

Accessories - Equivalent Channels

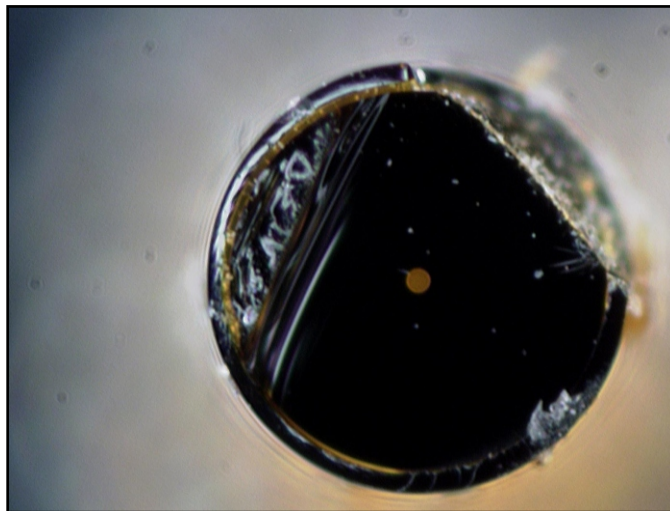
Equivalent Channel Diameter (EC) Calibrated Micro-Flow/Leak Device Micro-Flow Channel

Meets the requirements of US-CAR, SAE J2587 for
US-CARB LEV II+PZEV, EURO-5 Hydrocarbon
Emission Standards and Major OEM's

Geometric Definition of Leak Tightness - Simple and Unambiguous Specification

- **Complete**
 - **independent of:**
 - *Test type* ◦ *Location* ◦ *Temperature* ◦ *Pressure* ◦ *Test fluid*

Cross Section of 15 Micron Equivalent Channel



Equivalent Channel Standard (ECS)

- Micro channel - $L/D > 100$
- Certified Diameter Roundness +/- 0.5 micron
- Flow measured at test pressure
- Silica and Stainless Steel

Equivalent Channel Diameter (ECD)

- Micro channel - $L/D > 100$
- Calibrated to gas flow rate at inlet and outlet pressure
- Diameter and length derived from flow

These products are available and are assembled using advanced micro-fabrication technologies. The ECD/ECS are constructed from Silica (glass) and encapsulated in stainless steel housing. Our unique manufacturing process ensures a uniform and smooth diameter.

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Equivalent Channel Diameter (EC) Calibrated Micro-Flow/Leak Device Micro-Flow Channel



Each ECS is supplied with traceable gaging certificate of the inlet diameter, outlet diameter and minimum length in order to confirm the above mentioned spec.

Each ECD is certified for flow rate with air/nitrogen or other gasses per customer request (standard 3 points, Air/Nitrogen, Barometric outlet, others available).

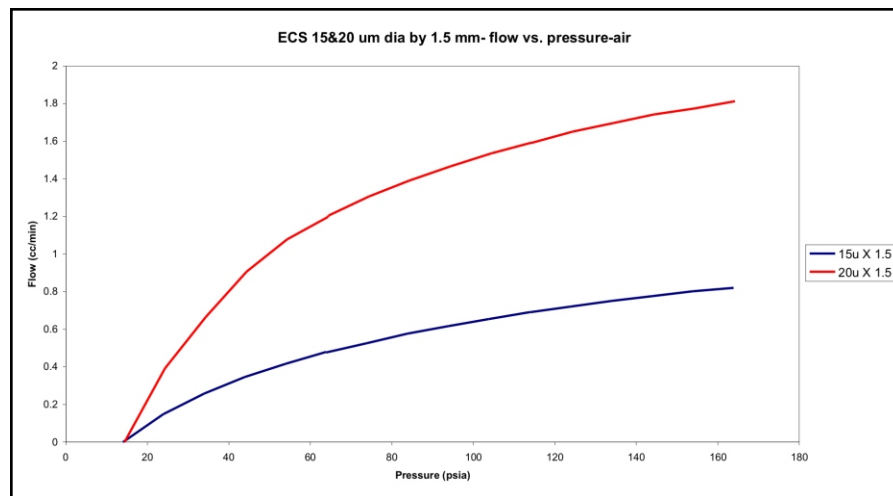
Specification:

Leak Flow Rate (ECD only) +/- 5% of nominal value

Available diameter: 2; 5; 10; 20; 30; 40 mm (micro-meters, micron)

Length: From 1.25 mm to 5 mm

Note: Diameter roundness and tolerance is +/- 5% or +/- 0.53 micron, whichever is larger



Notes:

- 1.0 Leak flow is measured in **ACTUAL** cc/min, pressure in **ABSOLUTE** pressure psia. Both are measured upstream (inlet) to the orifice.
- 2.0 Flow rate and EC sizes are used for reference only. Actual value may change from EC to EC
- 3.0 The enclosed data is *NOT* applicable to vacuum applications.

Consult ATC Inc. Mass Extraction specification sheet for vacuum applications.

The COMPLETE Solution For Your Most Challenging Automatic Leak Flow Testing