

A bundle of numerous thin, yellowish GC columns is shown, bundled together with a metal wire mesh. The columns are arranged in a slightly curved, parallel fashion. The background is a soft, out-of-focus light color.

Heliflex AT<sup>®</sup>+

&

EconoCap EC<sup>®</sup>+

GC Columns  
CATALOG

## Heliflex AT<sup>®</sup> - and Econo-Cap EC<sup>®</sup> - GC Capillary Columns Families

We offer two lines of capillary columns to suit every application and budget; Heliflex AT<sup>®</sup>- and Econo-Cap EC<sup>®</sup>-.

Regardless of the capillary line you choose, every manufactured capillary column has a guarantee of column performance.

### Heliflex AT<sup>®</sup>- Capillary Columns

- High-performance individually tested columns
- 7" (or 5") rugged cage
- Most complete selection of phases
- Custom columns available to suit your specific application
- FAST GC columns available to speed up your analysis

Heliflex AT<sup>®</sup>- Capillary Columns are manufactured from the highest quality polyimide coated synthetic fused silica. They are mounted on a rugged wear-resistant cage. Each Heliflex AT<sup>®</sup>- Column is individually tested to guarantee column performance and comes with a test chromatogram, instruction manual, capillary end caps, and a free ceramic column cutter.

Note: column nuts and ferrules are not included. If the column you need is not available in our standard offering, request a custom Heliflex AT<sup>®</sup>- Column made to your individual specifications.

### Econo-Cap EC<sup>®</sup>- Capillary Columns

- Best value in capillary columns anywhere
- Batch tested to dramatically reduce price
- Ideal for aggressive applications
- Available in the most popular phases

We've taken our most popular capillary columns and perfected the manufacturing procedure to the point that reproducibility is assured, producing them one-by-one and carefully following each step of the production.

This allows us to test these columns in batches instead of individually, while still offering a guarantee. Batch testing significantly reduces cost in production without sacrificing quality.

Each Econo-Cap EC<sup>®</sup>- Capillary Column comes with a copy of the batch test results, an instruction manual, capillary end caps and a free ceramic column cutter.

Note: column nuts and ferrules are not included.

Available Heliflex AT <sup>®</sup> - Phases	
Phase	Page
Heliflex AT <sup>®</sup> -1ms+	3
Heliflex AT <sup>®</sup> -1ht+	3
Heliflex AT <sup>®</sup> -1+	4
Heliflex AT <sup>®</sup> -5ms+	5
Heliflex AT <sup>®</sup> -5+	5
Heliflex AT <sup>®</sup> -20+	6
Heliflex AT <sup>®</sup> -50+	6
Heliflex AT <sup>®</sup> -1301+	6
Heliflex AT <sup>®</sup> -35+	7
Heliflex AT <sup>®</sup> -35ms+	7
Heliflex AT <sup>®</sup> -210+	8
Heliflex AT <sup>®</sup> -1701+	8
Heliflex AT <sup>®</sup> -WAX+	9
Heliflex AT <sup>®</sup> -WAXms+	9
Heliflex AT <sup>®</sup> -AquaWax+	10
Heliflex AT <sup>®</sup> -AquaWax DA+	10
Heliflex AT <sup>®</sup> -1000+	11
Heliflex AT <sup>®</sup> -502.2+	11
Heliflex AT <sup>®</sup> -624+	12
Heliflex AT <sup>®</sup> -225+	12
Heliflex AT <sup>®</sup> -SILAR-90+	13
Heliflex AT <sup>®</sup> -SILAR-100+	13
Heliflex AT <sup>®</sup> -3710+	14
Heliflex AT <sup>®</sup> -Petro+	14
Heliflex AT <sup>®</sup> -Sulfur+	14

In this catalog only the most common stationary phases and GC column types are reported.  
Contact us for other items and custom products.

Available Econo-Cap EC <sup>®</sup> - Phases	
Phase	Page
Econo-Cap EC <sup>®</sup> -1+	4
Econo-Cap EC <sup>®</sup> -5+	6
Econo-Cap EC <sup>®</sup> -WAX+	10
Econo-Cap EC <sup>®</sup> -1000+	11

### tech tip

#### Temperature limits

Our GC capillary columns are temperature rated. In some cases, we list two maximum operating temperatures; the lower one is for isothermal condition and the higher one for temperature-programmed condition.

Contact us for more info

## Capillary Column Phase Cross Reference

Use the chart below to cross reference manufacturers' stationary phases as well as USP method designations to Heliflex AT<sup>®</sup>- and Econo-Cap EC<sup>®</sup>-equivalent columns. Slight variations in selectivity may result between different manufacturers' columns.

### Standard Phase Cross Reference

Standard Phase Cross Reference			
Composition	Heliflex, Econo-Cap Brand	USP Designation	Similar Phases
100% Dimethylpolysiloxane	AT <sup>®</sup> -1ms+	G1, G2, G38	DB-1ms, HP-1ms, Rtx <sup>®</sup> -1ms, MEGA-1 MS, CP-Sil 5CB low-bleed/ms
100% Dimethylpolysiloxane	AT <sup>®</sup> -1ht+, AT <sup>®</sup> -1+ EC <sup>®</sup> -1+	G1, G2, G38	007-1, CP-Sil 5CB, DB-1, DB-1ht, HP-1, HP-101, MEGA-1, MEGA-1 HT OV <sup>™</sup> -1, RSL-150, RSL-160, Rtx <sup>®</sup> -1, SE-30 <sup>™</sup> , SPB <sup>™</sup> -1, SPB <sup>™</sup> -Sulfur, ULTRA-1, SP-2100, BP-1, DC-200, PE-1, ZB-1
5% Phenyl equivalent Polysilphenylene-Siloxane	AT <sup>®</sup> -5ms+		DB-5ms, Rtx <sup>®</sup> -5 Sil ms, BPX <sup>™</sup> -5, 007-5ms, MEGA-5 MS, MEGA-5 MS Xil, HP-5ms
5% Phenyl - 95% Methylpolysiloxane	AT <sup>®</sup> -5+ EC <sup>®</sup> -5+	G27, G36	007-2, CP-Sil 8CB, DB-5, DB-5.625, DB-5ht, HP-5, MEGA-5, HP-5ms, OV <sup>™</sup> -5, PTE-5, PTE-5QTM, PAS-5, RSL-200, Rtx <sup>®</sup> -5, Rtx <sup>®</sup> -5ms, SAC-5, SE <sup>™</sup> -54, SPB <sup>™</sup> -5, ULTRA-2, XTI-5, SE <sup>™</sup> -52, BP-5, PE-2, ZB-5
20% Phenyl - 80% Methylpolysiloxane	AT <sup>®</sup> -20+ EC <sup>®</sup> -20+	G28, G32	007-7, Rtx <sup>®</sup> -20, SPB <sup>™</sup> -20, VOCOL <sup>™</sup> , MEGA-20, PE-7
35 Phenyl - 65% Methylpolysiloxane	AT <sup>®</sup> -35ms+ AT <sup>®</sup> -35+	G42	DB-35ms, Rtx <sup>®</sup> -35, SPB <sup>™</sup> -35, SUP-HERB <sup>™</sup> , MDN-35, BPX <sup>™</sup> -35, MEGA-35, 007-11, DB-35, DB-35ms, HP-35, RSL-300, Rtx <sup>®</sup> -35, SPB <sup>™</sup> -35, SPB <sup>™</sup> -608, OV <sup>™</sup> -11, PE-35, SUP-HERB <sup>™</sup> , MEGA-35 MS
50 Phenyl - 50% Methylpolysiloxane	AT <sup>®</sup> -50+	G3	DB-17ms, H5-50+, Rtx <sup>®</sup> -50, SP-2250, SPB <sup>™</sup> -50, SPB <sup>™</sup> -17, BPX <sup>™</sup> -50, Rtx <sup>®</sup> -65TG, BPX <sup>™</sup> -50, CP-TAB-CB, MEGA-17, MEGA-17 MS, MEGA-17 HT 007-17, DB-17, DB-17ht, HP-17, HP-50+, Rtx <sup>®</sup> -50, SP-50, SP-2250, SPB <sup>™</sup> -50, CP-Sil 24CB, PE-17, ZB-50
6% Cyanopropylphenyl - 94% Methylpolysiloxane	AT <sup>®</sup> -624+ AT <sup>®</sup> -1301+	G43	007-1301, DB-624, DB-1301, HP-1301, HP-624, MEGA-624, MEGA-1301, Rtx <sup>®</sup> -1301, Rtx <sup>®</sup> -624, SPB <sup>™</sup> -1301, SPB <sup>™</sup> -624, 007-624, ZB-624
14% Cyanopropylphenyl - 86% Methylpolysiloxane	AT <sup>®</sup> -1701+		007-1701, CP-Sil 19CB, DB-1701, HP-1701, OV <sup>™</sup> -1701, MEGA-1701, PAS-1701, Rtx <sup>®</sup> -1701, SPB <sup>™</sup> -1701, BP-10, ZB-1701
Trifluoropropyl - Methylpolysiloxane	AT <sup>®</sup> -210+	G6	DB-210, RSL-400, Rtx <sup>®</sup> -200, OV <sup>™</sup> -202, OV <sup>™</sup> -210, OV <sup>™</sup> -215, MEGA-200, QF-1, SP-2401
50% Cyanopropylphenyl - 50% Methylpolysiloxane	AT <sup>®</sup> -225+	G7	007-225, CP-Sil 43CB, DB-225, HP-225, OV <sup>™</sup> -225, RSL-500, Rtx <sup>®</sup> -225, MEGA-225, BP-225, PE-225
Poly 90% biscyanopropyl - 10% Cyanopropylphenyl siloxane	AT <sup>®</sup> -SILAR-90+	G8	DB-23, CP-Sil 84, Rtx <sup>®</sup> -2330, SP-2330
Polybiscyanopropylsiloxane	AT <sup>®</sup> -SILAR-100+	G5	CP-Sil 88, Rtx <sup>®</sup> -2330, MEGA-10, SP-2340
Polyethyleneglycol	AT <sup>®</sup> -WAXms+ AT <sup>®</sup> -WAX+ AT <sup>®</sup> -AquaWax+ EC <sup>®</sup> -WAX+	G14, G15 G16, G20, G39	DB-WAX, Rtx <sup>®</sup> -WAX, Supelcowax <sup>™</sup> -10, MEGA-WAX, MEGA-WAX MS, MEGA-WAX Plus, 007-CW, Carbowax <sup>®</sup> 20M, CP-Wax 52CB, DB-WAXetr, DB-WAX, Rtx <sup>®</sup> -WAX, HP-20M, HP-Wax, Innowax <sup>™</sup> , Omegawax <sup>™</sup> , Stabilwax <sup>®</sup> , Supelcowax <sup>®</sup> -10, Superox <sup>®</sup> II, BP-20, ZB-WAX
Polyethyleneglycol Acid Modified	AT <sup>®</sup> -1000+ EC <sup>®</sup> -1000+ AT <sup>®</sup> -AquaWax DA+	G25, G35	007-FFAP, CP-Wax 58CB, DB <sup>™</sup> -FFAP, HP <sup>™</sup> -FFAP, Nukol <sup>™</sup> , MEGA-FFAP EXT MEGA-ACID (FFAP), OV <sup>™</sup> -351, SP-1000, Stabilwax <sup>®</sup> -DA, Superox <sup>®</sup> -FA, BP-21
Polyethyleneglycol Base Modified	AT <sup>®</sup> -CAM+		Stabilwax <sup>®</sup> -DB, CAM, Carbowax <sup>®</sup> Amine, MEGA-WAX BA, CP Wax 51
PONA Analysis	AT <sup>®</sup> -Petro+		007-1-100-0.5F, CP-Sil PONA CB, DB-Petro100, Petrocol <sup>™</sup> DH, PONA, MEGA-1 PONA, Ttx-1PONA, HP-PONA

