**COMMONWEALTH OF KENTUCKY**

**BEFORE THE PUBLIC SERVICE COMMISSION**

**In the Matter of:**

| | | |
|---|---|---|
| **ELECTRONIC FARMDALE WATER DISTRICT'S UNACCOUNTED-FOR WATER LOSS REDUCTION PLAN, SURCHARGE AND MONITORING** | **)** | **Case No. 2020-00217** |
| **AN ELECTRONIC INVESTIGATION INTO FARMDALE WATER DISTRICT TO DETERMINE THE FEASIBILITY OF MERGER WITH A PROXIMATE UTILITY PURSUANT TO KRS 74.361 OR ABANDONMENT PURSUANT TO KRS 278.020(6) AND KRS 278.021** | **)** | **Case No. 2024-00202** |

## NOTICE OF FILING
## CERTIFICATION OF METER-TESTING FACILITIES

By and through the undersigned counsel and pursuant to The Commission's July 17, 2018 Order in Case No. 2018-00226, Farmdale Water District ("Farmdale") gives notice of filing the Calibration Certificate of the meter-testing equipment utilized by the Frankfort Plant Board in providing meter-testing services to Farmdale.

The Calibration Certificate provided to the Frankfort Plant Board by Michelli Weighing & Measurement ("Michelli"), which acquired the American Scale Company in November 2024, indicates that the calibration results are traceable through National Institute of Standards and Technology ("NIST")-certified measurement standards. The Calibration Certificate also indicates that American Scale (now Michelli) is ISO 17025 accredited as required by the Commission. Farmdale has also provided the attached Calibration Certificate and other materials to the Commission's Division of Inspections.

Dated: July 1, 2025

Respectfully submitted,

/s/Tina C. Frederick

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*Counsel for Farmdale Water District*

## CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, and the Public Service Commission's Order of July 22, 2021 in Case No. 2020-00085, I certify that this document was transmitted to the Public Service Commission on July 1, 2025 and that there are currently no parties that the Public Service Commission has excused from participation by electronic means in these proceedings.

/s/Tina C. Frederick

*Counsel for Farmdale Water District*

Frankfort Plant Board

Water
Cable
Electric
Security
Local Phone
Digital Cable
Long Distance
Community TV
Ethernet/Internet
Cable Modem/ISP
Cable Advertising

June 17, 2025

Ms. Tina Frederick
Stoll Keenon Ogden PLLC
300 W. Vine St., Suite 2100
Lexington, KY 40507

RE: FPB Meter Testing Certification

Dear Ms. Frederick:

Recently, you requested information regarding FPB's efforts to certify its meter testing equipment and personnel.

FPB has recalibrated its meter testing bench and believe we comply with 807 KAR 5:006, Section 17(1)-(4) and the Commission's Order in *Notification to Utilities Furnishing Metered Electric, Gas or Water Service Regarding Meter Testing Requirements*, Case No. 2018-00226.

Enclosed are materials from Michelli Weighing and Measurement who calibrated the tanks used for our testing bench. Also enclosed is FPB's meter testing training outline. All employees testing meters have completed the class and an exam.

After you have a chance to review the materials, please contact me at your convenience if you have any questions.

Sincerely,

Sharmista Dutta, P.E.
Director of Water

Enclosures

# MICHELLI WEIGHING & MEASUREMENT

CERT NO. 25I- 888

3540 BASHFORD AVENUE - LOUISVILLE, KY 40218
502-451-5040 Fax -- 502-451-5535 www.michelli.com

## CALIBRATION CERTIFICATE

| | |
|---|---|
| COMPANY: Frankfort Plant Board | CONTRACT: |
| ADDRESS: 305 Hickory Dr | CONTACT: |
| Frankfort Ky 40601 | PHONE: |

This certificate applies only to the equipment listed.

