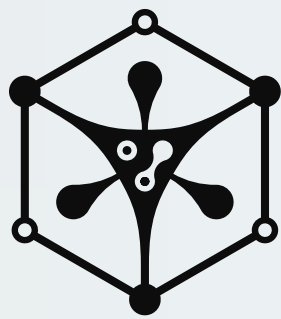




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Oxysaver: High Conserving Demand Oxygen Delivery System with Increased Throughput



BIOFORGE
HEALTH SYSTEMS LTD.
Building Better Healthcare

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PROTOTYPE

Bioforge proposes OxySaver, a novel cost-effective Demand Oxygen Delivery System which can reduce oxygen consumption significantly. It includes a pressure sensor, a Normally Open solenoid valve, and a processing unit to ensure the supply of oxygen only during inhalation of the patients. It can easily be set up with existing oxygen cylinders, and oxygen pipelines in hospitals. The device will improve the conservation of oxygen supplies, reduce costs for patients and improve hospital capacity for oxygen treatment.

DESIGN

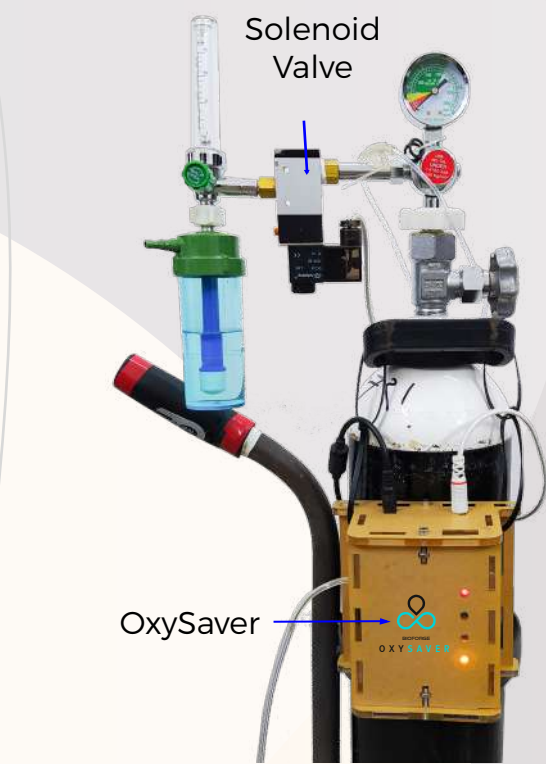
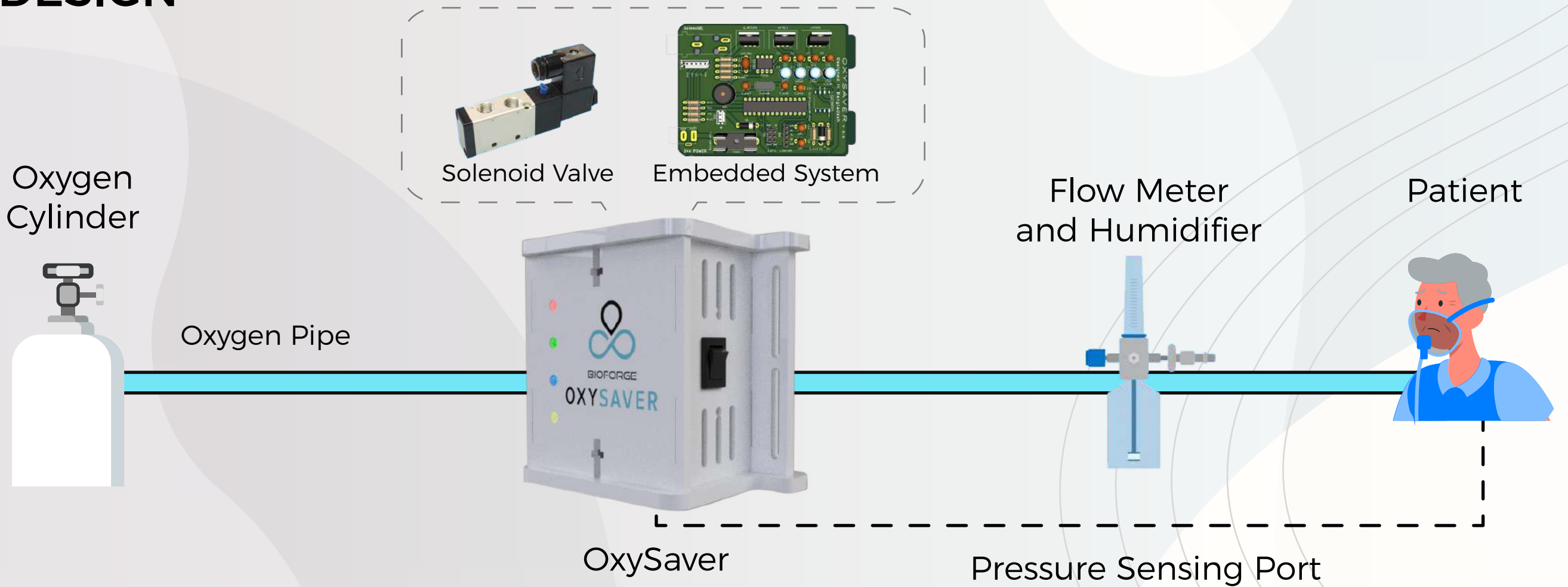


