

Noise Labeling and the Acoustical Consultant - The Importance of Standardization

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PRODUCT NOISE LABELING

This title raises 3 questions:

What is a product?

What is noise?

What is a label?

The acoustical consultant serves the General Public

- Provides engineering guidance**

- A variety of interested parties:**

Corporate manufacturers

Industrial/commercial users

Individuals

Wide range of issues

- Improved marketing image**
- Competitive benchmark**
- Required level of performance**
 - Specified**
 - Desired**
- Claimed personal injury or property damage**

For discussion purposes: Some definitions

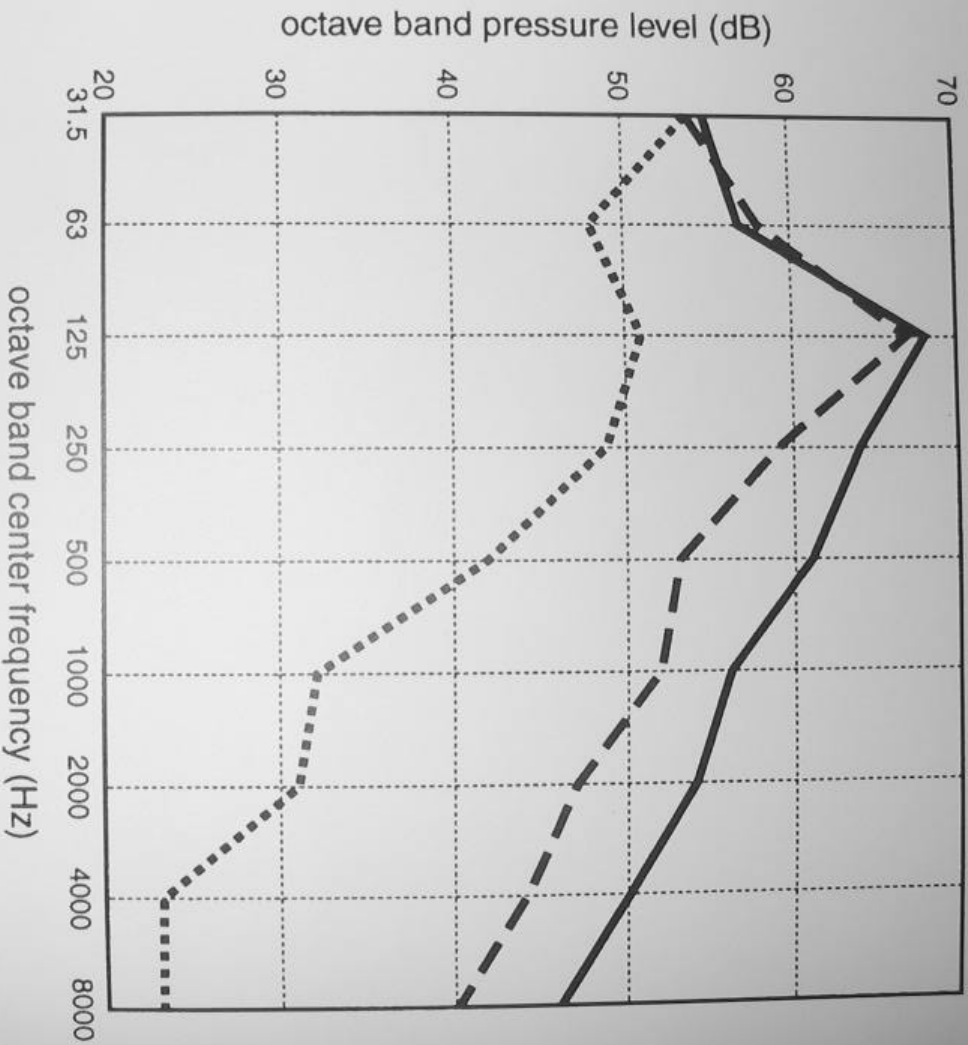
- **Product**
 - an item that is purchased and used to perform a specific function
- **Noise**
 - unwanted sound *emission* from product
- **Label**
 - communicates noise information relevant to product's user and function

Product examples and issues

- Consumer products**
 - Kitchen blender**
 - Smoke detector alarm**
 - Dishwasher**
- Industrial products**
 - Cloth cutting machine**
 - Hydraulics test stand**
 - Gas compressor**
- Commercial-institutional product**
 - Window ventilator unit**