### Specialty Columns Cross Reference

Specialty Phases Cross Reference		
EPA Method 502.2	AT <sup>®</sup> -502.2+	007-624, 007-502, DB-502.2, DB-VRX, HP-624, HP-VOC, MST-502.2, MXT-624, MXT-Volatiles, OV <sup>™</sup> -624, Rtx <sup>®</sup> -502.2, Rtx <sup>®</sup> -624, Rtx <sup>™</sup> -Volatiles, VOCOL <sup>™</sup>
Sulfur Analysis	AT <sup>®</sup> -Sulfur+	SPB <sup>™</sup> -1 Sulfur

In this catalog only the most common stationary phases and GC column types are reported. Contact us for other items and custom products.

## Heliflex AT<sup>®</sup>-1ms+

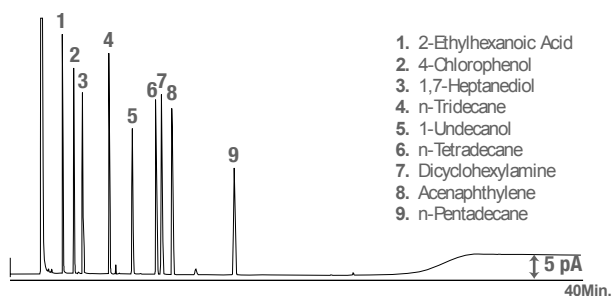
- Guaranteed low-bleed characteristics
- Specifically designed for mass spec analysis
- Highly inert
- Similar to DB-1ms, HP-1ms, Rtx<sup>®</sup>-1ms, MEGA-1 MS, CP-Sil 5CB low-bleed/MS, MDN-1

AT<sup>®</sup>-1ms+ is a line of high-performance low bleed non-polar columns designed specifically for use with mass spectrometers. They are ideal for pharmaceutical, environmental, petrochemical, and food and fragrance analysis, or any GC/MS analysis requiring a 100% dimethylpolysiloxane-type polarity capillary column.

### Heliflex AT<sup>®</sup>-1ms+ Specifications

<b>Phase:</b>	100% Dimethylpolysiloxane
<b>Polarity:</b>	Non-polar
<b>Max. Temp.:</b>	330/350°C*
<b>USP Designation:</b>	G1, G2, G38
<b>Ideal For:</b>	Mass Spec Analysis for Environmental, PAH, CLP Pesticides, Steroids, and Drugs

### Low Bleed Profile



1. 2-Ethylhexanoic Acid
2. 4-Chlorophenol
3. 1,7-Heptanediol
4. n-Tridecane
5. 1-Undecanol
6. n-Tetradecane
7. Dicyclohexylamine
8. Acenaphthylene
9. n-Pentadecane

**Column:** Heliflex AT<sup>®</sup>-1ms+, 30m x 0.25mm x 0.25µm  
Part No. **8635244** (Old Ref. 15897)

**Temp:** 135°C (20min hold) to 320°C (10min hold) at 20°C/min

**Carrier Gas:** Helium at 0.65mL/min (23.1cm/sec)

**Detector:** FID

### Heliflex AT<sup>®</sup>-1ms+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.10µm	-60–340/350°C	15884	<b>8635243</b>
	0.25mm	0.25µm	-60–330/350°C	15897	<b>8635244</b>
	0.32mm	0.25µm	-60–330/350°C	15938	<b>8635273</b>
60m	0.25mm	0.25µm	-60–330/350°C	15941	<b>8635354</b>
	0.32mm	0.25µm	-60–330/350°C	15944	<b>8635377</b>

## Heliflex AT<sup>®</sup>-1ht+

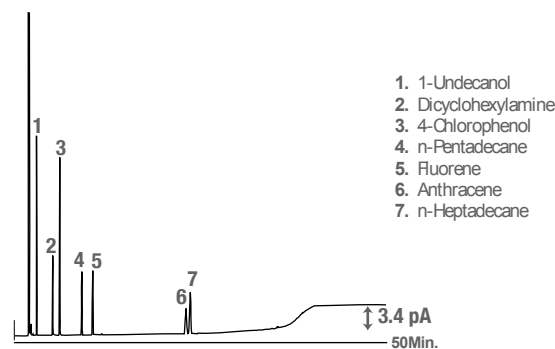
### Shorten Your Analysis Time with High-Temperature/Low-Bleed Columns

- Faster analysis time for high boiling compounds
- Better peak detection at lower concentrations
- Individually bleed tested at 380°C
- Similar to 007-1, CP-Sil 5CB, DB-1, DB-1ht, HP-1, HP-101, OV<sup>™</sup>-1, RSL-150, RSL-160, Rtx<sup>®</sup>-1, SE-30<sup>™</sup>, SPB<sup>™</sup>-1, SPB<sup>™</sup>-Sulfur, ULTRA-1, SP-2100, BP-1, DC-200, MEGA-1 HT, PE-1, ZB-1

### Heliflex AT<sup>®</sup>-1ht+ Specifications

<b>Phase:</b>	100% Dimethylpolysiloxane
<b>Polarity:</b>	Non-polar
<b>Max. Temp.:</b>	380/400°C*
<b>USP Designation:</b>	G1, G2, G38
<b>Ideal For:</b>	High Boiling Compounds Waxes, Crude Oils, and Triglycerides

### Bleed Profile



1. 1-Undecanol
2. Dicyclohexylamine
3. 4-Chlorophenol
4. n-Pentadecane
5. Fluorene
6. Anthracene
7. n-Heptadecane

**Column:** Heliflex AT<sup>®</sup>-1ht+, 30m x 0.25mm x 0.10µm  
Part No. **8635245** (Old Ref. 16368)

**Column Temp:** 125°C (25min hold) to 380°C at 20°C/min

**Carrier Gas:** Helium at 26.3cm/sec

**Detector:** FID at 390°C

### Heliflex AT<sup>®</sup>-1ht+ GC Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.25mm	0.1µm	-60–400°C	16367	<b>8635143</b>
30m	0.25mm	0.1µm	-60–400°C	16368	<b>8635245</b>
60m	0.25mm	0.1µm	-60–400°C	16369	<b>8635355</b>

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
Contact us for other items and custom products.

