

SECTION – 1235 00

PART 1: GENERAL**1.01 GENERAL PROVISIONS**

- A. Applicable provisions of General Conditions, Special Conditions, and General Requirements shall apply to this section as if repeated in full herein. Reference other Sections and Divisions for work in connection with this section.

1.02 SCOPE OF WORK

- A. **Cabinets:** Furnish prefabricated cabinetry and related components as specified herein. Refer to plans and equipment lists for details and requirements. Cabinetry shall include all fillers, scribes, finished ends, finished backs, and materials for completed installation.
- B. **Countertops:** Provide prefabricated countertops in Laminate, Chemical Resistant Laminate, Epoxy Resin, Solid Surface (Polymer Resin), Stainless Steel, Phenolic and Hardwood as specified in connection with cabinetry.
- C. **Locks:** Install locks in cabinetry where shown on casework drawings or as specified in equipment lists.
- D. **Sinks and Fixtures:** Provide sinks, fixtures, electrical outlets, and fittings specified as part of complete model numbered units and as specified as part of laboratory furnishings. Provide materials to appropriate trades for final hook ups and installation.

1.03 RELATED WORK NOT INCLUDED

- A. **Sinks and Fittings:** Sinks and fittings, connection, piping, traps, supplies, shut offs, and special plumbing applicable to codes. Electrical fittings, devices, conduit, wiring, fans, blowers, motors, ductwork, and special grilles not specified as part of furnishings. (specified in electrical, plumbing, and heating/ventilation/air conditioning sections)
- B. **Blocking, Framing, and Reinforcements:** In walls, ceilings, and floors for cabinetry anchorage and mountings. (specified in carpentry section)
- C. **Vinyl Base Molding:** (specified in resilient flooring section)

1.04 QUALIFICATION

- A. **Casework Standards:** Casework shall be ADVANTAGE SCIENTIFIC tested to Scientific Equipment and Furniture Association (SEFA) 8.0 standards. Catalog numbers and specification details shall be based on product offerings. Configuration, size, material options, offerings, and quality to be adhered to.

B. Approvals:

1. Casework of other manufacturers will be considered for approval, providing written request is received and approved at least ten (10) days prior to announced bid date and approved by addendum. Bidder shall state in writing any deviations from requirements and specifications. The casework shall conform to the configuration, arrangement, design, material quality, joinery, panel thickness, and surfacing of that specified and shown on drawings.
2. Manufacturers requesting approval shall submit samples with cut-aways showing cabinet construction, joinery, drawer and door construction, hardware, and materials, along with catalogs and specification, in order that accurate evaluations can be made. Manufacturers shall show full sized working samples. Catalogs and specifications shall be submitted with written request, along with detailed list of compliance and deviations from these documents for approval. Samples may be impounded by owner and retained until completion of job for verification and compliance of specifications.
3. Manufacturers requesting approvals shall have independently tested their products and be able to submit documentation of results meeting SEFA requirements. Testing under Cabinet Surfacing SEFA 8.0W Section 8 and Cabinet Structural SEFA 8.0 Sections 4, 5, 6, 7, 9 and Table Section 10 required.
4. Manufacturers must show evidence dedicated to environmentally responsible practices. Manufacturers must be licensed by the Composite Panel Association as an Environmentally Preferable Product (EPP) Downstream company.

1.05 SUBMITTALS

- A. **Shop Drawings:** Shall be submitted for approval after formal notification of award of contract. Drawings shall consist of floor plans indicating arrangement and relation to adjacent work and equipment and complete elevations of casework. Centerline of service requirements shall be noted for use by other trades. A schedule of all sinks, fittings, and accessories that are part of this contract shall be provided.
- B. **Color Samples:** Shall be submitted for selection and coordination at time of shop drawing submittals. Samples of actual materials and color shall be available as required.
- C. **Catalog Cuts:** Additional catalog cuts, details, and samples as requested by architect for evaluation and coordination.

1.06 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. **Protection:** Protect casework and related materials during transit, delivery, storage, and handling to prevent damage, soiling, and deterioration.

- B. **Storage:** Store casework and related materials at project site in storage areas with similar ambient conditions as final installation. Storage areas must be kept dry, heated with low relative humidity, and away from construction work such as painting, wet work, grinding, and similar operations.
- C. **Site Conditions:** Shall be in accordance with AWI's *Quality Standards Illustrated* (current version) and Advantage Scientific *Site Conditions*.

