

# MEGA®

CAPILLARY COLUMNS  
LABORATORY

## GC products 2012

*our experience in Gas Chromatography at Your service*

**dex xeb**  
chiral columns

CUSTOM  
DEDICATED  
COLUMNS

m/z  
**GC-MS**  
columns

**mega 2D™**  
columns  


**FAST-GC**  
solutions

**Mega HT**  
High Temperature Columns

 general purpose  
**RETENTION  
GAPs**

**PRESS-FIT**  
connectors

*since*  
**1980** 



# GC Column Dimensions Available

<b>Fast</b>	<b>ID</b>	<b>0.05 mm</b>	<b>0.10 mm</b>	<b>0.15 mm</b>
	<b>Length</b>	from 2 to 5 m	from 2 to 10 m	from 2.5 to 30 m
	<b>Film Thickness*</b>	0.05 µm 0.10 µm	0.05 µm 0.10 µm 0.20 µm	from 0.05 to 0.50 µm
<b>Conventional</b>	<b>ID</b>	<b>0.18 mm</b> <b>0.20 mm</b>	<b>0.25 mm</b>	<b>0.32 mm</b>
	<b>Length</b>	from 10 to 60 m	from 10 to 105 m	from 10 to 105 m
	<b>Film Thickness*</b>	from 0.05 µm to 1.20 µm	from 0.05 µm to 3.00 µm	from 0.05 to 5.00 µm
<b>Wide-Bore</b>	<b>ID</b>	<b>0.53 mm</b>		
	<b>Length</b>	from 10 to 105 m		
	<b>Film Thickness*</b>	up to 5.00 µm		

Completely customize your product, selecting all combinations of sizes and also asking for out of catalog measures. We can develop ad-hoc solutions for your specific analytical problem without any additional cost.

All our stationary phases are available for Fast, Conventional, Wide-Bore and Multidimensional-GC.