| TYPE EQUIPMENT | MANUFACTURER | MODEL NUMBER | CAPACITY & GRAD | TOLERANCE |
|---|---|---|---|---|
| floor Scale | AWTX | ZM 303 | 3000 X .2 lb | HB44 |
| **EQUIPMENT ID NO.** | **SERIAL NO.** | **LOCATION** | **USED CAPACITY** | **MEASURE OF UNCERTAINTY** |
| 0706 | 240850706 | Meter test | | Available upon request |

| LOAD CELL | SHIFT TEST: | | POSITION | WEIGHT USED | READING BEFORE CALIBRATION | ERROR | ZERO TEST REPEATABILTY | READING AFTER CALIBRATION | ERROR |
|---|---|---|---|---|---|---|---|---|---|
| MANUFACTURER | 1 | 2 | 1 | 200 lb | 200.0 | 0 | 0 | | |
| MODEL NUMBER | 4 | 3 | 2 | 200 lb | 200.0 | 0 | 0 | | |
| CAPACITY | | | 3 | 200 lb | 200.0 | 0 | 0 | | |
| QUANTITY | | | 4 | 200 lb | 200.0 | 0 | 0 | | |

| WEIGHT TEST | WEIGHT USED | READING BEFORE CALIBRATION | ERROR | READING AFTER CALIBRATION (IF NEEDED) | ERROR |
|---|---|---|---|---|---|
| | 0 | 0 | 0 | | |
| | 100 lb | 100.0 | 0 | | |
| | 200 lb | 200.0 | 0 | | |
| | 400 lb | 400.0 | 0 | | |
| | 200 lb | 200.0 | 0 | | |
| | 100 lb | 100.0 | 0 | | |
| | 0 | 0 | 0 | | |

☒ APPROVED AS FOUND ☐ CORRECTIVE ACTION REQUIRED OUT OF TOLERANCE AS FOUND ☒ APPROVED AS LEFT YES ☐ NO

LOCATION OF CALIBRATION: SAME ENVIRONMENT: ☒ NORMAL: ☐ OTHER: _____ TEMP: _____

REPAIRS, ADJUSTMENTS, OR COMMENTS AND OPINIONS MADE AT THIS TIME:

New Scale Calibration

JW B 27933 5/30/25

SIGNATURE OF SCALE INSPECTOR REGISTRATION # DATE

Calibration results are traceable through NIST, or an equivalent NMI, to SI Units using test weights providing a Test Accuracy Ratio of 4:1 or better. If not reported above, Measurement Uncertainty (MU) is no greater than +/- (3 d + 0.012% of applied load), with d representing the Unit Under Test's (UUT) division size. MUs represent Expanded Uncertainties using k=2, providing an approximate 95% Confidence Level, and "Worst Normal Condition" assumptions. On request, MUs can be provided that are estimated based on a specific UUT and customer environment. Conclusions regarding In Tolerance/Out of Tolerance are based on a comparison between the displayed result and the applicable tolerance. These conclusions, unless otherwise noted, apply a Simple Acceptance and Rejection decision rule (i.e. the tolerance is the acceptance zone) and our MU is provided for consideration by the customer. For tolerances expressed as a percentage of test load, a minimum tolerance of 1 d is applied. This report cannot be reproduced except in full without our permission and our reported results relate only to the equipment identified above. American Scale is ISO/IEC 17025:2017 accredited through PJLA Accreditation# 59225. Footnote Revised 09/05/19.

WEIGHT SET NUMBER: 516 TRACEABLE CERTIFICATE NUMBER: MJ051223

## FPB WATER METER TESTER CERTIFICATION STUDY GUIDE

A water meter, like any other mechanical device, is subject to wear and deterioration and, over a period of time, loses its peak efficiency. How long water meters retain their overall accuracy depends on many factors, such as the quality of the water being measured, rates of flow, total quantity, chemical buildup, and abrasive materials carried by the water.

The Public Service Commission of Kentucky requires that all new water meters, and any water meter removed from service for any reason, shall be tested for accuracy of registration at various flow rates and test-flow quantities before being placed in service. This procedure ensures the water utility that the water meter is accurate and that a complete history is available when the meter is eventually brought back to the utility for inspection or maintenance, or if a customer challenges the meters accuracy. It is in the best interest of both the utility and the customer that testing of meters be part of a continuing maintenance program.

The loss of revenue to the water utility may occur if the meters are not maintained at a reasonable level of efficiency. Unfortunately, water meters may seriously under register for periods without complete stoppage. Water meters are recognized as the only means by which revenue is equitably obtained to operate a water system, therefore it is imperative that they receive proper attention by utility management.

