PRODUCT OVERVIEW

# F&P 850™ System

## Adult Care Solutions





Fisher & Paykel HEALTHCARE

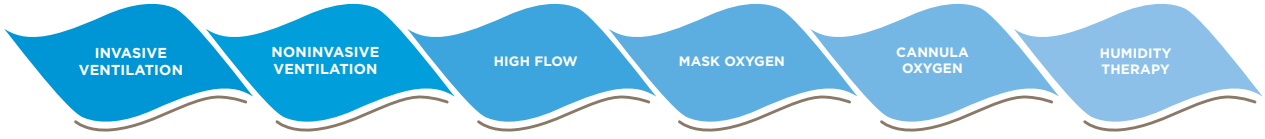
# Restore Natural Balance
## with the F&P 850™ System


## Fisher & Paykel Healthcare is committed to advancing patient and clinician care with a comprehensive family of products that restore natural balance.

At all points of care from invasive ventilation to humidity therapy, advanced humidification systems and patient interfaces combine to emulate the balance of temperature and humidity that occurs naturally in healthy adult lungs. When this natural state of physiological equilibrium is achieved, patient care and outcomes are optimized.

**With a single device the F&P 850 System** delivers humidity along the F&P Adult Respiratory Care Continuum™, according to the patient's respiratory and therapy needs.

Comprising the MR850 heated humidifier, MR290 Autofill Chamber and RT series of single use breathing circuits – it offers ONE simple, multi-configurable solution for all patients.



# **F&P 850™ System** - Features & Benefits

The F&P 850 System has been designed to be simple to operate, while answering the strong call for a high performing solution capable of operating in either Optimal (37 °C, 44mg/L) or Essential (31 °C, 32mg/L) humidity control modes. Significant benefits flow from one system which can be configured to deliver optimal outcomes for all therapies across the care continuum.

## Humidification

The MR850 humidifier has been designed to provide optimal levels of humidity to patients while reducing the need for clinician input.

With just two modes of operation, therapy selection is simple. Sophisticated measurement technologies and control algorithms manage temperature control in a range of ambient environments, while smart sensing technologies detect periods of standby, reducing nuisance alarms.

**EnviroSmart™**

*Humidity Control*
Temperature is controlled independently at the chamber and breathing circuit. This ensures optimal humidity delivery, while minimizing condensation in the breathing circuit.

*Environmentally Smart*
This algorithm maintains optimal humidity across a wide range of environmental conditions. In cool environments, active humidity management is employed to minimize mobile condensation.

**Clinically Based Alarms**
An intuitive display alerts clinicians to both the cause and severity of alarms. Visual and audible alarms have been defined based on clinical research on the impact of low humidity in the lungs.

## The F&P 850 System:

**One System for all Patients**
The ability to reconfigure one system for all respiratory therapies translates to better follow-through care

**Simple and easy to learn**
One easy-to-use, intuitive system leads to greater staff confidence and reduced training time

**Efficient Inventory Management**
One system equates to less inventory requirements

F&P 850™ System = Humidifier + Breathing Circuit Kit

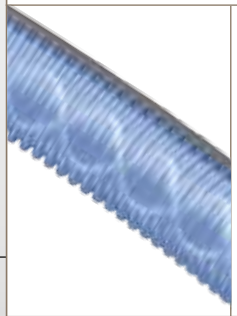
The F&P 850 System combines the MR850 humidifier, MR290 automatic dual float chamber, and the RT heated wire breathing circuit.

## Delivery System

The MR290 is an easy to maintain single patient use automatic water feed chamber incorporating the following technologies:

**Dual Float Auto Feed Chamber**
The unique dual float mechanism is designed to ensure a constant water volume and constant compressible volume for effective therapy delivery. The automatic water feed system eliminates the need to disconnect chamber for water refilling. This maintains a closed system and reduces the risk of contamination.

