

## Royal Horticultural Hall

**Specialist in Flame Retardant Fabrics. Manufacturer and Installer of all types of Theatrical Drapes and Stage Equipment**

Corporation Mill  
Corporation Street  
Sowerby Bridge  
Halifax, HX6 2QQ  
West Yorkshire  
United Kingdom

T: +44 (0)1422 833 835  
F1: +44 (0)1422 835 157  
F2: +44 (0)1422 839 642

mail@jcjoel.com  
www.jcjoel.com



Visitors to next year's ABTT show won't have to go far to see an example of work by J&C Joel and Triple E. Standing in the gloriously art deco Lawrence Hall, they will be surrounded by one of the company's most prestigious projects to date.

The Royal Horticultural Halls, Westminster, have been the home of the annual ABTT (Association of British Theatre Technicians) show since 1992. Lawrence Hall, the newer of the two RHH halls, looks like a cross between a grand Victorian station and a cathedral -and has the acoustics to match. With its great transverse arches natural light that floods in through tiered side windows and domed roof lights as well as the end wall windows. Consequently this meant the hall was difficult to black out, especially in long summer evenings. In addition, when the hall was built in 1928, the surrounding area was commercial, so noise was never an issue. But the

hall's proximity to the Houses of Parliament means it is now surrounded by expensive residential apartments. Arup Acoustics were commissioned to carry out a survey of the hall, which showed a reverberation time of 7.5-8 seconds, and estimated that the proposed drapes would lower this to between 2 to 3 seconds.

Discussions with J&C Joel and Triple E began in February 2006, but it was not until the end of June that the final go-ahead was given. There was also no negotiation of the on-site dates of July 27 to September 8: The first effective use of the acoustic and blackout blinds was already booked for a Paul Smith Fashion Show, an interlude to London Fashion week. In essence, there was no room for error or not completing on time a real logistical headache for David Edelstein of Triple E and Tony Griffiths contracts manager at J&C Joel.

The proposal consisted of 56 motorised remote controlled roller banners for the four tiers of clerestory windows on each side of the hall, together with three motorised acoustic banners for the long vertical windows at the clock end, 14 dividing curtains and an array of other decorative and hall dividing curtains all of which would contribute to the blackout.

The special wool serge for acoustic drapes and banners, developed specifically by J&C Joel, is constructed as a flat woven fabric, felts during the wet finishing process, and so closes the natural air gaps created during the weaving. Tony Griffiths, explains: "Wool serge has the ideal characteristics for use in acoustic areas, but we also have to be mindful of the aesthetic qualities when the equipment is deployed. For the Lawrence Hall, our design and manufacturing team specified the dyeing and weaving of over 2,500 sq m of acoustic fabric to ensure the hall both looked and sounded perfect."

Another vital element to ensuring all the acoustic fabric hangs correctly is the fact that all the fabric is cut by hand. Neal Cartwright, drapery manager at J&C Joel explains: "Although the bonded serge is inherently stable, cutting by machine stretches the fabric. The blinds and banners for the Lawrence Hall needed to be error free, therefore hand cutting was the only way we could ensure that. We are fortunate in that we are probably the only company in Europe to have the space and facilities needed to fulfill this kind of project."

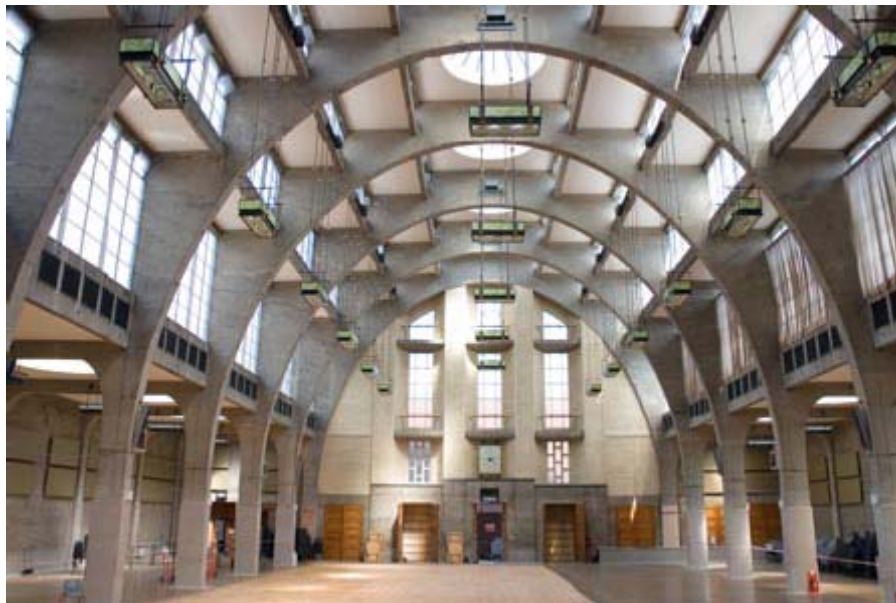
A key element of acoustic banners is an air gap of at least 80mm between two layers of fabric. To achieve this, the acoustic roller blinds are similar to a domestic blind, except that the fabric doubles back on itself, weighted by a traveling roller, to provide that double layer. In this instance, a double thickness of J&C Joel's bonded wool serge was used, to give both excellent acoustic values and total blackout.



To maintain the look of the hall, the fabric for both the blinds and the banners was dyed the same colour as the walls, with metal guide channels and masking trays for the motorised roller blinds being powder coated to match.

At the clock end of the hall, three motorized Venetian acoustic banners, the longest being 15m drop, are raised and lowered con-

cerning in a Venetian fashion. Horizontal aluminum slats are enclosed in each banner at 16cm intervals and a flat stainless steel band, which is fixed to the bottom tray of each banner, passes through the slats and is pile wound onto drums contained in the wall mounted frames. There is also provision for the later installation of a further four banners.



In addition to the acoustic and blackout part of the project, J&C Joel and Triple E also provided a system of flexible partitioning, which will enable the Hall to be divided into almost any configuration that a client may require. For the side bays, 14 semi-permanent partitions, located on independent chain tracks provide an effective system to support, reversible bonded wool serge curtains to give the client the option of black one side or 'sand' to match the acoustic banners. There are also tem-

porary floor stand partitions that will enable the creation of a black box environment.

At the completion of the project finished right on schedule, René Dee the client commented "Lawrence Hall gained a RIBA Award for its unique architecture and is a Grade II listed building, so we were keen to ensure that we did as little as possible to alter the look and feel of the space and I think we have achieved that. Anyone coming in here who had not visited the hall before would never realised this system was not original.

#### Summary of Equipment Installed

- 56 x motorised roller blinds for the North and South tiered windows
- 3 x Venetian acoustic banners for the clock wall with facilities for a further 4 banners
- 14 sets of reversible drapes, with independent chain tracks.
- 30m of 3-Way hall sectioning tracks and curtains.
- 15m of Unirail door way track and curtains.
- 21m of Triple E / J&C Joel portable pipe and drape hall divider system
- In total 4,517 sq m of fabric was supplied and installed by J&C Joel.

#### Content

Stickland, L. (2006) *J & C Joel Ltd Publications*, 'Loosplat', +44 (0)1865 202 679 / +44 (0)7831 329 888, louise@loosplat.com