1.07 WARRANTY

- A. Casework manufacturer shall warrant for a period of three (3) years that its manufactured product is free from defects in materials and workmanship when properly installed and under normal use and conditions.
- B. Accessory equipment (sinks, fittings, fixtures) shall be warranted to the limit of those specific manufacturers' guarantees.

PART 2: PRODUCTS

2.01 SURFACE MATERIAL

A. Cabinet:

1. Cabinet exposed exterior, drawer and door front, finish backs, modesty and closure panels shall be hardwood "A" face or equivalent exterior veneers, plain slice book match on 2.02B cores. Cabinet body exterior shall be hardwood plain sliced book match on 2.02A cores. Exposed exterior finish ends, wall bottoms, and viewed finish cabinet tops finished in Advantage Scientific stains for both red oak and maple hardwood species. Finish shall be tested to requirements SEFA 8.0 Cabinet Surface finish tests. Finish is composed of UV cured stain, seal, and topcoat. Alternate finish composed of stain, acid catalyzed sealer and topcoat. Final sheen 30-50 gloss.
2. Interiors shall have hardwood veneer plain slice book, slip match faces in species of exterior. Interior finish shall be Advantage Scientific matching exterior stains for red oak and maple UV cured stain seal and topcoat. Alternate stain with catalyzed sealer and topcoat. Finish shall be tested to requirements SEFA Cabinet Surface finish tests

B. Backs: Backs semi exposed behind doors, open and glass display door unit backs coordinated interior hardwood veneer species and finish to match exterior.

C. Drawers: Drawers shall be clear finish hardwood plywood. Bottoms hardwood veneer plywood clear finish woodgrain.

2.02 CORE MATERIALS

A. Plywood: Materials shall be hardwood minimum 7-ply (3/4" thick) and minimum 9-ply (1" thick). Plywood and veneer grades reference American National Standards Institute (ANSI) Hardwood Plywood and Veneer Association (HPVA) HPI-2000 standards.

B. Particleboard: Shall be high performance industrial grade 45# - 48# density. Core to be 3 ply formation type conforming to American National Standards Institute (ANSI) A208.1, American Society for Testing and Materials (ASTM) D1037-91A.

2.03 EDGINGS

A. Cabinet and Interior Components Edges: Edges shall be solid hardwood 1/8" (3mm) thick front edge with radius trim and sand.

Automated hot melt adhesive application and radius trim.

B. Door and Drawer Fronts: Edges shall be solid hardwood 1/8" (3mm) thick edges with radius trim and sand. Fronts shall have radius edges and corners utilizing automated hot melt adhesive application and trimming.

C. Drawer sides: Edges shall have flat veneer band, with clear coat finish.

2.04 SELECTIONS AND APPLICATIONS

- A. **Cabinet finishes:** Exterior finish shall be selected from Advantage Scientific red oak and maple stain finishes.
- B. **Interior finishes:** Semi exposed behind solid doors and glass framed doors shall be matching stain and finish as exterior veneers in selected species. Open, and glass display door interior finish shall be same matching exterior selected.
- C. **Backs Semi exposed:** Shall be veneer to red oak or maple to clear coat interiors with matching interior stains.
- D. **Drawers:** Hardwood plywood clear coat finish.
- E. **Countertop Supports, Table Legs, and Metal Table Frames:** Shall be available in powder coat Black, White, and Grey.
- F. **Countertops Available:** (see PART 3 for applicable usage).
 - 1. **Standard Laminate Tops:** Horizontal grade laminate selected from Wilsonart standard offering.
 - 2. **Chemical Resistant Laminate Tops:** Horizontal grade Chemsurf® selected from Advantage Scientific standard offering.
 - 3. **Epoxy Resin Tops:** Standard Black
 - 4. **Solid Surface (Polymer Resin) Tops:** Selected from Advantage Scientific standard offering.
 - 5. **Stainless Steel Tops:** Type 304 stainless steel with MB-4 finish.
 - 6. **Phenolic Tops:** Solid phenolic top material with polished edges selected from Advantage Scientific standard offering.
 - 7. **Hardwood Tops:** Laminated kiln dried hard maple lumber.