The RT Series Breathing Circuits were designed specifically for use with Fisher and Paykel Healthcare humidification systems. Several key technologies ensure superior performance:



**Dual Spiral Heater Wire** CONDENSATION MANAGEMENT A Dual Spiral Heater wire technology enables superior condensate reduction performance in varying environments by consistent distribution. Heater wire performance is uniquely keyed to humidifier algorithms. Dual spiral heater wire ensures even heat distribution leading to reduced condensate.


**Evaqua** EXPIRATORY CONDENSATE REDUCTION
Evaqua is a world first in breathing circuit technology which allows water vapor to diffuse through the tubing wall. Evaqua's permeable membrane tube technology clears humidity from the expiratory limb - minimizing the chance of it forming into liquid water.*†

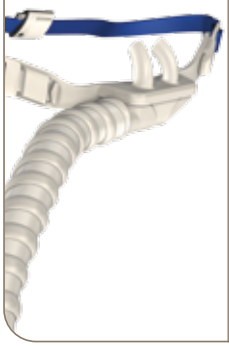
- Minimizes Expiratory Limb Mobile Condensate
- Promotes a maintenance free, closed system

## Interface Compatibility

All the way along the F&P Adult Respiratory Care Continuum™ the F&P 850 System is partnered with high performing, comfortable interface options for use with the F&P 850 System:

**DirectConnect Invasive Interfaces** These lightweight, interfaces with highly flexible tubing deliver optimally humidified gas directly into the ET Tube or tracheostomy allowing ease of positioning and freedom of movement.

**FreeMotion Noninvasive Interfaces** Designed for noninvasive ventilation, the FreeMotion mask family includes both vented and non-vented full face masks and a vented nasal mask. These masks have been designed for comfort and freedom of movement.



**Optiflow**
The unique F&P Optiflow Nasal Cannula is lightweight, flexible and ergonomically moulded to deliver exceptional comfort around the sensitive nasal septum while the wide-bore cannulae are shaped to disperse air-flow, avoiding the unidirectional "jet" of traditional cannulae.

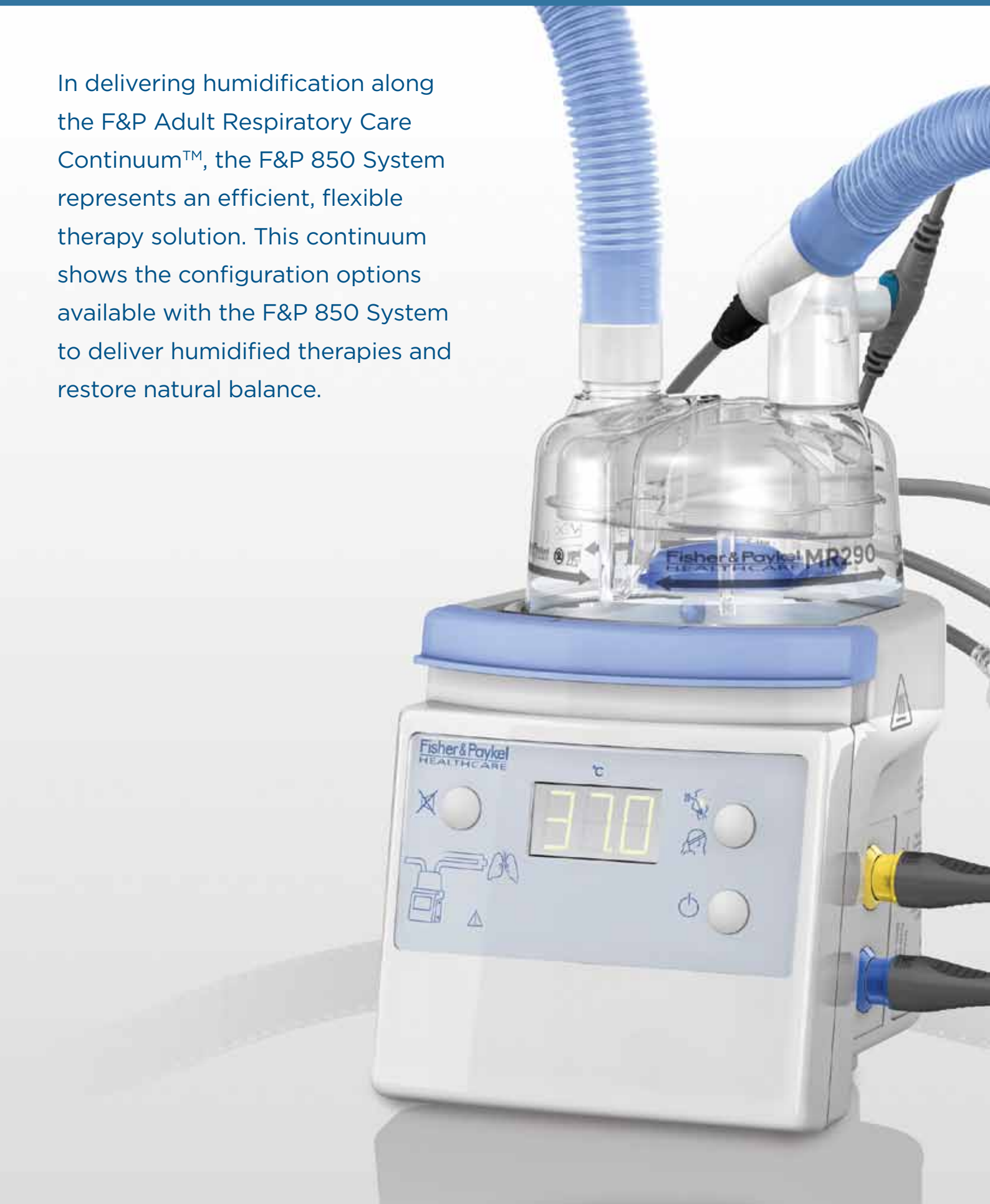
** Not available in all countries.*
*† A wide range of alternate breathing systems are available including: Single heated, dual and reusable. See the product catalogue for details.*

