



## HIGH INDUCTION DIFFUSERS FOR CIRCULAR DUCTS

KO  
SERIES

### INSTALLATION

#### TECHNICAL DATA

KO series diffusers for round ducts are an absolutely innovative solution. This diffuser permits to adapt the round shape of the air terminal diffuser to the round duct where the diffuser will be mounted.

It's important to receive the correct values of the duct diameter during the order processing phase. It will be in charge to our production plant to make the diffuser with the same curving of duct (see before page for diameter limits).

KO series diffusers have an exceptional versatility. Indeed, it is possible to orient the air flow on frontal side without modification on free area, pressure drop and acoustic level, for any position of deflecting blades.

#### MATERIALS

Diffuser in galvanised sheet steel, deflectors in abs, gate in galvanized sheet steel.

#### FINISH

Diffuser painted white in epoxy powder finish RAL 9010 and deflectors in black colour RAL 9005.

#### MOUNTING

The diffuser has to be fixed with threaded screws on sight directly in the channel.

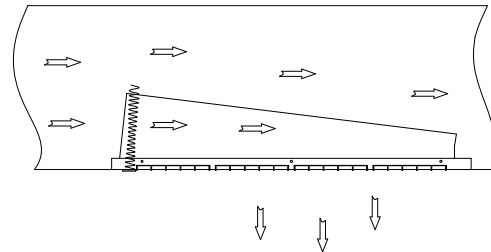
#### REGULATION

The deflectors can be adjusted manually.

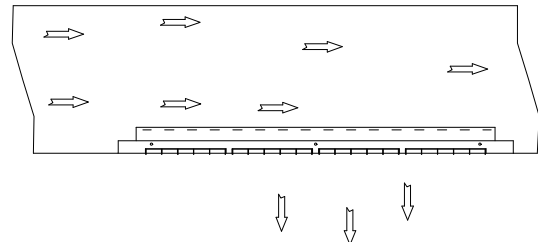
#### UNSUITABLE ENVIRONMENTS

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.

#### FITTING WITH COLLECTING DAMPER



#### FITTING WITH SLIDING DAMPER





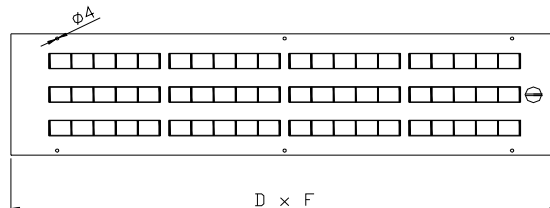
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## TECHNICAL DATA

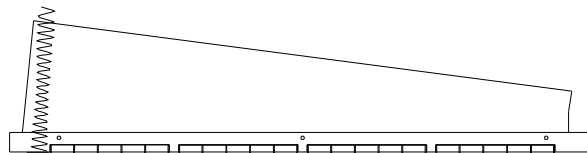
### KO

Diffuser with adjustable deflectors - dimensions from mm. 425 x 65 to mm. 1025 x 315.



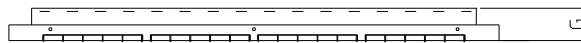
### KO + SB

Diffuser with adjustable deflectors and with collecting gate.



### KO + SG

Diffuser with adjustable deflectors and with slide gate.



KOI = Diffuser with horizontal deflectors

SB = Collecting gate

SG = Slide gate

425x65 = Nominal dimension of the hole in mm

$\phi$  300 = Diameter of the duct in mm

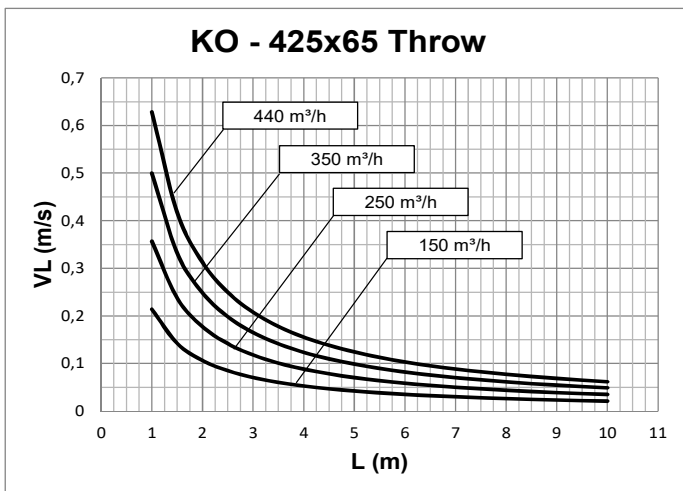
Nominal dimension of the hole	Ak	D	F	G	Duct diameter	
					Minimum	Maximum
425 x 65	0,0054	450	100	55	140	400
525 x 65	0,0061	550	100	55	140	400
425 x 115	0,0163	450	164	55	300	900
525 x 115	0,0185	550	164	55	300	900
625 x 115	0,0231	650	164	55	300	900
825 x 115	0,0320	850	164	55	300	900
1025 x 115	0,0397	1050	164	55	300	900
425 x 215	0,0211	450	264	55	600	2400
525 x 215	0,0304	550	264	55	600	2400
625 x 215	0,0379	650	264	55	600	2400
825 x 215	0,0526	850	264	55	600	2400
1025 x 215	0,0654	1050	264	55	600	2400
525 x 315	0,0481	550	364	55	1000	2400
625 x 315	0,0600	650	364	55	1000	2400
825 x 315	0,0831	850	364	55	1000	2400
1025x315	0,1033	1050	364	55	1000	2400



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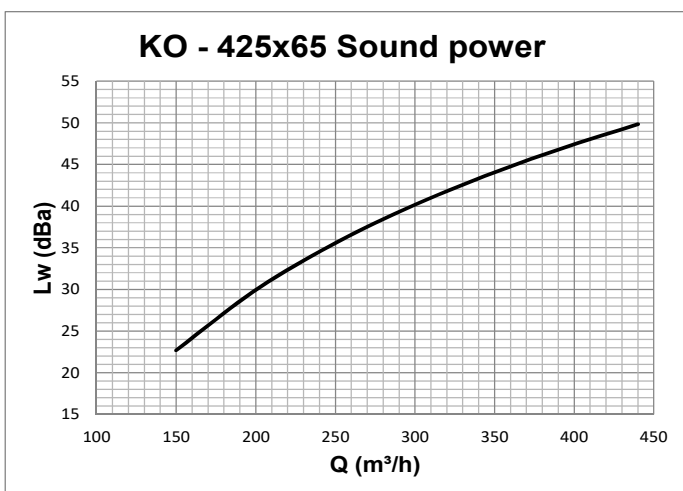
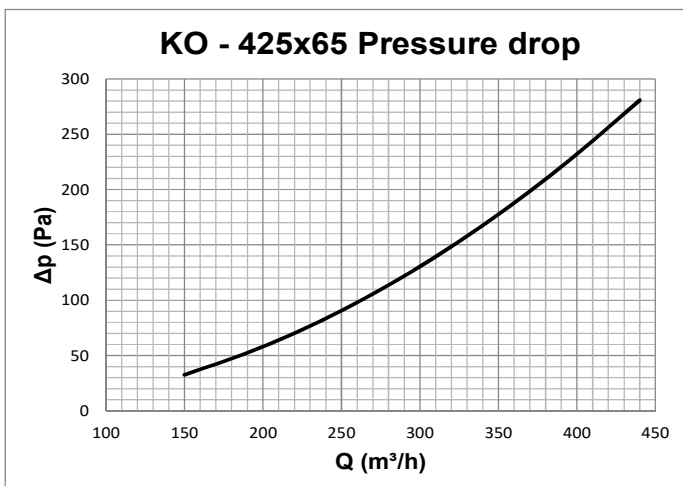
KO  
SERIES

