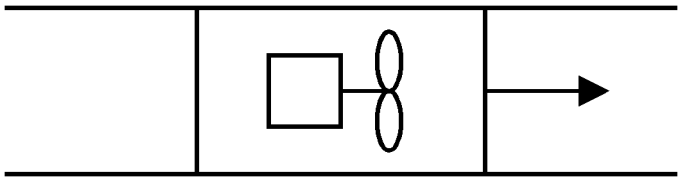
Skill Development Exercises for Chapter 2

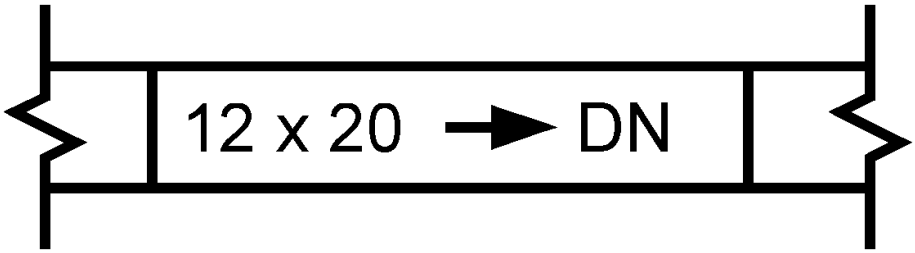
2-1. This is the symbol for:



a) Centrifugal fan b) Axial fan c) Diffuser d) None of the above

Answer: b, axial fan, with the air flowing parallel to the axis of the fan shaft

2-2. This ductwork is _____, and the dimension of the side shown is _____.



a) Dropping, 20 b) Dropping, 12 c) Rising, 12 d) None of the above

Answer: b, The first dimension is that shown and DN is the abbreviation for down.

2-3. This is the symbol for a flexible duct:

a) True b) False

c) Cannot be determined from the information given.

Answer: a, True

2-4. This symbol shows

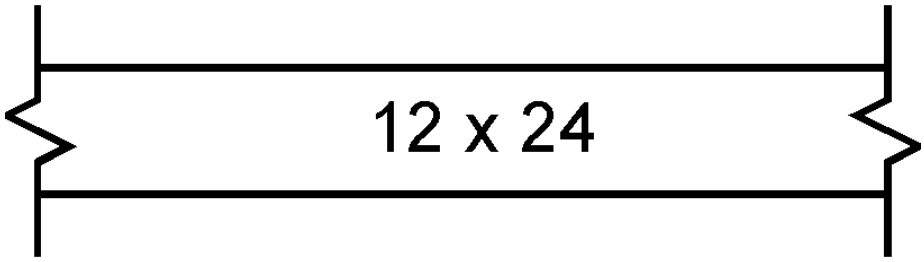
18 x 12

a) A blanked-off duct, with a top dimension of 12
b) A return air duct, with a side dimension of 18
c) A supply air duct, with a side dimension of 18
d) None of the above

Answer: d

The cross across the duct means the air is at a positive pressure above atmospheric, which is typical of supply ducts. The first dimension given in a section view is the top; 18 in this case. is a supply duct with dimensions 18 top and 12 side.

2-5. The shown dimension of this duct is 24:



a) True b) False
c) Cannot be determined from the information given.

Answer: b, False. First dimension is of shown dimension.

2-6. A filter that uses a liquid as an adhesive is a:
a) Carbon filter b) Electrostatic filter c) Viscous filter
d) All of the above e) None of the above

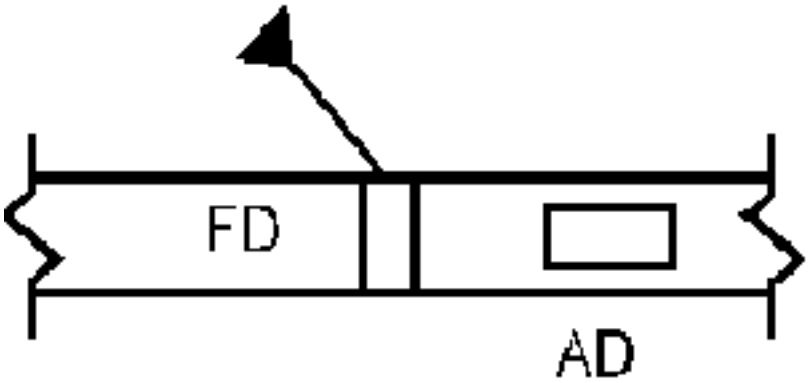
Answer: c. Viscous filters are coated in a liquid to increase dirt collection and retention.

2-7. An air handling unit may be used to:

a) Move air b) Mix air c) Heat air d) All of the above e) None of the above

Answer: d, all of the above

2-8. This is the symbol for:

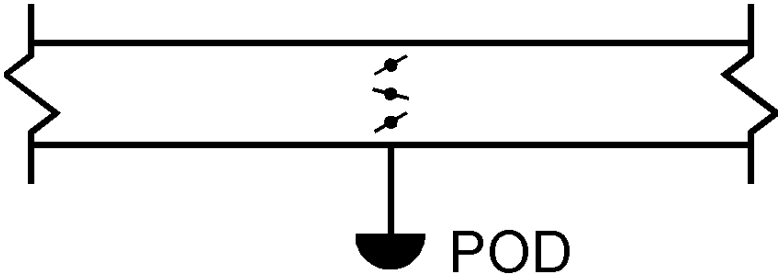


a) Manually operated damper b) Electrically controlled damper

c) Manual damper d) All of the above e) None of the above

Answer: e, None of the above, as it is a fire damper in the vertical position with an access door alongside

2-9. This is the symbol for:

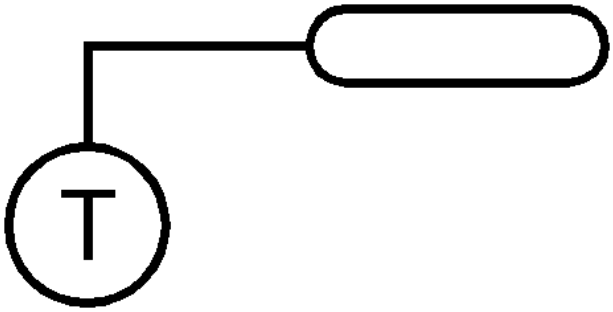


a) Pneumatically operated damper b) Inline psychrometric observation device

c) Fire damper d) All of the above e) None of the above

Answer: a, pneumatically operated damper

2-10. This is the symbol for:



a) Temperature relay b) Test station c) Remote bulb thermostat
d) All of the above e) None of the above

Answer: c, remote bulb thermostat