**APPLICATIONS**

dome midrange for hi-fi systems 500 Hz to 6000 Hz
good combination with D-28 and D-21 or both

**FEATURES**

54 mm soft dome vented magnet motor aperiodically damped soft-roll-off flexible connection wire Hexacell technique Magnaflex damping/cooling

If the target is a high quality system with good efficiency at budget price the D - 52 is the midrange solution. If combined with D - 28 or D - 21 the phase is homogeneous which results in very good resolution and good balance. Of course all the known DYNAROUND characteristics as high power handling, wide dynamic range etc. are incorporated in the D-52.

Tone bursts are the best way to obtain an accurate picture of overall acoustic performance. Regrettably they are mostly used only to test rise-time and ringing - which shows much more clearly with a step function test! With a tone burst all the moving parts of a speaker can be loaded without burning the voice coil. With a given frequency the SPL should be 121 dB higher at 1000 W input when compared with a 1 W input, if the output is linear. The test shows the driver's ability to reproduce the transients without compression. The right picture shows that even a 1000 W input is not the limit; the dynamic response is absolutely linear. Data given in catalogues (and even test reports) normally are calculated figures and not measured values.

This compression effect is either understated or ignored very often. That is why many speakers do not produce SPL's above 100 dB, in spite of higher theoretical specifications. However this test exposes such anomalies between calculations and actual measurements.

D-52

The dome shape of the frequency response curve is ideal for a midrange driver as with 6 dB filters the results come out perfectly.

The acoustically measured phase runs as a straight line from 100 to 20,000 Hz.

The I, D. curves are exceptional low and smooth. They had to be raised by 40 dB.

**Compliance:**

- **Overall dimensions:** 140 x 104 mm
- **Power handling:**
  - acoustic: 200 W
  - equivalent volume: 800 W

**Dimensions:**

- **Eff. cone area:** 8.5 cm²
- **Max. excursion F-P:** 3.0 mm
- **Max. excursion F-P:** 5.0 mm

**Frequency response:**

- **500-40000 Hz**

**Harmonic distortion:**

- **< 0.1 %**

**Intermodulation distortion:**

- **< 0.1 %**

**Excursion:**

- **< 0.1 %**

**Polarization:**

- **< 0.1 %**

**Sensitivity:**

- **94 dB**

**Other:**

- **Data given are as after 50 hours of testing**

*Depends on cabinet construction*

Already in 1969 our engineers did use the STEP - FUNCTION as a measuring method. Foreign drive units were used but the measuring results had been so disappointingly that it was decided to start the development and production of speaker drivers. - The scope to the right shows that the work has lead close to the ideal.

The iron parts of the Dynaudio magnet systems are not punched or caked but individually turned on CNC - machines. This is an important difference to bulk products. Because of the precision possible and the reliability our magnet systems are used, e. g., as pumping motors in medical heart appliances.