

# Infant resuscitation and suctioning device

Country of origin | India

## Health problem addressed

Nearly 2/3 of all newborn deaths (4 million annually) occur in 10 countries. Birth asphyxia is a leading contributor of neonatal deaths (23% of total neonatal deaths). Low birth weight & premature babies are especially prone to the same. Limited access to quality resuscitation devices & skilled care in low resource settings are big challenges. Urgent action is needed to address the issue of neonatal deaths and progress on MDG4, since 40% of under the age of 5 deaths are in newborns.

## Product description

Effective suction. Controlled resuscitation. One solution. The resuscitation and suctioning device is a compact solution for suctioning and resuscitation needs immediately after delivery. The device is completely gas driven and doesn't require electricity and suctioning works on the gas Venturi technique. The compact design doesn't allow for gas leakage and doesn't use any gas when switched off. It is mountable on the Infant warmer thereby providing a complete neonatal care solution with thermoregulation and resuscitation. One baby-One bed.

## Developer's claims of products benefits

The current standard of care includes bag & mask devices (no accurate pressure control), gas powered devices (not comprehensive). For suctioning the devices are manual (no clinical efficacy) or electrically operated and are bulky. This prohibits users from effectively delivering care to the patient. The device presented here is a compact unit that combines suctioning and resuscitation in a single unit making it really easy to use. It doesn't require electricity so is well adapted to low resource settings.

## Suitability for low-resource settings

An ideal solution for low-resourced clinical settings with poor infrastructure low skilled nurses, lack of space, low purchasing power. The compact technology combines suctioning and resuscitation in a single unit making it easy to use. It doesn't require electricity so is well adapted to low resource settings. It is affordable with low maintenance & service costs and also comes with the option of a reusable bag & mask accessories.

## Operating steps

Mount and fasten the unit onto (the dovetail rail) of an infant warmer. Keep the device in 'OFF' condition and fasten the oxygen hose to the backside of the device. Connect the suction tubing to the suction port; connect the oxygen tubing and bag & mask to the oxygenation port on the front of the device. Check the functioning of the device by switching it 'ON' and occluding the ends of the tubing and bag & mask devices. Use for suctioning & resuscitation as needed.

## Regulatory status

CE Certificate Number: CE01236. Notified Body Number:0086. ISO certification (ISO13485), EN ISO:10993. RoHS compliant.

## Future work and challenges

One of the obstacles is government specifications and tenders. The documents need to be updated with new technologies so that the product can reach the markets it is actually meant for. Product adoption, awareness, education, training, distribution to penetrate market

## Use and maintenance

**User:** Nurse or Physician

**Training:** Minimal training. Operator manual and product videos included with technology.

**Maintenance:** No scheduled maintenance required.

## Environment of use

**Setting:** Rural and urban indoor setting for all levels of health care in primary, secondary and tertiary levels of care

**Energy requirements:** Gas powered, oxygen supply of 40-80psi at 70 LPM

**Facility requirements:** Required an ambient environment within the ranges of 18-41°C and 0-90% RH

## Product specifications

**Weight (kg):** 3 kg

**Dimensions:** 140mm x 222mm x 195mm

**Consumables:** Adapters to connect oxygen hose, oxygen hose, dovetail mount, suction canister, bag & mask, oxygen tubing, infant masks.

**Lifetime:** 7 years

**Retail price (USD):** 600

**Price of consumables (USD):** 100

**Other features:** Adapters to connect oxygen hose, oxygen hose, dovetail mount, suction canister, bag & mask, oxygen tubing, infant masks.

**Year of commercialization:** 2014

**Currently sold in:** India and Countries in Africa and ASEAN

