The Infant Optiflow™ System:

Nasal high flow with Optiflow aims to deliver optimally humidified flows (37 °C, 44 mg/l) up to 8 L/min, through a unique nasal cannula:

- Promoting airway mucosa integrity and secretion quality
- Providing tighter control over FiO₂ delivery
- Creating a flow (and weight) dependant positive airway pressure
- Preserving energy and moisture loss from the airway

Nasal mucosa trauma, combined with small nasal passages, secretions and obligate nose breathing are risk factors for increased airway resistance, increased work of breathing and even airway obstruction.

Delivering body temperature gas, saturated with water vapour limits the amount of energy and moisture loss from the airway. Infants can then preserve their energy for growth and development.

“Adequate humidification is required to maintain ciliary activity, prevent squamous epithelial changes, prevent dehydration and thickening of secretions, minimise atelectasis and tracheitis, and decrease heat loss.”
The Infant Optiflow™ System:

- Is a complete system including the RT329 breathing circuit kit, the MR850 humidifier and compatible cannula that has been designed to deliver optimal humidity to Infants with low or high flow requirements.
- Features Fisher & Paykel Healthcare’s unique spiral heater wire technology, providing even circuit heating and limiting the formation of condensate.
- Includes a pressure relief valve which limits the pressure reaching the infant in line with international resuscitation standards.\(^{12,13}\)
- Features specifically designed shorter oxygen delivery tube, allowing for higher deliverable flows and less unheated space.

### NASAL CANNULA RANGE FOR RT329 BREATHING CIRCUIT

<table>
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<th>Item code</th>
<th>Description</th>
<th>Prong outer diameter (mm)</th>
<th>Septum width (mm)</th>
<th>Maximum patient flow (L/min)</th>
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</table>

Low Flow Oxygen Therapy

Even with low flow oxygen therapy, issues such as drying and injury to the nasal mucosa as well as blood tinged secretions can occur.\(^{14}\) By humidifying the flow, issues such as these may be avoided.\(^3\) The Optiflow system can deliver optimally humidified flow down to 0.3 L/min. To achieve the required level of oxygen and to meet this lower limit, the delivered flow can be a blend of air and oxygen.

Please contact your local Fisher & Paykel Healthcare representative for further details.

REFERENCES: