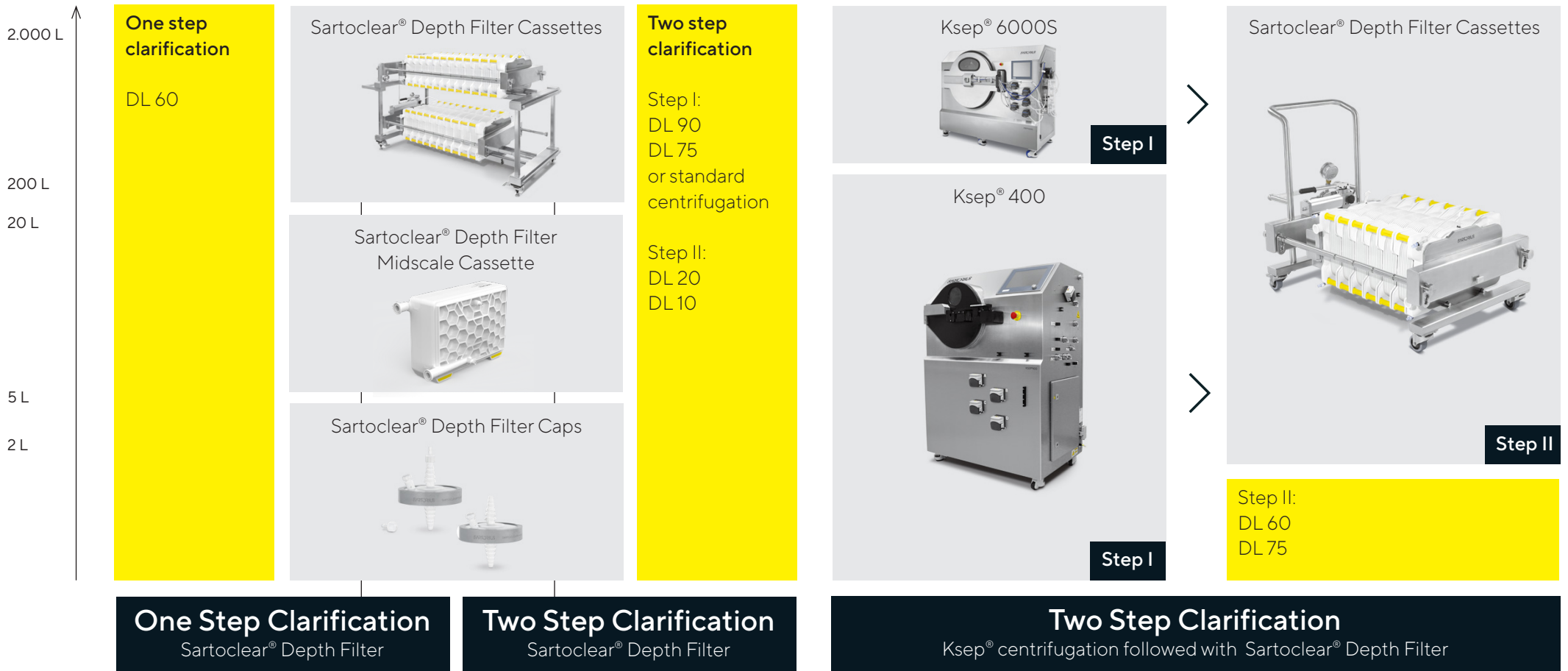


Clarification Technologies Matrix

This positioning matrix is a general guide to help you select the recommended clarification technology for your process. The selection criteria are: percent Wet Cell Weight (%WCW) and bioreactor volume. The recommended Double Layer (DL) filter grade is also given for single step and two step clarification processes.

WCW	3%	8%	>8%
Cell Density ($\times 10^6$ cell mL)	10	20	>20



* Volume ranges are dependant on cell & molecule characteristics. Intended as guideline only.