

Pinnacle™ DB C18 and C8 Columns

Pinnacle™ DB Columns: 1.9, 3 or 5µm particle sizes; 140Å pore size

Prepared using a highly base-deactivated silica support; ideal for analyses of basic compounds, or bases mixed with acids/neutrals. Silica manufactured at Restek, for total control of quality and reproducibility.

Pinnacle™ DB C18 Columns (USP L1)

Physical Characteristics:

particle size: 1.9µm, 3µm or 5µm, spherical endcap: yes
pore size: 140Å pH range: 2.5 to 10
carbon load: 11% temperature limit: 80°C

Chromatographic Properties:

Highly base-deactivated spherical silica manufactured by Restek. Monomeric C18 bonding. Hydrophobic C18 phase suitable for analyses of a wide range of compounds, from acidic through slightly basic. Replaces Hypersil® BDS C18 and Pinnacle™ ODS Amine.



Application	Page #
Parabens	537
Vanilla Bean Extract	541
Xanthines	558

new!

See page 306 for more information on our new 1.9µm Pinnacle™ DB columns.

also available

More chromatograms!

Visit www.restek.com.

Length	1.0mm ID cat.#	2.1mm ID cat.#	3.2mm ID cat.#	4.6mm ID cat.#
1.9µm Columns				
30mm		9414232		
50mm		9414252		
100mm		9414212		
3µm Columns				
30mm	9414331	9414332	9414333	9414335
50mm	9414351	9414352	9414353	9414355
100mm	9414311	9414312	9414313	9414315
5µm Columns				
30mm	9414531	9414532	9414533	9414535
50mm	9414551	9414552	9414553	9414555
100mm	9414511	9414512	9414513	9414515
150mm	9414561	9414562	9414563	9414565
200mm	9414521	9414522	9414523	9414525
250mm	9414571	9414572	9414573	9414575

Pinnacle™ DB C8 Columns (USP L7)

Physical Characteristics:

particle size: 3µm or 5µm, spherical endcap: yes
pore size: 140Å pH range: 2.5 to 10
carbon load: 6% temperature limit: 80°C

Chromatographic Properties:

Highly base-deactivated spherical silica manufactured by Restek. Monomeric C8 bonding. Similar to Pinnacle™ DB C18, but the shorter alkyl chain provides less hydrophobic retention. Less retention can be useful for shortening analysis time, if resolution is adequate. Replaces Hypersil® BDS C8 and Pinnacle™ C8 Amine.



Length	1.0mm ID cat.#	2.1mm ID cat.#	3.2mm ID cat.#	4.6mm ID cat.#
3µm Columns				
30mm	9413331	9413332	9413333	9413335
50mm	9413351	9413352	9413353	9413355
100mm	9413311	9413312	9413313	9413315
5µm Columns				
30mm	9413531	9413532	9413533	9413535
50mm	9413551	9413552	9413553	9413555
100mm	9413511	9413512	9413513	9413515
150mm	9413561	9413562	9413563	9413565
200mm	9413521	9413522	9413523	9413525
250mm	9413571	9413572	9413573	9413575

Pinnacle™ DB Cyano Columns (USP L10)

Physical Characteristics:

particle size: 5µm, spherical	endcap: yes
pore size: 140Å	pH range: 2.5 to 7.5
carbon load: 4%	temperature limit: 80°C



Chromatographic Properties:

Highly base-deactivated spherical silica manufactured by Restek. Cyano bonding. Suitable for analyses of a wide range of compounds, from acidic through slightly basic. Also useful for confirmation of analyses on a C18 or C8 column. Can be used in normal phase or reversed phase mode of separation. Replaces Hypersil® BDS Cyano and Pinnacle™ Cyano Amine.

Length	1.0mm ID cat.#	2.1mm ID cat.#	3.2mm ID cat.#	4.6mm ID cat.#
1.9µm Columns				
30mm		9416232		
50mm		9416252		
100mm		9416212		
5µm Columns				
30mm	9416531	9416532	9416533	9416535
50mm	9416551	9416552	9416553	9416555
100mm	9416511	9416512	9416513	9416515
150mm	9416561	9416562	9416563	9416565
200mm	9416521	9416522	9416523	9416525
250mm	9416571	9416572	9416573	9416575

new!

