Eclipse #2 Hydrant – Data and Testing

Testing Apparatus

TESTING APPARATUS:

Standard water flow loop consists of a 6 inch line and pump that is capable of 1500 gpm and a variety of setups to test a range of sizes. The metering consist of several flow meters for a range of flow rates and a digital differential pressure transmitter that will all connect to the data acquisition system used to record data for valve and component testing. This can be used for valve/component coefficient testing as well as operational testing.

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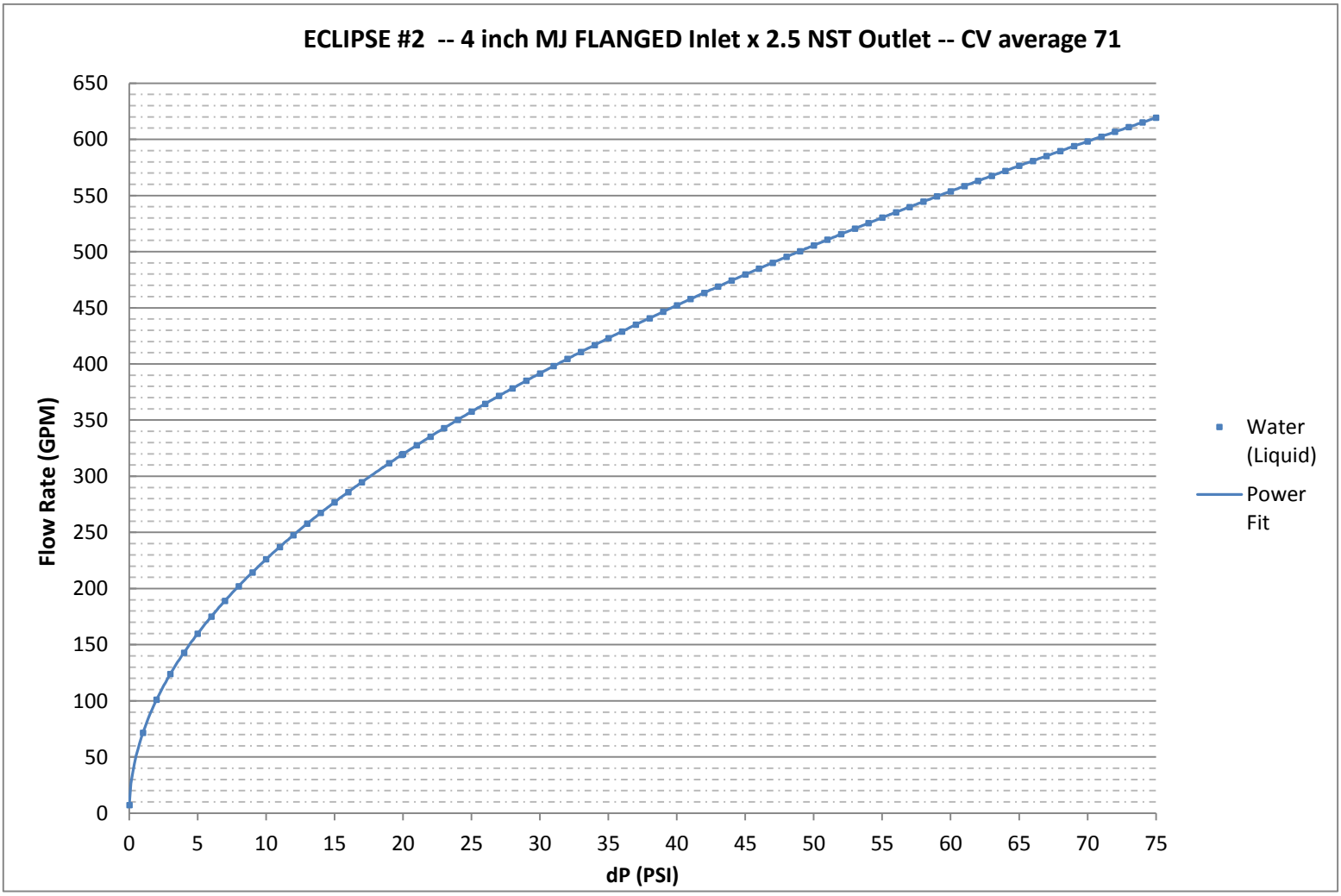
Specifications:

- 3' Bury or Less
- Any size nozzle up to 2-1/2" NST
- 2-3/16" Valve Opening
- Self Draining, Non-Freezing
- 1-1/2" Pentagon Nut
- Used with optional 4" MJ Inlet

DATA AQUIRED

dP vs. Flow Rate Graph



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Data Acquired (cont.)

Graph on previous page show the flow rate vs the differential pressure for the component listed in this document. This data is captured by the data acquisition system that has a flow meter and differential pressure transmitter attached to it.

The setup for the component consists of fittings that match the components inlet and outlet. The fittings are then attached to the appropriate piping to get valid measurements to produce non turbulent flow at the inlet and outlet to get clean data for the differential pressure transmitter.

The data is captured at various points across the operating range and multiple runs to be sure the data is consistent and can then be averaged to get the most definable coefficient for the component.

The data from ECLIPSE #2 HYDRANT has given an average valve coefficient of 71. This coefficient can be used to calculate flow rate and pressure drops for all ranges of this device.

OPERATING CONDITIONS FOR CV TESTING	
INLET PRESSURE	**30 to 35 psig**
FLUID TEMPERATURE	**65 to 75 °F**
TESTING FLUID	**WATER**