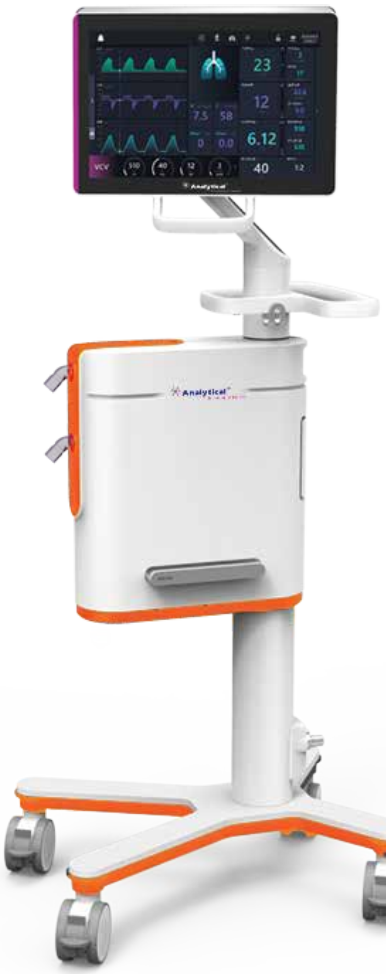
Multiplelabs
Turnkey Laboratories Solutions

Analytical®
Technologies Limited

iVent - 3008

Ventilator



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

Analytical Technologies Limited

An ISO 9001 Certified Company

www.analyticalgroup.net

- **Intelligent Ventilation Management**

  Integrated sequential ventilation therapeutic scheme covering HFNC, non-invesive and ventilation easily cope with ventilation demands for sub-accute and acute patients.

Applicable to Neonates
with Proximal Sensor & Minimal 2mL TV

The industry's lop tidal volume control technology enables accurate control of the tidal volume as low as 2ml with ± (1mL+ 5% set value) accuracy to make ventilation safer and is applicable to neonates.

Patented Flow Support
Enhancing Patient—Ventilator Synchronization

Under volume-control modes with flow support switched on, when the patient encotnlers 'flow hunger' during inspiration stage, will promptly respond with extra flow compensation for the improvement of patient-ventilator synchronization.

High Flow Nasal Cannula

ATL provides patients with high flow oxygen (flow rate up to 60L/min), air and isothemic saturated stream through nasal cannula, which is much more comfortable than traditional NPPV and has become the preferred choice of non-invasive ventilation therapy by many clinicians.

▸▸ Multiple decision aids for accurate assessment of ventilation status

Advanced Auxilliary Pressures Monitoring

Through the measurement and monitor of esophageal pressure to calculate transpulmonary pressure and gastric pressure which can guide clinicians to optimize the setting of PEEP, tidal volume and PI, Thereby reducing the possibility of ventilation complications and improving therapeutic efficacy.

Comprehensive Weaning Tools

Measuring wearing indexes including P0.1, NIF, RSB, PTP, WOB and so on to help clinicians quickly estimate spontaneous breathing abillity of the patient and find the best wearing timing.

Setting optimal PEEP

Quasi-static P-V loop combing with as low as 1L/min can provide more precise data, Automatic tracing of the upper and the lower infection points on the P-V curve through algorithm determines the best PEEP.

Stress Index Monitoring

In flow-constant ventilation modes real-time monitoring of P-T waveform and quantifying into stress index can warn the risk of lung injury and guide the setting of PEEP.

Intuitive design for optimal user experience

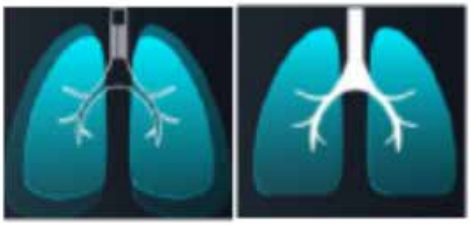
The compct design of allows a close positioning to the patient bedside, while the fuly-adjustable 17" HD screen enables clear monitoring by clinicians from any angle. The humanlized UI designs provide not only Comprehensive views but also Intuitive user experience.

