

HAMILTON-C6

Technical specification for SW version 2.0.x (160021)

Ventilation modes

Standard: ✓ Option: O Not applicable: --

Mode form	Mode name	Mode	Adult/Ped	Neonatal
Volume-controlled modes, flow controlled	(S)CMV	Breaths are volume controlled and mandatory, including patient-initiated breaths.	✓	--
	SIMV	Volume-controlled mandatory breaths can be alternated with pressure-supported spontaneous breaths.	✓	--
Volume-targeted modes, adaptive pressure controlled	APVcmv / (S)CMV+	Breaths are volume targeted and mandatory.	✓	✓
	APVsimv / SIMV+	Volume-targeted mandatory breaths can be alternated with pressure-supported spontaneous (patient-triggered) breaths.	✓	✓
	VS	Breaths are spontaneous and deliver a set tidal volume to support patient-initiated breaths.	✓	✓
Pressure-controlled modes	PCV+	All breaths, whether triggered by the patient or the ventilator, are pressure controlled and mandatory.	✓	✓
	PSIMV+	Mandatory breaths are pressure controlled. Mandatory breaths can be alternated with pressure-supported spontaneous (patient-triggered) breaths.	✓	✓
	DuoPAP	Mandatory breaths are pressure controlled. Spontaneous breaths can be triggered at both pressure levels.	✓	✓
	APRV	Spontaneous breaths can be continuously triggered. The pressure release between the pressure levels contributes to ventilation.	✓	✓
	SPONT	Every breath is spontaneous, with or without pressure support.	✓	✓
Intelligent ventilation	ASV	Operator sets %MinVol, PEEP, and oxygen. Rate, tidal volume, inspiratory pressure, and I:E ratio are based on physiological input from the patient.	✓	--
	INTELLIVENT-ASV	Ventilator management of CO ₂ elimination and oxygenation based on clinician-defined target ranges and parameter limits, and physiological input from the patient. The underlying mode is ASV.	O	--
Noninvasive modes	NIV	Every breath is spontaneous, with or without pressure-support.	✓	✓
	NIV-ST	Every breath is spontaneous as long as the patient is breathing above the set rate. A backup rate can be set for mandatory breaths.	✓	✓
	nCPAP-PS	Every breath is spontaneous as long as the patient is breathing above the set rate. A backup rate can be set for mandatory breaths.	--	O
	HiFlowO ₂	High flow oxygen therapy. No supported breaths.	O	O

Standard configuration and options

Standard: ✓ Option: O Not applicable: --

Functions	Adult/Ped	Neonatal
Capnography, mainstream (volumetric) and sidestream	O	O
Communication ports: IntelliCuff/USB, two (2) COM ports for the Patient Data Management System (PDMS), one (1) COM port for the H900, one (1) USB port on the interaction panel, DVI, Nurse call	✓	✓
Communication protocols GALILEO compatible, Hamilton P2, Hamilton Block, Hamilton Block (ACK), Philips VueLink Open, Dräger-TestProtocol, HAMILTON-H900	✓	✓
CPR ventilation (APVcmv, PCV+, or (S)CMV (Adult/Ped. only))	✓	--
Distributed alarm system (DAS) compatible	✓	✓
Dynamic Lung (real-time visualization of the lungs)	✓	--
Event log (up to 10,000 events with date and time stamp)	✓	✓
HAMILTON-H900 humidifier integration	O	O
Inspiratory and expiratory hold maneuver	✓	✓
IntelliCuff [®] integrated cuff pressure controller	O	O
IntelliSync [®] + (inspiratory and expiratory trigger synchronization)	O	--
Leakage compensation	✓	✓
Languages (English, US English, Chinese, Croatian, Czech, Danish, Dutch, Finnish, French, German, Greek, Hungarian, Indonesian, Italian, Japanese, Korean, Norwegian, Polish, Portuguese, Romanian, Russian, Serbian, Slovak, Spanish, Swedish, Turkish, Ukrainian)	✓	✓
Lung impact panel (parameters affecting lung protection)	✓	✓
Manual breath/prolonged inspiration	✓	✓
Nebulization (Aerogen)	O	O
Nebulization (pneumatic)	✓	--
O2 assist ¹	O	O
O2 enrichment (adjustable)	✓	✓
On-screen help	✓	✓
P/V Tool [®]	O	O
Paramagnetic O2 sensor	O	O
Patient group	✓	O
Previous mode	✓	✓
Print screen	✓	✓
Screen lock	✓	✓
Second battery	O	O

¹ O2 assist is NOT intended to be used with pre-term infants (gestational age < 37 weeks).

