PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Laboratory service fittings, valves, and related components.

B. Laboratory emergency plumbing fixtures.

C. Laboratory sink units.

D. Hose reel.

E. Overhead Service Reel

F. Hose rack.

G. Quick disconnect couplings

1.2 RELATED SECTIONS

A. Division 22: Plumbing

B. Division 23: Heating, Ventilated, and Air-Conditioning

C. Section 222000: Laboratory Plumbing

D. Division 26: Electrical

1.3 REFERENCES

A. Conform to SEFA 2-2010 Recommended Practices for Installation and SEFA 7-2010 Recommended Practices for Laboratory Fixtures as published by the Scientific Equipment and Furniture Association.

1.4 DESCRIPTION

A. Work includes but is not necessarily limited to furnishing to the project site for installation by Division 22, all laboratory fixtures, fittings, and emergency plumbing fixtures described herein and shown on the Laboratory Furnishings Drawings.

1.5 SUBMITTALS

A. Refer to General Conditions and Division 1 “Submittal Procedures” for submittal requirements. In addition to these requirements, provide submittal requirements specified herein.

B. Submittal requirements:

1. Submittal shall be prepared individually for this specification section. Arrange product data, drawings and information for submission in a complete set for this specification section.

2. Submittal shall contain complete data for all items of this specification section. Periodic or partial submittals of individual components within this specification section will be returned as incomplete and rejected.

3. Submittals shall be organized by specification sequence with section and paragraph number identified.

4. Equipment and components being proposed shall be clearly labeled with all options and accessories indicated and shall be for this specific project.

C. Materials List/Product Data: Submit complete materials list, including catalogue data, of all materials, equipment, and products for Work in this Section.

D. Shop Drawings: Submit complete shop fabrication and installation drawings, including plans, elevations, sections, details and schedules. Show relationship to adjoining materials and construction. Shop Drawings shall be in the form of reproducibles or photocopies, not to exceed 11inches x 17 inches (A3) in size. Blueline prints are not acceptable.

E. Approved Substitution/Approved Equal: In addition to the items required in Division 1, all substitution requests shall include item-by-item comparison of the proposed substitution to this project specification. A copy of the project specification shall be submitted, with each item and subsection of the project specification marked as “Comply” or “Not Comply.” In any cases where “Not Comply” is indicated, an explanation of the relative advantages of the proposed design shall be provided.

1. Substitution shall not affect dimensions shown on Drawings.

2. The Contractor shall pay for changes to the building design, including engineering design, detailing, utility and service requirements, and construction costs caused by the requested substitution.

3. Substitutions shall have no adverse affect on other trades, the construction schedule, or specified warranty requirements.

4. Maintenance and service parts shall be locally available for the proposed substitution.

F. Samples: Submit two (2) samples of each type of specified finish and color specified.

G. Certifications: As a condition of acceptance, submit certification stating that equipment is complete and ready for intended function.

H. Operations/Maintenance Manuals: Accompanying certification, submit for Architect's review and Owner's use, complete operating and maintenance manuals that describe proper operating procedures, maintenance and replacement schedules, components parts list, and closest factory representative for components and service.

1.6 PRODUCT HANDLING

A. Protection: Use all means necessary to protect work of this section before, during and after installation including installed work and materials of other trades.

B. Replacement: Any damaged work shall be replaced, repaired and restored to original condition to the approval of the Architect at no additional cost or inconvenience to the Owner.

1.7 QUALIFICATIONS

A. Work in this section shall be performed by a company having a minimum of eight years documented experience, and an established organization and production facilities including all tools, equipment and special machinery necessary for specializing in the fabrication and installation of the type of equipment required, with skilled personnel, factory trained workmen and an experienced engineering department. Each shall have the demonstrated knowledge, ability and the proven capability to produce the specified equipment of the required quality and the proven capacity to complete an installation of this size and type within the required time limits.

B. Work in this Section requires close coordination with Work in electrical and mechanical Sections. Coordinate all Work to assure an orderly progress in the Project, without removal of previously installed Work, and so as to prevent damage to finishes and products.

C. Review conditions of installation, procedures and coordination with related Work.

D. Carefully inspect the installed Work specified in other Sections and verify that all such Work is complete and ready for the installation of this Work to properly commence.

E. Verify that all Work may be installed in complete accordance with the original design, reviewed submittals and manufacturer's recommendations.