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

# Column Cross - Reference (by phase)

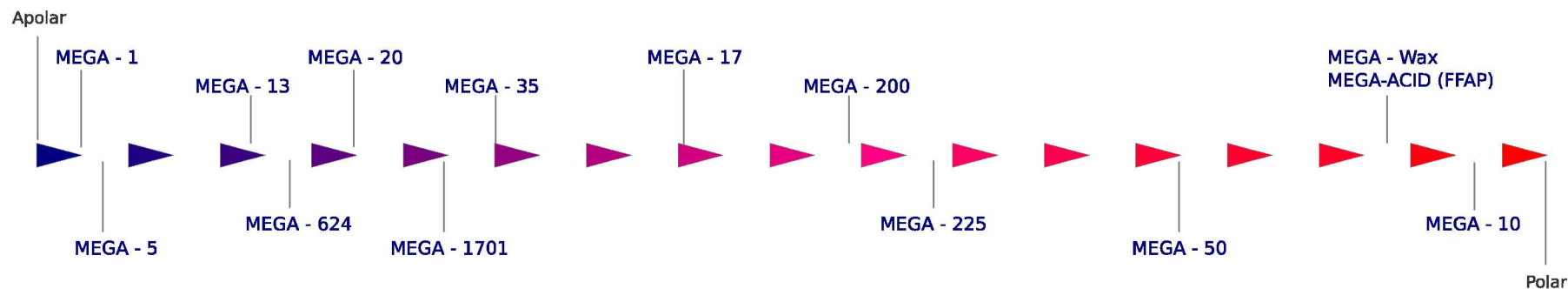
MEGA	Phase Composition	Agilent (J&W)	Alltech	Phenomenex	Quadrex	Restek	SGE	Supelco	Varian
MEGA - 1	100% Methyl Polysiloxane	DB-1 / HP-1	AT-1	ZB-1	007-1	Rtx-1	BP-1	SPB-1	CP Sil 5 CB
MEGA - 1 MS	100% Methyl Polysiloxane (Low Bleeding)	DB-1 ms, HP-1 ms	AT-1	ZB-1 ms	007-1	Rtx-1 ms	BPX-1	SPB-1, Equity-1	CP Sil 5 CB, Low Bleed / ms
MEGA - 1 HT	100% Methyl Polysiloxane (High Temperature)	DB-1 ht	<b>high temperature column</b>						
MEGA - 5	5% Phenyl, 95% Methyl Polysiloxane	DB-5 / HP-5	AT-5	ZB-5	007-5	Rtx-5	BP-5	SPB-5	CP Sil 8 CB
MEGA - 5 MS	5% Phenyl, 95% Methyl Polysiloxane (Low Bleeding)	DB-5 ms, Ultra-2 HP-5 ms	AT-5 ms	ZB-5 ms	007-5 ms	Rtx-5 ms	BPX-5	SPB-5, Equity-5	
MEGA - 5 HT	5% Phenyl, 95% Methyl Polysiloxane (High Temperature)	DB-5 ht	<b>high temperature column</b>						
MEGA - Wax	Polyethyleneglycol (PEG)	DB-Wax, HP-Wax	AT-Wax	ZB-Wax	007-CW	Rtx-Wax	BP-20	OmegaWax	CP Wax 52 CB
MEGA - Wax MS	Polyethyleneglycol (PEG) (Low Bleeding)	DB-Wax, HP-Wax	AT-Wax ms	ZB-Wax	007-CW	Stabilwax	BP-20	OmegaWax	CP Wax 52 CB
MEGA - Wax HT	Polyethyleneglycol (PEG) (High Temperature)	<b>high temperature unique column</b>							
MEGA - 1701	7% Cyanopropyl, 7% Phenyl, 86% Methyl Polysiloxane	DB-1701, HP-1701	AT-1701	ZB-1701	007-1701	Rtx-1701	BP-10	SPB-1701	CP Sil 19 CB, VF-1701 ms
MEGA - 35	35% Phenyl, 65% Methyl Polysiloxane	DB-35, HP-35	AT-35	ZB-35	007-11	Rtx-35	BPX-35, BPX-608	SPB-35, SPB-608	
MEGA - 35 MS	35% Phenyl, 65% Methyl Polysiloxane (Low Bleeding)	DB-35 ms				Rtx-35 Sil ms			
MEGA - 17	50% Phenyl, 50% Methyl Polysiloxane	DB-17, HP-17	AT-50	ZB-50	007-17	Rtx-17	BPX-50	SPB-50	CP Sil 24 CB, VF-17 ms
MEGA - 17 MS	50% Phenyl, 50% Methyl Polysiloxane (Low Bleeding)	<b>unique column</b>							
MEGA - ACID (FFAP)	Polyethyleneglycol (PEG) Acid Modified	DB-FFAP	AT-1000		007-FFAP	Stabilwax-DA	BP-21	SPB-1000, Nukol	CP Wax 58 CB
MEGA - 10 FAMES	100% Cyanopropyl Polysiloxane	HP-88	AT-Silar			Rtx-2330	BPX-70	SP-2330, SP-2560, SP-2331, SP-2380	CP Sil 88
MEGA - 225	25% Cyanopropyl, 25% Phenyl, 50% Methyl Polysiloxane	DB-225, HP-225	AT-225		007-225	Rtx-225	BP-225		CP Sil 43 CB
MEGA - 225 MS	25% Cyanopropyl, 25% Phenyl, 50% Methyl Polysiloxane (Low Bleeding)	<b>unique column</b>							
MEGA - 624	6% Cyanopropylphenyl, 94% Methyl Polysiloxane	DB-624, DB-1301, HP-624, HP-1301	AT-624	ZB-624	007-624, 007-1301	Rtx-624, Vocol, Rtx-1301	BP-624	SPB-1301, Vocol, SPB-624	CP 1301, VF-624 ms
MEGA - 13	13% Phenyl, 87% Methyl Polysiloxane								CP Sil 13 CB