425x65  
PERFORMANCE



Data measured in isothermic conditions in accordance with international standards: 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.*

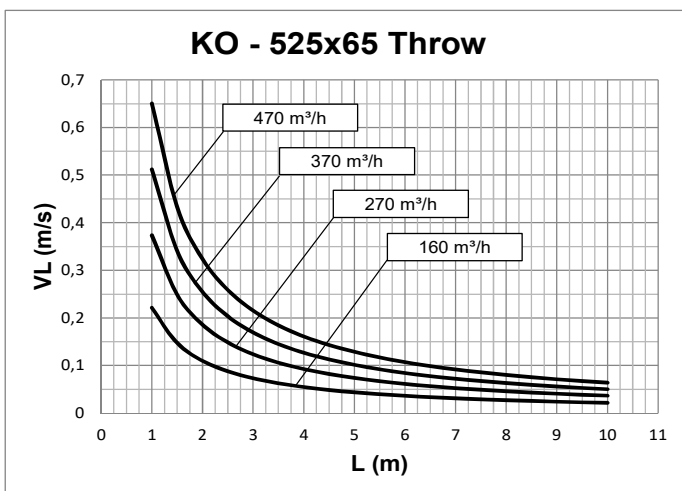
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## HIGH INDUCTION DIFFUSERS FOR CIRCULAR DUCTS

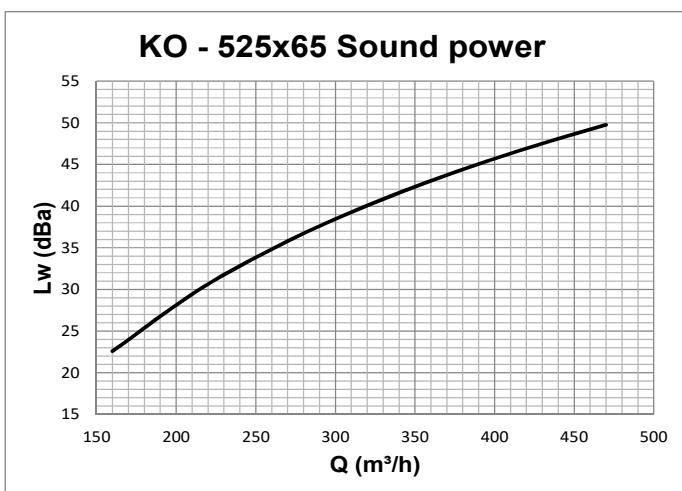
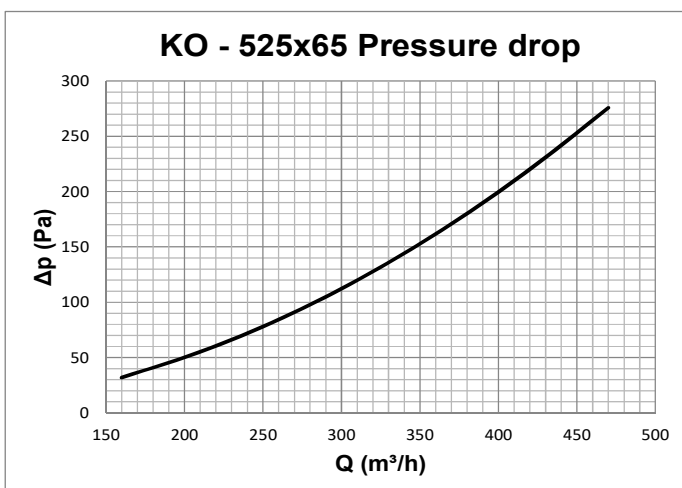
KO  
SERIES

525x65  
PERFORMANCE



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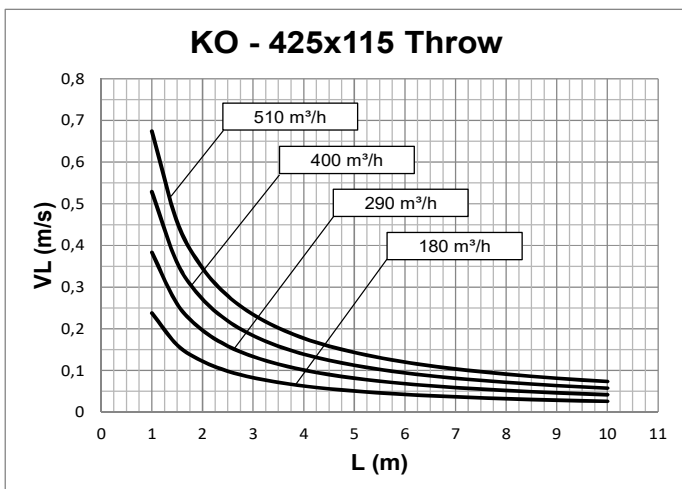
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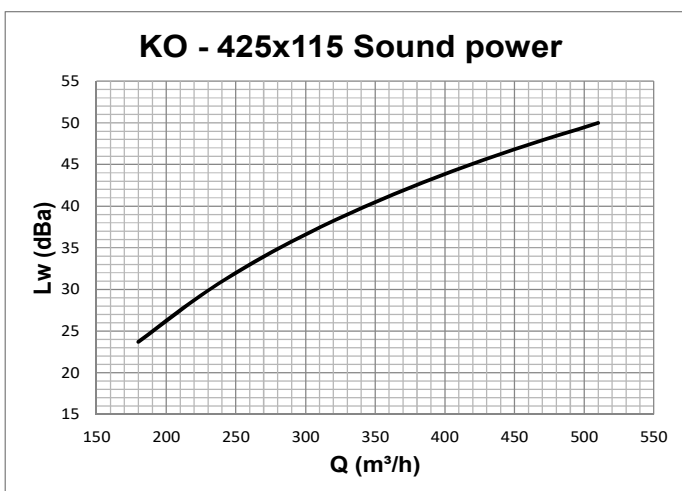
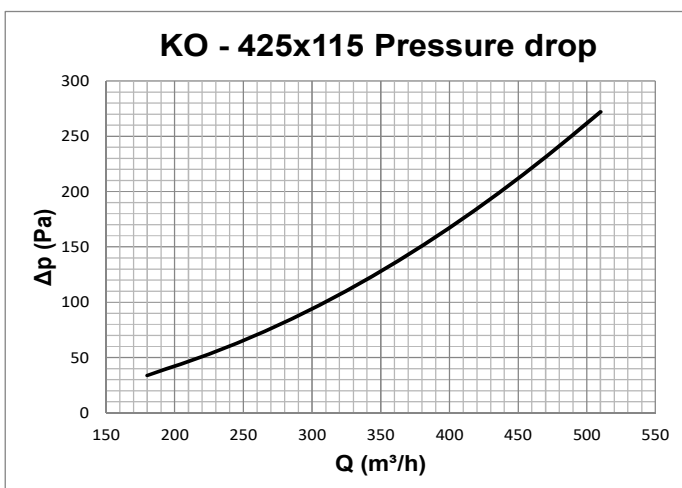
KO  
SERIES

## 425x115 PERFORMANCE



Data measured in isothermic conditions in accordance with international standards:  
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