Functions	Adult/Ped	Neonatal
SpeakValve	○	--
SpO2 monitoring	○	○
Standby monitoring	✓	✓
Standby with timer	✓	✓
Suctioning tool	✓	✓
Transpulmonary pressure monitoring	✓	✓
TRC (tube resistance compensation)	✓	✓
Trends/Loops	✓	✓
Trigger, expiratory: ETS (Expiratory trigger sensitivity)	✓	✓
Trigger, inspiratory: flow, pressure	✓	✓
Vent Status (visual representation of patient's ventilator dependence)	✓	✓

Technical performance

Description	Specification
Automatic expiratory base flow	Fixed at 4 l/min
Inspiratory pressure	0 to 100 cmH2O
Maximum inspiratory flow	260 l/min ± 10% against ambient pressure (at sea level)
Means of inspiratory triggering	Flow trigger control, pressure trigger control, or optional IntelliSync+ control
Means of expiratory triggering	Flow cycling (ETS), or optional IntelliSync+ control
Minimum expiratory time	20% of cycle time; 0.2 to 0.8 seconds
O2 input flow	Minimum 150 l/min (at 2.8 bar/ 280 kPa / 41 psi input pressure)
Oxygen mixer accuracy	± (Volume fraction of 2.5% + 2.5% of gas level)
Preoperational checks	Leak test, Flow sensor/O2 sensor/CO2 sensor calibration
Tidal volume/target tidal volume	<i>Adult/Ped:</i> 20 to 2000 ml <i>Neonatal:</i> 2 to 300 ml

Approvals

Description	Specification
Classification	Class I continuously operating according to IEC 60601-1.
Declaration	The HAMILTON-C6 was developed in accordance with pertinent international standards and FDA guidelines. Design and manufacture of Medical devices at Hamilton Medical AG is under a QMS system as required by EN ISO 13485, EN ISO 9001, and article 10(9) of EC 2017/745.
Electromagnetic compatibility	Complies with the IEC 60601-1-2 EMC (Electromagnetic Compatibility) Collateral Standard.
Safety class	Type B applied part (ventilator breathing system (VBS)), Type BF applied parts (CO2 sensor including CO2 module connector, humidifier, Aerogen system, nebulizer, and SpO2 sensor including SpO2 adapter), continuous operation according to IEC 60601-1.

Pneumatic performance

Component	Specification
High-pressure oxygen inlet	Input pressure: 2.8 to 6 bar / 41 to 87 psi
	Peak flow at device input: 150 l/min at 2.8 bar / 41 psi
	Connector: DISS (CGA 1240) or NIST
Air supply	Integrated blower with warranty for product lifetime ²
Gas mixing system	Delivered flow: <ul style="list-style-type: none"> Up to 260 l/min \pm10% against ambient pressure (at sea level) Up to 150 l/min with 100% oxygen
	Delivered pressure: 0 to 100 cmH ₂ O
	Flow accuracy: \pm 10% or \pm 300 ml/min (whichever is greater)
	Pressure accuracy: \pm 5% or \pm 1 cmH ₂ O (whichever is greater)
	Rated oxygen input concentration: 100%
Inspiratory outlet (<i>To patient</i> port)	Connector: ISO 5356-1 ID15/OD22 conical
Expiratory outlet (<i>From patient</i> port)	Connector (inlet on expiratory valve): ISO 5356-1 ID15/OD22 conical
IntelliCuff port	Dedicated connection port for IntelliCuff. For details, see the <i>IntelliCuff Instructions for use</i> .
Pes port	Dedicated esophageal pressure (Pes) port for pressure readings other than airway pressure (Paw).
Lifetime	40,000 hours of operation (typically 8 years, environmental temperature 20-24°C, with an average inspiration pressure of 15 mbar)

Electrical specifications

Element	Specifications
Input power	100 to 240 VAC, 50/60 Hz
Power consumption	60 VA typical, 300 VA (600 VA with humidifier) maximum
Output power	300 VA, maximum
HAMILTON-H900 power connection	The power socket on the HAMILTON-C6 ventilator unit is for the HAMILTON-H900 humidifier only.
Battery	Hamilton Medical provides a high-capacity battery. An optional second battery is available.
	Electrical specifications: 14.4 V, 5.4 Ah, 78 Wh
	Type: Lithium-ion, supplied by Hamilton Medical only
	Recharge time: Allow a minimum of 2.5 hours to fully charge one battery, or 5 hours to fully charge two batteries. At battery temperatures over 43°C, the charge time is doubled (a minimum of 5 hours to charge one battery, 10 hours to charge two).
Storage:	-20°C to 50°C, \leq 95% relative humidity. The storage location should be free from vibration, dust, direct sunlight, moisture, and corrosive gases, and with a recommended temperature range < 21°C. Extended exposure to temperatures above 45°C can degrade battery performance and life.

