TOPAS

Art. No. 5924

Characteristics and sound properties

TI 100 and MHT 12 are clearly two of the best drivers VISATON has to offer. The Hobby HiFi editors developed the TOPAS model on the basis of these drivers by combining them in a delicate-looking, unusual speaker cabinet and demonstrating that they do, indeed, harmonise together beautifully. Compared with the original Hobby HiFi proposal, we have now slightly modified the crossover in order to achieve a warmer-sounding effect which guarantees long-term, relaxed enjoyment. By modifying the inner damping, it has also been possible to simplify the housing and suppress resonance even more effectively.

It is not only the spatial effects and the accuracy of the separation that are impressive, the frequency response is also unusually broad. The upper limiting frequency is at 40 kHz which is well outside the audible range. The lower 35 Hz limit is remarkably low for a 10 cm woofer. This is achieved by fine-tuning the cabinet in the borderline area between vented bass and transmission line. Obviously, the small-diameter TI 100 can only reproduce such deep bass at a limited volume level. The physical limits are dictated by the surface area of the diaphragm and the length of stroke. The TOPAS is, as a result, not intended for reproducing powerful rock music or action-packed movies. But it is surprising how often visitors say to us, after hearing a demonstration of really large, powerful speakers, "That's all very well. But at home I can hardly turn them up to that sort of volume anyway." The TOPAS has been specially designed for people like that. Small and homely but with bass quality that will have your visitors' eyes roaming the room looking for a hidden subwoofer.
The TOPAS will take loads of 40 / 60 watts measured using standard measuring techniques. This does not mean, however, that the amplifier can not have a higher output level than this. It is possible to use an amp with a far higher output than this provided you take it easy with the volume settings and do not turn up the volume to a level that causes distortion in the sound quality. TOPAS speakers should be kept out of the reach of small children and overtly merry partygoers.

Similar products

ARIA	ARIA 2
ARIA 2 KE	ARIA DIPOL 1

Extract from Hobby HiFi

"The acoustic qualities produced by the rather fragile-looking TOPAS completely exceeded all our expectations. The system was able to cope well with all genres of music from small classical ensembles through full-sized orchestras and big-band jazz to state-of-the-art pop."
"The remarkably slim-line design belies the ability of the system to reproduce crisp, very deep bass. In practice, dynamic technology is nothing like as limited in its range as distortion measurements would have us believe."
"TOPAS' spatial abilities completely convinced us. The remarkable bass-handling abilities are worthy of special note because the system steers clear of the droning 'bowling-alley' effect in favour of generous, broad-range treatment."

Extract from Klang & Ton

"The way the TOPAS started off was impressive, to say the least, very fine definition, dynamic and bass reproduction none of us would have thought possible only minutes before.
Another impressive feature was the way these loudspeakers unravelled the more complex structures to make some details audible that one had never really noticed before.

ARIA KE

At the same, time the speakers generated spatial qualities that were highly realistic. In terms of sound quality, the TOPAS speakers left nothing at all to be desired. With their diminutive TOPAS, VISATON have, once again, created great results. They offer everything the audiophile can expect from such speakers and will ensure hours of listening pleasure."

Technical Data:

Nominal power handling	40 W
Peak power handling	60 W
Nominal impedance	8 Ohm
Frequency response	35 - 40000 Hz
Mean sound pressure (nominal)	80 dB (1 W/1 m)
Cut-off frequency	3500 Hz
Principle of Housing	Transmissionline / Baßreflex
Net volume	20 l
Outer dimension height	900 mm
Outer dimension width	162 mm
Outer dimension depth	225 mm

Construction

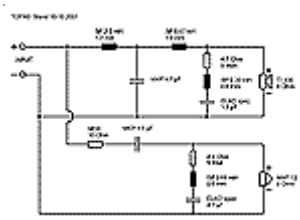
Print

TOPAS

Art. No. 5924

Building instructions

The cut sections of the cabinet, except for the base, are glued as shown in the drawing. The base is removable and is screwed to four laths that have been glued into position.
The fine bevel at the interface between the upper front part and the angled baffle can be made with an adjustable jig or circular saw or you may simply round off the edges with a rasp.
The recesses for the speakers should be cut a little larger in diameter to allow for tolerances and the thickness of the paint or varnish.
The crossover is divided across two circuit boards. One circuit board is attached to the removable base. The second is mounted on the rear wall behind the bass cut-out.



