

New Grace® GC Capillary Column Range

We have been producing and supplying our well known and respected Heliflex® and Econo-Cap™ ranges of GC capillary columns for many years now.

We have recently made improvements to our production procedures for these columns that result in better performance. We have renamed the two brands and given them new part numbers so that there is no confusion over the original and new columns.

The new ranges are simply changed:

Heliflex® columns become Heliflex®+ columns

Econo-Cap™ columns become Econo-Cap™+ columns

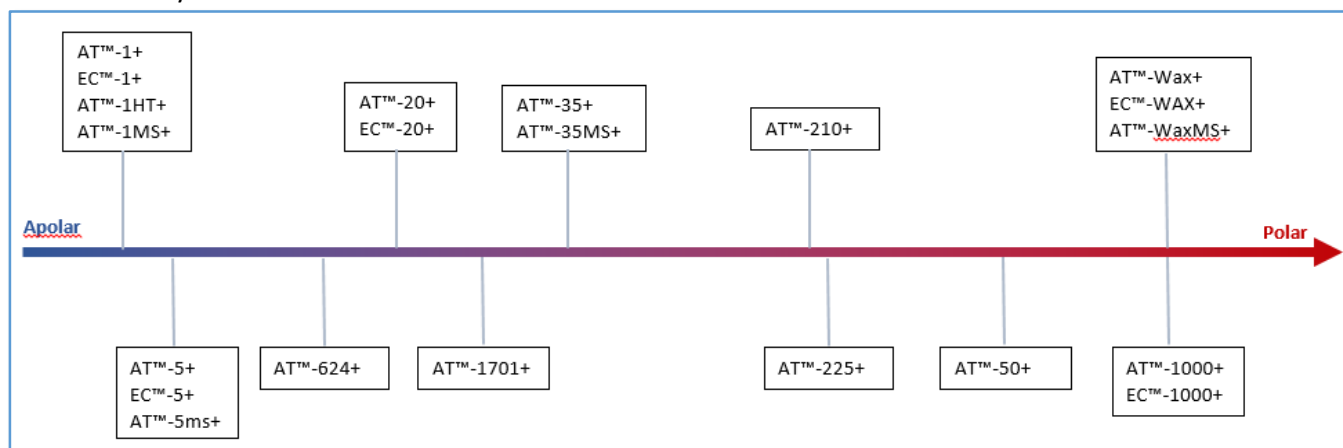
Additionally the phases will be called AT™-5+ or EC™-5+, for example, on the column QC certificate and labels.

The Stationary Phases that we offer are:

	QC Testing	Max Temp/°C*	Stationary Phase	Type of Column
Heliflex® + Columns				
Heliflex® + AT™-1+	Individually Tested	350°C	100% methyl polysiloxane	General purpose column
Heliflex® + AT™-1000+	Individually Tested	250°C	Acid modified polyethylene glycol (PEG)	General purpose column
Heliflex® + AT™-1ht+	Individually Tested	380°C	100% methyl polysiloxane for high temperature	General purpose HT column
Heliflex® + AT™-1ms+	Individually Tested	350°C	Low bleeding 100% methyl polysiloxane	General purpose column for GC-MS use
Heliflex® + AT™-1701+	Individually Tested	280°C	14% cyanopropylphenyl, 86% methyl polysiloxane	General purpose column
Heliflex® + AT™-20+	Individually Tested	340°C	20% phenyl, 80% methyl polysiloxane	General purpose column
Heliflex® + AT™-210+	Individually Tested	250°C	Trifluoropropyl methyl polysiloxane	Unique selectivity column
Heliflex® + AT™-225+	Individually Tested	260°C	25% cyanopropyl, 25% phenyl, 50% methyl polysiloxane	Mid-to-high polarity phase
Heliflex® + AT™-35+	Individually Tested	340°C	35% phenyl, 65% methyl polysiloxane	General purpose column
Heliflex® + AT™-35ms+	Individually Tested	340°C	Low bleeding 35% phenyl, 65% methyl polysiloxane	General purpose column for GC-MS use
Heliflex® + AT™-5+	Individually Tested	350°C	5% phenyl, 95% methyl polysiloxane	General purpose column
Heliflex® + AT™-50+	Individually Tested	340°C	50% phenyl, 50% methyl polysiloxane	Mid-to-high polarity phase
Heliflex® + AT™-5ms+	Individually Tested	350°C	Low bleeding 5% phenyl, 95% methyl polysiloxane	General purpose column for GC-MS use
Heliflex® + AT™-624+	Individually Tested	280°C	6% cyanopropylphenyl, 94% methyl polysiloxane	General purpose column
Heliflex® + AT™-WAX+	Individually Tested	250°C	Polyethylene glycol (PEG)	General purpose column
Heliflex® + AT™-WAXms+	Individually Tested	250°C	Low bleeding polyethylene glycol (PEG)	General purpose column for GC-MS use
Econo-Cap™ + Columns				
Econo-Cap™ + EC™-1+	Batch Tested	350°C	100% methyl polysiloxane	Economy general purpose
Econo-Cap™ + EC™-1000+	Batch Tested	250°C	Acid modified polyethylene glycol (PEG)	Economy general purpose
Econo-Cap™ + EC™-20+	Batch Tested	340°C	20% phenyl, 80% methyl polysiloxane	Economy general purpose
Econo-Cap™ + EC™-5+	Batch Tested	350°C	5% phenyl, 95% methyl polysiloxane	Economy general purpose
Econo-Cap™ + EC™-WAX+	Batch Tested	250°C	Polyethylene glycol (PEG)	Economy general purpose