² Limited to expected lifetime of HAMILTON-C6 ventilator.

Battery maximum operating time

Specification ^{3,4,5}	Maximum operating time
Mode = (S)CMV	
Tidal volume = 500 ml	100 minutes
Set rate = 10 min ⁻¹	
I:E ratio = 1:2	
BAP = 10 hPa	
Resistance = 5 hPa/(l/s) ⁻¹ ±10%	
Compliance = 50 ml hPa ⁻¹ ±10%	
Tidal volume = 150 ml	100 minutes
Set rate = 20 min ⁻¹	
I:E ratio = 1:2	
BAP = 10 hPa	
Resistance = 20 hPa/(l/s) ⁻¹ ±10%	
Compliance = 20 ml hPa ⁻¹ ±10%	
Tidal volume = 30 ml	100 minutes
Set rate = 30 min ⁻¹	
I:E ratio = 1:2	
BAP = 10 hPa	
Resistance = 50 hPa/(l/s) ⁻¹ ±10%	
Compliance = 1 ml hPa ⁻¹ ±10%	
Mode = PCV+	
Set rate = 10 min ⁻¹	100 minutes
Pcontrol = 10 hPa	200 minutes ⁶
I:E ratio = 1:2	
BAP = 10 hPa	
Resistance = 20 hPa/(l/s) ⁻¹ ±10%	
Compliance = 20 ml hPa ⁻¹ ±10%	
Mode = HiFlowO2	
Flowrate = 100 l/min	90 minutes
Flowrate = 30 l/min	130 minutes
Flowrate = 15 l/min	143 minutes
Flowrate = 8 l/min	145 minutes

³ All battery runtime values calculated with device display brightness set to 10%.

⁴ The operating times apply to new, fully charged Li-ion batteries that have not been exposed to extreme temperatures. The actual operating time depends on battery age and on how the battery is used and recharged.

⁵ To ensure maximum battery life, maintain a full charge and minimize the number of complete discharges.

⁶ With two (2) batteries.

Graphical patient data

Graphic type/tab name	Options
Waveforms	Pressure, Flow, Volume, Off, PCO ₂ , ⁷ FCO ₂ , ⁷ Plethysmogram, ⁸ Pes, ⁹ Ptransp ⁹
Graphics (Intelligent panels)	Dynamic Lung, ¹⁰ Lung impact, ¹⁰ Vent Status, Monitoring SMPs (Secondary monitoring parameters), ASV Graph, ¹¹ O ₂ assist ¹²
Trends	30 minute, 1-, 6-, 12-, 24-, or 72-hour trend data for a selected parameter or combination of parameters
Loops	Pressure/Volume, Pressure/Flow, Volume/Flow, Volume/PCO ₂ , ⁷ Volume/FCO ₂ , ⁷ Pes/Volume, ⁹ Ptransp/Volume ⁹

⁷ CO₂ option required.

⁸ SpO₂ option required.

⁹ Data is valid only when an esophageal catheter is connected to the Pes port on the ventilator.

¹⁰ Only for adult/pediatric patients.

¹¹ Only in ASV mode.

¹² If option is installed.

