## 附件：家具技术参数要求

Attachment: List of purchased equipment and technical parameters/requirements

**一.总体性能及技术要求**

**一.Overall Performance and Technical Requirements**

1.实验室专用实验台柜设备的材料及其配套件性能及技术应满足本“用户需求书”要求。

The performance and technology of the materials, parts and components of the special experiment bench and cabinet for laboratory shall comply with the requirements of the “User’s Demand Instructions”.

2.实验室设施及其配套水电安装位置应满足业主提供的有关文件和设计图要求。

The installation locations of facilities and supporting water and electricity for laboratory shall be in line with the relevant documents and design drawings of the Employer.

实验室设施及配套水电安装施工应符合以下标准的要求：

The requirements of the following standards shall be met in terms of the installation and construction of facilities and supporting water and electricity for laboratory:

[《人造板及饰面人造板理化性能试验方法](https://www.wenku365.com/p-76511.html)》GBT17657-2013

*Test methods of evaluating the properties of wood-based panels and surface decorated wood-based panels*

《实验室家具通用技术条件》GB 24820-2009；

*General Technical Requirements for Laboratory Furniture* (GB 24820-2009);

《建筑给水排水设计规范》 (GB 50015-2003)；

*Code for Design of Building Water Supply and Drainage* (GB 50015-2003);

《民用建筑电气设计规范》(JGJ16-2008)；

*Code for Electrical Design of Civil Buildings* (JGJ16-2008);

《民用建筑电线电缆防火设计规程》(DGJ08-93-2002)；

*Code for Fireproofing Design of Wires and Cables used in Civil Buildings* (DGJ08-93-2002);

《建筑设计防火规范》(GB 50016-2014)；

*Code for Fire Protection Design of Buildings* (GB 50016-2014);

 3.▲实验室专用实验台柜设备其硬件的结构强度和性能特征要满足本“用户需求书”中《实验室等级钢制家具检测方法和性能指标》的要求：

 3.▲The structural strength and performance characteristics of the hardware of the special experiment bench and cabinet for laboratory shall meet the requirements of the Test Methods and Performance Indicators of Steel Laboratory Furniture in the “User’s Demand Instructions”:

3.1. 实验室专用钢制实验台柜应能承受以下最大荷重而不变形或影响使用：

3.1. The special steel experiment bench and cabinet for laboratory shall bear the following maximum load without deformation or its use affected:

3.1.1. 落地式底柜柜体荷重性能检测：907公斤(约2000磅)；

3.1.1. Tested load performance of floor base cabinet: 907kg (approx. 2,000 lbs);

3.1.2. 落地式底柜柜体集中荷重性能检测：90公斤(约200磅)；

3.1.2.Tested concentrated load performance of floor base cabinet: 90kg (approx. 200 lbs);

3.1.3 框架式底座框架荷重性能检测：272公斤(约600磅)；

3.1.3Tested load performance of frame of frame base: 272kg (approx. 600 lbs);

3.1.4. 抽屉静态荷重性能检测：68公斤(约150磅)；

3.1.4. Tested static load performance of drawer: 68kg (approx. 150 lbs);

3.1.5. 底柜层板及试剂架层板荷重性能检测：18.14公斤/平方英尺(约40磅/平方英尺)，根据层板面积最高至90公斤(约200磅)。

3.1.5. Tested load performance of laminate of base cabinet and reagent rack: 18.14kg/ft2 (approx. 40 lbs/ft2); maximum (based on laminate area): 90kg (approx. 200 lbs).

4.▲实验室等级钢制实验台柜钢材表面处理要求(所有钢制柜体、框架及支架依本规定办理)：

4.▲Requirements of surface treatment of laboratory-grade steel experiment bench and cabinet (including all steel cabinet, frame and support):

4.1. 采用环氧树脂粉末静电喷涂工艺处理，涂层厚度不小于75微米，颜色可根据家具制造商的标准色卡由用户同意选择。

4.1. The electrostatic spraying process with epoxy resin powder shall be applied, The coating thickness is not less than 75 microns， and the color can be selected based on the standard pantone of furniture manufacturer under the approval of user.

