

August 2012

Back²Basics

Solution

Based on Cx-3 ATC/FPT software

Month 2: Retro-Cx HW Tertiary Pumping TAB

Measurement Point	Criteria	On-Maximum Cooling		Remarks
		Design	Actual	
1 At Inlet Building Heat Pump P-1	Flow Pressure Temperature	200 GPM 20 Feet 190°F	200 GPM 20 Feet 190°F	A. OK per design B. Pressure Reading is Adequate. No Action Needed. C. Pressure Reading is Excessive. Issue Unscheduled Work Order & Consider Hydraulic Model Study.
2 At Building Heat Pump P-1 Discharge	Flow Pressure Temperature	200 GPM 80 Feet 190°F	200 GPM 80 Feet 190°F	A. OK per design B. Pressure Reading is Adequate. No Action Needed. C. Pressure reading is excessive. Consider hydraulic model study.
3 At Balancing Valve Outlet	Flow Pressure Temperature	200 GPM 75 Feet 190°F	200 GPM 75 Feet 190°F	A. OK per design B. Pressure drop through balancing valve is adequate. No action needed. C. Pressure drop is excessive. Review why valve needs to be 65% closed.
4 At Boiler B-1 Inlet	Flow Pressure Temperature	210 GPM 20 Feet 170°F	240 GPM 35 Feet 170°F	A. OK per design B. GPM and pressure reading are excessive. Consider hydraulic model study. C. Temperature is adequate.
5 At Boiler B-1 Outlet	Flow Pressure Temperature	210 GPM 20 Feet 190°F	240 GPM 20 Feet 190°F	A. OK per design B. Balancing of DHW and building heat GPM is inadequate. Review design. C. GPM and pressure reading are excessive. Consider hydraulic model study.
6 At Domestic Hot Water Pump P-2 Inlet	Flow Pressure Temperature	10 GPM 20 Feet 190°F	10 GPM 20 Feet 190°F	A. OK per design B. Pressure drop is excessive. C. Temperature is excessive.
7 At Domestic Hot Water Pump P-2 Outlet	Flow Pressure Temperature	10 GPM 80 Feet 190°F	10 GPM 80 Feet 190°F	A. OK per design B. Pressure reading is adequate. No action needed. C. Pressure reading is excessive. Consider hydraulic model study.
8 At DHW Storage Tank HWR Outlet	Flow Pressure Temperature	10 GPM 70 Feet 170°F	40 GPM 40 Feet 170°F	A. OK per design B. Pressure reading is adequate. No action needed. C. GPM and pressure reading are excessive. Consider hydraulic model study.
9 At DHW Storage Tank Supply Outlet	Flow Pressure Temperature	10 GPM 98 Feet 140°F	10 GPM 98 Feet 140°F	A. OK per design B. Pressure reading is adequate. No action needed. C. Pressure reading is excessive. Consider hydraulic model study.
10 At DHW Storage Tank Inlet	Flow Pressure Temperature	10 GPM 100 Feet 50°F	10 GPM 100 Feet 50°F	A. OK per design B. Pressure reading is adequate. No action needed. C. Pressure reading is excessive. Consider hydraulic model study.