# FIXED CONES
# CIRCULAR DIFFUSERS

## OVERVIEW

KU4
SERIES

KU4: Series of ceiling cone diffusers, with diameter from 150 to 300mm, composed by an external cone and by a central section with fixed cones.

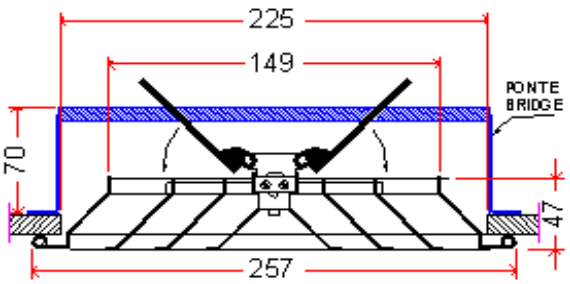
CHARACTERISTICS:
Standard finish painted white RAL 9010 or RAL 9003, different paints on request.
Butterfly regulation damper incorporated in the diffuser neck.

The KU4 series diffusers are normally fixed to the plenum by means of lateral screws.
Can also be fixed without a plenum by means of a fixing bridge.

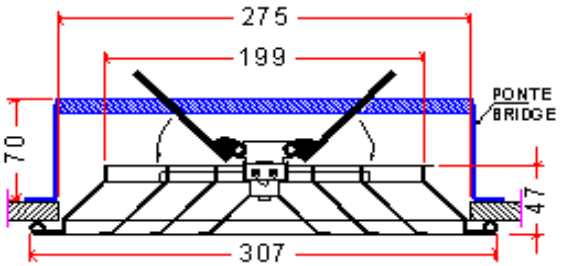
FIELD OF USE:
KU diffusers are suitable for false ceiling installation in rooms with a height between 2.6 and 4,1 meters such as offices, shops, meeting rooms, corridors, surgeries and similar.
They are suitable for both supply and extract air.

UNSUITABLE ENVIRONMENTS:
The aluminum products are not suitable for installation in environments with an atmosphere containing corrosive substances for this material and in particular containing chlorine, such as swimming pools, spas and some types of food industries.
The products in painted carbon steel are not suitable for installation in environments with high humidity and in environments with a potentially explosive atmosphere or containing powders or vapors of corrosive substances.

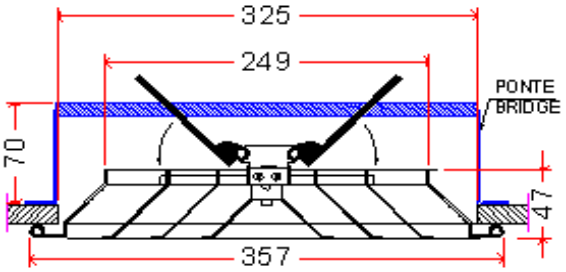
**KU 4 - 150**



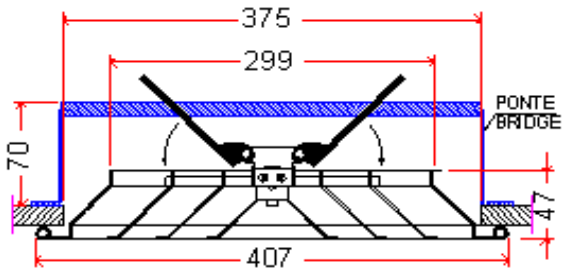

**KU 4 - 200**




**KU 4 - 250**




**KU 4 - 300**




| **nominal neck diameter mm** | Ak<br>m² |
|---|---|
| **150** | 0,0135 |
| **200** | 0,0285 |
| **250** | 0,0435 |
| **300** | 0,0585 |

