CHILLED-AND SUB-ZERO APP

Logistics doorway frozen storage

Blast freezer

Conveyor doorways to Oxygen-reduced storage

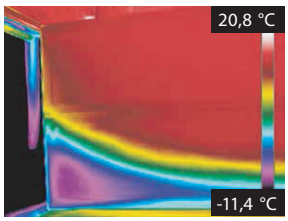
Arwus air separation units – express clarity

Who hasn't come across it: a frozen wasteland in the cold store? Day in, day out, substantial ice-formation, in the vicinity of doorways and door mechanisms, generates high maintenance and repair costs. Frozen fog and black ice create an increased risk of accidents and hinder movement and logistics. By means of arwus® air-separation technology, differing temperature regimes can be reliably parted. This thorough separation, a result of the reduction of warmth- and substance transfer is achieved by means of three elements:

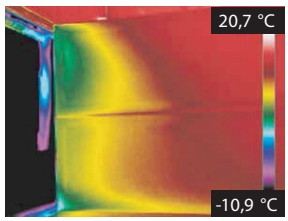
- Significant reduction of cold air egress from the coldstore
- Marked reduction of warm air ingress from the anteroom
- Demisting at the interface between the barrier-forming airstreams (inside and outside) based on regulation of water vapour pressure.

Example of a thermographic study

Without arwus ° air separation, a massive air transfer between the sub-zero zone (-24 °C) and the warm anteroom (+ 17 °C) takes place. Unhindered egress of cold air at floor level causes ingress of warm air at high level.



When arwus ° air separation is running, the exchange of warm and cold air is brought to a standstill. The cold zone is uncompromisingly separated from the warm zone. This relies on especially effective directional linear diffusers. The airstreams generated are orientated to counter the natural airflow tendencies.



Your benefits

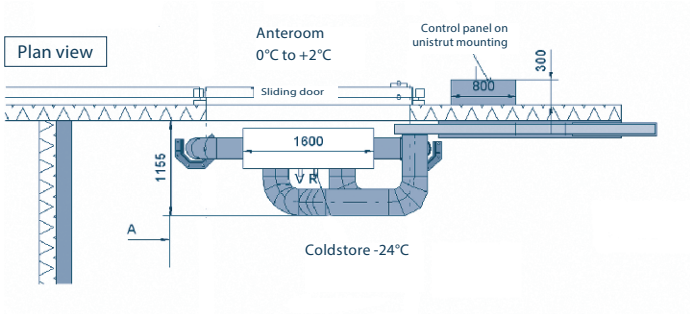
- Smooth operation of transport and logistics
- Compliant storage based on consistent temperature-control
- Enhanced effectivity via high energy-savings
- Cost-conscious temperature-controlled logistics
- Health and safety improved by hazard elimination

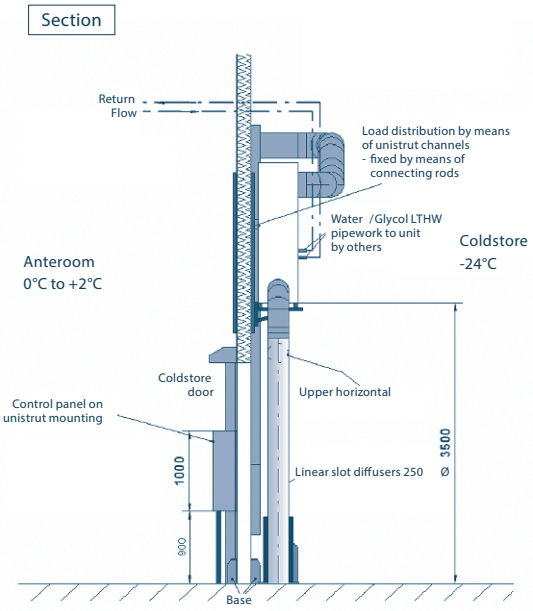
Anwendungsbereiche

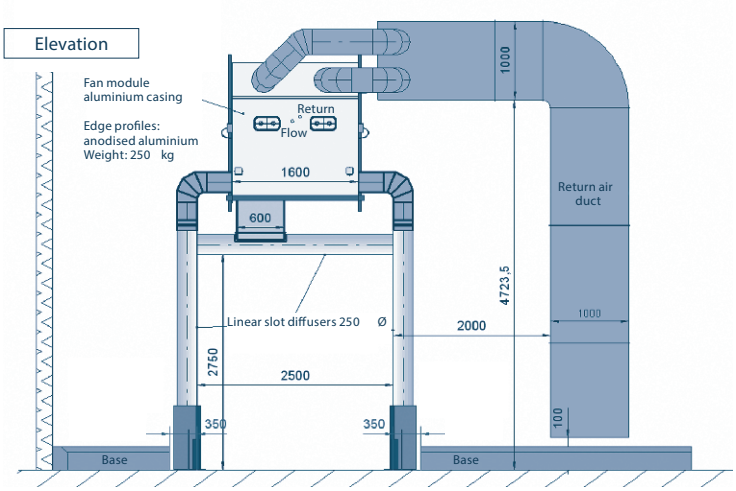
- Frozen and chilled logistics doorways
- Conveyor doorways
- Blast freezers
- Oxygen-reduced storage

CHILLED-AND SUB-ZERO APP

Example: Coldstore door type 2VEC/WS, installation drawing







Standard values

- Door size:
  W = 2500 /H = 2750 mm
- Chilled anteroom

Demisting:

- Duty 20 – 30 kW
- Water /Glycol LTHW optionally
  25 /10° C or 30 /15°C

arwus-diffusers

- Left/right of door opening, standing
  (Ø 250)
- Diffuser above, horizontal (Ø 250)
- Material: plastic, galvanized sheet steel

Control panel

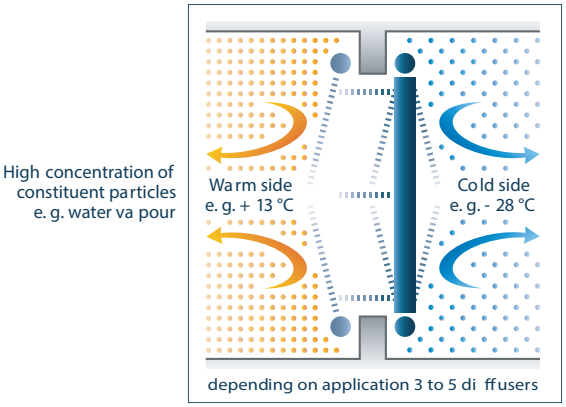
- Run and fault signals
- 2 control units
- Door-dependent control

arwus-impact protection

- Conforming with arwus
  diffuser type /diffuser diameter
- Robust construction –
  10 mm steel plate
- Fixing: heavy-duty anchors
- Height: 825 mm
- Corrosion-protected

TÜVRheinland®
Genau. Richtig.

TÜV-certified: equivalence of arwus air separation in comparison with conventional air curtains.



Plan view