

three inches = one foot  
one and one-half inches = one foot  
one inch = one foot  
three-quarters inch = one foot  
one-half inch = one foot  
one-quarter inch = one foot  
one-eighth inch = one foot

A

B

C

D

E

F

G

H

I

J

## DUCTWORK SYMBOLS

FLEXIBLE CONNECTION

VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)

VANED ELBOW (SHORT RADIUS)

STANDARD RADIUS ELBOW

NEW DUCT (WIDTH x DEPTH)

EXISTING DUCT TO REMAIN

EXISTING DUCT TO BE REMOVED

LOUVER (LOUVER SPECIFIED IN ARCHITECTURAL SECTION.)

FLEXIBLE DUCTWORK (INSULATED)

DUCT WITH SOUND LINING

MANUAL VOLUME DAMPER

FIRE DAMPER

BACK DRAFT DAMPER

SMOKE DAMPER

POINT OF CHANGE IN DUCT CONSTRUCTION BY STATIC PRESSURE CLASS. THE NUMBER ASSIGNS PRESSURE CLASS (N. OF WATER) WHICH WILL ACCOMMODATE MAXIMUM OPERATING PRESSURE. IN THE DUCT SUBSECTION, THE SYMBOL CONTINUES THE ASSIGNMENT UNTIL THE DUCT TERMINATES OR ANOTHER SYMBOL APPEARS. A "N" SUPERScript INDICATES NEGATIVE PRESSURE.

STAINLESS STEEL DUCT

DOUBLE WALL CASING PANEL

MANUAL SPLITTER DAMPER

STANDARD BRANCH SUPPLY OR RETURN, NO SPLITTER (45° TAP)

DUCT MOUNTED COIL (HOT WATER OR STEAM COIL)

DUCT MOUNTED COIL (ELECTRIC)

## CONTROLS SYMBOLS

ROOM CONTROL: THERMOSTAT, HUMIDISTAT

REMOTE BULB THERMOSTAT

DUCT OR PIPE THERMOSTAT WITH AVERAGING ELEMENT. PROVIDE 12" [300mm] MIN. LENGTH IN DUCT WHEN SPACE PERMITS.

DUCT THERMOSTAT WITH AVERAGING ELEMENT

ROOM SENSOR: TEMPERATURE, HUMIDITY

DUCT OR PIPE TEMPERATURE SENSOR. PROVIDE 12" (300 MM) MIN. LENGTH IN DUCT WHEN SPACE PERMITS.

DUCT HUMIDITY SENSOR

DUCT DEW POINT SENSOR

DUCT STATIC PRESSURE SENSOR

DUCT TEMPERATURE SENSOR WITH AVERAGING ELEMENT

SMOKE DETECTOR (SEE ELECTRICAL SPECIFICATIONS)

## HEATING

HIGH PRESSURE STEAM (60 PSIG AND ABOVE)

HIGH PRESSURE STEAM CONDENSATE RETURN

MEDIUM PRESSURE STEAM (16 PSIG THRU 59 PSIG)

MEDIUM PRESSURE STEAM CONDENSATE RETURN

LOW PRESSURE STEAM (15 PSIG AND BELOW)

LOW PRESSURE STEAM CONDENSATE RETURN

CONDENSATE PUMP DISCHARGE

FEED WATER PUMP DISCHARGE

HOT WATER HEATING SUPPLY

HOT WATER HEATING RETURN

HOT GLYCOL-WATER HEATING SUPPLY

HOT GLYCOL-WATER HEATING RETURN

VENT LINE

SOLAR WATER SUPPLY

SOLAR WATER RETURN

## AIR CONDITIONING

REFRIGERANT LIQUID

REFRIGERANT SUCTION

REFRIGERANT HOT GAS

CONDENSER WATER TO TOWER

CONDENSER WATER FROM TOWER

CHILLED WATER SUPPLY

CHILLED WATER RETURN

CHILLED GLYCOL-WATER SUPPLY

CHILLED GLYCOL-WATER RETURN

MAKE-UP WATER

DRAIN LINE

REFRIGERANT LIQUID

REFRIGERANT SUCTION

REFRIGERANT HOT GAS

CONDENSER WATER TO TOWER

CONDENSER WATER FROM TOWER

CHILLED WATER SUPPLY

CHILLED WATER RETURN

CHILLED GLYCOL-WATER SUPPLY

CHILLED GLYCOL-WATER RETURN

MAKE-UP WATER

DRAIN LINE

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REFRIGERANT HOT GAS

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