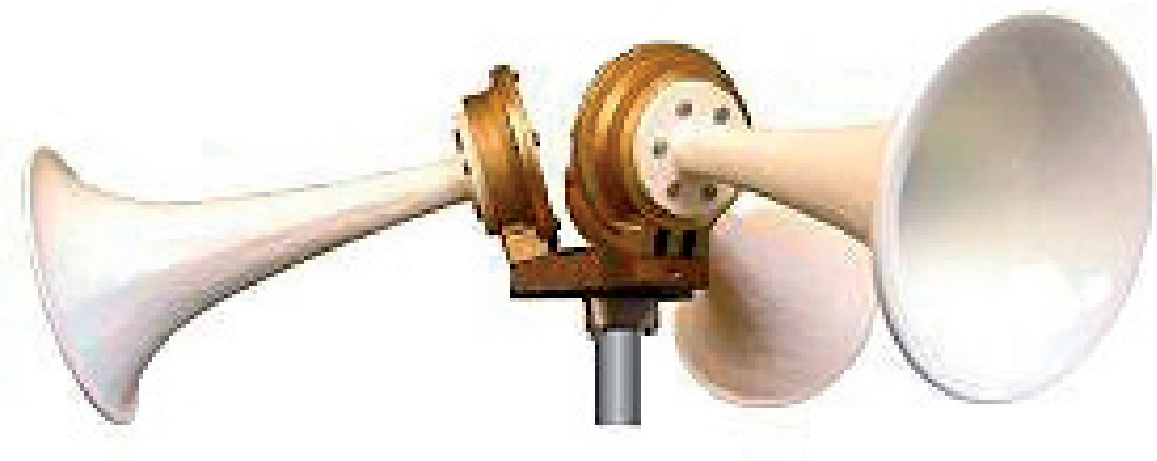
TYFON® MKD 150/3 "SUPERTRIPPLE"

High-power Sound Emitter for Long Range Alarm

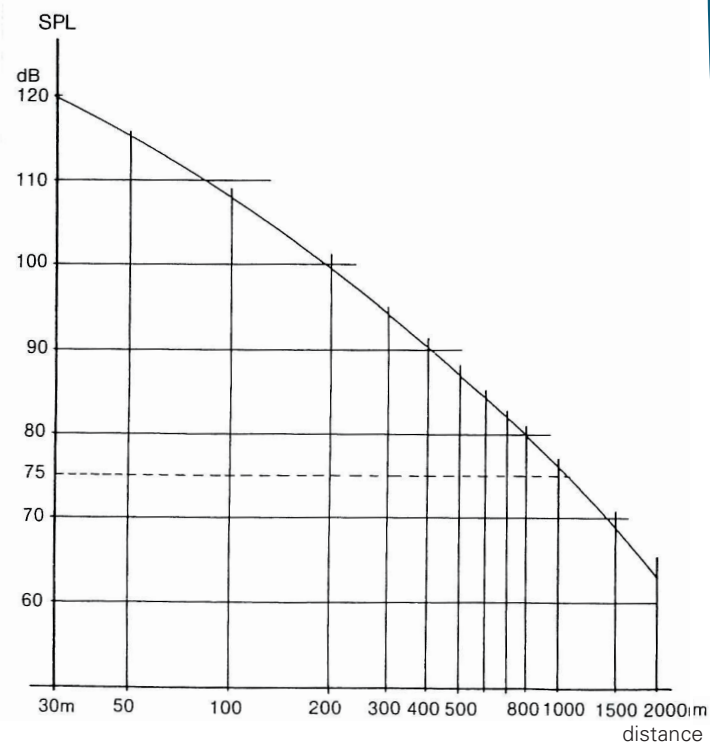


ALARM

Long Range Alarm

TYFON MKD 150/3 Supertripple is a HIGH-POWER sound emitter specially developed to cover large areas.

On TYFON MKD 150/3 is capable of covering an area that is several times as large as the area covered by traditional sound emitter. The long range coverage is obtained by an extremely high sound pressure output and a favourable tone composition. The effective Sound Pressure Level at 1m is 150db for one Supertripple, high output version with 2 levels 156 dB with only six horns with air consumption of only 200l/sec.



