

HOSHIZAKI AMERICA, INC. SERVICE BULLETIN

SB90-0009

SUBJECT: THIRD HOT GAS VALVE (Fig. A)

November 7, 1990

KM1200MAB, KM1200MRB - Early production units up to serial K10871.

Purpose of the 3rd Hot Gas Valve!

During a harvest cycle under low ambient conditions, the expansion valve may open and allow liquid refrigerant to flow into the evaporator. Should this happen, the harvest cycle time will be increased and may fail to completely harvest. The 3rd hot gas valve is provided to allow correct harvest operation under such low ambient conditions.

Function

Should the high side pressure, under low ambient conditions, reduce to 142.2 PSIG (21.3) pressure control, #2 will close energizing the 3rd hot gas valve. The 3rd hot gas valve opens allowing the high side pressure to be routed through the external equalizer line of the expansion valve. This added pressure to the lower side of the expansion valve diaphragm overcomes the induced high superheat and closes the expansion valve. The result is a positive harvest cycle under very low ambient conditions.

KM1200MAB, KM1200MRB LATER PRODUCTION (Fig. B)

Units Produced after serial #K10871 use a liquid line solenoid valve which closes during the harvest cycle eliminating the need for the third hot gas valve.