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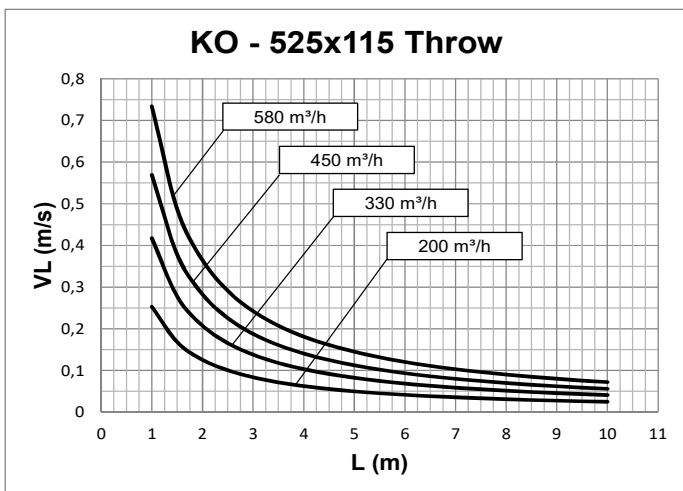
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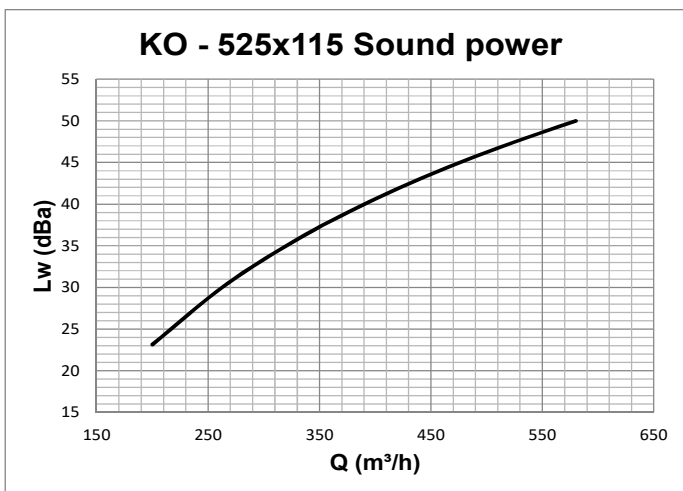
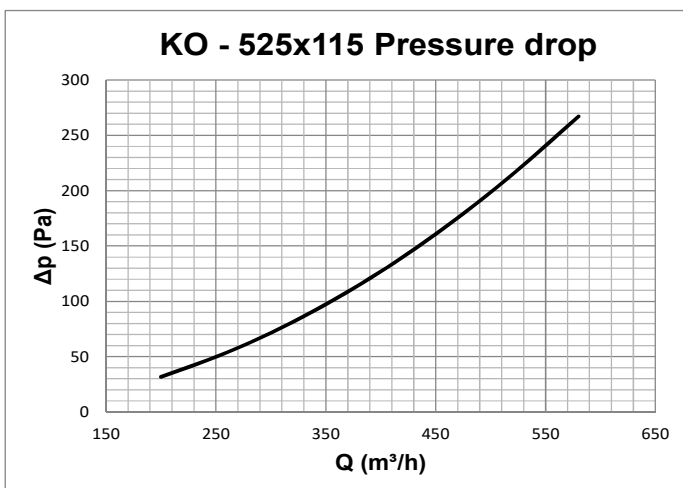
KO  
SERIES

525x115  
PERFORMANCE



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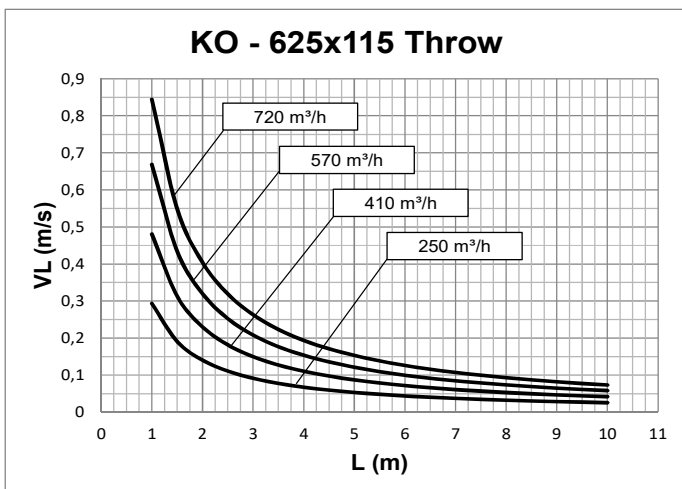
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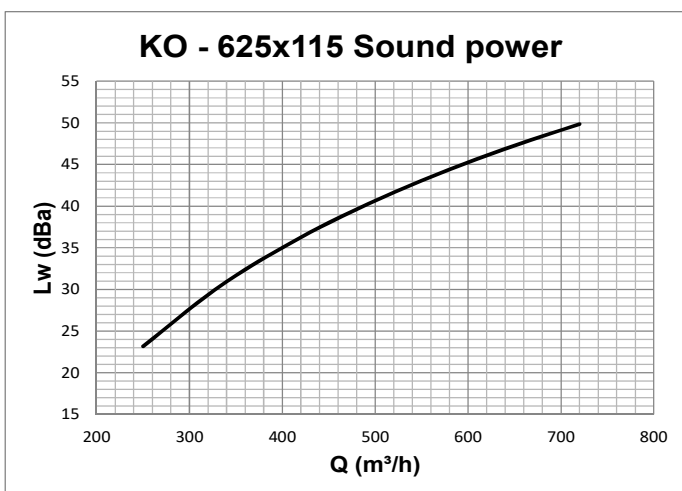
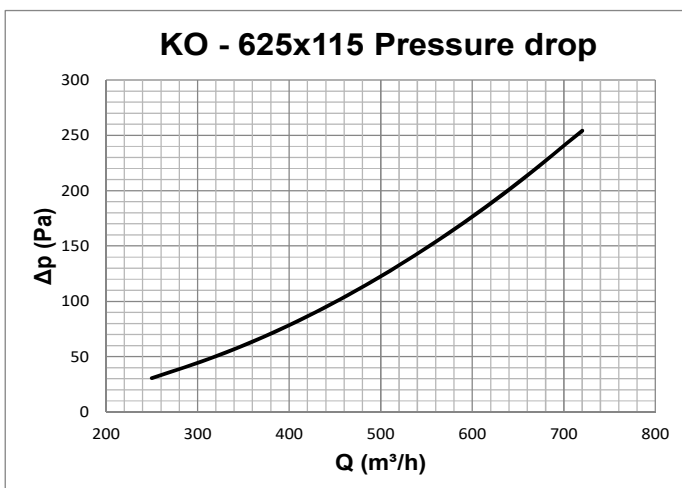
KO  
SERIES

## 625x115 PERFORMANCE



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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*

