
specified to fit
your environment
jamesdawson
global hose specialists

to be **specific**

An Engineering solution provider offering advanced silicone and organic rubber products, for a wide range of diverse applications.

Decades of experience and expertise in the development and manufacture of polymeric solutions for international markets.

Major investments in research, development and quality control procedures has maintained the company's position as a first choice world leader.

A division of Fenner Plc, underwriting solid commercial foundations and resources for future growth.

A combination of multi lingual communication, world wide network of sales and technical support, global manufacturing and warehousing, James Dawson are an established international partner.

To our customers this ensures...

Bespoke engineering solutions.

Immediate appreciation of the technical requirements.

Clarity of understanding and response to both current demands and future technology.

Reliability in manufacturing, quality and delivery.

Lasting relationships built upon mutual co-operation, collaboration, communication, reliability and service.

A valuable partnership with a world class supplier.

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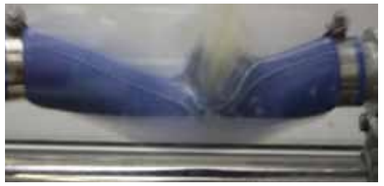
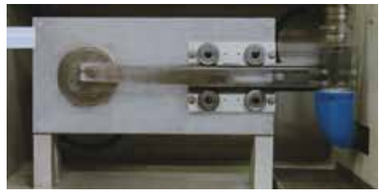
Product Development



Burst Pressure Testing



Dynamic Testing

James Dawson - your partner in production development

- Our team of skilled development engineers and experienced technologists are focused on the continuous development of advanced capability products.
- Maintaining a market leading position is assured with our in-depth knowledge of industry requirements and product innovation.
- In house accelerated ageing and dynamic testing of finished products to replicate long term functionality.
- Regular on-site visits ensure our engineers are up-to date with customer needs.
- Structured programme of material testing in accordance with both international and customer specific standards.
- Unique process, production and test machinery is designed and built in-house to optimise capabilities of both product development and volume production.

Quality is Assured

Accredited to TS16949:2009 and ISO9001:2008, quality standards are maintained to the highest possible international levels.

The company is also committed to working towards environmental standard ISO 14001.

Continuous bench marking of suppliers and co-operation in material and product development are key elements of our structured approach.

Material Selection

Our team of experienced Engineers and Rubber Technologists select the most appropriate materials based on the intended application and environment. For lower temperature requirements, we apply the capability of various organic polymers, each with it's own unique temperature and chemical resistant properties. This includes EPDM, polychloroprene and PVC Nitrile.

Where increased durability and higher temperature resistance is required, we have a range of silicone and fluorosilicone elastomer compounds to apply. These combat a range of environmental challenges such as coolants, oils and charged air. Where extreme chemical and temperature resistance is required a fluorocarbon polymer can be applied. This will function in temperatures up to 275°C (527°F).

Thermally Reflective Heat Shields

Intergrally moulded flexible heat shields can be incorporated where the application is in close proximity to a radiant heat source. The heat shield can be applied to a large proportion of the hose or as a localised patch on complex surfaces.

Radiant heat sources up to 550 ˚C (1,054 F) and within 5mm-6mm (0.20" - 0.24") of the hose can be tolerated




Silicone Coolant Applications

Silicone out performs conventional hose materials in terms of optimum reliability and long life on engine, radiator, heater and other coolant handling applications.

In house accelerated ageing and dynamic testing of finished hoses replicate long term application which means you can fit it and forget it.

Mandrel wrapped format to conform to the requirements of SAE J20 R1 (standard wall) class 'A'. Alternatively in single ply construction, manufactured by continuous methods, to conform to the requirements of SAE J20 R3 and R4 class 'A'.

Charge Air Applications

A technically advanced range of convoluted hoses with stainless steel rings to absorb the relative movement between engine and intercooler. Specially developed convolutes minimise resistance to flexing and loads transferred to connection spigots.

The critical design benefit is determined by laboratory load movement trials. The functional integrity is approved after accelerated dynamic testing, which simulates vehicle operating conditions.

Optimum durability and **flexibility** over extended service periods whilst operating at extremes of temperature.

Continuous progress resulting in improved methods of manufacture and materials.

Innovative product development ensures that your products are available in advance of all new emission regulations.

Cuffless Clamping

For high pressure applications we offer an innovative design solution which allows for limited fitting space and excessive movement. The cuffless clamping system utilises a V Band clamp to fix the hose to a full or half marmon mating surface, providing an effective seal to the existing metalwork. At the same it allows the full hose length to absorb any offset or movement. This means you can depend on an effective solution which provides a reliable seal in a dynamic and space constrained environment.

Swaged Assemblies

Hoses can be supplied as a permanently fixed assembly by replacing the traditional hose clamp with a fitted swage ring. This removes a sub-assembly stage at the production line which saves time and reduces cost.

