230000 GENERAL DESIGN INFORMATION

1. Manufacturers

   a. Following are manufacturers preferred by Kutztown University. A minimum of two manufacturers and models may be listed as the basis of design.

      1) Air Filters:

         a) American Air Filter
         b) Cambridge
         c) Farr
         d) Koch

      2) Air Flow Measuring:

         a) Air Monitor
         b) Cambridge

      3) Air Handling Units:

         a) Diakan / McQuay
         b) Carrier
         c) Trane

      4) Air Outlets:

         a) Anemostat
         b) Barber Coleman
         c) Carnes
         d) Krueger
         e) Titus

      5) Balancing Valves, Water:

         a) B&G
         b) Armstrong
         c) Autoflow
         d) Griswold
         e) Tour & Anderson

6) Backflow preventers (Reduced Pressure):

a) Conbraco
b) Watts

7) Boilers:

a) Peerless
b) Weil McLain
c) Bryan

8) Cathodic Protection:

a) Harco, Inc.

9) Coils, Cooling & Heating:

a) Aerofin
b) Carrier
c) Miller-Picking
d) Trane
e) Heatcraft

10) Computer Room AC Units:

a) Diakin / McQuay

11) Cooling Towers:

a) Evapco
b) Marley
c) Baltimore Air Coil

12) Water Heaters:

a) Steam fired hot water heaters:

(1) Patterson Kelley
(2) Chemline
(3) Bell & Gossett
(4) Leslie

b) Electric hot water heaters:

(1) Rudd
(2) Locmuar
(3) Bradford White

(4) AO Smith
(5) Lochnivar

c) Gas hot water heaters:

(1) Raypac

13) Expansion Joints (outside buildings):

a) Advanced Thermal Systems

14) Fan Coil Units:

a) Diakan / McQuay
b) Carrier
c) AFF Herman Neilson

15) Fans, Axial:

a) Buffalo
b) Joy
c) Strobic Air
d) Woods

16) Fans, Centrifugal:

a) Acme
b) Barry
c) Buffalo
d) Greenheck
e) Trane
f) Twin City
g) New York Blower

17) Fans, Roof Exhaust:

a) Acme
b) Loren Cook
c) Penn Ventilator

18) Fin Tube:

a) Rittling
b) Ted Reed Thermal
c) Terling

d) Vulcan

19) Fire Protection Equipment:

a) Grinnell
b) Reliable
c) Star
d) Viking

20) Flexible Duct:

a) Genflex
b) Wiremold

21) Gauges & Thermometers:

a) Ashcroft
b) Marshalltown
c) Taylor
d) Trerice
e) Weksler

22) Heat Exchangers, Plate:

a) Alfa Laval
b) APV Crepaco
c) Bell and Gossett
d) Tranter

23) Heat Exchangers, Shell & Tube:

a) Bell and Gossett
b) Chemline
c) Patterson Kelley
d) Leslie

24) Humidifiers:

a) Armstrong

25) Humidity Sensors:

a) Kele
b) Vaisala, Inc.

26) Insulation:

a) Armstrong (Armaflex)
b) Johns-Manville
c) Owens-Corning

27) Interceptors:

a) Rockford

28) Lavatory Trim:

a) T&S
b) Chicago
c) Speakman

29) Meters, Chilled Water:

a) Controlotron – flow
b) Yellow Springs Instruments – temperature sensors and wells
c) Vortab, Inc.
d) Daniel Industries – flow straightener
e) Deban Enterprises – temperature transmitters

30) Meters, Steam Condensate:

a) McCrometer
b) Fisher
c) Rosemount
d) Emerson

31) Meters, Water:

a) Badger
b) Sensus
c) Rockwell

32) Motors:

a) Baldor
b) GE
c) Westinghouse

33) Motor Starters:

a) Allen Bradley
b) Cutler Hammer
c) General Electric
d) Square D

34) Pipe, Steam Condensate, Direct Buried:

a) Thermal Pipe Systems (Foam glass with PVC jacket)
b) Insul-Tek (Foam glass with PVC jacket)
c) Energy Task Force (Foam glass with PVC jacket)
d) No Substitutions

35) Pipe, Polypropylene:

a) Enfield

36) Plumbing Drains & Supports:

a) Josam
b) Smith
c) Wade
d) Zurn

37) Plumbing Fixtures:

a) Moen
b) Kohler
c) American Standard
b) Crane
c) Eljer

38) Plumbing Flush Valves:

a) Toto
b) Moen

39) Pressure Transmitters:

a) Rosemount
b) Fisher
d) Emerson

40) Pumps, Steam Condensate (Provide Cycle Counters):

a) Spirax Sarco
b) Hoffman
b) Leslie

41) Pumps, Sump:

a) Meyers

42) Pumps, Water (Hot and Cold: End Suction or Vertical In-Line):

a) Bell and Gossett
b) Armstrong
c) Taco
d) Wilo

43) Pumps, Water (Hot and Cold: Horizontal Split Case):

a) Bell and Gossett
b) Armstrong
c) Taco
d) Goulds

44) Showerheads:

a) Oxygenics
b) Sloan

45) Sound Traps

a) IAC
b) Gale

46) Steam Condensate Traps:

a) Spirax Sarco
b) Armstrong
c) Bestobell

47) Steam Pressure Reducing Valves:

a) Leslie
b) Spirax Sarco
c) Spence
d) Fisher

48) ATC Valve Actuators:

a) Johnson
b) Honeywell

Note: Must be compatible with Andover Controls System

49) Test Ports:

a) B&G
b) Peterson Equipment
c) Sisco
d) Trerice

50) Thermostatic Temperature Control Valves:

a) Honeywell

51) Unit Heaters:

a) Modine
b) Reznor
c) Trane

52) Valves, Ball (All Bell Valves Must be Full Port):

a) Dezurick
b) Apollo
c) Jamesbury
d) Jenkins
e) Watts

53) Valves, Segmented Ball Control Valves:

a) Dezurick
b) Neles-Jamesbury
c) Fisher

54) Valves, Butterfly, Resilient Seated:

a) Dezurick
b) Jamesbury
c) NIBCO

55) Valves, Butterfly, High Performance:

At Building Entrance:

a) Posiseal
b) Dezurick
c) Jamesbury

In Manholes:

a) Posiseal
b) Dezurick
c) Fisher

In Central Heating Plant:

a) Posiseal
b) Dezurick
c) Fisher
d) Cameron

56) Variable Frequency Drives with bypass:

a) ABB
b) Square D

57) Vibration Isolators:

a) Mason
b) Vibration Eliminator
c) Vibration Mounting

58) Water Closet Seats:

a) Beneke
b) Church
c) Olsonite

59) Water Coolers:

a) Elkay
b) Halsey Taylor
c) Oasis

60) Water Treatment:

a) Proasys

61) Water Valves, Underground (Direct Buried):

a) Clow C504
b) M&H 450

2. Interior design temperatures:

a. Summer: 74 deg. F, plus/minus 2 deg.

b. Winter: 72 deg. F, plus/minus 2 deg.

3. Outdoor design temperatures:

a. Summer: 97.5% ASHRAE

b. Winter: 0 deg. F.

4. Ensure that accessibility is maintained when designing equipment, piping, and ductwork.

5. Provide walk-around space and coil/filter pull space in all mechanical rooms.

6. Provide 100% outside air and exhaust for hazardous fumes.

7. Do not locate rooftop equipment closer than 10 feet from roof edge where there is no parapet.

8. Provide concrete pads for all equipment.