1.8 WARRANTY

A. All products will be warranted to be free from defects in materials and workmanship for a period of one year following substantial completion. The manufacturer/dealer/subcontractor shall repair or replace any products (or parts thereof) that are found to be defective. Replacement will include any parts, labor, shipping, and travel expenses involved. Warranty replacement work must be scheduled in coordination with the College’s academic schedule and may therefore require evening and/or weekend hours.

PART 2 - PRODUCTS

2.1 GENERAL

A. All service fittings and emergency plumbing fixtures shall be specifically designed for laboratory use.

B. Service fittings, emergency fixtures, sinks, etc. specified in this Section shall be furnished and delivered to point of use for installation as specified in Division 22.

C. All service fittings shall be factory pre-assembled including the assembly of valves to turrets, mounting shanks to turrets, etc., and individually factory tested.

D. All laboratory service fittings shall be the product of one service fitting manufacturer to assure ease of replacement and maintenance.

E. All service valves, fittings, turrets, flange and accessories shall be forged brass with a minimum copper content of 85%.

F. Provide fittings as shown in laboratory fitting details for all laboratory equipment at locations shown on the Laboratory Furnishings drawings. See Service Fitting Schedule.

G. Assembly components and operating parts such as valve stems, renewable units, packing nuts, outlet nozzles and straight serrated hose ends shall be made from solid brass stock.

H. Replaceable seats, needle cones, valve disc screws and other accessories shall be Monel or stainless steel alloys especially selected for use intended.

I. Fittings shall be factory tested and shall be supplied with nipples, lock nuts, shanks, etc.

J. Serrated tip fittings shall be threaded with the hose end being tapered.

K. Turrets shall be brass drop forging of design indicated in details shown elsewhere in the Section and shall be one or two-way, as required, with 3/8 inch (9.525 mm) IPS female inlet thread for connections. Units shall be furnished with brass shanks, brass locknuts, and washers.

L. Fittings located on the same plane shall have their handles project the same distance from the plane of reference to present a uniform related appearance, regardless of valve type construction.

M. Flanges shall be brass forging of approved design with 3/8 inch (9.525 mm) IPS female inlet and outlet.

N. All goosenecks shall provide full thread for attachment of aerator or serrated hose ends.

O. Hot water/cold water gooseneck mixers and wall-mounted cold water goosenecks shall swivel. Swivel point shall be above valve body or at valve level if wall mounted. Swing joints shall have heavy Teflon type packings; "0" rings will not be permitted. Cold water goosenecks at cup sinks shall be rigid.

P. All fittings shall have plastic colored service index buttons as specified in this Section.

Q. Flow stop shut-off valve with lever handle on compressed air (AIR60-100) fittings are not acceptable and shall not be acceptable at wall, hood, overhead, or panel mounted conditions.

R. Provide approved backflow preventers at hand held drench hoses. See details on Laboratory Furnishings drawings.

S. Provide durable 1inch x 3 inch (25 x 75 mm) sign “NONPOTABLE WATER, DO NOT DRINK” at each bench mounted industrial water fitting, see details on Laboratory Furnishings drawings.

T. Provide plug and socket (2-piece) quick connect service fittings for all compressed air (AIR60-100) fittings and processed chilled water supply and return fittings.

U. Fittings and fixtures designated to be accessible to persons with disabilities (ADA) with operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate operable parts shall be 5 pounds (22.2 N), maximum.

2.2 LABORATORY SERVICE FITTINGS

A. Manufacturers:

1. Products, which comply with this specification section as judged and approved by the Architect, may be provided by the following manufacturers. All products specified in this section shall be provided by a single manufacturer.

a. Water Saver Faucet Co., 701 West Erie Street, Chicago, IL 60610 Tel: (312) 666-5500.

b. T&S Brass and Bronze Works, Inc., 2 Saddleback Cove, P. O. Box 1088, Travelers Rest, SC 29690 Tel: (800) 476-4103.

c. Broen, Inc., 2820 Commerce Blvd., Birmingham, AL 35210 Tel: (800) 446-7326.

d. Approved substitution.

B. Cylindrical Pattern:

1. All service fittings shall have WaterSaver Standard turret style as the basis of design.

C. Handles:

1. Faucets designated to be accessible to persons with disabilities (ADA): provide 4 inch “wrist-blade” handles with color coded screw-on index (identification) discs. Wrist-blade handles to be installed in the vertical position (off).