Crossover

Inner damping

Two sheep's wool mats are evenly distributed in the upper half of the housing.

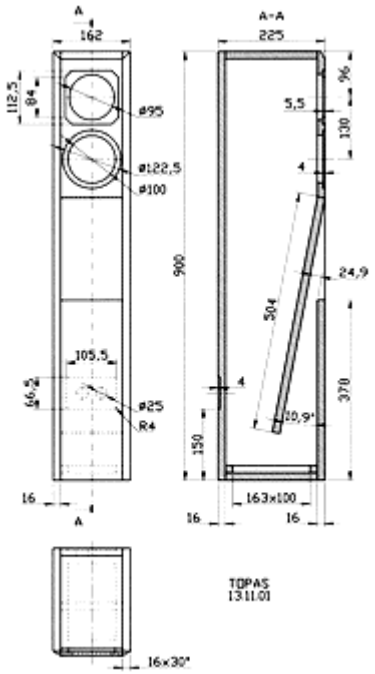
Component parts list for 1 box

Tweeter:	MHT 12 8 Ohm	1 piece
Woofer:	TI 100 8 Ohm	1 piece
Crossover:	"Topas"	
Terminal:	High-End-Terminal	1 piece
Damping material:	Lamb's wool	1 bag
Wood screws:	3,5 x 19 mm	8 pieces
Special wood screws:	5 x 30 mm	6 pieces
Cable:	2 x 1,5 mm^2	2,5 m

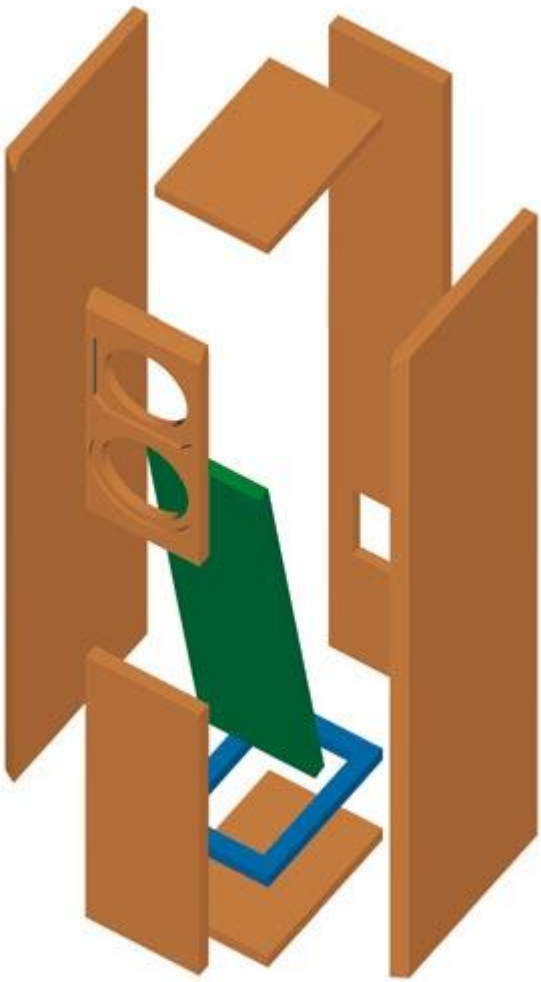
.....

Cabinet parts list for 1 box

Parts	Size (mm)	Quantity
Material: 16 mm chipboard or MDF		
Upper Front	307 x 130	1
Lower Front	378 x 130	1
Panel	504 x 130	1
Top panel	193 x 130	1
Rear panel	900 x 130	1
Side panels	900 x 225	2
Bottom panel	192 x 129	1
Material: Wood		
Laths	163 x 15 x 15	2
Laths	130 x 15 x 15	2

