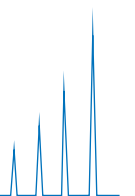
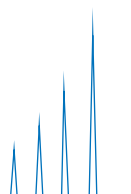


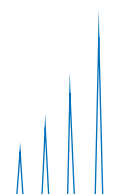


Overview on YMC Column Hardware and Phases





Contents	page
UHPLC Column Hardware	04
HPLC Column Hardware	05
(Bio)Inert Hardware	08
Biocompatible PEEK Hardware	09
Capillary Column Hardware	10
(Semi-)Preparative YMC-Actus Hardware	11
Semi Preparative Hardware	12
Semi Preparative Guard Hardware	13



UHPLC Column Hardware (-xxxxPT)

Properties:

Lengths: 20, 30, 50, 75, 100, 150 mm
ID: 2.0, 2.1, 3.0, (4.6) mm
Max. pressure: 1,000 bar (YMC-Triart 1.9 µm), 600 bar (Meteoric Core)
Port depth: 2.0 mm (0.08")



Fig.: YMC-Triart UHPLC column



Fig.: Meteoric Core UHPLC/HPLC column

1 mm UHPLC Column Hardware (-xxxxWT)

Properties:

Lengths: 50, 100, 150 mm
ID: 1 mm
Max. Pressure: 1,000 bar
Port depth: 3.3 mm (0.13")



Fig.: YMC-Triart 1 mm UHPLC column

UHPLC Guard Cartridges (-xxxxCC)

Guard Holder needed: XPCHUHP

Properties:

Lengths: 5 mm
ID: 2.1, 3.0 mm
Max. Pressure: 1,000 bar
Port depth: adjustable



Fig.: UHPLC guard column holder



Fig.: UHPLC guard cartridge

Applicable Phase-Hardware Combinations

Family	Modification	Particle Size	PT	WT (1 mm ID)	CC (Guard)
YMC-Triart	C18	1.9 µm	X	X	X
	C18 ExRS	1.9 µm	X		X
	Bio C18	1.9 µm	X		X
	C8	1.9 µm	X		X
	Bio C4	1.9 µm	X		X
	Phenyl	1.9 µm	X		X
	PFP	1.9 µm	X		X
	Diol-HILIC	1.9 µm	X		
Meteoric Core	C18	2.7 µm	X		
	C18 BIO	2.7 µm	X		
	C8	2.7 µm	X		

High-Pressure HPLC Column Hardware (-xxxxPTH)

Properties:

Lengths: 20, 33, 50, 75, 100, 150, 250 mm
ID: 2.1, 3.0, 4.6 mm
Max. Pressure: 450 bar
Port depth: 2.0 mm (0.08")



Fig.: YMC-Triart high-pressure HPLC column

HPLC Column Hardware (-xxxxWT)

Properties:

Lengths: 30, 50, 75, 100, 150, 250 mm
ID: 1.0, 2.0, 2.1, 3.0, 4.0, 4.6 mm
Max. Pressure: 300 bar (3 μ m, 150/250 mm length; CHIRAL ART)
250 bar (250 mm length)
200 bar ($\leq$ 150 mm length)
450 bar (YMC-Triart 3/5 μ m)
500 bar (YMC-UltraHT Pro C18/Hydrosphere C18 2 μ m)
Port depth: 3.3 mm (0.13")



Fig.: YMC HPLC column

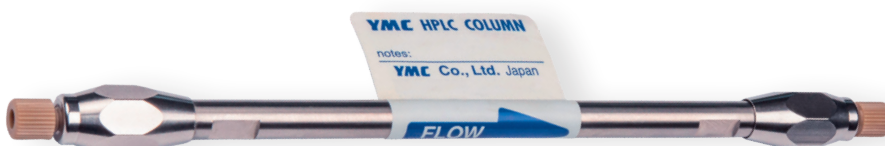


Fig.: YMC-Triart HPLC column

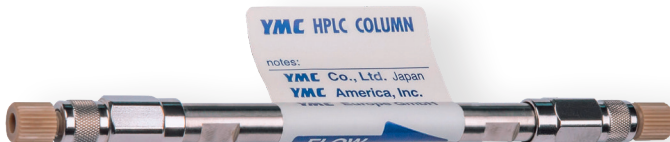
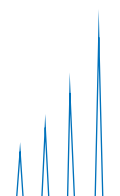