Custom Capillary Coiling Available  
 Custom Capillary Column Dimensions Available  
 Custom Capillary Column with Integral Guard Available  
 FAST-GC narrow-bore Column Dimensions Available

Contact us for more info

## Heliflex AT<sup>®</sup>-1+

- Excellent general purpose columns
- Similar to DB-1, Rtx<sup>®</sup>-1, SPB<sup>™</sup>-1, SPB<sup>™</sup>-Sulfur, SP-2100, HP-1, HP-101, ULTRA-1, BP-1, CP-Sil 5CB, 007-1, OV-1, SE<sup>™</sup>-30, DC-200, RSL-150, RSL-160, MEGA-1, PE-1, ZB-1

### Heliflex AT<sup>®</sup>-1+ Specifications

Phase:	100% Dimethylpolysiloxane
Polarity:	Non-polar General Purpose Column
USP Designation:	G1, G2, G38
Ideal For:	General Purpose

### Heliflex AT<sup>®</sup>-1+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.	
10m	0.25mm	0.20µm	-60–330/350°C	932510	<b>8635081</b>	
	0.32mm	0.10µm	-60–330/350°C	16868	<b>8635090</b>	
	0.32mm	0.25µm	-60–330/350°C	13755	<b>8635089</b>	
	0.32mm	0.30µm	-60–330/350°C	933210	<b>8635091</b>	
	0.53mm	0.25µm	-60–330/350°C	16840	<b>8635106</b>	
	0.53mm	1.20µm	-60–320/330°C	935110	<b>8635105</b>	
	0.53mm	2.65µm	-60–300°C	16849	<b>8635104</b>	
	0.53mm	5.00µm	-60–300°C	16842	<b>8635103</b>	
	15m	0.25mm	0.10µm	-60–330/350°C	13649	<b>8635121</b>
		0.25mm	0.25µm	-60–330/350°C	13753	<b>8635123</b>
0.25mm		1.00µm	-60–320/330°C	13653	<b>8635122</b>	
0.32mm		0.10µm	-60–330/350°C	13673	<b>8635147</b>	
0.32mm		0.25µm	-60–330/350°C	13757	<b>8635150</b>	
0.32mm		1.00µm	-60–320/330°C	13698	<b>8635148</b>	
0.32mm		5.00µm	-60–300°C	16836	<b>8635151</b>	
0.53mm		0.15µm	-60–330/350°C	13945	<b>8635187</b>	
0.53mm		1.20µm	-60–320/330°C	935115	<b>8635188</b>	
0.53mm		1.50µm	-60–320/330°C	13905	<b>8635181</b>	
0.53mm		3.00µm	-60–300°C	13893	<b>8635184</b>	
0.53mm		5.00µm	-60–300°C	16851	<b>8635183</b>	
25m		0.25mm	0.20µm	-60–330/350°C	932525	<b>5123485</b>
		0.32mm	0.30µm	-60–330/350°C	933225	<b>8635901</b>
30m	0.25mm	0.10µm	-60–330/350°C	13663	<b>8635233</b>	
	0.25mm	0.25µm	-60–330/350°C	13638	<b>8635235</b>	
	0.25mm	1.00µm	-60–320/330°C	13639	<b>8635236</b>	
	0.32mm	0.25µm	-60–330/350°C	13640	<b>8635254</b>	
	0.32mm	0.30µm	-60–330/350°C	933230	<b>8635257</b>	
	0.32mm	1.00µm	-60–320/330°C	13641	<b>8635255</b>	
	0.32mm	3.00µm	-60–300°C	13702	<b>8635256</b>	
	0.32mm	5.00µm	-60–300°C	16838	<b>8635253</b>	
	0.53mm	0.50µm	-60–330/350°C	14038	<b>8635302</b>	
	0.53mm	1.00µm	-60–320/330°C	13515	<b>8635304</b>	
	0.53mm	1.20µm	-60–320/330°C	935130	<b>8635307</b>	
	0.53mm	1.50µm	-60–320/330°C	13908	<b>8635305</b>	
	30m	0.53mm	2.65µm	-60–300°C	16876	<b>8635303</b>
		0.53mm	3.00µm	-60–300°C	13897	<b>8635301</b>
		0.53mm	5.00µm	-60–300°C	16843	<b>8635306</b>
	50m	0.25mm	0.20µm	-60–330/350°C	932550	<b>8635322</b>
60m	0.25mm	0.25µm	-60–330/350°C	13666	<b>8635334</b>	
	0.25mm	1.00µm	-60–320/330°C	13667	<b>8635336</b>	
	0.32mm	0.10µm	-60–330/350°C	13700	<b>8635363</b>	
	0.32mm	1.00µm	-60–320/330°C	13669	<b>8635362</b>	
	0.32mm	3.00µm	-60–300°C	13703	<b>8635364</b>	
	0.32mm	5.00µm	-60–300°C	13704	<b>8635365</b>	
	0.53mm	3.00µm	-60–300°C	13902	<b>8635390</b>	
	0.53mm	5.00µm	-60–300°C	13810	<b>8635392</b>	
	100m	0.25mm	0.25µm	-60–330/350°C	13972	<b>8635902</b>

## Econo-Cap EC<sup>®</sup>-1+

- Batch tested to dramatically reduce price

### Econo-Cap EC<sup>®</sup>-1+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	-60–330/350°C	19652	<b>8635041</b>
	0.32mm	0.25µm	-60–330/350°C	19651	<b>8635047</b>
	0.32mm	1.00µm	-60–320/330°C	19660	<b>8635048</b>
	0.53mm	1.20µm	-60–320/330°C	19656	<b>8635057</b>

### Econo-Cap EC<sup>®</sup>-1+ Capillary Columns, Six Pack

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	-60–330/350°C	196526	<b>5122228</b>
30m	0.32mm	0.25µm	-60–330/350°C	196516	<b>8635903</b>
30m	0.53mm	1.20µm	-60–320/330°C	196566	<b>8635904</b>



\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
Contact us for other items and custom products.

## Contact us for more info

- Custom Capillary Coiling Available
- Custom Capillary Column Dimensions Available
- Custom Capillary Column with Integral Guard Available
- FAST-GC narrow-bore Column Dimensions Available

## Heliflex AT<sup>®</sup>-5ms+

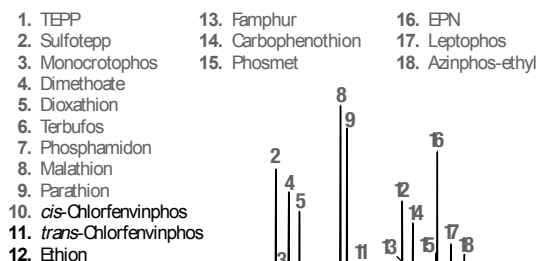
- Similar to DB-5ms, Rtx<sup>®</sup>-5 Sil ms, MEGA-5 MS, MEGA-5 MS Xil, HP-5ms, BPX<sup>™</sup>-5, 007-5ms

The Heliflex AT<sup>®</sup>-5ms + capillaries are ideal for environmental, pharmaceutical, and petrochemical analysis, or any GC/MS analysis requiring a 5% phenyl-type polarity capillary column.

