

## 8.3: UMHHC - MECHANICAL PML

### Introduction

The preferred manufacturers list expressed herein is unique to UMHHC owned, operated and leased facilities and is NOT intended to supplement the UM AEC preferred manufacturers list.

The Mechanical Trades Preferred Manufacturers List (PML) identifies manufacturers and suppliers, who are known to provide good quality products, meet specification and schedule requirements, provide technical support, and provide service after the sale. This list is intended to regulate product quality, standardize mechanical designs, and simplify maintenance activities. It is not intended to limit competition. It is not all inclusive. It is a list of manufacturers whose products are well known to the University due to their frequent and successful use.

This List shall be used by A/E's when selecting manufacturers for specification in mechanical designs for UMHHC owned, operated and leased facilities. **A/E'S SHALL SPECIFY ONLY THE LISTED MANUFACTURERS THAT MEET THEIR PROJECT'S REQUIREMENTS, AND SHOULD SPECIFY A MINIMUM OF THREE MANUFACTURERS WHENEVER POSSIBLE.** A/E's may specify manufacturers not on this list to satisfy project requirements, **BUT ONLY AFTER OBTAINING APPROVAL FROM UMHHC FPD IN ADVANCE.**

This List shall **NOT** be used by Contractors to justify making substitutions for products specified in the construction documents. **CONTRACTORS SHALL PROVIDE THE PRODUCTS SPECIFIED IN THE CONSTRUCTION DOCUMENTS UNLESS UMHHC FPD APPROVES THEIR PROPOSED SUBSTITUTIONS AT THE TIME OF BID IN ACCORDANCE WITH THE PROJECT'S STANDARD GENERAL CONDITIONS.**

Manufacturers on this list fall into three categories:

- **Preferred Manufacturer:** Approved manufacturers for use on UMHHC projects.
- **Conditional Approval:** Manufacturers approved for certain projects. Contact UMHHC Mechanical Engineer for approval to use these manufacturers.
- **Under Consideration:** Manufacturers being evaluated. Contact UMHHC Mechanical Engineer for approval to use these manufacturers.

All manufacturers listed are "preferred" manufacturers unless specifically stated otherwise.

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## **211313-H: WET-PIPE SPRINKLER SYSTEMS (15300-H)**

### **Pre-Action Panels**

- Simplex
- Notifier

### **Pre-Action Valves and Trim**

- Tyco Grinnell
- Viking

### **Piping – Grooved (Fire Protection Systems ONLY)**

- Victaulic
- Tyco

### **Sprinkler Heads**

- Reliable
- Tyco
- Viking

### **Tamper Switches**

- Tyco
- Anvil
- Notifier

### **Valves - Fire Protection, Detector Check**

- Hersey-Anvil
- Ames
- Grinnell
- Reliable
- Viking
- Victaulic

### **Valves - Fire Protection, Isolation**

- Victaulic
- Tyco
- Kennedy

## **213113-H: FIRE PUMPS (15320-H)**

### **Pumps - Fire**

- Allis-Chalmers
- Aurora

- Peerless

## **220000-H: UNDERGROUND PIPING IN CONDUIT SYSTEM**

### **Piping Systems - Underground**

- Perma-Pipe
- Rovanco

- Urecon (*Under Consideration*)

## **220500-H: COMMON WORK RESULTS FOR MECHANICAL (15010-H)**

### **Fasteners**

- Refer to [UM Master Specification](#)

### **Fire Stopping**

- 3M
- Hilti
- Tremco
- Manville

### **Roof Curbs**

- Pate
- Creative Metals
- Roof curbs engineered and manufactured by the manufacturer of the equipment to be supported

