



**Falex Corporation**  
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## **Falex Air Jet Erosion Test Machine**

ASTM G76 Standard Test Method for Conducting Erosion Tests by Solid Particle Impingement Using Gas Jets

The Falex Air Jet Erosion Test System controls a repeated impact erosion approach involving a small nozzle delivering a stream of gas containing abrasive particles which impact the surface of a test specimen. The amount of weight loss per unit of time represents the erosion or wear rate, providing laboratory scale erosion measurements under a range of conditions. The Test System may be used to rank the erosion resistance of materials, coatings, platings, epoxies, weldments, sprays, paints, and similar products under the controlled conditions of the test.

The test system uses dry air (100 psi max) and a nozzle tube to control particle velocity and an adjustable media feed nozzle to control the particle feed rate of the abrasive impacting the test sample. An adjustable test sample holder controls the angle of incidence from 15° to 90°.

The test system accommodates standard or user selected abrasive media. The distance from the nozzle to the flat specimen surface is adjustable and is controlled with a micrometer. The test system includes a Start/Stop time controller and a mechanical jet flow shutter, and an exhaust vent (exhaust system not included).

Falex Corporation has specialized in the manufacture of friction, wear and abrasive test equipment for over 75 years.



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**Providing Tribology and Petroleum Testing Equipment for over 75 Years**



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### FALEX AIR JET EROSION TEST MACHINE - FEATURES & SPECIFICATIONS

**MEDIA FEED:**

Digital display of flow wheel RMP to control the destiny of sand media. Four pound media feed chamber.

**NOZZLE PRESSURE:**

Digital display of pressure at nozzle.

**FLOW RATE:**

Includes air flow indicator and regulator (Range 0 - 30 LPM).

**TEST TIME:**

Digital timer/controller for automatic test duration.

**ANGULAR ADJUSTMENTS:**

Precision scaled adjustment for setting the angle of incidence of sand against specimen (Range 15-90 degrees).

**NOZZLE DISTANCE ADJUSTMENT:**

Micrometer adjustment for accurately setting nozzle to specimen distance (Range 0.075 to 1.000 inch).

**VACUUM EXHAUST:**

Minimum of one inch of mercury column required (source not provided).

**PNEUMATIC:**

0-100 psig required (minimum pipe inside diameter 3/8") (source not provided).

**ELECTRICAL:**

220 volts AC single phase, with a 15 amperage requirement.

**WEAR:**

Measured by the amount of weight loss per unit of time. This represents the erosion or wear rate.

**ASTM STANDARD:**

G-76 "Conducting Erosion Tests by Solid Particle Impingement using Gas Jets".

### FALEX AIR JET EROSION TEST MACHINE

F-1507 FALEX AIR JET EROSION TEST MACHINE COMPLETE

Reference Material (ASTM G76) Test Specimens

F-1507-1	1020 Steel, HRB 68-72, 30 mm x 10 mm x 2 mm
F-1507-2	1020 Steel, HRB 68-72, 2" x 2" x 1/16"
F-1507-3	50 micro meters Aluminum Oxide Grade 240 grit, 50 lb.

Other materials available on request.