The FPB will periodically test Water District water meters so that no meter will remain in service without being tested for a period no longer than the requirements of the agreement with PSC, which is shown in the following table:

| SIZE OF METER | YEARS OF SERVICE |
|---|---|
| 5/8" | 10 |
| 5/8 X 3/4" | 10 |
| 3/4" | 10 |
| 1" | 10 |
| 1 1/2" | 4 |
| 2" | 4 |
| 3" | 2 |
| 4" and LARGER | 1 |
| | |

# FPB WATER METER TESTER CERTIFICATION STUDY GUIDE

## ELEMENTS OF A METER TEST

There are three basic elements of a meter test.

1. The number of different rates of flow over the operating range of a meter required to determine the overall meter efficiency.

2. The quantities of water necessary at the various test rates to provide reasonable determination of meter registration. 3. Accuracy limits that meters must meet on the different rates of flow to be acceptable for use.

## TEST RATES OF FLOW

To determine the proper rate of flow, a meter test bench operator shall first determine the size and type of water meter to be tested. The three rates of flow will be determined by either:

1. Reviewing the manufacturers guidelines for operating a water meter at its safe maximum capacity and basing the flow rates of minimum, intermediate, and maximum on a percentage of the safe maximum capacity or

2. The meter test bench operator may review the rates of flow in the American Waterworks Association of M6 manual or 3. The test flow rates listed under Public Service Commissions regulations 807 KAR 5:066 Section 15.

Test rates of flow should be measured in actual units, such as gallons per minute. The three rates of flow necessary to properly test displacement, multi-jet, compound, fire service and propeller type water meters are maximum, intermediate, and minimum. At least one additional test shall be performed within the range of flows of compound and fire service meters to determine the overall operational efficiency and accuracy of registration.

The two rates of flow necessary to properly test Class I and Class II turbine type meters are maximum and minimum.

Tests for full-flow accuracy do not need to be made at the safe maximum capacity rate, especially for large meters and when testing with a standard meter, because registration curves of water meters show a general pattern of registration. The specific profile of the accuracy curve can be different for each meter, depending on the size and type. Maximum rate test flows of 50-75 percent of rated capacity are practical, particularly because meters seldom operate at rated capacity.

The intermediate rate of flow shall be at or near the high point of registration to ensure against over registration of the meter on any rate of flow.

The minimum rate flow test does more to disclose operational ability and proficiency of meter repair than either the maximum or intermediate flow tests. All three are necessary to evaluate overall meter accuracy. Test rates of flows shall be measured in actual units, such as gallons per minute.

## METER TEST FACILITIES AND EQUIPMENT

The FPB meter room shall, insofar as practicable, simulate actual service conditions of temperature, inlet pressure, and outlet pressure. It shall provide the necessary equipment, including valves on the inlet and outlet sides of the meter test bench, a calibrated scale, a device for regulating flow, a gauge to measure flow rate such as a rotameter, pressure gauges and pressure relief valves. The scale used for measuring water weight shall be tested and calibrated at least once a year and certified as to its accuracy by a certified person.

## TESTING PROCEDURE FOR COLD WATER METERS

Meters shall be tested singly or in groups, although the following description covers the actual steps in testing a group of 5/8"x3/4" water meters, the only differences for larger meters are the rates of flow and test quantities use.

A meter shall be tested as soon as possible after removal from service to prevent drying out of deposits in the measuring chamber, as this condition tends to give an adverse impression of the meters condition while it was in service.

