

**RWR-4  
(RAL9016)**

- Swirl diffusers
- Circular
- Steel
- White, RAL 9016



## Variable swirl diffusers type RWR-4 (RAL9016)

Circular adjustable swirl ceiling diffuser for high ceiling

### Brand

- Cairox

### Application

- For air supply in ventilation and air conditioning systems

### Material

- Combination of steel and aluminium

### Colour

- Standard colour white, RAL 9016
- Other colours available upon request

### Composition

- Manually adjustable blades with  $\alpha$  = blade angle
- Perforated plate in the collar of the diffuser

### Text for tender

- The air supply diffusers for high ceilings are of the swirl type with manually adjustable blades. They are made of steel and aluminium with white powder coating finish RAL 9016.
- **Cairox** type **RWR-4**

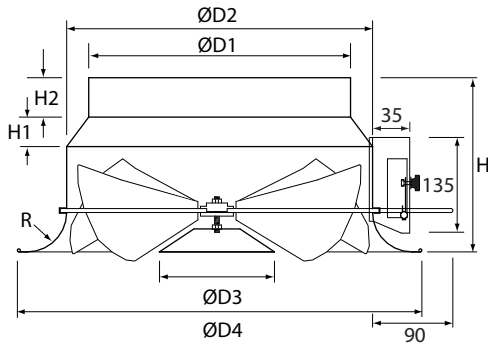
### Order example

- **RWR-4, 400**

Explanation

**RWR-4** = Diffuser type

**400** = Neck size of diffuser



Dimensions								
	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	H [mm]	H1 [mm]	H2 [mm]	R [mm]
RWR-4 200	198	248	96	350	180	20	40	30
RWR-4 250	248	298	133	400	205	30	40	30
RWR-4 315	313	398	175	500	230	30	40	30
RWR-4 400	398	465	175	615	270	45	60	60
RWR-4 500	498	565	225	780	320	35	60	80
RWR-4 630	628	665	273	935	390	25	80	100

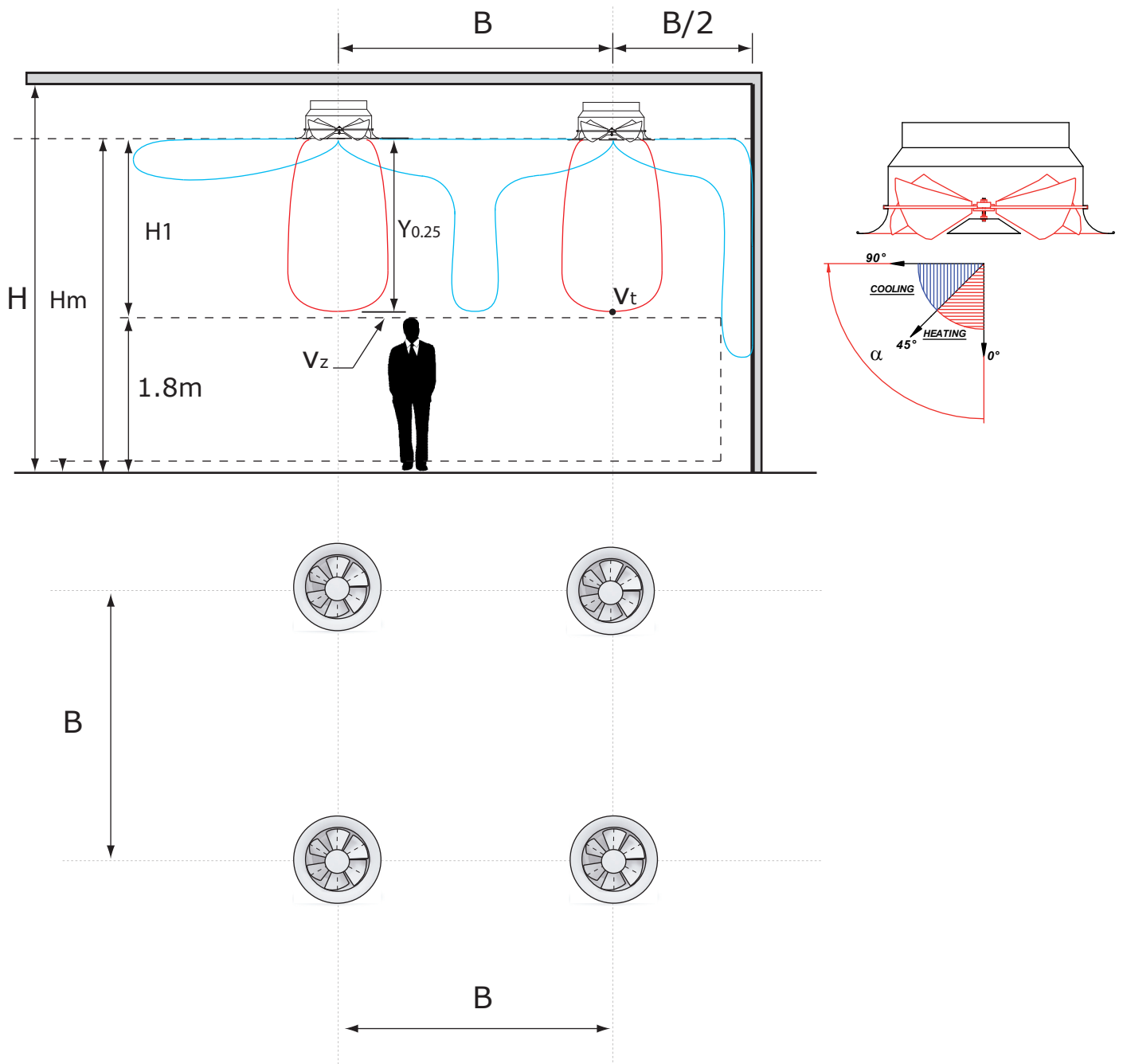
Quick selection							
RWR-4 (TS)		200	250	315	400	500	630
Q	Ak	0.0305	0.0479	0.0765	0.1238	0.194	0.3088
	Hm	2,5 - 3,8	3,0 - 5,3	3,3 - 6	4,3 - 7,5	5,5 - 16	7,5 - 26
300	B(min)	2.4	1.6				
	Vk	2.7	1.7				
	Ps	7	3				
	Lw(A)	33	22				
400	B(min)	3	2.2				
	Vk	3.6	2.3				
	Ps	12	5				
	Lw(A)	42	30				
500	B(min)	3.8	2.8	2			
	Vk	4.6	2.9	1.8			
	Ps	19	7	3			
	Lw(A)	49	37	22			
600	B(min)		3.4	2.4	2.8		
	Vk		3.5	2.2	1.3		
	Ps		11	4	2		
	Lw(A)		42	27	20		
800	B(min)			3	2.8		
	Vk			2.9	1.8		
	Ps			8	3		
	Lw(A)			36	23		
1000	B(min)			3.8	2.8	3.4	
	Vk			3.6	2.2	1.4	
	Ps			12	5	2	
	Lw(A)			43	30	20	
2000	B(min)				5.4	4	4.2
	Vk				4.5	2.9	1.8
	Ps				19	7	3
	Lw(A)				51	38	22
3000	B(min)					6	4.4
	Vk					4.3	2.7
	Ps					17	7
	Lw(A)					50	33
4000	B(min)						5.8
	Vk						3.6
	Ps						12
	Lw(A)						42
5000	B(min)						7.2
	Vk						4.5
	Ps						19
	Lw(A)						49