Alarms

Priority	Alarm
High priority	<p>Ambient, Apnea, Check for blockage, Minute volume high/low, Oxygen high/low, Pressure high/low, High Pressure during Sigh, Pressure not released, Vt high/low, Flow sensor calibration needed (during ventilation), Check flow sensor, Check flow sensor tubing, Check flow sensor for water (Neonatal), Check patient interface, Proximal flow sensor failed, Replace O2 sensor, Oxygen supply failed, Buzzer defective, Loudspeaker defective, Disconnection on patient/ventilator side, Exhalation obstructed, Options not found, Self test failed, Blower fault, Device temperature high, Panel connection lost, Vent outlet temperature high, Ventilation not started, Battery low, Battery power loss, Battery totally discharged, Battery 1,2: Temperature high, Battery communication error, Battery 1,2: Defective, No ventilation after power fail</p> <p><i>SpO2:</i> For SpO2-related alarms, see the <i>Pulse Oximetry Instructions for Use</i> (PN 624963)¹³</p> <p><i>HAMILTON-H900:</i> Check humidifier, Humidifier tilt, Humidifier chamber temp high, Humidifier Y-piece temp high, Humidifier water high, Humidifier error</p> <p><i>IntelliCuff:</i> Check IntelliCuff, Cuff leak</p>
Medium priority	<p>Aerogen nebulizer disconnected, Check for blockage, Frequency high/low, Vt high/low, Vt high: breath terminated, High leak, High PEEP, Loss of PEEP, Pressure limitation, Flip the flow sensor, Check flow sensor for water (Neonatal), Cooling fan failure, Function key not operational, Real-time clock failure, Battery low, Remote communication error, Remote communication timeout</p> <p><i>CO2:</i> PetCO2 high/low¹⁴</p> <p><i>SpO2:</i> For SpO2-related alarms, see the <i>Pulse Oximetry Instructions for Use</i> (PN 624963)¹³</p> <p><i>HAMILTON-H900:</i> Check humidifier, Humidifier chamber temp low, Humidifier Y-piece temp low, Humidifier water low, Humidifier check chamber, Humidifier check left/right tube</p> <p><i>IntelliCuff:</i> Check IntelliCuff, Cuff deflated, Cuff pressure high, Cannot turn off IntelliCuff</p> <p><i>INTELLiVENT-ASV:</i> For INTELLiVENT-ASV-related alarms, see the <i>INTELLiVENT-ASV Operator's Manual</i> (PN 624954)¹⁵</p>
Low priority	<p><i>ASV:</i> Cannot meet target, Suctioning maneuver, Apnea ventilation, Apnea ventilation ended, Vt high/low, Vt low: leakage, Check Plimit, CPR ON, Preventive maintenance required, SpeakValve ON, Flow sensor calibration needed (in Standby), Check flow sensor tubing, Replace HEPA filter, Release valve defective, Touch not functional, Check settings, Settings file error, Language not loaded, Panel settings file error, Battery 1,2: Calibration required, Battery 1,2: Replacement required, Battery 1,2: Wrong battery, Loss of external power, Blower service required, O2 sensor calibration needed, O2 sensor defective, O2 sensor missing, O2 sensor not system compatible, Invalid communication board</p> <p><i>CO2:</i>¹⁴ CO2 sensor calibration needed, CO2 sensor faulty, CO2 sensor disconnected, CO2 sensor over temperature, CO2 sensor warmup, Check CO2 sampling line, Check CO2 airway adapter, CO2: Poor signal</p> <p><i>SpO2:</i>¹³ For SpO2-related alarms, see the <i>Pulse Oximetry Instructions for Use</i> (PN 624963)</p> <p><i>HAMILTON-H900:</i> Check humidifier, Check humidifier communication</p> <p><i>IntelliCuff:</i> Check IntelliCuff, Check IntelliCuff communication</p> <p><i>INTELLiVENT-ASV:</i>¹⁵ For INTELLiVENT-ASV-related alarms, see the <i>INTELLiVENT-ASV Operator's Manual</i> (PN 624954)</p>

¹³ If the SpO2 option is installed and enabled.

¹⁴ If the CO2 option is installed and enabled.

¹⁵ If INTELLiVENT-ASV is installed.

Control settings and ranges

Parameter (units)	Range Adult/Ped ¹⁶	Range Neonatal ¹⁶
%MinVol (%)	25 to 350	--
Additional O2 for enrichment (%)	10 to 79	10 to 79
Apnea backup	On, Off	On, Off
Cuff pressure ¹⁷ (cmH2O)	0 to 50	0 to 50
End PEEP (Pend) ¹⁸ (cmH2O)	0 to 35	0 to 35
Expiratory trigger sensitivity ETS (%)	5 to 80	5 to 80
Flow pattern	Square, Decel. 50%, Sine, Decel. 100%	--
Flow trigger (l/min)	0.5 to 20, Off	0.1 to 5.0, Off
Flow ¹⁹ (l/min)	2 to 100	2 to 30
I:E	1:9 to 4:1	1:9 to 4:1
Max. pressure ¹⁷ (cmH2O)	6 to 50	6 to 50
Min. pressure ¹⁷ (cmH2O)	5 to 49	5 to 49
Nebulizer Duration (min)	5 to 40, continuous	5 to 40, continuous
Nebulizer Synchronisation	Inspiration, Exhalation, Insp. and Exh.	Inspiration, Exhalation, Insp. and Exh.
Oxygen (%)	21 to 100	21 to 100
P high (cmH2O) (only in DuoPAP and APRV)	4 to 100	0 to 60
P low (cmH2O) (only in APRV)	0 to 50	0 to 25
Pat. height (cm) (in)	50 to 250 / 20 to 98	--
Pause (%)	0 to 70	--
Peak flow (l/min)	1 to 195	--
PEEP/CPAP (cmH2O)	0 to 50	0 to 25
Plimit (cmH2O)	5 to 100	5 to 45
P-ramp (ms)	0 to 2000	0 to 600
Pressure trigger (cmH2O)	-0.1 to -15.0, Off	-0.1 to -15.0, Off
Pstart ¹⁸ (cmH2O)	0 to 35	0 to 35
Ptop ¹⁸ (cmH2O)	25 to 60	25 to 60
Ramp speed ¹⁸ (s)	2 to 5	2 to 5
Rate (b/min)	1 to 100	1 to 150
Rel. pressure ¹⁷ (cmH2O)	-15 to 5	-15 to 5
Set temp ²⁰ (°C)	INV: 35 to 41 NIV: 30 to 35 HiFlowO2: 33 to 37	INV: 35 to 41 NIV: 30 to 35 HiFlowO2: 33 to 37
Sex	Male, Female	--
Sigh	On, Off	--
SpeakValve	On, Off	--

