Technical Bulletin

Bulletin No. **029 Rev B**
Subject: **Flow Rates Greater Than 999 GPM**
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Product Applicability: **RME Hawk, Sentar II, Eagle Controllers**
Engineering Release: **R. A. Olson**
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1.0 REFERENCE MATERIALS

1. RME Hawk User Manual.
2. Evolution DX2 User's Manual and Field Maintenance Guide, (Section - *Appendix A: Flow Meters*).

2.0 FLOW SENSING

The Rain Master RME Hawk series controllers will monitor and display measured station flow in Gallons-Per-Minute (GPM) from 0 to 999. The controller features programmable flow sensor pipe sizes for standard Rain Master Flow sensors (1.0, 1.25, 1.5, 2.0, 3.0 and 4.0 inch). Non-standard pipe sizes may also be programmed.

NOTE: **The controller WILL operate above 999 GPM. It is the display that is limited to three digits. For applications that require higher flow rates, a divide by ten scale factor is used (i.e.; 1200 GPM at the flow sensor will be displayed as 120 GPM at the controller).**

NOTE: ***For information pertaining to Flow sensor enabling and pipe size selection, refer to the User Manual for your specific controller.***

3.0 APPLICATIONS WHERE THE FLOW RATES WILL BE GREATER THAN 999 GPM

To operate these controllers above 999 GPM you must;

1. Use pipe size selection "OTHR".
2. Determine the K (constant) and Offset value for the pipe size and material installed, (SEE: Evolution DX2 User's Manual and Field Maintenance Guide, *Appendix A*).
3. Divide the K value by 10. The resulting value will be entered into the controller.
4. Multiply the Offset value by .066. The resulting value will be entered into the controller.

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Example:

Q. The installation has a 10 inch, schedule 40 pipe, what are the K and Offset values that must be entered into the controller?

A. On page A-19 of the DX2 User's Manual and Field Maintenance Guide, the K value for 10 inch, schedule 40 pipe, is 17622 and the Offset value is 5187.

K (constant) = 17622 / 10 = 1762.2

Offset = 5187 x .066 = 342.342

For this example, the K value that will be entered into the controller is 1762 and the Offset value will be 342.

Example:

Q. The installation has a 12 inch, schedule 60 pipe, what are the K and Offset values that must be entered into the controller?

A. On page A-19 of the DX2 User's Manual and Field Maintenance Guide, the K value for 12 inch, schedule 60 pipe, is 24696 and the Offset value is 8057.

K (constant) = 24696 / 10 = 2469.6

Offset = 8057 x .066 = 531.762

For this example, the K value that will be entered into the controller is 2470 and the Offset value will be 532.

End of Bulletin