2.05 HARDWARE

- A. **5-Knuckle Hinges overlay reveal styling:** Grade 1 heavy duty 5-knuckle hinge shall have 270° swing opening. Hinges shall have interlaying leaves 270° swing constructed of (.090") thickness steel. Hinges shall be Grade 1 with hospital ground tips and non-removable pin. Doors 48" or less shall have two (2) hinges per door. Doors exceeding 48" shall have three (3) hinges per door. Hinges shall have vertical adjustment and shall be mounted with two (2) 5mm thread-in screw bolts plus two (2) additional #8 screws in cabinet leaf. Door leaf shall have two (2) 5mm thread-in screw bolts plus three (3) #8 screws. (Mountings without 5mm thread-in screw bolt fasteners not acceptable.) Hinges shall be available in Black or Nickel environmentally friendly powder coated finishes.

120° Concealed full overlay styling: Grade 1 concealed hinges shall allow 120° swing full opening and have vertical, horizontal and in-out adjustment.

OPTION:

5-Knuckle Hinges full overlay styling: Grade 1 heavy duty 5-knuckle 270° swing opening or 5-knuckle stainless steel shall be mortised into door edge for overlay door styling.

Stainless Steel 5-Knuckle Hinges overlay reveal styling: Shall be Grade 1 stainless steel 5-knuckle 270° swing opening and overlay reveal styling. Hinges shall have interlaying leaves, 270° swing constructed of (.090") thickness stainless steel. Hinges shall be Grade 1 with hospital ground tips and non-removable pin. Doors 48" or less shall have two (2) hinges per door. Doors exceeding 48" shall have three (3) hinges per door. Hinges shall have vertical adjustment and shall be mounted with two (2) 5mm thread-in screw bolts plus two (2) additional #8 screws in cabinet leaf. Door leaf shall have two (2) 5mm thread-in screw bolts plus three (3) #8 screws. (Mountings without 5mm thread-in screw bolt fasteners not acceptable.

165° Concealed full overlay styling: Grade 1 concealed hinges shall allow 165° swing opening. Hinges allow for vertical, horizontal and in-out adjustment.

- B. **Door Catches:** Shall be heavy duty spring loaded, large diameter (17.5mm) roller catches mounted at door bottom. Catch strike plate shall be injection molded with integral molded engagement ridge and wide face bumper door stop. Doors above 48" and full height tall cabinet doors shall have catches at both top and bottom.
- C. **Pulls:** Shall be offered in easy grip 128mm (5") size. Pulls shall be available as selected from Advantage Scientific Bentwire 128 Black or Nickel powder coated. Crest 128 and Bar 128 pulls with Nickel powder coated finish.

OPTION:

Stainless Steel: Bentwire 128 or Bar 128 Pulls. Brushed stainless steel finish.

Recessed Pull: Nickel finished, recessed machined into front face.

D. **Drawer Slides:**

1. Extension slides shall be bottom and side mounted epoxy coated steel slides. Lateral stability is achieved through captive slide profile, slides glide on nylon rollers. Slides have both in and out drawer stop and self-close feature. Slides shall meet AWI 100# dynamic load rating, exceeding Grade 1 as tested SEFA 8.0 Section 6 and or PL 6.5.1 Drawer Suspension Systems under ANSI/BHMA (Builders Hardware Manufacturers Association) A156.9.
2. File and paper storage drawers shall have full extension side mounted ball bearing slides. Ball bearing slides shall be tested under (BIFMA) x 5.5 Section 7. Slides shall pass 50,000 cycle test at 120# with a 100# load rating. Lateral files shall have full extension ball bearing slides with 200# load rating.

OPTION:

Full Extension Slides (All Drawers): Full extension ball bearing slides shall be provided on all drawers. Slides shall be side mounted with profile to not reduce interior drawer space normally provided. Ball bearing slides shall be tested under The Business and Institutional Furniture Manufacturer's Association (BIFMA) x 5.5 Section 7. Slides shall pass 50,000 cycle test at 120# with a 100# load rating.

- E. **Hanger Bars:** Shall be heavy chrome plated oval tubing mounted in adjustable end wall sockets.
- F. **Trays and Bins:** High impact ABS or polyethylene formed trays and bins shall be provided where indicated by model numbers. Trays or bins shall be suspended on welded wire powder coated rack system. System includes side suspension rack uprights with top and bottom horizontal guideways to avoid inadvertent tip out.
- G. **Shelf Supports:** Adjustable shelf supports shall be injection molded clear polycarbonate. Supports shall incorporate integral molded lock tabs to retain shelf from tipping or inadvertent lift out. Supports shall have 5mm diameter double pin engagement into precision bored cabinet vertical hole patterns. Adjustment shall be (32mm) 1 1/4" spacings. Supports shall have a compression ridge effecting force against shelf edge to maintain positive pin engagement. Supports shall have molded-in screw attachment feature. Static test load shall exceed 200# per clip. Shelf support side clearance shall meet AWI premium requirements.
- H. **Locks:** High security Advantage Scientific 6-tumbler dead bolt Grade 1 lock system shall be provided where noted by model number or indicated on drawings. Locks shall have diecast body with dead bolt engagement tang. Locks shall have removable and interchangeable 6-tumbler core for field or customer re-keying options. Locks shall be master keyed and available key-alike or key-different. Each lock provided with a double bit key and face of lock stamped with key number.

