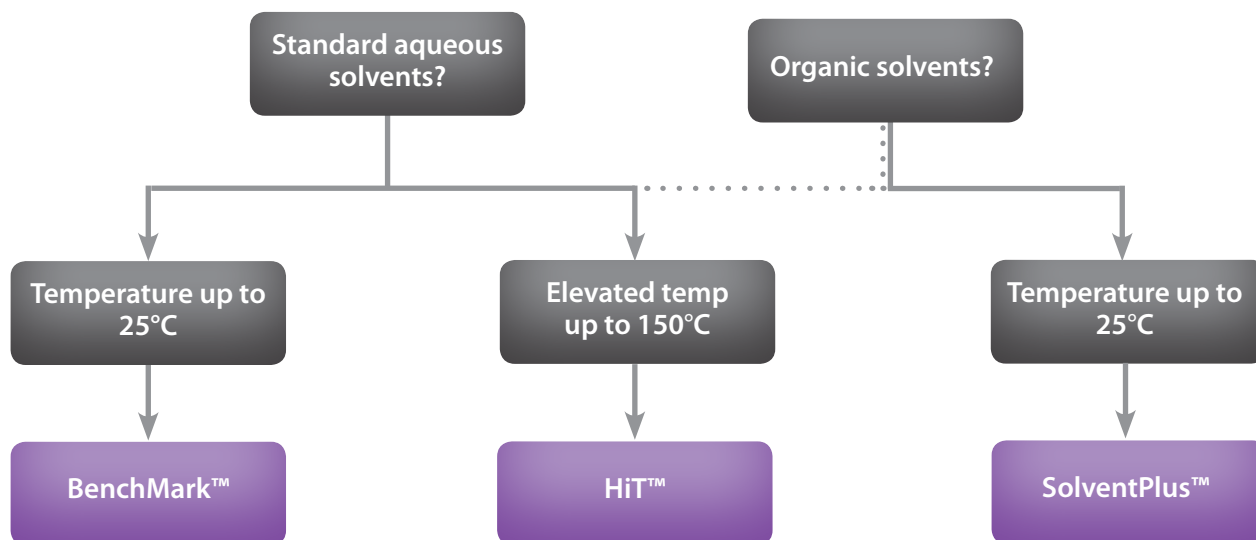


# Chromatography Columns

## LC Columns Selection Guide

Omnifit Labware columns offer the maximum performance for low to mid pressure liquid chromatography or flow chemistry applications. Simple to assemble, pack and operate, our columns are available in a variety of sizes and three ranges offering the highest pressure ratings, chemical compatibilities and temperature ratings on the market.

Use the selection guide below to determine the best range for your application.



BenchMark™ columns are designed to suit the majority of standard laboratory chromatography applications. They are ideal for aqueous systems and compatible with solvents used in common liquid chromatography applications such as protein purification.

- Economical modular columns for low pressure or gravity feed, providing even distribution of eluent to the medium bed, with or without flow adapters.
- Available in seven diameters and a variety of lengths.
- Compatible with a variety of bulk media.

BenchMark™ ordering information  
pages 16-18

HiT™ columns are designed for use at elevated temperature. Borosilicate glass and PEEK™ construction gives stability at temperatures up to 150°C. Ideal for use as reactor columns for flow chemistry applications as well as chromatographic separations.

- Durable, high-performance columns for reliable and reproducible performance at elevated temperature.
- Available in three diameters and two lengths.

HiT™ ordering information on page 19

SolventPlus™ columns are designed for maximum chemical compatibility. Borosilicate glass and PTFE construction, with Chemraz® O-rings and PTFE frits, only the most inert materials are present in the fluid path. ETFE end caps and fitting nuts ensure a chemically inert connection into and out of the system.

- Designed for techniques using organic solvents such as reversed phase chromatography, but equally compatible with aqueous solvent systems.
- Available in six diameters and a variety of lengths.

SolventPlus™ ordering information  
pages 20-21

	BenchMark™	HiT™	SolventPlus™
Operating temp.	4-25°C	4-150°C	4-25°C
pH stability	1-14	1-14	1-14
Chemical stability	Resistant to aqueous solutions and most solvents used in liquid chromatography. Not resistant to acetone, ketones, chlorinated hydrocarbons, aliphatic esters, phenol, > 10% NaOH, > 10% HCl, > 5% acetic acid, or strong mineral acid.	Resistant to aqueous solutions and most solvents used in liquid chromatography and flow chemistry. Not resistant to acetone, ketones, chlorinated hydrocarbons, aliphatic esters, phenol, > 10% NaOH, > 10% HCl, > 5% acetic acid, or strong mineral acid.	Resistant to aqueous solutions and most solvents used in standard and reverse phase chromatography including toluene, DMSO, pyridine, formamide, dimethyl formamide, ethylene dichloride, and chloroform.

## Configurations

All Omnifit® Labware complete columns are supplied assembled and ready for use, with tubing and fittings to connect the column into an existing system. Three configurations are available:

- Non-adjustable with two fixed endpieces (-FF), a cost-effective option when height adjustment is not important. Note: 3mm columns are available as -FF configuration only.
- One fixed endpiece as a bed support and one adjustable endpiece (plunger) to adjust the bed height (-AF). The adjustable endpiece is designed to give the user fine control over the movement of the endpiece, minimizing the risk of disturbance to the packed bed and giving 80mm of height adjustment.
- Two adjustable endpieces (-AA) giving maximum flexibility in bed height. With an adjustable endpiece at both ends of the column, the user gains 160mm of adjustment, offering a wide range of bed lengths and volumes.

## Complete columns

All complete Omnifit® Labware columns are supplied ready-assembled in -FF, -AF or -AA configuration. Accessories included are a frit kit comprising spare PE and PTFE frits and a fittings kit comprising two lengths of ready-assembled tube and fittings to enable immediate connection to the column.

## Replacement parts and accessories

All column components are available to buy separately giving the user complete flexibility to replace lost or worn parts, or to utilize columns across a number of applications. This modular approach gives Omnifit® Labware columns an extremely long life and great flexibility in use.

An additional adjustable endpiece enables conversion of an existing fixed column to adjustable, or increased adjustability of an -AF column. Buying a second glass tube of different length, alongside a complete column, would enable the user to mix and match components for a wide range of different applications.

