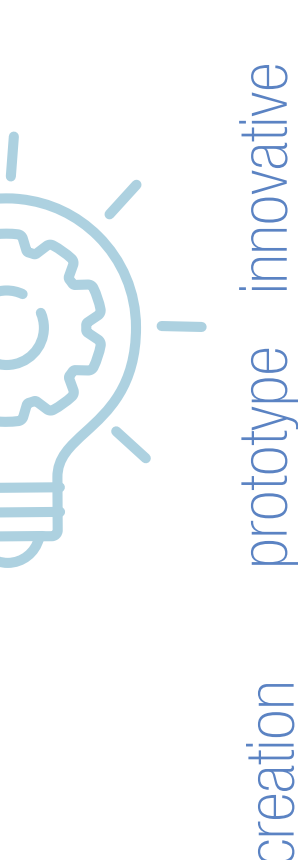


# FACT SHEET

## INTUBOX

A successful partnership between South Africa's healthcare, biomedical engineering, manufacturing and financial services sectors to protect the country's hospital workers against COVID-19

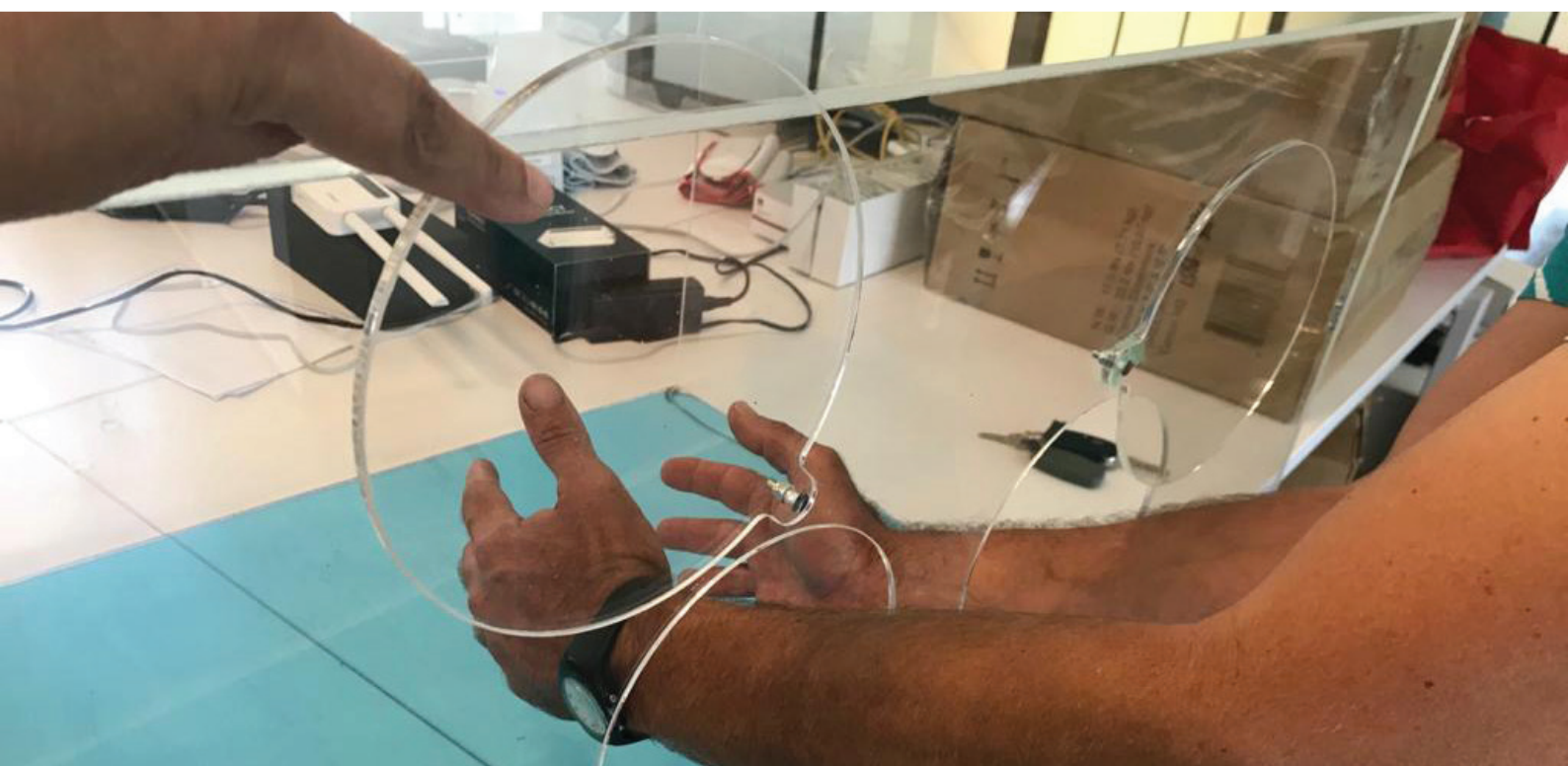


**The Intubox is an innovative life-saving product designed to protect hospital workers and other critical care patients** from infected patients' airborne virus-spreading particles. A clear cast plexiglass or perspex box, the Intubox ensures safety during any intubation, extubation or aerolising procedure.

*The Intubox was designed by Prof. Feroza Motara, Prof. A Laher, Dr M Moollla and Dr J du Plessis from the Emergency Department and Intensive Care Units at Charlotte Maxeke Johannesburg Academic Hospital.*

**A prototype of the Intubox was manufactured by local supplier**, Paramount Industrial Holdings, and has been successfully tested at Charlotte Maxeke Johannesburg Academic Hospital. 500 Intubox units will be manufactured as a first run.

**The creation of the Intubox is an example of what can be achieved when teams representing multiple disciplines** (spanning South Africa's medical and broader industrial base, linked up through the engineering and finance communities) collaborate and work towards a single objective – in this case protecting the lives of healthcare workers and other patients in very challenging circumstances. It demonstrates the world-class medical, biomedical, engineering, and financing skills that exist in South Africa, and that medical needs, employment and production capacity can all be activated simultaneously in new ways, to solve new challenges, especially if funding is immediately available.



## There are multiple stakeholders involved:

- ① • **DESIGN:** Prof. Feroza Motara, Prof. A Laher, Dr. M Moollla and Dr J du Plessis
