



**AIRTECHNIC**

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Air-Conditioning & Ventilation Components & Systems

- **Recessed slot diffusers**

# STS



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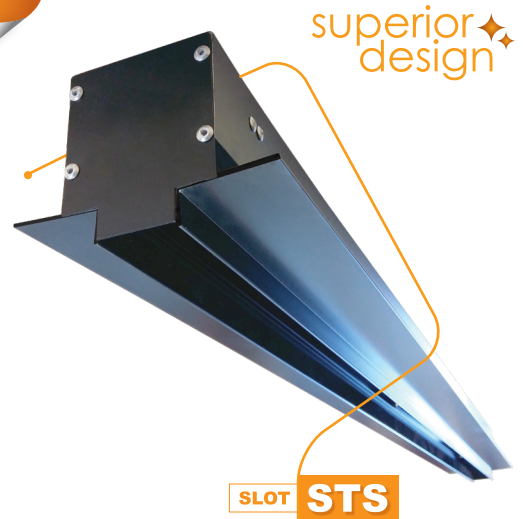
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V. 4

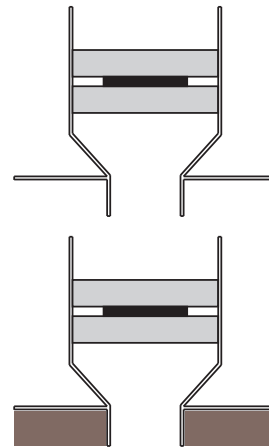
# Recessed slot diffuser STS

Recessed slot diffusers type **STS** manufactured by **AIRTECHNIC** are designed to meet the increased performance and design requirements by combining modern technology with modern architecture. They are suitable for all types of air conditioning, ventilation and heating / cooling systems.

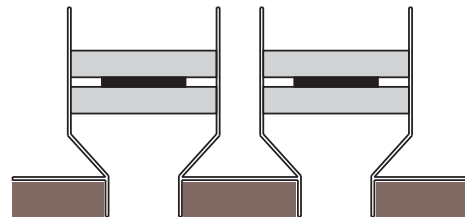
They are manufactured with 1 slot (**STS 1R**), 2 slots (**STS 2R**) or 3 slots (**STS 3R**) in 5 sizes **10, 15, 20, 25** and **30**, with no limitation in length. The nominal width of the diffuser is equal to the width of the slot. Slot diffusers **STS** produce low noise levels, with smooth, precise and flexible control of the air flow. This makes them suitable for all applications which require hidden slot diffusers, with uniform air discharge within the air-conditioned spaces, for supply or return air.



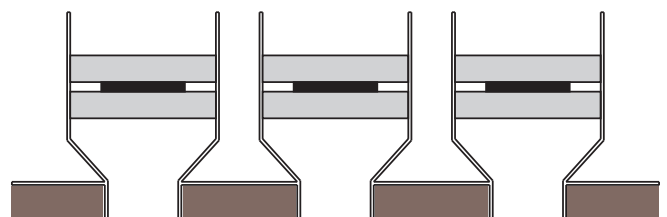
## SLOT STS 1R - with 1 SLOT



## SLOT STS 2R - with 2 SLOTS



## SLOT STS 3R - with 3 SLOTS

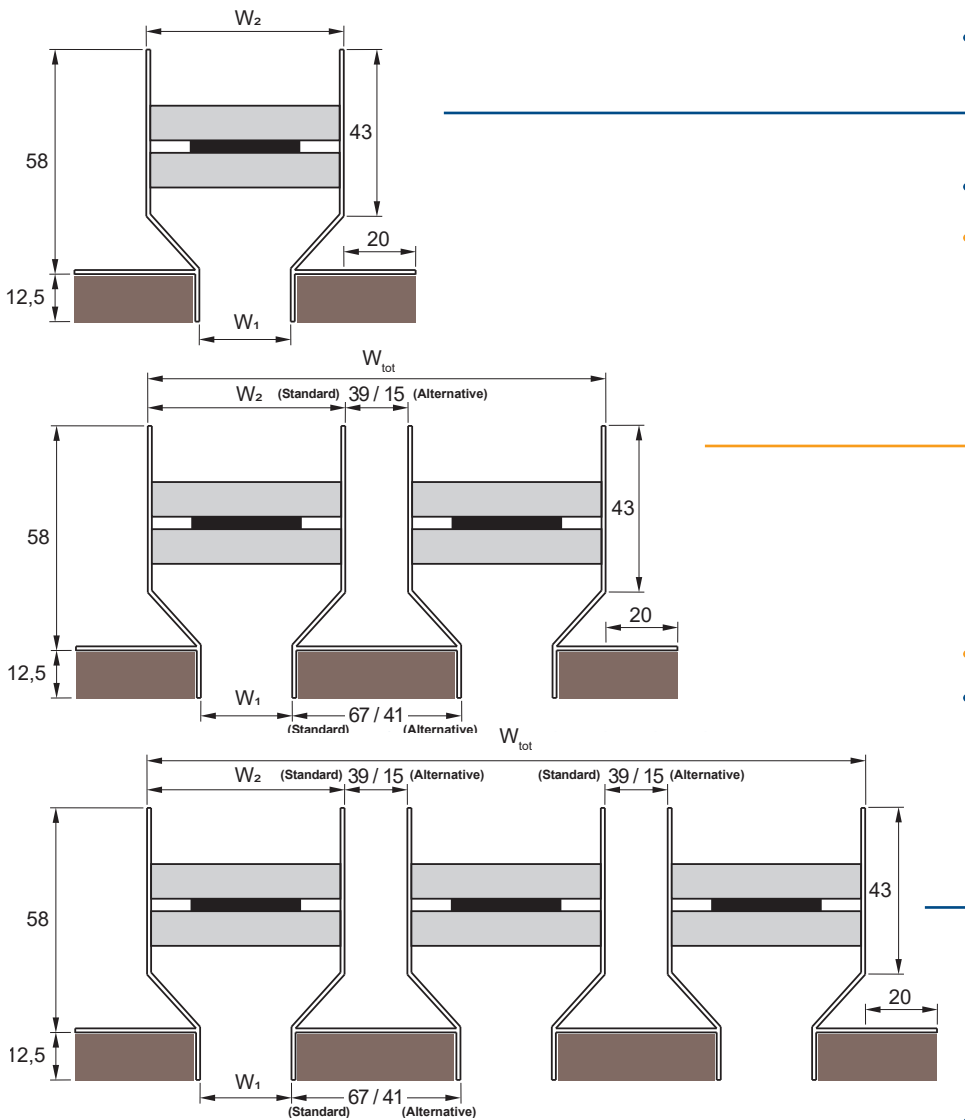




They are manufactured from anodized aluminium or aluminium powder painted in **MAT black or white color, without external frame** and they are suitable for installation behind a plasterboard, without visible brackets using a hidden Π-shaped subframe. Within the diffuser there is an adjustable blade from anodized aluminium or aluminium powder painted in **MAT black or white color**, which is placed parallel to the length of the diffuser and can be manually adjusted in order to change the direction of the flow towards the left side, the right side, or in the middle. This adjustment is achieved by sliding the blade through the face of the diffuser. The blade has aluminum bearings painted in RAL 9005 MAT color with a type "Ω" gasket from hard and soft black PVC and springs in order to achieve a silent sliding without vibrations.

If the installation has slot diffusers type **STS** with non-active sections, it is possible to install a cap made of galvanized steel, electrostatically painted in black color, on the rear of the non-active diffusers, in order to create a unique and elegant visual effect along the entire length of the installed diffusers. Under request, slot diffusers **STS** can have an equalizing grid for even distribution of the air over the entire surface of the diffuser. Flexible mounting methods according to requirements.

