

PARALLEL RACK REFRIGERATION SYSTEMS: MAXIMIZE ENERGY SAVINGS, MINIMIZE ENVIRONMENTAL IMPACT

What Is A Parallel Rack System?

A parallel system, often referred to as a “distributed” system, is a multiple compressor refrigeration unit piped in parallel to yield smooth capacity control as compared to a single compressor unit. A parallel system can be located in a back room or on a roof in close proximity to refrigeration equipment for reduced piping.

Master-Bilt parallel units use scroll compressors for the most energy efficient and environmentally friendly system. Parallel units, matched to an appropriate condenser, are modular and allow you to add or change compressors as needed. The standard rack housing and frame is made of durable galvanized steel with stainless steel as an option.

Why Use A Master-Bilt Parallel Rack System?

• Energy Savings

- Parallel units can match refrigeration capacity to actual load. This amounts to a 20%+ savings over a single compressor unit.
- The lead compressor is a digital scroll which better matches capacity needs and provides a 3% energy saving over standard parallel units
- Subcooling increases refrigerant efficiency on low temp applications by approximately 17%
- Optional heat reclaim increases energy efficiency by reclaiming waste heat from the condenser
- Optional gas defrost increases energy efficiency by using waste heat for defrost

• Electronic Control

- The parallel system’s electronic controller unit can interface into existing building controls
- The electronic controller can incorporate HACCP recording and allows monitoring of system features

- Remote communications are possible
- Alarm features built in
- Diagnostic feature reports temperatures, pressures and failure alarms as well as trending of these readings that can be used to predict maintenance needs

• Reliability

- Multiple compressors ensure that there will be sufficient capacity to handle your refrigeration load
- Less stress on the unit due to smooth running
- Reduced component wear due to less cycling
- Fewer leaks due to less vibration

• A Complete Source

- Master-Bilt can supply the parallel system, walk-ins, reach-ins and all other refrigeration equipment saving you the hassle of “shopping around”

Features Of Master-Bilt Parallel Rack Systems

- Standard galvanized steel housing
- Single point electrical connection
- Roof mount or pad mount
- Located indoor or outdoor
- Low profile size
- Existing evaporators can be used on retrofits
- Low vibration and low noise with scroll compressors
- Capacity control – no full on or full off
- Reduced stress on components
- Better product integrity



http://www.master-bilt.com/products/energy_saver.htm