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1980



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# About us



For more than 35 years, MEGA has developed and manufactured gas chromatography GC columns offering both general-purpose and application-specific solutions to analysts around the world. Today we produce and offer:

- one of the most complete range of analytical columns for GC, GC-MS, FAST-GC, Wide-Bore GC, Chiral-GC
- special and innovative products and accessories for Multidimensional-GC (including GCxGC), High Temperature GC and MEMS micro-fabricated "Lab-on-a-chip" GC
- excellent efficiency and inertness; we produce and test each column one-by-one to assure the maximum column-to-column reproducibility and quality
- custom products by request
- support and services for Your GC analysis

our experience in Gas Chromatography at Your service

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# GC Columns Available Dimensions

Internal Diameter	0.05mm	0.075mm	0.10mm	0.15mm
Length*	from 1 to 5m	from 1 to 10m	from 1 to 20m	from 1 to 40m
Film Thickness**	from 0.05 to 0.25µm	from 0.05 to 0.50µm	from 0.05 to 1.40µm	from 0.05 to 2.00µm

**FAST**

Internal Diameter	0.18mm	0.20mm	0.25mm	0.32mm
Length*	from 5 to 60m	from 5 to 105m	from 5 to 105m	from 5 to 105m
Film Thickness**	from 0.05 to 2.00µm	from 0.05 to 2.00µm	from 0.05 to 3.00µm	from 0.05 to 10.00µm

**CONVENTIONAL**

Internal Diameter	0.45mm	0.53mm
Length*	from 5 to 75m	from 5 to 75m
Film Thickness**	up to 7.00µm	up to 10.00µm

**WIDE-BORE**

Completely customize your column by selecting every combination of sizes and asking for out-of-catalog configurations. Since 1980 we develop ad-hoc solutions for your specific analytical problem. We are also able to tune the selectivity of the stationary phase to respond to particular needs.

All our stationary phases are available for FAST, Conventional, Wide-Bore and Multidimensional-GC, including solutions and kits for GCxGC.

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\*: shorter and special lengths are available for GCxGC solutions and kits

\*\*: the maximum film thickness depends on the stationary phase type



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# Products Highlight

**Metal MTX** capillary columns for high temperature GC (up to 420-430°C with our HT phases). You can require almost every stationary phase (not HT too) to be coated onto the high inertness metal capillary tubing. Contact us to have more details and send your request



**MEGA-WAX Plus** column is a new high stable and inert PEG phase (270°C max Temperature) excellent also for GC-MS analysis, truly equivalent to InnoWax columns. Crossbonded and water resistant



**MEGA-FFAP EXT** column is a crossbonded and water resistant version of the well known MEGA-ACID (FFAP) phase with also an extended working temperature range



**MEGA-2D** single column is a revolutionary unique tubing column coated with two in series different stationary phases for GCxGC and MD-GC applications. No connections are needed. Contact us to have more information and discover new selectivities using MEGA-2D technology applied to conventional 1D GC too



**MEGA-XMLB** column is a new selectivity low polarity phase ideal as confirmation column. MEGA-XMLB is a low bleeding and high temperature stable column (up to 360°C) excellent for Pesticides, PCBs and PAHs analysis for example



**MEGA-PAH 2** column arrives beside MEGA-PAH column to solve EU-regulated PAHs isomers separation. High thermal stability and low bleeding assure an excellent signal-to-noise ratio



**MEGA-WAX BA** is a basic treated PEG column specifically designed for basic compounds analysis, including alkylamines, diamines, triamines etc.



Stationary Phase	T max *	Equivalent/Alternative to	EPA/USP Methods **	Applications
<b>MEGA-I</b> 100% methyl polysiloxane	up to 350°C	DB-I, HP-I, AT-I(+), ZB-I, 007-I, Rtx-I, BP-I, SPB-I, CP Sil 5 CB	EPA: 504.1, 505, 551, 606, 612, 8141A/B, etc.** <b>USP: G1, G2, G9, G38</b>	<b>General purpose column</b> Solvent impurities, PCBs, SimDist, drugs, natural gases, essential oils, semivolatiles, pesticides, phenols, etc.
<b>MEGA-5</b> 5% phenyl, 95% methyl polysiloxane	up to 350°C	DB-5, HP-5, AT-5(+), ZB-5, 007-5, Rtx-5, BP-5, SPB-5, CP Sil 8 CB	EPA: 506, 611, 604, 607, 608, 8015, 8041, 8082, 8091, etc.** <b>USP: G27, G36, G41</b>	<b>General purpose column</b> Solvent impurities, PCBs, hydrocarbons, essential oils, semivolatiles, pesticides, phenols, etc.
<b>MEGA-SE52</b> 5% phenyl, 95% methyl polysiloxane	up to 350°C	SE52	<b>USP: G27, G36, G41</b>	<b>General purpose column</b> Solvent impurities, PCBs, hydrocarbons, essential oils, semivolatiles, triglycerides, pesticides, poly-waxes, etc.
<b>MEGA-SE54</b> 5% phenyl, 1% vinyl, 94% methyl polysiloxane	up to 350°C	SE54	<b>USP: G27, G36, G41</b>	<b>General purpose column</b> Solvent impurities, PCBs, hydrocarbons, essential oils, semivolatiles, allergens, pesticides, etc.
<b>MEGA-I701</b> 14% cyanopropylphenyl, 86% methyl polysiloxane	up to 280°C	DB-I701, HP-I701, AT-I701(+), ZB-I701, 007-I701, Rtx-I701, BP-10, SPB-I701, CP Sil 19 CB	EPA: 513, 515.2, 552.2, 607, 619, 622, 8091, 8121, etc.** <b>USP: G46</b>	<b>General purpose column</b> Residual solvents, oxygenated pesticides, essential oils, allergens, etc. <b>Ideal as confirmation column and GCxGC applications</b>
<b>MEGA-I7</b> 50% phenyl, 50% methyl polysiloxane	up to 340°C	DB-17, DB-608, HP-17, AT-50(+), ZB-50, 007-17, Rtx-17, BPX-50, SPB-50, CP Sil 24 CB	EPA: 604, 608, 619, 8060, 8081, etc.** <b>USP: G3, G17</b>	<b>General purpose column</b> Phthalate esters, herbicides, pharmaceuticals, etc. <b>Ideal as confirmation column and GCxGC applications</b>
<b>MEGA-624</b> 6% cyanopropylphenyl, 94% methyl polysiloxane	up to 280°C	DB-624, HP-624, AT-624(+), ZB-624, 007-624, Rtx-624, Vocal, SPB-624, VF-624 ms	EPA: 501.3, 502.1, 502.2, 601, 624, 1624, 8020, 8021, etc.** <b>USP: G43, G47 (OVIs)</b>	<b>General purpose column</b> Volatile organic pollutants, purgeable aromatics, purgeable hydrocarbons, VOCs, pharmaceuticals, etc.
<b>MEGA-WAX</b> polyethylene glycol (PEG)	up to 250°C	DB-Wax, HP-Wax, AT-Wax(+), ZB-Wax, 007-CW, Rtx-Wax, BP-20, CP Wax 52 CB	EPA: 602, 603, 619, 8015C, etc.** <b>USP: G14, G15, G16, G47 (OVIs)</b>	<b>General purpose column</b> FAMEs, flavor compounds, essential oils, BTEX aromatics, solvents, alcohols, etc. <b>Tune your Wax column polarity (i.e. WAX-20M, WAX-400, WAX-8M and more!). Ask us for more info</b>
<b>MEGA-I MS</b> low bleeding 100% methyl polysiloxane	up to 350°C	DB-I ms (UI), HP-I ms, AT-I ms(+), ZB-I ms, Rtx-I ms, Equity-I, CP Sil 5 CB ms	EPA: 504.1, 505, 606, etc.** <b>USP: G1, G2, G9, G38</b>	<b>General purpose column for GC-MS</b> See MEGA-I phase on this page
<b>MEGA-5 MS</b> low bleeding 5% phenyl, 95% methyl polysiloxane	up to 360°C	DB-5 ms (UI), HP-5 ms, AT-5 ms(+), ZB-5 ms, 007-5 ms, Rtx-5 ms, Equity-5, BPX-5	EPA: 513, 528, 552, 610, 613, 1625, 1653, 8015B, 8091, 8100, 8141A/B, 8280A, etc.** <b>USP: G27, G36, G41</b>	<b>General purpose column for GC-MS</b> See MEGA-5 phase on this page

