



IGNITION QUALITY TESTER (IQT™)

**APPROVED SPECIFICATION TEST IQT test methods:
ASTM D6890; IP 498; EN 15195**

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

The IQT is a compact combustion based analytical instrument for a precision measurement of cetane rating and ignition quality characteristics of diesel and bio diesel fuels. 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 optimization*
- *Allows tighter control of cetane additive addition to reduce give away*
- *Automated test procedure*
- *Constant Volume Combustion Chamber*
- *Small (<100ml) sample size*

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 utilize IQTTM 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

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