



Case No.: 14-1896-EL-EEC

Mercantile Customer: Miller Coors LLC

Electric Utility: **Duke Energy**

Program Title or Description: Feedwater Pump, CUSTOM

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: **Miller Coors LLC**

Principal address: **2525 Wayne Madison Rd.
Trenton, OH 45067**

Address of facility for which this energy efficiency program applies:

**2993 Woodsdale Rd
Trenton, OH 45067**

Name and telephone number for responses to questions:

Megan Fox, (515)581-7651

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 for documentation.**)
- The customer is part of a national account involving multiple facilities in one or more states. (Please attach documentation.)

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)).

Replaced boiler feedwater pump which was oversized in March 2014

- 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: 2,188,470 kWh
Refer to Appendix B for calculations and supporting document

- 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.

Annual savings: _____kWh

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?

Sample - The new equipment was installed in April 2012

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

249 kW

Refer to Appendix B for calculations and supporting documentation.

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 **\$24,000. Refer to Appendix C for documentation.** (Rebate shall not exceed 50% project cost.)

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 **10.94** (Skip to Subsection 2.) **Refer to Appendix D for calculations and supporting documents.**

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 **\$1,354,910**.

The utility's program costs were **\$99,819**.

The utility's incentive costs/rebate costs were **\$24,000**.

Refer to Appendix D for calculations and supporting documents.

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.

Account #: 24400870 01

MILLER BREWING CO
2525 WAYNE MADISON RD
TRENTON, OH 45067

Date	Days	Actual KWH	Bill KWH
4/3/2014	29	8,234,559	8,358,077
3/5/2014	29	8,114,026	8,235,736
2/4/2014	29	7,807,404	7,924,515
1/6/2014	33	8,042,187	8,162,820
12/4/2013	34	9,452,062	9,593,843
10/31/2013	29	8,338,055	8,463,126
10/2/2013	29	8,572,596	8,701,185
9/3/2013	32	9,821,474	9,968,796
8/2/2013	30	9,667,763	9,812,779
8/2/2013	30	9,667,763	9,812,779
7/3/2013	29	9,247,916	9,386,635
6/4/2013	32	9,640,639	9,785,248
5/3/2013	29	8,246,926	8,370,630
4/4/2013	30	8,041,357	8,161,977
3/5/2013	29	7,783,972	7,900,732
2/4/2013	31	7,914,194	8,032,907
1/4/2013	32	7,995,876	8,115,814
12/3/2012	33	8,808,918	8,941,052
10/31/2012	29	8,125,096	8,246,972
10/2/2012	32	8,350,116	8,475,368
8/31/2012	29	5,592,868	5,676,761
8/2/2012	30	6,660,680	6,760,590
7/3/2012	29	5,239,043	5,317,629
6/4/2012	32	5,847,160	5,934,867
5/3/2012	30	4,896,092	4,969,533
4/3/2012	29	4,812,526	4,884,714
3/5/2012	31	4,321,964	4,386,793

Appendix C -Cash Rebate Calculation

MillerCoors LLC VFD Air Handler

Measure	Quantity	Cash Rebate Rate	Cash Rebate
MillerCoors-Boiler FW Pump Upgrade	1	50% of incentive that would be offered by the Smart \$aver Custom program	\$24,000
			\$24,000

Appendix D -UCT Value

MillerCoors LLC VFD Air Handler

Measure	Total Avoided Cost	Program Cost	Incentive	Quantity	Measure UCT
MillerCoors-Boiler FW Pump Upgrade	\$1,354,910	\$99,819	\$24,000	1	10.94
Totals	\$1,354,910	\$99,819	\$24,000	1	

Total Avoided Supply Costs \$1,354,910
 Total Program Costs \$99,819
 Total Incentive \$24,000

Aggregate Application UCT 10.94

**Mercantile Self Direct
Nonresidential Custom Rebate Application
PART 1**



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 1-513-629-5572.

Mercantile customers, defined as using at least 700,000 kWh annually or having an account in multiple locations are eligible for the Mercantile Self Direct program. Indicate which applies:

- a single Duke Energy Ohio account with 700,000 kWh annual usage
- an account with multiple locations

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

Account Number	Annual Usage	Account Number	Annual Usage
2440-0870-07-9	90,000,000		

Self Direct rebates are available for completed Custom projects that have not previously received a Duke Energy Smart Saver® Custom Incentive. Self Direct rebates 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 rules allow for, though do not require, certain projects that are Prescriptive in nature under the Smart Saver program to be evaluated using the Custom process in the Self Direct program. Use the list on page two as a guide to determine which Self Direct program best fits your project(s). Apply for Self Direct projects using the appropriate application forms in conjunction with this cover sheet.

Self Direct Program rules also allow for behaviorally based and/or no cost and low cost projects to receive rebates.

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

<input checked="" type="checkbox"/> All sections of appropriate application(s) are completed	<input checked="" type="checkbox"/> Proof of payment.*	<input checked="" type="checkbox"/> Manufacturer's Spec sheets	<input checked="" type="checkbox"/> Energy model/calculations and detailed inputs for Custom applications
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*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.

**Behavioral energy efficiency and demand reduction projects must be both measurable and verifiable. Provide justification with your application. Rebates for such projects may be small in magnitude.

**Mercantile Self Direct
Nonresidential Custom Rebate Application
PART 1**



Application Type	Prescriptive Measures with Optional Custom Processing	
Heating & Cooling and Window Films, Programmable Thermostats, & Guest Room Energy Management Systems	<input type="checkbox"/> Energy Star Window/Sleeve/Room AC <input type="checkbox"/> Central Air Unit	<input type="checkbox"/> Air Source Heat Pump Water Heater
	<input type="checkbox"/> Setback/Programmable Thermostat <input type="checkbox"/> Guestroom Energy Management Control	<input type="checkbox"/> Window Film
Chillers & Thermal Storage	<input type="checkbox"/> Air Cooled Chiller	<input type="checkbox"/> Water Cooled Chiller
Motors, Pumps and Variable Frequency Drives (VFDs)	<input type="checkbox"/> VFD – Applied to Process Pump <input type="checkbox"/> VFD – Applied to HVAC Pump	<input type="checkbox"/> VFD – applied to HVAC Fan
Food Service	<input type="checkbox"/> ENERGY STAR Hot Food Holding Cabinet <input type="checkbox"/> Night Covers for Display <input type="checkbox"/> ECM Cooler, Freezer, and Display Case Motors <input type="checkbox"/> ENERGY STAR Solid or Glass Door Reach-in Freezer or Refrigerator	<input type="checkbox"/> Anti-Sweat Heater Control <input type="checkbox"/> Cooking Equipment <input type="checkbox"/> ENERGY STAR ICE MACHINE
Process Equipment	<input type="checkbox"/> Engineered Nozzle – COMPRESSED AIR <input type="checkbox"/> Air compressor equipped with VFD	<input type="checkbox"/> Pellet Dryer Duct Insulation
Chiller Tune-ups	<input type="checkbox"/> Air cooled chiller tune-up	<input type="checkbox"/> Water cooled chiller tune-up

Please indicate above any Prescriptive energy conservation measures to be evaluated through the Custom process. Only Prescriptive measures listed above are eligible for this option. To receive a Self Direct Custom rebate, a detailed analysis of pre-project and post-project energy usage and project costs must be included in the application.

Although some Self Direct Prescriptive measures are eligible for evaluation through Custom processes, such an approach may not be most effective for certain measures.

Mercantile Self Direct Nonresidential Custom Rebate Application PART 1



Proposed energy efficiency measures may be eligible for Self-Direct Custom rebates if they clearly reduce electrical consumption and/or demand as compared to the appropriate baseline.

Before you complete this application, please note the following important criteria:

- Submitting this application does not guarantee a rebate will be approved.
- Rebates are based on electricity conservation only.
- Electric demand and/or energy reductions must be well documented with auditable calculations.
- Incomplete applications cannot be reviewed; all fields are required.

Refer to the complete list of Instructions and Disclaimers, beginning on page 6.

Notes on the Application Process

If you have any questions concerning how to complete any portion of the application or what supplementary information is required, please contact your Duke Energy Ohio, Inc account manager or the Duke Energy Self Direct team at 1-866-380-9580.

Every application must include calculations of the baseline electrical usage and the electrical usage of the proposed high-efficiency equipment/system. These calculations are performed and submitted by the Duke Energy Ohio customer, or your designated equipment vendor / engineer. Application Part 2 worksheets and page 6 of this application contain additional guidance on acceptable calculations. *Complex or unique projects may require the use, at the applicant's expense, of modeling software.* Please contact the Duke Energy Self Direct team with questions about these requirements.

If you do not receive an acknowledgement email within 1 day of submitting an application via online, email, or fax, or within 1 week of sending an application via mail, please call 1-866-380-9580. The acknowledgement email will provide with an estimated response time based on an initial assessment of your application. The application review may include some communication to resolve any questions about the project or to request additional information. Applications that are received complete without missing information have a faster review time.

There are two ways to submit your completed application form and excel worksheets.

Email: Complete, sign, scan and send this application form and attachments to:
SelfDirect@duke-energy.com (Note attachment size limit is applicable)

Fax: 513-629-5572

**Mercantile Self Direct
Nonresidential Custom Rebate Application
PART 1**



1. Contact Information (Required)

Duke Energy Customer Contact Information					
Company Name	MillerCoors LLC				
Address	2525 Wayne Madison Rd				
City	Trenton	State	OH	Zip Code	45067
Project Contact					
Title	Sust. and Env. Engr				
Office Phone	513-844-4238	Mobile Phone	513-464-6418	Fax	
E-mail Address	mark.koch@millercors.com				

Equipment Vendor / Contractor / Architect / Engineer Contact Information					
Company Name	Process Pump and Seal				
Address	2993 Woodsdale Rd				
City	Trenton	State	OH	Zip Code	45067
Project Contact	<input checked="" type="checkbox"/> Mr. <input type="checkbox"/> Ms	John Beccaccio			
Title	Sales				
Office Phone	513-988-7000	Mobile Phone	NA	Fax	NA
E-mail Address	john@processpumpandseal.com				

Who is the primary point of contact for technical questions? ¹	
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Payment Information	
If an incentive is awarded, who should receive payment? ²	
<input checked="" type="checkbox"/> Customer <input type="checkbox"/> Vendor (Customer must sign below)	
I hereby authorize payment of incentive directly to the vendor:	
Customer Signature	<i>Mark Koch</i> Date <u>4/15/2014</u> (mm/dd/yyyy)
Tax ID Number for Payee Provide W-9 for Payee	W-9 has already been provided. 26-83387410

¹ Note that if the vendor is the primary point of contact, the customer will still be copied on all application correspondence. If the customer does not wish to be copied, the customer must provide a signed waiver indicating an entity acting as agent for the customer. Duke Energy does not act as agent.