### Symbols and specifications

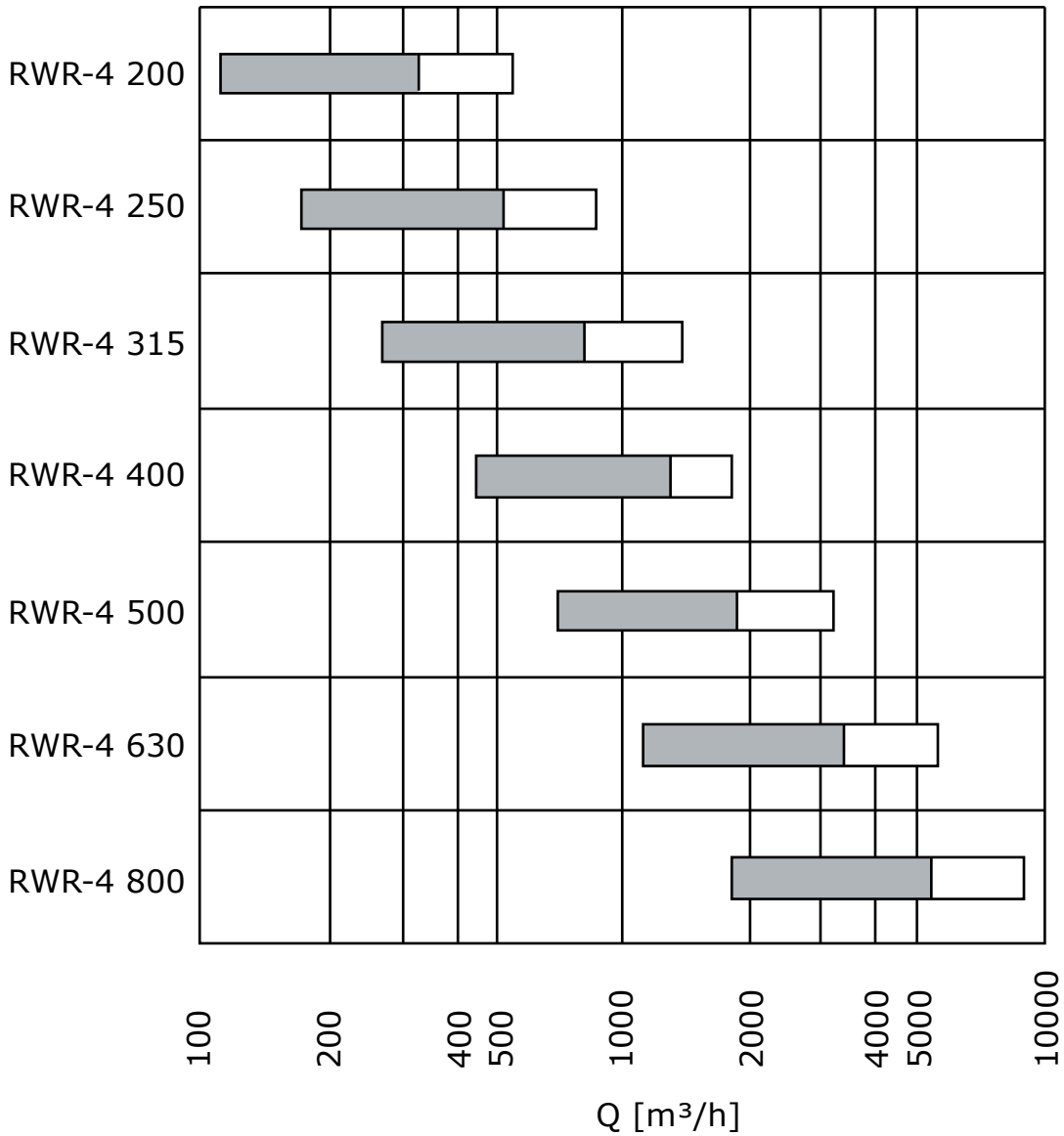
- Q = Air volume in m<sup>3</sup>/h
- Ak = Effective surface (free area) of the neck of the diffuser in m<sup>2</sup>
- Hm = Advised minimum - maximum mounting height in m
- Bmin = Advised minimum distance between diffusers in m
- Vk = Air velocity through the neck of the diffuser in m/s
- Ps = Static pressure loss in Pa
- Lw(A) = Acoustic power in dB(A)

- The values are given for isothermal supply air without Coanda effect.
- The values in the table are given at an inclination angle  $\alpha$  of the vanes of the diffuser set at 45°.
- In order to achieve a high comfort level, the angle of the blades can be set according to the temperature difference  $\Delta t$  between the supply air and room air temperature. (see selection graphs)
- Acoustic powers below 20dB(A) are mentioned as "<20" in the tables.

