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ABSTRACT

5 **A MODULAR HEAT PUMP SYSTEM FOR DRYING AND AIR-CONDITIONING**

10 A modular heat pump assembly (10) for drying and air-conditioning is disclosed. The assembly includes a two-stage internal evaporator system with high and low pressure evaporators (16, 17) for conditioning of air, a hot gas condenser (18) for introducing sensible heat to the air, a compressor, an external evaporator for facilitating constant latent load maintenance, at least one inlet port for receiving air from a drying/conditioning chamber (12), and an outlet port for discharging dried/conditioned air from the heat pump assembly to the chamber (12). The
15 proposed heat pump system has several advantages, namely, easy chamber scale-up to meet increased production, significant reduction of production down time, elimination of thermal discomfort during maintenance of refrigeration components for air conditioning systems.

20 Figure 1 is to be published.



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