

# The most visionary heating and cooling systems in the world



Fenagy develops and manufactures refrigeration and heat pump systems based on the natural refrigerants CO<sub>2</sub> and hydrocarbons. We always use natural refrigerants because they are efficient and have no harmful effects on the environment and climate - unlike all alternative synthetic refrigerants. Natural refrigerants are the refrigerants of the future.

## H-RANGE



**HEAT PUMPS**  
**SINK: WATER**  
**SOURCE: AIR OR WATER**

**CAPACITY: 600 - 3,000 kW PU**  
**REFRIGERANT: CO<sub>2</sub> (R744)**

## C-RANGE



**CHILLERS**  
**HEAT RECOVERY**  
**AIR-COOLED GAS COOLER**

**CAPACITY: 800 - 2,600 kW PU**  
**REFRIGERANT: CO<sub>2</sub> (R744)**

## CHC-RANGE



**COMBINED HEAT AND COOLING**  
**SINK: WATER AND AIR**  
**SOURCE: WATER AND AIR**

**CAPACITY: 600 - 3,000 kW PU**  
**REFRIGERANT: CO<sub>2</sub> (R744)**

## HCI-RANGE



**HEAT PUMPS**  
**SINK: WATER**  
**SOURCE: WATER**

**CAPACITY: 1,000 - 3,000 kW PU**  
**REFRIGERANT: ISOBUTANE (R600a)**

## HCP-RANGE



**HEAT PUMPS AND CHILLERS**  
**SINK: WATER**  
**SOURCE: WATER**

**CAPACITY: 1,000 - 3,000 kW PU**  
**REFRIGERANT: PROPANE (R290)**

# We only work with natural refrigerants

## R744 - CO<sub>2</sub>

### APPLICATIONS

District heating, heat networks, industrial processes, food industry, green houses, data centres, logistics centres, offices, hospitals and HVAC in general

- Natural refrigerant with a wide temperature range
- Non-toxic and non-flammable
- Excellent choice for air-sourced heat pumps for direct use in the energy collectors and with high delta T on the heat sink side
- Optimal for medium-temperature water-sourced heat pumps, chillers and combined heating and cooling applications
- Medium-high temperature level on heat sink (up to 85°C supply temp) with high delta T on the heat sink ( $\Delta T$ : 30-40K)

## R600a - Isobutane

### APPLICATIONS

Heat networks, biogas, PtX, geothermal, carbon capture, CO<sub>2</sub> heat pump sub-cooler, industrial processes and the food industry

- High-temperature natural refrigerant
- Suitable for water-sourced heat pumps and chillers
- Can be used in a wide temperature range on both the heat source and heat sink sides
- Robust operation under various operating conditions
- Use of efficient screw compressors and high COP of the cycle
- High temperature level on heat source (up to 40°C evap. temp)
- High temperature level on heat sink (up to 95°C supply temp) and ideal with low delta T on heat sink - serial coupling on water side at higher delta T

## R290 - Propane

### APPLICATIONS

Heat networks, industrial processes, food industry, data centres, offices, hospitals and HVAC in general

- Low-temperature natural refrigerant
- Suitable for lower temperature water-sourced heat pumps and chillers
- Low temperature level on heat source (down to -30°C evap. temp)
- Medium temperature level on heat sink (up to 75°C supply temp)
- Ideal with low delta T on sink and heat source
- High refrigeration capacity ensures compact solutions with small footprint
- Can be combined with isobutane in serial hydraulic couplings

