PLYMOVENT®
clean air at work
Since 1975

HOSE SELECTION GUIDE

Options for proper vehicle exhaust extraction in your facility.

EVER WONDER ABOUT THE VALUE OF CLEAN AIR?

We do. Exposure to hazardous vehicle exhaust emissions can cause serious health problems for you and your employees. The most efficient way to combat that exposure is to capture the exhaust fumes at the source and eliminate contact with harmful pollutants. With over 45 years of experience, Plymovent source capture systems remove the hazardous emissions at the source, providing a healthy and safe working environment.

High-quality exhaust removal systems are recommended to make sure that legal exposure limits are not exceeded. From existing to new facilities, our range of products and system solutions covers it all.

Plymovent and our distributor network have the experience and knowledge to help you work through these questions and offer a solution to almost any application. We invite you to contact Plymovent and our authorized distributors with any questions you have.

HOW TO USE THIS GUIDE

Since 1975, Plymovent has been a global leader in developing systems and expertise to ensure that thousands of facilities have the right equipment for source capture ventilation.

Plymovent offers Construction Specifications Institute (CSI) format, Division 23 exhaust system specifications. We support architects, engineers and owners involved in the design and maintenance of public works garages, mass transit servicing areas, vocational schools, truck and heavy equipment repair, military repair, airport servicing areas, and related projects. In addition, Plymovent provides expertise and guides to help you with fire station and EMT facility design and installation. In addition, the Plymovent Industrial Products division provides welding and dust extraction systems.

Plymovent source capture systems require a properly sized and installed exhaust fan. The fan should be AMCA Class B tested and rated. Plymovent recommends a duct transport velocity of 3200 fpm (16.3 m/s) or higher through the hose in order to carry any hazardous liquids and particles out of the exhaust tailpipe and out of the facility.

Plymovent's selection guide for low and high-temperature hoses is based on exhaust temperatures, and how vehicles will be operated, as well as the duration of the operation within the facility. For Plymovent Fire and EMS systems, we provide a proprietary hose construction specifically designed for this market in a standard and high-temperature version. *Note: Plymovent Vehicle Exhaust Extraction (VEX) hose products are* ***not*** *designed to be used for fire systems.*

MEASURING TEMPERATURES

Before selecting the right hose, we recommend that you perform an Exhaust Gas Temperature (EGT) test using a temperature probe (or Infrared Thermometer), placing the probe in the airstream of the exhaust tailpipe. Keep in mind that high Revolutions Per Minute (RPM) and engine load will produce higher exhaust gas temperatures and volumes, so make sure to measure temperatures during transmission stalls or dyno testing. Plymovent distributors can assist you with exhaust gas temperature calculations.

MANAGING HIGH TEMPERATURES

If a facility does experience hose failure, simply upgrading to a higher temperature hose may not solve the problem. Insufficient airflow through the hose is a possible reason for hose failure. In addition, sharp bends in the hose close to the tailpipe or tailpipe adapter may also contribute to hose failures.

Pictured to the right: *EF2 Exhaust Hose on an a Spring-Operated Exhaust Reel (SER) Hose Reel*

KNOW THE DIFFERENCE

We have provided over 50,000 installations for source capture and ventilation systems in various industries including:

- Military facilities
- Automobile plants
- Department of Transportation facilities
- Motorcycle/ATV garages
- Fleet service and repair bays
- Agricultural equipment facilities
- Bus depots
- Emergency service stations

AIRFLOW VOLUME: GENERAL GUIDELINES

Vehicles Serviced	cfm (m³/h)	Hose Diameter
Automobile	270-300 (460-510)	4 in. (100 mm)
Motorcycle	400-600 (690-1020)	5 in. (125 mm) 6 in. (150 mm)
Trucks (Public Works, Rental Fleets, etc.)	500-550 (850-935)	5 in. (125 mm)
Heavy Duty Trucks	650-800 (1100-1360)	6 in. (150 mm)
Off-Road (Constr., Compressor Tests, etc.)	1200-1400 (2040-2380)	8 in. (200 mm)

