

# GAS TURBINE SILENCING

## GAS TURBINE SILENCING



### **SonoCon Splitter Silencers**

*An innovative silencer concept engineered for use in applications which require high volume flow rates. Constructed of heavy duty steel or aluminum, the splitters are self-supporting to minimize structural requirements and are installed in steel or concrete shells erected of panelized or conventional constructions.*

# SonoCon Splitter Silencers Specification

**Splitter arrangements are configured in accordance with PHOENIX-E standard designs. Materials are selected to match temperature, gas and corrosion requirements**

## GENERAL

Furnish and install *InSERT* silencer splitters as manufactured by PHOENIX-E Acoustical Division of the sizes and types as shown on the plans and listed in the schedule. Field fabrication of the *InSERT* elements or installation components will not be permitted.

## CONSTRUCTION

Outer sheets shall be made of 20 gage perforated galvanized steel. Framing and inner stiffeners shall be made of 20 gage galvanized steel. Noise cone and evase sections shall be factory assembled to the *InSERT* splitter element. Acoustical filler material shall be a glass or mineral fiber, heavy density, packed under proper compression for acoustical performance. The entire *InSERT* element shall be incombustible, moisture resistant and impart no odor to the air. Trim sections shall be supplied by PHOENIX-E in standard factory 10'-0" sections, made from 16 gage galvanized steel.

## PRESSURE DROP CHARACTERISTICS

Static pressure loss of the *InSERT* splitter system shall have been certified in accordance with ASTM E477, "Method of Test for Duct Liner Materials and Prefabricated Silencers for Acoustical and Airflow Performance."

## ACOUSTICAL CHARACTERISTICS

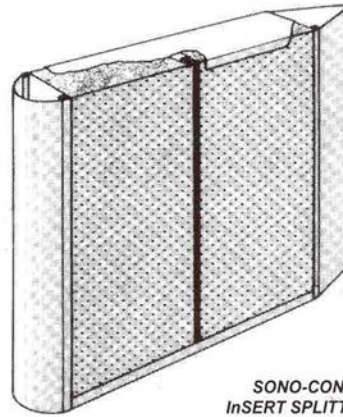
Net insertion loss data and self-generated noise shall be as certified by an *independent laboratory* in accordance with ASTM E477. Only tests made at an independent laboratory will be accepted and the test data must include net insertion loss, self-generated noise levels and pressure drop at various airflow velocities.

## PERFORMANCE

Acoustical and pressure drop performance shall be as scheduled on the drawings.

## CERTIFICATION

The same *InSERT* splitters systems shall have been tested for both acoustic and aerodynamic measurement; all pressure drop and acoustical tests shall have been performed in the same independent laboratory. Copies of the laboratory test reports must be furnished as part of the *InSERT* silencer submittal.



SONO-CON  
*InSERT* SPLITTER

## INSTALLATION

The *InSERT* splitter system shall be installed by the contractor in strict accordance with PHOENIX-E recommendations. The *InSERT* splitter manufacturer shall furnish standard installation details and instructions. Drawings shall include a bill of materials. Each *InSERT* element shall be piece marked to match the drawings and bill of materials. The *InSERT* splitter manufacturer shall provide the installer with sufficient trim and fasteners for a complete installation. Anchors and other items to be embedded into concrete are to be furnished by the contractor.

**Though ideal for high temperature, turbine exhaust and intake applications, SonoCon splitters are cost effective methods to reduce noise in any application which requires the handling of large volumes or gas.**



339 MOBIL AVE.  
CAMARILLO, CA 93010  
TEL: (805) 484-0794 • FAX: (805) 987-2495

CAMARILLO • LOS ANGELES • LIVERMORE  
SAN FRANCISCO • SEATTLE • TAIPEI

**1-800-241-4207**

[www.phoenix-e.com](http://www.phoenix-e.com)

© 1997 Phoenix-E Structures