### Heliflex AT<sup>®</sup>-5ms+ Specifications

<b>Phase:</b>	5% Phenyl equivalent Polysilphenylene-Siloxane
<b>Polarity:</b>	Non-polar
<b>USP Designation:</b>	G27, G36
<b>Ideal For:</b>	Mass Spec Analysis—General Application

### Organophosphorus Pesticides



**Column:** Heliflex AT<sup>®</sup>-5ms+, 30m x 0.25mm x 0.25µm  
Part No. **8635225** (Old Ref. 15807)  
**Temp:** 120°C (3min hold) to 285°C at 5°C/min (4min hold)  
**Carrier Gas:** Helium, 26cm/sec  
**Detector:** MSD

### Heliflex AT<sup>®</sup>-5ms+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.25mm	0.25µm	-60–330/350°C	15801	<b>8635142</b>
30m	0.25mm	0.10µm	-60–330/350°C	15806	<b>8635224</b>
	0.25mm	0.25µm	-60–330/350°C	15807	<b>8635225</b>
	0.25mm	0.50µm	-60–330/350°C	15808	<b>8635226</b>
	0.25mm	1.00µm	-60–320/330°C	15809	<b>8635227</b>
	0.32mm	0.25µm	-60–330/350°C	15894	<b>8635270</b>
60m	0.32mm	1.00µm	-60–320/330°C	15895	<b>8635271</b>
	0.25mm	0.10µm	-60–330/350°C	15879	<b>8635351</b>
	0.25mm	0.25µm	-60–330/350°C	15891	<b>8635353</b>
	0.25mm	1.00µm	-60–320/330°C	15892	<b>8635352</b>
	0.32mm	0.25µm	-60–330/350°C	15896	<b>8635379</b>

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
Contact us for other items and custom products.

## Heliflex AT<sup>®</sup>-5+

- Excellent general purpose column
- Similar to DB-5, Rtx<sup>®</sup>-5, SPB<sup>™</sup>-5, HP-5, MEGA-5, ULTRA-2, BP-5, CP-Sil 8CB, 007-2, OV<sup>™</sup>-5, SE<sup>™</sup>-52, SE<sup>™</sup>-54, RSL-200, ZB-5

### Heliflex AT<sup>®</sup>-5+ Specifications

<b>Phase:</b>	5% Phenyl - 95% Methylpolysiloxane
<b>Polarity:</b>	Non-polar
<b>Max. Temp.:</b>	330/350°C *
<b>USP Designation:</b>	G27, G36
<b>Ideal For:</b>	General Applications

### Heliflex AT<sup>®</sup>-5+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
10m	0.53mm	2.65µm	-60–300°C	16853	<b>8635102</b>
	15m	0.25mm	0.25µm	-60–330/350°C	13758
15m	0.25mm	1.00µm	-60–320/330°C	13706	<b>8635126</b>
	0.32mm	0.25µm	-60–330/350°C	13887	<b>8635157</b>
	0.32mm	1.00µm	-60–320/330°C	13710	<b>8635156</b>
	0.53mm	1.20µm	-60–320/330°C	955115	<b>8635203</b>
	0.53mm	1.50µm	-60–320/330°C	13906	<b>8635201</b>
25m	0.25mm	0.20µm	-60–330/350°C	952525	<b>5123553</b>
30m	0.25mm	0.10µm	-60–330/350°C	13707	<b>8635221</b>
	0.25mm	0.25µm	-60–330/350°C	13656	<b>8635222</b>
	0.25mm	0.50µm	-60–330/350°C	13309	<b>8635220</b>
	0.25mm	1.00µm	-60–320/330°C	13657	<b>8635223</b>
	0.32mm	0.25µm	-60–330/350°C	13658	<b>8635260</b>
	0.32mm	1.00µm	-60–320/330°C	13659	<b>8635261</b>
	0.53mm	0.50µm	-60–330/350°C	14045	<b>8635311</b>
	0.53mm	1.00µm	-60–320/330°C	13798	<b>8635309</b>
	0.53mm	1.20µm	-60–320/330°C	955130	<b>8635314</b>
	0.53mm	1.50µm	-60–320/330°C	13909	<b>8635310</b>
	0.53mm	2.65µm	-60–300°C	16857	<b>8635312</b>
	0.53mm	5.00µm	-60–300°C	16859	<b>8635313</b>
	60m	0.25mm	0.25µm	-60–330/350°C	13676
0.32mm		0.25µm	-60–330/350°C	13678	<b>8635369</b>
0.32mm		1.00µm	-60–320/330°C	13679	<b>8635366</b>
0.53mm		1.00µm	-60–320/330°C	14076	<b>8635397</b>
0.53mm		1.20µm	-60–320/330°C	13820	<b>8635396</b>
100m	0.53mm	5.00µm	-60–300°C	13829	<b>8635394</b>
	0.32mm	0.25µm	-60–330/350°C	14011	<b>8635905</b>

Contact us  
for more info

Custom Capillary Coiling Available  
Custom Capillary Column Dimensions Available  
Custom Capillary Column with Integral Guard Available  
FAST-GC narrow-bore Column Dimensions Available

## Econo-Cap EC<sup>®</sup>-5+

- Batch tested to dramatically reduce price

### Econo-Cap EC<sup>®</sup>-5+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.53mm	1.20µm	-60–320/330°C	19645	<b>8635034</b>
30m	0.25mm	0.25µm	-60–330/350°C	19647	<b>8635042</b>
	0.32mm	0.25µm	-60–330/350°C	19646	<b>8635050</b>
	0.53mm	1.00µm	-60–320/330°C	19671	<b>8635058</b>
	0.53mm	1.20µm	-60–320/330°C	19657	<b>8635059</b>

### Econo-Cap EC<sup>®</sup>-5+ Capillary Columns, Six Pack

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	-60–330/350°C	196476	<b>5122223</b>
	0.32mm	0.25µm	-60–330/350°C	196466	<b>5122221</b>
	0.53mm	1.20µm	-60–320/330°C	196576	<b>5122237</b>

best  
value

## Heliflex AT<sup>®</sup>-50+

- General purpose column
- Similar to DB-17, DB-17ht, Rtx<sup>®</sup>-50, BPX<sup>™</sup>-50, SPB<sup>™</sup>-50, SP-2250, HP-50+, HP-17, 007-17, MEGA-17, OV<sup>™</sup>-17, CP-Sil 24CB, PE-17, ZB-50

### Heliflex AT<sup>®</sup>-50+ Specifications

<b>Phase:</b>	50% Phenyl - 50% Methylpolysiloxane
<b>Polarity:</b>	Intermediate Polarity
<b>USP Code:</b>	G3
<b>Ideal For:</b>	Pesticides, Herbicides, Phthalate Esters, Free Phenols, and Basic Drugs

### Heliflex AT<sup>®</sup>-50+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.25mm	0.25µm	40–320/340°C	13837	<b>8635137</b>
	0.53mm	1.00µm	40–280/300°C	13876	<b>8635196</b>
30m	0.25mm	0.25µm	40–320/340°C	13839	<b>8635241</b>
	0.32mm	0.25µm	40–320/340°C	13858	<b>8635280</b>
	0.53mm	0.50µm	40–300/320°C	13991	<b>8635316</b>
	0.53mm	1.00µm	40–280/300°C	13878	<b>8635315</b>

## Heliflex AT<sup>®</sup>-20+

- Unique polarity between non-polar and mid-range
- Similar to 007-7, Rtx<sup>®</sup>-20, SPB<sup>™</sup>-20, VOCOL<sup>™</sup>, PE-7, MEGA-20

### Heliflex AT<sup>®</sup>-20+ Specifications

<b>Phase:</b>	20% Phenyl - 80% Methylpolysiloxane
<b>Polarity:</b>	Intermediate Polarity
<b>USP Designation:</b>	G28, G32
<b>Ideal For:</b>	Volatile Compounds and Solvents

### Heliflex AT<sup>®</sup>-20+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.25mm	0.25µm	-20–320/340°C	13838	<b>8635138</b>
30m	0.25mm	0.25µm	-20–320/340°C	13857	<b>8635242</b>
	0.53mm	1.00µm	-20–300/320°C	13882	<b>8635299</b>
	0.53mm	1.20µm	-20–300/320°C	13932	<b>8635300</b>

## Heliflex AT<sup>®</sup>-1301+

- Unique polarity makes it ideal for a range of applications
- Similar to BP624, DB-1301, Rtx<sup>®</sup>-1301, Rtx<sup>®</sup>-624, HP-1301, HP-624, DB-624, 007-624, 007-1301, MEGA-1301, SPB<sup>™</sup>-1301, SPB<sup>™</sup>-624, ZB-624

### Heliflex<sup>®</sup> AT<sup>™</sup>-1301 Specifications

<b>Phase:</b>	6% Cyanopropylphenyl - 84% Methylpolysiloxane
<b>Polarity:</b>	Intermediate Polarity
<b>USP Code:</b>	G43
<b>Ideal For:</b>	Volatile Organics, Pharmaceuticals, and EPA Method 612

### Heliflex AT<sup>®</sup>-1301+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.53mm	1.00µm	-20–240/260°C	13970	<b>M8635565</b>
	0.53mm	3.00µm	-20–240/260°C	15562	<b>M8635544</b>

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Custom Capillary Coiling **Available**  
 Custom Capillary Column Dimensions **Available**  
 Custom Capillary Column with Integral Guard **Available**  
 FAST-GC narrow-bore Column Dimensions **Available**

