AnaConDa®

Anaesthetic Conserving Device

Inhalation Sedation with volatile anaesthetic agents

SEDANAMEDICAL

the AnaConDa® technology people

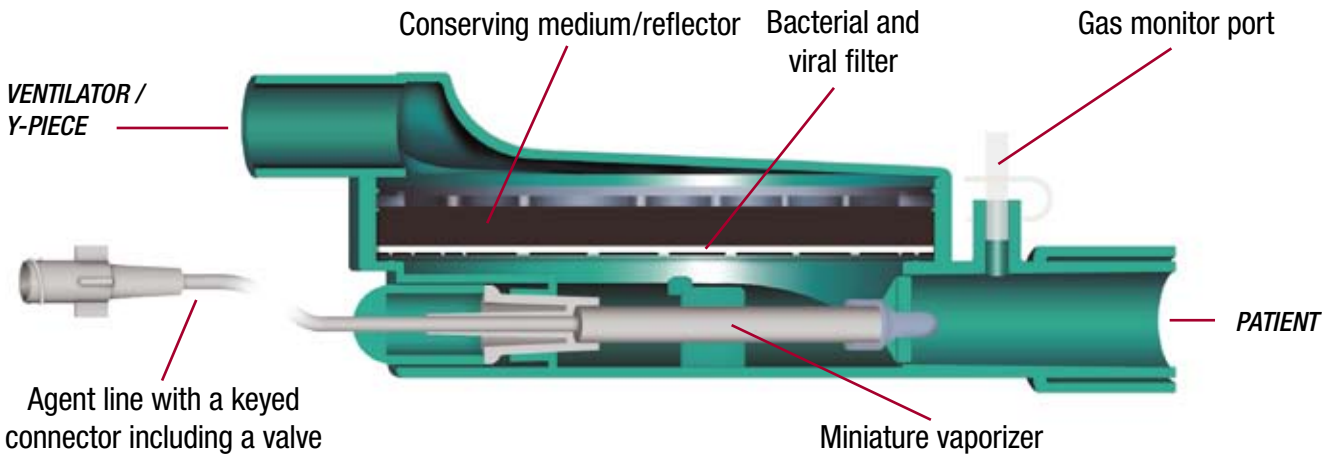
Sedation

Optimal analgo-sedation is an essential requirement of modern intensive care medicine. Targets include individually adjustable and controlled attenuation of patients' pain and consciousness, optimised ventilation patterns, a short weaning process and programmed extubation. Based on their pharmacological properties, volatile anaesthetics approximate to the "ideal" sedative agents and have proven their efficiency and safety in general anaesthesia over decades. Until recently, complex technical equipment (vaporizer technology) was a crucial factor restricting the use of anaesthetic gases to the operating room. Anaesthesia machines – the last option in the case of status asthmaticus – cannot perform modern ventilation modes, and moreover, have not been approved for intensive care indications.

This is no longer the case! In recent years the AnaConDa® (Anaesthetic Conserving Device), an innovative system for the administration of volatile anaesthetics, was introduced and is becoming the procedure of choice for long term sedation in the ICU. The specific benefits of AnaConDa are the easy setup between the endotracheal tube and the Y-piece of any intensive care ventilator, and the low consumption of anaesthetics due to the reflection of up to 90% of the anaesthetic gas by the integrated carbon storage filter. Many clinical studies of inhalation sedation using the AnaConDa system have been published over the last 5 years.

See www.sedanamedical.com for literature.

