



NATIONAL TYPE EVALUATION PROGRAM

Certificate of Conformance

for Weighing and Measuring Devices

For:

Meter Indicating Volume
Multi-jet Water Meter
Model: SPWM-XXX-HD-NSF, VSPWM-XXX-HD-NSF

Submitted By:

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Standard Features and Options

Standard Features:

- Cold Water
- Cubic Feet Measure
- 5 Digit Odometer Style Indicator
- Four Clock Style Indicators Readable to .0001
- Automatic Meter Reading (AMR) Pulse Output (functions were not evaluated)
- Meter Construction Material- Stainless Steel Grade 304
- External Threaded Inlet and Outlet

Meter Model

SPWM-075-HD-NSF Horizontal
 SPWM-100-NSF Horizontal
 SPWM-150-NSF Horizontal
 SPWM-200-NSF Horizontal
 VSPWM-075-HD-NSF Vertical

Flow Rate

16 to 240 cubic feet per hour
 24 to 401 cubic feet per hour
 40 to 802 cubic feet per hour
 64 to 1 283 cubic feet per hour
 16 to 240 cubic feet per hour

This device was evaluated under the National Type Evaluation Program and was found to comply with the applicable technical requirements of *Handbook 44: Specifications, Tolerances and Other Technical Requirements for Weighing and Measuring Devices*. Evaluation results and device characteristics necessary for inspection and use in commerce are on the following pages. *Editorial changes, not affecting the type or metrological content, corrected this certificate.

Ivan Hankins
Chairman, NCWM, Inc.

Hal Prince
Chair, NTEP Committees
Issued: May 17, 2022

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**EKM Metering, Inc.**

Meter Indicating Volume / SPWM-XXX-HD-NSF, VSPWM-XXX-HD-NSF

Application: Models SPWM-XXX-HD-NSF are certified for use in submetering networks and optional consumption monitoring in a horizontal position. Model VSPWM-075-HD-NSF is certified for use in submetering networks and optional consumption monitoring in the vertical position.

Identification: All required identification information is on the face of the meter or on the retaining ring of the meter. Flow direction is cast into the meter casing.

Sealing: The meter has a wire security sealing provision for securing the register to the meter body. The meter has a regulation screw (1) to shift the measuring curve up and down to compensate test bench offset during production. To prevent manipulation on the register or disassembly of the meter we secure the retaining ring (2) which is screwed onto the stainless steel casing with a sealing wire that is run from the regulation screw (1) to the retaining ring (2).

Operation: This is a velocity type meter where in-flowing water, distributed by multiple jets, flows past an impeller in the measuring chamber, creating an impeller velocity directly proportional to water velocity. The meter's register interprets the flow velocity in volumetric cubic feet.

Test Conditions: Two 1-inch meters and two 2-inch meters were submitted for testing in the horizontal position. After successfully passing the initial testing, the meters were subjected to a throughput of more than 200 000 gallons. Also, a ¾ meter (model VSPWM-75-HD-NSF) was tested in the vertical upstream position. After passing the initial testing, it was subjected to a throughput of more than 200 000 gallons of water. Water temperatures ranged from the high thirties to mid-fifties. The flow rates and volumes were as required by 2022 edition of NIST Handbook 44. The meters were subjected to retesting after throughput. All results were within tolerance and repeatability requirements.

Evaluated By: A. Katalinic (NCWM/NTEP)

Type Evaluation Criteria Used: *Handbook 44 Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices*, 2022 Edition. *NCWM Publication 14: Measuring Devices*, 2021 Edition.

Conclusion: The results of the evaluation and information provided by the manufacturer indicate the device complies with applicable requirements.