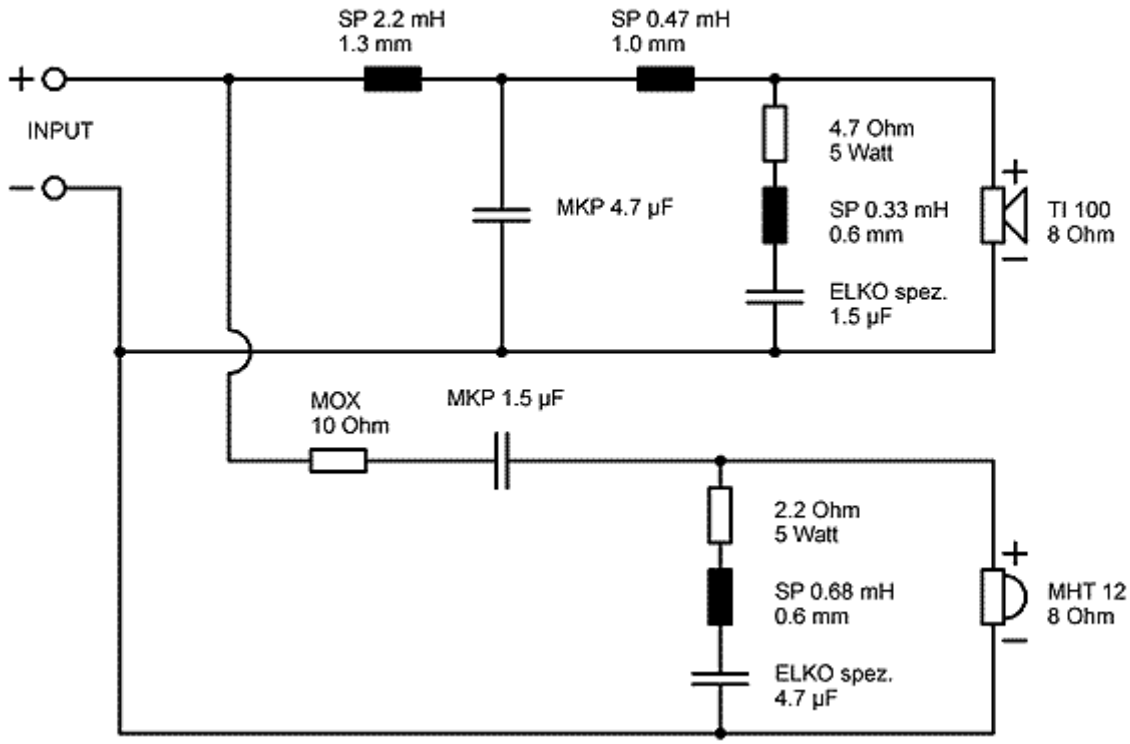


Sketch

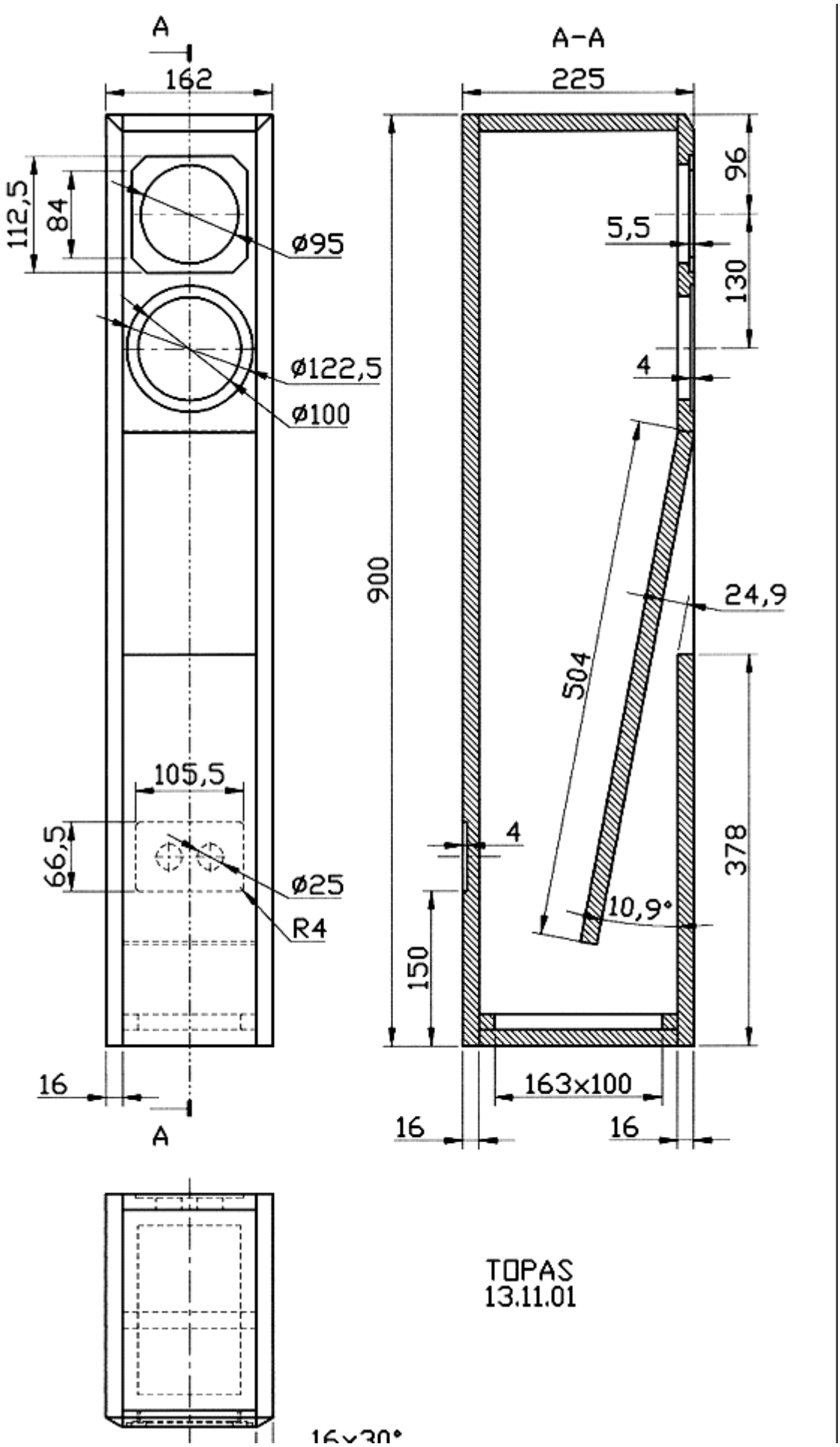


Print

TOPAS Stand 19.10.2001



Print


A
162
112,5
84
ø95
ø122,5
ø100
105,5
66,5
ø25
R4
16
A
A-A
225
96
5,5
130
4
900
24,9
504
4
378
10,9°
150
163x100
16
16
TOPAS
13.11.01
16x30°

TI 100 8 OHM

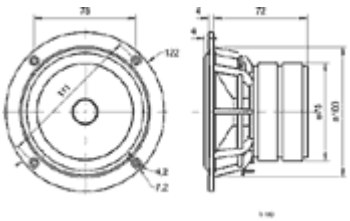
Art. No. 1271

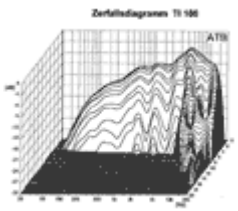
10 cm (4") High-End low-midrange driver featuring a completely new type of diaphragm cone made of pure titanium.
The carefully designed cone combines with the shape and material of the surround and the adhesives used in the construction to avoid that dreaded cone resonance or rather to shift it up into the highest possible frequency band. The shape of the basket with its large aperture and rear-ventilated centring piece coupled with the open voice coil with its phase plug produce the lowest possible mechanical losses and produce a correspondingly high mechanical rating. As a result of the construction using double magnets, the TI 100 is also magnetically shielded.

The results have to be heard to be believed: the acoustic properties are excellent and the TI 100 8 Ohm demonstrates its transparency and its almost analytical sound character that, however, never becomes a bore, in the VOX 200, for example.

The TI 100 is ideal as a mid-bass unit in smaller high-end shelf speakers or as a mid-range unit in high-end multi-way speakers.

