Ohio | Public Utilities Commission

Application to Commit Energy Efficiency/Peak Demand Reduction Programs (Mercantile Customers Only)

Case No.: 12-2862-EL-EEC

Mercantile Customer: **Oncology Hematology**

Electric Utility: **Duke Energy**

Program Title or Description: **Chiller Tune-ups**

Rule 4901:1-39-05(F), Ohio Administrative Code (O.A.C.), permits a mercantile customer to file, either individually or jointly with an electric utility, an application to commit the customer's existing demand reduction, demand response, and energy efficiency programs for integration with the electric utility's programs. The following application form is to be used by mercantile customers, either individually or jointly with their electric utility, to apply for commitment of such programs in accordance with the Commission's pilot program established in Case No. 10-834-EL-POR

Completed applications requesting the cash rebate reasonable arrangement option (Option 1) in lieu of an exemption from the electric utility's energy efficiency and demand reduction (EEDR) rider will be automatically approved on the sixty-first calendar day after filing, unless the Commission, or an attorney examiner, suspends or denies the application prior to that time. Completed applications requesting the exemption from the EEDR rider (Option 2) will also qualify for the 60-day automatic approval so long as the exemption period does not exceed 24 months. Rider exemptions for periods of more than 24 months will be reviewed by the Commission Staff and are only approved up the issuance of a Commission order.

Complete a separate application for each customer program. Projects undertaken by a customer as a single program at a single location or at various locations within the same service territory should be submitted together as a single program filing, when possible. Check all boxes that are applicable to your program. For each box checked, be sure to complete all subparts of the question, and provide all requested additional information. Submittal of incomplete applications may result in a suspension of the automatic approval process or denial of the application.

Any confidential or trade secret information may be submitted to Staff on disc or via email at ee-pdr@puc.state.oh.us.

Section 1: Mercantile Customer Information

Name: **Oncology Hematology**

Principal address: **5053 Wooster Road Cincinnati, Ohio 45226**

Address of facility for which this energy efficiency program applies:

4350 Malsbury Road Cincinnati, Ohio 45242
2960 Mack Road Cincinnati, Ohio 45014

Name and telephone number for responses to questions:

Grady Reid Jr, 513-287-1038

Electricity use by the customer (check the box(es) that apply):

✓ **The customer uses more than seven hundred thousand kilowatt hours per year at the above facility**. (**Refer to Appendix A**.)

Section 2: Application Information

A) The customer is filing this application (choose which applies):

□ Individually, without electric utility participation.

✓ **Jointly with the electric utility.**

B) The electric utility is: **Duke Energy**

C) The customer is offering to commit (check any that apply):

□ Energy savings from the customer's energy efficiency program. (Complete Sections 3, 5, 6, and 7.)

□ Capacity savings from the customer's demand response/demand reduction program. (Complete Sections 4, 5, 6, and 7.)

✓ **Both the energy savings and the capacity savings from the customer's energy efficiency program. (Complete all sections of the Application.)**

Section 3: Energy Efficiency Programs

A) The customer's energy efficiency program involves (check those that apply):

□ Early replacement of fully functioning equipment with new equipment. (Provide the date on which the customer replaced fully functioning equipment, and the date on which the customer would have replaced such equipment if it had not been replaced early. Please include a brief explanation for how the customer determined this future replacement date (or, if not known, please explain why this is not known)).

□ Installation of new equipment to replace equipment that needed to be replaced The customer installed new equipment on the following date(s):

□ Installation of new equipment for new construction or facility expansion. The customer installed new equipment on the following date(s): _____.

✓ **Behavioral or operational improvement.**

B) Energy savings achieved/to be achieved by the energy efficiency program:

1) If you checked the box indicating that the project involves the early replacement of fully functioning equipment replaced with new equipment, then calculate the annual savings [(kWh used by the original equipment) – (kWh used by new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: _____kWh

2) If you checked the box indicating that the customer installed new equipment to replace equipment that needed to be replaced, then calculate the annual savings [(kWh used by less efficient new equipment) – (kWh used by the higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: _____kWh

Please describe any less efficient new equipment that was rejected in favor of the more efficient new equipment.

3) If you checked the box indicating that the project involves equipment for new construction or facility expansion, then calculate the annual savings [(kWh used by less efficient new equipment) – (kWh used by higher efficiency new equipment) = (kWh per year saved)]. Please attach your calculations and record the results below:

Annual savings: _____ kWh

Please describe the less efficient new equipment that was rejected in favor of the more efficient new equipment.

4) If you checked the box indicating that the project involves behavioral or operational improvements, provide a description of how the annual savings were determined. **Chiller tune-ups – preventative maintenance performed resulting in energy savings**

_____

Section 4: Demand Reduction/Demand Response Programs

A) The customer's program involves (check the one that applies):

- ✓ **Coincident peak-demand savings from the customer's energy efficiency program.**
- □ Actual peak-demand reduction. (Attach a description and documentation of the peak-demand reduction.)
- □ Potential peak-demand reduction (check the one that applies):
  - □ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a tariff of a regional transmission organization (RTO) approved by the Federal Energy Regulatory Commission.
  - □ The customer's peak-demand reduction program meets the requirements to be counted as a capacity resource under a program that is equivalent to an RTO program, which has been approved by the Public Utilities Commission of Ohio.

B) On what date did the customer initiate its demand reduction program?

October and November 2009

C) What is the peak demand reduction achieved or capable of being achieved (show calculations through which this was determined):

1 KW (See Attachment 1 - Appendix 2)

Section 5: Request for Cash Rebate Reasonable Arrangement (Option 1) or Exemption from Rider (Option 2)

Under this section, check the box that applies and fill in all blanks relating to that choice.

Note: If Option 2 is selected, the application will not qualify for the 60-day automatic approval. All applications, however, will be considered on a timely basis by the Commission.

A) The customer is applying for:

✓ **Option 1: A cash rebate reasonable arrangement.**

OR

□ Option 2: An exemption from the energy efficiency cost recovery mechanism implemented by the electric utility.

OR

□ Commitment payment

B) The value of the option that the customer is seeking is:

Option 1: A cash rebate reasonable arrangement, which is the lesser of (show both amounts):

✓ **A cash rebate of $40.00 (See Attachment 1 - Appendix 3).**

Option 2: An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider.

□ An exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for ____ months (not to exceed 24 months). (Attach calculations showing how this time period was determined.)

OR

□ A commitment payment valued at no more than $_____. (Attach documentation and calculations showing how this payment amount was determined.)

OR

□ Ongoing exemption from payment of the electric utility's energy efficiency/peak demand reduction rider for an initial period of 24 months because this program is part of the customer's ongoing efficiency program. (Attach documentation that establishes the ongoing nature of the program.) In order to continue the exemption beyond the initial 24 month period, the customer will need to provide a future application establishing additional energy savings and the continuance of the organization's energy efficiency program.)

Section 6: Cost Effectiveness

The program is cost effective because it has a benefit/cost ratio greater than 1 using the (choose which applies):

□ Total Resource Cost (TRC) Test. The calculated TRC value is: _____ (Continue to Subsection 1, then skip Subsection 2)

✓ Utility Cost Test (UCT). **The calculated UCT value is 4.41(See Attachment 1 - Appendix 4)**

Subsection 1: TRC Test Used (please fill in all blanks).

The TRC value of the program is calculated by dividing the value of our avoided supply costs (generation capacity, energy, and any transmission or distribution) by the sum of our program overhead and installation costs and any incremental measure costs paid by either the customer or the electric utility.

The electric utility's avoided supply costs were _____.

Our program costs were _____.

The incremental measure costs were _____.

Subsection 2: UCT Used (please fill in all blanks).

We calculated the UCT value of our program by dividing the value of our avoided supply costs (capacity and energy) by the costs to our electric utility (including administrative costs and incentives paid or rider exemption costs) to obtain our commitment.

Our avoided supply costs were **$300 (See Attachment 1 - Appendix 5).**

The utility's program costs were **$24(See Attachment 1 - Appendix 6).**

The utility's incentive costs/rebate costs were **$40 (See Attachment 1 - Appendix 3)**.

Section 7: Additional Information

Please attach the following supporting documentation to this application:

Narrative description of the program including, but not limited to, make, model, and year of any installed and replaced equipment.

A copy of the formal declaration or agreement that commits the program or measure to the electric utility, including:

1) any confidentiality requirements associated with the agreement;
2) a description of any consequences of noncompliance with the terms of the commitment;
3) a description of coordination requirements between the customer and the electric utility with regard to peak demand reduction;
4) permission by the customer to the electric utility and Commission staff and consultants to measure and verify energy savings and/or peak-demand reductions resulting from your program; and,
5) a commitment by the customer to provide an annual report on your energy savings and electric utility peak-demand reductions achieved.

Refer to Offer Letter following this application

A description of all methodologies, protocols, and practices used or proposed to be used in measuring and verifying program results. Additionally, identify and explain all deviations from any program measurement and verification guidelines that may be published by the Commission.

DUKE ENERGY CORPORATION
Mercantile Self Direct Program
139 East Fourth Street
Cincinnati, OH 45202

513 629 5572 fax

August 22, 2012

Mr. David Ritter
Oncology Hematology
5053 Wooster Pike
Cincinnati, Ohio 45226

Subject: Your Application for a Duke Energy Mercantile Self-Direct Rebate

Dear Mr. Ritter:

Thank you for your Duke Energy Mercantile Self Direct rebate application. As noted in the Energy Conservation Measure (ECM) chart on page two, a total rebate of $40.00 has been proposed for your chiller tune-up projects completed in the 2009 calendar year. All Self Direct Rebates are contingent upon approval by the Public Utilities Commission of Ohio (PUCO).

At your earliest convenience, please indicate if you accept this rebate by

- providing your signature on page two
- completing the PUCO-required affidavit on page three.

Please return the documents to my attention via fax at 513-629-5572 or e-mail to SelfDirect@Duke-Energy.com. Upon receipt, Duke Energy will submit the necessary documentation to PUCO. Following PUCO's approval, Duke Energy will remit payment.

At Duke Energy, we value your business and look forward to working with you on this and future energy efficiency projects. We hope you will consider our Smart $aver® incentives, when applicable. Please contact me if you have any questions.

Sincerely,

Grady Reid, Jr
Product Manager
Mercantile Self Direct Rebates

cc: Rob Jung, WECC
Adam Pulskamp, Engineering Excellence

Please indicate your response to this rebate offer within 30 days of receipt.

☑ Rebate is accepted. ☐ Rebate is declined.

By accepting this rebate, Oncology Hematology affirms its intention to commit and integrate the energy efficiency projects listed on the following pages into Duke Energy's peak demand reduction, demand response and/or energy efficiency programs.