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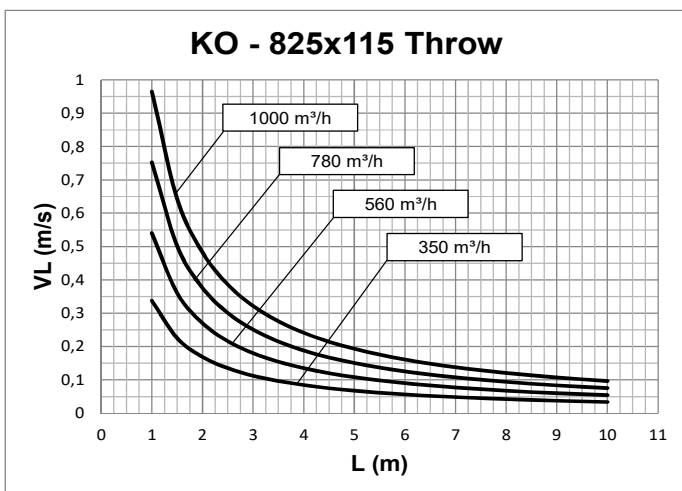
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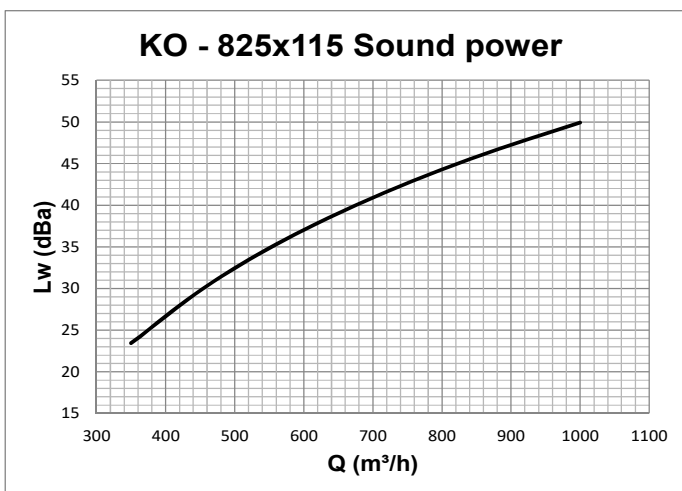
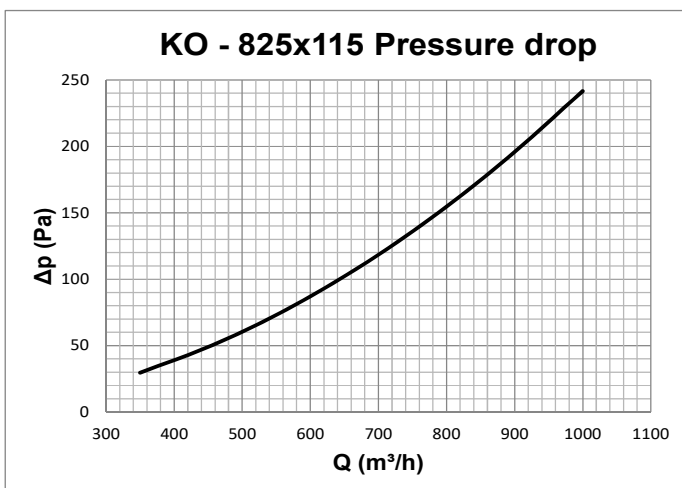
KO  
SERIES

825x115  
PERFORMANCE



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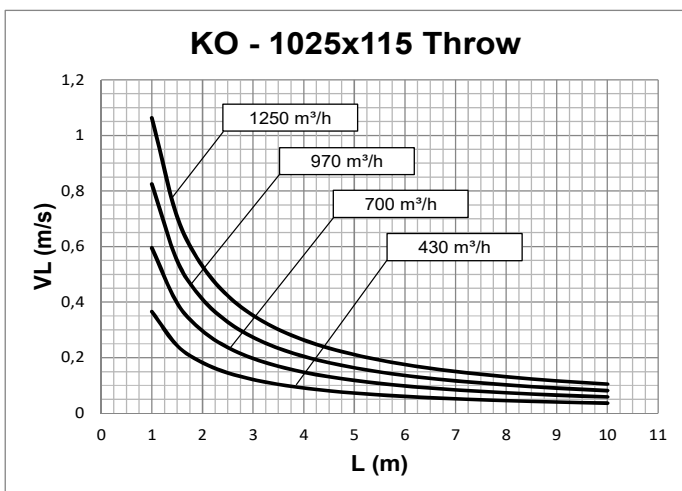




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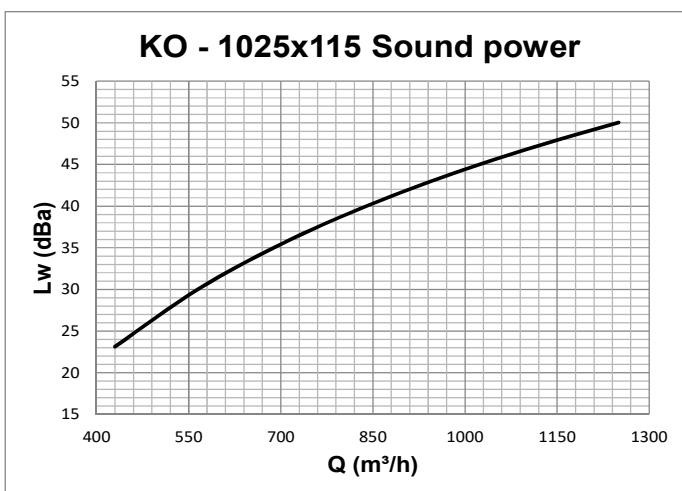
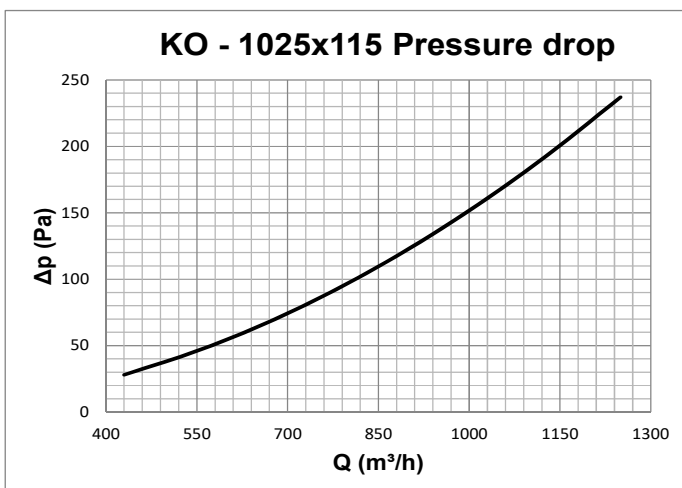
KO  
SERIES

### 1025x115 PERFORMANCE



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



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ISO 3741 1999: *Acoustic - determination of sound power levels of noise sources using sound pressure - Precision methods for reverberation rooms*

