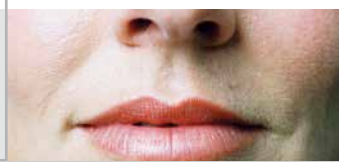
STEPHAN®

Ventilation



Clinical Experience
Technical Competence

EVE

easy - light - smart

The mobile Ventilation Concept from Emergency to Intensive Care

+ Ventilation at the push of a button
+ Cutting edge turbine technology
+ Critical care during transport

STEPHAN®

Clinical Experience
Technical Competence

EVE*TR* Rapid treatment in easy

Immediately ready for use
At the site of an emergency every second counts. In developing EVE*TR* priority was given to immediate operational readiness.
With the push of only one button the suitable ventilation scenario (adults, children, infants) can be selected and is then easily adjustable to the patient's needs via an intuitive operational concept.

State-of-the-art Ventilation and Sensor technology
EVE*TR* may be used for both invasive and non-invasive ventilation utilizing state-of-the-art ventilation technology.
All necessary ventilation modes for emergency and intensive care are included thus allowing optimal patient treatment regardless of body weight.
Thanks to integrated MASIMO® technology all Rainbow Parameters are available. An innovative non-invasive SpCO measuring method for the diagnosis of carbon monoxide poisoning can be integrated upon request.

Compact, flexible, mobile
With its robust compact design and a weight of only 6 kg, EVE*TR* is optimally suited for mobile use. Diverse fittings allow easy integration in emergency vehicles and helicopters

With its internal turbine and rechargeable battery range of up to six hours EVE*TR* is virtualy independent of gas and power supply. Integrated oxygen measuring is consumption free and therefore abrogates the need for the time-consuming exchange of O_2 cells during operation.

an Emergency

STEPHAN®

Clinical Experience
Technical Competence

EVE light

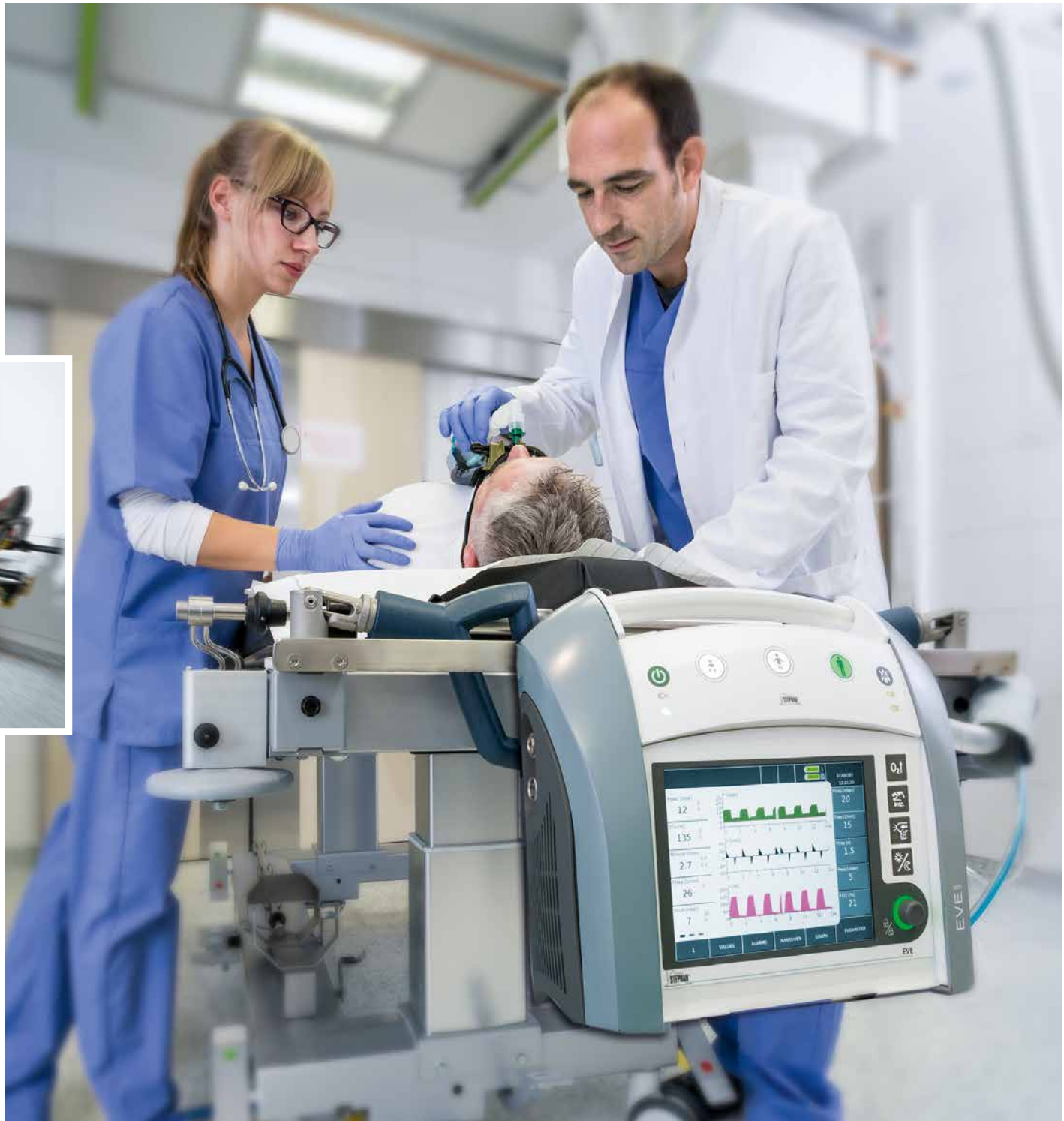
The Ventilation system for Emer

Patient friendly System Change
All components, such as hose systems, sensors etc., are identical for both units and may be transferred when changing from EVE_{TR} to EVE_{IN}.
Solely the hose system needs to be unplugged and reconnected to the new respirator, thus avoiding complex and stressful disconnection of the patient.