Fig.: YMC-UltraHT HPLC column



Analytical Guard Cartridges (-xxxxGC)

Properties:

Lengths: 10, 20 mm
ID: 2.1–4.0 mm
Max. Pressure: 550 bar
Port depth: adjustable



Fig.: HPLC guard cartridge

Guard Holder needed:

External/universal holder, for use with
PTH, WT hardware.
For 10 mm length: XPGCH-Q1
For 20 mm length: XPGCH-Q2E

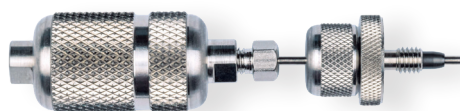


Fig.: HPLC guard cartridge holder XPGCH-Q1



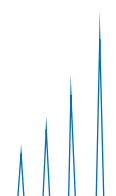
Fig.: HPLC guard cartridge holder XPGCH-Q2E

Applicable Phase-Hardware Combinations

Family	Modification	Particle Size	PTH	WT	GC
YMC-Triart	C18	3, 5 µm	X	X	X
	C18 ExRS	3, 5 µm	X	X	X
	Bio C18	3, 5 µm	X	X	X
	C8	3, 5 µm	X	X	X
	Bio C4	3, 5 µm	X	X	X
	Phenyl	3, 5 µm	X	X	X
	PFP	3, 5 µm	X	X	X
	Diol-HILIC	3, 5 µm	X	X	X
YMC-Pack Pro	C18	2, 3, 5 µm		X*	X
	Hydrosphere C18	2, 3, 5 µm		X*	X
	C18 RS	3, 5 µm		X	X
	C8	3, 5 µm		X	X
	C4	3, 5 µm		X	X
YMC-Pack	Diol SEC	3, 5 µm		X	X
	Diol SEC UHPLC	2 µm	X		X
YMC-SEC MAB	Diol SEC	3 µm		X	X
BioPro	HIC BF	4 µm		X	
	HIC HT	2.3 µm		X	

* 2 µm: UltraHT

Continued on next page



Applicable Phase-Hardware Combinations (Continued from previous page.)

Family	Modification	Particle Size	WT	GC
YMC-Pack	ODS-A	3, 5 µm	X	X
	ODS-AQ	3, 5 µm	X	X
	ODS-AL	3, 5 µm	X	X
	ODS-AM	3, 5 µm	X	X
	C ₈ (Octyl)	3, 5 µm	X	X
	C ₄ (Butyl)	3, 5 µm	X	X
	Ph (Phenyl)	3, 5 µm	X	X
	TMS (C1)	3, 5 µm	X	X
	CN (Cyano)	3, 5 µm	X	X
	PVA-SIL	5 µm	X	X
	Polyamine II	5 µm	X	X
	NH ₂ (Amino)	3, 5 µm	X	X
	Diol-NP	3, 5 µm	X	X
	SIL (Silica)	3, 5 µm	X	X
Specialities	YMC Carotenoid	3, 5 µm	X	X
	YMC-PAH	3, 5 µm	X	X
	J'Sphere ODS	4 µm	X	X
	YMCbasic	3, 5 µm	X	X
CHIRAL ART	Amylose-C Neo	3, 5 µm	X	X
	Cellulose-C	3, 5 µm	X	X
	Amylose-SA	3, 5 µm	X	X
	Cellulose-SB	3, 5 µm	X	X
	Cellulose-SC	3, 5 µm	X	X
	Cellulose-SJ	3, 5 µm	X	X
	Cellulose-SZ	3, 5 µm	X	X

Stainless steel Precolumn Filter

Stainless steel Precolumn Filter + Holder

Holder: XRPRCS03

Stainless steel Precolumn Replacement Filter

Filter: XRPCS35

Properties:

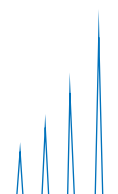
Pore size: 0.5 µm
Max. Pressure: 600 bar
Connection: 1/16"



