



Oxygen Enrichment Unit

CSIR- National Chemical Laboratory (NCL)
Pune, India

- Based on innovative, indigenously developed Hollow-Fiber Membrane
- Important specs: (i) Flow type: Continuous; (ii) Oxygen Purity: 30-40 % (adjustable as per need) (iii) Flow rate: 0.5 to 5, 10, 15 lit/min (adjustable as per need); (iv) Oil free (v) free from pathogens (viruses, bacteria, particulate matter); (vi) Automatic
- Certified at NABL accredited labs (Safety, Calibration & Performance)
- Beta Clinical trials completed
- Technology Transferred to BEL

#CSIRFightsCOVID19

Oxygen Enrichment Unit (OEU) based on Membrane Technology For Oxygen Therapy

- ▶ A startup of CSIR-NCL, Genrich Membranes has developed Oxygen Enrichment Unit (OEU) based on innovative, indigenously developed Hollow-Fiber Membrane technology. This unit provides ~35-40% Oxygen enriched air.
- ▶ The device consists of (1) membrane cartridge (filter), (2) pressure-gauge, (3) flowmeter, (4) humidifier bottle, (5) nasal-cannula, (6) oil free compressor and (7) tubing & fittings.
- ▶ The atmospheric air under certain pressure (4-5 bar) passes through membrane cartridge wherein oxygen is permeated through membrane surface preferentially over other gas components in the air. This happens due to intrinsic high sorption capacity of oxygen in to membrane matrix.
- ▶ Specifications of Oxygen Enriched



Laboratory/Institute

CSIR-National Chemical Laboratory
(CSIR-NCL)



Air (Output of device): (i) Flow type: Continuous; (ii) Oxygen Purity: 30-40 % (adjustable as per need) (iii) Flow rate: 0.5 to 5, 10, 15 lit/min (adjustable as per the requirement); (iv) Oil free (v) free from pathogens.

- ▶ Product is TUV certified.



Industry Partners

- 1) Genrich Membranes Pvt. Ltd.
- 2) Bharat Electronics Ltd. [#CSIRFightsCOVID19](#)