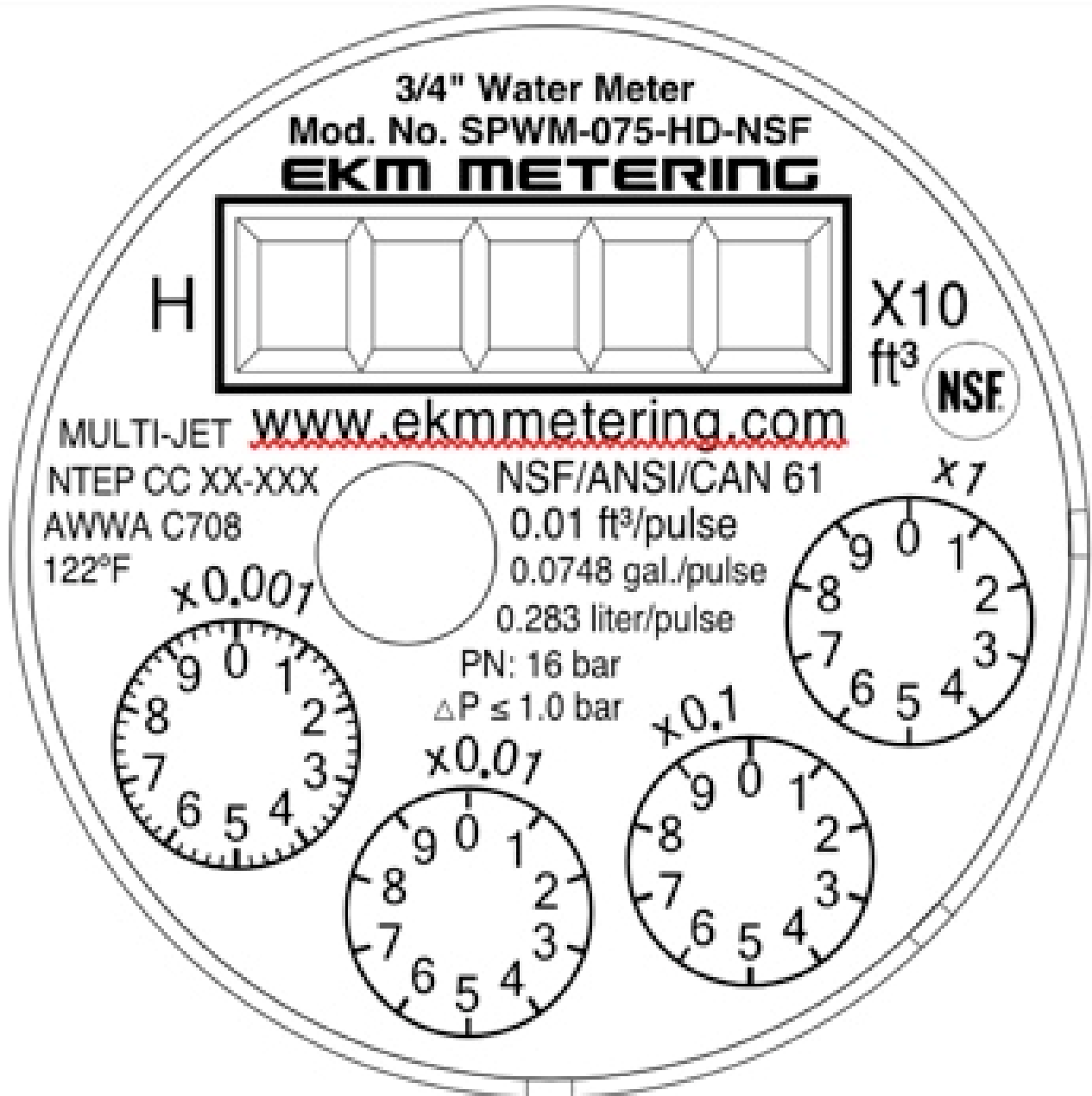
Information Reviewed By: D. Flocken (NCWM)



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Examples of Device:





EKM Metering, Inc.
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Sealing mechanism



Flow Direction Arrow

Vertical Meter

Horizontal Meter

