

Application Note

March 2001

Application from Hans Alwin of Swanson Flo-Systems Company.

Industry: Fishery / Fish Farm

Company: Harris Design Contracting

Interested User: Plant Manager of Fishery

Application:

This fishery includes the entire commercial fish cycle from hatchery to farming to butcher shop, all under one roof. The problem to be addressed was how to effectively manage the balancing of two million gallons of pristine water to the various fish tanks located throughout the facility. The same re-circulating flow needed to be delivered to 400 tanks simultaneously. Low permanent pressure loss was an important consideration so that the existing pumps were not over-loaded. Convenient installation was also desired to keep down-time to a minimum.

Applicaton Requirements:

± 1% of Reading accuracy

Flow turndown of at least 4:1

Low permanent pressure loss

Fast and easy installation for minimal down time

Easy integration into existing plant communications protocol

Priced to stay within the project budget

Reliability, stability, low maintenance

Meriam Solution:

The model 20T Accutube Averaging Pitot Tube.

The Meriam model 20T Accutube met all of the application requirements laid out by the client. 20Ts were installed on 4", 6", 8" and 10" main and secondary headers to implement the balancing control needed. Installation was quick and easy using the supplied thredolet and compression fitting. Only one weld and one pipe penetration are needed to allow the model 20T to be installed using a compression fitting. Foxboro DP transmitters were connected to the 20Ts to communicate flow rates back to the DCS. The information is used by the DCS to modulate control valves in the system.

Meriam has supplied Accutubes to other fisheries in the past. To make the overall installation even easier, the model 40H or 41H Accutubes can be used. The instrument head of these models allows the DP transmitters to be bolted on directly. A built in 3-valve equalizing manifold also provides convenience to the user.

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