OPTION:

Locks (All Drawers/Doors): High security 6-tumbler dead bolt Grade 1 lock system shall be provided on all drawers and door openings.

AVAILABLE: National 5 tumbler rotating cam locks Grade 3. National locks shall be master keyed and available key-alike or key-different. Each lock provided with key and face of lock stamped with key number.

- I. **Sliding Doors:** Solid 3/4" doors and 3" frame glazed doors shall have double channel extrusion tracks both top and bottom with bottom glide assemblies. Glass sliding doors shall have aluminum top channel track and bottom track with fiber inserts. Glass doors above 30" shall include bottom extrusion with track rollers.
- J. **Coat Hooks:** Hooks shall be formed cold roll steel with ball end tips and welded in stamped steel base. Styles include three (3) under mount designs (double, triple, wardrobe) and three (3) wall mount designs (single, double, schoolhouse). Styles shall be design coordinated with powder coated Nickel finish. (Cast hooks susceptible to breakage, non-matching finishes or designs not acceptable.)
- K. **OPTION:**
- Numbered Metal Tag Plates:** Shall be provided for each drawer and compartment with doors. Tags shall be 18-gauge aluminum plates with black enamel filled numbers. Tag plates shall be provided to job for field installation at direction of owner. Sets available in groups of 25, up to 100 sequential numbers.
- Label Holders:** Label holders shall be provided for each drawer and compartment with doors. Aluminum extrusion label holders shall be provided for field installation at direction of owner.

2.06 COMPONENT DETAILS AND CONSTRUCTION

A. Fronts:

1. **Door and Drawer Fronts:** Shall be Hardwood veneers on particleboard cores 3/4" thick and shall have faces as described 2.01.A. Edges shall be 1/8" (3mm) radius and sanded hardwood. Automated hot melt adhesive application and radius trimming. Fronts shall be vertical match grain.
2. **Glazed Framed Doors:** Shall be 3/4" thick construction (1) piece panel with cutout for insertion of tempered or laminated glass pane, held in place with extruded two (2) piece trim mounting with removable back bead.
3. **Glass Doors:** Sliding glass or hinged glass doors shall be tempered or laminated safety glass.

- B. **Wall Cabinets:** Components shall be 3/4" thick hardwood plywood members throughout. Wall cabinet tops and bottoms shall include back groove and minimum four (4) dowel pins per joint for insertion into cabinet ends. Wall cabinet ends shall be 3/4" thick with back groove and precision Computer Numerical Control (CNC) drill pattern for accurate location of fixed members, hardware, and shelf supports. Wall cabinets shall have two (2) integral (doweled into ends) behind back hidden hardwood plywood mounting frames. (Designs with simple spacer rails or rails without dowel pin engagement into ends are not acceptable.)

OPTION:

Wall Cabinet Tops and Bottoms 1" Thick: Wall cabinet tops and bottoms shall be 1" thick hardwood plywood and include back groove and minimum four (4) dowel pins per joint for insertion into cabinet ends. Wall cabinet ends and interior components shall be 3/4" thick with back grooves and precision Computer Numerical Control (CNC) drill pattern for accurate location of fixed members, hardware, and shelf supports. Wall cabinets shall have two (2) integral (doweled into ends) hidden behind back mounting frames.

- C. **Tall Cabinets:** Components shall be 3/4" thick hardwood plywood members throughout. Tall cabinet tops and bottoms shall include back groove and up to eight (8) total dowels per end joint (based on cabinet depth). Tall cabinet ends shall be 3/4" thick with back groove and precision CNC drill pattern for accurate location of fixed members, hardware, and shelf supports. Tall cabinets shall have three (3) integral (doweled into ends) hardwood plywood mounting frames upper, intermediate, and lower locations. (Designs with simple spacer rails or rails without dowel pin engagement into ends are not acceptable.)
- D. **Base Cabinets:** Components shall be 3/4" thick hardwood plywood members throughout. Base unit bottoms shall incorporate back groove and up to eight (8) dowel pins per end joint (based on cabinet depth). Base units shall have a wide top and back frame feature. Hardwood plywood frames (8 1/2" wide) in the flat horizontal plane at cabinet front and vertical plane at rear with minimum three (3) dowels per end joint. Construction shall provide lateral and vertical stability. An additional frame rail at lower area for seismic AWI requirements provided. Open rear top area allows for easy wall mounting and ease of installation of mechanical services. (Sub tops or rails without horizontal and vertical plane

ridged frame members not acceptable.) Base cabinet ends shall be 3/4" thick with back groove and precision CNC drill pattern for accurate location of fixed members, hardware, and shelf supports.