Additionally, Oncology Hematology also agrees to serve as joint applicant in any future filings necessary to secure approval of this arrangement as required by PUCO and to comply with any information and reporting requirements imposed by rule or as part of that approval.

Finally, Oncology Hematology affirms that all application information submitted to Duke Energy pursuant to this rebate offer is true and accurate. Information in question would include, but not be limited to, project scope, equipment specifications, equipment operational details, project costs, project completion dates, and the quantity of energy conservation measures installed.

If rebate is accepted, will you use the monies to fund future energy efficiency and/or demand reduction projects?

☑ YES ☐ NO

If rebate is declined, please indicate reason (optional):

David Ritter - CFO David Ritter 10/22/12

Customer Signature Printed Name Date

Proposed Rebate Amounts

Measure ID	Energy Conservation Measure (ECM)	Proposed Rebate Amount
ECM-1	Air Cooled Chiller Tune Up (Qty 3)	$40.00
Total		$40.00

Ohio | Public Utilities Commission

Application to Commit Energy Efficiency/Peak Demand Reduction Programs (Mercantile Customers Only)

Case No.: ____-____-EL-EEC

State of _____ :

David Ritter, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:
   Oncology Hematology Care
   [insert customer or EDU company name and any applicable name(s) doing business as]

2. I have personally examined all the information contained in the foregoing application, including any exhibits and attachments. Based upon my examination and inquiry of those persons immediately responsible for obtaining the information contained in the application, I believe that the information is true, accurate and complete.

3. I am aware of fines and penalties which may be imposed under Ohio Revised Code Sections 2921.11, 2921.31, 4903.02, 4903.03, and 4903.99 for submitting false information.

David Ritter - Dir Facilities Mgt
Signature of Affiant & Title

Sworn and subscribed before me this 23rd day of October, 2012 Month/Year

Sheila K Perkins
Signature of official administering oath

Sheila K Perkins / Accts Payable
Print Name and Title

My commission expires on 4.28.15

SHEILA K. PERKINS
Notary Public, State of Ohio
My Commission Expires 04-28-2015

Attachment 1 – Oncology Hematology

Appendix 1 – Electric History

47400392 21		
MALSBARY MEDICAL LLC		
4350 MALSBARY		
CINCINNATI, OH 45242		
Date	Days	Actual KWH
6/25/2012	32	108,446
5/24/2012	29	90,936
4/25/2012	30	83,098
3/26/2012	31	89,062
2/24/2012	29	81,089
1/26/2012	30	84,544
12/27/2011	34	90,789
11/23/2011	29	77,179
10/25/2011	29	79,030
9/26/2011	32	93,927
8/25/2011	29	92,432
Total		**970,532**

Appendix 2 – Annual kWh losses and annual KW losses

Measure	Annual kWh Gross with losses	Upload Amount	TOTAL Annual kWh losses	KW Per Measure	Total KW Savings
Air Cooled Chiller Tune Up	128.92	20	2578	0.05	1

Appendix 3 – Cash Rebate

Measure	Amount
Air Cooled Chiller Tune Up	$40

Appendix 4 – Utility Cost Test

Measure	UCT
Air Cooled Chiller Tune Up	4.41

Appendix 5 – Avoided Supply Costs

Measure	T&D	Production	Capacity	Quantity	Total Avoided Costs
Air Cooled Chiller Tune Up	$2.00	$8.00	$5.00	20	$300

Appendix 6 – Utility Program Costs

Measure	Qty	Admin Costs	Total Costs
Air Cooled Chiller Tune Up	20	$1.22	$24

Ohio Mercantile Self Direct Program

Application Guide & Cover Sheet

Questions? Call 1-866-380-9580 or visit www.duke-energy.com.

Email this form along with completed Mercantile Self Direct Prescriptive or Custom applications, proof of payment, energy savings calculations and spec sheets to SelfDirect@Duke-Energy.com. You may also fax to 1-513-419-5572.

Mercantile customers, defined as using at least 700,000 kWh annually are eligible for the Mercantile Self Direct program. Please indicate mercantile qualification:

- ☐ a single Duke Energy Ohio account
- ☒ multiple accounts in Ohio (energy usage with other utilities may be counted toward the total)

Please list Duke Energy account numbers below (attach listing of multiple accounts an/or billing history for other utilities as required):

Account Number	Annual Usage	Account Number	Annual Usage
6160-3506-02-08		4740-0392-21-4	
6100-3645-02-8		6060-2092-01-4	
5690-0711-32-3			

Self Direct rebates are available for completed Custom projects that have not previously received a Duke Energy Smart $aver® Custom Incentive. Self Direct incentives are applicable to Prescriptive measures that were installed more than 90 days prior to submission to Duke Energy and have not previously received a Duke Energy Prescriptive rebate.

Self Direct Program requirements dictate that certain projects that may be Prescriptive in nature under the Smart $aver program must be evaluated using the Custom process. Use the table on page two as a guide to determine which Self Direct program fits your project(s). Apply for Self Direct projects using the appropriate application forms in conjunction with this cover sheet. Where Mercantile Self Direct Prescriptive applications are listed, please refer to the measure list on that application. If your measure is not listed, you may be eligible for a Self Direct Custom rebate. Self Direct Custom applications, like Smart $aver Custom applications, should include detailed analysis of pre-project and post-project energy usage and project costs. Please indicate which type of rebate applications are included in the table provided on page two.

Please check each box to indicate completion of the following program requirements:

☒ All sections of appropriate application(s) are completed	☒ Proof of payment.*	☒ Manufacturer's Spec sheets	☐ Energy model/calculations and detailed inputs for Custom applications

* If a single payment record is intended to demonstrate the costs of both Prescriptive & Custom projects, please include an additional document with an estimated breakout of costs for each Prescriptive and Custom energy conservation measure.

Application Type	Replaced equipment at end of lifetime or because equipment failed**	Replaced fully operational equipment to improve efficiency***	New Construction
Lighting	MSD Custom Part 1 ☐ Custom Lighting Worksheet ☐	MSD Prescriptive Lighting ☐	MSD Prescriptive Lighting ☐
		MSD Custom Part 1 ☐ Custom Lighting Worksheet ☐	MSD Custom Part 1 ☐ Custom Lighting Worksheet ☐
Heating & Cooling	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐	MSD Prescriptive Heating & Cooling ☐
			MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐
Window Films, Programmable Thermostats, & Guest Room Energy Management Systems	MSD Custom Part 1 ☐ MSD Custom General and/or EMS Worksheet(s) ☐	MSD Prescriptive Heating & Cooling ☐	MSD Custom Part 1 ☐ MSD Custom General and/or EMS Worksheet(s) ☐
Chillers & Thermal Storage	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐	MSD Prescriptive Chillers & Thermal Storage ☐
			MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐
Chiller Tune-ups	MSD Prescriptive Chiller Tune-ups ☐	MSD Prescriptive Chiller Tune-ups ☒	MSD Prescriptive Chiller Tune-ups ☐
Motors & Pumps	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐	MSD Prescriptive Motors, Pumps & Drives ☐
			MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐
VFDs	Not Applicable	MSD Prescriptive Motors, Pumps & Drives ☐	MSD Custom Part 1 ☐ MSD Custom VFD Worksheet ☐
		MSD Custom Part 1 ☐ MSD Custom VFD Worksheet ☐	
Food Service	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐	MSD Prescriptive Food Service ☐
			MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐
Air Compressors	MSD Custom Part 1 ☐ MSD Custom Compressed Air Worksheet ☐	MSD Custom Part 1 ☐ MSD Custom Compressed Air Worksheet ☐	MSD Prescriptive Process ☐
			MSD Custom Part 1 ☐ MSD Custom Compressed Air Worksheet ☐
Process	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐	MSD Prescriptive Process ☐	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐
		MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐	
Energy Management Systems	MSD Custom Part 1 ☐ MSD Custom EMS Worksheet ☐	MSD Custom Part 1 ☐ MSD Custom EMS Worksheet ☐	MSD Custom Part 1 ☐ MSD Custom EMS Worksheet ☐
Behavioral* & No/Low Cost**	MSD Custom Part 1 ☐ MSD Custom General Worksheet ☐		

** Under the Self Direct program, failed equipment and equipment at the end of its useful life are evaluated differently than early replacement of fully functioning equipment. **All equipment replacements due to failure or old age will be evaluated via the Custom program.**

*** Please ensure that you include the age of the replaced equipment for measures classified as “Early Replacement” in your application as well as the estimated date that you would have otherwise replaced the existing equipment if you had not chosen a more energy efficient option.

Duke Energy®

Ohio Chiller Tune-up Service Application

Questions? Call 1-866-380-9580 or visit www.duke-energy.com.
Email the complete, signed application with all required documents to PrescriptiveIncentives@duke-energy.com, mail to: Duke Energy • 431 Charmany Drive • Madison, WI 53719 or fax to 1-866-908-4921

Is this application: ☒ **NEW** (original) or ☐ **REVISED** (changes made to original application)

Building Type (Required) (check one)			
☐ Data Centers	☐ Full Service Restaurant	☐ Office	☐ Retail (Small Box)
☐ Education/K-12	☐ Healthcare	☐ Public Assembly	☐ Retail (Big Box)
☐ Education Other	☐ Industrial	☐ Public Order/Safety	☐ Retail (Banking)
☐ Elder Care/Nursing Home	☐ Lodging	☐ Religious Worship/Church	☐ Warehouse
☐ Food Sales/Grocery	☐ Fast Food Restaurant	☐ Service	☐ Water / Wastewater Facility
☐ Other:			

How did you learn about the program? (check one)		
☐ Duke Energy Representative	☐ Web Site	☐ Radio
☒ Contractor / Vendor	☐ Other	

Please check each box to indicate completion of the following program requirements:

☒ All sections of application	☒ Invoice with make, model number, quantity and equipment manufacturer	☒ Tax ID number for payee	☒ Customer/vendor agree to Terms and Conditions

Customer Information					
Customer/Business	**Oncology Hematology**	Contact		**David Ritter**	
Phone	**513-325-1890**	**Account Number**		** 4740-0392-21-4	
Street Address (Where incentive should be mailed)		**5053 Wooster Rd.**			
City	**Cincinnati**	State	**OH**	Zip Code	**45226**
Installation Street Address	**4350 Malsbury Road**				
City	**Cincinnati**	State	**OH**	**Zip Code**	**45242**
E-mail Address	**dritter@ohmail.com**				

Failure to provide the account number associated with the location where the installation took place will result in rejection of the application.

