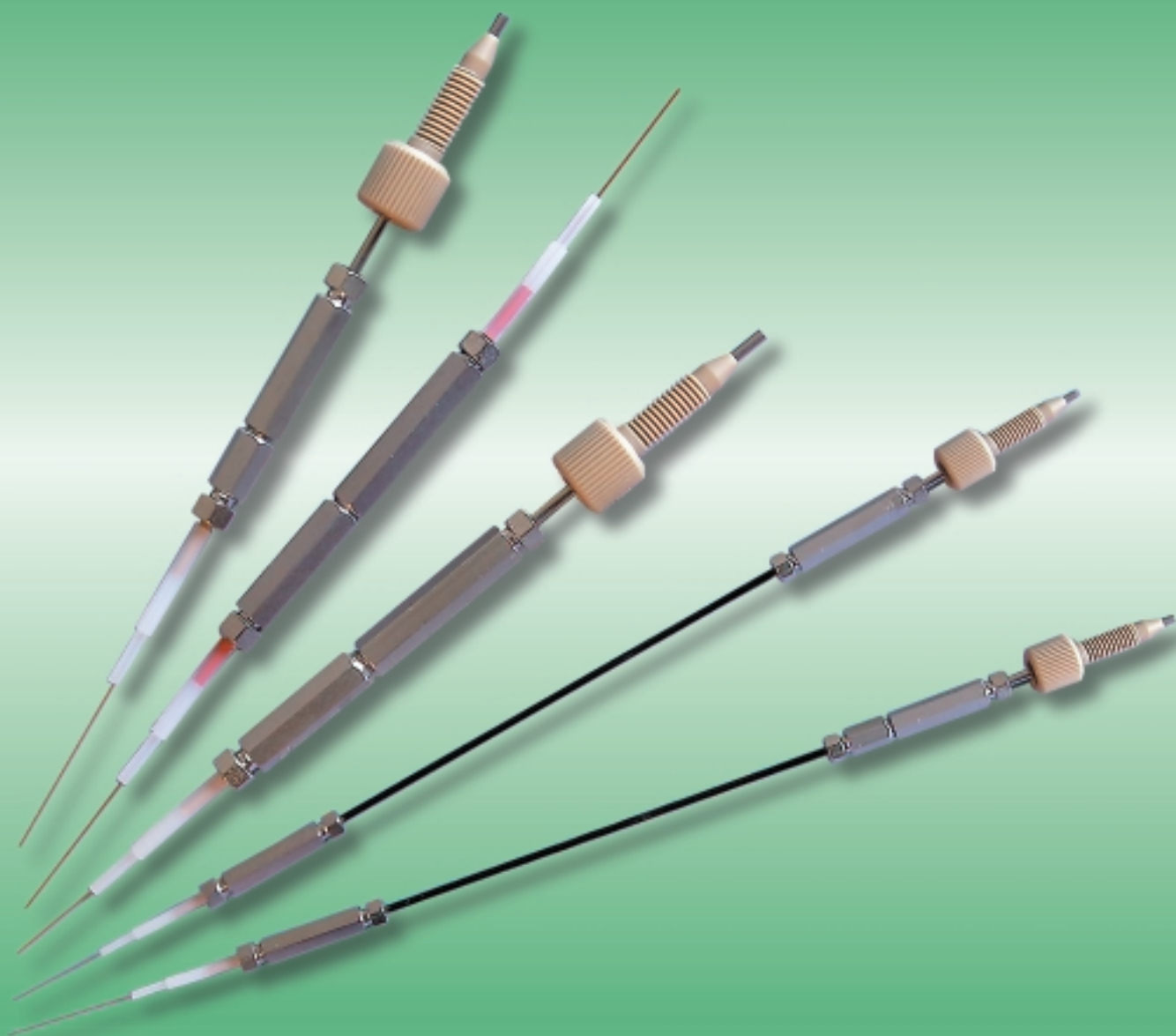


NovoGROM Nano-LC COLUMNS - 25 to 100 μm i.d. -
NovoGROM CAPILLARY COLUMNS - 180 to 800 μm i.d. -



In addition to the on-line coupling with a mass spectrometer, the driving force behind the continuous development of microbore- and capillary chromatography has come in particular from the fields of physiological chemistry and neurochemistry, where the volumes of sample available are often extremely low (μl or even nI), thus requiring maximum sensitivity. Both the reduced running costs and the environmental benefits arising from the drastically reduced consumption of solvents are further significant advantages gained by the miniaturisation of HPLC.