¹⁶ Parameter settings and ranges can vary depending on the selected mode.

¹⁷ If the IntelliCuff integrated cuff pressure controller option is installed.

¹⁸ If the P/V Tool Pro option is installed.

¹⁹ Only for high flow oxygen therapy.

²⁰ If the HAMILTON-H900 humidifier integration option is installed.

Parameter (units)	Range Adult/Ped ¹⁶	Range Neonatal ¹⁶
T gradient ²⁰ (°C)	-2 to 3	-2 to 3
T high (s) (in DuoPAP and APRV)	0.1 to 40	0.1 to 40
T low (s) (in APRV)	0.2 to 40	0.2 to 40
TI (s)	0.1 to 12	0.1 to 12
TI max (s)	0.5 to 3	0.25 to 3.0
Tip (s)	0 to 8	--
Tpause ¹⁸ (s)	0 to 30	0 to 30
TRC compensation level (%)	0 to 100	0 to 100
TRC Expiration	On, Off	On, Off
TRC Tube size (mm)	3 to 10	2.5 to 5.0
TRC Tube type	ET tube, Trach tube, Disable TRC	ET tube, Trach tube, Disable TRC
Vt (ml)	20 to 2000	2 to 300
Vt/kg (ml/kg)	5 to 12	5 to 12
Weight (kg)	--	0.2 to 15
$\Delta P_{control}$ (cmH ₂ O)	5 to 100	3 to 60
ΔP_{insp} (cmH ₂ O)	3 to 100	3 to 60
		nCPAP-PS: 0 to 60
$\Delta P_{support}$ (cmH ₂ O)	0 to 100	0 to 60

Monitoring parameters

Parameter (units)	Description		
Pressure	AutoPEEP (cmH2O)	Unintended positive end-expiratory pressure	
	Paw (cmH2O)	Airway pressure	
	ΔP (cmH2O)	Driving pressure	
	PTP (cmH2O*s)	Inspiratory pressure time product	
	Pcuff (cmH2O)	Cuff pressure	
	Ptrans I (cmH2O)	The arithmetic mean value of Ptransp over the last 100 ms of the last inspiration.	
	Ptrans E (cmH2O)	The arithmetic mean value of Ptransp over the last 100 ms of the last expiration.	
	PEEP/CPAP (cmH2O)	PEEP (positive end-expiratory pressure) and CPAP (continuous positive airway pressure) PEEP and CPAP are constant pressures applied during both the inspiratory and expiratory phases.	
	ΔP_{insp} (cmH2O)	Inspiratory pressure	
	Pmean (cmH2O)	Mean airway pressure	
	Ppeak (cmH2O)	Peak airway pressure	
	Pplateau (cmH2O)	Plateau or end-inspiratory pressure	
	Pprox (cmH2O)	Airway pressure at proximal patient interface	
	Pes min (cmH2O)	See PEEP. The pressure is measured through the Pes port instead of using airway pressure.	
	Pes max (cmH2O)	See Ppeak. The pressure is measured through the Pes port instead of using airway pressure.	
	Pes plateau (cmH2O)	See Pplateau. The pressure is measured through the Pes port instead of using airway pressure.	
	Pes PTP (cmH2O*s)	See PTP. The pressure is measured through the Pes port instead of using airway pressure.	
	Pes P0.1 (cmH2O)	See P0.1. The pressure is measured through the Pes port instead of using airway pressure.	
	Flow	Flow (l/min)	The flow of gas to the patient when using HiFlowO2
		Insp Flow (l/min)	Peak inspiratory flow, spontaneous or mandatory. Measured every breath.
Exp Flow (l/min)		Peak expiratory flow	
Volume	ExpMinVol or MinVol NIV (l/min)	Expiratory minute volume	
	MVSpont or MVSpont NIV (l/min)	Spontaneous expiratory minute volume	
	VTE or VTE NIV (ml)	Expiratory tidal volume	
	VTESpont (ml)	Spontaneous expiratory tidal volume	
	VTI (ml)	Inspiratory tidal volume	
	Vt/Kg	Tidal volume is calculated by predicted body weight (PBW) for adult and pediatric patients,	
	Vt/Weight (ml/kg)	and according to the actual body weight for neonatal patients.	
VLeak (%) or MVLeak (l/min)	Leakage percent or total minute volume leakage		