4.2. 所有部件不得于安装现场焊接加工，以避免破坏表面环氧树脂涂层。

4.2. All components shall not be welded on the installation site to avoid damage to surface epoxy resin coating.

 4.3.除有特别说明者外，所有柜体内组装用螺丝均应为不锈钢材质螺丝，不得采用有尖头的自攻螺丝以避免接触伤害，所有钣金部件不得于安装现场焊接加工，以避免破坏表面环氧树脂涂层。

4.3.Unless otherwise stated, the screw in cabinet for assembly shall be made of stainless steel, and the sharp-pointed self-tapping screw shall not be used, so as to avoid contact injury; all sheet metal components shall not be welded on the installation site to avoid damage to surface epoxy resin coating.

**二﹑主要设备材料、结构及技术要求：**

**二. Main Equipment Materials, Structures and Technical Requirements:**

**（一）全钢结构实验台：**

**（一）All-steel experiment bench:**

所有中央台、边台、仪器台（仪器室）台面不小于16mm厚，操作面前缘上边经圆滑处理，美观且光滑不伤手。

The surface board of all central tables, side tables and instrument tables (instrument room) shall be no less than 13mm in thickness; the front upper edge of operating surface shall be smoothed to avoid hurting hand.

**1） 实验台台面**

**1) Table board**

1. ▲采用不小于16mm厚由30%热固树脂和70%树脂纤维高温高压下固化成型，三维基材结构不弯曲不变形。不采用以牛皮纸为基材，结构紧固致密，能抗冲击。表面经EBC电子束固化技术处理，确保表面致密无孔耐腐蚀，易清洁、消毒和维护。

1.▲The board, thickness of 13mm, shall be made of 30 % thermosetting resin and 70 % resin fiber under high temperature and high pressure with three- dimensional base material structure , which is not bent or deformed. It shall not use kraft paper as the base material and has a tight and compact structure and can resist impact. The surface is treated by EBC (electron beam curing) technology to ensure that the surface is compact, non-porous and corrosion - resistant, and easy to clean, disinfect and maintain.

1. 并符合以下技术参数：

2. Shall meet the following technical parameters:

1. ▲台面须提供有CMA认证的检测机构所出具的材料检测报告，检测标准参照GB/T17657-2013，测试结果为5级。应至少包含有：其中至少包含硫酸98%，硝酸65%，磷酸85%，盐酸37%，氢氧化钠40%，77%硫酸+65%硝酸，二氯甲烷，甲醇，丙酮等化学物，测试结果为5级

3. ▲The table top shall provide the report of the National Building Materials Testing Center ( the test report of cover glass shall be provided ), and the test standard shall refer to GB / T 17657 - 2013. Test results: Level 5 .Contains at least 98% sulfuric acid, 65% nitric acid, 85% phosphoric acid, 37% hydrochloric acid, 40% sodium hydroxide, 77% sulfuric acid +65% nitric acid, dichloromethane, methanol, acetone and other chemicals, test results of 5

1. ▲台面须提供SEFA3.0的测试报告，至少47项试剂达到0级,无明显变化

4. ▲The table top shall provide SEFA 3.0 test report At least 47 reagents reached grade 0 without significant change

1. ▲台面须国家权威检测机构出具的甲醛报告, 要求采用GB17657-2013 标准，结果为：未检出，即小于＜0.01mg/m3，( 检测报告复印件加盖公章)。符合GB/T39600-2021中ENF级

5. Formaldehyde test report shall be provided. The test standard shall refer to GB17657-2013. Results: no detection, that is, less than < 0.01mg/m3, (copy of test report with official seal).Shall also meet ENF grade based on GB/T39600-2-2021.

