

AnaConDa[®]

BY

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AnaConDa® (Anaesthetic Conserving Device) is an innovative, disposable administration system for isoflurane and sevoflurane.

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Enables administration of anaesthetic agents in the ICU in a safe and simple way

Creates together with a standard ventilator and a monitoring system a low cost, low flow anaesthesia machine with performance characteristics as a modern anaesthesia machine

Breaking the last barrier to use volatile anaesthetic agents wherever you want.

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Volatile agents in the ICU

Main advantages:

- Short and predictable wake up time
 - extubation can easily be planned
- No development of tolerance
 - the same dose can normally be used throughout the treatment
 - low concentrations usually needed ~ 0,3% (isoflurane).

Volatile agents in the ICU

Main advantages:

- More reliable route of administration and elimination
 - Not depending on hepatic metabolism and/or renal excretion for elimination.
- No withdrawal symptoms
- Sedation levels are easy to control
 - Alveolar concentration can be continuously monitored. So far, no comparable monitoring is available for i.v. drugs.

Sedation in the ICU with isoflurane compared to Midazolam

	isoflurane	Midazolam
Time to Extubation (mins)	10±5	250±270
Time to follow verbal command (mins)	10±8	110±130

"Prolonged isoflurane sedation of intensive care unit Patients with the Anaesthetic Concerning Device"
Sackey P, Martling C-R, et al. Crit Care Med 2004 Vol. 32, No.11

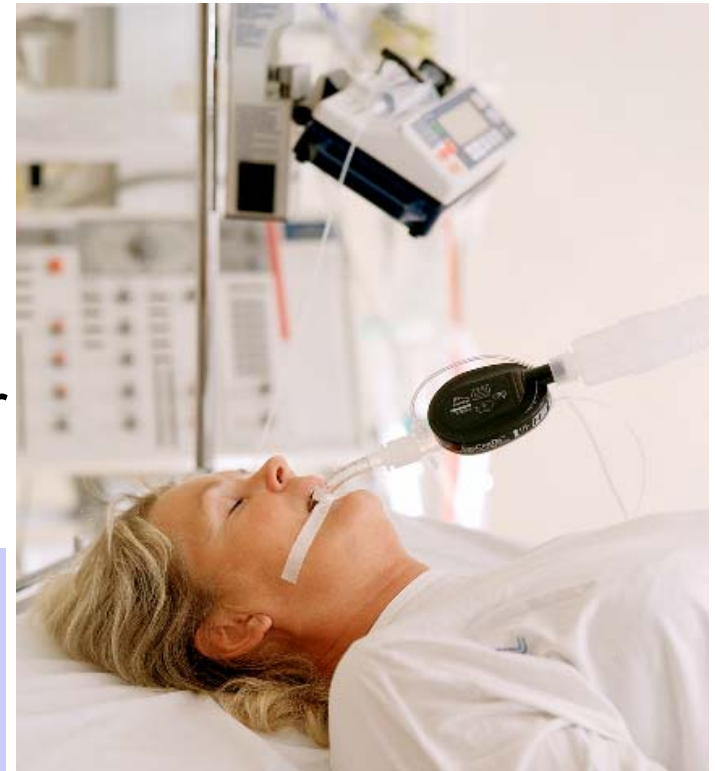
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Set-up

The **AnaConDa®** is to be inserted between the ET-tube and the circuit, and enables delivery of volatile anaesthetic agents, with a standard ventilator



“The Anaesthetic Conserving Device allows titratable administration of isoflurane without costly equipment and can safely be managed by the nursing staff”

