

Air-conditioners

Air-conditioning systems QUS 3206 / MDM NURUL AINI

Kateryna Klymovska
Denys Nechyporenko



Sub topic

1

Introduction

2

Principles of air-conditioning

3

Type of air-conditioning

4

Used sources

Introduction

Air conditioning - is the process of altering the properties of to more favorable conditions.



AIR HANDLER/ EVAPORATOR COIL

The cool refrigerant from the compressor (1) acts as a sponge to absorb the warm air supplied from the blower motor (2). The now cooled air is pushed through the air ducts and comes out through the supply (B).

BLOWER MOTOR

Contrary to its name, it actually pulls hot air from inside the home into the return (A) and blows it across the evaporator coil (3).

OUTDOOR COILS AND FAN

The warmed refrigerant from the air handler/evaporator coil (3) returns to the condenser (1) and expels heat in the refrigerant through the outdoor coils and fan.

4

RETURN

Warm air inside the house is pulled into the return by the blower motor (2).

A

B

SUPPLY

Cold air from the air handler/evaporator coil (3) is expelled through the supply.

THERMOSTAT

Set by the homeowner to the desired temperature; initiates the entire system.

C

1

CONDENSER

Includes the compressor, which pumps refrigerant to the air handler/evaporator coil (3).

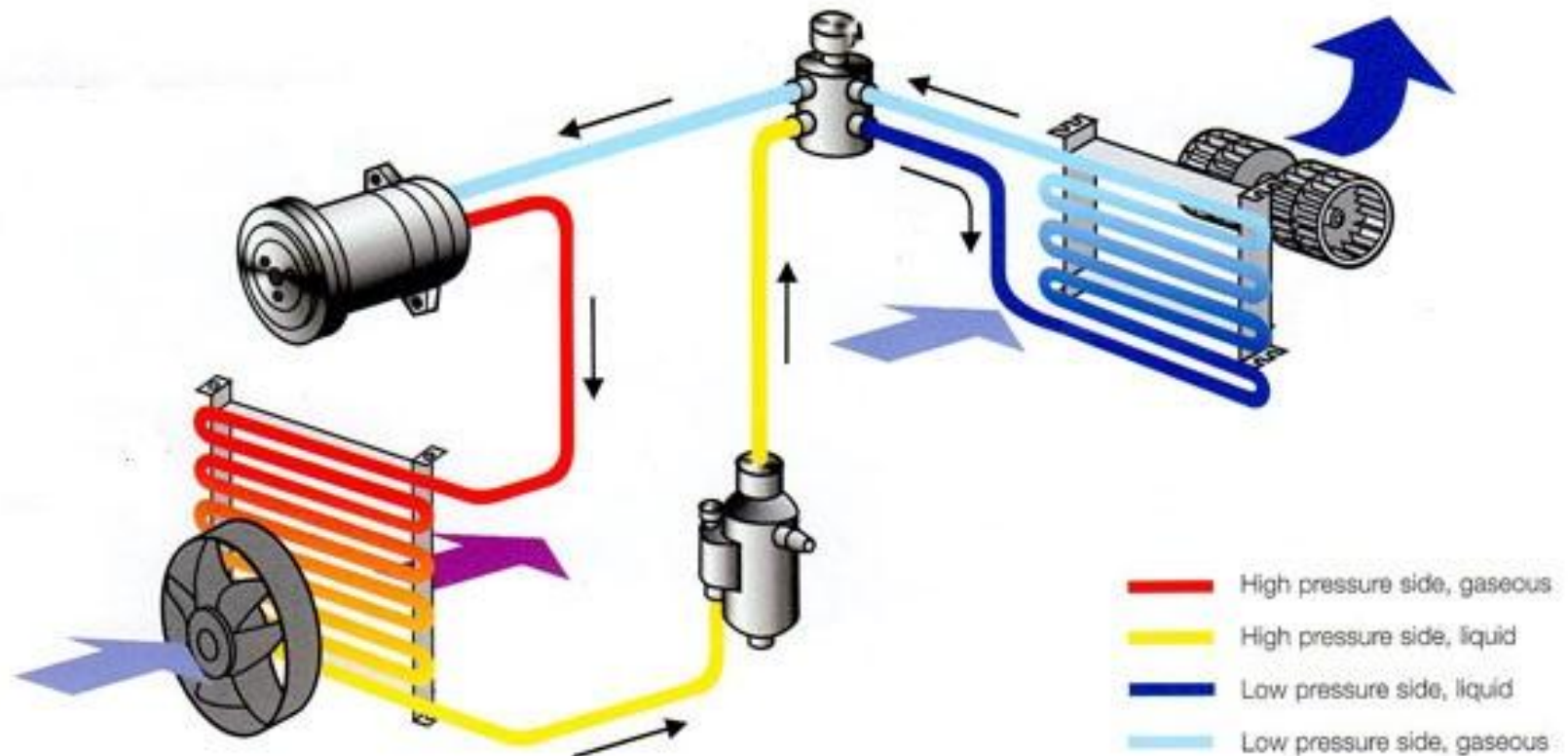
3

2



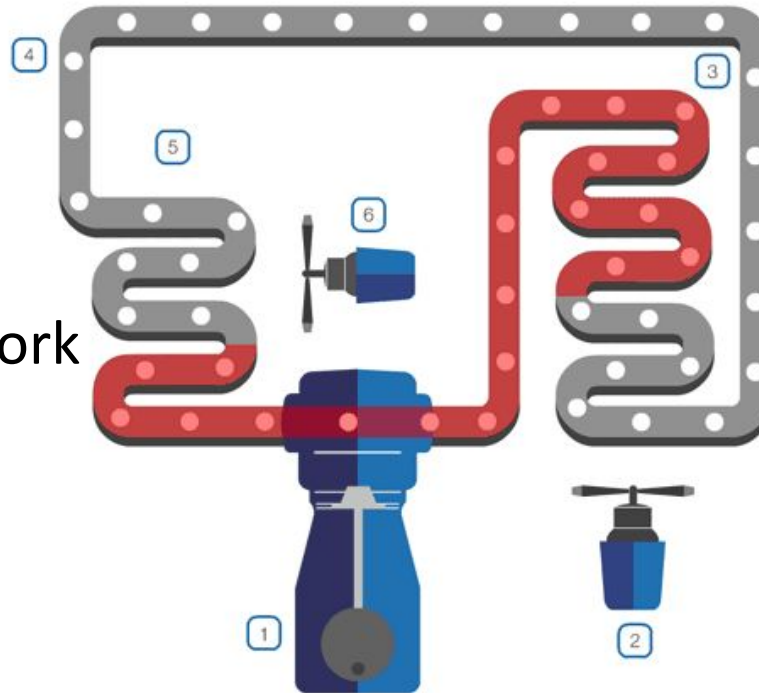
Principles of air conditioning

The goal is to keep it more comfortable inside the house than it is outside.



Principles of air conditioning

1. Compressor
2. External Fan
3. Condensaor coil
4. Interconnecting Pipework
5. Evaporator coil
6. Indoor fan motor



01. Compressor / 02. External Fan / 03. Condensor Coil
04. Interconnecting Pipework / 05. Evaporator Coil / 06. Indoor Fan Motor



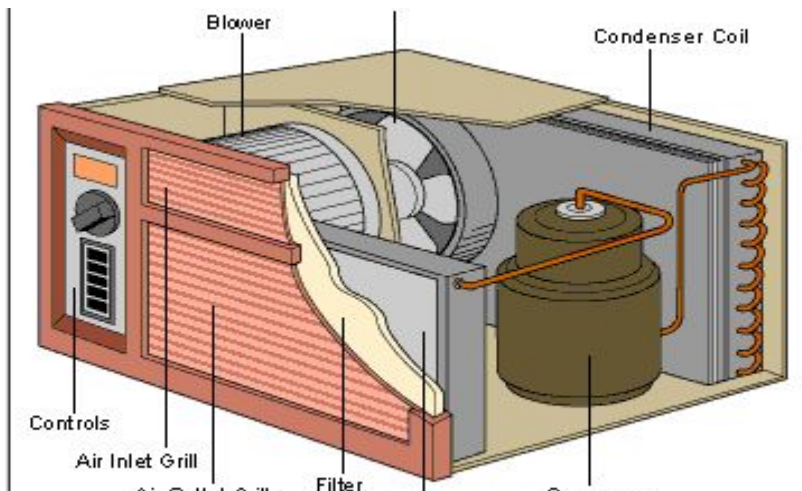
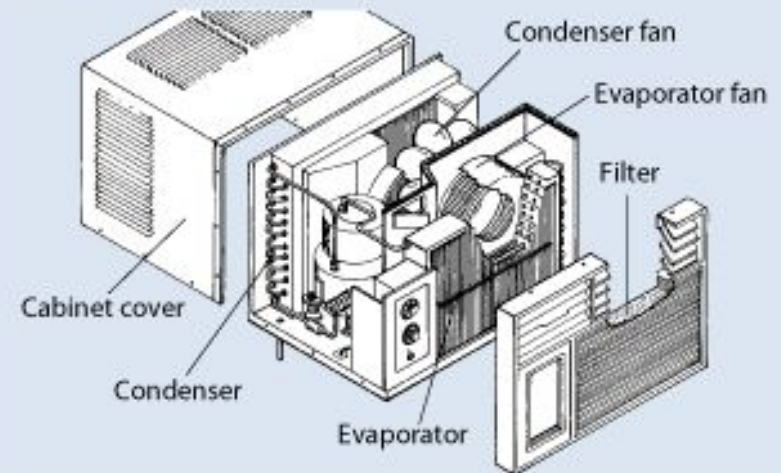
www.airconco.com