Contact us for more info

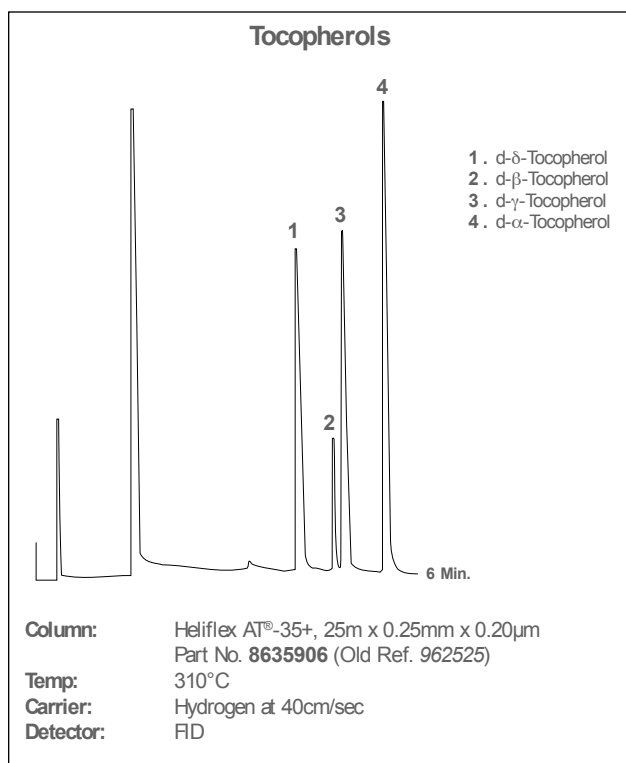
## Heliflex AT<sup>®</sup>-35ms+

- Guaranteed low-bleed
- Specifically designed for mass spec analysis
- Similar to DB-35ms, Rtx<sup>®</sup>-35, SPB<sup>™</sup>-35, SUP-HERB<sup>™</sup>, MEGA-35 MS, MDN-35, BPX<sup>™</sup>-35

Heliflex AT <sup>®</sup> -35ms+ Specifications	
<b>Phase:</b>	35% Phenyl - 65% Methylpolysiloxane
<b>Polarity:</b>	Intermediate Polarity
<b>USP Designation:</b>	G42
<b>Ideal For:</b>	Pesticides, Herbicides, Drugs, Aromatics

### Heliflex AT<sup>®</sup>-35ms+ Capillary Column

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	-40–320/340°C	12589	<b>8635213</b>
60m	0.25mm	0.25µm	-40–320/340°C	12590	<b>8635332</b>



## Heliflex AT<sup>®</sup>-35+

- Ideal column for conformational analysis
- Similar to DB-35, DB-35ms, Rtx<sup>®</sup>-35, BPX<sup>™</sup>-35, SPB<sup>™</sup>-35, SPB<sup>™</sup>-608, HP-35, 007-11, OV<sup>™</sup>-11, MEGA-35, RSL-300, PE-35, SUP-HERB<sup>™</sup>, ZB-35

Heliflex AT <sup>®</sup> -35+ Specifications	
<b>Phase:</b>	35% Phenyl - 65% Methylpolysiloxane
<b>Polarity:</b>	Intermediate Polarity
<b>USP Designation:</b>	G42
<b>Ideal For:</b>	Pesticides, Herbicides, Drugs, Aromatics

### Heliflex AT<sup>®</sup>-35+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
10m	0.53mm	1.20µm	-40–300°C	965110	<b>8635108</b>
	0.53mm	2.65µm	-40–280/300°C	16877	<b>8635109</b>
15m	0.53mm	1.20µm	-40–300°C	965115	<b>8635193</b>
25m	0.53mm	1.20µm	-40–300°C	965125	<b>8635212</b>
	0.25mm	0.25µm	-40–320/340°C	13642	<b>8635216</b>
30m	0.25mm	1.00µm	-40–300/320°C	13796	<b>8635218</b>
	0.32mm	0.25µm	-40–320/340°C	13644	<b>8635249</b>
	0.32mm	0.50µm	-40–320/330°C	13645	<b>8635250</b>
	0.53mm	1.00µm	-40–300°C	14001	<b>8635296</b>
	0.53mm	1.20µm	-40–300°C	965130	<b>8635297</b>
	0.53mm	2.65µm	-40–280/300°C	16878	<b>8635298</b>
60m	0.25mm	0.25µm	-40–320/340°C	13682	<b>8635341</b>
	0.53mm	1.00µm	-40–320/340°C	14070	<b>8635399</b>

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## Contact us for more info

Custom Capillary Coiling **Available**  
 Custom Capillary Column Dimensions **Available**  
 Custom Capillary Column with Integral Guard **Available**  
 FAST-GC narrow-bore Column Dimensions **Available**



## Heliflex AT<sup>®</sup>-210+

- Similar to DB- 210, Rtx<sup>®</sup>-200, OV<sup>™</sup>-202, MEGA-200, OV<sup>™</sup>-210, OV<sup>™</sup>-215, QF-1, SP-2401, RSL-400

Heliflex AT <sup>®</sup> -210+ Specifications	
<b>Phase:</b>	Trifluoropropyl Methylpolysiloxane
<b>Polarity:</b>	Polar
<b>USP Code:</b>	G6
<b>Ideal For:</b>	Ketones, Aldehydes, Silanes, Glycols, Nitro Aromatics, Herbicides, and Method 8140 and 609

### Heliflex AT<sup>®</sup>-210+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.53mm	1.00µm	40–240°C	13127	<b>8635189</b>
	0.53mm	1.20µm	40–240°C	985115	<b>8635190</b>
30m	0.53mm	1.00µm	40–240°C	13136	<b>8635293</b>
	0.53mm	1.20µm	40–240°C	985130	<b>8635294</b>

## Heliflex AT<sup>®</sup>-1701+

- Similar to DB-1701, OV<sup>™</sup>-1701, SPB<sup>™</sup>-1701, Rtx<sup>®</sup>-1701, 007-1701, PAS-1701, CP-Sil 19CB, MEGA-1701, HP-1701, BP-10, ZB-1701

Heliflex AT <sup>®</sup> -1701+ Specifications	
<b>Phase:</b>	(14% Cyanopropylphenyl)-86% Methylpolysiloxane
<b>Polarity:</b>	Intermediate Polarity
<b>USP Code:</b>	n/a
<b>Ideal For:</b>	Pesticides, PCB's, Drugs, Herbicides, and TMS Sugars

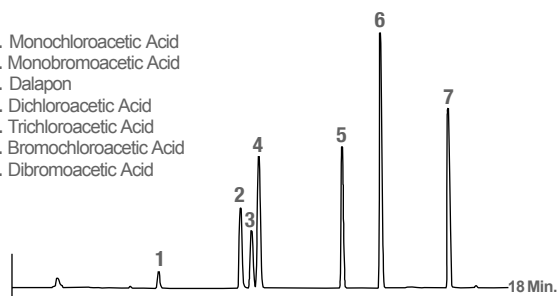
### Heliflex AT<sup>®</sup>-1701+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.25mm	0.25µm	-20–280°C	13881	<b>M8635566</b>
	0.32mm	0.25µm	-20–280°C	13762	<b>M8635567</b>
30m	0.25mm	0.25µm	-20–280°C	13686	<b>M8635558</b>
	0.25mm	1.00µm	-20–260/280°C	13687	<b>M8635568</b>
	0.32mm	0.25µm	-20–280°C	13690	<b>5121863</b>
	0.32mm	1.00µm	-20–260/280°C	13691	<b>M8635517</b>
60m	0.53mm	1.00µm	-20–260/280°C	13795	<b>M8635569</b>
	0.53mm	1.20µm	-20–260/280°C	13830	<b>8635M405</b>
	0.25mm	0.25µm	-20–280°C	13688	<b>M8635570</b>
	0.25mm	1.00µm	-20–260/280°C	13689	<b>M8635571</b>
	0.32mm	0.25µm	-20–280°C	13692	<b>M8635572</b>
	0.32mm	1.00µm	-20–260/280°C	13693	<b>M8635573</b>
	0.53mm	1.00µm	-20–260/280°C	14131	<b>M8635574</b>

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### EPA Method 552.1: Haloacetic Acids

1. Monochloroacetic Acid
2. Monobromoacetic Acid
3. Dalapon
4. Dichloroacetic Acid
5. Trichloroacetic Acid
6. Bromochloroacetic Acid
7. Dibromoacetic Acid



