



**STANDARD INSTALLATION & PROJECT MANAGEMENT  
FOR SMARTROW & SMARTAISLE  
SCOPE OF WORK**

**INSTALLATION SERVICE 8X5**

- Installation service within the 48 contiguous states by a Liebert factory approved installer after Smart Solution equipment is delivered. All work to be scheduled during standard work hours; Monday-Friday, 8am-5pm, (excluding national holidays).
- Any customer site visit is limited to eight (8) hours per visit. Any time in excess of forty (40) hours/week or eight (8) hours/day will be billed separately.
- Installation expenses incurred due to delays beyond the control of Liebert Services will be billed at cost.
- Installation Labor warranted for the period of 1 year from Start Up.
- Subject to all Terms & Conditions as noted in the Construction Agency Agreement and/or the terms of a Master Agreement between the parties, if any, shall apply.

**SERVICE PERFORMED**

**Mechanical Installation (as applicable):**

1. Rig condenser/drycooler unit on the roof or on grade
2. Provide and install refrigerant or water/glycol line set with connections for each CRV/Challenger and corresponding condenser unit
3. Provide and install Chilled Water Supply & Return (CWS & CWR) piping set with connections for each CRV/Challenger unit.
4. Provide and install drain line that connects to nearest available drain. Provide and install shut off valve at connection point.
5. Provide and install humidifier supply line that connects to nearest available domestic water source. Provide and install shut off valve at connection point.
6. Provide and install temperature sensors per BOM

**Electrical Installation (as applicable):**

1. Provide and install over-current protection device and circuit for input to each FPC Floor Mount Power Distribution Unit (PDU), APM UPS Bypass Distribution Cabinet (BDC), or Control Panel in the Challenger Cabinet
2. Provide and install internal electrical connections between the APM, BDC & BATT.
3. Install Busway (MB) on top of rack.
4. Provide and install over-current protection and circuit from BDC, MB, FPC or Control Panel to each MPH/MPX or GXT.
5. Provide and install over-current protection device and circuit input to each CRV or Challenger.

6. Provide and install over-current protection device and circuit input to each condenser/Drycooler.
7. Provide and install 24v control wiring from each indoor CRV/Challenger to each condenser/Drycooler.

**General Installation items included (as applicable):**

1. All mechanical & electrical piping limited to 150 linear feet.
2. Includes ball valves, pressure gauges, thermostats, water drain tap, and tube supports.
3. Insulation is included on all new piping. Limited to indoor exposed areas.
4. Necessary hangers, supports, rails and penetrations. One penetration included.

**Project Management (as applicable):**

1. Emerson Network Power will provide a Project Manager (PM) to serve as the single Point of contact for the project. Project Management will be performed remotely from Emerson Network Power office(s).
2. PM will conduct initial "Project Kickoff" call. Goal of this call is to make introductions, understand roles and responsibilities, set working protocol expectations, deliverable expectations, and discuss specifics of projects. Topics will include installation scope of work and applicable logistical items including, but not limited to, working hours, security, parking, site access, project schedule, and scheduling periodic conference calls for project updates.
3. PM will collaborate with customer, vendor(s), contractor(s), and equipment manufacturers to develop and manage project. PM will track project tasks including, but not limited to, purchase order issuance, equipment delivery, installation period, equipment start-up & inspections.
4. PM will facilitate any Change Order(s) if applicable. PM will be responsible for obtaining approval(s) from customer and issuance of purchase order(s) to vendor(s).
5. PM will facilitate execution of the "Substantial Completion/Punch List" form.
6. PM will provide all relevant documentation including Project Closeout Package which includes equipment submittals, as-built drawings, Authority Having Jurisdiction Permit copies, Photos, Warranty information, Start-up documentation, Authority Having Jurisdiction inspection reports, and Operation and Users Manual.
7. PM will facilitate execution of the "Final Completion" form which includes Lien Release Form.
8. Facilitation of all communications related to the project.
9. Provide a point of escalation for all parties.
10. Provide meeting minutes after each call. Minutes will include attendees, date/time & list of items discussed including action items list.
11. Coordinate execution of Construction Agency Agreement with customer.
12. Qualify each contractor per Emerson Network Power Qualification process and manage Master General Contractor Agreement.
13. Issuance of Purchase Order(s) to vendors.
14. Ensure on-time payment to vendors and Execute Lien Releases at end of project.
15. Ensure compliance with all Health and Safety Requirements.
16. Facilitate obtaining permitting/inspections with the all Authorities Having Jurisdiction (AHJ).
17. Provide customer photographic progress of project.
18. Facilitate all equipment Start-Up activities.
19. Facilitate all site integration testing activities.

**Customer Responsibilities:**

1. Execution of Construction Agency Agreement.
2. Ensure supply connection point is within 75 linear feet of CRV/Challenger for Mechanical Installation of the CW application. Inclusion of shut off valves at customer connection point to allow shut down of flow prior to connection.
3. Customer will provide a single point of contact during the project.
4. Customer will allow access to all areas of work.

5. Liebert recommends the performance of a floor load analysis by a professional structural engineer. If the customer chooses to self perform this task (or elects not to perform this task) the customer assumes all risk associated with adding the new weight to the floor.

**Recommendations & Clarifications (services that are excluded below can be provided upon request):**

1. Rigging of indoor units is not included. It is assumed that this will be completed during assembly phase.
2. Building Management System, Fire Alarm & Emergency Power Off connections are not included.
3. The hiring of an engineer to develop engineering drawings for permit purposes is not included. It is assumed that the contractor can obtain a permit without hiring an engineer to produce drawings. If hiring an engineer is required to obtain permits, or if this is a customer requirement, then additional fees may apply. Additional fees may apply for any additional work not included in this SOW. In addition, upon submission of drawings to the Authority Having Jurisdiction (AHJ), the AHJ may request additional work to be performed. This additional work is not part of Emerson Network Power's SOW and additional fees may apply.
4. Emerson Network Power will not perform any work without an approved permit.
5. Emerson Network Power assumes the existing infrastructure can safely accommodate the installation of the new equipment stated above.