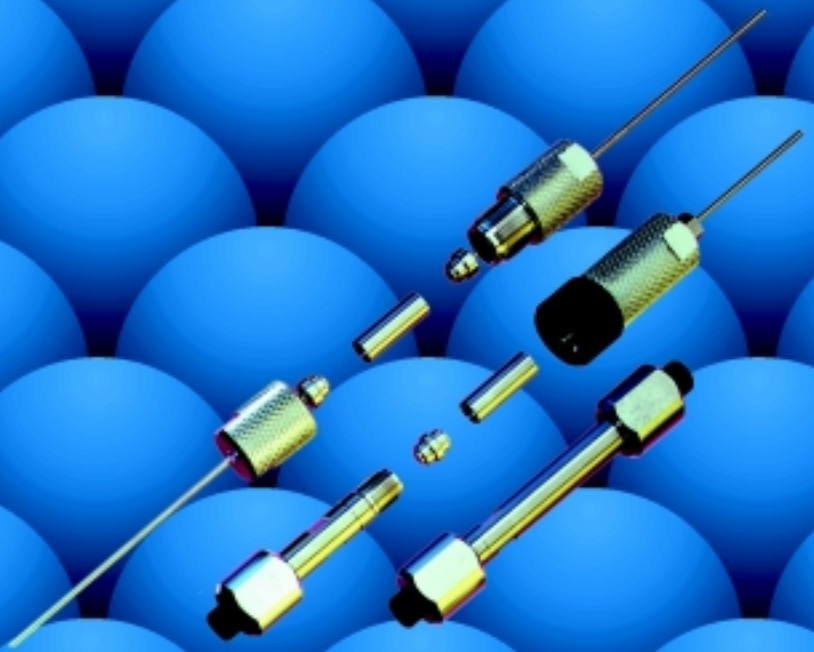
The unique, versatile HPLC column hardware for

Combinatorial Chemistry



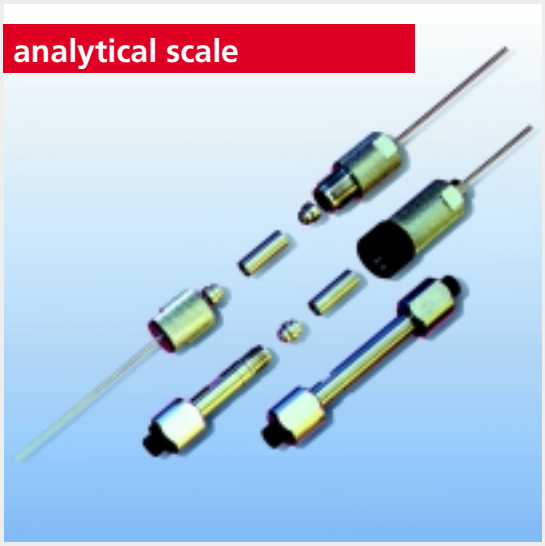
3.0, 4.0, 4.6 mm i.d.

8.0 mm i.d.

20 or 30 mm i.d.

NovoGROM HPLC Columns for combinatorial chemistry

analytical scale



10 or 20 x 4 mm
guard column, cartridge, complete

50 x 4 mm
column with integrated guard column

50 x 4 mm
column for conventional ferrule-type fitting

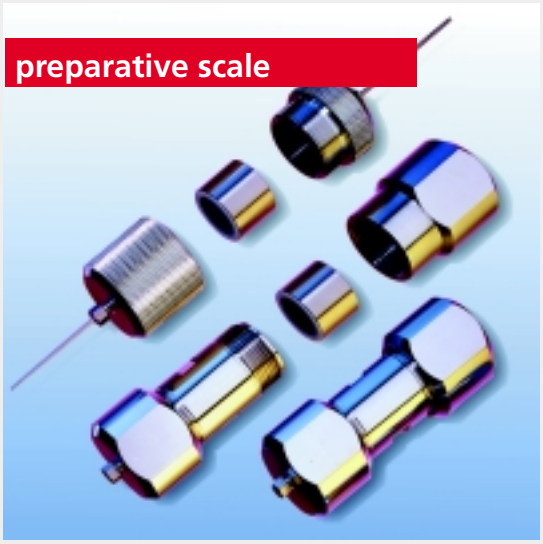
semi-preparative scale

10 or 20 x 8 mm
guard column cartridge, complete

50 x 8 mm
column with integrated guard column

50 x 8 mm
column for conventional ferrule-type fitting

preparative scale



10 or 20 x 20 mm, resp. x 30 mm
guard column cartridge, complete

50 x 20 mm, resp. x 30 mm
column with integrated guard column

50 x 20 mm, resp. x 30 mm
column for conventional ferrule-type fitting

- short columns → fast separations
- integrated guard columns → low dispersion, i.e., no peak broadening
- disposable guard column cartridges → cost saving, easy to use
- high versatility → unique flexibility when “up-scaling”
- packed with all commonly available stationary phases → enables optimal selectivity

Prepacked *NovoGROM* HPLC Columns dedicated to Combinatorial Chemistry

Combinatorial Chemistry: One of the most advanced, modern technologies requires a broad range in selectivity and excellent stability of stationary phases, while maintaining column durability and efficiency with good peak symmetry, especially for basic and acidic compounds. These important features are only guaranteed by a couple of the commonly available stationary phases such as GROM-SIL phases.

