

Sabroe AP1200 + WDO1200 purging system

New feature:

Controller with signal of water content and purged air timer

Removes any air, water and other impurities that are present in an ammonia refrigerant charge

The very powerful AP1200 + WDO1200 is a combined air and water purging system that can handle all sizes of industrial refrigeration systems that use ammonia (R717) as refrigerant and ensure no air, water and other impurities are left in the system.

The AP1200 + WDO1200 purging system use excess thermal energy from the air purger to remove any water, dirt or oil (WDO) that might be present in an ammonia refrigerant charge.

This enables you to tackle multiple refrigerant contamination problems at once with relatively low cost.

Installing an AP1200 + WDO1200 purging system means you reap the full benefits of clean ammonia with consistent specifications, for use at the heart of your refrigeration systems.

This whole purging system is easy and cheap to install, operate, and service.

It is also ideal as a low-cost, energy-effective way to boost operating efficiency as well as to avoid and prevent unpleasant surprises, service interruptions, and possible breakdowns in your key processes.



Features	Benefits
The amount of purged air can be determined from controller with purge timer and capacity table	Normally reduces refrigeration equipment energy consumption by as much as 5-10%
Relation between air and water content in system becomes visible	Reduces operating costs and keeps the refrigeration system and its components operating at maximum efficiency
Helps prevent undesirable chemical reactions in all systems in a refrigeration installation	More stable operation as well as lower service and maintenance costs
Warning signals when ready for pump down and water drainage from controller	Fewer oil changes needed, improved operating efficiency and longer service life for equipment and installations
Low installation costs as AP1200 + WDO1200 can use the same connections	Easy and cheap to install, operate and service

How to install

An AP1200 + WDO1200 purging system can due to its small footprint be installed where it is most convenient on site.

It is very easy to install because only three shared connections are needed – for wet suction, low-pressure liquid, and an input line for the fouled gas.

AP1200

The AP1200 works automatically when connected to a controller.

The amount of purged air can be determined from a controller with purge timer and capacity table.

This makes sure that the pressure inside is high enough and the temperature low enough for the gaseous ammonia in the inner chamber to condense.

When the air purger is filled with non-condensable gas, the controller opens the air purge connection and releases air until high liquid level is restored. It then closes the air purge connection again.

Technical data	
Refrigerant charge	35 kg
Maximum operating pressure	25 bar
Surface of R717 separator	0.748 m ²
Capacity	12 kW (approx.)
Compliance	CE/PED
Operating limits	
Lowest operating temperature	-50°C
Highest operating temperature	50°C
AP1200	
Unit dimensions H x W x D	1374 x 302 x 330 mm
Weight, empty	51 kg
WDO1200	
Unit dimensions H x W x D	1340 x 588 x 344 mm
Weight, empty	46 kg

WDO1200

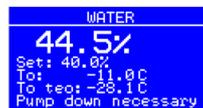
The WDO1200 works automatically, but requires manual draining of the sludge and water reservoir when it is full.

A WDO unit evaporates – and thus purifies – the liquid ammonia by exploiting the refrigerant's particular properties, pressure and temperature, with no additional energy inputs needed. The ammonia evaporates before water, leaving dirt, oil and other contaminants to settle in the sludge reservoir.

When the controller display shows the alarm **Pump down necessary**, it means that the water percentage is higher than the set point 40%.

The WDO1200 then holds back the water dissolved in the liquid ammonia.

When the controller display shows the alarm **Emptying necessary**, it means that the water reservoir temperature is higher than the evaporation temperature (approx. 12°C) and the water must be drained off. This is also a manual operation.



Part numbers
AP1200 + WDO1200 purging system without controls
4385.200 AP1200 + WDO1200 stainless steel combined without controls
AP1200 without controls
4385.150 AP1200 stainless steel without controls
Controls for AP1200/WDO1200
4385.060 Controls for AP1200/WDO1200 16 purge point
4385.061 Controls for AP1200/WDO1200 32 purge point