

# ABT-TNL100

EN 54-24

## HIGHLY DIRECTIONAL TUNNEL LOUDSPEAKER

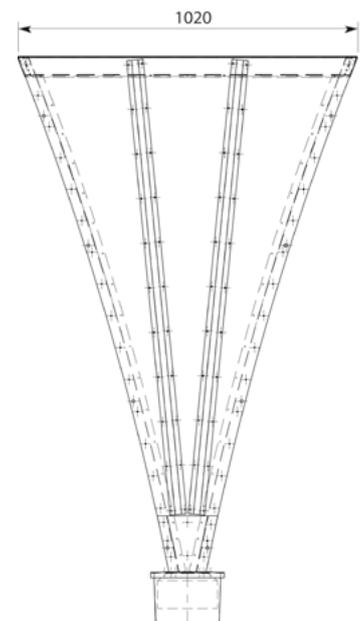
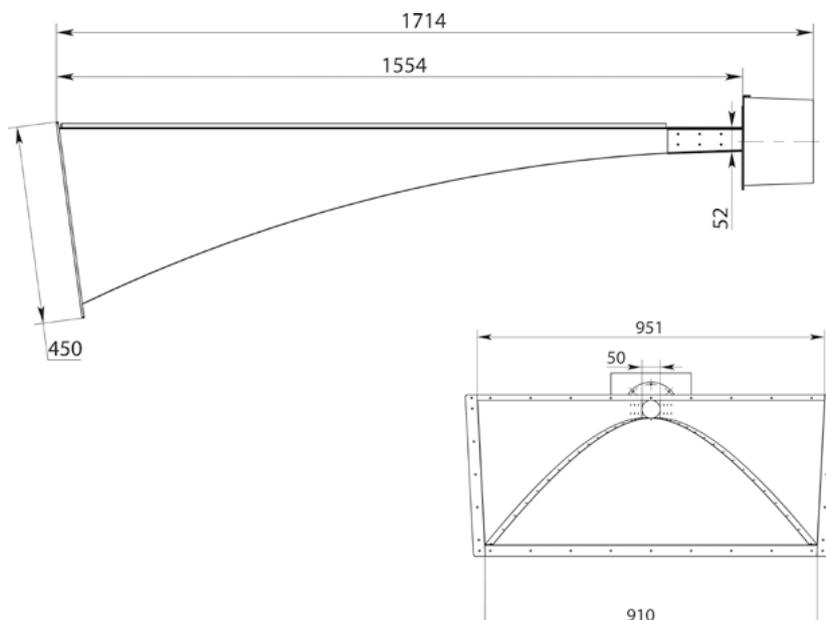


- ✓ *Specially designed for tunnel applications*
- ✓ *Highly directional asymmetric horn*
- ✓ *Excellent speech intelligibility*
- ✓ *Stainless steel construction*
- ✓ *Waterproof housing IP66*
- ✓ *High power output 100 / 50 / 25 W*
- ✓ *Thermal protection*
- ✓ *Certificate of Conformity: 1438-CPR-0778*

In case of an emergency, the Voice Evacuation System needs to guide people in the tunnel to safety so the audio transmission should be as clear as possible. In general, due to high levels of reverberation and noise, a tunnel is not an ideal environment for Voice Evacuation System and therefore speech intelligibility becomes a critical parameter for any voice alarm application.

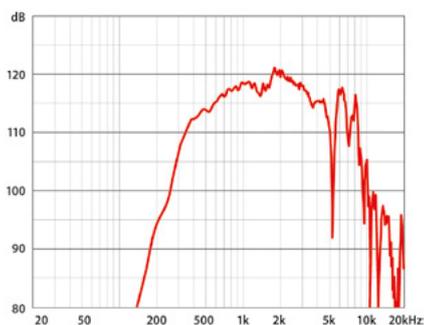
To establish a sufficient level of speech intelligibility, a highly directional speakers system is required. By reducing the energy emitted to other surfaces, reflective sound energy can be minimized which results in a better direct to reverberant ratio. This will improve the maximum feasible speech intelligibility. To minimize disturbing echo effects, resulting in a loss of speech

intelligibility, each horn speaker is driven by an individual signal channel in a 100 V installation, which is equipped with audio DSP including EQ and delay. Our product S4T (Safety For Tunnel) offers the most effective solution which seamlessly combines a dedicated Voice Evacuation System with tailored Tunnel Loudspeakers.

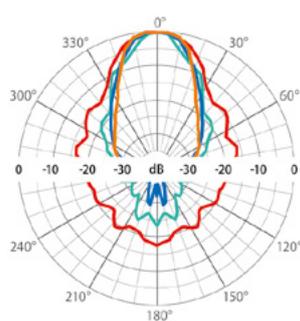


		<b>ABT-TNL100</b>
<b>Electrical</b>		
Rated power, W		100
Tappings 100 V line, W		100 / 50 / 25
Tappings 70 V line, W		50 / 25 / 12,5
Transformer impedance @ 100 V, Ω		100 / 200 / 400
Driver impedance, Ω		6
Effective frequency range, Hz		250 – 8000
Sensitivity @ 4 m, 1 W, dB		99
SPL @ 4 m, rated power, dB		118
SPL @ 1 m, 1 W, dB		111
SPL @ 1 m, rated power, dB		131
Horizontal dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		27 / 22 / 27 / 21
Vertical dispersion at 500 Hz / 1 kHz / 2 kHz / 4 kHz, [°]		60 / 36 / 21 / 15
<b>Environmental</b>		
Environmental type		B
IP Rating		IP66
Min. / max. ambient temperature		-25°C / 70°C
<b>Mechanical</b>		
Dimensions, mm		1714 × 1020 × 450
Net weight, kg		34,2
Colour		Grey (RAL 7037)
Material		Stainless steel
Mounting		Anchor for concrete
<b>Option</b>		
For DC line monitoring		Capacitor
Colour optional		RAL palette
<b>Ease Model</b>		
		✓

Frequency band:



Circular chart of directional characteristic – horizontal:



Circular chart of directional characteristic – vertical:

