



Restek Refined

# Get Guaranteed Method Performance with MXT-1HT SimDist Columns

- Lowest bleed for longest column lifetime.
- Reliably meet all ASTM D2887, D6352, D7169, D7213, and D7500 requirements.
- Individually tested for guaranteed performance.

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Pure Chromatography

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# Get Guaranteed Method Performance with MXT-1HT SimDist Columns

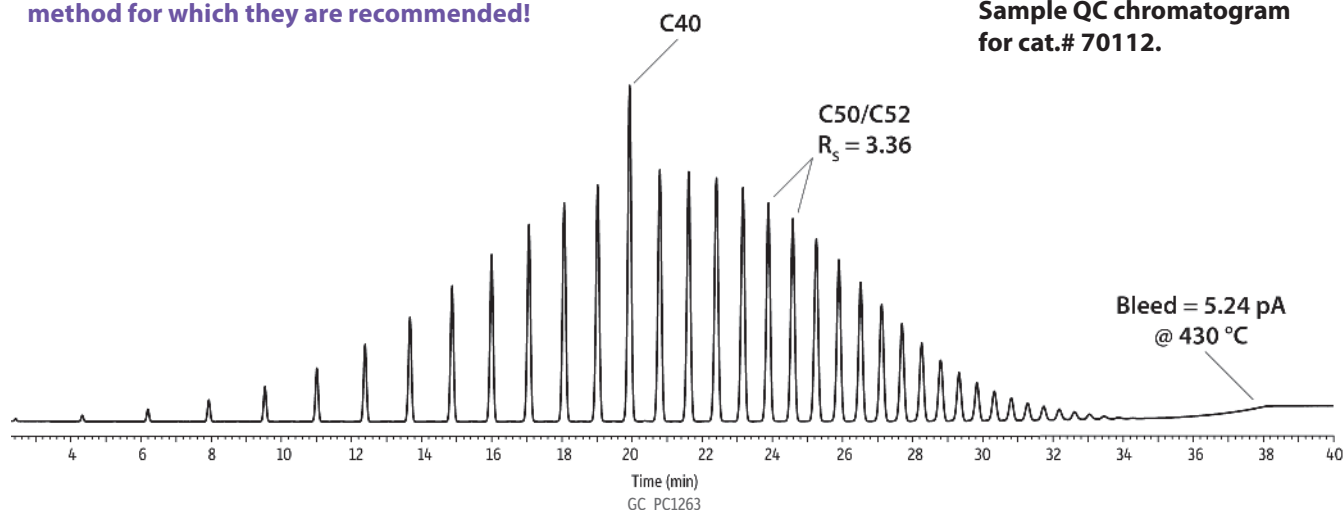
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Accurate determination of the boiling range distribution of medium and heavy fractions using GC simulated distillation provides critical information regarding the composition of crude oil. ASTM Methods D2887, D6352, D7169, D7213, and D7500 often are used to characterize petroleum distillates in the boiling range of 174 °C to 735 °C, but these analyses present many challenges to refineries and contract laboratories. Both the column construction and the polydimethylsiloxane (PDMS) polymer must be robust enough to withstand the high method temperatures without significant degradation. In addition, columns must yield the proper resolution, exhibit acceptable peak symmetry, and reliably produce accurate boiling point data. Restek's MXT-1HT SimDist columns are designed to meet these stringent requirements; the robust 1HT SimDist phase is designed for minimum bleed at maximum operating temperatures and the rugged Siltek-treated MXT tubing eliminates breakage, while ensuring column inertness.

While other columns on the market are isothermally tested for performance, only Restek provides application-specific testing for all MXT-1HT SimDist columns. Since each column is individually QC tested using conditions appropriate to the ASTM method for which it is recommended, performance is guaranteed to meet method requirements. Thin film columns ( $\leq 0.21 \mu\text{m}$ ) are tested using a C18–C80 test mix, while thicker film columns ( $\geq 0.88 \mu\text{m}$ ) are tested with a C8–C40 test mix. QC acceptance criteria include C50/C52 or C16/C18 resolution, bleed, asymmetry (skew), and retention time. Each column you purchase will arrive with a chromatogram similar to the one below—your assurance that the column will perform as required. Increase lab productivity and confidence in your data with an application-tested MXT-1HT SimDist column from Restek.

**Every MXT-1HT SimDist column is individually QC tested to ensure performance in the method for which they are recommended!**

**Sample QC chromatogram for cat.# 70112.**



**Column:** MXT-1HT SimDist, 5 m, 0.53 mm ID, 0.10  $\mu\text{m}$  (cat.# 70112); **Sample:** Polywax 655; **Oven:** Oven Temp.: 50 °C to 430 °C at 10 °C/min (hold 5 min); **Carrier Gas:** He, constant flow, 18 mL/min; **Detector:** FID @ 430 °C; Make-up Gas Flow Rate: 24 mL/min; Make-up Gas Type: N<sub>2</sub>; Hydrogen flow: 40 mL/min; Air flow: 358 mL/min; **Instrument:** Agilent/HP6890 GC

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## MXT-1HT SimDist Column

(Siltek-treated stainless steel) nonpolar phase

- Lowest bleed for longest column lifetime.
- Reliably meets all ASTM D2887, D6352, D7169, D7213, and D7500 requirements.
- Individually tested for guaranteed performance.
- Temperature range: -60 to 450 °C\*



ID	df	Length	qty.	cat.#
0.53 mm	0.10 µm	5 m	ea.	70112
	0.20 µm	5 m	ea.	70115
	0.21 µm	10 m	ea.	70118
	0.88 µm	5 m	ea.	70131
	0.88 µm	10 m	ea.	70134
	1.0 µm	10 m	ea.	70130
	1.2 µm	10 m	ea.	70119
	2.65 µm	10 m	ea.	70132
	5.0 µm	10 m	ea.	70133
	0.88 µm	10 m	ea.	70134

\*Maximum temperature varies by cat.#; see column-specific temperatures.

## Restek Electronic Leak Detector

Prevent small leaks from causing big problems with a Restek leak detector.



### Features & benefits include:

- Detects a broad range of gases.
- Audible tone and LED display indicate the severity of a leak.
- Can be operated during charging or used up to 12 hours between charges.
- Ergonomic, handheld design.
- Rugged side grips for added durability.
- Handy probe storage for cleanliness and convenience.
- Automatic shutoff.
- A convenient carrying and storage case.
- Easy-to-clean probe assembly.
- A universal AC power adaptor (U.S., UK, Europe, Australia, Japan).
- USB charging cable.

Backed by a one-year warranty, the Restek leak detector is the industry standard for performance and affordability in handheld leak detectors.

Description	qty.	cat.#
Restek Electronic Leak Detector includes carrying case; universal AC power adaptor [U.S., UK, Europe, Australia, Japan]; 6-ft USB charging cable	ea.	28500
Small Probe Adaptor for Leak Detector	ea.	22658
Dynamic Duo Combo Pack (Restek Leak Detector and ProFLOW 6000 Flowmeter)	kit	22654
Soft-Sided Storage Case for Restek Leak Detector and ProFLOW 6000 Flowmeter	ea.	22657
Charging Kit for Restek Electronic Leak Detector (cat.# 28500) includes 6-ft USB charging cable and universal AC power adaptor [U.S., UK, Europe, Australia, Japan]	kit	28502

Avoid using liquid leak detectors on a GC! Liquids can be drawn into the system and/or into the leak detector.

\*Caution: The Restek electronic leak detector should only be used to detect trace amounts of hydrogen in a noncombustible environment. It is NOT designed for determining leaks in a combustible environment. A combustible gas detector should be used for determining combustible gas leaks under any condition. When using it to detect hydrogen, the Restek electronic leak detector may only be used for determining trace amounts in a GC environment.

## FID Collector Assembly Kit

for Agilent 6850/6890/7890/8890 GCs



- Constructed of high-quality stainless steel.
- Meets or exceeds original manufacturer's performance.
- Individual replacement parts available.

Description	Similar to Agilent Part #	qty.	cat.#
FID Collector Assembly Kit (Includes Ignitor Castle; Upper PTFE Insulator; Lower PTFE Insulator; Collector Body; Collector Nut; Spring Washer; Ignitor Assembly with O-Ring)	G1531-60690	kit	21699
Siltek-Treated FID Collector Assembly Kit (Includes Siltek-Treated Ignitor Castle; Upper PTFE Insulator; Lower PTFE Insulator; Collector Body; Collector Nut; Spring Washer; Ignitor Assembly with O-Ring)		kit	21132
FID Collector (includes insulators)	G1531-20690, G1531-20700	ea.	21139
FID Collector Nut and Washer	19231-20940, 5181-3311	set	21136
FID Ignitor*	19231-60680	ea.	21001
FID Ignitor Castle	19231-20910	ea.	21137

\*Also fits OI Analytical 4410 detector (similar to OI part # 191833).