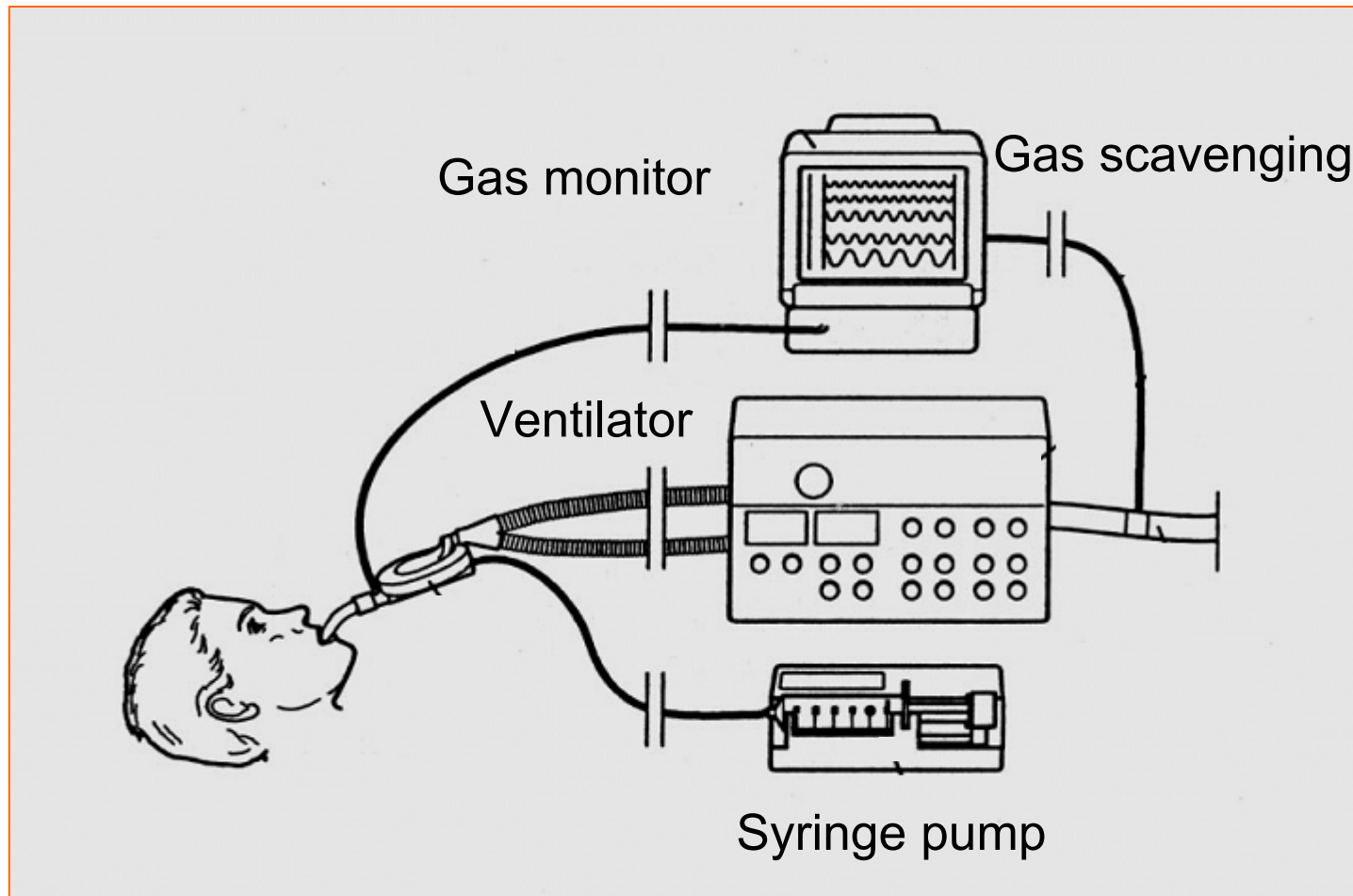
Sackey et al: Crit.Care.Med 2004; 32: 2241-2246