Bed heights & volumes	COLUMN SIZE		-FF		-AF		-AA	
	ID (mm)	Length (cm)	Bed height (cm)	Volume (ml)	Bed height (cm)	Volume (ml)	Bed height (cm)	Volume (ml)
Column assembly 3mm/25mm	3.0	2.5	2.5	0.2	N/A	N/A	N/A	N/A
Column assembly 3mm/50mm	3.0	5.0	5.0	0.4	N/A	N/A	N/A	N/A
Column assembly 3mm/100mm	3.0	10.0	10.0	0.7	N/A	N/A	N/A	N/A
Column assembly 3mm/150mm	3.0	15.0	15.0	1.1	N/A	N/A	N/A	N/A
Column assembly 6.6mm/50mm	6.6	5	2	0.7	0.24 - 2	0.1 - 0.7	0.24 - 2	0.1 - 0.7
Column assembly 6.6mm/100mm	6.6	10	7	2.4	0.24 - 7	0.1 - 2.4	0.24 - 7	0.1 - 2.4
Column assembly 6.6mm/150mm	6.6	15	12	4.1	4 - 12	1.4 - 4.1	0.24 - 12	0.1 - 4.1
Column assembly 6.6mm/250mm	6.6	25	22	7.5	14 - 22	4.8 - 7.5	6 - 22	2.1 - 7.5
Column assembly 6.6mm/400mm	6.6	40	37	12.7	29 - 37	9.9 - 12.7	21 - 37	7.2 - 12.7
Column assembly 10mm/100mm	10	10	7	5.5	0.24 - 7	0.2 - 5.5	0.24 - 7	0.2 - 5.5
Column assembly 10mm/150mm	10	15	12	9.4	4 - 12	3.1 - 9.4	0.24 - 12	0.2 - 9.4
Column assembly 10mm/250mm	10	25	22	17.3	14 - 22	11.0 - 17.3	4 - 22	3.1 - 17.3
Column assembly 10mm/400mm	10	40	37	29.1	29 - 37	22.8 - 29.1	21 - 37	16.5 - 29.1
Column assembly 10mm/500mm	10	50	47	36.9	39 - 47	30.6 - 36.9	31 - 47	24.3 - 36.9
Column assembly 15mm/100mm	15	10	7	12.4	0.24 - 7	0.4 - 12.4	0.24 - 7	0.4 - 12.4
Column assembly 15mm/150mm	15	15	12	21.2	4 - 12	7.1 - 21.2	0.24 - 12	0.4 - 21.2
Column assembly 15mm/250mm	15	25	22	38.9	14 - 22	24.7 - 38.9	6 - 22	10.6 - 38.9
Column assembly 15mm/400mm	15	40	37	65.4	29 - 37	51.2 - 65.4	21 - 37	37.1 - 65.4
Column assembly 15mm/500mm	15	50	47	83.0	39 - 47	68.9 - 83.0	31 - 47	54.8 - 83.0
Column assembly 25mm/100mm	25	10	7	34.4	0.24 - 7	1.2 - 34.4	0.24 - 7	1.2 - 34.4
Column assembly 25mm/150mm	25	15	12	58.9	4 - 12	19.6 - 58.9	0.24 - 12	1.2 - 58.9
Column assembly 25mm/250mm	25	25	22	108.0	14 - 22	68.7 - 108.0	6 - 22	29.4 - 108.0
Column assembly 25mm/400mm	25	40	37	181.6	29 - 37	142.3 - 181.6	21 - 37	103.1 - 181.6
Column assembly 25mm/500mm	25	50	47	230.7	39 - 47	191.4 - 230.7	31 - 47	152.1 - 230.7
Column assembly 35mm/150mm	35	15	12	115.4	4 - 12	38.5 - 115.4	0.24 - 12	2.3 - 115.4
Column assembly 35mm/250mm	35	25	22	211.6	14 - 22	134.7 - 211.6	6 - 22	57.7 - 211.6
Column assembly 35mm/400mm	35	40	37	355.9	29 - 37	279.0 - 355.9	21 - 37	202.0 - 355.9
Column assembly 50mm/250mm	50	25	22	440.6	14 - 22	280.4 - 440.6	6 - 22	120.2 - 440.6
Column assembly 50mm/400mm	50	40	37	741.0	29 - 37	580.7 - 741.0	21 - 37	420.5 - 741.0
Column assembly 50mm/500mm	50	50	47	941.2	39 - 47	781.0 - 941.2	31 - 47	620.8 - 941.2

## BenchMark™

BenchMark™ columns are designed to suit the majority of standard laboratory chromatography applications. They are ideal for aqueous systems and compatible with solvents used in common liquid chromatography applications such as protein purification.

- Economical modular columns for low pressure or gravity feed, providing even distribution of eluent to the medium bed, with or without flow adapters.
- Available in seven diameters and a variety of lengths.
- Compatible with a variety of bulk media.

### Complete columns inventory

When you buy a complete BenchMark™ column, you will receive:

#### Column assembly:

A ready-assembled column of -FF, -AF or -AA configuration, comprising a glass tube of the required dimensions and the 2 endpieces of your choice, pre-assembled with 25µm PE frits.

#### Frit Kit comprising:

- 2 x 30µm PTFE frits
- 2 x 10µm PTFE frits
- 2 x 10µm PE frits

#### Fittings Kit comprising:

- 2m x 1/16" OD PTFE tubing with 1/4-28 UNF fitting (PP) at one end
- 0.5m x 1/16" OD PTFE tubing with 1/4-28 UNF fitting (PP) at one end