Vendor Information					
Vendor	**Engineering Excellence**	Contact		**Adam Pulskamp**	
Phone	**513-761-6000**	Fax		**513-761-7741**	
Street Address	**10 Knollcrest Dr**				
City	**Cincinnati**	State	**Ohio**	Zip Code	**45237**
E-mail Address	**apulskamp@engineeringexcellence.com**				

If Duke Energy has questions about this application, who should we contact? ☐ **Customer** ☒ **Vendor**

Payment Information		
Who should receive incentive payment?	☐ Customer	☒ Vendor (Customer must sign below)
I hereby authorize payment of incentive directly to the vendor:	Customer Signature (written signature)	David Ritter
	Date	** 5/31/12
Provide Tax ID Number for Payee	Customer Tax ID #	N/A
	Vendor Tax ID #	261694367

Terms and Conditions			
I have read and hereby agree to the Terms & Conditions and Program Requirements.			
Customer Signature	David Ritter	Vendor Signature	
Date	** 5/31/12	Date	6-21-12
Title	** DR PAC MGT	Title	Program Coordinator

Incentives are subject to change and may be discontinued at the sole discretion of Duke Energy. Equipment must be installed and operable to be eligible for incentives. As Federal Energy Policy Law changes, equipment efficiency requirements are subject to change.

Air Cooled and Water Cooled Chiller Tune-ups						
Manufacturer and Model #	# of Units	Tons Per unit*	Total Project Cost	Current Service Date	Previous Service Date	Total Incentive
Motive Aire #MPC-A-050	1	10	$3,109.80	10/22/09	11/12/08	$20.00
Filtrine PCP-300G-44AWP	1	10	$3,109.80	10/22/09	11/12/08	$20.00
*Provide manufacturer's spec sheet documenting the size of the unit						

To Calculate your tune-up incentive*:	
A. Add up equipment capacity of all units serviced (in tons) and multiply by $2/ton =	$40.00
B. Cost of service = $6,219.60 x 50% of total service cost =	$3,109.80
Total Incentive (lesser amount of row A or row B)=	$40.00
*Incentives cannot exceed 50% of total service invoice (**external** labor and equipment).	

Service Requirements:

1. **This incentive is available only once per unit in a 12 month period.**
2. An individual chiller is considered one unit.
3. Copy of paid invoice must be included with this application
4. Self serviced (internal) labor should not be included as part of the total service cost. Only external labor will be considered as part of the total service invoice.
5. Cooling service must include the following normal maintenance items **(please check if completed):**

☒ Air cooled condenser coil cleaning	☒ Compressor amp draw	☒ Low Pressure controls
☒ System Pressure check and adjust	☒ Supply motor amp draw	☒ High Pressure controls
☒ Filter inspect or replace	☒ Condenser fan(s) amp draw	☒ Crankcase heater operation
☒ Belt inspect or replace	☒ Liquid line temperature	☒ Water cooled chiller condenser tube cleaning
☒ Contactors condition	☒ Suction pressure & temperature	☒ Water cooled chiller evaporator tube cleaning
☒ Evaporator condition	☒ Oil level & pressure	

Incentive Eligibility

- Incentives are only available to customers on Duke Energy Ohio non-residential rate.
- Duke Energy Customers who purchase electric generation from an alternative supplier are eligible to participate.
- Incentive will not be paid until eligible equipment has been installed, is available to operate, and verification has been completed by Duke Energy staff as noted in the Term & Conditions stated below.
- Duke Energy reserves the right to revise incentive levels and/or qualifying efficiency levels at anytime.
- Customer may assign the incentive to the vendor who installed/supplied the equipment. The customer's signature is required in the appropriate places on this form to assign the incentive to the vendor. Customer agrees that such an action constitutes an irrevocable assignment of the incentive. This assigned incentive must reduce the purchase price paid for the equipment by an equivalent amount.
- Any equipment which, either separately or as part of a project, has or will receive an incentive from any other Duke Energy program
- In no case will Duke Energy pay an incentive above the actual cost of the service.
- Incentive recipient assumes all responsibilities for any tax consequences resulting from Duke Energy incentive payment.
- To qualify for Duke Energy incentives, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Incentive applications are processed by a 3rd party vendor. The 3rd party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the 3rd party vendor have signed a confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application, as you will not be qualified to participate in the incentive program.

Duke Energy®

Ohio Chiller Tune-up Service Application

Questions? Call 1-866-380-9580 or visit www.duke-energy.com.
Email the complete, signed application with all required documents to PrescriptiveIncentives@duke-energy.com, mail to: Duke Energy • 431 Charmany Drive • Madison, WI 53719 or fax to 1-866-908-4921

Is this application: ☒ NEW (original) or ☐ REVISED (changes made to original application)

Building Type - Required (check one)			
☐ Data Centers	☐ Full Service Restaurant	☐ Office	☐ Retail (Small Box)
☐ Education/K-12	☐ Healthcare	☐ Public Assembly	☐ Retail (Big Box)
☐ Education Other	☐ Industrial	☐ Public Order/Safety	☐ Retail (Banking)
☐ Elder Care/Nursing Home	☐ Lodging	☐ Religious Worship/Church	☐ Warehouse
☐ Food Sales/Grocery	☐ Fast Food Restaurant	☐ Service	☐ Water / Wastewater Facility
☐ Other:			

How did you hear about the program? (check one)		
☐ Duke Energy Representative	☐ Web Site	☐ Radio
☒ Contractor / Vendor	☐ Other	

Please check each box to indicate completion of the following program requirements:

☒ All sections of application	☒ Invoice with make, model number, quantity and equipment manufacturer	☒ Tax ID number for payee	☒ Customer/vendor agree to Terms and Conditions

Customer Information (Site Owner)					
Customer/Business	**Oncology Hematology**	Contact		**David Ritter**	
Phone	**513-325-1890**	**Account Number**		****7050-0803-21-3**	
Street Address (Where incentive should be mailed)		**5053 Wooster Rd.**			
City	**Cincinnati**	State	**OH**	Zip Code	**45226**
Installation Street Address	**2960 Mack Road**				
City	**Cincinnati**	State	**OH**	**Zip Code**	**45014**
E-mail Address	**dritter@ohmail.com**				

Failure to provide the account number associated with the location where the installation took place will result in rejection of the application.

Vendor Information					
Vendor	**Engineering Excellence**	Contact		**Adam Pulskamp**	
Phone	**513-761-6000**	Fax		**513-761-7741**	
Street Address	**10 Knollcrest Dr**				
City	**Cincinnati**	State	**Ohio**	Zip Code	**45237**
E-mail Address	**apulskamp@engineeringexcellence.com**				

If Duke Energy has questions about this application, who should we contact? ☐ **Customer** ☒ **Vendor**

Payment Information		
Who should receive incentive payment?	☐ Customer	☒ Vendor (Customer must sign below)
I hereby authorize payment of incentive directly to the vendor:	Customer Signature (written signature)	David Ritter
	Date	5/3/12
Provide Tax ID Number for Payee	Customer Tax ID #	N/A
	Vendor Tax ID #	261694367

Terms and Conditions			
I have read and hereby agree to the Terms & Conditions and Program Requirements.			
Customer Signature	David Ritter	Vendor Signature	Adam Pulskamp
Date	5/3/12	Date	6-21-12
Title	Director, HEM	Title	Program Coordinator

Incentives are subject to change and may be discontinued at the sole discretion of Duke Energy. Equipment must be installed and operable to be eligible for incentives. As Federal Energy Policy Law changes, equipment efficiency requirements are subject to change.

Air Cooled and Water Cooled Chiller Tune-ups						
Manufacturer and Model #	# of Units	Tons Per unit*	Total Project Cost	Current Service Date	Previous Service Date	Total Incentive
Motive Aire #MPC-A-050	1	10	$612.00	11/2/2009	10/14/08	$20.00
*Provide manufacturer's spec sheet documenting the size of the unit						

To Calculate your tune-up incentive*:	
A. Add up equipment capacity of all units serviced (in tons) and multiply by $2/ton =	$20.00
B. Cost of service = $612.00 x 50% of total service cost =	$306.00
Total Incentive (lesser amount of row A or row B)=	$20.00
*Incentives cannot exceed 50% of total service invoice (**external** labor and equipment).	

Service Requirements:

1. **This incentive is available only once per unit in a 12 month period.**
2. An individual chiller is considered one unit.
3. Copy of paid invoice must be included with this application
4. Self serviced (internal) labor should not be included as part of the total service cost. Only external labor will be considered as part of the total service invoice.
5. Cooling service must include the following normal maintenance items **(please check if completed):**

☒ Air cooled condenser coil cleaning	☒ Compressor amp draw	☒ Low Pressure controls
☒ System Pressure check and adjust	☒ Supply motor amp draw	☒ High Pressure controls
☒ Filter inspect or replace	☒ Condenser fan(s) amp draw	☒ Crankcase heater operation
☒ Belt inspect or replace	☒ Liquid line temperature	☒ Water cooled chiller condenser tube cleaning
☒ Contactors condition	☒ Suction pressure & temperature	☒ Water cooled chiller evaporator tube cleaning
☒ Evaporator condition	☒ Oil level & pressure	

Incentive Eligibility

- Incentives are only available to customers on Duke Energy Ohio non-residential rate.
- Duke Energy Customers who purchase electric generation from an alternative supplier are eligible to participate.
- Incentive will not be paid until eligible equipment has been installed, is available to operate, and verification has been completed by Duke Energy staff as noted in the Term & Conditions stated below.
- Duke Energy reserves the right to revise incentive levels and/or qualifying efficiency levels at anytime.
- Customer may assign the incentive to the vendor who installed/supplied the equipment. The customer's signature is required in the appropriate places on this form to assign the incentive to the vendor. Customer agrees that such an action constitutes an irrevocable assignment of the incentive. This assigned incentive must reduce the purchase price paid for the equipment by an equivalent amount.
- Any equipment which, either separately or as part of a project, has or will receive an incentive from any other Duke Energy program
- In no case will Duke Energy pay an incentive above the actual cost of the service.
- Incentive recipient assumes all responsibilities for any tax consequences resulting from Duke Energy incentive payment.
- To qualify for Duke Energy incentives, applicants who provide their social security number as their federal tax identification number for tax purposes must sign and return the "Customer consent to release personal information" form ("Consent Form") along with the application. Incentive applications are processed by a 3rd party vendor. The 3rd party vendor is responsible for mailing the 1099 form at the end of the calendar year for tax filing. Duke Energy and the 3rd party vendor have signed a confidentiality agreement to protect your personal information. If your social security number is your federal tax ID number and you elect not to sign the Consent Form, please do not send Duke Energy the application, as you will not be qualified to participate in the incentive program.