1. 绿色环保，需提供SGS出具的PEFC和FSC证书

6. For Green and environmental protection, certificates issued by a qualified party shall be provided

1. 台面需提供由SGS出具的EBC技术的使用证明

7. The table top shall provide the certificate of EBC technology issued by SGS

1. 台面材料需提供由第三方提供的相关的清洁性测试报告，采用荧光测试进行评估.

8. The table top shall provide the related cleanability test report done by third-party, and the cleanability test shall be performed by using fluorescence test

1. ▲为保证实验室内部环境空气质量，要求台面板需提供Green guard Gold认证证书（绿色卫士金级认证证书），报告中要求其中TVOC挥发性有机物测试标准最大允许预测浓度为0.22mg/m3.

9.▲In order to ensure the indoor air quality of the laboratory, it is required that Greenguide Gold certificate shall be provided. The report requires that the maximum allowable predicted concentration of TVOC (volatile organic compounds) test standard is 0.22 mg / m3.

1. 台面安装要求；台面应保持水平，拼合台面应保持在一个平面内。台面与柜体间应连接稳固，台面不能脱落或跷起。

10.Requirements for table board installation: The table board shall be horizontal, and the pieced table boards shall be kept in one plane. The table board shall be securely connected to cabinet, and be free of stripping and tilting.

1. ▲实验台承重≥200Kg/m²,仪器台承重≥300Kg/m²。

11. ▲The load bearing shall be ≥200Kg/m² for experiment bench and ≥300Kg/m² for instrument table.

1. ▲提供原产地证明书 （格式不限）

12.▲Certificate of Origin shall be provided. (Format is unlimited)

1. ▲厂家需提供满足以上技术参数的产品售后服务承诺函，要求产品售后服务承诺函具有法律效力，在承诺函里面要求明确如下条款；
2. 有限保修期为10年，并明确有限保修条件；
3. 损害赔偿限制条款；
4. 排除条款
5. 免责声明
6. 适用法律和有管辖权的法院
7. 法律行动

 投标人承诺在项目中标之后，合同签订之前，需另外提供包含以上内容的，加盖厂家公章的售后服务承诺函给招标人。

13.▲The manufacturer shall provide after-sales service commitment letter which satisfies the above technical parameters, and the after-sales service commitment letter must have legal effect. The following terms shall be specified in the commitment letter:

1. The limited warranty period is 10 years and the limited warranty conditions are clearly defined;
2. Limitation clauses for damages;
3. Exclusion clauses
4. Disclaimer
5. Applicable law and competent courts
6. Legal action

The bidder undertakes that after winning the bid and before signing the contract, the bidder shall provide the after-sales service commitment letter containing the above contents and affixed with the official seal of the manufacturer to the tenderee.

**2）** **门板**

**2) Door plank**

1. ▲采用1.2mm一级冷轧钢板（SPCCT）或同等级别钢板经CNC机压成形、焊接制作，表面经环氧树脂粉体涂装处理（涂装厚度为75μm）。柜门为双包结构，内附防噪填充。每个包层都是先喷涂再包合，不会因局部的破损而导致内部的损伤。

The 1.2mm first-grade cold-rolled steel sheet (SPCCT) or the steel plate of the same grade shall be used, shaped by CNC machine, welded and subject to surface treatment by coating with epoxy resin powder (with a coating thickness of 75μm). The cabinet door shall be double-packed with noise reduction filling. Each covering shall be sprayed and then wrapped to avoid internal damages due to partial breakage.

**3） 抽屉**

**3) Drawer**

▲采用1.2mm一级冷轧钢板（SPCCT）或同等级别钢板经CNC机压成形、焊接制作，表面经环氧树脂粉体涂装处理（涂装厚度为75μm）。

The **1.2**mm first-grade cold-rolled steel sheet (SPCCT) or the steel plate of the same grade shall be used, shaped by CNC machine, welded and subject to surface treatment by coating with epoxy resin powder (with a coating thickness of 75μm).