OPTION: Full 3/4" thick sub-top and back rail; replacing lateral and horizontal wide top and back frame feature.

- E. **Toe Kicks:** Base and tall cabinets shall be an integral base design with two (2) dowel-in hardwood plywood toe kick frame rails. Construction of end panels, cabinet bottoms, and horizontal toe kick members is integrally joined- together for greater structural strength. This design facilitates load transfer from upper loaded areas directly through cabinet end to floor, reduces lower joint stresses.

OPTION:

Toe Kicks with Isolation Supports: Base and tall cabinets shall be an integral base design and shall include isolation supports. Load transfer from upper loaded areas directly through cabinet end to floor reduces lower joint stresses. Injection molded isolation supports shall be applied in toe base: four (4) on units 24" wide and under, six (6) on units wider than 24". Each isolation support is molded in chemical resistant polypropylene with large 1 3/8" x 3" footprint. Isolation supports space cabinet 10mm (3/8") above floor. Supports shall be internally mounted and allow use of continuous 4" vinyl toe base cover. (Wood spacers or tack glides, and metal edge fastening susceptible to corrosion from moisture and chemical penetration not acceptable.) Molded polypropylene isolation feet provide a 3/8" high gap to floor separation. Cabinet bases are prevented from direct floor contact away from water moisture and chemical penetration.

OPTIONS:

Toe Kicks (Exterior Grade): 3/4" exterior grade plywood ladder base material for base and tall cabinet installation.

Toe Kicks (Expanded Polyethene): 3/4" ladder base material for base and tall cabinet installation.

- F. **Cabinet Backs:** Shall be an integrated system of a 1/4" woodgrain coordinated MDF back captured into side and horizontal grooves. Unit back shall be further integrated with attachment to 3/4" doweled-in mounting frames. Fixed backs are mechanically fastened into grooves and sealed with hot melt adhesive. Removable backs, where indicated, shall be set in bottom groove and attached to back frame with screws.
- G. **Adjustable Shelves:** Shall be 3/4" thick hardwood plywood. Shelving shall have end 4-point support for spans 30" or less. Spans above 30" shall have 5-point support with backs drilled to receive additional mid-span shelf support, reducing deflection under heavier loads. Shelves beyond 36" span to be 1" thick. Specialty shelving as part of unit construction requiring retaining ledge shall have powder coated metal angle.

OPTION: All adjustable shelves 1" thick hardwood plywood with 1/8" (3mm) front edge.

- H. **Hardwood Plywood Drawers:** Shall be clear coat finished. A four (4) sided full box design with separate attached front shall be provided. Drawer members shall be 3/4" thick with dowel pin construction at all four (4) corners. Drawer bottoms shall be 1/4" veneer plywood trapped in groove

four (4) edges and mechanically fastened. Drawer components shall be clear edge finished. Drawers shall have been tested to SEFA 8 specifications. (Drawers utilizing 1/2" members or with overlay applied bottoms, non-captured groove, or staple butt or vertical lap joint construction not acceptable.

OPTION:

Finger Dovetail Drawers: Shall be clear coat finish. A four (4) sided full box design with separate attached front. Drawer shall have finger dovetail joints on all four (4) corners, with 1/4" veneer plywood bottom trapped in groove four (4) edges and mechanically fastened.

- I. **File Drawers:** Shall be a four (4) sided box design with separate attached front. Laminated drawers shall have dowel pin construction at all four (4) corners. Drawer bottoms shall be laminated 1/4" MDF core trapped in groove four (4) edges as well as mechanically fastened. File drawer sides shall include file hanging rails. Full extension ball bearing suspensions shall be (BIFMA) x 5.5 Section 7. Slides shall pass 50,000 cycle test 120# with a 100# load rating. Lateral file drawers shall have full extension ball bearing suspensions with 200# rated slides.

Crossbar File Hangers: Shall be provided for cross filing of legal and letter files.