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Clinical setting

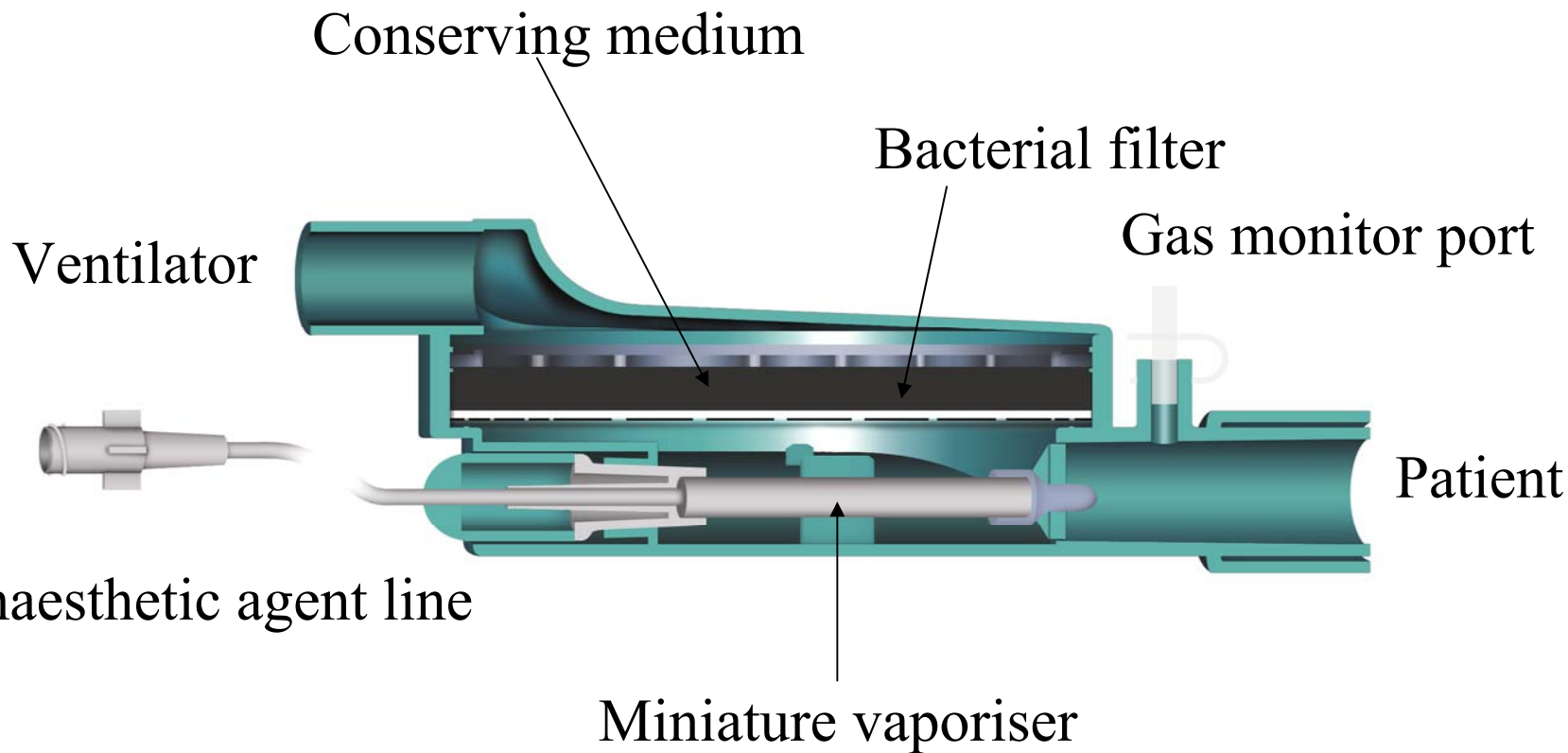


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Cross section

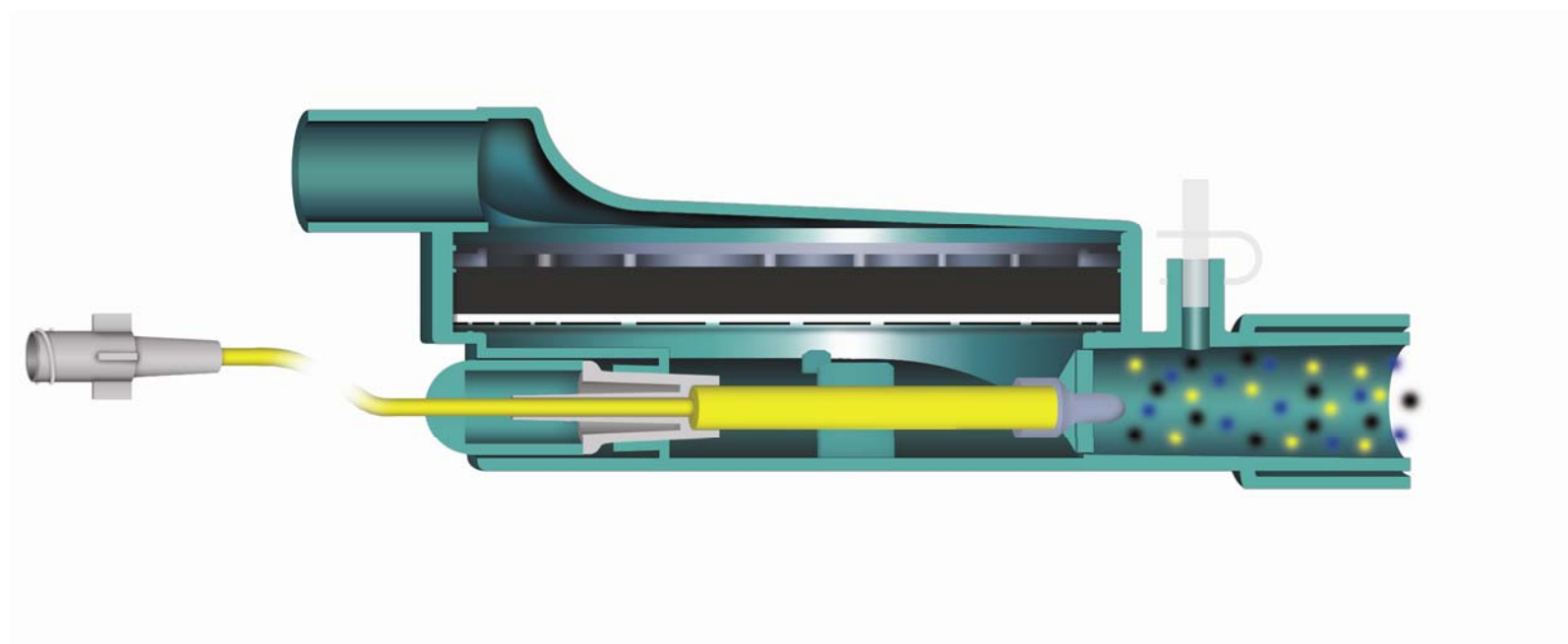


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Beginning of expiration



