STR – Straight Rail

PLYMOVENT®
VEHICLE EXHAUST REMOVAL SYSTEMS

STR for vehicles utilizing drive through apparatus bays

The STR is the solution for drive-through bays or when vehicles are parked in tandem. The standard design of the STR will allow you to park up to four vehicles in the same bay.



Features and Benefits

- Models to handle up to 38 m/125 ft
- Exhaust hose sizes for all vehicle types
- Auto-disconnect at exit door
- Door-to-door removal of harmful emissions
- Speed absorbing shock system
- Front and rear door release
- Automatic hose return
- Expandable design









Method of Operation

An automatic, controlled pneumatic exhaust gas extraction system, specially designed for fire and rescue vehicles in long appliance bays or multiple vehicles in line with side or rear high 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 are on their way out of the station, the extraction hose, connected to the exhaust by an inflatable tailpipe nozzle, Grabber®, moves along with the vehicle. Poisonous diesel gases pass from the Grabber®, up the extraction hose and into the round aluminium profile, through the ducting and extraction fan before escaping to the atmosphere. As the vehicles drive out through the doors, the trolley moves over a trip plate on the track, which releases the air pressure in the Grabber®, allowing it to disconnect from the exhaust pipe.



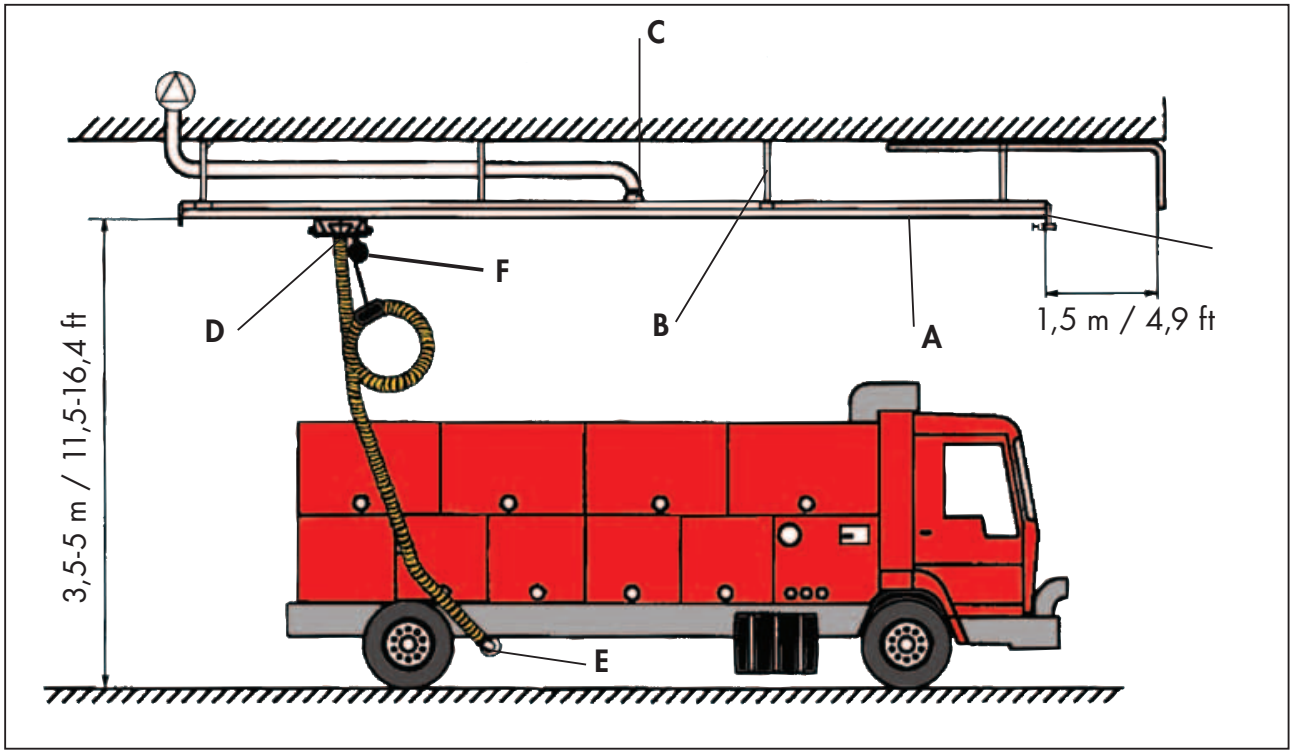


Advantages

- The system will allow up to four vehicles in tandem.
- Adjustable release points depending on the speed of the call-out vehicle.
- The system can be extended up to 46 m/150 ft.
- Adjustable mounting supports.
- Automatic start-stop of fan by exhaust gas sensor.
- 100% source capture through a unique pneumatic Grabber®, to suit different sizes of exhaust pipes.
- Pre-fitted yellow/black extraction hose.
- Safety disconnect coupling; fail safe system, easily reconnectable.
- Suitable for existing fire stations and new design build stations.

The crab and hose follows the vehicle the full length of the system

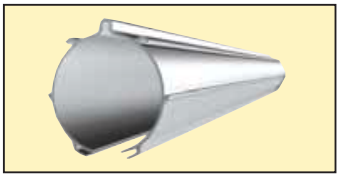
