

## Listed Countryside Property, Derbyshire Combined Radon and Waterproofing System for Basement

### The Project

The owner of this picturesque listed property in Derbyshire wanted to upgrade their basement into a dry habitable area. Knowing that their house was in a high risk Radon gas area, the project required gas remediation and structural waterproofing as a package to obtain habitable living.

### The Solution

Prestige Air contacted NSBC Protectahome to perform the installation of the Newton System 500 Cavity Drain Waterproofing and Prestige Air installed the "Positive Air Curtain". To ascertain the real time Radon levels, Prestige Air installed a continuous Radon monitor to the basement which data logs Radon levels throughout the project, and to give guidance about the amount of air management required within the Newton PAC-500 System to treat the problem.

The first component of the PAC installed was an Air Duct fixed at joist height around the entire retaining aspects of the basement. The Air Duct contains pressure control bladders internally and air delivery points drilled into the bottom of the duct as a means of delivering an even air curtain down behind the Newton 508 cavity drain membrane. Newton 508 was "curtain hung" at a high level so as to have minimal penetrations. Newton Basedrain was installed on top of the slab, which guided waste water to a Titan-Pro sump and pump installed to deal with the water removal from the basement.

### The Result

The results from the PAC-500 System were remarkable - Radon levels decreased from 5000bqm to less than 100bqm! The clients were left with a habitable and dry basement space.



Installation of Newton PAC-500 System.



The PAC-500 System was tested in full.



"It was established that we had Radon levels of up to 5000bqm within the basement, which was also damp.

After failed attempts at bringing the levels down with a standard retrospective sump, Prestige Air and Protectahome jointly installed the Newton PAC system. We now enjoy a dry basement with low Radon levels."

Mr Read, Homeowner, Derbyshire

## The Products

### PAC-500 SYSTEM

The Newton PAC-500 System offers gas remediation and structural waterproofing as a package. Newton System 500 is installed to offer full waterproofing protection, and sealed to all fixtures to ensure there are no gas leaks. An Air Duct, containing pressure control bladders and air delivery points, is then installed as a means of delivering an even air curtain behind the Newton membrane.

### 508

BBA certified, high quality cavity drain membranes as part of the CDM System, manufactured from 100% recycled HDPE.

### MULTIPLUGS & ANCILLARIES

A selection of specialist ancillary products that are critically important for the correct installation of the Newton CDM System, including plugs, tapes and seals.

### BASEDRAIN

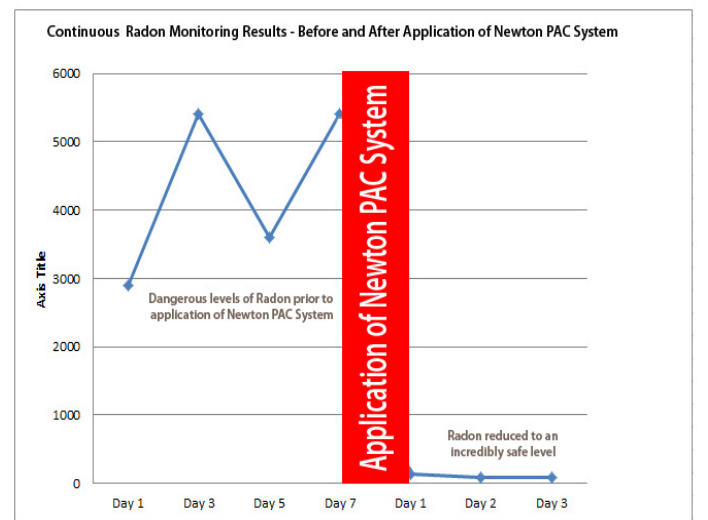
A range of products that receive and drain water from the cavity drain membranes and direct it to the point of discharge.

### TITAN-PRO

A high performance pump available in either manual or automatic versions to remove clean water from the Newton CDM System.



The testing revealed remarkable results.



Inspection Company: Prestige Air-Technology Limited

Radon Monitoring Chart (before and after installation of PAC System)



The basement of this countryside home is now fully protected.

## Newton Specialist Basement Contractors

Newton recommends that our systems are installed by one of our nationwide network of Newton Specialist Basement Contractors (NSBCs). Trained by Newton, NSBCs offer a full guarantee on the design and installation, and can act as Waterproofing Design Specialists.



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