PART 3: COUNTERTOPS

Countertops shall be provided based on drawings and specific applications. The following countertop types are used and shall be provided as indicated on this project.

Countertop types:

3.01 Laminate Tops 3mm Edged: Shall be 3/4" (19mm) or 1" (25mm) thick with solid core structures with backer sheet. Countertops shall be high pressure decorative plastic laminate, thermoset to core using catalyzed PVA glue with minimum average pressure of 80 PSI and average 180° F temperature. Decorative laminate shall meet NEMA LD3 - PF-42 (.042") specification standards. Laminate patterns chosen from Wilsonart standard offering. 3mm edging from Advantage Scientific selections.

Choose one:

LS05C1919: 3/4" (19mm) thick, composite 45-48# industrial particleboard core

LS05C2525: 1" (25mm) thick composite 45-48# industrial particleboard core

LS05M1919: 3/4" (19mm) thick, moisture resistant/NAF composite 45-48# industrial particleboard core

LS05M2525: 1" (25mm) thick moisture resistant/NAF composite 45-48# industrial particleboard core

LS05P2525: 1" (25mm) thick multi-ply plywood core

3.02 Laminate Tops Self Edged: Shall be 3/4" (19mm) or 1" (25mm) thick with solid core structures with backer sheet. Countertops shall be high pressure decorative plastic laminate, thermoset to core using catalyzed PVA glue with minimum average pressure of 80 PSI and average 180° F temperature. Decorative laminate shall meet NEMA LD3 - PF-42 (.042") specification standards. Laminate patterns chosen from Wilsonart standard offering. 3mm edging from Advantage Scientific selections.

Choose one:

LS07C1919: 3/4" (19mm) thick, composite 45-48# industrial particleboard core

LS07C2525: 1" (25mm) thick composite 45-48# industrial particleboard core

LS07M1919: 3/4" (19mm) thick, moisture resistant/NAF composite 45-48# industrial particleboard core

LS07M2525: 1" (25mm) thick moisture resistant/NAF composite 45-48# industrial particleboard core

LS07P2525: 1" (25mm) thick multi-ply plywood core

3.03 Chemical Resistant 3mm Edged: Shall be 3/4" (19mm) or 1" (25mm) thick with solid core structures with backer sheet. Countertops shall be high pressure Chemsurf® decorative laminates, thermoset to core using catalyzed PVA glue with minimum average pressure of 80 PSI and average 180° F temperature. Countertops shall be 3mm edged with 3mm edged backsplash. Chemsurf® patterns chosen from Advantage Scientific selections. 3mm edging from Advantage Scientific selections.

Choose one:

LS25C1919: 3/4" (19mm) thick, composite 45-48# industrial particleboard core

LS25C2525: 1" (25mm) thick composite 45-48# industrial particleboard core

LS25M1919: 3/4" (19mm) thick, moisture resistant/NAF composite 45-48# industrial particleboard core

LS25M2525: 1" (25mm) thick moisture resistant/NAF composite 45-48# industrial particleboard core
LS25P2525: 1" (25mm) thick multi-ply plywood core

3.04 Chemical Resistant Self Edged: Shall be 3/4" (19mm) or 1" (25mm) thick with solid core structures with backer sheet. Countertops shall be high pressure Chemsurf® decorative laminates, thermoset to core using catalyzed PVA glue with minimum average pressure of 80 PSI and average 180° F temperature. Countertops shall be self-edged with self-edged backsplash. Chemsurf® patterns chosen from Advantage Scientific selections.

Choose one:

LS26C1919: 3/4" (19mm) thick, composite 45-48# industrial particleboard core
LS26C2525: 1" (25mm) thick composite 45-48# industrial particleboard core
LS26M1919: 3/4" (19mm) thick, moisture resistant/NAF composite 45-48# industrial particleboard core
LS26M2525: 1" (25mm) thick moisture resistant/NAF composite 45-48# industrial particleboard core
LS26P2525: 1" (25mm) thick multi-ply plywood core

3.05 Epoxy Resin Tops: Laboratory tops shall be Black Epoxy resin tops and sinks to industry performance standards. Tops shall be factory fabricated and drilled, with exposed cutouts and edges dressed with factory finish. Leading edges shall have 3mm bevel and include bottom drip grooving. Sinks shall be epoxy drop in type. Epoxy tops shall be installed with epoxy sealant at joints and sink applications.