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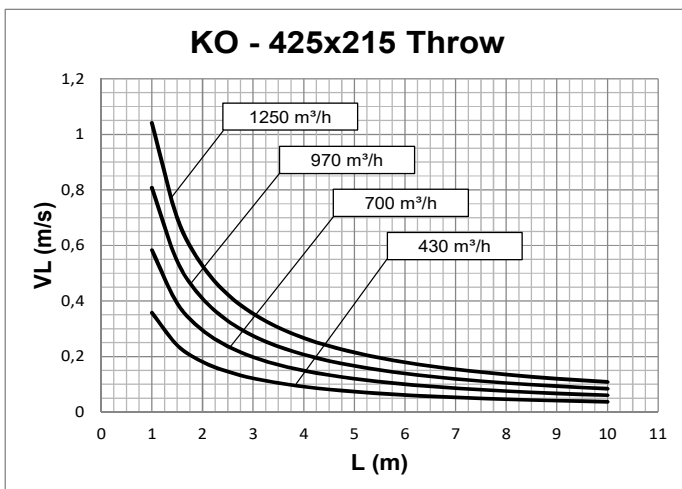
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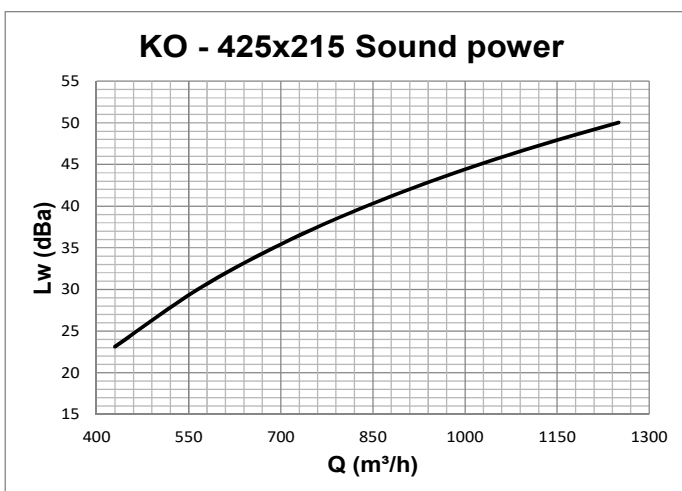
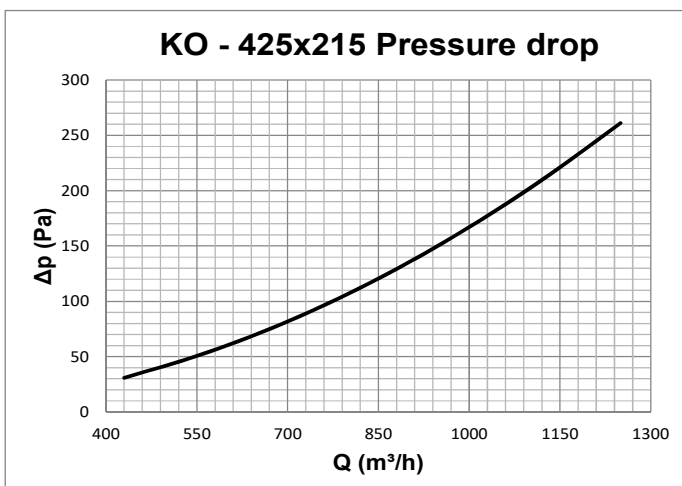
KO  
SERIES

425x215  
PERFORMANCE



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L (m) horizontal distance in metres from the centre of the diffuser  
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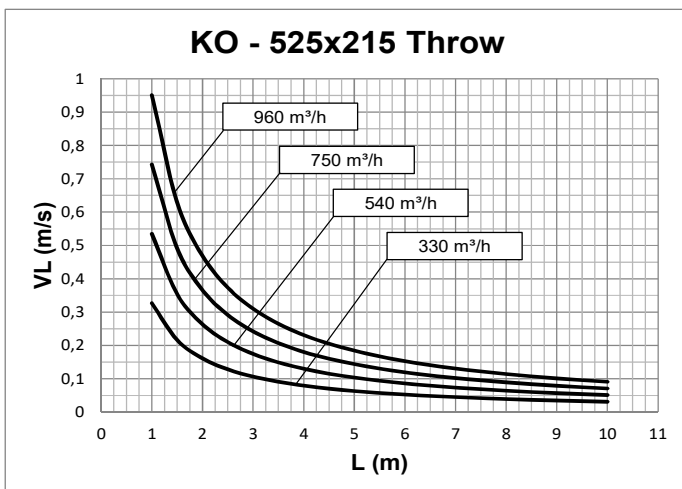
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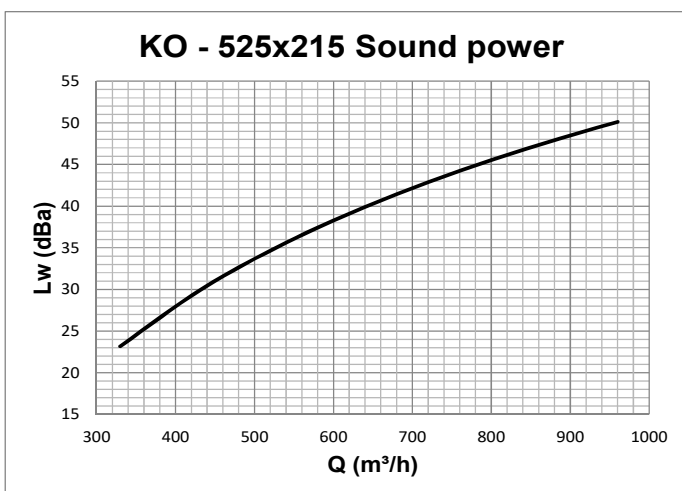
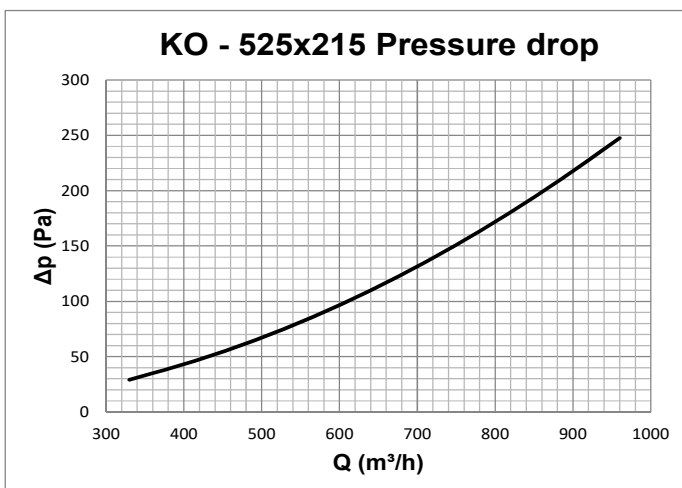
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525x215  
PERFORMANCE



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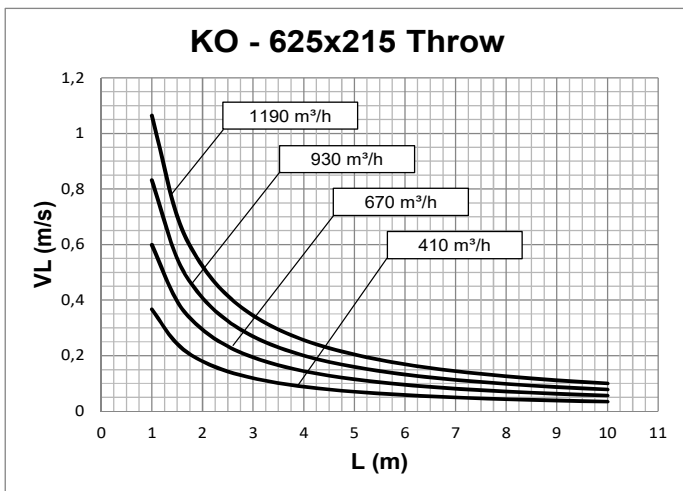
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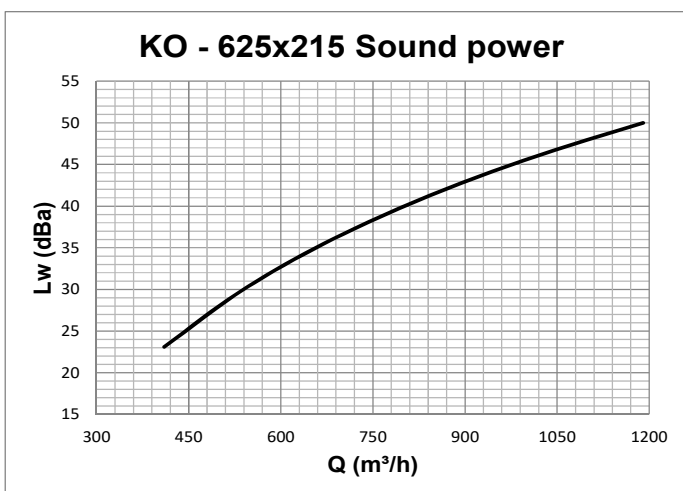
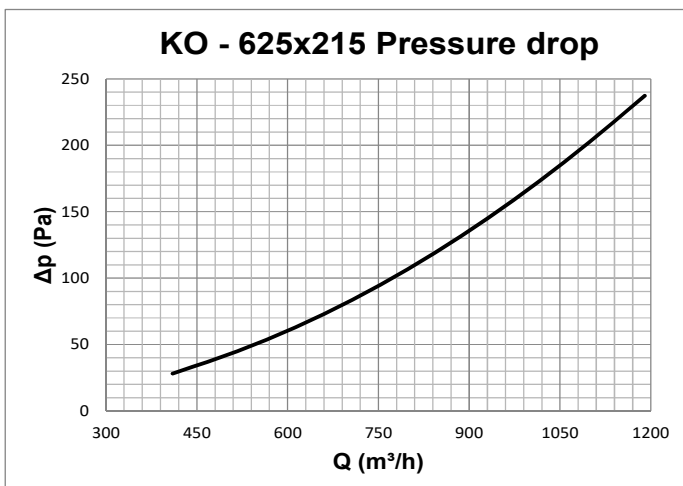
## KO SERIES