## DIMENSIONS - INSTALLATION - PLENUM BOX



STS 1R	10	15	20	25	30
W <sub>1</sub> (mm)	25	38	50	63	76
W <sub>2</sub> (mm)	55	68	80	93	106
W <sub>A</sub> (mm)	60	73	85	98	111

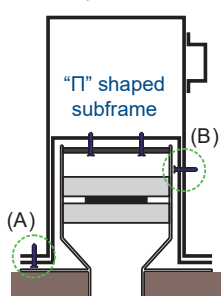
Standard dimensions					
STS 2R	10	15	20	25	30
W <sub>1</sub> (mm)	25	38	50	63	76
W <sub>2</sub> (mm)	55	68	80	93	106
W <sub>tot</sub> (mm)	149	175	199	225	251
W <sub>A</sub> (mm)	156	182	206	232	258

Alternative dimensions					
STS 2R0	10	15	20	25	30
W <sub>1</sub> (mm)	25	38	50	63	76
W <sub>2</sub> (mm)	55	68	80	93	106
W <sub>tot</sub> (mm)	125	151	175	201	227
W <sub>A</sub> (mm)	132	158	182	208	234

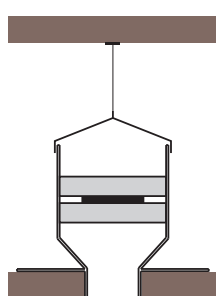
Standard dimensions					
STS 3R	10	15	20	25	30
W <sub>1</sub> (mm)	25	38	50	63	76
W <sub>2</sub> (mm)	55	68	80	93	106
W <sub>tot</sub> (mm)	243	282	318	357	396
W <sub>A</sub> (mm)	250	289	325	364	403

Alternative dimensions					
STS 3R0	10	15	20	25	30
W <sub>1</sub> (mm)	25	38	50	63	76
W <sub>2</sub> (mm)	55	68	80	93	106
W <sub>tot</sub> (mm)	195	234	270	309	348
W <sub>A</sub> (mm)	202	241	277	316	355

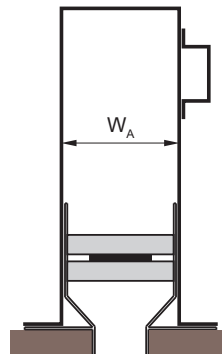
### RECESSED INSTALLATION with internal "Π" shaped subframe



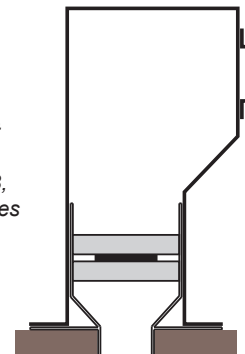
### RECESSED INSTALLATION with roof suspension



### TYPE (A)



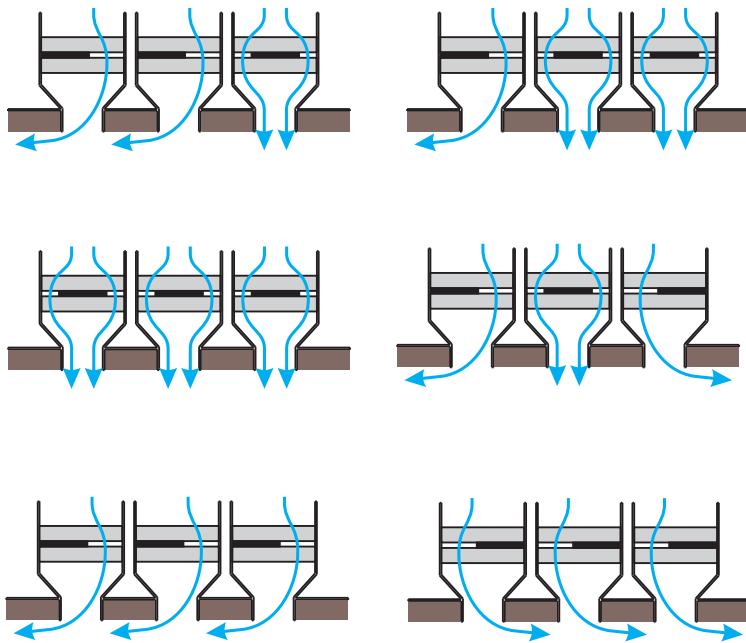
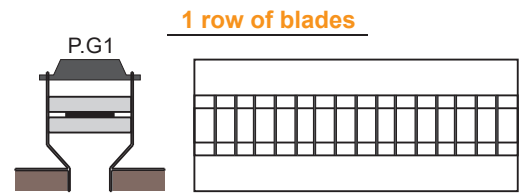
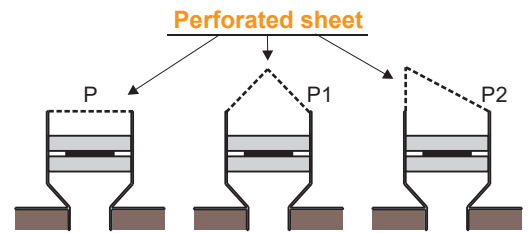
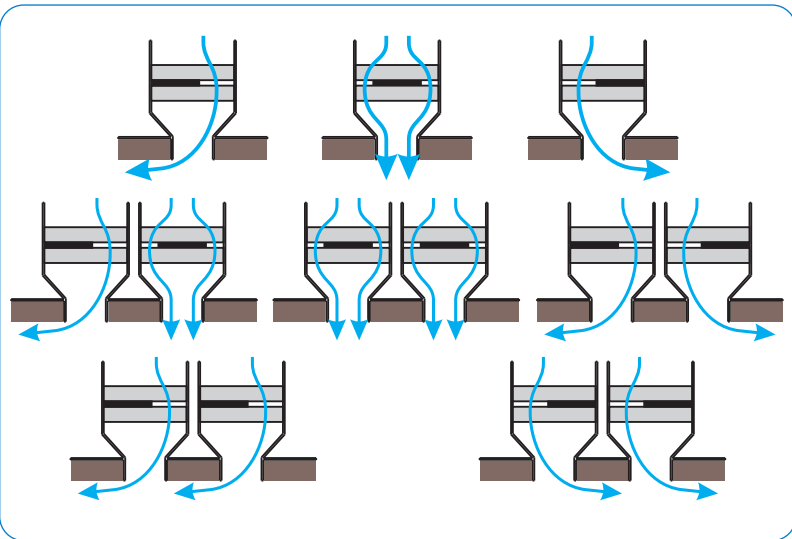
### TYPE (B)



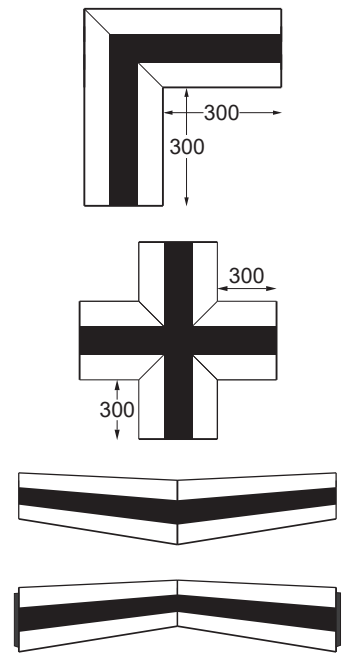
To learn more about the dimensions of plenum boxes type B, please contact our sales department.

**AIR DISTRIBUTION OPTIONS**

**EQUALIZING GRID**



It is possible to produce special pieces such as acute and obtuse angles, 90° angles, cross pieces, external and internal 90° angles.



The vertical air discharge is applicable during the winter season, where we wish to achieve the maximum possible vertical range during heating. The air distribution is discharged horizontally to the left or right during the summer months.

Slot diffusers with large length are made in more than one piece as shown in the following picture.