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\*: the temperature range may change depending on the stationary phase film thickness.

\*\*: visit our website for a more complete guide to choose your GC column on the basis of  
EPA normative, USP requirements and/or ASTM method.

Stationary Phase	T max *	Equivalent/Alternative to	EPA/USP Methods **	Applications
<b>MEGA-5 MS Xil</b> low bleeding silphenylene based MS phase	up to 360°C	DB-5 ms (UI), Rtx-5 Sil ms, SLB-5 ms, ZB-5 ms	EPA: 513, 515.2, 521, 525, 529, 552.2, 604, 610, 625, 1613, 1625, 804! 8061A, 8081A, 8121, 8270C, etc.** <b>USP: G27, G36, G41</b>	General purpose column for GC-MS Dioxins and furans, herbicides, phthalate esters, POCs, chlorinated acids, etc.
<b>MEGA-35 MS</b> low bleeding 35% phenyl, 65% methyl polysiloxane	up to 340°C	DB-35 ms, BPX-35, BPX-608, ZB-MultiResidue-2, Rtx-35 Sil ms	EPA: 507, 508, 552, 614, 615, 622, 8141A, 8151A, etc.** <b>USP: G28, G32, G42</b>	General purpose column for GC-MS See MEGA-35 phase on the next page
<b>MEGA-17 MS</b> low bleeding 50% phenyl, 50% methyl polysiloxane	up to 340°C	DB-17 ms, Rtx-17 Sil ms	EPA: 505, 610, 614, 619, 8040, 8041, etc.** <b>USP: G3, G17</b>	General purpose column for GC-MS See MEGA-17 phase on the previous page
<b>MEGA-225 MS</b> low bleeding 25% cyanopropyl, 25% phenyl, 50% methyl polysiloxane	up to 240°C	DB-225 ms	EPA: 8095, etc.** <b>USP: G7, G19</b>	General purpose column for GC-MS See MEGA-225 phase on the next page
<b>MEGA-624 MS</b> low bleeding 6% cyanopropylphenyl, 94% methyl polysiloxane	up to 280°C	VF-1301 ms, VF-624 ms	EPA: 8260B, etc.** <b>USP: G43, 467 (OVIs)</b>	General purpose column for GC-MS See MEGA-624 phase on the previous page
<b>MEGA-WAX MS</b> low bleeding polyethylene glycol (PEG)	up to 270°C	Stabilwax, ZB-Wax plus, InnoWax, VF-WAX ms	EPA: 602, 603, 619, 8015C, 8121, etc.** <b>USP: G14, G15, G16, etc.**</b>	General purpose column for GC-MS See MEGA-WAX phase on the previous page
<b>MEGA-10</b> 100% cyanopropyl polysiloxane	up to 260°C	HP-88, AT-Silar, Silar 10 Rtx-2560, SP-2560, BPX-70 CP Sil 88, ZB-FAME	EPA: 613, 1613, 8290B, etc.** <b>USP: G5, G8, G48</b>	High polarity column ideal for <i>cis/trans</i> FAMEs isomers analysis, available also for FAST-GC
<b>MEGA-13</b> 13% phenyl, 87% methyl polysiloxane	up to 350°C	CP Sil 13 CB	EPA: 601, 602, 624, etc.**	General purpose column, ideal as confirmation column
<b>MEGA-20</b> 20% phenyl, 80% methyl polysiloxane	up to 340°C	AT-20(+), 007-7, Rtx-20, SPB-20	<b>USP: G28, G32</b>	General purpose column, ideal as confirmation column
<b>MEGA-200</b> trifluoropropyl, methyl polysiloxane	up to 250°C	DB-200, DB-210, AT-210(+), 007-210, Rtx-200, SP-2401, VF-200 ms	EPA: 551, 612, 625, 8095, etc.** <b>USP: G6</b>	Unique selectivity column, Freon fluorocarbons, ketones, alcohols, organophosphorus pesticides, etc.

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Stationary Phase	T max *	Equivalent/Alternative to	EPA/USP Methods **	Applications
<b>MEGA-225</b> 25% cyanopropyl, 25% phenyl 50% methyl polysiloxane	up to <b>260°C</b>	DB-225, HP-225, AT-225(+), 007-225, Rtx-225, BP-225, CP Sil 43 CB	EPA: 8095, etc.** <b>USP: G7, G19, G26</b>	Mid-to-high polarity phase Carbohydrates, sterols, flavor compounds, etc.
<b>MEGA-35</b> 35% phenyl, 65% methyl polysiloxane	up to <b>340°C</b>	DB-35, HP-35, AT-35(+), ZB-35, 007-11, ZB-MultiResidue-2, Rtx-35, SPB-35, SPB-608	EPA: 507, 508, 513, 551.I, 615, 622, etc.** <b>USP: G28, G32, G42</b>	General purpose column Pesticides, PCBs, substituted polar compounds, phenols, etc. Ideal as confirmation column
<b>MEGA-50</b> 50% cyanopropyl, 50% methyl polysiloxane	up to <b>260°C</b>	DB-23, Silar-5, Rtx-2330, SP-2330	<b>USP: G8</b>	Mid-to-high polarity phase Carbohydrates, sterols, FAMEs, flavor compounds, etc.
<b>MEGA-ALC 1&amp;2</b> proprietary specific phases	up to <b>280°C</b>	DB-ALC 1&2, Rtx-BAC 1&2	-	Application specific column for blood alcohols testing (see application notes on <a href="http://www mega mi it">www.mega.mi.it</a> )
<b>MEGA-BASIC</b> proprietary specific phase	n.d.	<b>unique column</b>	-	Application specific column for basic compounds (e.g. amines) (see application notes on <a href="http://www mega mi it">www.mega.mi.it</a> )
<b>MEGA-BIODIESEL</b> phases for biodiesel analysis	up to <b>380°C</b> (EN14105)	Biodiesel Columns	EN 14105 (ASTM 6584), EN 14103, EN 14110, EN 14331	Application specific column for free and total glycerine (phase stable up to 380°C) and for FAMEs in biodiesel analysis (see application notes on <a href="http://www mega mi it">www.mega.mi.it</a> )
<b>MEGA-DAI 1&amp;2</b> proprietary unique phases for Direct Aqueous Injections	up to <b>320°C</b>	<b>unique columns</b>	-	Application specific column for direct introduction of aqueous samples, thus minimizing sample preparation (see application notes on <a href="http://www mega mi it">www.mega.mi.it</a> )
<b>MEGA-FFAP EXT</b> acid modified polyethylene glycol (PEG)	up to <b>260°C</b>	DB-FFAP, AT-1000(+), ZB-FFAP, 007-FFAP, Stabilwax-DA, BP-21, Nukol, CP Wax 57 CB	EPA: 8032, etc.** <b>USP: G14, G15, G16, G25, G35, G39</b>	General purpose column ideal for free acids, FAMEs, BTEX aromatics, flavor compounds, alcohols, spirits, polar compounds, etc. Extended temperature range phase, crossbonded. Aqueous samples compatible
<b>MEGA-JXR</b> 100% methyl polysiloxane	up to <b>350°C</b>	<b>no equivalent on the market</b>	<b>USP: G1, G2, G9, G38</b>	General purpose apolar column
<b>MEGA-LAP</b> proprietary unique phase for Lipids Analysis	up to <b>370°C</b>	<b>unique column</b>	-	Application specific column for lipids, sterols and triglycerides analysis (see application notes on <a href="http://www mega mi it">www.mega.mi.it</a> )