Parameter (units)		Description
CO2	FetCO2 (%)	Fractional end-tidal CO2 concentration
	PetCO2 (mmHg)	End-tidal CO2 pressure
	slopeCO2 (%CO2/l)	Slope of the alveolar plateau in the PetCO2 curve, indicating the volume/flow status of the lungs
	V _{alv} (l/min)	Alveolar minute ventilation
	V _{talv} (ml)	Alveolar tidal ventilation
	V _{CO2} (ml/min)	CO2 elimination
	V _{Daw} (ml)	Airway dead space
	V _{Daw} /V _{TE} (%)	Airway dead space fraction at the airway opening
	V _e CO2 (ml)	Exhaled CO2 volume
	V _i CO2 (ml)	Inspired CO2 volume
SpO2	SpO2 (%)	Oxygen saturation
	Pulse (1/min)	Pulse
	Plethysmogram	The waveform that visualizes the pulsating blood volume; it is delivered by the pulse oximeter.
	SpO2/FiO2 (%)	The SpO2/FiO2 ratio (%) is an approximation of the PaO2/FiO2 ratio, which, in contrast to PaO2/FiO2, can be calculated noninvasively and continuously.
	OSI	Oxygen saturation index
	PI (%)	Perfusion index
	PVI (%)	Pleth variability index
	SpCO (%)	Carboxyhemoglobin saturation
	SpMet (%)	Methemoglobin saturation
	SpHb (g/dl) (mmol/l)	Total hemoglobin
SpOC (ml/dl)	Oxygen content	
Oxygen	Oxygen (%)	Oxygen concentration of the delivered gas
Time	I:E	Inspiratory:expiratory ratio
	f _{Control} (b/min)	Mandatory breath frequency
	f _{Spont} (b/min)	Spontaneous breathing frequency
	f _{Total} (b/min)	Total breathing frequency
	f _{Trig} (b/min)	Patient-initiated breath frequency
	TI (s)	Inspiratory time
	TE (s)	Expiratory time
	Pause (s)	Inspiratory pause or plateau
Lung mechanics	C _{stat} (ml/cmH2O)	Static compliance
	P0.1 (cmH2O)	Airway occlusion pressure
	PTP (cmH2O*s)	Inspiratory pressure time product
	RC _{exp} (s)	Expiratory time constant
	R _{insp} (cmH2O / (l/s))	Inspiratory flow resistance
	RSB (1 / (l*min))	Rapid shallow breathing index