1. Place the meters in the test bench, making sure to properly align them with the clamps.

2. Open the register lid. Make sure lens in clean enough to properly read the register.

3. Open the hydraulic clamping valve located on the inlet side of the bench. This will close the clamps onto the meters.

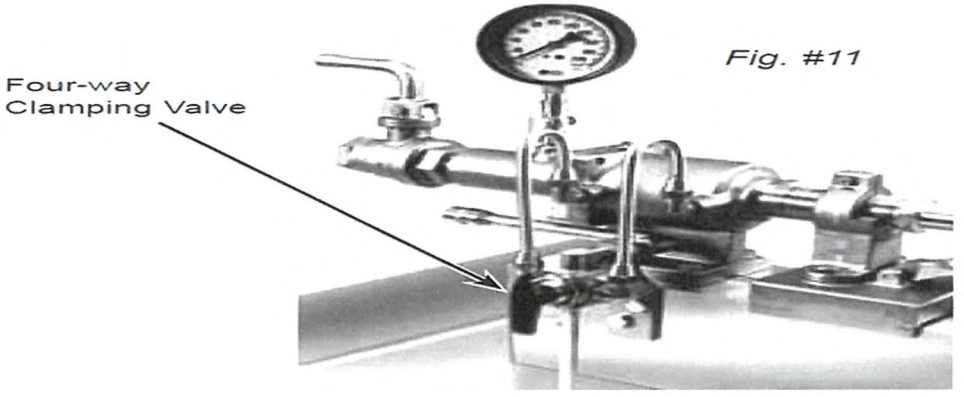
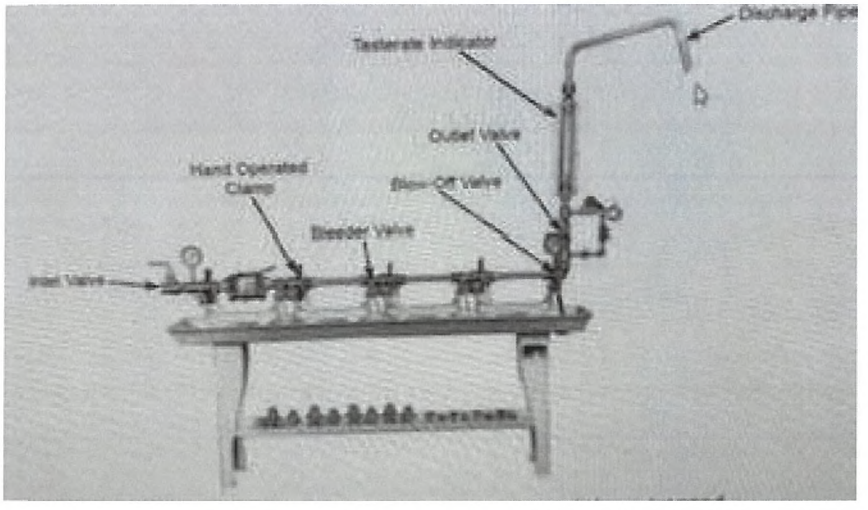



*Fig. #11*

4. Open the blow-off valve, located on the outlet side of the test bench.




5. Slowly open the inlet valve and run water to waste until the entrapped air is cleared. Never run water at full force through the blow-off valve. After air is cleared shut of blow-off valve.

6. Rotate discharge pipe away from tank and scale to drain. Open the outlet valve, and turn the control switch to the low position to allow any entrapped air to escape.

7. After clearing the air, close the outlet valve completely.

8. Adjust the flow control valve located on the solenoid line to the low flow that will be used for the first test. Then turn the switch to the off position. Return the discharge pipe back to the tank.

9. Make sure the drain valve on the tank is fully closed and press zero on the scale control panel.

10. Using the FPB meter test sheet, record the test date, the type of each meter, the size of each meter, the serial number of each meter, the test number, the name of the tester, the warranty date, and the initial full start reading of each meter down to the hundredth of a gallon. (see attached example)

11. You are now ready to run the first flow test, which is the low flow. This test should be run using the control panel on the low setting. It is set to automatically shut down after 10 gallons of water has entered the tank. The test bench operator shall refer to the flow rate chart provided to find the appropriate flow rate for the size meter being tested. Turn the control switch to the "Low" position and adjust the flow control valve to the appropriate flow for the size meter being tested.

12. After the low flow test has completed, return the control switch to the off position and record the finished weight in the proper space on the spread sheet provided.

13. Collect the finish readings from every meter and record them in the corresponding space on the spread sheet. The spread sheet will then calculate the accuracy of each meter as you enter the finish reading and populate the start reading for the next test.

14. You are now ready to perform the next flow test which is the intermediate flow test. It is not necessary to drain the tank before this test. You must zero the scale before starting the intermediate test.

15. Turn the control switch to the "Med" position and adjust the flow control valve to the appropriate flow for the size meter being tested. The test will stop automatically after 10 gallons of water has entered the tank.

16. After the intermediate flow test has stopped. Return the control switch to the off position. Record the finished weight in the appropriate space on the spread sheet.

17. Open the drain valve on the tank and record the finished reading on all meters in the corresponding space on the spread sheet. The spread sheet will automatically calculate the accuracy of each meter as you enter the finish reading.

18. Close the drain valve on the tank. Zero the scale and you are now ready to perform the high flow test. Open the outlet valve located just below the Testerate Indicator. Set the flow rate to the appropriate flow for the meter being tested.

19. When the scale reaches the appropriate weight for the high flow test for the meter size being tested, fully close the outlet valve and record the finished weight in the appropriate space on the spread sheet.