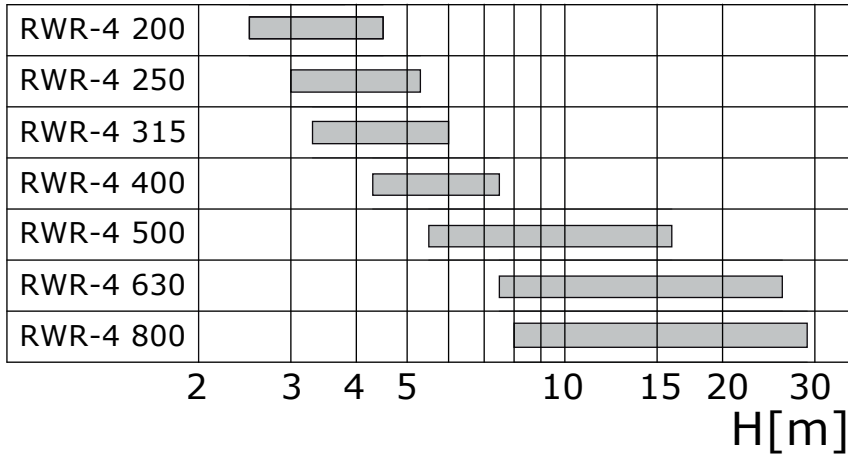
## Placement instruction



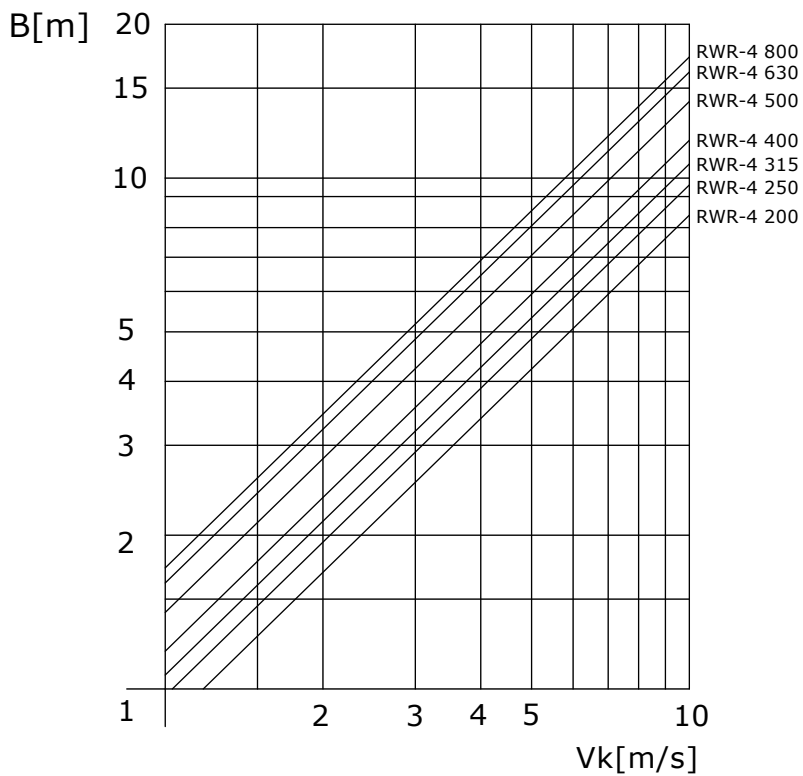
## Noise selection table

 $\alpha = 45^\circ$ 
  $35 < (L_{wA} [dB(A)] < 20$ 
  $50 < (L_{wA} [dB(A)] < 35$ 


## Placement height selector



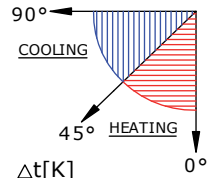
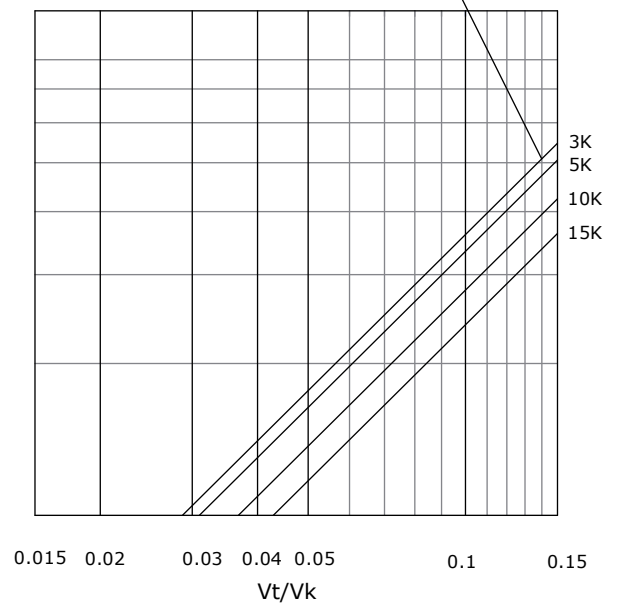
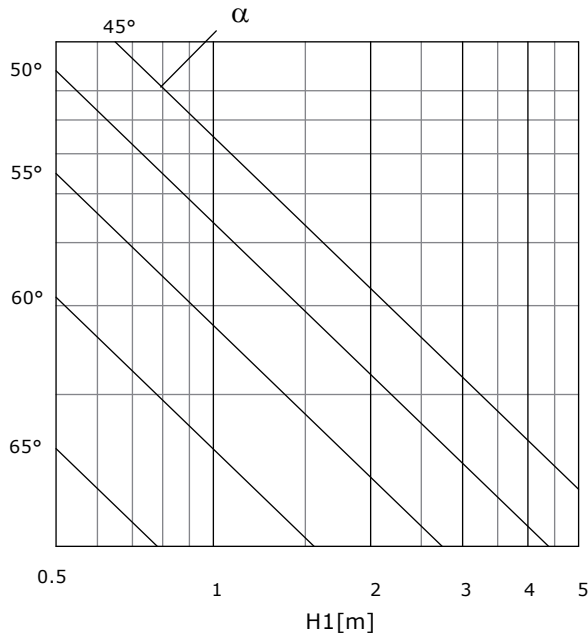
## Minimum distance selection



