# IQT®-XLM
# Ignition Quality Tester

## D6890 / EN 15195 Diesel Cetane Rating - Benchtop Installations

The CFR Engines Inc. (CFR®) IQT® Constant Volume Combustion Chamber (CVCC) instrument was introduced to the petroleum industry in 1998. Since then, the IQT has provided decades of reliable service to refineries and test laboratories for diesel fuel certification and quality control monitoring.

The next generation IQT provides the capabilities of the traditional IQT®-LM and IQT®-TALM models (with an enhanced user experience) in a single more compact, benchtop package.

## Compliance

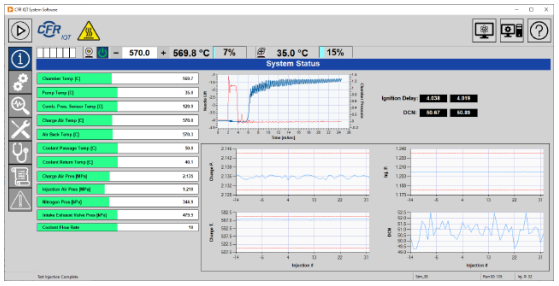
The next generation IQT conducts tests that are fully compliant with all procedures of the current IQT test methods:

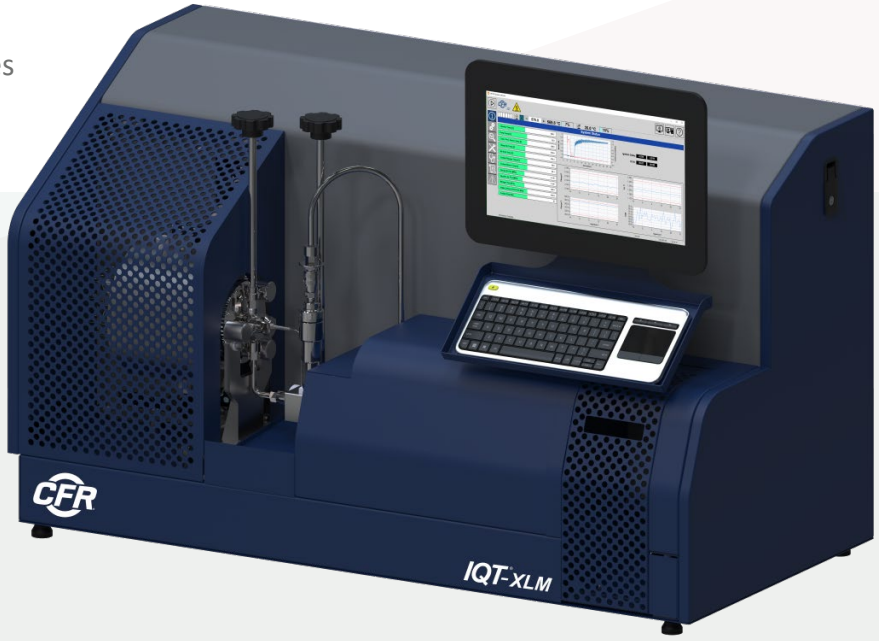
- ASTM D6890
- EN 15195
- IP 498

Cetane measurements for certification purposes meet the requirements of most international and national fuel specifications for diesel fuel, biodiesel blends, HVO and GTL, including:

- ASTM D975
- ASTM D6751
- ASTM D7467
- EN 590
- EN 15940
- CAN/CGSB-3.517
- CAN/CGSB-3.520
- CAN/CGSB-3.522
- CAN/CGSB-3.524

- Rapid test results: less than 20 minutes per sample
- Suitable for 24/7 operation
- Automated control of injection nozzle and combustion sensor temperatures (formerly requiring the TALM option) is standard equipment
- User interface with multi-language capability
- Simplified exhaust ventilation requirements
- Integral sample waste collection system
- Positive pressure cabinet ventilation prevents any ingress of flammable vapors



# Features & Benefits

## Standard for Octane & Cetane Rating Units

The main system operating screen clearly displays all operating parameters, using large, color-coded bar graphs to indicate to the user whether a parameter is within allowable limits. The bar graphs are sized so that a basic check of the instrument's condition and test progress can be done from a distance.

