FIRETRACE® LTD

AUTOMATIC FIRE SUPPRESSION SYSTEMS

Firetrace “DIRECT” Automatic Fire Suppression Systems

Please read instructions carefully prior to starting installation.

All systems CE & Fully PED Compliant

Firetrace Limited, Unit 22 Knightsdale Road, Ipswich IP1 4JJ
Tel. 01473 744090 Fax. 01473 744901
E-mail. Info@firetrace.co.uk Visit our Website www.firetrace.co.uk

FIRETRACE® LTD

AUTOMATIC FIRE SUPPRESSION SYSTEMS

Contents

Firetrace Limited, Unit 22 Knightsdale Road, Ipswich IP1 4JJ
Tel. 01473 744090 Fax. 01473 744901
E-mail. Info@firetrace.co.uk Visit our Website www.firetrace.co.uk

System Overview.

The Firetrace system is a simple self actuating device that is designed to suppress fires within an identified risk area.

The system works by using Firetrace pressurised linear detection tubing that is installed throughout the risk area. This tubing is heat sensitive and when subjected to a temperature above 120 Degrees centigrade, or when touched by flame, the Firetrace tubing will rupture and form a diffuser.

The Dry Powder extinguishant is then deployed via this diffuser directly into the heart of the fire.

The Firetrace system requires no external power source or separate detectors and owing to its simple design ensures that all of the extinguishant is always deployed in the Fire area.

The Firetrace system requires no commissioning as the Firetrace detection tubing comes pre-pressurised and ready to fit.

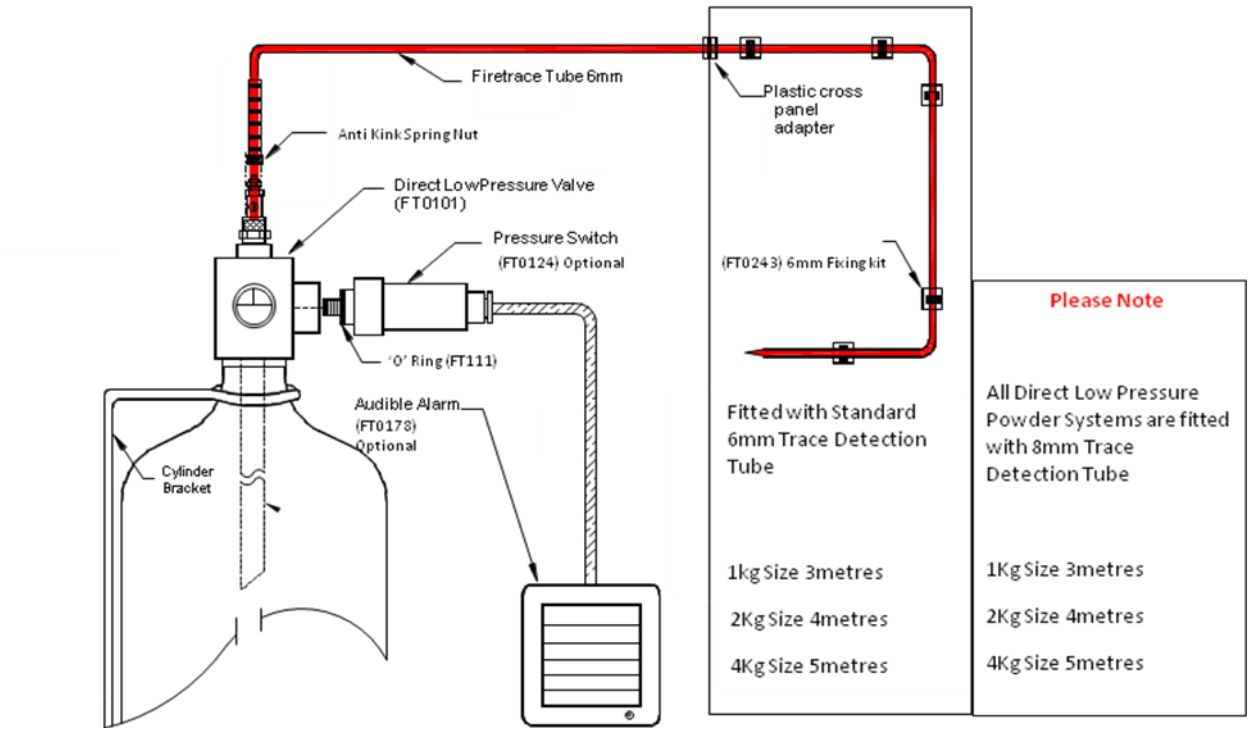
It is important that both the cylinder & Firetrace tubing are correctly installed and that the system is subjected to a regular maintenance regime in line with BS5306-3.

