Description and application

Ceiling diffusers are designed for gravity ventilation, low and medium pressure systems and air conditioning systems, mainly exhaust air. Designed for mounting on rectangular ventilation ducts, plenum boxes and construction of a suspended ceiling. Diffuser with a very large effective surface area to be used wherever necessary to ensure the comfort of a large air exchange. The air flow adjusted with a damper with counter running blades GP located directly behind the anemostat or single-leaf damper P on plenum box spigot.

Ceilling anemostat diffuser raster has Hygienic Certificate HK/K/0522/01/2016

Material and workmanship

Mesh grille AR it's made of aluminum and the frame is made of galvanized sheet steel - all powder coated colour white RAL 9016. On customer request frame can be made from aluminum and powder coated to any color from the RAL palette. A possibility to make frame with the angle bar (raster frame stiffener) to put on the suspended ceiling construction or with a standard wrapping 25mm allowing the diffuser screwed to the ceiling.
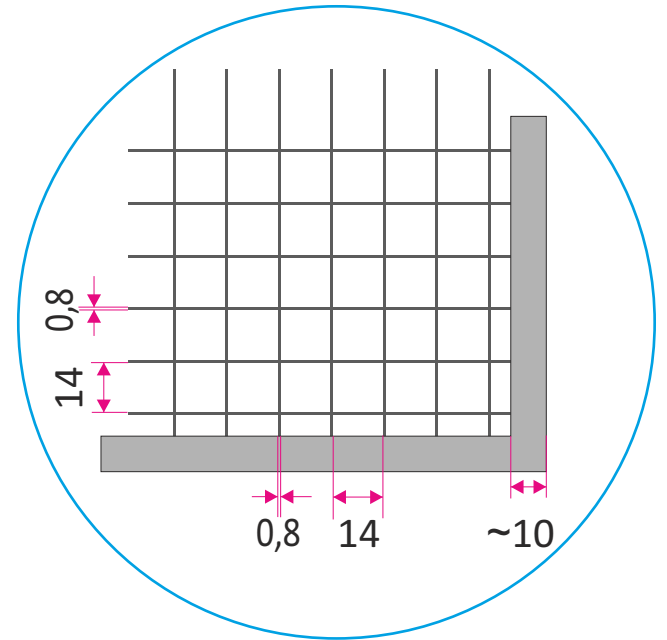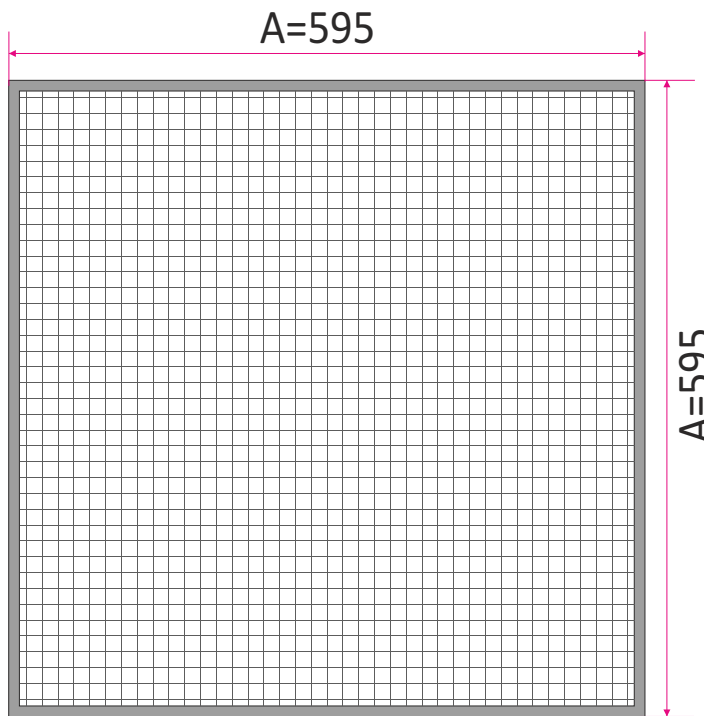
Size

The anemostat diffusers are manufactured on order by the external dimension.
Examples dimensions of the diffusers are given in the table.

