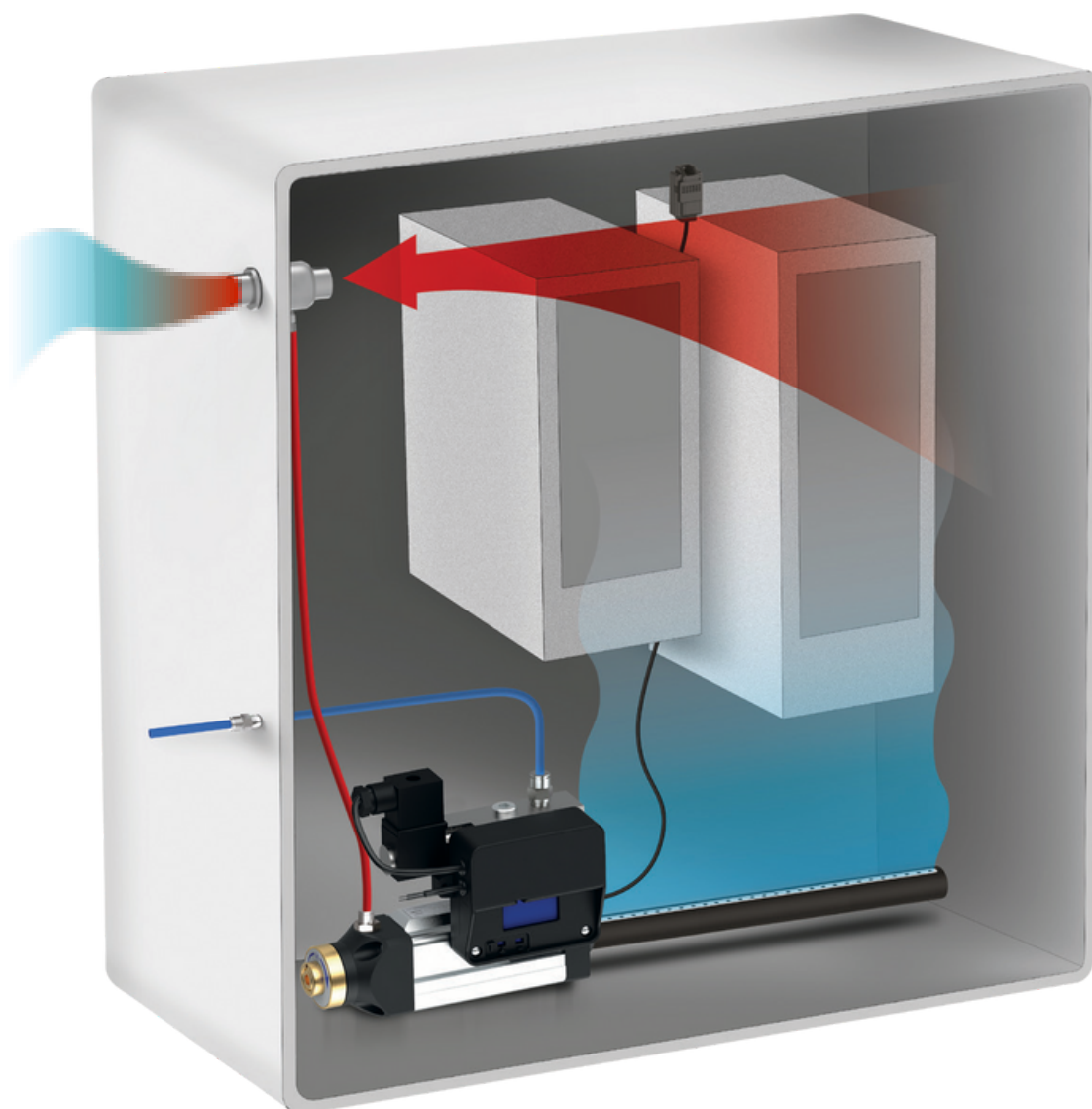
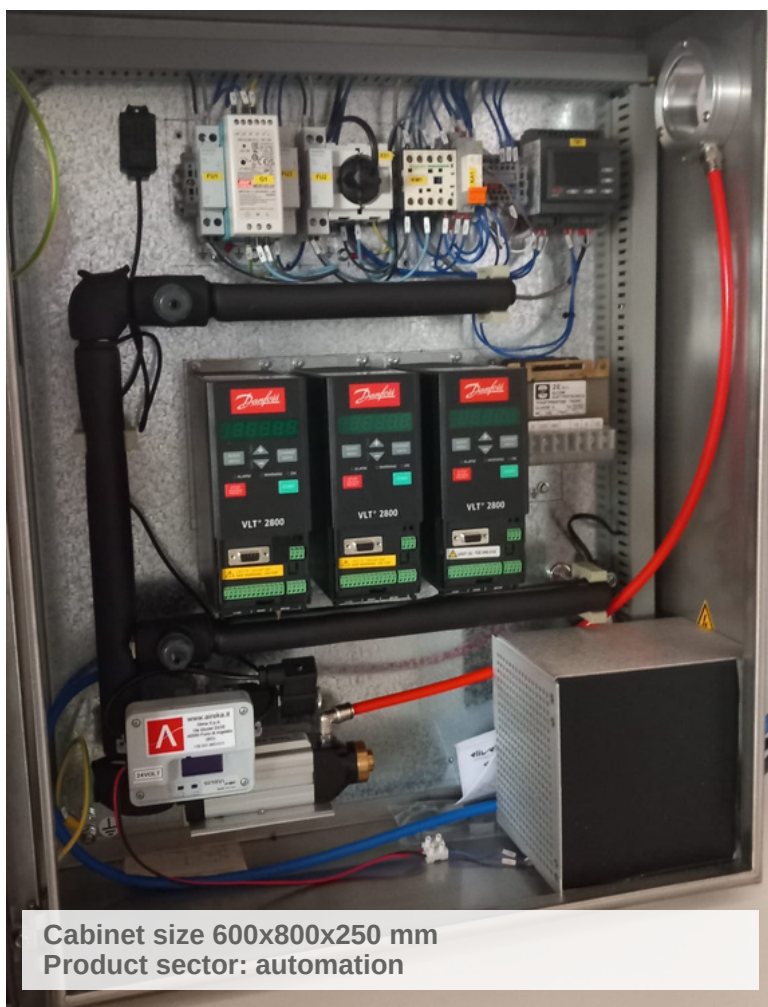


