



# Risk Analysis

## Headboxes

This product range was designed by hospitals in the early 1960's and has been continually improved in line with medical practices .

Headboxes are small enclosures usually used to surround a neonates head to allow a greater concentration of Oxygen to be achieved.

They are manufactured from transparent 4mm or 5mm Acrylic (Perspex ) **for biocompatibility and lack of toxic risk to newborns.** and are shaped with a neck opening.

Several "standard sizes" are available to cover the range of patients .

Neonate; infant , Paediatric.

Specials are manufactured to the users specification but all follow the basic description. The main requirements for change being size and position of the access holes.

They all have sliding neck doors to enable a better seal around the patients neck.

The Neonatal neck door is slanted backward into the Headbox to allow room for the Neonates chin. This avoids abrasion with the shoulders as the infant moves.

Half holes are drilled around the base to give access for IV tubes and leads etc. this prevents instability

All headboxes have at least a 22mm hole for Oxygen.

Some versions have rotating side windows,

CO2 can build up if there is no flow or a very low flow

**All edges of the device are polished in the manufacturing process to prevent abrasion to the patient**

**The shape is a squared hemi-sphere without sharp corners to make cleaning and disinfection easy to achieve, to minimise cross-infection. The flat panels are designed to maximise visibility of the patient and reduce distortion**

## WARNINGS

### **a)PRINTED ON HEATSHIELD**

To avoid carbon dioxide accumulation a warning to use gas flows of at least 6 litres/min is a label fixed to the Headbox

### **b)Instruction Sheet**

It is recommended that when used with Neonates the headbox should be pre-warmed to prevent cooling of the infant from radiant losses to the acrylic.

It is also recommended that gas be warmed and humidified before introduction into the headbox is to prevent cooling of the infant, and increased fluid losses from the skin.