

# Appendix A

## Biological Safety Cabinet (BSC) Placement Requirements for New Buildings and Renovations

---

**Farhad Memarzadeh, Ph.D., P.E.**

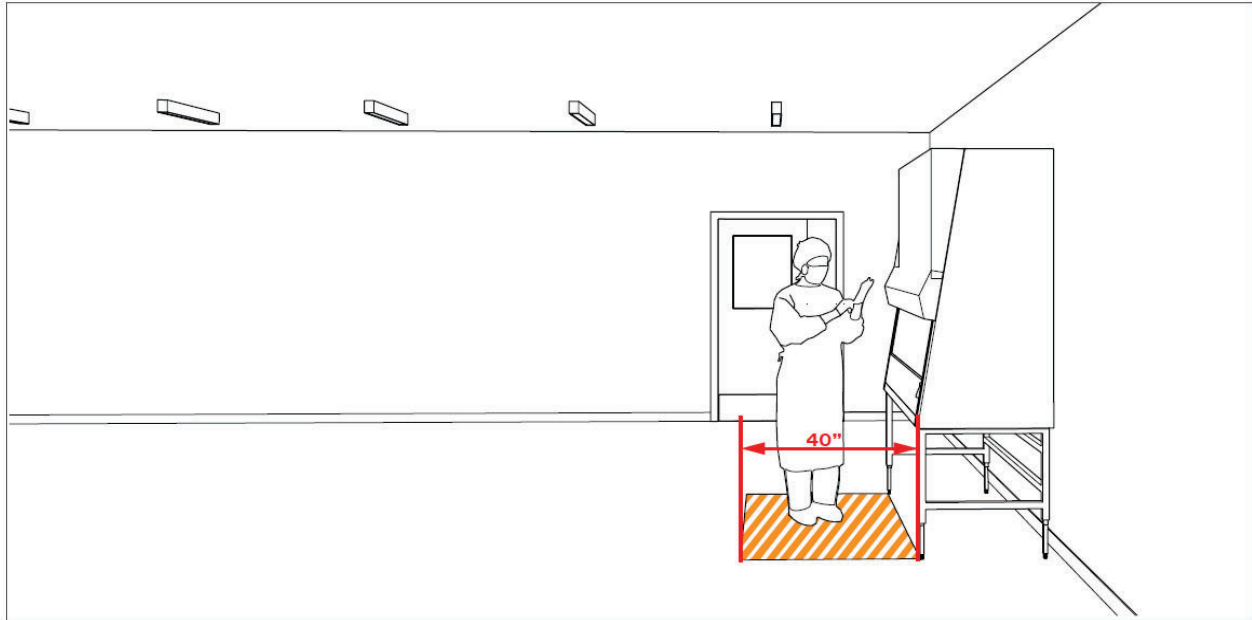
Division of Technical Resources  
Office of Research Facilities  
National Institutes of Health

**References:**

*Microbiological Safety Cabinets: Recommendations for Cabinet Installation.* British Standards Institution, BS 5726:2005.