MEGA	Phase Composition	Agilent (J&W)	Alltech	Phenomenex	Quadrex	Restek	SGE	Supelco	Varian
MEGA - BASIC	Proprietary unique phase for basic compounds separation (Amines)								
MEGA - SOLVE 1 & 2	Proprietary unique phases for complex solvents mixtures separation								
MEGA - 50	50% Cyanopropyl, 50% Methyl Polysiloxane	DB-23							
MEGA - 20	20% Phenyl, 80% Methyl Polysiloxane		AT-20		007-7	Rtx-20		SPB-20	
MEGA - 200	Trifluoropropyl Methyl Polysiloxane	DB-200, DB-210	AT-210		007-210	Rtx-200		SP-2401	VF-200 ms
MEGA - DAI 1 & 2	Proprietary unique phases developed for Direct Aqueous Injections								
MEGA - LAP	Proprietary unique phase developed for Lipid Analysis								
MEGA - PLUS	Copolymer Polyethylenglycol (PEG) + Methyl Polysiloxane								
MEGA - POF 1 & 2	Proprietary phases for pesticides, herbicides and insecticides								
MEGA - VOC 1 & 2	Proprietary phases for VOCs and Purge & Trap compounds analysis								

Visit our website [www.mega.mi.it](http://www.mega.mi.it) to discover our complete range of stationary phases and custom products.

## Phase Polarity Quick View




All trademarks mentioned in this document are registered.