Engineering Excellence
Optimizing Your ENERGY Solutions

INVOICE

SOLD BY	PURCHASED BY / INSTALLATION ADDRESS
Engineering Excellence Regional Services LLC	Oncology Hematology
10 Knollcrest Dr.	8000 Five Mile Rd. Suite 100
Cincinnati, OH 45237	Cincinnati, OH 45230

DUKE ENERGY ACCOUNT #	5690-0711-32-3
DATE	3/29/2010

**Fields Not Required*

Incentive that Product is Eligible For

QTY	DESCRIPTION	MODEL NUMBER	**TYPE*	**GENERAL*	SPECIFIC INCENTIVE	UNIT PRICE	**LINE TOTAL*
1	Arctichill Chiller Maintenance	MPC-A-050	Chillers_Thermal Storage	Central_Air_Unit	Unitary Air Conditioning	534.00	534.00
1	Technical Systems Div Chiller Maintenance	30A035SPT	Chillers_Thermal Storage	Central_Air_Unit	Unitary Air Conditioning	890.00	890.00

**SUBTOTAL*	$ 1,424.00
**SALES TAX*	-
**TOTAL*	**$ 1,424.00**

Engineering Excellence
Optimizing Your ENERGY Solutions

INVOICE

SOLD BY	PURCHASED BY / INSTALLATION ADDRESS
Engineering Excellence Regional Services LLC	Oncology Hematology
10 Knollcrest Dr.	8000 Five Mile Rd. Suite 100
Cincinnati, OH 45237	Cincinnati, OH 45230

DUKE ENERGY ACCOUNT #	5690-0711-32-3
DATE	7/28/2009

**Fields Not Required*

Incentive that Product is Eligible For

QTY	DESCRIPTION	MODEL NUMBER	**TYPE*	**GENERAL*	SPECIFIC INCENTIVE	UNIT PRICE	**LINE TOTAL*
1	Arctichill Chiller Maintenance	MPC-A-050	Chillers_Thermal Storage	Central_Air_Unit	Unitary Air Conditioning	534.00	534.00
1	Technical Systems Div Chiller Maintenance	30A035SPT	Chillers_Thermal Storage	Central_Air_Unit	Unitary Air Conditioning	890.00	890.00

**SUBTOTAL*	$ 1,424.00
**SALES TAX*	-
**TOTAL*	**$ 1,424.00**

Engineering Excellence
Optimizing Your ENERGY Solutions

INVOICE

SOLD BY	PURCHASED BY / INSTALLATION ADDRESS
Engineering Excellence Regional Services LLC	Oncology Hematology
10 Knollcrest Dr.	2350 Malsbary
Cincinnati, OH 45237	Cincinnati, OH 45242

DUKE ENERGY ACCOUNT #	4740-0392-21-4
DATE	10/23/2009

**Fields Not Required*

Incentive that Product is Eligible For

QTY	DESCRIPTION	MODEL NUMBER	**TYPE*	**GENERAL*	SPECIFIC INCENTIVE	UNIT PRICE	**LINE TOTAL*
1	Motive Aire 10 Ton Chiller Maintenance	MPC-A-050	Chillers_Thermal Storage	Chiller Tune Up	Chiller Tune Up	3,109.80	3,109.80
1	Filtrine Chiller 10 Ton Chiller Maintenance	PCP-300G-44AWP	Chillers_Thermal Storage	Chiller Tune Up	Chiller Tune Up	3,109.80	3,109.80

**SUBTOTAL*	$ 6,219.60
**SALES TAX*	-
**TOTAL*	**$ 6,219.60**

Engineering Excellence
Optimizing Your ENERGY Solutions

INVOICE

SOLD BY	PURCHASED BY / INSTALLATION ADDRESS
Engineering Excellence Regional Services LLC	Oncology Hematology
10 Knollcrest Dr.	2960 Mack Rd.
Cincinnati, OH 45237	Cincinnati, OH 45014

DUKE ENERGY ACCOUNT #	7050-0803-21-3
DATE	11/2/2009

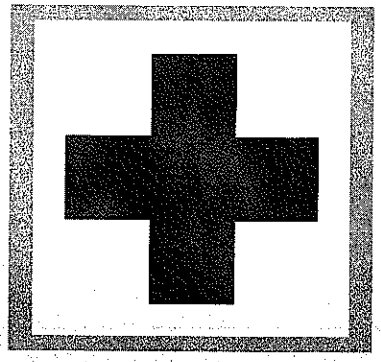
**Fields Not Required*

Incentive that Product is Eligible For

QTY	DESCRIPTION	MODEL NUMBER	**TYPE*	**GENERAL*	SPECIFIC INCENTIVE	UNIT PRICE	**LINE TOTAL*
1	Motive Aire 10 Ton Chiller Maintenance	MPC-A-050	Chillers_Thermal Storage	Chiller Tune Up	Chiller Tune Up	612.00	612.00

**SUBTOTAL*	$ 612.00
**SALES TAX*	-
**TOTAL*	**$ 612.00**

motivair *Medical Chillers*



Picker CT Scanner:

Model: MPC-A 0500 – M526

Cooling Capacity:

Fluid Type:	Water
Nominal Fluid Flow Rate (GPM):	13
Chilled Water Inlet Temp (°F):	63
Chilled Water Outlet Temp (°F):	53
Capacity of Chiller (BTU/H):	52,100*
Ambient (°F):	95
Location:	Indoors/Outdoors

System Design:

A closed loop packaged medical chiller designed specifically to supply cool water for a Picker CT Scanner. This packaged medical chiller contains its own refrigeration plant, circulation pump(s), closed storage reservoir and non-proprietary microprocessor control system for single source reliability and control of the cooling system.

The incorporation of a pressure rated stainless steel storage tank allows for maximized energy efficiency as well as consistent water supply temperatures to the medical equipment during fluctuating load cycles. An oversized storage tank allows the chiller to create its own system volume, thus eliminating the risk of short cycling compressors.

Designed for optimal flexibility, a wide variety of options are available so that each Motivair Medical Chiller can be designed for the customer's specific system requirements.

EQUIPMENT SPECIFICATIONS:

Motivair Model MPC-A 0500 – M526 Air-Cooled Medical Chiller

Refrigeration System:

- One (1) hermetically sealed, permanently lubricated scroll compressor with R-22 refrigerant
- Liquid line sight glass
- Refrigeration filter dryer
- Liquid line solenoid valve
- Glycerin filled discharge & suction refrigeration pressure gauges
- High efficiency, stainless steel, brazed plate evaporator
- Air cooled, copper tube, aluminum fin condenser coil

- Condenser coil guard for protection against extreme elements
- One (1) low noise condenser fans with TEAO reverse stator motors and cast aluminum fan blades
  - Adjustable fan pressure switch for consistent head pressure control
  - Internal and external fan guard assemblies

Hydraulic System:

- 1" NPT Inlet and Outlet water connections
- Qty one (1) stainless steel centrifugal circulation pump with TEFC 1 HP motor
  - 13 GPM at 38 PSI
- Discharge pump pressure gauge.
- Standard fail-safe flow switch included
- Full Flow Bypass assembly with hydraulic pressure relief valve and discharge water throttling valve.
- On-board, 316 stainless steel 20-gallon storage reservoir with:
  - Manual vent
  - Manual drain and fill ports
  - High density closed cell thermal insulation

Electrical and Controls System:

- Standard 460/3/60 power
  - *Full Load Amps (FLA): 12.5 Amps*
  - *Minimum Circuit Ampacity (MCA): 14.65 Amps*
  - *Maximum Over-current Protection (MOP): 23.25 Amps*
- NEMA 3-R control cabinet with 24 volt control power
  - Locking disconnect switch
- Non proprietary, 24 volt, programmable microprocessor control system with:
  - LED display, FLASH memory & simple push button controls
  - 3 Levels of security: User/Technician/Factory
  - ***Controls:***
    - Adjustable water temperature set point
    - Adjustable high and low water temperature threshold
    - Leaving or return water temperature display
    - Anti compressor short cycle system
    - Available Modbus connectivity (not included)
    - Remote start/stop relay – dry contact
    - Available fully functional remote control panel (not included)
    - °F or °C display capability
  - ***Alarms:***
    - High and Low refrigeration pressure alarms
    - High and Low water temperature alarms
    - Low water flow alarm
    - Adjustable anti-freeze alarm
    - Over/Under voltage alarm
    - Sensor failure alarm
    - Microprocessor malfunction alarm
    - General alarm relay – dry contact

Cabinet:

- Standard outdoor weatherproof design
- Heavy gauge galvanized steel frame finished with a backed powder epoxy finish
- Heavy gauge removable aluminum access panels
- Designed for easy fork lift or crane rigging installation

Weights:

- Shipping Weight: 616 lbs
- Installed Weight: 805 lbs

Sound Data:

- 63 dBA – *Measured 10' from the condenser, 3' off the ground in an open field*

Dimensions:

- Length: 35" Width: 30" Height: 61"

Certifications: ETL, MEA, CE

***NOTE:** Manufacturer reserves the right to change specifications without notice. Consult factory or local distributor before final selection.

Available Options:

City Water Bypass Panel:

Designed for integration with the standard chiller control system. The city water bypass panel allows city water to cool the medical equipment in the event of a chiller alarm thus guaranteeing seamless critical cooling under any circumstance. The city water bypass panel is completely automated and can be specified with temperature and pressure gauges, filtration packages and flow meter devices.

Non-CFC refrigerant:

- *Available R-407C or R-134A refrigerants. Note: Alternate refrigerants may effect cooling capacity*

Low Ambient Package:

- *Allows operation of refrigeration plant down to -20°F ambient. This system is recommended for any chiller operating in ambient temperatures below 40°F*
- *System includes VFD fan control system designed to maintain constant refrigeration head pressures.*

Remote Control Panel:

- *Fully functional remote control panel allows facility personnel to access and control all functions and alarms of the chiller from a remote location up to 1500' from chiller. Available in wall-mount or panel-mount versions.*

Modbus Communication Platform:

- *Modbus expansion card for standard Microprocessor allows connection from chiller to building management system.*

Remote Air-Cooled Condenser System:

- *The chiller is supplied with a freestanding remote air-cooled condenser, suitable for outside operation. The system includes one (1) or more fans with direct-drive, weatherproof motors. Head pressure control is achieved by way of fan staging, fan speed control or a combination of both. The condenser is supplied complete with NEMA 3R control panel, which shall contain fan contactors, fusing and/or variable frequency drive control with low ambient heater and thermostat.*

Centrifugal Fans:

- *Centrifugal fans may be selected for installation of an air-cooled chiller indoors. The fans are suitable for ducting warm condenser air out of the building. Consult factory for available external static pressure of fans.*

High Ambient Option:

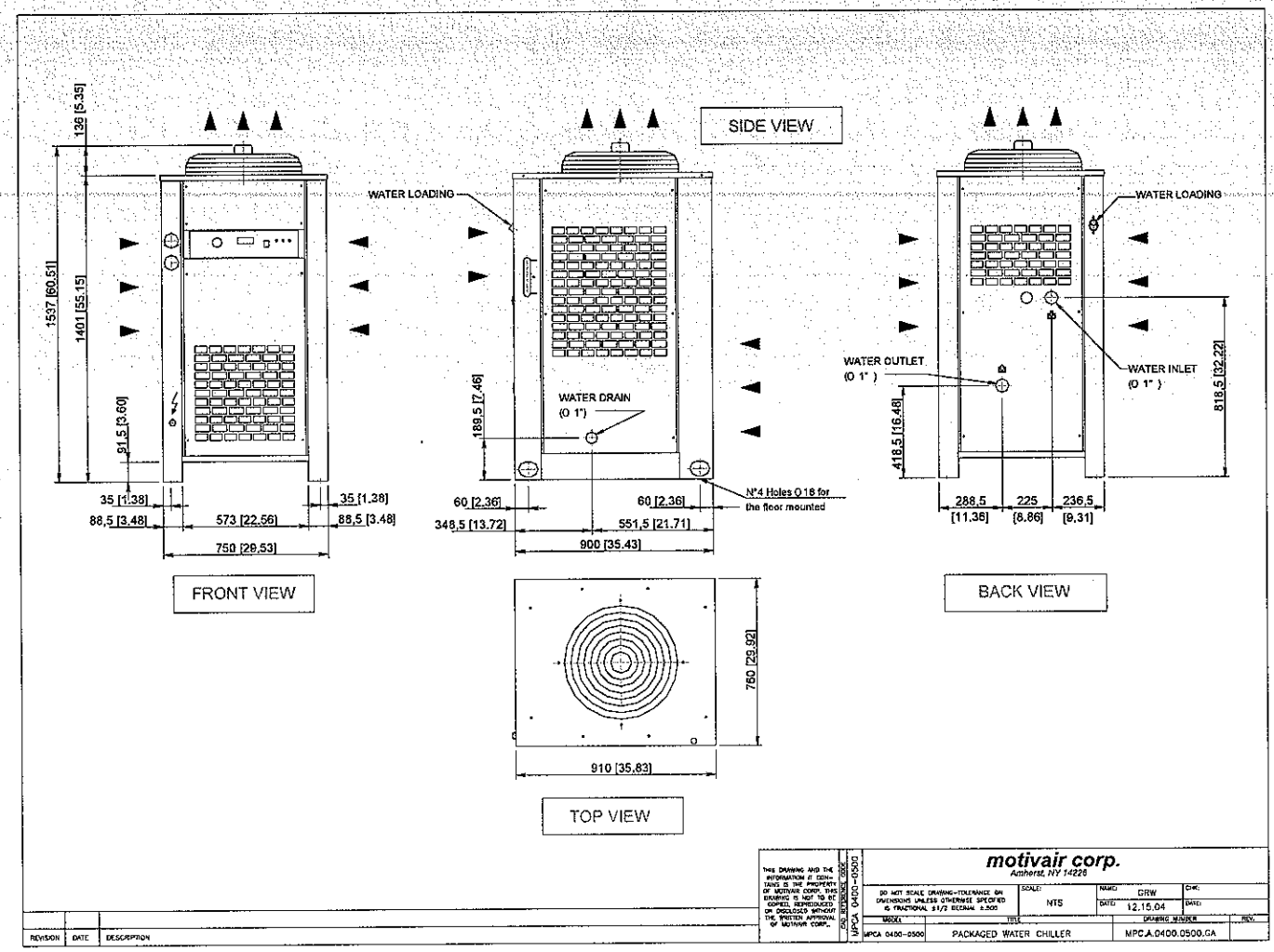
- *High ambient packages include R-134A refrigerant as a standard. Additional upgrades include oversized condenser coils, larger condenser fans and a control cabinet cooling system. Ambient operation above 115°F.*

Water-Cooled Condenser:

- *All MPC machines can be supplied in a water-cooled configuration. These machines feature shell and tube condensers with adjustable water regulating valve*

Dimensional Drawing:

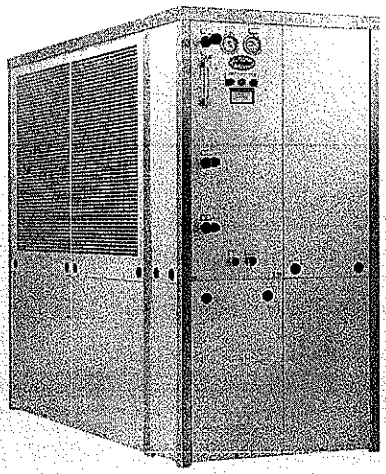
Preliminary



Motivair Corporation
25 John Glenn Drive
Amherst, New York, 14228
Tel: 716-689-0222
Fax: 716-689-0073

Filtrine
SINCE 1901

RECIRCULATING LOOP CHILLERS



TYPICAL CHILLER SHOWN

MODEL ..... PCP or POC-300G

HERMETIC SCROLL MODELS

DESCRIPTION

Recirculating chillers recirculate a clean coolant at constant temperature and pressure to increase the stability and consistency of water cooled machines and instruments. Air cooled chillers eliminate the use of tap water and prevent clogging and corrosion of small diameter heat exchangers due to rust and scale build-up.

- **PCP -Closed Loop Chillers:** Use a storage type cooling tank, with immersion coil evaporator, to provide close temperature control of recirculating coolants. The tank is sealed to prevent coolant evaporation and fouling, and supplied with a liquid level gauge, fill port and clean out. The pump recirculates coolant at constant pressure and flow, which is adjustable by turning a manual bypass valve.
- **POC - Open Loop Chillers:** Pump liquid from an open tank or sump, through the chiller and back to the sump. An adjustable thermostat senses the make up liquid temperature, cycling the chiller to insure constant temperature in the sump.

APPLICATIONS

Jacket Cooling
Lasers
Induction Heaters
Machine Tools
Welders
MRI Equipment
CAT Scans
Computers
Power Supplies
Vacuum Ovens
Injection Molding
Plasma Spraying
Linear Accelerators
Electron Microscopes

FEATURES

Energy Saving Design
Unlike most process chillers, compressor runs only as needed. Storage design provides close temperature control and safety from freeze-up without constant operation.

Complete Temperature Control
Temperature adjustable within a range of 40° to 90°F (5° to 32°C) and will hold temperature within ±1.5°F (1°C) of setting. (.5°F optional)

Welded Stainless Steel Cooling Tank
Recirculates clean coolant sealed from the atmosphere, eliminates bacterial build-up and internal corrosion.

Uses HFC Refrigerant
Eliminates use of ozone-depleting refrigerant as per Montreal Protocol.

Unlimited Options
Design the perfect cooling system for any application. Over 50 options to meet almost any special need. *Refer to Bulletin O & A.*

LIFETIME LTW WARRANTY

FILTRINE IS ISO 9001-2000 REGISTERED
PRODUCT LINE ETL APPROVED CE MARK AVAILABLE

SPECIFICATIONS

COOLING CAPACITY @ 68°F (20°C) discharge & 90°F (32°C) ambient

MODEL	BTU/HR	WATTS	FLA @ 230 / 460
PCP or POC 300G-36	36,000	10,548	13 / 7
PCP or POC 300G-40	40,000	11,720	14 / 7
PCP or POC 300G-44	44,000	12,892	15 / 8

COMPRESSOR: HP 3
Lifetime lubricated, hermetic scroll type supplied with high/low pressure stat, freeze control, head and suction gauges, pump down solenoid valve, thermostatic expansion valve, refrigerant sight glass and dehydrator.

STANDARD CONDENSERS (Designated by suffix)
- **A**..... Fan cooled condenser for indoor installation.
- **AR**..... Remote Air cooled condenser furnished separately for mounting on roof.
- **W**..... Water cooled condenser for hookup to city or tower water
- **A-WP**..... Self-contained air cooled condenser; complete unit made weather-resistant for outdoor installation

COOLING TANK & EVAPORATOR: Capacity ..... 30 gal (114 l)
Welded stainless steel shell and immersion coil evaporator. Tank tested at 250# for 125# working pressure. Supplied with liquid level gauge and insulated with closed cell thermo-elastomer with an R factor of 3.7.

PUMP: HP 1/2
Capacity ..... 15 gpm (57 lpm) @ 20 psi
Stainless steel centrifugal pump mounted on rubber pads over a stainless steel condensation tray and supplied with unions and service valves and manually adjustable bypass valve. All piping and fittings brass, copper, or bronze and insulated with closed cell thermo-elastomer with an R factor of 3.7.

THERMOSTAT: Adjustable Range ..... 40° to 90°F (5° to 32°C)
Temperature Stability ..... ±1.5°F (1°C)

CABINET: Enameled aluminum panels with stainless steel corner legs and top on a welded angle iron frame. Panels removable for access to all components.

SUPPLY POWER: ..... 208 - 230/60/3 or 460/60/3

PLUMBING CONNECTIONS IN & OUT ..... 3/4" (19mm) MPT

FILTRINE Mfg. Co. • 15 Kit St. Keene, NH 03431 USA
800-930-3367 • 603-352-5500 • FAX 603-352-0330
WEB: www.filtrine.com • EMAIL: cool@filtrine.com

608-3G
(PCP-300G)
REV. C 03.12.09

CHILLER DIMENSIONS & WEIGHTS

FILTRINE MODEL NUMBER	W		D		H		SHIP WT	
	in	cm	in	cm	in	cm	lb	kg
PCP or POC-300G-A	62	157	32	81	48	122	1400	630
PCP or POC-300G-W	62	157	32	81	48	122		
PCP or POC-300G-AR	62	157	32	81	48	122		
PCP or POC-300G-WP	78	198	32	81	60	152		
PCP or POC-300G-WP-LP*	82	208	62	157	30	76		
PCP or POC-300G-A-SSD**	34	86	28	71	78	200		
PCP or POC-300G-W-SSD**	34	86	26	66	72	184		
PCP or POC-300G-AR-SSD**	34	86	26	66	72	184		

* *Low profile, weather-resistant unit for installation on roof*
** *Space saving design*

NOTE: Chiller dimensions and shipping wts. may vary depending on options - confirm with factory.

STANDARD OPERATING CONDITIONS
OUTDOOR AMBIENT
-20° to 100°F (-29° to 38°C)

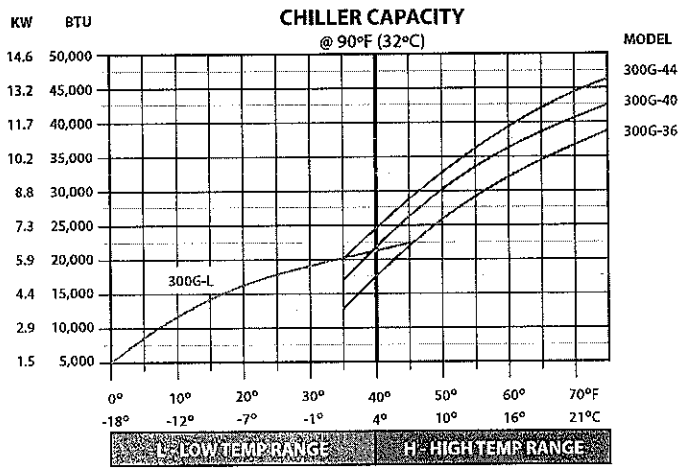
OPTIONAL OPERATING CONDITIONS
OUTDOOR AMBIENT
Up to 110°F (43°C)
Up to to 120°F (49°C)
Down to -30°F (-34°C)
NOTE Higher ambient options may affect unit dimensions.