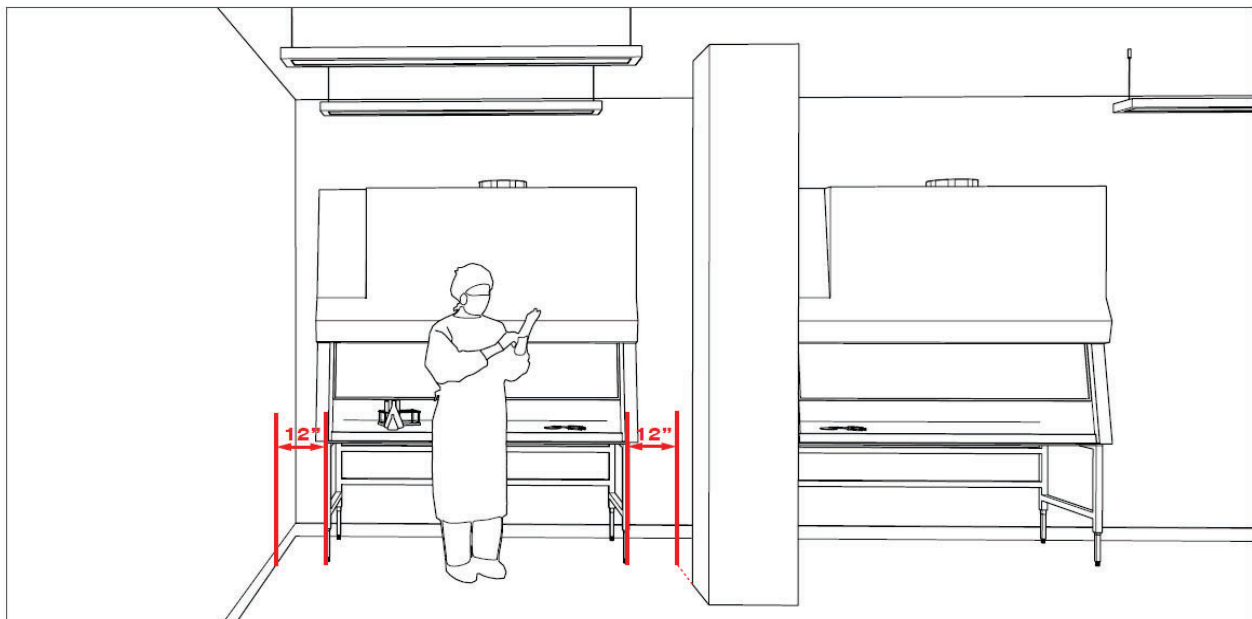
*Methodology for Optimization of Laboratory Hood Containment.* Memarzadeh, F. National Institutes of Health, 1996.

### BSC Workspace:



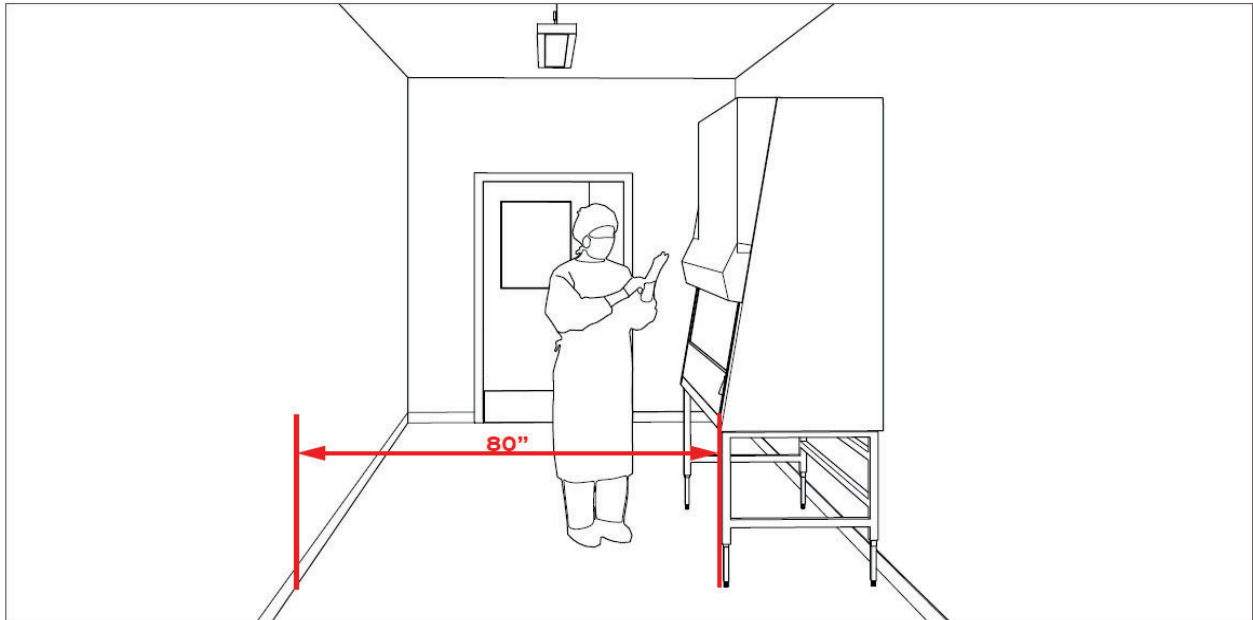
Maintain an undisturbed space of 40" around the BSC.