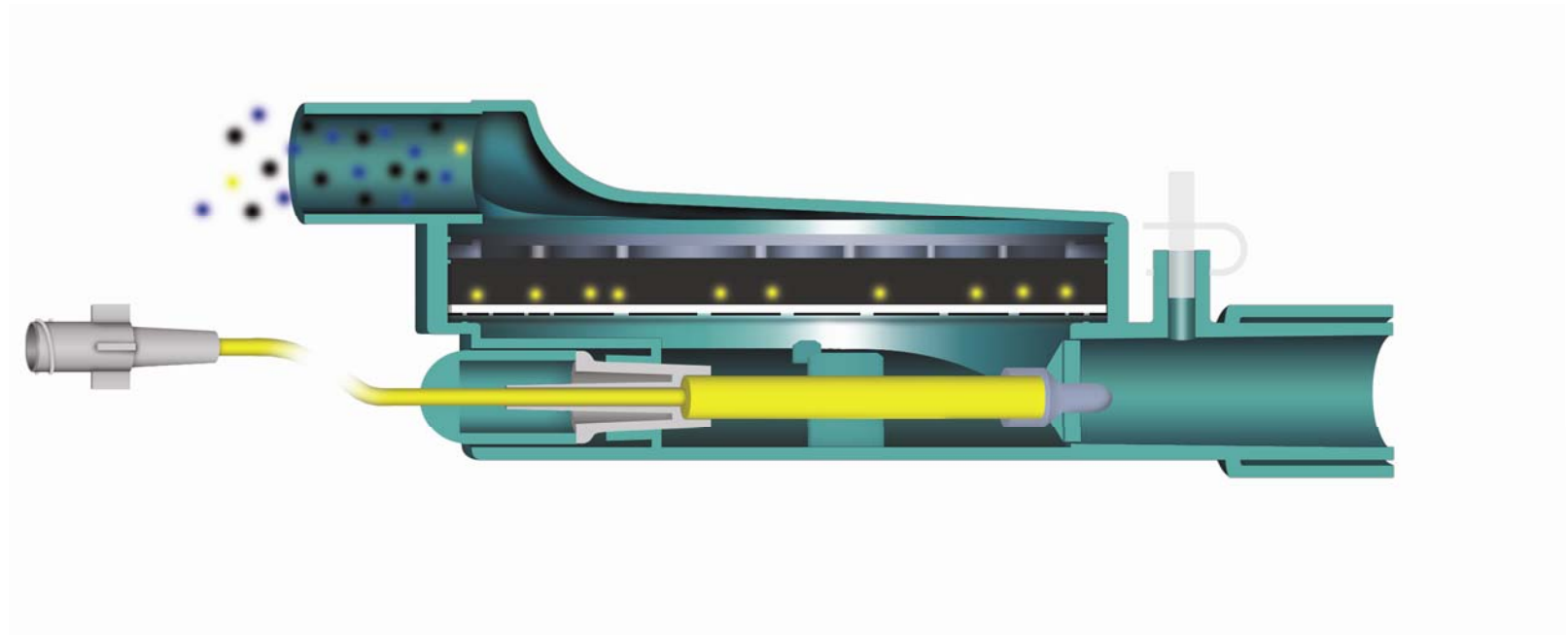
- O_2 , N_2
- CO_2
- Anaesthetic agent

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End of expiration



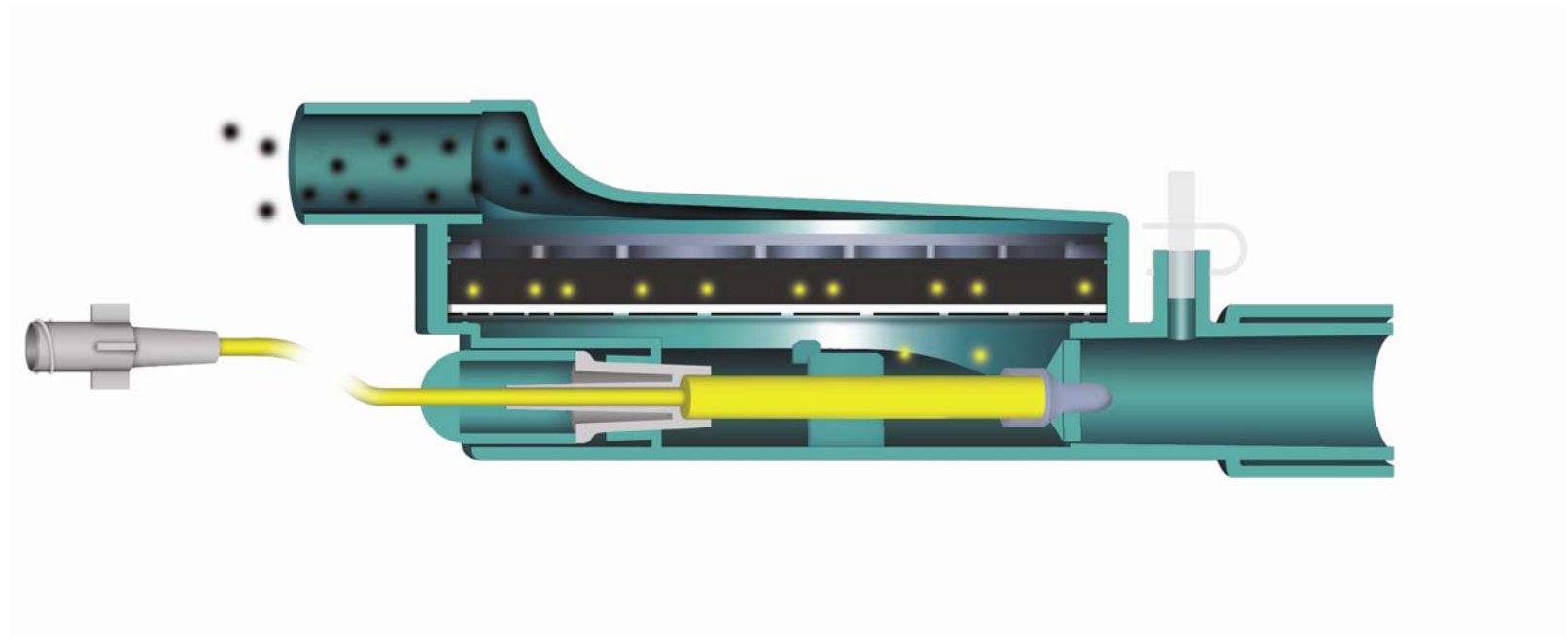
- O₂, N₂
- CO₂
- Anaesthetic agent