# Column Cross - Reference (by application)

MEGA	Phase Composition	Temperature Max *	USP Classification	EPA Methods, Normatives	Applications
MEGA - 1	100% Methyl Polysiloxane	350°C	G1, G2, G9, G38	EPA 504.1, 505, 606, 8141 A	General purpose column. Solvent impurities, PCB congeners (Aroclor mixes), simulated distillation, drugs of abuse, gases, natural gases, essential oils, semivolatiles, pesticides.
MEGA - 1 MS	100% Methyl Polysiloxane (Low Bleeding)	350°C	G1, G2, G9, G38	EPA 606	General purpose column (see MEGA-1) for GC-MS use.
MEGA - 1 HT	100% Methyl Polysiloxane (High Temperature)	380°C	G2		General purpose column (see MEGA-1) for high temperature use.
MEGA - 5	5% Phenyl, 95% Methyl Polysiloxane	350°C	G27, G36, G41	EPA 611/8110, 604, 606, 607, 608/8081, 609, 612, 613, 615, 619, 622, 8015B, 8041, 8061A, 8082, 8091, 8121, 8141A	General purpose column. Solvent impurities, PCB congeners (Aroclor mixes), hydrocarbons, essential oils, semivolatiles, pesticides etc.
MEGA - 5 MS	5% Phenyl, 95% Methyl Polysiloxane (Low Bleeding)	350°C	G27, G36, G41	EPA 513, 525, 552.2, 604, 606, 610, 613, 625, 1625, 1653, 8100, 8141A, 8270C, 8280A	General purpose column (see MEGA-5) for GC-MS use.
MEGA - 5 HT	5% Phenyl, 95% Methyl Polysiloxane (High Temperature)	380°C	G27, G36, G41		General purpose column (see MEGA-5) for high temperature use.
MEGA - Wax	Polyethylenglycol (PEG)	250°C	G14, G15, G16, G20, G39, G47	EPA 602, 603, 619, 8121, USP 467 (OVIs)	General purpose column. FAMES, solvents, BTEX aromatics, flavour compounds, alcohols. <b>Tune your WAX column polarity! Ask us for a custom PEG based column besides our well known standard MEGA-WAX. Contact us for more information!</b>
MEGA - Wax MS	Polyethylenglycol (PEG) (Low Bleeding)	250°C	G14, G15, G16, G20, G39, G47	EPA 602, 603, 619, USP 467 (OVIs)	General purpose column (see MEGA-WAX) for GC-MS use.
MEGA - Wax HT	Polyethylenglycol (PEG) (High Temperature)	300°C			General purpose column (see MEGA-WAX) for high temperature use.
MEGA - 1701	7% Cyanopropyl, 7% Phenyl, 86% Methyl Polysiloxane	280°C	G46	EPA 513, 515.2, 552.2, 607, 619, 622, 8091, 8121, 8151A	General purpose column. Alcohols, oxygenates, PCB congeners (e.g. Aroclor mixes) etc. <b>Ideal as confirmation column.</b>
MEGA - 35	35% Phenyl, 65% Methyl Polysiloxane	340°C	G28, G32, G42	EPA 507, 508, 513, 551.1, 552.2, 607, 611, 615, 622, 8082, 8141A	General purpose column. Substituted polar compounds, phenols, PCBs, pesticides etc. <b>Ideal as confirmation column.</b>
MEGA - 35 MS	35% Phenyl, 65% Methyl Polysiloxane (Low Bleeding)	340°C	G28, G42		General purpose column (see MEGA-35) for GC-MS use.
MEGA - 17	50% Phenyl, 50% Methyl Polysiloxane	340°C	G3, G17	EPA 604, 608, 619, 8060, 8081	General purpose column. Phthalate esters, rosin acids, herbicides, pharmaceuticals etc. <b>Ideal as confirmation column.</b>
MEGA - 17 MS	50% Phenyl, 50% Methyl Polysiloxane (Low Bleeding)	340°C	G3, G17		General purpose column (see MEGA-17) for GC-MS use.
MEGA - ACID (FFAP)	Polyethylenglycol (PEG) Acid Modified	250°C	G14, G15, G16, G25, G35, G39		General purpose column. Free acids, FAMES, solvents, BTEX aromatics, flavour compounds, alcohols, polar compounds.
MEGA - 10 FAMES	100% Cyanopropyl Polysiloxane	260°C	G5, G8, G48		High polarity column ideal for cis/trans FAMES and dioxins isomers.
MEGA - 225	25% Cyanopropyl, 25% Phenyl, 50% Methyl Polysiloxane	280°C	G7, G19		Mid to high polarity column for carbohydrate, sterols, flavour compounds.
MEGA - 225 MS	25% Cyanopropyl, 25% Phenyl, 50% Methyl Polysiloxane (Low Bleeding)	280°C	G7, G19		Mid to high polarity column (see MEGA-225) for GC-MS use.
MEGA - 624	6% Cyanopropylphenyl, 94% Methyl Polysiloxane	280°C	G43	EPA 501.3, 502.1, 502.2, 503.1, 504.1, 524.2, 601, 602, 603, 624, 1624, 8010B, 8021B, 8030A, 8260B, USP 467 (OVIs)	General purpose column ideal for volatile organic pollutants.

All trademarks mentioned in this document are registered.

