



Guide Specification EVAC Commercial

High Pressure Refrigerant Recovery System
Model Number: CRH-500
2/16/05 Doc # CRH-500-A-0900

www.reftec.com 800-214-4883 Bradenton, FL

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 open drive reciprocating compressor, an air cooled condenser, a valve system, 3/4 inch full port internal valves and piping, & impingement-type coalescing oil separator. There shall be manually operated controls plus a connection for an IMO float cable from the recovery tank.
- b. Power requirements for the recovery system are 120V/1ph for the controls and either 230V/3ph, 230V/1ph, 460V/3ph or 575V/3ph for the compressor and fan motors. A 50-ft power cord for the compressor and fan and a 100-ft power cord the controls shall be provided. Part numbers and applicable power requirements are:

Part number	Voltage	Hertz	Phase	Hp	Amps
CRH-A-230-3-E	230/220	60/50	3	3	15
CRH-A-230-1-E	230/220	60/50	1	3	20
CRH-A-460-3-E	460/415	60/50	3	3	15
CRH-A-575-3-E	575	60	3	3	10

- c. The recovery system shall include one 48-cubic inch pre-filter drier to remove moisture, acids, and particles before they enter the recovery unit. The filter is hard piped to the intake port on the recovery system.
- d. Two each 3/4" diameter by 10-ft and one each 3/4" by 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 32" high x 29" wide x 45" length.
- b. Unit weight shall weigh from 275 to 330-lbs depending upon options.

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 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.

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. Connections on the recovery system shall be 3/4-inch flare fittings.

G. Control System and Safeties:

- a. The recovery unit shall have electromechanical controls.
- b. The control system shall incorporate independent pressure transducers to monitor conditions in the storage tank and cooling system.
- 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.
- d. The control system shall automatically halt recovery procedures when the desired recovery vacuum preset of 15" is attained in the cooling system.

H. Included Accessories:

- a. 1ea. 48-cu.in filter drier
- b. 100-ft power cord for controls (3 phase systems only)
- c. 50-ft power cord for recovery system
- d. 2ea. 3/4" x 10-ft hoses
- e. 1ea. 3/4" x 20-ft hoses
- f. 12-ft 80% tank float switch cable
- g. 2ea. 3/4" swivels

I. Options:

- a. The recovery system shall offer the following equipment options for enhanced performance:
 - i. Recovery tanks up to 5,000-lb capacity