**Column:** Heliflex AT<sup>®</sup>-1701+, 30m x 0.32mm x 0.25µm  
Part No. **5121863** (Old. Ref. 13690)  
**Temp:** 50°C (10min hold) to 120°C at 10°C/min  
**Carrier Gas:** Helium at 35cm/sec  
**Detector:** ECD

## Contact us for more info

Custom Capillary Coiling **Available**  
Custom Capillary Column Dimensions **Available**  
Custom Capillary Column with Integral Guard **Available**  
FAST-GC narrow-bore Column Dimensions **Available**

## Heliflex AT<sup>®</sup>-WAX+

- Similar to DB-WAX, DB-WAXetr, Rtx<sup>®</sup>-WAX, MEGA-WAX Plus Stabilwax<sup>®</sup>, Carbowax<sup>®</sup> 20M, Supelcowax<sup>™</sup>-10, Innowax<sup>™</sup>, HP-20M, HP-Wax, BP-20, CP-Wax 52-CB, 007-CW, Superox<sup>®</sup> II, OmegaWAX<sup>™</sup>, ZB-WAX

Heliflex AT <sup>®</sup> -WAX+ Specifications	
<b>Phase:</b>	100% Polyethyleneglycol
<b>Polarity:</b>	Polar
<b>USP Code:</b>	G14, G15, G16, G39
<b>Ideal For:</b>	FAMEs, Polar Solvents, BTEX, Flavor and Fragrances, Glycols, Alcohols, and Aromatics

### Heliflex AT<sup>®</sup>-WAX+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
10m	0.53mm	1.20µm	40–250/260°C	9951102	<b>8635111</b>
15m	0.25mm	0.50µm	40–250/260°C	137302	<b>8635116</b>
	0.32mm	0.50µm	40–250/260°C	137352	<b>8635162</b>
	0.32mm	1.00µm	40–250/260°C	137362	<b>8635163</b>
15m	0.53mm	0.50µm	40–250/260°C	14109	<b>8635174</b>
	0.53mm	1.00µm	40–250/260°C	13904	<b>8635177</b>
	0.53mm	1.20µm	40–250/260°C	9951152	<b>8635179</b>
25m	0.25mm	0.20µm	40–250/270°C	9925252	<b>M8635502</b>
	0.32mm	0.30µm	40–250/270°C	9932252	<b>M8635545</b>
	0.53mm	1.20µm	40–250/260°C	9951252	<b>8635211</b>
30m	0.25mm	0.20µm	40–250/270°C	9925302	<b>8635229</b>
	0.25mm	0.25µm	40–250/270°C	136462	<b>8635230</b>
	0.25mm	0.50µm	40–250/260°C	136472	<b>8635231</b>
	0.32mm	0.25µm	40–250/270°C	136482	<b>8635275</b>
	0.32mm	0.30µm	40–250/270°C	9932302	<b>8635274</b>
	0.32mm	0.50µm	40–250/260°C	136522	<b>8635276</b>
	0.32mm	1.00µm	40–250/260°C	137382	<b>8635277</b>
	0.53mm	0.50µm	40–250/260°C	14111	<b>8635291</b>
	0.53mm	1.00µm	40–250/260°C	13907	<b>8635290</b>
	0.53mm	1.20µm	40–250/260°C	9951302	<b>8635292</b>
50m	0.32mm	0.30µm	40–250/270°C	9932502	<b>8635324</b>
	0.53mm	1.20µm	40–250/260°C	13946	<b>8635329</b>
60m	0.25mm	0.20µm	40–250/270°C	9925602	<b>8635349</b>
	0.25mm	0.25µm	40–250/270°C	136942	<b>8635350</b>
	0.32mm	0.25µm	40–250/270°C	136962	<b>8635372</b>
	0.32mm	0.30µm	40–250/270°C	9932602	<b>8635373</b>
	0.32mm	0.50µm	40–250/260°C	136972	<b>8635374</b>
	0.53mm	1.00µm	40–250/260°C	13929	<b>8635383</b>
	0.53mm	1.20µm	40–250/260°C	13850	<b>8635381</b>

## Heliflex AT<sup>®</sup>-WAXms+

- Designed to provide low MS bleed
- Similar to DB-WAX, Rtx<sup>®</sup>-WAX, Supelcowax<sup>™</sup>-10, MEGA-WAX MS

Heliflex AT <sup>®</sup> -WAXms+ Specifications	
<b>Phase:</b>	100% Polyethyleneglycol
<b>Polarity:</b>	Polar
<b>USP Code:</b>	G14, G15, G16, G39
<b>Ideal For:</b>	Mass Spec Analysis

### Heliflex AT<sup>®</sup>-WAXms+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	40–250/270°C	12604	<b>8635232</b>
	0.32mm	0.25µm	40–250/270°C	12607	<b>8635248</b>
60m	0.25mm	0.25µm	40–250/270°C	12605	<b>8635356</b>

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## Contact us for more info

Custom Capillary Coiling **Available**  
 Custom Capillary Column Dimensions **Available**  
 Custom Capillary Column with Integral Guard **Available**  
 FAST-GC narrow-bore Column Dimensions **Available**

## Econo-Cap EC<sup>®</sup>-WAX+

- Batch tested to dramatically reduce price
- For phase specifications, see Heliflex AT<sup>®</sup> version

### Econo-Cap EC<sup>®</sup>-WAX+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.53mm	1.20µm	40–250/260°C	19653	<b>8635038</b>
30m	0.25mm	0.25µm	40–250/270°C	19655	<b>8635044</b>
	0.32mm	0.25µm	40–250/270°C	19654	<b>8635053</b>
	0.53mm	1.20µm	40–250/260°C	19659	<b>8635064</b>

### Econo-Cap EC<sup>®</sup>-WAX+ Six-Pack Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	40–250/270°C	196556	<b>5122233</b>
	0.32mm	0.25µm	40–250/270°C	196546	<b>5122231</b>
	0.53mm	1.20µm	40–250/260°C	196596	<b>5122240</b>

best value

## Heliflex AT<sup>®</sup>-AquaWax+

- Designed and tested for aqueous injections
- Similar to DB-Wax, DB-Waxer, Rtx<sup>®</sup>-WAX, Stabilwax<sup>®</sup>, HP-Wax, HP-20M, HP-Innowax, MEGA-WAX Plus, ZB-Wax, and Supelcowax<sup>™</sup>-10

### Heliflex AT<sup>®</sup>-AquaWax+ Specifications

<b>Phase:</b>	100% Polyethyleneglycol
<b>Polarity:</b>	Polar
<b>USP Code:</b>	N/A
<b>Ideal For:</b>	Food and Beverage Analysis

### Heliflex AT<sup>®</sup>-AquaWax+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	40–250/260°C	12437	<b>5121748</b>
	0.32mm	0.25µm	40–250/260°C	12439	<b>5121750</b>
60m	0.25mm	0.25µm	40–250/260°C	12447	<b>5121751</b>
	0.32mm	0.25µm	40–250/260°C	12449	<b>5121752</b>

## Heliflex AT<sup>®</sup>-AquaWax DA+

- Designed and tested for aqueous injections
- Eliminates the need for derivatization of acidic organic compounds
- Similar to DB-FFAP, Stabilwax<sup>®</sup>, HP-FFAP-DA, ZB-FFAP, SPB<sup>™</sup>-1000, and NukoI<sup>™</sup>, MEGA-FFAP EXT

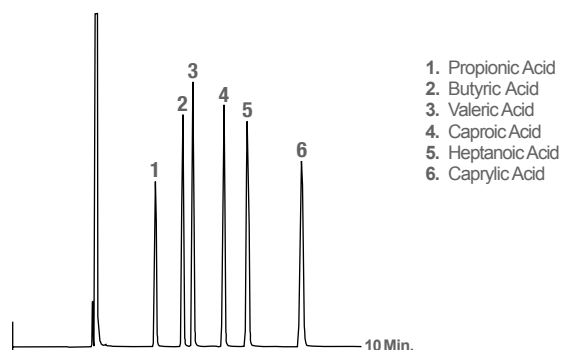
### Heliflex AT<sup>®</sup>-AquaWax DA+ Specifications

<b>Phase:</b>	100% Polyethyleneglycol - Acid Modified
<b>Polarity:</b>	Polar
<b>USP Code:</b>	N/A
<b>Ideal For:</b>	Analysis of Acidic Organic Compounds and Free Fatty Acids

### Heliflex AT<sup>®</sup>-AquaWax DA+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.25mm	0.25µm	40–250/260°C	14537	<b>5122065</b>
	0.32mm	0.25µm	40–250/260°C	14539	<b>5122066</b>
	0.53mm	1.00µm	40–250/260°C	14543	<b>5122067</b>
60m	0.25mm	0.25µm	40–250/260°C	14547	<b>5122068</b>

### Free Fatty Acids



**Column:** Heliflex AT<sup>®</sup>-AquaWax DA+, 30m x 0.25mm x 0.25µm  
Part No. **5122065** (Old Ref. 14537)

**Temp:** 180°C

**Carrier Gas:** Helium at 22cm/sec

**Detector:** FID

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
Contact us for other items and custom products.

