Simulated distillation, the primary separation process for crude oil refining, lets you quickly and accurately determine the boiling point distribution of hydrocarbon fractions prior to refining. Understanding boiling point distribution is critical to optimizing production, quality, and commercialization of petroleum streams — and is a key part of ASTM simulated distillation methods.

**Get application workflows up and running reliably immediately after installation**

**Agilent Simulated Distillation Analyzers** are based on the Agilent 7890B GC System. Each is factory pre-tested and pre-configured to save precious start-up time for your simulated distillation analysis per ASTM methods.

In addition, **Agilent Simulated Distillation software**, which is compatible with OpenLAB CDS, gives you a user-friendly platform for:

- Initiating real-time analysis and stand-alone operation using integrated program modules
- Instantly selecting and viewing chromatograms from the Results Directory Tree
- Creating graphic reports for engineering, calibration, and signature
- Generating text reports for yield %, cut point, tabulated response, calibration, and calculated values for 2887-D86 correlation and cut point

**Agilent Simulated Distillation Analyzers reflect innovative technology, intuitive software, and a stringent quality control process. Systems include:**

**Factory**
- System setup and leak testing
- Instrument checkout
- Installation of appropriate columns
- Factory-run checkout method using application checkout mix

**Delivery**
- Instrument manual for running the method
- CD-ROM with method parameters and checkout data files for easy out-of-the-box operation
- Application-related consumables included — no separate ordering required
- Easy consumables re-ordering information

**Installation**
- Duplicate factory checkout with checkout sample — onsite by factory-trained support engineer
- Optional application startup assistance
Simulated Distillation Analyzers
For generating data about operations, processes, and product quality

Capillary Column Analyzers
Configured to meet ASTM analysis/reporting requirements

Built on the flagship Agilent 7890 GC system, these Analyzers address a range of industry standard methods with features such as:

• Quick calibration setup with robust browser features and multiple reporting options
• Automatic sequencing through integration with Agilent GC OpenLAB
• High-performance Multimode Inlet (MMI) optimized for simulated distillation applications
• Powerful, fast, and easy-to-use simulated distillation software

ASTM D2887: Boiling Range from 55 to 538 °C

Calibration Sample, C5-C40.

ASTM D7213: Cracked Gas Oil Boiling Range from 100 to 615 °C

Chromatographic performance for this analysis of heavy-vacuum-gas oil was enhanced using the Multimode Inlet. Overlay of 10 runs shows excellent repeatability.

ASTM D6352: Boiling Range from 174 to 700 °C

Polywax 655 calibration to C94.
Low Thermal Mass Analyzers

The reliable choice when time is of the essence

The ability to reduce cycle times and increase throughput can help you make fast decisions that improve process efficiency and profitability. It also shortens hold times, allowing you to release raw materials to production — or finished products to market — more quickly.

**Agilent Low Thermal Mass (LTM) Analyzers** feature an LTM column module, which is controlled from the 7890B. The module combines a fused silica capillary column with direct heating and temperature-sensing components to ensure efficient column heating and cooling — and significantly shorter cycle times. Other advantages include:

- **High throughput:** Analyze samples containing C5 through C44 in less than 2.5 minutes
- **Accurate, reproducible results for boiling point determinations with RSDs ≤1%**
- **Ease of use:** Intuitive software simplifies analysis and reporting

We also offer fully customized Analyzers for your unique requirements

Agilent, together with our Channel Partners, can help you meet your most challenging demands with specialized technologies that significantly reduce your time from system arrival to final validation. With pre-configured hardware and method-specific separation tools, your analysts can spend more time on calibration and validation per your laboratory’s SOPs.

To review our full line of analyzers, visit [agilent.com/chem/appkits](http://agilent.com/chem/appkits)
Agilent has the technology and experience to support your lab with fully customized solutions

Over the past four decades, Agilent has taken an active role in developing methods and applications — many of which have evolved into global standards for energy/fuels analysis.