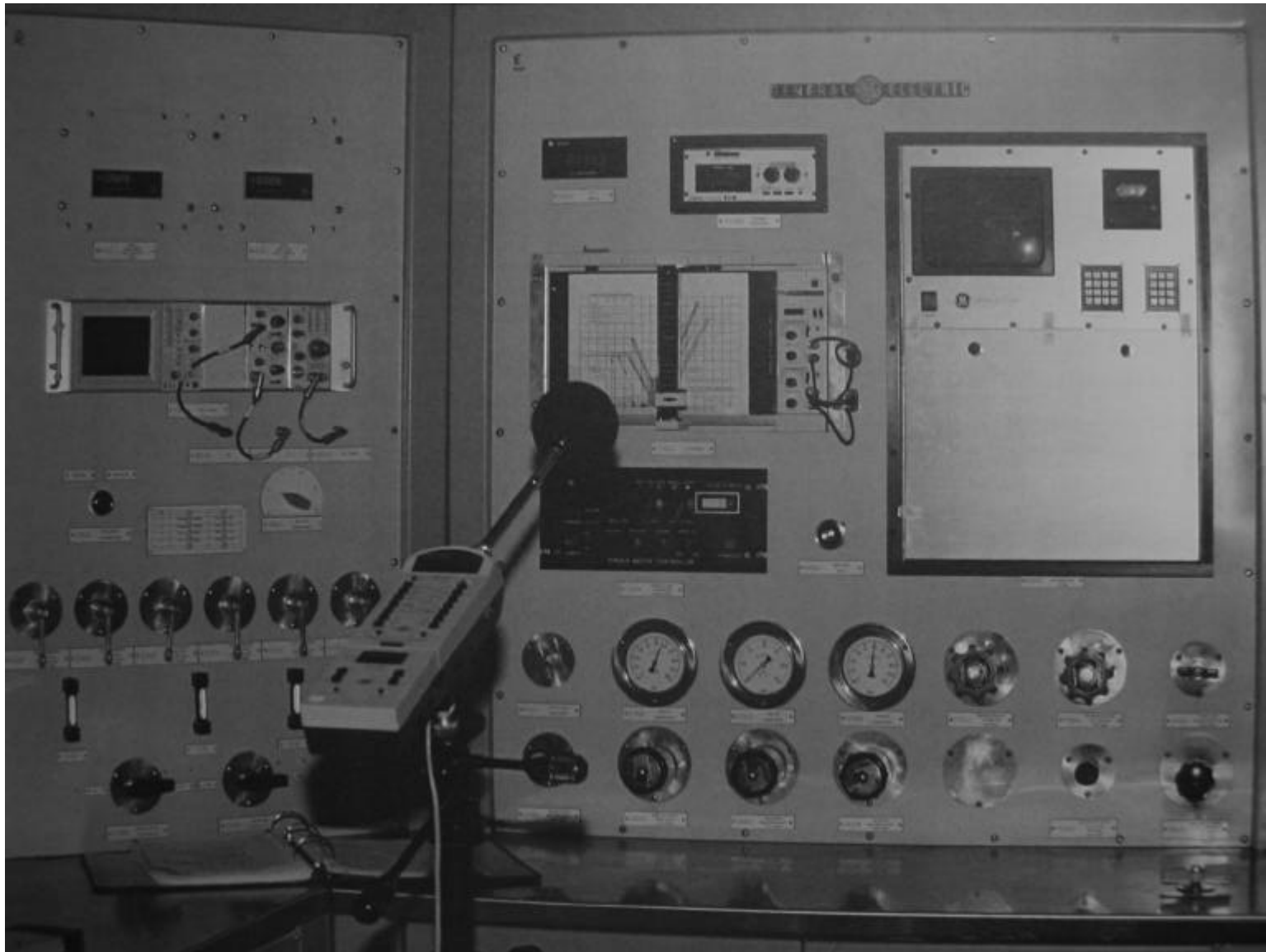


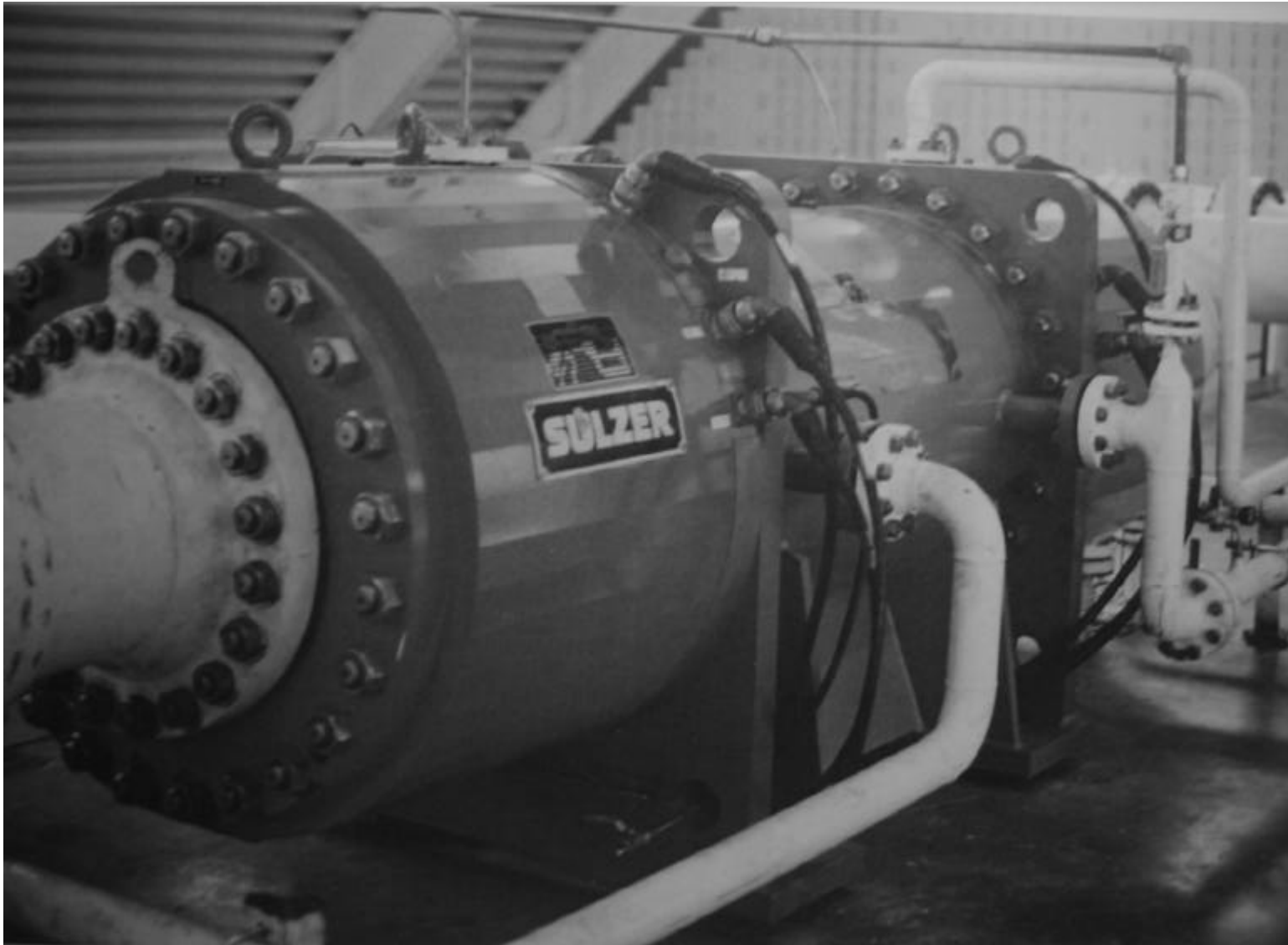




Progress in dishwasher noise reduction. Dishwasher octave band pressure levels measured during wash cycle at 0.91 m (3 ft.) from front: — Whirlpool Supreme 400, purchased 1974, A-weighted sound pressure level, 63 dB; - - - Whirlpool Quiet Wash Plus, purchased 1994, A-weighted sound pressure level, 58 dB; Back-ground, refrigerator on, A-weighted sound pressure level, 44 dB.









What should a product noise label do?

- Should apply to a general class of products**
- Should reflect the product's functionality, the manner in which the product is used**
- Should indicate precise and repeatable measurements**
- Should be interpretable in terms of "good", "average" or "poor" performance: as understood by the layperson**

What is the purpose of a product noise label?

COMMUNICATION

- Increase awareness of noise related issues**
- Promote informed purchasing decisions**
- Foster communication, action & resolution between interested parties**

Example - consultant's use of a product noise "label":

The sound transmission class (STC) of a wall

- Precisely defines acoustical performance**
- Provides a yardstick of acceptability given particular functional requirements**
- Establishes a basis for communication**

The answer:

Consensus Standards - Product noise labeling

- Define applicable metric for product class**
- Define procedure for measurement**
- Account for concerns of interested parties**

Consensus Standards - Product noise labeling

Benefits:

- Producer and user**
- Community at large**

CALL TO ACTION !!