### Technical specifications

#### Operating parameters:

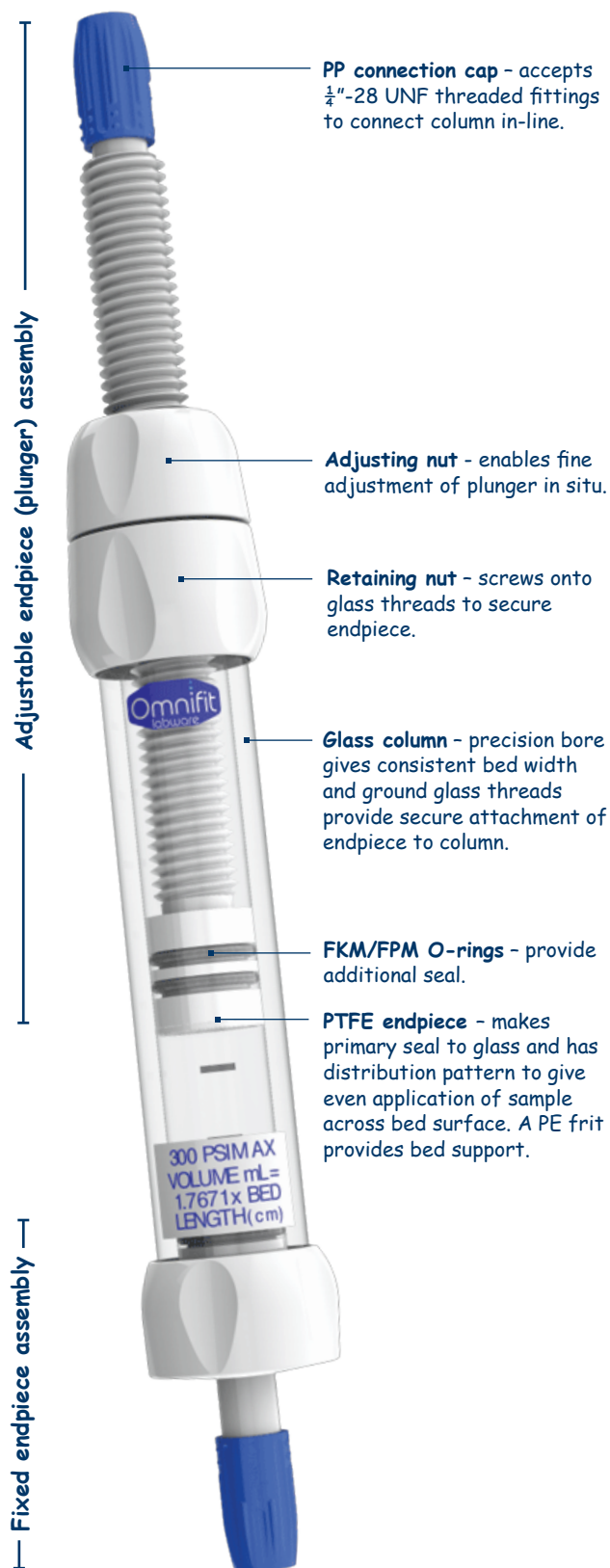
Operating temperature:	4-20°C
pH stability:	1-14
Chemical stability:	Resistant to aqueous solutions and most solvents used in liquid chromatography. Not resistant to acetone, ketones, chlorinated hydrocarbons, aliphatic esters, phenol, > 10% NaOH, > 10% HCl, > 5% acetic acid, or strong mineral acid.

#### Materials:

Glass column	Borosilicate glass
Endpiece	PTFE
Frit (bed support)	PE
O-ring	FKM/FPM
Adjusting nut	Acetal
Retaining cap	Acetal
Connection cap	Glass-filled PP
Fitting nuts	Glass-filled PP

#### Operating pressures:

6.6mm	900 psi (60 bar)
10mm	600 psi (40 bar)
15mm	300 psi (20 bar)
25mm	150 psi (10 bar)
35mm	
50mm	100 psi (6.7 bar)



## Ordering information

COMPLETE COLUMN WITH 2 x FIXED ENDPieces						
LENGTH / BORE	6.6MM	10MM	15MM	25MM	35MM	50MM
50mm	006BCC-06-05-FF					
100mm	006BCC-06-10-FF	006BCC-10-10-FF	006BCC-15-10-FF	006BCC-25-10-FF		
150mm	006BCC-06-15-FF	006BCC-10-15-FF	006BCC-15-15-FF	006BCC-25-15-FF	006BCC-35-15-FF	
250mm	006BCC-06-25-FF	006BCC-10-25-FF	006BCC-15-25-FF	006BCC-25-25-FF	006BCC-35-25-FF	006BCC-50-25-FF
400mm	006BCC-06-40-FF	006BCC-10-40-FF	006BCC-15-40-FF	006BCC-25-40-FF	006BCC-35-40-FF	006BCC-50-40-FF
500mm		006BCC-10-50-FF	006BCC-15-50-FF	006BCC-25-50-FF		006BCC-50-50-FF
COMPLETE COLUMN WITH 1 x ADJUSTABLE & 1 x FIXED ENDPiece						
50mm	006BCC-06-05-AF					
100mm	006BCC-06-10-AF	006BCC-10-10-AF	006BCC-15-10-AF	006BCC-25-10-AF		
150mm	006BCC-06-15-AF	006BCC-10-15-AF	006BCC-15-15-AF	006BCC-25-15-AF	006BCC-35-15-AF	
250mm	006BCC-06-25-AF	006BCC-10-25-AF	006BCC-15-25-AF	006BCC-25-25-AF	006BCC-35-25-AF	006BCC-50-25-AF
400mm	006BCC-06-40-AF	006BCC-10-40-AF	006BCC-15-40-AF	006BCC-25-40-AF	006BCC-35-40-AF	006BCC-50-40-AF
500mm		006BCC-10-50-AF	006BCC-15-50-AF	006BCC-25-50-AF		006BCC-50-50-AF
COMPLETE COLUMN WITH 2 x ADJUSTABLE ENDPieces						
50mm	006BCC-06-05-AA					
100mm	006BCC-06-10-AA	006BCC-10-10-AA	006BCC-15-10-AA	006BCC-25-10-AA		
150mm	006BCC-06-15-AA	006BCC-10-15-AA	006BCC-15-15-AA	006BCC-25-15-AA	006BCC-35-15-AA	
250mm	006BCC-06-25-AA	006BCC-10-25-AA	006BCC-15-25-AA	006BCC-25-25-AA	006BCC-35-25-AA	006BCC-50-25-AA
400mm	006BCC-06-40-AA	006BCC-10-40-AA	006BCC-15-40-AA	006BCC-25-40-AA	006BCC-35-40-AA	006BCC-50-40-AA
500mm		006BCC-10-50-AA	006BCC-15-50-AA	006BCC-25-50-AA		006BCC-50-50-AA
REPLACEMENT ENDPieces						
Adjustable	006BAE-06	006BAE-10	006BAE-15	006BAE-25	006BAE-35	006BAE-50
Fixed	006BFE-06	006BFE-10	006BFE-15	006BFE-25	006BFE-35	006BFE-50
REPLACEMENT FRITS, PTFE						
POROSITY / BORE	6.6MM	10MM	15MM	25MM	35MM	50MM
5µm	006FR-06-05	006FR-10-05	006FR-15-05	006FR-25-05	006FR-35-05	006FR-50-05
10µm	006FR-06-10	006FR-10-10	006FR-15-10	006FR-25-10	006FR-35-10	006FR-50-10
20µm	006FR-06-20	006FR-10-20	006FR-15-20	006FR-25-20	006FR-35-20	006FR-50-20
30µm	006FR-06-30	006FR-10-30	006FR-15-30	006FR-25-30	006FR-35-30	006FR-50-30
50µm	006FR-06-50	006FR-10-50	006FR-15-50	006FR-25-50	006FR-35-50	006FR-50-50
REPLACEMENT FRITS, PE						
25µm	006FR-06-25-PE	006FR-10-25-PE	006FR-15-25-PE	006FR-25-25-PE	006FR-35-25-PE	006FR-50-25-PE
REPLACEMENT O-RINGS						
FKM/FPM (PK 10)	006OR-06-V	006OR-10-V	006OR-15-V	006OR-25-V	006OR-35-V	006OR-50-V