STS



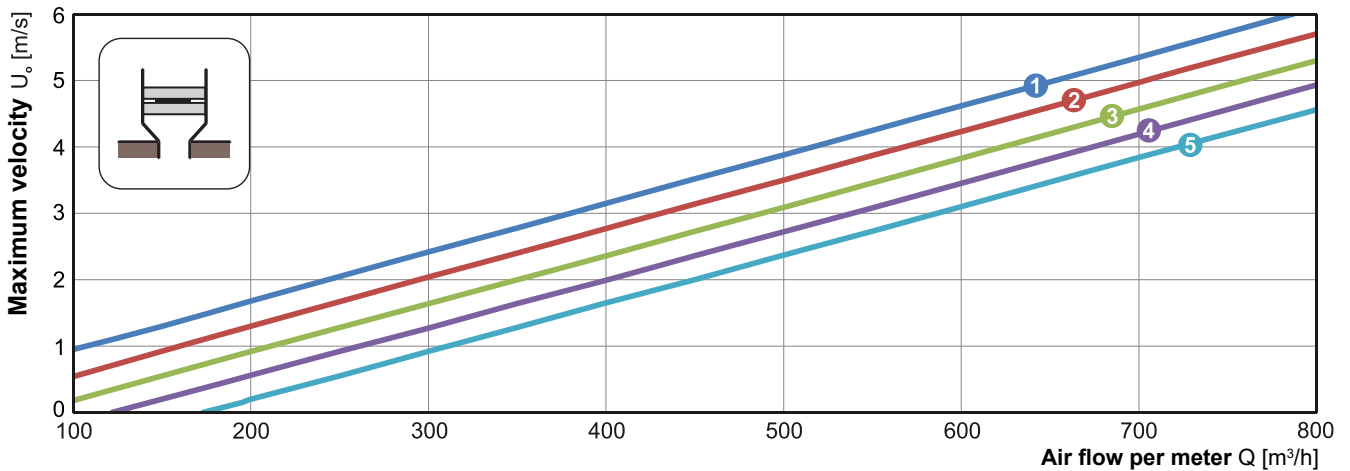
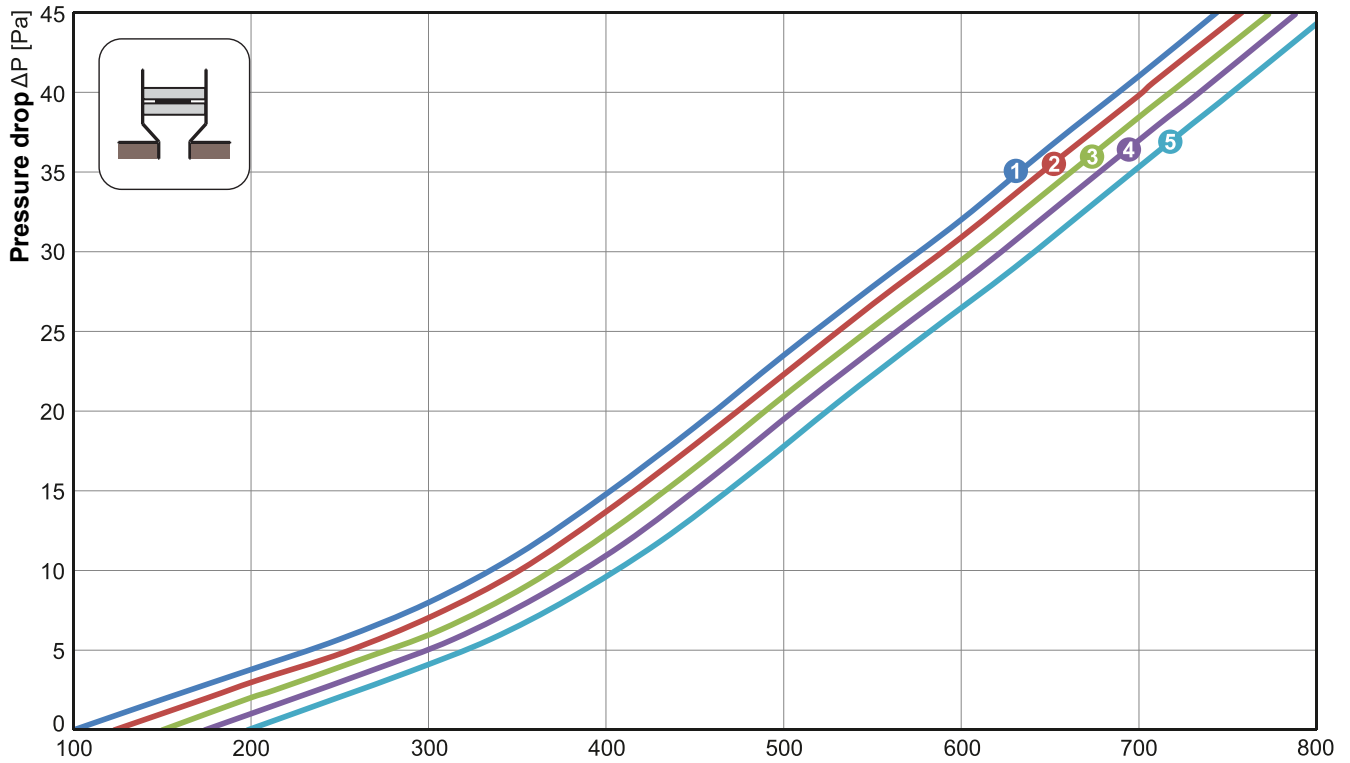
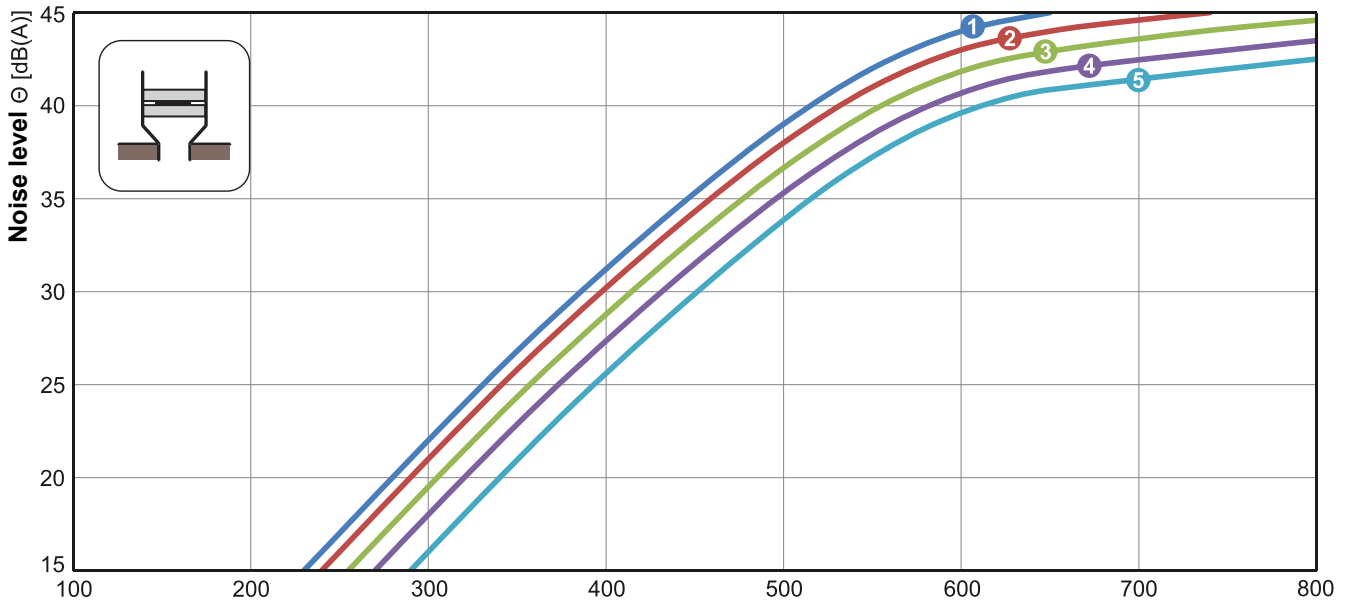
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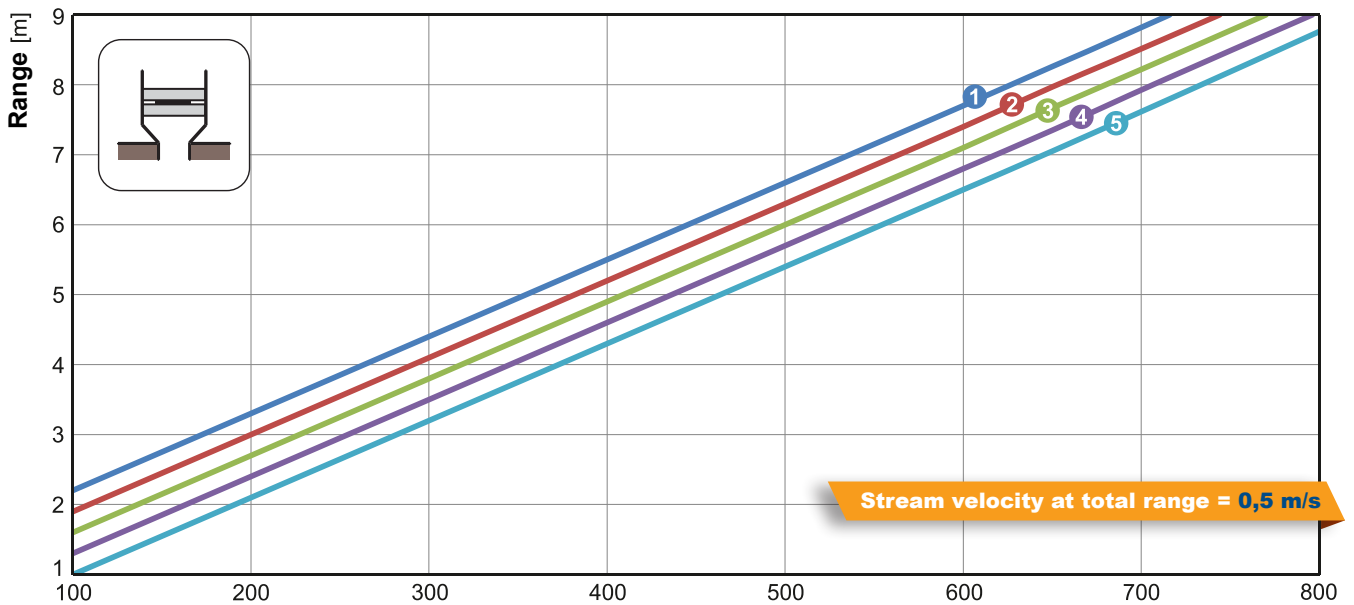
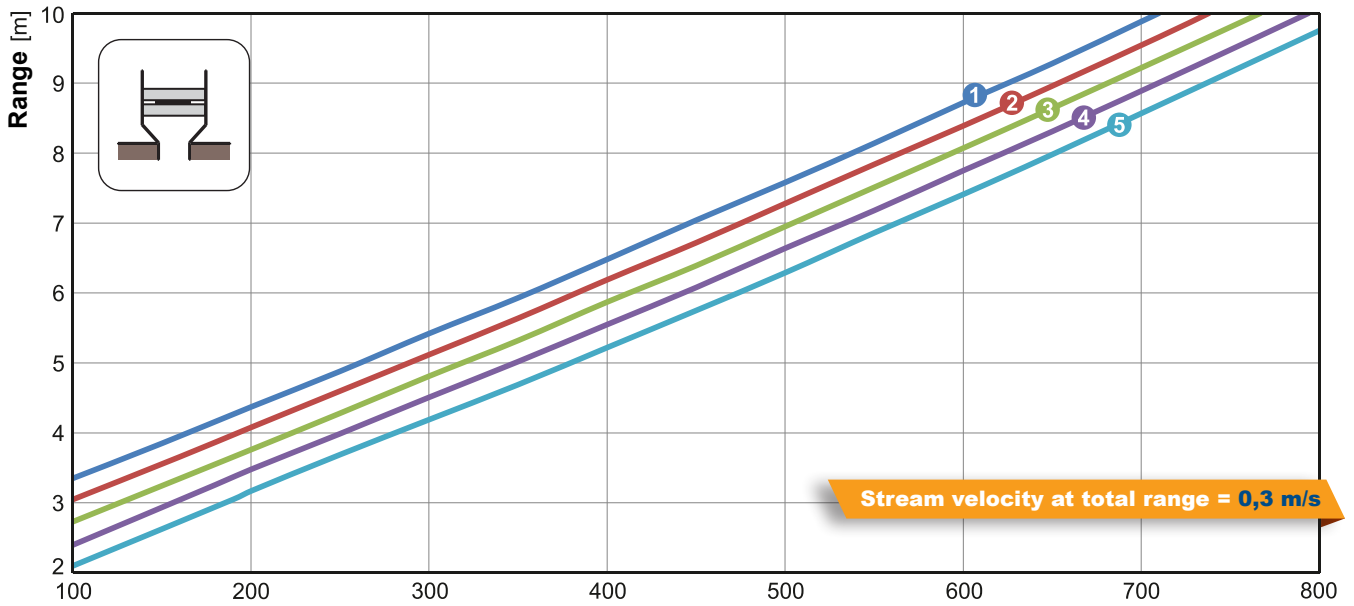
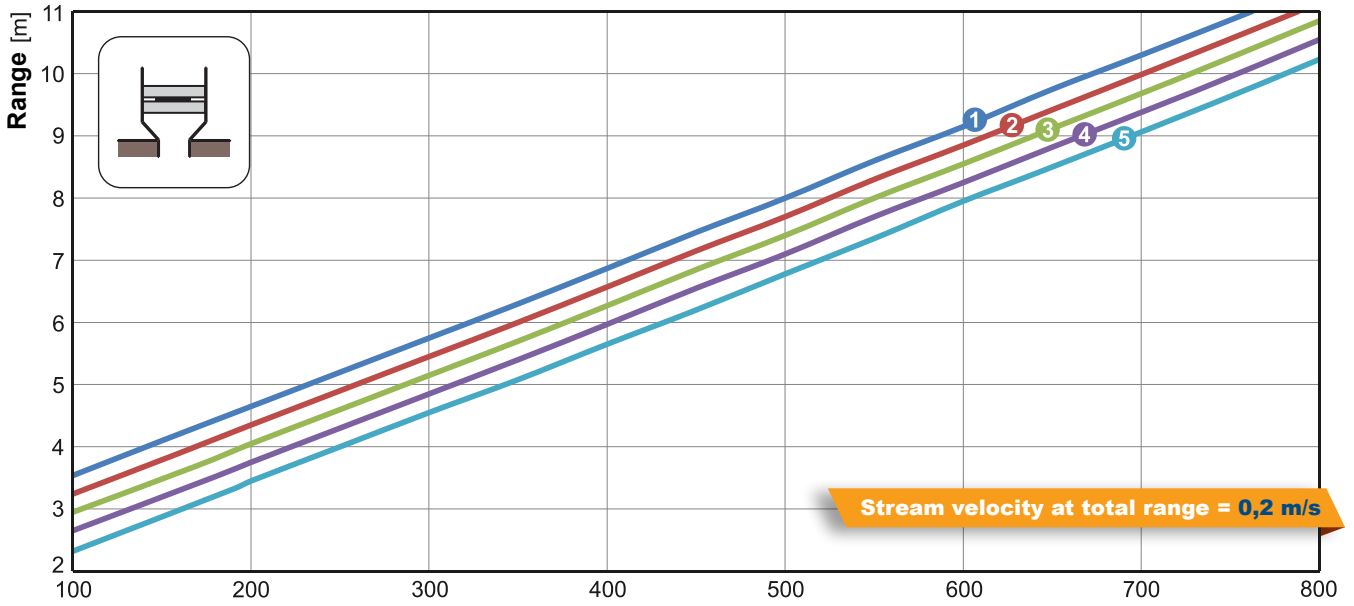
# PRESSURE DROP & NOISE CALCULATION STS 1R