REMOTE CONDENSER
Use w/Standard Models - Furnished complete w/controls for operating in ambient temperatures to minus 20°F (-29°C), consult factory for specs
Connections for remote condenser are at right end of chiller cabinet.

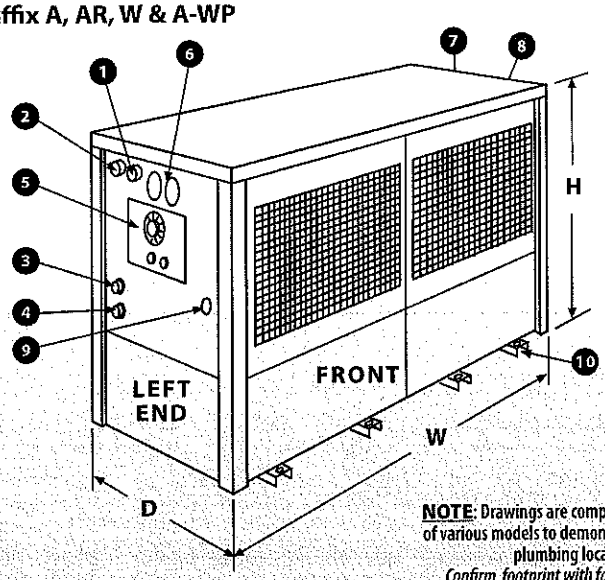
PUMP CAPACITY

MODEL*		GPM @ PRESSURE SHOWN						
	psi	10	20	30	40	60	80	100
	ft	23	46	69	92	138	184	231
STD-1/2C		20	15	8	—	—	—	—
OP-3/4C		50	45	30	—	—	—	—
OP-1C		55	50	40	20	—	—	—
OP-1/2T		8	8	8	8	8	7	6
OP-3/4T		13	13	12	12	11	10	8

* Standard pump is 1/2HP, centrifugal. Optional pumps (OP) include centrifugal (C) or turbine (T) models. All trubine pumps include an adjustable pressure relief bypass in lieu of a manual bypass valve.

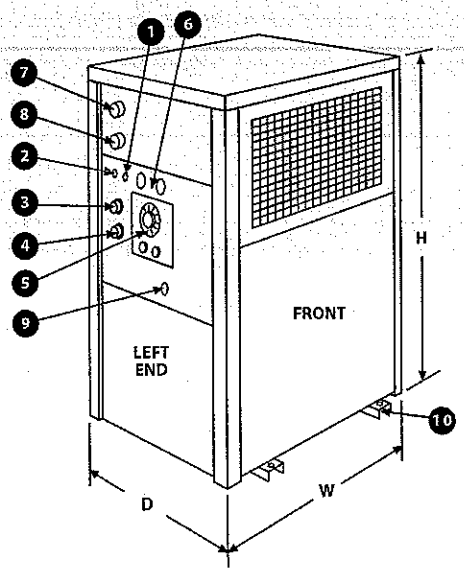


STANDARD MODELS:
Suffix A, AR, W & A-WP



NOTE: Drawings are composites of various models to demonstrate plumbing locations. *Confirm footprint with factory.*

SSD - SPACE SAVING DESIGN MODELS:
Suffix A, AR & W (A-WP not available in SSD model)



LEGEND

1. Air Vent
2. Fill Port
3. Coolant Return
4. Coolant Discharge
5. Control Panel
6. Gauges
7. To Remote Condenser (AR Models) Condenser Water Out (W Models)
8. From Remote Condenser (AR Models) Condenser Water In (W Models)
9. Electrical Connection
10. Channel Skids

VENTILATION PANELS
Standard models — air intake at rear, air discharge at right end and front on A & WP models. Manufacturer recommends 12 inch minimum clear space opposite all ventilation panels.

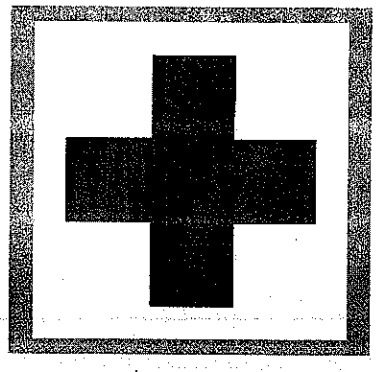
REMOVABLE SERVICE PANELS
Front & rear on all models. Manufacturer recommends 36 inch clearance at front for service.

CHANNEL SKIDS
Channel skids project 2" (5cm) front and rear. Allow additional 2" (5cm) to height for channel skids. Center of 5/8" (16mm) mounting holes located 6" (15cm) from chiller end and 1" (2.5cm) from chiller edge front and rear.

NOTE: Information given in this bulletin for general use only. Confirm exact specs with factory for your specific requirements.

FILTRINE Mfg. Co. • 15 Kit St. Keene, NH 03431 USA
800-930-3367 • 603-352-5500 • FAX 603-352-0330
WEB: www.filtrine.com • EMAIL: cool@filtrine.com

motivair *Medical Chillers*



Picker CT Scanner:

Model: MPC-A 0500 – M526

Cooling Capacity:

Fluid Type:	Water
Nominal Fluid Flow Rate (GPM):	13
Chilled Water Inlet Temp (°F):	63
Chilled Water Outlet Temp (°F):	53
Capacity of Chiller (BTU/H):	52,100*
Ambient (°F):	95
Location:	Indoors/Outdoors

System Design:

A closed loop packaged medical chiller designed specifically to supply cool water for a Picker CT Scanner. This packaged medical chiller contains its own refrigeration plant, circulation pump(s), closed storage reservoir and non-proprietary microprocessor control system for single source reliability and control of the cooling system.

The incorporation of a pressure rated stainless steel storage tank allows for maximized energy efficiency as well as consistent water supply temperatures to the medical equipment during fluctuating load cycles. An oversized storage tank allows the chiller to create its own system volume, thus eliminating the risk of short cycling compressors.

Designed for optimal flexibility, a wide variety of options are available so that each Motivair Medical Chiller can be designed for the customer's specific system requirements.

EQUIPMENT SPECIFICATIONS:

Motivair Model MPC-A 0500 – M526 Air-Cooled Medical Chiller

Refrigeration System:

- One (1) hermetically sealed, permanently lubricated scroll compressor with R-22 refrigerant
- Liquid line sight glass
- Refrigeration filter dryer
- Liquid line solenoid valve
- Glycerin filled discharge & suction refrigeration pressure gauges
- High efficiency, stainless steel, brazed plate evaporator
- Air cooled, copper tube, aluminum fin condenser coil

- Condenser coil guard for protection against extreme elements
- One (1) low noise condenser fans with TEAO reverse stator motors and cast aluminum fan blades
  - Adjustable fan pressure switch for consistent head pressure control
  - Internal and external fan guard assemblies

Hydraulic System:

- 1" NPT Inlet and Outlet water connections
- Qty one (1) stainless steel centrifugal circulation pump with TEFC 1 HP motor
  - 13 GPM at 38 PSI
- Discharge pump pressure gauge.
- Standard fail-safe flow switch included
- Full Flow Bypass assembly with hydraulic pressure relief valve and discharge water throttling valve.
- On-board, 316 stainless steel 20-gallon storage reservoir with:
  - Manual vent
  - Manual drain and fill ports
  - High density closed cell thermal insulation

Electrical and Controls System:

- Standard 460/3/60 power
  - *Full Load Amps (FLA): 12.5 Amps*
  - *Minimum Circuit Ampacity (MCA): 14.65 Amps*
  - *Maximum Over-current Protection (MOP): 23.25 Amps*
- NEMA 3-R control cabinet with 24 volt control power
  - Locking disconnect switch
- Non proprietary, 24 volt, programmable microprocessor control system with:
  - LED display, FLASH memory & simple push button controls
  - 3 Levels of security: User/Technician/Factory
  - ***Controls:***
    - Adjustable water temperature set point
    - Adjustable high and low water temperature threshold
    - Leaving or return water temperature display
    - Anti compressor short cycle system
    - Available Modbus connectivity (not included)
    - Remote start/stop relay – dry contact
    - Available fully functional remote control panel (not included)
    - °F or °C display capability
  - ***Alarms:***
    - High and Low refrigeration pressure alarms
    - High and Low water temperature alarms
    - Low water flow alarm
    - Adjustable anti-freeze alarm
    - Over/Under voltage alarm
    - Sensor failure alarm
    - Microprocessor malfunction alarm
    - General alarm relay – dry contact

Cabinet:

- Standard outdoor weatherproof design
- Heavy gauge galvanized steel frame finished with a backed powder epoxy finish
- Heavy gauge removable aluminum access panels
- Designed for easy fork lift or crane rigging installation

Weights:

- Shipping Weight: 616 lbs
- Installed Weight: 805 lbs

Sound Data:

- 63 dBA – *Measured 10' from the condenser, 3' off the ground in an open field*

Dimensions:

- Length: 35" Width: 30" Height: 61"

Certifications: ETL, MEA, CE

***NOTE:** Manufacturer reserves the right to change specifications without notice. Consult factory or local distributor before final selection.*

Available Options:

City Water Bypass Panel:

Designed for integration with the standard chiller control system. The city water bypass panel allows city water to cool the medical equipment in the event of a chiller alarm thus guaranteeing seamless critical cooling under any circumstance. The city water bypass panel is completely automated and can be specified with temperature and pressure gauges, filtration packages and flow meter devices.