20. Record the finished reading for each meter in the corresponding space on the spread sheet. The spread sheet will automatically calculate the meter accuracy and the average accuracy for the entire test for each meter.

21. You have now completed an entire meter test and may begin to remove the meters from the bench. Turn the inlet valve off and open the blowoff valve to release the pressure from the bench. Open the clamping valve to release the meters from their clamps.

22. If the operator has decided the meters have passed and are of the age that they can be returned to service then when removing those meters you must drain the majority of the water from the meter and place dust caps on the meter ends and place them in the warehouse to return to use at a new location.

23. If the operator has decided the meters are of the age that they should be retired from service, the meter should be scrapped.

According to KAR 5:066 Section 14 all new meters, and any meter removed from service for any cause, shall be tested for accuracy as specified in the following chart, prior to being placed back in service.

# FPB WATER METER TESTER CERTIFICATION STUDY GUIDE

**DISPLACEMENT METERS (AWWA C700)**

| Size in. | Maximum Rate (All Meters) Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ | Accuracy Limits percent | Intermediate Rate (All Meters) Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ | Accuracy Limits percent | Minimum Rate (New and Rebuilt)① Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ | Accuracy Limits percent | Maximum (Repaired)① Accuracy Limits percent (min.) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5/8 | 15 | 100 | 10 | 98.5 - 101.5 | 2 | 10 | 1 | 98.5 - 101.5 | 1/4 | 10 | 1 | 95 - 101 | 90 |
| 5/8 x 3/4 | 15 | 100 | 10 | 98.5 - 101.5 | 2 | 10 | 1 | 98.5 - 101.5 | 1/4 | 10 | 1 | 95 - 101 | 90 |
| 3/4 | 25 | 100 | 10 | 98.5 - 101.5 | 3 | 10 | 1 | 98.5 - 101.5 | 1/2 | 10 | 1 | 95 - 101 | 90 |
| 1 | 40 | 100 | 10 | 98.5 - 101.5 | 4 | 10 | 1 | 98.5 - 101.5 | 3/4 | 10 | 1 | 95 - 101 | 90 |
| 1-1/2 | 50 | 100 | 10 | 98.5 - 101.5 | 8 | 100 | 10 | 98.5 - 101.5 | 1-1/2 | 100 | 10 | 95 - 101 | 90 |
| 2 | 100 | 100 | 10 | 98.5 - 101.5 | 15 | 100 | 10 | 98.5 - 101.5 | 2 | 100 | 10 | 95 - 101 | 90 |

