
The first fully functional particle counter approved for use on aviation fuel. After 5 years of development work carried out by Parker UK and partner, the ACM20 has passed all technical barriers and is now approved for aviation fuel quality per DEFSTAN 91-91 Issue 6.

Parker has consistently provided technically superior products to all fluid conditioning applications.

Product Features

- Energy Institute Test Method IP 564.
- 2-minute test procedure.
- Laser optical scanning analysis.
- Multi-standard ISO cleanliness reporting.
- Case-mounted pump enables monitoring possibilities. For example: Fuel storage/vehicle tanks and fuel storage drums.
- Latest averaging software as standard.
- ParSmart Downloader software.
The Parker icountACM20 Portable Particle Counter has been developed from existing technology for monitoring contamination in Aviation Turbine and other hydrocarbon fuels, in accordance with the Energy Institute (EI) Method IP 564. In addition, the ACM can also be used to monitor various fuels from existing sampling points in locations from refineries, pipelines, distribution terminals, airport fuel supply systems all the way through to the point of uplift into aircraft*. * Hot works permit required for online sampling (ATEX Zone II unit available).

**Features & Benefits**

**Test Time:**
2 minutes

**Repeat Test Time:**
Every 2 minutes (Manual testing), every 6 minutes (automatic)

**Principle of Operation:**
Optical scanning analysis and measurement of actual particles and inference to water presence

**Primary Output:**
≥4µ(c), ≥6µ(c), ≥14µ(c), ≥21µ(c), ≥25µ(c), ≥30µ(c) counts per ml

**Secondary Diagnostic Output:**
% Volume Distribution, via graphical display on handset and printout (printout not available on icountACM20Z)

**International codes:**
ISO 7-22 in accordance with ISO 4406-1999

**Data entry:**
32 character two line dot matrix LCD. Full alpha numeric entry facility on keypad

**Data retrieval:**
Memory access gives test search facility for up to 300 saved tests

**Calibration:**
In accordance with Parker Calibration Procedure CM20-N, which complies to ISO11171:1999, Clause 6 (Omitting Annex F)

**Re-calibration:**
Every 12 months by a dedicated Parker Service Centre (Consult Parker) as required under strict EI methods

**Max. working pressure:**
6,000 PSI (420 bar)

**Operating Temperature:**
+41°F to +176°F (+5°C to +80°C)

**Memory store:**
300 test capacity

**Computer compatibility:**
Interface via RS 232 connection @ 9600 baud rate (USB serial cable to RS232 option available)

**Laboratory sampling:**
Utilizes on-board rear mounted pump

**Portability:**
Battery pack and carry case with wheels included

**Power requirement:**
ACM20: 12vDC input, 6 x ‘D’ Cell batteries or rechargeable battery pack
ACM20Z: Rechargeable battery pack, or 12vDC input

**Printer facility:**
Integral 16 column printer for hard copy data (not available on icountACM20Z)

**Certification:**
Complies with all relevant EC declarations of conformity

**icount ACM20 Case Mounted Pump**
- Integrated Pump assembly incorporated onto the ACM20 unit.
- Powered directly from ACM20 unit, LED power indication with no additional power supplies required.
- Direct sampling from fuel sample bottles or tank via 3 metre inlet suction tube.
- Incorporated double speed flush and test sequence.
- Managed flow rate/correct volume sample as per IP 564 test method.

**Applications**

The Parker icountACM20 Portable Particle Counter has been developed from existing technology for monitoring contamination in Aviation Turbine and other hydrocarbon fuels, in accordance with the Energy Institute (EI) Method IP 564.

In addition, the ACM can also be used to monitor various fuels from existing sampling points in locations from refineries, pipelines, distribution terminals, airport fuel supply systems all the way through to the point of uplift into aircraft*. * Hot works permit required for online sampling (ATEX Zone II unit available).

- **Fuel Testing Laboratories – DEFSTAN 91-91 Issue 6**
  In order to better understand dispersed contamination in jet fuel, particle counting is now included alongside existing laboratory techniques

- **Bottle Sampling - Energy Institute (EI) - IP 564**
  Laboratory determination of the level of dispersed contamination in aviation fuel using an Automatic Particle Counter (APC)

- **Replace Clear & Bright and Gravimetric**
  With the introduction of the icount ACM20, all subjectivity surrounding Clear & Bright and Gravimetric methods can be removed

- **Also for use on petroleum based hydraulic applications (Skydrol compatible available)**
  Suitable for use with mineral oil and petroleum based fluid as per standard hydraulic particle counter, reporting fluid cleanliness to ISO 4406:1999

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icountACM20 is fully compliant with the EI (Energy Institute) test method
icountACM20 Lab Unit

Specifications

Construction:
ABS structural foam and injection moulded case
Hand-held display - ABS
Keypad fluoro silicone rubber

Mechanical Components:
Brass, plated steel, stainless steel and aluminium

Seals:
Fluorocarbon

Hoses:
Nylon (kevlar braided microbore). St. steel armoured ends

Flow Rate:
25 - 28ml/min (dictated by CMP) 100ml/min with additional flush button

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25 - 28ml/min (dictated by CMP) 100ml/min with additional flush button

Fluid Compatibility:
Hydrocarbon Fuel, Mineral Oil. For other fluids consult Parker

Fuse:
1.25 amp fast blow fuse included for overload protection (spare supplied)

icountACM20 Technology:
Patented flow cell, light obscuration

Repeatability/Accuracy:
As per or better than ISO 11171

Coincidence:
40,000 particles per ml

Viscosity Range:
1 - 100 centistokes

icountACM20 Weight:
17.6 lbs.

Monitor Carrying Case:
Astra Board case

Carrying Case Weight:
11 lbs.

Input Power Socket (note that you will have to remove the plastic dust cap to access the 12Vdc power socket).
A fast blow 1.25A fuse and the RS232 connection are located behind the removable cover plate. The RS232 interface is provided to download all test data stored in the instrument. See the ParSmart Downloader software for more information.

Ordering Information

Standard products table - icount ACM20

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