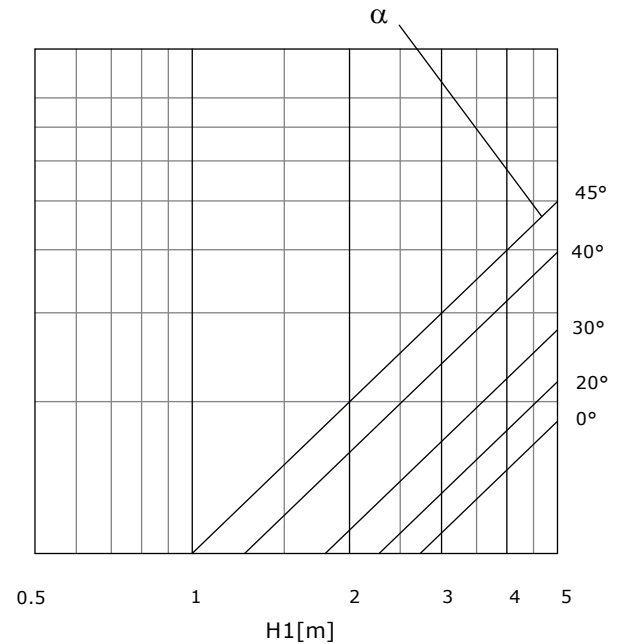
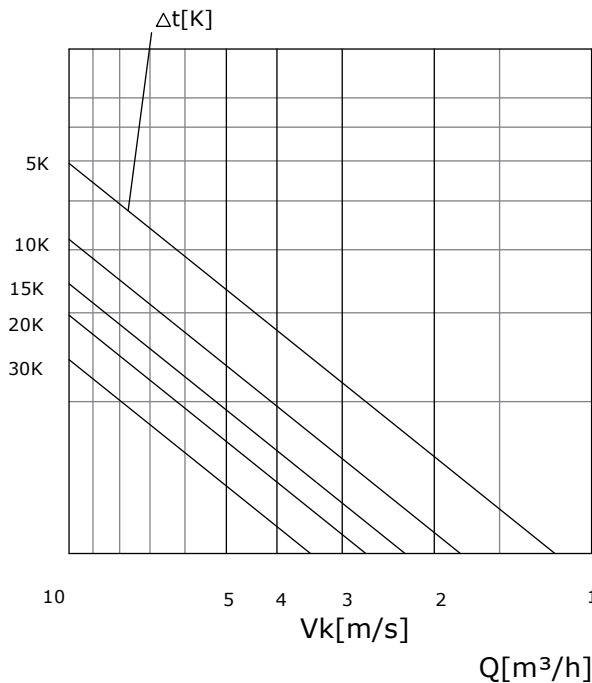
**Angle setting size 200**

$\alpha$ -setting RWR-4 200

COOLING



HEATING



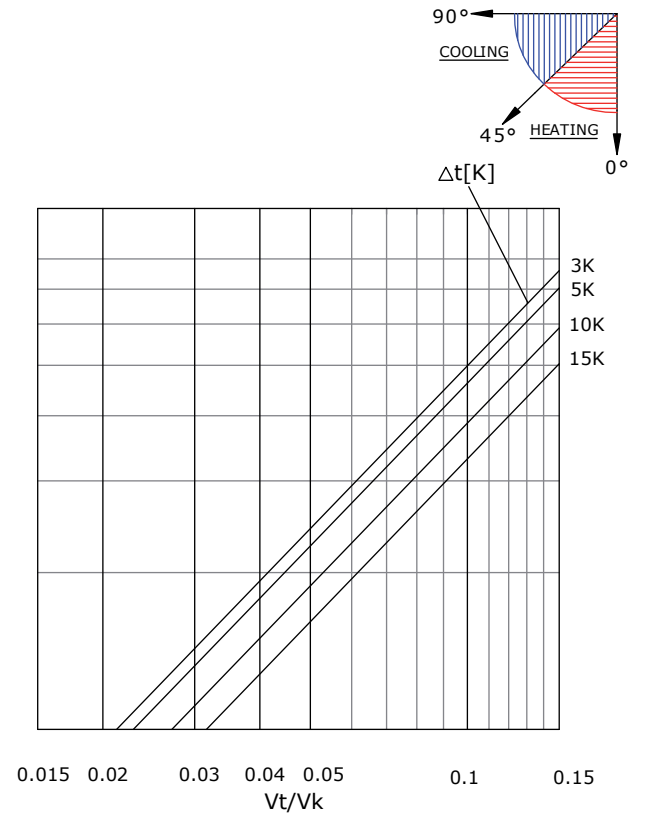
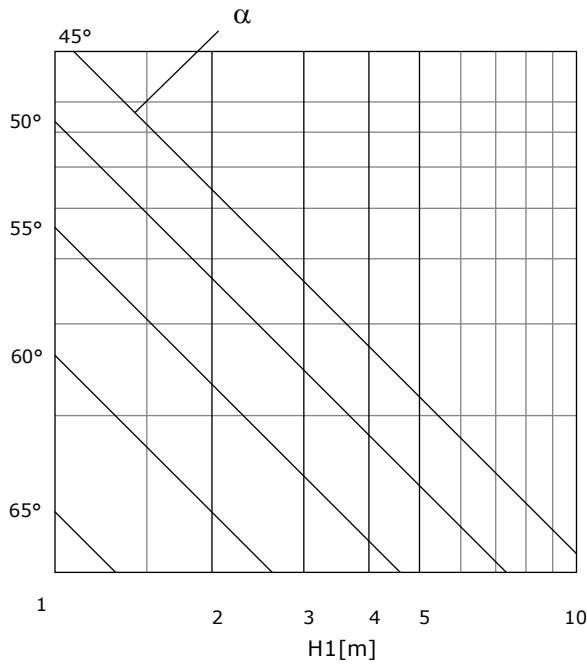
$Q$  [m<sup>3</sup>/h]