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

MEGA	Phase Composition	Temperature Max *	USP Classification	EPA Methods, Normatives	Applications
MEGA - 13	13% Phenyl, 87% Methyl Polysiloxane	340°C		EPA 601, 602, 624	General purpose column for halocarbons and <b>ideal as confirmation column.</b>
MEGA - 20	20% Phenyl, 80% Methyl Polysiloxane	340°C	G28, G32		General purpose column. Volatile compounds, flavour compounds, alcoholic beverages etc. <b>ideal as confirmation column.</b>
MEGA - 50	50% Cyanopropyl, 50% Methyl Polysiloxane	260°C	G5		General purpose column. Carbohydrates, sterols, flavour compounds, FAMES and <b>confirmation column.</b>
MEGA - 200	Trifluoropropyl Methyl Polysiloxane	300°C	G6		General purpose column. Freon fluorocarbons, alcohols, ketones. <b>Unique selectivity.</b>
MEGA - SE54	5% Phenyl, 1% Vinyl 94% Methyl Polysiloxane	350°C	G36		General purpose column (see MEGA-5).
MEGA - DEX Chiral Columns	MEGA-Dex DET Beta and Gamma MEGA-Dex DAC Beta and Gamma MEGA-Dex DMT Beta MEGA-Dex DMP Beta	230°C			Unique cyclodextrines based phases for chiral GC separations. <b>Contact us to know our complete chiral columns range! We provide custom made MEGA-Dex stationary phases to solve your specific chiral analytical problem.</b>
MEGA - ALC 1 & 2	Proprietary phases	nd			Application-specific columns for Blood Alcohols testing; equivalent to DB-ALC 1 & 2 and Rtx-BAC 1 & 2.
MEGA - BASIC	Proprietary unique phase for basic compounds separation (Amines)	nd			Application-specific column for basic compounds analysis (Amines).
MEGA - DAI 1 & 2	Proprietary unique phases developed for Direct Aqueous Injections	nd			Application-specific columns for Direct Aqueous Injections without sample preparation.
MEGA - LAP	Proprietary unique phase developed for Lipid Analysis	370°C			Application-specific column for Lipids, Sterols and Triglycerides analysis.
MEGA - PLUS	Copolymer Polyethyleneglycol (PEG) + Methyl Polysiloxane	nd			General purpose. <b>Tune the selectivity</b> choosing between the uniques MEGA-PLUS 10 (10% PEG, 90% PDMS), MEGA-PLUS 25 (25% PEG, 75% PDMS), MEGA-PLUS 75 (75% PEG, 25% PDMS) or <b>asking for a completely custom MEGA-PLUS column!</b>
MEGA - POF 1 & 2	<b>New</b> proprietary phases	nd			Application-specific columns developed for pesticides, herbicides and insecticides analysis.
MEGA - VOC 1 & 2	<b>New</b> proprietary phases	nd	G43 (MEGA-VOC 1)		Application-specific columns developed for Volatile Organic Compounds (OVIs), solvents and purgeable compounds analysis.
MEGA - SOLVE 1 & 2	Proprietary unique phases for complex solvents mixtures separation	nd			Application-specific columns for complex solvents mixtures analysis.
MEGA - Biodiesel	Phases for Biodiesel Analysis	370°C (UNI EN ISO 14105)		UNI EN ISO 14105 (ASTM 6584), UNI EN ISO 14103	Application-specific columns developed for Biodiesel analysis. MEGA-BIODIESEL 105 for triglycerides in biodiesel (UNI EN ISO 14105, ASTM 6584) stable up to 370°C and MEGA-BIODIESEL 103 for FAMES in biodiesel (UNI EN ISO 14103).
MEGA - PAH	Unique phase	340°C		EPA 610/8100	Application-specific column for Polycyclic Aromatic Hydrocarbons.
MEGA - 1 PONA	100% Methyl Polysiloxane optimized for Hydrocarbon Analysis	350°C			Column optimized for DHA (Detailed Hydrocarbons Analysis); equivalent to DB-Petro, HP-Pona, Rtx-1 Pona, Petrocol.
MEGA - TNT 8095	Unique phase	nd		EPA 8095	Application-specific column developed for Explosives analysis (nitroaromatics, nitramines, nitrate esters).

All trademarks mentioned in this document are registered.

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





**MEGA-Wax HT column**, an unique PEG stationary phase able to reach up to **300°C** even in isothermal mode. Especially developed for FAST-GC and GCxGC use. The performances of this column have appeared on "LCGC - Europe" (February 2010 issue).



**MEGA-5 MS Xil column**, a new GC-MS stationary phase that assures **ultra-low bleeding** and unsurpassed inertness and efficiency for your GC-MS analysis. Contact us to receive the free e-brochure of the new MEGA-5 MS Xil.