2. Laboratory gas, air and vacuum valves at workstations indicated to be accessible to persons with disabilities (ADA): Provide ball valves fitted with lever-type handles and color coded screw-on index (identification) discs.

3. Other fittings shall be fitted with black hooded type handles and color coded screw-on index discs.

D. Finish: As described elsewhere in this section.

E. Water Valves:

1. Water valves shall include a renewable unit containing all the working parts which are subject to wear, including stainless steel or monel seat, monel screw and heavy duty seat disk and Teflon packing.

2. Volume control at deck mounted water faucets:

   a. Compression unit with integral adjustable volume control to regulate size of inlet port of valve.

3. Volume control at fume hood water outlets: Serrated hose end shall have a 0.5 GPM removable flow restrictor insert to allow a perfect flow out of the outlet and eliminate any splashing or wide pattern spray.

4. Goosenecks: Unit shall be capable of being readily converted from compression to self-closing, and vice versa, without disturbing faucet body and shall also be capable of being readily converted from water construction to needle valve or steam valve construction having outside packing gland without disturbing faucet body.

5. Unit shall be sealed in valve body with special composition gasket. Metal-to-metal or ground joint type of sealing is not acceptable.

6. Water fixtures shall be fully assembled and factory tested at 80 psi (0.55 MPa) water pressure.

F. Needle Valves: Fully assembled and factory tested at 225 psi (1.55 MPa) air pressure. Gas, air, vacuum and steam needle valve fittings shall have stainless steel replaceable floating cone that is precision ground and self-centering which shall seat against a stainless steel or monel renewable valve seat. Action of valve shall be slow compression for fine control under pressure up to 150 psi (1.03 MPa) and shall have subject-to-wear parts easily replaceable. Provide pressure regulators designed for use with the appropriate service at locations indicated on the Laboratory Furnishing drawings. Needle valves for natural (laboratory) gas service shall be certified for use with natural gas by the Canadian Standards Association under ANSI Z21.15-2009/CGA 9.1-2009. Needle valves in fume hoods shall be mounted on the front panel of the fume hood, with all components subject to wear accessible from the exterior face of the hood.

G. Laboratory Ball Valves: Suitable for laboratory gas, air and vacuum and be supplied fully assembled and factory tested at 125 psi (0.86 MPa) air pressure. Ball valves shall be of quarter-turn (closed to fully open) design, be fitted with lever handle requiring less than 5

lbf (22 N) force to operate, and shall have subject-to-wear parts easily replaceable. Ball valves for natural (laboratory) gas service shall be certified for use with natural gas by the Canadian Standards Association under ANSI Z21.15-2009/CGA 9.1-2009.

H. High Purity Water Valves: Suitable for purified water and provided with polypropylene liner. Valve stem and bonnet shall be brass.

I. Service Fitting Color Index:

Service Name	Disc Color	Letters	Letter Color
Lab Air	Orange	AIR	Black
Compressed Air	Orange	AIR60,90,100	White
Gas	Dark Blue	GAS	White
Vacuum	Yellow	VAC	Black
Industrial Cold Water	Dark Green	ICW	White
Industrial Hot Water	Red	IHW	White
Cold Water (Potable)	Dark Green	CW	White
Hot Water (Potable)	Red	HW	White
High Purity Water	White	PW	Black
Deionized Water	White	DI	Black
Argon	Violet	AR	White
Nitrogen	Brown	N2	White
Carbon Dioxide	Pink	CO2	Black
Helium	Black	HE	White
Oxygen	Light Green	O2	Black
CWS/R	Green	CWS/CWR	Black
Steam	Black	STM	White

Service Name	Disc Color	Letters	Letter Color
Cylinder Gas	Light Blue	CYL GAS	Black

J. Service Fitting Color Index: Comply with DIN Standard 12920:1995-10, Color Coding of Operating Handles.

2.3 LABORATORY EMERGENCY PLUMBING FIXTURES

A. Manufacturers:

1. Products, which comply with this specification section as judged and approved by the Architect, may be provided by the following manufacturers. All products specified in this section shall be the provided by a single manufacturer.

a. Water Saver Faucet Co., 701 West Erie Street, Chicago, IL 60610 Tel: 312 666-5500.

b. Guardian Equipment, 1104N North Branch St., Chicago, IL 60642 Tel: 312 447-8100.

c. Haws Corporation, 1455 Kleppe Lane, Sparks, NV 89431 Tel: 775 359-4712.

d. Approved substitution.