Firetrace Limited, Unit 22 Knightsdale Road, Ipswich IP1 4JJ
Tel. 01473 744090 Fax. 01473 744901
E-mail. Info@firetrace.co.uk Visit our Website www.firetrace.co.uk

FIRETRACE® LTD

AUTOMATIC FIRE SUPPRESSION SYSTEMS

Typical Direct Low Pressure Fixed Trace Tube System Layout



Firetrace Limited, Unit 22 Knightsdale Road, Ipswich IP1 4JJ
Tel. 01473 744090 Fax. 01473 744901
E-mail. Info@firetrace.co.uk Visit our Website www.firetrace.co.uk

FIRETRACE® LTD
AUTOMATIC FIRE SUPPRESSION SYSTEMS

Firetrace Installation Instructions.

Cylinder

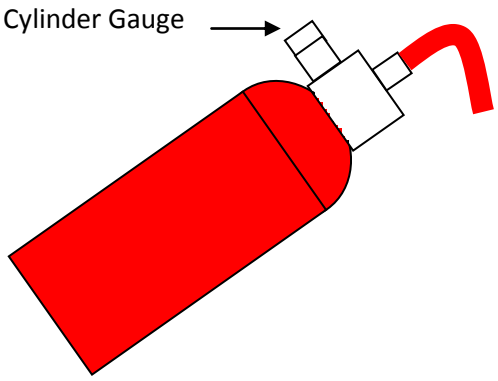
When installing the Firetrace system it is important that a suitable cylinder location is selected and that the cylinder is orientated correctly.

The cylinder location should ideally be in a clean area away from any direct heat. The cylinder should not be placed in a location where the ambient temperature is above 80 Degrees centigrade.

The cylinder should be readily accessible to allow future servicing / inspections and as close as practicable to the risk area.

The cylinder should be adequately fixed to a suitable load bearing surface.

Wherever possible the cylinder should be **mounted vertically** and in no circumstances should the cylinder be positioned at an angle of more than 45 Degrees from vertical.



It is recommended wherever possible that Firetrace cylinders be mounted vertically. Where vertical locating is not possible the systems can be mounted within 45° of vertical.

As indicated in the above drawing when cylinders are fitted at an angle the gauge must face uppermost.

FIRETRACE DRY POWDER SYSTEMS ARE NOT SUITABLE FOR HORIZONTAL MOUNTING.

A free training course at our Ipswich facility is available to have a better understanding of Firetrace installation and products. Please contact us for more details.

Firetrace Limited, Unit 22 Knightsdale Road, Ipswich IP1 4JJ
Tel. 01473 744090 Fax. 01473 744901
E-mail. Info@firetrace.co.uk Visit our Website www.firetrace.co.uk

Firetrace Automatic Detection Tubing

The Firetrace Automatic Detection tubing is the key part of the system and acts not only as the detector but also as the delivery method for the Dry Powder.

The correct installation of the tubing is important to achieve optimum performance from the system.

The tubing should be mechanically protected outside the identified risk area and should remain accessible to allow future servicing.