GENERAL HOSE RECOMMENDATIONS

TYPE OF VEHICLES SERVICED	EXHAUST TEMPERATURE (CONTINUOUS AND SPIKE)	HEAVY LOAD TESTING?	LIGHTWEIGHT HOSE REQUIRED?	RECOMMENDED PLYMOVENT HOSE (PRODUCT NAME)
■ Cars ■ Motorcycles ■ Light Duty Trucks	Cont: 350°F (177°C) Spike: 400°F (205°C)	No	Yes	EG2
	Cont: 570°F (300°C) Spike: 660°F (350°C)	Possible	No	EF2 or SNF2
Heavy-Duty Diesel Trucks	Cont: 600°F (315°C) Spike: 1200°F (650°C)	Possible	Yes	SNF2
	Cont: 750°F (400°C) Spike: 840°F (450°C)	Possible	No	HT-750
	Cont: 1000°F (540°C) Spike: 1200°F (650°C)	Yes	No	HT-1000
	Cont: 1200°F (650°C) Spike: 1400°F (760°C)	Yes	No	ET-1200
■ Off-Road Diesel Trucks ■ Construction Equipment ■ Farm Equipment ■ CNG-Fueled Vehicles	Cont: 600°F (315°C) Spike: 1200°F (650°C)	No	No	EF2 or SNF2
	Cont: 750°F (400°C) Spike: 840°F (450°C)	Yes	No	HT-750
	Higher temperature hoses are available for applications up to 2010°F	Yes	No	ET-1200, HT-1500 or ET-2010
Dyno Testing (All Vehicles)	Due to the many variables associated with dyno testing, including temperature range, types of vehicles and length of load testing, please consult Plymovent for the right hose based on your specific application.			

**Other hose temperatures and diameters are available upon request.*
***Anti-static hose is available if application requires.*

PLYMOVENT SYSTEMS ARE MANUFACTURED & ASSEMBLED IN NEW JERSEY U.S.A. Since 1975

WHY PLYMOVENT?

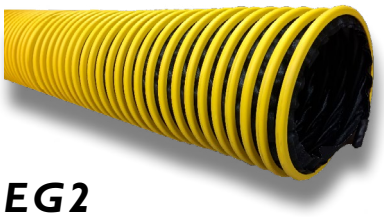
- Over 45 years of experience
- Global network of sales offices and distributors
- Certified, high-quality products
- Meets today's occupational health and safety regulations
- Engineering, design and installation services
- Energy-saving solutions, thanks to advanced controls
- Periodic maintenance programs available to keep your system operating at 100% efficiency.

IMPORTANT **CONSIDERATIONS:**

- These are general recommendations. Consult your authorized Plymovent distributor for additional guidance.
- All temperature capacities listed are based on adequate airflow though the hose, provided by a fan and duct systems plus with the correct use of tailpipe adaptors allowing fresh air introduction. Adequate airflow is based on a minimum of 3200 fpm (16,3 m/s) or more transport velocity through the hose.
- "Lightweight Hose Required?" - in some cases, the system requires a longer hose, in which a lightweight hose may be used to ensure the hose weight does not exceed the system's lifting capacity.
- Compressed Natural Gas (CNG) fueled vehicles have higher temperatures, and typically require the Extreme Temperature (ET) -1200 or the High Temperature (HT) -1500 hose.
- Combination hoses can be furnished where the lower section of hose has a higher temperature capacity than the upper hose section. This can lower the overall hose weight and cost.
- Another higher temperature version of the Silicone/Nomex®/Fiberglass (SNF2) hose is available.
- Other hose temperatures and diameters are available upon request.
- Anti-static hose is available if application requires.
- Please refer to our **Vehicle Exhaust Design Guide** for further assistance.

The Motorized Spring-assisted Hose Reel (MSHR) with 6 in. (150 mm) dia. High Temp (HT)-1500 and HT-1000 hoses (in combination) with SS (Stainless Steel) cone nozzles.

HOSE DETAILS



EG2

EG2

Applications: Designed for fleet maintenance service facilities, vo-tech centers, transit service garages and related automotive service facilities.

Materials: Made up of an external steel helix and composite fabric that can endure exhaust gas temperatures of up to 350°F (177°C) continuous. Intermittently, the EG2 hose can endure 400°F (204°C), provided a fan and exhaust nozzle are appropriately used.

