MANITOWOC ICE
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Instruction Sheet

Subject: Compressor Replacement Conversion Kit

IT1200 AIR-COOLED, WATER-COOLED & REMOTE AIR-COOLED CVDT1200 QUIETQUBE CONDENSING UNIT

DANGER

Disconnect electric power to the ice machine at the electric switch box before proceeding. Failure to disconnect the power at the main power supply disconnect could result in serious injury or death. The power switch DOES NOT disconnect all incoming power

⚠Warning

This equipment contains refrigerant charge. Procedures must be performed by a properly trained and certified refrigeration technician aware of the dangers of dealing with refrigerant charged equipment.

⚠Warning

Authorized Service Representatives are obligated to follow industry standard safety procedures, including, but not limited to, local/national regulations for disconnection / lock out / tag out procedures for all utilities including electric, gas, water and steam.

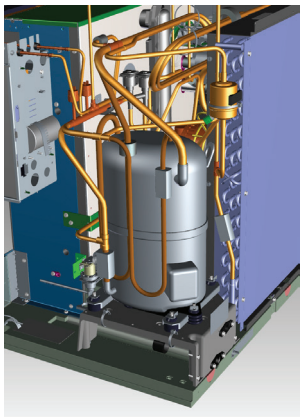
The table below lists the items used for compressor replacement. Refer to your specific model in the following pages.

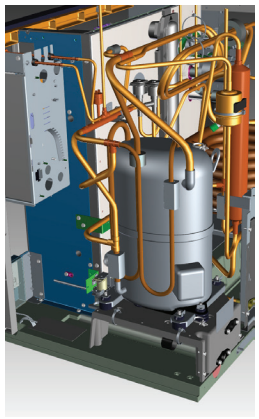
Description	IT1200A	IT1200W	IT1200N		CVDT1200		
	230/60/1 230/50/1	230/60/1 230/50/1	230/60/1 230/50/1	230/60/3	230/60/1	230/50/1	230/60/3
TUBE, COP	X	X		X	X	X	X
TEE-COP 1/2" X 1/2" X 3/8 CXCXC	X	X		X			
TEE-COP 1/2 X 1/2 X 1/4					X	X	X
TEE COP 1/4 X 1/4 X 1/4 CXCXC					X	X	X
TEE-COP 5/8 X 5/8 X 1/4 CXCXC					X	X	X
TEE-COP 1/4 X 1/4 X 3/8				X			
SPRING CLIP THERMISTER 1/2 TUBE	X	X	X	X			
SUCTION TUBE BUSHING	X	X		X	2	X	2
BUSHING	X	X		X			
1/4 COP 90 ELBOW	X	X		X			
1/2 COP COUPLING	X	X		X			
COP ANGLE 45	X	X		X			
SLEEVE	X	X		X	X	X	X
COMPRESSOR GROMMET	X	X		X	X	X	X
HARNESS COMPRESSOR MOLDED PLUG	X	X	X	X	X	X	X
SUCTION TUBE					X	X	X
SCHRADER SERVICE PORT					X	X	X
LOW PRESSURE CUT-OUT					X	X	X
HIGH PRESSURE CUT-OUT					X	X	X

IT1200A & IT1200W Models









REMOVE OLD COMPRESSOR

1. Disconnect, lockout and tag out all utilities.
2. Recover refrigerant from system.
3. Remove electrical junction box.
4. Remove wiring from compressor.
5. Remove discharge line thermistor and insulation.
6. Cut the ½" suction line tubing 5" from the bend on the current compressor.
7. Unsweat the discharge line elbow from the compressor (½" x ½" x 3/8" elbow on the air-cooled and ½" x ½" x ½" elbow on the water-cooled unit).
8. Remove the suction line access fitting from the compressor. Set aside for reuse,
9. Remove compressor and mounting feet.
10. Remove liquid line filter drier.

INSTALL NEW COMPRESSOR

1. Assemble the braze liquid line drier.
2. Install feet to compressor, and secure to base.
3. Install the two provided bushings to reduce the ¾" suction side port to fit the ½" tubing.
4. Insert the 45° angle tube into the side port and bushings.
5. Hand assemble the ½" coupling to the 45° angled tube and inert the 5" long ½" tube to the other end of the coupling.
6. Hand assemble ½" x ½" x ¼" tee to the 6" long tube.
7. Install 1" long ¼" tubing into the ¼" line of the tee fitting.

NOTE: Ensure the suction side access valve is level or angled upwards.

8. Insert 3.5" straight ½" tubing into the discharge of the compressor.
9. Hand assemble ½" x ½" x ⅜" tee, for air-cooled units, or ½" x ½" x ½" tee for water-cooled units to reassemble the compressor discharge line.