Choose one:

ES00BL1919: 3/4" (19mm) thick Black epoxy
ES00BL2525: 1" (25mm) thick Black epoxy
ES10BL19: 3/4" (19mm) thick Black epoxy windowsill
ES10BL25: 1" (25mm) thick Black epoxy windowsill

Special add:

ES02BL2519: 1" (25mm) Black epoxy marine edge

3.06 Solid Surface (Polymer Resin) Tops: Shall be fabricated from 1/2" (12mm) thick acrylic cast sheets. Sheets shall be continuous cast thermoset acrylic resins in combination with Aluminum Trihydrate and pigments. Solid surface countertops shall have 1/2" thick downturned leading edges with overall top thickness of 1" (25mm). Faces shall be polished to a matte suede finish with 3mm radius edges and corners as standard. Countertops shall be additionally strengthened with adhesive-applied sealed composite laminated sub straight for mounting to cabinets and supports. Spans shall not exceed 36" without intermediate supports. Applied backsplashes shall be 1/2" (12mm) thick with eased edges provided along back wall endsplashes at end walls and tall cabinet ends. Acrylic integral sink bowls shall be factory fabricated.

Choose one:

PS60C2512: 1" (25mm) thick, composite 45-48# industrial particleboard core

PS60M2512: 1" (25mm) thick moisture resistant/NAF composite 45-48# industrial particleboard core

PS11S12: 1/2" (12mm) thick windowsill

3.07 Stainless Steel Tops: Stainless steel countertops and integral sinks shall be fabricated of U.S. Standard Type 304 Stainless Steel formed down and back, making 1" (25mm) high face exposed edge. Top, front flange, deck surface, backsplash, and endsplashes shall be formed of one (1) sheet of metal. The deck surface and front edge shall include reinforcing with full length hat channels. Horizontal and vertical corners where backsplashes and endsplashes intersect shall be covered radius. Seamless raised edges at front and ends shall be die formed. When required, field joints shall use a "lock joint" technique to eliminate vertical as well as horizontal seam movement. Field joints shall be pre-fitted and polished together at the factory for greater symmetrical appearance. Sink bowls shall be seamless electrically welded to countertops. Tops, sink bowls, backsplashes, raised rims, as well as end curbs with exposed welds shall be ground smooth and finely polished to an MB-4 finish. Underside of countertop and bowl shall be coated with sound deadening.

Choose one:

SS00P2525: 1" (25mm) thick stainless steel edge, 16-gauge Type 304, plywood core

SS00R2525: 1" (25mm) thick stainless steel edge, 16-gauge Type 304, steel rail core

SS01P3225: 1 1/4" (32mm) thick stainless steel marine edge, 16-gauge Type 304, plywood core

SS01R3225: 1 1/4" (32mm) thick stainless steel marine edge, 16-gauge Type 304, steel rail core

3.08 Phenolic Tops: Shall be 3/4" (19mm) thick. Tops shall be factory fabricated and drilled with exposed cutouts and edges dressed and polished. Leading edges shall have bevel corners. Sink cutouts provided for stainless steel sinks or pre-machined for drop-in black epoxy sinks. Applied backsplashes shall be 3/4" (19mm) thick with bevel corners with dressed and polished edges.

Choose one:

AP04S1919: 3/4" (19mm) thick acid resistant black face and black solid phenolic core

AP05S1919: 3/4" (19mm) thick decorative acid resistant face and black solid phenolic core

AP06S1919: 3/4" (19mm) thick decorative acid resistant color throughout

AP10S19: 3/4" (19mm) thick acid resistant black face and black solid phenolic core windowsill

AP11S19: 3/4" (19mm) thick decorative acid resistant solid face and black phenolic core windowsill

AP12S19: 3/4" (19mm) thick acid resistant color throughout windowsill

3.09 Hardwood Lumber: Shall be 1 1/2" (38mm) thick fabricated from laminated kiln dried hard maple lumber. Edgegrain (butcher block) design with butt joints, edges sanded smooth with top and bottom corners broken. Faces and edges sealed with varnish finish.