- ② • **MANUFACTURING:**
  - Paramount Aerospace Industries aircraft manufacturing is a subsidiary of Paramount Industrial Holdings, a global aerospace and technology company with a reputation for ground-breaking technologies and innovations.
- ③ • **TESTING OF PROTOTYPE:** Charlotte Maxeke Johannesburg Academic Hospital
- ④ • **FUNDING:** FirstRand's South African Pandemic Intervention and Relief Effort (SPIRE) Fund
- ⑤ • **FACILITATOR BETWEEN DESIGNER, MANUFACTURER AND FUNDER:** Dr Kate Roper from Aurecon South Africa. Aurecon is an engineering, design and advisory company working with their clients to co-create clever, innovative solutions through deep technical and advisory expertise.

## Intubox technical data:

- ① • The Intubox is a **clear cast plexiglass or perspex box** and comes in a static or flat-pack design for easy assembly.
- ② • It has a **rectangular opening and flap at the top** of the box so that the healthcare worker can access the patient.
- ③ • It has a **circular opening and flap on the side** for any attachments for the procedure.
- ④ • It has **two circular openings and flaps at the back** of the box for the person intubating the patient.
- ⑤ • It has a **flap at the front** of the box that can be lifted to accommodate larger patients.

**The Intubox is a solution to any treatment situation that requires Barrier Enclosure protection for hospital workers** as it is applicable when patients need ventilation during anaesthetic and in ICU for patients on high-flow oxygen. It can also be used for MDR/XDR TB patients or VHF such as Ebola.



**Photographs or video footage** of the Intubox can be requested from [Investor.relations@firstrand.co.za](mailto:Investor.relations@firstrand.co.za)



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