

THE NEW FLEXIVENT

SCIREQ Scientific Respiratory Equipment Inc.

DRIVEN
BY
DATA.

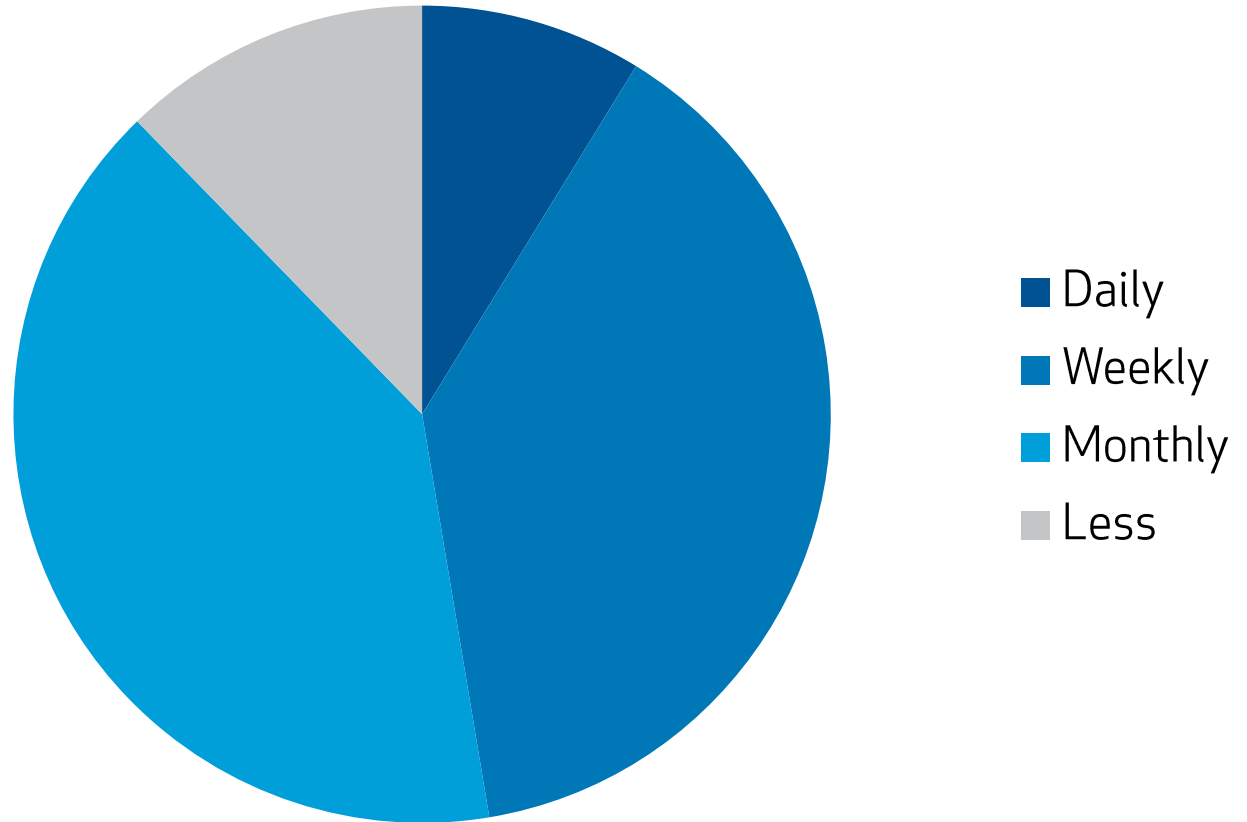
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FLEXIVENT – FACTS