The system allows for flexibility in stations with multiple vehicles in line with side or rear high exhaust pipes. It removes the poisonous petrol and diesel gas fumes direct at the emission source, the exhaust pipe.



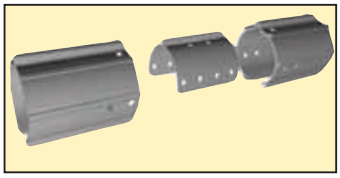
A	Aluminium track	**E**	Grabber®
B	Support leg	**F**	Balancer block
C	Duct connector	**G**	Hydralic shock absorber
D	Crab with hose assembly		

Product description

The STR system consists of a special and easily visable extraction hose assembly with a PlymoVent Grabber®, an inflatable rubber bladder. The Grabber® is filled with compressed air and makes a total seal around the exhaust pipe for 100% capture of emissions. The extraction hose has an built-in safety disconnect coupling and a Manual Fill Deflation valve. It is suspended on a balancer block, safety hung from on a special crab, running inside the aluminium profile mounted above and to the side of the vehicle. The aluminium rail has a circular design with an open section of 200 cm^2/31 in^2. The underside of the profile is sealed by rubber lips. Upon an alarm call the hose assembly and the crab travel along the profile with the vehicle. When the crab strikes a trip plate the air pressure immediately releases in the Grabber®, resulting in a disconnection of the Grabber® from the exhaust pipe at the exit. The crab hits the hydralic shock absorber, taking up the kinetic energy from the crab and the hose assembly. On the return of the vehicle to the station, the Grabber® is connected to the exhaust pipe in the standing position and activated by simply pressing the Manual Fill Deflation valve as the vehicle enters the building. At the same time the fan automatically starts and the vehicle continues to its rest position.



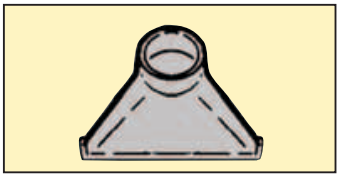
Aluminium profile. *Available in standard lengths; 5.8 m/19 ft and 3 m/9.8 ft, or order by the meter.*



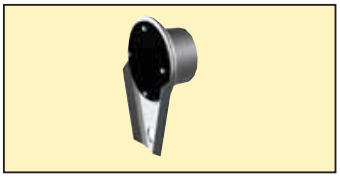
Rail splice*, for connecting profiles.*



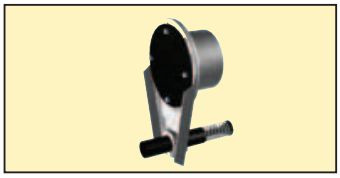
Low friction rubber seal, *ordered by the meter.*



