

MOTT FLOW RESTRICTORS

mott
MISSION CRITICAL PRECISION

RELIABLE, COST-EFFECTIVE REPLACEMENTS FOR ORIFICES, CAPILLARIES, OR NEEDLE VALVES.

DESCRIPTION

Mott is the expert in customized fluid control devices and works extensively with design engineers throughout every industry. Our products replace the drilled orifice, capillary tubing and needle valves that wear over time and provide inconsistent results. Mott has over 60 years of experience tuning into critical application requirements. Our robust flow control design integrates sintered porous metal into hardware that requires no calibration and offers repeatable flow control time after time.

BENEFITS

- Tamper-proof fixed flow control
- Robust and durable materials
- Larger surface area for low velocity flow
- Anti-clog multi-pore technology

DESIGN FLEXIBILITY

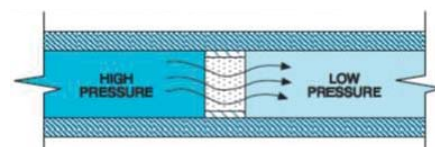
Mott flow restrictors accommodate virtually any flow requirement, with ratings greater than 1 standard cubic foot per minute (scfm) to 1×10^{-6} standard cubic centimeters per second (scc/sec). Porous metal elements encapsulated in sleeves measuring 1/4" or 1/8" outside diameter, or mounted within a variety of standard fittings are also available.

DESIGN DATA

Type of Gas
Upstream Pressure
Downstream Pressure
Desired Flow Rate (Positive Pressure, ATM, Vacuum)
Fitting (if applicable) a. Type b. Size c. Material

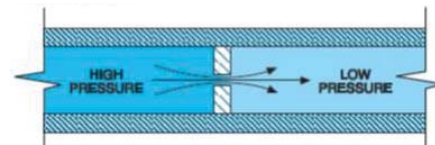


MOTT FLOW RESTRICTOR



Gas moves uniformly through Mott porous metal element with minimal friction due to viscosity.

ORIFICE



Speed, pressure and heat increase as gas moves through the single opening, causing wear and tear.

SERVICES

- Flow Test on Every Part
- Certifications
- Cleanroom Manufacturability
- Dedicated Engineering Services
- Passivation

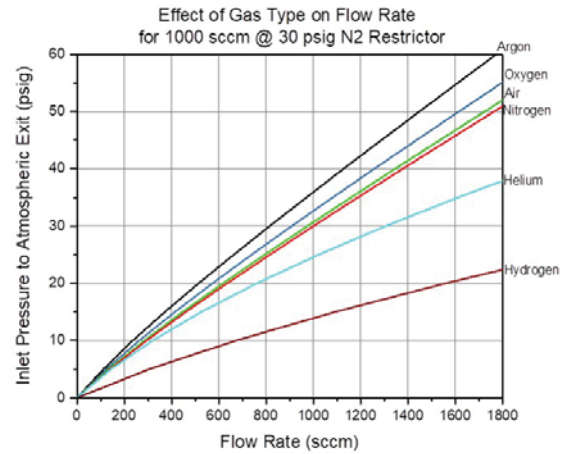
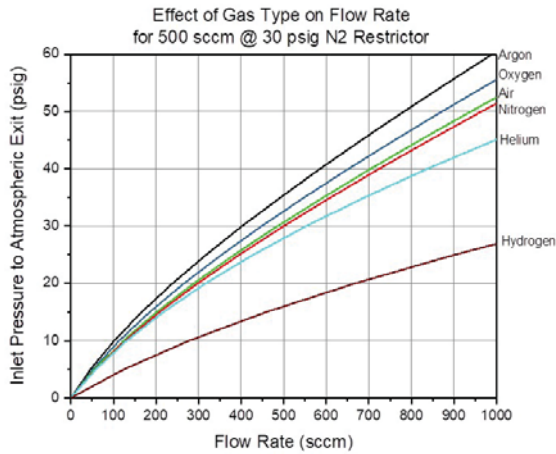
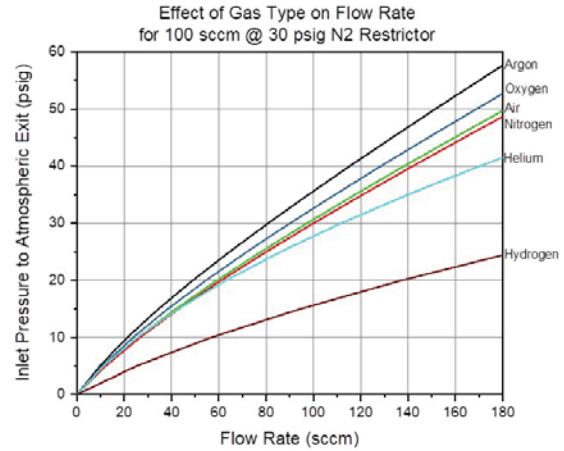
FLOW DATA FOR 1/4" X 1/4" ENCAPSULATED FLOW RESTRICTOR



SPECIFICATIONS:

- 316L stainless steel (other materials available)
- Flow tolerance: +/- 7.5% (higher accuracy available)
- Hole for press fit: 0.2506/0.2510" ream, 32 RMS finish
- Maximum test pressure - 1500 psig

Consult Factory for other sizes






FITTING FLOW RESTRICTORS

The same Mott flow restrictor elements available in encapsulated sleeves are also offered in standard fittings - tube union, male adapter and hex nipple. Flow restrictor/fitting combinations are available for virtually any flow, gas and pressure requirement.

- Compression fittings with flow restrictor installed and calibrated
- Materials of construction: 316L SS porous with 300 SS sleeve, 316L SS or brass fittings
- Available in standard nitrogen flows calibrated at 30 psig to atm @ standard temperature and pressure
- Maximum test pressure: 1500 psig
- Flow tolerance: +/- 7.5% (higher accuracy available)

Consult Factory for other fittings

		Type & Size
5100 Series		Tube Union 1/8" x 1/8" 1/4" x 1/4"
5110 Series		Male Adapter 1/8" Tube - 1/8" NPT 1/4" Tube - 1/8" NPT 1/4" Tube - 1/4" NPT
5120 Series		Hex Nipple 1/8" NPT x 1/8" NPT 1/4" NPT x 1/4" NPT