

Pupils Stay Safe with New Extraction System

P&J

CASE STUDY

DUST EXTRACTION LTD
Established 1980



“*The Installation Engineer was extremely knowledgeable and competent leaving staff in The Design & Tech area a lot of information that normally wouldn't be covered. Everyone involved was very impressed.*”

Sir William Perkins is a Surrey based all girls independent grammar school which was founded in 1725. Today the school has around 580 pupils aged eleven to eighteen and has some of the best facilities in the county.

Their vision is to build confidence, integrity and excellence in a caring, innovative and happy community so that each student leaves with the best possible chance of achieving her full potential and ready to take on the world.

The school boasts a modern, fully equipped Design &

Technology Building and their students are fortunate enough to work within state of the art high-tech facilities. The manufacturing areas are modern with appropriate apparatus to work with a very broad range of materials. Some of the processes at Sir William Perkins include working within woodworking rooms and heat treatment areas with materials such as metals, soft and hard woods, acrylic or boards. The by-product of such manufacturing processes are fumes and dusts that pose a serious hazard to health if inhaled by pupils or staff, such as asthma, respiratory disease and cancer. It is therefore crucial to

All P&J equipment is designed and manufactured in the UK to the highest standards of quality, durability, performance and value

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control exposure to these fumes and dusts by keeping them below statutory levels, known as WEL [Workplace Exposure Limits].

To safeguard against such hazards, the engineering controls required to remove dust and fume emissions at source is the installation of LEV [Local Exhaust Ventilation] Equipment which must be supplied and installed by a competent LEV Supplier, as stated by the HSE.

In 2013, having met P&J Dust Extraction at the Design & Technology Exhibition in previous years, Sir William Perkin's Estates and Facilities Manager contacted P&J for their advice on the upgrade of their extraction system to maintain the modern high tech facilities within the D&T Building as well as the continued protection of staff and pupils to the exposure of hazardous substances.

P&J's Technical Sales Manager arrived on site to meet the Estates and Facilities Manager to ascertain the exact requirements, compile the necessary details and investigate the layout of the Design & Technology Building

and the schools machinery arrangement to enable him to recommend the most effective solution for their needs.

P&J proposed a fixed LEV system housed neatly within the technicians room, one of their manufactured PJBMV 2.5 fine dust extraction units was connected up to a table saw, wood lathe and two fretsaws. P&J's highly qualified and experienced installation team took two days to set up the new system to the specified machinery with galvanized steel duct scheme, which included test points for LEV testing, the necessary fixings, flow valves, earthed flexible hose and the relevant capture hoods fitted to the woodworking machinery for more efficient dust collection.

Following the installation, P&J, the only extraction specialist UKAS accredited for both LEV testing and LEV commissioning, sent one of their BOHS qualified LEV inspectors who commissioned and tested the new system set up with the collaboration of the Estates and Facilities Manager and in accordance with HSG258. Whilst on site our test engineer also carried out the statutory Thorough Test and Examination on two additional LEV systems within the Building.

For part of the test the equipment needed to be in use so that our LEV engineer could carry out the dust sampling which is included within all P&J LEV reports, hence the necessity to liaise with the Estate & Facilities Manager throughout this process. The LEV system was also tested at critical points throughout the ducting and capture hoods connecting the machinery to the extraction units. At each test point a variety of air pressure and air velocity measurements were taken and assessed against the desired levels and compiled in a thorough and in-depth report. Also contained within the report was the condition of the LEV unit, its filters and cleaning mechanism, as well as noise levels taken.