**4） 活动层板**

**4) Movable laminate**

采用1.2mm一级冷轧钢板（SPCCT）或同等级别钢板经CNC机压成形、焊接制作，表面经环氧树脂粉体涂装处理（涂装厚度为75μm）。层板支撑扣采用1.2mm厚304#不锈钢制作，层板可以上下调节。

The **1.2**mm first-grade cold-rolled steel sheet (SPCCT) or the steel plate of the same grade shall be used, shaped by CNC machine, welded and subject to surface treatment by coating with epoxy resin powder (with a coating thickness of 75μm). The support buckle of laminate shall be made of 1.2mm thick 304# stainless steel, and the laminate shall be available for upward and downward adjustment.

**5） 活动维修背板**

**5) Movable backboard for repair**

采用可拆装式设计，以方便管线安装维护。

It shall be removable for easy installation and maintenance of pipeline.

**6） 踢脚板**

**6) Skirting board**

▲采用1.8mm一级冷轧钢板（SPCCT）或同等级别钢板经CNC机压成形、焊接制作，表面经环氧树脂粉体涂装处理（涂装厚度为75μm）。

The 1.8mm first-grade cold-rolled steel sheet (SPCCT) or the steel plate of the same grade shall be used, shaped by CNC machine, welded and subject to surface treatment by coating with epoxy resin powder (with a coating thickness of 75μm).

**7） 底柜五金及配件**

**7） Hardware and accessories of base cabinet**

1. 滑轨：采用三节式滚珠滑轨，表面经防蚀处理，具止落装置，防止抽屉意外滑离柜体，但可轻易用手将抽屉全部拆出。滑轨需通过有关标准（列出），50000次抽拉试验。

Sliding rail:The three-section ball-bearing slide shall be used with surface subject to anti-corrosive treatment, and be provided with a falling stop device to prevent drawer from sliding away from cabinet by accident while the drawer can be easily fully removed by hand. The sliding rail shall be subject to the pulling test for 50,000 times in accordance with the (listed) relevant standards.

1. 抽屉导轨为冷轧钢板模具冲压成型制作，重负荷包夹式滑轨，尼龙滚珠，自闭结构设计。运动负重≥25kg（≥100000次），抽屉内表面均设有防撞垫片。

The guide rail shall be manufactured by punch forming of cold-rolled steel sheet mould, with heavy load clip-on sliding rail, nylon ball and self-closing structure. The motion load shall be ≥25kg (≥100,000 times), and the internal surface of drawer shall be provided with anti-collision pad.

1. 合页或铰链：

Hinge:

1. 采用优质合页或铰链，铰链应有三度空间微调位置功能，以调整门板的间隙。需通过有关标准（列出）,50000次拉开测试。每片门板至少配置两只合页或铰链。

The high-quality hinge shall be adopted, and the hinge shall have the function of three-dimensional fine adjustment of position, so as to adjust the gap between door planks. The hinge shall be subject to the open test for 50,000 times in accordance with the (listed) relevant standards. Each door plank shall be provided with two hinges.

1. 合页或铰链开启角度大于180度，304不锈钢，5节式。通过相关认证、并提供相关的认证文件。

The hinge shall have an opening angle greater than 180°, be made of 304 stainless steel and be of 5-section. And it shall pass related certification and provide relevant certification documents.

1. 把手：编号316不锈钢把手，抽屉宽度超过600mm及以上时应配置两只把手。

Handle: The 316 stainless steel handle shall be employed, and two handles shall be equipped when the width of drawer exceeds 600mm and above.

