Protector Laboratory Hood Base Cabinets

LABCONCO FUME HOOD BASE CABINET SPECIFICATION

PART 1 - GENERAL

1.01 Scope and Classification

1.01.01 This specification covers the requirements for the purchase of steel base cabinets for bench-top fume hoods and other enclosures. It is written to cover standard storage, acid/corrosive storage, and solvent/flammable storage cabinets.

1.01.02. Base cabinets in 12", 18", 24", 30", 36" and 48" widths and depths of 22" are covered by this specification.

1.01.03. This specification sets the intent for quality and appearance.

1.02 Requirements:

1.02.01 The steel base cabinets are of modern design and are constructed in accordance with the best practices of the Scientific Laboratory Equipment Industry. Base cabinets are epoxy-coated steel construction, capable of supporting up to 800 pounds. Each cabinet includes four leveling feet and one 8" filler panel to increase exterior cabinet depth to 30". Other filler panel depths of 14", 15.5", and 20" are available as accessories for other total depths. For example, a 14" filler panel increases the cabinet depths to 36".

1.03 Quality Assurance:

1.03.01 The steel base cabinet contractor provides worktops and fume hoods all manufactured or shipped from the same geographic location to assure proper staging, shipment and single source responsibility.

1.03.02 General Performance: Provide certification that furniture meets the performance requirements described in SEFA 8.

1.04 References:

1.04.01 The base cabinet conforms to the following regulations and standards:

SEFA 3 - Scientific Equipment and Furniture Association
SEFA 8 - Scientific Equipment and Furniture Association
NFPA 30 - National Fire Protection Association
NFPA-45 - National Fire Protection Association
UL - Underwriters Laboratories
ASTM D552 - Bending Test

1.05 Submittals:

1.05.01 Base cabinet specification sheets and product manuals are submitted by the hood manufacturer upon request. The base cabinet supplier submits shop drawings when necessary for clarification.

1.05.02 Sample pieces of the base cabinet exterior wall material and color selection chips are available from the hood manufacturer upon request.

1.06 Delivery and Storage:

1.06.01 Base cabinets are delivered adequately protected from damage during shipment.

1.07 Warranty

1.07.01 Manufacturer's warranty against defects in material or workmanship on its base cabinets are 1 year from date of installation or 2 years from date of purchase, whichever is sooner, and includes replacement of parts and labor.

PART 2 - PRODUCTS

2.01 Acceptable Manufacturer:

2.01.01 Labconco Corporation, 8811 Prospect Avenue, Kansas City, Missouri 64132, Protector Acid, Solvent, and Standard Storage base cabinets, model numbers as follows:

Acid Storage: 9901000, 9901100, 9901200, 9901300, 9901400, 9901500, 9901600, 9905000í 9905100, 9905200, 9905300

Solvent Storage: 9902000, 9902100, 9902200, 9902300, 9902400, 9906000, 9906100, 9903000, 9903100, 9903200, 9903300, 9903400, 9906200, 9906300

Standard Storage: 9900000, 9900100, 9900200, 9900300, 9900400, 9900500, 9900600, 9900700, 9900800, 9904000, 9904100, 9904200, 9904300, 9904400, 9904500

2.02 Materials:

2.02.01 Base cabinet exterior construction is 18 gauge (or heavier) cold rolled sheet steel. All exterior painted surfaces are baked on, dry powder epoxy applied electrostatically. Base metal material is properly prepared for epoxy coating.

2.02.02 Acid storage base cabinet interior liner is corrosion-resistant polyethylene panels. Nominal thickness is 3/16". Bottom pan and optional shelf liner tray is vacuum formed, 0.090 Georgia Gulf PVC.

2.02.03 Filler panels to hide the plumbing chase are 18 gauge (or heavier) cold rolled sheet steel with baked on, dry powder epoxy coating applied electrostatically. Base metal material are properly prepared for epoxy coating.

2.02.04 Optional acid fume vent kit meets ASTM standard F1412-92 for corrosion-resistant polyolefin piping with 2" diameter connection locknut.

2.02.05 Optional solvent fume vent kit is flexible stainless steel hose, 17-in length with 2" NPT x 1.5" slip fit outlet adapter.

2.02.06 Hinges are 10 gauge (or heavier) plate with self-clinching pilot pin. Knuckle, bullet, or piano type hinges are not accepted.