- 1 STS 1R 10
- 2 STS 1R 15
- 3 STS 1R 20
- 4 STS 1R 25
- 5 STS 1R 30



**RANGE CALCULATION STS 1R**

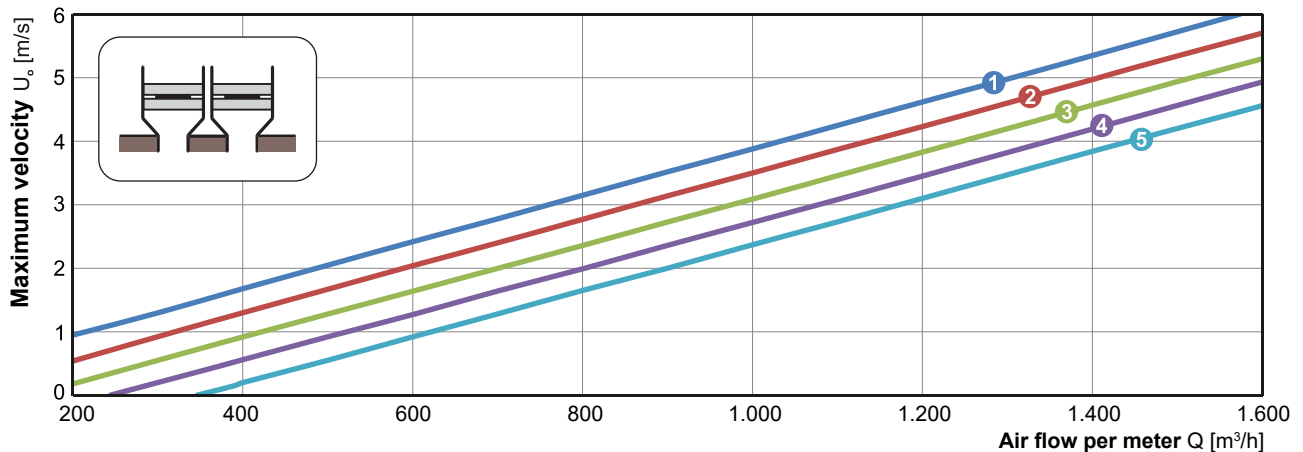
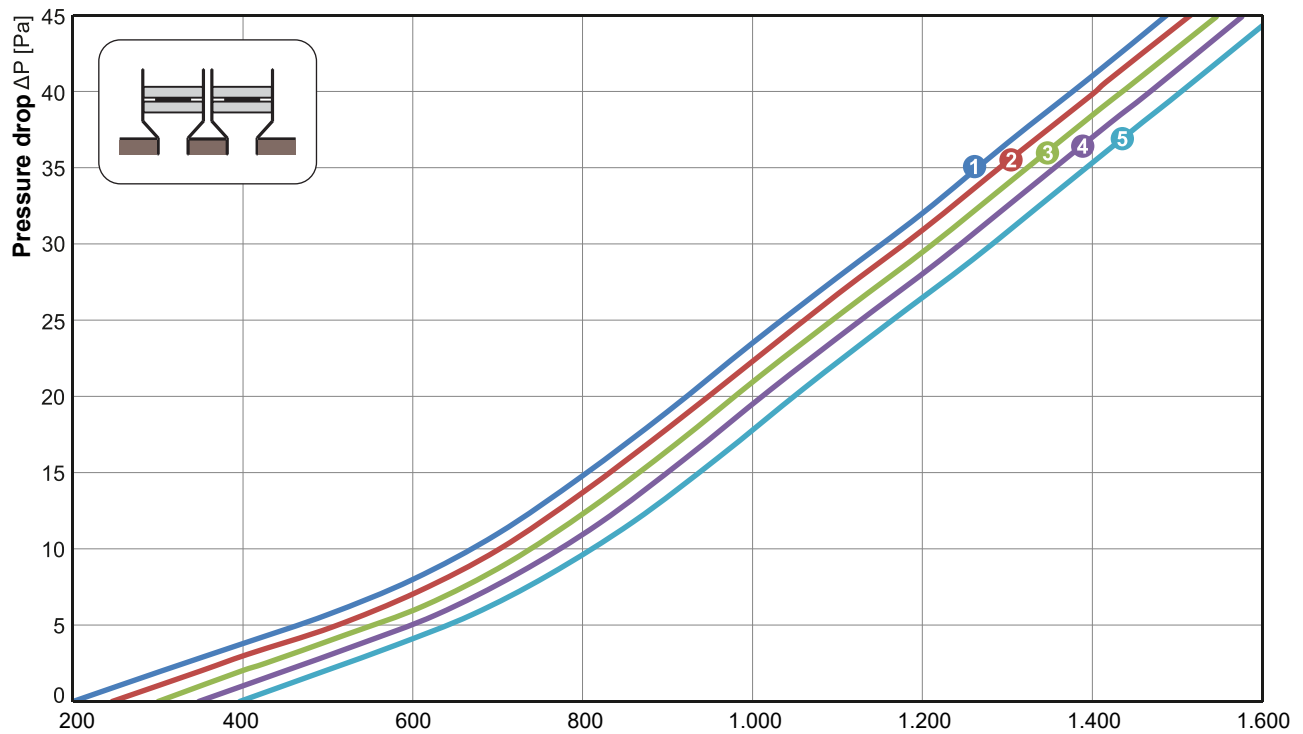
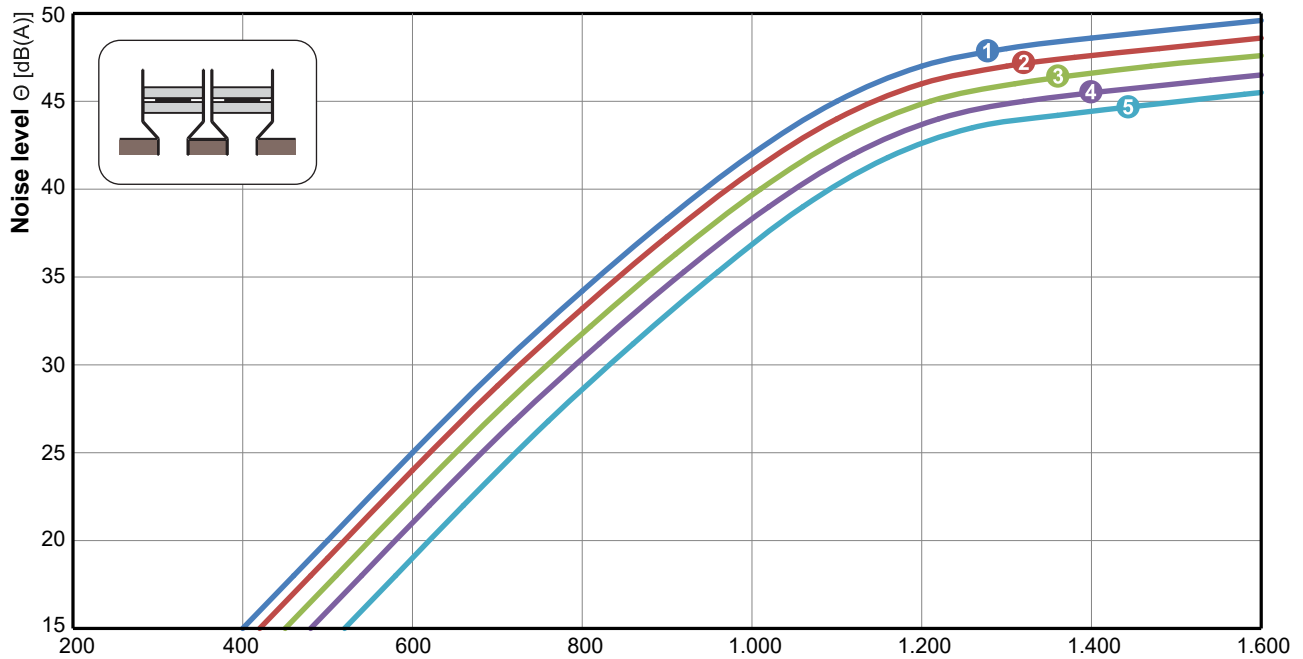
