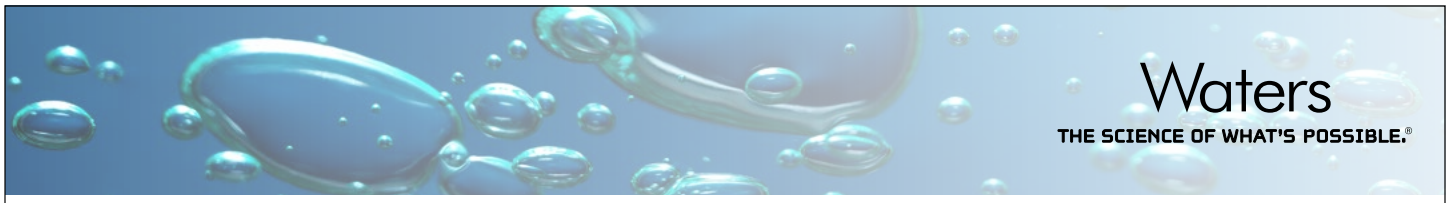

L/d_p COMPARISON CHART FOR LC COLUMNS

To convert an HPLC method to a UPLC® or UHPLC method with no loss in resolution, select columns that have equivalent length to particle size (L/d_p) ratio.

We use this ratio to compare the resolving power of columns.

If you keep the L/d_p ratio the same for two columns, you will obtain the same resolution. Therefore, for two columns with the same L/d_p ratio, the more efficient, shorter column (packed with smaller particles) will provide the same resolution in less time.

Example: $\frac{150\text{ mm}}{5\text{ µm}} = \frac{150{,}000\text{ mm}}{5\text{ µm}} = 30{,}000$

L/d_p			Column length (mm)						
			20	30	50	75	100	150	250
Particle size (µm)	Fully porous	1.7		17,600	29,400	44,100	58,800	88,200	
		1.8		16,700	27,800	41,700	55,600	83,300	
		2.5	8,000	12,000	20,000	30,000	40,000	60,000	
		3.5	5,700	8,600	14,300	21,400	28,600	42,900	71,400
		5.0	4,000	6,000	10,000	15,000	20,000	30,000	50,000
	Solid-Core*	1.6		25,000	41,700	62,500	83,300	125,000	
		2.7		14,800	24,700	37,000	49,400	74,100	

**L/d_p based on the increased efficiency of CORTECS® Solid-Core particles*

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