B. All emergency plumbing fixtures shall comply with requirements of ANSI Standard Z358.1-2009: American National Standard for Emergency Eyewash and Shower Equipment.

C. All emergency plumbing fixtures shall be accessible to persons with disabilities in compliance with the requirements of the federal Americans with Disabilities Act (ADA), ADA Accessibility Guidelines (ADAAG), and state accessibility regulations.

D. Barrier-free safety station with emergency shower actuation valve in stainless steel cabinet for recess mounting and wall-mounted eyewash with stainless steel skirt: Water Saver Model No. SSBF672-721, or equal, with the following characteristics or modifications.

1. Wall-mounted, exposed showerhead.

2. Exposed piping, showerhead, nipple, and escutcheon shall be chrome-plated brass with clear epoxy coating.

3. Exposed piping, showerhead, nipple, and escutcheon shall be chrome-plated brass with clear epoxy coating.

4. Safety shower actuating arm shall be stainless steel.

5. Showerhead shall have perforated stainless steel spreader.

6. Safety shower actuating arm shall be mounted in a flanged, recessed-mounted 18 gauge (1.3 mm) stainless steel cabinet with No. 4 finish.

7. Flag/paddle shall be epoxy-coated cast aluminum or stainless steel.

8. Eyewash heads shall be ABS plastic with float-off dust covers.

9. Stainless steel skirt shall have No. 4 finish.

10. Safety shower stay-open brass ball valve concealed behind stainless steel/access panel housing. Eyewash stay open brass ball valve concealed behind skirt.

11. Fixture shall be furnished with green plastic sign with graphic symbol for safety shower/eyewash.

E. Barrier-free safety station with swing-down eye/face wash and emergency shower activation valve in stainless steel cabinet for recessed mounting: Water Saver Model No. SSBF2170, or equal, with the following characteristics or modifications.

1. Wall-mounted, exposed showerhead.

2. Exposed piping, showerhead, nipple, and escutcheon shall be chrome-plated brass with clear epoxy coating.

3. Safety shower actuating arm shall be stainless steel.

4. Showerhead shall have perforated stainless steel spreader.

5. Eyewash heads shall be ABS plastic.

6. Eyewash flow shall be activated by swing-down actuation valve connected to eyewash piping.

7. Eyewash components and safety shower actuating arm shall be mounted in a flanged, recessed-mounted 18 gauge (1.3 mm) stainless steel cabinet with No. 4 finish.

8. Stay-open brass ball valves concealed behind stainless steel/access panel housing.

9. Fixture shall be furnished with green plastic sign with graphic symbol for safety shower/eyewash.

F. Eye/face wash: Deck Mounted AutoFlow 90 degree Swing-Down, Water Saver Model No. FE779LH-L, or equivalent.

G. Alarm horn: Provide wall-mounted alarm horn with weather proof flow switch at every emergency shower unit location to sound when the safety shower is activated. Provide additional contacts for wiring to a remote monitoring system. Water Saver Model No. AP280-235, or equal.

2.4 FINISHES

A. Service Fittings:

1. Satin (AISI No. 6 brushed finish) chrome with clear, acid-resistant coating:

a. Chrome finish: All exposed surfaces shall be polished and buffed, then electroplated with one layer of nickel and one layer of chrome. Each layer of plating shall completely cover all visible areas. Total plating thickness shall be not less than 0.4 mil (10 µm).

b. Clear epoxy coating: Following plating, clear epoxy coating shall be applied to all exposed surfaces and then baked to permit curing. Surfaces shall have a minimum coating thickness of 2 mils (50 µm).

B. Service Fittings at Fume Hoods:

1. Preparation: Surfaces to be coated shall be polished or sandblasted to produce a uniform fine-grained surface and immersed in a phosphoric acid cleaning solution to remove thoroughly all oil, grease and other foreign substances.

2. Epoxy finish: Following cleaning, coating material shall be electrostatically applied to all exposed surfaces. After application, coating shall be fully baked to permit curing. Coating material shall be free-flowing epoxy powder with particle size of 1.4 to 2.8 mils (35 to 70 µm). Surfaces shall have a minimum finished coating thickness of 2 mils (50 µm).

