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College Park, MD 20740-3835

M-b-351

August 18, 2005

TO: All Regional Food and Drug Directors
Attn: Regional Milk Specialists

FROM: Milk Safety Branch (HFS-626)

SUBJECT: Waukesha Cherry-Burrell W265/W285 FD HTST Divert Valves

The Waukesha Cherry-Burrell W265/W285 FD HTST Divert Valves have been reviewed and found to comply with the applicable provisions of the *Grade "A" Pasteurized Milk Ordinance* (PMO).

This piece of equipment is a dual stem Flow Diversion Device (FDD), which has been designed to comply with Item 16p (B) of the PMO. The technical design and supporting documentation submitted to FDA for review were for the 1.5"- 4" inch FDDs.

FDA acceptance is based on compliance with the construction, installation and operation criteria cited in Waukesha Cherry-Burrell's Operations and Maintenance Manual Publication 95-03035, June 2005 and the following provisions:

1. The control system utilized with the FDD shall comply with Appendix H. Pasteurization Equipment and Procedures of the PMO and shall be found acceptable to the State Regulatory Agency.
2. The installation shall comply with all applicable tests cited in Appendix I. Pasteurization Controls -Tests of the PMO.
3. Appendix I., Tests 5.4-Device Assembly, 5.7-Time Delay Interlock with Timing Pump, and 5.8-CIP Time Delay Relay of the PMO, shall be conducted in accordance with the testing procedures cited in the Operations and Maintenance Manual, provided by the manufacturer.
4. Upon proper installation and the determination of compliance through appropriate PMO testing, regulatory seals shall be applied through the handle of the manual air shut-off valves and around the valve body. The seal shall be

sufficiently tight to assure that the manual shut-off valve cannot be closed without breaking the seal.

FDA's review and acceptance of this flow diversion device does not constitute agency endorsement or approval. Any representation on a label or in printed literature citing or indicating "FDA Approval" is false and misleading.

For additional information regarding this piece of equipment please contact:

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Copies of this memorandum are enclosed for distribution to Regional Milk Specialists, State Milk Regulatory Agencies and State Milk Sanitation Rating Officers in your region. This memorandum should be widely distributed to representatives of the dairy industry and other interested parties and will also be available on the FDA Web site at <http://www.cfsan.fda.gov> at a later date.

If you would like an electronic version of this document prior to it being available on the CFSAN Web Site, please e-mail your request to Robert.Hennes@cfsan.fda.gov.

/ss/

Jonathan M. Gardner
FDA/MST Milk Sanitation Officer

Attachments:

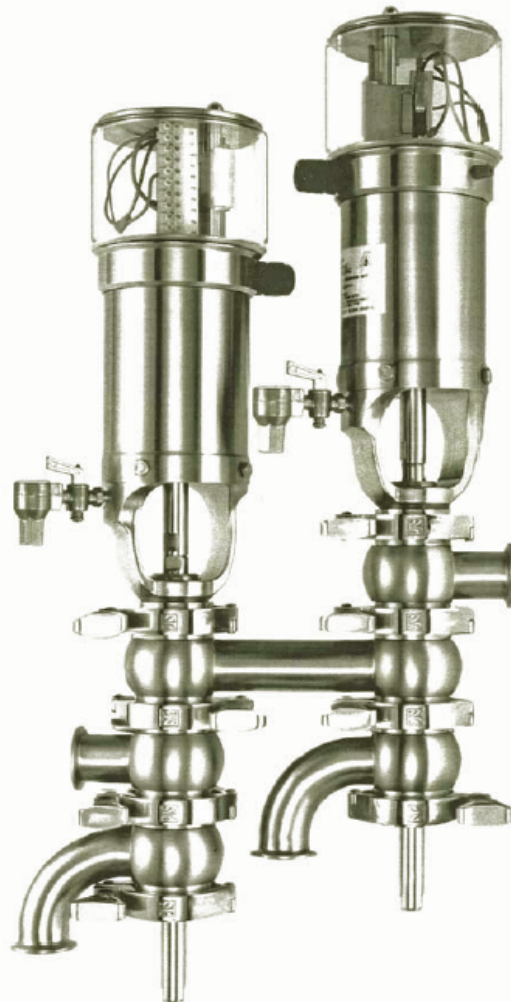
Valve Literature
Test procedures and Sealing



® An SPX Process Equipment Operation

Operation and Maintenance Manual

MODEL W265 FD and W285 FD HTST DIVERT VALVES



Test Procedures

Inspection Test Procedures

These procedures are used to check the assembly and operating condition of the Flow Diversion Device. As positive test results are obtained, attach the required *seal wire* (Figure 16) in the locations specified by the procedure. Suggested corrective actions are presented at the end of each procedure in the event of test failure.