**8） 其它**

**8) Miscellaneous**

1. 柜体为落地式结构，一般高度(含调整脚及台面厚度)为850mm；

The cabinet shall be a floor cabinet with a general height of 850mm (including the thickness of adjustable feet and table board);

1. 所有底柜双开门间无中央垂直支柱阻挡。柜体内有层板上下调节孔，每个底柜设活动层板一只，层板宽度与底柜内宽度相当，不得于两侧有各超过3mm的间隙。

There shall be no central vertical pillar between the double doors of base cabinet. The cabinet shall be provided with a hole for the upward and downward adjustment of laminate; each base cabinet shall be installed with one movable laminate; the width of laminate shall be equivalent to the width of base cabinet, and a gap exceeding 3mm on both sides is not allowed.

1. 服务通道：中央桌背对背框架中间空档及靠边桌框架与墙面中间空档有一个服务通道距离，用来布设电、水、气管路，隐藏设计。

Service channel: The space between the back-to-back frames of central tables and between the frame of side table and wall is available for service channel, which shall be hidden and used to lay out pipelines for electricity, water and gas.

1. 所有钣金的表面接缝均应满焊，焊接处均应打磨平整以保持为连续的平滑表面

The surface joints of sheet metal shall be fully welded, and the welds shall be ground to maintain a continuous smooth surface.

1. 所有部件不得于安装现场焊接加工，以避免破坏表面环氧树脂涂层。

All components shall not be welded on the installation site to avoid damage to surface epoxy resin coating.

1. 座位空间：依据图纸及相关说明所示，于实验台框架间配置座位空间。

Seat space: The seat space shall be provided between the frames of experiment bench as indicated in drawings and relevant instructions.

1. 装饰封板：依图纸说明所示，柜体内部后方，背对背柜体中间空档外侧及靠边实验台柜体与墙面中间空档外侧，须使用钢制装饰封板遮盖，封板的颜色及表面处理应与柜体相同；所有装饰封板为可拆装式设计，其组装螺丝应以孔塞遮蔽不可外露。

Decorative sealing plate: For the inner rear part of cabinet, and for the outside of the space between the back-to-back cabinets and between the cabinet of side experiment bench and wall, the steel decorative sealing plate shall be used for covering, of which the color and surface treatment shall comply with that of cabinet. All sealing plates shall be removable and their screws for assembly shall be covered with plug.

**9）****试剂架**

**9) Reagent rack**

1. 独特的菱形德式试剂架，支柱采用厚1.0mm一级冷轧钢板（SPCCT）经CNC机压成形、焊接制作，表面经环氧树脂粉体涂装处理（涂装厚度为75μm）。

The rhombic German-style reagent rack shall be adopted, of which the support shall be made of 1.0mm thick first-grade cold-rolled steel sheet (SPCCT) which is shaped by CNC machine, welded and subject to surface treatment by coating with epoxy resin powder (with a coating thickness of 75μm).

1. 固定片、调节架支撑翼、后挡板：采用优质1.0mm厚冷轧钢板冲折制作，表面经环氧树脂粉体烤漆防腐蚀处理，其厚度为75μm。

Fixed piece, braced wing of adjusting bracket and rear baffle: The high-quality 1.0mm thick cold-rolled steel sheet shall be used, and then be punched and bent, and subject to anti-corrosion surface treatment with epoxy resin powder paint with a thickness of 75μm.

1. 采用台面安装式设计，以方便配置增减拆装。

The table board design for installation shall be employed to facilitate addition, reduction, disassembly and assembly.

1. 依图纸说明所示，按需求配置单面型或双面型两种式样以方便中央台及边台使用试剂架。

Based on what indicated in drawings, the single- or double-side reagent rack shall be equipped as required for the easy use for central table and side table.

1. 试剂架立柱具整排挂孔供活动层板悬挂用，层板上下调节间距每格应小于25mm(约1英吋)。

The column of reagent rack shall have a row of hanging holes forhanging movable laminate, and the spacing for upward and downward adjustment of laminate shall be less than 25mm (approx. 1 inch) for each grid.