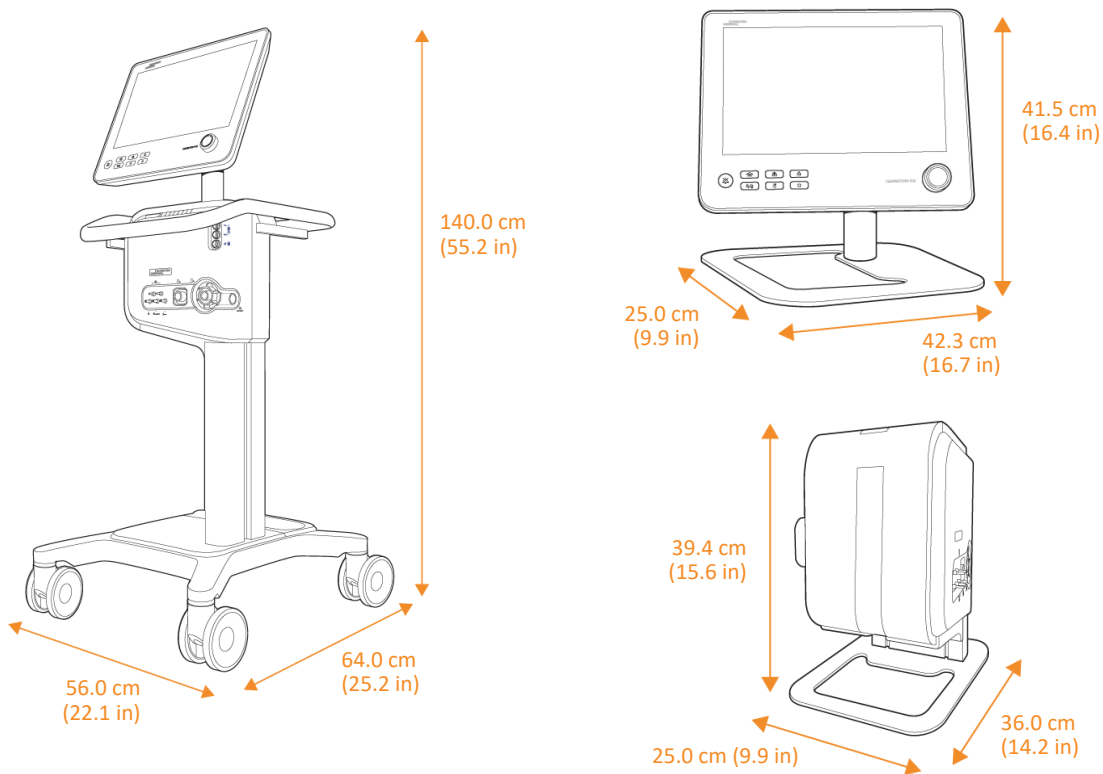
Parameter (units)		Description
Mechanical power	MPdyn (J/min)	The dynamic mechanical power required to expand the lung per minute. $0.5 \times VTI \times \Delta P \times \text{Rate}$
	MPres (J/min)	The resistive mechanical power required to overcome the lung's resistance. $VTI \times (P_{\text{peak}} - P_{\text{plateau}}) \times \text{Rate}$
	MPstat (J/min)	The (static) mechanical power required to keep the lung inflated. $VTI \times PEEP \times \text{Rate}$
	MPtotal (J/min)	The sum of MPdyn, MPres, and MPstat.
Humidifier related ²¹	T humidifier (°C)	Measured temperature at water chamber exit
	T Y-piece (°C)	Measured temperature at the Y-piece
IntelliCuff related	PCuff (cmH2O)	Cuff pressure

²¹ If the HAMILTON-H900 humidifier integration option is installed.

Physical characteristics

Dimension	Specifications
Weight	Monitor (interaction panel) without shelf mount: 7.8 kg (17.2 lb) Monitor (interaction panel) with shelf mount: 10 kg (22 lb) Ventilation unit with shelf mount and two (2) batteries: 11.6 kg (25.57 lb) Ventilation unit, trolley, monitor, and two (2) batteries: 48 kg (105.82 lb) The trolley can accommodate a maximum safe working load of 80 kg (176 lb). ²²
Dimensions: trolley and device	See Figure 1
Dimensions: shelf mount, monitor tilt/swivel range	See Figures 2 and 3
Monitor	Type: Color TFT, Size: 1920 x 1200 pixels, 17 in (431.8 mm) diagonal
Monitor mounting options	See the Hamilton Medical e-catalog.
Trolley accessories	Basket, oxygen cylinder holders (two bottles), HAMILTON-H900 mounting system, trolley support arm, additional standard rail, water bottle holder
Gas cylinder	
Diameter	100 to 140 mm (3.9 to 5.5 inches)
Height	≤ 820 mm (32 inches)
Weight	≤ 8 kg (17.6 lb)

Figure 1. HAMILTON-C6 PN 160021 dimensions



²² The maximum safe working load applies to a stationary, properly load-balanced trolley.