## **220513-H: MOTORS (15170-H)**

### **Motors - Premium Efficiency type only for 1/2 HP and above**

- Reliance
- Baldor
- Dayton
- GE

- Toshiba
- Leeson
- Marathon
- US Motors

## **220514-H: VARIABLE FREQUENCY DRIVES (15960-H)**

### **Variable Speed Drives (and Variable Speed Controllers)**

- Danfoss/Graham
- ABB
- Toshiba

## **220516-H: PIPE EXPANSION JOINTS (15125-H)**

### **Expansion Joints - Bellow Type**

- Flexonics
- Microflex
- Twin City Hose
- Metraflex

### **Expansion Joints - Externally Pressurized**

- Hyspan
- Microflex

## **220519-H: THERMOMETERS, PRESSURE GAUGE & ACC'S (15130-H)**

### **Pressure Gauges**

- H.O. Trerice
- Dwyer
- Weksler
- Marsh
- Ashcroft
- Weiss
- Miljoco

### **Thermometers**

#### **Industrial Glass:**

- H. O. Trerice
- Weksler
- Marsh
- Ashcroft
- Weiss
- Miljoco

### **Pressure & Temperature Plugs**

- Pete's Plug
- Schrader
- Sisco
- Miljoco

#### **Electronic Digital (light powered):**

- Weiss
- Miljoco
- Techcontrols

## **220523-H: VALVES (15100-H)**

### **Valves- Automatic Hydronic Regulating/Balancing**

- Auto-Flow (pressure independent)
- Griswold (pressure independent)
- B&G (pressure independent)

- Apollo
- Hammond

### **Valves - Manual Hydronic Regulating**

- Taco
- Armstrong
- Xylem Bell & Gossett Circuit Setter
- Flow Design
- Tour and Anderson, Inc.

### **Valves - High Performance Butterfly**

- Bray
- Jamesbury
- Dezurik
- Tri-Seal Contromatics (Watts)
- Milwaukee
- Xomox
- ABZ

### **Valves - Ball**

- Watts
- Jomar
- Milwaukee
- Nibco

### **Valves - High Performance Metal to Metal Seated Butterfly**

- Bray
- Trilok
- Crane Flowseal MS

- Metso/NelesNeldisc
- Adams MAK
- ABZ Extreme

**Valves – Lubricated Plug**

- Homestead
- Milliken
- Resun

**Valves - Gas (UL Approved)**

- Watts
- Jamesbury
- Apollo
- Pegler
- Jomar
- Grinnell
- Crane
- Milwaukee "Butter Ball"
- Nibco
- Hammond

**Valves - Gate**

- Apollo

- Hammond
- Milwaukee
- Watts
- Crane
- Grinnell
- Stockham
- Nibco

**Valves - Swing Check**

- Apollo
- Milwaukee
- Crane
- Grinnell
- Nibco

**Valves - Silent Check**

- Apollo
- Milwaukee
- APCO
- Mueller
- Metraflex

**220533-H: HEAT TRACING FOR PIPING (15128-H)**

**Heat Tracing**

- Raychem

- Thermon

**220548-H: VIBRATION CONTROL (15240-H)**

**Flexible Metal Hose Connections (Stainless)**

- Flex Hose Co.
- Flexonics
- Mason
- Metraflex
- Twin City Hose (*Under Consideration*)

**Flexible Connectors (Rubber)**

- Flex Hose Co.
- Flexonics
- Gsrlock
- Mason
- Mercer Rubber Co.
- Metraflex

**Flexible Metal Hose Connectors (Copper)**

- Anaconda
- Flex Hose Co.
- Flexonics
- Mason
- Metraflex

**Vibration Isolators**

- Mason Industries Inc.
- Kinetics Noice Control
- Vibration Eliminator Co.
- Vibration Mounting and Controls (VMC)

**220553-H: MECHANICAL IDENTIFICATION (15190-H)**

**Pipe Markers**

- Craftmark
- Brady Co.
- Brimer

- Kolbi
- MSI (Marking Services Inc.)
- Seton Name Plate

## **220719-H: MECHANICAL SYSTEMS INSULATION (15250-H)**

### **Insulation - Duct/Pipe/Equipment -- Fiberglass**

- Armstrong
- CertainTeed
- Owens Corning
- Knauf
- Schullers
- Johns Manville
- Pittsburg-Corning

- Nomaco
- IMCOA
- K-Flex (formally Rubatex)

### **Insulation - PVC Covering, Elbows and Fittings**

- Protto
- Zeston
- Ceelco

### **Insulation - Flexible/Elastomeric/Polyolefin**

- Rubatex
- Armacell-Armaflex

### **Insulation - Removable Jackets**

- Q-Master by ESI
- Insulation Tech. Inc.