Oil Resistance

Fluorosilicone and fluorocarbon oil resistant liners have been developed to satisfy the increasing use of enclosed breather systems. Both types are also employed on turbo charger oil return (oil drain) connection hoses.

Exhaust Gas Applications

Ever increasing emissions regulations require the reduction of exhaust outputs and increased exhaust gas monitoring. A fluorocarbon compound has been specifically designed to cope with the gas components at temperatures of up to 275°C (527°F).
A unique manufacturing process ensures that the liner adhesion does not deteriorate during use, providing a high capability solution for this demanding application.

Specialist Reinforced EPDM, Nitrile and Polychloroprene Applications

An advanced range of custom made hoses developed to meet your specification

These hoses are available in many shapes and sizes, with the ability to include inserts and branched legs.

Tooling is made in-house offering a quick response to prototype and production needs.

The unique extrusion method of fibre reinforced material promotes higher hoop strength and greater resistance to vacuum collapse.

EPDM hoses are ideal for use with air or water coolant, the main application being specialist engine hoses.

Hoses can be manufactured in nitrile for applications where oil and fuel resistance are required.

Polychloroprene hoses are self extinguishing with medium resistance to petroleum based oils and fuels.

The manufacturing process allows any shape or complexity to be offered as a solution. Hoses with multi-branched offshoot legs and large bore changes are a speciality.

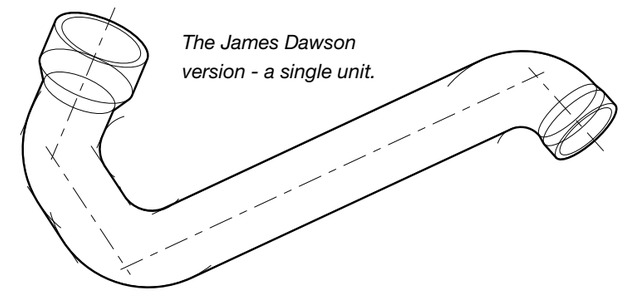
Limited space in modern applications is a major consideration. The challenges of cooling packages with the need for larger air filtration units are met by our specially designed complex shaped hoses.

Hose materials are chosen by technical engineers based on the application requirements and specifications.

One Piece Hoses

Our distinctive compound allows us to replace formed metal pipework, short rubber cuffs and clips with a single one piece hose, reducing both parts inventory and potential leak points.

Cost savings can be acheived with the one piece hose design which increase significantly with the complexity of the original hose-tube-hose assembly being replaced. The single hose option is much quieter than the traditional installation.

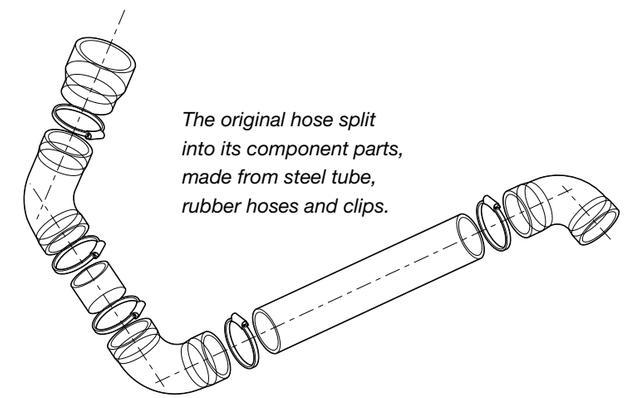


The James Dawson version - a single unit.

Legged Hoses

The method of manufacture involved in producing the legged hose options results in a single homogenous unit.

The item is produced as a one piece operation from vulcanised rubber using our experience and expertise of both the hose production and our tooling.



The original hose split into its component parts, made from steel tube, rubber hoses and clips.

Large Bore Hoses

Current manufacture allows production of hoses with inside diameter of up to 356mm (14”). These hoses are typically used in air cleaner adaptor applications, reducing noise, weight and cost.

Hoses with Inserts

Hoses can be produced with inserts ranging from drainage nuts, radiator caps and sensor units to fluid flow indicators.

Oil Drain & Filler Neck Applications

Enduraflex® Ducting

Constructed from recyclable thermoplastic elastomer (TPE) our range of ductings offer excellent standards of flexibility and durability with high resistance to ozone, weathering and engine compartment oil and fuel splashing.

Five qualities are featured in the range, each designed for specific purposes for applications such as inlet to air filter, air filter to engine, alternator cooling, heating and ventilation.

Durable - capable of being moved and positioned to meet space constraints and requirements without distorting the internal profile

Resistant to vibration and flex fatigue. Able to withstand movements typically to air transfer components in under hood environments and applications

Retains shape - will not collapse if permanently shaped or through movement thereby maintaining airflow capability

Smooth bore - less disruption to airflow, allowing maximum air transfer rate for respective bore size.

Ideal for all environments whether they are underhood or external, resulting in a fit and forget product

diverse **applications**