



HARRISON

Lightning Protection and Earthing Limited

Don't let lightning strike

Having faith that it won't happen to your business
...**simply doesn't work!**



Don't take the risk

Lightning can be catastrophic to your business

The installation of structural lightning protection is available from a number of suppliers.

But how many possess the knowledge, experience and expertise to design and plan the system?

From design, right through to innovative bespoke solutions Harrison Lightning Protection & Earthing has the ability to provide the answers to your individual lightning protection, transient overvoltage and earthing problems.



Nature's awesome power



Lightning is one of nature's most powerful and destructive phenomena. With bolt temperatures hotter than the surface of the sun, lightning discharges contain awesome amounts of electrical energy and have been measured from several thousand amps to over 200,000 amps – enough to light half a million 100 watt bulbs!

Lightning is essentially a flow of electrical current between the earth and storm clouds and occurs as varying charges of positive and negative polarity build up in the atmosphere during a storm. The result is a discharge or current sent rushing toward the earth. As this downward force nears the earth's surface, positive charges rise up to meet it. Nearing the earth, positive charges are attracted by it and strain up from roof edges, lighting poles, antennas, etc. When the two opposing

charge systems meet, they create a closed circuit. As the path to the ground is completed, a flash is created.

A lightning strike to an unprotected building can be catastrophic. Packing up to 100 million volts of electricity and a force comparable to that of a small nuclear reactor, lightning has the power to rip through roofs, explode walls of brick and concrete and ignite deadly fires. In addition to structural damage, lightning surges throughout power lines causing wire damage and destruction of valuable electronic equipment including computers, televisions, stereos, security systems, etc.

A lightning protection system provides a designated path for the lightning current to travel. The system neither attracts nor repels a lightning strike, but simply intercepts and guides the current harmlessly to ground.



Protecting your business systems

Any reliable lightning protection system must encompass both structural lightning protection and transient overvoltage (electronic systems) protection. A structural lightning protection on its own cannot and will not protect the electronic systems within a building from transient overvoltage damage.

We live in an electronic age with PC's a part of our everyday life, petrol pumps are automated, bar code scanners are used in all supermarkets and many offices couldn't function without the sophisticated management control systems they use. The ever-changing pace of technological development including the never-ending quest to make everything smaller has created a scenario where the threat of damage to vital electronic systems and the seriousness of the consequences of that damage are more real than ever before.

Incoming electrical services and cables between buildings for example can leave unprotected electronic systems vulnerable to transient overvoltages by lightning strikes up to 1km away!

The damage may not be spectacular, but it can be extremely

costly resulting in downtime and disruption, hardware damage, software corruption and data loss not to mention the incalculable damage done to lost production and customer confidence.

We have a wealth of knowledge at your disposal and an impressive track record of success working with major contractors

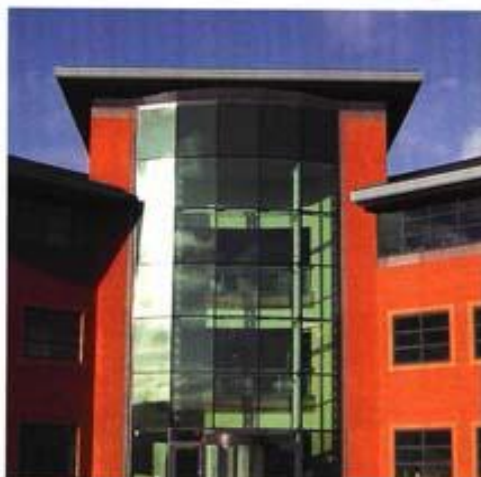


...eliminate it



Access, the modern scourge

One of the many problems faced by property maintenance companies today is access. Many buildings, both old and new have difficult and at times, seemingly impossible places to get to, whether it be to repair or maintain. Harrison's specialist team of qualified abseilers have the necessary skill to be able to access these awkward places and carry out much needed and often urgent repairs to buildings such as Church Steeples, towers and chimneys, listed buildings etc. From installing hand rail systems on roofs to repairing stonework, the solution is provided promptly and skillfully to the highest standards of craftsmanship.



Maintenance and testing

Although a Lightning Protection system is non mechanical, it still pays to have it surveyed and tested annually and it can be done at very little cost with absolutely no disruption to your working environment.

Many insurance companies now insist that a

current certificate of compliance to BS6651:1999 is in place.

This can be arranged annually or carried out within a 1, 2 or 3 year agreement which gives you the comfort of knowing it will be done without the trouble of having to organize it.

Be safe - contact us today on 01325 337111

Glassfibre flag poles

Strong, resilient and maintenance free, modern Glassfibre Flagpoles add that finishing touch to your new development or refurbished project. Any

size ranging from 2 metres to 18metres high can be skillfully installed in the ground, on the side or on the top of your building or structure.


Powerful testimony

"MAP Electrics use Harrison's because they give us exactly what we ask for. It's clear that they understand our business and are expert in their field, they know what we trying to do and can therefore provide us with the right solution. All we can say is if you need lightning protection, use them."

Graham Burns - MAP Electrics

Harrison's, know all about lightning protection but that in itself is not enough, it has to be supported by good organisation and a desire to help the customer. That is precisely what you get. I always like to feel that my suppliers are on my side, I make a request and it's responded to. Somebody tells me something is going to happen and I know it will. That's the feeling you get, and it's a good one.

Mark Theobald - Lorne Stewart PLC



We have a wealth of knowledge at your disposal and an impressive track record of success working with major contractors such as:

Amec Capital Projects
Balfour Beatty Construction
NG Bailey & Co
Clugston Construction
Laing O'Rourke
Lorne Stewart plc

In addition to supply and installation we carry out maintenance of systems for many property owning and maintenance companies and on behalf of many major industrial groups such as:

Elyo Services
Workman & Partners
Inland Revenue

Our many clients also include:

Gateshead Council
Newcastle City Council
Durham County Council

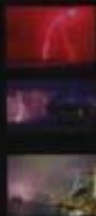
And major contracts have been successfully completed at:

Baltic Quays
Football Clubs
• Middlesbrough
• Sunderland
• Newcastle

Prisons
• Holm House
• Full Sutton
• Durham
• Lincoln

Thorpe Park (Tussauds Group)
James Cook and Freeman
Hospitals
Selby Abbey

To name but a few.



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Lightning Protection and Earthing Limited

20 The Meadows
Middleton St George
Darlington
DL2 1UE

Tel: 01325 337111

Fax: 01325 337222

Lightning Flash Density Map

The requirement for Lightning Protection is dependant on several factors which result in a Need for Protection calculation, these factors or considerations are

- ⚡ Lightning Flash Density (see map alongside)
- ⚡ The collection area of the structure
- ⚡ The intended use of the structure
- ⚡ The type of construction
- ⚡ What is housed within the structures
- ⚡ The location of the structure
- ⚡ The topography of the area



Map reproduced with kind permission of WJ Furse & Co Ltd.

All Proprietary materials are manufactured by WJ Furse & Co Ltd.

This map is based on data collected prior to 1999, since then the climate has warmed and strike density will have increased. **BE SAFE - DON'T RISK IT!**