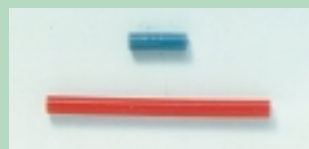
GROM offers a full range of columns and accessories for capillary HPLC for those interested in taking advantage of the most modern developments in HPLC. Similar to the proven analytical **NovoGROM** cartridge system, the integrated guard columns are sealed manually without tools („finger-tight“).

According to the customer's requirements these columns can be supplied packed with any stationary phase listed in this catalogue.

Capillary guard columns, packed*

NovoGROM-capillary guard columns for dead-volume-free, finger-tight connection to capillary columns, may be used as enrichment columns or short analytical columns, in addition to the normal use as protective guard columns.

Order number Description**



***C0030	Capillary guard column - 5 mm x 300 µm -
***C0130	Capillary guard column - 10 mm x 300 µm -
***C0230	Capillary guard column - 20 mm x 300 µm -
***C0050	Capillary guard column - 5 mm x 500 µm -
***C0150	Capillary guard column - 10 mm x 500 µm -
***C0250	Capillary guard column - 20 mm x 500 µm -

Capillary guard column holders (for 5 mm and 20 mm guard columns)



3705A	Guard column holder „5“ for 5 mm capillary guard columns
3710A	Guard column holder „10“ for 10 mm capillary guard columns
3720A	Guard column holder „20“ for 20 mm capillary guard columns



3705B	Guard column holder „5“ for 5 mm capillary guard columns
3710B	Guard column holder „10“ for 10 mm capillary guard columns
3720B	Guard column holder „20“ for 20 mm capillary guard columns

Standard capillary columns, packed*

Quartz glass **NovoGROM** capillary columns are connected directly (ie., without dead volume) to the microinjector and via „fused silica“ capillary to the capillary HPLC detector cell or to the MS-Interface.



***C0508	Capillary column - 50 mm x 75 µm -
***C0808	Capillary column - 75 mm x 75 µm -
***C1008	Capillary column - 100 mm x 75 µm -
***C1508	Capillary column - 150 mm x 75 µm -
***C2508	Capillary column - 250 mm x 75 µm -
***C0510	Capillary column - 50 mm x 100 µm -
***C0810	Capillary column - 75 mm x 100 µm -
***C1010	Capillary column - 100 mm x 100 µm -
***C1510	Capillary column - 150 mm x 100 µm -
***C2510	Capillary column - 250 mm x 100 µm -
***C0520	Capillary column - 50 mm x 200 µm -
***C0820	Capillary column - 75 mm x 200 µm -
***C1020	Capillary column - 100 mm x 200 µm -
***C1520	Capillary column - 150 mm x 200 µm -
***C2520	Capillary column - 250 mm x 200 µm -



***C0530	Capillary column - 50 mm x 300 µm -
***C0830	Capillary column - 75 mm x 300 µm -
***C1030	Capillary column - 100 mm x 300 µm -
***C1530	Capillary column - 150 mm x 300 µm -
***C2530	Capillary column - 250 mm x 300 µm -
***C0550	Capillary column - 50 mm x 500 µm -
***C0850	Capillary column - 75 mm x 500 µm -
***C1050	Capillary column - 100 mm x 500 µm -
***C1550	Capillary column - 150 mm x 500 µm -
***C2550	Capillary column - 250 mm x 500 µm -
***C0580	Capillary column - 50 mm x 800 µm -
***C0880	Capillary column - 75 mm x 800 µm -
***C1080	Capillary column - 100 mm x 800 µm -
***C1580	Capillary column - 150 mm x 800 µm -
***C2580	Capillary column - 250 mm x 800 µm -

* **NovoGROM** capillary columns can be packed with any of the stationary phases listed in this catalogue or with the customer's stationary phase.

