



YOUR  
**ENTRY**  
EXPERTS.

## AIR CURTAINS.

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### **CONTROLLING THE CLIMATE** WITHIN YOUR BUILDING

High-rise buildings were one of the first to utilise revolving doors due to the immense pressure caused by air rushing through the building. The air pressure resulted in difficulties for the users with opening swing doors. Revolving doors were designed to control indoor temperatures and to relieve stack effect pressure. However, there are certain areas of a building which require extra help - through air curtains - for the movement of air to prevent temperature changes within the building.



## OVERVIEW

Hot air rises and cold air sinks in the winter, which causes a natural drawing force for air exchange both during summer and winter months. Air curtains create a barrier of air in front of the door to maintain heating and keep in cooling by essentially separating two environments, inside and outside. There are multiple types of curtain that solve a variety of issues from heated air, cooling air and even air cleaning.

## AIRFLOW REGULATION FOR SAFETY AND COMFORT

Commonly installed to prevent temperature and pressure differences along with wind, stack effect and draughts, the use of an air curtain is more common than not with major cities utilising them around the globe. Air curtains are utilised as a second force of protection from the outside climate. They are mainly installed as an invisible defence barrier to insulate, increase energy efficiency and keep bugs and pollutants out. Air curtains house a coil which cools or heats the jet of air and increases comfort for users, so they do not feel instantly hot or cold as they enter a new space through the entrance of the revolving door. This working principal allows for a comfortable transition for the visitor.

There are many types of installations from horizontal at the top of a doorway to vertical – blowing air in from the sides. Both have their pros and cons from comfort to efficiency. Our entry experts can help you select the right configuration for your entrance solution.

## HOW THEY WORK

Air curtains provide a continuous layer of air over the door opening either from the top or bottom to create an air seal. Generally speaking, the air enters through an inlet grill that has filter functions. Internal fans then compress this air and force it back out through an air outlet.

The air seal separates two different environments keeping them isolated while flows of traffic move through the door opening. The size, power and position of the air curtain needs to be evaluated through the determination of door opening size, location of the door, type of building its situation and finally, the climate considerations.

## KEY FEATURES

- ✓ Heating and cooling
- ✓ Multiple settings
- ✓ Choice of air deployment
- ✓ Automatically controlled
- ✓ Easily integrated into the building management system.

## KEY BENEFITS

- ✓ Reduces building running costs
- ✓ Energy saving
- ✓ Barrier against dust, pollution and smells
- ✓ Increases user comfort
- ✓ Stable interior climate

## COMPATIBLE PRODUCTS

- ✓ Tourniket
- ✓ Tournex
- ✓ Duotour
- ✓ Circleslide

## LEVEL UP OR UPGRADE – WE OFFER FLEXIBLE SOLUTIONS

Buildings are designed to last a lifetime; so are our entry solutions. However, entry requirements change as the way we work and live changes, as rules and regulations are updated and as technologies evolve. Our accessory products are the perfect way to upgrade or update your existing Boon Edam entrance solution. More information on retrofits and upgrades can be found by asking your entry expert consultant.



# OUR REACH IS **GLOBAL.**

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We have been in business for more than 140 years manufacturing premium aesthetic and security entrance solutions in the Netherlands, United States of America and China. We can confidently say that we cover every corner of the globe with subsidiary companies in major cities across the globe. Furthermore our global export division not only partner with our distributors, but also offer direct sales and service to every territory. This wide net allows us to have a strong global footprint as well as a personal grasp of local markets and their unique entry requirements.

To find your closest Boon Edam expert, please go to:  
[www.boonedam.com/contact](http://www.boonedam.com/contact)