A	Aef (m^2)
300x300	0,0703
400x400	0,1292
500x500	0,2058
595x595	0,2957
600x600	0,3002
625x625	0,3273
825x825	0,5785

Other dimensions are produced on customer request

A=595

A=595

0,8

14

0,8 14 ~10

W4

35
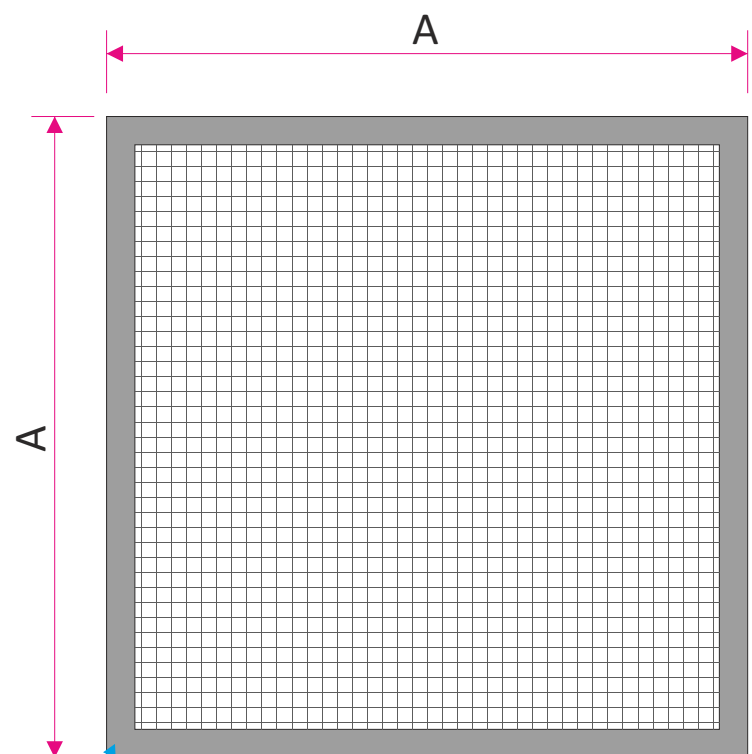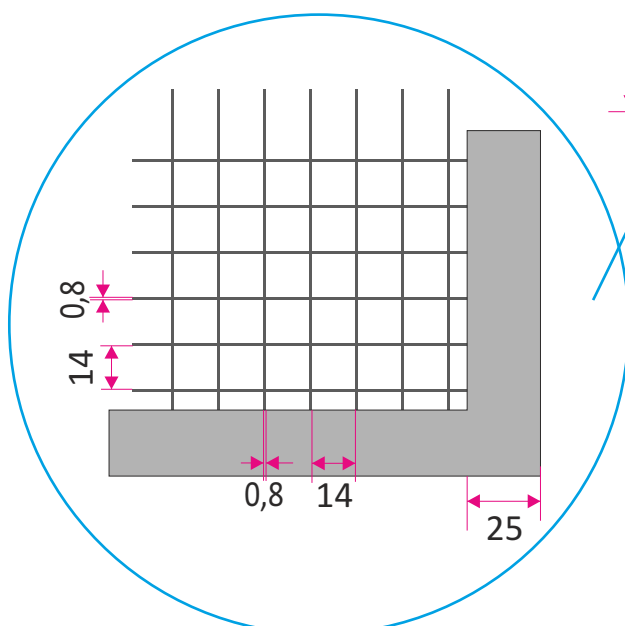
Version in the frame of the angle bar (AR-k)
is recommended to be mounted on the
suspended ceiling construction
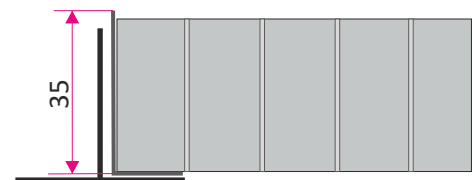
Accessories - plenum box

Plenum box is made of galvanized steel. On request it can be equipped with a damper control onto the connected spigot.
The plenum box can be isolated inside with rubber (acoustic) or outside with mineral wool (thermal). In the standard height
of the plenum box is adapted to size of the spigot or diffuser size (you can specify the height of the plenum box).