**Angle setting size 250**

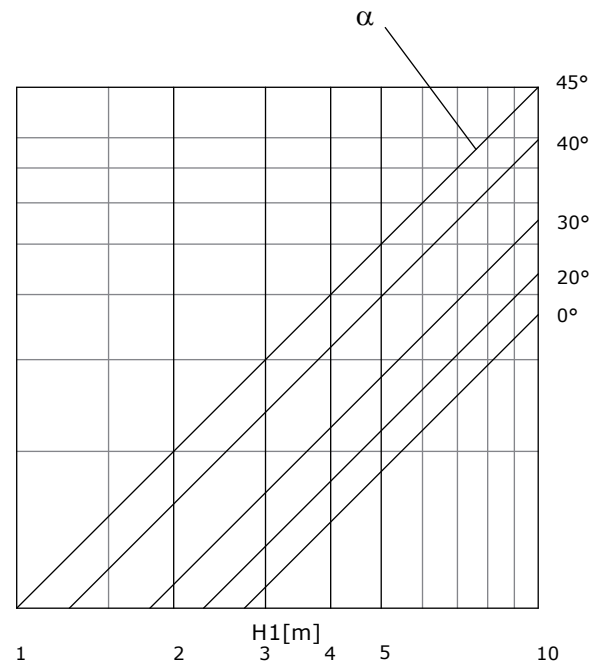
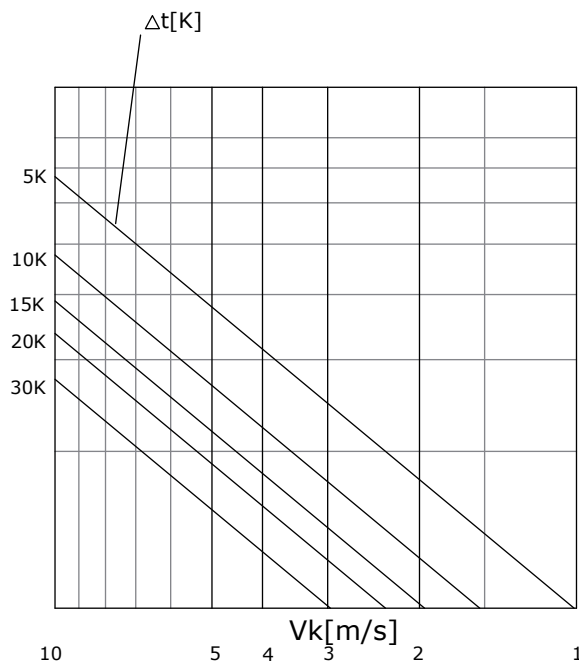


$\alpha$  -setting RWR-4 250

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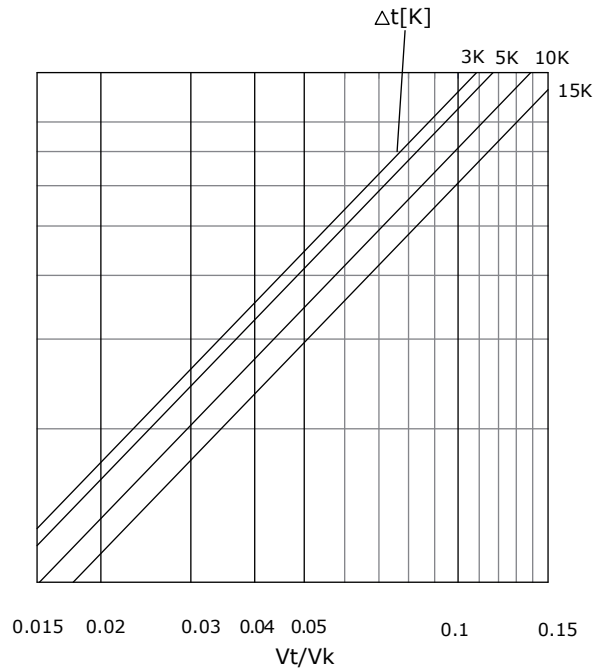
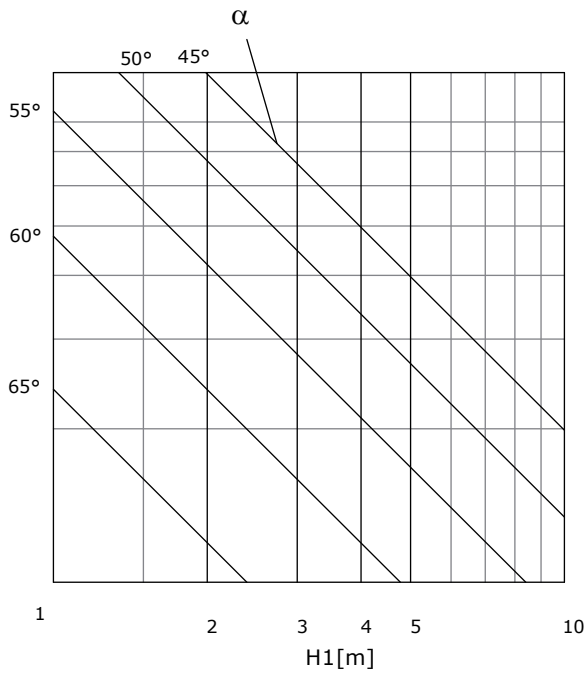
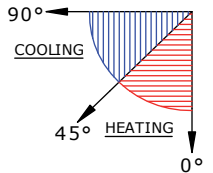
HEATING



