## HIGH-PERFORMANCE G COOLTECH FINLAND INDUSTRIAL REFRIGERATION MACHI

## Improving the energy efficiency of ammonia, freon and hydrocarbon systems by reducing the condensing pressure

Cooltech PLC has developed a new high-performance air purger AP2, enabling removal of non-condensing gases like nitrogen, hydrogen, methane etc. from the refrigeration plants.

The AP2 Air purger is primarily meant for high capacity refrigeration plants and/or refrigeration plants with high refrigerant capacity. It's also can be used for refrigeration plants operated on hydrocarbon gases, ammonia warehouses.

## Advantages:

• May be used in explosion and fire hazardous environments (explosion proof design, Ex)

• Capacity is two times higher than of the direct analogues and more than 20 times higher than of the autonomous air purgers of the well-known manufacturers

• Can be used with any common refrigerants, including ammonia and hydrocarbons (propane, propylene, butane)

- Reduces energy consumption of the refrigeration plant
- Maximises cooling capacity of the refrigeration system
- Ensures accident-free operation of the plant in hot time
- Reducing refrigerant losses up to 98% compared to manual gas removal
- Suitable for refrigeration plants of any size
- Uses the same refrigerant as the existing refrigeration plant
- Minimal installation costs
- Very low power consumption
- Fitted with all necessary valves and automatics
- Fully automated operation (controller with LCD display)
- Dust and moisture protection not lower than IP54

## Comparative evaluation of air removal performance for AP1 and AP2 air purgers:

Air purger	Capacity, air, nm3/h**		
	Percent of air in the mixture (mass)		
	10%	20%	30%
AP1	0,5	1,1	1,6
AP2	5,4	10,8	16,1
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\*\* - design capacity by air for an ammonia refrigeration system at a boiling point of -15 °C and condensation of +35 °C.



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