

YMC Pilot^{PLUS} Glass Columns | Overview



YMC Pilot^{PLUS} - Glass columns for BioLC applications at pilot scale

Reliable and user-friendly hardware for scale-up and process development – In biochromatography, transitioning from the laboratory to the pilot scale places specific demands on column hardware. As well as reproducible column packing, smooth operation requires easy handling, short cleaning times and efficient maintenance.

YMC Pilot^{PLUS} glass columns have been specifically designed for BioLC applications at pilot scale, with column diameters available in 70, 100, 140 and 200 mm. They enable reproducible column packing, easy handling and efficient maintenance – key requirements for reliable operation at pilot scale. A metal-free flow path also ensures high biochemical compatibility and prevents corrosion risks caused by salt-containing buffers or alkaline cleaning solutions which are commonly used in biochromatography.

Fast and reproducible column packing

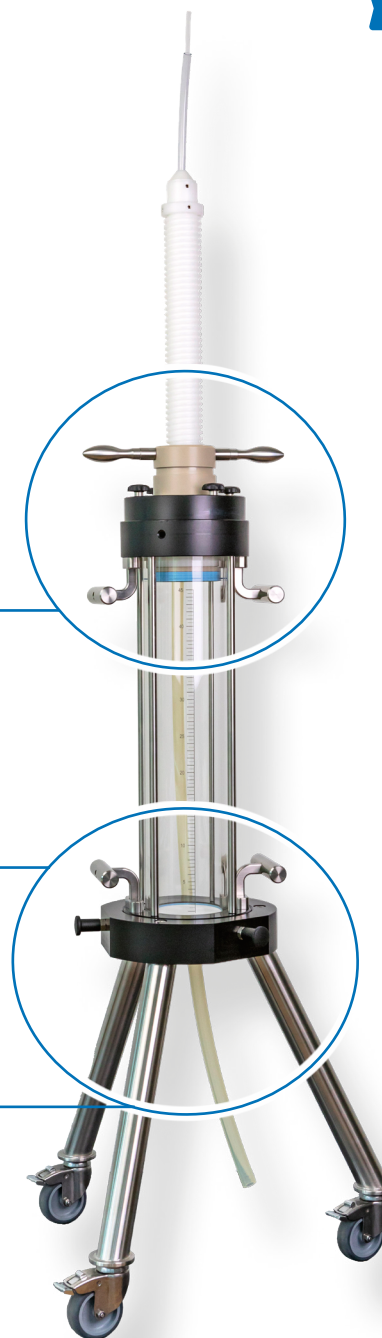
Thanks to the drain function in combination with the infilling assistance tool and specially designed piston, air is not trapped when the piston is inserted. This enables the packing process to begin within minutes, ensuring reliable and consistent results.

Easy and fast maintenance

YMC Pilot^{PLUS} columns are designed with a reduced number of components, enabling quick maintenance. The inlet frit and seal can be removed without tools, and standard tools are sufficient for all other maintenance steps.

Unpacking and cleaning in one step

The removable column body can be lifted out of the column stand without tools and re-inserted in an inverted position. In this position, you can start a flow to unpack the resin while flushing the column simultaneously.



YMC Pilot^{PLUS} Glass Columns | Specifications



Inner diameter	70		100	
	500 mm	850 mm	500 mm	850 mm
Glass body length	500 mm	850 mm	500 mm	850 mm
Bed Length [mm]	100–450 ¹	250–800 ¹	100–450 ¹	250–800 ¹
Column Volume [L]	0.4–1.7	1.0–3.0	0.8–3.5	2.0–6.2
Pressure Limit [bar]	16	16	10	10
Temperature Range [°C]	4–40	4–40	4–40	4–40
Total Weight [kg]	19	23	20	24
Weight Adjustable End Piece [kg]	3.2	3.7	3.5	4.0
Footprint [mm]	620	620	620	620
Maximum Column Height [mm]	1,700	2,250	1,700	2,250

Inner diameter	140		200	
	500 mm	850 mm	500 mm	850 mm
Glass body length	500 mm	850 mm	500 mm	850 mm
Bed Length [mm]	100–450 ¹	250–800 ¹	100–450 ¹	250–800 ¹
Column Volume [L]	1.5–6.9	3.8–12.3	3.1–14.1	7.8–25.1
Pressure Limit [bar]	7	7	5	5
Temperature Range [°C]	4–40	4–40	4–40	4–40
Total Weight [kg]	37	45	38	47
Weight Adjustable End Piece [kg]	7.3	7.8	8.0	8.6
Footprint [mm]	750	750	750	750
Maximum Column Height [mm]	1,750	2,300	1,750	2,300

¹ depending on packing material and packing method

Solvent	Complete column					
	Glass body	Frit	Gasket	Plunger	Tubing	
Aceton	-	+	+	-	+	+
Acetonitril	o	+	+	o	+	+
Ammoniumdihydrogenphosphat	+	+	+	+	+	+
Ammoniumhydroxid (30%)	o	+	+	o	+	+
Cyclohexan	o	+	o	+	+	+
Dichloromethan	-	+	-	o	o	+
0,1 M EDTA (3%)	+	+	+	+	+	+
1 M Essigsäure (6%)	+	+	+	+	+	+
Ethanol	+	+	+	+	+	+
Ethylacetat	-	+	+	-	+	+
n-Hexan	o	+	o	+	+	+
Isopropanol	+	+	+	+	+	+
Methanol	+	+	+	+	+	+
Phosphorsäure (5%)	+	+	+	+	+	+
Schwefelsäure (6%)	+	+	+	+	+	+
THF	-	+	-	-	+	+
Toluol	+	+	-	+	+	+
2 M NaOH (8%)	+	+	+	+	+	+
1 M HCl (4%)	+	+	+	+	+	+
8 M Urea (36%)	+	+	+	+	+	+
1 M NaCl	+	+	+	+	+	+
0.5 M Na ₂ SO ₄	+	+	+	+	+	+

* The stated chemical resistances apply to temperatures up to 40 °C.
Lower temperatures and concentrations generally improve chemical resistance.

-: Not resistant
o: Limited resistant
+: Resistant