- 1 STS 1R 10    2 STS 1R 15    3 STS 1R 20    4 STS 1R 25    5 STS 1R 30



Air flow per meter Q [m³/h]

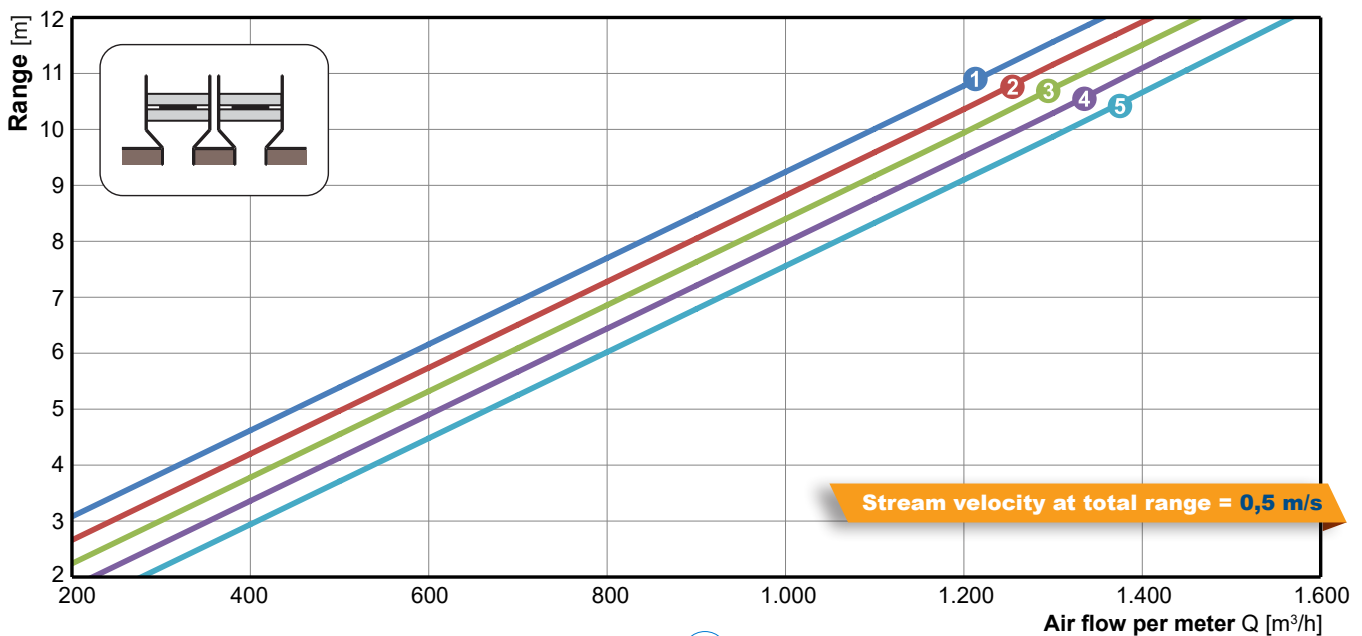
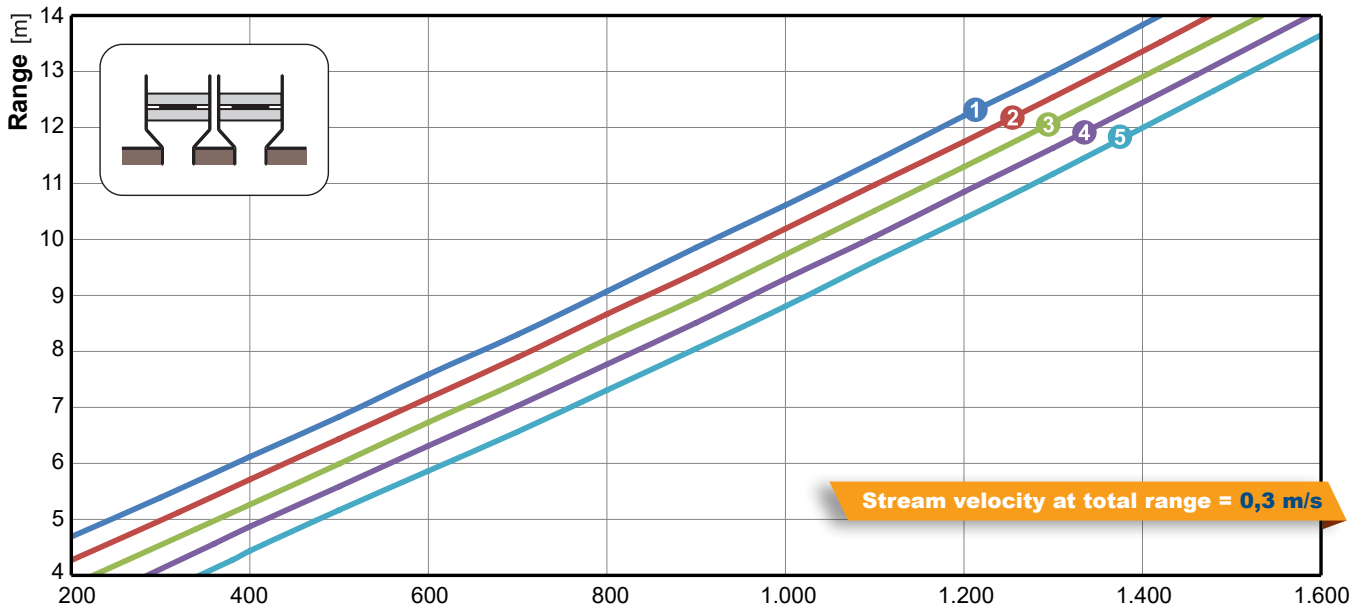
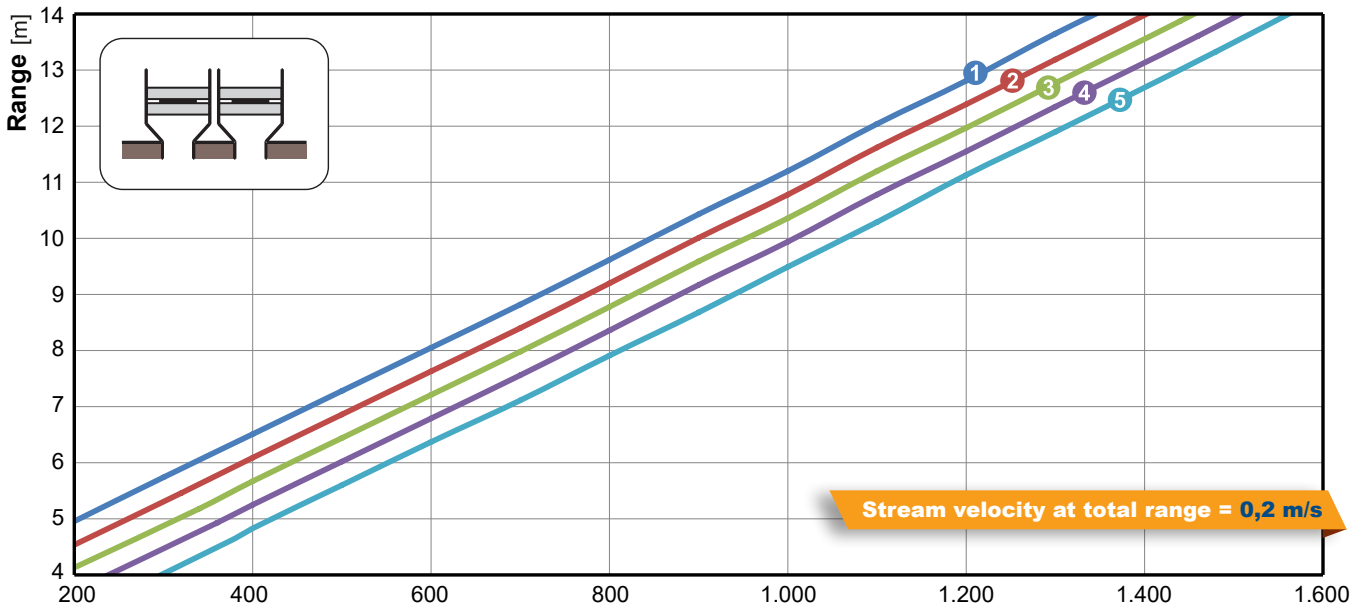
**PRESSURE DROP & NOISE CALCULATION STS 2R**

