

TECHNICAL SPECIFICATION BROCHURE

Complete Stainless Steel (Full SS 304/316) Integrated Modular Lab Furniture Systems

1. Executive Overview

This document highlights the comprehensive technical layout configurations, engineering benchmarks, and operational parameters for high-grade 100% Stainless Steel integrated laboratory environments. Specifically developed to fulfill strict global cleanliness criteria (ISO Cleanrooms, cGMP, and FDA guidelines), these modular furniture components offer supreme physical longevity, absolute biological sterility, and exceptional resistance to intense sanitation protocols.

2. Core Furniture Categories & Classifications

A modular system is structured across four primary technical components to support fluid workflow routines and rigorous storage prerequisites:

- **Workbenches & Central Islands:** Heavy-duty load-bearing platform models constructed with self-supporting frameworks. Features integrated seamless countertops to completely avoid bacterial accumulation.
- **Under-Bench Storage Modules:** Smooth-sliding drawer groupings and baseline cabinets equipped with internal dust seals, soft-closing multi-section slides, and noise-damping double-wall doors.
- **Overhead Reagent Racks:** Vertical structural tiers featuring configurable shelves to hold solutions, testing assets, and glassware securely without cluttering primary workspaces.
- **Safety & Tall Storage Wardrobes:** Full-height independent floor storage cupboards built with options for either solid sliding panes or secure viewing glass faces.

3. Material & Component Technical Specifications Matrix

Property / Component	SS 304 Grade (Standard Cleanroom)	SS 316 Grade (Premium Chemical)
Alloy Composition	18% Chromium, 8% Nickel core base structure.	16% Chromium, 10% Nickel + 2% Molybdenum addition.
Chemical Resistance	Excellent resistance to organic solvents, water sprays, and light bio-stains.	Superior resistance to industrial acids, chlorides, saline compounds, and hot liquids.
Countertop Build	1.5mm thick panels with standard flat finish sheets.	1.5mm / 2.0mm thick panels with marine leak-proof edges.
Framework Profiles	C-Frame cantilever models (Supports up to 250 kg).	H-Frame structural boxes (Supports up to 500 kg).
Hardware Specs	SS 304 knuckle hinges opening to 175 degrees.	SS 316 integrated continuous heavy piano hinges.
Sanitation Capacity	Withstands alcohol rubs and general cleanroom sprays.	Withstands vaporized hydrogen peroxide (VHP) cycles.

4. Operational Layout Engineering & Utility Integration

To achieve maximum productivity and floor optimization, individual modules are designed to integrate seamlessly into three key physical room configurations: Central Island Benches, Perimeter Wall Linears, and space-saving L/U-Shaped corner loops. Rear technical chases are standard across all options to cleanly hide plumbing lines, high-voltage conduit, pure DI water routes, vacuum lines, and localized utility points.

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