

VSR

- Vertical Stack Rail System

TECHNICAL DATA

Unit specification

The VSR system is used on commercial trucks, in fire and rescue stations for vehicles with vertical exhaust pipes. The system can be used single or two in tandem. Can also be used for "drive through systems".

Material

Aluminium profile.

Installation

On ceiling or wall.

Maintenance

Normal wear, no maintenance required.
See owner's manual.



Prod.no	Extraction rail length	Rail rubber seal	Rail Splice	Exhaust pipe catcher	Back-in connection	Drive-through connection
VSR-6	5.8 m / 19.0 ft	12 m / 38.4 ft	-	1 pc	1 pc	-
VSR-9	8.8 m / 28.8 ft	18 m / 57.6 ft	1 pc	1 pc	1 pc	-
VSR-12	11.6 m / 38.0 ft	24 m / 76.8 ft	1 pc	1 pc	1 pc	-
VSR-12-D	11.6 m / 38.0 ft	24 m / 76.8 ft	1 pc	2 pcs	-	1 pc
VSR-15	14.6 m / 47.8 ft	30 m / 96.0 ft	2 pcs	1 pc	1 pc	-
VSR-15-D	14.6 m / 47.8 ft	30 m / 96.0 ft	2 pcs	2 pcs	-	1 pc
VSR-18	17.4 m / 57.0 ft	36 m / 115.2 ft	2 pcs	1 pc	1 pc	-
VSR-18-D	17.4 m / 57.0 ft	36 m / 115.2 ft	2 pcs	2 pcs	-	1 pc
VSR-21	20.4 m / 66.8 ft	42 m / 134.4 ft	3 pcs	1 pc	1 pc	1 pc
VSR-21-D	20.4 m / 66.8 ft	42 m / 134.4 ft	3 pcs	2 pcs	-	2 pcs
VSR-24	23.2 m / 76.0 ft	48 m / 153.6 ft	3 pcs	1 pc	1 pc	1 pc
VSR-24-D	23.5 m / 76.0 ft	48. m / 153.6 ft	3 pcs	2 pcs	-	2 pcs



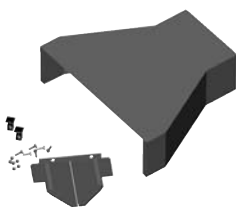
ER-5.8
Extraction rail.



VSR-BIC
Back-in connection.



VSR-DTC
Drive-through connection.



VSR-CAT
Exhaust pipe catcher.



ERS
Extraction rail splice.



ERRS-X
Low friction rubber seal.

PRESSURE LOSS

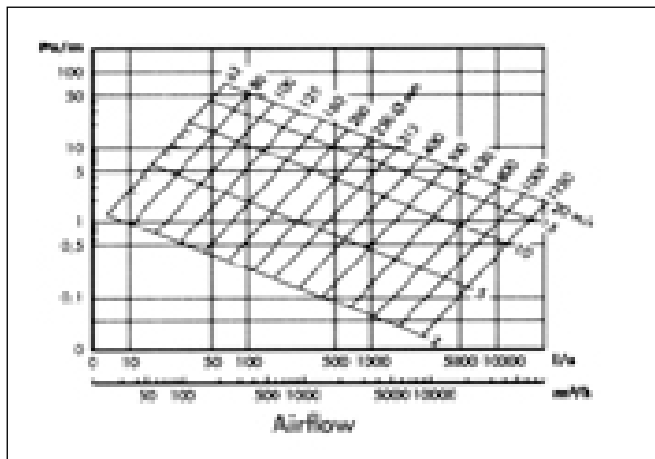
The diagram shows the pressure loss in ducting at different airflows.

Recommended airflows:

Chief and officer vehicle	360 m ³ /h (210 cfm)
Fire truck up to 10 l engine	720 m ³ /h (420 cfm)
Fire truck up to 16 l engine	1070 m ³ /h (630 cfm)
Fire truck up to 24 l engine	1800 m ³ /h (1060 cfm)

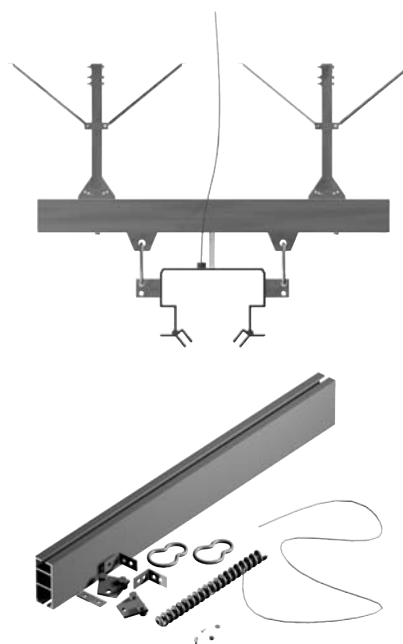
Recommended air velocity:

In ducting 10 - 15 m/s (2000 - 3000 fpm)



SUSPENSIONS

The suspensions for the VSR system will make sure that the rail is hanging freely, and able to move sideways as the vehicle drives or backs into the premises. The rail being able to move 30 cm / 11.8" sideways together with shape of the catcher, makes the system flexible and easy for the driver to handle. A centering spring makes sure that the rail returns to its position after the vehicle has left. The system is delivered with a kit containing suspension profile, 2 suspension brackets and trolleys, 1 centering spring, safety wire, trolley stops and hardware for one suspension point. The length of the rail determines the number of suspensions, see below.



Prod.no	Number of suspensions
VSR-6	2 pcs
VSR-9, -12, -15	3 pcs
VSR-18, -21	4 pcs
VSR-24	5 pcs

ACCESSORIES

PC-500

Pressure sensor for automatic exhaust fan start. A minimum of two sensors required per rail. To be used together with control unit, PC-1000.

PCU-1000/OS3

Automatic control unit for exhaust fan control. The exhaust fan can be manually controlled or automatically controlled by pressure sensor, PC-500.



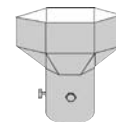
ASE-12 E

Fully automatic, motorized damper, Ø 160 mm / 6.3", with built-in energy saver. Opens / closes in 10 - 15 seconds. Adjustable delay 7 seconds to 6 minutes.



Exhaust cone

Stack adaptor cone that comes in the diameters from 75 mm - 125 mm / 3" - 5".



Fan

See separate data sheets

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