## **221113-H: BASIC PIPING MATERIALS AND METHODS (15060-H)**

### **Grooved Joints for Copper and Steel Piping:**

- Victaulic
- Tyco Grinnell

### **Piping - Hazardous Waste and Vent (Polypropylene)**

- Enfield
- Georg Fischer Fuseal
- Orion
- Zurn

### **Dielectric Fittings**

- Refer to [UM Master Specification](#)

### **High Purity Water Distribution Piping (Polypropylene)**

- Orion
- Nibco

### **Pipe Hangers & Mechanical Supports**

- Anvil
- B-Line
- Carpenter & Paterson
- Unistrut, Powerstrut

### **Strainers - Steam & Water**

- Keckley
- Yarway
- Mueller
- Spirax Sarco
- Metraflex
- Watts
- Armstrong
- Tyco Grinnell (grooved water piping only)
- Victaulic (grooved water piping only)

### **Thermal Hanger Shield Inserts**

- Cooper B-Line
- ERICO International
- Pipe Shields Inc
- Rilco Manuf.
- Value Engineered Products
- American Mechanical Insulation Sales

### **Nitrogen Pipe Freezing Service**

- DiHydro
- Freeze Technology Inter. Inc.

## **221119-H: DOMESTIC WATER PIPING SPECIALITIES (15411-H)**

### **Backflow Preventers**

- Ames
- Conbraco
- Febco
- Watts
- Zurn-Wilkins

- Woodford
- Zurn
- Chicago
- J.R. Smith

### **Hydrants - Wall Type**

### **Vacuum Breakers - Backflow Prevention**

- Kewaunee
- Chicago Water Saver

- Bell & Gossett
- Watts
- Conbraco

- Conbraco
- Keckley

**Valves - Water Pressure Regulating**

- Hoffman
- Watts
- Bell & Gossett
- Spirax Sarco
- Leslie

**Water Hammer Arrestors**

- Wade
- Zurn
- Watts
- Josam
- J.R. Smith
- Sioux Chief

**221319-H: DRAINAGE SPECIALITIES (15420-H)**

**Drains - Roof, Floor and Trench, Grease Interceptors**

- Josam
- J.R. Smith
- Zurn

- Wade
- Watts
- Sioux Chief

**Drains – Low Profile Trench Drains**

- Blucher
- Zurn
- QuickDrain USA

**221500-H: COMPRESSED AIR SYSTEMS (15481-H)**

**Air Compressors - Screw Type (1800 RPM)**

- Atlas Copco
- Quincy QSI Series

- Vanaire
- Hankison

**Air Compressors - Reciprocating**

- Quincy
- Gast
- DeVilbiss

**Air Pressure Reducing Stations**

- Wilkerson
- Siemens
- Vanaire
- Zeks
- Parker-Hannifin
- Fisher

**Air Dryers and Related Filters**

- Wilkinson
- Zeks

**223116-H: WATER SOFTENER (15455-H)**

**Deionized Water and Reverse Osmosis Water Suppliers**

- Crown Solutions (Veolia)
- Siemens/U.S. Filter
- Ionpure
- Millipore

**Water Treatment Equipment - Softeners**

- Crown Solutions (Veolia)
- Burmah / Venture (H.V. Burton)
- Bruner (K.L. McCoy)

**Water Treatment Equipment**

- Refer to UM Master Specifications

**224200-H: PLUMBING FIXTURES (15440-H)**

**Domestic Hot Water Heaters - Gas Fired or Electric**

- Aerco

- Copper Fin (Quality Water & Air) (*Under Consideration*)
- Lochinvar
- A.O. Smith
- State
- Rheem
- Raypak