² If payment is to be made to an entity other than the Duke Energy account holder or the vendor, a payment waiver is required and will be provided for customer signature.

**Mercantile Self Direct
Nonresidential Custom Rebate Application
PART 1**



2. Project Information (Required)

A. Please indicate project type:

- New Construction
- Expansion at an existing facility (existing Duke Energy account number)
- Replacing equipment due to equipment failure
- Replacing equipment that is estimated to have remaining useful life of 2 years or less
- Replacing equipment that is estimated to have remaining useful life of more than 2 years
- Behavioral, operational and/or procedural programs/projects

B. Please describe your project, or attach a detailed project description that describes the project.

Repalced a boiler feedwater pump with a much smaller pump. The original pump was oversized and energy was wasted by recirculating large quantities of water. The new pump is sized for current conditions.

C. When did you start and complete implementation?

Start date 12/2013 (mm/yyyy) End date 03/2014 (mm/yyyy)

D. Are you also applying for Self-Direct Prescriptive rebates and, if so, which one(s)³?

No. We are completing this MSD applicaiotn and requestin cancellation of Duke Energy Custom Incentive Application CS013-1592245.

E. Please indicate which worksheet(s) you are submitting for this application (check all that apply):

- Lighting
- Variable Frequency Drive (VFD)
- Compressed Air
- Energy Management System (EMS)
- General (for projects not easily submitted using one of the above worksheets)

F. List all assumptions about the baseline and proposed equipment energy use and operation schedule, or attach a document listing that information. Attach specification sheets for all proposed new equipment. American Marsh miltistage Horizontal Split Case Pump 200 HP.

G. Attach a supplier or contractor estimate, engineer's cost estimate, and/or other equivalent information documenting the Implementation Cost for each project listed in your application. Does the Implementation Cost include any internal labor⁴? NO If yes, please specify which costs are internal labor. 0

³ If your project involves some equipment that is eligible for prescriptive rebates and some equipment that is likely eligible for custom rebates, and if it is feasible to separate the equipment for the energy analysis, then the equipment will be evaluated separately. If it is not feasible to separate the equipment for analysis, then the equipment will be evaluated together in the custom application.

⁴ Internal labor costs cannot be counted in the Incremental Project Cost for purposes of analysis.

**Mercantile Self Direct
Nonresidential Custom Rebate Application
PART 1**



3. Signature

(Required – must be signed by Duke Energy customer)

Customer Consent to Release of Personal Information

I, (insert name) Mark Koch, do hereby consent to Duke Energy disclosing my Duke Energy Ohio, Inc Account Number and Federal Tax ID Number to its subcontractors solely for the purpose of administering Duke Energy Ohio's Mercantile Self-Direct Program. I understand that such subcontractors are contractually bound to otherwise maintain my Duke Energy Ohio, Inc Account Number and Federal Tax ID Number in the strictest of confidence.

I realize that under the rules and regulations of the public utilities commission, I may refuse to allow Duke Energy Ohio, Inc to release the information set forth above. By my signature, I freely give Duke Energy Ohio, Inc permission to release the information designated above.

Application Signature

I certify that I meet the eligibility requirements of the Duke Energy Ohio, Inc Mercantile Self Direct Custom Rebates Program and that all information provided within this application is correct to the best of my knowledge. I agree to the terms and conditions set forth for this program. I certify that the numbers, energy savings, and responses shown on this form are correct. Further, I certify that the taxpayer identification number is current and correct. I am not subject to backup withholding because: (a) I am exempt from backup withholding; or (b) I have not been notified by the IRS that I am subject to backup withholding as a result of a failure to report all interest or dividends; or (c) the IRS has notified me that I am no longer subject to backup withholding. I am a U.S. citizen (includes a U.S. resident alien).

Mark Koch

Duke Energy Ohio, Inc Customer Signature

Print Name Mark Koch

Date 4-15-14

**Mercantile Self Direct
Nonresidential Custom Rebate Application
PART 1**



Checklist for completing the Application

INCOMPLETE APPLICATIONS WILL RESULT IN DELAYS IN DUKE ENERGY PROCESSING YOUR APPLICATION AND NOTIFYING YOU CONCERNING ANY REBATES. Before submitting the application and the required supplementary information, use the following checklist to ensure that your application is complete and the information in the application is accurate. (Note: this checklist is for your use only – do not submit this checklist with your application)

Section No. & Title	Have You:
1. Contact Information	<input type="checkbox"/> Completed the contact information for the Duke Energy customer? <input type="checkbox"/> Completed the contact information for the equipment vendor / project engineer that can answer questions about the technical aspects of the project, if that is a different person than above?
2. Project Information	<input type="checkbox"/> Answered the questions A-G, including providing a description of your project. <input type="checkbox"/> Completed and attached the lighting, compressed air, VFD, EMS and/or General worksheet(s)? <input type="checkbox"/> Attached a supplier or contractor estimate, engineer's cost estimate, and/or other equivalent information documenting the Implementation Cost for each project listed in your application? (Note: self-install costs cannot be included in the Implementation Cost)
3. Signature	<input type="checkbox"/> Signed your name? <input type="checkbox"/> Printed your name? <input type="checkbox"/> Entered the date?
Supplementary information (Required)	<input type="checkbox"/> (If submitting the General Worksheet) attached calculations documenting the energy usage and energy savings for each project listed in your application?

If you have any questions concerning how to complete any portion of the application or what supplementary information is required, please contact:

- your Duke Energy account manager
- or,
- the Duke Energy Self Direct team at 1-866-380-9580.

Submit your completed, signed application with attachments via email or fax:

Email: SelfDirect@duke-energy.com
 Fax: 1-513-629-5572.

**Mercantile Self Direct
Nonresidential Custom Rebate Application
PART 1**



Preferred Customized Calculation Tools

Please refer to the list below of the preferred software tools to use when calculating the baseline electrical usage and the electrical usage of the proposed high-efficiency equipment or system. Click on each software tool to learn more.

Software Tool	Category
<u>eQuest</u>	Nonresidential retrofits and new construction
<u>EnergyPlus</u>	Nonresidential retrofits and new construction; Whole building simulation
<u>Carrier® HAP</u>	HVAC
<u>Trane® Trace™</u>	HVAC
<u>DOE OIT Pumping System Assessment Tool (PSAT)</u>	Pumps
<u>MotorMaster+</u>	Motors
<u>AirMaster</u>	Air compressor systems
<u>Emerson™ Product Selection & Energy Analysis</u>	Refrigeration compressor retrofits using BIN analysis. ² For projects of approximately 250,000 kWh or less.
DOE2.2R	Refrigeration measures
<u>SkyCalc™</u>	Skylighting
<u>BinMaker®</u>	Weather data analysis tool
<u>AFT Fathom</u>	Fluid flow analysis for industrial systems

Mercantile Self Direct Nonresidential Custom Rebate Application PART 1



Instructions/Terms/Conditions

Note: Please keep for your records- do not submit with the application

1. Energy service companies or contractors may assist in preparing the application, but an authorized representative of the customer must sign this application to be eligible to participate in the Mercantile Self Direct Program. Completion of this application does not guarantee the approval of a Self Direct Custom Rebate.
2. Once all documentation requested in this application is received by *Duke Energy Ohio, Inc*, and any follow-up information requested by *Duke Energy* is received, the rebate amount for each Energy Conservation Measure (ECM) will be communicated to the customer. The rebate amount will be based on ECM energy savings and ECM incremental installation cost.
3. All rebates require approval by the Public Utilities Commission of Ohio. *Duke Energy Ohio, Inc* will submit an application for rebate on the customer's behalf upon customer attestation to program terms, conditions and requirements as outlined in the rebate offer letter and upon customer completion of attestation documents required by the Public Utilities Commission of Ohio.
4. *Duke Energy Ohio, Inc* will issue a Self Direct Custom Rebate check, based on the approved rebate amount for each ECM, upon receiving approval from the Public Utilities Commission of Ohio. *Duke Energy Ohio, Inc* does not guarantee PUCO approval.
5. With the application, the customer must provide a list of all sites where the ECMs were installed. *Duke Energy Ohio, Inc* requests that sites of similar size, hours of operation and energy consuming characteristics be grouped together in one application for the determination of the rebate amount. The application should identify the site where each unique ECM was installed.
6. Based on the information submitted with the application and the information gathered both before and after the initial installation of the ECM, *Duke Energy Ohio, Inc* will calculate the rebate amount for each ECM.
7. *Duke Energy Ohio, Inc* may conduct random site inspections of a sample of the locations where the ECMs are installed to verify installation and operability of the ECMs and to obtain information needed to calculate the Approved Rebate Amount.
8. Customers are encouraged to retain copies of all forms, invoices and supporting documentation for their records.
9. Approved rebates are valid for 6 months from the date communicated to the customer by *Duke Energy Ohio, Inc*, subject to the expiration of measure eligibility based on project completion dates and application submission deadlines as defined by PUCO. Customers are encouraged to execute their rebate offer contracts and PUCO-required affidavits promptly to ensure eligibility is not forfeited.

