

Construction details

Previous generation products

Construction details

1. Material options

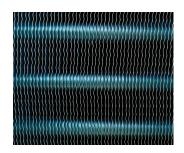
 Heavy-gauge hot-dip galvanized steel is used for unit steel panels and structural elements featuring a zinc aluminium coating.

2. Heat transfer media

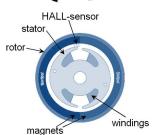
- The finned coil is constructed of staggered and seamless copper tubes with pre-coated aluminium, rippled and corrugated fins.
- 2,5 mm fin spacing for optimal air turbulence
- Thick and seamless copper headers and threaded steel connections
- Pressure tested at 15 bar
- Try our options for aggressive environments: special pre-coated anti-corrosion aluminium fins.

3. Air movement system

- Axial fan with exceptionally compact direct drive short integrated motor and fan guard.
- The low profile fan with fan guard features an impeller and motor and is balanced as a complete unit using dynamic single plane balancing. Balance grade is G6.3.
- Fan and motor totally maintenance free, and allow frequent starting.
- Bearings seals and motor encapsulation for long service life.
- The adiabatic units fitted with EC motors (EC in model number)
 provide an immense reduction in power consumption. The fans are
 piloted over an RS485 bus system by the controller supplied together
 with the electrical panel.
- Principle of operation: the magnetic field of the permanent magnets in the outside rotor is used by the consecutively powered windings in the inside stator to let the fan run. The Hall-sensor detects where the magnetic field is strongest, which determines which set of windings will be activated.









4. Adiabatic pre-cooler

- Evaporative cooling pad of impregnated cellulose with different flute angles encased in bolted heavy gauge stainless steel.
- Distribution pad on top for complete pad wetting.
- **Once-through** water distribution system, no need for pumps, water drained to sewage.



5. Electrical panel and adiabatic controls

- Fully equipped factory-installed electrical panel with integrated motor controls and adiabatic controls as well as all the required circuit breakers and other auxiliary components.
- Units with regular AC have an electrical panel which additionally contains a **variable frequency drive**.



Like to know more about the SP SpartiumCooler construction details? Contact your <u>local BAC representative</u>.