#### **Domestic Hot Water Heaters - Steam**

- Aerco

#### **Emergency Shower/ Eyewash**

- Haws
- Bradley
- Speakman

#### **Faucets**

##### **Automatic, Battery and Electric Eye Type**

- Sloan
- Delta
- Zurn
- Chicago
- American Standard

##### **Manual**

- American Standard
- Chicago Faucet
- Delta
- Moen

#### **Plumbing Fixtures**

##### **Water Closets**

- American Standard
- Kohler
- Sloan

##### **Lavatories**

- American Standard
- Kohler
- Sloan
- Zurn

##### **Urinals**

- American Standard
- Kohler
- Sloan
- Zurn

##### **Sinks- Stainless Steel**

- American Standard
- Kohler
- Just
- Elkay

#### **Surgical Scrub Sinks**

- Steris
- Continental Metal Products (CMP)

- LogiQuip

#### **Supplies with Valves**

- BrassCraft
- Delta Teck
- Crane

#### **Wall Hydrants and Hose Bibbs**

- Josam
- Smith
- Woodford
- Zurn

#### **Mop Sinks**

- Fiat
- Williams

#### **Shower Heads**

- American Standard
- Kohler
- Symmons
- Chicago
- Delta
- Speakman

#### **Toilet Room Fixture Supports**

- Josam
- Zurn
- Wade
- J.R. Smith
- Watts

#### **Toilet Seats**

- Olsonite
- Centoco
- Church

#### **Valves**

##### **Flush Including Automatic Flushing System**

- Sloan Royal
- Kohler
- Zurn (Aqua Flush)
- Technical Concepts (Automatic Only)

##### **Foot Operated**

- Chicago Faucet
- T & S
- Wolverine Brass

##### **Shower Control Valves**

- American Standard
- Chicago
- Kohler
- Speakman
- Powers
- Symmons



**Thermostatic Mixing Valve for Handwashing**

- Symmons
- Powers
- Wilkins

**Water Coolers**

- Elkay
- Haws
- Halsey Taylor

- Oasis

**Water Filters - Inline Type**

- Cuno
- Filtrine
- Honeywell
- Culligan
- Dollinger
- Bruner

**226000-H: MEDICAL GAS SYSTEMS (15480-H)**

**Medical Gas Outlets**

- Chemetron Series 400- Quick-Connect
- Tri-Tech (Chemetron 400 Quick-Connect compatible)
- Modified Chemetron Series 500 (UH EVAC System ONLY)

**Medical Gas Zone Valves and Cabinets**

- Chemetron
- Tri-Tech

**Medical Gas Alarm Panels**

- Chemetron
- Tri-Tech

**Medical Air Compressors**

- Chemetron (Allied Health Products)
- Quincy
- Amico (*Under Consideration*)

**Medical Vacuum Pumps- Package Manufacturer**

- Chemetron (Allied Health Products)
- Sullair
- Quincy
- Becker
- Amico (*Under Consideration*)

