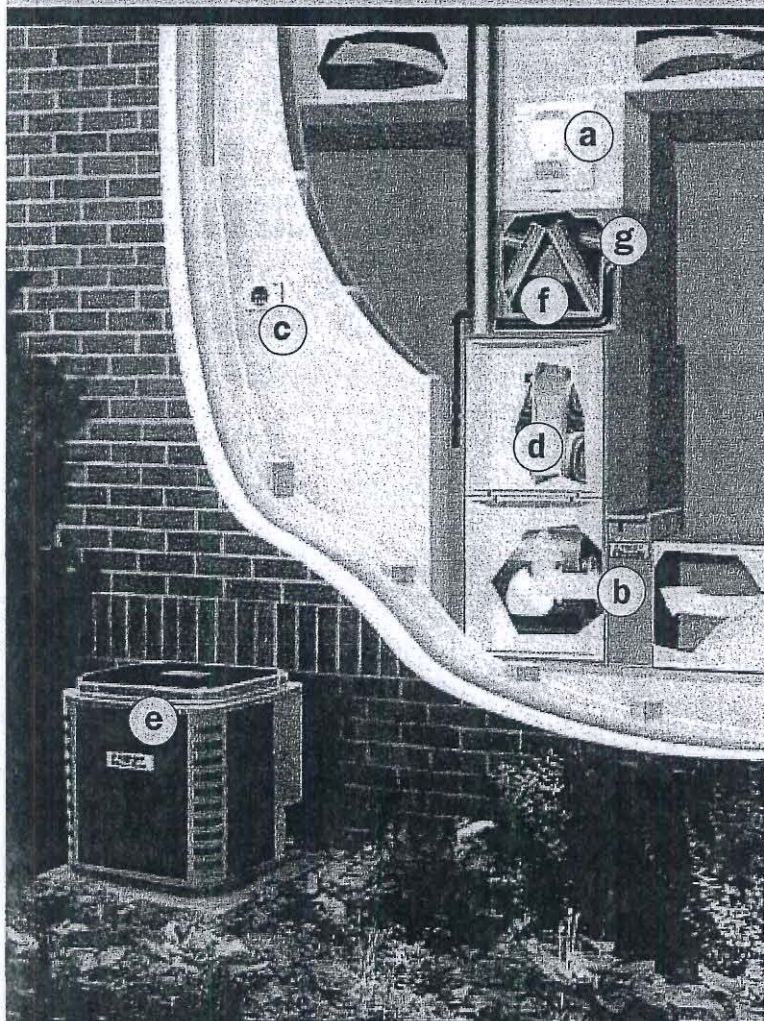


GET YEAR-ROUND COMFORT WITH HEIL

- Humidifier enhances comfort by reducing dryness in the air.
- Air Cleaner filters out many indoor air pollutants so the air in your home is cleaner.
- Set-Back Thermostat allows you to customize heating and cooling levels and also save energy.
- Furnace is designed for maximum comfort and high efficiency and built rugged for years of operation.

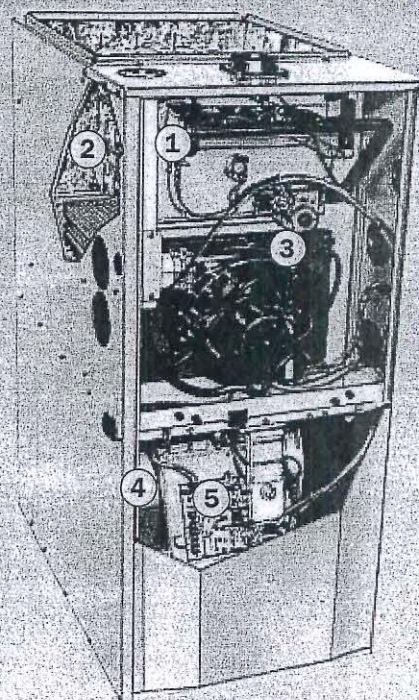


LIFETIME
STAINLESS STEEL
(LIMITED WARRANTY)
HEAT EXCHANGER
Action required.
Please see warranty certificate for details.