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Stationary Phase	T max *	Equivalent/Alternative to	EPA/USP Methods **	Applications
<b>MEGA-PAH</b> unique phase for Polycyclic Aromatic Hydrocarbons	up to 350°C	unique column	EPA: 610, 8100, etc.**	Application specific column for polycyclic aromatics hydrocarbons (see application notes on <a href="http://www mega mi it">www.mega.mi.it</a> )
<b>MEGA-PLUS</b> copolymer polyethylene glycol + methyl polysiloxane	n.d.	Agilent "DX" columns series	EPA: 505, etc.**	Discover new selectivities Choose also between MEGA-PLUS 25 (25% PEG), MEGA-PLUS 75 (75% PEG)... and others! We can customize these columns as you need!
<b>MEGA-POF I&amp;2</b> proprietary phases for pesticides, herbicides and insecticides	n.d.	unique columns ZB-MultiResidue-I (MEGA-POF I)	EPA: 622, etc.**	Application specific columns developed for pesticides, herbicides, insecticides analysis etc. (see application notes on <a href="http://www mega mi it">www.mega.mi.it</a> )
<b>MEGA-I PONA</b> PDMS optimized for hydrocarbons analysis	up to 350°C	DB-Petro, HP-Pona, Rtx-I Pona, Petrocol	ASTM D6730-01, etc.**	Optimized phase for DHA (Detailed Hydrocarbons Analysis), PONA, PIANO and PNA analysis
<b>MEGA-PS255</b> 1% vinyl, 99% methyl polysiloxane	up to 350°C	no equivalent on the market	-	Apolar phase, suitable for high film thickness columns, to analyze solvents, alcohols, volatiles, etc.
<b>MEGA-PS264</b> 5.8% phenyl, 0.2% vinyl, 94% methyl polysiloxane	up to 350°C	no equivalent on the market	-	Apolar phase, suitable for high film thickness columns, to analyze solvents, alcohols, volatiles, etc.
<b>MEGA-SE30</b> 100% methyl polysiloxane	up to 350°C	SE30	EPA: 504.I, 505, 606, 8141A, etc.** USP: G1, G2, G9, G38	General purpose apolar column
<b>MEGA-SOLVE I&amp;2</b> proprietary unique phases for complex solvents mix analysis	n.d.	unique columns TCEP (MEGA-SOLVE 2)	-	Application specific columns developed for complex solvents mixtures analysis. MEGA-SOLVE 2 is ideal for aromatics and oxygenates in gasoline (see application notes on <a href="http://www mega mi it">www.mega.mi.it</a> )
<b>MEGA-TCEP</b> 1,2,3-tris-(2-cyanoethoxy)propane	up to 150°C	CP-TCEP, Rt-TCEP, SPB-TCEP	-	Application specific columns ideal for aromatics and oxygenates in gasoline
<b>MEGA-VOC I&amp;2</b> proprietary phases for Volatile Organic Compounds	n.d.	unique columns	EPA: 503.I, 504.I, 524.2, 551.1, 601, 602, 603, 1624, 8010B, 8021B, 8030A, 8260B, etc.**	Application specific columns for volatiles organic compounds (OVIs), solvents and purgeable compounds. Due to the high max. temperature, they are ideals for two-parallel columns config. in the same oven (see application notes on <a href="http://www mega mi it">www.mega.mi.it</a> )

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MEGA-DEX DAC Beta	up to 230°C	dex xeb chiral columns	chiral-enantiomeric separations	Diacetyl TBS Beta cyclodextrin based column. See and download on <a href="http://www mega mi it">www.mega.mi.it</a> the application notes and a database with hundreds chiral compounds separated with MEGA-DEX columns
MEGA-DEX DAC Gamma	up to 230°C	dex xeb chiral columns	chiral-enantiomeric separations	Diacetyl TBS Gamma cyclodextrin based column. See and download on <a href="http://www mega mi it">www.mega.mi.it</a> the application notes and a database with hundreds chiral compounds separated with MEGA-DEX columns
MEGA-DEX DET Beta	up to 230°C	dex xeb chiral columns	chiral-enantiomeric separations	Diethyl TBS Beta cyclodextrin based column. See and download on <a href="http://www mega mi it">www.mega.mi.it</a> the application notes and a database with hundreds chiral compounds separated with MEGA-DEX columns
MEGA-DEX DET Gamma	up to 230°C	dex xeb chiral columns	chiral-enantiomeric separations	Diethyl TBS Gamma cyclodextrin based column. See and download on <a href="http://www mega mi it">www.mega.mi.it</a> the application notes and a database with hundreds chiral compounds separated with MEGA-DEX columns
MEGA-DEX DMP Beta	up to 230°C	dex xeb chiral columns	chiral-enantiomeric separations	Dimethyl-pentyl TBS Beta cyclodextrin based column. See and download on <a href="http://www mega mi it">www.mega.mi.it</a> the application notes and a database with hundreds chiral compounds separated with MEGA-DEX columns
MEGA-DEX DMT Beta	up to 230°C	dex xeb chiral columns	chiral-enantiomeric separations	Dimethyl TBS Beta cyclodextrin based column. See and download on <a href="http://www mega mi it">www.mega.mi.it</a> the application notes and a database with hundreds chiral compounds separated with MEGA-DEX columns
MEGA-DEX B-SE	up to 230°C	dex xeb chiral columns	chiral-enantiomeric separations	New cyclodextrin derivative based column. See and download on <a href="http://www mega mi it">www.mega.mi.it</a> the application notes and a database with hundreds chiral compounds separated with MEGA-DEX columns
MEGA-DEX B-03	up to 230°C	dex xeb chiral columns	chiral-enantiomeric separations	New cyclodextrin derivative based column. See and download on <a href="http://www mega mi it">www.mega.mi.it</a> the application notes and a database with hundreds chiral compounds separated with MEGA-DEX columns
MEGA-DEX G-01	up to 230°C	dex xeb chiral columns	chiral-enantiomeric separations	New cyclodextrin derivative based column. See and download on <a href="http://www mega mi it">www.mega.mi.it</a> the application notes Unique column on the market able to separate Bornyl Acetate enantiomers
MEGA-DEX G-03	up to 250°C	dex xeb chiral columns	chiral-enantiomeric separations	New cyclodextrin derivative based column. See and download on <a href="http://www mega mi it">www.mega.mi.it</a> the application notes Developed for pyrethroids and pesticides chiral separations