**Medical Vacuum Pumps- Screw**

- Sullair
- Quincy

**Medical Vacuum Pumps- Claw**

- Busch

**Medical Vacuum Pumps- Dry Vane**

- Becker

**Medical Gas Certification Company**

- Compass Cryogenics
- Pneumatic Medical

**230000-H: AIR COOLED CONDENSING UNITS (15670-H)**

**Air Cooled Condensers**

- McQuay
- Trane
- York
- Bohn

- McQuay
- Tecumseh
- Copeland
- Trane
- York

**Refrigeration Compressors**

**230000-H: AIR COOLED PACKAGED CHILLERS (15683-H)**

**Chillers - Reciprocating, Air-Cooled**

- Carrier (*Under Consideration*)
- Trane
- York

- Filtrine
- Liebert
- Trane
- Neslab

**Chillers - Process Cooling**

**Refrigeration Compressors**

- Tecumseh
- Copeland
- Trane
- York
- McQuay

### **230000-H: CAST IRON BOILERS (15556-H)**

#### **Boilers**

- Burnham
- Weil McLain
- Peerless

### **230000-H: DUCTLESS SPLIT ROOM AIR CONDITIONERS - AIR-COOLED (15685-H)**

#### **Air Conditioning Units – Ductless, Spot Coolers**

- Daikin
- Liebert
- Mitsubishi
- Sanyo

### **230000-H SNOWMELT SYSTEMS**

#### **Snowmelt Hose**

- Goodyear HY-T

#### **Snow Melting Systems**

- Hume
- Radiant Technology
- Rehau
- Snow Tech
- FEC Heliports

### **230000-H: HEAT EXCHANGERS & CONVERTERS (15755-H)**

#### **Dry Coolers**

- McQuay
- Trane
- York
- Bohn

#### **Heat Exchanger - Plate & Frame**

- Armstrong
- Alpha-Laval
- Bell & Gossett
- Mueller
- Tranter

#### **Convertors (Shell & Tube) - Steam To Hot Water**

- Bell & Gossett
- Armstrong
- Mueller
- Taco

#### **Laser Heat Exchangers - Water Cooled**

- Haskris
- Remcor
- Neslab
- Laser Pure (Coherent)

### **230000-H: HUMIDIFIERS (15810-H)**

#### **Humidifiers - Steam Self Generating (Electric)**

- Nortec
- Armstrong
- Dri-Steam

#### **Humidifiers - Steam To Steam**

- Armstrong
- Herrmidifier
- Nortec

- Dri-Steam
- HygroMatik (Spirax Sarco)
- Pure

**Humidifiers - Ultrasonic**

- Stultz
- Humidifirst

**230000-H: HVAC WATER TREATMENT (15189-H)**

HVAC Water Treatment Equipment Refer to UM Master Specifications

**Chemical Service Providers**

- Chemtreat
- Crown Solutions
- GE Water

- Kroff
- Mitco
- Nalco
- Rochester Midland Corporation

**230000-H: MULTIMEDIA FILTRATION SYSTEM (15458-H)**

- Crown Equipment Systems
- PEP Filters
- Everfilt

**230000-H: PACKAGED COMPUTER ROOM AIR CONDITIONING SYSTEM (15770-H)**

**Air Conditioning Units - Computer Room**

- APC
- Liebert

- Stulz

**230000-H: PACKAGED HEAT TRANSFER UNITS (15756-H)**

- Bell & Gossett

**230000-H: PACKAGED TERMINAL AIR CONDITIONERS – AIR COOLED**

**Air Conditioning Units- Package Type (thru the wall self-contained DX)**

- IslandAire
- Daikin
- York

**Air Conditioning Units- Window Type (Flush installation with wall exterior)**

- Comfort-Aire
- Fedders
- White Westinghouse

**230000-H: STEAM ABSORPTION CHILLER (15681-H)**

**Chillers - Absorption**

- Trane

- York

**230000-H: STEAM CONDENSATE RETURN UNITS (15582-H)**

**Condensate Meters - Gravity Type - no longer used**

**Condensate Receiver**

- Xylem Domestic
- Skidmore
- Shipco
- Spirax Sarco

**Condensate Meters - Magnetic Induction**

- Refer to UM Master Specification 230900

**Pumps - Boiler Feed**

- Weinman
- Skidmore
- Spirax Sarco
- Shipco

**Pumps - Condensate** (Condensate Receiver

Must Be Cast Iron)

- Weinman
- Xylem Domestic (Hoffman)
- Skidmore
- Spirax Sarco
- Shipco

**Pumps - Condensate, Steam or Air Pressure Powered**

- Sarco
- Armstrong

**230000-H: TERMINAL UNITS (15582-H)****Baseboard Radiation, Finned Tube Radiation**

- Dunham-Bush
- Rittling
- Slant/Fin
- Sterling Radiator
- Trane
- Vulcan Radiator

- Modine
- Rittling
- Sterling
- Trane

**Panel Radiators**

- Jaga
- Runtal Radiator
- Sterling

**Unit Ventilators**

- American Air Filter
- Trane

**Electric Cabinet Heaters**

- Trane
- QMark
- Berko

**Convectors**

- Dunham-Bush
- Rittling
- Sterling
- Trane

**Electric Heating Coils**

- Brasch
- Indeeco
- Trane
- Chromalox

**Unit Heaters**

- Dunham-Bush
- McQuay
- Modine
- Reznor
- Sterling
- Rittling
- Trane

**Gas Fired Duct Furnaces**

- Reznor
- Trane
- Modine
- Sterling

**Cabinet Heaters**

- Dunham-Bush
- McQuay

**Radiant Ceiling Panel - Hot Water**

- Sun-El
- Aero-Tech
- Airtite
- Sterling/TWA

**230000-H: ROOF TOP UNITS (15856-H)****Roof Top Units**

- Trane
- York

- Daikon
- Aaon

## **230593-H: TESTING, ADJUSTING AND BALANCING (15990-H)**

### **TAB Sub-Contractors**

- Absolut
- Air Flow Testing
- Enviro-Aire/ Total Balance

## **230905-H: MECHANICAL SYSTEMS CONTROLS (15975-H)**

Because of the extensive amount of control components, approved manufacturers are only listed in UM Master Specification 230905.

