

Develosil HB Series

The HB Series comes up from Develosil. The conventional and properties of matter, performance just improves through-put.

1. Specifications

New filling method	The HB series adopts a different filling method so far. As a result, HB was close packed and obtained a method to fill.
Particle diameter 3um	The HB series was adopted particle diameter 3um. Therefore it is not necessary to build a special system.
High pressure tightness	In HB series, the biggest pressure is 50MPa. It is usually 20MPa.
Shortening of the analysis time	The HB series is designed for high-throughput and handle many samples in a short time.

2. Characteristic of the HB series

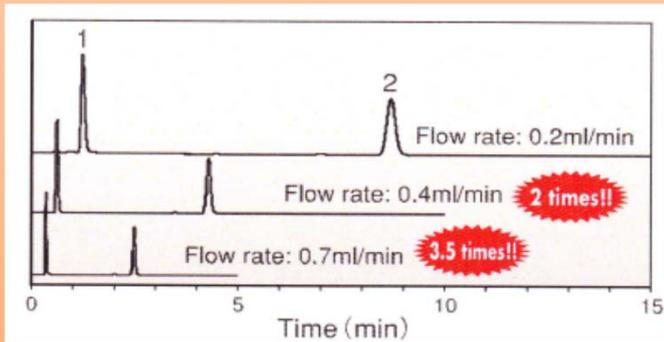


Fig.1 Example of becoming it high throughput

Conditions	
Column	Develosil HB C30-UG-3
Size	2.0x 100mm
Mobile Phase	Acetonitrile / Water = 50/ 50
Flow rate	0.2 ml / min ~ 0.7 ml / min
Temperature	40°C
Sample	1. Uracil (0.55 mg/ml) 2. Naphthalene (0.10 mg/ml)
Injection volume	0.4 uL

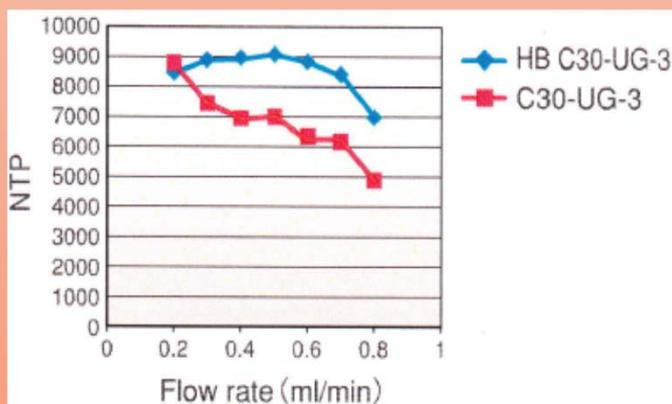


Fig.2 It is compared the number of NTP in becoming it high throughput

Conditions	
Column	Develosil HB C30-UG-3 (—) 2.0x 100mm Develosil C30-UG-3 (---) 2.0x 100mm
Mobile Phase	Acetonitrile / Water = 50/ 50
Flow rate	0.2 ml / min ~ 1.0 ml / min
Temperature	40°C
Sample	1. Uracil (0.55 mg/ml) 2. Naphthalene (0.10 mg/ml)
Injection volume	0.4 uL