MEGA has more than 35 years experience in manufacturing and developing chiral GC columns. Our MEGA-DEX GC columns line is growing; check on our website or contact us to have more info and application notes about, for example, our MEGA-DEX B-01 and B-02 chiral phases. A full line of MEGA-DEX FAST chiral columns is also available in order to speed up your enantiomeric separations while keeping excellent resolution efficiency.

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Stationary Phase	T max *	Equivalent/Alternative to	EPA/USP Methods **	Applications
<b>MEGA-I HT</b> 100% methyl polysiloxane for high temperature	up to <b>400°C</b>	high temperature column DB-I HT, ZB-I HT (Infemo)	-	High Temperature general purpose column See MEGA-I phase. High Molecular Weight Waxes, Motor Oils, Polymers/Plastics, Simulated Distillation
<b>MEGA-5 HT</b> high temperature 5% phenyl, 95% methyl polysiloxane	up to <b>400°C</b>	high temperature column DB-5 HT, ZB-5 HT (Infemo)	-	High Temperature general purpose column See MEGA-5 phase. High Molecular Weight Waxes, Diesel Fuels, Simulated Distillation, Surfactants, Triglycerides
<b>MEGA-8 HT</b> high temperature low-to-mid polarity special phase	up to <b>400°C</b>	high temperature column HT8	-	High Temperature general purpose column Ideal for PCBs compounds, Pesticides, environmental analysis
<b>MEGA-35 HT</b> high temperature 35% phenyl, 65% methyl polysiloxane	up to <b>370°C</b>	high temperature column ZB-35 HT (Infemo)	-	High Temperature general purpose column See MEGA-35 phase. Semi-volatiles analysis, Pesticides, Pharmaceuticals
<b>MEGA-17 HT</b> high temperature 50% phenyl, 50% methyl polysiloxane	up to <b>370°C</b>	high temperature column DB-17 HT	-	High Temperature general purpose column See MEGA-17 phase. Ideal for confirmation analysis, ideal as high polarity dimension in GCxGC-HT configurations
<b>MEGA-65 HT</b> high temperature 65% phenyl, 35% methyl polysiloxane	up to <b>360-370°C</b>	high temperature column 007-65HT, Rtx-65TG, TAP-CB	-	High Temperature column Ideal for triglycerides separations based on carbon number and degree of unsaturation
<b>MEGA-SE54 HT</b> high temperature 5% phenyl, 1% vinyl, 94% methyl polysiloxane	up to <b>400°C</b>	high temperature unique column	-	High Temperature general purpose column See MEGA-SE54 phase. High boiling petroleum products, Long-chained hydrocarbons
<b>MEGA-1701 HT</b> high temperature 14% cyanopropylphenyl, 86% methyl polysiloxane	up to <b>320°C</b>	high temperature unique column	-	High Temperature general purpose column See MEGA-1701 phase. Ideal for confirmation analysis, ideal as mid-polar column in GCxGC-HT configurations
<b>MEGA-WAX HT</b> high temperature polyethyleneglycol (PEG)	up to <b>300°C</b>	high temperature unique column	-	High Temperature unique PEG phase Extend the temperature limits of your FAST-GC and GCxGC methods while using a polar WAX phase
<b>Mega HT</b> High Temperature Columns				
<b>FAST - GC</b> solutions				
For our MEGA-HT High Temperature Columns range with fused silica tubing, we use specifically engineered high resistance polyimide coating, resulting in high temperature endurance and flexure with superior bend radius.				
All our stationary phases are available for FAST-GC. Contact us to have more details. You can download on <a href="http://www.mega.mi.it">www.mega.mi.it</a> our free guide to FAST-GC with a tons of application notes and technical tips to perform and optimize your FAST-GC analysis. 0.15mm I.D., 0.18mm I.D. and 0.20mm I.D. tubing sizes are also available for all our columns.				
All the trademarks mentioned in this document are registered. *: the temperature range may change depending on the stationary phase film thickness. **: visit our website for a more complete guide to choose your GC column on the basis of EPA normative, USP requirements and/or ASTM method.				
<a href="http://www.mega.mi.it">www.mega.mi.it</a>				



## Built-in Retention Gap - No Connections needed

MEGA-GAP columns line incorporates both guard column and analytical column in a continuous length of tubing, eliminating the connection and all connection-associated problems. The guard column side is permanently marked with our oven temperature resistant labels.

Original Large Volume Gaps (UNCORET) columns (0.53mm, 12m Integrated Gap + 3m coated) are available from MEGA.

Extend your column's lifetime with this connection-free solution!



Easy to handle - Excellent inertness - Easy to install

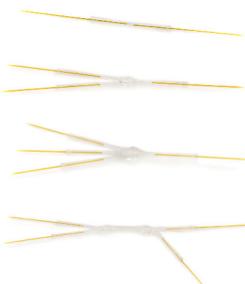
**Retention Gaps deactivated for any purpose:** our Retention Gaps are suitable for any GC analytical need. Use with polar solvents, apolar solvents, water containing samples injections and for general use. They are available in any internal diameter size (0.05, 0.075, 0.10, 0.15, 0.18, 0.20, 0.25, 0.32, 0.45 and 0.53mm I.D.) with our standard fused silica tubing or with our High-Temperature fused silica tubing. Any length available, also in pre-cut pieces individually packaged and ready to use. By request we also pre-install (with our Press-Fit connectors, see below) the selected retention gap on the GC column for a ready-to-install solution.

MEGA Retention Gaps have an unsurpassed chemical inertness. Use our Retention Gaps for focusing the analytes when a large (liquid) sample is introduced directly into the column and/or to protect the analytical column from contamination. Deactivated Retention Gaps are also useful as connecting pipes to various part of GC systems with different configurations.