## **230910 (DIGITAL), 230920 (ANALOG): LABORATORY TERMINAL AIR FLOW UNITS & CONTROL (15910-H)**

### **Fume Hood Monitors**

- Phoenix
- Phoenix
- Siemens – DDC Venturi Valve (DDC installations only) (*Under Consideration*)

### **Laboratory Terminal Airflow Units (LTAUs)**

## **230930: REFRIGERANT MONITORING SYSTEMS (15635)**

MSA Corporation

## **231123-H: FACILITY NATURAL GAS PIPING (15488-H)**

### **Master Gas Valve Boxes**

- Datex-Ohmeda
- Mueller

## **232116-H: HYDRONIC PIPING SPECIALTIES (15515-H)**

### **Air Separators**

- Amtrol
- Wheatley
- B & G
- Armstrong
- Spirotherm

### **Suction Diffusers**

- Wheatley
- B & G
- Armstrong
- Taco

### **Air Vents**

- Wheatley
- B & G
- Armstrong
- Hoffman
- Taco

### **Valves - Triple Duty**

- Wheatley
- B & G
- Armstrong
- Taco

### **Glycol Feed Packages**

- Advantage Control Inc.
- Crown Engineering
- Chemical Pump Co.
- Burmah
- JL Wingert Co.
- Neptune
- Wessel Co.

### **Water Pressure Relief Valve**

- Xylem B & G
- Xylem McDonnell Miller
- Consolidated
- Watts

### **Water Pressure Regulating/Reducing Valve**

- B & G
- Cla-Val

- Hoffman
- Watts

#### **Coalescing Separator**

- Spirotherm (Spirovent Dirt HV)
- Thrush (Aar-O-Vent Dirt DSR & DHR)

#### **Expansion Tank**

- Amtrol
- Armstrong
- Bell and Gossett
- Wessels
- Taco CA

#### **Centrifugal Separator**

- Griswold Controls
- Lakos

#### **In-Line Filters**

- Bruner
- Culligan
- Dollinger
- Honeywell

#### **Inhibited Ethylene Glycol**

- Dowtherm SR-1
- Interstate

### **232123-H: PLUMBING AND HYDRONIC PUMPS (15160-H)**

#### **Pumps - Water Booster**

- Aurora
- Bell & Gossett (Xylem)
- Armstrong
- Flo-Pak
- Grundfos

#### **Pumps - Condensate Waste**

- Little Giant
- Hartell
- Marsh
- Bekette

#### **Pumps – Base-Mounted Double Suction, End Suction, Horizontal & Vertical Split Case**

- Armstrong
- Bell & Gossett (Xylem)
- Deming
- Allis-Chalmers
- FlowServe (Worthington)
- Taco (*Under Consideration*)
- Patterson (*Under Consideration*)

#### **Pumps - Vertical Turbine**

- American Turbine
- Deming
- FlowServe (Worthington)

#### **Pumps - In-Line**

- Armstrong
- Bell & Gossett
- Grundfos
- Wilco
- Taco (*Under Consideration*)
- Patterson (*Under Consideration*)

#### **Pumps – Submersible Storm & Sanitary**

- Vertiflo (B&G)
- Allis Chalmers
- Armstrong
- Weil
- Hydromatic (*Under Consideration*)
- Aurora (*Under Consideration*)
- Zoeller

#### **Pumps – Vacuum (Non-Medical)**

- Nash
- Domestic
- Shipco
- Skidmore (K.L. McCoy) (*Under Consideration*)
- Busch (Kerr pump & supply) (*Under Consideration*)

