



CHILLER FACTORY START-UP SERVICES

MTA-USA offers on-site start-up and commissioning services. These services are offered at a “per-day” charge plus the cost of traveling expenses (transportation, lodging, meals, etc.). Although estimates are available, the actual charge for traveling expenses will not be available until after the service visit is booked. It is suggested that reservations for site visits are made at least (2) weeks ahead to ensure availability and to minimize travel expenses.

Please note that start-up services do not include installation of any kind. Rigging, plumbing, wiring and/or charging the coolant loop (glycol) are to be performed by licensed professionals familiar and compliant with all applicable national and local codes.

SITE READINESS

Before the MTA-USA service tech arrives, the chiller installation site **must** be prepared as follows:

- Chiller is installed in a suitable location based on the intended operating ambient (indoors or outdoors, roof or grade, etc.).
- Interconnecting piping between the chiller and the process to be cooled is installed, leak tested and flushed, and then charged with the specified coolant (either water or a mixture of water and inhibited glycol commensurate with potential for freezing). All air must be vented from the coolant loop to be sure that it is filled completely. If the process equipment will not be installed before the start-up visit, then supply and return piping at the process end of the coolant loop should be connected temporarily to allow the loop piping to be tested and filled to allow commissioning of the chiller. Extra coolant should be on hand to “top-off” the coolant loop as any trapped air bubbles are vented when the chiller pump is running.
- All wiring to the chiller is complete (for power and, if applicable, for remote controls). Proper power phasing (for 3-phase chillers) is confirmed by consulting the phase monitor mounted in the chiller control panel. Power is applied, with the chiller disconnect switch “ON”, for a minimum of 12 hours prior to start-up to allow the compressor crankcase heaters to remove any refrigerant from the oil.

START-UP TASKS

When the service tech arrives, the following tasks will be performed **before** the chiller is started:

- A visual inspection (panels removed), including: chiller cabinet condition; presence of documentation; refrigerant static pressures; field piping condition and conformance to factory requirements; wiring condition.
- Control cabinet inspection, including: (with power “OFF”) visual inspection; all field and factory wiring connections, and relays are tight; circuit breaker settings are correct; (with power “ON”) incoming voltage and phasing is correct.

The following tasks will be performed **after** the chiller is started:

- Confirm that pump rotation, discharge pressure and current draw match expectations.
- Confirm the coolant set point and make parameter changes as required.
- Confirm that compressor suction & discharge pressures and current draw match expectations.
- Manage any alarms until consistent (alarm-free) operation is achieved.
- Confirm and/or adjust by-pass valve (if applicable) for proper operation.
- Confirm proper operation of remote-control pad (if applicable).
- Provide hands-on training on chiller operation, maintenance and troubleshooting for site staff.

A start-up report detailing the site measurements and comments will be delivered (through the sales channel) within (10) days of the site visit.