

# KOOLAIR

## series

# AR-200

Non-return or positive  
pressure dampers



ISO 9001

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Sistema de Gestión



[www.koolair.com](http://www.koolair.com)

# AR-200

## Non-return or Positive Pressure Damper

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# AR-200 non-return or positive pressure damper



## Description

Non-return or positive pressure damper with flat fins of 1.5-mm thick galvanized plate and U-frame of 2-mm galvanized plate with zinc-coated steel shafts that turn in nylon bushings. The unit includes zinc-coated steel counterweights and galvanized steel housing for wall recessing and absorption of the counterweight length.

## Application

The AR-200 is a mechanically operated non-return or positive pressure damper which allows air to flow in one direction, preventing air from returning in the opposite direction. The unit can also be installed in areas where positive pressure must be maintained in the ducts or rooms.

## Finish

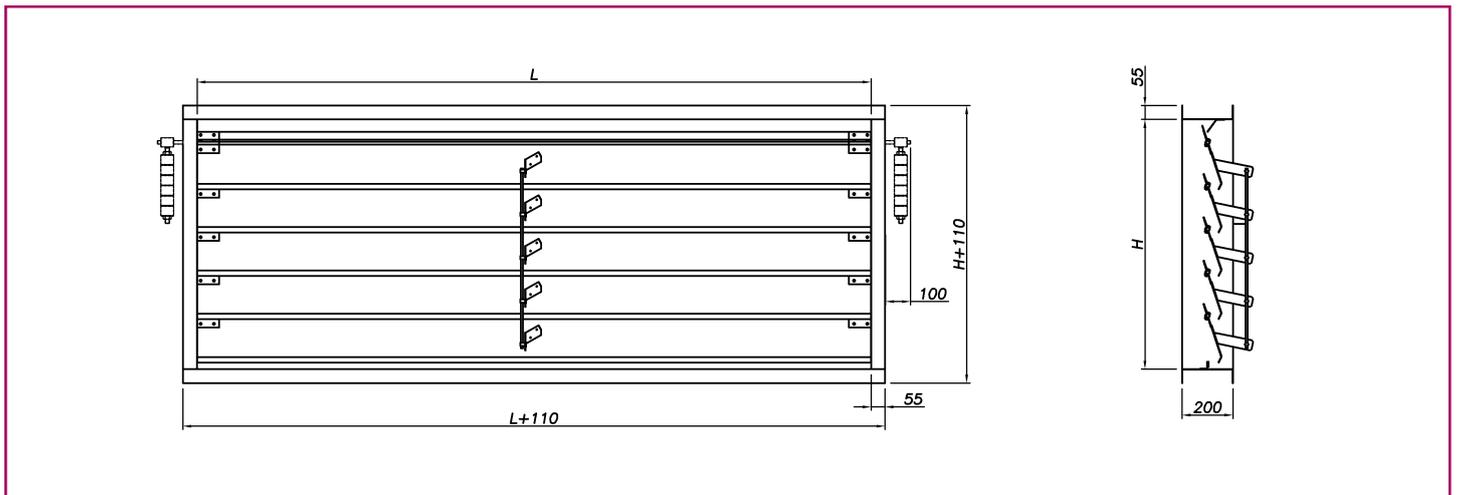
Standard galvanized plate finish (optional RAL paint finish by special order).

## Standard dimensions

H \ L	400	600	800	1000	1200	1400	1600	1800	2000
300									
470									
640									
810									
980									
1150									
1320									
1490									
1660									

## Dimensions

In special construction, the AR-200 damper can be manufactured with any value of H within the range:  $300 \leq H \leq 1785$ .



## Installation

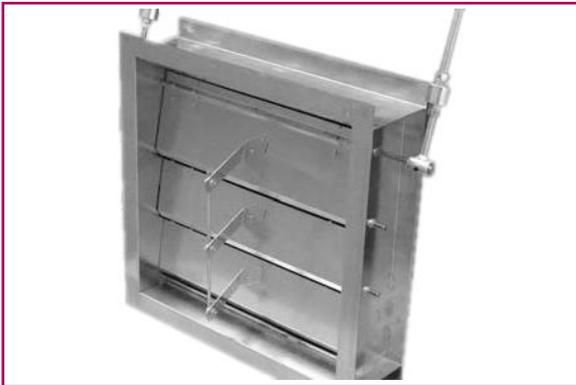
The AR-200 is installed in one of the following two ways, depending on how it is to be used:

- Air supply: the damper is coupled to the duct with the fins in the same direction as the air flow.
- Air suction: the damper is coupled to the duct with the fins toward the fan.

The damper is installed in vertical or horizontal position, such that the shaft is parallel to the floor.

The unit is fitted with one or two counterweights, depending on damper size.

The counterweights can be placed in multiple positions within the 360° of shaft rotation, in order to control the air pressure or volume as desired:



If the levers are set upward to ensure balance between the fins and the counterweight, the damper will be very sensitive and will open with minimal positive pressure exerted on the side opposite to the blade opening direction.

