

Guide Specification

EVAC High Pressure Electromechanical Commercial Refrigerant Recovery System

Model Number: CRH-500

Doc # CRH-500-A-0900

Part 1: General

1.01 SYSTEM DESCRIPTION

A. A commercial capacity recovery system shall be capable of being transported, wheeled to a chiller, and of providing ARI certified recovery rates of at least 325-lb/min liquid and 6-lb/min vapor (R22).

B. The recovery system shall be designed for use with all high-pressure refrigerants.

1.02 QUALITY ASSURANCE

ETL, CE, CSA, and ARI shall certify the equipment for safety and construction as well as EPA Compliant and UL 1963 listed.

1.03 DELIVERY, STORAGE, AND HANDLING

The unit shall be shipped, stored, handled, installed, operated, and maintained in accordance with the manufacturer's instructions.

Part 2: Products

2.01. EQUIPMENT

A. General:

a. The recovery system shall consist of a 3-hp on single voltage models and 5-hp on dual voltage models, open drive reciprocating compressor, an air cooled condenser, an actuated valving system, 3/4 inch full port internal valves and piping, impingement-type coalescing oil separator, IMO float cable and Electromechanical controls.

b. Power requirements for the recovery system. 120V/1ph for the controls (3ph & Dual Models). 50-ft power cord for the recovery system and 50-ft for the controls shall be provided.

Voltage	Hertz	Phase	Hp	Amps
230	60	3	3	15
220	50	3	3	15
230	60	1	3	20
220	50	1	3	20
460	60	3	3	15
415	50	3	3	15
230-460	60	1	5	30/20
220-415	50	1	5	30/20
575	60	3	3	10

c. The recovery system shall include one 48 Cu in drier core to remove moisture, acids, and particles before they enter the recovery unit.

d. Two each 3/4" diameter by 10-ft and one ea.20-ft recovery hoses with isolation ball valves and 3/4" flare fittings shall be supplied.

B. Dimension and Weight:

a. Unit dimension shall be approximately 44" high x 28-1/4" wide x 32" length

b. Unit weight shall be 260-lbs Electromechanical

c. Case shall be made of aluminum.

C. Installation:

a. Installation of the recovery system shall be in accordance with all state and local, mechanical and electrical codes. The recovery system shall be connecting to existing liquid and vapor ports on the cooling system via 3/4-inch recovery hoses with flare connections. Three hoses shall be required to make complete connections from the recovery system to liquid and vapor ports on the cooling system and recovery tank.

D. Compressor:

a. The recovery system shall use an open drive-reciprocating compressor driven by a 3-hp / 5-hp motor. An impingement-type coalescing oil separator with oil return shall be located on the discharge of the compressor.

E. Condenser:

a. The recovery system shall have a high capacity air-cooled condenser. A supplemental water-cooled condenser is optional.

F. Piping and Valving:

a. For maximum refrigerant throughput, full 3/4 inch piping, valving, and ports shall be used on the recovery system and cylinder. Internal valves shall be Electromechanical for recovery procedures. Connections on the recovery system shall be 3/4-inch flare fittings.

A. Control System and Safeties:

a. The recovery unit shall have an electromechanical control system.

b. The control system shall incorporate independent pressure switches to monitor conditions in the storage tank and cooling system. Two gauges on the control box shall indicate recovery tank and system liquid pressures.

c. The control system shall prevent tank overpressure by halting operations should tank pressure reach 350-psi. The recovery system shall also be equipped with an internal safety relief.

The control system shall automatically halt recovery procedures when the desired recovery vacuum preset of 15" is attained in the cooling system. However, should pressure in the chiller rise to 0-Psi while the unit is standing idle, it shall reenergize to once again pull a 15-in Hg vacuum.

- G. Included Accessories:
 - a. Recovery Hoses
 - 2ea. 3/4 inch x 10Ft
 - 1ea. 3/4 inch x 20Ft
 - b. 1ea. 48-cubic inch filter drier core
 - c. 50-ft power cord for system
 - d. 12-Ft tank float switch cable
 - e. 50-ft power cord for controls (Only on 3ph & Dual Models)
- H. Options:
 - a. 3/4 inch hoses with quick connects
 - b. Recovery tanks up to 5,000-lb capacity
 - c. 48 Cu-in. filter driers
 - d. Water cooled condenser
 - l. Filter Rack