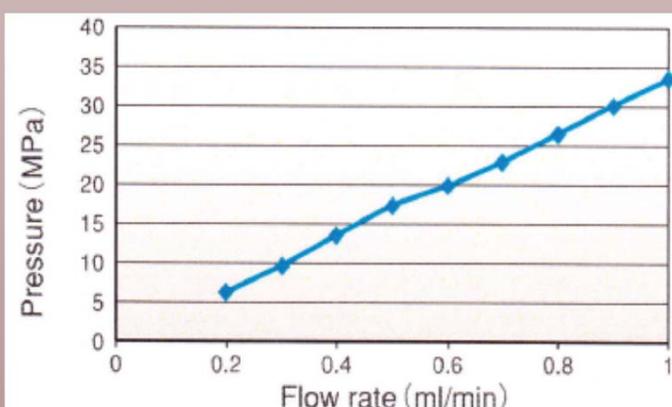
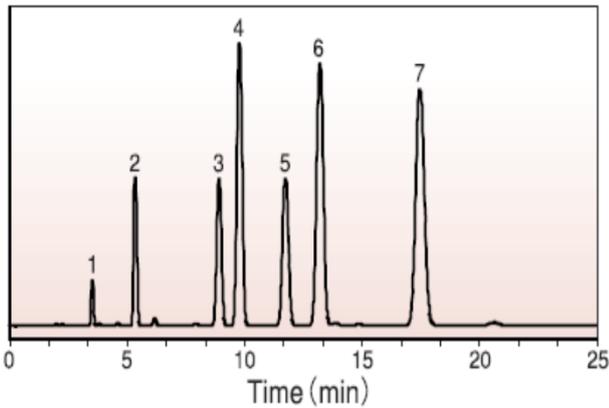


Fig.3 Relations of speed and pressure

The series adopts a new filling method for high Through-put. In this way, the HB series secures separation and NTP unlike the case that speed improves a normal column. (Fig.2) In addition, the HB series is superior in pressure tightness so that, Fig.3 shows it. This series assumes the upper limit 35MPa, but this range can support by a normal system enough.

3. Is not through-put precocious including becoming it?

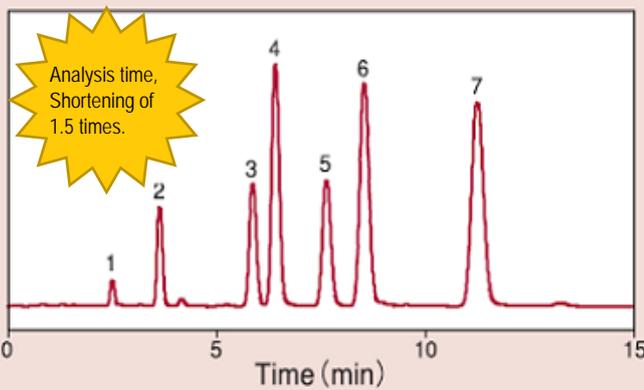
Example: Analysis of polycyclic aromatic compounds



Conditions	
Column	Develosil ODS-5 (4.6x150mm)
Mobile Phase	Acetonitrile / Water = 70/ 30
Flow rate	1. 0 ml / min
Temperature	30°C
Sample	1. Benzene 2. Naphthalene 3. Phenanthrene 4. Anthracene 5. Fluoranthene 6. Pyrene 7. Chrysene
Injection volume	1.0 uL

Analysis using particle diameter 5um, 4.6x150mm.
Let's become through-put using HB series from here.