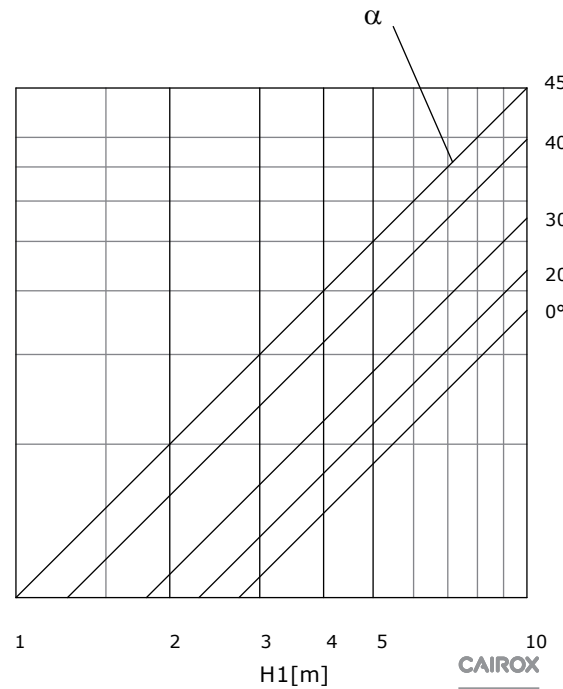
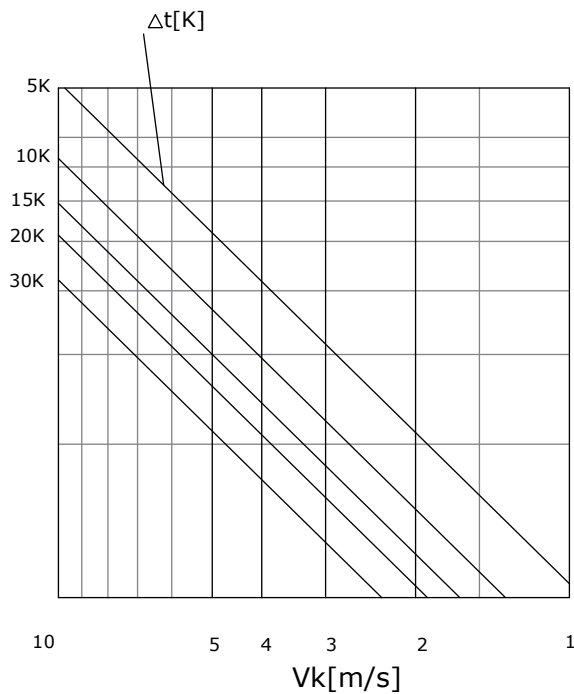
**Angle setting size 315**

$\alpha$  -setting RWR-4 315

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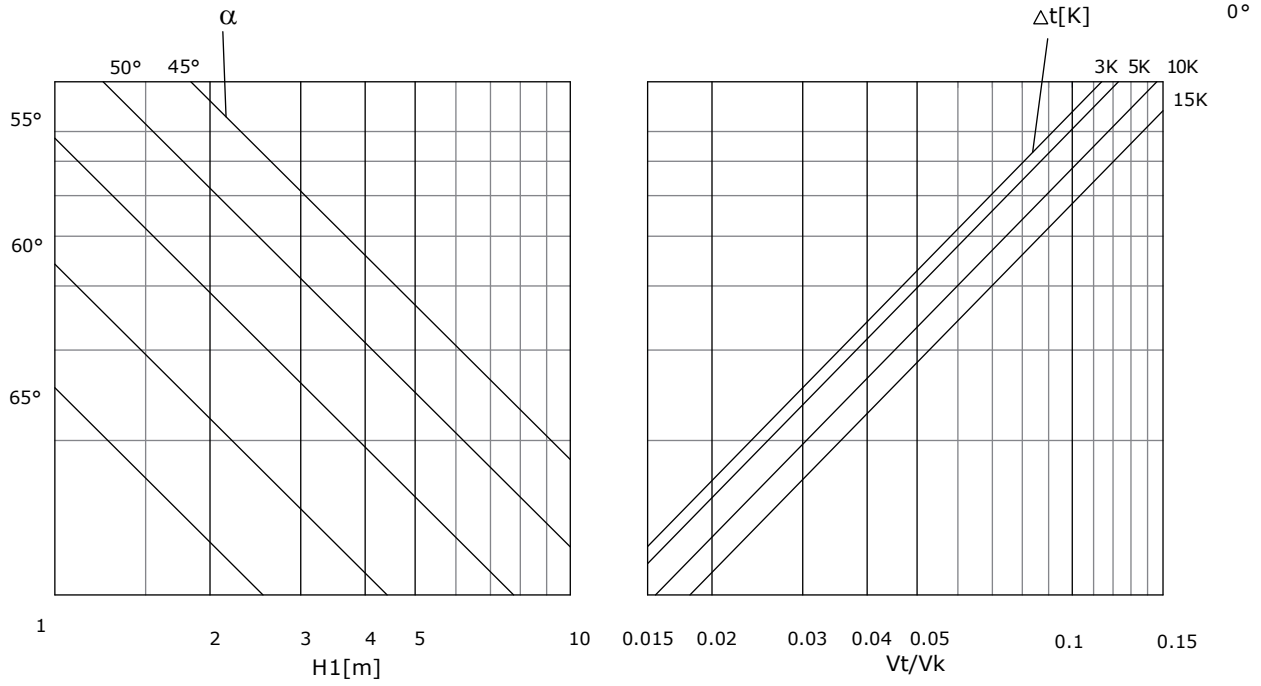
HEATING