### 625x215 PERFORMANCE



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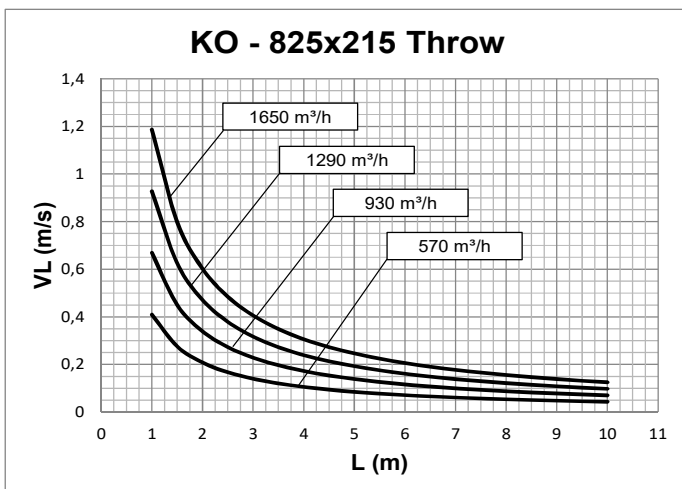
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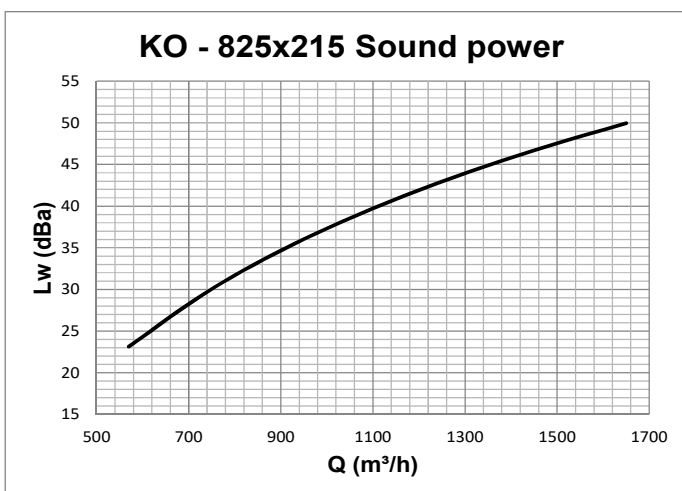
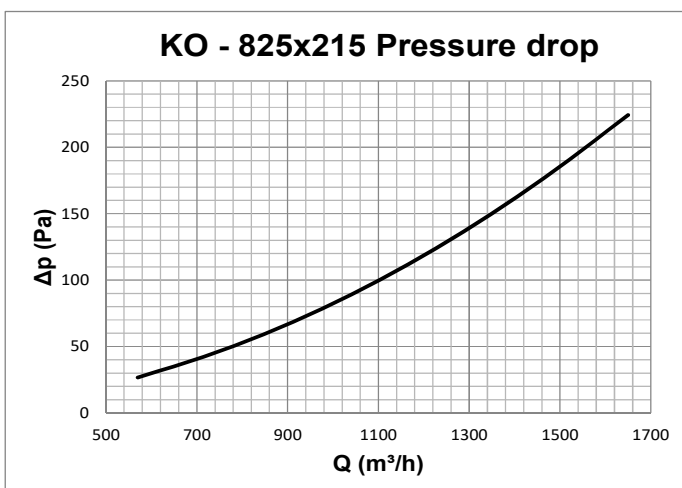
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825x215  
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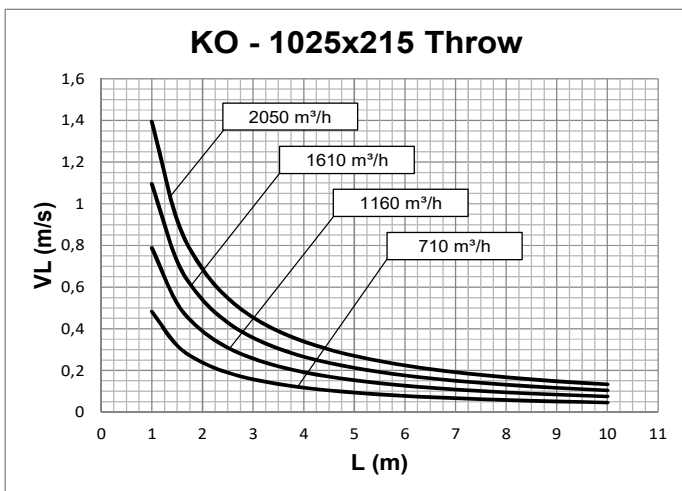
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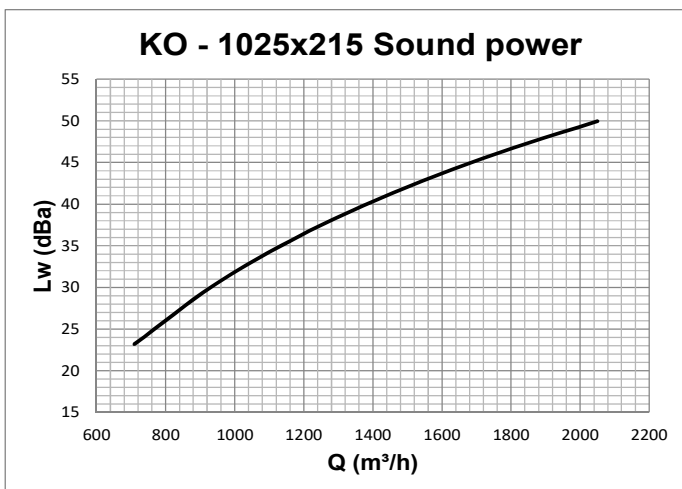
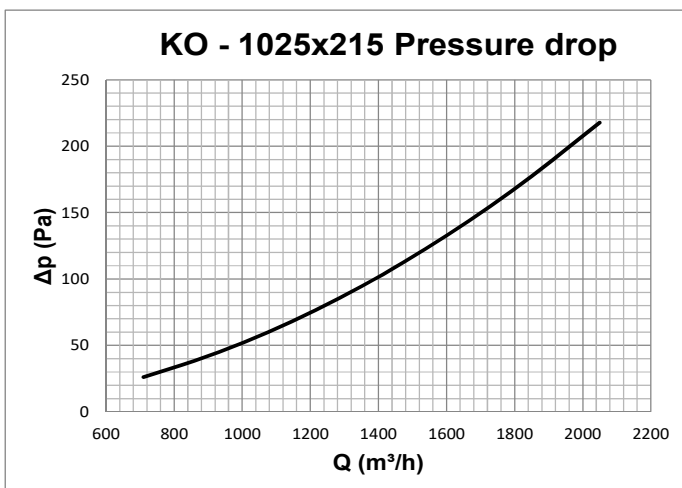
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SERIES

