

CHAMBERS MODEL 5903-HST HIGH SPEED TUNER



MODEL 5903-HST

- **Ultra-Fast Rotation up to 100 RPM**
- **Tuned and Stirred Mode Control**
- **Improved Accuracy**
- **Built-in Safety and Low-maintenance Design for Long-lasting Performance**
- **Low Vibration and Noise, RF-quiet**
- **Available in Multiple Sizes to Match Chamber LUF Requirements**

ETS-Lindgren's Model 5903-HST High Speed Tuner is a next-generation high-speed reverberation tuner purpose-built to increase test severity and accelerate EMC testing in reverberation chambers. Capable of continuous rotation speeds of up to 100 RPM, the 5903-HST dramatically outpaces traditional tuners, by also reducing test cycle times and increasing overall chamber throughput. By enabling faster field stirring, this advanced tuner allows EMC labs to capture more samples per second—maximizing normalized field strength, minimizing input power requirements, and reducing measurement uncertainty when used with compatible suitably fast instrumentation.

Designed to help test facilities optimize asset utilization, the 5903-HST supports both stepped (tuned) and continuous (stirred) mode operations, giving users flexibility to meet a variety of test protocols across automotive, aerospace, and defense applications. With its ability to deliver more mode variation in less time, it directly supports higher test throughput, increased measurement accuracy, and lower operational costs.

Engineered for long service life and minimal downtime through higher sample count, the 5903-HST features a durable, stable, well-balanced, low-maintenance design that keeps test programs running efficiently. It meets current ISO 11451-5 standards and is compatible with future standards which include high speed stirring techniques. Built-in safety measures, including a protective tuner web and integrated chamber interlocks, support safe operation even at high speeds.

The 5903-HST is also designed with lab environments in mind. Its low-noise, low-vibration operation ensures measurement stability and reduces interference, while its RF-quiet characteristics make it suitable for both immunity, emission, and shielding effectiveness testing using reverberation test methods. Multiple standard and custom sizes are available to match different chamber dimensions and lowest usable frequency (LUF) requirements.

As part of ETS-Lindgren's versatile tuner family, the 5903-HST complements the 5902-STD Standard Speed Tuner (2–16 RPM) and the 5904-SST Slow Speed Tuner (0.1–5.8 RPM), all capable of tuned and stirred mode operation, giving customers the full spectrum of speed and performance options. Whether you're an EMC engineer, lab manager, or procurement specialist, the 5903-HST, with supporting high-speed measurement instruments, are a powerful solution for test environments that demand speed, precision, and long-term reliability.

Technical Specifications

Electrical

| | |
|----------------------------|---------|
| Lowest Frequency (Typical) | 20 rpm |
| Speed | 100 rpm |

Physical - Tuner

| | |
|------------------------|---|
| Tuner Length | Matches Chamber Height or Width (See Below) |
| Tuner Width (Standard) | 76.2 cm x 76.2 cm (30 in x 30 in), 121.9 cm x 121.9 cm (48 in x 48 in), 152.4 cm x 152.4 cm (60 in x 60 in) |

| Physical - Typical Chamber | SMART 80 | SMART 100 | SMART 200 |
|----------------------------------|------------------|-----------------|-----------------|
| Shielded Room Interior (Length) | 13.4 m (44.0 ft) | 8.4 m (27.6 ft) | 4.8 m (15.9 ft) |
| Shielded Room Interior (Width) | 6.1 m (20.0 ft) | 5.6 m (18.4 ft) | 3.6 m (11.8 ft) |
| Shielded Room Interior (Height) | 4.9 m (16.0 ft) | 3.1 m (10.0 ft) | 3.1 m (10.0 ft) |
| Internal Working Volume (Length) | 4.5 m (14.8 ft) | 4.0 m (13.1 ft) | 2.2 m (7.2 ft) |
| Internal Working Volume (Width) | 4.0 m (13.1 ft) | 3.0 m (9.8 ft) | 1.6 m (5.3 ft) |
| Internal Working Volume (Height) | 2.2 m (7.2 ft) | 1.5 m (4.9 ft) | 1.5 m (4.9 ft) |