### Distance to Adjacent Walls & Columns:



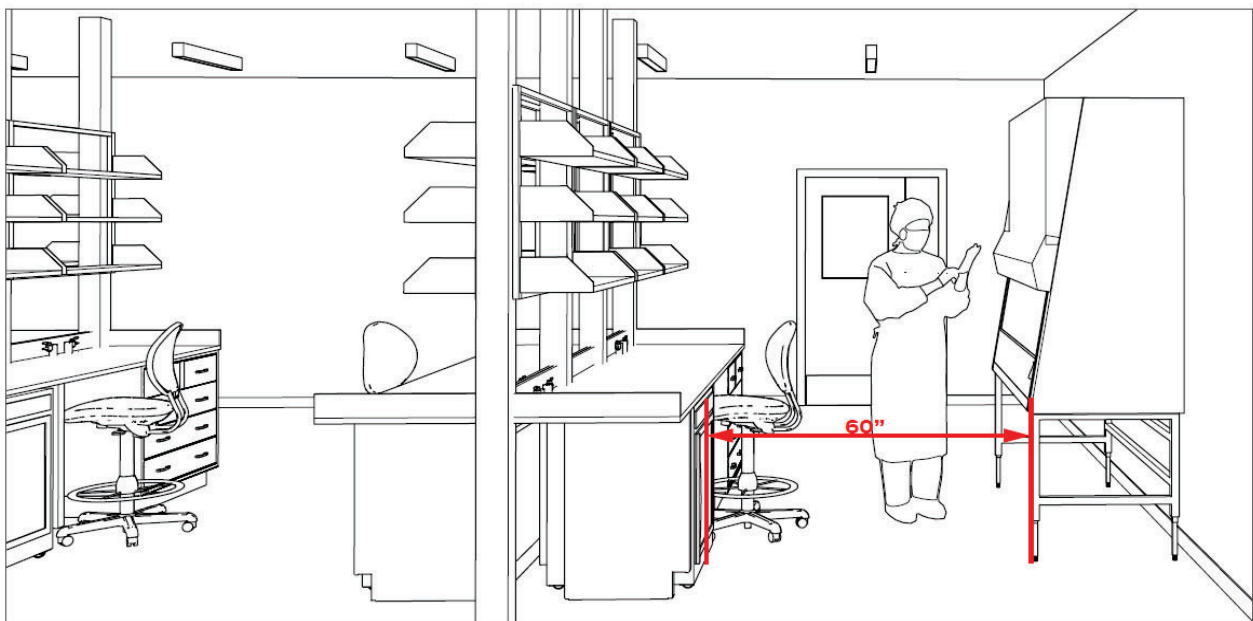
Maintain a distance of 12" to adjacent walls & columns. Note: columns can aid in defining traffic routes.