### 1025x215 PERFORMANCE



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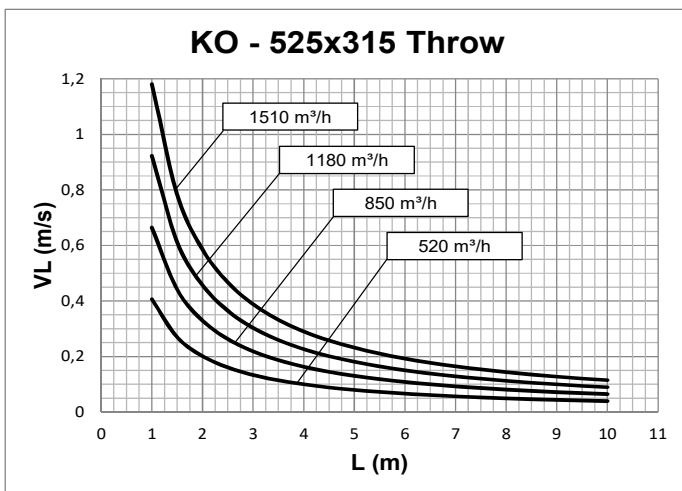
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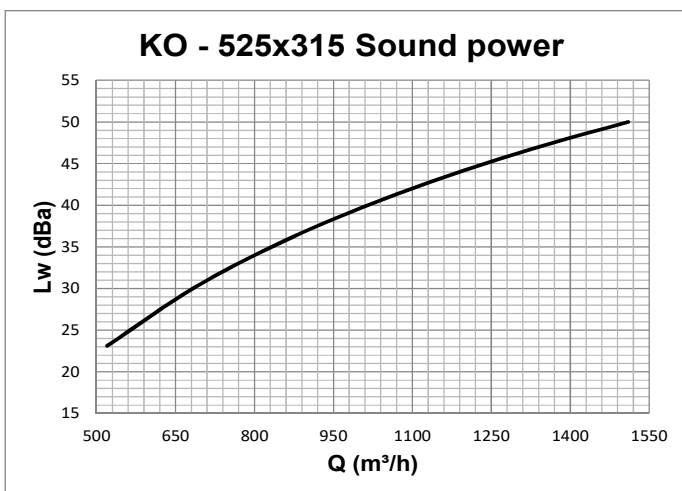
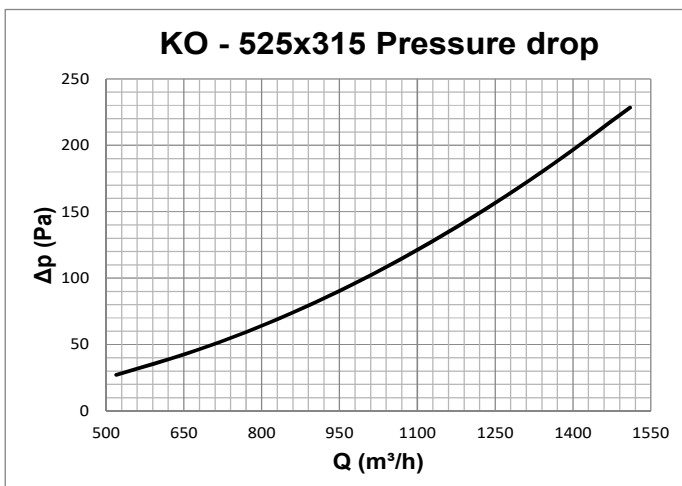
KO  
SERIES

525x315  
PERFORMANCE



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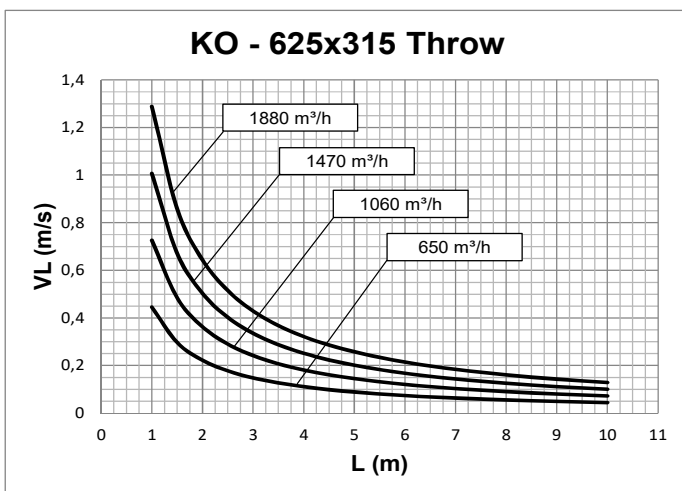
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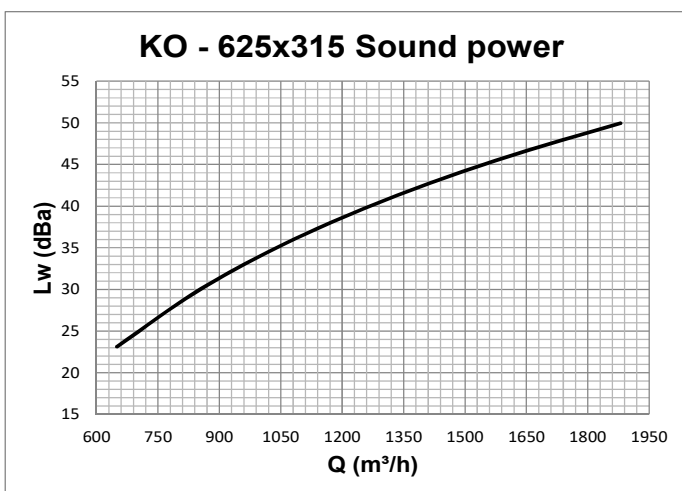
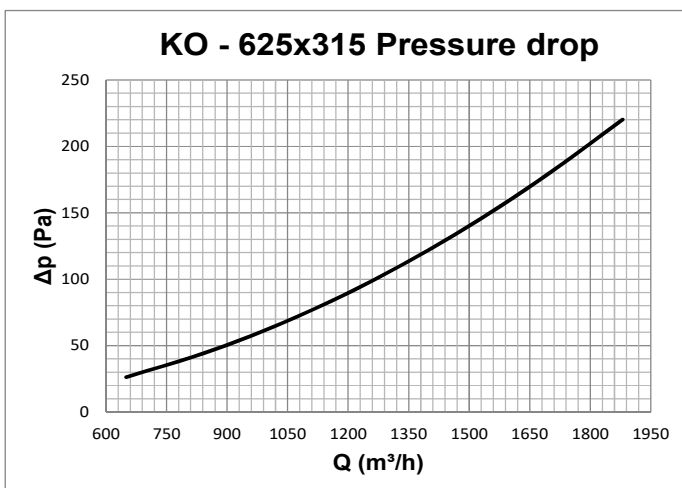
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625x315  
PERFORMANCE



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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.