## PAEDIATRIC CIRCUIT APPLICATION

The infant and adult circuit range provides optimal ventilation and humidity delivery for neonates through to adults. The optimum point to change from infant to the adult circuit is 120ml $V_T$ between about 12-15kg depending on your ventilation strategy.

INFANT CIRCUIT RANGE — 12-15kg/120ml $V_T$ CHANGE OVER — ADULT CIRCUIT RANGE

In delivering humidification along the F&P Adult Respiratory Care Continuum™, the F&P 850 System represents an efficient, flexible therapy solution. This continuum shows the configuration options available with the F&P 850 System to deliver humidified therapies and restore natural balance.



## INVASIVE VENTILATION

**OPTIMAL HUMIDITY, OPTIMIZING AIRWAY DEFENSE & VENTILATION**

## NONINVASIVE VENTILATION

**ESSENTIAL HUMIDITY TO MAXIMIZE TOLERANCE**

## HIGH FLOW

**COMFORTABLE, EFFECTIVE OXYGEN DELIVERY**

**MR850™ HEATED HUMIDIFIER**

| | INVASIVE VENTILATION | NONINVASIVE VENTILATION | HIGH FLOW |
|---|---|---|---|
| BREATHING CIRCUIT KIT | **MR290** Auto Feed Chamber*<br>**RT200/RT210** Invasive Circuit Kit<br>**RT340/RT240*** Invasive Circuit Kit with Evaqua Technology | **MR290** Auto Feed Chamber*<br>**RT319/RT219** BiPAP Circuit Kit<br>**RT202** Single Limb Circuit Kit | **MR290** Auto Feed Chamber*<br>**RT202** Single Limb Circuit Kit |
| INTERFACE | **RT021** Catheter Mount | **RT040** Vented Face Mask<br>**RT041** Non-vented Face Mask<br>**RT042** Vented Nasal Mask | **OPT542** (Small)<br>**OPT544** (Medium)<br>**OPT546** (Large) Optiflow Nasal Cannula<br>**OPT570** Tracheostomy Connection |
| SETUP IMAGE |  |  |  |