| | Size in. | Maximum Rate Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ | Accuracy Limits percent | Intermediate Rate Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ | Accuracy Limits percent | Minimum Rate Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ | Accuracy Limits percent |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CLASS I TURBINE METERS (AWWA C701)** | 1-1/2 | 80 | 200 | 20 | 98 - 102 | 35 | 100 | 10 | 98 - 102 | 12 | 100 | 10 | 98 - 102 |
| | 2 | 120 | 300 | 30 | 98 - 102 | 50 | 200 | 20 | 98 - 102 | 16 | 100 | 10 | 98 - 102 |
| | 3 | 250 | 500 | 50 | 98 - 102 | 75 | 300 | 30 | 98 - 102 | 24 | 100 | 10 | 98 - 102 |
| | 4 | 400 | 1000 | 100 | 98 - 102 | 125 | 500 | 50 | 98 - 102 | 40 | 100 | 10 | 98 - 102 |
| | 6 | 1000 | 2000 | 200 | 98 - 102 | 200 | 500 | 50 | 98 - 102 | 80 | 1000 | 100 | 98 - 102 |
| | 8 | 1500 | 3000 | 300 | 98 - 102 | 300 | 1000 | 100 | 98 - 102 | 140 | 1000 | 100 | 98 - 102 |
| | 10 | 2200 | 5000 | 500 | 98 - 102 | 500 | 1000 | 100 | 98 - 102 | 225 | 1000 | 100 | 98 - 102 |
| | 12 | 3300 | 7000 | 700 | 98 - 102 | 700 | 2000 | 200 | 98 - 102 | 400 | 1000 | 100 | 98 - 102 |
| **CLASS II TURBINE METERS (AWWA C701)** | 1-1/2 | 90 | 300 | 30 | 98.5 - 101.5 | 10 | 100 | 10 | 98.5 - 101.5 | 4 | 100 | 10 | 98.5 - 101.5 |
| | 2 | 120 | 300 | 30 | 98.5 - 101.5 | 10 | 100 | 10 | 98.5 - 101.5 | 4 | 100 | 10 | 98.5 - 101.5 |
| | 3 | 275 | 600 | 60 | 98.5 - 101.5 | 20 | 100 | 10 | 98.5 - 101.5 | 8 | 100 | 10 | 98.5 - 101.5 |
| | 4 | 500 | 1000 | 100 | 98.5 - 101.5 | 20 | 1000 | 100 | 98.5 - 101.5 | 15 | 100 | 10 | 98.5 - 101.5 |
| | 6 | 1100 | 2500 | 250 | 98.5 - 101.5 | 40 | 1000 | 100 | 98.5 - 101.5 | 30 | 1000 | 100 | 98.5 - 101.5 |
| | 8 | 1800 | 4000 | 400 | 98.5 - 101.5 | 50 | 1000 | 100 | 98.5 - 101.5 | 50 | 1000 | 100 | 98.5 - 101.5 |
| | 10 | 3000 | 6000 | 600 | 98.5 - 101.5 | 75 | 1000 | 100 | 98.5 - 101.5 | 75 | 1000 | 100 | 98.5 - 101.5 |
| | 12 | 4000 | 8000 | 800 | 98.5 - 101.5 | 100 | 1000 | 100 | 98.5 - 101.5 | 120 | 1000 | 100 | 98.5 - 101.5 |
| | | Maximum Rate | | | | Intermediate Rate② | | | | Minimum Rate | | | |
| **COMPOUND METERS (AWWA C702)** (Test at intermediate rate not necessary.) | 2 | 100 | 100 | 10 | 97 - 103 | 10 - 15 | 100 | 10 | 90 - 103 | 1/4 | 10 | 1 | 95 - 101 |
| | 3 | 150 | 500 | 50 | 97 - 103 | 10 - 15 | 100 | 10 | 90 - 103 | 1/2 | 10 | 1 | 95 - 101 |
| | 4 | 200 | 500 | 50 | 97 - 103 | 20 - 25 | 100 | 10 | 90 - 103 | 3/4 | 10 | 1 | 95 - 101 |
| | 6 | 500 | 1000 | 100 | 97 - 103 | 25 - 35 | 100 | 10 | 90 - 103 | 1-1/2 | 100 | 10 | 95 - 101 |
| | 8 | 600 | 2000 | 200 | 97 - 103 | 35 - 45 | 100 | 10 | 90 - 103 | 2 | 100 | 10 | 95 - 101 |
| | 10 | 900 | 2000 | 200 | 97 - 103 | — | — | — | 90 - 103 | 4 | 100 | 10 | 95 - 101 |

**FIRE-SERVICE TYPE (AWWA C703)④**

**TURBINE MAIN LINE TYPE WITH BY-PASS③**

| Meter Size in. | Minimum Rate (95 percent min. accuracy limit) Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ | Cross-Over Rate (90-103 percent accuracy limit) Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ | Maximum Rate (98.5-101.5 percent accuracy limit) Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ |
|---|---|---|---|---|---|---|---|---|---|
| 4 | ⑤ | 100 | 10 | 25 - 35 | 1000 | 100 | 750 | 2000 | 200 |
| 6 | ⑤ | 100 | 10 | 50 - 60 | 1000 | 100 | 1500 | 5000 | 500 |
| 8 | 3 | 100 | 10 | 50 - 60 | 1000 | 100 | 2500 | 5000 | 500 |
| 10 | 3 | 100 | 10 | 55 - 65 | 1000 | 100 | 4000 | 8000 | 800 |

① A rebuilt meter is one that has had the measuring element replaced with a factory-made new unit. A repaired meter is one that has had the old measuring element cleaned and refurbished in a utility repair shop.

② Cross over flow rates vary depending on meter model and brand. Those values are for Sensus (Rockwell) Compound Meters. Consult manufacturers for other brands.