- e. Air Conditioner keeps your home cool and comfortable while saving on energy.
- f. Evaporator/Indoor Coil matches your Heil air conditioner and furnace to ensure great performance.
- g. UV Lights help prevent the growth of microbes on the coils.

INNOVATIONS THAT ENHANCE YOUR COMFORT






- ① **Reliable**
Direct Hot Surface Ignition System features an advanced silicon nitride igniter for greater reliability.
- ② **Durable**
RPJ® III primary heat exchanger has a ripple-edged design that forces more heat to the outside surface for higher efficiencies.
Made of corrosion-resistant, weld-free stainless steel.
- ③ **Heating On Demand**
Two-stage redundant gas valve, two-speed induced draft blower assembly, and variable-speed motor modulate up smoothly when more heat is needed.
- ④ **Quiet**
Variable-speed circulation blower motor is prelubricated, dynamically balanced and resilient mounted to reduce vibration and noise.
- ⑤ **System Monitoring**
State-of-the-art electronic controls monitor system operation for faster, easier system diagnostics.

HEIL®
HEATING & COOLING PRODUCTS

QUIETCOMFORT™ VS 95 SERIES GAS FURNACE

MAINLINE MODELS

Heil Gas Furnace Comparison	DLX 80	IIS 80	VS 80	DLX 90	DLX 95	IIS 90	VS 90	VS 95
MODEL SERIES	H8MPN/ H8MPL/ H8DNL	H8MPT	H8MPV	H9MPD	H9MPX	H9MPT	H9MPV	H9MVX
ENERGY SAVINGS AFUE RATING*	80%	80%	80%	 92%	 95%	 92%	 92%	 95%
HEAT EXCHANGER WARRANTY*	20YR	25YR	25YR	LIFE TIME	LIFE TIME	LIFE TIME	LIFE TIME	LIFE TIME
NO HASSLE REPLACEMENT™ Limited Warranty	1YR	5YR	10YR	1YR	1YR	5YR	10YR	10YR
PARTS WARRANTY*	10YR	10YR	10YR	10YR	10YR	10YR	10YR	10YR
RPJ® III HEAT EXCHANGER Patented weld-free construction	●	●	●	●	●	●	●	●
VARIABLE-SPEED ECM CIRCULATION BLOWER MOTOR Quiet, even airflow	○	○	●	○	○	○	●	●
TWO-STAGE OPERATION Self-adjusting heat modes	○	●	●	○	○	●	●	●

*Many models earn the ENERGY STAR®. Ask your contractor for details or visit www.energystar.gov.

*AFUE stands for Annual Fuel Utilization Efficiency. Higher number = Greater efficiency.

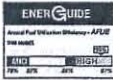
*This Heil product carries a ten (10) year limited warranty on parts, including compressor and coils, to original homeowner if installed in an owner-occupied, single-family residence and properly registered within ninety (90) days after original installation. Otherwise, the parts warranty period is five (5) years from the date of installation. Heat exchangers may carry longer limited warranty coverage that applies to original homeowners with timely registration. (See Warranty Certificate for registration instructions. Registration not required in all jurisdictions.)



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All systems tested and listed by the appropriate agencies.



ISO 9001:
2000 Registered

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H9MVX Series
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Part No. 440-12-2024-06
Revised 11/09



Commercial Gas Water Heaters

THREE-YEAR LIMITED TANK WARRANTY

- For complete warranty details, consult written warranty shipped with heater or contact A. O. Smith

SPECIFICATIONS

MODEL NUMBER	BTU INPUT PER HOUR	GALLONS OR LITRES	TANK SIZE	GPH OR LPH	RECOVERY - GALLONS OR LITRES PER HOUR AT DEGREE RISE			LBS. OR KG	SHIPPING WEIGHT
					40°F	100°F	140°F		
					22°C	56°C	78°C		
BTX-80	76,000	Gallons	50	GPH	206	83	59	Lbs.	210
		Litres	189	LPH	780	314	223	Kg	95.3

Manifold Pressure: 4.0 inches w.c. (.99 kPa); All models—Maximum Supply Pressure: 14 inches w.c. (3.48 kPa)