Standard Lengths: Available in 16 ft (5 m), 25 ft (7.5 m), 33 ft (10 m) and 41 ft (12.5 m). Custom lengths available upon request.

DIAMETERS AND WEIGHT AVAILABLE

■ 4 in. (100 mm) / 0.81 lbs/ft (1,21 kg/m)	■ 6 in. (150 mm) / 0.96 lbs/ft (1,42 kg/m)
■ 5 in. (125 mm) / 0.87 lbs/ft (1,29 kg/m)	■ 8 in. (200 mm) / 1.33 lbs/ft (1,98 kg/m)

EF2

EF2

Applications: Designed for fleet maintenance service facilities, vo-tech centers, mass transit service garages and other facilities in which heavy-duty vehicles are generating hazardous exhaust fumes. This is a good hose for Diesel Exhaust applications in fleet maintenance facilities.

Materials: Made up of a hiqh-quality synthetic composite fabric that can endure exhaust gas temperatures of up to 570°F (300°C) continuous. Intermittently, the EF2 hose can endure 660°F (350°C), provided a fan and exhaust nozzle are used properly.

Standard Lengths: Available in 16 ft (5 m), 25 ft (7.5 m), 33 ft (10 m) and 41 ft (12.5 m). Custom lengths available upon request.

DIAMETERS AND WEIGHT AVAILABLE

■ 4 in. (100 mm) / 0.81 lbs/ft (1,21 kg/m)	■ 6 in. (150 mm) / 0.96 lbs/ft (1,42 kg/m)
■ 5 in. (125 mm) / 0.87 lbs/ft (1,29 kg/m)	■ 8 in. (200 mm) / 1.33 lbs/ft (1,98 kg/m)

SNF2

SNF 2

Applications: Designed for facilities where heavy-duty diesel trucks/buses are being serviced. Because SNF2 is lightweight, it's suitable for a Spring Recoil hose reels or Fixed Extractors.

Materials: Made of light-weight, high temperature double ply exhaust hose that can endure temperatures of up to 600°F (315°C) continuous. Intermittently, SNF2 can endure 1250°F (670°C), provided a fan and exhaust nozzle are used properly.

Standard Lengths: Available in standard lengths minimum of 12 ft (3,7 m). Custom lengths available upon request.

DIAMETERS AND WEIGHT AVAILABLE

■ 4 in. (100 mm) / 0.5 lbs/ft. (0,75 kg/m)	■ 6 in. (150 mm) / 0.65 lbs/ft. (0,99 kg/m)
■ 5 in. (125 mm) / 0.6 lbs/ft. (0,90 kg/m)	■ 8 in. (200 mm) / 0.80 lbs/ft (1,2 kg/m)

Another higher temperature version of the SNF2 hose is available. ***Call Plymovent for details.***

HOSE DETAILS

HIGH TEMPERATURE (HT) EXHAUST HOSE - 750

Applications: Designed to withstand high heat when extracting exhaust from spark ignition or diesel engines. The hose is especially suitable when working with trucks or construction machines that produce hot exhaust.

HT-750

Materials: Made of light-weight, high temperature double ply with an external helix. The hose can endure temperatures of up to 750°F (400°C) continuous. Intermittently, the HT-750 hose can endure momentary spike temperatures of 840°F (450°C), provided a fan and exhaust nozzle are appropriately used.

Standard Lengths: Sold by the foot, with a minimum purchase off 10 ft (3 m)

DIAMETERS AND WEIGHT AVAILABLE

■ 4 in. (100 mm) / 0.84 lbs/ft (1,25 kg/m)	■ 6 in. (150 mm) / 1.15 lbs/ft (1,71 kg/m)
■ 5 in. (125 mm) / 1.05 lbs/ft (1,56 kg/m)	■ 8 in. (200 mm) / 1.53 lbs/ft (2,28 kg/m)

HIGH TEMPERATURE (HT) EXHAUST HOSE - 1000

Applications: Designed for heavy load and dyno applications, CNG gas exhaust systems, or wherever very high temperature exhaust fumes exist.