Fig.: Stainless steel Replacement filter



Fig.: Stainless steel Precolumn filter holder



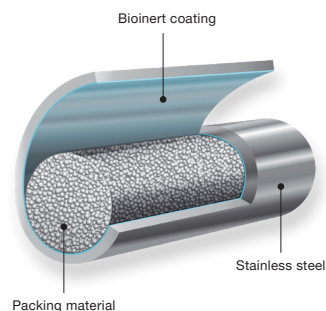
Bioinert Coated YMC-Accura Hardware (-xxxxPTC)

Properties:

Lengths: 50, 100, 150 mm
ID: 2.1, 4.6, 10 mm
Max. Pressure: 100 bar (10 mm ID)
450 bar (3/5 µm)
1,000 bar (1.9 µm)
Port depth: 2.0 mm (0.08")



Fig.: YMC-Accura column



Metal-free PEEK-lined Hardware (-xxxxPTP)

Properties:

Lengths: 50, 100, 150 mm
ID: 2.1, 4.6 mm
Max. Pressure: 450 bar (3/5 µm)
1,000 bar (1.9 µm)
Port depth: 2.0 mm (0.08")

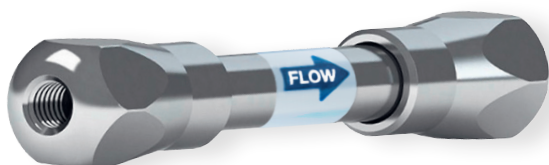
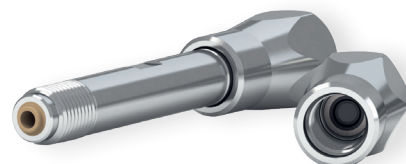
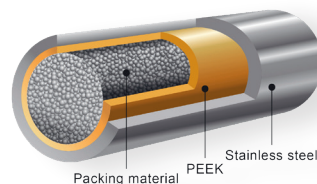
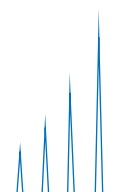


Fig.: PEEK-lined metal-free column



YMC-Accura and metal-free PEEK-lined hardware are applicable to the following products

Family	Modification	Particle Size
YMC-Triart	C18	1.9, 3, 5 µm
	C18 ExRS	
	Bio C18	
	C8	
	Bio C4	
	Phenyl	
	PFP	
	Diol-HILIC	
YMC-Pack Diol SEC	Diol-120/200/300	2, 3, 5 µm



Biocompatible PEEK Hardware (-xxxxWP)

Properties:

Lengths: 30, 50, 100, 150 mm
ID: 4.6 mm
Max. Pressure: 25–35 bar (porous 5 µm)
60–120 bar (non-porous 5 µm)
180–250 bar (non-porous 3 µm)
Port depth: 3.3 mm (0.13")



Fig.: BioPro IEX column

Applicable to following products

Family	Modification	Particle Size
BioPro IEX	SP (porous)	5 µm
	SF (non-porous)	3, 5 µm
	QA (porous)	5 µm
	QF (non-porous)	3, 5 µm

Biocompatible PEEK Precolumn Filter

PEEK Precolumn Filter + Holder

Holder: XRPRCP02

PEEK Precolumn Replacement Filter

Filter: XRPRCP25

Properties:

Pore size: 2 µm
Max. Pressure: 350 bar
Connection: 1/16"



Fig.: PEEK Replacement filter



Fig.: PEEK Precolumn filter holder

Capillary Column Hardware (-xxxxAU/-xxxxRU)

Properties:

Lengths:	50, 75, 100, 150, (250) mm
ID:	75, 100, 300, 500 µm
Max. Pressure:	550 bar for 2, 3, 5 µm 600 bar for 1.9 µm
Fitting:	1/16" (AU) 1/32" (RU)
Thread:	10-32 (1/16") 6-40 (1/32")
Port depth:	1/16"; 2.0 mm (0.08") 1/32"; 1.1 mm (0.045")



Fig.: YMC capillary columns



Fig.: YMC capillary guard columns



Fig.: YMC Capillary Column Coupler, 1/32" and 1/16"

Applicable to following products:

All fully porous YMC stationary phases.