**Mercantile Self Direct
Nonresidential Custom Rebate Application
PART 1**



10. *Duke Energy Ohio, Inc* reserves the right to recover all unrecoverable costs associated with the project approval if the customer decides not to execute the rebate contract, after the project is approved by *Duke Energy Ohio, Inc*.
11. Projects financially supported by other funding sources will be evaluated on a case-by-case basis for potential partial funding from *Duke Energy Ohio, Inc*.
12. Participants must be *Duke Energy Ohio, Inc* nonresidential, mercantile customers with the project sites in the *Duke Energy Ohio, Inc* service territory.
13. Customers or trade allies may not use any *Duke Energy* logo without prior written permission.
14. Only trade allies registered with *Duke Energy* are eligible to participate.
15. All equipment must be new. Used or rebuilt equipment is not eligible for rebates. All old existing equipment must be removed on retrofit projects.
16. Disclaimers: *Duke Energy Ohio, Inc*
 - a. does not endorse any particular manufacturer, product or system design within the program;
 - b. will not be responsible for any tax liability imposed on the customer as a result of the payment of rebates;
 - c. does not expressly or implicitly warrant the performance of installed equipment. (Contact your contractor for details regarding equipment warranties.);
 - d. is not responsible for the proper disposal/recycling of any waste generated or obsolete or old equipment as a result of this project;
 - e. is not liable for any damage caused by the installation of the equipment nor for any damage caused by the malfunction of the installed equipment; and
 - f. reserves the right to change or discontinue this program at any time. The acceptance of program applications is determined solely by *Duke Energy Ohio, Inc*.

Feedwater Pump MSD information

4/15/2014

Project Cost \$ 240,371.90

kwh

Before 2,930,400.00

After 882,183.00

Savings 2,048,217.00

Cost per kwh \$ 0.06

Annual Savings \$ 122,893.02

Simple Payback (years) 1.96

Sort Sequence Pattern : Vendor/PO/IO

Company : 0100 MBC / MillerCoors LLC

Plant	Int.	Ord.#	Vendor #	Vendor Name	Budget Area	Pur. Ord.#	Capital Amt.	Purchase Order Expense Amt.	Capital Amt.	Actual Expense Amt.	
08	119486				15-CORP. ENGINEE		0.00	0.00	91,708.4	10,000.00	
08	119486	106827		DEBRA-KUEMPEL	15-CORP. ENGINEE	101046826	0.00	2,749.0	2,749.0	0.00	
08	119486	106827		DEBRA-KUEMPEL	15-CORP. ENGINEE	101046827	0.00	31,095.0	31,095.0	0.00	
08	119486	106827		DEBRA-KUEMPEL	15-CORP. ENGINEE	101051768	0.00	9,400.9	9,400.9	0.00	
08	119486	106858		PROCESS PUMP &	15-CORP. ENGINEE	101042515	0.00	79,000.0	80,268.6	0.00	
08	119486	207506		THERMAL SOLUTIO	15-CORP. ENGINEE	101053304	0.00	15,150.0	15,150.0	0.00	
Company Total:								137,394.9	0.01	230,371.9	10,000.00
Grand Total:								137,394.9	0.01	230,371.9	10,000.00

Project cost
 (excludes all self
 installed costs)

PROCESS PUMP & SEAL, INC.

2903 WOODSDALE ROAD
TRENTON, OHIO 45067
PH. (513) 988-7000 / 1-800-582-4500
FAX. (513) 988-7007

488 OLD CHEAT ROAD
MORGANTOWN, WV 26508
PH. (304) 296-0094
FAX. (304) 296-0095

INVOICE

REMIT TO:
PROCESS PUMP & SEAL, INC.
P.O. BOX 630158
CINCINNATI, OHIO 45263-0158

INVOICE NO.	PAGE
00074016	1
INVOICE DATE	
12/04/13	

BILL TO:

MILLER BREWERY
ACCOUNTS PAYABLE
PO BOX 3103
MILWAUKEE, WI 53208-3103
USA

SHIP TO:

MILLER BREWERY - STOREROOM
STOREROOM
2525 WAYNE MADISON ROAD
TRENTON, OH 45067

ORDER NO.	ORDER DATE	CUSTOMER NO.	LOC	SALES REP				
67755	12/04/13	000000134800	CI	006				
CUSTOMER P.O. NUMBER		JOB NUMBER	SHIP VIA	PPD / COL				
101042515			Shipping & Hdlg					
ITEM NUMBER	DESCRIPTION	QTY. ORDERED	QTY. SHIPPED/RETURNED	QTY. BACKORDERED	UNIT PRICE	UOM	DISC %	EXTENDED PRICE

AMERICAN-MARSH MULTI-STAGE HORIZONTAL SPLIT-CASE PUMP ASSEMBLY PROPOSED FOR THE BOILER FEED WATER APPLICATION - PUMP WILL HAVE A RIGHT HAND SETUP - MEANING FACING THE PUMP WHILE STANDING ON THE MOTOR - THE SUCTION WILL COME IN ON THE RIGHT HAND SIDE AND THE DISCHARGE ON THE LEFT. THE PUMP WILL COME WITH A 200HP MOTOR RATED FOR A VFD, MECHANICAL SEAL INCLUDED. WILL BE SUPPLIED WITH FLOW MAX OF 350 GPM WITH A 200 HP MOTOR AND 10" IMPELLER. 380 SERIES AMP. PER QUOTE FROM PROCESS PUMP AND SEAL .

**

QUANTITY SHIPPED (1) \$79,000.00

COMMENTS:

TERMS: Net 30 Days

SALE AMOUNT	79,000.00
ENVIRONMENTAL FEE	.00
SHIPPING/HANDLING	1,268.64
SALES TAX	.00
TOTAL	80,268.64
AMOUNT RECEIVED	.00
BALANCE DUE	80,268.64

Legend

old Pump 3 Motor

*AMEC = Annual Motor Energy Cost**HDO = Hours / day of operation**DYO = Days / year of operation**AMH = Actual motor horsepower [rated conditions]**ME = Motor efficiency**KWC = KW consumed**CE = Cost of energy $\left[\frac{\$}{kWh} \right]$* *ACE = Annual cost of energy*

Step 1: AMEC

1.1 Determine Formula

$$KWC = \frac{746 \times AMH}{ME}$$

1.2 Determine Values

$$KWC = \frac{746 \times 426}{95\%}$$

1.3 Solve

$$KWC = \frac{317.796}{95\%}$$

1.4 Result

$$KWC = 334.5221$$

1.5 Determine Formula

$$ACE = HDO \times DYO \times KWC \times CE$$

1.6 Determine Values

$$ACE = 24 \times 365 \times 334.5221 \times 0.06$$

1.7 Result

$$ACE = \$175824.8158$$

2,930,400 kWh

REQUISITION TO PURCHASING DEPARTMENT
MILLER BREWING COMPANY
THIS IS NOT A PURCHASE ORDER

PURCHASE ORDER NO.

494270

K INDEX
 PURCHASING

DATE REQUISITIONED <u>June 15, 1981</u>		DO NOT WRITE BEYOND THIS LINE	PURCHASING DEPT. USE ONLY	
INTERNAL DELIVERY TO NOTIFY <u>J. Goll/Utilities Bldg.</u>			DATE ORDERED _____	
VENDOR DELIVER TO <u>MBCo., Trenton, Ohio</u>			ORDERED FROM _____	
SUGGESTED SOURCE <u>Ingersoll-Rand Company</u>			ADDRESS _____	
ADDRESS <u>888 Industrial Drive</u>			_____	
<u>Elmhurst, IL 60126</u>			TERMS _____	
PHONE <u>312/530-3800</u>		REQUESTED DELIVERY DATE <u>12, 21, 81</u>	F.O.B. _____	
CO	PLANT	DEPARTMENT	ACCOUNT	GRAND
CLASS	ACCOUNT	DEPT	PLANT	JOB
DELIVERY DATE ON OR BEFORE _____				

MIDEAST

CENTRAL ENGINEERING

01-7622-000
 38800
 LEV-80
 000-22-10
 PRODUCT
 ITEM
 CONTROL NO
 356821

DESCRIPTION	MIN MAX	OUR CATALOG NUMBER	ORDER QUANTITY	UNIT OF SALE	PRICE	PER	TRADE DISC
THIS REQUISITION REPLACES PRELIMINARY REQUISITION #460600 APPROVED 6/12/81.							
TITLE: <u>HIGH PRESSURE BOILER FEED PUMPS, EP-8859</u>							
1. DESCRIPTION -							
Furnish and deliver three (3) Model 2HMTA-1D Stage, Horizontally <small>INLINE W/ BALANCE DRUM</small> Split Case, Diffusor Type High Pressure Boiler Feed Pumps with chrome casing and chrome internals. Fitted with metallic boiler feed packing, standard ball bearing construction, Waldron WSP 7" spacer coupling, OSHA approved coupling guard and two-element center collecting steel bedplate. Each pump shall be size to deliver <u>450 gpm</u> of boiler feedwater at 260°F at a total dynamic head of <u>2,872 feet</u> . Required NPSH is 14.0 feet BHP at design operating <u>point - 426 BHP</u> . Efficiency at design point - 72%.							