Non-CFC refrigerant:

- *Available R-407C or R-134A refrigerants. Note: Alternate refrigerants may effect cooling capacity*

Low Ambient Package:

- *Allows operation of refrigeration plant down to -20°F ambient. This system is recommended for any chiller operating in ambient temperatures below 40°F*
- *System includes VFD fan control system designed to maintain constant refrigeration head pressures.*

Remote Control Panel:

- *Fully functional remote control panel allows facility personnel to access and control all functions and alarms of the chiller from a remote location up to 1500' from chiller. Available in wall-mount or panel-mount versions.*

Modbus Communication Platform:

- *Modbus expansion card for standard Microprocessor allows connection from chiller to building management system.*

Remote Air-Cooled Condenser System:

- *The chiller is supplied with a freestanding remote air-cooled condenser, suitable for outside operation. The system includes one (1) or more fans with direct-drive, weatherproof motors. Head pressure control is achieved by way of fan staging, fan speed control or a combination of both. The condenser is supplied complete with NEMA 3R control panel, which shall contain fan contactors, fusing and/or variable frequency drive control with low ambient heater and thermostat.*

Centrifugal Fans:

- *Centrifugal fans may be selected for installation of an air-cooled chiller indoors. The fans are suitable for ducting warm condenser air out of the building. Consult factory for available external static pressure of fans.*

High Ambient Option:

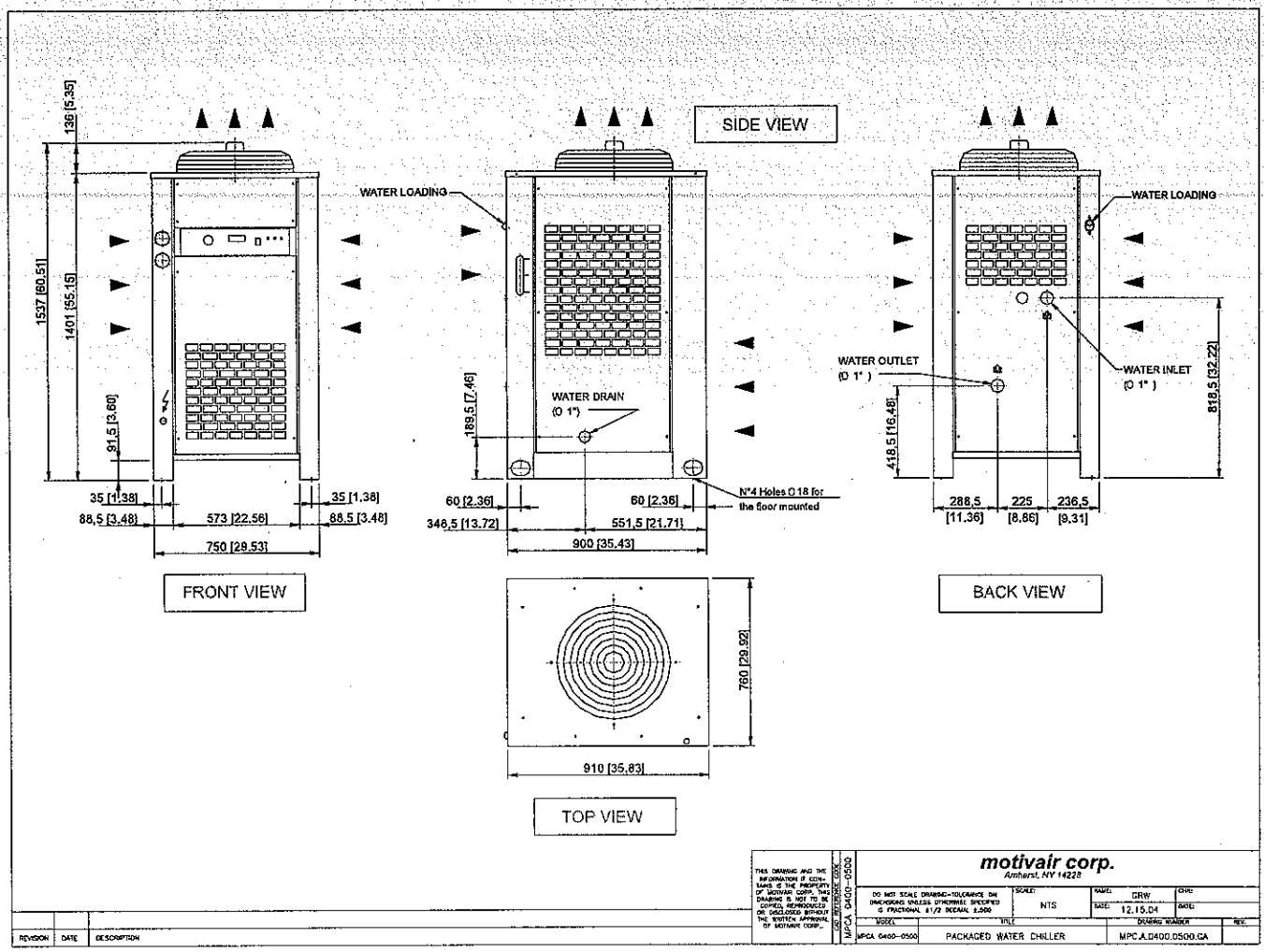
- *High ambient packages include R-134A refrigerant as a standard. Additional upgrades include oversized condenser coils, larger condenser fans and a control cabinet cooling system. Ambient operation above 115°F.*

Water-Cooled Condenser:

- *All MPC machines can be supplied in a water-cooled configuration. These machines feature shell and tube condensers with adjustable water regulating valve*

Dimensional Drawing:

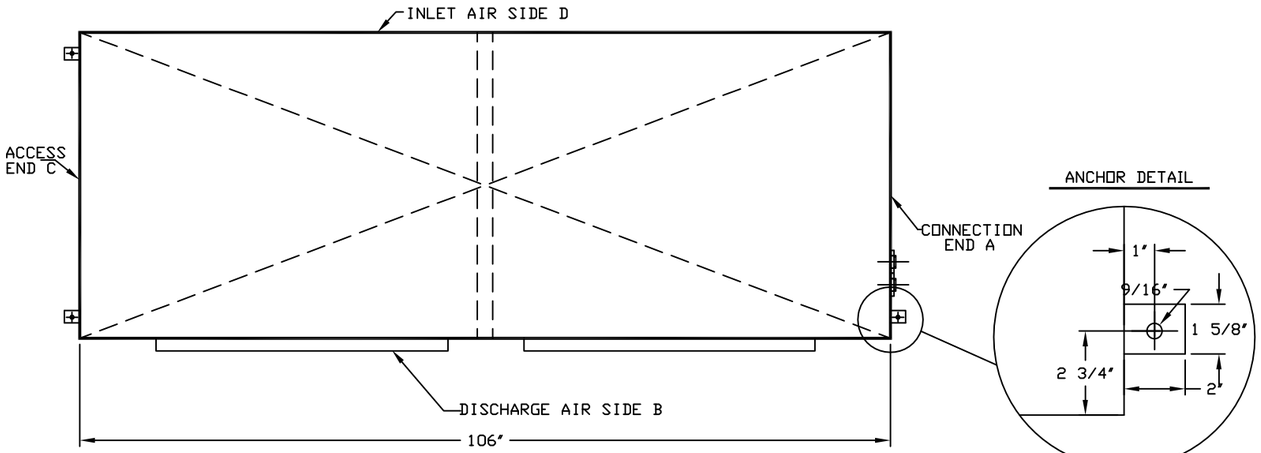
Preliminary

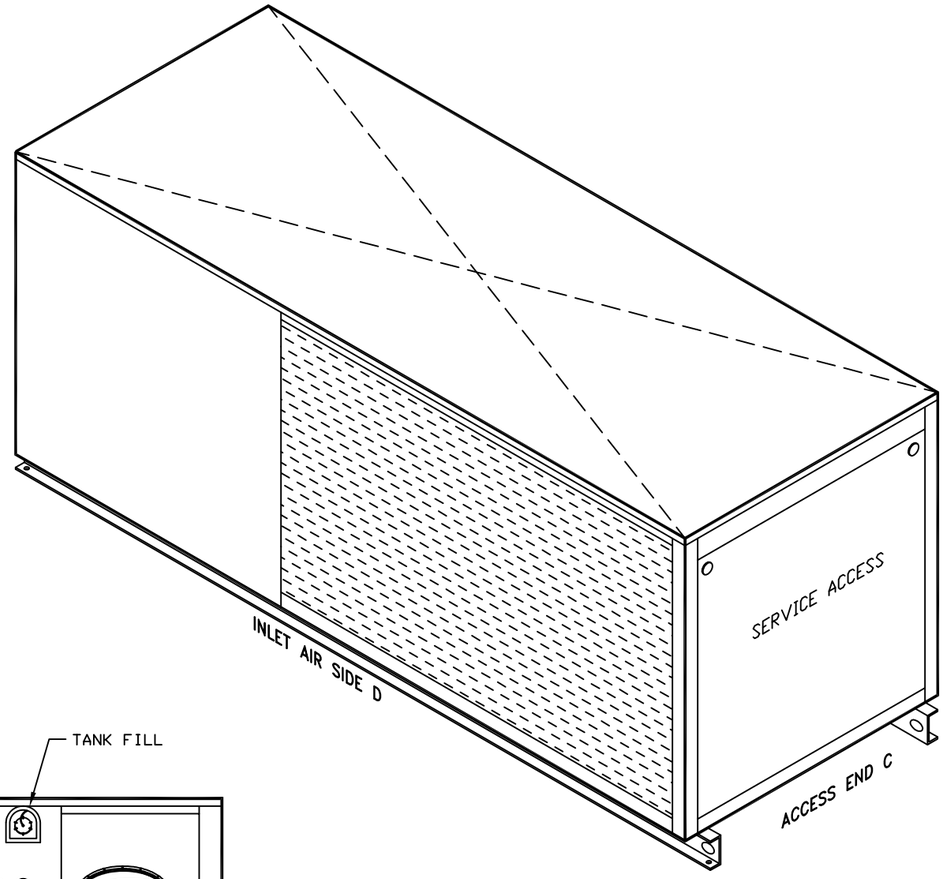


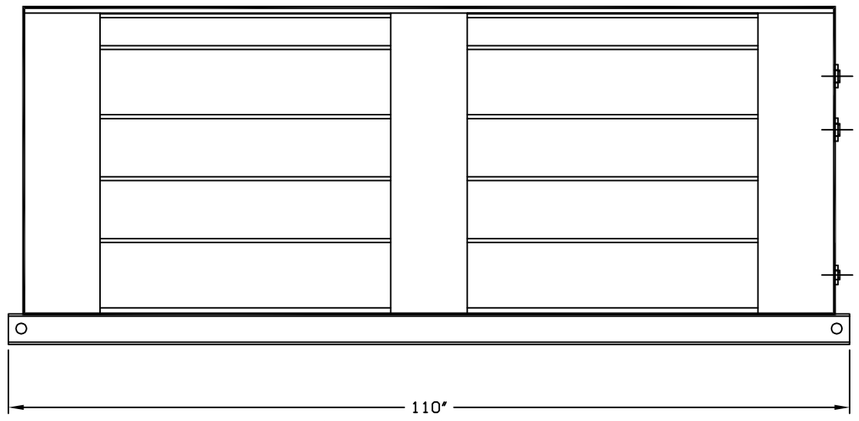
Motivair Corporation
25 John Glenn Drive
Amherst, New York, 14228
Tel: 716-689-0222
Fax: 716-689-0073

NOTES:

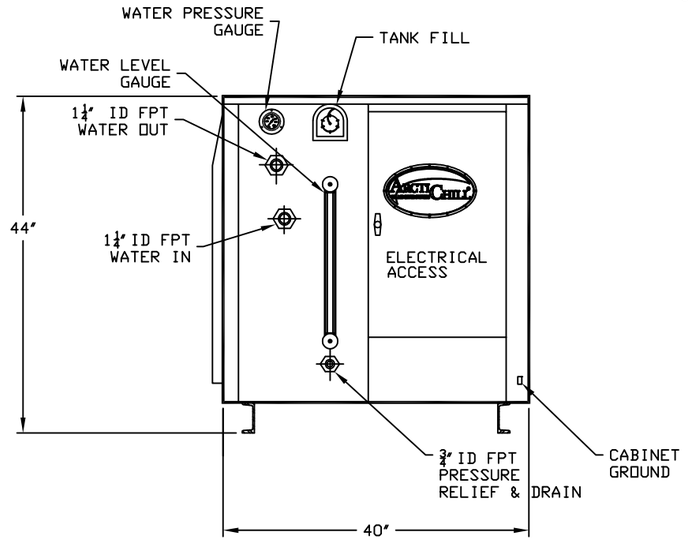
1. 36" CLEARANCE REQUIRED FOR INLET AIR THROUGH CONDENSER COIL.
2. 48" REQUIRED FOR DISCHARGE AIR FROM FAN.
3. ANCHOR BOLT HOLES ARE FOR ANCHORING CHILLER, NOT FOR LIFTING PURPOSES.