### **232216-H: STEAM & CONDENSATE PIPING SPECIALTIES (15525-H)**

#### **Steam Pressure Reducing Stations**

- Leslie
- Spirax Sarco
- Spence
- Armstrong

#### **Steam Safety Relief Valves**

- Armstrong
- Consolidated
- Spence
- Spirax-Sacro
- Watson McDaniel

### Steam Traps - All Types

- Watson McDaniel
- Armstrong
- Spirax Sarco
- Hoffman (Xylem)

### Flash Tank, Vacuum Breaker, Drip Pan Elbow, Pressure Reducing Valve

Refer to [UM Master Specification](#)

## 232300-H: REFRIGERANT PIPING (15530-H)

### Valves - Refrigeration

- Henry Valve
- Parker
- Asco
- Sporlan
- Hansen

## 232519-H: STEAM BOILER CHEMICAL WATER TREATMENT (15188-H)

Refer to [UM Master Specification](#)

Seton

## 233100-H: HVAC DUCTS & CASINGS (15890-H)

### Exhaust Ductwork - PVC Coated

- United McGill
- Tangent
- Foremost
- Semco
- McGill Airflow LLC.
- Semco Mfg. Co.
- Vibro-Acoustics

### Exhaust Ductwork - Teflon Coated Stainless Steel

- Fab-Tech (PermaShield Pipe)

### Exhaust Ductwork - FRP

- Perry
- Spunstrand
- Tangent

### Flexible Non-Metallic Duct

- Atco (Flex-Aire)
- Flexmaster
- Hart & Cooley (Genflex)

### Double-Walled Panels, Plenums, and Duct at Outside Air Intake Plenums

### Clothes Dryer Vent Ductwork

*Intended for heavy use clothes dryer applications such as resident hall laundry rooms with multiple dryers where access to disassemble duct for periodic cleaning may be challenging. For simple dryer applications, specifying conventional duct may be more appropriate.*

- Nordfab Quick-Fit/ACS of Fenton
- Missouri
- MO

### Duct Sealants

- Hardcast
- McGill Airflow LLC.
- Polymer Adhesives
- Ductmate
- Childers/Foster

## 233300-H: AIR DUCT ACCESSORIES & RGDS (15895-H)

### Duct Flexible Connectors

- Ductmate
- Duro Dyne
- Fanair
- Pathway
- United McGill
- Ventglas

### Dampers - Fire, Smoke, Combination Fire/Smoke

- Air Balance
- American Warming & Vent
- Greenheck
- Nailor
- Ruskin
- Vent Products

**Dampers - Balance (manual volume control)**

- American Warming & Vent
- Arrow
- Flexmaster (for round ducts, single branch takeoff only)
- Ruskin
- Greenheck
- Vent Products
- Young Regulator

**Dampers - Iris**

- Continental Fan Manufacturing Inc.

**Dampers - Backdraft**

- Young Regulator Company
- American Warming & Ventilating Co.
- Vent Products Co., Inc.
- Arrow United Industries

**Sound Attenuators**

- IAC
- Semco
- Ruskin

- United McGill
- Vibro-Acoustics

**Registers, Grilles and Diffusers**

- E.H. Price
- MetalAire
- Nailor
- Precision Air Products (Operating/ Procedure Rooms)
- Titus

**Louvers**

- American W. & V.
- Ruskin
- Vent Products

**Ductwork Cleaning Specialist**

- Sani-Vac
- Power Vac
- High Tec Vacuum
- Aero Filters Inc.
- Stanley Steamer Great Lakes Inc.