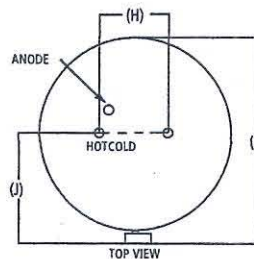
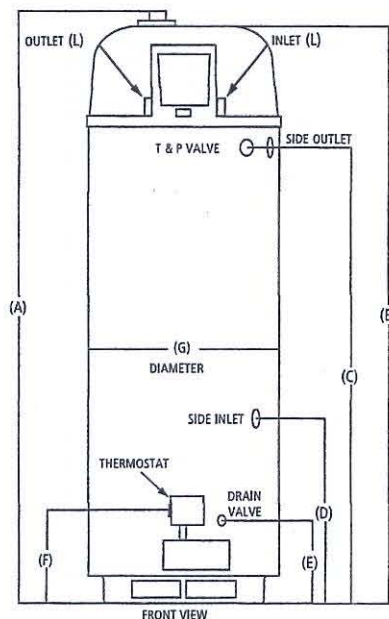
Minimum Supply Pressure Natural Gas: 5.0 inches w.c. (1.24 kPa); Minimum Pressure must be maintained under both load and no-load (static and dynamic) conditions

Approved for Canada.

DIMENSIONS

BTX-80	A	B	C	D	E	F	G	H	J	K
INCHES	70-5/8	68-1/4	52	21	9-1/8	12	22	8	15-3/4	27
CM	179-3/8	173-1/5	131-4/5	53-3/10	23-1/5	30-1/2	55-9/10	20-3/10	40	68-6/10

Top inlet and outlet: 3/4" male NPT
Side inlet and outlet: 3/4" female NPT
Gas inlet: 1/2" NPT



* INSTALL IN ACCORDANCE WITH LOCAL CODES

SUGGESTED SPECIFICATION

Natural gas water heater(s) shall be A. O. Smith Cyclone HE model # BTX-80, with 90% thermal efficiency, a storage capacity of 50 gallons, an input rating of 76,000 BTUs per hour, a recovery rating of 83 gallons per hour at 100°F rise and a maximum hydrostatic working pressure of 150 psi. Water heater(s) shall be of power-vent design, using 2", 3" or 4" PVC pipe for horizontal and/or vertical vent runs. Water heater(s) shall have: 1: Seamless, glass lined steel tank construction and a spiral-shaped heat exchanger placed entirely inside the tank, which shall be glass lined on the flue gas side to protect against acidic condensate. 2: An Intelli-Vent™ gas control system with silicon nitride hot surface ignitor. 3: A 3-year limited warranty against tank leaks. Water heater(s) shall meet the thermal efficiency and standby loss requirements of the U. S. Department of Energy and Current Edition of ASHRAE/IESNA 90.1 and be design-certified by UL (Underwriters Laboratories) according to ANSI Z21.10.3-CSA4.3 standards governing storage tank water heaters.

For Technical Information and Automated Fax Service, call 800-527-1953. A. O. Smith Corporation reserves the right to make product changes or improvements without prior notice.



Commercial Gas Water Heaters



CYCLONE

The Cyclone® HE is a light-duty, powervent, fully condensing commercial gas water heater with an internal helical heat exchanger, similar to the design of A. O. Smith's industry-leading Cyclone® XHE models. This helical heat exchanger helps Cyclone® HE achieve 90% thermal efficiency and deliver outstanding hot water output.

HELICAL INTERNAL HEAT EXCHANGER

- Completely surrounded by water in tank, provides much greater heat transfer surface than standard straight flue tube
- Produces 90% thermal efficiency, which saves money on operating costs, increases hot water output compared to standard-efficiency water heaters
- Minimizes standby losses by trapping heat in the tank
- Spiral heat exchanger reduces scale and sediment from forming on water-side surface, which can reduce energy efficiency over time

VERSATILE POWERVENT DESIGN

- Vents using inexpensive PVC, CPVC or ABS pipe. Canadian installations require ULC S636 listed PVC or CPVC pipe.
- 2" pipe, vents up to 25 equivalent feet
- 3" pipe, vents up to 65 equivalent feet
- 4" pipe, vents up to 128 equivalent feet