Humanized UI Design

Human brain processes graphic information 60,000 times faster than text information. shows ventilation situations in premonitory waveform with big numeric and dynamic lung view.

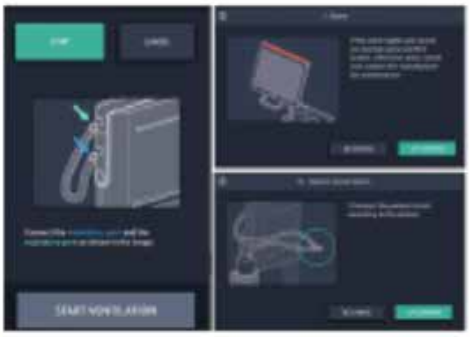
Dynamic Lung View

Dynamic lung view utilizes numerical and graphical displays to show real-time resistance and compliance status.



Visual Guide

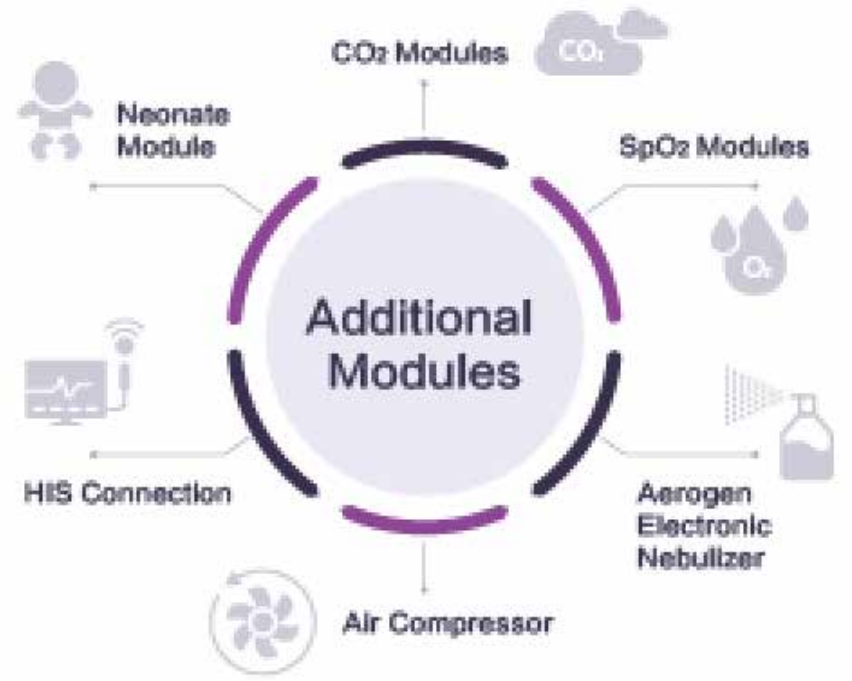
The new easy-to-read graphical display enables users to learn quickly on how to use and maintain the machine, therefore reducing operational errors and improving efficiency.



Trend Review

A quick summary of the patient's progress within 72 hours can be extended to in-depth examination of each breath and automatically saved and played back for comparison.

It is important for a critical-care ventilator to b capable of connecting to other medical devices and the hospital information system to form a concrete monitoring environment for the patients. instrument strongly expandable through conditional to additional modules and technologies.



Technical Specification :

Physical Specification	
Dimensions and weight	
Dimensions (HxWxD)	1600mm×500mm×650mm
Weight	55 kg (two cylinders included) 35 kg (trolley included) 21 kg (trolley excluded) Note: The overall weight covers the main unit (including one battery), display and trolley, and does not include the breathing tube, CO_2 module, SpO_2 module, support arm and humidifier
Display	
Screen	17” TFT display
Display resolution	1920 × 1200
Brightness	Adjustable
Communication interfa ce	
Communication interface	RS 232, HDMI, USB, USB OTG, LAN2