See **page 306** for more information on our new 1.9µm Pinnacle™ DB columns.

HPLC COLUMNS

Pinnacle™ DB Phenyl Columns (USP L11)

Physical Characteristics:

particle range: 5µm, spherical	endcap: yes
pore size: 140Å	pH range: 2.5 to 7.5
carbon load: 5.3%	temperature limit: 80°C



Chromatographic Properties:

Highly base-deactivated spherical silica manufactured by Restek. Pinnacle™ DB Phenyl columns offer alternate selectivity to straight chain hydrocarbon phases, especially for aromatic analytes. Replaces Hypersil® BDS Phenyl and Pinnacle™ Phenyl Amine.

Length	1.0mm ID cat.#	2.1mm ID cat.#	3.2mm ID cat.#	4.6mm ID cat.#
5µm Columns				
30mm	9415531	9415532	9415533	9415535
50mm	9415551	9415552	9415553	9415555
100mm	9415511	9415512	9415513	9415515
150mm	9415561	9415562	9415563	9415565
200mm	9415521	9415522	9415523	9415525
250mm	9415571	9415572	9415573	9415575



Bruce Albright
HPLC Innovations Chemist
5+ years of service!

ordering note

To order a 2.1mm, 3.2mm, or 4.6mm ID column with a Trident Integral Inlet Fitting, add "-700" to the catalog number for the column.

Nominal additional charge

Example: 100mm x 4.6mm ID Ultra C18 column with Trident Integral Inlet Fitting: 9174315-700

Also order an XG-XF fitting (cat.#25026 or 25062), see page 337.

For guard cartridges for these columns, see page 339.

Pinnacle™ DB PFP Propyl and Biphenyl Columns

new! Pinnacle™ DB PFP Propyl Columns (USP L43)

Physical Characteristics:

particle size: 1.9µm, 3µm or 5µm, spherical endcap: yes
pore size: 140Å pH range: 2.5 to 7.5
carbon load: 6% temperature limit: 80°C

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Manufactured
Silica

Application	Page #
Benzodiazepines	527

Chromatographic Properties:

Pinnacle™ DB PFP Propyl is a unique pentafluorophenyl phase with a propyl spacer, and uses a highly base-deactivated spherical silica manufactured by Restek. This highly base-deactivated packing exhibits excellent peak shapes for a wide range of compounds, including nucleosides, nucleotides, and halogenated compounds.

Length	1.0mm ID cat.#	2.1mm ID cat.#	3.2mm ID cat.#	4.6mm ID cat.#
1.9µm Columns				
30mm		9419232		
50mm		9419252		
100mm		9419212		
3µm Columns				
30mm	9419331	9419332	9419333	9419335
50mm	9419351	9419352	9419353	9419355
100mm	9419311	9419312	9419313	9419315
150mm	9419361	9419362	9419363	9419365
5µm Columns				
30mm	9419531	9419532	9419533	9419535
50mm	9419551	9419552	9419553	9419555
100mm	9419511	9419512	9419513	9419515
150mm	9419561	9419562	9419563	9419565
200mm	9419521	9419522	9419523	9419525
250mm	9419571	9419572	9419573	9419575

for more info

See page 306 for more information on our new 1.9µm Pinnacle™ DB columns.

HPLC COLUMNS

new! Pinnacle™ DB Biphenyl Columns (USP L11)

Physical Characteristics:

particle size: 1.9µm, 3µm or 5µm, spherical endcap: yes
pore size: 140Å pH range: 2.5 to 7.5
carbon load: 8% temperature limit: 80°C

Restek
Manufactured
Silica

Application	Page #
Steroids	555

Chromatographic Properties:

Pinnacle™ DB Biphenyl is a unique reversed phase material that displays both increased retention and selectivity for aromatic and/or unsaturated compounds when compared to conventional alkyl and phenyl phases. Highly base-deactivated spherical silica manufactured by Restek. An excellent choice for the analysis of steroids, tetracyclines, drug metabolites, and other compounds that contain some degree of unsaturation.