Type of air conditioning

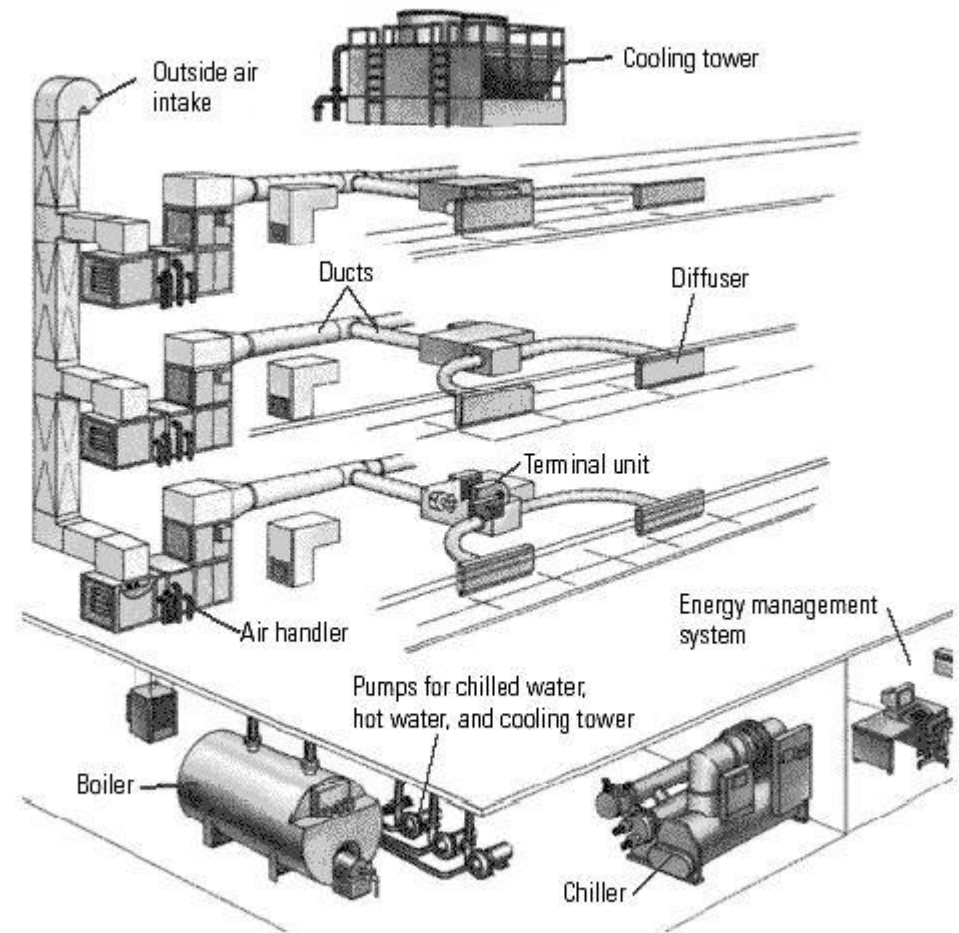
Window air-conditioning system



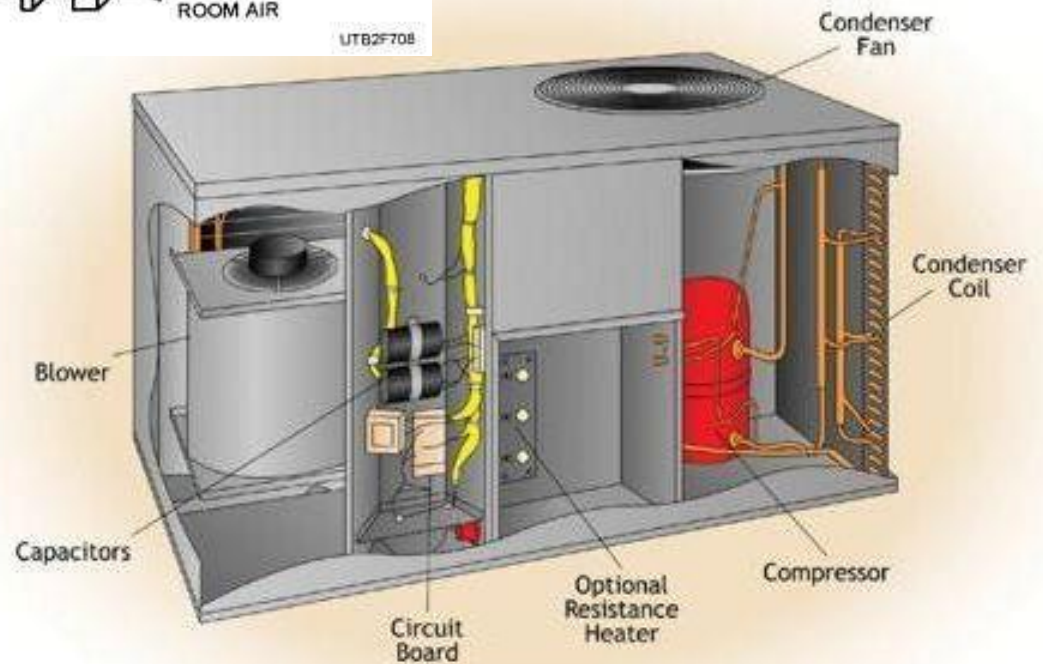
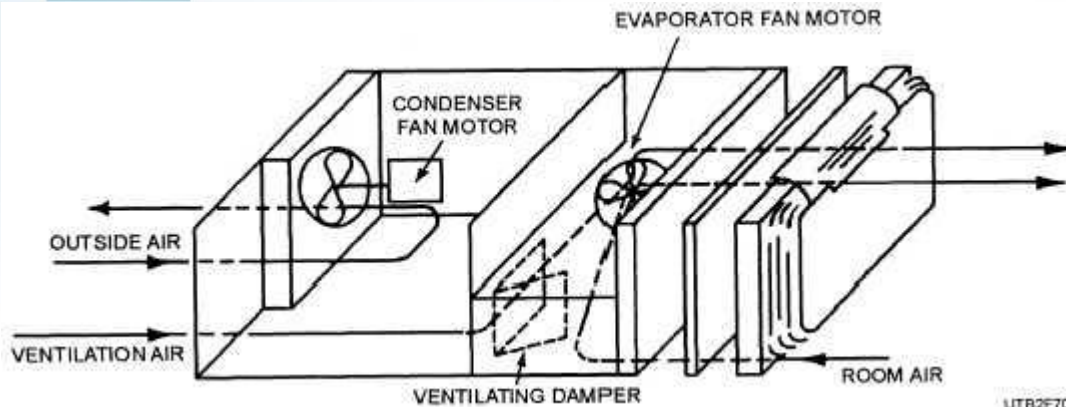
Room Air Conditioner



Centralised air-conditioning system



Package air-conditioning system





Used sources

<http://www.cebit-america.com/common-air-conditioning-system-issues-improper-maintenance-can-turn-costly/>

<https://visual.ly/community/infographic/education/how-does-air-conditioning-system-work>

<http://www.constructionweekonline.com/article-41615-saudi-hvacr-market-to-grow-13-in-next-five-years/>

<https://www.airconco.com/how-does-air-conditioning-work/>

<https://www.hometips.com/how-it-works/air-conditioners-room-window.html>

http://www.daviddarling.info/encyclopedia/W/AE_window_air_conditioner.html

<http://homeguides.sfgate.com/harmful-effects-window-unit-air-conditioners-89779.html>

<https://www.extra.com.br/arventilacao/arcondicionado/split/ar-condicionado-fujitsu-split-inverter-27000-btus-frio-aobr-30-jft-6666873.html>

<https://www.brighthubengineering.com/hvac/50160-chilled-water-central-air-conditioning-systems/>

<https://www.brighthubengineering.com/hvac/61457-packaged-air-conditioners-types-of-packaged-a-c/>

<http://constructionmanuals.tpub.com/14279/css/Figure-7-8-Air-handling-components-of-a-package-type-of-room-air-conditioner-245.htm>

A decorative graphic in the top-left corner consisting of a grid of squares in various shades of blue, ranging from dark navy to light sky blue. The squares are arranged in a pattern that tapers off towards the right and bottom.

**Thank you very much
for listening**