Dimension	Specifications
Shelf mount dimensions	See Figures 2 and 3
Monitor mounted to <i>left</i> of ventilator body, monitor tilt and swivel ranges (See Figure 2)	Monitor tilt range: Forward = 30°; Backward = 37° Monitor swivel range: 34° to the left from neutral
Monitor mounted to <i>right</i> of ventilator body, monitor tilt and swivel ranges (See Figure 3)	Monitor tilt range: Forward = 30°; Backward = 37° Monitor swivel range: 144° to the right from neutral to 22° to the left

Figure 2. HAMILTON-C6 (PN 160021) shelf mount dimensions, monitor mounted to the *left* of the ventilator body, monitor swivel and tilt ranges

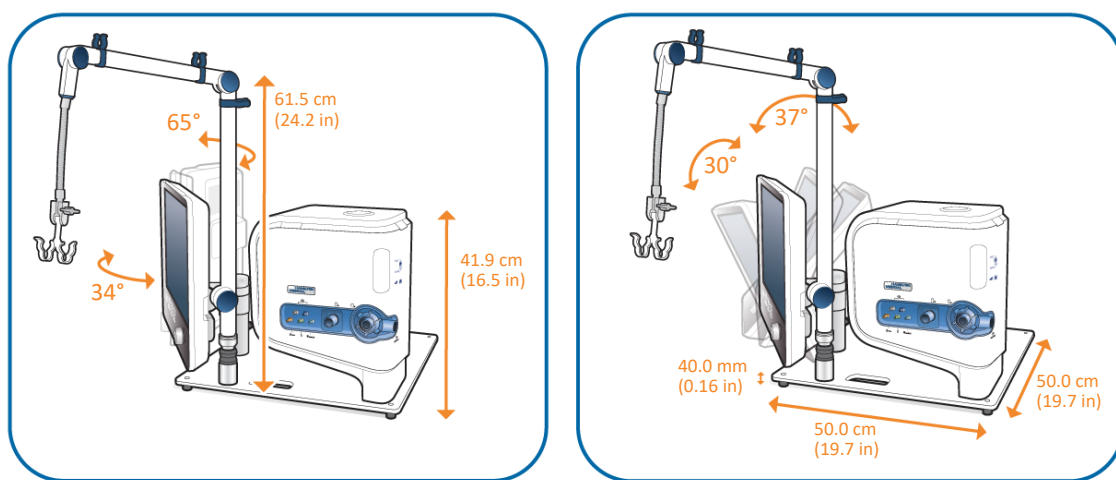
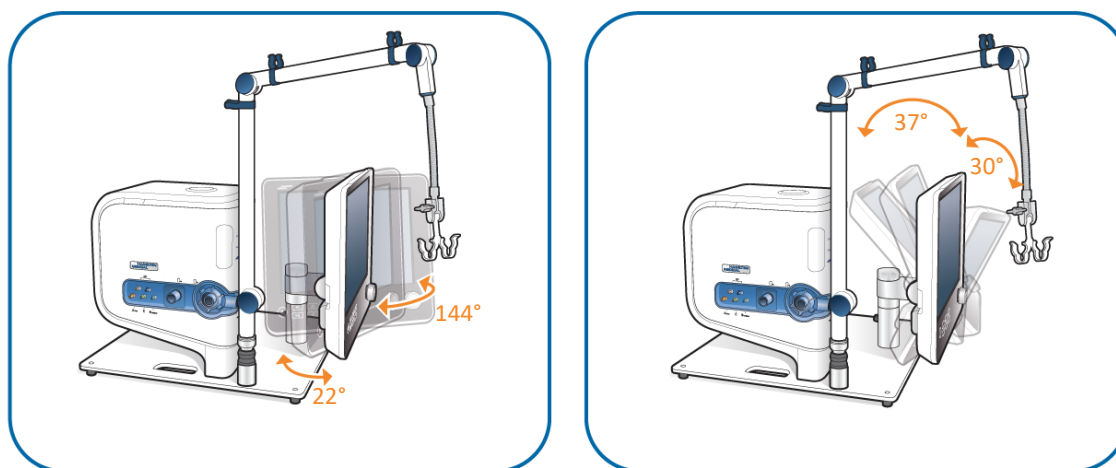


Figure 3. HAMILTON-C6 (PN 160021) shelf mount dimensions, monitor mounted to the *right* of the ventilator body, monitor swivel and tilt ranges



All angles in the figures above are relative to the monitor facing forward, with the bottom of the monitor parallel to the shelf plate, at a 90° angle relative to the floor. References to *left* and *right* refer to the reader's left and right, viewing the monitor from the front.



Hamilton Medical AG
Via Crusch 8, 7402 Bonaduz, Switzerland
☎ +41 58 610 10 20
info@hamilton-medical.com
www.hamilton-medical.com



medin Medical Innovations GmbH
Adam-Geisler-Straße 1
DE – 82140 Olching
Germany

689596/05
2024-09-30

Specifications are subject to change without notice. Some features are options. Not all features/products are available in all markets. For all proprietary trademarks and third-party trademarks used by Hamilton Medical AG, see www.hamilton-medical.com/ trademarks. © 2024 Hamilton Medical AG. All rights reserved.