ϕd

15

H*

15
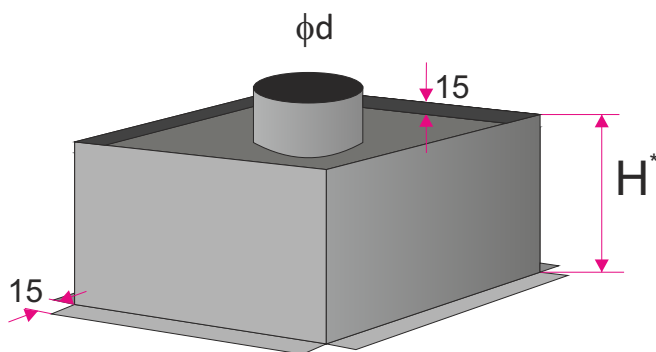
Rectangular plenum box with
the spigot on the top **SR-Gc**

15

H*

ϕd

adjustable damper
on the spigot
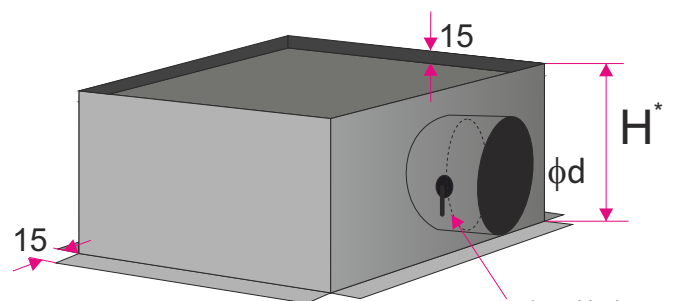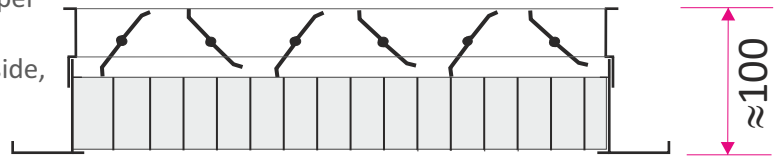
Rectangular plenum box with
the spigot on the side **SR-Bc**

* - the height of plenum box adjusted to size of the spigot or by the customer request.
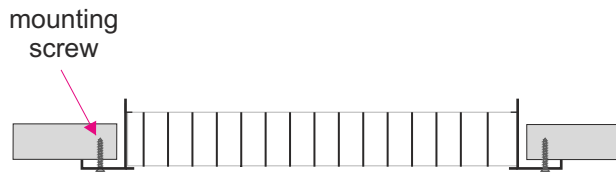
Accessories - damper with counter running blades GP

Anemostat diffuser raster can also be equipped with a damper with counter running blades, localized directly behind the mesh grille. Damper control is possible from the panel side, without disassembling the diffuser.
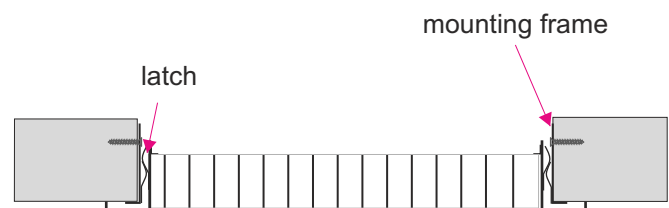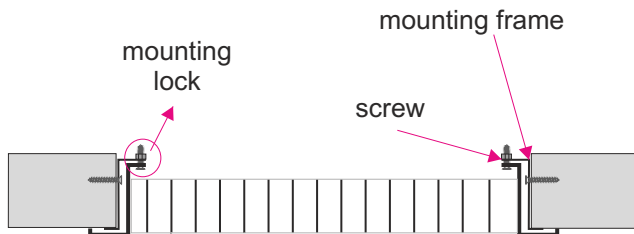