YMC-Actus Semi Prep. Hardware (20/30 mm ID) (-xxxxWX)

Properties:

Lengths: 50, 75, 100, 150, 250 mm
ID: 20, 30 mm
Max. Pressure: 300 bar (for 5 µm)
Port depth: 3.3 mm (0.13"), 1/16"

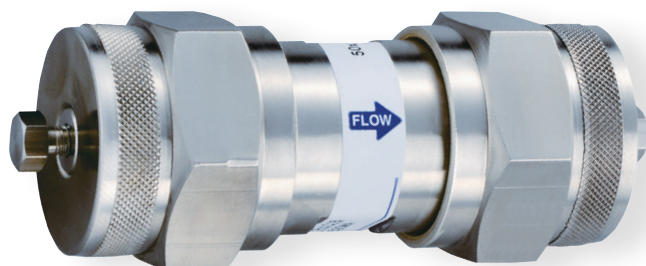


Fig.: YMC-Actus semi prep. column

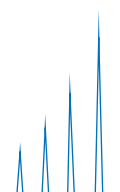
YMC-Actus Prep. Hardware (50 mm ID) (-xxxxDX / -xxxxAX)

Properties:

Lengths: 100, 150, 250 mm
ID: 50 mm
Max. Pressure: 200 bar (for 5 µm)
Connection: female Swagelok nut connection (DX, 1/8")
Port depth: 3.3 mm (0.13", AX, 1/16")
Fitting: 1/8" (DX)
1/16" (AX)



Fig.: YMC-Actus 50 mm, 1/8" prep. column



Semi Prep. Hardware (10/20/30 mm ID) (-xxxxWT)

Properties:

Lengths: 100, 150, 250, 300 mm
ID: 10, 20, 30 mm
Max. Pressure: 100 bar
Port depth: 3.3 mm (0.13"), 1/16"



Fig.: standard semi-prep. column

Semi Prep. Guard Cartridges (-xxxxCC(N))

Guard Holder needed:

For use with WT, WX hardware.

For 10 mm ID XPCHSPW1

For 20 mm ID XPGHFSP20ID

For 30 mm ID XPGHFSP30ID



Fig.: semi prep. 10 mm guard cartridge holder + cartridge

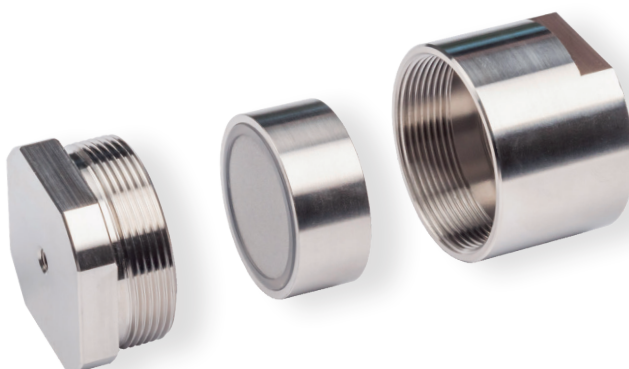
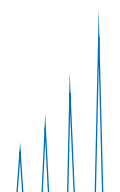


Fig.: semi prep. 20/30 mm guard cartridge holder + cartridge

Properties:

Lengths: 10 mm
ID: 10, 20, 30 mm
Max. Pressure: 300 bar
Port depth: 3.3 mm (0.13"), 1/16"



Semi Prep. Guard Column Hardware (-xxxxWTG)

Properties:

Lengths: 30 mm
ID: 8, 10, 20, 30 mm
Max. Pressure: 100 bar
Port depth: 3.3 mm (0.13"), 1/16"