This is a good position to connect the suction ducts or the supply ducts if the damper should be fully opened.



If the levers are set downward, more pressure will be needed to open the damper.

This is a good position if the air volume is to be controlled by increasing the pressure drop. Thus, the blades open only with significant air pressure both in supply and suction ducts.

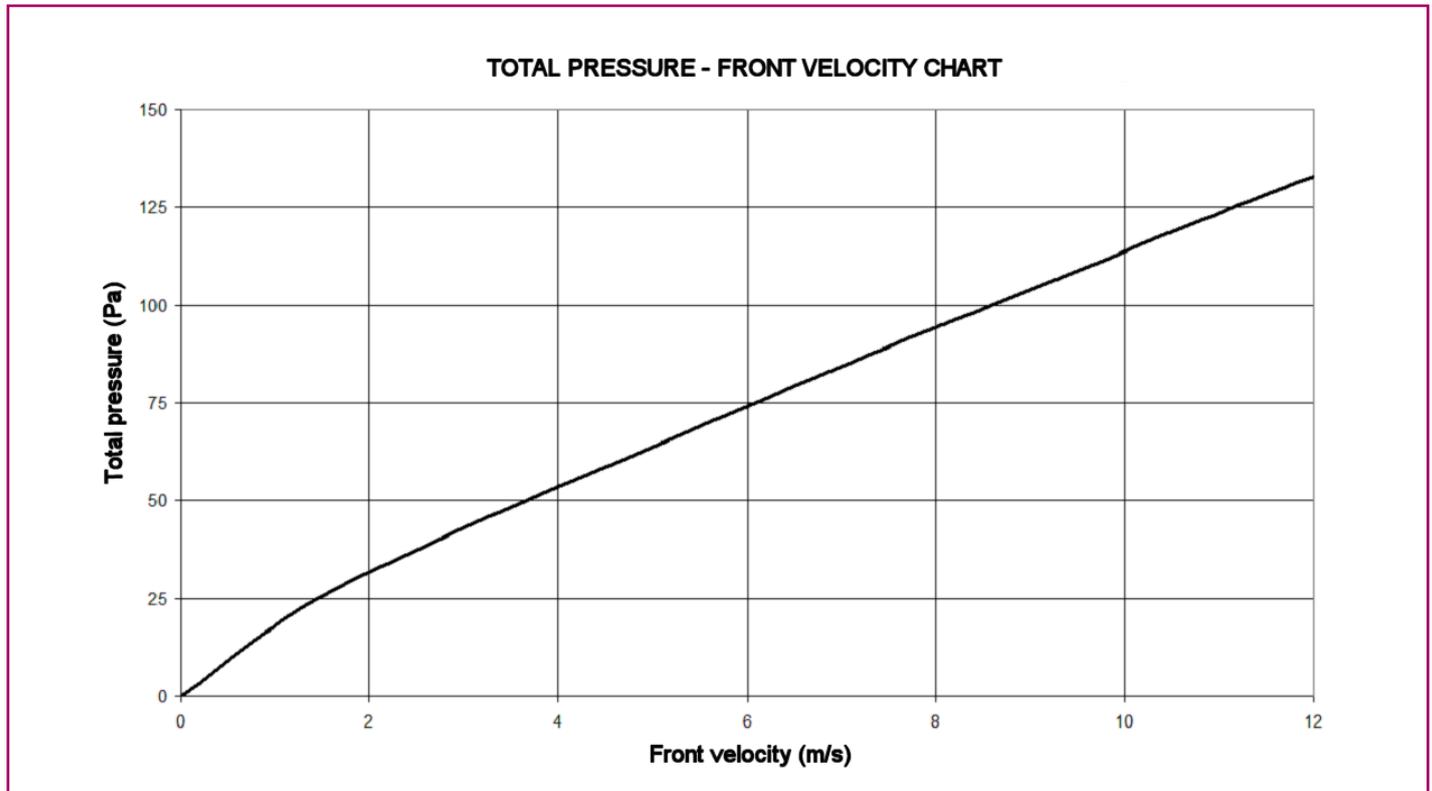


The counterweight orientation can always be varied according to the resistance needed.

The counterweights are placed perpendicular to the damper shafts and are composed of a threaded rod and a specific number of interchangeable weights for balancing. This assembly comes with Allen set screws to set the correct position; as a maintenance measure, it is sometimes recommended that these elements be inspected to make sure they are working properly.

The inspections should be performed while the equipment is not running and the set screws should be tightened if necessary.

## Total pressure - front velocity chart



### SYMBOLS

Total pressure (Pa): Pressure drop.

Front velocity (m/s): Air velocity calculated from LxH cross-section.

## Product Codes

**AR-200:** AR-200 non-return damper

**AA** no components  
**AL** + bird screen  
**AM** + insect screen

**X** no treatment

**9999** de

**9999** x

Example:

AR-200-AL-X-0600-0300

AR-200 non-return damper + untreated bird netting of 600 x 300

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