For replacement glass tubes see page 22

## BenchMark™ Microbore

BenchMark™ Microbore columns are designed for applications requiring the smallest bed volumes. They are ideal for aqueous systems and compatible with solvents used in common liquid chromatography applications such as protein purification.

- Economical, non-adjustable columns for low pressure or gravity feed.
- 3mm diameter and a variety of lengths.
- Compatible with a variety of bulk media.

### Complete columns inventory

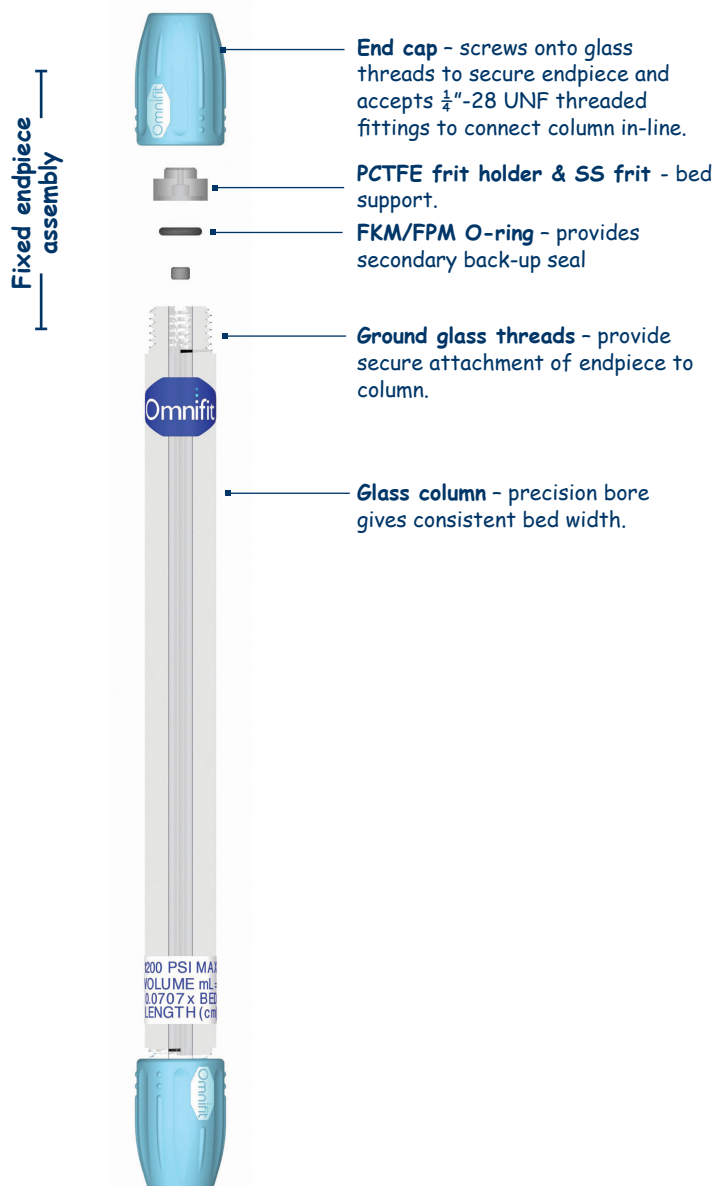
When you buy a complete BenchMark™ Microbore column, you will receive:

#### Column assembly:

A ready-assembled column comprising a glass tube of the required length and two fixed endpieces pre-assembled with 2µm SS frits.

#### Fittings Kit comprising:

- 2m x 1/16" OD PTFE tubing with 1/4-28 UNF fitting (PP) at one end
- 0.5m x 1/16" OD PTFE tubing with 1/4-28 UNF fitting (PP) at one end



## Technical specifications

### Operating parameters:

Operating temperature: 4-20°C

pH stability: 1-14

Chemical stability: Resistant to aqueous solutions and most solvents used in liquid chromatography. Not resistant to acetone, ketones, chlorinated hydrocarbons, aliphatic esters, phenol, > 10% NaOH, > 10% HCl, > 5% acetic acid, or strong mineral acid.