** Other dimensions upon request.

*** To complete the order number, add here the abbreviation for the desired stationary phase (see HPLC catalogue pages 160-161).

Capillary columns with guard column head and 5 mm guard column, packed*

NovoGROM capillary guard columns are connected directly without dead volume to the **NovoGROM** capillary columns by means of the column head.



Order number Description **

***C0530T	Capillary column - 50 mm x 300 µm - with 5 mm x 300 µm guard column
***C0830T	Capillary column - 75 mm x 300 µm - with 5 mm x 300 µm guard column
***C1030T	Capillary column - 100 mm x 300 µm - with 5 mm x 300 µm guard column
***C1530T	Capillary column - 150 mm x 300 µm - with 5 mm x 300 µm guard column
***C2530T	Capillary column - 250 mm x 300 µm - with 5 mm x 300 µm guard column
***C0550T	Capillary column - 50 mm x 500 µm - with 5 mm x 500 µm guard column
***C0850T	Capillary column - 75 mm x 500 µm - with 5 mm x 500 µm guard column
***C1050T	Capillary column - 100 mm x 500 µm - with 5 mm x 500 µm guard column
***C1550T	Capillary column - 150 mm x 500 µm - with 5 mm x 500 µm guard column
***C2550T	Capillary column - 250 mm x 500 µm - with 5 mm x 500 µm guard column
***C0580T	Capillary column - 50 mm x 800 µm - with 5 mm x 800 µm guard column
***C0880T	Capillary column - 75 mm x 800 µm - with 5 mm x 800 µm guard column
***C1080T	Capillary column - 100 mm x 800 µm - with 5 mm x 800 µm guard column
***C1580T	Capillary column - 150 mm x 800 µm - with 5 mm x 800 µm guard column
***C2580T	Capillary column - 250 mm x 800 µm - with 5 mm x 800 µm guard column

Capillary columns with 20 mm guard column, packed*



***C0530L	Capillary column - 50 mm x 300 µm - with 20 mm x 300 µm guard column
***C0830L	Capillary column - 75 mm x 300 µm - with 20 mm x 300 µm guard column
***C1030L	Capillary column - 100 mm x 300 µm - with 20 mm x 300 µm guard column
***C1530L	Capillary column - 150 mm x 300 µm - with 20 mm x 300 µm guard column
***C2530L	Capillary column - 250 mm x 300 µm - with 20 mm x 300 µm guard column
***C0550L	Capillary column - 50 mm x 500 µm - with 20 mm x 500 µm guard column
***C0850L	Capillary column - 75 mm x 500 µm - with 20 mm x 500 µm guard column
***C1050L	Capillary column - 100 mm x 500 µm - with 20 mm x 500 µm guard column
***C1550L	Capillary column - 150 mm x 500 µm - with 20 mm x 500 µm guard column
***C2550L	Capillary column - 250 mm x 500 µm - with 20 mm x 500 µm guard column
***C0580L	Capillary column - 50 mm x 800 µm - with 20 mm x 800 µm guard column
***C0880L	Capillary column - 75 mm x 800 µm - with 20 mm x 800 µm guard column
***C1080L	Capillary column - 100 mm x 800 µm - with 20 mm x 800 µm guard column
***C1580L	Capillary column - 150 mm x 800 µm - with 20 mm x 800 µm guard column
***C2580L	Capillary column - 250 mm x 800 µm - with 20 mm x 800 µm guard column

* **NovoGROM**-capillary columns can be packed with any of the stationary phases listed in this catalogue or with the customer's stationary phase.