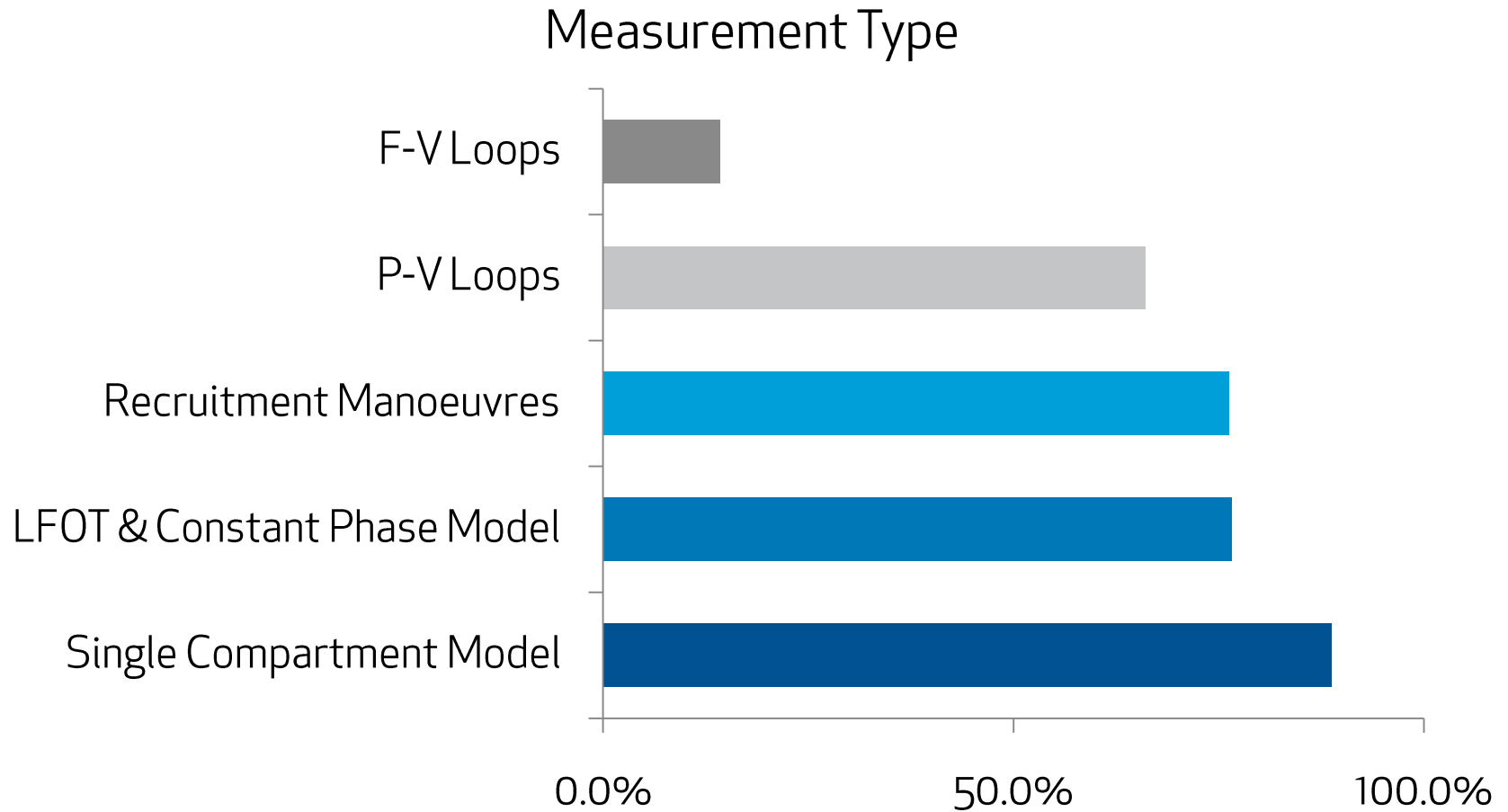
- Small animal ventilator
- Respiratory mechanics – Forced Oscillations
- For preclinical respiratory research
- For sale since 1997
- Over 600 publications (Google scholar, May 2010)

FLEXIVENT – TYPICAL USAGE

Frequency of Use



FLEXIVENT – TYPICAL USAGE



NEW FLEXIVENT – WISH LIST

- Smaller
- Quieter
- More integrated
- Expandable
- Multiple subjects
- Field-serviceable
- Easier calibration
- Continuous recording
- Quality control
- Data presentation
- Reporting & export
- Software stability

THE NEW flexiVent™



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FORM & FUNCTION

- Modular
- Fully enclosed
- Form factor
- Extension dock sites
- Embedded user interface

