

## **BUTARO HOSPITAL**

## PROBLEM

Architects of Butaro Hospital in northern Rwanda needed to figure out how to prevent the spread of airborne illnesses that run rampant in the region. Architecture firm MASS Design Group designed the hospital with abundant natural ventilation including outdoor walkways between the hospital's six wards, open-air waiting rooms and large windows on opposing walls. However, they realized that air turnover through mechanical ventilation was key to reducing sickness – a tall order since the hospital wasn't yet tied to any power grid.

## **SOLUTION**

Seven energy-efficient Big Ass fans were installed to complement MASS Design Group's cross-ventilation strategy, constantly moving air without drawing too much power from the clinic's gas generators. The fans aid in general air movement as well as decontamination, circulating air over UV lights to kill airborne pathogens such as tuberculosis. By moving slowly, the fans do not generate a noticeable breeze, keeping patients, their families and hospital staff comfortable without feeling chilly.

> EXCEPTIONALLY Engineered



"AIR MOVEMENT IS THE MOST IMPORTANT FACTOR IN PREVENTING DISEASE TRANSMISSION. USING BIG ASS FANS ALLOWS US TO HAVE ONLY ONE OR TWO FANS PER WARD, RUNNING AT SPEEDS LOW ENOUGH THAT THEY DO NOT CREATE DRAFTS."

Garret Ganter, Project Architect