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Beginning of inspiration



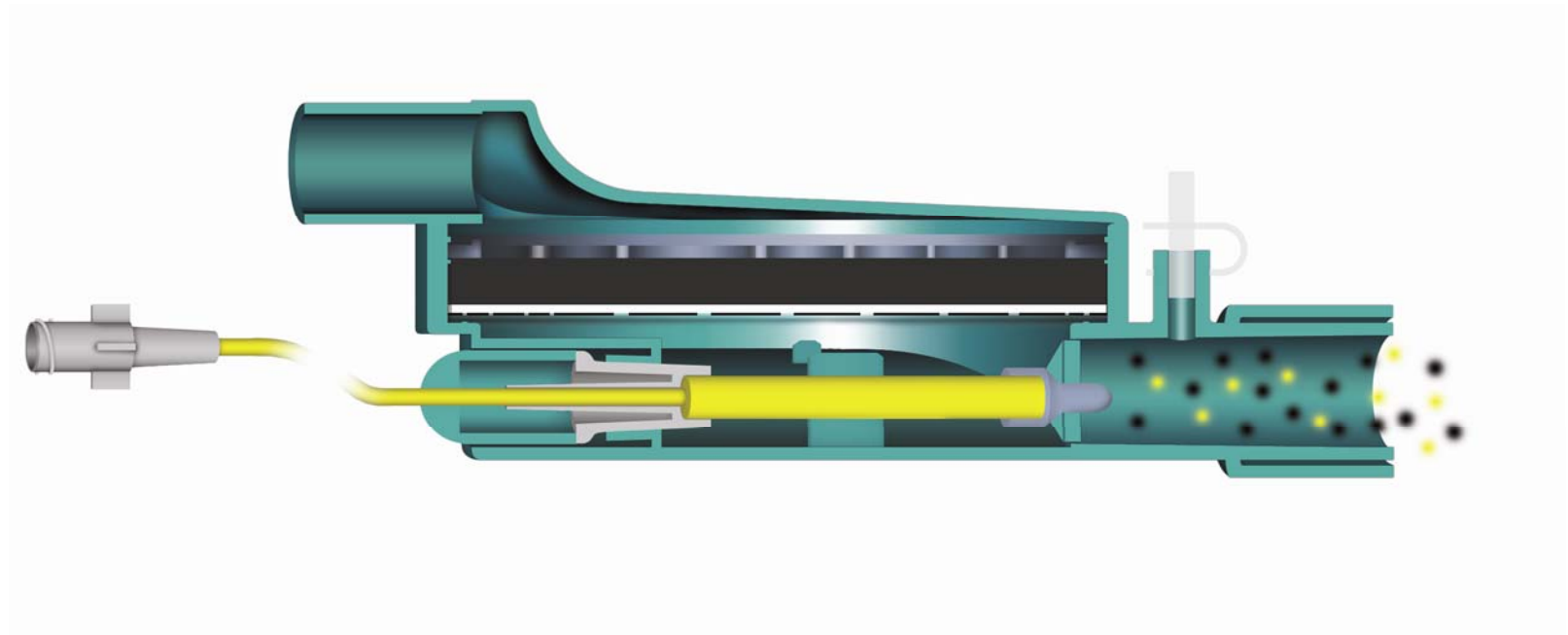
- O₂, N₂
- CO₂
- Anaesthetic agent

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End of inspiration



- O₂, N₂
- CO₂
- Anaesthetic agent

