Chiller installation, contractor's scope of work:

See complete DTS O&M Manual for further details

Pre-planning:

Provide installation surface

Either, ground level concrete pad 5'W x 12'L x min 4" depth, w/less than ½" slope per 10' or shim to level or, **rooftop curbing** per you local building code specifications.

Chiller weights: E8912 WO2-2-5000 dry 3200lbs; operational 4000lbs
E8911 WO2-2-7500 dry 3500lbs; operational 4300lbs

Ensure placement is 5 feet from walls and min 8 foot overhead clearance. For rooftop installations, max 65 feet vertical distance down to MRI HEC cabinet. Contact DTS at 800-968-5665 if installation will fall outside this distance.

Arrange for rigging

Unit and glycol will arrive on a flat-bed truck. The GEHC freight carrier does not provide unloading service. Include any necessary rigging fees in your installation bid.

Provide fluid piping

2" diameter, copper is advised. Max run equivalent to 500 linear feet; flex connectors are advised at chiller inlet and outlets. Chiller ports: 2" NPTF connections. *see pg 7 of manual for pressure loss for piping elbows and fittings

- Do not use galvanized piping as glycol will remove its zinc coating. PVC is not recommended due to brittleness that can occur over long term exposure to UV and outdoor temp extremes.

***Each chiller is supplied with a filter and analog flow meter kit, shipped loose, ready for assembly, to be installed indoors, inline, prior to the GE MRI HEC cabinet inlet.**

***Optional Manual Bypass – if this piece has been ordered, it is to be installed between the GE MRI HEC cabinet and it's cryogen compressor. 22' ½" hoses and multi connector fittings are included. The alternate water source can be either city water or central chiller. If city water is used, supply a drain and a backflow preventer in the city water supply line.**

Provide Power drop

Chiller E8912 WO2-2-5000 used with GE Optima MR450w is provided with an 80 amp, fused, rotary, lockable disconnect; Max over current protection: 80 amps; Min circuit ampacity: 70 amps; FLA 67 amps
Chiller E8911 WO2-2-7500 used with GE Discovery MR750 and MR450 is provided with a 100 amp, fused, rotary, lockable disconnect; Max over current protection: 110 amps; Min circuit ampacity: 95 amps; FLA 91 amps

Provide ¾" conduit with pull string from chiller to MRI operator's work station
A Carel remote panel with 150' connector cord is included with each shipment, located within the electrical enclosure.

Chiller fluid
65 gallons of 100% concentrate inhibited propylene glycol will arrive with the chiller delivery.
Dilute to 40 to 50% glycol/de-mineralized* water at the site, and fill as part of the installation process.
Procure 65 to 95 gallons of de-mineralized water.

- Chiller has a 100 gallon tank. System will require 100 gallons of mixed fluid + 1 additional gallon per every 6 linear feet of 2" piping length)

*de-mineralized water can be selected as distilled, reverse osmosis, or DI water. **Do not use tap water.** The naturally occurring minerals and sediments in tap water will cause the fluid to fall outside the water purity specification required by MRI equipment.

Installation

Rig and anchor chiller at four corner feet

- For rooftop installations, above patient care or staff areas, or if directly above the MRI equipment, vibration isolators are available, in set of 8 via GEHC Accessory Sales, anchor all 8 feet
- All DTS Medical chiller designs have undergone and passed Seismic Shake Table testing

Connect fluid piping, and fill reservoir via the fill tube/site glass
Connect power drop and check for proper polarity – phase monitor is included and should be lit with green light
Connect remote Carel Display

- Run ¾" flex conduit between the chiller and the MR operator's work station
- Draw included 150' cord through conduit.

- Wall-mount the remote display, viewable for MRI Operator
- Connect the phone style connectors at the chiller electrical enclosure and the remote display

Power unit on to verify proper pump rotation direction, allow pumps to run for 5-10 minutes to purge air in the fluid piping. Add more water/glycol blend to fill to between high and low marks on the site glass

The Chiller package purchase includes the following DTS Koolant Koolers provided service package:
1) Initial start-up visit, to commence with cryo compressor initialization*
2) commissioning/sign off start-up visit, to commence with GE sign off visit, recheck of complete operation while under scanning heat loads
3) Preventive maintenance visit during 12 month parts and labor warranty
DTS uses the services of local certified HVAC contractors that have passed and agreed to meet the GEHC qualifying requirements. Contact DTS at medservice@dimplexthermal.com if interested in joining this network

*Advise the GEHC Project Manager with expected date of readiness. DTS requires 72 hour notice to meet start-up visit appointment requests.