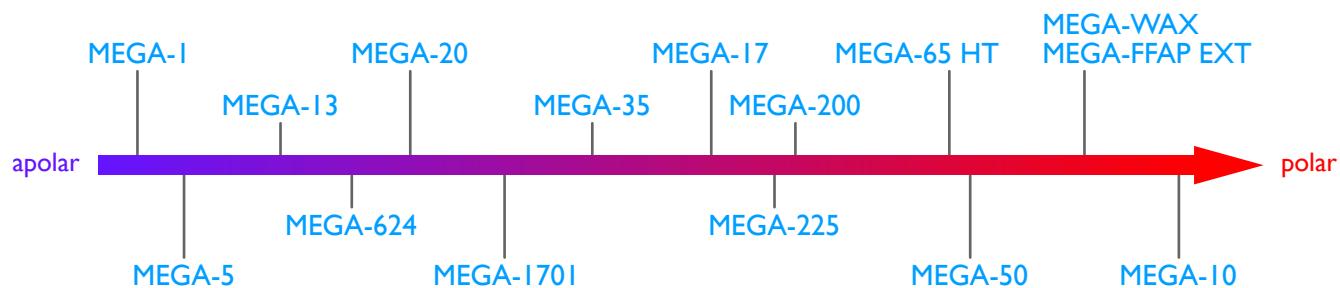
Easy to handle - Easy to install  
A simple pressure to assure a perfect seal

**MEGA Press-Fit Connectors** allow you to simply connect, with a tight seal, different columns or Retenention Gaps in many ways. Our Press-Fit connectors are universal to fit any tubing size. Available as linear 2-ways union (to connect two columns or a Retention Gap to the analytical column), "Y" 3-ways (e.g. ideal to connect two columns to a single injector - double detector GC configuration) or personalized Multiwas connectors for advanced analytical system configurations as MD-GC and other custom settings.



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# Common Phases Polarity Quick View

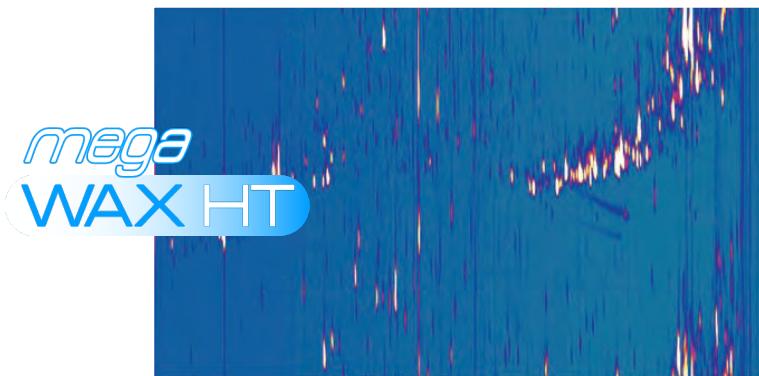


## GCxGC Solutions

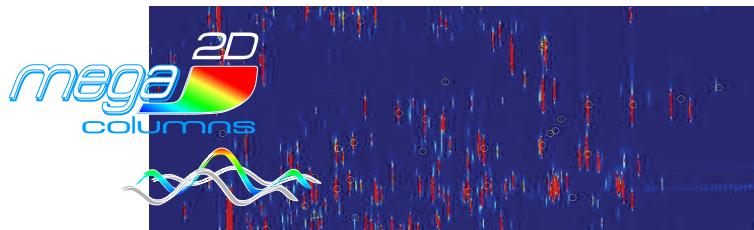
MEGA offers unique and innovative products for your GCxGC analysis.

We can provide completely custom GCxGC solutions, including ready-to-use kits.

The selectivity of the stationary phase plays a fundamental role in GC and it is even more important in GCxGC. Ask us to tune the selectivity of the stationary phase thus to explore new and unique solutions and to optimize the orthogonality and the efficiency of your GCxGC configuration.



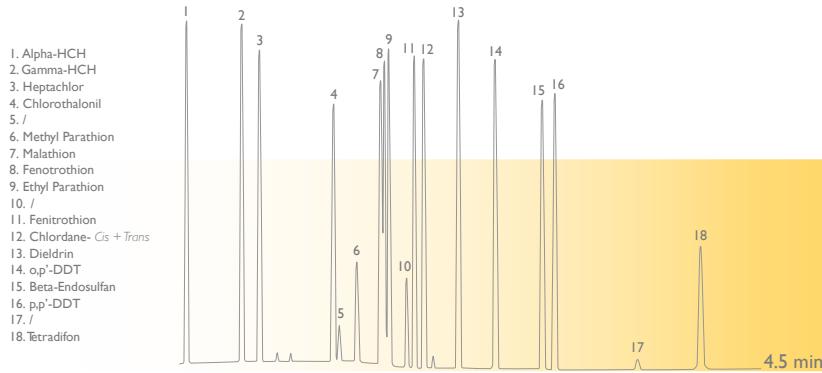
Kunzea essential oil GCxGC analysis using MEGA-WAX HT on 2<sup>nd</sup> dimension.  
Courtesy of R. Shelle et al.



Allergens standard mix GCxGC analysis using MEGA-2D unique column.  
Courtesy of University of Turin, Prof. C. Bicchi, Prof. C. Cordero et al.

# Application Notes

Visit our applications webpage to discover hundreds application notes and to find useful information on how to develop your analytical method. New technical notes are constantly added.



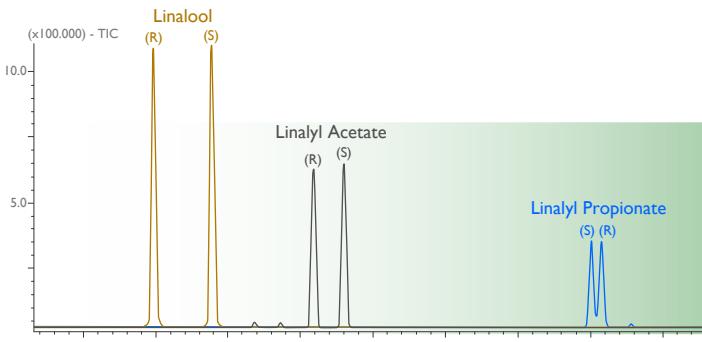
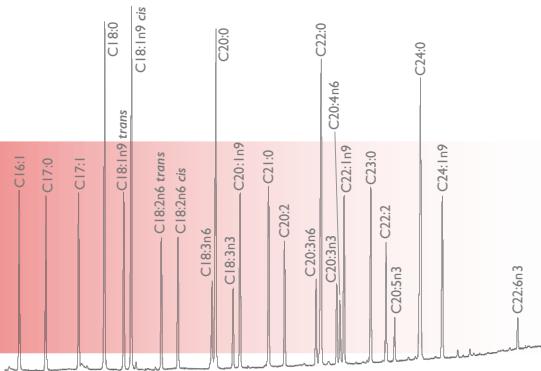
Courtesy of University of Turin - Prof. C. Bicchi et al.

**FAST-GC**  
solutions

Pesticides mix on  
MEGA-1701 FAST column  
4.5 min analysis time only

**CUSTOM  
DEDICATED  
COLUMNS**

**cis/trans FAMEs isomers**  
high resolution separation on  
MEGA-10 column  
(available also in FAST-GC version)



Courtesy of University of Turin - Prof. C. Bicchi et al.

**dex xeb**  
chiral columns

**Linalool - Linalyl Acetate**  
enantiomeric separation on  
MEGA-DEX DET Beta chiral column  
(available also in FAST-GC version)

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# Support and Services

- Do you want to optimize Your analytical method?
- A new sample to analyze and don't know which is the best column to use?
- Do you want to see the performances of our products before to buy them?
- Any other analytical problem in Gas Chromatography?

