

San Diego State University

BIOHAZARD CONTROL PROGRAM MANUAL

PART XIII – SAFETY EQUIPMENT

Types of Biosafety Cabinets

There is one type of Class I BSC, four types of Class II BSCs (IIA1, IIA2, IIB1 and IIB2) and one type of Class III BSC—each differentiated in accordance with the parameters shown in the following chart:

Type	Face velocity (fpm)	Airflow Pattern	Radionuclides/ Toxic Chemicals	Biosafety Level(s)	Product Protection
Class I	75	In at front; rear and top through HEPA filter	No	2, 3	No
Class II Type A1	75	70% recirculated through HEPA; exhaust through HEPA	No	2, 3	Yes
Class II Type A2	100	30% recirculated through HEPA; exhaust via HEPA and hard ducted	Yes (Low levels/volatility)	2, 3	Yes
Class II Type B1	100	No recirculation; total exhaust via HEPA and hard ducted	Yes	2, 3	Yes
Class II Type B2	100	Same as B1, but plena under negative pressure to room and exhaust air is ducted	Yes	2, 3	Yes
Class III	NA	Supply air inlets and exhaust through 2 HEPA filters	Yes	3, 4	Yes

NSF/ANSI Standard 49 – 2002