Custom Capillary Coiling **Available**  
 Custom Capillary Column Dimensions **Available**  
 Custom Capillary Column with Integral Guard **Available**  
 FAST-GC narrow-bore Column Dimensions **Available**

Contact us for more info

## Heliflex AT<sup>®</sup>-1000+

- Similar to DB<sup>™</sup>-FFAP, Stabilwax<sup>®</sup>-DA, SPB<sup>™</sup>-1000, Nukol<sup>™</sup>, HP-FFAP, BP-21, CP-Wax-58-CB, 007-FFAP, OV<sup>™</sup>-351, FFAP, Superox<sup>®</sup>-FA, ZB-FFAP, MEGA-ACID (FFAP)

Heliflex AT <sup>®</sup> -1000+ Specifications	
Phase:	100% Polyethyleneglycol—Acid Modified
Polarity:	High Polarity
USP Code:	G25, G35
Ideal For:	Free Fatty Acids

### Heliflex AT<sup>®</sup>-1000+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
10m	0.53mm	1.20µm	40–250°C	975110	8635112
15m	0.53mm	1.00µm	40–250°C	13873	8635191
	0.53mm	1.20µm	40–250°C	975115	8635192
25m	0.25mm	0.20µm	40–250/260°C	972525	5123576
	0.32mm	0.30µm	40–250/260°C	973225	M8635575
30m	0.25mm	0.25µm	40–250/260°C	13783	8635247
	0.32mm	0.25µm	40–250/260°C	13785	8635266
	0.32mm	0.30µm	40–250/260°C	973230	8635267
	0.53mm	1.00µm	40–250°C	13877	8635284
50m	0.53mm	1.20µm	40–250°C	975130	8635285
	0.53mm	2.00µm	40–250°C	13017	8635283
	0.25mm	0.20µm	40–250/260°C	972550	8635319
60m	0.32mm	0.30µm	40–250/260°C	973250	8635327
	0.25mm	0.25µm	40–250/260°C	13784	8635345
	0.32mm	0.25µm	40–250/260°C	13786	8635359
	0.32mm	0.30µm	40–250/260°C	973260	8635360
	0.32mm	1.00µm	40–250°C	13276	8635358
	0.53mm	1.00µm	40–250°C	13879	8635402

## Econo-Cap EC<sup>®</sup>-1000+

- Batch tested to dramatically reduce price
- For phase specifications, see Heliflex AT<sup>®</sup> version

### Econo-Cap EC<sup>®</sup>-1000+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.53mm	1.20µm	40–250°C	19684	8635040
30m	0.25mm	0.25µm	40–250/260°C	19686	8635045
	0.32mm	0.25µm	40–250/260°C	19685	8635054
	0.53mm	1.20µm	40–250°C	19688	8635066

### Econo-Cap EC<sup>®</sup>-1000+ Six-Pack Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
30m	0.32mm	0.25µm	40–250/260°C	196856	5122259
	0.53mm	1.20µm	40–250°C	196886	M8635576

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
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Contact us for other items and custom products.

best value

## Heliflex AT<sup>®</sup>-502.2+

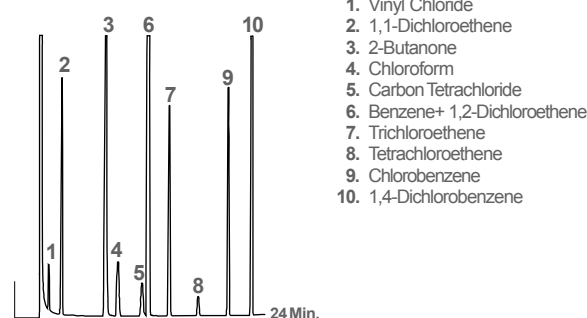
- Separates early eluting gases at above ambient temperature
- Useful for volatile organics analysis, including EPA Methods 502.2, 524.2, 8260

Heliflex AT <sup>®</sup> -502.2+ Specifications	
Phase:	Proprietary
Polarity:	Intermediate
USP Code:	n/a
Ideal For:	Volatile Organics and EPA Methods 502.2, 524.2, and 8260

### Heliflex AT<sup>®</sup>-502.2+ Capillary Columns

Length	i.d.	Film	Temp. Limit* max.	Old Reference	Part No.
60m	0.25mm	1.40µm	280/300°C	13788	M86355022
	0.32mm	1.80µm	280/300°C	13790	5121932
	0.53mm	3.00µm	280/300°C	13793	5121935
105m	0.32mm	1.80µm	280/300°C	13791	M8635533

### TCLP Volatiles Mix



1. Vinyl Chloride
2. 1,1-Dichloroethene
3. 2-Butanone
4. Chloroform
5. Carbon Tetrachloride
6. Benzene+ 1,2-Dichloroethene
7. Trichloroethene
8. Tetrachloroethene
9. Chlorobenzene
10. 1,4-Dichlorobenzene

Column: Heliflex AT<sup>®</sup>-502.2+, 30m x 0.53mm x 3.00µm  
Part No. M8635577 (Old Ref. 13792)  
Temp: 40°C (10min hold) to 120°C at 4°C/min  
Carrier Gas: Helium at 22cm/sec  
Detector: FID

Contact us  
for more info

Custom Capillary Coiling Available  
Custom Capillary Column Dimensions Available  
Custom Capillary Column with Integral Guard Available  
FAST-GC narrow-bore Column Dimensions Available

## Heliflex AT<sup>®</sup>-624+

- Specially tested for EPA Method 624
- Similar to DB<sup>™</sup>-1301, Rtx<sup>®</sup>-1301, MEGA-624, Rtx<sup>®</sup>-624, HP-1301, HP-624, DB<sup>™</sup>-624, 007<sup>™</sup>-624, 007<sup>™</sup>-1301, SPB<sup>™</sup>-1301, SPB<sup>™</sup>-624, ZB-624

### Heliflex AT<sup>®</sup>-624+ Specifications

<b>Phase:</b>	6% Cyanopropylphenyl - 94% Methylpolysiloxane
<b>Polarity:</b>	Intermediate Polarity
<b>USP Code:</b>	G43
<b>Ideal For:</b>	EPA Methods 524, 601, 602, 624, 8240 and 8260, and Solvent Analysis

### Heliflex AT<sup>®</sup>-624+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.-max.	Old Reference	Part No.
30m	0.25mm	1.40µm	-20-240/260°C	13754	<b>8635239</b>
	0.32mm	1.80µm	-20-240/260°C	13756	<b>8635278</b>
	0.32mm	3.00µm	-20-240/260°C	13780	<b>8635279</b>
	0.53mm	3.00µm	-20-240/260°C	16889	<b>8635317</b>
60m	0.25mm	1.40µm	-20-240/260°C	13503	<b>8635333</b>
	0.32mm	1.80µm	-20-240/260°C	13799	<b>8635375</b>
	0.53mm	3.00µm	-20-240/260°C	13800	<b>8635400</b>
75m	0.53mm	3.00µm	-20-240/260°C	13937	<b>8635403</b>

## Heliflex AT<sup>®</sup>-225+

- Similar to DB<sup>™</sup>-225, HP-225, Rtx<sup>®</sup>-225, OV<sup>™</sup>-225, RSL-500, 007-225, CP-Sil 43CB, BP-225, PE-225, MEGA-225

### Heliflex AT<sup>®</sup>-225+ Specifications

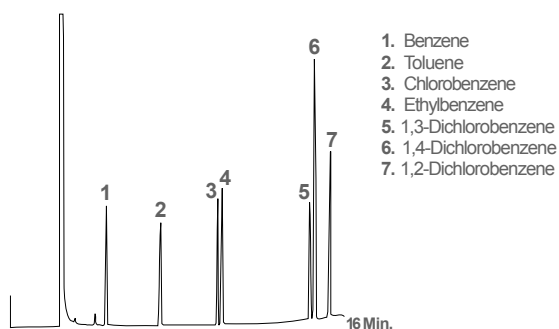
<b>Phase:</b>	50% Cyanopropylphenyl - 50% Methylpolysiloxane
<b>Polarity:</b>	Mid to High Polarity
<b>USP Code:</b>	G19
<b>Ideal For:</b>	Carbohydrates and Solvents

### Heliflex AT<sup>®</sup>-225+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.-max.	Old Reference	Part No.
15m	0.25mm	0.25µm	40-240°C	13883	<b>8635139</b>
25m	0.25mm	0.20µm	40-240°C	912525	<b>M8635537</b>
30m	0.25mm	0.25µm	40-240°C	13773	<b>8635240</b>
	0.32mm	0.25µm	40-240°C	13775	<b>8635264</b>
	0.32mm	0.30µm	40-240°C	913230	<b>8635265</b>
	0.53mm	1.20µm	40-220°C	915130	<b>8635308</b>

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
Contact us for other items and custom products.