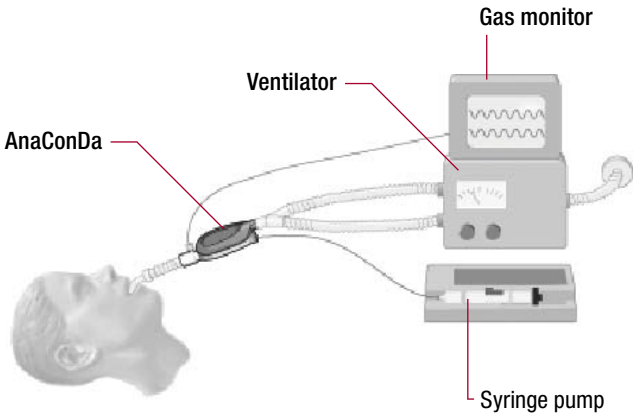
Cross section of the AnaConDa



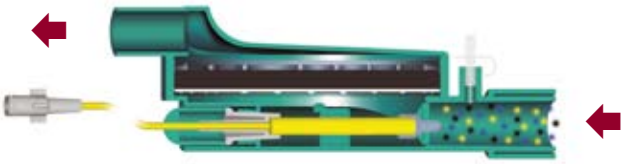
Clinical Set-up

AnaConDa is easy to use. A syringe pump, a gas monitor and a standard ventilator are needed. To fill the AnaConDa Syringe with anaesthetic agent special adaptors with valves are available. It is also recommended to scavenge the gas from the gas monitor and ventilator exhaust.

Always read the Instructions for Use before using AnaConDa.

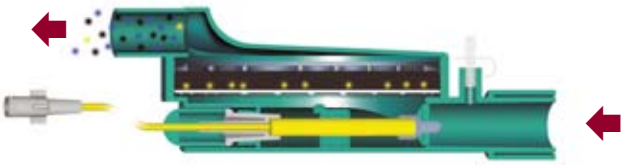


Start of expiration



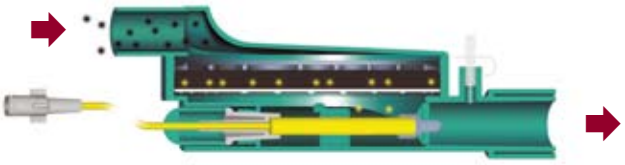
During expiration the breathing gas contains a mixture of air/oxygen, CO_2 and the volatile anaesthetic agent.

End of expiration



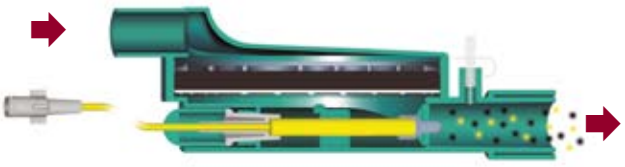
The expired volatile anaesthetic agent is absorbed by the conserving medium while CO_2 passes through.

Start of inspiration



The volatile anaesthetic agent stored in the conserving medium is ready to be released.

End of inspiration



The volatile anaesthetic agent is released from the conserving medium and transported to the patient together with the continued flow from the vaporizer.

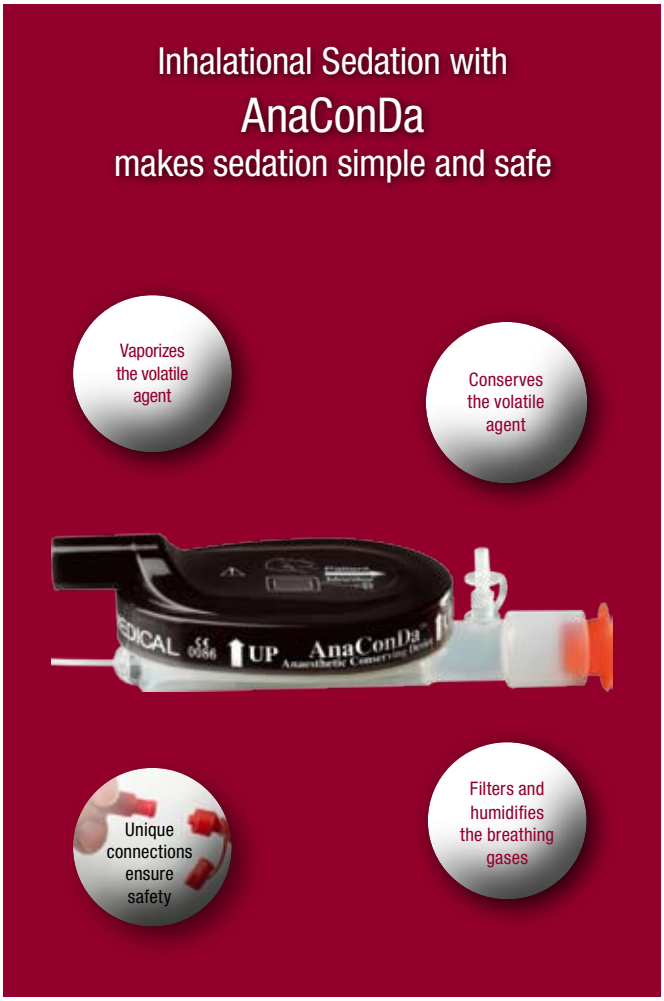
● Air/Oxygen ● CO_2 ● Volatile anaesthetic agent