Fig 1: OxySaver setup with cylinder

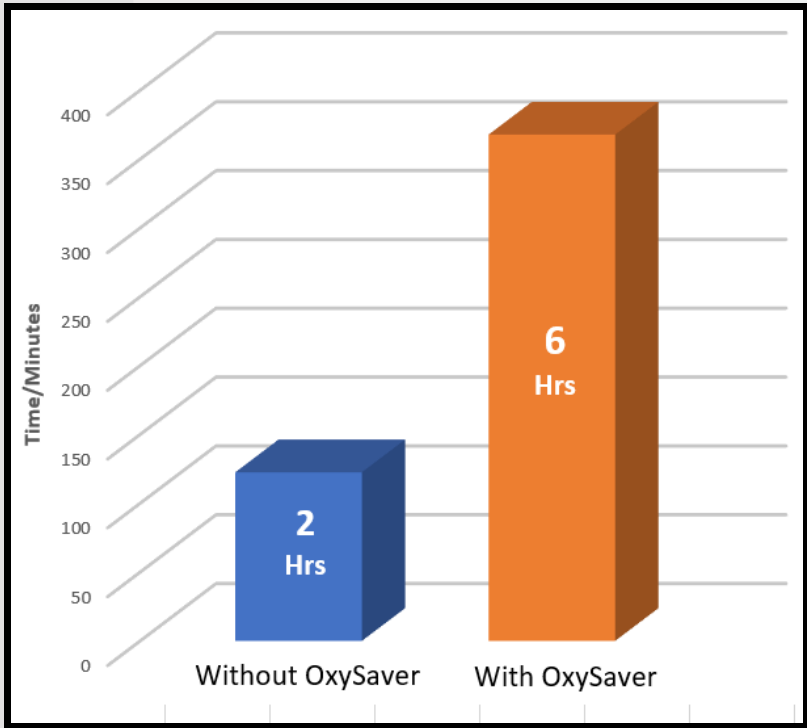


Fig 2: Cylinder duration test results with and without OxySaver

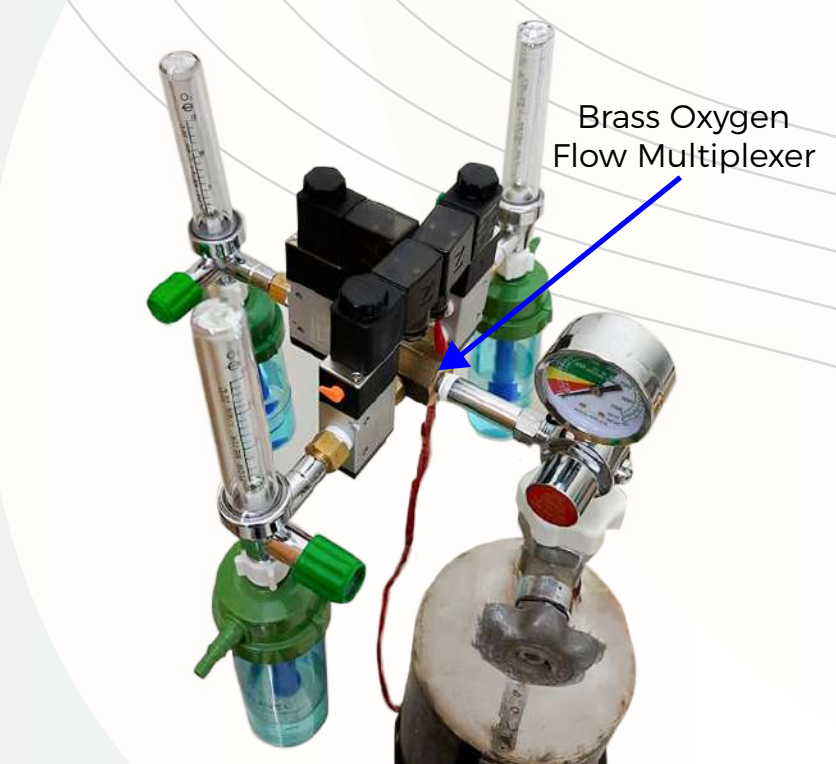


Fig 3: Tripartite valve to serve three patients from single source

RESULTS

50%
More oxygen conserved

Requires **only**
3%
power compared to
current products

67%
Reduction in refill cost

From a **single source**, up to
3
patients can receive
oxygen at the same rate

IMPACT OF OXYSAVER

- Adapt with breathing rate in real time
- Reduces refill costs
- Readily available parts, affordability, reusability and easy production
- Easy replacement
- Easy installation with the existing hospital oxygen distribution system

FAIL SAFES

- Continuous flow of oxygen in case of:
- a) Power Outage
 - b) Breath not detected for more than 6 seconds