Ventilation Specifica tions	
Patient type	Adult, pediatric, infant

Ventilation mode	Invasive modes	VCV PCV PRVC SIMV (V) + PS SIMV (P) + PS SIMV (PRVC) + PS CPAP PSV DualPAP VSV
	Non-invasive modes	PCV PSV CPAP HFNC DualPAP SIMV(P)+PS
Control Parameters		
O_2 concentration	21 ~ 100%	
VT	Adult: 100 ~ 4000 mL Pediatric: 10 ~ 300 mL Infant: 2 ~ 100 mL	
RR (Respiratory rate)	Adult/pediatric: 1 ~ 100 bpm Infant: 1 ~ 150 bpm	
Respiratory rate in SIMV mode	Adult/pediatric: 1 ~ 100 bpm Infant: 1 ~ 150 bpm	
I:E	4:1 ~ 1:10	
Ti	0.1 ~ 10 s	
Tslope (Pressure rising time)	0 ~ 2.0 s	
Tpause	OFF, 5% ~ 60%	
Flow	Adult: 6 ~ 180 L/min Pediatric: 6 ~ 60 L/min Infant: 2 ~ 30 L/min	
Pinsp	1 ~ 100 cmH_2O	
Psupp	1 ~ 100 cmH_2O	
Phigh	1 ~ 100 cmH_2O	
Plow	0, 1 ~ 50 cmH_2O	

PEEP	0 ~ 50 cmH_2O
Ftrig	Adult/pediatric: 0.2 ~ 20 L/min Infant: 0.1 ~ 5 L/min
Ptrig	-20 ~ -0.1 cmH_2O
ETS (Expiratory trigger sensitivity)	5%~85%
Sigh	
Sigh switch	ON, OFF (This function is OFF by default.)
Tinterval	1-180 min
cycles	1-20
PEEPint	0-20 cmH_2O
Automatic Tube Compe nsation	
Tube type	ET Tube
Tube size	2~12 mm
Tube compensation	0~100%
HFNC	
O_2 concentration	21~100%
Fbasic	Adult/pediatric: 2 ~ 60 L/min Infant: 2 ~ 20 L/min
CPAP	0 ~ 50 cmH_2O
Automatic Leakage Co mpensation	
Maximum leakage compensation flow	0~100 L/min
Monitoring parameters	
Airway pressure	-45 ~ 120 cmH_2O
VT	0 ~ 6000 mL
RR (Respiratory rate)	0 ~ 200 bpm
MV	0 ~ 100 L/min
Resistance	0 ~ 600 cmH_2O/(L/s)
Compliance	0 ~ 300 mL/cmH_2O
O_2 concentration	15 ~ 100%
RSBI	0 ~ 9999 bpm/L
WOBp	0 ~ 20 J/L
WOBv	0 ~ 20 J/L
WOBI	0 ~ 20 J/L
P0.1	0 ~ 30 cmH_2O
NIF	-45 ~ 0 cmH_2O
PEEPi	0 ~ 120 cmH_2O

TC	0 ~10 s	
I:E	150:1 ~ 1:150	
Peak flow	0 ~ 300 L/min	
Expiratory flow	0 ~ 200 L/min	
Waveforms	Pressure-time, Flow-time, Volume-time Optional: CO_2-time, SPO_2-time	
Loops	Volume-Pressure, Flow-Volume, Flow-Pressure, CO_2-Volume	
Alarm settings		
VT	High	Adult: 110 ~ 6000 mL, OFF Pediatric: 25 ~ 600 mL, OFF Infant: 3 ~ 200 mL, OFF
	Low	OFF, 50 ~ 5995 mL
MV	High	Adult: 0.2 ~ 100.0 L/min, OFF Pediatric: 0.2 ~ 60.0 L/min, OFF Infant: 0.02 ~ 30.0 L/min, OFF
	Low	Adult: OFF, 0.1 ~ 50.0 L/min Pediatric: OFF, 0.1 ~ 30.0 L/min Infant: OFF, 0.01 ~ 15.0 L/min
Paw	High	10 ~ 105 cmH_2O
RR	High	2 ~ 160/min, OFF
	Low	OFF, 1 ~ 160/min
Apnea alarm	5 ~ 60 s	
Other alarms	$EtCO_2$ $InCO_2$ SpO_2 Air source O_2 source	
Trend		
Type	Graphic (curve)	
Length	72 h	
Content	Changes in parameter measurement results.	
Event Logs		
Type	Alarms, settings, and functions	
Max number	5000	
Histogram		
Length	72 h	