Complete Ventilation through to Intensive Care
The ventilation system consisting of EVE_{TR} and EVE_{IN} permits complete patient care from emergency site to intensive care unit.
While EVE_{TR} is mainly used in emergencies and during transport, EVE_{IN} is a fully-fledged intensive care respirator which ventilates the patient in the inner hospital environment.

Inner-clinical Transport
In a clinical environment, EVE's optimized functionality and multiple ventilation options allow best possible treatment. During transport or diagnostics, both respirators can be simply and safely attached to the patient's bed, transport trolley or to a standard rail by means of a multi-functional bracket. An additional backup device is not required.

gency, Transport and Intensive Care



STEPHAN®

Clinical Experience
Technical Competence

EVE IN smart

Intensive Care Res

pirator for clinical use

Versatile Intensive Care Respirator
EVE*IN* is a versatile intensive care respirator for adults and children with a customized docking station which includes power supply, cylinder bracket and a nurse call function.
Ventilation can be performed in both pressure and volume controlled modes. Basic ventilation modes can be combined with additional options, such as PRVC, PSV and tube compensation ensuring optimal patient supply.
A series of different maneuvers are also available. Diverging from the emergency version (EVE*TR*), oxygen measurement is via an oxygen sensor.

Detailed Monitoring
EVE offers a high definition 8,4" display and may be operated via touch screen and rotating knob. Detailed monitoring guarantees both safe and efficient control.
Up to three curves can be displayed simultaneously. Precise and informative lung diagnostics are possible via expiratory CO_2 measurement and loops. The user can select three different configurable curve displays. In addition, up to 15 different ventilation parameters can be shown.

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Clinical Experience
Technical Competence

EVE

Technical Specifications

General	
Patient group	Adults, children, neonates
Classification acc. to 93/42 EWG	II b
Dimensions	390 x 340 x 300 mm (wxhxd)
Weight	6,3 kg
Power supply	
Mains	100-240 V AC, 50-60 Hz
Battery	24 V DC, approx. 6 h
Gas supply	
AIR	Integrated turbine Peak Flow > 230 l/min
O_2	2,7-6 bar + 0,5 bar Oxygen 93 compatible
Operation modes	
Invasive and non-invasive ventilation	
Ventilation modes	
	PC-CMV, PC-SIMV, PC-ACV, spont. CPAP, CPAP backup, DUOPAP, O_2 Therapy, nCPAP, nPC-CMV, nPC-SIMV
	VC-CMV, VC-SIMV
Modifications	PSV, PRVC, ETT compensation
Maneuvers	Inspiration hold, SpHb Aerosol, Preoxygenation, P0.1
Fast-track control keys	Adults, children, neonates
Parameter	
LOOPS	V(P), V'(V), V'(P)
Trends display	28 Trends adjustable
Trend duration	1h, 6h, 12h, 24h, 72h
Curve display	P(t), V(t), V'(t), Optional: CO_2 (t), Pletysmography
Measured values	Pplat, Ppeak, Pmean, PEEP, VTe, VTespon, Vtleak; MVe, MVespon, ftotal, fspon, Tinsp, Texsp, V'max, V'min, I:E, Resistance (R) Compliance (C), RSB FiO_2/O_2 (EVE_{IN}), O_2 (EVE_{TR}) Optional: $EtCO_2$, SpO_2, Pulse, PI, PVI, Spmet, SpHB, SpCO, SpOC

Parameter	
Pinsp	6 … 55 mbar
PEEP	0 … 25 mbar
Δ Psupp	1 … 55 mbar
Inspiration time	0,2 … 30 sec.
Expiration time	0,2 … 30 sec.
Breathing frequency	1 … 150 bpm.
I:E	1:150 … 150:1
Trigger flow	0,2 … 15 l/m
Exspiratory Trigger	5 … 70%
Ramp up time	0,06 … 30 s
FiO_2	21 … 100%
Apnea time	1 … 60 s
Tidal volume (PRVC)	2 … 2000 ml
Tidal volume (VCV)	100 … 2000 ml
Tube	2 - 12 mm
Tube compensation	0 - 100%
Alarms (selection)	PAW high/low, Occlusion, MV high/low, Apnea, f high, PEEP high/low, Leakage, VT high/low, pressure limit, technical Alarms, Gas Alarms, Optional: CO_2 Alarms, MASIMO Alarms
Display	
Touch-TFT	Colored 8.4" Screen Resolution : 1024 x 786
Interface	
Ethernet, RS232, SD, Nurse call (EVE_{IN})	
Sensors	
Flow/Volume	Pneumotachograph Infants and Adults, PNT B
FIO_2	El.-chem. oxygen cell (EVE_{IN}) Consumption free meas. (EVE_{TR})
Optional	CO_2-measuring, (Main- or sidestram measuring) Masimo rainbow® SET (SpO_2, Pulse, PI, PVI, SpHb, Spmet, SpCO, SPOC)
Standards (excerpt)	
	DIN EN: 794-3, 1789, 60601-1, 60601-1-2 DIN EN ISO: 14971, 80601-2-12 RTCA / DO 160G

Masimo SET® rainbow

Wachstum durch Innovation – EFRE
RheinlandPfalz

Technical changes without notice. Fritz Stephan GmbH 03/2016