≈100

Methods of mounting

W1

mounting screw

W2

latch

mounting frame

W3

mounting lock

mounting frame

screw

W4

construction of suspended ceiling

raster in the standard frame to put on the construction size 595x595

construction of suspended ceiling

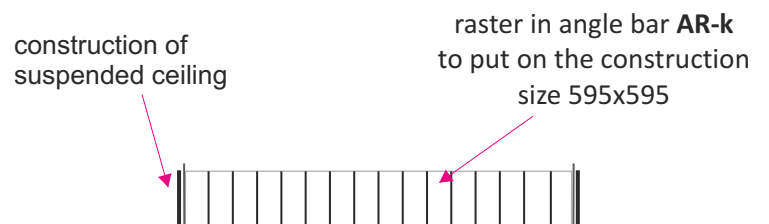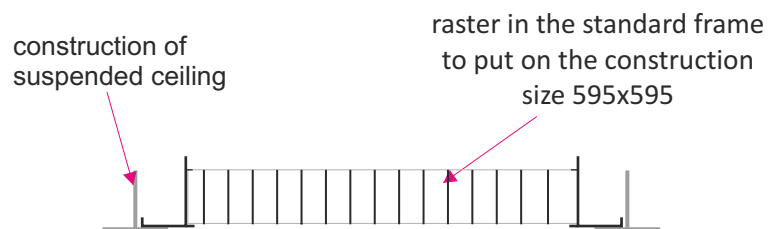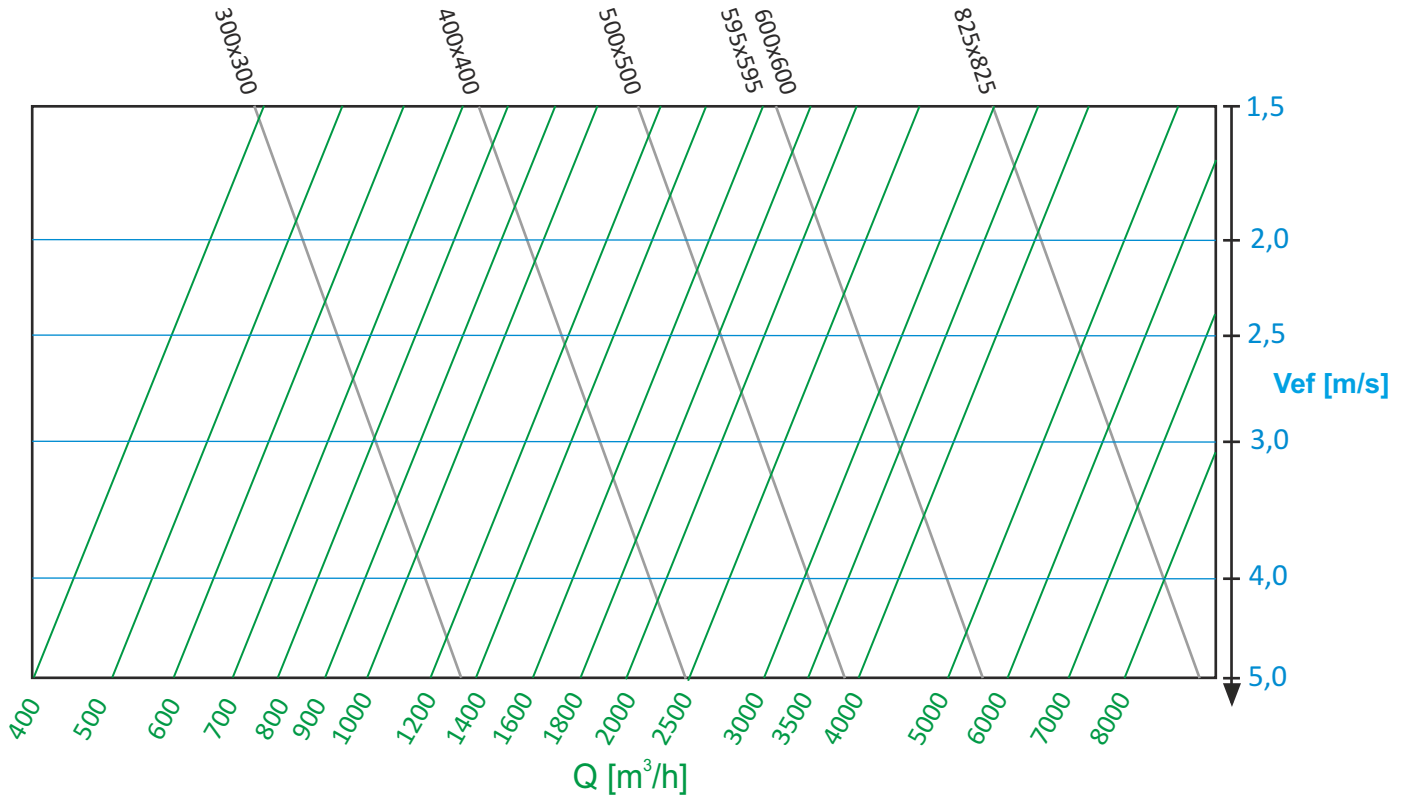raster in angle bar **AR-k** to put on the construction size 595x595