Content	Tidal volume (horizontal axis) - Repiratory cycles (vertical axis) Repiratory rate (horizontal axis) - Repiratory cycles (vertical axis) Peak pressure (horizontal axis) - Repiratory cycles (vertical axis) Minute volume (horizontal axis) - Repiratory cycles (vertical axis)
Screen Capture	
Max number	At least 20 pictures
Ventilator compone nts	
O_2 sensor	
Type	Chemical oxygen, paramagnetic sensor
Response time	Chemical oxygen 30 s Paramagnetic sensor 20 s
Infant flow sensor	
Flow range	-40 ~ 40 L/min
Dead space	1.3 mL
Resistance	4.34 $cmH_2O/(L/min)$
SideStream CO_2Modul e	
Displayed numeric	$EtCO_2$, $InCO_2$
$EtCO_2$ measurement range	0 ~ 25%
Resolution	0.1
Waveforms	CO_2-time
Sampling rate	50 ± 10 sml/min
System response time	< 3 s
Rise time	≤ 350 ms
$EtCO_2$ High alarm limits	1 ~ 26%
$EtCO_2$ Low alarm limits	OFF，0 ~ 25%
TiniStream CO_2 Module	
Displayed numeric	$EtCO_2$, $InCO_2$
$EtCO_2$ measurement range	0 ~ 20%
Resolution	0.1%
Waveforms	CO_2-time
Sampling rate	50ml/min ± 10ml/min
System response time	≤ 3 s (length of sampling line: 2 m)
Rise time	≤ 180 ms
$EtCO_2$ High alarm limits	1 ~ 20%
$EtCO_2$ Low alarm limits	OFF，0 ~ 19%

MainStream CO_2 Module	
Displayed numerics	$EtCO_2$, $InCO_2$
$EtCO_2$ measurement range	0 ~ 25%
Resolution	Within the $EtCO_2$ range of 0%~15%, the error is ±(0.2%+2% of the actual reading)
Waveforms / Loop	CO_2-time
System response time	< 1 s
$EtCO_2$ High alarm limits	1 ~ 26%
$EtCO_2$ Low alarm limits	OFF，0 ~ 25%
SpO_2 module	
Displayed numeric	SpO_2, PR
SpO_2 measurement range	0 ~ 100%
PR measurement range	25 ~ 250/min
Waveform	Pleth
SpO_2 High alarm limits	81 ~ 100%
SpO_2 Low alarm limits	80 ~ 99%

Operation Data		
Environmental specific ations		
Temperature	Operation	10 ~ 40ºC
	Storage and transport	-20 ~ 60ºC
Relative humidity (non-condensing)	Operation	15% ~ 95% R.H.
	Storage and transport	10% ~ 95% R.H.
Atmospheric pressure	Operation	54 ~ 106 kPa
	Storage and transport	50 ~ 106 kPa
Gas supply		
Gas type	Air, O_2	
Input connector	NIST or DISS	
Gas source pressure	280 ~ 650 kPa	
Maximum flow	≥ 180 L/min	
Power and Battery Bac kup		
Input voltage	100 ~ 240 V	
Input frequency	50/60 Hz	

Input current	2.5 ~ 1.2 A
Fuse	T3.15 AH 250 V × 2, φ5 × 20
Number of battery	1 (standard) 2 (optional)
Rated battery voltage	11.1 VDC
Battery type	Lithium ion battery
Battery capacity	The capacity of single battery is 7800 mAh
	The capacity of two batteries is 15600 mAh
Battery run time	At least 90 minutes (when a new fully charged battery is used in typical operating mode) At least 180 minutes (when two new fully charged batteries are used in typical operating mode)
Battery charging time	About 7 hours

Special Functions and procedures
Inspiratory hold
Expiratory hold
PV tool
Automatic tube compensation
Sigh
Manual ventilation
Nebulizer
Suction
Flow support
P0.1
Stress index
Maximum negative inspiratory pressure
PEEPi
Esophageal and gastric pressure monitoring
PTP
Work of breathing
Dynamic lung display

Analytical®
Technologies Limited

HPLC Servicing, Validation, Trainings and Preventive Maintenance :

HPLC Servicing :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

Trainings :We also take up preventive Maintenace to reduce downtime of HPLC's Trainings.

