# Digital E-Star® HiPerForm®





## Mueller® Digital E-Star® HiPerForm®

#### Digital Capacity Control for Energy Efficiency and Optimal Cooling

Paul Mueller Company's digital E-Star® HiPerForm® condensing unit fine-tunes the refrigerant flow to the milk cooler throughout all phases of the cooling cycle by using an electronic valve control (EVC). Constant, precise adjustments result in maximum energy and cooling efficiencies for both traditional and robotic milking systems.

Mueller E-Star HiPerForm's capacity control system allows the option to slightly oversize the condensing unit for greater efficiency at higher milk temperatures, while automatically reducing the cooling capacity at lower milk temperatures. The capacity control feature is an enormous benefit to prevent milk freezing during low-load conditions, such as a first milking on robotic dairies.

Additionally, digital E-Star HiPerForm condensing units are easily retrofitted to most milk cooling systems. Paul Mueller Company's digital E-Star HiPerForm condensing unit ensures maximum energy and cooling efficiencies, and the highest milk quality for dairy producers.





MUELLER DIGITAL E-STAR HIPERFORM SPECIFICATIONS					
Length (in)	Width (in)	Height (in)	Approximate Weight (lb)	Horsepower Available (hp)	Electrical Characteristics*
40.125	30.375	31.5	340	5	208-230/60/1, 208-230/60/3, 460/60/3, 575/60/3, 200-240/50/1, 380/50/3

<sup>\*</sup>Contact your Mueller representative for available electrical characteristics.

#### **Features and Benefits**

- Our proprietary electronic subcooling valve and control optimizes the milk cooler evaporator for maximum operating efficiency.
- The Copeland® Scroll compressor is designed to handle the large temperature changes required to cool milk. Scroll technology is more energy efficient and has less moving parts than reciprocating compressors.
- A **condenser subcooling coil** ensures subcooled liquid refrigerant for maximum evaporator efficiency.
- An enlarged tube-and-fin condenser with rifled tubing results in an enhanced condenser heat transfer surface for greater refrigeration capacity and performance.
- The suction line accumulator heat exchanger increases system efficiency and protects your compressor during low-load conditions.
- A single, variable-speed fan with a highefficiency motor maintains an even air flow to increase the capacity of the compressor.
- The **electrical compartment**, located in the upper front portion of the unit, permits easy access.
- The digital E-Star HiPerForm is available for use with environmentally-friendly HFC-507 refrigerant.

Groves-View Dairy, a Century farm in Southwest Missouri, uses two HP digital E-Star HiPerForm refrigeration units and a 4,000-gallon Mueller milk cooler with HiPerForm controls to cool the milk produced by their registered Holstein cows.

- GrovesViewDairy.com

From left: Todd, Brad, and Lonnie Groves.

Since adding the Mueller E-Star units, temperatures are holding within 2° after the first milking. Plus, we expect a 30% increase in energy efficiency."

- **Screw terminals** provide positive electrical connections and reduce compressor failure.
- It is CSA/cUS-approved for **indoor and outdoor use**.
- Oil sight glass and fill port allow simple inspection
  of compressor oil level and provide an easy method to
  add or change oil for future refrigerant requirements.
- A heavy-duty, galvanized three-piece metal cover protects the unit for safe operation.
- Rust-resistant brass high- and low-side valves are located in front of the unit for easy service access without removing the cover.
- The digital E-Star HiPerForm is quality assured and meets worldwide standards such as CSA and CE.
- When used with a HiPerForm® Plus control,
   MilkSecure™ technology allows you to remotely monitor your system wherever you have an internet connection and receive alerts via text or email.



### PAUL MUELLER COMPANY

#### PAUL MUELLER, OUR FOUNDER



At Paul Mueller Company, we are united by a belief in quality that works for life. Our goal is to have lasting impact with every piece of processing equipment we build. This collective vision has led us from a small sheet metal shop into a global supplier of heating, cooling, processing, and storage solutions. Our equipment allows farmers, brewers, and engineers to keep their products fresh and their inventory strong. Whether our equipment preserves milk in rural areas or helps manufacture medicine with broad health benefits, we are making an impact across the globe.