ENCLOSURE COOLING SYSTEM



AIR EKA

Simple and innovative ideas for pneumatic automation



Aireka is pleased to offer an innovative plug&play solution for enclosure cooling with the latest generation of cooling systems. In addition to a pneumatic cooler with electronic control, our cooling kits include a filter-regulator, a tube for distribution of the cold air, a device for hot-air extraction, and a bracket for installation.

Several versions of kits are available, to adapt to different cabinets' sizes.

AIREKA COOLING SYSTEM

Aireka offers a complete cooling system for cooling down control cabinets and enclosures. This system is based on the pneumatic cooler, a device that exploits the "vortex tube" technology.

VORTEX TUBE TECHNOLOGY

The Ranque-Hilsch tube, in the industrial sector better known as "Vortex tube", is a device that splits a compressed-air flow in 2 separate streams: one of cold air, and one of hot air. The core of the system is the vortex chamber, which is connected to 2 opposed tubes, one of which features a valve. Thanks to the shape of the holes, the compressed air is forced to enter the vortex chamber tangentially and this causes a rotary movement of the air towards one of the tubes' exit. So, this flow is much colder: the ΔT generated is inversely proportional to the volume of the flow. The differences in temperature are considerable and can reach -40°C for the cold flow and 60°C for the hot flow.

COOLING SYSTEM AIREKA



High temperatures can lead to electric cabinets' malfunctions and even breakdown, resulting in machine downtime. Our cooling systems are designed to act where cooling is most needed, on heat sources, thus enabling efficiency and energy savings. Simply connect the air hoses and the electric wires, and set the temperature range on our device's display: the cooler will work only when it is necessary, maintaining the required temperature and allowing great savings in terms of compressed air and power consumption.