Description of operation

AnaConDa consists of a plastic housing with an agent line for the continuous delivery of liquid volatile anaesthetics (isoflurane or sevoflurane) to the miniature vaporizer where it is immediately vaporized. During inspiration the volatile anaesthetic agent is transported to the patient. During continued breathing the volatile anaesthetic agent is re-circulated over the reflector which consists of an active carbon filter. More than 90 % of the expired volatile agent is absorbed by the reflector during expiration and then re-delivered to the patient again during the next inspiration. The volatile agent is continuously regulated to compensate for the agent which is metabolised and losses from the exhausts using a syringe pump with the unique AnaConDa Syringe filled with liquid volatile agent.

In addition the AnaConDa is an excellent heat- and moisture exchanger and it also includes an efficient bacterial/viral filter.

The depth of sedation is controlled using the gas monitor by measuring the end- expiratory value (Fe) or the MAC value individually correlated to a Sedation Scoring System e.g. RASS.



PRODUCT LINE

Order number	*Description*
The AnaConDa System	
26000	AnaConDa with a Syringe
26022	AnaConDa Syringe
26042	Filling Adaptor for Sevorane Quick fill bottles
26064	Filling Adaptor for a screw on cap
26072	Zubehör AnaConDa Aufbau
Gas scavenging system	
Zeo000050	CONTRAfluran™ - Rest gas filter
Zeo000051	Mount for the filter
Zeo000052	SENSOfluran™ - Mount with fill level control unit

Sign up for a Forum about Inhalation Sedation
www.inhalation-sedation.com
to discuss, ask questions
or read about other's opinions!

Detailed product information and technical specifications can be found at www.sedanamedical.com.

Innovations are made every day by creative and competent people but very few become commercially successful products. Sedana Medical was founded 2005 on the premise that the AnaConDa technology is such an innovation.

The availability of the AnaConDa technology makes the administration of anaesthetic agents simple and safe without the need for specialist and expensive equipment.

AnaConDa was developed in Sweden in the mid 90's and tested in a clinical setting for the first time in 1999. Since then over 20 publications have been published and up to middle of 2009 over 15 000 AnaConDa has been used in clinics all over the world providing inhalation sedation. Usage is increasing rapidly.

The use of inhalation sedation, mostly isoflurane but now also sevoflurane, started during the 80's but the difficulty in administration made the treatment regimen impossible to implement in a routine clinical setting. AnaConda has changed all that;

"Initially, the lack of necessary equipment led to limited use of volatile anesthetics as sedative agents in the ICU, but technologic advances, especially the introduction of the AnaConDa filter have greatly simplified administration of volatile anesthetic agents in this setting." *Gommers et al Critical Care 2008, 12(Suppl 3):S4 (doi:10.1186/cc6150).*

Sedana Medical is confident that inhalation sedation with the AnaConDa system will become the procedure of choice for long term sedation in the future. Today it is being used and evaluated in patients after cardiac surgery, burns, neuro-surgery, status epilepticus and asthmaticus, COPD, difficult sedations, deep sedation etc.

Sedana Medical is based in Uppsala in Sweden, has a subsidiary in Germany and has a large network of distributors.

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