

KKT chillers - Training Series

Siemens Healthineers Chiller Commissioning Process



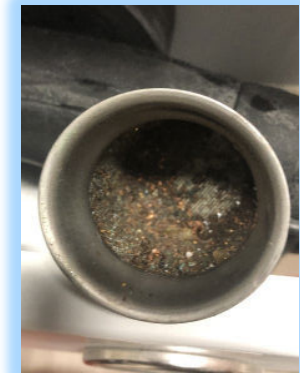
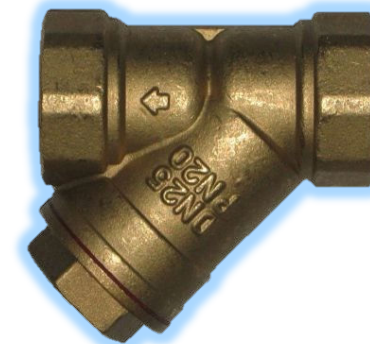
Site Readiness



❑ Challenges

○ Site Readiness:

- Clearance issues
 - Serviceability
 - Airflow
- Piping length exceeds specifications
- Incomplete piping
- Missing automatic air bleeders
- Site piping not flushed / clogged strainers
- Site piping not leak checked
- Site piping leaks
- Glycol / Distilled Water
 - Incorrect type
 - Not enough available
 - Incorrect concentration
 - Tap water
- Incomplete wiring
- No power to unit
- Remote display / remote cable not installed
- System filled incorrectly (tap water) or over-pressurized



General Requirements



❑ Installation Guidelines

- KKT provides a detailed installation guideline document to assist the installing contractor

❑ Documentation portal

- KKT created an online documentation portal to make sure this information is available to Siemens, the installing contractor and our local service partners
www.kkt-chillersusa.com/customer/siemens

❑ Chiller Location

- Must not be located near any other heat sources
- Must allow adequate clearance for airflow and serviceability
 - Min. 40" (1000mm) clearance on each side
 - Min. 8' (2500mm) clearance above unit

❑ Mounting / anchoring

- Must meet local building code and specifications provided in manual / installation guidelines

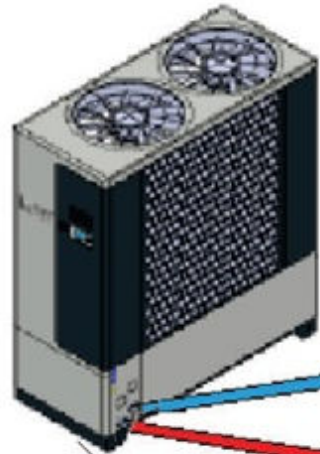


General Requirements



Outside

Chiller location TBD by customer / installing contractor



NOTE: Automatic air bleeder valves must be installed at the highest points in the site piping to allow air to vent from the system

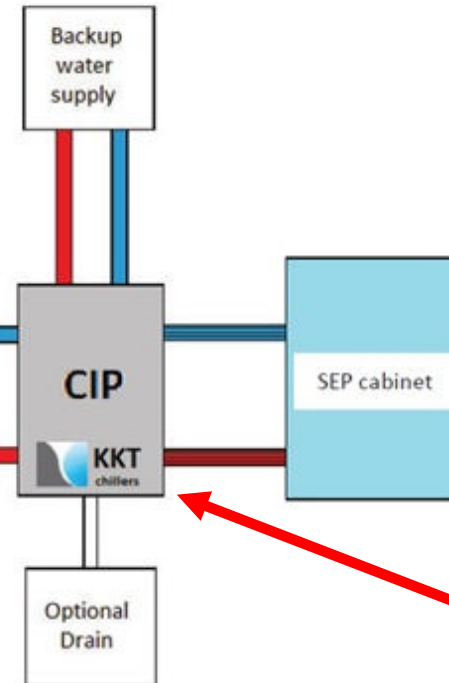
Remote Display / Controller for chiller.

Customer / installing contractor to mount remote display to wall in control room. Cable provided with chiller and installed by customer / installing contractor.



Equipment Room

Refer to Installation Guidelines and Chiller Operation Manual for additional installation guidelines and requirements



Optional: KKT Chiller Interface Panel (CIP) can be used to connect an alternate water source for emergency cooling. If desired, the CIP can be purchased from KKT and delivered with the chiller.



