

## IGNITION QUALITY TESTER (IQT™)

APPROVED SPECIFICATION TEST: EN 590:2009, ASTM D975, ASTM D6751, BS 2869:2006  
IQT TEST METHODS: ASTM D6890; IP 498; EN 15195

The instrument has many advantages over the traditional CFR engine test methods including;

- ✓ *Faster analysis (< 20 mins)*
- ✓ *Precise results;*
  - *Repeatability of 0.92 at 52 CN*
  - *Reproducibility of 2.69 at 52 CN*
- ✓ *More flexible refinery feedstock component blending optimisation*
- ✓ *Allows tighter control of cetane additive addition to reduce give away*
- ✓ *Automated test procedure*
- ✓ *Constant Volume Combustion Chamber*
- ✓ *Small (<100ml) sample size*



The method of choice for precise ignition quality measurement for research and refinery laboratories.

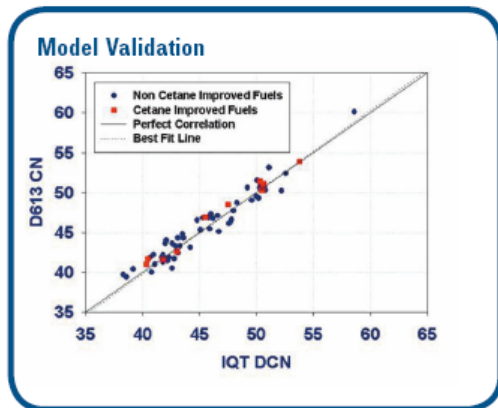
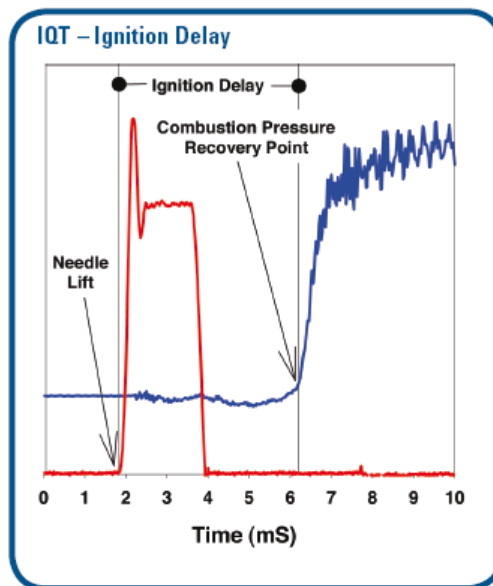
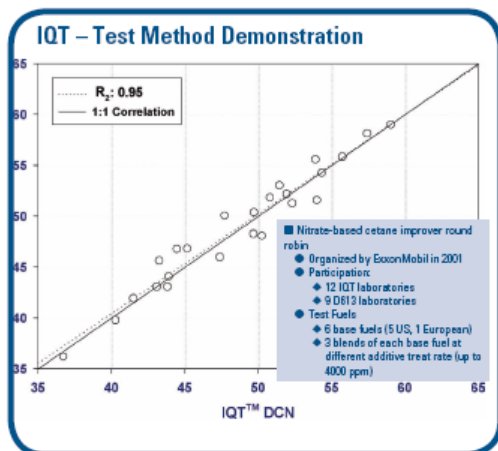
The new IQT™ is totally automated for precision measurement of cetane rating and ignition quality characteristics of diesel and bio diesel fuels. The instrument determines the derived cetane number for broad variety of conventional and bio diesel fuels, including marine distillate fuels. As well as an R&D tool for screening alternative diesel fuel formulations with novel cetane boost chemistries. All the major oil companies utilise IQT™ instruments in their refineries worldwide to enhance the ability to blend and release quality product within specification. There are now an extensive number of installations in Europe, US, Middle East and the South East Asia/Pacific region, operating on a 3 shift/24 hour basis.

### SPECIFICATIONS

<b>Measuring Principle:</b>	Constant Volume Combustion Chamber
<b>Injection System:</b>	Pintle-type, single hole nozzle, (patented) air-driven injection pump
<b>Air Supply:</b>	Compressed air, 20.9% O <sub>2</sub> , ±1.0%
<b>Regulated minimum:</b>	21.7 bar (310 psi) for Combustion process 12.1 bar (175 psi) for Injection process
<b>Nitrogen Supply:</b>	Compressed Nitrogen, Industrial Grade
<b>Regulated minimum:</b>	3.5 bar (50 psi) for Fuel Feed process
<b>Cooling System:</b>	Closed-loop liquid to air
<b>Computer (supplied):</b>	Pentium based PC with interface
<b>Input voltage:</b>	120/220Vac, 60 Hz or 220Vac, 50Hz. Protected by an uninterruptible power supply (UPS) and isolating transformer
<b>Size (HxWxD):</b>	(IQT only): 56 x 74 x 36cm

## Seta Product Ref 92000-3:

The Ignition Quality Tester (IQT) is manufactured by Advanced Engine Technology (AET), Canada. Stanhope-Seta is the exclusive distributor in Europe and India.



### Precision

CN	IQT r	D613 r	IQT R	D613 R	X method R
56	0.88	1.0	3.92	4.8	6.27
52	0.88	0.9	3.53	4.3	5.61
48	0.88	0.9	3.15	3.8	4.96
44	0.88	0.9	2.77	3.3	4.30
40	0.88	0.8	2.39	2.8	3.65

CN	IQT r	D613 r	IQT R	D613 R	x method R
56	0.98	1	2.85	4.8	4.92
52	0.92	0.9	2.70	4.3	4.48
48	0.87	0.9	2.54	3.8	4.05
44	0.82	0.9	2.39	3.3	3.60
40	0.77	0.8	2.23	2.8	3.17