3. Color:

a. Fittings inside fume hoods shall have a colored finish color-coded to match the fitting service index color.

C. Performance requirements for coated finishes:

1. Chemical resistance:

a. Fume Test: Suspend coated samples in a container of at least 6 cu. foot (170 L) capacity, approximately 12 inches (300 mm) above open beakers, each containing 100 mL of 70% nitric acid, 94% sulfuric acid and 35% hydrochloric acid, respectively. After exposure to these fumes for 150 hours, the finish on the samples shall show no discoloration, disintegration or other effects.

b. Direct Application Test: Subject coated samples to the direct action of the following reagents and solvents at a temperature of 25°C dropping from a burette at the rate of 60 drops per minute for ten minutes. Finish on samples shall not rupture, though slight discoloration or temporary softening is permissible.

Reagent	Concentration
Acetic Acid	98%
Acetone	
Ammonium Hydroxide	28%
Amyl Acetate	
Amyl Alcohol	
Benzene	
Butyl Alcohol	
Calcium Hypochlorite	
Carbon Disulfide	
Carbon Tetrachloride	
Chloroform	
Chromic Trioxide Acid	
Cresol	
Crude Oil	

Reagent	Concentration
Dioxane	
Distilled Water	
Ether	
Ethyl Acetate	
Ethyl Alcohol	
Ethyl Ether	
Formaldehyde	37%
Formic Acid	90%
Gasoline	
Glacial Acetic Acid	99.5%
Glycerine	
Hydrochloric Acid	38%
Hydrofluoric Acid	48%
Hydrogen Peroxide	5%
Isopropyl Alcohol	
Lactic Acid	10%
Kerosene	
Methanol	
Methyl Alcohol	
Methyl Ethyl Ketone	
Methylene Chloride	
Mineral Oil	

Reagent	Concentration
Monochlor Benzene	
N-Hexane	
Naphthalene	
Nitric Acid	70%
Perchloric Acid	70%
Phenol	
Phosphoric Acid	75%
Sea Water	
Silver Nitrate	30%
Sodium Bichromate	Saturated
Sodium Carbonate	10%
Sodium Chloride	20%
Sodium Hydroxide	50%
Sodium Hypochlorite	
Sodium Sulfide	
Sulfuric Acid	87%
Toluene	
Trichlorethylene	
Turpentine	
Urea	Saturated
Xylene	
Zinc Chloride	Saturated

2. Mar and abrasion resistance: Coating material shall have a pencil hardness of 2H – 4H with adhesion substantial enough to withstand both direct and reverse impacts of 160 inch-pounds (18 Nm). Coating shall have excellent mar resistance and be capable of withstanding scuffing, marring and other ordinary wear.

3. Repairability: Scratches and other localized surface damage shall be field-repairable.

2.5 LABORATORY SINKS

A. Epoxy Resin:

1. Manufacturer: Manufacturer shall be the manufacturer of epoxy resin work surfaces specified in Section 115310.

2. Laboratory Sinks:

a. Drop-in Type: Drop-in installation by Division 11 in epoxy resin work surface, sizes as indicated on drawings. Color to match work surface.

b. Comply with the requirements of Section 115310 for epoxy resin.

c. All exposed edges shall be radiused not less than 1/4 inch (6 mm).

d. Provide epoxy resin sink outlet in color to match sink with strainer, stopper and open-end overflow, and install in sink with continuous bead of silicone sealant.

1). At black epoxy resin sinks, outlet shall be black polypropylene.

2). Where Garbage Disposers occur, provide outlet opening to match disposer’s sink flange mounting assembly.

e. Provide tailpiece compatible with waste piping system for all sinks unless otherwise specified. Refer to Division 22 for piping requirements.

B. Epoxy Resin - Cup Sinks:

1. Fume Hood Locations: Provide cup sinks at fume hoods as described in Section 115313.

2. Laboratory Work Surface Installations:

a. At fume hoods - Raised rim, color to match work surface, sizes as indicated on drawings, with integral threaded tailpiece.

b. At benchtops - Flush with work surface, color to match work surface, sizes as indicated on drawings, with integral outlet and threaded tailpiece. Tailpiece shall be compatible with waste piping system for all sinks unless otherwise specified. Refer to Division 22 for piping requirements.

