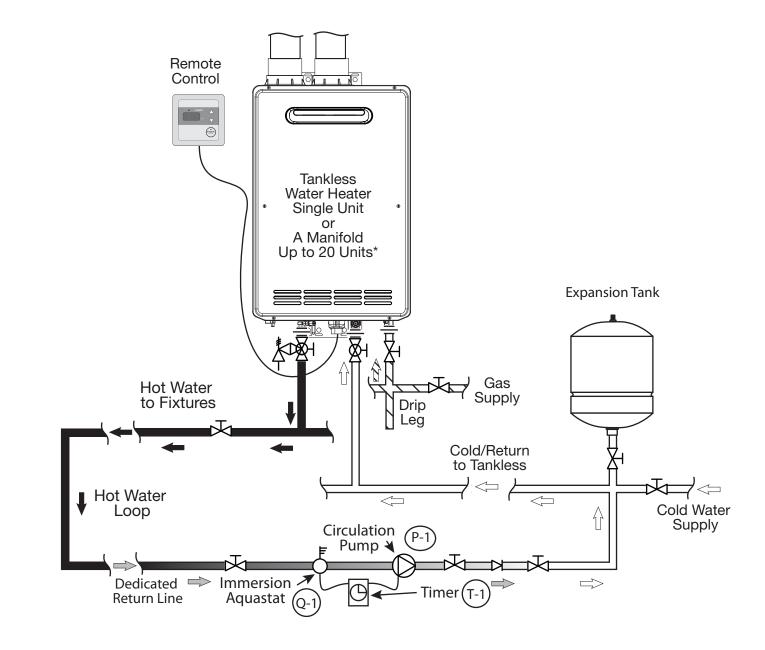
## **Direct Return Recirculation**



## \*See the Tankless Piping Diagram Book for details on various manifold systems

Storage Bypass N/C

Written System Description	System Components
<b>Direct Return Circulation:</b> A single or multi-unit manifold of tankless water heaters shall be installed to supply hot water to the building. A dedicated hot water loop around the building will return connected to the water main cold water supply feeding the tankless. The hot water loop shall be supplied by a pump that is controlled with an aquastat and timer. The aquastat must have a set point that is 10°F lower than the thermostat setting of the tankless. The timer shall be set so the pump only runs during	<ul> <li>P-1 Circulation Pump <ul> <li>Sized to meet a flow of 5 GPM @ 25ft of Head</li> <li>pressure, plus building head.</li> </ul> </li> <li>T-1 24-Hour Programmable timer <ul> <li>Set to turn off the pump in off peak periods</li> </ul> </li> <li>Q-1 Immersion Aquastat <ul> <li>Set point at 10°F below tankless set temperature.</li> </ul> </li> </ul>
periods of required demand.	Legend Drawing No TKPD12121 5/12
This drawing is intended as a guide only. It is not to be used as an alternative to a professionally engineered project drawing. This drawing does not imply compliance with local building codes. Installation may vary, depending on installation location, and must be done in accordance with all local building codes. Consult with local building officials prior to installation.	Cold Water Isolator Valve Assembly Hot Water Isolator Valve Assembly Circulation Pump Circulation Pump Circulation Pump Circulation Circul