MODULAR BLOWER

- Equipped with 120 volt, 60 Hz electrical system (rating 5 amps or less), 6-foot cord with standard 3-prong connector
- 2" PVC pipe, elbows and condensate drain supplied to connect heat exchanger outlet to blower
- PVC Vent Attenuation Assembly (VAA) supplied for applications where extra-quiet operating environment is essential

HIGH OUTPUT WITH SMALL FOOTPRINT

- 22" diameter, combined with 90% efficiency, 50-gallon tank and 76,000 BTU input means Cyclone HE can be installed in less space than a larger 75-gallon unit, with equal or better performance
- Total height is 70-5/8" to top of unit

SIDE-MOUNTED HOT AND COLD RECIRCULATING TAPS

- Allows Cyclone HE to be installed as part of combination space heating/water heating applications, or any system requiring a recirculating hot water loop
- Plugs for the recirculating taps are factory installed

INTELLI-VENT™* GAS CONTROL

- Equipped with long lasting silicon nitride hot surface ignitor – no standing pilot
- Advanced electronics for more precise control of water temperature and easy-to-understand system diagnostics
- 180°F maximum temperature setting

PERMAGLAS® ULTRA COAT™ GLASS LINING

- A. O. Smith exclusive process provides superior protection against corrosion
- Protects all interior tank surfaces including inside and outside of helical heat exchanger

TWO HEAVY-DUTY ANODE RODS

- Provides advanced protection against corrosion

GREEN CHOICE® GAS BURNER

- Patented "Eco-Friendly" design reduces NOx emissions and meets less than 40 ng/j requirements for low NOx

CSA CERTIFIED AND ASME RATED T&P RELIEF VALVE

MAXIMUM HYDROSTATIC WORKING PRESSURE: 150 PSI

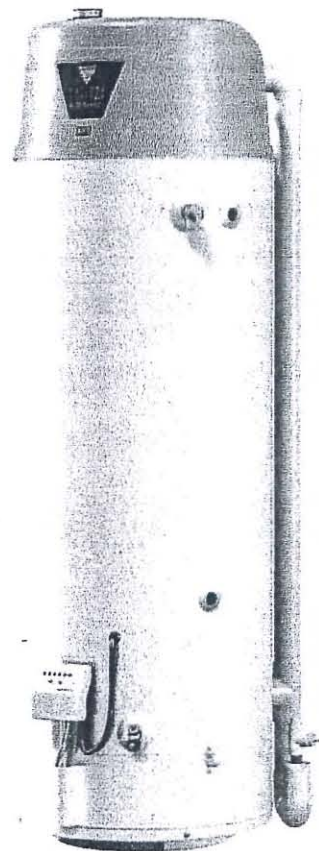
CODES AND STANDARDS

- Design-certified by Underwriters' Laboratories according to ANSI Z21.10.3 - 4.3 CSA standards governing storage-type water heaters
- Meets or exceeds the thermal efficiency and standby loss requirements of the U.S. Department of Energy and Current Edition of ASHRAE/IESNA 90.1

*Intelli-Vent™ is a registered trademark of Emerson Electric Company

September 2010R

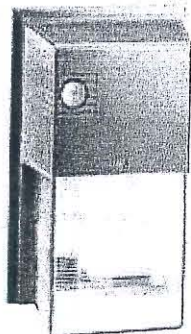
BTX-80



GAS-FIRED



Wattage Range:
HPS 35 - 70W
CFL 13 - 32W



Lamp included

Economical and cost-effective to own and operate, the WSS Series Wallpacks are designed for both residential and commercial applications with mounting heights of 12' and below.

