

Rotterdamse Schouwburg



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Industry:

Entertainment

End User:

Rotterdamse Schouwburg

The Rotterdamse Schouwburg which is one of the most avant-garde theaters in the Netherlands was completed in 1988 to the design of Quist Architects on the site of an emergency theater that had been built after World War II. The design is considered quite radical in that the building does not follow the traditional theater layout of entrance, foyer, auditorium and staging. Because of space constrictions and existing buildings, it was necessary to combine the theater in a complex including offices, shops and indoor parking. A further requirement was that the new building should not block daylight from the private dwellings surrounding it. The design, therefore, is in the form of a number of different sized cubes raised to a height of seven meters. Altogether, more than 500 performances are presented annually in the 900-seat main auditorium ("Grote Zaal") as well as the smaller auditorium ("Kleine Zaal" with 160 seats) and the studio ("KB Studio" with 80 seats). Technical areas, rehearsal halls and dressing rooms are situated below the main auditorium.

Business Objective:

The previous public address system was based on a non-standard, customized analog paging configuration that was lacking in efficiency and functionality. The decision was made to replace the PA part of this system with a modern, digital solution. Thus, tenders were invited from three manufacturers through Verspuy Audio, an experienced Rotterdam-based installer of public address and other professional audio systems. Bosch's Praesideo system was finally chosen on the basis of its flexibility, the fact that it is digital and from a number of proven references.

Solution:

The installed Praesideo Digital Public Address and Emergency Sound System uses an optical network configuration that allows optimal freedom in system design. This flexible system architecture permits any type of equipment to be located wherever required in a building. Multiple systems can be easily connected and controlled over TCP/IP using optical or standard copper cabling. Distributed signal processing enables the central system unit – the Network Controller – to concentrate on functions such as supervision, routing announcements, background music and pre-recorded messages. These and other key features made Praesideo the ideal solution for the new theater. The entire Praesideo System is certified according to international and national standards including IEC60849 and BS5839. It also complies with all harmonized European standards for fire resistance, functionality and installation of emergency voice alarm systems.



Rotterdamse Schouwburg – one of the most Dutch avant-garde theaters

The Praesideo system configuration for the Rotterdamse Schouwburg comprises 1 network controller, 6 power amplifiers providing a total loudspeaker power of 3,000 W, 1 customized fireman's panel, 7 call stations, 90 loudspeakers and associated connectors, switches and cabling. The cabling, especially, posed a challenge since the new system had to be integrated using most of the existing wiring, much of which was encased in the concrete structure of the building and difficult to access. For interconnecting the 19-inch rack-mounted power amplifiers and the call station interface units which are connected to the seven call stations with CAT-5 cabling, optical fiber cabling is used. Upgrading the public address system included increasing the number of zones from nine to 19, for which the number of loudspeakers per zone varies from four to 30. Selection panels in the two auditoriums and the studio allow artists to monitor the progress of a performance and when they are due on stage. This system also provides ambient background music through a fourth line.

Result:

The Praesideo Digital Public Address and Emergency Sound System installed in the Rotterdamse Schouwburg is a good example of an efficient and secure solution for public safety in a large theater. It is an excellent reference site for future installations of this kind, both for Bosch and for the installer, Verspuy Audio.

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