REMARKS (Indicate Where Used)	COMMITMENT
PROJECT NO. 7622	PURCH. INT.
ITEM NO. 38800	TAXES
TRENTION PROJECT	FREIGHT
HIGH PRESSURE BOILER FEEDS PUMPS	ECMT
	OTHER
	TOTAL

By _____ Requested by S. Morrissay/S. Thines/mm 6/16/81

Page 1 of 8

Purchasing Dept. O E

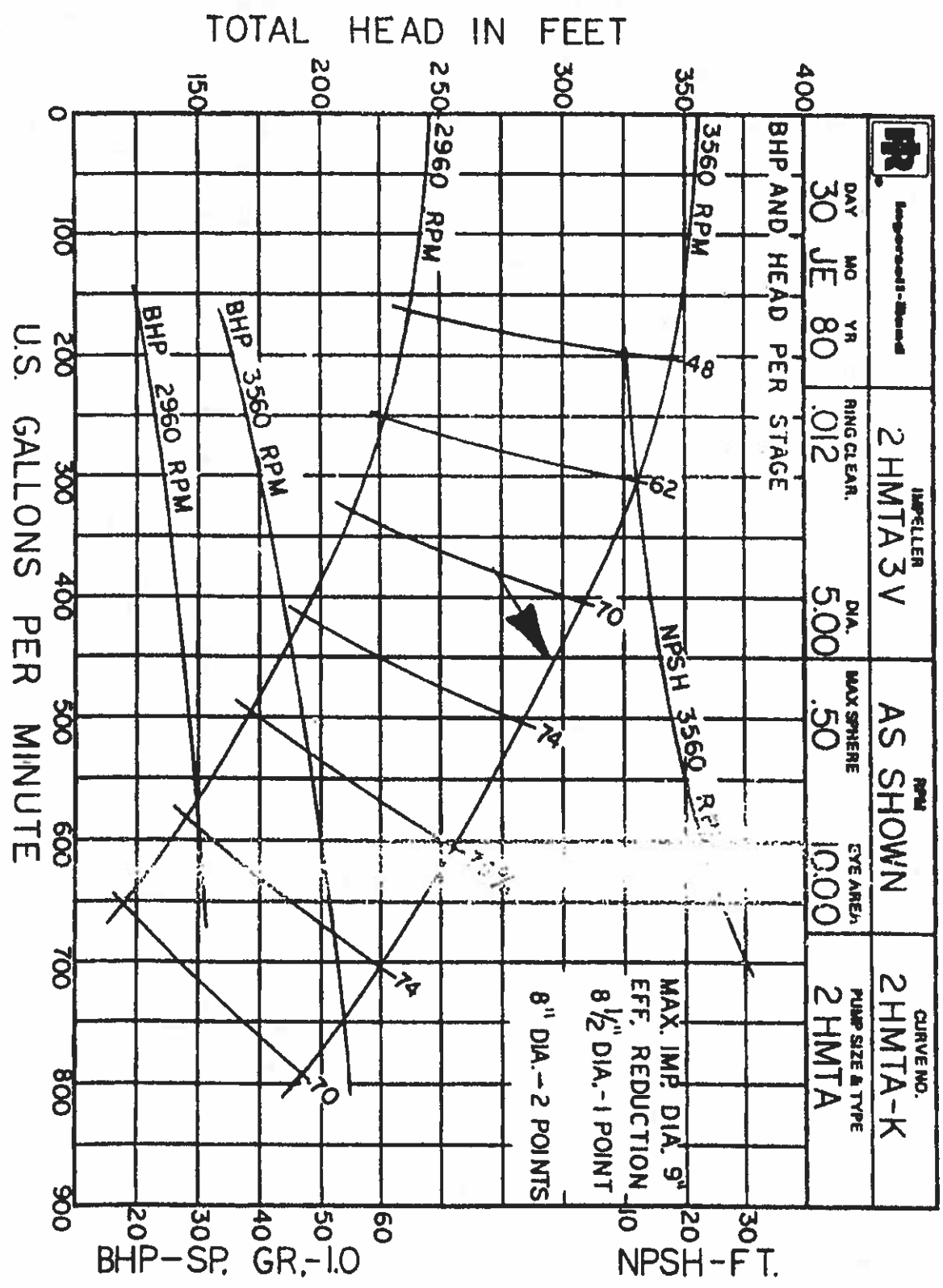
CONFIRMING TELECON

MAIL INVOICES TO:

<input type="checkbox"/> BREWING PLANTS	<input type="checkbox"/> P. O. BOX 4322 MILWAUKEE, WI 53201	<input type="checkbox"/> P. O. BOX 200 FULTON, NEW YORK 13069	<input type="checkbox"/> 781 SOUTH FREEWAY FORT WORTH, TEXAS 76134	<input type="checkbox"/> P. O. BOX 3227 BOEN, N. CAROLINA 27208	<input type="checkbox"/> 819 VERNON AVENUE ADUNA CALIFORNIA 91702
<input type="checkbox"/> CONTAINER PLANTS	<input type="checkbox"/> 800 W. TOWER AVE. MILWAUKEE, WI 53234	<input type="checkbox"/> P. O. BOX 400 FULTON, NEW YORK 13069	<input type="checkbox"/> P. O. BOX 4008 FORT WORTH, TEXAS 76140	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> OTHER LOCATIONS	<input type="checkbox"/> CORPORATE OFFICES 300 W. HIGHLAND BLVD. MILWAUKEE, WI 53208	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> WATERLOO MALTING WATERLOO, WI 53684

2 HMTA-10, 5/11 0981-90/91
 450 GPM @ 2,872' (287.2'/stage)

CURVES ARE APPROXIMATE. PUMP IS GUARANTEED FOR ONE SET OF CONDITIONS. CAPACITY, HEAD AND EFFICIENCY GUAR- ANTES ARE BASED ON SHOP TEST AND WHEN HANDLING CLEAR, COLD, FRESH WATER AT A TEMPERATURE OF NOT OVER 65°F.



Impeller - Standard	IMPELLER	2 HMTA 3 V	AS SHOWN	2 HMTA-K
DAY MO YR	RING CLEAR.	DIA.	MAX SPHERE	EYE AREA
30 JE 80	.012	5.00	.50	10.00
PUMP SIZE & TYPE		2 HMTA		

FAX TRANSMITTAL

Date: 3/14/94
 Pages: 1
 To: RICK FARRAND
 Company: Moller Brewing
 Fax Number: (513) 844-4155

Ingersoll-Dresser Pump Company
 Great Lakes Regional Sales Office
 6250 Halko Drive
 Cleveland, OH 44125
 Fax: 216.642.5741

FROM: Rob Pinckney

Pump Data Sheet - American-Marsh Pumps

Company: Process Pump & Seal
 Name: Miller
 Date: 4/5/2013

Boiler Feed Water Pump



Pump:

Size: 3x4-10 OSMH4 (4 stage)
 Type: 380 MULT/HSC
 Synch speed: 3600 rpm
 Curve: CS-10445 4V1184
 Specific Speeds:
 Dimensions

Speed: 3500 rpm
 Dia: 10 in
 Impeller:
 Ns: 1045
 Nss: 8382
 Suction: 4 in
 Discharge: 3 in

Search Criteria:

Flow: 350 US gpm Head: 1400 ft

Fluid:

Water
 SG: 0.938
 Viscosity: 0.2108 cP
 NPSHa: ---

Temperature: 257 °F
 Vapor pressure: 33.72 psi a
 Alm pressure: 14.7 psi a

Motor:

Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve

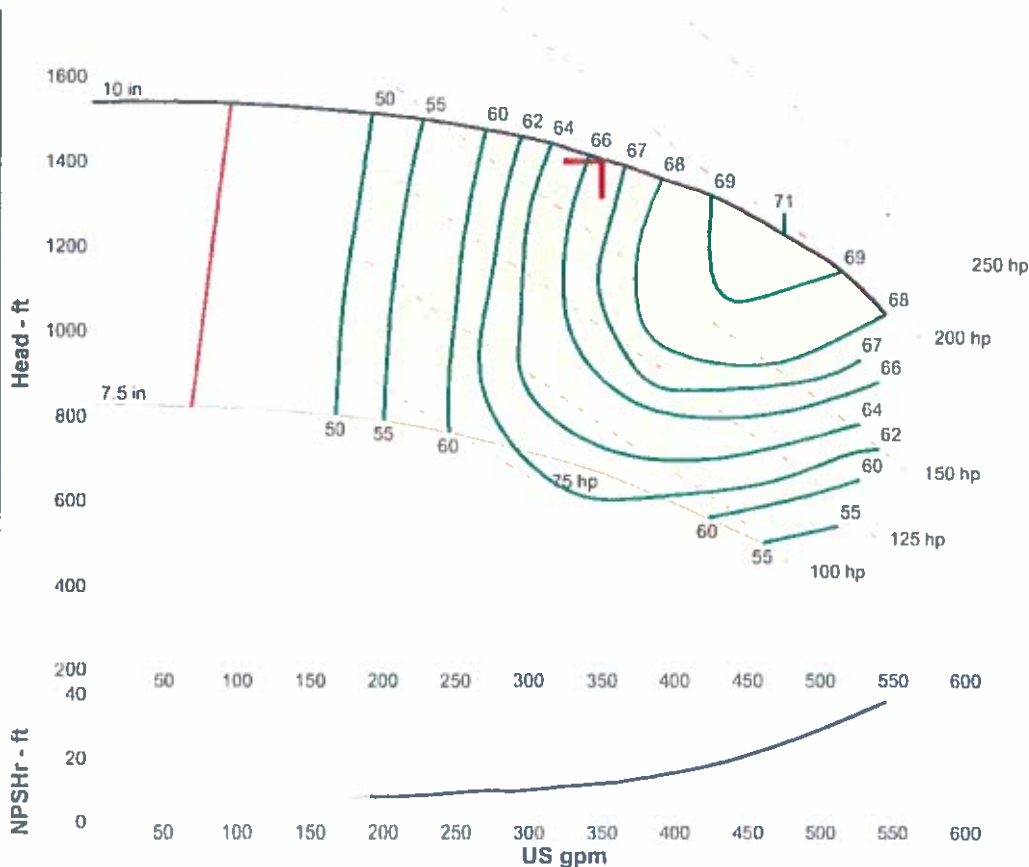
Size: 250 hp
 Speed: 3600
 Frame: 449TS

Pump Limits:

Temperature: 400 °F
 Pressure: 700 psi g
 Sphere size: 0.0625 in

Power: 400 hp
 Eye area: ---

--- Data Point ---	
Flow:	350 US gpm
Head:	1406 ft
Eff:	66%
Power:	176 hp
NPSHr:	12.4 ft
--- Design Curve ---	
Shutoff head:	1540 ft
Shutoff dP:	625 psi
Min flow:	95 US gpm
BEP:	71% @ 475 US gpm
NOL power:	202 hp @ 515 US gpm
-- Max Curve --	
Max power:	202 hp @ 515 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
420	3500	1326	69	192	17.6
350	3500	1406	66	176	12.4
280	3500	1469	61	160	10
210	3500	1507	53	142	8.28
140	3500	1521	43	124	7.2

New Pump and Motor

Legend

*AMEC = Annual Motor Energy Cost**HDO = Hours / day of operation**DYO = Days / year of operation**AMH = Actual motor horsepower [rated conditions]**ME = Motor efficiency**KWC = KW consumed**CE = Cost of energy $\left[\frac{\$}{kWh} \right]$* *ACE = Annual cost of energy*