### Materials:

Glass column Borosilicate glass

Endpiece PCTFE

Frit (bed support) PCTFE & SS

O-ring FKM/FPM

Connection cap Glass-filled PP

Fitting nuts Glass-filled PP

### Operating pressures:

1200 psi (80 bar)

## Ordering information

### COMPLETE COLUMN WITH 2 x FIXED ENDPICES

DESCRIPTION	PART #
Column assembly 3mm/25mm 2xF	006BCC-03-02-FF
Column assembly 3mm/50mm 2xF	006BCC-03-05-FF
Column assembly 3mm/100mm 2xF	006BCC-03-10-FF
Column assembly 3mm/150mm 2xF	006BCC-03-15-FF

### REPLACEMENT ENDPICES

Complete 3mm endpiece with 5µm PTFE frit	006BFE-03-05
Complete 3mm endpiece with 10µm PTFE frit	006BFE-03-10
Complete 3mm endpiece with 20µm PTFE frit	006BFE-03-20
Complete 3mm endpiece with 30µm PTFE frit	006BFE-03-30
Complete 3mm endpiece with 50µm PTFE frit	006BFE-03-50
Complete 3mm endpiece with 25µm PE frit	006BFE-03-PE
Complete 3mm end piece with 2µm SS frit	006BFE-03-SS

### REPLACEMENT GLASS

Replacement glass column 3mm/25mm	006RG-03-02
Replacement glass column 3mm/50mm	006RG-03-05
Replacement glass column 3mm/100mm	006RG-03-10
Replacement glass column 3mm/150mm	006RG-03-15

### ACCESSORIES

FKM/FPM O-rings for 3mm columns (PK 10)	006OR-03-V
Column packing sleeve 3mm column	006PS-03

## HiT™

HiT™ columns are designed for use at elevated temperature. Borosilicate glass and PEEK™ construction gives stability at temperatures up to 150°C. Ideal for use as reactor columns for flow chemistry applications as well as chromatographic separations.

- Durable, high-performance columns for reliable and reproducible performance at elevated temperature.

### Complete columns inventory

When you buy a complete HiT™ column, you will receive:

#### Column assembly:

A ready-assembled column of -FF, -AF or -AA configuration, comprising a glass tube of the required dimensions and the two endpieces of your choice pre-assembled with 30µm PTFE frits.

#### Frit Kit comprising:

- 2 x 30µm PTFE frits
- 2 x 10µm PTFE frits
- 2 x 10µm PE frits

#### Fittings Kit comprising:

- 2m x 1/16" OD PTFE tubing with 1/4-28 UNF fitting (ETFE) at one end
- 0.5m x 1/16" OD PTFE tubing with 1/4-28 UNF fitting (ETFE) at one end.

## Technical specifications

### Operating parameters:

Operating temperature: 4-150°C

pH stability: 1-14

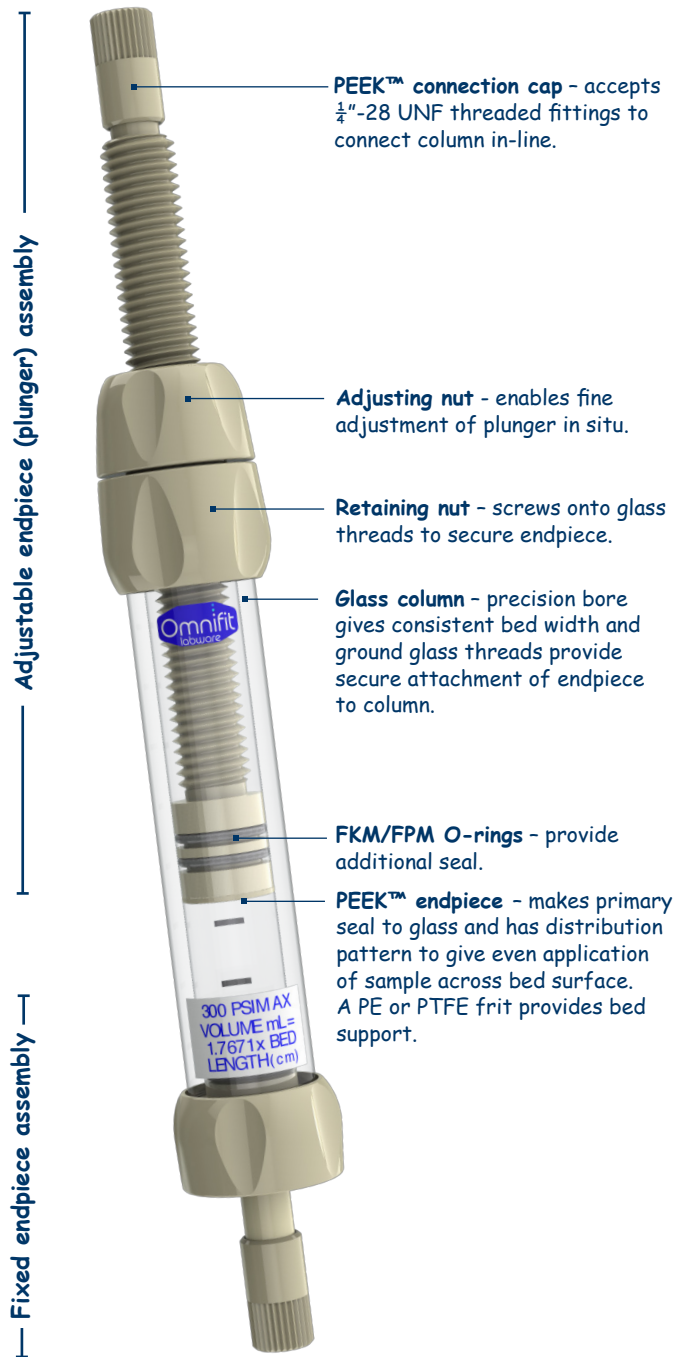
Chemical stability: Resistant to aqueous solutions and most solvents used in liquid chromatography and flow chemistry. Not resistant to acetone, ketones, chlorinated hydrocarbons, aliphatic esters, phenol, > 10% NaOH, > 10% HCl, > 5% acetic acid, or strong mineral acid.

### Materials:

Glass column	Borosilicate glass
Endpiece	PEEK™
Frit (bed support)	PE or PTFE
O-ring	FKM/FPM
Adjusting nut	PEEK™
Retaining cap	PEEK™
Connection cap	PEEK™
Fitting nuts	ETFE

### Operating pressures:

6.6mm	900 psi (60 bar)
10mm	600 psi (40 bar)
15mm	300 psi (20 bar)



Adjustable endpiece (plunger) assembly

Fixed endpiece assembly

PEEK™ connection cap - accepts 1/4"-28 UNF threaded fittings to connect column in-line.

Adjusting nut - enables fine adjustment of plunger in situ.

Retaining nut - screws onto glass threads to secure endpiece.