2.02.07 Acid storage and standard storage flush pull handles are ABS, low gloss black.

2.02.08 Solvent storage handles are locking lever handles with bright chrome finish.

2.02.09 Interior shelves are 16 gauge (or heavier) cold rolled sheet steel with baked on, dry powder epoxy coating applied electrostatically. Base metal material is properly prepared for epoxy coating. Solvent shelves are sealed leak tight.

2.03 Specific Fabrication Requirements:

2.03.01 Overall exterior dimensional information is as follows:

48"	48" w x 22" d x 35.5"-36.75" h
36"	36" w x 22" d x 35.5"-36.75" h
30"	30" w x 22" d x 35.5"-36.75" h
24"	24" w x 22" d x 35.5"-36.75" h or 31.5"-32.75" for ADA cabinets
18"	18" w x 22" d x 35.5"-36.75" h or 31.5"-32.75" for ADA cabinets
12"	12" w x 22" d x 35.5"-36.75" h or 31.5"-32.75" for ADA cabinets

2.03.02 All base cabinets:
Base cabinets are epoxy-coated steel construction, capable of supporting up to 800 pounds. Each cabinet includes four leveling feet and one 8" filler panel to increase cabinet depth to 30" and cover the utility chase. The rear panel will feature a 12"x8" removable plumbing access panel. Units 24" wide or less have only one door. Fume hood work surface (not included with base cabinet) is required.

2.03.03 Acid Storage Fume Hood Base Cabinets:
Acid storage fume hood cabinets utilize the same gauges of steel and construction features as other base cabinets except they are completely lined with a polyethylene corrosion resistant liner. The liner is 3/16" thick, with a vacuum formed PVC liner pan at the bottom to contain spills. Each door has a 3/16" sheet polyethylene liner. Where specified, each cabinet is vented into the fume hood with a 1-1/2" vent pipe. It should provide a positive airflow directly into the fume hood exhaust system. Where specified or shown on drawings, supply an epoxy coated steel shelf with PVC liner pan. The cabinet is labeled: "ACID".

2.03.04 Solvent Storage Fume Hood Base Cabinets:
Solvent storage cabinets are specifically designed for the storage of flammable and combustible liquids. Construction is based upon the requirements listed by NFPA No. 30 ñ 1993. Cabinets 30" wide and greater will be Factory Mutual approved. The bottoms, top, sides and doors are fabricated of 18 gauge steel and are all double panel construction with a 1-1/2" air space between panels. All joints are welded or screwed to provide a rigid enclosure. A 2" deep liquid tight pan that covers the entire bottom of the cabinet is furnished to contain liquid leaks and spills. A full-depth adjustable shelf is also provided. Two diametrically opposed flame arrestor vents with spark screens are provided in the back of the cabinet, as well as a grounding screw. The cabinet has an interior finish same as the exterior. The cabinet is labeled: "FLAMMABLE - KEEP FIRE AWAY". Door handles include a key lock. On self-closing/self-latching models, a fusible-link feature ensures the doors will close if the temperature outside the cabinet exceeds 165 degrees Fahrenheit. The doors are synchronized so that both doors will fully close.

2.03.17 Work surfaces (not included with base cabinet) are available with 6" x 3" oval epoxy cupsink(s) featuring 1-1/2" drain connection as well as other sink cutout requirements upon request. A work surface with a 1" leading edge radius is recommended (consult Labconco).

PART 3 - EXECUTION

3.01 Examination

3.01.01 Verify equipment rough-in before proceeding with work.

3.01.02 Coordinate with other trades for the proper and correct installation of plumbing and electrical rough-in and for rough opening dimensions required for the installation of the hood.

3.02 Installation

3.02.01 Install according to manufacturer's instructions.

3.02.02 Install according to standards required by authority having jurisdiction.

3.02.03 Install equipment plumb, square and straight with no distortion and securely anchor as required.

3.02.04 Sequence installations to ensure utility connections are achieved in an orderly and expeditious manner.

3.02.05 Touch up minor damaged surfaces caused by installation. Replace damaged components as directed by Architect.

3.03 Cleaning

3.03.01 Clean equipment, casework, countertops and all other surfaces as recommended by the manufacturer, rendering all work in a new and unused appearance.

3.03.02 Clean adjacent construction and surfaces that may have been soiled in the course of installation of work in this section.

3.04 Protection of Finished Work

3.04.01 Provide all necessary protective measures to prevent exposure of equipment and surfaces from exposure to other construction activity.

3.04.02 Advise contractor of procedures and precautions for protection of material and installed equipment and casework from damage by work of other trades.