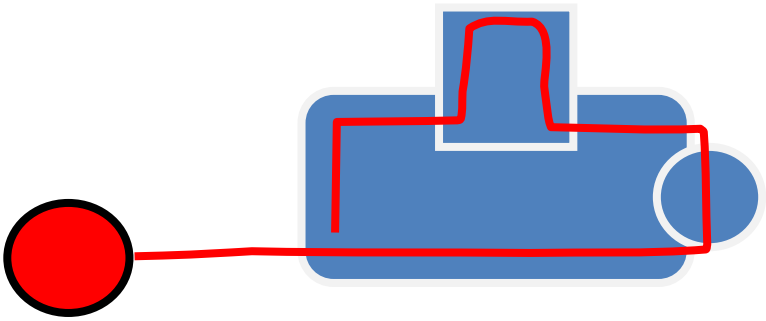
As heat rises, the Firetrace tubing is most efficient when mounted directly above the risk.

The tubing will activate at approximately 120 Degrees Centigrade and care should be taken to avoid attaching the tubing in very close proximity to the turbo or exhaust system where temperatures above this are achieved during normal operation.

It is recommended that the tube is a minimum of 150mm away from exceptionally hot surfaces or fitted with additional sleeving to avoid false activation.

Tube Routing

As the Firetrace detection tube is flexible the exact tube route can vary from application to application. The basis of the system design is to circumnavigate the risk area.



Firetrace Limited, Unit 22 Knightsdale Road, Ipswich IP1 4JJ
Tel. 01473 744090 Fax. 01473 744901
E-mail. Info@firetrace.co.uk Visit our Website www.firetrace.co.uk

Tube Fixings

The detection tubing needs to be adequately fixed to retain its position and withstand the vibration of the vehicle.

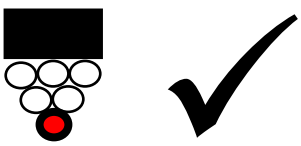
The tubing is a soft polymer and is susceptible to wear / chaffing when repeatedly rubbed against a hard or sharp surface. The tubing should be protected using nylon kopex at all fixing points and where it passes through holes.

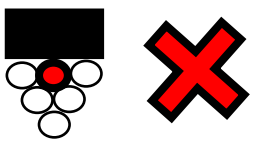
The following photographs show “Tyrap” fixings with split Kopex for protection.

The 8mm Detection tubing should be supported at maximum intervals of 150mm.

Always leave a small loop of tubing adjacent to the cylinder. Whilst this should also be secured it must be releasable to allow future servicing of the cylinder.

Where the tubing is installed with a group of other cables/pipes it must be positioned on the underside of the loom and must never be located within the centre of the loom.





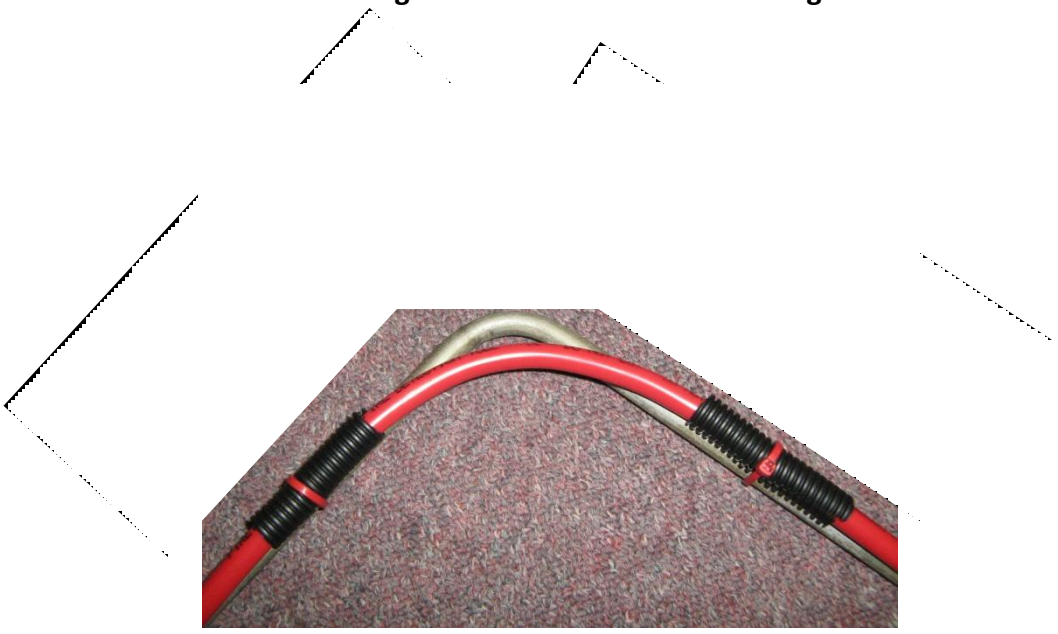
Firetrace Limited, Unit 22 Knightsdale Road, Ipswich IP1 4JJ
Tel. 01473 744090 Fax. 01473 744901
E-mail. Info@firetrace.co.uk Visit our Website www.firetrace.co.uk