IT1200N Models



REMOVE OLD COMPRESSOR

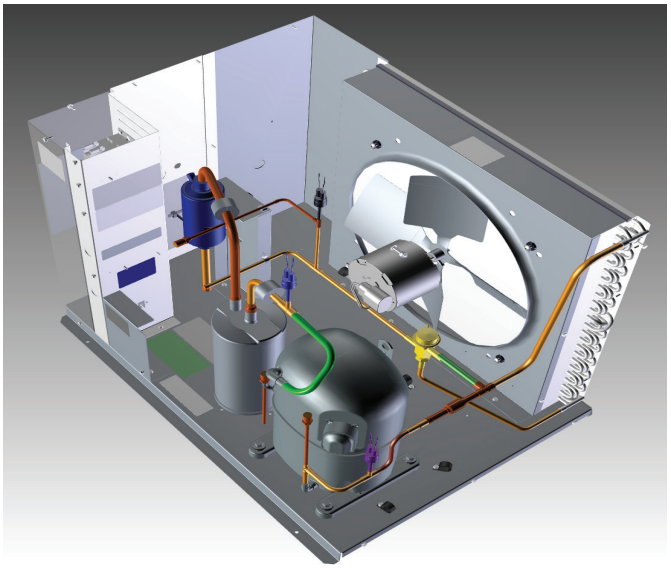
1. Disconnect, lockout and tag out all utilities.
2. Recover refrigerant from system
3. Remove electrical junction box.
4. Remove wiring from compressor.
5. Remove discharge line thermistor and insulation.
6. Cut the ½” suction line tubing 5” from the bend on the current compressor as shown below:
7. Un-sweat the discharge line elbow from the compressor (½” x ½” x 3/8” elbow on the air-cooled and ½” x ½” x ½” elbow on the water-cooled unit).
8. Remove the suction line access fitting from the compressor and set aside for reuse:
9. Cut the piping from the Harvest Pressure Regulator Valve (HPR) at the 3.5 inches from the bend, on the 3/8” portion of the line before it steps down to ¼”:
10. Remove compressor and mounting feet.
11. Remove liquid line filter drier.



INSTALL NEW COMPRESSOR

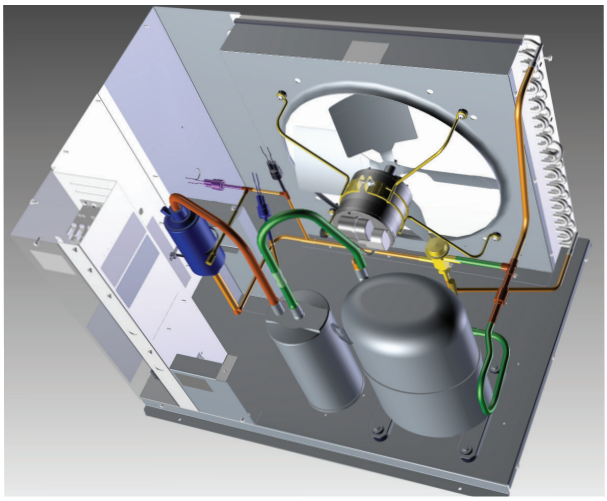
1. Assemble and braze liquid line drier.
2. Install feet and secure compressor to base.
3. Install the 2 provided bushings to reduce the ¾” suction side port of the compressor down to the ½” tubing:
4. Insert the 45° angle tube into the bushings in the previous step.
5. Hand assemble the ½” x ½” x ¼” tee to the 45° angled tube and insert the 6” long ½” tube to the other end of the coupling:
6. Hand assemble the 6” long tube to the ½” x ½” coupling. Connect this to the other end of the piping from the compressor removal steps:
7. Hand assemble the Harvest Pressure Regulator (HPR) system by installing the 3/8” x ¼” x ¼” tee to the 3/8” side of the HPR, use the 4.5” long ¼” tube to connect to the ¼” elbow and install the suction side access valve to the other end of the elbow:
8. Hand assemble the suction line to the HPR system using the 12” long ¼” tube at the tee in the previous step. Hand bend the tubing and tie into the ¼” portion of the ½” x ½” x ¼” tee as shown:
9. Insert 3.5” straight ½” tubing into the discharge of the compressor.
10. Hand assemble ½” x ½” x 3/8” tee to reassemble the compressor discharge line.
11. Braze all joints while purging with nitrogen, then pressure test with 250 psig nitrogen.
12. Evacuate to a minimum of 500 microns.
13. Install electrical junction box and wire the compressor.
14. Install thermistor and insulate.
15. Weigh in nameplate refrigerant charge.

CVDT1200 Models



REMOVE OLD COMPRESSOR

1. Disconnect, lockout and tag out all utilities.
2. Recover refrigerant from system.
3. Remove electrical junction box.
4. Remove wiring from compressor.
5. Unsweat the connection at the accumulator to remove the reducer bushing.
6. Unsweat the connection at the check valve and separate.
7. Cut tubing after the Fan Cycle Control (FCC) switch, cut the high side line at the bend.
8. Cautiously cut out the High Pressure Cutout Switch (purple wires) and Low Pressure Cutout Switch (blue wires), save for re-installation.
9. Remove the old compressor



INSTALL NEW COMPRESSOR

1. Install feet and sleeves on compressor.
2. Place compressor on base and secure.
3. Insert bushing into the suction side of the compressor and the outlet of the accumulator.
4. Insert one end of the suction tube stub into the bushing of the suction accumulator. Insert the ½" x ½" x ¼" tee into the other end.
5. Hand assemble the Low Pressure Cutout switch (blue wires) and curved ½" tubing into the opposite end of the ½" x ½" x ¼" tee.
6. Install the discharge tubing into the discharge side of the compressor.
7. Hand assemble the ¼" x ⅜" x ⅜" tee.
8. Install the curved end of the ⅜" tubing into the tee
9. Install the ¼" access valve to the ¼" port of the tee.
10. Hand assemble the ¼" x ¼" x ¼" where the high side line was cut.
11. Insert one end of tubing assembly where the FCC switch is located.
12. Install the high-pressure control switch (purple wires) near the FCC Switch.
13. Install the high side access valve.
14. Braze all joints while purging with nitrogen.
15. Remove, replace and braze liquid line filter drier. (In the head section)
16. Pressure test with 250 PSIG nitrogen.
17. Evacuate to minimum of 500 microns.
18. Rewire compressor, High Pressure Cutout and Low Pressure Cutout Switches.
19. Weigh in the nameplate refrigerant charge.