Our 7890 GC, for example, is the world’s most widely used GC system. It features accurate temperature controls and precise injection systems — plus enhanced Electronic Pneumatic Control (EPC) for the best retention times.

In addition, Agilent experts continue to be actively involved in ASTM — the world’s most trusted source for standards development. We have applied this deep regulatory understanding toward developing methods for our Simulated Distillation Analyzers.

Beyond the box:
A full portfolio of customized products, advice, and support

High-quality columns and supplies from the world GC leader

Agilent-engineered GC columns and supplies deliver what your analysts demand — including:

• Long-term reliability and robustness
• Trouble-free instrument operation
• Faster analysis without loss of resolution

Local, on-site assistance

No matter where you are on the energy/fuels supply chain, Agilent can help you increase production efficiency... reduce scrap and rework... and enhance product quality.

Best-in-class service and support

Whether you need support for a single instrument or a multi-vendor operation, Agilent service professionals can help solve problems quickly and increase your uptime, so you can focus on what you do best.

Custom GC and GC/MS configurations

Let Agilent customize a standard GC or a GC/MS analyzer with specialized columns, valves, tubing inlets, and other add-ons — including an extensive line of consumables and column modules.

Ordering information:

<table>
<thead>
<tr>
<th>Method</th>
<th>Description</th>
<th>Carbon Number</th>
<th>Sample Range</th>
<th>Part Number</th>
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</thead>
<tbody>
<tr>
<td>ASTM D2887</td>
<td>Simulated Distillation Analyzer: Boiling Range from 55 to 538 °C</td>
<td>C&lt;sub&gt;44&lt;/sub&gt;</td>
<td>Jet fuel, diesel</td>
<td>G3440B#653</td>
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<tr>
<td>ASTM D7213</td>
<td>Simulated Distillation Analyzer: Boiling Range from 100 to 615 °C</td>
<td>C&lt;sub&gt;60&lt;/sub&gt;</td>
<td>Lube oil base stock</td>
<td>G3445B#654</td>
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<tr>
<td>ASTM D6352</td>
<td>Simulated Distillation Analyzer: Boiling Range from 174 to 700 °C</td>
<td>C&lt;sub&gt;20&lt;/sub&gt;</td>
<td>Lube oil base stock</td>
<td>G3445B#655</td>
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<tr>
<td>ASTM D7169</td>
<td>Simulated Distillation Analyzer: Boiling Range from 174 to 720 °C</td>
<td>C&lt;sub&gt;100&lt;/sub&gt;</td>
<td>Crude oils and residues</td>
<td>G3445B#655</td>
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<tr>
<td>ASTM D6417</td>
<td>Simulated Distillation Analyzer: Boiling Range from 174 to 615 °C</td>
<td>C&lt;sub&gt;90&lt;/sub&gt;</td>
<td>Motor oil volatility</td>
<td>G3445B#654</td>
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<td>ASTM D7398</td>
<td>Simulated Distillation Analyzer: Boiling Range from 174 to 615 °C</td>
<td>C&lt;sub&gt;90&lt;/sub&gt;</td>
<td>Biodiesel</td>
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<td>ASTM D7798</td>
<td>Simulated Distillation Analyzer: Boiling Range from 55 to 538 °C</td>
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<td>Jet fuel, diesel</td>
<td>G3445B#658</td>
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<td>*ASTM D5307</td>
<td>Simulated Distillation IBP-538 °C</td>
<td>C&lt;sub&gt;44&lt;/sub&gt;</td>
<td>Crude oil</td>
<td>Superseded</td>
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<td>ASTM D3710</td>
<td>Simulated Distillation IBP-260°C</td>
<td>C&lt;sub&gt;15&lt;/sub&gt;</td>
<td>Gasoline naphtha</td>
<td>Channel Partner</td>
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*Replaced by ASTM D7169

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