

<b>DOCUMENT NO:</b> TM-406	<b>TITLE:</b> Test Method for Measurement of Spider Neck I.D.	<b>PAGE:</b> 1 of 2
<b>APPLICATION:</b>	<b>REVISION:</b> 1/6/08	<b>DATE:</b> 1/6/08

**PURPOSE:** The test methods outlined in this document define equipment and techniques for measuring the Neck I.D. of loudspeaker spiders.

**SCOPE:** This document is intended to be used in conjunction with the applicable ALMA International document(s) in which it is referenced. These referencing document(s) may contain general information not included in this document, but which applies to this document, thus it is not recommended to use this document outside of its intended context. In the event of conflict, information in this document supercedes information in the referencing document(s).

**RESPONSIBILITY:** ALMA International Component Standards Sub-Committee

**RECORDS:** This document will be maintained and kept on file by ALMA International. Measurement results shall be maintained by the entity performing the measurement.

**RELATED DOCUMENTS:**

ALMA International Nomenclature Prints (NP's)  
ALMA International Dimensioning and Tolerancing Guidelines (DG's)  
ALMA International Measurement Guidelines (MG's)

## 1 Introduction

The test methods outlined in this document define equipment and techniques for measuring the Neck I.D. of loudspeaker spiders.

## 2 Required Equipment

- Tapered Gauge
- Dial or Digital Caliper

## 3 Method

- 3.1 Select a taper gauge, which has a diameter range that will accept the specified Neck I.D. range.
- 3.2 Place the spider on the taper gauge with the neck oriented upward.
- 3.3 Hold the taper gauge upward and shake it lightly until the spider neck comes to a rest. Position the spider further on the gauge by raising the lowest point of the spider neck to a level position with the highest point of the spider neck where it comes into contact with the gauge, then shake the gauge lightly to settle. Repeat this process as necessary until the spider neck is at its lowest point on the gauge without being forced.
- 3.4 Take the caliper and measure the outer diameter of the gauge at the point where the lowest point of the spider neck comes into contact with it.

<b>DOCUMENT NO:</b> TM-406	<b>TITLE:</b> Test Method for Measurement of Spider Neck I.D.	<b>PAGE:</b> 2 of 2
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**4 GR&R (Gage Repeatability and Reproducibility)**

0.10 mm, typically.

**Revision History**

<b>Rev Level</b>	<b>Description of Change</b>	<b>Prepared/ Changed By/ Date</b>	<b>Approved By/ Date</b>
DRAFT	Create document	George Wise 1/7/04	
1/6/08	Updated format and nomenclature, added GR&R information	Brian Sterling 1/5/07	ALMA Committee 1/6/08