

MagnaRail

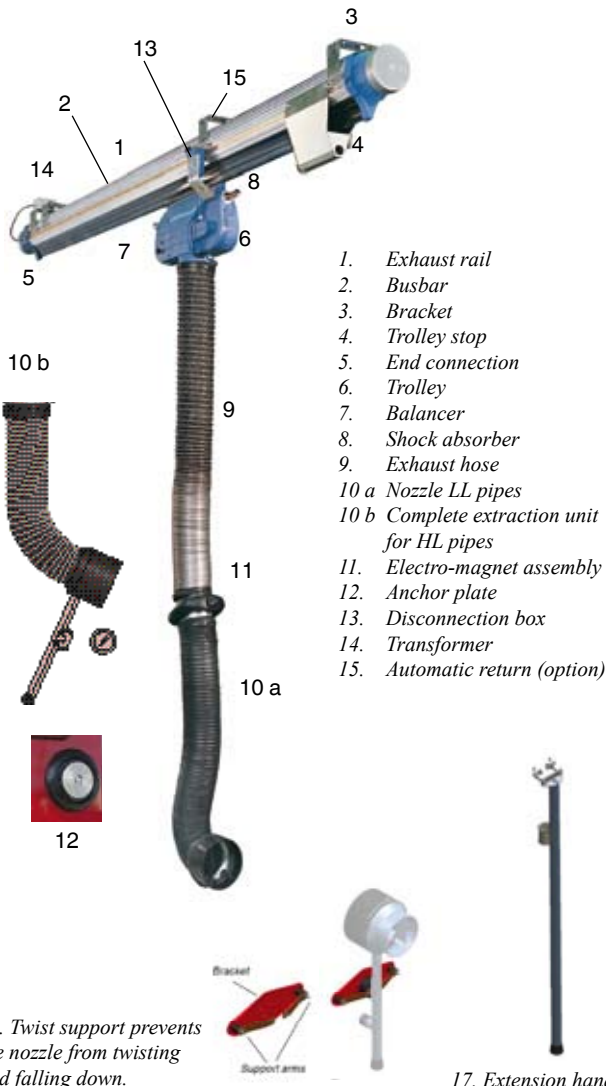
Exhaust extraction system for emergency stations with highest operational requirements



MagnaRail is a high capacity system designed to handle highest operational requirements. Up to four vehicles can be attached to the same rail each with a designated disconnection point. For a drivethrough application for vehicles with either high level or low level tail pipes. The suction rail is formed in a configuration such that the extrusion serves not only as an exhaust duct, but also as the guide rail that the extraction trolley travels in. The rail is available in up to 30 m.

The fan/duct work can be connected to the rail via either an end outlet or one/several top outlets (depending on length of rail).

- Capacity: up to 4 vehicles at a time
- Exhaust pipes: low level or high level
- High exit speed: up to 25 km/h - 15 mph
- For reverse-in or drive-through



1. Exhaust rail
2. Busbar
3. Bracket
4. Trolley stop
5. End connection
6. Trolley
7. Balancer
8. Shock absorber
9. Exhaust hose
- 10 a Nozzle LL pipes
- 10 b Complete extraction unit for HL pipes
11. Electro-magnet assembly
12. Anchor plate
13. Disconnection box
14. Transformer
15. Automatic return (option)

16. Twist support prevents the nozzle from twisting and falling down.

17. Extension handle

MagnaRail track/exhaust rail (1)			
Including: Busbar (2), Brackets (3), Trolley stop (4), End connection (5), Transformer (14)			
Length, m / ft	Part no	Length, m / ft	Part no
2.5 / 8.2	20813864	17.5 / 57.4	20814464
5.0 / 16.4	20813964	20.0 / 65.6	20814564
7.5 / 24.6	20814064	22.5 / 73.8	20814664
10.0 / 32.8	20814164	25.0 / 82.0	20814764
12.5 / 41.0	20814264	27.5 / 90.2	20814864
15.0 / 49.2	20814364	30.0 / 98.4	20814964

MagnaRail Extraction Unit for low level pipes (LL)		
Including: Trolley (6), Balancer (7), Shock absorber (8), Exhaust hose (9), Electro-magnet assembly (11), Anchor plate (12), Disconnection box (13)		
Hose Ø, mm / inch	Hose length, m / ft	Part no
160 / 6.3"	4 / 13.1	20813364
160 / 6.3"	3 / 9.8	20813464
130 / 5.1"	4 / 13.1	20813564
130 / 5.1"	3 / 9.8	20813664

Nozzles for low level (LL) exhaust pipes (10 a)				
Type	Distance exhaust pipe – anchor plate	Hose Ø mm / inch	Hose length mm / inch	Part no
Standard LL	Variable	160 / 6.3"	1000 ± 100 39.4 ± 4"	20802164
HB 600 LL	Fixed	160 / 6.3"	600 ± 100 23.6 ± 4"	20802264
HB 600 LL	Fixed	130 / 5.1"	600 ± 100 23.6 ± 4"	20802364
HB 900 LL	Fixed	160 / 6.3"	900 ± 100 35.4 ± 4"	20802464

Complete extraction unit for high level (HL) exhaust pipes (10 b)		
Extraction trolley, Balancer, Disconnection box, Vertical hose, Electro-magnet assembly, HL nozzle and anchor plate		
Type	Hose length, m / ft	Part no
160 / 6.3"	2 / 6.6	20813764

Accessories for high level nozzles		
Type	Description	Part no
Twist support (16)	Prevents nozzle from twisting and falling down	20374364
Extension handle (17)	1.1 m long	20374359