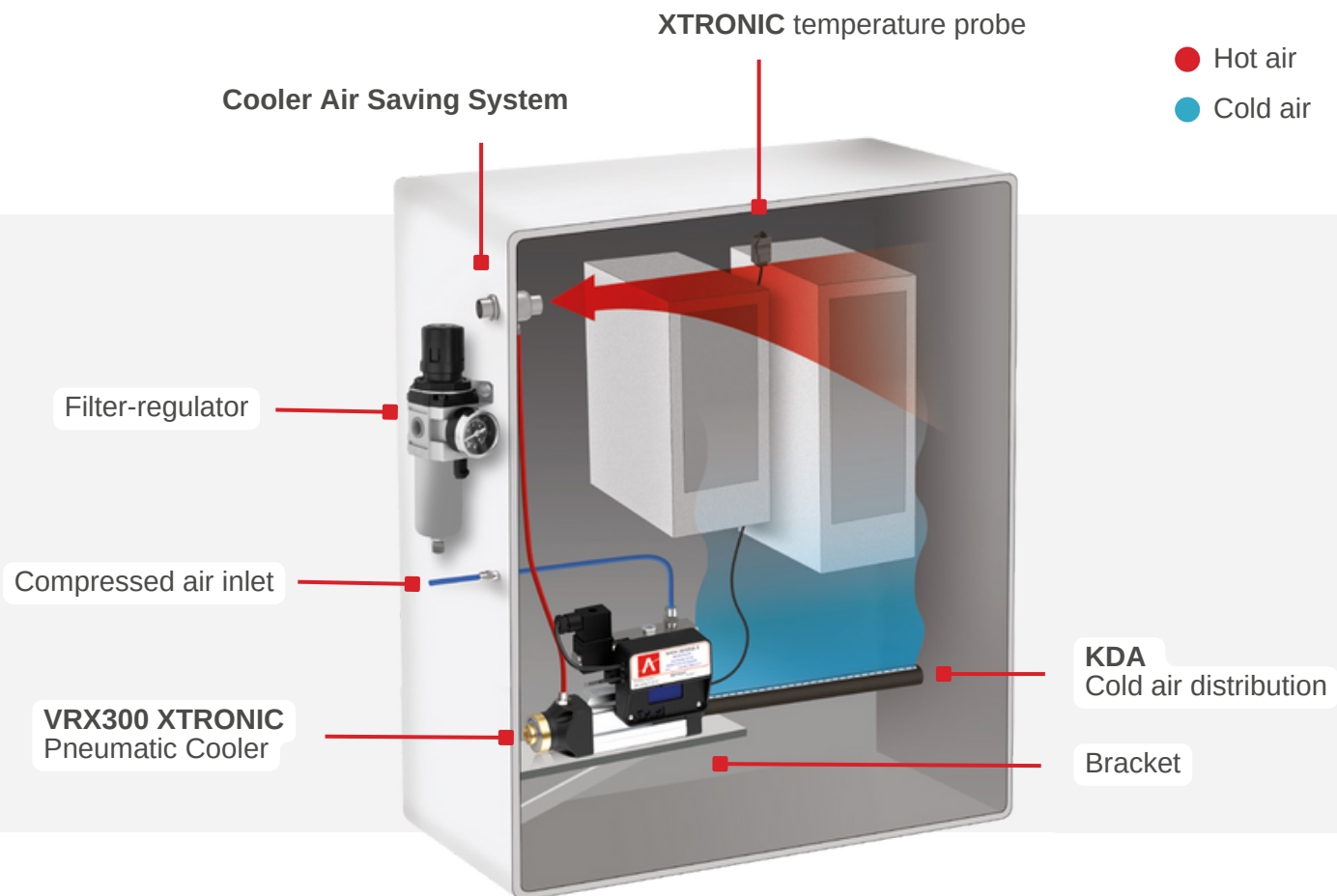
BENEFITS

- No space required outside the cabinet
- Fast installation
- Zero maintenance
- Protection of the components from overtemperature
- Internal cabinet overpressure to keep dust out
- No condensation
- Fully customisable

FEATURES

- Compressed air supply: 3 ÷ 4 bar
- Cooler's activation time: 8 ÷ 10 seconds
- Operating temperatures: ON = 36 degrees / OFF = 32 degrees (adjustable from 40 to 30 degrees)
- KDA system in triple insulation for cooled air distribution
- ESR 60 heat extractor

COOLING KITS



COOLING KITS

Aireka's cooling kits are the plug-and-play solution for cooling large and small electrical cabinets and control boxes.