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## QUICK SELECTION

KU4
SERIES

| Model | | Air flow rate | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| $A_k$ [m²] | | m³/h | 125 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 |
| | | l/s | (35) | (42) | (56) | (69) | (83) | (97) | (111) | (125) | (139) | (167) | (194) | (222) | (250) | (278) | (306) | (333) | (361) | (389) |
| KU4 150 (0,014) | $L_{WA}$ | [dB(A)] | <20 | 20 | 28 | 34 | 39 | 43 | 47 | 50 | | | | | | | | | | |
| | $V_k$ | [m/s] | 2,6 | 3,1 | 4,1 | 5,1 | 6,1 | 7,2 | 8,2 | 9,3 | | | | | | | | | | |
| | $\Delta p_t$ | [Pa] | 5 | 6 | 10 | 13 | 18 | 23 | 28 | 34 | | | | | | | | | | |
| | L 0,2 | [m] | 1,7 | 2 | 2,5 | 3 | 3,6 | 4,1 | 4,6 | 5,1 | | | | | | | | | | |
| KU4 200 (0,029) | $L_{WA}$ | [dB(A)] | | | | <20 | <20 | 22 | 26 | 29 | 32 | 37 | 42 | 45 | 49 | | | | | |
| | $V_k$ | [m/s] | | | | 2,4 | 2,9 | 3,4 | 3,9 | 4,4 | 4,9 | 5,9 | 6,8 | 7,8 | 8,8 | | | | | |
| | $\Delta p_t$ | [Pa] | | | | 6 | 8 | 10 | 12 | 15 | 18 | 23 | 29 | 36 | 44 | | | | | |
| | L 0,2 | [m] | | | | 2,6 | 3 | 3,5 | 3,9 | 4,3 | 4,7 | 5,6 | 6,3 | 7,1 | 7,9 | | | | | |
| KU4 250 (0,044) | $L_{WA}$ | [dB(A)] | | | | | | <20 | <20 | <20 | 22 | 27 | 31 | 35 | 39 | 42 | 44 | 47 | 49 | |
| | $V_k$ | [m/s] | | | | | | 2,2 | 2,6 | 2,9 | 3,2 | 3,8 | 4,5 | 5,1 | 5,7 | 6,4 | 7 | 7,7 | 8,3 | |
| | $\Delta p_t$ | [Pa] | | | | | | 7 | 8 | 10 | 12 | 16 | 20 | 24 | 29 | 34 | 40 | 45 | 51 | |
| | L 0,2 | [m] | | | | | | 2,9 | 3,2 | 3,6 | 3,9 | 4,6 | 5,2 | 5,9 | 6,5 | 7,2 | 7,8 | 8,4 | 9 | |
| KU4 300 (0,059) | $L_{WA}$ | [dB(A)] | | | | | | | <20 | <20 | <20 | 23 | 27 | 31 | 34 | 37 | 40 | 43 | 45 | 47 |
| | $V_k$ | [m/s] | | | | | | | 1,9 | 2,1 | 2,4 | 2,9 | 3,3 | 3,8 | 4,3 | 4,8 | 5,2 | 5,7 | 6,2 | 6,6 |
| | $\Delta p_t$ | [Pa] | | | | | | | 6 | 8 | 9 | 12 | 15 | 19 | 23 | 27 | 31 | 35 | 40 | 45 |
| | L 0,2 | [m] | | | | | | | 2,4 | 2,6 | 2,9 | 3,4 | 3,8 | 4,3 | 4,8 | 5,3 | 5,7 | 6,2 | 6,6 | 7,1 |

**10 ≤ LwA < 30** **30 ≤ LwA < 40** **40 ≤ LwA < 50**

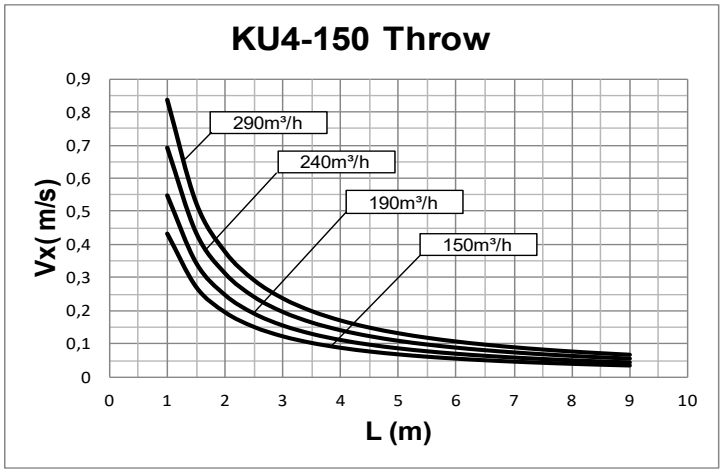
Data valid for:
- Supply air
- Isotherm conditions
- Throw with ceiling effect

Terminology:
- $A_k$ = effective free area
- $V_k$ = effective face velocity
- Δpt = total pressure loss
- $L_{WA}$ = sound power level
- $L_{0,2}$ = throw to terminal velocity at 0,2 m/s