Step 1: AMEC

1.1 Determine Formula

$$KWC = \frac{.746 \times AMH}{ME}$$

1.2 Determine Values

$$KWC = \frac{.746 \times 130}{96.3\%}$$

1.3 Solve

$$KWC = \frac{96.98}{96.3\%}$$

1.4 Result

$$KWC = 100.7061$$

1.5 Determine Formula

$$ACE = HDO \times DYO \times KWC \times CE$$

1.6 Determine Values

$$ACE = 24 \times 365 \times 100.7061 \times 0.06$$

1.7 Result

$$ACE = \$52931.1262$$

882,183 kwh

Company: Process Pump & Seal
 Name:
 Date: 8/30/2013



Pump:
 Size: 3x4-10 OSMH4 (4 stage)
 Type: 380_MULT/HSC
 Synch speed: 3600 rpm
 Curve: CS-10445 4V1184
 Specific Speeds:
 Dimensions:

Speed: 3100 rpm
 Dia: 10 in
 Impeller:
 Ns: 1045
 Nss: 8382
 Suction: 4 in
 Discharge: 3 in

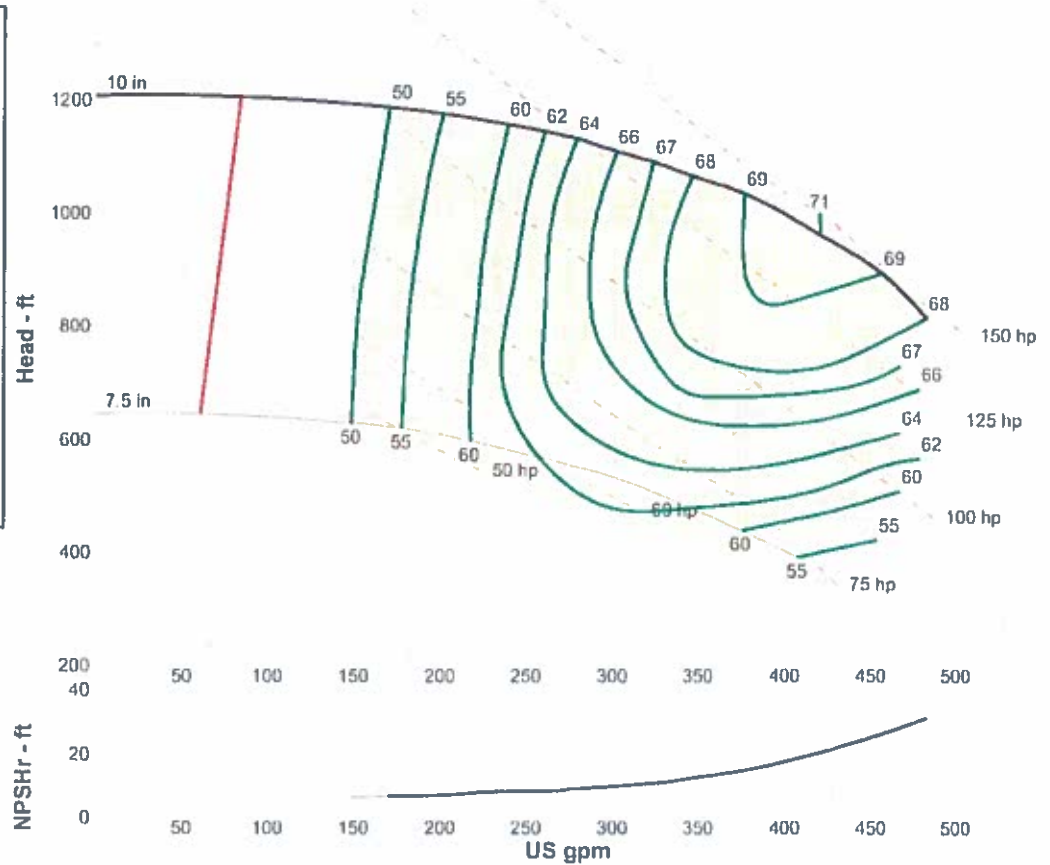
Search Criteria:
 Flow: ---
 Head: ---

Fluid:
 Water
 SG: 1
 Viscosity: 0.9946 cP
 NPSHa: ---
 Temperature: 68 °F
 Vapor pressure: 0.3391 psi a
 Alm pressure: 14.7 psi a

Motor:
 Standard: NEMA
 Enclosure: TEFC
 Sizing criteria: Max Power on Design Curve
 Size: 150 hp
 Speed: 3600
 Frame: 445TS

Pump Limits:
 Temperature: 400 °F
 Pressure: 700 psi g
 Sphere size: 0.0625 in
 Power: 400 hp
 Eye area: ---

--- Data Point ---	
Flow:	419 US gpm
Head:	965 ft
Eff:	71%
Power:	144 hp
NPSHr:	20.4 ft
--- Design Curve ---	
Shutoff head:	1208 ft
Shutoff dP:	523 psi
Min flow:	84.1 US gpm
BEP:	71% @ 421 US gpm
NOL power:	149 hp @ 456 US gpm
--- Max Curve ---	
Max power:	149 hp @ 456 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
463	3100	874	69	149	27.6
386	3100	1020	69	143	16.1
309	3100	1104	66	130	10.2
232	3100	1161	59	115	8.01
154	3100	1189	47	98.5	6.36

CLASS AND SIZE 218HTA-10	DATE 6/16/81	ITEM 02	ISSUE NO. 81HMT-13	PAGE 1	REISSUE DATE 5/21/82
QUANTITY 002-36556	ROTATION H.I. 2	SERIAL NO. 048190	DATE SHIPPED 3/1/82	ASSEMBLY JOB NO.	MASIERLUSI
SHIP TO MILLER BREWING CO. MILWAUKEE, WI	EXCEPTIONS	SEAL PIPING PLAN NO. 048191	DATE MICROFILME	DYNAMIC BAL JOB NO.	
MATERIAL CODE G	LIQUID WATER	COOLING PIPING PLAN NO.	DATE BOM TO BRANCH To be to Chicago	PAINT	
BOILER FEED CURVE NO. 218HTA-K	DRIVER H.P. 474	LUBE OIL PIPING PLAN NO.	SPECIAL REQUIREMENTS	UNIT	TOTAL
3560 DESIGN PSIG	SUCT. FLG. RATING 600	BEED PLATE	INST. BOOK QUAN REQ'D.	UNIT	TOTAL
1800 HYDRO PSIG	DISCH. FLG. RATING	COUPLING MAKE TYPE	SECTIONAL DWG.	UNIT	TOTAL
2700 GPM AT FT.	TAPS	NON SPACER	OPEN ARRANGEMENT DWG. 218HTA-K-218	TEST	TOTAL
450 TOTAL HEAD FT.	BEARINGS 272, 578	LIMITED END FLOAT COUPLING GUARD	TEST OR SPECIALS	YES	NO
2872 SUCTION PSIG	TEMP. DETECTORS	NON SPARK	APPROX. REQUIRED	YES	NO
EFF. % DESIGN	CONSTANT LEVEL OILER	DRIVER TYPE	HYDRO TEST	YES	NO
PUMP TEMP °F	BEARING LUBE	MOTOR	HYDRO TEST CERTIFICATE	YES	NO
SP. GR. P.I.	PUMP	TURBINE	PERFORMANCE TEST (MECH. BRANCH)	YES	NO
VISC. P.I.	FORCED FEED TO OTH. DEVICES	ENGINE	CERT. TEST DATA	YES	NO
CONSISTENCY	SUMP	GEAR	HOTWELL/LIFT TEST	YES	NO
V.P. AT P.I. (PSIA)	QUANTITY OF DRIVER OIL REQ'D PSI	HYD. COUPLING	SURFACE INSPECTION	YES	NO
PH	STUFFING BOX ARRANGEMENT	DRIVER FRAME	DISMANTLE INSPECTION	YES	NO
SUCTION LIFT	PACKING GLAND	DRIVER ENCL.	CALIPERED CASE THICKNESS	YES	NO
NPSHR	WEICH SEAL	GA	DYNAMIC BALANCED IMPELLERS	YES	NO
F.W.D.S. ATTACHED	MAKE	ELECT. COND.	DYNAMIC BALANCED ROTOR	YES	NO
YES	CODE	DRIVER SERIAL NO.	MATERIAL COMPLIANCE	YES	NO
CPA 223E81	Man. App. Hydraulic Reqs. Per C.C.P. - 1006 Rev. 1	FRUITING NO. 218HTA-K/218HTA-K	MILL TEST CERTIFICATE	YES	NO
			NON DESTRUCTIVE TEST	YES	NO
			O.C. PACKAGE	YES	NO
			SPECIAL PAINT	YES	NO
			SPECIAL PACK	YES	NO
			MIX. FLOW ORIFICE	YES	NO
			TO BE INCLUDED IN DESIGN FLOW TYPE	YES	NO
			MOLE SIZE	MM. FLOW	GPM
			TO: HEATER	SUCTION	NO
			USE PAGE 1-1X 2575-R11 FOR REMARKS	REMARKS	

Handwritten notes and signatures:

- Top right: "500" and "OST" (written vertically)
- Middle right: "400 2.2000 am" (written vertically)
- Bottom right: "3000 OST" (written vertically)
- Large signature: "EM" (written vertically)
- Other notes: "11003", "3/1/82", "218HTA-K/218HTA-K"

Handwritten notes at the bottom of the page:

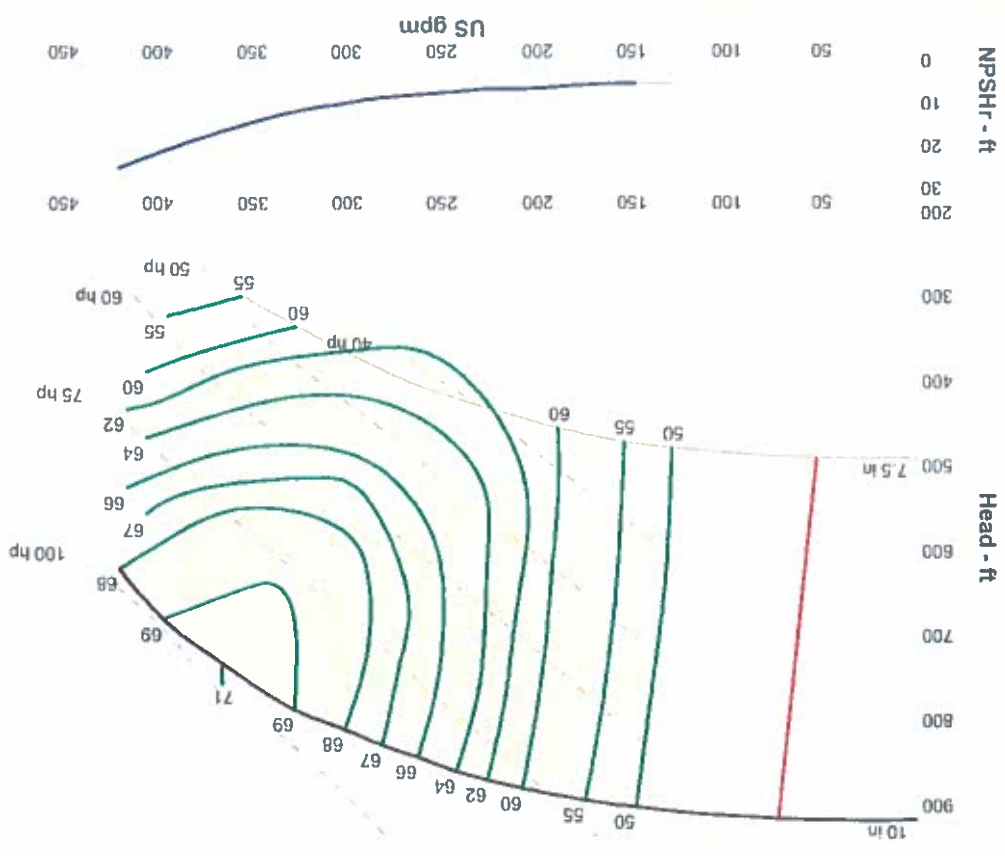
- Left side: "100K", "150 200 GPM", "10, 166 #/HL", "14, 488 #/HL", "1 PSI / 37", "500", "5000", "12700", "269"
- Right side: "Pump and Condenser Group", "P.O. Box 427, Philadelphia, N.J. 08108"



Pump:
 Size: 3x4-10 OSMH4 (4 stage)
 Type: 380 MULT/HSC
 Synch speed: 3600 rpm
 Curve: CS-10445 4V1184
 Impeller
 Dia: 10 in
 Speed: 2700 rpm
 Ns: 1045
 Nss: 8382
 Suction: 4 in
 Discharge: 3 in

Pump Limits:
 Temperature: 400 °F
 Pressure: 700 psi g
 Sphere size: 0.0625 in
 Power: 400 hp
 Eye area: ---

--- Data Point ---
 Flow: 366 US gpm
 Head: 730 ft
 Eff: 71%
 Power: 95.1 hp
 NPSHr: 16.5 ft
--- Design Curve ---
 Shut-off head: 916 ft
 Shut-off dp: 397 psi
 Min flow: 73 US gpm
 BEP: 71% @ 366 US gpm
 NO. power: 98.6 hp @ 397 US gpm
 Max power: 98.6 hp @ 397 US gpm



Performance Evaluation:

Flow US gpm	Speed rpm	Head ft	Efficiency %	Power hp	NPSHr ft
134	2700	902	47	65.1	5.1
202	2700	881	59	76	6.42
269	2700	837	66	85.7	8.13
336	2700	774	69	94.4	12.9
403	2700	664	69	98.1	22.1

Selected from catalog: American-Marsh 60 Vers: 20010a

Search Criteria:
 Flow: ---
 Head: ---

Fluid:
 Water
 Temperature: 68 °F
 Vapor pressure: 0.3391 psi a
 Atm pressure: 14.7 psi a
 SG: 1
 Viscosity: 0.9946 cP
 NPSHa: ---

Motor:
 Standard: NEMA
 Enclosure: TEFC
 Size: 100 hp
 Speed: 3600
 Frame: 405TS
 Sizing criteria: Max Power on Design Curve

REL. S.O.	FRANK	HP	TYPE	PHASE/ RMTS	NEM	VOLTS
447TS	200	P	3/60	3570		460
AMP	DEPT	AMP C/ INSTD.	S.F.	IRMA DESIGN	COOL LETTERS	ENCL.
213	COMP	40/7	1.15	3	C	TEFC
E/S	ROTOR	TEST S.O.	TEST DATE	STATOR RES 825 °C	OMR (BETWEEN LINES)	
21193	418143003AR	---	---		D164	
PERFORMANCE						
LOAD	HP	AMPERES	RPM	POWER FACTOR	EFFICIENCY	
NO LOAD	0	41.6	3600	6.61	0	
1/4	50.0	74.6	3593	66.9	92.9	
2/4	100	116	3586	83.9	96.0	
3/4	150	164	3578	88.8	96.3	
4/4	200	213	3572	90.5	96.2	
3/4	250	269	3562	90.8	95.9	
SPEED TORQUE						
	RPM	TORQUE % FULL LOAD	TORQUE LB.-FT.	AMPERES		
LOCKED ROTOR	0	147	432	1426		
FULL UP	288	119	349	1313		
BREAKDOWN	3464	276	812	716		
FULL LOAD	3571	100	294	215		

AMPERES SHOWN FOR 480 VOLT CONNECTION. IF OTHER VOLTAGE CONNECTIONS ARE AVAILABLE, THE AMPERES WILL VARY INVERSELY WITH THE RATED VOLTAGE

REMARKS: TYPICAL DATA



DR. ST. W. L. SMITH
 BALDOR ELECTRIC CO.
 91/26/10

A-C MOTOR PERFORMANCE A444NG1504-R001
 DATA ISSR DATE 12/18/10

Printed on 11/18/10 6:17 8 pages-0022771



**Insulation
Contractors**

Thermal Solutions, Inc.

8491 Seward Road ♦ Fairfield, Ohio 45014 ♦ Phone: (513) 742-2836 ♦ Fax: (513) 742-2485

♦ Quality Workmanship ♦ Competitive Rates ♦ Experienced Technicians

INVOICE

Bill To: MillerCoors LLC
PO Box 3103
Milwaukee WI 53201-3103

Invoice No: 16460
Date: 4/8/2014
Due Date: 5/8/2014

M. Waymeyer

Job No: 9183

Project: MillerCoors - Feed Water Pump

Customer Job / PO#: 630203582

Description	Extended Price
Insulation of #2 HPFW pump / piping.	4,500.00

*6007317109
207506-4/15/14
0100 CC47*

Thank You For Your Business!

Terms: Net 30 days

Amount Now Due:

4,500.00

* We now accept credit cards *

** A delinquent fee of 1.5% will be incurred on all past due invoices **

PROCESS PUMP & SEAL, INC.

2993 WOODSDALE ROAD
 TRENTON, OHIO 45067
 PH. (513) 988-7000 / 1-800-582-4500
 FAX. (513) 988-7007

486 OLD CHEAT ROAD
 MORGANTOWN, WV 26508
 PH. (304) 296-0094
 FAX. (304) 296-0095

INVOICE

REMIT TO:
 PROCESS PUMP & SEAL, INC.
 P.O. BOX 630158
 CINCINNATI, OHIO 45263-0158

INVOICE NO.	PAGE
00076124	1
INVOICE DATE	
06/23/14	

BILL TO:

MILLER BREWERY
 ACCOUNTS PAYABLE
 PO BOX 3103
 MILWAUKEE, WI 53208-3103
 USA

SHIP TO:

MILLER BREWERY - STOREROOM
 STOREROOM
 2525 WAYNE MADISON ROAD
 TRENTON, OH 45067

ORDER NO.	ORDER DATE	CUSTOMER NO.	LOC	SALES REP.		
69552	06/09/14	000000134800	CI	006		
CUSTOMER P.O. NUMBER		JOB NUMBER	SHIP VIA	PPD / COL		
630208418			UPS COLLECT			
ITEM NUMBER	DESCRIPTION	QTY. ORDERED	QTY. SHIPPED/RETURNED	UNIT PRICE	UOM	EXTENDED PRICE
			QTY. BACKORDERED		DISC %	
PFS	ALIGNMENT OF #2 HPFW PUMP	1.00	1.00	830.000	EA	830.00

6009481980
 106858
 0100 CADS
 612614

COMMENTS:

TERMS: Net 60 Days

SALE AMOUNT	830.00
ENVIRONMENTAL FEE	.00
SHIPPING/HANDLING	.00
SALES TAX	.00
TOTAL	830.00
AMOUNT RECEIVED	.00
BALANCE DUE	830.00



11860 MOSTELLER ROAD
A FERGUSON COMPANY
CINCINNATI, OH 45241-1569

INVOICE NUMBER WY059655	CUSTOMER 751	PAGE 1 of 1
----------------------------	-----------------	----------------

PLEASE REFER TO INVOICE NUMBER WHEN
MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES INC #1480
WOLSELEY INDUSTRIAL GROUP
PO BOX 844054
PITTSBURGH, PA 15264-4054