Just:

send us Your real sample

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

since  
1980



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

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## Update 2024-3

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MEGA S.r.l. - Via Plinio, 29 - 20025 Legnano (MI)- Italy

# Heliflex AT<sup>®</sup> & EconoCap EC<sup>®</sup>+

GC Columns  
CATALOG

**previous OEM'd by Alltech Associates  
(USA) > pre 2010  
NOW licensed by MEGACOLUMNS  
the NEW OEM**



Website NEW : [www.chromalytic.net.au](http://www.chromalytic.net.au) E-mail : [info@chromtech.net.au](mailto:info@chromtech.net.au) Tel: 03 9762 2034 . . . in AUSTRALIA

Australian Distributors  
Importers & Manufacturers  
[www.chromtech.net.au](http://www.chromtech.net.au)

# Econo-Cap & Heliflex GC Columns

## Heliflex AT®- and Econo-Cap EC®- GC Capillary Columns Families

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

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

### Heliflex AT®- 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®- 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®- 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®- Column made to your individual specifications.

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



# Econo-Cap & Heliflex GC Columns

## Capillary Column Phase Cross Reference

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

### Specialty Columns Cross Reference

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

# Econo-Cap & Heliflex GC Columns

## Heliflex AT®-1ms+

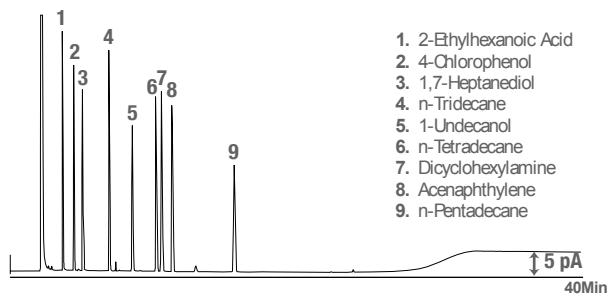
- Guaranteed low-bleed characteristics
- Specifically designed for mass spec analysis
- Highly inert
- Similar to DB-1ms, HP-1ms, Rtx®-1ms, MEGA-1 MS, CP-Sil 5CB low-bleed/MS, MDN-1

AT®-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®-1ms+ Specifications

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

### Low Bleed Profile



Column: Heliflex AT®-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®-1ht+

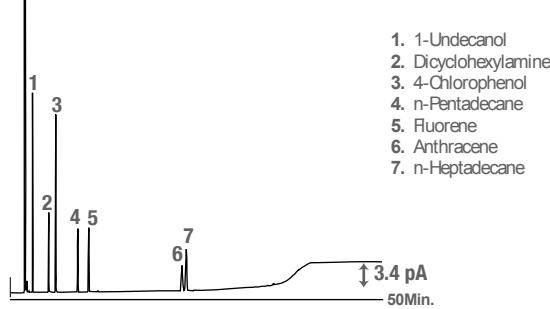
### Shorten Your Analysis Time with High-Temperature/Low-Bleed Columns

- 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™-1, RSL-150, RSL-160, Rtx®-1, SE-30™, SPB™-1, SPB™-Sulfur, ULTRA-1, SP-2100, BP-1, DC-200, MEGA-1 HT, PE-1, ZB-1

### Heliflex AT®-1ht+ Specifications

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

### Bleed Profile



Column: Heliflex AT®-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®-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®-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

# Econo-Cap & Heliflex GC Columns

## Heliflex AT®-1+

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

### Heliflex AT®-1+ Specifications

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

### Heliflex AT®-1+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	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>
	0.25mm	0.10µm	-60–330/350°C	13649	<b>8635121</b>
	0.25mm	0.25µm	-60–330/350°C	13753	<b>8635123</b>
15m	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>
30m	0.53mm	1.20µm	-60–320/330°C	935130	<b>8635307</b>
	0.53mm	1.50µm	-60–320/330°C	13908	<b>8635305</b>
	0.53mm	2.65µm	-60–300°C	16876	<b>8635303</b>
30m	0.53mm	3.00µm	-60–300°C	13897	<b>8635301</b>
	0.53mm	5.00µm	-60–300°C	16843	<b>8635306</b>
	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>
100m	0.53mm	5.00µm	-60–300°C	13810	<b>8635392</b>
	0.25mm	0.25µm	-60–330/350°C	13972	<b>8635902</b>

## Econo-Cap EC®-1+

- Batch tested to dramatically reduce price

### Econo-Cap EC®-1+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	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®-1+ Capillary Columns, Six Pack

Length	i.d.	Film	Temp. Limits*	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>

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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 & Heliflex GC Columns

## Heliflex AT®-5ms+

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

The Heliflex AT®-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®-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

1. TEPP	13. Famphur	16. EPN
2. Sulfotepp	14. Carbophenothion	17. Leptophos
3. Monocrotophos	15. Phosmet	18. Azinphos-ethyl
4. Dimethoate		
5. Dioxathion		
6. Terbufos		
7. Phosphamidon		
8. Malathion		
9. Parathion		
10. <i>cis</i> -Chlorfenvinphos		
11. <i>trans</i> -Chlorfenvinphos		
12. Ethion		

**Column:** Heliflex AT®-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®-5ms+ Capillary Columns

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

\*: Maximum Temperature range may change depending on stationary phase film thickness.  
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## Heliflex AT®-5+

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

### Heliflex AT®-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®-5+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	Old Reference	Part No.
10m	0.53mm	2.65µm	-60–300°C	16853	8635102
15m	0.25mm	0.25µm	-60–330/350°C	13758	8635127
	0.25mm	1.00µm	-60–320/330°C	13706	8635126
	0.32mm	0.25µm	-60–330/350°C	13887	8635157
	0.32mm	1.00µm	-60–320/330°C	13710	8635156
	0.53mm	1.20µm	-60–320/330°C	955115	8635203
	0.53mm	1.50µm	-60–320/330°C	13906	8635201
25m	0.25mm	0.20µm	-60–330/350°C	952525	5123553
30m	0.25mm	0.10µm	-60–330/350°C	13707	8635221
	0.25mm	0.25µm	-60–330/350°C	13656	8635222
	0.25mm	0.50µm	-60–330/350°C	13309	8635220
	0.25mm	1.00µm	-60–320/330°C	13657	8635223
	0.32mm	0.25µm	-60–330/350°C	13658	8635260
	0.32mm	1.00µm	-60–320/330°C	13659	8635261
	0.53mm	0.50µm	-60–330/350°C	14045	8635311
	0.53mm	1.00µm	-60–320/330°C	13798	8635309
	0.53mm	1.20µm	-60–320/330°C	955130	8635314
	0.53mm	1.50µm	-60–320/330°C	13909	8635310
	0.53mm	2.65µm	-60–300°C	16857	8635312
	0.53mm	5.00µm	-60–300°C	16859	8635313
60m	0.25mm	0.25µm	-60–330/350°C	13676	8635340
	0.32mm	0.25µm	-60–330/350°C	13678	8635369
	0.32mm	1.00µm	-60–320/330°C	13679	8635366
	0.53mm	1.00µm	-60–320/330°C	14076	8635397
	0.53mm	1.20µm	-60–320/330°C	13820	8635396
	0.53mm	5.00µm	-60–300°C	13829	8635394
100m	0.32mm	0.25µm	-60–330/350°C	14011	8635905