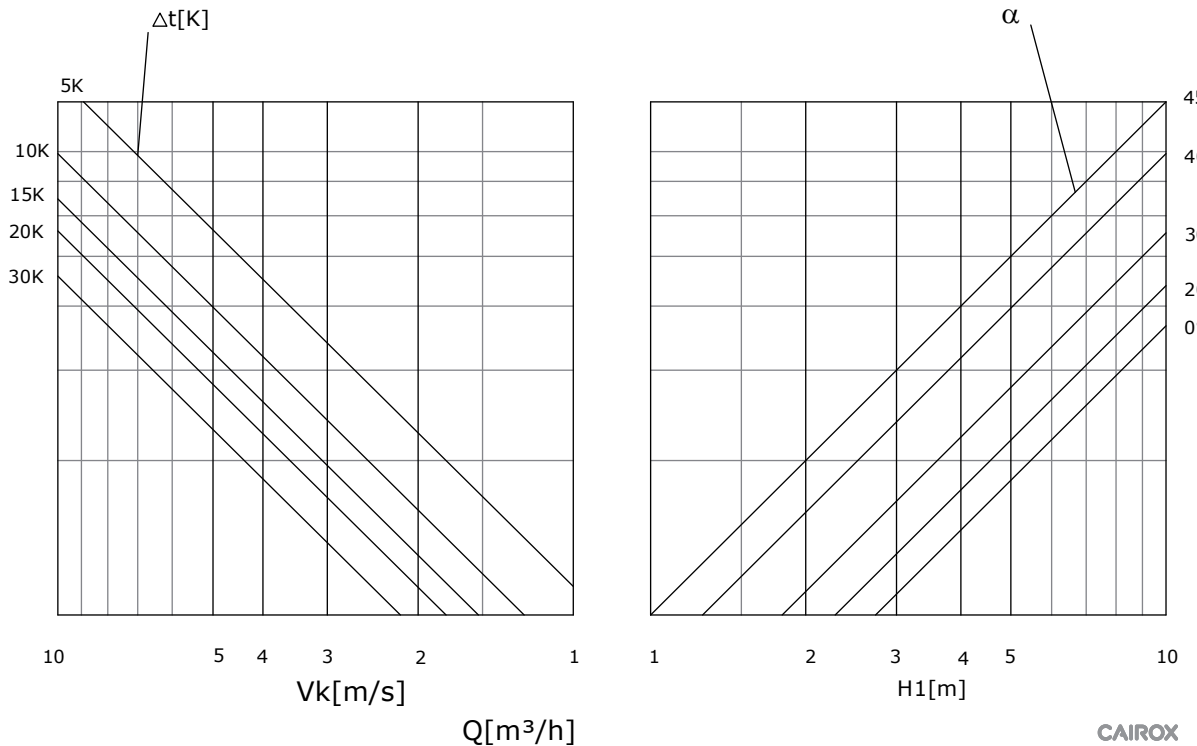
**Angle setting size 400**

$\alpha$  -setting RWR-4 400

COOLING



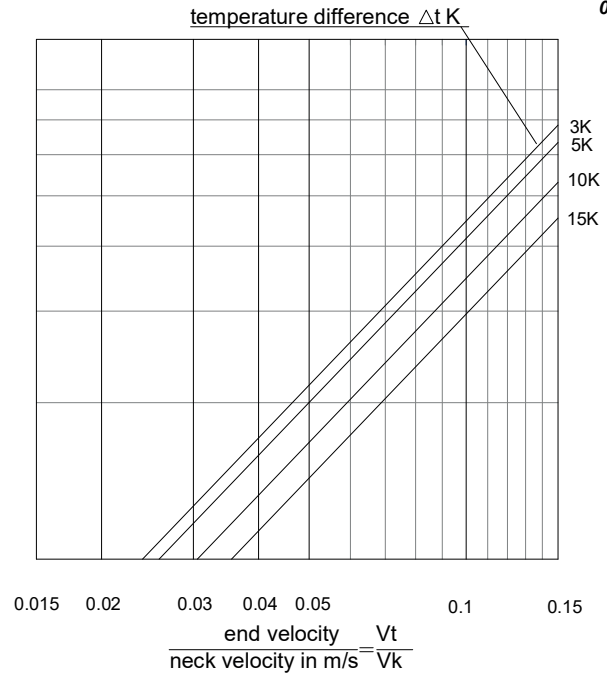
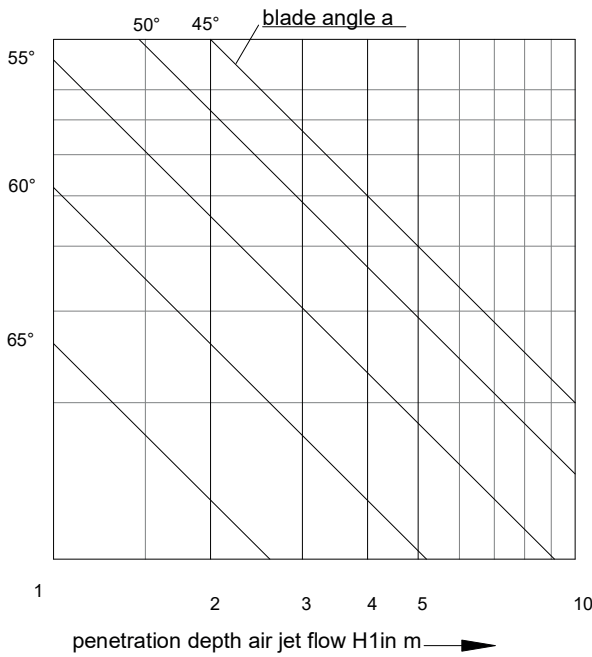
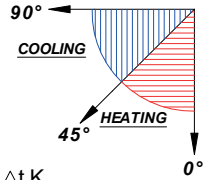
HEATING