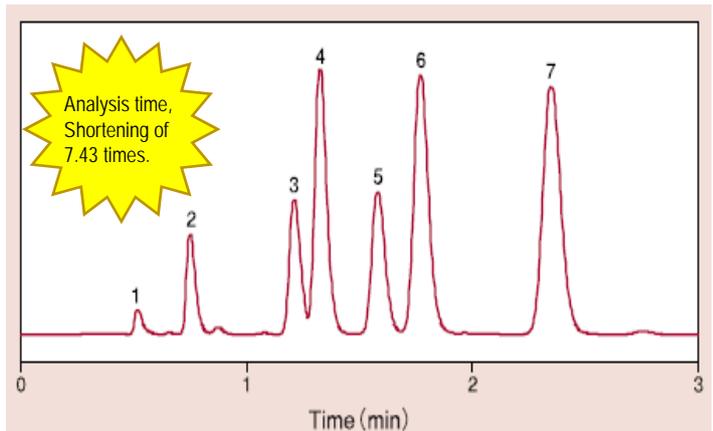
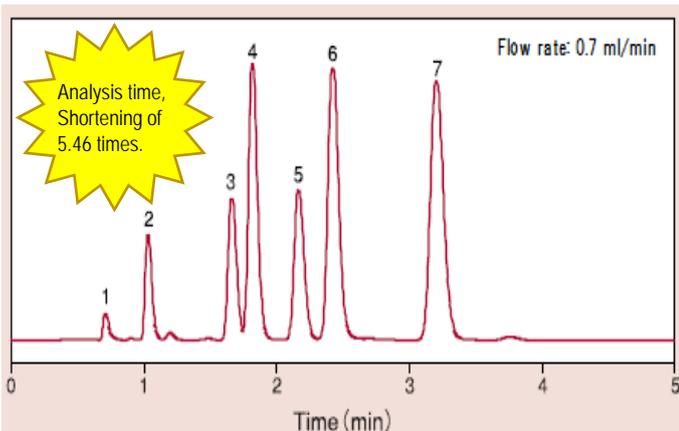
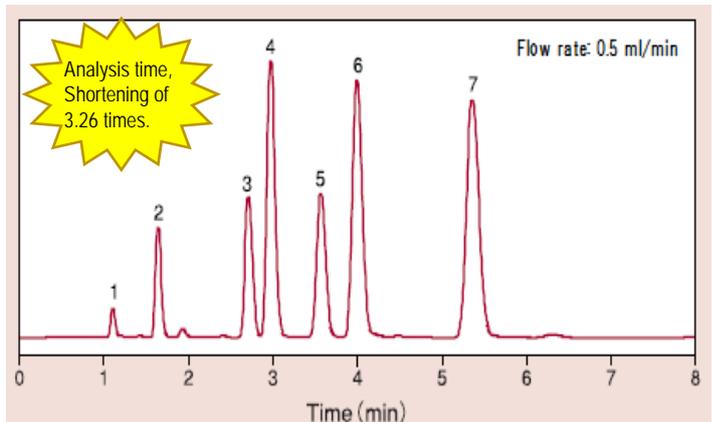
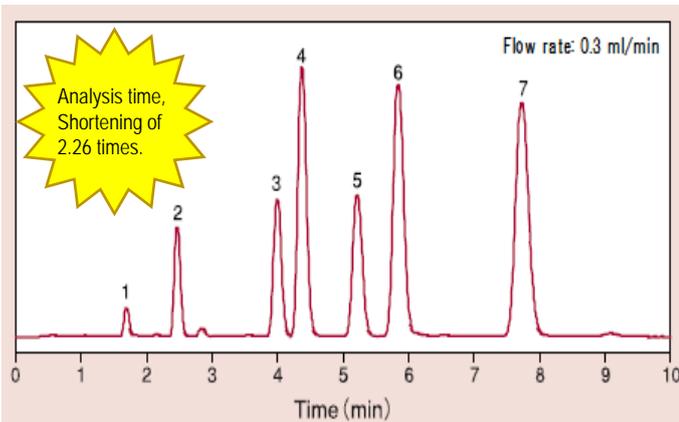
STEP1 Let's shift to particle diameter 3um.



Conditions	
Column	Develosil HB ODS-3 (2.0x100mm)
Mobile Phase	Acetonitrile / Water = 70/ 30
Flow rate	0.2 ml / min
Temperature	30°C
Sample	1. Benzene 2. Naphthalene 3. Phenanthrene 4. Anthracene 5. Fluoranthene 6. Pyrene 7. Chrysene
Injection volume	1.0 uL

The column changes it to HB ODS-3. The length chooses 100mm to get the same selectivity. The HB series is Maine from here!!

STEP2 Let's increase speed.



4. Attention for through-put

All the data in this catalogue use general-purpose HPLC, but work as a laborer not to spoil performance.

Use the flow cells of the semi-micro type

Use the tubing of inside diameter: 0.15mm, length: 500mm in front and behind column

Use a connector with the pressure tightness for a connection part

Flow cell and Tube are used to suppress the dead volume as much as possible. The extremely thin tubes cause unexpected upwar.

5. Price List

All the HB series becomes the setting only for 2.0mm inside diameter.
The filler except the above has the handling. Please refer willingly.

All the column connection types become the setting only for Waters types.