13W & 2-13W: 32°F

Temperature Rated*

18 - 32W Quad: 20°F

Temperature Rated*

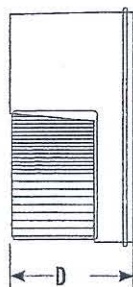
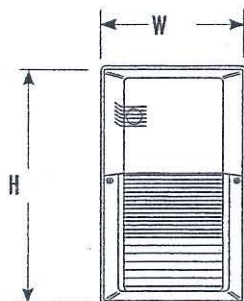
(*minimum starting temperatures)



Listed for Wet Locations
Consult Factory for CUL Availability

Dimensions

	Fixture Height	Fixture Width	Fixture Depth	Approx. Ship Wt.
WSS Series	11"	6.9"	5.25"	5 lbs.



Features

Housing

The compact WSS luminaire is weatherproof and rated for outdoor use. Features a cast aluminum base plate and a polycarbonate injection molded refractor. Housing is available in either bronze or white. Access to all internal components requires the removal of only two screws. Tamperproof screws are available.

Ballast / Lamp

The high-pressure sodium version of the WSS fixture is available in 35 - 70 watt utilizing a 120V NPF ballast and a medium based lamp. The 13 watt twin tube compact fluorescent design comes standard with a bi-pin lamp and a 120V NPF ballast, while the 18 - 32 watt version is supplied with a 4-pin lamp and a 120 or 277V electronic ballast.

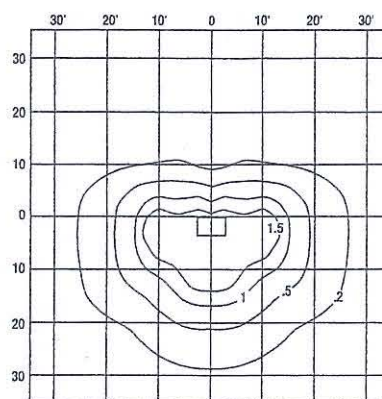
Mounting Options

The WSS Series can be surface mounted directly over a 4" recessed outlet box. Convenient conduit access on fixture base allows for easy surface mounting. Optional internal photocell is available. Recommended mounting height is 12' and below.

Photometric Data

(Isofootcandle Plots)

11" WSS



70W HPS Wallpack at 10' mounting height.

HPS-70 Watt/Clear

Mounting Height: 10'

Number of Fixtures: 2

Lamp Lumens: 6,300

The WSS Series photometric data is based on a 70 watt clear HPS lamp rated at 6,300 lamp lumens. Footcandle values for other wattages are obtained by multiplying the chart values by the following factors:

Lamp/Wattage	Factor
70W HPS	1
50W HPS	.64
35W HPS	.36

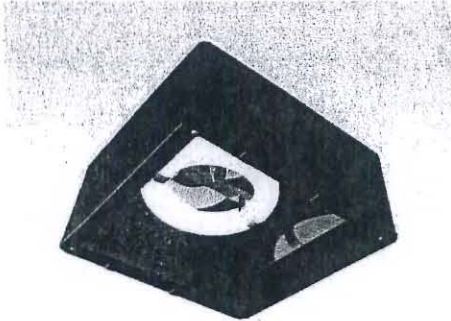
Mounting Position	Wattage Lamp	Catalog Number
Wall	35W HPS	WSS0503-1*(b)
	50W HPS	WSS0505-1*(b)
	70W HPS	WSS0507-1*(b)
	13W CFL	WSS0313-1*(b)
	18W CFL	WSS0318-U*(b)
	26W CFL	WSS0326-U*(b)
	32W CFL	WSS0332-U*(b)
	(2) 13W CFL	WSS0323-1*(b)

*See Voltage below

Voltage	Options (b) (Factory Installed)	Accessories: (Field Installed)
1 = 120V NPF only U = 120-277 CFL	B = Button Photocell WT = White Housing	WSS-TS = Tamperproof Screws WSS-TSD = Tamperproof Screwdriver & Screws



Parker Area Lighting



- Wattage: 80, 100W and 200W
- Long life: Average life of 100,000 hours
- High index, CRI: 85; Makes colors look more true and vibrant
- Vibration resistant: electrodeless design allows for use in high vibration applications
- Instant on and Instant restrike
- Applications: Parking Lots, Retail Lots

