

Legacy Patented Economizer System - Operation

The Legacy Chiller Economizer System operation is very straight forward in function and, at the same time extraordinarily effective.

Real-time Data Collection: The key to maximizing energy saving opportunities starts with effective data collection. The Legacy Economizer Controller (EC) does just that. At five second intervals, the Economizer Controller reads in temperatures sampling: Outside Air (OSA), Tank Fluid Outlet (TFO) and the chiller's Evaporator Fluid Inlet (EFI). Using proprietary software algorithms, the controller maintains extremely tight control over Economizer deployments.



As real-time operational conditions are monitored, the EC has extended capability to cycle the Economizer System in and out of three modes of operation, all within the same cooling cycle request. These modes are:

Mechanical Cooling Only: This mode of operation is deployed when the EC has determined that no Economizer opportunities exist in the current operating environment within a cooling cycle request. In general, this mode of operation is deployed when the outdoor ambient temperature is approximately 5F **above** the chiller's set point.

Economizer Only: This mode of operation is deployed when the EC has determined that Economizer opportunities exist. In general, this mode of operation is deployed when the outdoor ambient temperature is approximately 5F **below** the chiller's set point.

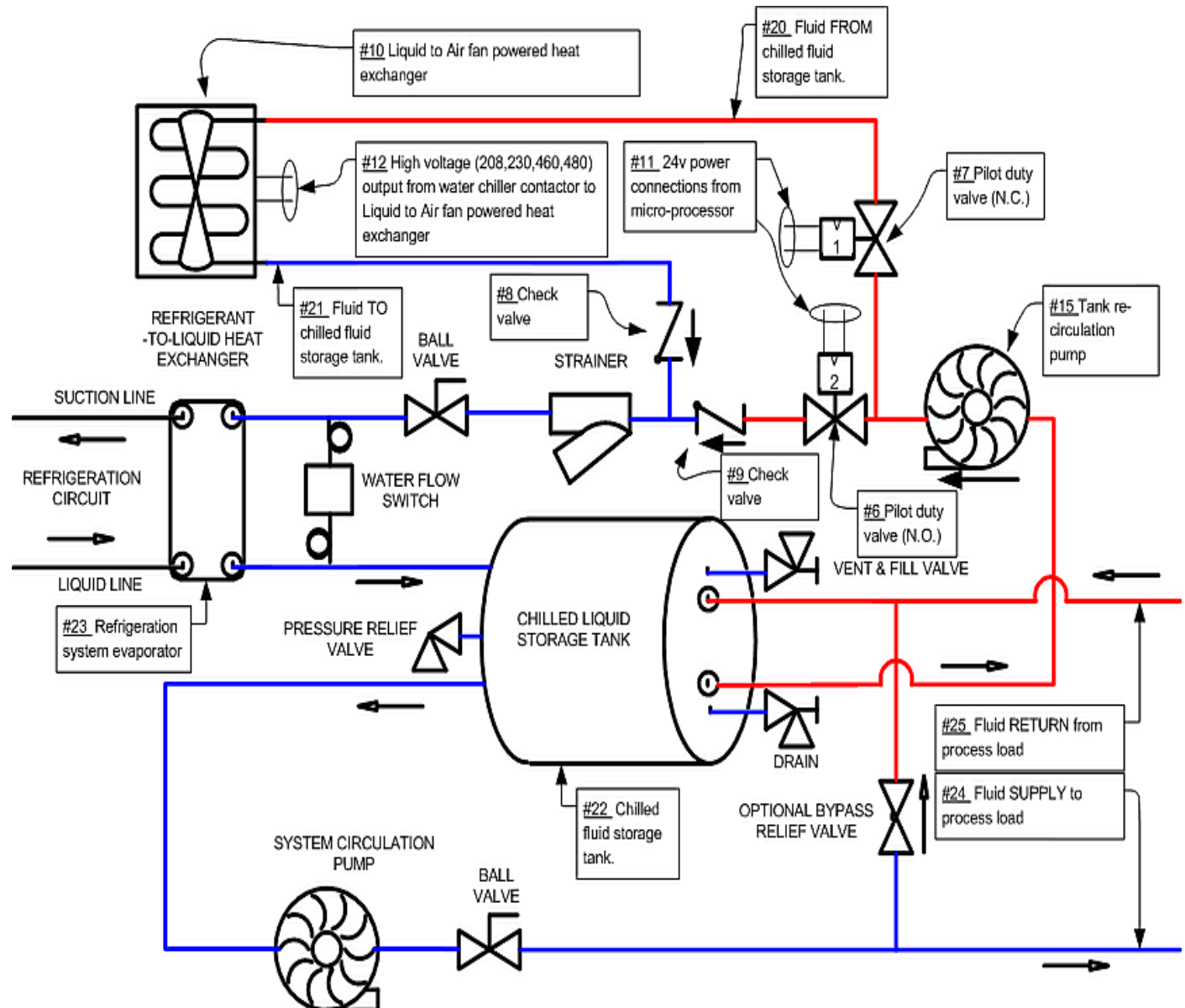
Mechanical and Economizer: This mode of operation is deployed when the EC has determined that some Economizer opportunities exist however, Mechanical cooling may be deployed within same cooling cycle request to provide supplemental cooling. As with Economizer only deployment, this mode of operation is deployed when the outdoor ambient temperature is approximately 5F **below** the chiller's set point.



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Below we have provided an illustration of the Legacy Economizer System internal fluid flow. This illustration is showing in the Economizer deployed condition.



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Additional Resources:

To learn more about the Legacy Patented Economizer System visit our on-line Knowledgebase at: **<http://www.legacychillers.com/kb/default.asp>**. Enter the keyword "Economizer" in the search system to find articles, training videos and access to software tools for all Economizer related topics.

Comments & Questions:

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