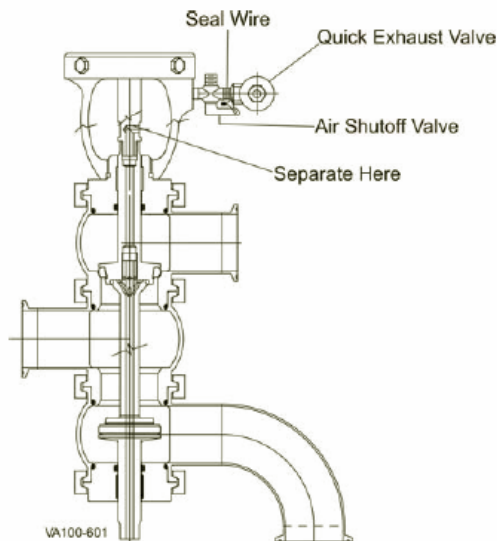


Figure 16 Inspection Test Procedures

TEST 1

Device Assembled Correctly

Perform this test to verify Flow Diversion Device is properly assembled and adjusted. Check each valve independently, as follows, *beginning* with Divert Valve.

1. With system temperature sub-legal, set FDV Switch to INSPECT.
2. All Flow Promoting Devices (Timing Pumps) must be de-energized and stopped.
3. Divert Valve shifts to Forward Flow position (See Figure 8 on page 16). Break *sealwire* on Air Shutoff Valve handle (Figure 16). Turn handle 90 degrees to trap air in actuator. Actuator will remain in raised position.
4. Set FDV Switch to PROCESS (product/run) and Mode Switch to AUTO. Flow Promoting Device (Timing Pump) shall not run.
5. Set Mode Switch to OFF. Slowly open Air Shutoff Valve (Figure 16) until valve stem moves down approximately 1/2 inch, then close Air Shutoff Valve.
6. Use two 5/8 inch open wrenches to unscrew valve stem from lower actuator stem about 1/8 inch (Figure 16, SEPARATE HERE). Open Air Shutoff Valve again. Stem will lower to Divert position.
7. Set Mode Switch to PROCESS. Flow Promoting Device (Timing Pump) shall not run.
8. Repeat steps 1, 2, 3, and 4. Tighten valve stem to lower actuator stem, using two 5/8 inch open end wrenches. Return Air Shutoff Valve to its normally open position. Attach new *seal wire* through handle of Air Shutoff Valve.
9. Repeat steps 1 through 8 for Leak Detect Valve.

Corrective Action - If the Flow Promoting Device (Timing Pump) fails to respond as indicated in the above procedure, an immediate check of the Flow Diversion Device assembly and wiring is required to locate and correct the cause. *Check microswitch adjustment first* (page 18). See Appendix for **switch adjustment with APC Control Panel Valves**.

TEST 2**Time Delay Interlock with Metering Pump**

Method - Determine that the device does not assume a manually induced Forward Flow position while the metering pump is running.

Procedure - With the system running in Forward Flow, move the control switch to the INSPECT position and observe that the following events automatically occur in sequence:

- a. The device immediately moves to the Divert position and the metering pump is turned off.
- b. The device remains in the Divert position while the metering pump is running down.
- c. After the metering pump stops turning, the device assumes the Forward Flow position.
- d. Repeat the above procedure by moving the control switch to the Clean-in-Place (CIP) position.
- e. Record the test results and seal the control enclosure.

Corrective Action - If the above sequence of events does not occur, either a timer adjustment or a wiring change is required.

TEST 3**CIP Time Delay Relay**

Application - To all high-temperature, short-time pasteurizer systems in which it is desired to run the timing pump and/or other Flow Promoting devices during the CIP cycle.

Frequency - Upon installation and semi-annually thereafter, or whenever the seal on the Time Delay Relay is broken.

Criteria - When the mode switch on the Flow Diversion Device is moved from Process Product to CIP, the Flow Diversion Device shall move immediately to the Divert Flow position and remain in the Divert Flow position for at least 10 minutes before starting its normal cycling in the CIP mode. Simultaneously, the booster pump shall be turned off and shall not run during the 10 minute time delay.