

# avcount

Unique automatic fuel particle counter referenced in DEF STAN 91-91, Issue 6 according to IP 565/08

## Advanced laser based particle counter for checking and managing fuel quality

### For Aviation Fuel:

IP 565/08 'Determination of the level of cleanliness of aviation turbine fuel - Portable automatic particle counter method'  
*IP 565/08 will be included DEF STAN 91-91 Jet A-1, Issue 6.*

### For all Fuels:

ASTM (Draft) Standard test method under development for the evaluation of the level of cleanliness of distillate and liquid bio-fuels (Portable automatic particle counter method).



www.stanhope-seta.co.uk  
 Laboratory instruments for quality control, analysis and calibration



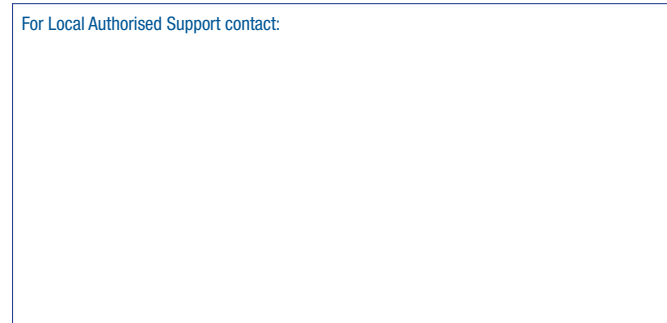
www.biofueltesting.com  
 Test instruments for Biofuels Analysis



www.seta-analytics.com  
 Analytical solutions for Hydrocarbon Petroleum products



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Jet Fuel



Refinery



Diesel Fuel



Bio Fuel

# avcount

## Advanced Laser Based Particle Counter

- Aviation turbine fuels (Jet A & Jet A-1)
- Biofuels and Biofuel blends
- Heating oil, Gas oil
- Diesel - Automotive and Marine
- Gasoline and Kerosine.

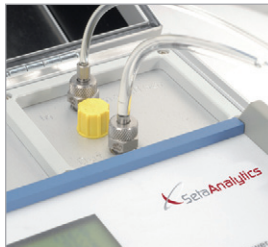


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Unique automatic fuel particle counter referenced in DEF STAN 91-91, Issue 6 according to IP 565/08

## AvCount is a new laser based particle counter for checking and managing the quality of fuel from Refinery to wing tip.

- Fast, fully automatic, 'plug and go' operation
- Particle size 4µm to >70µm
- Cumulative & distributive particle numbers
- ISO 4406: 1999 codes
- Uses "Straight from the Bottle" samples
- Precise and reliable results
- Laboratory or portable field use
- Calibration traceable to ISO 11171



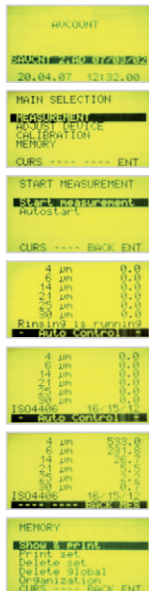
## Improving quality control & process efficiency with AvCount – IP 565/08, DEF STAN 91-91, Issue 6.

The AvCount particle analyser is a rugged and portable instrument specifically designed for testing the particulate content of fuel for particles ranging from 4µm to >70µm diameter.

## Rapid operation and easy to use.... no other particle counter offers the simplicity and reliability of AvCount.

AvCount is fully automatic once the test sequence is started. The instrument flushes the cell with sample prior to commencing the measurements. Flushing and sample analysing sequences are automatically repeated in accordance with IP 565/08.

Results are displayed on the LCD screen in real time and automatically averaged. The results are shown for 6 particle size bands in particles/ml and the corresponding ISO Code is also displayed. Results can be saved to memory for trend analysis of samples, printed out on the integral printer or downloaded to a PC for further analysis.



## Precise checks for particulate contamination

Sampling and measurement is simple; fuel is drawn from a sample container or directly from the supply line. AvCount has a 10 bar standard pressure rating or can sample up to 315 bar line pressure using the optional pressure reducing system. An integral pump automatically draws the sample through an internal measuring chamber, removing the need for an external sampling pump.

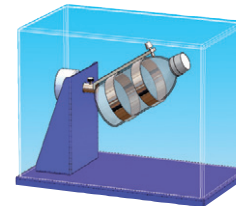


## Sample presentation for measurement

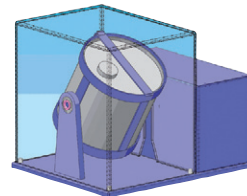
Correct sample presentation is key to achieving consistent results. The samples must be gently rotated to ensure an even dispersal of particulate matter, but care must also be taken to avoid the creation of air bubbles that may distort the results. Seta offer two specifically designed tumbler systems for the purpose of providing a uniform representative sample, minimising the risk of creating these bubbles.

### Benchtop system

Designed for up to 500ml bottles, available with optional fittings to allow a range of bottle types.



Benchtop System  
(end over end option available)



Floor Standing System

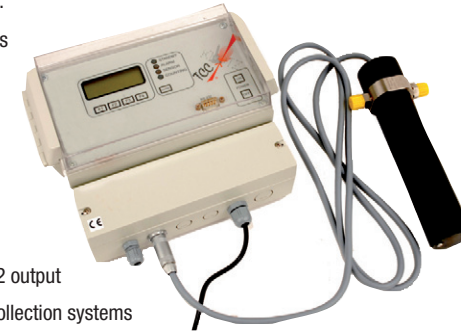
### Floor Standing

Designed for 5 litre IATA cans. IATA cans are both heavy and bulky and this unique tumbler allows safe and consistent rotating of the sample.

## AvCount - Inline & line sampling applications

The AvCount 'inline' is based on identical measurement technology to the IP 565/08 AvCount laboratory instrument thus ensuring consistent results between laboratory and field testing. The inline equipment comprises of an inline sensor and control console which can be mounted up to 10m apart. The LCD display on the control console shows test status and result. Limits can be set on the system with clear indication of alarm conditions.

- 4µm, 6µm, 14µm channels
- ISO 4406 format results
- Identical measurement technology to IP 565/08 AvCount
- Automatic / User defined sampling
- User defined limits, RS232 output
- Easy interfacing to data collection systems



AVCOUNT SPECIFICATIONS	
Particle Size Range:	4µm to >70µm
Measuring Channels:	6 channels with simultaneous measuring capability
Size Bands - IP 565/08	≥4µm(c), ≥6µm(c), ≥14µm(c), ≥21µm(c), ≥25µm(c), ≥30µm(c)
Size Bands - ASTM (Draft Method)	≥4µm(c), ≥6µm(c), ≥14µm(c), ≥21µm(c), ≥38µm(c), ≥70µm(c)
Results:	Cumulative and distributive particle number/ml. Volume percent distribution. ISO Codes to 4406: 1999
Measured Sample Volume:	10ml
Total Sample Volume Required:	80ml minimum (includes rinse cycles)
Input (sample) Pressure:	Operation up to 10 bar (optional 315 bar)
Display and Control:	LCD display, 4-key-operation
Printer:	Integral thermal printer
Computer interface:	RS232C
Voltage:	100/230VAC, 50/60Hz, max 30W
Size (HxWxD):	37 x 33 x 21cm
Weight:	11kg