

DIFFUSER CERTIFICATION APPARATUS for FOAM TESTING OF LUBRICATING OILS

- Fully Automated and Manual Apparatus
- Certify Diffusers Used in ASTM D892 and D6082
- Determine Permeability and Maximum Pore Diameter

The measurement of Foaming Characteristics of Lubricating Oils as per ASTM D892, and ASTM D6082 High Temperature Foam Testing, is dependent upon the quality of the gas diffuser stone used in the test. Certification of the air diffuser involves the determination of critical parameters including PORE DIAMETER and PERMEABILITY for either spherical ceramic (Norton) or cylindrical metal (Mott) diffusers.

ASTM D892 method recommends that the diffusers be tested when new and periodically thereafter, preferably after each use. It is, however, strongly recommended that the retesting of the diffuser be done every 10 tests since plugging occurs after use even with diligent cleaning.

Model FM-19PC Digital Diffuser Certification Apparatus automatically determines both diffuser PORE DIAMETER and PERMEABILITY in accordance with ASTM D892 and D6082. The traditional manometer and wet test meter are replaced by a high precision digital pressure controller and a digital mass flow meter, respectively, both controlled by a PC (PC not included). The pressure ramping is electronically controlled and the first bubble is automatically detected.

The proprietary Windows software manages the testing operation, the required calculations, and all the data. The results are displayed on the screen and can be printed and/or stored on the PC hard drive for ISO 9000 traceability.

Model FM-18PC is similar to Model FM-19PC, above, but requires visual observation for the appearance of the first bubble.

Model FM-18D is a non-automated apparatus, also conforming to ASTM D892 and D6082 for measurement of pore diameter. It consists of a certified (NIST traceable) U-tube manometer capable of reading 1000 mm of water installed on a wall mountable panel.

Also for Methods:

ASTM	D892, D6082, D721, D1881, D3235, D6811, E128
IP	146
DIN	51-566
NF	T60-129
FTM	791-3213

Mounted on the same panel is the apparatus for the determination of permeability which consists of a digital indicating mass flow meter capable of measuring 6000 mL/min. air flow while generating a low back pressure. Model FM-18D eliminates the need for the clumsy and difficult to use wet test meter.



▲ Model FM-19PC

DIFFUSER RE-CERTIFICATION SERVICE

- Used Mott or Norton Diffuser Re-Certification Service to ASTM D892 and D6082
- Quick Turn Around, Economical

Lawler offers a convenient and economical service to certify with NIST traceability your used (cleaned) diffusers to meet the ASTM D892 and D6082 specifications. The service includes engraving the diffuser with a unique number accompanied by a certificate stating the measured pore diameter and permeability.

If the diffuser is outside of the specifications, Lawler offers a 50% credit towards the purchase of a certified replacement diffuser.