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Characteristics of Tyfon MKD 150/3 Superripple

- Very high acoustic power and efficiency.
- Tone composition for maximum audibility.
- Requiring no maintenance.
- The sound distribution from a composite tone sound emitter is not affected by phase interference from different horns. A triple or quadruple horn array, which is connected to one master generator, may have a distribution pattern with a numbers of sectors of reduced sound intensity owing to such a phase interference.
- A "masking" of an acoustic alarm by noise and other temporary sound is less probable to occur when more then one basic frequency is being used for the alarm signal.

Why is 120dB at 30m (100') to be recommended?

As mentioned before, a sound signal is a tone constituted of harmonic components (partial tones). The fundamental and the nearest harmonic components have the major task to provide a penetrating long range signal. The harmonics above 2000 Hz have a very low value for this purpose.
A proper sound pressure level (total or "Linear") for a good long range effect without obvious risk for hearing damage in a near zone is 120dB at 30m which corresponds 150dB at 1m.

Planning of the distribution of the sound

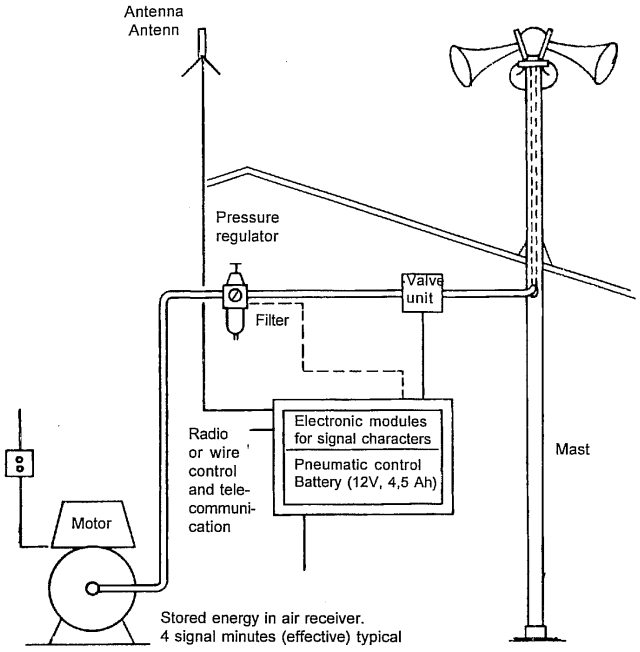
The most efficient tone components in the sound spectrum, result in a circular horizontal distribution from the MKG 150/3.

Depending on the wind and temperature variations in the atmosphere and different kind of reflexions, obstacles or typography, the sound can be notably affected. The diagram on the first page is made based upon several studies and results from scientific and experimental sources.

As shown the sound distribution attenuation is close to the theoretical value for "free field" – 6dB per doubled distance up to 50m or sometimes more from the sound source. In general the attenuation increase remarkably with the distance. In areas with vegetation, forests and densely built up areas, the range will be much lower, on the other hand in good visibility and wind conditions, the range can be better then the diagram.

The sound pressure level – SPL – from an alarm signal, should be at least 10dB above the background noice level in order to be distinguished immediately. Depending in the typography, the SPL at the outer range of the area, should be 70-80dB. If very noisy area, an SPL of more then 80dB can be necessary.

Technical data	
Tyfon type	MKD 150/3
Frequencies (three horns)	300+320+340 Hz.
Sound pressure level:	
at 30m +/- 2dB	120 dB
at 1m +/- 2dB	150 dB
Airconsumption:	80-100 l/s
Air pressure during signal: (measured from pressure gauge connection M12)	0,35 – 0,40 MPa
Weight without standpipe:	20 kg
Widths across horns:	1 m (diam.)
Horn diameter:	270 mm
Suitable standpipe.	1½"
Suitable supply tubing:	22/19 mm (copper)
Materials, non-corrosive	
Recommended valve unit:	TV 97 ¾"



Installation of Tyfon Alarm Station complete with Tyfon MKD 150/3, remote control by radio and or/wire

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