HT-1000

Materials: Silver, two ply, high temperature fabric. Inner hose wall is a heat resistant impregnated glass fabric, outer hose wall is a special coated high temperature, asbestos free fabric, reinforced by woven in stainless steel wire. Galvanized steel helix. Temperature resistance is 1000°F (538°C) continuous and 1200°F (650°C) spike. The plastic helix cover is not available due the high heat capacity.

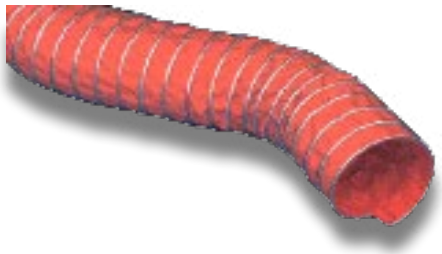
Standard Lengths: Sold by the foot, with a minimum purchase of 10 ft (3 m).

DIAMETERS AND WEIGHT AVAILABLE

■ 4 in. (100 mm) / 0.84 lbs/ft (1,25 kg/m)	■ 6 in. (150 mm) / 1.15 lbs/ft (1,71 kg/m)
■ 5 in. (125 mm) / 1.05 lbs/ft (1,56 kg/m)	■ 8 in. (200 mm) / 1.53 lbs/ft (2,28 kg/m)

EXTREME TEMPERATURE (ET) EXHAUST HOSE - 1200

Applications: Designed for heavy load and dyno applications, military exhaust, CNG gas exhaust systems, or wherever very high temperature exhaust fumes exist.



ET-1200

Materials: Made of red fabric, two-layer construction. The inner and outer hose walls are asbestos free high temperature fabric, specially coated with heat stabilizers, reinforced by woven in stainless steel wire that withstands high heat when extracting exhaust from spark ignition engines or diesel engines. Temperature resistance is 1200°F (650°C) continuous and 1380°F (750°C) spike. The plastic helix cover is not available due the high heat capacity.

Standard Lengths: Available in 25 ft (7,6 m). Custom lengths available upon request.

DIAMETERS AND WEIGHT AVAILABLE

■ 4 in. (100 mm) / 1.07 lbs/ft (1,60 kg/m)	■ 6 in. (150 mm) / 1.58 lbs/ft (2,35 kg/m)
■ 5 in. (125 mm) / 1.33 lbs/ft (1,98 kg/m)	■ 8 in. (200 mm) / 2.1 lbs/ft (3,12 kg/m)

HOSE DETAILS

HT-1500

HIGH TEMPERATURE (HT) EXHAUST HOSE - 1500

Applications: Made up of two-layer construction. The inner and outer hose walls are asbestos free high temperature fabric, specially coated with heat stabilizers, and reinforced by woven in stainless steel wire. The external helix is galvanized steel.

Materials: Made with three ply construction. All fabric is asbestos free, specially coated with high temperature stabilizers. One ply is a woven stainless steel cloth used for strength and stability. Temperature resistance is 1500°F (816°C) , with a spike temperature of 1680°F (916°C). The plastic helix cover is not available due to the high heat capacity.

Standard Lengths: Sold by the foot, with a minimum purchase of 10 ft (3 m)

DIAMETERS AND WEIGHT AVAILABLE

■ 4 in. (100 mm) / 1.07 lbs/ft (1,60 kg/m)	■ 6 in. (150 mm) / 1.58 lbs/ft (2,35 kg/m)
■ 5 in. (125 mm) / 1.33 lbs/ft (1,98 kg/m)	■ 8 in. (200 mm) / 2.1 lbs/ft (3,12 kg/m)

ET-2010

EXTREME TEMPERATURE (ET) - 2010

Applications: Designed Ideal for dyno testing environments, CNG exhaust and related fume extraction, as well as military exhaust facilities and high performance and engine load testing environments.

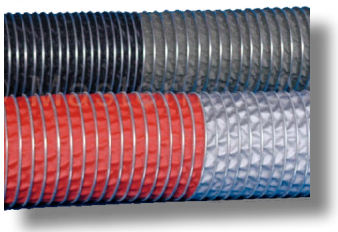
Materials: Made with a three ply construction. All fabric is asbestos free, specially coated with high temperature stabilizers. One ply is a woven stainless steel cloth used for strength and stability. Temperature resistance is 2010°F (1099°C) with a spike temp of 2370°F (1300°C). The plastic helix cover is not available due the high heat capacity.