DEVICE CONTROL

- Mechanical ventilation
 - Stored ventilation patterns
 - Automatic PEEP control
 - Expanding range of ventilator modes
- Perturbations
- Aeration control
- DIO synchronization
- Automation scripts

PERFORMANCE

- Piston pump
 - More power
 - Better resolution
 - No piston play
- Optimized flow paths
 - Three servo valves
 - Removable Y-piece adapter with AERONEB

MEASUREMENTS

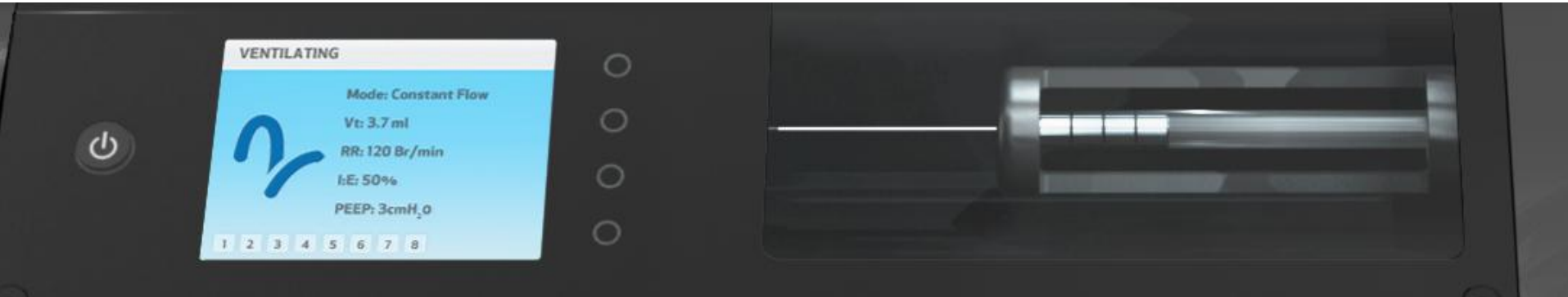
- Continuous data recording
 - Raw data – Pressure, ECG, Temperature etc.
 - Processed data – Peak pressure, Heart rate etc.
- Manoeuvres
 - Standard – SnapShot, Primewave, PV, NPFE
 - Imaging
 - Improved quality control

MODULE SELECTION

MODEL	STROKE VOLUME	APPROX. WEIGHT RANGE*
flexiVent FX1	1.5 ml	8 – 30 g
flexiVent FX2	4.2ml	20 – 85 g
flexiVent FX3	12.4 ml	60 – 240 g
flexiVent FX4	28.2 ml	150 – 560 g
flexiVent FX5	51.7 ml	260 – 1,000 g
flexiVent FX6	96.6 ml	500 – 2,000 g

*Preliminary estimates based on 50 ml/kg

UNITWISE PLATFORM



- Fully digital data acquisition platform
 - Does this plug into channel 2 or channel 3?
 - When was this last calibrated?
 - Which transducer did you use?

FLEXIWARE 7

flexiVent 5.3

- flexiVent control
- Ventilations
- Perturbations
- Scripts

flexiWare 6.1

- inExpose control
- Continuous data
- Real-time analysis
- Layouts



flexiWare 7

FLEXIWARE 7 MODULES

WELCOME TO FLEXIWARE™ 7

The interface features three main modules arranged horizontally. Each module is represented by a large icon and a text label below it. The first module, 'STUDY DEFINITION & PLANNING', shows a list of items with a magnifying glass. The second, 'EXPERIMENTATION SESSION', shows a person at a computer. The third, 'REVIEW & REPORTING', shows a tablet with charts. At the bottom right, there are four smaller icons: a document with a plus sign, a document with a magnifying glass, a document with a magnifying glass and a plus sign, and a document with an 'X'.

STUDY DEFINITION & PLANNING

EXPERIMENTATION SESSION

REVIEW & REPORTING

FUTURE PRODUCTS

- Parallel Subject Extension
 - Z_{tr} : transfer impedance
 - Up to 4 mice simultaneously
- flexiVent FX0
 - Stroke volume ~0.5 ml
 - Neonate mice

THANK YOU

SCIREQ Scientific Respiratory Equipment Inc.

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