Centrifuge Tubes for Magnetic Particle Examination

Our **Centrifuge Tubes** are designed for precise determination of solid particle content in inspection mediums used for **Magnetic Particle Examination**. Maintaining the correct particle concentration in the suspension is a critical factor in the inspection process, ensuring reliable and accurate results. As part of quality control, concentration levels are checked after preparation and monitored regularly—typically every **eight hours** or at each **shift change**.

Salient Features:

- ✅ Easy and accurate measurement
- ✅ Helps monitor contamination levels in the bath
- ✅ Individually calibrated tubes for precision
- ✅ Available in different least counts for **visible** and **fluorescent** suspensions
- ✅ Options available with **0.05 ml & 0.1 ml least count**

How to Check the Concentration:

1 **Agitate** the particle suspension for at least **30 minutes** to ensure uniform distribution.

2 Take a **100-mL sample** of the agitated suspension and place it in a centrifuge tube with a graduated stem:

- **0.05 ml increments** for **fluorescent** baths

- **0.1 ml increments** for **non-fluorescent** baths

3 **Demagnetize** the sample and allow it to settle undisturbed:

- **60 minutes** for **petroleum distillate** suspensions

- **30 minutes** for **conditioned water** suspensions

4 Read the **settled particle volume**:

- **Fluorescent magnetic particles**: **0.1 to 0.4 ml per 100 ml**

- **Non-fluorescent magnetic particles**: **1.2 to 2.4 ml per 100 ml**

- **Dual-coloured particles**: Settling volume should align with performance and lighting requirements as per manufacturer recommendations.

5 If the concentration is out of the specified range, adjust by adding **particles or suspension vehicle** as necessary and recheck the concentration.

Specifications Compliance:

Our Centrifuge Tubes are fully compliant with the following industry standards:

- **ASTM E709**
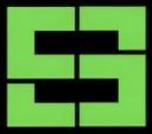
- **ASTM E1444**

- **ASME Section V, Article 7**