

FILE

Mohawk Utilities, Inc.
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Malvern, Ohio 44644
(330)863-0613

RECEIVED-DOCKETING DIV

2014 AUG 22 PM 1:34

PUCO

August 22, 2014

Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215

Re: Case Number EDAG0505145L -- PUCO # 14-1283-WS-CSS

Summary of Facts

On March 1, 2014 Mohawk Utilities, Inc. read the water meters (via drive by reading) at Lake Mohawk. At this time we discovered a usage of 615,400 gallons on lot 445 owned by James and Elizabeth Dagley. Richard Sheets (Company employee) went to the house on March 3, 2014 to physically read the meter. There was a restoration company in the driveway. They said there was a water leak with major damage done to the home. The home owner discovered it the day before.

Richard Sheets read meter:

February 1, 2014 reading 4204, zero gallons used for January -drive by reading

March 1, 2014, reading 10358 - 615,400 gallons use for February -drive by reading
meter was read at 8:50 AM

March 3, 2014, reading 10655 - 29,700 gallons used - physically read,
meter was read Monday morning March 3, 2014, do not know what time the home owner
shut the water off on Sunday March 2, 2014

The meter had frozen, cracking the meter plate in the bottom of the meter. Water was still
running through the meter recording the gallons used. The usage occurred over a 30 day period.

Billing for Water:

Tariff Rates are billed:

| | |
|--|------------|
| Base rate | \$ 5.00 |
| First 4000 gallon @ .948 per 100 gallons | \$ 37.92 |
| 641,100 gallons @ .884 per 100 gallons | \$5,667.32 |
| Water purchase from Village of Malvern | \$.52 |

Total billing for water used between
February 1, through March 3, 2014 **\$5,710.76**

This is to certify that the images appearing are an
accurate and complete reproduction of a case file
document delivered in the regular course of business.
Technician fe Date Processed AUG 22 2014

Usage following the leak is as follows:

| | | |
|----------------|--------------|----------------------|
| March 29, 2014 | read 1065600 | usage of 100 gallons |
| April 29, 2014 | read 1065600 | usage 0 gallons |
| May 31, 2014 | read 1067100 | usage 1500 gallons |
| June 28, 2014 | read 1067400 | usage 300 gallons |
| July 30, 2014 | read 1068300 | usage 900 gallons |

Attachment A

- 1.) Letter from Mike Storm, Muller Systems, stating the measurement accuracy at ½ GPM to 25 GPM for the Hersey model #430 Positive Displacement meter.
- 2.) Muller Systems specification sheets that also confirm the flow capacity

Motion that Mohawk Utilities, Inc. finds appropriate:

The meter register only turns when water is going through the meter. In 28 days water usage was 615,400 gallons, average of 21,978 gallons per day. On March 3rd there was 29,700 gallons of usage in 1 1/2 days 19,800 gallons per day. This may vary depending on when home owner discovered the leak.

Mohawk Utilities, Inc. recommends that the Commission rule the company receive full restitution for the water that went through the meter.

Sincerely

Jon Robertson
President
Mohawk Utilities, Inc.

CC: James Dagley
6585 Westpoint Drive
Hudson, Ohio 44236



10210 Statesville Blvd
Cleveland, NC 27013
www.muellersystems.com

Mohawk Utilities, INC
PO Box 566
Malvern, OH 44644

July 17, 2014

To Whom It May Concern:

Mueller Systems manufactures water meters in our facility in Cleveland, NC. Our Hersey Model #430 Positive Displacement meter was supplied to Mohawk Utilities for use in their water system. These meters are manufactured and tested to AWWA C700 specifications. The **minimum** flow capabilities of the meter are as follows:

95% Measurement Accuracy at $\frac{1}{4}$ Gallon Per Minute (GPM)
98.5% Measurement Accuracy at $\frac{1}{2}$ GPM to 25 GPM

In your example, you stated that 615,400 gallons were run through the meter over a 28 day period. So, 21,978 gallons per day, 915 gallons an hour, or 15.26 GPM were run through the meter over a 28 day period. That amount of flow is well within the range of this meter ($\frac{1}{2}$ – 25 GPM).

Sincerely,

Mike Storm

Mike Storm

Mueller Systems

mstorm@muellersystems.com

Magnetic Drive Positive Displacement Disc Meters Size 5/8"

Features

APPLICATIONS: Measurement of cold water for residential and small commercial applications where water volumes are low, and low flow sensitivity is important.

CONFORMANCE TO STANDARDS: Hersey Series 400 Water Meters comply with latest version of ANSI/AWWA Standard C700, NSF-61 372 and the Safe Water Drinking Act. Each meter is tested to ensure compliance.

CONSTRUCTION: Hersey 400 Water Meters consist of three basic parts: maincase; measuring chamber; and permanently sealed register. The maincase is made of bronze for long life. Direction of flow arrows and model are cast into each maincase. The bottom cover is epoxy-coated cast iron with a molded plastic liner separating it from the waterway. Optional plastic and bronze bottom covers are available. The measuring chambers are large for reduced wear during operation. The measuring chamber, integral strainer, nutating disc and thrust roller are thermoplastic, which is dimensionally stable and will not corrode. The thrust roller moves smoothly along a stainless steel wear plate to reduce friction and maintain accuracy. The register box and lid are available in plastic or bronze. The meter is designed so that the register can be replaced without removing the meter from the line.

REGISTER: The permanently sealed register has a unique seal and heat-treated glass to eliminate dirt, moisture infiltration and lens fogging. An integral tamper-proof locking feature is provided to resist tampering with the register. The totalizing register has a straight-reading odometer type display, a 360° test circle with center sweep hand and a low flow (leak) detector. Standard gearing is used, making registers interchangeable by size. All Hersey meter Models have electronic meter reading systems available for increased reading efficiency (see Meter Reading Systems.)