**FIXED CONES**
**CIRCULAR DIFFUSERS**

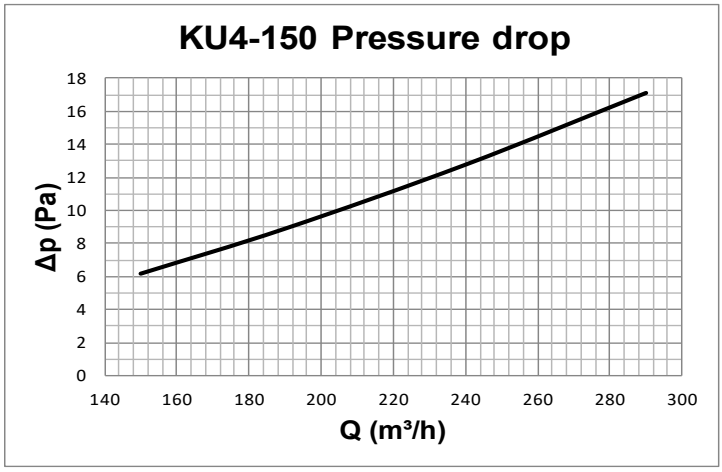
**PERFORMANCE KU4-150**

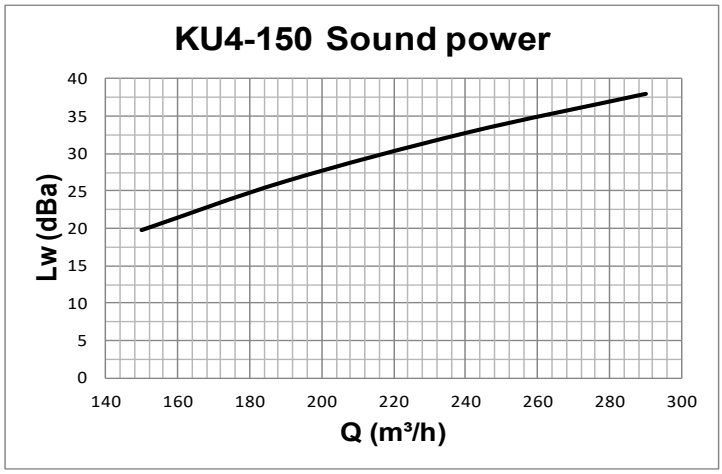
KU4
SERIES




**Data measured in virtual test room operating in isothermal conditions in accordance with the international standard:**
**ISO 5219 1984:** *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

L (m) horizontal distance in metres from the centre of the diffuser
VL (m/s) maximum speed in the air stream




**Data measured in reverberation room in accordance with international standards:**
**ISO 3741 1999:** *Acoustic - determination of sound power levels of noise sources using sound pressure - Precision methods for reverberation rooms*

**ISO 5135 1997:** *Acoustic - determination of sound power levels of noise from air-terminal devices; air terminal units; dampers and valves by measurement in a reverberation room.*

The data presented does not consider the attenuation given by the area of installation. This attenuation is normally between 6 and 10 dBA and is determined by the room size, the shape of the environment and the interior features.

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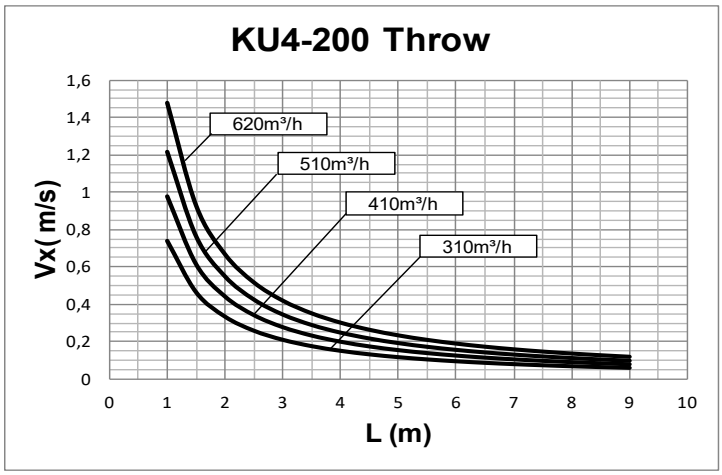
**PERFORMANCE KU4-200**