# Econo-Cap & Heliflex GC Columns

## Econo-Cap EC®-5+

- Batch tested to dramatically reduce price

### Econo-Cap EC®-5+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	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®-5+ Capillary Columns, Six Pack

Length	i.d.	Film	Temp. Limits*	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>



## Heliflex AT®-50+

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

### Heliflex AT®-50+ Specifications

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

### Heliflex AT®-50+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	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®-20+

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

### Heliflex AT®-20+ Specifications

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

### Heliflex AT®-20+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	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®-1301+

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

### Heliflex® AT™-1301 Specifications

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

### Heliflex AT®-1301+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	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

# Econo-Cap & Heliflex GC Columns

## Heliflex AT®-35ms+

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

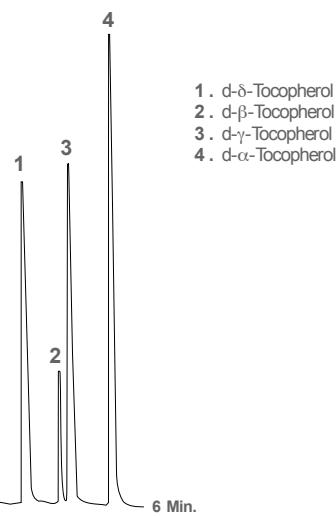
### Heliflex AT®-35ms+ Specifications

Phase:	35% Phenyl - 65% Methylpolysiloxane
Polarity:	Intermediate Polarity
USP Designation:	G42
Ideal For:	Pesticides, Herbicides, Drugs, Aromatics

### Heliflex AT®-35ms+ Capillary Column

Length	i.d.	Film	Temp. Limits*	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>

### Tocopherols



Column: Heliflex AT®-35+, 25m x 0.25mm x 0.20µm  
Part No. **8635906** (Old Ref. 962525)  
Temp: 310°C  
Carrier: Hydrogen at 40cm/sec  
Detector: FID

## Heliflex AT®-35+

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

### Heliflex AT®-35+ Specifications

Phase:	35% Phenyl - 65% Methylpolysiloxane
Polarity:	Intermediate Polarity
USP Designation:	G42
Ideal For:	Pesticides, Herbicides, Drugs, Aromatics

### Heliflex AT®-35+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	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>
30m	0.25mm	0.25µm	-40–320/340°C	13642	<b>8635216</b>
	0.25mm	1.00µm	-40–300/320°C	13796	<b>8635218</b>
30m	0.32mm	0.25µm	-40–320/340°C	13644	<b>8635249</b>
	0.32mm	0.50µm	-40–320/330°C	13645	<b>8635250</b>
30m	0.53mm	1.00µm	-40–300°C	14001	<b>8635296</b>
	0.53mm	1.20µm	-40–300°C	965130	<b>8635297</b>
60m	0.53mm	2.65µm	-40–280/300°C	16878	<b>8635298</b>
	0.25mm	0.25µm	-40–320/340°C	13682	<b>8635341</b>
60m	0.53mm	1.00µm	-40–320/340°C	14070	<b>8635399</b>

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# Econo-Cap & Heliflex GC Columns

## Heliflex AT®-210+

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

### Heliflex AT®-210+ Specifications

Phase:	Trifluoropropyl Methylpolysiloxane
Polarity:	Polar
USP Code:	G6
Ideal For:	Ketones, Aldehydes, Silanes, Glycols, Nitro Aromatics, Herbicides, and Method 8140 and 609

### Heliflex AT®-210+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	Old min.-max.	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®-1701+

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

### Heliflex AT®-1701+ Specifications

Phase:	(14% Cyanopropylphenyl)-86% Methylpolysiloxane
Polarity:	Intermediate Polarity
USP Code:	n/a
Ideal For:	Pesticides, PCB's, Drugs, Herbicides, and TMS Sugars

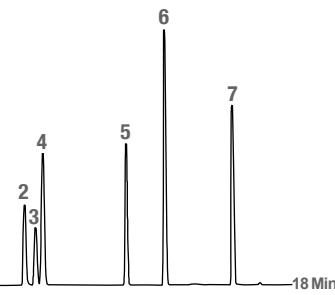
### Heliflex AT®-1701+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	Old min.-max.	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>	
60m	0.32mm	0.25µm	-20–280°C	13690	<b>5121863</b>	
	0.32mm	1.00µm	-20–260/280°C	13691	<b>M8635517</b>	
	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

- Monochloroacetic Acid
- Monobromoacetic Acid
- Dalapon
- Dichloroacetic Acid
- Trichloroacetic Acid
- Bromochloroacetic Acid
- Dibromoacetic Acid



Column: Heliflex AT®-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

# Econo-Cap & Heliflex GC Columns

## Heliflex AT®-WAX+

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

### Heliflex AT®-WAX+ Specifications

Phase:	100% Polyethyleneglycol
Polarity:	Polar
USP Code:	G14, G15, G16, G39
Ideal For:	FAMEs, Polar Solvents, BTEX, Flavor and Fragrances, Glycols, Alcohols, and Aromatics

### Heliflex AT®-WAX+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	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®-WAXms+

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

### Heliflex AT®-WAXms+ Specifications

Phase:	100% Polyethyleneglycol
Polarity:	Polar
USP Code:	G14, G15, G16, G39
Ideal For:	Mass Spec Analysis

### Heliflex AT® -WAXms+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	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>

\*: 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.

# Econo-Cap & Heliflex GC Columns

## Econo-Cap EC®-WAX+

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

### Econo-Cap EC®-WAX+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	Old min.-max.	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®-WAX+ Six-Pack Capillary Columns

Length	i.d.	Film	Temp. Limits*	Old min.-max.	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®-AquaWax DA+

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

### Heliflex AT®-AquaWax DA+ Specifications

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

### Heliflex AT®-AquaWax DA+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	Old min.-max.	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>	

## Heliflex AT®-AquaWax+

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

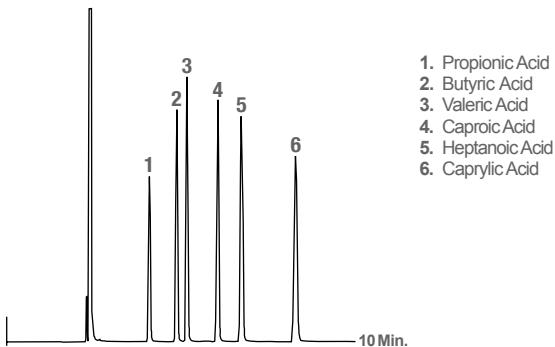
### Heliflex AT®-AquaWax+ Specifications

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

### Heliflex AT®-AquaWax+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	Old min.-max.	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>	

### Free Fatty Acids



Column: Heliflex AT®-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.