** MR290 Auto Feed Chamber is included in all Fisher & Paykel Healthcare Circuit Kits*

*+ Products listed are a sample of those available. Please contact your local Fisher & Paykel Healthcare representative to discuss appropriate products for your needs. Some products may not be available in your country.*

## MASK OXYGEN

ENHANCING TRADITIONAL OXYGEN THERAPY

## CANNULA OXYGEN

COMFORT AT LOW FLOWS

## HUMIDITY THERAPY

FREEDOM TO BREATHE

**MR850™ HEATED HUMIDIFIER**

**MR290** Auto Feed Chamber*
**RT308/RT408** Single Limb Circuit Kit with Venturi Entrainer

+

Compatible with a range of generic oxygen and tracheostomy masks

+

**MR290** Auto Feed Chamber*
**RT202** Single Limb Circuit Kit

+

**OPT542** (Small)
**OPT544** (Medium)
**OPT546** (Large) Optiflow Nasal Cannula

+

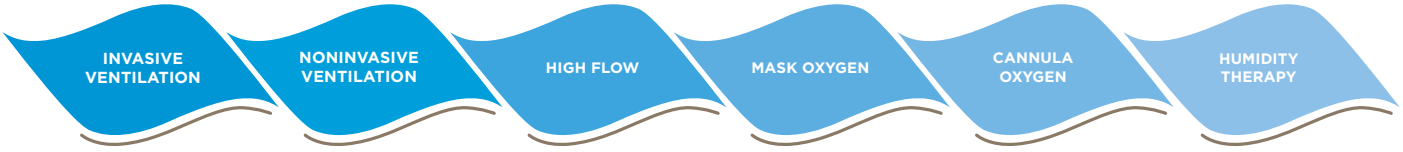
**MR290** Auto Feed Chamber*
**RT202** Single Limb Circuit Kit

+

**OPT542** (Small)
**OPT544** (Medium)
**OPT546** (Large) Optiflow Nasal Cannula
**OPT570** Tracheostomy Connection

+

# Humidification is Central to the F&P Adult Respiratory Care Continuum.




There are two levels of humidity appropriate for the airway, to ensure the most effective and comfortable delivery of care:

**37 °C, 44 mg/L,**
100% Relative Humidity

**OPTIMAL HUMIDITY**

During normal inspiration, the airway conditions inspired gases with heat and humidity to body temperature, 100% relative humidity with 44 mg/L of absolute humidity. The lungs rely on these optimal states to maintain the physiological balance of heat and moisture necessary for optimized airway defense and gas exchange while maintaining patient comfort.

**31 °C, 32 mg/L,**
100% Relative Humidity

**ESSENTIAL HUMIDITY**

The use of humidification with noninvasive mask therapies is essential for maintaining the natural balance of heat and moisture in the airways. The level of conditioning required is directed by the amount of humidity produced naturally in the nasopharynx when breathing through the nose.

**3 KEY BENEFITS OF HUMIDIFICATION**

1. ASSISTING NATURAL DEFENSE MECHANISMS IN THE AIRWAY
2. PROMOTING EFFICIENT GAS EXCHANGE AND VENTILATION
3. INCREASING PATIENT COMFORT AND TOLERANCE TO TREATMENT

## For more information please contact your local Fisher & Paykel Healthcare representative

# Superior Science and Care

Fisher & Paykel Healthcare is a world leader in humidified respiratory care. In the field of respiratory and acute care we design and manufacture a range of therapy solutions for use in over 120 countries – each is the sum of almost four decades of clinical research.

We believe that humidity is critical to human respiratory health and well-being. In delivering humidification along a continuum of care we ensure optimal outcomes for clinicians and patients by restoring natural balance.

- **For Adults;** advanced humidified therapy systems restore natural balance and assist natural defense mechanisms while increasing patient comfort and tolerance to treatment.
- **For Infants;** our design innovations protect compromised lungs and reduce risks to nurture life. This focus ensures that precious neonatal energy is reserved for growth and development.
- **For Clinicians;** a systematic approach to therapy solutions translates to efficient delivery of care and improved patient outcomes.