KU4
SERIES

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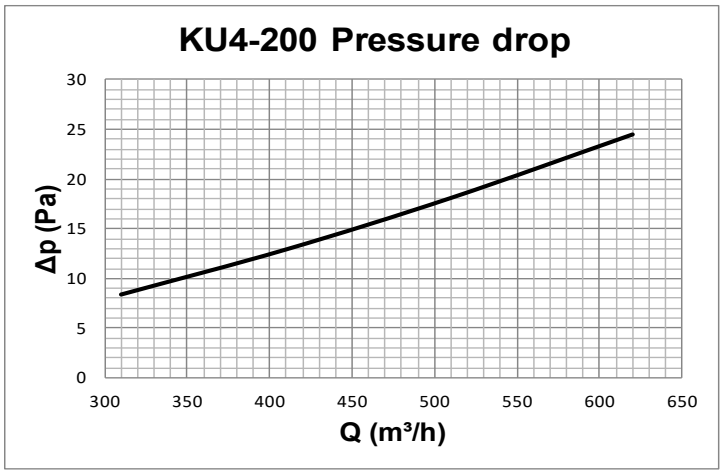


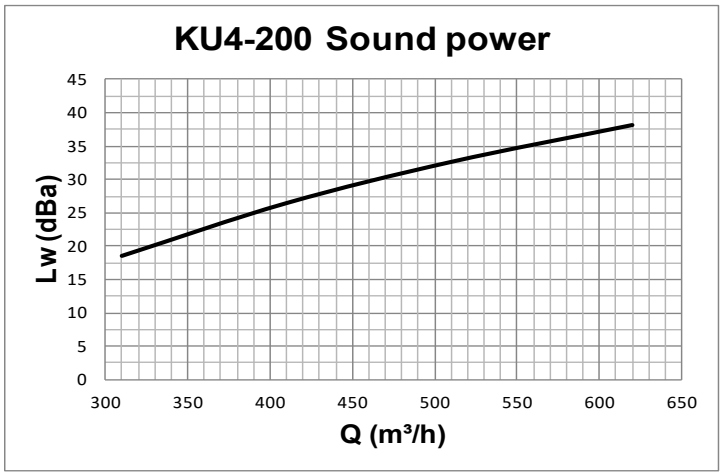


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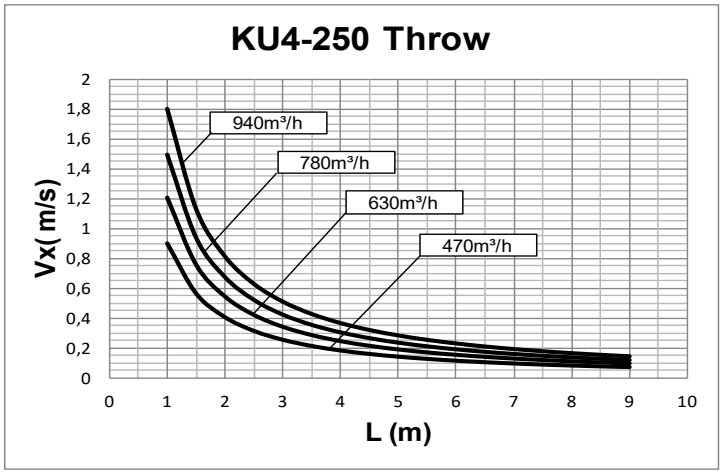
**PERFORMANCE KU4-250**

KU4
SERIES




**Data measured in virtual test room operating in isothermal conditions in accordance with the international standard:**
**ISO 5219 1984:** *Air distribution and air diffusion - Laboratory. Aerodynamic testing and rating of air terminal devices.*

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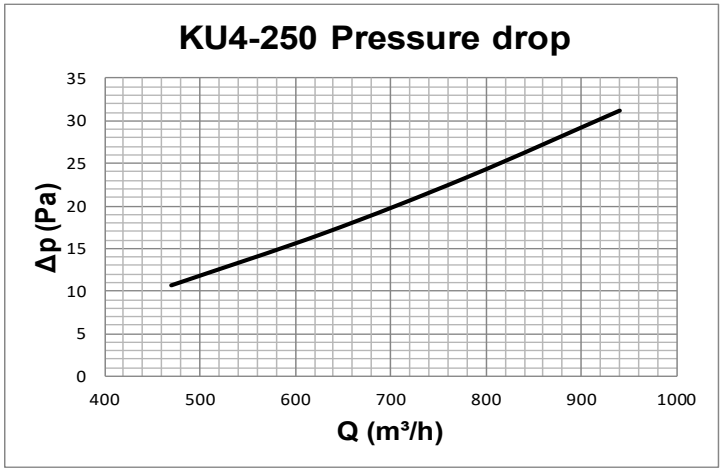
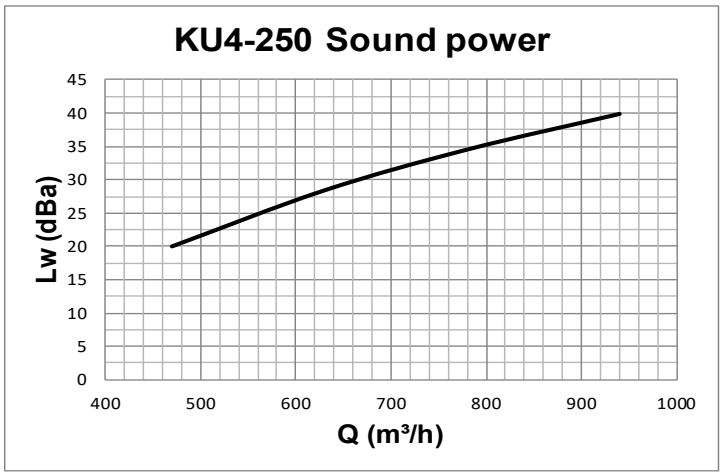
VL (m/s) maximum speed in the air stream