### Distance to Opposing Walls:



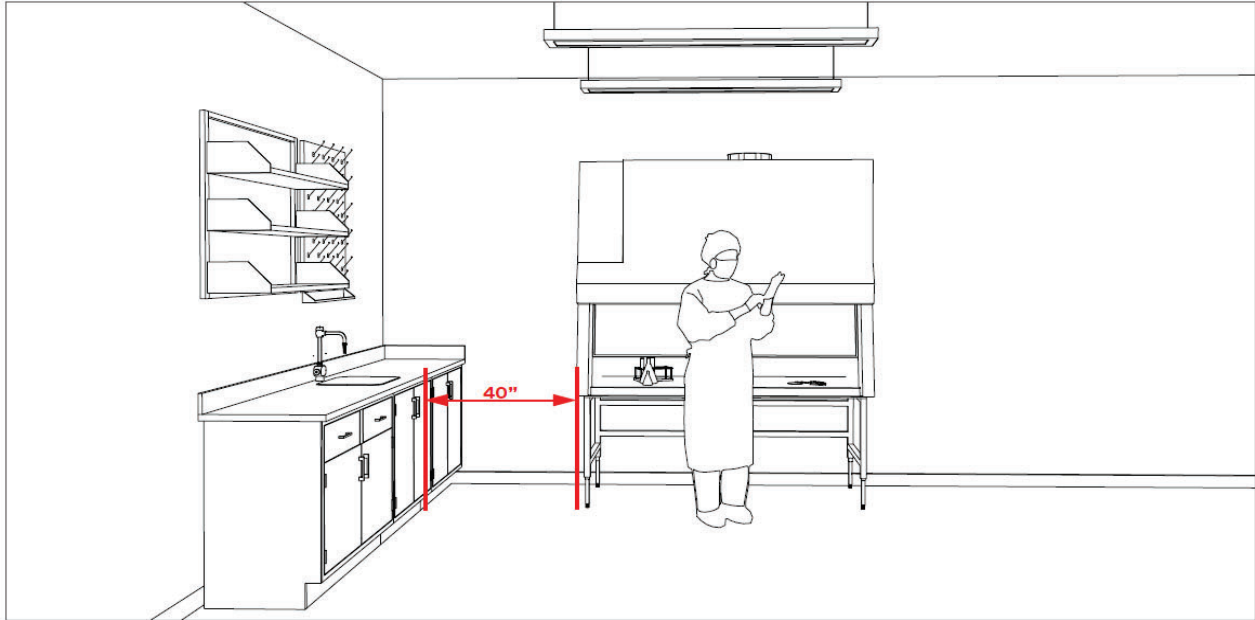
Place BSCs at least 80" from opposing walls.

### Distance to Opposing Bench Tops:



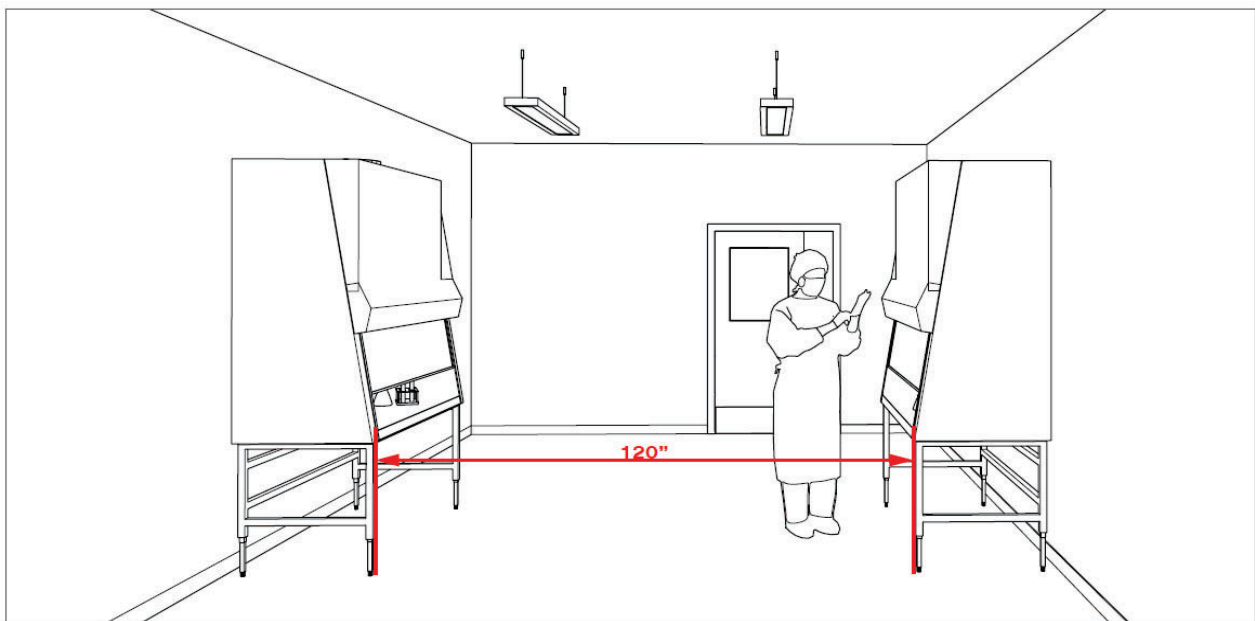
Place BSCs at least 60" to opposing bench tops or areas with occasional traffic.

