

# Multi Filtration Tester (MFT) 91600-4

## Filter Blocking Tendency of Fuel Oils

ASTM D2068; ASTM D8386; IP 387; IP PM EA/13; CGSB-3.0 No 142.0

- Fully automated, portable test
- Large LCD touchscreen display
- Simple user interface
- Interlaboratory study proven with ASTM and EI validated precision
- Graphical display of sample flowrate
- Results in less than 15 minutes
- Internal result storage with USB port and LIMS for data download
- Statistical Quality Control
- Simple calibration/verification
- Compact, lightweight design



Fuel & Oils • Biodiesel

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### Multi Filtration Tester

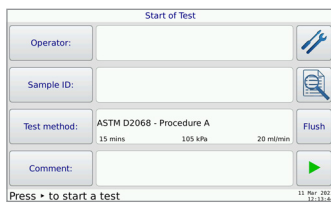
The Seta MFT is a fully automated instrument, designed to test the Filter Blocking Tendency (FBT) of diesel, biodiesel (B100 & B5/7/20/30), gas oil, gas turbine fuel and kerosene.

FBT analysis is achieved by measuring the pressure differential across a disposable filter. Fuels which have a high FBT could potentially block filters in the distribution network or during use in a vehicle or power plant.

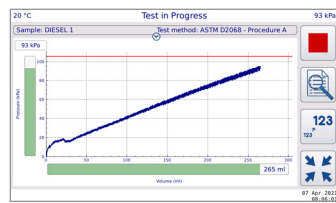
MFT is also used to determine the FBT for BX fuels containing bio components, such as FAME (biofuel), which have been 'cold soaked' at a temperature just above zero Celsius. During the 16 hour cold soak particles of saturated monoglycerides (SMG's) and sterol glucosides can be formed which do not dissolve when the temperature is raised back to ambient.



### Operator Interface



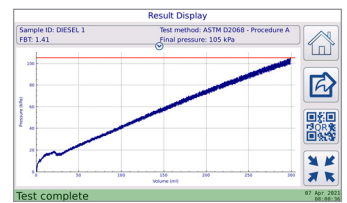
> Enter operator and sample details, press



> Test progress displays



> Large display available for viewing test progress at a distance



> Final result displays

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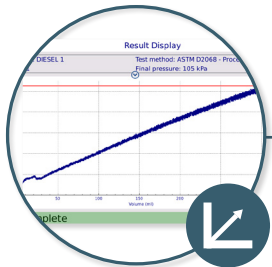
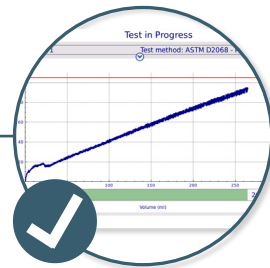


### Cost Saving

- Smallest footprint in class requiring minimal lab space
- Lightweight design allows for portable use in the field
- Low operator time due to simplicity of set up and automation, reducing labour costs
- Easy to maintain, service and calibrate in the field, eliminating time and costs associated with sending the instrument to a service centre

### Ease Of Use

- Features simple user interface with touch screen and real time display of test progress
- The fully automated test means minimal operator knowledge is required with no extensive training
- Large internal results memory with integrated SQC software in accordance with ASTM D6299
- Results can be stored directly to a USB, exported using the QR code or LIMS



### Precision and Accuracy

- Fully automatic test sequence and consistent sample handling ensures test repeatability and reproducibility
- Possible missed steps or operator bias are eliminated for precise results

### Compliance to ASTM D2068

- Internal grounding for operator safety
- Piston pump including mechanical and electronic precision adjustment and calibration of flow, with locking mechanism
- Pulse damper to produce smooth flow of fuel to the filter unit
- Pressure release valve located on the arm holding the filter assembly
- Seta participated in the Inter Laboratory Study (ILS) called up in ASTM D2068 and IP 387. Precision was solely derived using the Seta MFT for procedure B
- Seta chair the EI SCB 5 panel which has governance for IP 387



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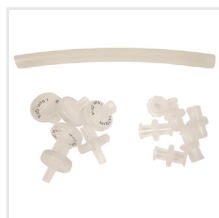
### Technical Specifications

MFT 91600-4	
Regulatory	
Test methods	ASTM D2068; ASTM D8386; IP 387; IP PM EA/13; CGSB-3.0 No 142.0
Operation	
Filter Blocking Tendency (FBT) range	1.0 to 30 (low number is best)
Sample size	300 ml
Maximum pressure	200 kPa
Flow rate	20 ml/min, adjustable
Measurement time	Less than 15 minutes
Data Management	
Statistical Quality Control	SQC software built in, in accordance with ASTM D6299
Display	Real time on screen test progress and results
Results storage	Results stored in internal memory
Results download	CSV, PDF
Interface	
User interface	LCD touchscreen (can be used with gloves)
Data input/output	LIMS compatible, Ethernet, RS232, USB, QR code
Printer options	RS232, Ethernet
Power requirements	
Voltage	110/240 V, 50/60 Hz
Power	300 W
Physical	
Size (HxWxD)	350 x 300 x 400 mm
Weight	9.8 kg

### Required Accessories



> 91615-0  
Start-up Kit, IP 387  
and ASTM D2068  
Procedure A



> 91616-0  
Start-up Kit, IP 387  
and ASTM D2068  
Procedure B



> 91640-0  
Filter Holder



> 91645-0  
Maintenance Kit



> 91665-0  
Seta Cold Soak Test  
Bath



> 81002-3  
Data Printer