CUSTOM OPTIONS FROM BUDZAR

- Heat Pump or Chiller with Heat Recovery
- Water cooled or Air cooled Condensing
- Applications for indoor or outdoor use
- Configured to Multi-Circuit
- Cascade Systems for wide temperature ranges
- Add Fluid Coolers to the loop
- Add Pump & Glycol loops to your Heat Pump
- Add Remote Monitoring hardware to controls

CFC/ HFC REFRIGERANT OPTIONS

R1233zd
- Cooling temperature (Source Out): 85°F Min.
- Heating temperature up to 250°F

R1234ze
- Cooling temperature (Source Out): 5°F Min.
- Heating temperature up to 180°F

R513A
- Cooling temperature (Source Out): 5°F Min.
- Heating temperature up to 155°F

*Budzar will custom build equipment compatible with any refrigerant and heat transfer fluid per your specifications

PROPANE (R290) OPTIONS

- One of the most versitile refrigerants with a wide temperature range
- Cooling temperature (Source Out): -33°F Min.
- Heating temperature range up to 135°F
- COP depends on supply temperature
- Safety Group A3
- Global Warming Potential: 3
- Ozone Depletion Potential: 0

WHY BUDZAR?

Customized to meet your requirements
Client-driven customization makes Budzar Industries uniquely special. Our engineering team will work with you to develop a tailored solution for your specific needs.

Full capability manufacturing
Budzar Industries is a one-stop operation with over 100,000 square feet of dedicated manufacturing and testing floor space.

Top quality, non-proprietary components
Products from Budzar Industries are engineered, designed, and manufactured using non-proprietary parts to make maintenance, repairs, & upgrades on-time and affordable.

Servicing Nationally and Internationally
Our products deliver accurate temperature control in 49 states and internationally across six continents.

Parts and Service
With our expert technicians & large inventory of spare parts, we will keep your facility up and running!

Contact Us!

www.budzar.com
440-918-0505

BUDZAR INDUSTRIES, LLC.

38241 Willoughby Parkway
Willoughby, OH 44094

www.Budzar.com
440-918-0505

HEAT PUMPS
& HEAT RECOVERY

"Precision in Every Degree"

WHY HEAT PUMPS?

BENEFITS OF HEAT PUMPS

- The ability to heat and cool simultaneously
- Uses waste energy from already supplied source
- High Coefficient of Performance
- Eliminates the need for seperate heating and cooling equipment, which leads to:
  - Maximizes facility floorspace
  - Cost savings in process equipment
  - Cost savings in utilities

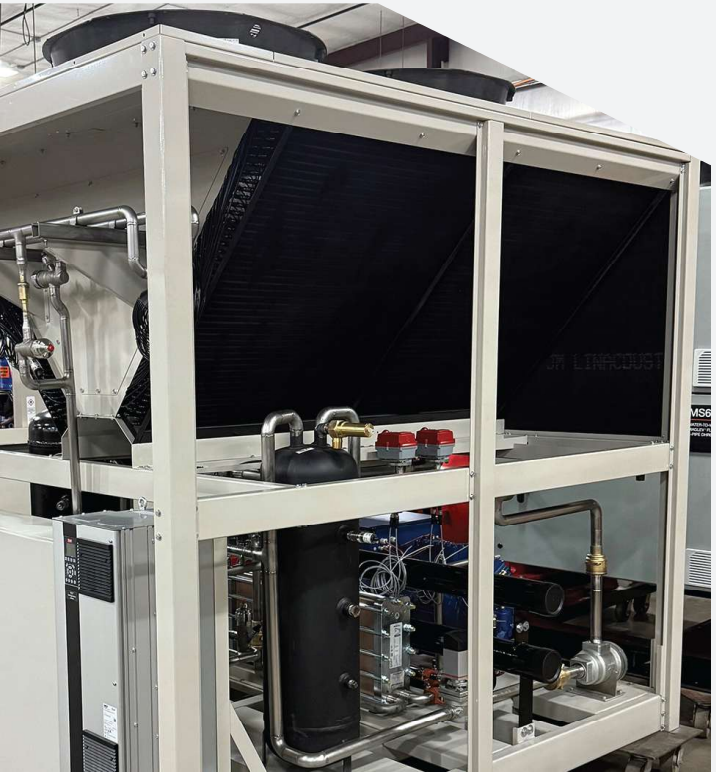
MODES OF HEAT PUMPS

- **Heat Pump** for heating only
- **Chiller with Heat Recovery - Balanced**

Distributes even loads of heating and/or cooling

- **Chiller with Heat Recovery - Unbalanced**

Distributes varying loads of heating and/or cooling



BUDZAR GREEN
NATURAL REFRIGERANTS

For facilities focused on **Sustainability,** Budzar Industries also offers **Budzar Green Natural Refrigerant Products,** including standard and custom designed Natural Refrigerant Heat Pumps. No matter the temperature range or load for your process, Natural Refrigerants have excellent **Coefficient of Performance & Low GWP,** which aid in the reduction of greenhouse gas emissions.

ISOBUTANE (R600a) HEAT PUMP

- Cooling temperature (Source Out): 25°F Min.
- Heating temperature range up to 225°F
- Simultaneous heating and cooling with two setpoints
- Integral regulating valves for variable heating or cooling
- Standard Heating COP: 3
- Standard Combined COP: 5
- Safety Group A3
- Global Warming Potential: 3
- Ozone Depletion Potential: 0

CO2 (R744) CHILLER WITH HEAT RECOVERY

- Cooling temperature (Source Out): -50°F Min.
- **Transcritical Design** : Heating up to 230°F
- **Subcritical Design** : Heating up to 65°F
- Insensitive to pressure losses
- Non-toxic / non-flammable
- Standard Heating COP: 4.5
- Standard Combined COP: 8
- Safety Group A1
- Global Warming Potential: 1
- Ozone Depletion Potential: 0

ISOPENTANE (R601a) HEAT PUMP

- Cooling temperature (Source Out): 105°F Min.
- Heating temperature range up to 300°F
- Simultaneous heating and cooling
- Achieves higher temperature at lower pressures
- Excellent option for Cascade Design
- Standard Heating COP: 3
- Standard Combined COP: 5
- Safety Group A3
- Global Warming Potential: 5
- Ozone Depletion Potential: 0