General Accessories: See other page

Technical specification

Exhaust rail

Material	Aluminum
Sealing lips	EPDM

Busbar

Material	Hardened brass with plastic insulation.
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Trolley

Incl wheels with sealed bearings	
Material in trolley body	PA +30 % Glass
Material in wheels	Hardened brass with plastic insulation

Balancer

Lifting force	120 N
Material in cord	Polyester
Material drum	POM

Vertical exhaust hose

Compressible, with integrated cables to the electro-magnet assembly	
Temp. resistance	-40 to +175°C cont, short term: +190°C
Material	Hypalon with aluminum clip

Electro magnet assembly

Voltage	24 V DC
Effect	1.9 VA
Material	Nitro carburized treated steel

Anchor plate

Material	Nedox treated steel
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Disconnection box

Power indicator	
2 carbon brushes transmitting power from busbar	

Transformer

Prim. voltage	100-230 V 1-phase AC
Sec. voltage	24 V DC
Effect	8 VA

IP Class

Internal Protection	IP 67
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Weight

Rail	6.8 kg/m
Extraction unit	13 kg

Environmental information

Recycling level	100 %
Energy consumption	4 W per extraction unit.

Accessories

General accessories	Part no.
Anchor plate standard	20372003
Anchor plate 2 parts	20371853
Anchor plate 3 parts	20371868
Auto start /stop radio transmitter for vehicle	20801369
Auto start /stop radio receiver	20802669
Transformer 230/24 V 15VA for max 4 trolleys	20374242
Reducer for end connection, Ø 160 mm to Ø 150 mm	20373760
Connection cone top outlet Ø 200 mm	20374246
Motor operated wire return unit	20800844

Fan connection alternatives

For one extraction unit up to 1200 m³/h

End connection included in rail part numbers.
Connection Ø 160 mm.



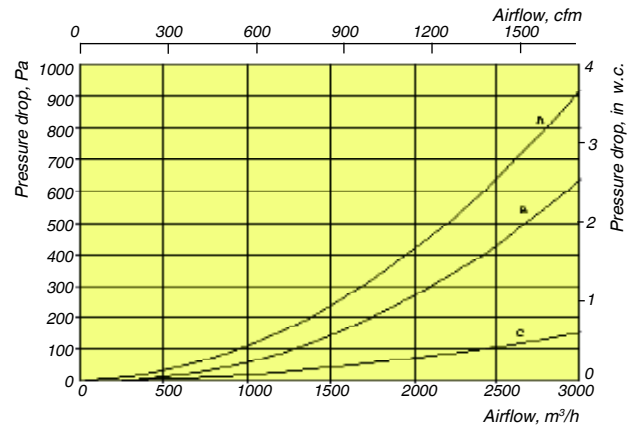
For two extraction units up to 2400 m³/h

Top connection with one cone (option). Connection Ø 200 mm.



Pressure drop

Extraction units



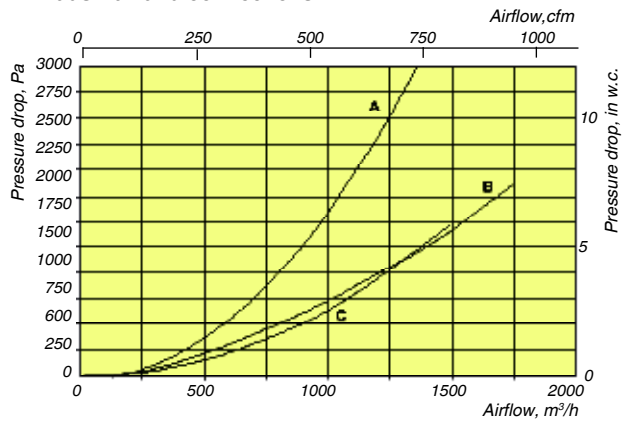
A = Top connection angled, Ø 200 mm
B = End connection
C = Exhaust rail, per metre

Airflow recommendation:

Heavy vehicles: 1000 -1200 m³/h
(590 - 705 cfm)

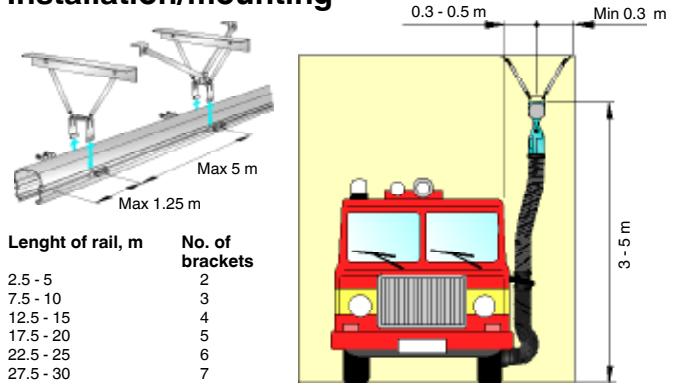
Cars/Suvs: 400-600 m³/h
(235 - 355 cfm)

Exhaust rail and connections



A = Extraction unit LL, hose 4 m, ø130 mm
B = Extraction unit LL, hose 4 m, ø160 mm
C = Extraction unit HL, hose 2 m, ø160 mm

Installation/mounting



N.B. The nozzle for high level (HL) exhaust pipes must be installed at a higher level than the exhaust pipe. The nozzle must be pulled downwards at connection, which will activate the balancer.

For more than two extraction units more than 2400 m³/h

Top connection with two or more cones (option).
Connection Ø 200 mm.



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