



TYPICAL TERTIARY BRIDGE DETAIL

Note:

The bridge detail is for a bridge with chilled water return temperature control. Any space that requires a continuous supply of 45 degree chilled water should be connected to a bridge designed for chilled water supply temperature control. Examples of spaces that may require chilled water supply temperature control are significant internal loads and strict humidity spaces.

1. Provide enable/disable and status for the tertiary pump through the DDC system.
2. Provide tertiary loop supply and return water temperature locally and through DDC system.
3. Bridge control valve is normally closed. When pump status or command is off the valve is closed.
4. Enable tertiary pump when OA temperature is greater than 50 degrees or any system calls for cooling.
5. Disable tertiary pump when OA temperature is below 50 or no call for cooling.
6. The bridge control valve will modulate to ensure 58-degree tertiary loop return water temperature.
7. Tertiary loops should be designed for variable volume flows. Variable speed drives should be provided for pumps 7.5 hp and larger. Loops with constant speed pumps should be designed with a differential pressure by-pass and control valves rated to close off against maximum system pressure.
8. Provide balancing valve at discharge of tertiary pump. (balancing valve not shown on detail)
9. Provide stand-by pump for critical cooling loops.
10. Provide twice manufacturer required straight pipe upstream and downstream of flow stations.