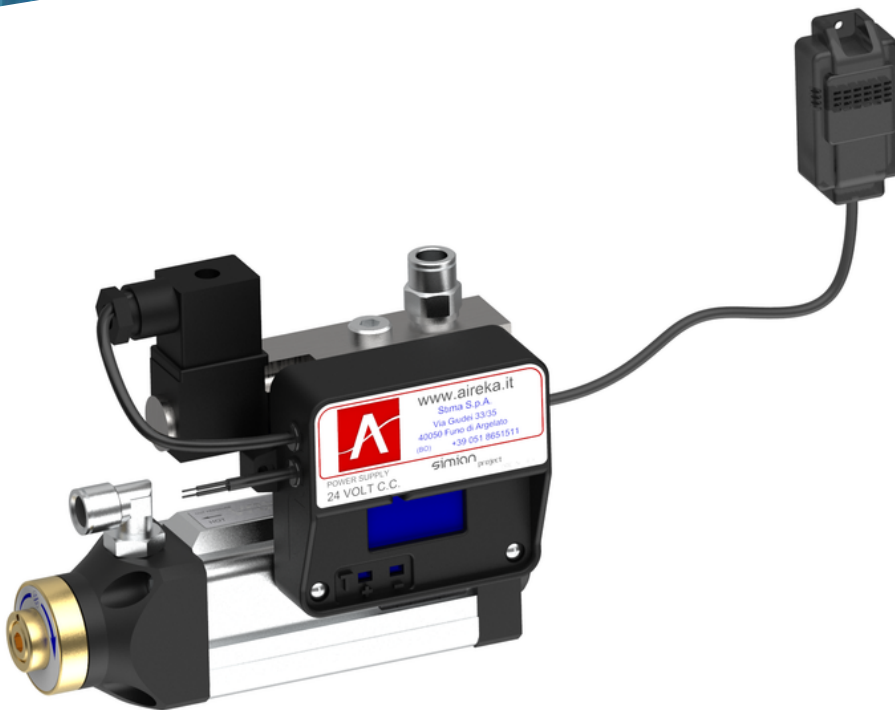
Each cooling kit consists of:

- Pneumatic cooler with integrated temperature-control device
- Filter-regulator
- Tubes for distribution of cooled air
- Device for extraction of hot air from the cabinet
- Bracket for cooler installation

COOLING KITS CONFIGURATIONS

	Cabinet size [mm]	Components	Cooling power	
			W	BTUH
Mini cabinet kit	300X400	1/8" pressure regulator + filter	132	440
		VRX100 XTRONIC cooler		
		AC28 tube		
		AM-15T air amplifier		
		AC32 filter		
	400X600	1/8" pressure regulator + filter	264	880
		VR200U XTRONIC cooler		
		AC34 tube		
		AM-15T air amplifier		
		AC32 filter		
	600x800	1/4" pressure regulator + filter	528	1760
		VR400U XTRONIC cooler		
		AC47 tube		
		ESR60 heat extractor		
Small cabinet kit	800 X 1200	1/4" pressure regulator + filter	600	2075
		VRX300 XTRONIC cooler		
		Tube KDA 500 1/2"		
		ESR60 heat extractor		
		Bracket AC59		
Medium cabinet kit	1000 X 2000	1/4" pressure regulator + filter	730	2500
		VRX500 XTRONIC cooler		
		Tube KDA 500 1/2"		
		ESR60 heat extractor		
		Bracket AC59		
Large cabinet kit	2000 X 2000	3/8" pressure regulator + filter	1650	5600
		VRX1000 XTRONIC cooler		
		Tube KDA 1000 1/2"		
		ESR60 heat extractor		
		Bracket AC59		
Pneumatic valves panels' and electronic boards' kit	400x600	1/8" pressure regulator + filter	264	880
		VR200U XTRONIC cooler		
		Tube KDA FLEX with nozzles		
		ESR60 heat extractor		
	600x800	1/8" pressure regulator + filter	528	1760
		VR400U XTRONIC cooler		
		Tube KDA FLEX with nozzles		
		ESR60 heat extractor		

PNEUMATIC COOLERS



Aireka pneumatic coolers are the effective and convenient solution for cooling, both for control cabinets and for on-spot applications. They simply use standard compressed air and generate a cold air flow whose temperature can be 40°C lower than that at the inlet. They are adjustable and easy to install.

Our XTRONIC coolers are designed to autonomously manage their operation time, according to the temperature parameters detected in the environment surrounding the application.

To start, simply connect the air hoses and power cables and set the desired temperature range on the display of our device: our cooler will come into operation only when necessary, to do an adequate job of temperature maintenance and thus avoiding unnecessary energy waste in terms of compressed air consumption.

BENEFITS

- ΔT up to -40 °C for the cold flow in comparison to the temperature of inlet air
- Easy and time-saving installation, thanks to its magnetic bracket
- Maintenance-free
- No chemical products required
- Instant operation
- Cold air distribution kit on request



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