Used in:
ARIA
ARIA 2
ARIA 2 KE
ARIA DIPOL 1
ARIA KE
TOPAS
VOX 200 [Extract from STEREO: Verdict: excellent]

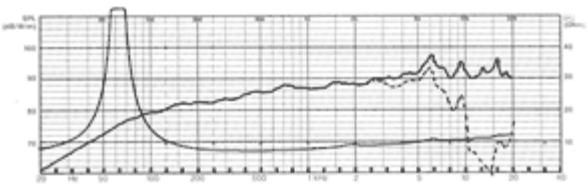




waterfall spectrum

Technical Data:

Nominal power handling	40 Watt
Peak power handling	60 Watt
Nominal impedance	8 Ohm
Frequency response	fc - 8000 Hz
Mean sound pressure (nominal)	86 dB (1 W/1 m)
Maximum cone displacement	4,5 mm
Resonance frequency	62 Hz
Magnetic induction	1,2 Tesla
Magnetic flux	300 µ Weber
Height of front pole-plate	4 mm



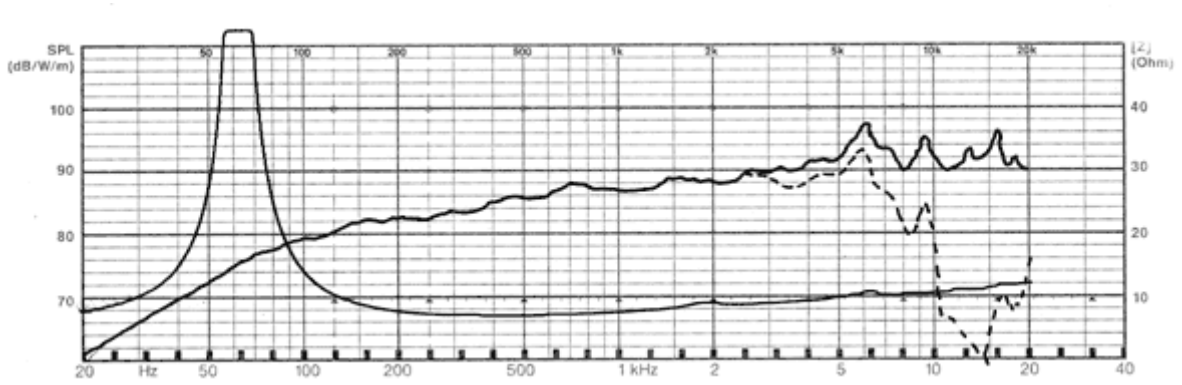
frequency and impedance response

Voice coil diameter	20 mm
Height of winding	8,5 mm
Cutout diameter	101 mm
Net weight	1,05 kg
D.C. resistance Rdc	6,0 Ohm
Mechanical Q factor Qms	7,05
Electrical Q factor Qes	0,40
Total Q factor Qts	0,38
Equivalent volume Vas	6,92 l
Effective piston area Sd	54 cm^2
Dynamically moved mass mmd	4 g
Force factor Bxl	4,8 T m
Inductance of the voice coil	0,7 mH

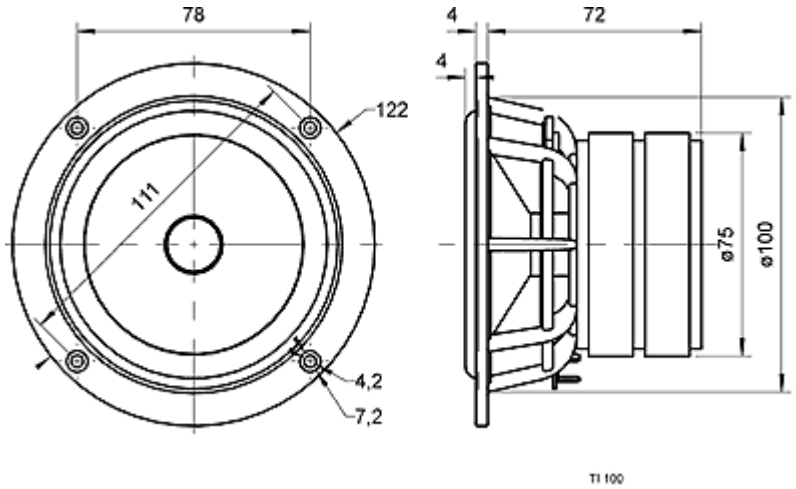
Similar products

W 100 S 4 OHM
W 100 S 8 OHM
W 100 SC 4 OHM
W 100 SC 8 OHM

Print


SPL
(dB/W/m)
100
90
80
70
20
Hz
50
100
200
500
1 kHz
2
5
10
20
40
(Ohm)
40
30
20
10

Print



Print