### Distance to Adjacent Bench Tops:



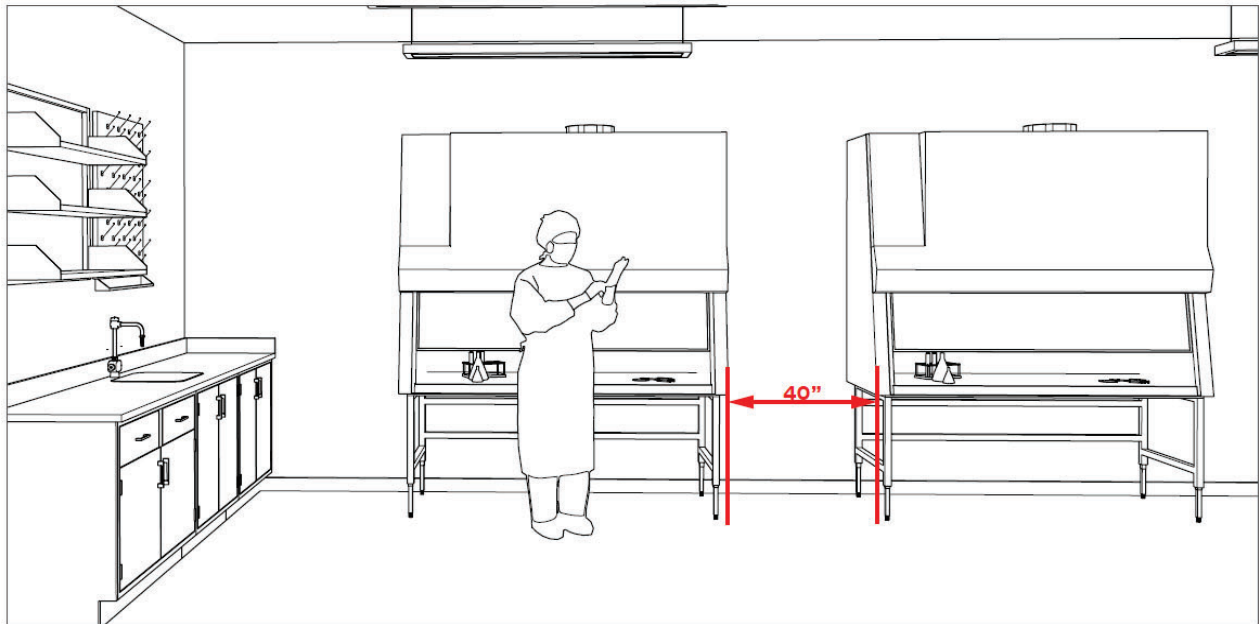
Maintain a distance of 40" between BSC and bench tops along a perpendicular wall.