*The maximum temperature may change according to the phase thickness – please check QC certificate supplied with the column

Phase Polarity Chart:



Column Equivalency, EPA Methods and USP Codes are shown below:

Equivalent To	EPA Methods	USP Reference
Heliflex® + Columns		
Heliflex® + AT™-1+	DB-1, HP-1, ZB-1,007-1, Rtx-1, BP-1,100% methyl polysiloxane SPB-1, CP Sil 5 CB	EPA: 504.1, 505, 551, 606,612, 8141A/B USP: G1, G2, G9, G38
Heliflex® + AT™-1000+	DB-FFAP, 007-FFAP,Stabilwax-DA, BP-21, SPB-1000Nukol, CP Wax 58 CB	EPA: 8032 USP: G14, G15, G16,G25, G35, G39
Heliflex® + AT™-1ht+	DB-1 ht	-
Heliflex® + AT™-1ms+	DB-1 ms (UI), HP-1 ms,ZB-1 ms, Rtx-1 ms, BPX-1,Equity-1, CP Sil 5 CB ms	EPA: 504.1, 505, 606 USP: G1, G2, G9, G38
Heliflex® + AT™-1701+	DB-1701, HP-1701, ZB-1701, 007-1701, Rtx-1701,BP-10, SPB-1701, CP Sil 19 CB	EPA: 513, 515.2, 552.2, 607,619, 622, 8091, 8121 USP: G46
Heliflex® + AT™-20+	007-7,Rtx-20, SPB-20	- USP: G28, G32
Heliflex® + AT™-210+	DB-200, DB-210, 007-210, Rtx-200,SP-2401, VF-200 ms	EPA: 551, 612. 625, 8095 USP: G6
Heliflex® + AT™-225+	DB-225, HP-225, 007-225, Rtx-225,BP-225, CP Sil 43 CB	EPA: 8095 USP: G7, G19, G26
Heliflex® + AT™-35+	DB-35, HP-35, ZB-35, 007-11, MR2Rtx-35, SPB-35, SPB-608	EPA: 507, 508, 552, 614,615, 622 USP: G28, G32, G42
Heliflex® + AT™-35ms+	DB-35 ms, BPX-35, BPX-608, MR2,Rtx-35 Sil ms	EPA: 507, 508, 552, 614,615, 622 USP: G28, G32, G42
Heliflex® + AT™-5+	DB-5, HP-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 USP: G27, G36, G41
Heliflex® + AT™-50+	DB-17, DB-608, HP-17, ZB-50, 007-17, Rtx-17, BPX-50,SPB-50, CP Sil 24 CB	EPA: 604, 608, 619, 8060, 8081 USP: G3, G17
Heliflex® + AT™-5ms+	DB-5 ms (UI), HP-5 ms, ZB-5 ms, 007-5 ms,Rtx-5 ms, BPX-5, Equity-5	EPA: 513, 528, 552, 610, 6131625, 8100, 8141A/B USP: G27, G36, G41
Heliflex® + AT™-624+	DB-624, HP-624, ZB-624, 007-624, Rtx-624,Vocol, SPB-624, VF-624 ms	EPA: 501.3, 502.1, 502.2, 601,624, 1624, 8020, 8021 USP: G43, 467 (OVIs)
Heliflex® + AT™-WAX+	DB-Wax, HP-Wax, ZB-Wax, 007-CW,Rtx-Wax, BP-20, CP Wax 52 CB	EPA: 602, 603, 619,8015C USP 467 (OVIs) USP: G14, G15, G16
Heliflex® + AT™-WAXms+	Stabilwax, ZB-Wax Plus,InnoWax, VF-Wax ms	EPA: 602, 603, 619,8015C, 8121 USP: G14, G15, G16
Econo-Cap™ + Columns		
Econo-Cap™ + EC™-1+	DB-1, HP-1, ZB-1,007-1, Rtx-1, BP-1,100% methyl polysiloxane SPB-1, CP Sil 5 CB	EPA: 504.1, 505, 551, 606,612, 8141A/B USP: G1, G2, G9, G38
Econo-Cap™ + EC™-1000+	DB-FFAP, 007-FFAP,Stabilwax-DA, BP-21, SPB-1000Nukol, CP Wax 58 CB	EPA: 8032 USP: G14, G15, G16,G25, G35, G39
Econo-Cap™ + EC™-20+	007-7,Rtx-20, SPB-20	- USP: G28, G32
Econo-Cap™ + EC™-5+	DB-5, HP-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 USP: G27, G36, G41
Econo-Cap™ + EC™-WAX+	DB-Wax, HP-Wax, ZB-Wax, 007-CW,Rtx-Wax, BP-20, CP Wax 52 CB	EPA: 602, 603, 619,8015C USP 467 (OVIs) USP: G14, G15, G16

