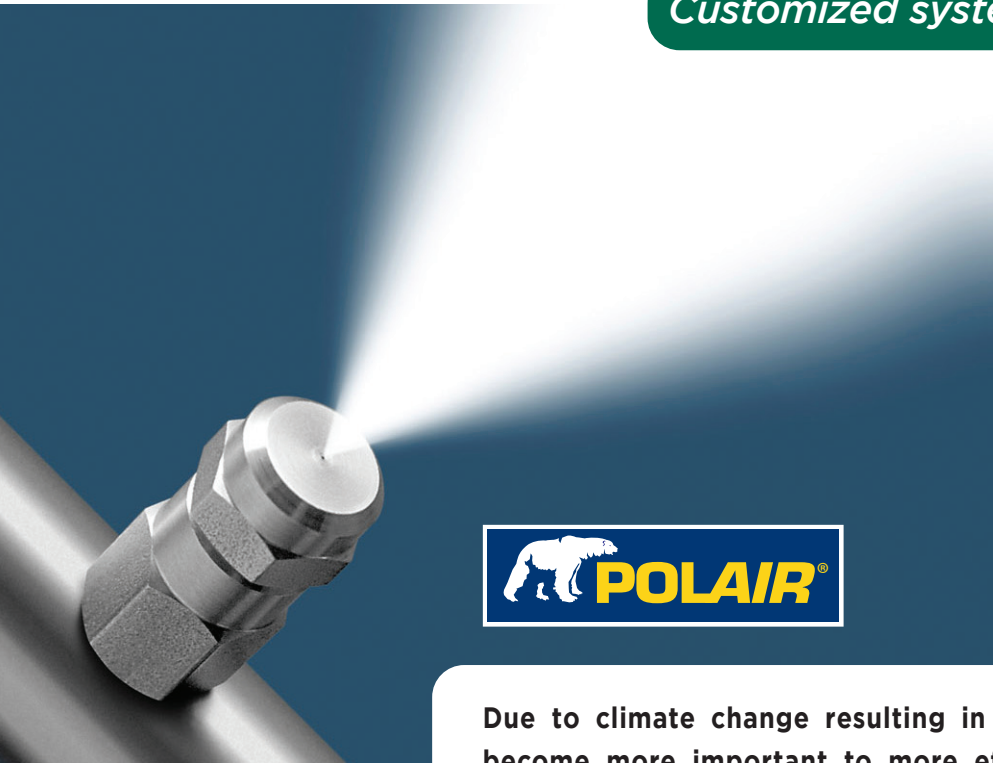




Keep Your Sheds Cool – PoAIR® V70 High Pressure Cooling

Customized systems – Tailored to your sheds



Due to climate change resulting in longer periods of hot weather, it has become more important to more effectively cool poultry sheds. Growers have a responsibility to provide positive animal-welfare conditions, and overheated birds are unhappy and unproductive.

Besides ventilation there are several options available to control the shed climate, the most popular are high pressure fogging and pad cooling. While both use the same principle of evaporative cooling, there are considerable economic benefits to misting. The high pressure fogging system itself is a lot more affordable, can be more effective and requires less seasonal maintenance, giving growers a return on their investment in as little as one heatwave.

High pressure fogging systems atomize water to a fine mist which cools down the air. With this adiabatic process, the warmth in the air evaporates the fog, lowering the air temperature and raising the relative humidity.

VAL-CO PoAIR is famous for its reliability, durability and longevity:

- With little maintenance the system will operate for many years without any issues
- Operates at a pressure of 70 bar (1000 psi)
- Achieves a temperature drop of up to 8°C
- Nozzle will atomize approximately 5.3 l of water per hour, which is between 2.5 and 4.0 g water per m³ air
- Creates a droplet size of 5-10 micron



The PoAIR Nozzle

Comparative Size

Relative Size	Comparative Size	Atomization
	Point of Needle (25 Microns)	Fog
	Human Hair (100 Microns)	Fine Mist
	Sewing Thread (150 Microns)	Fine Drizzle
	Staple (420 Microns)	Light Rain
	#2 Pencil Lead (2000 Microns)	Thunderstorm

VAL-CO has been developing and producing components for various industries since 1908. We use our knowledge and experience to manufacture fogging/misting systems and nozzles. Since 1997, VAL-CO B.V. has been active in the horticulture & agriculture business, and we've successfully sold countless PoAIR high pressure fogging systems.

In general, during warm periods in Western Europe, the fresh incoming air is cooler and drier than the shed air and the naturally low relative humidity allows the air to absorb moisture for cooling. This will not make the litter wet or cause respiratory problems because the *relative humidity will remain below 80%*.

When the air is humid because it is carrying water picked up from the sea it may not be able to cool as needed by passing through a pad cooling system. After incoming air warms up inside the barn, it can hold more water and makes utilizing a high pressure fogging system for evaporative cooling more effective in our climates.

With high pressure fogging, both temperature and humidity can be adequately controlled, and it decreases the quantity of airborne particles, dust, and possible infections in the air.

The unique characteristic of VAL-CO PoAIR is our high-grade 304 stainless steel nozzle producing the finest mist with the highest possible cooling effect without any precipitation onto surfaces.

The nozzle pin in the nozzle is powered by the water pressure and the pin spins rapidly during fogging, atomizing the water droplets into the finest mist. At the same time, it prevents build-up of calcium and contamination of the nozzle opening making the PoAIR nozzle more reliable and very durable. The only non-stainless steel part is the tiny shut off ball, which is made from a chemical resistant elastomer and spring charged to close the nozzle after the pressure has dropped. This anti-leak shut off prevents any possible dripping from the tubing and wet spots on the floor or crop after the system is switched off.



- Control options:**
- Stand-alone option with cyclic timer
 - Temperature & humidity regulation and sensors
 - Slave option to the total farm house controller



For information scan here:



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