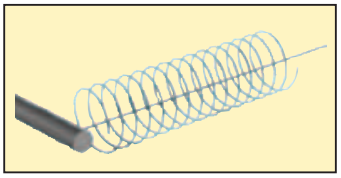
Duct connection, *Ø 200 mm/8".*



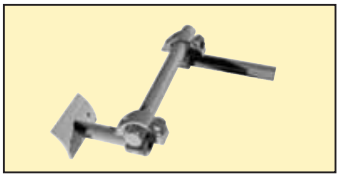
Closed end stop.



Round Rail Industrial end stop.



Coiled airline *and wire.*



Coiled airline storage magazine.

TECHNICAL DATA

The **STR system** consists of;

Prod. no	Aluminium profile, length, m/ft	Low friction rubber seal	Rail splice	Duct connection Ø 200 mm	Closed end stop	Round Rail Industrial end stop	Coiled airline m / ft	Coiled airline storage magazine: Wire m / ft	Coiled airline storage magazine
STR-9	8,8 / 28.8	18 m/57.2 ft	1 pc	1 pc	1 pc	1 pc	10 / 32	10 / 32	1 pc
STR-12	11,6 / 38.0	24 m/76.8 ft	1 pc	1 pc	1 pc	1 pc	16 / 51	16 / 51	1 pc
STR-15	14,6 / 47.8	30 m/96 ft	2 pcs	1 pc	1 pc	1 pc	16 / 51	16 / 51	1 pc
STR-18	17,4 / 57.0	36 m/115.2 ft	2 pcs	2 pcs	1 pc	1 pc	25 / 80	25 / 80	1 pc
STR-21	20,4 / 66.8	42 m/134.4 ft	3 pcs	2 pcs	1 pc	1 pc	25 / 80	25 / 80	1 pc
STR-24	23,2 / 76.0	48 m/153.6 ft	3 pcs	3 pcs	1 pc	1 pc	25 / 80	25 / 80	1 pc
STR-27	26,2 / 85.8	54 m/172.8 ft	4 pcs	3 pcs	1 pc	1 pc	31 / 99	31 / 99	1 pc
STR-30	29,0 / 95.0	60 m/192 ft	4 pcs	3 pcs	1 pc	1 pc	31 / 99	31 / 99	1 pc

Note*: Support leg, Side brace clamp kit, Side brace and Mounting kit are included.*
Fan and fan control device to be added individually depending on application.

Internal crab including balancer and ICCA-kit

Prod. no	Description
ICCA-100	Internal Crab for automatic disconnection, Ø 100 mm / 4"
ICCA-125	Internal Crab for automatic disconnection, Ø 125 mm / 5"
ICCA-150	Internal Crab for automatic disconnection, Ø 150 mm/ 6"



The **Hose package** consist of the following:
Exhaust hose with suspension halter, Safety Disconnect Coupling and Grabber® nozzle.

Prod. no	Hose length	Hose connection	Grabber®
HPA-100-6-160	6 m / 19.7 ft	Ø 100 mm / 4"	Ø 160 mm / 6.25"
HPA-100-6-120	6 m / 19.7 ft	Ø 100 mm / 4"	Ø 120 mm / 4.8"
HPA-100-6-100	6 m / 19.7 ft	Ø 100 mm / 4"	Ø 100 mm / 4"
HPA-125-6-160	6 m / 19.7 ft	Ø 125 mm / 5"	Ø 160 mm / 6.25"
HPA-100-10-160	10 m / 32.8 ft	Ø 100 mm / 4"	Ø 160 mm / 6.25"
HPA-100-10-120	10 m / 32.8 ft	Ø 100 mm / 4"	Ø 120 mm / 4.8"
HPA-160-10-160	10 m / 32.8 ft	Ø 160 mm / 6.25"	Ø 160 mm / 6.25"

