



ARP_CO₂

AIR-TO-WATER MODULAR NATURAL REFRIGERANT HEAT PUMP



MULTISTACK.COM

The future is now. Decarbonization has become the single most important new concept in the world of HVAC since the invention of vapor compression refrigeration. This means, quite simply, that everything we once did with natural gas, coal, and other fossil fuels will cease to exist. Legislation requires it, conscience demands it, and as engineering professionals our mission must be to provide decarbonization solutions.

Multistack's focus is on providing optimized solutions that support environmentally conscious design practice; that requires more than just an understanding of how to live and build sustainably. It requires that we develop new and radically different approaches to heating and cooling the built environment. We deploy cutting-edge technologies to provide the most effective, efficient, and sustainable solutions in the modular or packaged HVAC marketplace. *Join us on the journey as we trailblaze the way to the carbon-free horizon.*

ARP_CO₂: an air-source heat pump

- Natural CO₂ refrigerant delivers
 - High COP
 - GWP of 1
 - No phase-out date
- Will be available in a range of module sizes
- 2-pipe system satisfies heating requirements for comfort, domestic, and process loads
 - Multi-family
 - Hospitals
 - Dormitories/barracks
- Cutting edge variable speed Hi-Lift™ compressor expands operating envelope
- CO₂ delivers high quality hot water at ultra-low ambient temperatures

Natural refrigerant ARP_CO₂ delivers:

- Single point connections package can include
 - Pumps
 - Expansion tanks
 - Storage tanks
 - Air separator
 - Heat exchangers
 - Other water-side specialties

MultiPRO™ Central Plant Controller is available with ARP_CO₂

- MultiPRO can tie it all together as one "system"
- MultiPRO can control and optimize:
 - ARP operation
 - CHW pump(s)
 - HW pumps(s)
 - System bypass valve(s)
- MultiPRO Central Plant Controller can be:
 - Factory mounted, wired, and tested
 - Or, shipped loose for field installation

Reach out to your local **Multistack** design professional to discuss how we can help you realize your goals on our common journey to the carbon-free horizon.



The Multistack Group

Customer Driven InnovationSM

The right choice for the future... today.

OUR MISSION

To design and build reliable, energy-efficient equipment that fully supports the transition from fossil fuels to renewables through electrification.

OUR VISION

To create a world where environmentally sensitive design practice, reliability, and redundancy coexist and are embodied in the worlds most advanced HVAC equipment.

SUSTAINABLE CHOICES

At **Multistack**, we recognize and respect the importance of providing HVAC solutions that promote energy and water efficiency, utilize the best refrigerant choices available, and embrace the transition from fossil fuels to electrification.

Water and air-cooled **MagLev**[®] chiller platforms achieve superb efficiency across their full range of operation. Our unique **MagLev** chiller design and unrivaled Transitional Efficiency chiller control algorithms deliver outstanding part-load performance at all condenser-water or ambient temperature conditions.

MagLev chillers offer refrigerant choices recognized worldwide as safer for the environment: R-1234ze, R-513A, and R-515B. **Multistack** scroll chillers offer R-454B as the replacement for the high GWP R-410A. R-454B has a GWP of 466, which is 78 percent lower than R-410A. We encourage you to explore our natural refrigerant offering as well.

Our modular product's design allows you the freedom to use just enough energy to meet your current needs, while offering you the flexibility of incorporating additional modules as your operations grow. Minimizing embodied energy is an important design focus and we pride ourselves that our modular chillers deliver the industry's highest cooling and heating output per pound. If you're looking to cool and heat your building with as little environmental impact as possible, look no further than **Multistack**!

Reach out to your local **Multistack** design professional to discuss how we can help you realize your design goals for:

- Decarbonization
- Electrification
- Energy efficiency
- Water usage efficiency
- Energy & heat recovery
- Choosing sustainable refrigerants
- Minimizing refrigerant charge
- Minimizing embodied energy
- Minimizing environmental and physical footprint