**TURBINE MAIN LINE TYPE WITH BY-PASS③**

| Meter Size in. | Minimum Rate (95 percent min. accuracy limit) Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ | Intermediate Rate (98.5-101.5 percent accuracy limit) Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ | Maximum Rate (98.5-101.5 percent accuracy limit) Flow Rate gpm | Test Quantity gal. | Test Quantity ft.³ |
|---|---|---|---|---|---|---|---|---|---|
| 4 | 10 | 1000 | 100 | 20 | 1000 | 100 | 750 | 2000 | 200 |
| 6 | 20 | 1000 | 100 | 40 | 1000 | 100 | 1500 | 5000 | 500 |
| 8 | 30 | 1000 | 100 | 50 | 1000 | 100 | 2500 | 5000 | 500 |
| 10 | 35 | 1000 | 100 | 75 | 1000 | 100 | 4000 | 8000 | 800 |

③ The values listed are for Invensys meters only.

④ Flow rate for FireLine 1-1/2 - 3" gpm depending on bypass meter. Flow rate for UL/FM Compact at 3 gpm.

Note 1. All tests must be made for one or more complete revolutions of the test hand, not

fractions of revolutions. Note 2. As this rate varies according to manufacturer, it should be

determined for each make of meter tested.

Quantity should be one or more full revolutions of test hand, but not less than three minutes

running.

* A rebuilt meter is one that has had the measuring element replaced with a factory-made new

unit. A repaired meter is one that has had the old measuring element cleaned and

refurbished in a utility repair shop.

## DETERMINATION OF METER ACCURACY

No new, rebuilt or repaired meter shall be place in service if the following required tests show that it does not register within the accuracy limits specified in the above chart.

Meters of the displacement, multijet, compound, fire service and propeller type shall be tested at the minimum, intermediate and high test flow rates shown in the above chart. At least one additional test shall be performed within the range of flows of compound and fire service meters to determine overall operational efficiency and accuracy of registration.

Meters of the Class I and Class II turbine type shall be tested at the minimum and hi test flow rates shown in the above chart.

All meters tested in accordance with the rules for periodic, request or complaint tests, shall be tested in the condition as found in the customer's service prior to any alteration or adjustment. This test shall consist of three rates of flow in the minimum, intermediate, and high flow range for that type of meter as set out in the above chart.

## DETERMINATION OF METER ACCURACY FOR BILL ADJUSTMENT

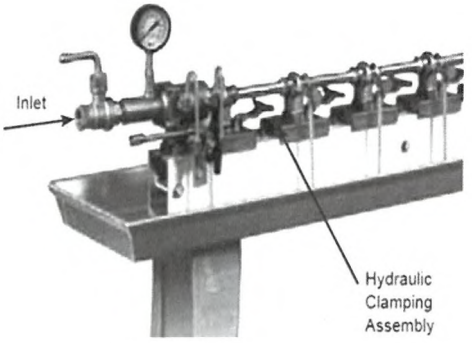
When upon periodic, request or complaint test, a meter is found to be in error in excess of the limits allowed by the Public Service Commissions' regulations, three additional tests shall be made:

1. One at 75% of rated maximum capacity
2. One at 50% of rated maximum capacity
3. One at 25% of rated maximum capacity

The average meter error shall be the algebraic average of the errors of the three tests.