Length	1.0mm ID cat.#	2.1mm ID cat.#	3.2mm ID cat.#	4.6mm ID cat.#
1.9µm Columns				
30mm		9409232		
50mm		9409252		
100mm		9409212		
3µm Columns				
30mm	9409331	9409332	9409333	9409335
50mm	9409351	9409352	9409353	9409355
100mm	9409311	9409312	9409313	9409315
150mm	9409361	9409362	9409363	9409365
5µm Columns				
30mm	9409531	9409532	9409533	9409535
50mm	9409551	9409552	9409553	9409555
100mm	9409511	9409512	9409513	9409515
150mm	9409561	9409562	9409563	9409565
200mm	9409521	9409522	9409523	9409525
250mm	9409571	9409572	9409573	9409575



Cathy Hetrick
Northwest States Sales
Representative
3+ years of service!

Pinnacle™ DB Aqueous C18 Columns (USP L1)

Physical Characteristics:

particle size: 1.9µm, 3µm or 5µm, spherical
 pore size: 140Å
 carbon load: 6%

pH range: 2.5 to 7.5
 temperature limit: 80°C


new!

Chromatographic Properties:

Highly selective phase for polar analytes. Compatible with highly aqueous (up to 100%) mobile phases. Silica manufactured by Restek.

Length	1.0mm ID cat.#	2.1mm ID cat.#	3.2mm ID cat.#	4.6mm ID cat.#
1.9µm Columns				
30mm		9418232		
50mm		9418252		
100mm		9418212		
3µm Columns				
30mm	9418331	9418332	9418333	9418335
50mm	9418351	9418352	9418353	9418355
100mm	9418311	9418312	9418313	9418315
150mm	9418361	9418362	9418363	9418365
5µm Columns				
30mm	9418531	9418532	9418533	9418535
50mm	9418551	9418552	9418553	9418555
100mm	9418511	9418512	9418513	9418515
150mm	9418561	9418562	9418563	9418565
200mm	9418521	9418522	9418523	9418525
250mm	9418571	9418572	9418573	9418575

 for **more info**

See **page 306** for more information on our new 1.9µm Pinnacle™ DB columns.

HPLC COLUMNS

Pinnacle™ DB Silica Columns (USP L3)

Physical Characteristics:

particle size: 1.9µm, 3µm, or 5µm, spherical
 pore size: 140Å
 carbon load: none

endcap: no
 pH range: 2.5 to 10
 temperature limit: 80°C



Chromatographic Properties:

Highly base-deactivated spherical silica manufactured by Restek. Useful for normal phase separations. Replaces Hypersil® BDS and Pinnacle™ Amine.

Length	1.0mm ID cat.#	2.1mm ID cat.#	3.2mm ID cat.#	4.6mm ID cat.#
1.9µm Columns				
30mm		9410232		
50mm		9410252		
100mm		9410212		
3µm Columns				
30mm	9410331	9410332	9410333	9410335
50mm	9410351	9410352	9410353	9410355
100mm	9410311	9410312	9410313	9410315
150mm	9410361	9410362	9410363	9410365
5µm Columns				
30mm	9410531	9410532	9410533	9410535
50mm	9410551	9410552	9410553	9410555
100mm	9410511	9410512	9410513	9410515
150mm	9410561	9410562	9410563	9410565
200mm	9410521	9410522	9410523	9410525
250mm	9410571	9410572	9410573	9410575

new!

1.9µm and 3µm Pinnacle™ DB Silica columns now available.

ordering note

To order a 2.1mm, 3.2mm, or 4.6mm ID column with a Trident Integral Inlet Fitting, add "700" to the catalog number for the column.

Nominal additional charge

Example: 100mm x 4.6mm ID Ultra C18 column with Trident Integral Inlet Fitting: 9174315-700

Also order an XG-XF fitting (cat.#25026 or 25062), see page 337.

For guard cartridges for these columns, see page 339.