### EPA Method 602 - Purgeable Aromatics



**Column:** Heliflex AT<sup>®</sup>-624+, 30m x 0.32mm x 1.80µm  
Part No. **8635278** (Old Ref. 13756)  
**Temp:** 90°C (7min hold) to 180°C at 10°C/min  
**Carrier Gas:** Helium at 1.1mL/min  
**Detector:** FID

Custom Capillary Coiling **Available**  
Custom Capillary Column Dimensions **Available**  
Custom Capillary Column with Integral Guard **Available**  
FAST-GC narrow-bore Column Dimensions **Available**

Contact us for more info

## Heliflex AT<sup>®</sup>-SILAR-90+

- Designed and tested for FAMES
- Similar to DB<sup>™</sup>-23, CP-Sil 84, Rtx<sup>®</sup>-2330, SP-2330

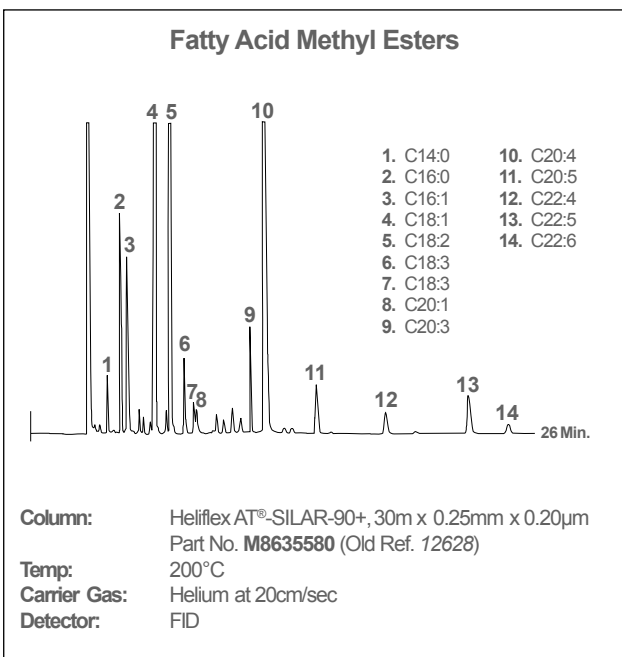
### Heliflex AT<sup>®</sup>-SILAR-90+ Specifications

<b>Phase:</b>	Poly 90% bis Cyanopropyl -10% Cyanopropylphenyl siloxane
<b>Polarity:</b>	High Polarity
<b>USP Code:</b>	G8
<b>Ideal For:</b>	Analysis of FAMES

### Heliflex AT<sup>®</sup>-SILAR-90+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.25mm	0.20µm	60–250°C	12627	<b>M8635579</b>
30m	0.25mm	0.20µm	60–250°C	12628	<b>M8635580</b>
	0.32mm	0.20µm	60–250°C	12630	<b>M8635581</b>

Available also in 60m, 100m and 105m Lengths



### tech tip

**Tips for Heliflex AT<sup>®</sup>-SILAR-90+ and AT<sup>®</sup>-SILAR-100+;** SILAR-90+ and SILAR-100+ are more susceptible to damage by oxygen, moisture, and HCl than other silicone phases. Avoid solvents such as water and methanol when using on-column injection techniques. Columns should not be rinsed.

## Heliflex AT<sup>®</sup>-SILAR-100+

- Ideal for high and low temperature separation of samples containing geometric isomers of FAMES
- Similar to CP-Sil 88, Rtx<sup>®</sup>-2330, SP-2340, MEGA-10

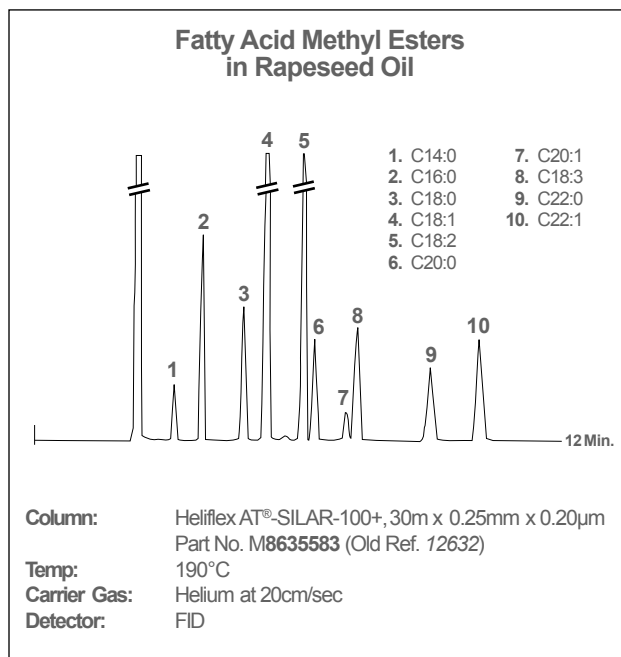
### Heliflex AT<sup>®</sup>-SILAR-100+ Specifications

<b>Phase:</b>	Polybiscyanopropylsiloxane
<b>Polarity:</b>	High Polarity Available
<b>USP Code:</b>	G8
<b>Ideal For:</b>	<i>cis/trans</i> Isomers of FAMES, Dioxins, and Furans

### Heliflex AT<sup>®</sup>-SILAR-100+ Capillary Columns

Length	i.d.	Film	Temp. Limits* min.–max.	Old Reference	Part No.
15m	0.25mm	0.20µm	60–250°C	12631	<b>M8635582</b>
30m	0.25mm	0.20µm	60–250°C	12632	<b>M8635583</b>
	0.32mm	0.20µm	60–250°C	12634	<b>M8635584</b>

Available also in 60m, 100m and 105m Lengths



\*: Maximum Temperature range may change depending on stationary phase film thickness.  
In this catalog are reported only the most common GC columns dimensions and part numbers.  
Contact us for other items and custom products.

Custom Capillary Coiling **Available**  
Custom Capillary Column Dimensions **Available**  
Custom Capillary Column with Integral Guard **Available**  
FAST-GC narrow-bore Column Dimensions **Available**

Contact us for more info

## Heliflex AT<sup>®</sup>-3710+

- For boiling range of gasoline samples

Heliflex AT <sup>®</sup> -3710+ Specifications	
Phase:	100% Methylpolysiloxane
Polarity:	Non-Polar
USP Code:	n/a
Ideal For:	Boiling Point of Gasoline

### Heliflex AT<sup>®</sup>-3710+ Capillary Column

Length	i.d.	Film	Temp. Limit* max.	Old Reference	Part No.
15m	0.53mm	5.00µm	300°C	13949	<b>M8635585</b>

## Heliflex AT<sup>®</sup>-Sulfur+

- Designed for the analysis of volatile sulfur-containing compounds in petroleum distillates

Heliflex AT <sup>®</sup> -Sulfur+ Specifications	
Phase:	100% Methylpolysiloxane
Polarity:	Non-Polar
USP Code:	n/a
Ideal For:	Volatile Sulfur Compounds

### Heliflex AT<sup>®</sup>-Sulfur+ Capillary Columns

Length	i.d.	Film	Temp. Limit* min.–max.	Old Reference	Part No.
30m	0.32mm	4.00µm	-20–320°C	14029	<b>M8635551</b>

## Heliflex AT<sup>®</sup>-Petro+

- For high resolution of complex hydrocarbon mixtures

Heliflex AT <sup>®</sup> -Petro+ Specifications	
Phase:	100% Methylpolysiloxane
Polarity:	Non-Polar
USP Code:	n/a
Ideal For:	hydrocarbon Mixtures

### Heliflex AT<sup>®</sup>-Petro+ Capillary Column

Length	i.d.	Film	Temp. Limit* max.	Old Reference	Part No.
100m	0.25mm	0.50µm	330/340°C	13948	<b>M8635586</b>

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
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Contact us for other items and custom products.

## Contact us for more info

Custom Capillary Coiling **Available**  
 Custom Capillary Column Dimensions **Available**  
 Custom Capillary Column with Integral Guard **Available**  
 FAST-GC narrow-bore Column Dimensions **Available**

Contact us:

[info@mega.mi.it](mailto:info@mega.mi.it)

Econo-Cap  
& **Heliflex** GC Columns