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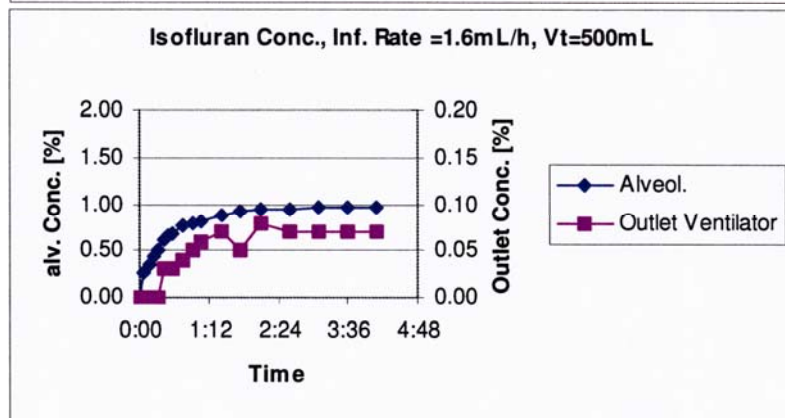
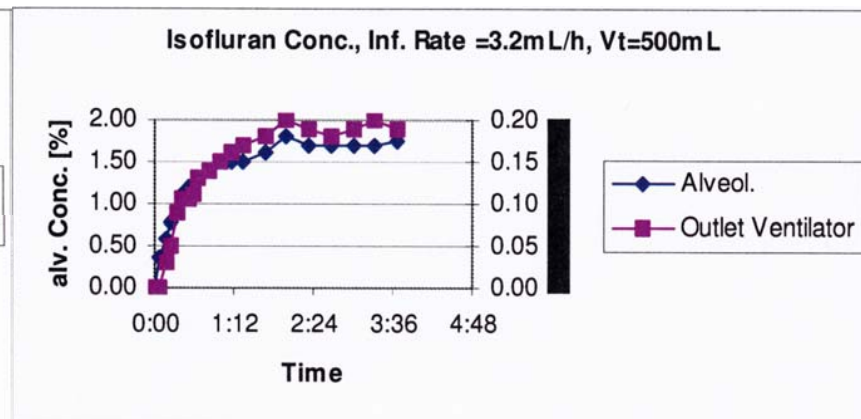
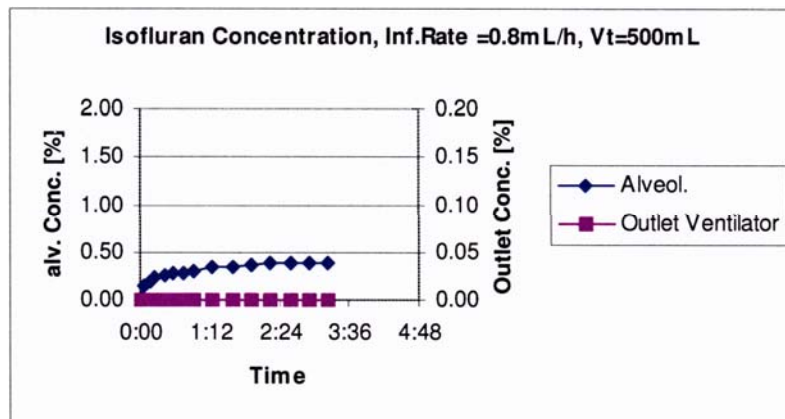
Efficiency

The efficiency of Anaconda is depending on the tidal volume (V_t) and anaesthetic agent concentration.