Outstanding Feature and Benefit of unique *NovoGROM* column hardware:

- **Low-dispersion**, i.e., **no peak broadening by hardware void volume** → **Extraordinary performance even at high speed, therefore ensuring high sample throughput**

Combinatorial chemistry stainless steel columns, prepacked *preferably with:*

Order number	Description
GSODS0511S0502	***NovoGROM*** **CombiChem column, 50 x 2.0 mm, packed with GROM- Sapphire** (C18 / 5 µm / 110 Å)
GSOD30512S0502	***NovoGROM*** **CombiChem column, 50 x 2.0 mm, packed with GROM- SIL 120 ODS-3 CP** (C18 / 5 µm / 120 Å)
GSOD40512S0502	***NovoGROM*** **CombiChem column, 50 x 2.0 mm, packed with GROM- SIL 120 ODS-4 HE** (C18 / 5 µm / 120 Å)
GSODS0511S0504	***NovoGROM*** **CombiChem column, 50 x 4.0 mm, packed with GROM- Sapphire** (C18 / 5 µm / 110 Å)
GSOD30512S0504	***NovoGROM*** **CombiChem column, 50 x 4.0 mm, packed with GROM- SIL 120 ODS-3 CP** (C18 / 5 µm / 120 Å)
GSOD40512S0504	***NovoGROM*** **CombiChem column, 50 x 4.0 mm, packed with GROM- SIL 120 ODS-4 HE** (C18 / 5 µm / 120 Å)
GSODS0511S0508	***NovoGROM*** **CombiChem column, 50 x 8 mm, packed with GROM- Sapphire** (C18 / 5 µm / 110 Å)
GSOD30512S0508	***NovoGROM*** **CombiChem column, 50 x 8 mm, packed with GROM- SIL 120 ODS-3 CP** (C18 / 5 µm / 120 Å)
GSOD40512S0508	***NovoGROM*** **CombiChem column, 50 x 8 mm, packed with GROM- SIL 120 ODS-4 HE** (c18 / 5 µm / 120 Å)
GSODS0511S0520	***NovoGROM*** **CombiChem column, 50 x 20 mm, packed with GROM- Sapphire** (C18 / 5 µm / 110 Å)
GSOD30512S0520	***NovoGROM*** **CombiChem column, 50 x 20 mm, packed with GROM- SIL 120 ODS-3 CP** (C18 / 5 µm / 120 Å)
GSOD40512S0520	***NovoGROM*** **CombiChem column, 50 x 20 mm, packed with GROM- SIL 120 ODS-4 HE** (C18 / 5 µm / 120 Å)
GSODS0511S0530	***NovoGROM*** **CombiChem column, 50 x 30 mm, packed with GROM- Sapphire** (C18 / 5 µm / 110 Å)
GSOD30512S0530	***NovoGROM*** **CombiChem column, 50 x 30 mm, packed with GROM- SIL 120 ODS-3 CP** (C18 / 5 µm / 120 Å)
GSOD40512S0530	***NovoGROM*** **CombiChem column, 50 x 30 mm, packed with GROM- SIL 120 ODS-4 HE** (C18 / 5 µm / 120 Å)

Note! ***NovoGROM*** **columns dedicated to Combinatorial Chemistry can be packed with any of the stationary phases listed in this catalogue** (see pages 12/13 and 144)**.**

Combinatorial Chemistry low dispersion column hardware (stainless steel)**:***

Guard column cartridges to be used in conjunction with

		guard column head	or	guard column holder
Order number	**Dimensions / Quantity**	**Order number**		**Order number**
**....V0101V	**10 x 1.0 mm** (Pk. of 5)	3551		2551
**....V0201V	**20 x 1.0 mm** (Pk. of 5)	3555		2555
**....V0102V	**10 x 2.0 mm** (Pk. of 5)	3551		2551
**....V0202V	**20 x 2.0 mm** (Pk. of 5)	3555		2555
**....V0104V	**10 x 4.0 mm** (Pk. of 5)	3101		2116
**....V0204V	**20 x 4.0 mm** (Pk. of 5)	3102		2115
**....V0108V	**10 x 8.0 mm** (Pk. of 2)	50.3111		50.2111
**....V0208V	**20 x 8.0 mm** (Pk. of 2)	50.3112		50.2112
**....V0120V	**10 x 20 mm** (Pk. of 2)	70.3111		70.2111
**....V0220V	**20 x 20 mm** (Pk. of 2)	70.3112		70.2112
**....V0230V	**20 x 30 mm** (Pk. of 1)	----		75.2112
**....V0330V	**30 x 30 mm** (Pk. of 1)	----		75.2113