Specification

Induction Lamp

Wattage (W)	Luminance (LM)	CRI	Color temperature (Kelvin)	Average lifetime (Hours)
80	6,800	85	5,000	100,000
100	8,500	85	5,000	100,000
200	17,000	85	5,000	100,000

Driver

Wattage (W)	Input voltage range (VAC)	Input current (A)	Input frequency	Power factor	Operating temp	Input power (W)
80	120/277/480	0.74-0.32	50-60Hz	0.98	-30 to 122°F	88
100	120/277/480	0.93-0.40	50-60Hz	0.98	-30 to 122°F	110
200	120/277/480	1.77-0.77	50-60Hz	0.98	-30 to 122°F	210

Housing

- Die cast aluminum casing with electrostatic painted surface for heat-resistance, corrosion-resistance and long life
- Anodized aluminum for superior lighting performance

Ordering Guide

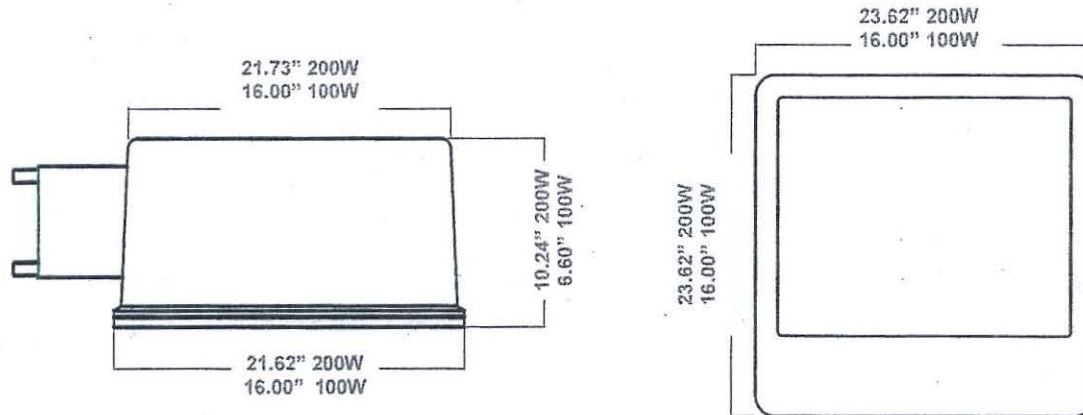
Example: PA-120/277V-100W-5K

Series	Voltage	Wattage	Kelvin Temp
PA	120V/277V		5K
	480 V	80W 100W 200W	



Parker Area Lighting

Dimensions



Economics

Induction		Induction		Induction	
Wattage		Wattage		Wattage	
80W		100W		200W	
CRI		CRI		CRI	
85		85		85	
Lamp life		Lamp life		Lamp life	
100,000		100,000		100,000	
Pupil lumens		Pupil lumens		Pupil lumens	
11,016		13,770		27,540	
Design Lumens		Design Lumens		Design Lumens	
6,800		8,500		17,000	
Operating costs		Operating costs		Operating costs	
\$858*		\$1.156*		\$2,208*	
High Pressure Sodium		Metal Halide		Metal Halide	
Wattage		Wattage		Wattage	
150W		175W		400W	
CRI		CRI		CRI	
21		65		65	
Lamp life		Lamp life		Lamp life	
24,000		7,500		7,500	
Pupil lumens		Pupil lumens		Pupil lumens	
9,120		20,860		53,640	
Design Lumens		Design Lumens		Design Lumens	
16,000		14,000		36,000	
Operating costs		Operating costs		Operating costs	
\$2,172*		\$2,905*		\$5,436*	

*Based on 0.12 KW/H, 10 years of use, 8760 hours/year

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[Cold Cathode](#)
[5-Watt Micro-Brite Cold Cathode A19 MED LO White 2250K](#)

5-Watt Micro-Brite Cold Cathode A19 MED LO White 2250K

MICRO BRITE

Markets

- Restaurants
- Hospitality
- Casino
- Cinema
- Agriculture

Applications

- Dimmable Fixtures
- General Lighting

Product Description

Micro-Brite cold cathode light bulbs are dimmable down to 5% of their light output. They provide smooth dimming control that works just like incandescent on standard dimmers, so no additional equipment is necessary. They can also be used in flashing signs without shortening their super long 25,000-hour life.