Please contact with Questions: 513-771-8000

2288 1 AB 0.406 E0111 10174 D888967044 P1821952 0003:0005



MILLERCOORS LLC
CORP OPERATIONS AP
PO BOX 3103
MILWAUKEE WI 53201-3103

SHIP TO: MILLER BREWING UTILITIES

MILLER BREWING UTILITIES
2525 WAYNE MADISON
DELIVER TO DOOR 89 AFTER
CHECKING INTO RECEIVING

SHIP WHSE.	SELL WHSE.	TAX CODE	CUSTOMER ORDER NUMBER	SALESMAN	JOB NAME	INVOICE DATE	BATCH
1480	2503	OHE	630199094	KJM	Utilities	02/12/14	IO 152590
ORDERED	SHIPPED	ITEM NUMBER	DESCRIPTION	UNIT PRICE	UM	AMOUNT	
3	0	P6003FC8GXXXM	3 CS 600# FLG OS&Y GATE VLV		EA	0.00	
1	1	P800RFBFM	3 CS 600# RF BLND FLG	27.166	EA	27.17	
10	10	P600RFSOFM	3 CS 600# RF SO FLG	28.232	EA	282.32	
1	1	P600RFWNFP	4 CS 600# STD RF WN FLG	60.753	EA	60.75	
1	1	P600RFWNFXHBU	6 CS 600# XH RF WN FLG	98.991	EA	98.99	
2	2	F040080017	4 600# 304 SPRL FLEX GSMT	8.014	EA	16.03	
2	0	P6061FC8GXXXM	3 CS 600# FLG SWG CHK VLV		EA	0.00	
1	1	PWX9M	3 CS XH WELD LR 90 ELL	13.060	EA	13.06	
2	2	PWXTM	3 CS XH WELD TEE	21.592	EA	43.18	
18	18	FNWSWG34FM	3 3-600# 304 FG SPRL WND GSMT	6.741	EA	121.34	
INVOICE SUB-TOTAL							662.84

LEAD LAW WARNING: IT IS ILLEGAL TO INSTALL PRODUCTS THAT ARE NOT "LEAD FREE" IN ACCORDANCE WITH US FEDERAL OR OTHER APPLICABLE LAW IN POTABLE WATER SYSTEMS ANTICIPATED FOR HUMAN CONSUMPTION. PRODUCTS WITH "NP" IN THE DESCRIPTION ARE NOT LEAD FREE AND CAN ONLY BE INSTALLED IN NON-POTABLE APPLICATIONS. BUYER IS SOLELY RESPONSIBLE FOR PRODUCT SELECTION.

600214604
106917
0100
AM13
2/27/14

Turn Off Paper ... Turn on Convenience!

Save time and manual data entry by switching to email billing. You'll receive one email per day with all your invoices attached as a PDF.



Call us at the number above to switch to email delivery today!

TERMS: NET 10TH PROX	ORIGINAL INVOICE	TOTAL DUE	\$662.84
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All past due amounts are subject to a service charge of 1.5% per month, or the maximum allowed by law, if lower. If Buyer fails to pay within terms, then in addition to other remedies, Buyer agrees to pay Seller all costs of collection, including reasonable attorney fees. Complete terms and conditions are available upon request or at http://wolseleyna.com/terms_conditionsSale.html and are incorporated by reference. Seller may convert checks to ACH.



EMAIL DUPLICATE INVOICE

WOLSELEY INDUSTRIAL GROUP#2503
11860 MOSTELLER ROAD
A FERGUSON COMPANY
CINCINNATI, OH 45241-1569

Deliver CASSANDRA 844-4171
From: Luke Bastin
Comments:

Please Contact With Questions:
513-771-6000

Invoice Number	Customer	Page
WY059655-1	751	1

Please refer to Invoice Number when making payment and remit to:

TOTAL DUE ---> 3051.86

FERGUSON ENTERPRISES INC #1480
WOLSELEY INDUSTRIAL GROUP
PO BOX 644054
PITTSBURGH, PA 15264-4054

Sold To:

MILLERCOORS LLC
CORP OPERATIONS AP
PO BOX 3103
MILWAUKEE, WI 53201

Ship To:

MILLER BREWING UTILITIES
2525 WAYNE MADISON
DELIVER TO DOOR 89 AFTER
CHECKING INTO RECEIVING

Ship Whse	Sell Whse	Tax Code	Customer Order Number	Sales Person	Job Name	Invoice Date	Batch
1480	2503	OHE	630199094	KJM	Utilities	02/13/2014	152672
Ordered	Shipped	Item Number	Description	Unit Price	UM	Amount	
3	3	P6003FC8GXXXM	3 CS 600# FLG OS&Y GATE VLV	684.586	EA	2053.76	
2	2	P6061FC8GXXXM	3 CS 600# FLG SWG CHK VLV	499.048	EA	998.10	

Invoice Sub-Total	3051.86
Tax	0.00
Total Amt	3051.86

TOTAL DUE ---> 3051.86

ALL ACCOUNTS ARE DUE AND PAYABLE PER THE CONDITIONS AND TERMS OF THE ORIGINAL INVOICE. ALL PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE AT THE MAXIMUM RATE ALLOWED BY STATE LAW PLUS COSTS OF COLLECTION INCLUDING ATTORNEY FEES IF INCURRED. FREIGHT TERMS ARE FOR OUR DOCK UNLESS OTHERWISE SPECIFIED ABOVE. COMPLETE TERMS AND CONDITIONS ARE AVAILABLE UPON REQUEST OR CAN BE VIEWED ON THE WEB AT http://wolseleyna.com/terms_conditionsSale.html
GOVT BUYERS: ALL ITEMS QUOTED ARE OPEN MARKET UNLESS NOTED OTHERWISE.

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EMAIL DUPLICATE INVOICE

WOLSELEY INDUSTRIAL GROUP#2503
11860 MOSTELLER ROAD
A FERGUSON COMPANY
CINCINNATI, OH 45241-1569

Deliver CASSANDRA 844-4171
From: Luke Bastin
Comments:

Please Contact With Questions:
513-771-6000

Table with 3 columns: Invoice Number, Customer, Page. Row 1: WY057804-1, 751, 1

Please refer to Invoice Number when making payment and remit to: TOTAL DUE ---> 700.58

FERGUSON ENTERPRISES INC #1480
WOLSELEY INDUSTRIAL GROUP
PO BOX 644054
PITTSBURGH, PA 15264-4054

Sold To: MILLERCOORS LLC
CORP OPERATIONS AP
PO BOX 3103
MILWAUKEE, WI 53201

Ship To: MILLER BREWING UTILITIES
2525 WAYNE MADISON
DELIVER TO DOOR 89 AFTER
CHECKING INTO RECEIVING

Main invoice table with columns: Ship Whse, Sell Whse, Tax Code, Customer Order Number, Sales Person, Job Name, Invoice Date, Batch, Ordered, Shipped, Item Number, Description, Unit Price, UM, Amount

Invoice Sub-Total 700.58
Tax 0.00
Total Amt 700.58

TOTAL DUE ---> 700.58

ALL ACCOUNTS ARE DUE AND PAYABLE PER THE CONDITIONS AND TERMS OF THE ORIGINAL INVOICE. ALL PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE AT THE MAXIMUM RATE ALLOWED BY STATE LAW PLUS COSTS OF COLLECTION INCLUDING ATTORNEY FEES IF INCURRED. FREIGHT TERMS ARE FOR OUR DOCK UNLESS OTHERWISE SPECIFIED ABOVE. COMPLETE TERMS AND CONDITIONS ARE AVAILABLE UPON REQUEST OR CAN BE VIEWED ON THE WEB AT http://wolseleyna.com/terms_conditionsSale.html
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Remit to :



INVOICE

Reprint

12444 COLLECTIONS CENTER DRIVE
CHICAGO IL 60693-2444

Bill-To:
MILLER BREWING COMPANY
PO BOX 3103
MILWAUKEE WI 53201-3103
USA

Invoice Questions Please Call

513-621-0600

Invoice No: 972371568
Invoice Date: 04/30/2014
Account Number: 143099
Account Name: MILLER BREWING COMPANY

Ship-To:
TRENTON BREWERY
MILLER BREWING CO.
2525 WAYNE MADISON ROAD
TRENTON OH 45067-9760
USA

Order No: 630204304 SO#: 346870017

Del.Doc.#:	PRO #	Routing	Date Shipped	Shipped From	F.O.B.	Rt. To
346870017			04/30/2014	FACTORY		

Quantity	Catalog # / Description	Unit Price / Unit	Amount
1	NE-080-126-12-XX7 THERMAL EDGE Item#:1 P/N:NE-080-126-12-XX7	2,147.26 / 1	2,147.26

Terms of Payment Net 60 Days As a condition of the sales agreement, a monthly service charge of the lesser of 1-1/2% or the maximum permitted by law may be added to all accounts not paid by net due date. Visa, MasterCard, American Express, and Discover credit cards are accepted at point of purchase only.	Sub Total:	2,147.26
	Freight:	0.00
	Handling:	0.00
	Tax:	0.00
	Total Due:	2,147.26

Subject to the standard terms and conditions set forth below



EMAIL DUPLICATE INVOICE

WOLSELEY INDUSTRIAL GROUP#2503
 11860 MOSTELLER ROAD
 A FERGUSON COMPANY
 CINCINNATI, OH 45241-1569

Deliver CASSANDRA 844-4171
 From: Luke Bastin
 Comments:

Please Contact With Questions:
 513-771-6000

Invoice Number	Customer	Page
WY057804	751	1

Please refer to Invoice Number when making payment and remit to:

TOTAL DUE ---> 390.97

FERGUSON ENTERPRISES INC #1480
 WOLSELEY INDUSTRIAL GROUP
 PO BOX 644054
 PITTSBURGH, PA 15264-4054

Sold To:

MILLERCOORS LLC
 CORP OPERATIONS AP
 PO BOX 3103
 MILWAUKEE, WI 53201

Ship To:

MILLER BREWING UTILITIES
 2525 WAYNE MADISON
 DELIVER TO DOOR 89 AFTER
 CHECKING INTO RECEIVING

Ship Whse	Sell Whse	Tax Code	Customer Order Number	Sales Person	Job Name	Invoice Date	Batch
1480	2503	OHE	630195075	KJM	Utilities	01/22/2014	151415
Ordered	Shipped	Item Number	Description	Unit Price	UM	Amount	
1	0	P6003FC8GXXXM	3 CS 600# FLG OS&Y GATE VLV		EA	0.00	
2	2	P300RFWNFXHBL	2-1/2 CS 300# XH RF WN FLG	20.652	EA	41.30	
4	4	P300RFWNFXHBM	3 CS 300# XH RF WN FLG	20.864	EA	83.46	
2	2	P600RFWNFXHBM	3 CS 600# XH RF WN FLG	29.176	EA	58.35	
1	1	P600RFWNFXHBU	6 CS 600# XH RF WN FLG	102.848	EA	102.85	
4	4	PWX9M	3 CS XH WLD LR 90 ELL	15.062	EA	60.25	
2	2	PWXCRLM	3X2-1/2 CS XH WLD CONC RED	10.871	EA	21.74	
1	1	PWXTM	3 CS XH WLD TEE	23.019	EA	23.02	

Invoice Sub-Total 390.97
 Tax 0.00
 Total Amt 390.97

TOTAL DUE ---> 390.97

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TPF INC.