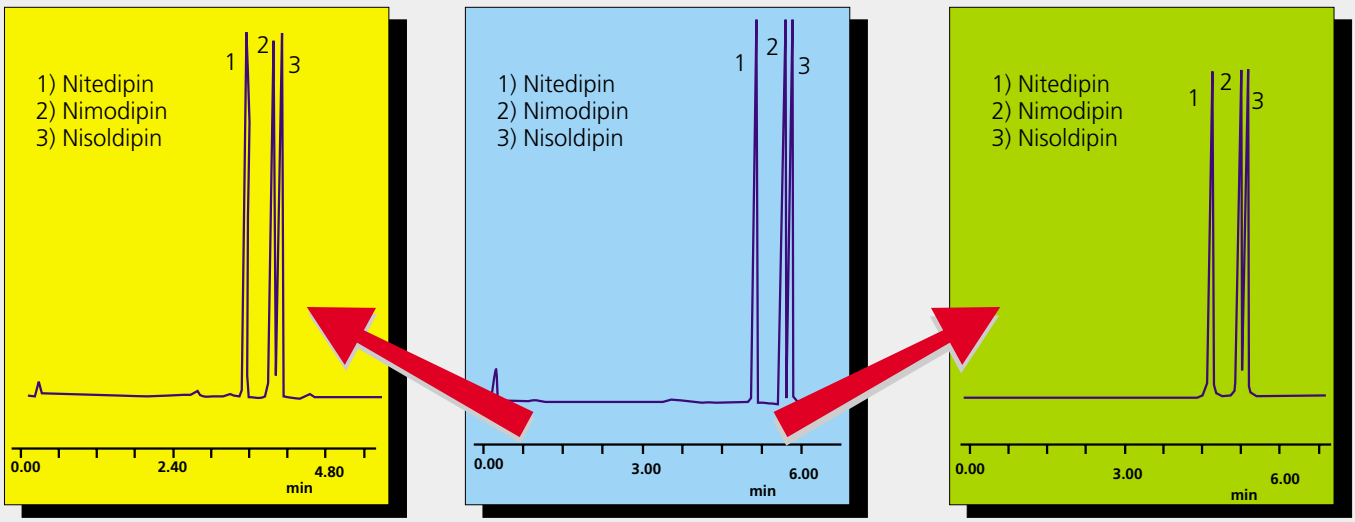
***** Other dimensions upon request. For more detailed information concerning column hardware see pages 99 - 126.
****** Please, add abbreviation for the desired stationary phase.

Combinatorial Chemistry low dispersion column hardware (stainless steel):*

CombiChem cartridge	*CombiChem column*	
Order number	**Order number**	**Dimensions**
**....K0401	**....S0401	**40 x 1.0 mm**
**....K0501	**....S0501	**50 x 1.0 mm**
**....K0402	**....S0402	**40 x 2.0 mm**
**....K0502	**....S0502	**50 x 2.0 mm**
**....K0404	**....S0404	**40 x 4.0 mm**
**....K0504	**....S0504	**50 x 4.0 mm**
---	**....S0408	**40 x 8.0 mm**
---	**....S0508	**50 x 8.0 mm**
see guard column cartridge	**....S0320	**30 x 20 mm**
---	**....S0420	**40 x 20 mm**
---	**....S0520	**50 x 20 mm**
see guard column cartridge	**....S0330	**30 x 30 mm**
---	**....S0430	**40 x 30 mm**
---	**....S0530	**50 x 30 mm**
---	**....S0440	**40 x 40 mm**
---	**....S0540	**50 x 40 mm**
---	**....S0450	**40 x 50 mm**
---	**....S0550	**50 x 50 mm**

* Other dimensions upon request. For more detailed information concerning column hardware see pages 99 - 126.
** Please, add abbreviation for the desired stationary phase.

Down-scaling and *Up-scaling* for the isolation of drugs



Column phase: GROM-SIL 120 ODS-3 CP, 3 µm
Column size: 30 x 4.0 mm
Eluent A: H_2O
B: ACN
Gradient: 10% B (0 -1 min), 10-90% B (1-4.2 min), 90% B (4.2-5 min), 90-10% B (5-5.2 min)
Flow rate: 2 ml/min
Pressure: 13.8 MPa
Temperature: RT
Detection (UV): 254 nm
Injection: 0.4 mg / 100 µl

Column phase: GROM-SIL 120 ODS-3 CP, 5 µm
Column size: 50 x 4.0 mm
Eluent A: H_2O
B: ACN
Gradient: 10% B (0-2 min), 10-90% B (2-6 min), 90% B (6-7min), 90-10% B (7-7.2 min)
Flow rate: 2 ml/min
Pressure: 11.2 MPa
Temperature: RT
Detection (UV): 254 nm
Injection: 0.4 mg / 100 µl

Column phase: GROM-SIL 120 ODS-3 CP, 5 µm
Column size: 50 x 8 mm
Eluent A: H_2O
B: ACN
Gradient: 10% B (0-2 min), 10-90% B (2-6 min), 90% B (6-7min), 90-10% B (7-7.2 min)
Flow rate: 8 ml/min
Pressure: 13.2 MPa
Temperature: RT
Detection (UV): 254 nm
Injection: 1.6 mg / 400 µl