AMC's/CMC :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

Validations :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

Instruments :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.

About Analytical Technologies

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufaturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

Our Products & Technologies

UV/VIS Spectro 2080+ Double Beam

Infra FTIR

Optima Gas Chromatograph 3007

Optima Gas Chromatograph 2979 Plus

Flash Chromatograph

Atomic Absorption Spectrophotometer

Liquid Partical Counter

Optical Emission Spectrophotometer

DSC/TGA

Semi Auto Bio Chemistry Analyzer

HEMA 2062 Hematology Analyzer

Micro Plate Reader/Washer

URINOVA 2800 Urine Analyzer

Total Organic Carbon 3800

Fully Automated CLIA

NOVA-2100 Chemistry Analyzer

PCR/Gradient PCR/ RTPCR

TOC Analyzer

Laser Particle Size Analyzer

Ion Chromatograph

Water purification system

Regulatory compliances

Corporate Social Responsibility

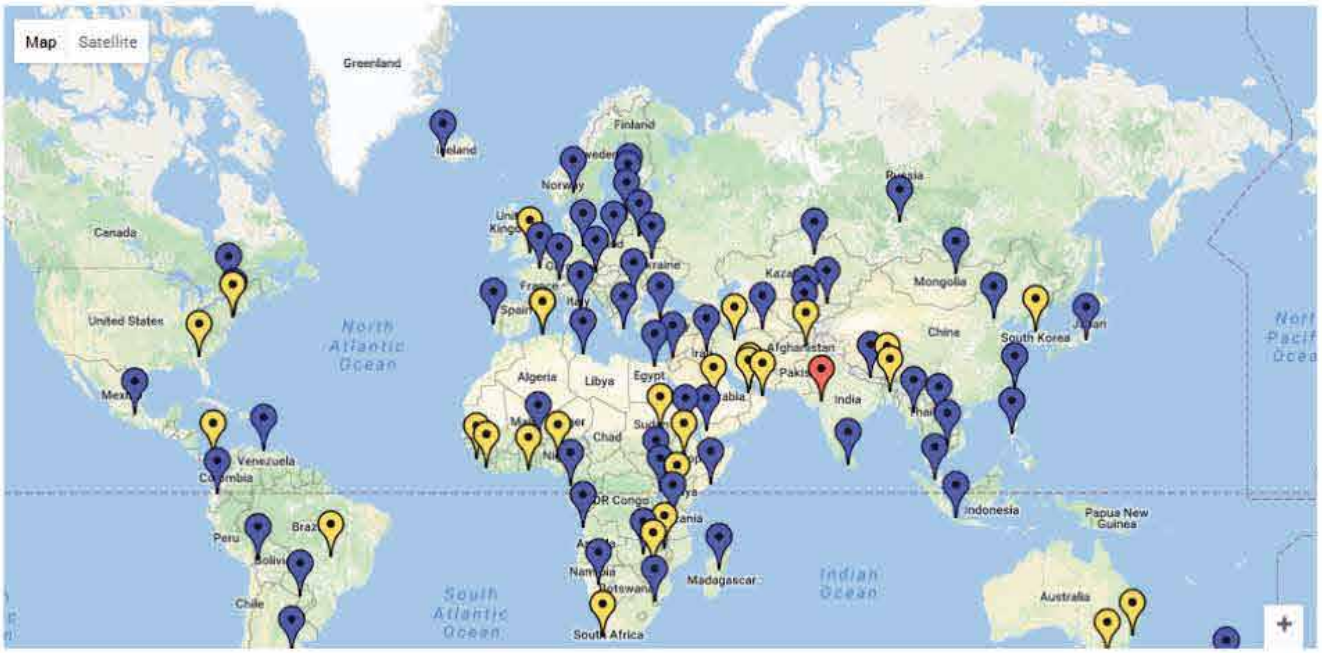
Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:

1.Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personallities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at Info@analyticalfoundation.org

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXIFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.

Reach us @



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