In the normal tidal volume range and concentrations the efficiency is very high.

At concentration normally used to sedate patient, 0.3-0.8%, the loss is insignificant

Anaconda efficiency



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Ambient pollution

The ambient pollution when using the Anaconda has shown to be very low, and well below international limits. Continuous measurement of ambient pollution range 0.0-0.5 ppm with an average value of 0.1 ppm

“It has been shown that using isoflurane is an environmentally safe method of sedation when used together with the AnaConDa”

Sackey et al: Crit Care Med 2005; Vol 33 585-590

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Agent delivery

The liquid anaesthetic agent is delivered by using a syringe pump.



The Anaconda Syringe is compatible with all syringe pumps with setting for BD plastipac 50 ml or Sherwood monoject 50 ml.

Anaconda is supplied with a syringe that is tested for isoflurane and sevoflurane and can be stored pre-filled up to 7 days.

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Filling the syringe

To safely fill the syringe special adapters containing a valve are available.



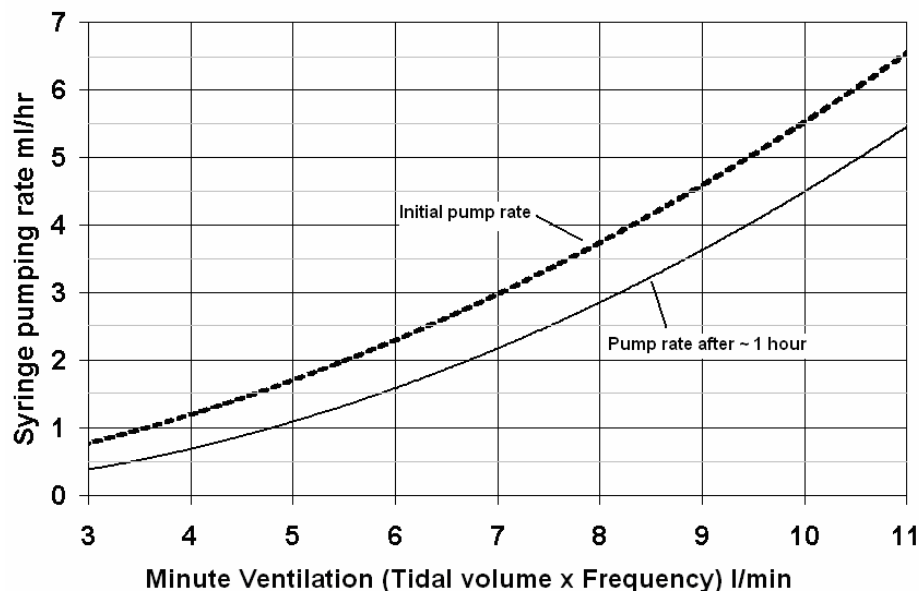
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Dosing

The dosing chart is a part of the instruction for use and serves as a rough guide to reach 0.5%. Fine-tuning is made by following the gas concentration on the gas monitor



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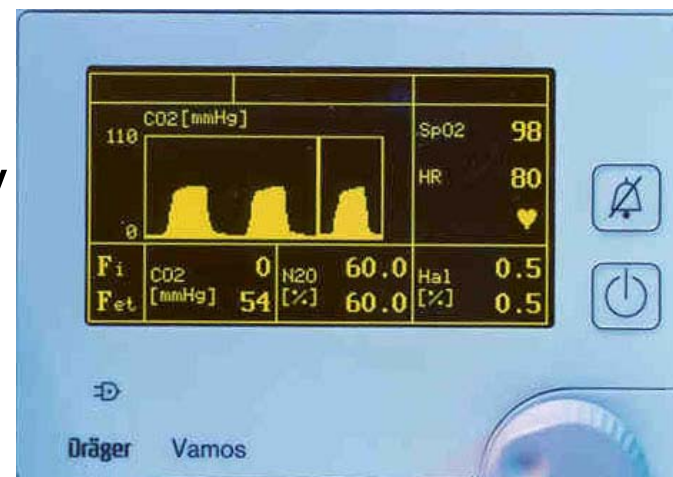
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Gas Monitoring

Agent concentration is continuously monitored on a gas monitor

Blood concentration correlates to the end tidal gas concentration values (Fe).

Continuous monitoring brings added safety as alarm limits can be set.