Glass column - precision bore gives consistent bed width and ground glass threads provide secure attachment of endpiece to column.

FKM/FPM O-rings - provide additional seal.

PEEK™ endpiece - makes primary seal to glass and has distribution pattern to give even application of sample across bed surface. A PE or PTFE frit provides bed support.

## Ordering information

COMPLETE COLUMN; 1 x FIXED; 1 x ADJUSTABLE ENDPIECE			
LENGTH / BORE	6.6MM	10MM	15MM
100mm	006HCC-06-10-AF	006HCC-10-10-AF	006HCC-15-10-AF
150mm	006HCC-06-15-AF	006HCC-10-15-AF	006HCC-15-15-AF
REPLACEMENT ENDPIECES			
Adjustable	006HAE-06	006HAE-10	006HAE-15
Fixed	006HFE-06	006HFE-10	006HFE-15
REPLACEMENT O-RINGS			
FKM/FPM (PK 10)	006OR-06-V	006OR-10-V	006OR-15-V

For replacement glass tubes, frits & O-rings, see page 22

## SolventPlus™

SolventPlus™ columns are designed for maximum chemical compatibility. Borosilicate glass and PTFE construction, with Chemraz® O-rings and PTFE frits, only the most inert materials are present in the fluid path. ETFE end caps and fitting nuts ensure a chemically inert connection into and out of the system.

- Designed for techniques using organic solvents such as reversed phase chromatography, but equally compatible with aqueous solvent systems.
- Available in six diameters and a variety of lengths.

### Complete columns inventory

When you buy a complete SolventPlus™ column, you will receive:

#### Column assembly:

A ready-assembled column of -FF, -AF or -AA configuration, comprising a glass tube of the required dimensions and the two endpieces of your choice pre-assembled with 30µm PTFE frits.

#### Frit Kit comprising:

- 2 x 30µm PTFE frits
- 2 x 10µm PTFE frits
- 2 x 10µm PE frits

#### Fittings Kit comprising:

- 2m x 1/16" OD PTFE tubing; 1/4-28 UNF fitting (ETFE) at one end
- 0.5m x 1/16" OD PTFE tubing; 1/4-28 UNF fitting (ETFE) at one end

### Technical specifications

#### Operating parameters

Operating temperature: 4-20°C

pH stability: 1-14

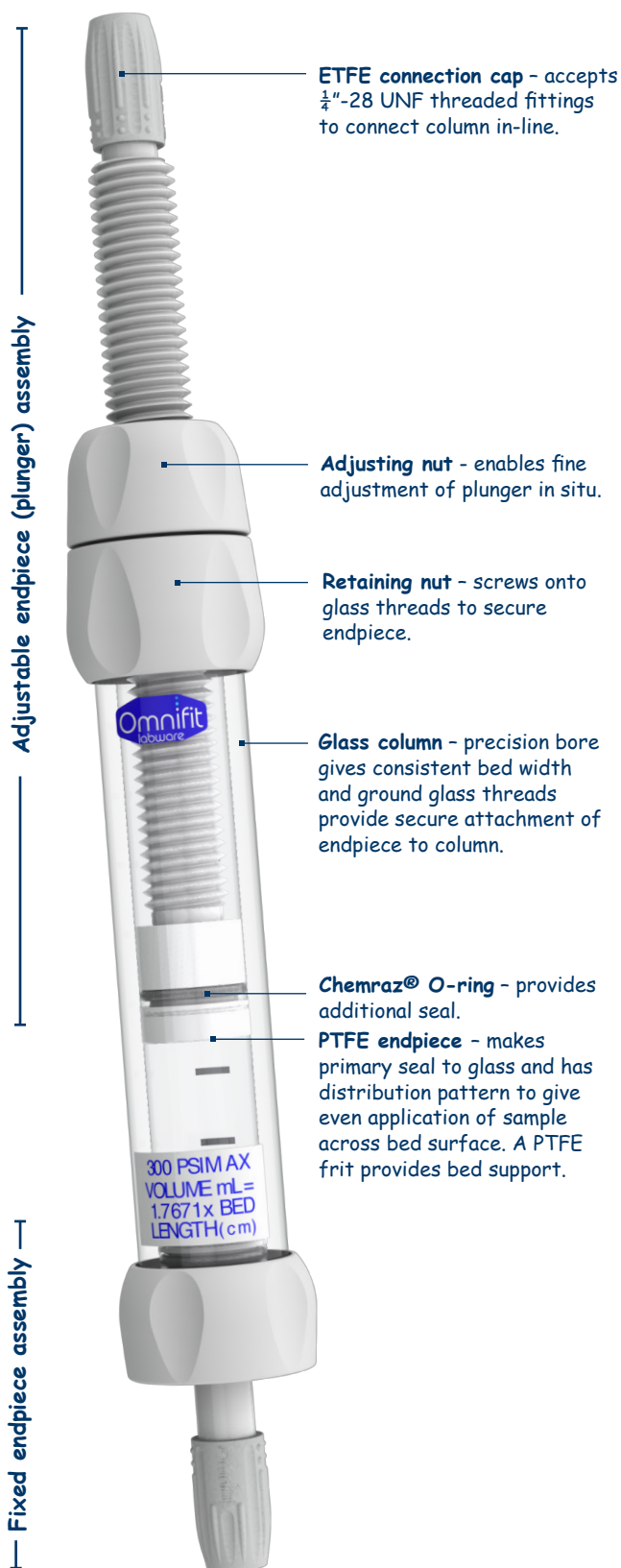
Chemical stability: Resistant to aqueous solutions and most solvents used in standard and reverse phase chromatography including toluene, DMSO, pyridine, formamide, dimethyl formamide, ethylene dichloride, and chloroform.