1. 试剂架层板：8mm厚钢化玻璃，分上下2层，高低可调活动式，层板外缘采用Φ12mm 编号SUS304不锈钢材质护栏。

Laminate of reagent rack: It shall be made of 8mm thick tempered glass, suitable for height adjustment and provided in 2 layers, and shall be provided with Φ12mm SUS304 stainless steel guardrail on the outer edge.

1. 试剂架立柱内侧应按要求配置插座安装孔，立柱内夹层应有足够空间供插座配线隐藏铺设。

The inner side of the column of reagent rack shall be arranged with a hole for mounting socket as required, and there shall be enough space for the interlayer inside the column for the hidden laying of socket wire.

**10）****功能柱**

**10) Functional column**

1. 采用厚1.0mm一级冷轧钢板（SPCCT）经CNC机压成形、焊接制作，表面经环氧树脂粉体涂烧防蚀处理，其厚度为75μm。

The 1.0mm thick first-grade cold-rolled steel sheet (SPCCT) shall be used, shaped by CNC machine, welded and subject to anti-corrosion surface treatment by coating with epoxy resin powder with a thickness of 75μm.

1. 功能立柱应为本体与面板组合可拆装式设计，其组装螺丝应以孔塞遮蔽不可外露。

The functional column shall be a detachable combination of column and panel, of which the screws for assembly shall be covered with plug.

1. 功能立柱应有足够的内部空间及必要的开孔，以便通过及容纳实验台需要的公用系统管线及相关配件，管线槽内的强电/弱电/水/气等应具各自独立的区隔。

The functional column shall be designed with adequate inner space and necessary holes to accommodate pipelines and relevant parts of the utility system required for experiment bench. Separate partition in pipeline slot shall be enabled for ELE/ELV/water/gas, etc.

1. 功能立柱尺寸有二种，分别为400×150，200×100mm，高度根据现场情况从天花接至实验台台面(具体配置与有关参数，应参照相关招标文件提供的设备清单、技术条款和图纸所示)。

The functional column shall be provided in two sizes which are 400×150 and 200×100mm, and shall connect the ceiling and the top of experiment bench according to the practical situation on site (the specific configuration and relevant parameters shall comply with the equipment list, technical terms and drawings from the bidding document concerned).

**（二）实验室家具配件**

**(二) Laboratory furniture accessories**

* **滴水架：**
* **Drip rack:**
1. 配置依图纸或相关说明所示。

It shall be provided as per drawings and relevant instructions.

1. 轻质量，高强度，容易组装和拆卸，可放在水槽边，PP材质，滴水架钉子呈竖直35度～45度角，用于置放各种实验室玻璃器皿。

It shall be of light mass, high strength, made of PP, and easy for assembly and disassembly. It can be placed on the side of sink, of which the nails shall be designed at a vertical angle of 35°～45° for holding various glass wares in laboratory.

1. 提供至少27个滴水架钉子以及安装孔，用双手就能够拆装。插空防水。

It shall provide at least 27 nails and mounting holes allowing for manual assembly and disassembly. The jack shall be waterproof.

1. 滴水架钉子可以由使用者来选者以便适应大型的器皿置放。

The nails can be selected by user to accommodate large vessel.

1. 倾斜的设计能够使液体轻易快捷的排走。

The declining design allows easy and quick drainage of liquid.

* **洗眼器：**
* **Eye washer:**
1. 台式单口洗眼器

Desktop single eye washer

1. 配置依图纸或相关说明所示。

It shall be provided as per drawings and relevant instructions.