HB ODS-UG-3

Column size (i.d. x length)	Particle size (um)	Pack	Part number	Price (yen)
2.0x35mm	3	1	HBUG113200351	50,000
		4	HBUG113200354	180,000
2.0x50mm		1	HBUG113200501	50,000
		4	HBUG113200504	180,000
2.0x75mm		1	HBUG113200751	61,000
		3	HBUG113200753	170,000
2.0x100mm		1	HBUG113201001	61,000
		3	HBUG113201003	170,000
2.0x150mm	1	HBUG113201501	65,000	
	3	HBUG113201503	180,000	

HB ODS-HG-3

Column size (i.d. x length)	Particle size (um)	Pack	Part number	Price (yen)
2.0x35mm	3	1	HBHG113200351	50,000
		4	HBHG113200354	180,000
2.0x50mm		1	HBHG113200501	50,000
		4	HBHG113200504	180,000
2.0x75mm		1	HBHG113200751	61,000
		3	HBHG113200753	170,000
2.0x100mm		1	HBHG113201001	61,000
		3	HBHG113201003	170,000
2.0x150mm	1	HBHG113201501	65,000	
	3	HBHG113201503	180,000	

HB ODS-MG-3

Column size (i.d. x length)	Particle size (um)	Pack	Part number	Price (yen)
2.0x35mm	3	1	178-3200351	50,000
		4	178-3200354	180,000
2.0x50mm		1	178-3200501	50,000
		4	178-3200504	180,000
2.0x75mm		1	178-3200751	61,000
		3	178-3200753	170,000
2.0x100mm		1	178-3201001	61,000
		3	178-3201003	170,000
2.0x150mm	1	178-3201501	65,000	
	3	178-3201503	180,000	

HB C30-UG-3

Column size (i.d. x length)	Particle size (um)	Pack	Part number	Price (yen)
2.0x35mm	3	1	HBUG173200351	50,000
		4	HBUG173200354	180,000
2.0x50mm		1	HBUG173200501	50,000
		4	HBUG173200504	180,000
2.0x75mm		1	HBUG173200751	61,000
		3	HBUG173200753	170,000
2.0x100mm		1	HBUG173201001	61,000
		3	HBUG173201003	170,000
2.0x150mm	1	HBUG173201501	65,000	
	3	HBUG173201503	180,000	

HB XG-C18M-3

Column size (i.d. x length)	Particle size (um)	Pack	Part number	Price (yen)
2.0x35mm	3	1	HBXG13200351	50,000
		4	HBXG13200354	180,000
2.0x50mm		1	HBXG13200501	50,000
		4	HBXG13200504	180,000
2.0x75mm		1	HBXG13200751	61,000
		3	HBXG13200753	170,000
2.0x100mm		1	HBXG13201001	61,000
		3	HBXG13201003	170,000
2.0x150mm	1	HBXG13201501	65,000	
	3	HBXG13201503	180,000	

HB XG-C30M-3

Column size (i.d. x length)	Particle size (um)	Pack	Part number	Price (yen)
2.0x35mm	3	1	HBUG73200351	50,000
		4	HBUG73200354	180,000
2.0x50mm		1	HBUG73200501	50,000
		4	HBUG73200504	180,000
2.0x75mm		1	HBUG73200751	61,000
		3	HBUG73200753	170,000
2.0x100mm		1	HBUG73201001	61,000
		3	HBUG73201003	170,000
2.0x150mm	1	HBUG73201501	65,000	
	3	HBUG73201503	180,000	

HB XG-C18LC-3

Column size (i.d. x length)	Particle size (um)	Pack	Part number	Price (yen)
2.0x35mm	3	1	177-3200351	50,000
		4	177-3200354	180,000
2.0x50mm		1	177-3200501	50,000
		4	177-3200504	180,000
2.0x75mm		1	177-3200751	61,000
		3	177-3200753	170,000
2.0x100mm		1	177-3201001	61,000
		3	177-3201003	170,000
2.0x150mm	1	177-3201501	65,000	
	3	177-3201503	180,000	

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