① STS 2R 10    ② STS 2R 15    ③ STS 2R 20    ④ STS 2R 25    ⑤ STS 2R 30



**RANGE CALCULATION STS 2R**

- 1 STS 2R 10    2 STS 2R 15    3 STS 2R 20    4 STS 2R 25    5 STS 2R 30

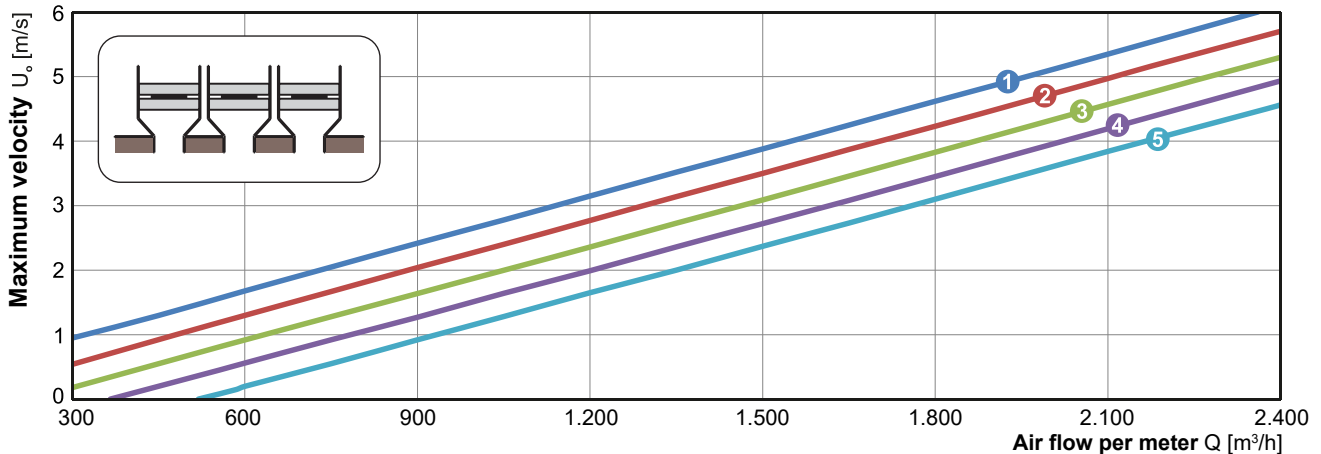
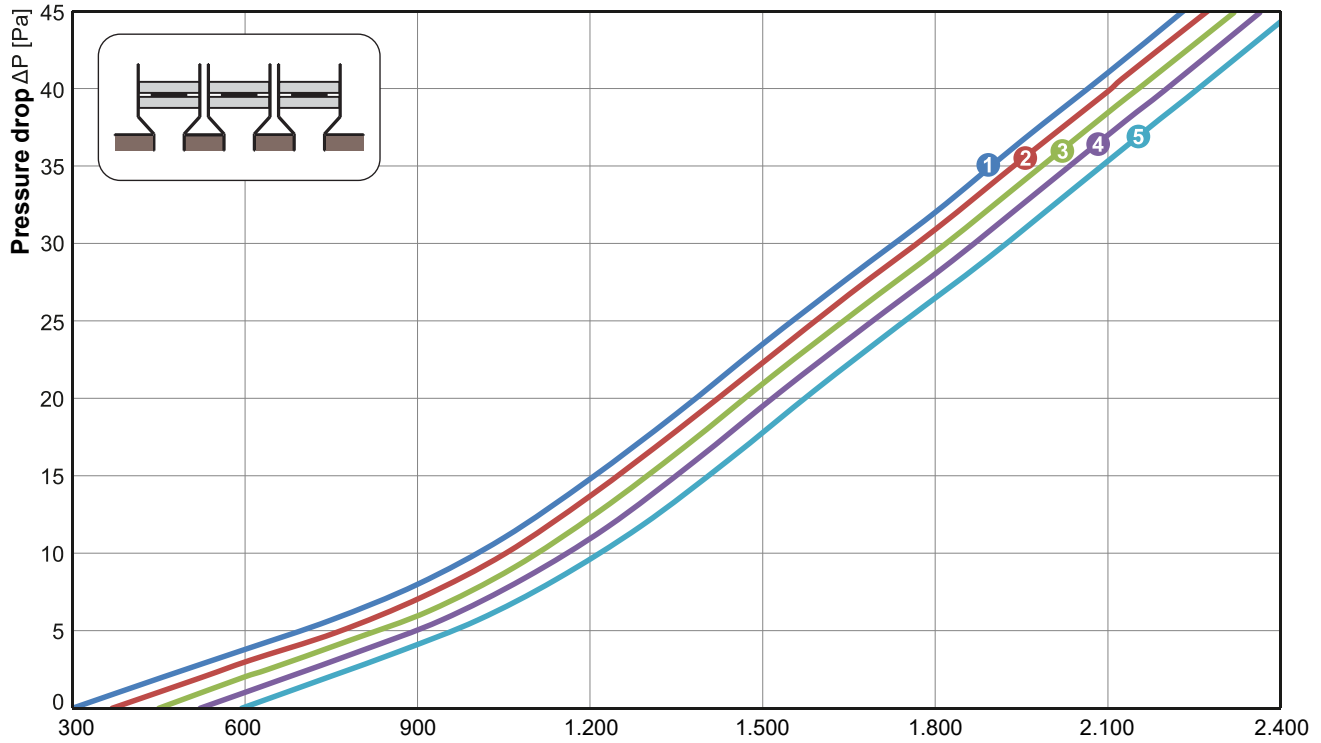
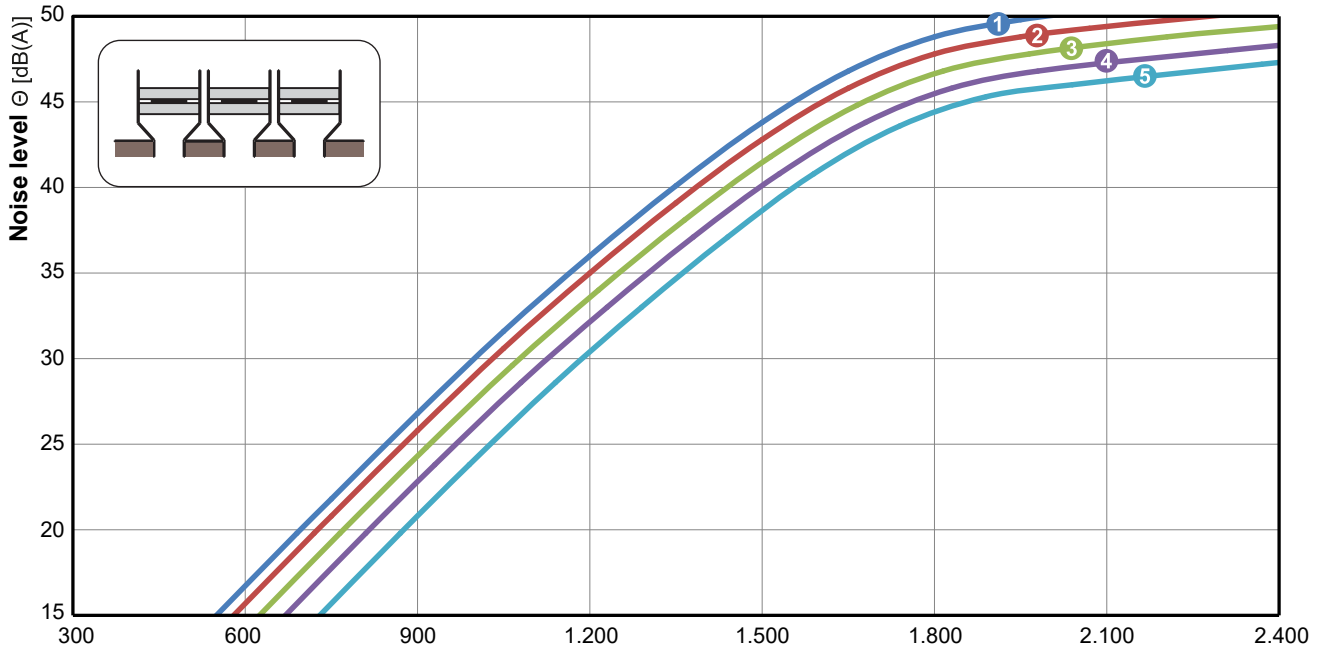