WD00S3819: 1 1/2" (38mm) Solid hard maple

PART 4: TABLES**WELDED STEEL LEG TABLES – STEVENS ADVANTAGE 49700 SERIES**

- A. **49700 Series Tables:** Shall incorporate a one (1) piece all welded apron assembly. Apron frames shall be a cold roll steel formed 14-gauge section with offset channel bends providing heavy load capacity.
- B. **Frames:**
1. Shall be 2 1/2" high, providing a low profile for maximum leg height and Americans with Disabilities Act (ADA) specifications.
 2. Shall include 14-gauge channel (welded in) diagonal corner struts on leg corners. Aprons shall also have 14-gauge outside 90° corner brackets welded to aprons, forming a rigid leg pocket.
- C. **Legs:**
1. Shall be 2" x 2" cold roll 14-gauge tubing. Legs shall bolt into corner pocket with four (4) 1/4"-20 hex drive bolts.
 2. Legs include tube insert with threaded adjustable nylon glide.
 3. Leg levelers when a fixed installation is required by code in tables with electrical or service fixtures installed shall allow direct fixed attachment to floor and include a sleeve cover.
- D. **Frames and Legs:** Shall be powder coated in Black, White and Grey.
- E. **Tabletops:** Shall be available in Laminate, Chemical Resistant Laminate, Epoxy Resin, Solid Surface (Polymer Resin), Phenolic and Hardwood. (Tops specified through model number selection.)
- F. **Table Designs:**
1. Models include formed horizontal "C" channels to allow use of Bins or Trays as slide-under accessory drawers.
 2. Models include wire form student book boxes bolted into apron frames. Wire form book boxes provide visibility and avoids solid enclosed areas susceptible to trash accumulation.

APRON STEEL LEG TABLES – STEVENS ADVANTAGE 49800 SERIES

- A. **49800 Series Tables:** Shall be constructed with 5" wide apron rails. Aprons shall have diagonal formed-steel corner gussets fastened into corners. Additional cross frames both ends provide additional rigidity. Aprons shall have face to match casework selection on plywood aprons.
- B. **Legs:**
1. Tube legs shall be 2" x 2" cold roll 14-gauge steel with two (2) ¼ -20 corner anchor bolts.

2. Legs include insert with threaded adjustable nylon glide.
 3. Leg levelers for a fixed installation required by code in tables with electrical or service fixtures installed shall allow direct fixed mounting to floor and include a sleeve cover.
 4. Legs available powder coated in Black, White and Grey.
- C. **Tabletops:** Shall be available in Laminate, Chemical Resistant Laminate, Epoxy Resin, Solid Surface (Polymer Resin), Phenolic and Hardwood. (Tops specified through model number selection.)

APRON WOOD LEG TABLES – STEVENS ADVANTAGE 49900 SERIES

- A. **49900 Series Tables:** Shall be constructed with 5" wide apron rails. Aprons shall have diagonal formed-steel corner gussets fastened into corners. Additional cross frames provide additional rigidity. Wood Leg Tables have veneer plywood aprons and lumber wood legs.
- B. **Legs:**
1. 2" x 2" Wood legs in Oak or Maple lumber bolted into corner gussets with two (2) lag bolts.
 2. Legs include insert with threaded adjustable nylon glide and sleeve cover.
 3. Leg levelers for a fixed installation required by code in tables with electrical or service fixtures installed shall allow direct fixed mounting to floor and include a sleeve cover.
 4. Oak and Maple wood Aprons and Legs shall be finished in Advantage Scientific selections.
- C. **Tabletops:** Shall be available in Laminate, Chemical Resistant Laminate, Epoxy Resin, Solid Surface (Polymer Resin), Phenolic and Hardwood. (Tops specified through model number selection.)

PART 5: INSTALLATION

- A. Installer shall examine the job site and the conditions under which the work in this section is to be performed and notify the contractor in writing of any unsatisfactory conditions. Do not proceed with work under this section until unsatisfactory conditions have been corrected in accordance with AWI's *Quality Standards Illustrated* (current version) and Advantage Scientific *Site Conditions*.
- B. Casework, countertops, and related materials shall be conditioned to average prevailing humidity condition in installation areas prior to start of work.
- C. Install casework and countertops with factory-trained supervision, authorized by manufacturer. Casework shall be installed plumb, level, true, and straight with no distortions (shim as required). Casework shall be securely attached to building structure with anchorage devices of appropriate type, size, and quantity to meet applicable codes, specifications, and safety conditions. Where casework and countertops abut other finished work, scribe and trim to accurate fit, and caulk as required.
- D. Adjust casework and hardware so that doors and drawers operate smoothly without warp or bind. Lubricate operating hardware.
- E. Repair, or remove and replace, defective work as directed upon completion of installation.
- F. Advise project site superintendent of problems and precautions for protection of casework and countertops from damage by other trades until acceptance of the work by the owner.
- G. Cover casework with 4-mil polyethylene film for protection against soiling and deterioration during remainder of construction period.

END OF SECTION