

 **ROBUR**[®]
COSCIENZA ECOLOGICA

AIR BARRIERS



**EXTERNAL COLD
AIR IS STOPPED**



The two diagrams show internal temperature measured in an industrial building when R4 air barrier is inactive (A) or operating (B).

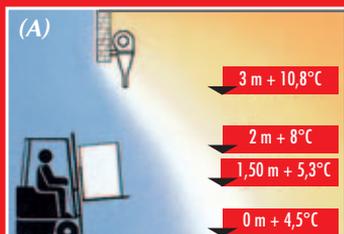


Diagram C shows how HOT air is dispersed and at the same time COLD air penetrates from outside when no adequate protection is fitted on an open door.

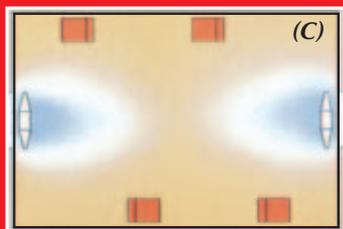
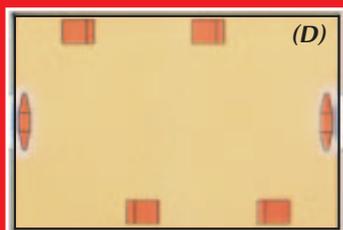


Diagram D shows how internal temperature is kept constant with an open door fitted with fully operational air barriers.



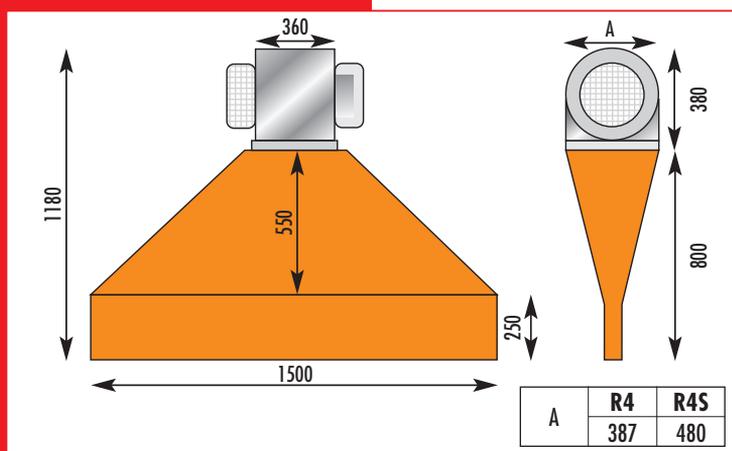
ROBUR R4 - AIR BARRIERS.

Industrial doors must be allowed to open and close as long as it is required to let people and transport in and out. This is sufficient to lower the internal temperature by several degrees and to increase the amount of time the heating system is running. In order to prevent heat loss, energy waste and subsequently to avoid thermal changes which can affect personnel and result in higher running costs, Robur has created the **R4 Air Barrier** which greatly reduces heat loss through the door openings.

ONE BARRIER - TWO ADVANTAGES

The **R4** operation is as simple as it is ingenious. It consists of a powerful fan, which can be set to operate each time the door is opened. It takes air from the upper area and blows it down over the door opening at high speeds through its long thin nozzle.

This action promotes two fundamental effects. It helps to eliminate heated internal air from escaping to outside and also re-uses the hotter air from the higher area by blowing it back down to the lower working level where it is needed. This results in a double thermal recovery.



CHARACTERISTICS	R4	R4S
Air flow	2800 m ³ /h	3200 m ³ /h
Air output speed	24 m/s	26 m/s
Noise level at 3 m	65 dB (A)	65 dB (A)
Max. installation height	3.5 - 4 m	4 - 4.5 m
Electrical supply	230 V - 50 Hz	230 V - 50 Hz
Run current	4.4 A	4.4 A
Total electrical load	1000 W	1000 W
Weight	46 Kg	46 Kg

Due to continuous product innovation and development, Robur reserves the right to change product specification without prior notice.

EXTERNAL COLD AIR IS STOPPED.

SIMPLE INSTALLATION - MAXIMUM VERSATILITY.

The installation of a Robur **R4** air barrier is easy.

The powerful centrifugal fan requires a single-phase (230V) electrical supply.

The multi-positional wall fixing bracket allows for different nozzle angles to suit the characteristics of the door it is covering. By installing several **R4** air barriers all door widths can be catered for. The R4 air barrier is fitted with a three speed regulator (*fig. 1*) allowing the airflow duty to be altered depending on the units mounting height.

The lower the door opening then the lower the airflow duty and thus, the lower the energy consumption.



FLEXIBILITY TO REDUCE COSTS.

For high doors the **special Robur R4S air barrier** has been developed: it has an higher air flow duty and thus a better air throw which allows for a higher installation height (*fig. 2 shows an installation up to 4.5 m high*). In addition due to the special configuration, this **R4S** air barrier can be installed with an horizontal air throw for special applications.

Fig.1 R4 application

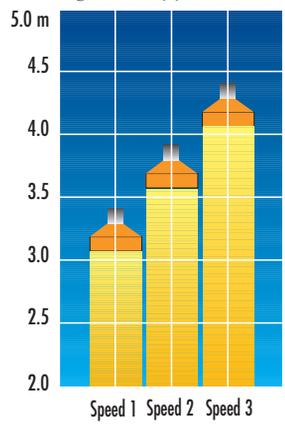
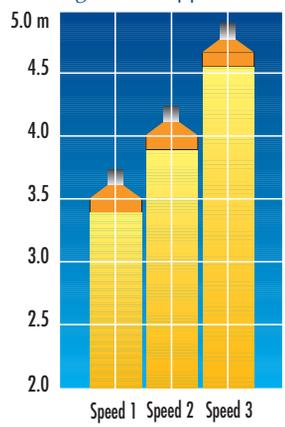


Fig. 2 R4S application



Typical installation of air barriers at Malaguti Moto in San Lazzaro di Savena, Italy.



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ROBUR

M I S S I O N

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in research, development and promotion
of safe, environmentally-friendly and energy-efficient products,
through the commitment and caring
of our employees and partners.*

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