Standard Lengths: Sold by the foot, with a minimum of 10 ft (3 m).

DIAMETERS AND WEIGHT AVAILABLE

■ 4 in. (100 mm) / 1.29 lbs/ft (1,92 kg/m)	■ 6 in. (150 mm) / 1.93 lbs/ft (2,87 kg/m)
■ 5 in. (125 mm) / 1.60 lbs/ft (2,38 kg/m)	■ 8 in. (200 mm) / 2.57 lbs/ft (3,82 kg/m)

COMBO HOSE



A variety of fabric material combinations are available upon request in the following:

■ HT 750 / HT 1200	■ HT 1200 / HT 2010
■ HT 1000 / HT 1500	

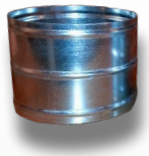
Combo hose assemblies can be made with any of the external helix hoses by combining different hose materials while building the hose. A "Combo" hose is generally selected due to the exhaust temperature dropping 40-50% within the first 5-10 ft. (1.5-3 m) of hose length when additional ambient airflow mixes with the actual vehicle exhaust in the hose. Considering this decrease in temperature, you may be able to use a short section of a higher temp hose at the tailpipe end and a lower temperature hose as the upper section. Combination hoses are available from the manufacturer if custom ordered. Alternatively, a splicing collar can be used to join two different hoses in the field. Splicing collars can also be used to repair a torn hose.

- External helix, mechanically constructed hose utilizing no glues or adhesives.
- Two part hose construction - *contact Plymovent for further assistance.*
- Continuous operation temperature rating 350°F. Spike temperature rating 375°F.
- A lower hose material (lower 5 ft.), synthetic high temperature fiberglass lined fabric.
- Continuous operation temperature 570-600°F. Spike temperature rating 660-700°F.

ACCESSORIES

SPLICE COLLARS

Hose connection splice collars are available with and without debris screens. These can be used to join two different hoses or repair a torn hose.



SADDLES

Based on the Plymovent system being installed, a metal or rubber saddle will provide maneuverability and strength.

BALANCER

Plymovent recoil balancers (used on Fixed Extractors) are used to hold the hose up off the floor when not in use. They come with a ratchet lock which holds the cable at the extended position when the hose is in use.

NOZZLES

Plymovent nozzles are available to fit many tailpipe locations, shapes and diameters within a single fleet. This includes a variety of EPDM rubber nozzles, stainless cone nozzles for high temperature applications, and a variety of stacker nozzles for vertical stack tailpipes. All of Plymovent nozzles can be equipped with spring clips or vise grips for attachment purposes. Quick disconnect couplers are also available to allow swapping of different nozzles on one hose.

COMPLETE SYSTEM SOLUTIONS

Along with these hoses Plymovent manufactures a complete line of spring or motorized hose reels, retractable hose drops, boom arm systems, extraction rail systems. Plymovent builds their own line of fans which are AMCA tested and listed.

Fan starter control boxes, from simple on/off to variable speed control systems, all UL, CSA and CE listed. System design assistance and recommendations are available.

Plymovent - your global source capture specialists.

MORE INFORMATION

This brochure gives you an overview of Plymovent's variety on hoses. However, do consult Plymovent or one of its authorized distributors for more, specific information like product data sheets with technical specifications.

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Plymovent Corp. is ISO 9001:2015 Certified.

Your authorized Plymovent distributor:

PLYMOVENT OFFERS TOTAL SOLUTIONS FOR AIR CLEANING

Since 1975, Plymovent has gained market leading experience in the field of air cleaning. We not only have extensive knowledge of the extraction and filtration of welding fumes and oil mist in metalworking industries, we are also specialised in the removal of vehicle exhaust fumes.

Plymovent cares about the air you breathe. We offer products, systems and services which ensure clean air at work, anywhere in the world.

We respect the environment and we deliver high-quality products. Our expertise gained over many years and our genuine commitment to customer requirements enable us to provide precisely the solutions you need.

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