3. Provide strainer for all cup sinks.

4. Provide mounting bracket for wall-mounted cup sinks.

C. Stainless steel:

1. Laboratory Sinks:

a. Refer to Section 115310, Stainless Steel Fabrications.

b. Provide stainless steel strainer, outlet, standpipe overflow and stopper for all sinks unless otherwise specified.

c. Provide tailpieces compatible with waste piping system for all sinks unless otherwise specified. Refer to Division 22 for piping requirements.

2. Cup Sink:

a. Fume Hood Locations: Provide cup sinks at fume hoods as described in Section 115313.

b. Laboratory Work Surface Installations: Refer to Section 115310, Stainless Steel Fabrications.

c. Provide strainer, outlet and tailpiece for all cup sinks. Tailpiece shall be compatible with waste piping system for all sinks unless otherwise specified. Refer to Division 22 for piping requirements.

d. Provide mounting bracket for wall-mounted cup sinks.

3. Scullery Sink: Refer to Section 115310, Stainless Steel Fabrications.

a. Provide stainless steel strainer, outlet, standpipe overflow and stopper for all sinks, unless otherwise specified.

b. Provide tailpieces compatible with waste piping system for all sinks unless otherwise specified. Refer to Division 22 for piping requirements.

2.6 QUICK DISCONNECT COUPLINGS

A. Manufacturers: Products, which comply with this specification section as judged and approved by the Architect, may be provided by the following manufacturers. All products specified in this section shall be provided by a single manufacturer.

1. Staubli Corporation, 201 Parkway West, Duncan, SC 29334 Tel: 800 845-9193

2. Water Saver Faucet Co., 701 West Erie Street, Chicago, IL 60610 Tel: 312 666-5500.

3. Approved equal

B. Description: Quick disconnect couplings for various laboratory grade gases. Couplings shall be stainless steel construction. Couplings shall be double shut-off valved, provided with a permanent color coded marking and mechanical keying to avoid misconnection of the gas services. Permanent color coded markings for the sockets shall consist of either anodized colored disc or recessed painted striping. Color codings shall match those indicated in the “Service Fitting Color Index” specified herein. Natural fuel gas couplings shall comply with ANSI Z21.41-2003/CSA 6.9-2003 Standard for Quick Disconnect Devices.

1. Provide a 3/8” NPT panel mounted socket with 3/8” hose coupling.

2. Provide a 3/8” NPT panel mounted plug with 3/8” hose coupling. Panel mounted plug shall be secured to the top plate of the laboratory furniture post.

a. Provide a plug dust cap for plug located on laboratory furniture post.

3. Provide a flexible connection hose assembly between the panel mounted socket and the panel mounted plug. Flexible connection hose assembly shall be provided with factory installed plug and socket with appropriate hose end quick connect coupling with matched color coding and mechanical keying.

a. Flexible connectors for vacuum and air shall be 3/8” I.D., UV stabilized polyurethane 85A or higher grade Durometer coiled tubing.

1). Color: White.

2). Color: Match to color index for service as specified herein.

b. Flexible connectors for natural gas shall be 3/8” I.D. corrugated stainless steel hose with braided stainless steel cover. Natural fuel gas connectors shall comply with ANSI/AGA Standard LC-1 and shall bear an IAPMO classified marking.

C. Pressure Rating: Couplings and flexible connection hose assemblies shall be rated for 125 psig.

PART 3 - EXECUTION

3.1 SITE CONDITIONS

A. Inspection:

1. Prior to installation of fittings specified in Section 115343, carefully inspect the installed Work specified in other Sections and verify that all such Work is complete to the point where this installation may properly commence.

2. Verify that all Work has been installed in complete accordance with the original design, approved submittals, and the manufacturer's recommendations.

B. Discrepancy:

1. In the event of discrepancy, immediately notify the Architect.

3.2 PACKING AND DELIVERY

A. Deliver all fittings and fixtures to job site in recommended packaging, with each fitting individually packaged, marked, and scheduled for point of use.

B. Inventory fittings, at job site, verify that type and quantity are correct, and re-package until installed.

C. Store in clean, dry location.

3.3 INSTALLATION

A. Set internal volume control on all cup sink water fittings so water does not splash out of sink.

END OF SECTION