### BSC Placement Along Opposing Walls:



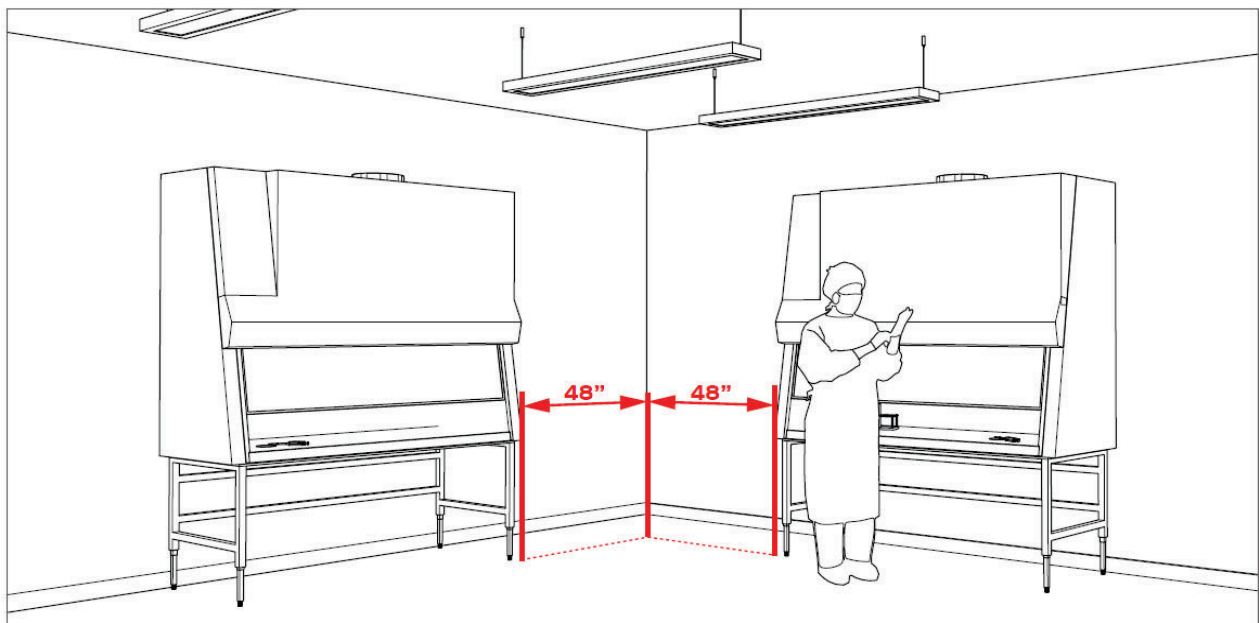
Maintain a distance of 120" between BSCs on opposing walls.

### BSC Placement Along the Same Wall:



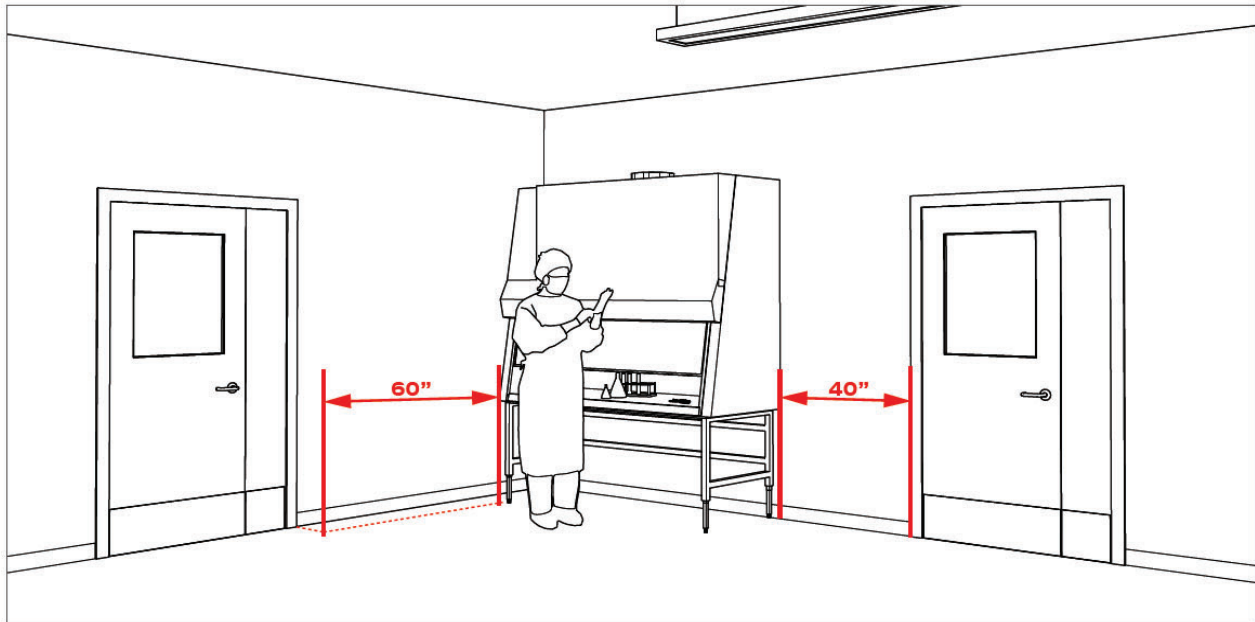
Maintain a distance of 40" between BSCs along the same wall.

