

SLIDING BALANCER TRACK SYSTEM - (SBT)


RAIL SYSTEMS

The SBT system is designed to connect to a vehicle tailpipe and capture virtually 100% of vehicle exhaust emissions. The SBT is fully automatic, from the fan activation to the automatic nozzle release from the exiting vehicle. Designed for either a single back-in or drive-through bay, SBT can handle bays up to 72 ft. (18.3 m) from door to door.

SBT features a square aluminum track and trolley, and supports either a 4 or 5 in. (100 or 125 mm) exhaust hose.



APPLICATIONS

For Fire and EMS stations in which vehicles are started indoors; the SBT nozzle remains attached to the vehicle as it travels through the bay and automatically disconnects from the vehicle as it exits. 

SPECIFICATIONS

■ Air Volume

The SBT supports air volumes as high as 1040 cfm (1800 m³/h).

■ Maximum Length

Back-In: up to 66 ft (20 m) from exit door to tailpipe (determined by hanging height).

Drive-Through: up to 72 ft (22 m) from door to door (determined by hanging height).

■ Energy Efficiency

- Automatic start-stop of energy-efficient fan by pressure sensor.

■ Height Requirements

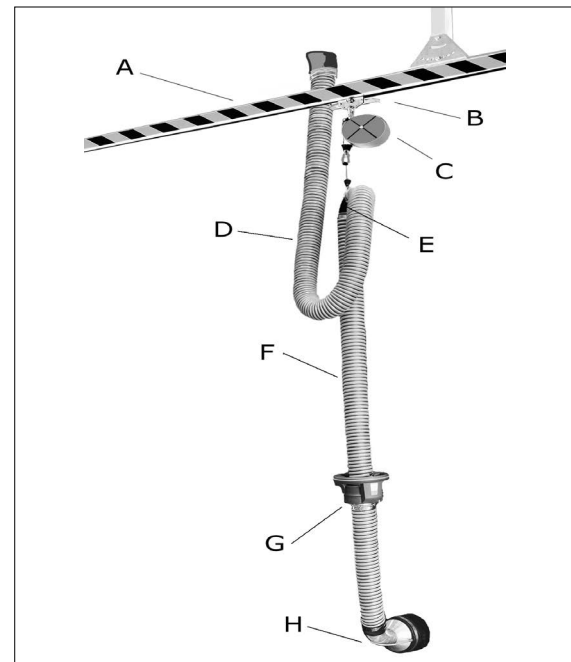
Track should be mounted 12 to 14 ft (3,7 to 4,2 m) from the floor.

■ Facility and Vehicle Requirements

- Supports back-in and drive-through connections
- Vehicles with undercarriage tailpipes

■ Occupational Health Benefits

- Protects operators and service personnel from harmful exhaust emissions.
- Operator can connect nozzle to the vehicle while standing in an upright position, further limiting exposure to harmful exhaust emissions.



CONSTRUCTION

- Aluminum track is 19 ft (5,8 m) in length, and custom cut to fit your application; includes Plymovent hazard stripe tape
- Steel trolley that travels inside the track
- Non-locking spring recoil balancer
- Upper hose
- Metal Saddle
- Mid Hose
- Safety Disconnect Handle and 2 ft. (610 mm) Lower Hose
- Pneumatic or Magnetic Grabber® (Tailpipe adapter for vehicle not shown)

PRESSURE LOSS

The diagrams to the right show the pressure loss at two different airflows, based on hose diameter, hose length and rail length. The pressure loss for each system may vary.

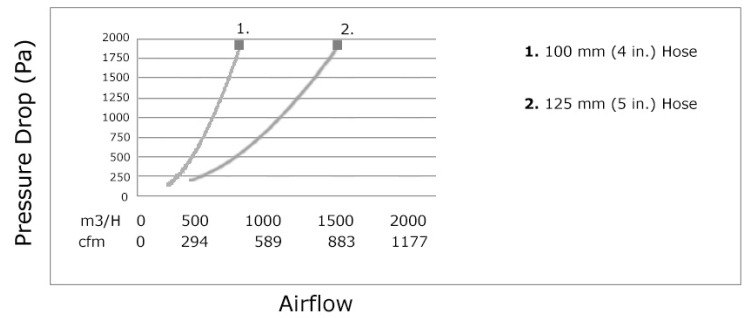
Recommended Airflows:

Cars: 210 cfm (360 m³/h)
4 in. (100 mm) hoses: 340-400 cfm minimum
5 in. (125 mm) hoses: 540-600 cfm minimum

Recommended Air Velocity:

In ducting: 3000 - 4000 fpm (15 - 20 m/s)

Pressure Loss for SBT



COMPONENTS

Internal Trolley

The SBT steel crab trolley travels inside the SBT track and allows the balancer and hose assembly to slide in a safe and effective manner.



Balancer

The non-locking spring recoil balancer controls the point at which the Grabber disconnects from the tailpipe. As the hose reaches its maximum length, the balancer locking cable will bottom out, in turn pulling the nozzle from the moving vehicle.



Hose Package

The hose package consists of the following:

- upper hose and metal saddle
- mid-hose
- lower hose with Safety Disconnect Handle, designed with a round handle and large grips, and Grabber[®] nozzle.

Hose Length:

Lengths are available in 19.7 ft (6 m) to 32.8 ft (10 m).

Hose Diameter:

Diameters range from 4 (125 mm) to 6.3 in. (150 mm)



Grabber[®]:

Two Grabbers are available, based on operator preference and station design:

- The Magnetic Grabber[®] nozzle incorporates a self-aligning conical design with integrated magnets.
- The Pneumatic Grabber[®] connects to the vehicle exhaust pipe via an inflatable rubber bladder.

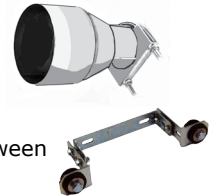
SUSPENSIONS

Vertical and Horizontal Leg Suspension items must be ordered separately, based on a wall or ceiling mounting.

ACCESSORIES

Tailpipe Reducer & Bracket

The tailpipe reducer easily converts an exhaust tailpipe to a larger size so that the conical tailpipe adapter can be installed. In addition, a tailpipe support bracket ensures a secure connection between the tailpipe and body / chassis.



PC-500 Pressure Sensor:

Pressure sensor for automatic exhaust fan start.



Fans:

See separate data sheets for F-Series and TEV fans and mounting kits.

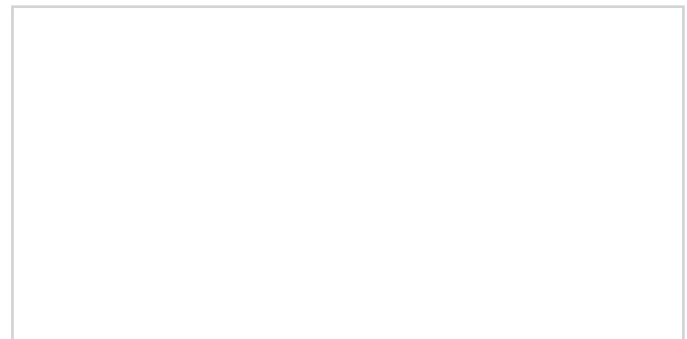


Starter OS-3:

Automatic control unit for exhaust fan, which can be controlled via pressure sensors or wireless transmitters.



Plymovent Authorized Distributor:



Product type	SBT[™]
Article no.	see remaining specifications
Product category	rail systems
Version	120618/1
Always check the latest version on www.plymovent.com	