# FPB WATER METER TESTER CERTIFICATION STUDY GUIDE

## PARTS OF FPB METER TEST BENCH



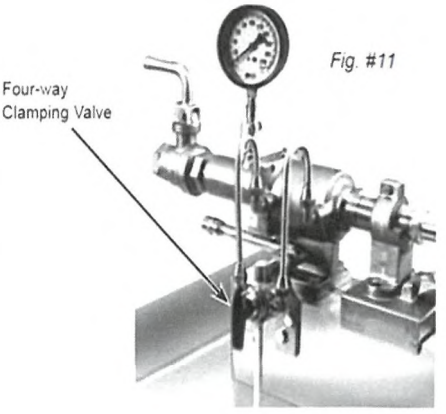
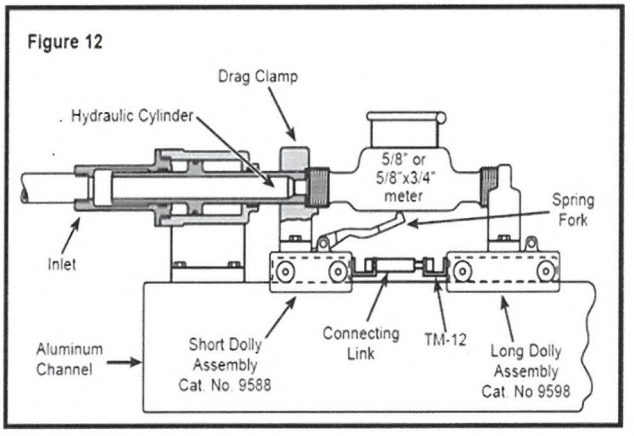
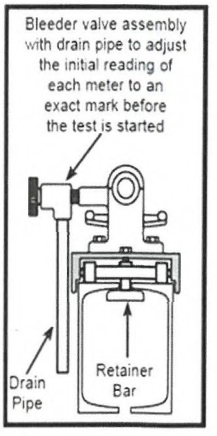
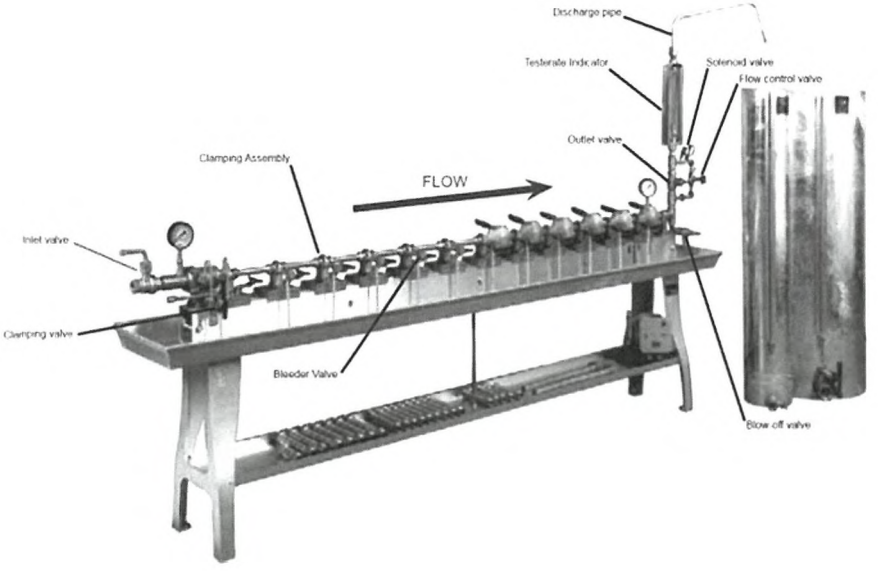




*Fig. #11*



## NOTES

# Notice of Ownership Change

We are excited to share with you an important change regarding the ownership of American Scale. As of November 12, 2024, American Scale has been acquired by Michelli Weighing & Measurement.

This acquisition will enable us to combine our expertise and our team, enhancing our capabilities. Moving forward together, we are able to better serve our customers by providing you with weighing & measurement products from a broader range of manufacturers, and an expanded list of services, including precision measurement device calibration.

Since 1947, the Michelli Weighing & Measurement companies have served the Weighing & Measurement Industry, now with forty service areas throughout 17 states. Michelli Weighing & Measurement is ISO 9001 certified, and our calibration labs are IEC/ISO 17025 accredited. This allows us to provide accredited calibration for equipment & precision instruments used in weighing, force, torque, pressure, dimensional, electrical, temperature & frequency measurement.

Please contact our friendly team of experts with service requests or questions at (504) 733-9822 or info@Michelli.com.

## Services

**Michelli Weighing & Measurement is your comprehensive solution for scale service, equipment maintenance & calibration**

All Michelli test weights are certified, and we are ISO 9001 registered & ISO 17025 accredited.

With a fleet of heavy capacity test trucks that meet or exceed all requirements, we provide the most comprehensive service network in the United States.

VIEW ALL SERVICES

Calibration

(Click to learn more)

Installation

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Preventative Maintenance

(Click to learn more)

Equipment Repair

(Click to learn more)

Weighing Systems

(Click to learn more)

Inspections & Certifications

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## About Us

### ISO 17025 Accredited Calibration Labs

Michelli Weighing & Measurement offers both standard & ISO 17025 accredited calibration services on a wide range of weighing & measurement equipment.

### Comprehensive Weighing & Measurement Equipment Solution

From equipment repairs to rentals, product purchases to weighing system development, the Michelli team can help. Our product specialists & service experts help you get the equipment you need & keep it in great working order.

### Locations in 14 States

With calibration labs throughout the Southern & Western United States, the Michelli team is always nearby and ready to help with equipment ranging from heavy duty scales to precision measurement devices.

## Contact us today for weighing & measurement equipment sales, service, calibration or repair

Request a Quote

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