**MEGA-2D Single column**, a revolutionary unique tubing column coated with **two in series different stationary phases** for GCxGC and MDGC applications. No connections are needed! Contact us to have more info about all MEGA Multidimensional-GC and GCxGC solutions.

---

## Retention Gaps

Retention Gaps deactivated for any purpose:

- use with apolar solvents
- use with polar solvents
- general use

Any internal diameter size available:

0.05, 0.10, 0.15, 0.18, 0.20, 0.25, 0.32 and 0.53 mm ID.

Any length available also in pre-cut pieces individually packaged.

**MEGA Retention Gaps have an exceptional inertness. Easy to handle and easy to install with our Press-Fit connectors.**

**Use Retention Gaps for focusing the sample components when introducing a large (liquid) sample directly onto the column and/or to protect the analytical column from contamination. Retention Gaps are also useful as connecting pipes to various parts of systems with complex configurations**

Discover our **MEGA-GAP columns** line with integrated built-in Retention Gap. No connections needed! Visit our website or contact us for more information.

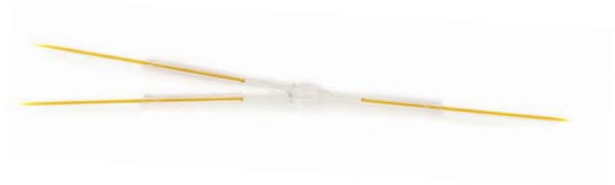
# Press-Fit connectors

MEGA Press-Fit connectors allow you to simply connect different columns or Retention Gaps together in many ways. Press-Fit connectors are custom made to fit any tubing size and to ensure the minimal dead volume.



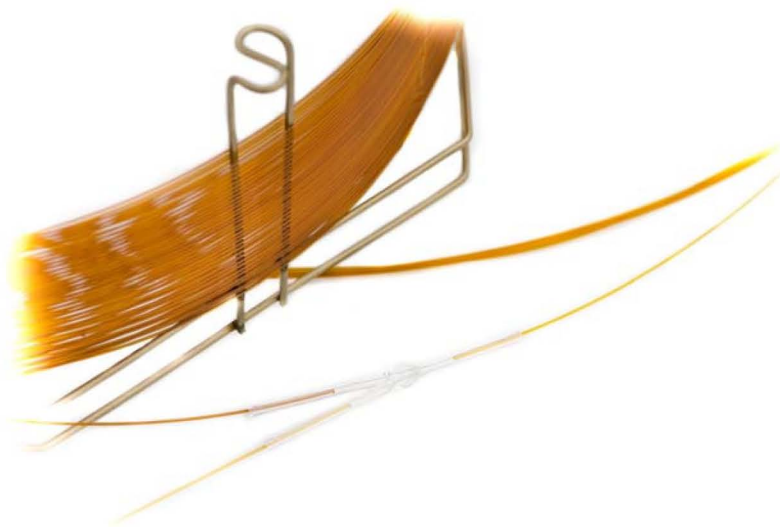
**Press-Fit Union** linear connectors: ideal to connect two columns or a Retention Gap to the analytical column.

**Press-Fit "Y"** three ways connectors: ideal to connect two analytical columns to a single injector port or split the exit of one column to a dual detector system. Many other configurations are possible using MEGA Press-Fit Y.



MEGA produces also personalized **Multiways Press-Fit** connectors for advanced analytical system configurations as Multidimensional-GC or other custom settings.

Visit our website to download our free guide "Press-Fit Connectors Tips" to discover how easy is to use our Press-Fit connectors.



- easy to handle

- easy to install

- a simple pressure with your hands to assure a perfect seal



[www.mega.mi.it](http://www.mega.mi.it)

visit us online, you can find  
our complete products range  
applications  
technical information  
support  
news  
and **more...**

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

since  
1980 

**MEGA**<sup>®</sup>  
CAPILLARY COLUMNS  
LABORATORY