Contact us for more info



# Econo-Cap & Heliflex GC Columns

## Heliflex AT®-1000+

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

### Heliflex AT®-1000+ Specifications

Phase:	100% Polyethyleneglycol—Acid Modified
Polarity:	High Polarity
USP Code:	G25, G35
Ideal For:	Free Fatty Acids

### Heliflex AT®-1000+ Capillary Columns

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

## Econo-Cap EC®-1000+

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

### Econo-Cap EC®-1000+ Capillary Columns

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

### Econo-Cap EC®-1000+ Six-Pack Capillary Columns

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



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## Heliflex AT®-502.2+

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

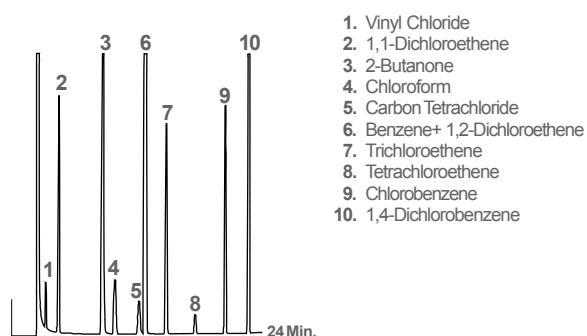
### Heliflex AT®-502.2+ Specifications

Phase:	Proprietary
Polarity:	Intermediate
USP Code:	n/a
Ideal For:	Volatile Organics and EPA Methods 502.2, 524.2, and 8260

### Heliflex AT®-502.2+ Capillary Columns

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

### TCLP Volatiles Mix



Column: Heliflex AT®-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

# Econo-Cap & Heliflex GC Columns

## Heliflex AT®-624+

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

### Heliflex AT®-624+ Specifications

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

## Heliflex AT®-225+

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

### Heliflex AT®-225+ Specifications

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

### Heliflex AT®-624+ Capillary Columns

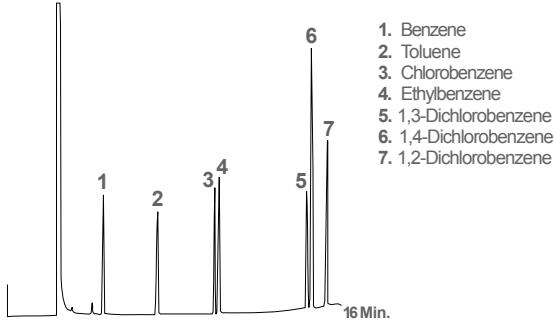
Length	i.d.	Film	Temp. Limits*	Old Reference	Part No.
30m	0.25mm	1.40µm	-20–240/260°C	13754	<b>8635239</b>
	0.32mm	1.80µm	-20–240/260°C	13756	<b>8635278</b>
	0.32mm	3.00µm	-20–240/260°C	13780	<b>8635279</b>
	0.53mm	3.00µm	-20–240/260°C	16889	<b>8635317</b>
	60m	0.25mm	1.40µm	13503	<b>8635333</b>
60m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

### Heliflex AT®-225+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	Old Reference	Part No.
30m	0.25mm	0.25µm	40–240°C	13883	<b>8635139</b>
	0.25mm	0.20µm	40–240°C	912525	<b>M8635537</b>
	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>
15m	0.25mm	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®-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

## Contact us for more info



# Econo-Cap & Heliflex GC Columns

## Heliflex AT®-SILAR-90+

- Designed and tested for FAMEs
- Similar to DB™-23, CP-Sil 84, Rtx®-2330, SP-2330

### Heliflex AT®-SILAR-90+ Specifications

Phase:	Poly 90% bis Cyanopropyl -10% Cyanopropylphenyl siloxane
Polarity:	High Polarity
USP Code:	G8
Ideal For:	Analysis of FAMEs

### Heliflex AT®-SILAR-90+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	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

## Heliflex AT®-SILAR-100+

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

### Heliflex AT®-SILAR-100+ Specifications

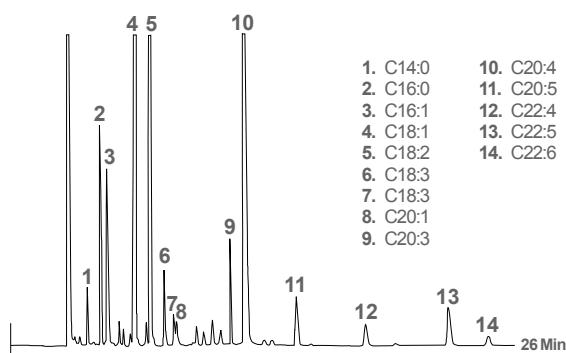
Phase:	Polybiscyanopropylsiloxane
Polarity:	High Polarity Available
USP Code:	G8
Ideal For:	cis/trans Isomers of FAMEs, Dioxins, and Furans

### Heliflex AT®-SILAR-100+ Capillary Columns

Length	i.d.	Film	Temp. Limits*	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>

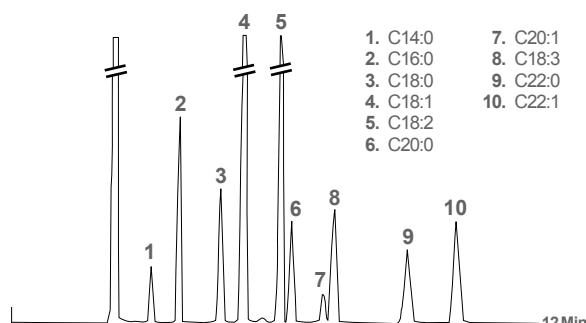
Available also in 60m, 100m and 105m Lengths

### Fatty Acid Methyl Esters



Column: Heliflex AT®-SILAR-90+, 30m x 0.25mm x 0.20µm  
Part No. **M8635580** (Old Ref. 12628)  
Temp: 200°C  
Carrier Gas: Helium at 20cm/sec  
Detector: FID

### Fatty Acid Methyl Esters in Rapeseed Oil



Column: Heliflex AT®-SILAR-100+, 30m x 0.25mm x 0.20µm  
Part No. **M8635583** (Old Ref. 12632)  
Temp: 190°C  
Carrier Gas: Helium at 20cm/sec  
Detector: FID

### tech tip

Tips for Heliflex AT®-SILAR-90+ and AT®-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.

\*: 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



# Econo-Cap & Heliflex GC Columns

## Heliflex AT®-3710+

- For boiling range of gasoline samples

### Heliflex AT®-3710+ Specifications

Phase:	100% Methylpolysiloxane
Polarity:	Non-Polar
USP Code:	n/a
Ideal For:	Boiling Point of Gasoline

### Heliflex AT®-3710+ Capillary Column

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

## Heliflex AT®-Sulfur+

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

### Heliflex AT®-Sulfur+ Specifications

Phase:	100% Methylpolysiloxane
Polarity:	Non-Polar
USP Code:	n/a
Ideal For:	Volatile Sulfur Compounds

### Heliflex AT®-Sulfur+ Capillary Columns

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

## Heliflex AT®-Petro+

- For high resolution of complex hydrocarbon mixtures

### Heliflex AT®-Petro+ Specifications

Phase:	100% Methylpolysiloxane
Polarity:	Non-Polar
USP Code:	n/a
Ideal For:	hydrocarbon Mixtures

### Heliflex AT®-Petro+ Capillary Column

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

\*: 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:

info@mega.mi.it



Econo-Cap  
& Heliflex GC Columns