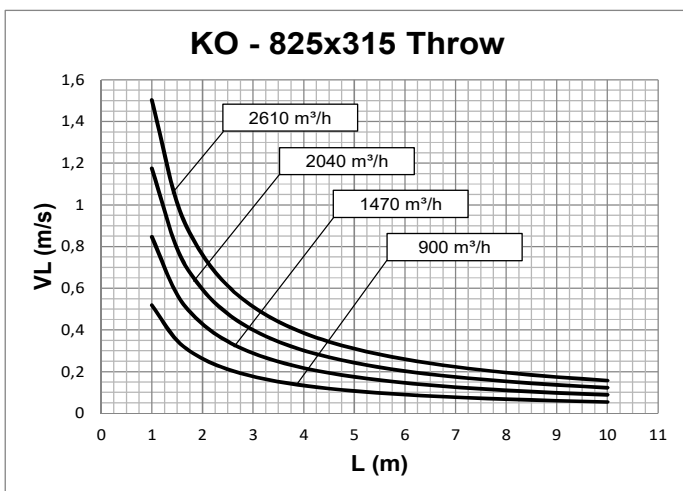




# HIGH INDUCTION DIFFUSERS FOR CIRCULAR DUCTS

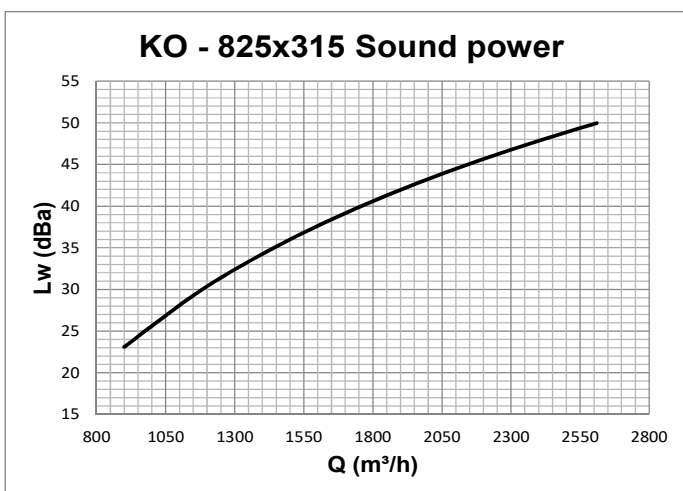
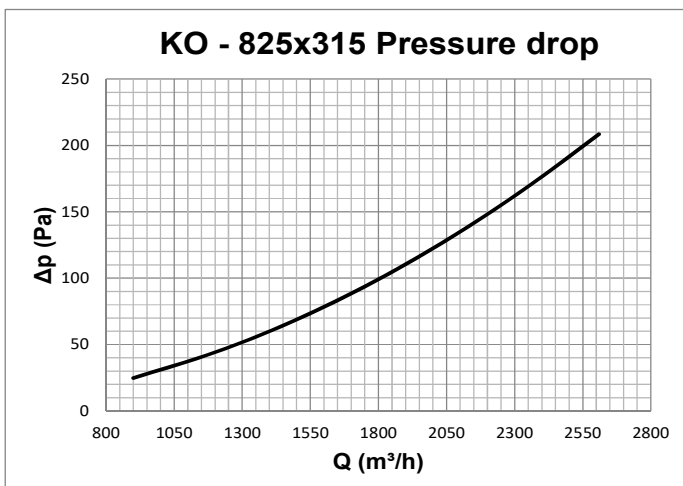
KO  
SERIES

## 825x315 PERFORMANCE



Data measured in isothermic conditions in accordance with international standards: 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.*

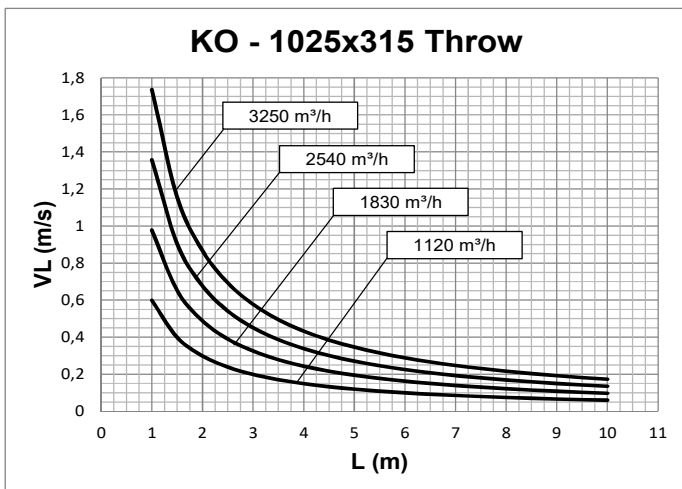
The data presented does not consider the attenuation given by the area of installation. This attenuation is normally between 6 and 10 dBA and is determined by the room size, the shape of the environment and the interior features.



## HIGH INDUCTION DIFFUSERS FOR CIRCULAR DUCTS

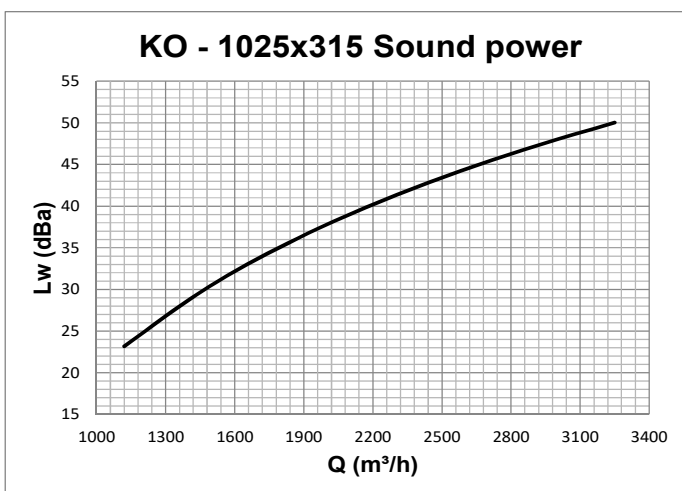
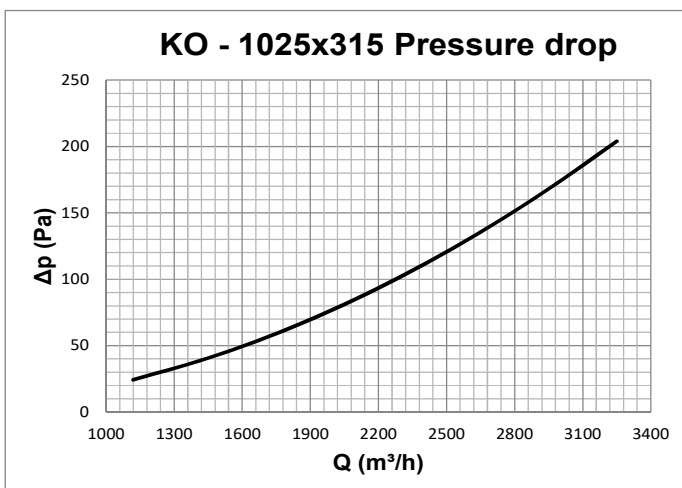
KO  
SERIES

1025x315  
PERFORMANCE



Data measured in isothermic conditions in accordance with international standards:  
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*

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