Technical data

Effective speed depending on the size of the diffuser and air volume flow
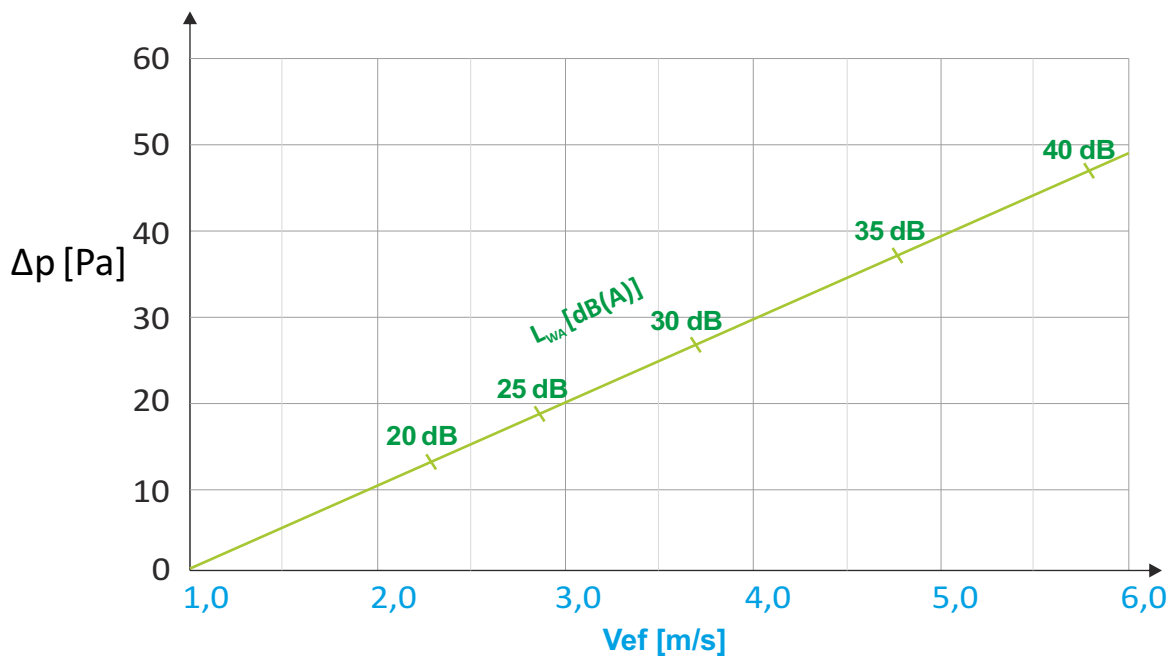

Marking:

Q [m³/h]- air volume flow

Vₑf [m/s]- effective speed on diffuser

Pressure drop and acoustic power depending on the effective speed

Marking:

Vₑf [m/s]- effective speed on diffuser
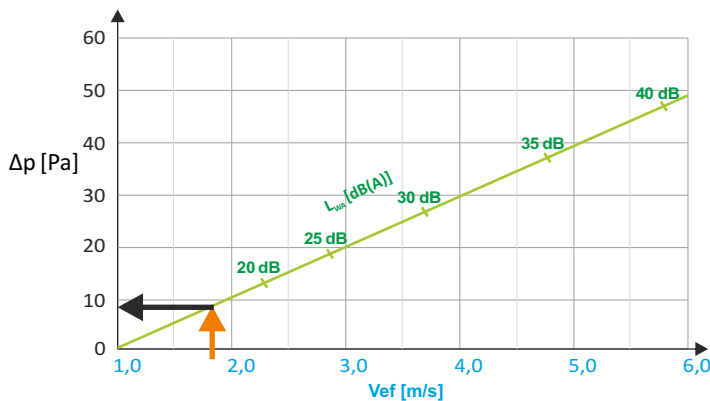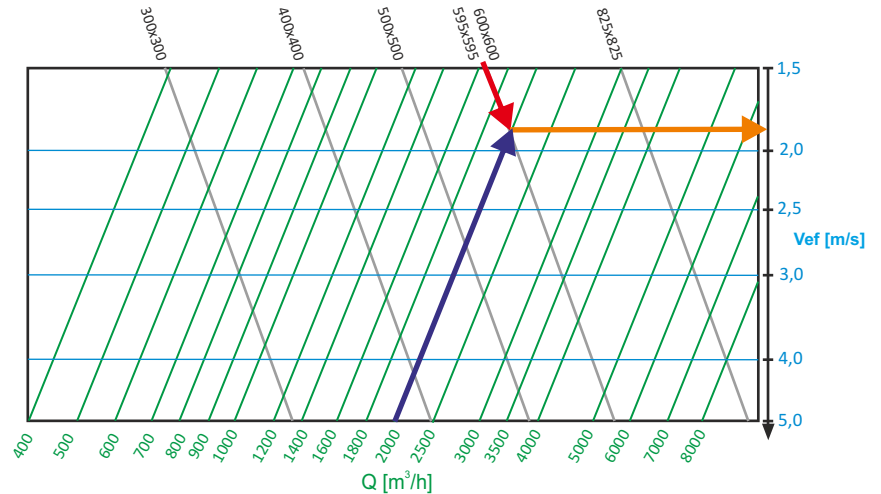
Lᵥₐ [dB(A)]- acoustic power level

Δ**P** [Pa]- pressure drop

EXAMPLE
- Air volume flow Q=2000 m³/h
- size: 600x600

Reading the graph
- effective speed: v_{ef}= 1,8 m/s

Reading the graph (for v_{ef}= 1,8 m/s)**:**
- acoustic power L$_{WA}$<20 dB
- pressure drop on diffuser Δp=8 Pa

The method of placing an order

Please make orders according to the following formula:

AR / 'LxH' / 'RAL' / 'M' / 'W' + 'SR' / 'I' / 'P' / 'K' / 'H'

'LxH'	- size of mounting hole (width x height) in mm
'RAL'	- grille color according to RAL palette (standard RAL9016*)
'M'	material
	ST-AL - frame: powder coated galvanized steel + mesh grille: aluminum*
	AL-AL- frame+mesh grille: aluminium powder coated
'W'	- mounting option:
	W1 - visible assembly on screw through the holes in front frame*
	W2 - invisible assembly using latch springs and additional mounting frame
	W3 - invisible assembly using screws and an additional mounting frame
	W4 - invisible assembly on the construction of the suspended ceiling (a possible solution KR-1k)
'SR'	plenum box:
	SR-Gc - plenum box with top spigot connection
	SR-Bc - plenum box with side spigot connection
'I'	isolation:
	none - plenum box without isolation*
	Iz - outside isolation (thermal)
	Iw - inside isolation (acoustic)
'P'	adjustment damper at spigot connection:
	none - no damper*
	P - damper on spigot connection adjustable from the outside
	PP - damper on spigot connection adjustable from the inside
'K'	diameter spigot connection in size mm
'H'	the height of the plenum box in mm*

* - If you don't give the information will be used standard parameters.