OPERATION: Water flows through the meter's strainer where debris is screened out. The incoming water fills a known volume of the measuring chamber on one or the other side of a movable disc that separates the chamber into two sections. As water enters, it moves the disc (nutates), forcing a known volume of water out of the meter from the opposite side of the disc. The process repeats as the sections refill and empty in turn. The nutating action of the disc is coupled magnetically to the register to indicate the volume of water that passes through the meter. The large capacity measuring chamber requires fewer nutations of the disc for each gallon measured, which helps to limit wear, extend the life of the meter, and reduce pressure loss.

MAINTENANCE: The Hersey Series 400 Water Meters are designed and manufactured to provide long service life with virtually no maintenance required.

CONNECTIONS: Supplied with external straight pipe threads (NPSM) per ANSI B1.20.1.



430 with Integral HOT ROD

430 Series

Materials and Specifications

| | |
|-----------------------------|---|
| MODEL NUMBER | 430 |
| SIZES | 5/8"x1/2", 5/8"x3/4" |
| STANDARDS | Manufactured and tested to meet or exceed all applicable parts of ANSI/AWWA C700 Standard NSF-61 372 and the Safe Water Drinking Act |
| SERVICE | cold water measurement with flow in only one direction |
| OPERATING FLOW RANGE | See Chart on the following page |
| ACCURACY | See Chart on the following page |
| PRESSURE LOSS | See Chart on the following page |
| MAXIMUM WORKING PRESSURE | 150 PSI |
| TEMPERATURE RANGE | 33F to 100F Water Temperature |
| MEASURING ELEMENT | Nutating Disc |
| DISC NUTATIONS (per Gallon) | 430 : 49.6 |
| REGISTER TYPE | Straight reading; permanently sealed, magnetic drive with low flow indicator. Remote reading units optional. |
| METER CONNECTIONS | 1/2", 3/4" external (NPSM) straight pipe threads per ANSI B1.20.1 |
| MATERIALS | Meter case — No Lead Bronze; Bottom cover — cast iron ASTM A126 CL. B; Chamber top/bottom — thermoplastic; Nutating disc — thermoplastic; Disc pin — stainless steel; Thrust roller — thermoplastic; Wear plate — stainless steel; Coupling — Ceramic magnet; Strainer — thermoplastic; Coupling shaft — stainless steel ANSI B18; Top cover bolts — stainless steel ANSI B18; Bottom cover bolts — stainless steel ANSI B18; Register box and lid — thermoplastic. |
| OPTIONS | Bottom cover — bronze UNSC84400 or thermoplastic; Register box and lid — bronze UNSC85700; AMR/AMI Reading Systems |

Magnetic Drive Positive Displacement Disc Meters Sizes 5/8"

430 Series

Meter Registration

| Meter Size | Initial Dial* | Capacity | Initial Dial* | Capacity |
|------------|---------------|------------|---------------|-----------|
| 5/8" | 10 Gallons | 10 Million | 1 Cubic Feet | 1 Million |

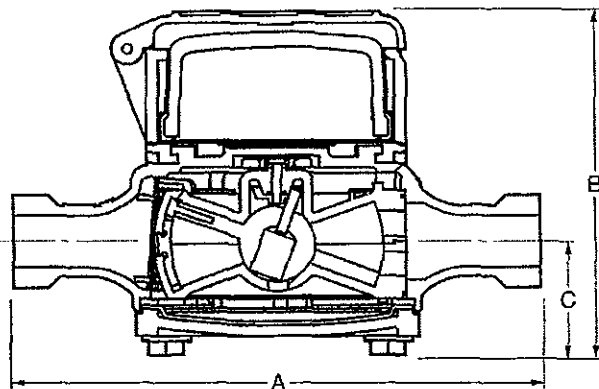
*Registration equal to one full revolution of the sweep hand.

Flow Characteristics

| Meter Size | Typical Low Flow (95% Minimum) | Typical Operating Range (100% \pm 1.5%) | Maximum Continuous Operation |
|------------|--------------------------------|---|------------------------------|
| 5/8" | 1/4 GPM | 1/2 to 25 GPM | 15 GPM |

NOTE: Performance curves are typical only and NOT a guarantee of performance.

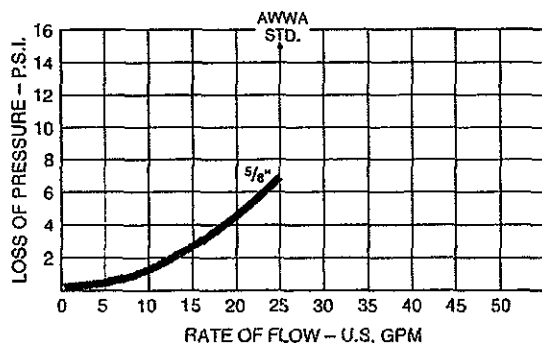
Dimensions and Weights



| | |
|------------------|---------------------------------------|
| Meter Size | 5/8" |
| Ends | External (NPSM) straight pipe threads |
| Model | 430 |
| Dimensions | |
| A | 7-1/2" |
| B Visual Reg | 4-15/16" |
| B Translator Reg | 4.27 |
| C | 1-5/8" |
| Width | 4.25" |
| inlet & outlet | 1/2" or 3/4" |
| Net weight | 4-1/2 |

Performance

HEAD LOSS - 5/8" (Figure 1)



NOTE: Performance curves are typical only and NOT a guarantee of performance.

Performance

ACCURACY - 5/8" (Figure 2)