313 SOUTH WAYNE AVE
CINCINNATI, OHIO 45215
1-513-761-9968
1-513-761-2880 FAX

tpfinc@cinci.rr.com

Invoice

Customer No. MILLER TREN

Invoice No.: **24358**

Bill To: **MILLERCOORS LLC**
CORP OPERATIONS AP
PO BOX 3103
MILWAUKEE, WI 53201-3103

Ship To: **MILLERCOORS LLC**
TRENTON BREWERY
2525 WAYNE MADISON RD
TRENTON, OH 45067-9760

Date	Ship Via	F.O.B.	Terms			
04/10/14	UPS/OUR DELIVERY	Origin	NET 30			
Purchase Order Number	Order Date	Sales Person	Our Order Number			
630201013	03/04/14	CHUCK STIENS	26673			
Quantity Required	Quantity Shipped	B.O.	Item Number	Description	Unit Price	Amount
1	1			0/2000PSI NO-SHOK TRANSMITTER .05 ACCURACY, 1/2"NPT CONN 4-20mA OUTPUT M12x1 ELECT CONN 640-2000-1-1-8-25	1637.36	1637.36

DELIVERY 9-10 WEEKS

Invoice subtotal 1637.36
Freight charges 19.50
Invoice total 1656.86

6007325250
109310 0100
AL82 4/18/14

Thank You



1725 YANKEE RD
MIDDLETOWN, OH 45042

Please contact with Questions: 513-771-6000

INVOICE NUMBER	CUSTOMER	PAGE
4128999	751	1 of 1

PLEASE REFER TO INVOICE NUMBER WHEN
MAKING PAYMENT AND REMIT TO:

FERGUSON ENTERPRISES INC #1480
PO BOX 644054
PITTSBURGH, PA 15284-4054

2883 1 AB 0.408 E0888X 10125 D878845038 P1799609 0001:0001



MILLERCOORS LLC
CORP OPERATIONS AP
PO BOX 3103
MILWAUKEE WI 53201-3103

SHIP TO:

MILLER BREWING - BREWING
2525 WAYNE MADISON RD
TRENTON, OH 45067

SHIP WHSE.	SELL WHSE.	TAX CODE	CUSTOMER ORDER NUMBER	SALESMAN	JOB NAME	INVOICE DATE	BATCH
1480	473	OHE	630194567	KJM	SLIDE GATE	01/28/14	IO 151778
ORDERED	SHIPPED	ITEM NUMBER	DESCRIPTION		UNIT PRICE	UM	AMOUNT
1	1	PT-2.5_8020-ROTORK	9-10 WEEKS, ARO 2.5" SCHUBERT AND SALZER 8037/065UHF000M--S, ANSI 300, CS BODY, SFC/CS TRIM, CV=60, TFE PACKING. AUTOMATED BY A ROTORK CVA LINEAR 500WT ACTUATOR		7963.415	EA	7963.41
				INVOICE SUB-TOTAL			7963.41
				FREIGHT			45.00
<p>LEAD LAW WARNING: IT IS ILLEGAL TO INSTALL PRODUCTS THAT ARE NOT "LEAD FREE" IN ACCORDANCE WITH US FEDERAL OR OTHER APPLICABLE LAW IN POTABLE WATER SYSTEMS ANTICIPATED FOR HUMAN CONSUMPTION PRODUCTS WITH "NP" IN THE DESCRIPTION ARE NOT LEAD FREE AND CAN ONLY BE INSTALLED IN NON-POTABLE APPLICATIONS. BUYER IS SOLELY RESPONSIBLE FOR PRODUCT SELECTION.</p>							
TERMS: NET 10TH PROX						ORIGINAL INVOICE	
						TOTAL DUE	\$8,008.41

6007165011
106917
0100 AM06
2/4/14

All accounts are due and payable per the invoiced terms. All past due amounts are subject to a service charge at the maximum rate allowed by state law plus costs of collection including attorney fees if incurred. Freight terms are FOB our dock unless otherwise specified above. WARRANTY PROVISIONS: SEE REVERSE SIDE



EMAIL DUPLICATE INVOICE

WOLSELEY INDUSTRIAL GROUP #473
 1725 YANKEE RD
 MIDDLETOWN, OH 45042

Deliver CASSANDRA 844-4171
 From: Luke Bastin
 Comments:

Please Contact With Questions:
 513-422-8094

Invoice Number	Customer	Page
4130484	751	1

Please refer to Invoice Number when making payment and remit to: **TOTAL DUE ---> 9471.18**

FERGUSON ENTERPRISES INC #1480
 PO BOX 644054
 PITTSBURGH, PA 15264-4054

Sold To:
 MILLERCOORS LLC
 CORP OPERATIONS AP
 PO BOX 3103
 MILWAUKEE, WI 53201

Ship To:
 MILLER BREWING - BREWING
 2525 WAYNE MADISON RD
 TRENTON, OH 45067

Ship Whse	Sell Whse	Tax Code	Customer Order Number	Sales Person	Job Name	Invoice Date	Batch
1480	473	OHE	630194567	KJM	SLIDE GATE	01/29/2014	151848
Ordered	Shipped	Item Number	Description		Unit Price	UM	Amount
			Source Order#: 4128999				
2	2	SP-9303A-SIBDPSJGN	3 FOXBORO 9303A-SIBD-PSJ-GN		2759.960	EA	5519.92
2	2	SP-IMT25-PEATB10MB	FOXBORO IMT25-PEATB10M-B MAG METER		1975.630	EA	3951.26

Invoice Sub-Total 9471.18
Tax 0.00
Total Amt 9471.18

TOTAL DUE ---> 9471.18

ALL ACCOUNTS ARE DUE AND PAYABLE PER THE CONDITIONS AND TERMS OF THE ORIGINAL INVOICE. ALL PAST DUE AMOUNTS ARE SUBJECT TO A SERVICE CHARGE AT THE MAXIMUM RATE ALLOWED BY STATE LAW PLUS COSTS OF COLLECTION INCLUDING ATTORNEY FEES IF INCURRED. FREIGHT TERMS ARE FOR OUR DOCK UNLESS OTHERWISE SPECIFIED ABOVE. COMPLETE TERMS AND CONDITIONS ARE AVAILABLE UPON REQUEST OR CAN BE VIEWED ON THE WEB AT http://wolseleyna.com/terms_conditionsSale.html
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Remit to: P.O. Box 701620
Cincinnati, OH 45270-1620

BILLED BY: DONNA W. #513-527-8010

INVOICE DATE
00741014 1/31/14

CUSTOMER:
17588

JOB ADDRESS:

MILLERCOORS LLC - TAS
ACCOUNTS PAYABLE
PO BOX 3103
MILWAUKEE, WI 53201-3103

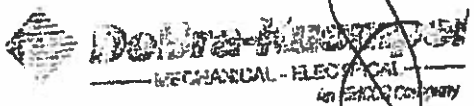
MILLERCOORS / UTILITIES 1ST HALF 2014
2525 WAYNE MADISON ROAD
TRENTON, OH 45067

Customer PO No.: 630198344

Job Number...: 621860
Bill Contract: 621860-01

REFERENCE DESCRIPTION	AMOUNT
MILLERCOORS / FDWTR BYPASS PIPING PWRHSE LINE 0001 \$4959.00	
BILLING AMOUNT	4,959.00

W-TW 27
6007170248 (2015)
106827
0100
CAYS
2/6/14


Approved: _____
Date: 1/31/14

Now Accepting Visa/MC/AMX for
Payment of Invoices.
A Service Charge of 1.5% per Month
will be charged on All Past Due Accts.

SUB-TOTAL	4,959.00
TAX	.00
AMOUNT PAID	.00
AMOUNT DUE	4,959.00
ORIGINAL	DUE ON RECEIPT



DUKE ENERGY
Mercantile Self Direct Program
139 East Fourth Street
Cincinnati, OH 45202
513 629 5572 fax

October 3, 2014

Mr. Mark Koch
MillerCoors, LLC
2525 Wayne Madison Rd.
Trenton, OH 45067

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

Dear Mr. Koch:

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 \$24,000 has been proposed for your pump upgrade project completed in the 2014 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 Saver® incentives, when applicable. Please contact me if you have any questions.

Sincerely,

A handwritten signature in cursive script that reads 'Megan Fox'.

Megan Fox
Product Manager
Mercantile Self Direct Rebates

cc: Mr. Bob Bandenburg
Mr. John Beccaccio

Ohio | Public Utilities Commission

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

Case No.: ___-___-EL-EEC

State of Ohio :

Denise A. Quinn, Affiant, being duly sworn according to law, deposes and says that:

1. I am the duly authorized representative of:

Miller Coors, LLC

[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.

Denise A. Quinn Brewery VP/ Plant Manager
Signature of Affiant & Title

Sworn and subscribed before me this 20th day of October,
2014 Month/Year

Wanda D. Gibson
Signature of official administering oath

WANDA D. GIBSON
Notary Public, State of Ohio
My Commission Expires 08-03-2015
Print Name and Title

My commission expires on 8/03/2015

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

Rebate is accepted. Rebate is declined.

By accepting this rebate, MillerCoors, LLC 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, MillerCoors, LLC 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, MillerCoors, LLC 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):

 Denise A. Quinn 10/14/14

Customer Signature

Printed Name

Date

Proposed Rebate Amounts

Measure ID	Energy Conservation Measure (ECM)	Proposed Rebate Amount
ECM-1	MillerCoors-Boiler FW Pump Upgrade	\$24,000
Total		\$24,000