1. 涂层:高亮度环氧树脂喷涂层、耐腐蚀、耐热、防紫外线辐射

Coating: high-brightness epoxy resin sprayed coating, corrosion resistance, heat resistance, UV protection

1. 喷淋头：单头，软性橡胶，出水轻缓压处理呈泡壮水柱，防止冲伤眼睛

Sprinkler head: single, soft rubber, effluent of bubbly water column by gentle press to protect eyes

1. 防层盖：ABS材质，使用时自动被水冲开

Dust cover: ABS material, automatically washed away by water in use

1. 手柄：内铜制，外PP

Handle: copper for inside, PP for outside

1. 金属环扣：具锁定水流功能，方便使用

Metal buckle: locking water flow, easy for use

1. 控水阀：加厚铜制，高密度PP手把，其闭门可自动关闭

Water control valve: thickened, made of copper, high-density PP handle, automatically closed gate

1. 供水软管：长度1.5米，软件PVC管外覆不锈钢网

Water supply hose: 1.5m long, PVC hose with outer stainless steel wire

1. 最大耐水压：18kg。洗眼开头能在1秒内开启，标准水压下，15分钟内洗眼喷头流量可达到6升/分钟。

Maximum water-pressure resistance: 18kg. Eye washing can be started within 1 second, and the flow rate of eye washing nozzle can reach 6 liters/min within 15 minutes under standard water pressure.

* **万向抽气罩**
* **Universal exhaust hood**
1. PP关节和铝合金材质:关节位高密度PP,可360°旋转调节方向，易拆卸、重组及清洗。

PP joints and aluminum alloy: the PP with high density at joints can be subjected to direction adjustment by making a 360-degree turn, and it is easy to be disassembled, reassembled and cleaned.

1. PP材质的可调节的滚装轴承接头，内置摩擦系数低的导向橡胶圈；

The adjustable rolling bearing joint of PP material is provided with a guide rubber ring with low friction coefficient inside;

1. 固定弹簧及其它部件为镀锌板或不锈钢；

The fixed spring and other components are galvanized sheet or stainless steel;

1. 关节松紧选钮：高密度PP制成，内嵌铜质螺母，与关节连接杆锁合。

Adjustable joint knob: made from the PP with high density, with copper nuts embedded, and locked with the joint connecting rod.

1. 气流调节阀：手动调节外部阀门旋钮，控制进入之气流量。

Air flow control valve: adjust the external valve knob manually to control the incoming air flow.

1. 杯形集气罩：透明罩体。

Cup shaped gas collecting hood: transparent hood.

1. 伸缩导管：直径75mmPVC。

Flexible conduit: DIA 75mmPVC.

* **试剂柜/样品柜：**
* **Reagent cabinet / sample cabinet:**
1. 每个柜体均应为完整独立的落地型全钢制柜体设计；

Each cabinet shall be of a complete and independent floor type all-steel cabinet design;

1. 钢制柜体加工材料为1.2mm厚，一级冷轧钢板（SPCCT）经CNC机压成形、焊接制作，表面经环氧树脂粉体涂烧防蚀处理，其厚度为75μm。

The steel cabinet processing material is 1.2mm thick. The first-grade cold-roll steel sheet (SPCCT) shall be shaped by CNC machine, and then be welded and be subject to surface corrosion prevention treatment by coating with epoxy resin powder (with a thickness of 75μm).

1. 每个柜体单元应配备4个镀锌钢螺杆调整脚，以支撑柜体及调节水平，柜体底部离地板距离应不少于10mm以隔离地面潮气。

Each cabinet unit shall be provided with 4 galvanized steel screw adjustable feet to support the cabinet and adjustable the level. The bottom of the cabinet shall be no less than 10mm from the floor to isolate the ground moisture.

* **门板：**
* **Door plank:**
1. 门板型式：采用双开门型式，柜体两片门间无中央垂直支柱阻挡；

Type of the door plank: the double-door type shall be adopted, and there shall be no central plumb posts obstructed between the two doors of the cabinet;

1. 门板为双层结构，内外面均经环氧树脂粉末静电喷涂，夹层内具消音材料；

The door plank shall be of double-layer structure. Both the internal and external surfaces shall be subjected to electrostatic coating with epoxy resin power, and there are acoustic materials in the sandwich layer;

1. 门板配置橡胶缓冲垫，以避免与柜体钢板碰撞。

The door plank shall be provided with rubber cushion pad to avoid collision with the steel plate of the cabinet.