Typical Application Areas are:

Typical Applications	
Heliflex® + Columns	
Heliflex® + AT™-1+	Solvent impurities, PCBs, simulated distillation, drugs, gases, natural gases, essential oils, semi-volatiles, pesticides, phenols
Heliflex® + AT™-1000+	Ideal for free acids, FAMES, BTEX aromatics, flavour compounds, alcohols, spirits, polar compounds
Heliflex® + AT™-1ht+	See AT™-1+
Heliflex® + AT™-1ms+	See AT™-1+
Heliflex® + AT™-1701+	Residual solvents, PCBs, alcohols, oxygenates, pesticides. Ideal as confirmation column and GCxGC use
Heliflex® + AT™-20+	Ideal as confirmation column
Heliflex® + AT™-210+	Freon fluorocarbons, ketones, alcohols, organophosphorus pesticides
Heliflex® + AT™-225+	Carbohydrates, sterols, flavour compounds
Heliflex® + AT™-35+	Pesticides, PCBs, substituted polar compounds, phenols. Ideal as confirmation column
Heliflex® + AT™-35ms+	See AT™-35+
Heliflex® + AT™-5+	Solvent impurities, PCBs, hydrocarbons, essential oils, semi-volatiles, pesticides
Heliflex® + AT™-50+	Carbohydrates, sterols, FAMES, flavour compounds. Confirmation column
Heliflex® + AT™-5ms+	See AT™-5+
Heliflex® + AT™-624+	Ideal for volatile organic pollutants, purgeable aromatics, purgeable hydrocarbons, VOCs
Heliflex® + AT™-WAX+	FAMES, flavour compounds, essential oils, BTEX aromatics, solvents, alcohols
Heliflex® + AT™-WAXms+	See AT™-WAX+
Econo-Cap™ + Columns	
Econo-Cap™ + EC™-1+	See AT™-1+
Econo-Cap™ + EC™-1000+	See AT™-1000+
Econo-Cap™ + EC™-20+	Ideal confirmation column
Econo-Cap™ + EC™-5+	See AT™-5+
Econo-Cap™ + EC™-WAX+	See AT™-WAX+

Our Heliflex®+ columns are our premium individually tested range whilst our Econo-Cap™ + range are batch tested to significantly lower the price. Both ranges are manufactured under identical conditions using the same high quality polyimide coated fused silica and immobilised stationary phases. They are both supplied mounted on a rugged cage, with a ceramic column cutter and QC certificate and come with our no-quibble guarantee.

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