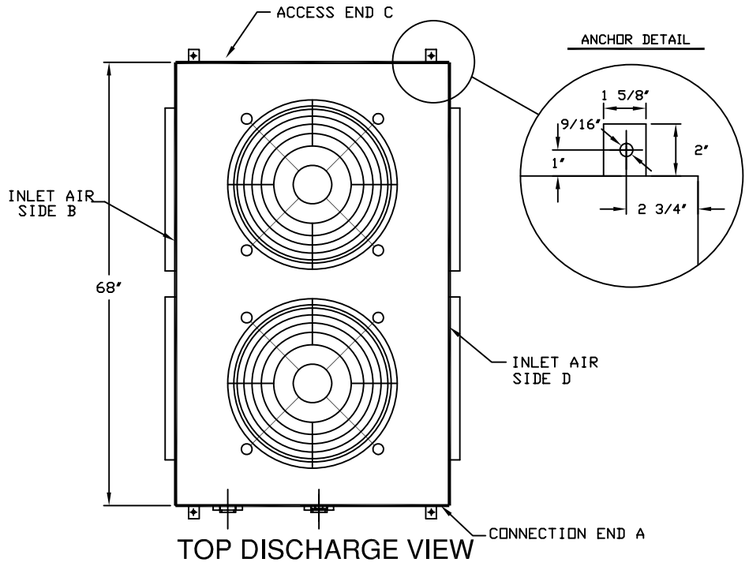


DISCHARGE AIR SIDE B VIEW



CONNECTION END A VIEW

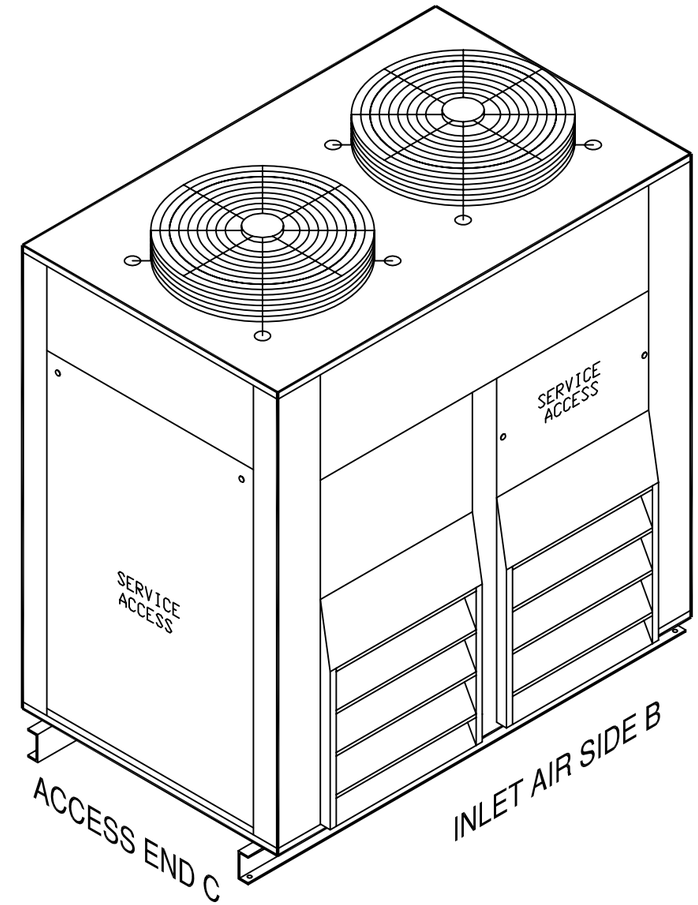
ARCTICHILL CHILLED WATER SYSTEMS	TITLE: *MEDICAL 7 1/2 TON AIR COOLED HORIZONTAL DISCHARGE HORIZONTAL PACKAGE CHILLER PHYSICAL DIMENSIONS*	ENGINEER:			DWG# C1
		CUSTOMER:			
		JOB:			
		DRAWN BY: CW	REV: 1	REV BY:	DATE: 04/05/11	SCALE: NTS
	MODEL: *MACHPH0075S4*	FILE PATH: ACADDWGS\MEDICAL\MACHPH\MACHPH75\460\CABINET\7TON_C1			

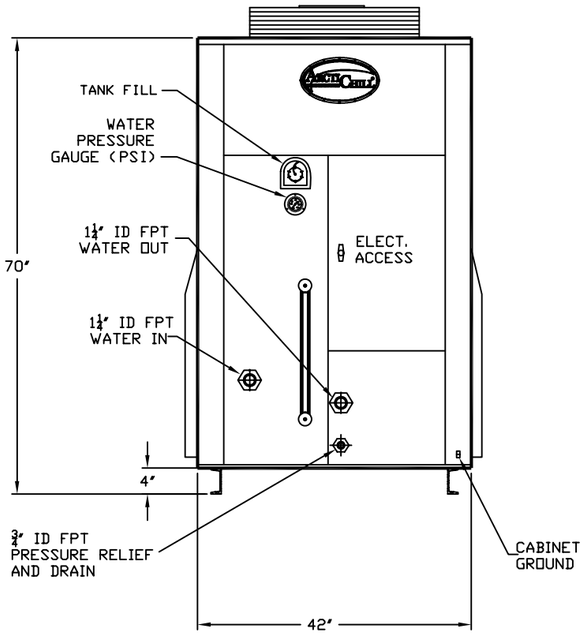


TOP DISCHARGE VIEW

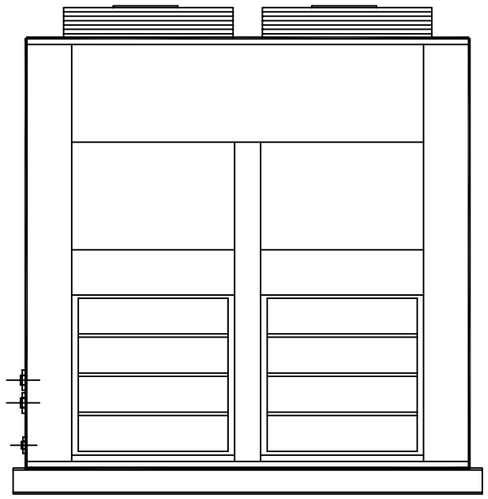
NOTES:

1. 36" CLEARANCE REQUIRED FOR INLET AIR THROUGH CONDENSER COIL.
2. 48" REQUIRED FOR DISCHARGE AIR FROM FAN.





CONNECTION END A VIEW



INLET AIR SIDE D VIEW

ARCTICHILL
CHILLED WATER SYSTEMS

TITLE: *MEDICAL 7 1/2 TON AIR COOLED VERTICAL DISCHARGE VERTICAL PACKAGE CHILLER PHYSICAL DIMENSIONS*

MODEL: *MACVPV0075S4-DS*

ENGINEER:

CUSTOMER:

JOB:

DRAWN BY: CW | REV: | REV BY: | DATE: 02/11/11 | SCALE: NTS

DWG# C1

FILE PATH: ACADDWGS\MEDICAL\MACVPV\MACVPV75\SINGLE\460\CABINET\75TON_C1

OHC
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AND BLOOD DISORDERS

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D. Randolph Drosick, M.D.
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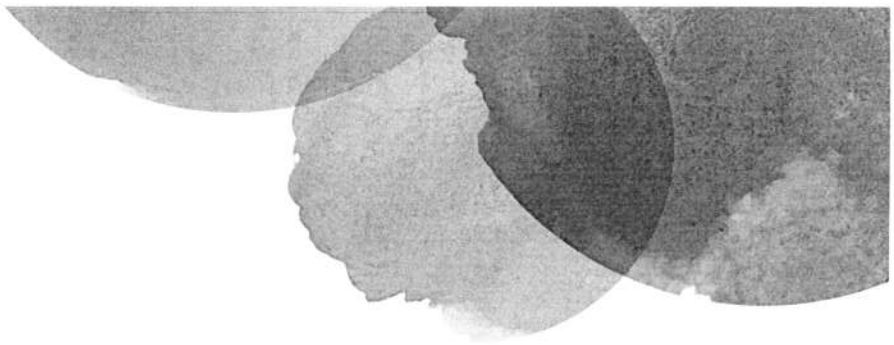
Neurologic Oncology
Prasad Kudalkar, M.D.

Founder
Richard L. Levy, M.D., Retired



Duke Energy:

The below listed companies are all a part of Oncology Hematology Care which is a single company. All of these buildings are all owned and managed together under one company.

Oncology Consultants – 199 William Howard Taft -342,880 kWh for 12 months – Account number 6060-2092-01-4

Malsbary Medical, LLC – 4350 Malsbary Rd. Cincinnati, OH - 1,073,714 kWh for 12 months – Account number 4740-0392-21-4

Oncology Hematology Care – 630 W Main St. Wilmington, OH - 475,986 kWh for 12 months – Account number 6100-3645-02-8

Oncology Hematology – 2960 Mack Rd. Cincinnati, OH – Account number 7050-0803-21-3

Oncology – 5053 Wooster Pike Cincinnati, OH – Account number 6100-3645-02

Thanks,

David Ritter
Director, Procurement & Facilities Management
August 10, 2012

5053 Wooster Road
Cincinnati, OH 45226

p: 513-751-2273 / 888-649-4800 (toll free)
f: 513-751-2138 w: ohcare.com