## FID Replacement Jets



### Standard Version

- Threads specially coated for easy installation and removal.
- Special processing ensures the highest degree of cleanliness.
- Meets or exceeds original manufacturer's performance.

### Capillary Dedicated FID Replacement Jet

for Agilent 5890/6850/6890/7890 GCs

Description (43 mm length)	qty.	Similar to Agilent Part #	cat.#
Standard, 0.011" ID Tip	3-pk.	G1531-80560	21682
High-Temperature, 0.018" ID Tip	3-pk.	G1531-80620	23079
High-Performance Siltek Treated, 0.011" ID Tip	3-pk.	G1531-80560	21683

## Graphite Ferrules

- Preconditioned to eliminate outgassing.
- High-purity, high-density graphite.
- Smoother surface and cleaner edges than conventional graphite ferrules.
- Contain no binders that can off-gas or adsorb analytes.
- Stable to 450 °C.



**SAVE MONEY! Buy  
ferrules in bulk  
50-packs!**

### Compact Ferrules for Agilent GCs

Ferrule ID	Fits Column ID	qty	Graphite
0.4 mm	0.025/0.05/0.075/0.10/0.15/0.18/0.20/0.25 mm (fused silica); 0.18 mm (MXT)	10-pk.	20250
0.4 mm	0.025/0.05/0.075/0.10/0.15/0.18/0.20/0.25 mm (fused silica); 0.18 mm (MXT)	50-pk.	20251
0.5 mm	0.32 mm (fused silica); 0.25/0.32 mm (MXT)	10-pk.	21007
0.5 mm	0.32 mm (fused silica); 0.25/0.32 mm (MXT)	50-pk.	21008
0.8 mm	0.45/0.53 mm (fused silica); 0.53 mm (MXT)	10-pk.	20252
0.8 mm	0.45/0.53 mm (fused silica); 0.53 mm (MXT)	50-pk.	20253
1.0 mm	For micropacked columns.	10-pk.	21059
1.6 mm	For micropacked columns.	10-pk.	21061

### Capillary Ferrules for 1/16-Inch Compression-Type Fittings

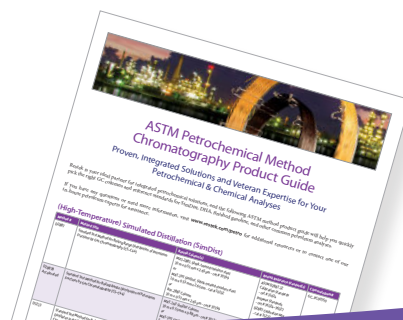


Ferrule ID	Fits Column ID	qty	Vespel	Graphite	VG1 (85:15)	VG2 (60:40)
0.3 mm	-	10-pk.	-	-	27061	20275
0.4 mm	0.025/0.05/0.075/0.10/0.15/0.18/0.20/0.25 mm (fused silica); 0.18 mm (MXT)	10-pk.	22214	20200	27062	20211
0.4 mm	0.025/0.05/0.075/0.10/0.15/0.18/0.20/0.25 mm (fused silica); 0.18 mm (MXT)	50-pk.	-	20227	27063	20229
0.5 mm	0.32 mm (fused silica); 0.25/0.32 mm (MXT)	10-pk.	22215	20201	27064	20212
0.5 mm	0.32 mm (fused silica); 0.25/0.32 mm (MXT)	50-pk.	-	20228	27065	20231
0.6 mm	0.28 mm (MXT)	10-pk.	-	-	27066	20232
0.8 mm	0.45/0.53 mm (fused silica); 0.53 mm (MXT)	10-pk.	22216	20202	27067	20213
0.8 mm	0.45/0.53 mm (fused silica); 0.53 mm (MXT)	50-pk.	-	20224	27068	20230
1.0 mm	For micropacked columns.	10-pk.	22217	21058	27069	24912
1.6 mm	For micropacked columns.	10-pk.	-	21060	-	-

Restek supports the most ASTM petrochemical methods in the chromatography industry.

Download our free product guide today!

[www.restek.com/ASTMguide](http://www.restek.com/ASTMguide)



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Pure Chromatography

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