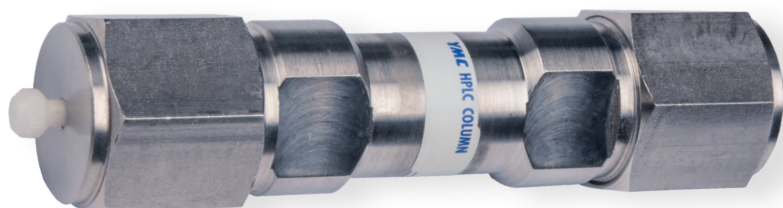


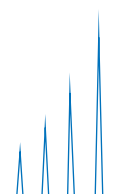
Fig.: semi prep. guard column

Applicable Phase-Hardware Combinations

Family	Modification	Particle Size	WX	WT	DX/AX	CC(N)	WTG
YMC-Triart	C18	5 µm	X	X*	X	X	X
	C18 ExRS	5 µm	X	X*	X	X	X
	Bio C18	5 µm	X	X*	X	X	X
	C8	5 µm	X	X*	X	X	X
	Bio C4	5 µm	X	X*	X	X	X
	Phenyl	5 µm	X	X*	X	X	X
	PFP	5 µm	X	X*	X	X	X
	Diol-HILIC	5 µm	X	X*	X	X	X
	Prep C18-S	7, 10, 15, 20 µm	X	X*	X	X	X
	Prep C8-S	10, 15, 20 µm	X	X*	X	X	X
	Prep Phenyl-S	10 µm	X	X*	X	X	X
	Prep Bio 200 C8	10 µm	X	X*	X	X	X
YMC-Pack Pro	C18	5 µm	X	X*	X	X	X
	Hydrosphere C18	5 µm	X	X*	X	X	X
	C18 RS	5 µm	X	X*	X	X	X
	C8	5 µm	X	X*	X	X	X
	C4	5 µm	X	X*	X	X	X

*only available for 10 mm ID, YMC-Actus hardware available for 20/30 mm

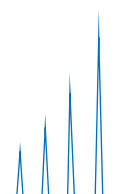
Continued on next page

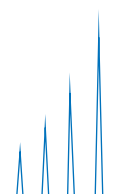


Applicable Phase-Hardware Combinations *(Continued from previous page.)*

Family	Modification	Particle Size	WX	WT	DX/AX	CC(N)	WTG
YMC-Pack	ODS-A	5 µm	X	X*	X	X	X
	ODS-AQ	5 µm	X	X*	X	X	X
	ODS-AL	5 µm	X	X	X	X	X
	ODS-AM	5 µm	X	X	X	X	X
	C₈ (Octyl)	5 µm		X		X	X
	C₄ (Butyl)	5 µm		X		X	X
	Ph (Phenyl)	5 µm		X		X	X
	TMS (C1)	5 µm		X		X	X
	CN (Cyano)	5 µm		X		X	X
	PVA-SIL	5 µm		X		X	X
	Polyamine II	5 µm		X		X	X
	NH₂ (Amino)	5 µm		X		X	X
	Diol	5 µm		X		X	X
	Diol-NP	5 µm		X		X	X
	SIL (Silica)	5 µm		X		X	X
Specialties	YMCbasic	5 µm	X	X	X	X	X
	YMC Omega	10 µm	X	X*		X	X
CHIRAL ART	Amylose-C Neo	5 µm	X	X*	X	X	X
	Cellulose-C	5 µm	X	X*	X	X	X
	Amylose-SA	5 µm	X	X*	X	X	X
	Cellulose-SB	5 µm	X	X*	X	X	X
	Cellulose-SC	5 µm	X	X*	X	X	X
	Cellulose-SJ	5 µm	X	X*	X	X	X
	Cellulose-SZ	5 µm	X	X*	X	X	X

**only available for 10 mm ID, YMC-Actus hardware available for 20/30 mm*







YMC Europe GmbH

Schöttmannshof 19
D-46539 Dinslaken
Germany
Phone +49 2064 427-0, FAX +49 2064 427-222
www.ymc.eu

YMC Schweiz GmbH

Im Wasenboden 8
4056 Basel
Switzerland
Phone + 41 61 561 80-50, Fax + 41 61 561 80-59
www.ymc-schweiz.ch

YMC CO., LTD.

YMC Karasuma-Gojo Bld. 284 Daigo-cho,
Karasuma Nishiiru Gojo-dori Shimogyo-ku,
Kyoto 600-8106 Japan
Phone +81 75342 45-15, FAX +81 75342 45-50
www.ymc.co.jp