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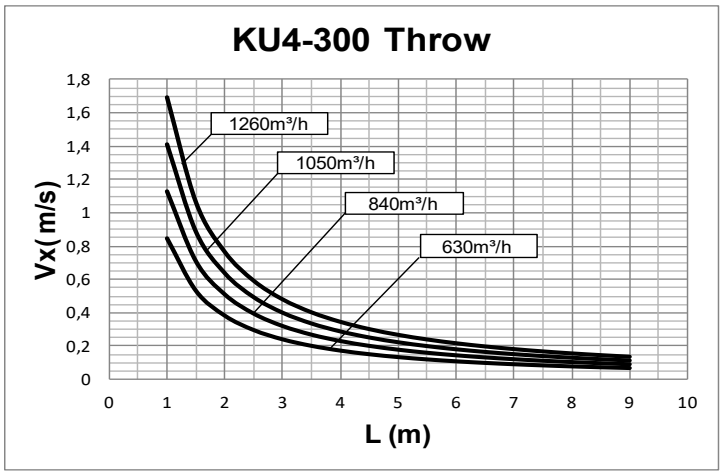
**PERFORMANCE KU4-300**

KU4
SERIES

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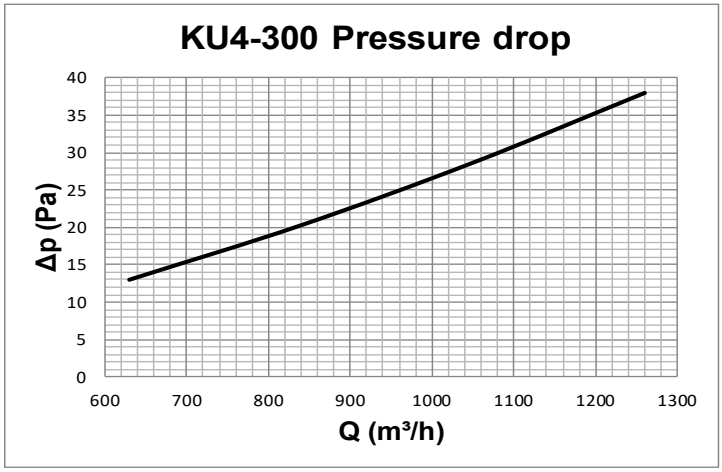


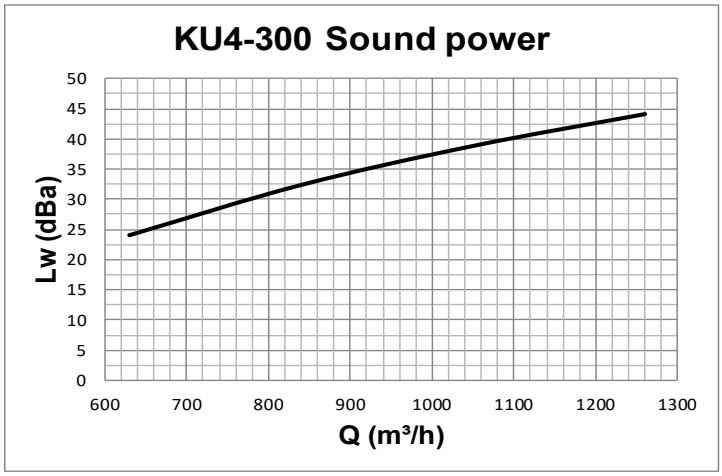


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## HOW TO ORDER

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SERIES