



ESCC

ENVIRONMENTAL SYSTEMS CORPORATION

Design / Build & Maintenance of Controlled Environmental Systems

Cleanroom Design Criteria Non-Pharmaceutical

Classification (Fed Std 209E)	ISO Class 3 (1)	ISO Class 4 (10)	ISO Class 5 (100)	ISO Class 6 (1,000)	ISO Class 7 (10,000)	ISO Class 8 (100,000)
Filter Coverage	100%		80 to 100%	25 to 50%	15 to 30%	5 to 15%
Air Changes	720+	400 - 600	300 - 500	140 - 260	70 - 140	25 - 60
Average FPM	75-100 FPM	60-90 FPM	50-80 FPM	20-40 FPM	10 - 20 FPM	4 - 8 FPM
Filter Rating	99.9999%	99.999%	99.99%			
Ceiling	Aluminium 2" Ceiling System			1½" -2" T Bar Ceiling System	1½" Steel Gasketed T Bar	
Ceiling Support	All-thread with Strut & Turnbuckles			12 GA wire to grid, 10 GA wire to filter @ Corner of Grid Intersection Only		
Ceiling Panel	Cleanroom Blank Aluminium Panels			Vinyl Faced Gypsum Panels Foil Back Covered, all joints sealed or vinyl tape		
Wall System	Aluminium Component – Flush Wall			Aluminium Component – Exposed Batten Strip		
Wall Panels	Honeycomb Aluminium Conductive Finish			Aluminium Skin Panel with High Density Poly or EPS Foam Core	Vinyl Coated Drywall	
Floor	Mipolam		Mipolam / Epoxy Solids		Epoxy Solids or Seamless Vinyl	
Base	Coved Corners				Base	
Air Return	Perforated / Grated Access Floor		Low Wall if Room Width ≤ 20' (6m)	Low Wall		Low Wall or Ceiling
Air Return Registers	Floor Grilles with Optional Balancing Dampers			Filter Grilles with Optional Balancing Dampers		Egg Crate

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