* **活动层板：**
* **Movable laminate:**
1. 层板两侧及前后端应向下折边后再反折，边缘不割手；

The two sides and the front and rear ends of the laminate shall be reflexed after being folded downward.

1. 层板上下调节间距每格应小于19mm(约3/4英吋)；

The adjustment spacing of the laminate up and down shall be less than 19mm (about 3/4 inches);

1. 层板数量：三只。

Number of laminates: three.

* **五金及配件：**
* **Hardware and accessories:**
1. 参照SEFA8标准或SGS标准的厂制不锈钢合页，合页应有三度空间微调位置功能，以调整门板的间隙。每片门板至少配置两只合页。

Refer to the factory-made stainless steel hinge of SEFA8 standard or SGS standard. The hinge shall have the function of three-dimensional fine adjustment of position, so as to adjust the gap between door planks. Each door plank shall be provided with at least two hinges.

1. 门板把手：采用编号304不锈钢把手。

**四.主要材料设备推荐品牌表**

**四. Recommended Brands of Main materials & Equipment**

1.  本《主要材料设备品牌响应表》中的品牌供投标人在编制投标文件时参考，投标人应予积极响应。投标人如需提供其他品牌，至少需提供推荐品牌同等档次或以上的品牌。

1. The brands in this Brand Response Table for Major Materials and Equipment are for reference by the bidder in the preparation of bidding documents, and the bidder should respond positively. If the bidder needs to provide other brands, the bidder shall at least provide the brand of the same grade or above as the recommended brand.

2. 投标人需要在投标文件中提供下列主材的选用品牌。中标后承包厂商必须按其投标文件中选定的品牌交货、不得更换品牌。如因特殊原因需要更换品牌，必须经招标人同意。

2. The bidder shall provide the selected brands of the following main materials in the bidding documents. After winning the bid, the Contractor must deliver goods according to the brand selected in the bid document, but shall not change the brand. If the brand needs to be changed due to special reasons, it must be agreed by the tenderee .

|  |  |  |
| --- | --- | --- |
| 编号No. | 名称Name | 推荐品牌Recommended brand |
| 1 | 台面Table board | 1. Trespa; 2. Wilsonart; 3. Durcon  |
| 2 | 钢结构材料Steel structure material | 宝钢、鞍钢、武钢一级冷轧钢板；Baosteel, Ansteel, Wusteel high grade  |
| 3 | 实验室专用水龙头Special tap for laboratory | 1.Broen；2.Far； 3. BRLON |
| 4 | 桌上洗眼器、紧急喷淋Desktop eye bath, emergency shower | 1.Broen；2.Watersaver； 3. BRLON |
| 5 | 万向抽风罩Universal draught hood | 1. FUMEX 2.Alsident；3. BRLON |
| 6 | 家具配套电源插座Power socket for furniture | 1. Schneider; 2. Siemens; 3. ABB  |
| 7 | 水槽、滴水架Sink, drip rack | 1. SAN 2. BRLON 3. TOF  |
| 8 | 滑轨、合页或铰链Sliding rail, hinge | 1. Hafele 2. Grass 3. Kingslide  |
| 9 | 实验台柜钢材表面环氧树脂粉末Epoxy resin powder on the steel surface of laboratory bench | 1. Dupont 2. Akzo Nobel 3. Jotun |
| 10 | 热水器The water heater | 1.A.O. Smith; 2. Midea; 3. Haier |
| 11 | 防火化学品柜/防火气瓶柜 | 1.Duperthal；2.Asecos；3.SYSBEL  |
| 注：表中未列材料品牌不低于学校现有实验室使用同类材料等级。Note: The brand of materials not listed in the table shall not be lower than the grade of similar materials used in existing laboratories of the school. |