New intuitive and convenient user interface with:

- Simplified access to calibration and diagnostic functions
- Advanced diagnostics for condition-based maintenance
- Multiple language capabilities

## Features

- Touch screen HMI with industrial PC
- Windows® based user interface
- Electrical Connection: 20A,208-240 VAC, 50/60Hz
- Integral cooling system with built-in Uninterruptible Power Supply (UPS): > 3.5 hrs of run time for the cooling system and computer
- Low Sample Volume: 35 ml for cleaning, 30 ml for test run

## Measurement Results

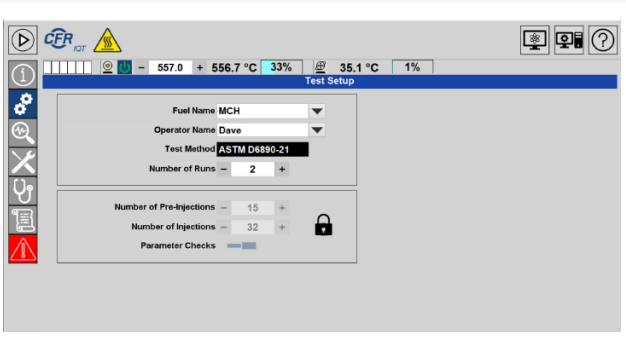
Ignition delay (ms) and Derived Cetane Number (DCN), Correlation of DCN and Cetane Number (CN) recognized by ASTM (versus D613) and CEN (versus ISO 5165)

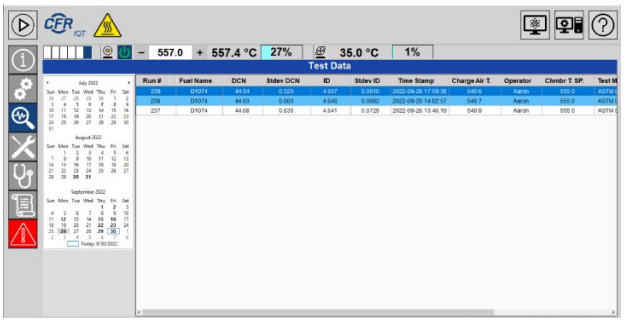
## Repeatability

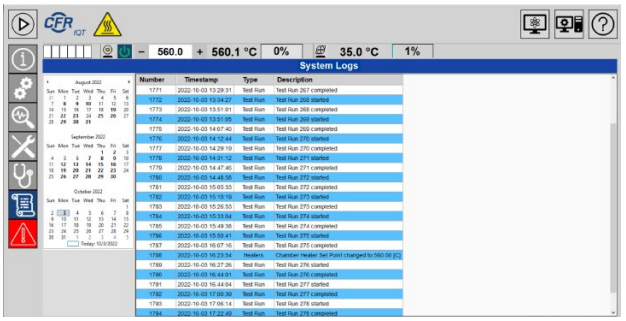
- 0.53 @ 40 DCN
- 0.65 @ 50 DCN
- 0.89 @ 70 DCN (ASTM D6890-21)

## Derived Cetane Number Range

- 31.5 to 75.1DCN (ASTM D6890 21 scope)
- 30.4 to 78.9 DCN (applicability of ASTM D6890 precision functions per ASTM D6300)




## Compressed Gas Requirements

- Compressed air at 12.1 bar (175 psi)
- Compressed air (19.9-21.9% O2) at 21.4 bar (310 psi)
- Compressed nitrogen at 3.5 bar (50 psi)

## Reference Materials

- n-heptane 99.5%, octane engine grade (calibration reference material, check standard)
- Methylcyclohexane 99% (verification material)
- Reference diesel fuel (quality control sample)

Scan to learn more about **IQT®-XLM**

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