PLYMOVENT®	SCHEDA TECNICA	BSAB no: T3.1 Ser. no: VSR Date: Jan 01 Replace:Aug 95
VERTICAL STACK RAIL	© Copyright 1997: All rights reserved. All information within this printed matter may not be reproduced, handed over, copied, xeroxed or translated into another language in any form or means without written permission from PlymoVent AB. PlymoVent AB reserves the right to make design changes.	

Vertical Stack Rail



Area of use:

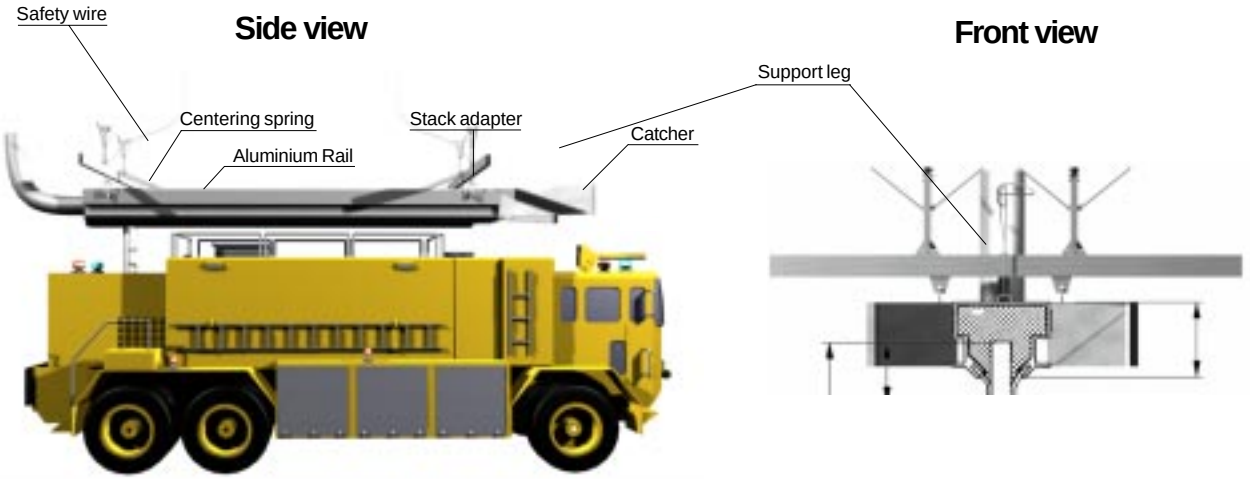
The VSR system is used in fire and rescue stations on vehicles with vertical (top) exhaust pipes. The system can be applied to single or multiple lines of vehicles per bay and also for ''drive through systems''.

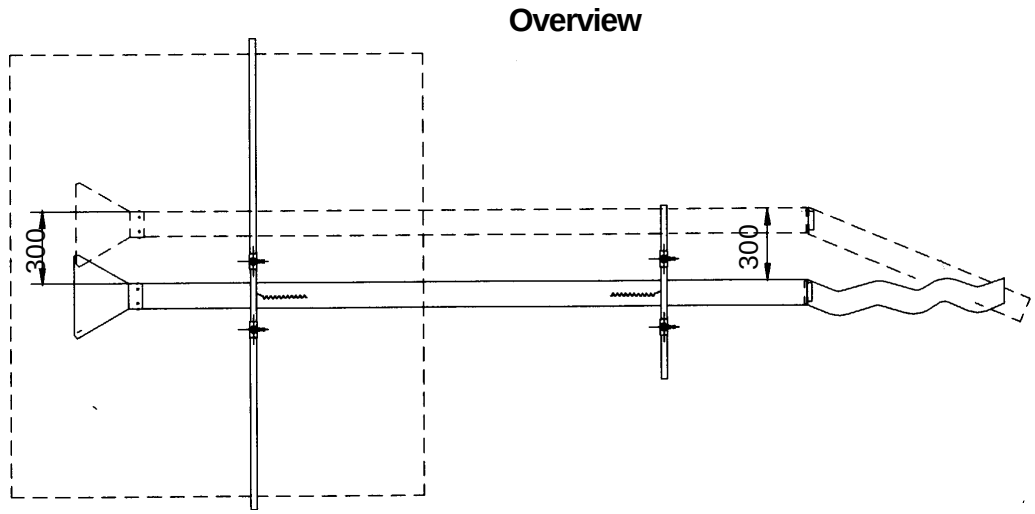
Method of Operation.

An automatic, mechanical exhaust gas extraction system, specially designed for fire and rescue vehicles with top exhaust pipes. The system is used to remove the poisonous petrol and diesel gas fumes direct at the emission source, the exhaust pipe.
When the vehicles reverse or drive in to the fire station, a ”catcher” box picks up on the special tapered connection on the vertical exhaust pipe, aligning itself on the aluminium profile both upwards and sidewards.
As the vehicles continue into the station, the exhaust pipe glides along the rubber sealed profile until the vehicle is parked. All of the poisonous exhaust gases being contained in the profile under vacuum, to be extracted by a fan to the outside of the building.
Upon a call-out, the vehicles glide out of the profile in a similar way, and the track resumes it’s natural position by the use of mounting springs.

The VSR System consist of a strong rectangular aluminium profile with a section area of 280 cm2. The underside of the rail is an open area sealed with rubber lips. The profile is hung in two (2) bearing loaded trolleys at each support. The profile is connected to the ducts system by a 160 mm flexible hose. The front opening of the profile has a V formed catcher to accommodate the stack adapter, mounted on the vertical exhaust pipe. The exhaust cone converts the round shape of the exhaust pipe to be flat without changing the section area. As the returning fire engine drives in to the station the catcher and the profile align themselves to the exhaust pipe position.

This movement is created via the bearing loaded runners sliding in the C profile of the support leg. The C-profile hangs in two adjustable vertical legs mounted to the general roof structure. The support legs allow the VSR to have a lateral movement from two separate points of 300 mm to either side. As the fire engine drives out of the station the exhaust pipe glides along the profile, between the rubber lips, up to the point the vehicle drives out of the station. A spring is connected between the support legs C-profile and aluminium profile to move the rail into its central rest position.The VSR System is equipped with safety wires capable of carrying the complete system.





Advantages

- 300 mm lateral movement to either side.
- Flexible duct connection.
- Sealing rubber lips; negative pressure.
- Automatic return to position after lateral movement.
- A fully automatic system.
- Sequrity wire, fail safe.
- Adjustable support legs.
- Expandable system to almost any length.
- Stack adapter designed for both empty and loaded vehicles.
- Suitable for existing fire stations and new design build stations.