



**HANSEN TECHNOLOGIES
CORPORATION**

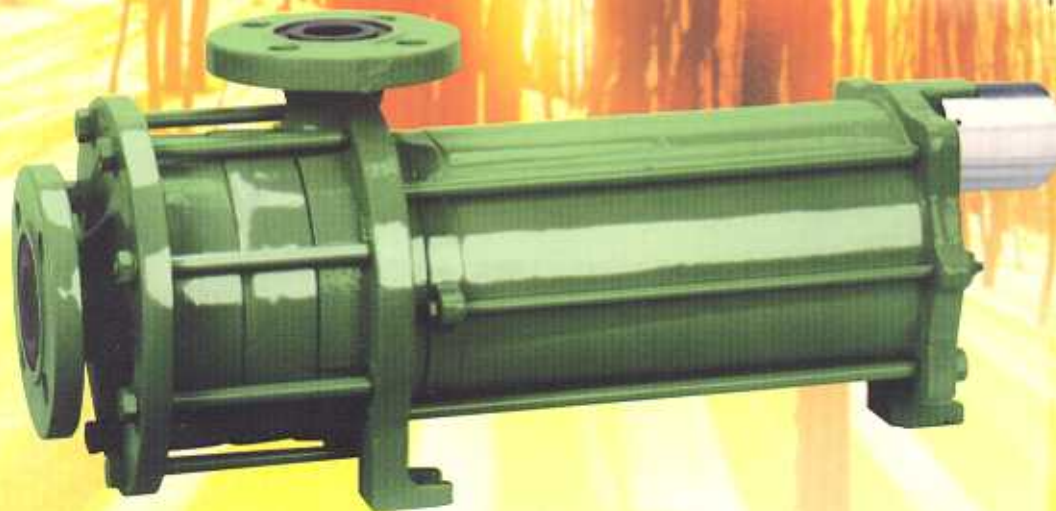
LIQUID

SAFER FOR PLANT PERSONNEL • SMOOTH & QUIET • SELF LUBRICATING

REFRIGERANT

SAFER FOR THE ENVIRONMENT • LEAK FREE • LOW NPSH • SEALLESS

PUMPS



Hansen hermetic liquid refrigerant pumps are safer for personnel and the environment because they are sealless, eliminating the potential for harmful refrigerant leakage.

Also, they require no lubricating oil or grease, no replacement of shaft seals, are not affected by moisture or frost accumulation, and provide many years of quiet, reliable operation.



LIQUID REFRIGERANT PUMPS

Hermetic liquid refrigerant pumps are superior to other types of

refrigeration pumps. They feature smooth and quiet operation and are not bothered by moisture or frost accumulation.

Their innovative, sealless design eliminates the leakage of harmful refrigerant and potential risk to plant personnel and the environment. This is accomplished by constructing the shaft and rotor as one piece and immersing it in refrigerant, replacing the problematic rotating shaft seal of a traditional pump design.

These pumps feature a low, required net positive suction head (low NPSH) which makes them ideal recirculating pumps for liquid overfeed evaporators. They are also used for liquid transfer and pressure boost applications.



