

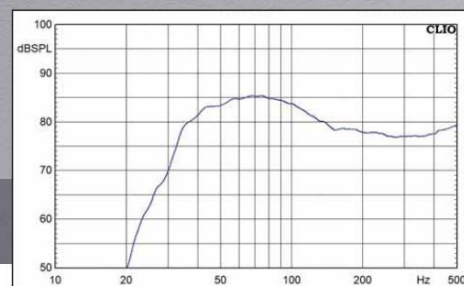
Musway MWS822 + MWS1022 – new woofer chassis for space savers

Musway low profile subwoofers

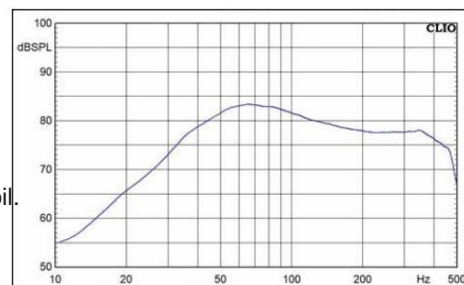
► The country needs new woofers, preferably those that don't need a bulky subwoofer box for good bass. That's why Musway now comes with two woofer chassis in a flat design.

Musway's range of subwoofers has no fewer than eleven subwoofer models to choose from. Not one of them is a "normal" subwoofer. There are either solutions for under the seat or for the spare wheel or particularly compact housings equipped with mini woofers. What's still missing are subwoofers for particularly flat built-in installations, and that's exactly what they are

there is now too. There are two models to choose from, the 8 inch small MWS822 and the 10 inch brother MWS1022, where the 22 stands for a 2 x 2 ohm double voice coil. At 130 and 150 euros, the MWS are not overly expensive, but with an installation depth of 79 and only 92 millimeters they are really flat. Since expensive neodymium is not within reach at the affordable price, the



The MWS822 draws from the full in 17 liters. With a low tuning it reaches the 40 Hz mark



The MWS1022 only runs at 83 dB at 1 W in the closed housing, but it plays evenly and cleanly down to the deep bass



The MWS woofers work with conventional drives, but with tricky fl at baskets and membranes

Conclusion

The MWS subwoofers easily manage the balancing act between space-saving flat design and despite the appealing sound. We are very satisfied with the performance.

Elmar Michels

both woofers via conventional ferrite drives. Both work with 50 millimeter voice coils, so they don't have to hide when it comes to resilience. Since the drives are not that flat, the space inside the basket has to be saved. For this purpose, the level of the centering spider is not to be found as usual at the lower end of the basket, but moves a bit into the basket. This is necessary to ensure sufficient travel for the vibrating unit, because a subwoofer should be able to move some air. There is no more room for the normal cone in the membrane. The Musway cone can be thought of as having the cone folded over halfway, giving a zigzag profile from the side. A fiber mat made of glass fiber with added carbon is used as the material, which is shaped and then baked with resin to make it airtight. A large, flat dust cap then closes the membrane on the front side and ensures a smooth surface. To increase stability, the outer edge of the membrane is then "flanged", which provides additional torsional rigidity.

Measurements and sound Like

any speaker, some flat subwoofers can also be built into different housings. Closed housings, which are always slightly smaller than ventilated ones, are ideal for the most compact design possible. The MWS822 needs between 8 and 20 liters, the MWS1022 requires at least 20 liters, open at the top. In the bass reflex housing, the 8 would like to have a good 20 liters, but a little less is also possible. With the 10 series, the housing is very large due to the high Qts quality, 40 liters would be popular here, but you usually don't need a flat woofer for that. We therefore tested the MWS822 in 17 liters bassreflex and the MWS1022 in 30 liters closed. This is how the sound goes forward. The MWS822 plays surprisingly deep for a small woofer.

It even reproduces darker basses without grumbling. On the other hand, he's also fun with techno or upper bass in general, here he plays quite cleanly and dynamically. The MWS1022 provides even more deep bass. Despite the "only" closed housing, its design helps it to play very confidently, evenly and balanced right down to the frequency range. It also plays electronic deep tones very cleanly and bass drums are powerful.



Also the bigger one MWS1022 belongs with only 92 mm Installation depth to the real hip flasks

Subwoofers	Musway MWS822	Musway MWS1022
Price distribution	around 130 euros	around 150 euros
hotline Internet	Audio design Kronau 07253 9465-0 www.audiodesign.de	Audio design Kronau 07253 9465-0 www.audiodesign.de

Evaluation			
sound	50 %	1.1 1.1 1.0 1.0 1.0 1.5	1.5 1.5 1.0 1.0 1.0
draft	12.5%	1.0 1.0 1.0 1.0 1.0 1.0	1.0 1.0 1.0 1.0 1.0 1.0
Print	12.5%	1.0	
cleanliness	12.5%		
dynamics	12.5%		
laboratory	30%	1.8 1.8 1.0 1.0 1.0 3.0 3.0 3.0 3.0	3.0 3.0 3.0
frequency response	10%	3.0 3.0 3.0 1.5 1.5 1.5 1.5 1.5 1.5	1.5 1.5
efficiency	10%		
maximum level	10 %		
processing	20 %	1.5 yyyyy y	1.5 yyyyy y

Technical specifications		
basket diameter	8.5" 7"	25.9cm
installation diameter	3" 5.4"	22.5cm
installation depth	2.0kg	9.2cm
magnet diameter		14.5cm
Weight		2.2kg
nominal impedance	2 x 2 ohms	2 x 2 ohms
DC resistance Rdc	3.92ohm	3.97ohm
Voice coil inductance Le	2.65mH	2.76mH
voice coil diameter	50mm	50mm
membrane surface	216cm2	346cm2
Resonance frequency	40Hz	36Hz
fs mechanical quality	5.33	4.55
Qms electrical quality Qes	0.67	0.91
Total Quality Qts	0.59	0.76
Equivalent Volume Vas	10.0L	23.2L
Moving Mass Mms	102g	141g
rms	4.84kg/s	7.01kg/s
cms	0.15mm/N	0.14mm/N
W xl	12.30 Tm	11.79Tm
Sound pressure 1W, 1m	85 dB	83dB
performance recommendation	100-300W	150 - 300 W
test case	BR 21 I	g 30 I
Reflex channel (dxl)	7 x 19 cm	-

upper class 1.4	upper class 1.4
CAR & HiFi 4/21	CAR & HiFi 4/21
Price/performance:	Price/performance:
very good "Carefully designed subwoofers for fl at space-saving housintp"	very good "Carefully designed subwoofers for fl at space-saving housing."