

الكلية التقنية الهندسية قسم هندسة تقنيات الأجهزة الطبية



Anesthesia Machine

SUPERVISOR:

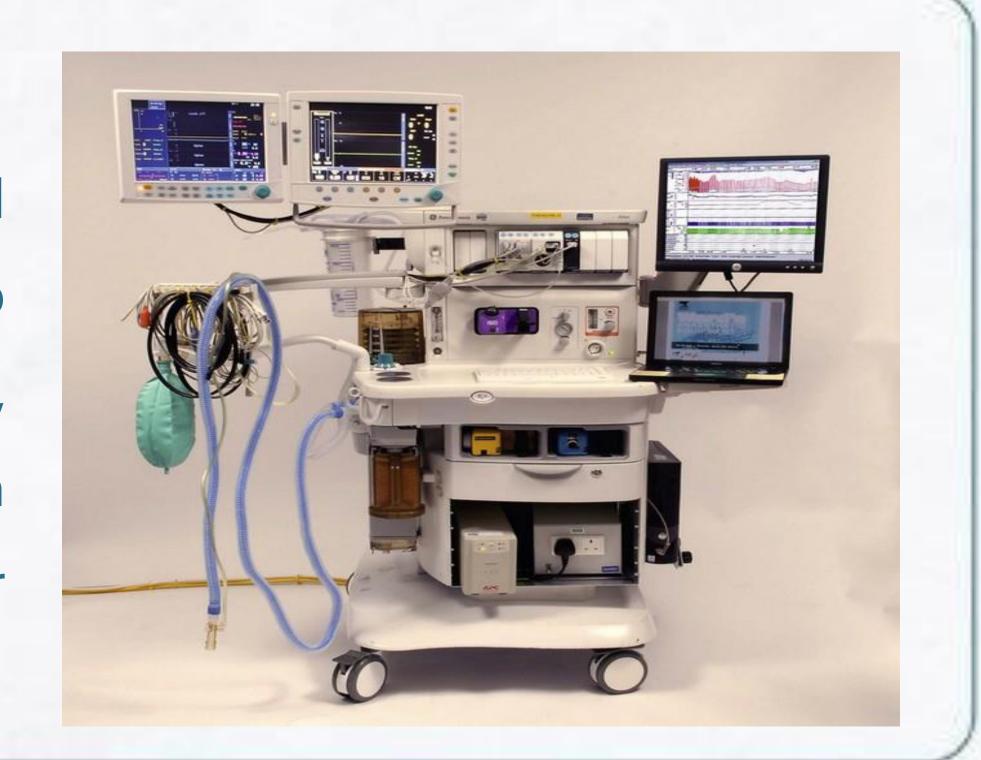
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GROUP:

Tabark, et al.

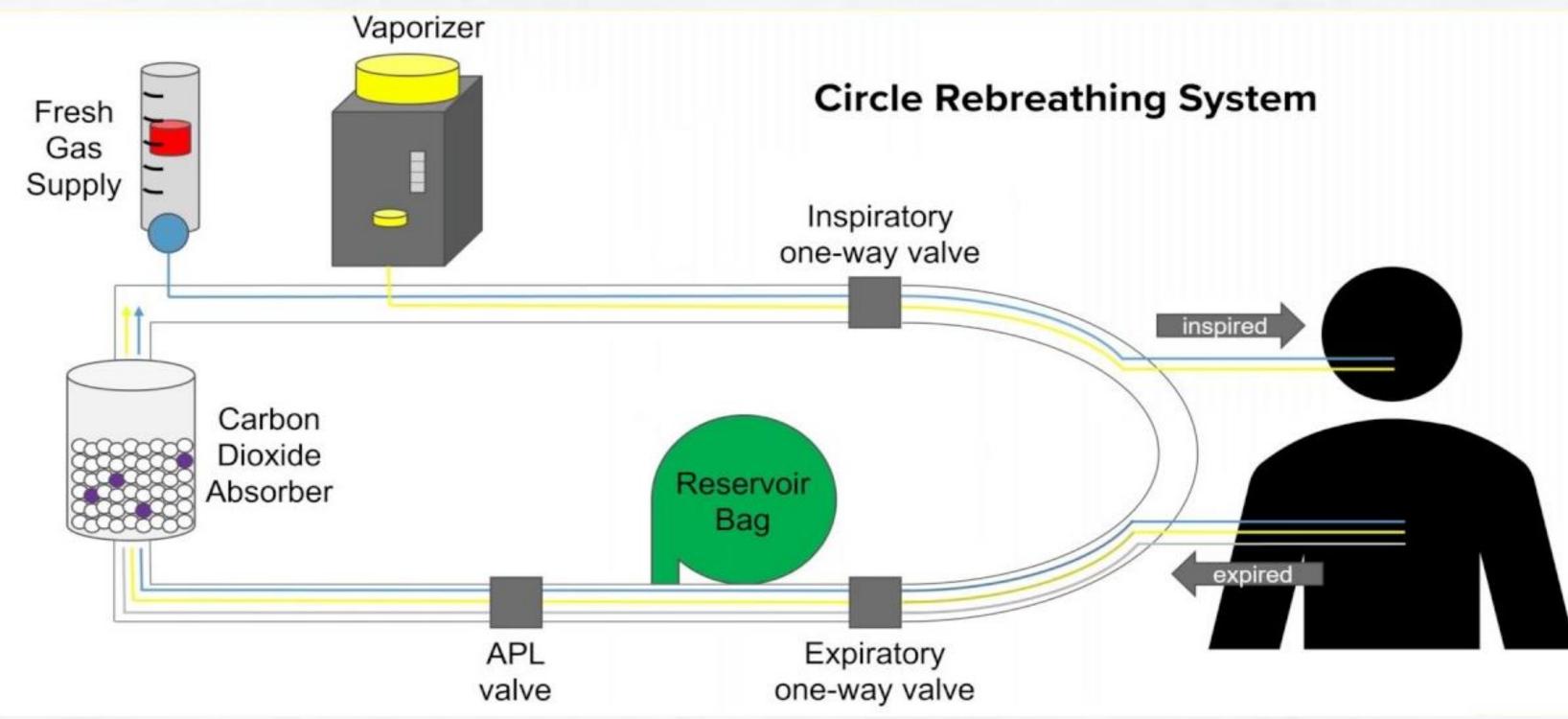
INTRODUCTION:

The anesthesia machine is one of the most versatile medical instruments in the healthcare industry. The pneumatic devices help doctors sedate their patients before surgery and keep them asleep, while breathing, throughout the procedure. Primarily, the function of the anesthesia machine is to help surgeons mitigate their patient's pain during a medical operation.



Operation:

The anesthesia machine receives medical gases (oxygen, nitrous oxide, air) under pressure and accurately controls the flow of each gas individually. A gas mixture of the desired composition at a defined flow rate is created before a known concentration of an inhalational agent vapor is added. Gas and vapor mixtures are continuously delivered to the common gas outlet of the machine, as fresh gas flow (FGF) and to the breathing system and patient.





Anesthesia Applications

Components:



4. Pressure gauges: measures the pressure in the cylinder or pipeline.

The pressure gauges for oxygen, nitrous oxide, and medical air are mounted in a front-facing panel on the anesthetic machine.

6. O2 flush

button

1. Vaporizer
changes a liquid anesthetic
agent into its vapor and
adds a controlled amount
of that vapor to the fresh
gas flow to the system
breathing.