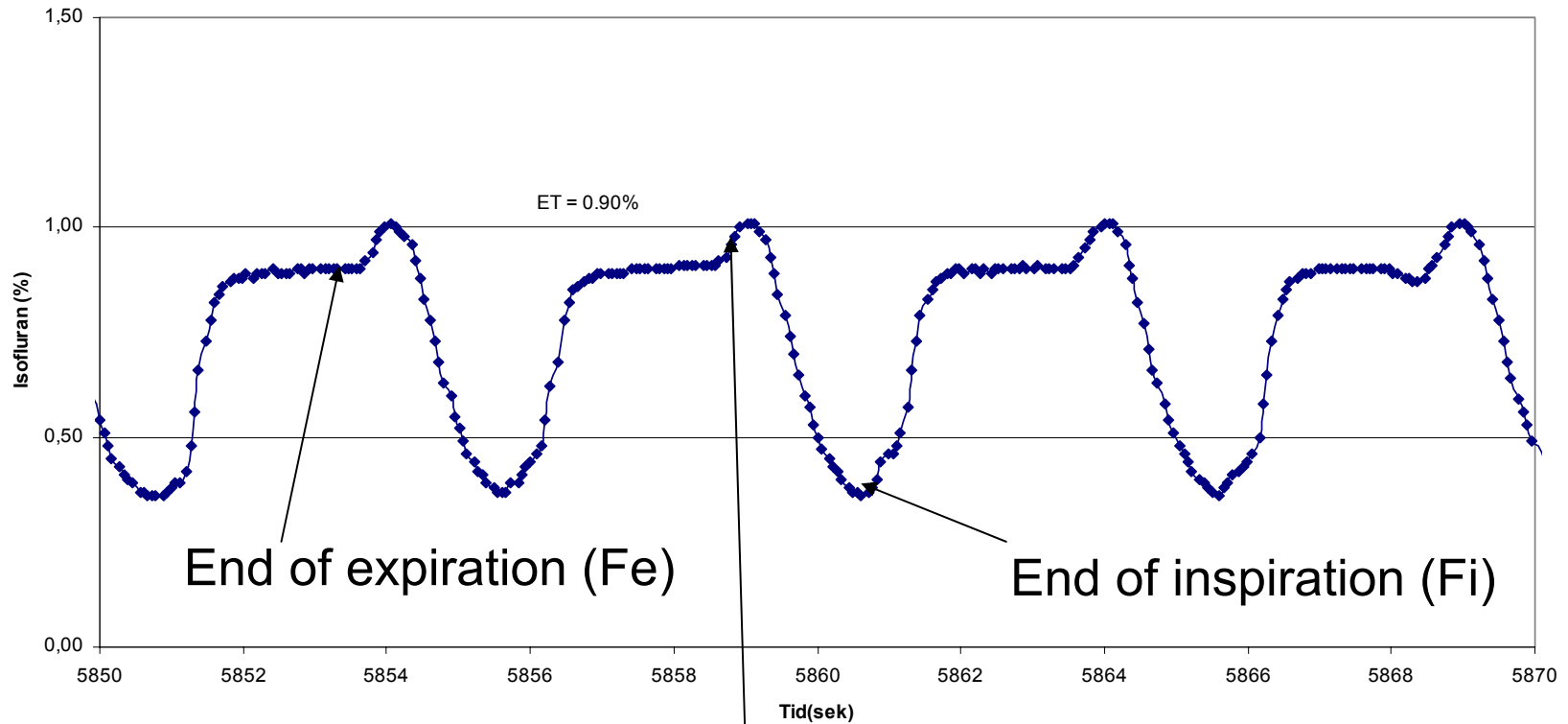
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Interpretation of the gas monitor concentration values

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Start of inspiration; The conserving medium and the vaporizer releases anaesthetic gas.

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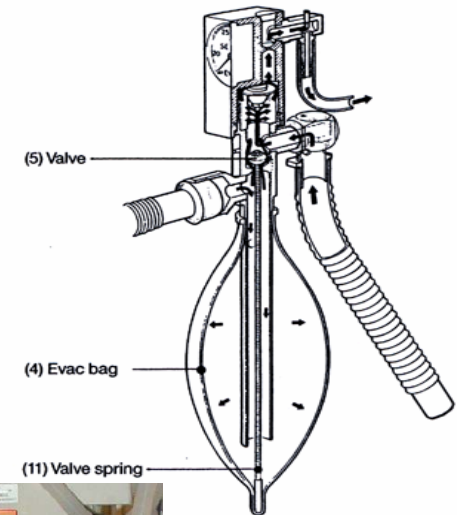
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Scavenging

Although very little anaesthetic agent is lost through the ventilator exhaust, scavenging of the exhaust gas is recommended

Central scavenging systems can be used. Otherwise a passive system is recommended e.g. Aldasorber.



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