Tube bending radius

The Firetrace tubing acts as the detector and provides the delivery of the extinguishant. It is imperative that the tubing is not kinked or crushed and the following minimum bending radius must be adhered to.

Should the tubing be kinked or damaged in anyway then the entire Firetrace system should be replaced:

FT0180 Firetrace tubing 8mm: **Minimum bending radius 80mm**



Firetrace Limited, Unit 22 Knightsdale Road, Ipswich IP1 4JJ
Tel. 01473 744090 Fax. 01473 744901
E-mail. Info@firetrace.co.uk Visit our Website www.firetrace.co.uk

Service & maintenance

The Firetrace systems often operate in a harsh environment and are subjected to high temperatures and extreme vibration. It is essential that the systems are regularly serviced to ensure their correct operation.

In order to comply with British Standard BS 5306 (section three) the following maintenance tasks should be carried out periodically.

The British standard recommends that each system is visually inspected every 3 months and then fully serviced at maximum intervals of 12 Months.

All powder systems require discharge testing at maximum 5 Year intervals

Firetrace Limited currently recommend that all systems are fully serviced every 12 Months

- ✓ Inspect the risk area and ensure Firetrace detection tubing is correctly installed. Check for signs of wear/damage and tighten or replace fixings as necessary.
- ✓ Locate cylinder and record size, type and serial number. Check date of manufacture and record when discharge test is required.
- ✓ Check external condition of cylinder. Replace if there is any sign of damage or wear.
- ✓ Check gauge is facing upwards and that cylinder is installed as upright as possible. Where necessary reposition cylinder or highlight any required modifications for return visit.
- ✓ Remove cylinder from bracket and agitate powder contents. (Cylinder should be inverted to achieve this. A noticeable movement of the contents should be apparent. A rubber mallet can be utilised to aid this).
- ✓ Remove pressure switch (if applicable) Lubricate pressure switch O ring and replace switch.
- ✓ Remove cylinder gauge and ensure correct operation. Lubricate O ring and replace.
- ✓ Leak test cylinder using detection spray.
- ✓ Record details and date of service on cylinder label. Replace cylinder into bracket and ensure it is secured by clamp / Tyrap.

Firetrace Limited, Unit 22 Knightsdale Road, Ipswich IP1 4JJ
Tel. 01473 744090 Fax. 01473 744901
E-mail. Info@firetrace.co.uk Visit our Website www.firetrace.co.uk

Notes:

FIRETRACE® LTD

AUTOMATIC FIRE SUPPRESSION SYSTEMS

Address:

Unit 22, Knightsdale Road,
Ipswich,
Suffolk.
IP1 4JJ

Telephone:

01473 744090

Facsimile:

01473 744901

Email:

info@firetrace.co.uk

Website:

www.firetrace.co.uk

Twitter:

@firetrace_uk