**233400-H: FANS (15870-H)**

**Fans: All types except Vane and Tube Axial, FRP, High-Plume Induction Lab Type**

- Loren Cook
- Buffalo
- Twin City
- Greenheck
- Trane
- Barry Blower

- Harrington (*Under Consideration*)
- M.K. Plastics (Air Pro)
- Hartzell (Air Design)
- Industrial Air (Bennett Holland Kovac & Assoc)
- Plastic Air (Michigan Air Products) (*Under Consideration*)

**Fans - High-Plume Induction-Type Lab Exhaust**

- Greenheck - Vektor
- Cook
- Strobic

**Fans -Vaneaxial, Tubeaxial**

- Cook
- Buffalo
- Joy
- Woods
- Trane
- Greenheck

**Fans -FRP Construction**

**233600-H: AIR TERMINAL UNITS (15896-H)**

**VAV, CAV, Dual Duct, and Retrofit Terminal Air Flow Units**

- Titus
- MetalAire

- Nailor
- Price Industries
- Phoenix - Theris (*Under Consideration*)

**234000-H: HVAC AIR CLEANING DEVICES (15885-H)**



**Primary Filters, Secondary Filters and Filter Housing Rack**

- American Air Filter
- Camfil Farr
- Eaton
- Flanders
- Purolator
- Tri-Dim

**HEPA Filters**

- Camfil Farr
- Eaton
- Flanders

**Gas Adsorption Filters**

- American Air Filter
- Camfil Farr
- Charcoal Service Corp.
- Flanders
- Purolator

**Filter Gauges**

- Bacharach Instrument Co.
- Dieterich Standard Corp.
- Dwyer
- Moeller Instrument Co.

**235100-H: BREECHINGS, CHIMNEYS & STACKS (15575-H)**

**Boiler Stack**

- Metalbestos
- Metal-Fab (rep.: Michigan Air Products)
- Van Packer
- Ampco (rep: Fontansi & Kann)

**235239-H: FIRE TUBE BOILERS (HOT WATER) (15557-H)**

**Boilers**

- Easco
- Hurst Boilers (*Conditional Approval*)
- Johnson
- Superior

**Burners**

- Webster
- Viessmann (*Under Consideration*)

**235240-H: FIRE TUBE BOILERS (STEAM) (15558-H)**

**Boilers**

- Bryan
- Unilux
- Lochinvar
- Raypak

**236416-H: CENTRIFUGAL WATER CHILLERS (15684-H)**

**Chillers- Centrifugal**

- Trane
- York

**Chillers- Screw or Scroll**

- Trane
- York

**236500-H: COOLING TOWERS (15710-H)**

**Cooling Towers**

- Baltimore Air Coil
- EVAPCO
- Marley

**237213: ROTARY AIR TO AIR ENERGY RECOVERY WHEELS**

Refer to [UM Master Specification](#)

Semco, Desiccant Rotors International

**237323-H: CUSTOM AIR HANDLING UNITS (15854-H)**

**Air Handling Units - Custom Built Indoor and Outdoor**

- Mafna
- Buffalo Forge (Big Buffalo)
- Governair
- Thermal Corp.
- TMI
- Air Flow Equipment
- AirEnterprises
- Ventrol (*Under Consideration*)

- Blender Products Inc.
- R.M. Products

**Gas Fired Make-Up Air Units (direct and indirect)**

- Modine (*Under Consideration*)
- Trane
- Sterling
- Reznor
- Rapid
- Greenheck

**Air Blenders (15854 & 15855)**

**237324-H: SEMI-CUSTOM AIR HANDLING UNITS (15855-H)**

**Air Handling Units - Indoor and Outdoor Modular/Semi-Custom**

- Air Flow Equipment
- Buffalo
- TMI
- Trane
- McQuay

- Governair
- Mafna
- Thermal
- Ingenia
- Ventrol (*Under Consideration*)

**238216-H: COILS AND DRAIN PANS (15820-H)**

- McQuay
- Coil Replacement Co
- Trane
- York

- Aerofin
- Marlo
- Heatcraft
- USA Coil & Air

**238219-H: FLOOR MOUNTED FAN COIL UNITS (UN-DUCTED) (15763-H)**

- Airtherm
- Enviro-Tec by Johnson Controls
- International Environmental Corporation

- Price
- Zehnder Rittling

**238220-H: HORIZONTAL FAN COIL UNITS (15764-H)**

- Enviro-Tec by Johnson Control
- Air Flow Equipment
- TMI

- Nailor
- Titus
- Zehnder Rittling

**238221-H: BLOWER COIL UNITS (15765-H)**

- Enviro-Tec by Johnson Control
- Air Flow Equipment
- TMI

- Nailor
- Titus
- Zehnder Rittling