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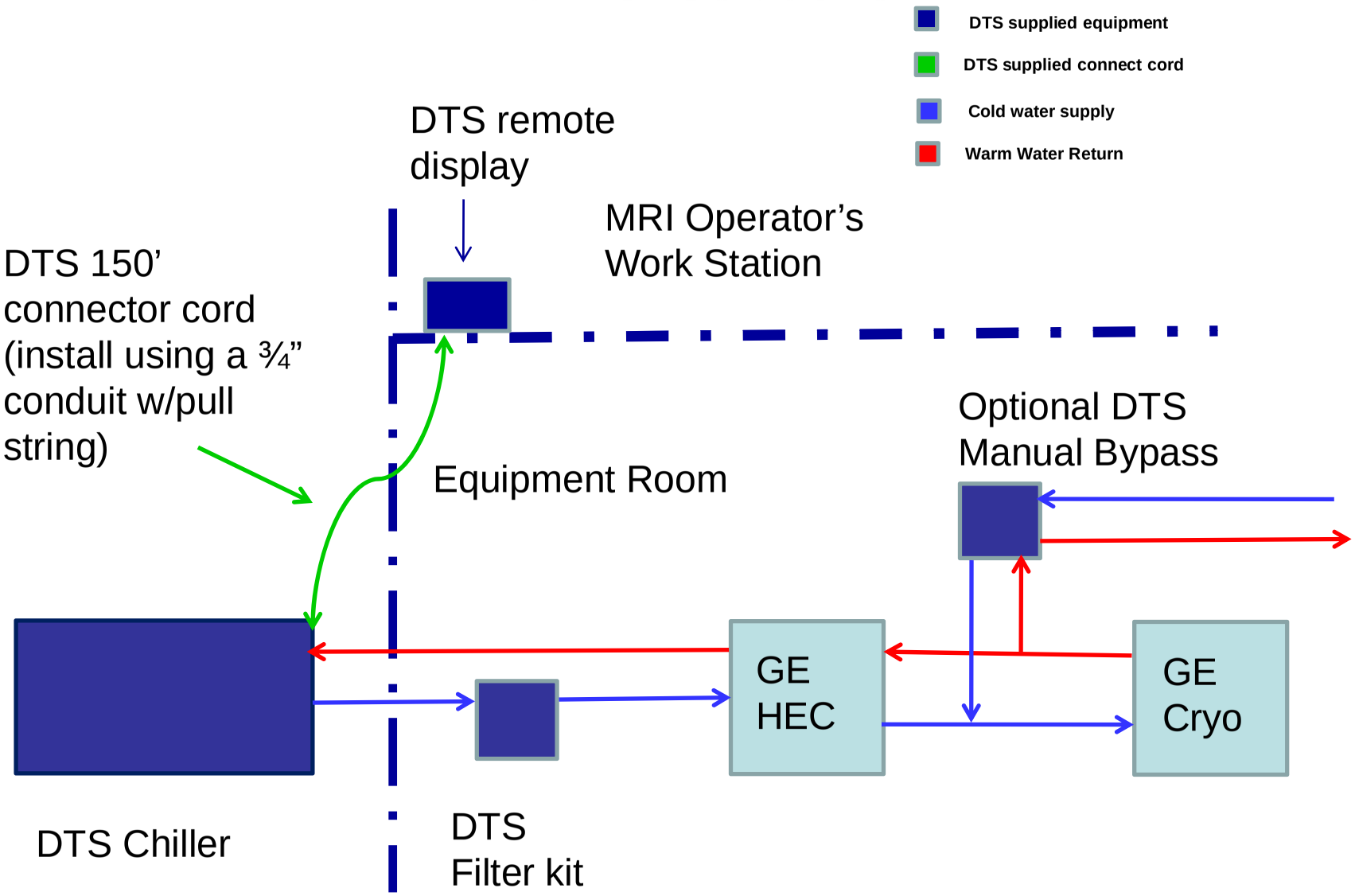
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