The 2R and 3R STS range diagrams apply only for air supply in the same direction from all slots (parallel streams).  
In case of air supply with different directions from each slot, the range is calculated via the diagrams of 1R and / or 2R (if, for example, at the 3R STS air outlet the 2 streams are parallel).



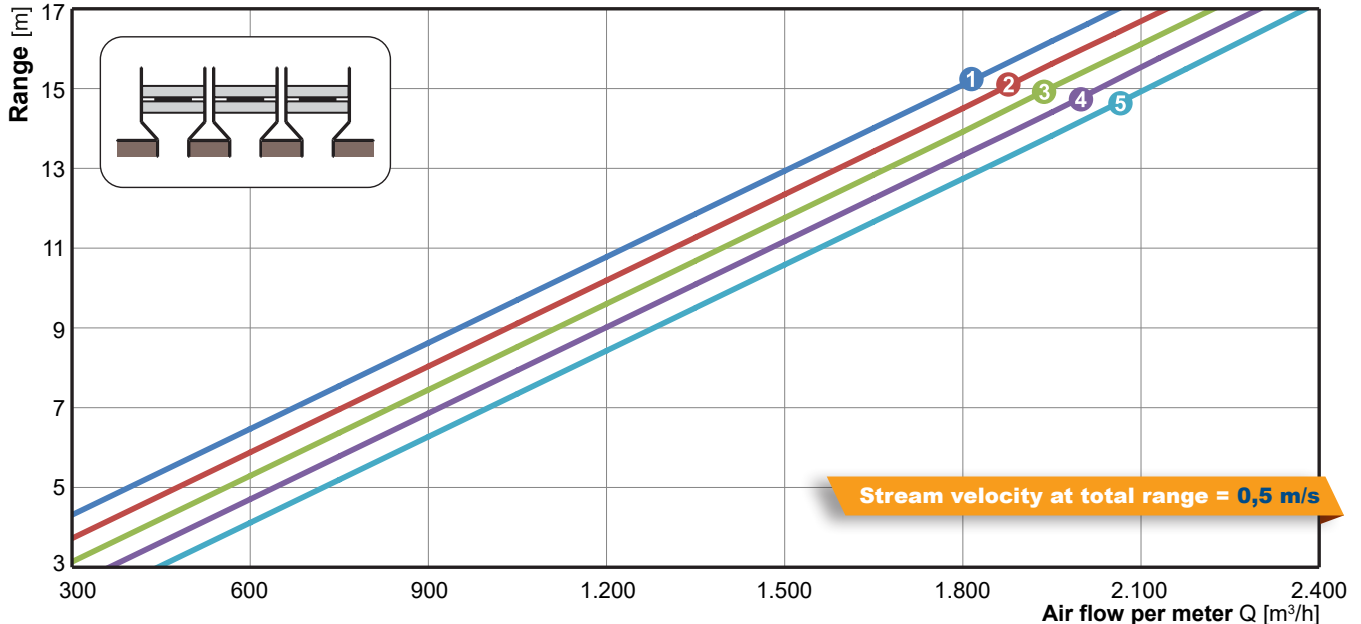
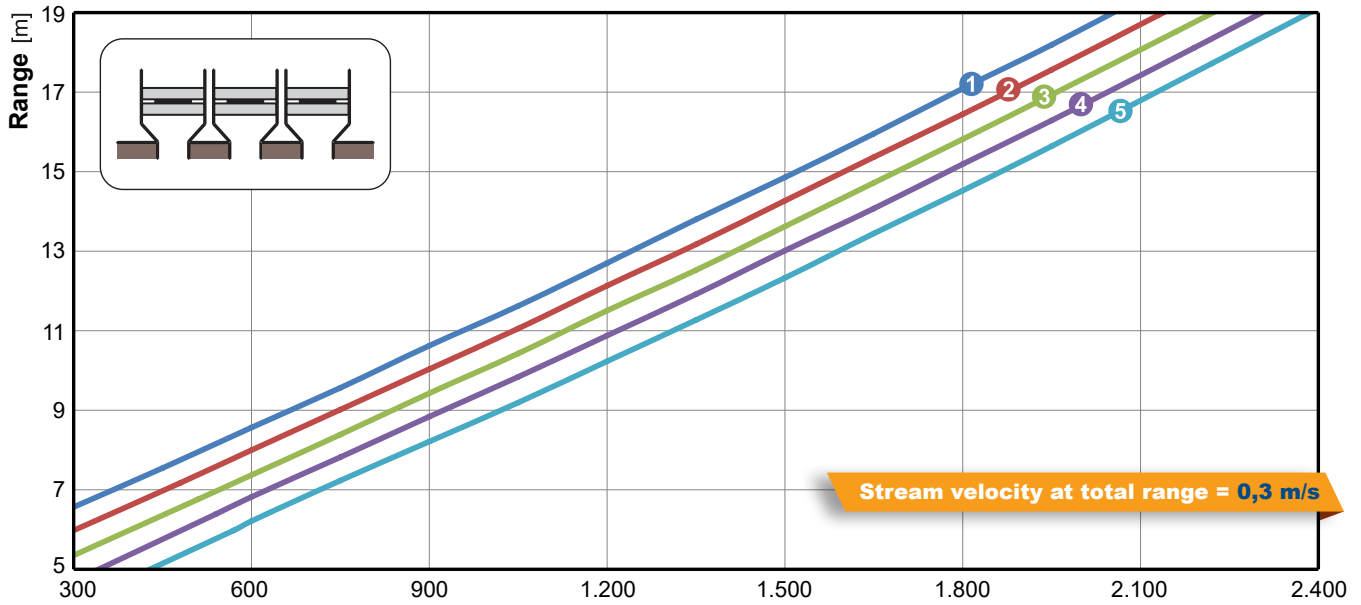
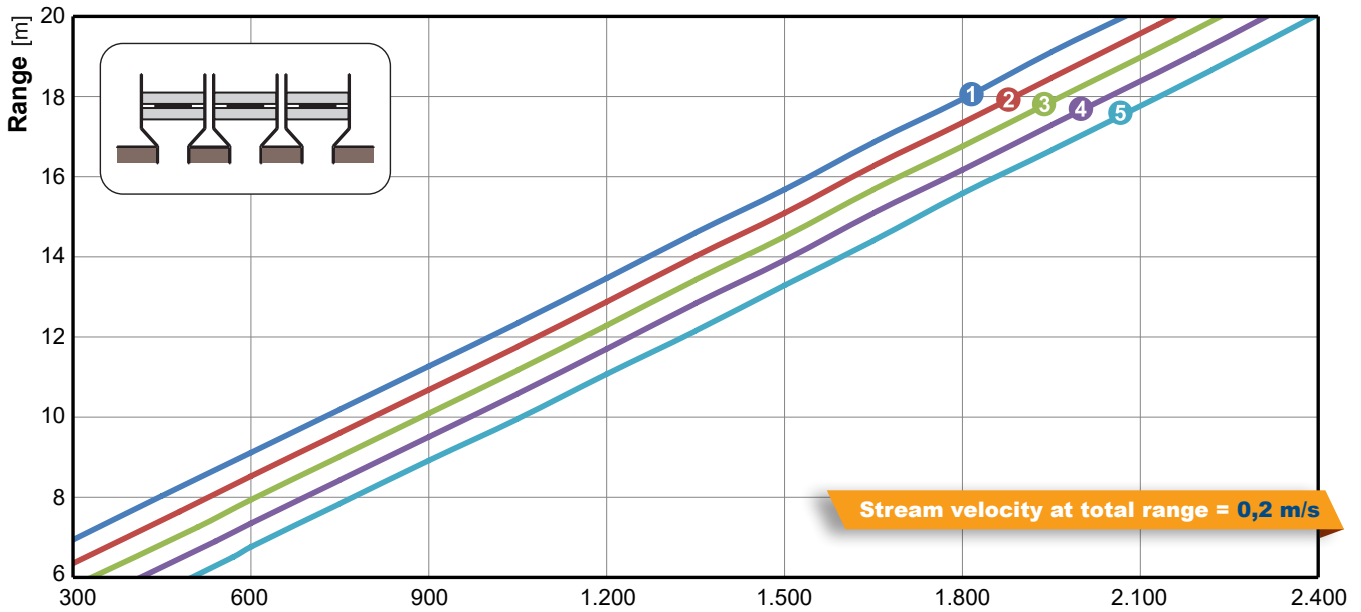
**PRESSURE DROP & NOISE CALCULATION STS 3R**