** Other dimensions upon request.

*** To complete the order number, add here the abbreviation for the desired stationary phase (see HPLC catalogue pages 160-161).

Accessories for capillary columns

NovoGROM Nano-LC- and capillary columns can easily be operated either with any commonly available, modern HPLC system using a capillary splitter and capillary detector cell or preferably with an advanced mikro-HPLC system.

	Order number	Description
	6909	Capillary detector cell assembly (4 nl / 0.2 mm) for „Linear“, „Spectra-Physics“, ThermoQuest or „Thermo Separation Products“ UV-detectors, complete, with 50 µm i.d., resp. 280 or 365 µm o.d. capillary connections
	6910	Capillary detector cell assembly (15 nl / 0.3 mm), same as 6909, complete, but with 75 µm i.d., resp. 280 or 365 µm o.d. capillary connections
	6911	Capillary detector cell assembly (35 nl / 0.4 mm), same as 6909, complete, but with 100 µm i.d., resp. 280 or 365 µm o.d. capillary connections
	6912	Spare cell (15 nl / 0.3 mm) for 6910
	6913	Spare cell (35 nl / 0.4 mm) for 6911
	6914	Spare cell (4 nl / 0.2 mm) for 6909
	6906	Microinjector - injection volume 60 nl
	6920	Microinjector - injection volume 200 nl
	6907	Spare rotor for 60 nl microinjector
	6921	Spare rotor for 200 nl microinjector
	6905	Splitting device for capillary HPLC with 3 exchangeable fused silica restrictor capillaries of different lengths
	6904	Tungsten carbide glass knife for cutting fused silica capillaries, etc.
	6908	PROCUT for fused silica capillaries
	6915	Finger-tight fitting with PEEK sleeve insert (natural) for 280 µm o.d. fused silica capillaries
	6916	Finger-tight fitting with PEEK sleeve insert (red) for 365 µm o.d. fused silica capillaries
	6917	Ferrule for 190 µm o.d. fused silica capillary (Pk. of 4)
	6919	Microsyringe (10 µl) for flow control with coupling

	Order number	Description
	6925	Clean-up guard column set , complete
	6930	Capillary connector plus adjustment screw for coupling two fused silica capillaries, sleeves not included
	6932	Micro-finger-tight for coupling fused silica capillaries using 6930 (Pk. of 2)
	6933	Micro-adjustment screw for fused silica capillaries in 6930 (Pk. of 2)
	6935	Capillary connector for coupling 1/16" capillary with fused silica capillary, no sleeve included
	6937	Finger-tight fitting for coupling 1/16" capillary using 6935 (Pk. of 2)
	6938	Adjustment screw for fused silica capillary in 6935 (Pk. of 2)
	6950	Micro-tubing (red) for connecting 127 μm o.d. fused silica capillaries (Pk. of 10)
	6951	Micro-tubing (yellow) for connecting 178 μm o.d. fused silica capillaries (Pk. of 10)
	6952	Micro-tubing (natural) for connecting 229 μm o.d. fused silica capillaries (Pk. of 10)
	6953	Micro-tubing (blue) for connecting 280 μm o.d. fused silica capillaries (Pk. of 10)
	6954	Micro-tubing (orange) for connecting 330 μm o.d. fused silica capillaries (Pk. of 10)
	6955	Micro-tubing (green) for connecting 380 μm o.d. fused silica capillaries (Pk. of 10)
	6956	Micro-tubing (black) for connecting 457 μm o.d. fused silica capillaries (Pk. of 10)
	6957	Micro-tubing (natural) for connecting 533 μm o.d. fused silica capillaries (Pk. of 10)
	6960	Micro-tubing kit for connecting various fused silica capillaries (including 6950–6957)
	6961	1/16" Tubing (red) for connecting 365 μm o.d. fused silica capillaries (Pk. of 10)
	9701	High pressure „in-line“ filter