General Requirements

❑ Fluid Piping

- Sized per specifications in manual / installation guidelines
- Piping must be completed and all fluid connections made
- Piping must be flushed with water prior to connecting to chiller.
- Chiller must be isolated and site piping leak checked prior to our arrival

❑ Air Bleeders

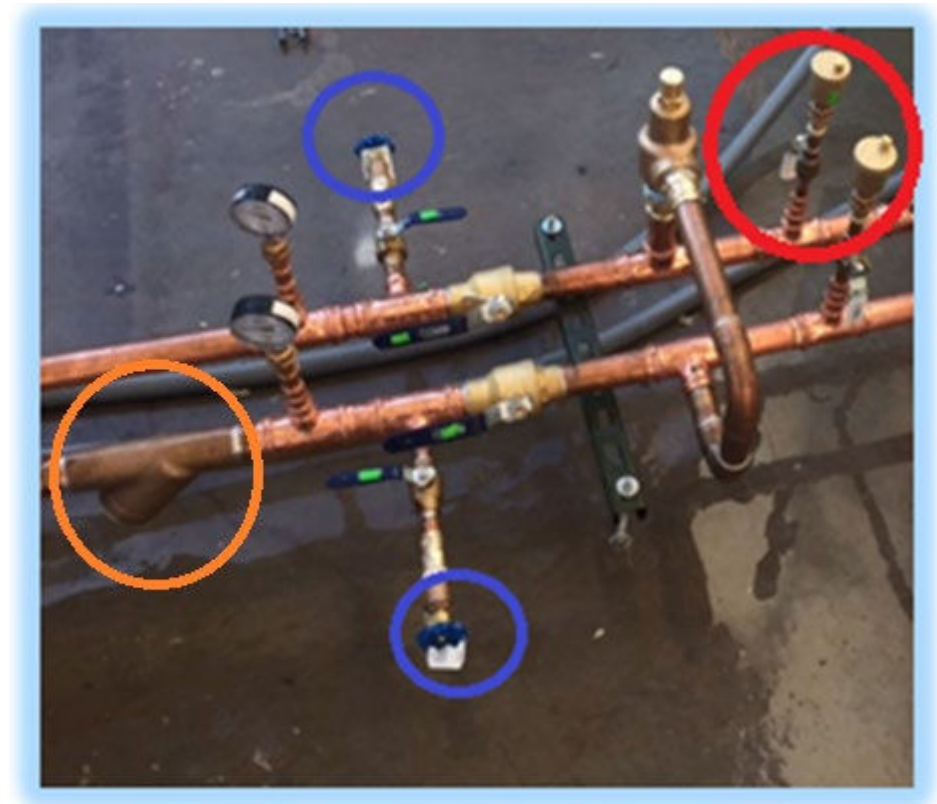
- Automatic air bleeders must be installed at highest point in site piping and in any locations where air might be trapped

❑ Fill ports

- Hose bib connection to be installed in site piping near chiller for filling purposes

❑ Strainer

- WYE strainer must be installed in the return line of site piping connecting to the chiller.



General Requirements



❑ Glycol

- Proper type and amount of glycol must be provided at filling point near chiller
 - Automotive antifreeze cannot be used.
 - Tap Water cannot be used
- Adequate volume of glycol / distilled water must be on hand to ensure proper concentration
- KKT recommends using KKT Protect (37% premixed Glycol). Glycol to be supplied by the customer / installing contractor, and can be ordered directly from KKT.
- If 100% concentration is purchased, distilled water must also be provided to dilute to the proper concentration.
- KKT to fill system with glycol when onsite for startup



General Requirements



□ Electrical Service / Field Wiring

- Incoming power service must be sized according to local code based on chiller nameplate requirements
- All field wiring must be verified, connections must be tight and match prints.
- Wiring to the chiller should be routed through provided knockouts / grommets, no additional holes are necessary.
- Power must be supplied to crankcase heaters for a minimum of 8 hours prior to startup
- Remote display panel must be installed in control room
 - 1" conduit for remote display cable must be installed and cable pulled.
 - If total length exceeds 164' (50M), a long distance remote cable (KKT# M506106) must be installed.
 - **NOTE:** Maximum length allowed is 328' (100M).
 - Splicing is not allowed.
 - KKT will make wiring connections for remote display during startup.



Warranty



□ Warranty

- KKT's manufacturer's warranty begins upon completion of startup
 - The warranty covers parts and labor on the chiller only
 - The warranty does not cover leaks external to the chiller cabinet or parts damaged due to improper rigging, installation, over pressurization, contamination or poor water quality.
- Return visits due to site readiness or other issues outside of the chiller cabinet are considered billable events and are not covered under our manufacturer's warranty.



Service



□ If service is needed during the warranty period, KKT offers 24/7 support:

- KKT Technical Support :
 - 833.KKT.HELP (833.558.4357)
 - Techsupport@kkt-chillersusa.com

- KKT Customer Service *
 - 877.994.0991
 - kktservice@kkt-chillersusa.com



***Note – End Users should contact Siemens to request service.**



Thank-you for your partnership and support!