1 STS 3R 10   2 STS 3R 15   3 STS 3R 20   4 STS 3R 25   5 STS 3R 30



**RANGE CALCULATION STS 3R**

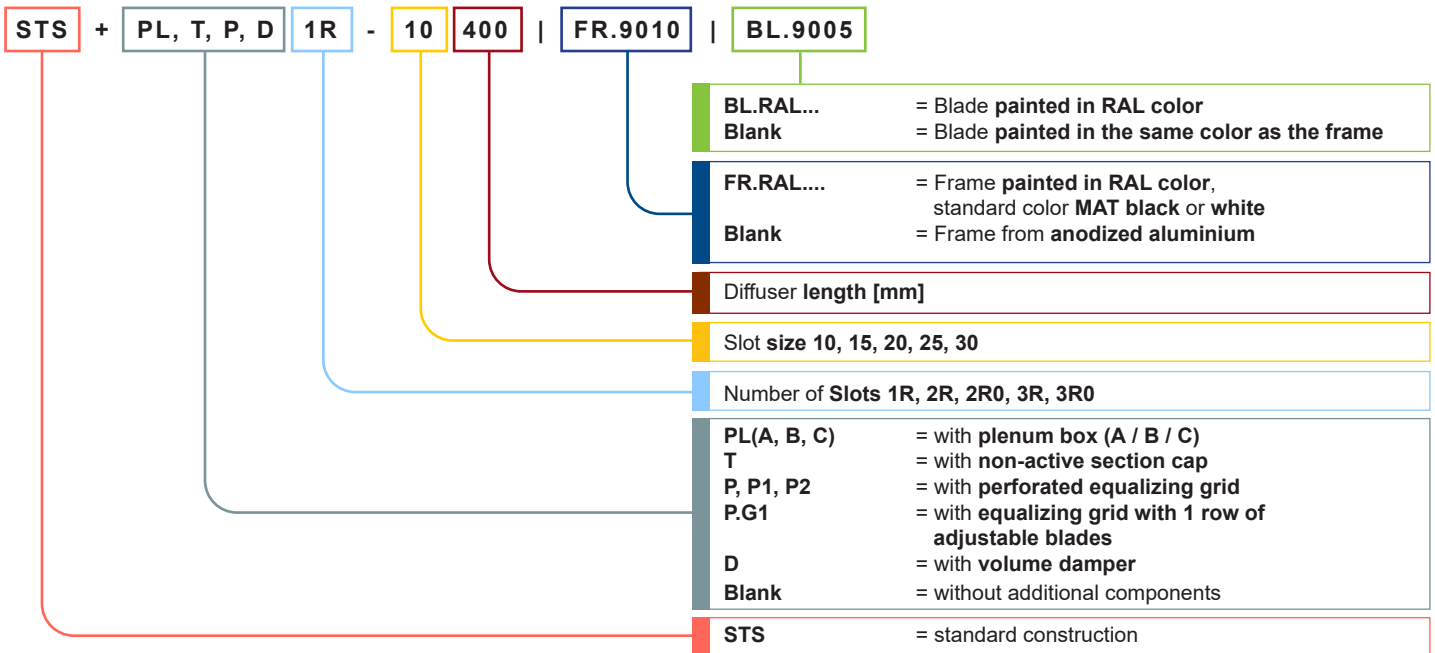
- 1 STS 3R 10   2 STS 3R 15   3 STS 3R 20   4 STS 3R 25   5 STS 3R 30



The 2R and 3R STS range diagrams apply only for air supply in the same direction from all slots (parallel streams).  
In case of air supply with different directions from each slot, the range is calculated via the diagrams of 1R and / or 2R (if, for example, at the 3R STS air outlet the 2 streams are parallel).

## ORDERING SLOT DIFFUSERS STS

For the proper order of slot diffusers **STS** please use the following code :



### Examples

#### **STS+PL(A) 2R-15 2.500 | FR.9005 =**

Slot diffuser STS with 2 slots, size 15, 2,5 m in length (2.500 mm), with plenum box type A, frame and blade from aluminium powder painted in RAL 9005 color.

#### **STS+P 1R-25 2.000 | FR.9005 | BL.9010 =**

Slot diffuser STS with 1 slot, size 25, 2 m in length (2.000 mm), with perforated equalizing grid type P, frame from aluminium powder painted in RAL 9005 color and blade from aluminium powder painted in RAL 9010 color.

## SPECIFICATION



### Slot diffuser with adjustable blade, STS

Slot diffuser without visible external frame, indicative type **STS** by **AIRTECHNIC**, manufactured of anodized aluminum / aluminum painted in MAT black color / in RAL... color, with 1, 2 or 3 slots (1R, 2R or 3R) size 10/15/20/25/30. Inside the slot there will be a manually adjustable blade manufactured of anodized aluminum / aluminum painted in MAT black color / in RAL... color, placed parallel to the length of the diffuser which will allow adjusting the air supply to the left or right. The blade will have aluminum bearings painted in RAL 9005 MAT color with a type "Ω" gasket from hard and soft black PVC and springs in order to achieve a silent sliding without vibrations. The manufacturer will have performed measurements of the technical characteristics of the grille, in an independent laboratory. It will have a volume damper [D] / equalizing grid with 1 row of adjustable blades [P.G1] / perforated equalizing grid type P/P1/P2 [P/P1/P2] / non-active section cap [T] / plenum box type A/B/C [PL(A/B/C)]. It will be suitable for ceiling placement and installation with screws on the plenum box. The factory will be certified according to **ISO 9001:2015** (Quality Management Systems) and according to **ISO 14001:2015** (Environmental Management Systems).

It will be manufactured by **AIRTECHNIC** type **STS / STS +D, +P.G1, +P/P1/P2, +T, +PL(A/B/C)**



ISO 9001:2015



ISO 14001:2015

Management System  
ISO 14001:2015  
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2024-05-24



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