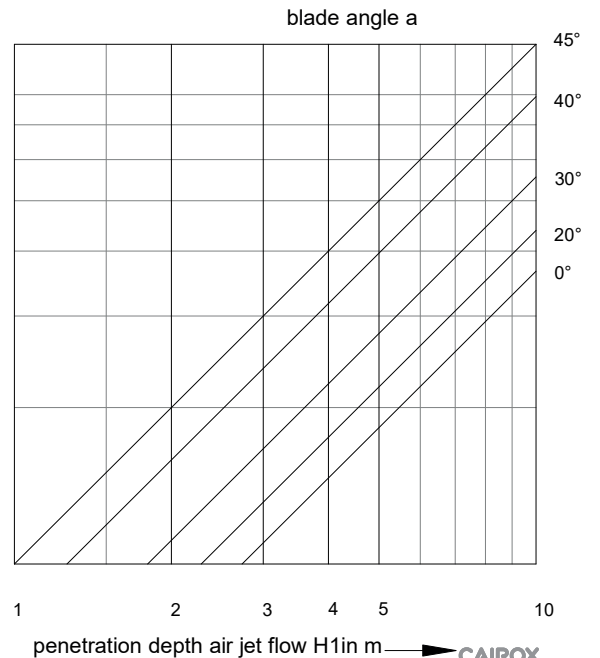
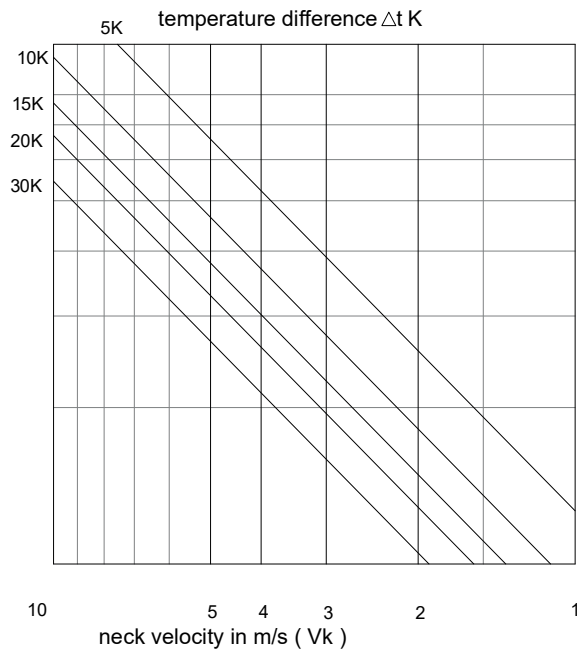
**Angle setting size 500**

$\alpha$ -setting RWR-4 500

COOLING



HEATING



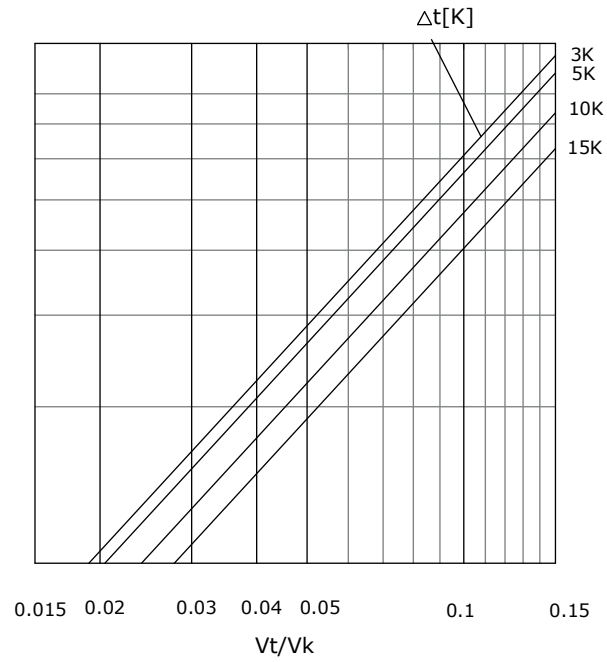
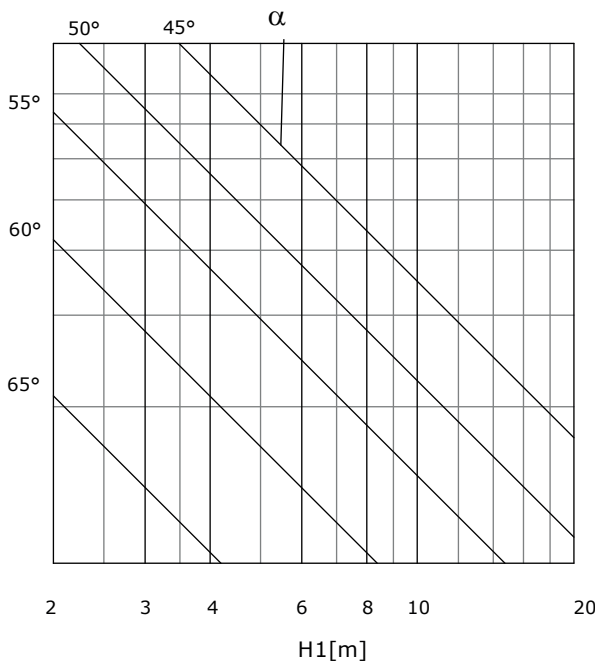
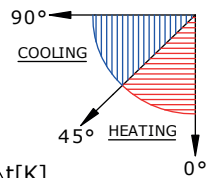
air flow (m<sup>3</sup>/h)

**Angle setting size 630**



$\alpha$ -setting RWR-4 630

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HEATING

