

Safe and sound at Oktoberfest 2017

An extended safety concept for Munich's famous carnival includes voice alarm systems with Fohhn loudspeakers.

23 Notruf-SOS

Safety for large-scale events

Safety at large-scale events has become an increasingly important factor. Visitors must be able to party freely while still being able to clearly understand and act upon all relevant announcements and instructions, in any location.

A solid safety concept, along with an optimally functioning voice alarm system, is therefore a prerequisite: A system that, regardless of the size and architecture of the venue, allows for complete coverage. For this purpose, loudspeaker systems are required that can offer the appropriate directivity and reach. These systems must also guarantee first class levels of speech intelligibility – an essential element of any voice alarm – while remaining unobtrusive among market stalls or fairground booths, or in mar-quees or large halls. In other words: They must integrate seamlessly into the respective room- or event concept and still perform their duties reliably.

Speech intelligibility for around 6.2 million visitors: thanks to LINEA LC-220.





Wiesnproof and weatherproof: FOCUS MODULAR modules in sound permeable rain covers.

Compatible audio solutions from Fohhn

High performance loudspeakers, which can fulfil these and other requirements, have long been part of Fohhn Audio AG's product portfolio. As a certified manufacturer and expert in professional sound reinforcement technology, Fohhn offers systems equipped with state-of-the-art audio- and digital technologies to suit the most diverse applications.

For example, LINEA LEN products belonging to the VOICE ALARM-SERIES have been specially developed for use in voice alarm systems. These passive 100 V line source systems are certified in accordance with the EN 54-24 Type B standard and are ideally suited to either outdoor or indoor use. Due to their technical features, LINEA LEN systems guarantee an even dispersion and precise coverage, even at long distances.

Fohhn's LINEA FOCUS line source systems offer a further solution in terms of safety. These active loudspeakers

use state-of-the-art Fohhn Beam Steering Technology. In other words: Their vertical beam dispersion characteristics can be controlled in real time, using a single piece of software. When used in venues with long reverberation times (i.e. on station concourses or in airport terminals), these line source systems deliver intelligent and precise sound coverage. LINEA FOCUS systems are compatible with all current digital audio networks.

Over the years, Fohhn loudspeaker systems have been used in a variety of relevant projects, including Munich Airport's Terminal 2, opened in 2003 and named as the best airport terminal worldwide in 2017, and Paris Charles de Gaulle, Europe's second largest airport. More recent voice alarm projects have included, among others, the ERWIN HYMER WORLD camping/caravanning centre and the Maximilianeum, home of the Bavarian State Parliament.

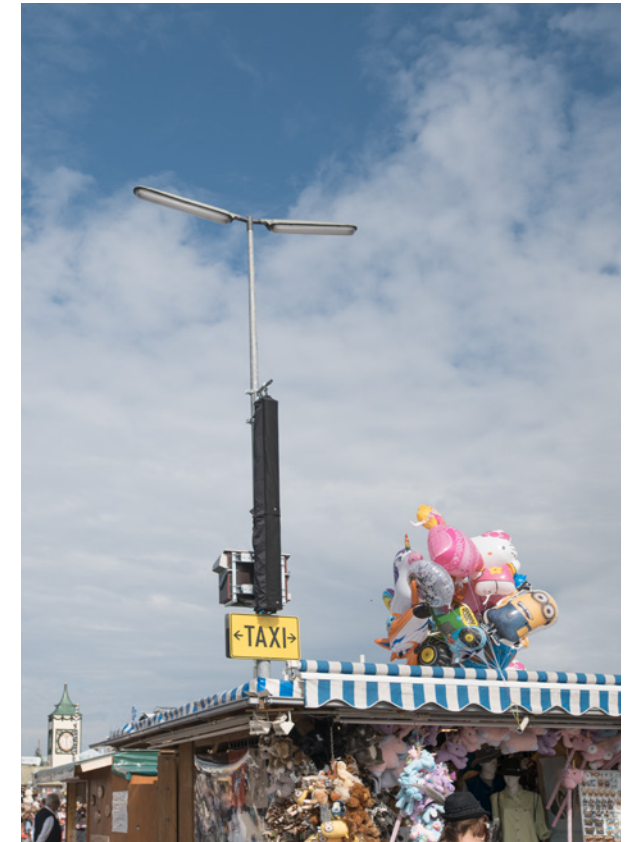
Oktoberfest 2017

When the world's largest festival opens its doors, huge visitor numbers can be expected. This year, a total of around 6.2 million visitors partied on the 42-hectare Theresienwiese. To guarantee best possible safety measures for such a large number of people, the city of Munich commissioned a new, extended safety concept for the 2017 Oktoberfest. A public address system was requested that could work at an optimum level across all zones over the entire festival site.

Dipl.-Ing. Thomas from LWPI was responsible for the conceptual, pre- and executive planning of the system, as well as for its eventual construction management. The engineering firm, based near Munich, has a great deal of experience in the planning of event technology and acoustics for public places and has realised many successful projects in this field.

Following a Europe-wide tender, the contract for the technical

implementation and equipment of the entire Oktoberfest site went to Wilhelm & Willhalm event technology (WWVT) from Aschheim near Munich. WWVT were also responsible for the workshop- and construction planning.



Beam Steering between booth and beer tent:
one of 16 FOCUS MODULAR stacks.

Perfect reach and directivity: LINEA LC.

Used 115 times: LINEA LC line source systems.

A complete system was to be installed, the only one of its kind worldwide, with a sophisticated, specially designed redundancy plus control and monitoring flexibility. The loudspeakers used in this installation would, thereby, have several requirements to fulfil: The systems would need to offer powerful sound coverage and excellent speech intelligibility – both at high levels and over long distances. For announcements, a more pleasant, natural sound was requested. The loudspeaker systems would also need to be lightweight – so conventional loudspeakers and line arrays were ruled out.

All these requirements could however be met by Fohhn loudspeaker systems: They also proved free from defects during the TÜV inspection. 115 LINEA LC-220 systems (low resistance version) were spread over the entire site. These slim line source systems have

a high-quality, weather-resistant aluminium enclosure. Along the main route between the large festival marquees and other attractions, 16 FOCUS MODULAR stacks were installed (each consisting of an FM-400 low-mid module and an FM-110 high frequency module), fitted with sound permeable rain covers. These systems feature Fohhn Beam Steering Technology and can deliver an appropriately powerful performance in order to achieve optimum results even when there are high levels of background noise.

The fact that the new voice alarm system not only worked in theory but also in practice was demonstrated in its first “testing” situation: During a heavy storm where lightning struck one of the beer tents, no visitors were harmed – the loudspeaker systems were able to transmit all the important announcements both reliably and understandably.





Conclusion

The new safety concept proved extremely effective and met the city of Munich's expectations, much to the satisfaction of all the companies involved in the project. The whole system now constitutes a successful model for voice alarm systems at other festivals and events of this size.

Best results despite high background noise:
FOCUS MODULAR along the wide main routes.

FOHNN.
SOUNDS PERFECT.
IS PERFECT.

For further information on loudspeakers for voice alarm systems and fire alarm systems, please visit our website, or contact our planning engineers directly.

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