#### Materials:

Glass column	Borosilicate glass
Endpiece	PTFE
Frit (bed support)	PTFE
O-ring	Chemraz®
Adjusting nut	Acetal
Retaining cap	Acetal
Connection cap	ETFE
Fitting nuts	ETFE

#### Operating pressures:

6.6mm	900 psi (60 bar)
10mm	600 psi (40 bar)
15mm	300 psi (20 bar)
25mm	150 psi (10 bar)
35mm	
50mm	100 psi (6.7 bar)



## Ordering information

## COMPLETE COLUMN WITH 2 x FIXED ENDPieces

LENGTH / BORE	6.6MM	10MM	15MM	25MM	35MM	50MM
50mm	006SCC-06-05-FF					
100mm	006SCC-06-10-FF	006SCC-10-10-FF	006SCC-15-10-FF	006SCC-25-10-FF		
150mm	006SCC-06-15-FF	006SCC-10-15-FF	006SCC-15-15-FF	006SCC-25-15-FF	006SCC-35-15-FF	
250mm	006SCC-06-25-FF	006SCC-10-25-FF	006SCC-15-25-FF	006SCC-25-25-FF	006SCC-35-25-FF	006SCC-50-25-FF
400mm	006SCC-06-40-FF	006SCC-10-40-FF	006SCC-15-40-FF	006SCC-25-40-FF	006SCC-35-40-FF	006SCC-50-40-FF
500mm		006SCC-10-50-FF	006SCC-15-50-FF	006SCC-25-50-FF		006SCC-50-50-FF

## COMPLETE COLUMN WITH 1 x ADJUSTABLE &amp; 1 x FIXED ENDPiece

50mm	006SCC-06-05-AF					
100mm	006SCC-06-10-AF	006SCC-10-10-AF	006SCC-15-10-AF	006SCC-25-10-AF		
150mm	006SCC-06-15-AF	006SCC-10-15-AF	006SCC-15-15-AF	006SCC-25-15-AF	006SCC-35-15-AF	
250mm	006SCC-06-25-AF	006SCC-10-25-AF	006SCC-15-25-AF	006SCC-25-25-AF	006SCC-35-25-AF	006SCC-50-25-AF
400mm	006SCC-06-40-AF	006SCC-10-40-AF	006SCC-15-40-AF	006SCC-25-40-AF	006SCC-35-40-AF	006SCC-50-40-AF
500mm		006SCC-10-50-AF	006SCC-15-50-AF	006SCC-25-50-AF		006SCC-50-50-AF

## COMPLETE COLUMN WITH 2 x ADJUSTABLE ENDPieces

50mm	006SCC-06-05-AA					
100mm	006SCC-06-10-AA	006SCC-10-10-AA	006SCC-15-10-AA	006SCC-25-10-AA		
150mm	006SCC-06-15-AA	006SCC-10-15-AA	006SCC-15-15-AA	006SCC-25-15-AA	006SCC-35-15-AA	
250mm	006SCC-06-25-AA	006SCC-10-25-AA	006SCC-15-25-AA	006SCC-25-25-AA	006SCC-35-25-AA	006SCC-50-25-AA
400mm	006SCC-06-40-AA	006SCC-10-40-AA	006SCC-15-40-AA	006SCC-25-40-AA	006SCC-35-40-AA	006SCC-50-40-AA
500mm		006SCC-10-50-AA	006SCC-15-50-AA	006SCC-25-50-AA		006SCC-50-50-AA

## REPLACEMENT ENDPieces

COLUMN BORE	6.6MM	10MM	15MM	25MM	35MM	50MM
Adjustable	006SAE-06	006SAE-10	006SAE-15	006SAE-25	006SAE-35	006SAE-50
Fixed	006SFE-06	006SFE-10	006SFE-15	006SFE-25	006SFE-35	006SFE-50

## REPLACEMENT FRITS, PTFE

POROSITY / BORE	6.6MM	10MM	15MM	25MM	35MM	50MM
5µm	006FR-06-05	006FR-10-05	006FR-15-05	006FR-25-05	006FR-35-05	006FR-50-05
10µm	006FR-06-10	006FR-10-10	006FR-15-10	006FR-25-10	006FR-35-10	006FR-50-10
20µm	006FR-06-20	006FR-10-20	006FR-15-20	006FR-25-20	006FR-35-20	006FR-50-20
30µm	006FR-06-30	006FR-10-30	006FR-15-30	006FR-25-30	006FR-35-30	006FR-50-30
50µm	006FR-06-50	006FR-10-50	006FR-15-50	006FR-25-50	006FR-35-50	006FR-50-50

## REPLACEMENT O-RINGS

Chemraz® (PK 2)	006OR-06-C	006OR-10-C	006OR-15-C	006OR-25-C	006OR-35-C	006OR-50-C
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For replacement glass columns see page 22



## Universal Replacement Parts

All Omnifit® Labware column components are available to buy separately giving the user complete flexibility to replace lost or worn parts, or to utilize columns across a number of applications. This modular approach gives Omnifit® Labware columns an extremely long life and great flexibility in use.

The glass tubes, frits, o-rings and accessories listed below are compatible with all three column ranges - BenchMark™, SolventPlus™ or HiT™. Simply locate the column size you require to identify the correct part numbers for ordering.

Replacement glass columns are available in a wide range of bore sizes and lengths. This not only enables you to replace a column should breakage occur, but allows you to obtain several different length columns to use with endpieces you already have for that bore size. The modular nature of our column ranges means that for the ultimate flexibility you can mix and match column sizes with different endpiece types to your specific requirements, for example where we do not offer a specific complete column configuration

Replacement frits are available in a range of porosities and in PTFE or PE, enabling you to select the most appropriate bed support for your media and chemistries. Choose the column bore you are using and select the porosity and material combination from the left-hand column.

