

AUTOMATED BLENDERS

for OCTANE and CETANE REFERENCE FUELS

- Conform to ASTM D2699, D2700, D2885, and D613 Methods
- Rapid Volumetric or Gravimetric Blending
- All Blend Calculation Done by the Software
- Precision of ± 0.02 mL or ± 0.02 gm
- Simple Operation Reduces Operator Errors
- Improved Precision of Octane/Cetane Results
- Fully Automated Preparation of PRF1, PRF2, TSF, U Blends, T Blends
- Motor Driven Laser Detector of Burette Meniscus Volume
- Precision Balance for Gravimetric Measurement

Four models of blenders are available for the automated preparation of reference fuels for CFR octane and cetane engines.

One blender is based on the original ASTM methods specified procedure using volume (burettes) as the basis for the blend. Recently, ASTM approved the use of weight (precision balance) as the basis of preparing the blend.

The volumetric blender use a laser meniscus detector driven along the burette length measuring the volume with a precision of 0.02 mL. Three, or four burettes are used, one each for iso-octane, heptane, toluene and 80 O.N. blend. The burettes are automatically filled, either via pressure or gravity feed of the fuel components.

The Windows XP based proprietary software performs all needed blend calculations and corrections for a desired octane or cetane number, and 400 mL of blended reference fuels is delivered. A blend certification report is printed for ISO traceability.

The gravimetric units operate in a similar fashion, but use a precision electronic balance to weight the blend components.

▶ AVAILABLE MODELS

Model OC-23V octane reference fuel blender has 3 ASTM burettes, each burette with a motor driven laser meniscus detector. The burettes may also be used in the traditional manual method. Burettes are available with 4 point volume certification (average of 5 repeats). The operation is controlled by a PLC and receives inputs via a front panel mounted key pad. Model OC-23-V is housed in a space saving cabinet measuring 28 X 20 X 39 inches high (70 X 50 X 100 cm high).

Model OC-34V octane reference fuel blender using laser volumetric meniscus detector. It is similar to Model OC-23-V above but with 4 burettes, one each for toluene, iso-octane, heptane, and 80 ON fuel blend. It is Windows XP PC controlled.

Also for Methods:

ASTM	D2699, D2700, D2885, D613
ISO	5164
IP	237
FTM	791-6002, 6005



▲ **Model OC-23-V**
Automated Octane PRF and
TSF Blender

Model OC-55G octane reference fuel blender uses a precision electronic balance, has 4 burettes. The burettes may also be used in the traditional manual method. It is Windows XP PC computer controlled.

Model OC-60G octane reference fuel blender uses a precision electronic balance, has 4 inputs one each for toluene, iso-octane, heptane, and 80 O.N. fuel but no burettes. It is Windows XP PC computer controlled.

Model CE-82G cetane reference fuel blender has 2 inputs (no burettes) and uses a precision electronic balance to automatically measure the weight of the individual components for U and T blends to the desired cetane number. It is Windows XP PC computer controlled.