This 5-watt A19 Micro-Brite light bulb has a white finish and can replace a 30-watt A19 incandescent bulb to provide up to 85% energy savings. It has a rosy 2250K color temperature that simulates the look of a dimmed incandescent lamp that is perfect for restaurants and cinemas.

Literature

[Material Safety Data Sheet](#)
[Micro-Brite A19 Enlightening Sheet](#)
[Restaurant Brochure](#)
[Cinema Brochure](#)
[Agriculture Brochure](#)
[Casino Brochure](#)
[Micro-Brite Video](#)

Contact a Litetronics Representative

Specifications

Category	Cold Cathode
Shape	A19
Brand	Micro-Brite
Part Number	MB-501DL
Watts	5
Base	MED LO
Voltage	120
Average Rated Life	25,000
Case Quantity	15
Initial Lumens	200
CRI	82
Color Temp	2250K
Finish	White
Burn Position	Universal
M.O.L.	4.33
Operating Temp	5°F - 105°F
Power Factor	>.90
Incandescent Equivalent	30 watts
Energy Savings (Incandescent)	\$68



CUSTOMER REVIEWS:

There are yet no reviews for this product.
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5-Watt Micro-Brite Cold Cathode A19 MED LO White 2250K

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 You are here [Litetronics Products](#) **5-Watt Micro-Brite Cold Cathode C11 CAND LO White 2850K**
5-Watt Micro-Brite Cold Cathode C11 CAND LO White 2850K**MICRO BRITE****Markets**

- Restaurants
- Hospitality
- Cinema

Applications

- Chandeliers
- Decorative Lighting
- Dimmable Fixtures
- Wall Sconces

Product Description

Micro-Brite cold cathode light bulbs are dimmable down to 5% of their light output. They provide smooth dimming control that works just like incandescent on standard dimmers, so no additional equipment is necessary. They also have a super long 18,000-hour life that drastically reduces maintenance and replacement costs.

This 5-watt C11 bullet tip Micro-Brite light bulb has a white finish and can replace a 30-watt C11 incandescent bulb to provide up to 85% energy savings in a variety of decorative applications, such as chandeliers, vanities, and wall sconces. It has a warm 2850K color temperature and a candelabra base.

Literature

Material Safety Data Sheet
 Micro-Brite Decorative Bulbs Enlightening Sheet
 Restaurant Brochure
 Cinema Brochure
 Hospitality Common Areas Brochure
 Micro-Brite Video

Contact a Litetronics Representative

Specifications

Category	Cold Cathode
Shape	C11
Brand	Micro-Brite
Part Number	MB-541DP
Watts	5
Base	CAND LO
Voltage	120
Average Rated Life	25,000
Case Quantity	30
Initial Lumens	200
CRI	82
Color Temp	2850K
Finish	White
Burn Position	Universal
M.O.L.	4.5
Operating Temp	5°F - 105°F
Power Factor	>.90
Incandescent Equivalent	30 watts
Energy Savings (Incandescent)	\$68

DIMMABLE

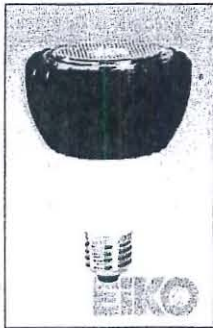
FLASHABLE

WEATHER RESISTANT

**CUSTOMER REVIEWS:**

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LEDP/PAR30LN-FL-30K

PAR30 12W Power LED 3000k 120 Degree

Specifications	
Item	LEDP/PAR30LN-FL-30K
Bar Code	05735
Volts	120-240VAC
Watts	12
Lumens	260
MOL in/mm	121mm
MOD in/mm	90mm
Avg Life	50,000
Bulb	PAR30LN
Base	Medium Screw (E26)
Special Desc	Operates on universal voltage of 100 to 240Volts. Do not Dim. Indoor Locations Only.
CT deg K	3000
Photo No	652
Beam Angle	120
CRI	60
Led Type	Power
Emitted Color	Warm White