### Ordering information

REPLACEMENT GLASS COLUMNS						
LENGTH / BORE	6.6MM	10MM	15MM	25MM	35MM	50MM
50mm	006RG-06-05					
100mm	006RG-06-10	006RG-10-10	006RG-15-10	006RG-25-10		
150mm	006RG-06-15	006RG-10-15	006RG-15-15	006RG-25-15	006RG-35-15	
250mm	006RG-06-25	006RG-10-25	006RG-15-25	006RG-25-25	006RG-35-25	006RG-50-25
400mm	006RG-06-40	006RG-10-40	006RG-15-40	006RG-25-40	006RG-35-40	006RG-50-40
500mm		006RG-10-50	006RG-15-50	006RG-25-50		006RG-50-50
REPLACEMENT FRITS, PTFE						
POROSITY / BORE	6.6MM	10MM	15MM	25MM	35MM	50MM
5µm	006FR-06-05	006FR-10-05	006FR-15-05	006FR-25-05	006FR-35-05	006FR-50-05
10µm	006FR-06-10	006FR-10-10	006FR-15-10	006FR-25-10	006FR-35-10	006FR-50-10
20µm	006FR-06-20	006FR-10-20	006FR-15-20	006FR-25-20	006FR-35-20	006FR-50-20
30µm	006FR-06-30	006FR-10-30	006FR-15-30	006FR-25-30	006FR-35-30	006FR-50-30
50µm	006FR-06-50	006FR-10-50	006FR-15-50	006FR-25-50	006FR-35-50	006FR-50-50
REPLACEMENT FRITS, PE						
25µm	006FR-06-25-PE	006FR-10-25-PE	006FR-15-25-PE	006FR-25-25-PE	006FR-35-25-PE	006FR-50-25-PE
REPLACEMENT O-RINGS						
MATERIAL / BORE	6.6MM	10MM	15MM	25MM	35MM	50MM
FKM/FPM (pk 10)	006OR-06-V	006OR-10-V	006OR-15-V	006OR-25-V	006OR-35-V	006OR-50-V
Chemraz® (pk 2)	006OR-06-C	006OR-10-C	006OR-15-C	006OR-25-C	006OR-35-C	006OR-50-C
ACCESSORIES						
COLUMN BORE	6.6MM	10MM	15MM	25MM	35MM	50MM
Packing sleeves	006PS-06	006PS-10	006PS-15	006PS-25	006PS-35	006PS-50
Frit removal tool	←			006090	→	

**NOTE:** Packing sleeves are 2-way threaded connectors designed to join two glass columns together for the purposes of filling and packing. This enables a second glass column to be employed as a filling reservoir positioned above the one to be finally used. Packing sleeves are not designed to be used under operating pressure and so cannot be used join to columns together to create a longer column for experimental use.

Omnifit® Labware: chromatography made easy

## Guidelines for use

Omnifit® Labware columns are supplied assembled and ready for use, with all the tubing, fittings and connections needed to get started, and full instructions for use. The following is a guide to the basic use of the column and is not intended to replace the full instruction manual.

### Cleaning

Endpieces and glass column should be washed before the first use to remove any possible contaminants. Suitable cleaning agents are soapy water or laboratory detergents. Glass columns are also autoclavable.

### Dismantling the column

The column is dismantled by first unscrewing the retaining cap from the ground glass threads on the glass column in order to release the endpiece, which can then be carefully pulled out of the glass tube.

### Assembling the column

The most common format for column chromatography is to use a column with one fixed and one adjustable end piece, in which case it is usual to insert the fixed endpiece first, fill the column and then fit and adjust the adjustable endpiece (plunger). The following guidelines are for an -AF configuration, but can be easily applied to other configurations.

First fit the fixed end piece which will act as the bed support. The threads on both the glass column and the retaining cap must be free from debris in order to prevent possible damage to threads. Wet the O-rings using the mobile phase or other suitable solvent. Carefully position the endpiece into the end of the column and slowly push the endpiece into the column until a stop is felt. Always keep the endpiece in line with the column; do not insert at an angle or apply an angled pressure, as this may damage the seal or the glass threads. Once in place, the retaining cap can be screwed onto the ground glass threads to fix it in place.

### Filling and packing the column

The column can now be filled and packed with the chosen medium, using appropriate methods. Because of the diversity of chromatographic media on the market and the variety of methods and applications used, we recommend that media preparation and column packing is carried out as directed by the media manufacturer.

The glass column has graduations printed on the external surface which are intended to help the user fill the column to a specific bed height. The distance between each graduation is 10mm. Also printed on the column is a pressure and volume label. The equation on the label allows simple calculation of the bed volume when used in conjunction with the graduations. The graduation marks are provided as a guide only.

### Fitting and adjusting the adjustable endpiece

The adjusting mechanism allows the endpiece to be set in position in the chromatographic tube to give a variety of bed lengths and enables the endpiece to be finely adjusted to sit on the surface of the packed bed with minimum disturbance to the medium.

First ensure the threads on both the glass and retaining cap are free from debris. Close the column outlet (not part of column kit) to ensure that the column does not run dry. Adjust the level of liquid in the column such that 1-2 cm of liquid is above the level of the bed.

Screw the adjusting nut and retaining nut until along the endpiece until they are positioned such that the frit will sit close to the bed surface when in place within the column. Wet the O-rings using the mobile phase or other suitable solvent. Carefully position the endpiece into the end of the column and slowly push the endpiece into the column until a stop is felt. Always keep the endpiece in line with the column; do not insert at an angle or apply an angled pressure, as this may damage the seal or the glass threads. Ensure no air is trapped below the frit. Once in place, the retaining cap can be screwed onto the ground glass threads to fix it in place, ensuring that the retaining nut is not over-tightened. Holding the retaining nut, slowly turn the adjusting nut clockwise to move the plunger to the desired position in the tube.

### Connecting tubing to the column

Omni-Lok™ fittings enable quick connection and disconnection whether the columns are dismantled, assembled or even already packed. Using the pre-assembled tubing sets supplied, screw the fitting nut into the tubing connection cap until finger-tight. Connect open ends of tube into ¼"-28 UNF ports of required system.

The column can now be packed using the required solvents and an appropriate flow rate and/or pressure as recommended by the media manufacturer. As the column is packed, the bed height may reduce. If necessary, the adjustable endpiece can be lowered onto the final bed surface following the instructions for fine adjustment previously described.

### Column storage

We recommend that empty columns are stored unassembled. If columns are to be stored assembled, we recommend that a final rinse with water only is performed after cleaning. Solvents such as IPA can cause o-rings to become brittle and stick inside the column if left on the surface before storage.

## Glossary of terms

Different manufacturers use different terms for column components. To enable easy cross-reference, the following glossary lists the names used for Omnifit® Labware column parts and other commonly used terms.

- Adjustable endpiece = flow adaptor; plunger; piston
- Glass column = chromatographic tube
- Frit = bed support

Polymers:   ETFE = ethylene tetrafluoroethylene   PP = polypropylene  
 FKM/FPM = fluoroelastomer   PC = polycarbonate  
 PTFE = polytetrafluoroethylene   PCTFE = polychlorotrifluoroethylene  
 PEEK™ = polyetheretherketone

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