### BSC Placement Along Perpendicular Walls:



Maintain a distance of 48" between BSCs along perpendicular walls.

### BSC Placement Near Doorways:



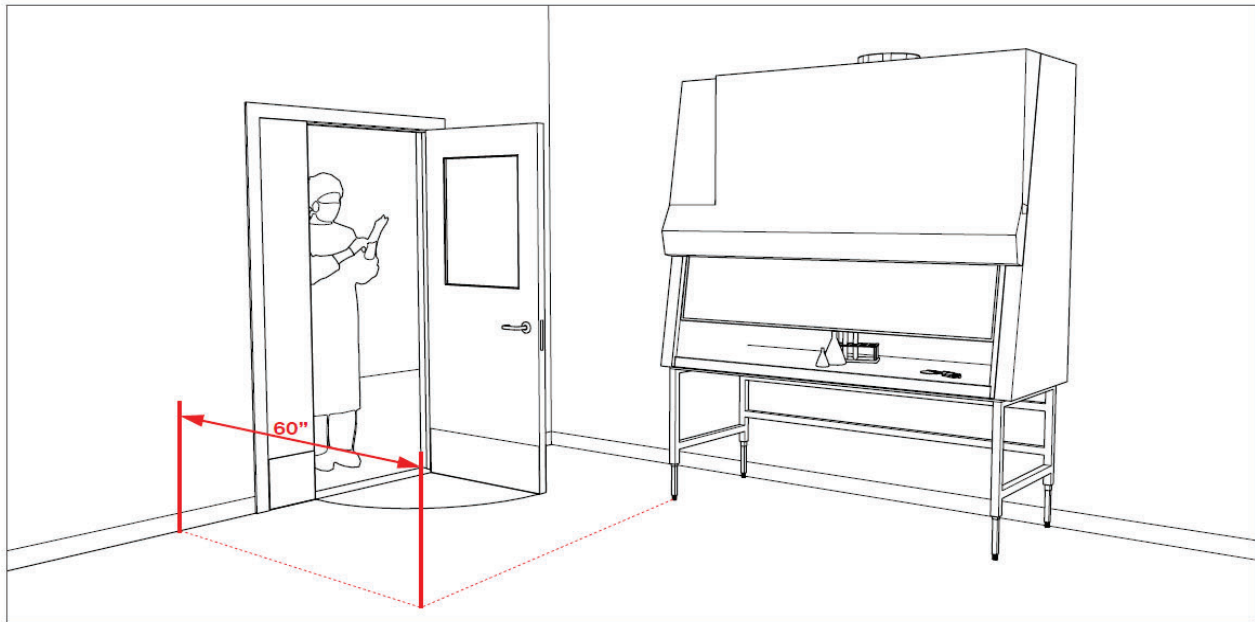
Placing BSCs near doorways is not recommended. If this arrangement is absolutely necessary maintain a distance of 40" to adjacent doorways and 60" to doorways behind the BSC.

### BSC & Bench Placement:



Do not crowd bench tops and BSCs. Too much traffic produces dangerous disturbances to BSC airflow.

### BSC Distance from Entry:



Maintain a distance of at least 60" from entry into lab modules to BSC.