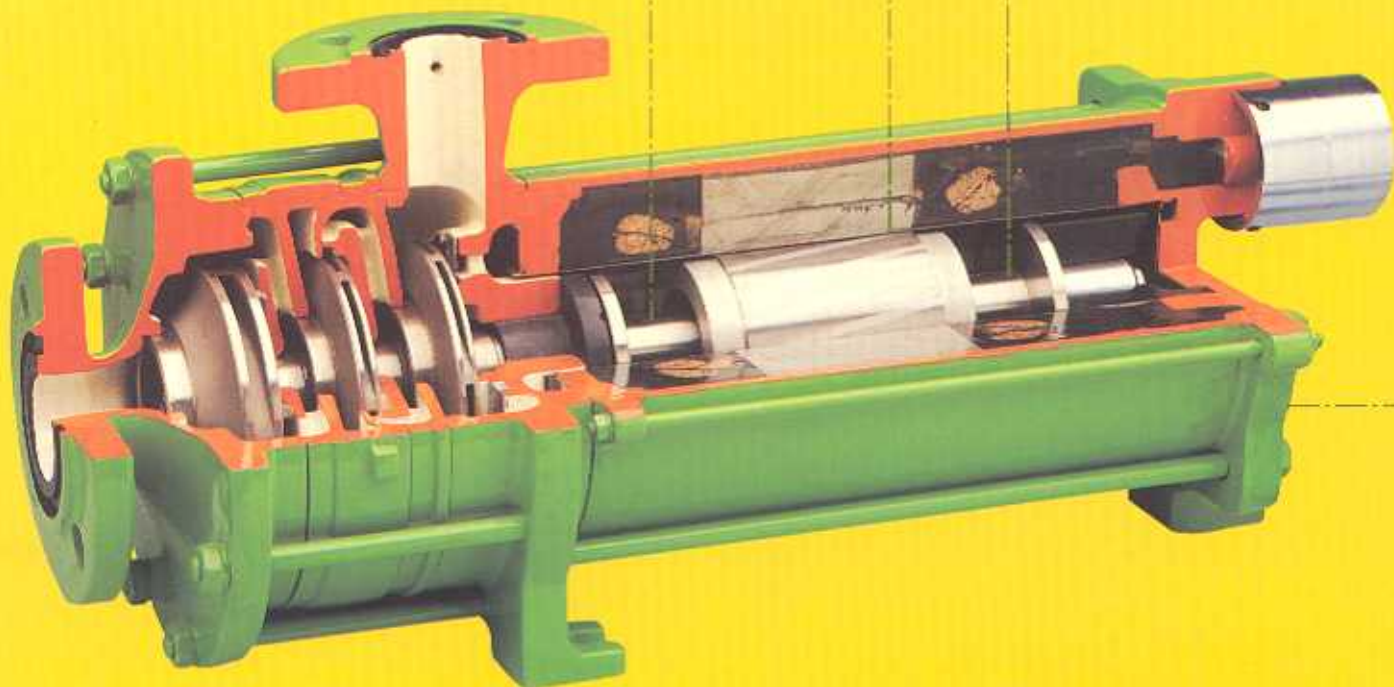
PUMP CONTROLLER

- fully-integrated controller
- protects the pump
- avoids nuisance cutouts
- automatic operation
- computer compatible
- supplied with all pumps

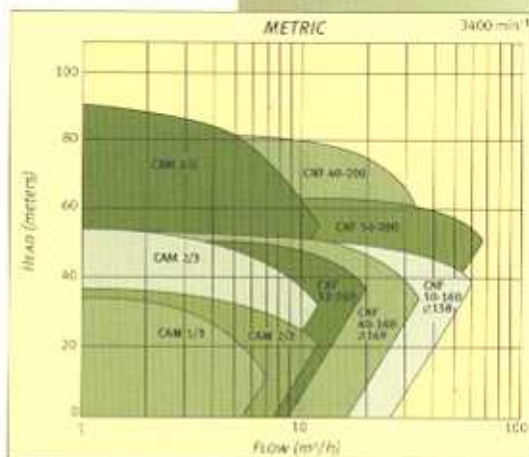
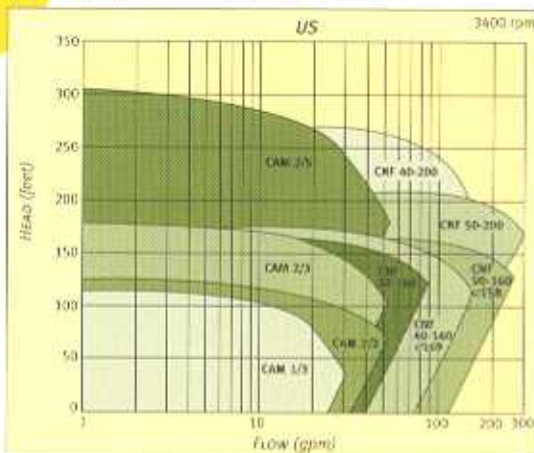


- long-lasting hydrodynamic carbon bearings
- no rotating shaft seal to leak

- stainless steel stator lining ("can")
- pumped refrigerant is used to lubricate the pump



PUMP CURVES



Standard stocked pumps are shown; larger pumps are available. These curves are based on gross flow unadjusted for Q-min bypass or discharge orifice/flow regulator.

SPECIFICATIONS

- ▶ maximum operating pressure: 360 psig (25 bar)
- ▶ ductile iron casing standard, stainless steel available
- ▶ temperature range: -60°F to +195°F (-50°C to 90°C) to -150°F (-100°C) with stainless steel construction
- ▶ housing: NEMA 4 (IP64/IP67/IP55)
- ▶ flow range: 7 to 185 gpm (1.5 to 42 m³/h) standard to 500 gpm (100 m³/h) available
- ▶ differential head: 75 ft (23 m) to 225 ft (69 m) standard, to 700 ft (210 m) available
- ▶ CSA listed



Cam Series Liquid Refrigerant Pump

ACCESSORIES

- ▶ Pump Guardian pump controller supplied with all pumps
- ▶ Q-min orifice vents pump and ensures proper pump cooling
- ▶ Q-max orifice limits maximum flow preventing cavitation and motor overload
- ▶ differential pressurestat protects pump from running dry
- ▶ overtemperature thermistors in CNF models protect motors from running hot



Pump Guardian

OPTION

- ▶ Hansen's optional constant flow regulators accurately control the flow rate from refrigerant pumps, independent of pressure changes. As a result, pumps can safely operate in a higher flow range than can be achieved with a standard discharge orifice. This means a higher available pumping head and flow rate without cavitation or motor overload.



Constant Flow Regulator

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