

An ISO 9001 : 2015 Certified Co.


# AIRCELL

For Oil Filled Transformers




# UNIRUB

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**DISCRIPTION & WORKING**

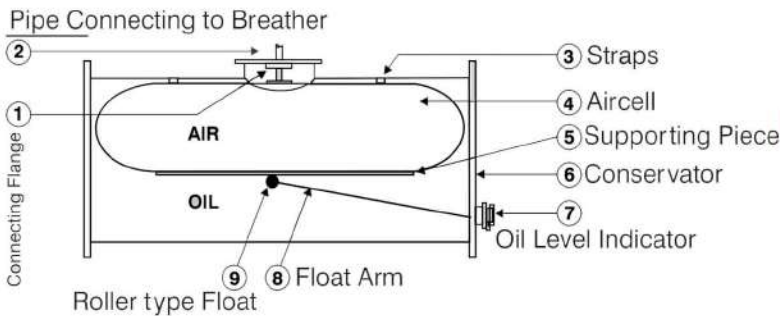
An Aircell is a sealed envelop made out of highly resistant polyamide fabric coated with synthetic elastomers. The Aircell hangs in conservator. It is held in position by connecting flange and two straps on either side. Please see illustrative figures.

When oil level in conservator increases, Aircell gets deflated there by expelling air out and when oil level drops, Aircell inflats and allows air to come in. Thus Aircell breathes Without allowing outside air to get in contact with transformer oil. There are many advantages due to introduction of Aircell in conservator.

**PACKING**

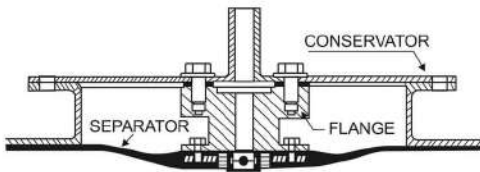
Each Aircell is suitably packed in corrugated paper box.

**FIG. 2 • CYLINDRICAL CONSERVATOR APPLICATION**



**Note :** Only item No. 12 , 4 & 3 supplied by us.

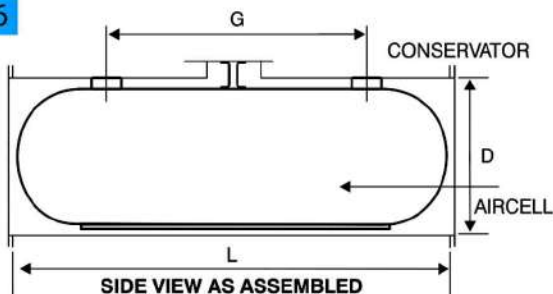
**FIG. 4 • FLANGE ASSEMBLY**



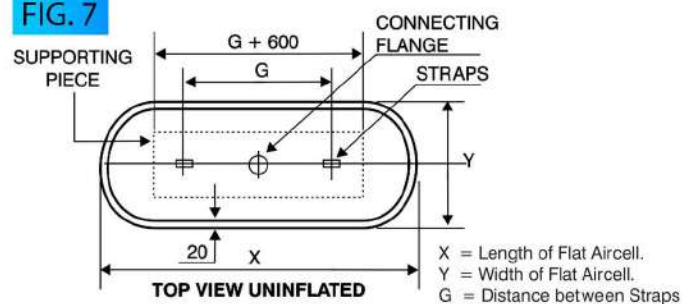
The flange is fitted to the vulcanised insert. This insert is fully embedded by vulcusing into the separator material thus ensuring that the unit is fully sealed.

**DIMENSIONS** (All dimensions are in mm)

**FIG. 6**



**FIG. 7**



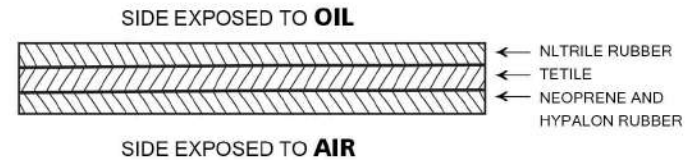
**HOW TO ORDER**

- 1. Giving dimensions of conservator L & D or by
- 2. Giving dimensions X, Y, G (See Formula)

$$\text{Formula : } Y = \frac{3.142 \times D}{2} + 40 \text{ mm, } X = L - D + Y, G = X - Y - 200$$

Example : For Conservator of 700 dia x 2000 long  
Values will be X = 2440, Y = 1140, G = 1100

**FIG. 1 • MATERIAL CROSS SECTION**



**FIG. 3 • STRAP**



**FIG. 5 • CONNECTING FLANGE**



# Advantages

Acts as Effective Bladder-

- a) As Barrier Between Oil In Conservator & Atmospheric Air
  - b) Protects Dielectric Oil Which Eliminates
    1. oil Pollution, Condensation, Oxidation, Hydrolysis
    2. Effective Barrier Against Water Vapour, nitrogen, ozone & oxygen
    3. Isolates Insulating Oil From Atmosphere
- Oil Level Compensation - As The Load Of Transformer Changes Which Results In Heat Built Up Which Results In Oil Volume Expansion - Air Cell Being Highly Flexible & Works On Principle Of COPS- Constant Oil Pressure System - it Effectively acts as Compensator to take care Of these Volume Fluctuations. Prevents -practically Any Free Volume In Conservator.
  - Air Cell Comes With Range Of Custom Designed Flanges - hence Adaptable to Different Connecting Parts.  
All Flanges are having Special Anticorrosive Plating for long Service Life.
  - Working Temperature Range - 35 °C To +115 °C Resistant To Temperature Variations
  - Air Cell Material Is Highly Compatible With Range Of Transformer Oils - Tested Up To 115 °C
  - Long Service Life Without Maintenance - 100 % Gas/oil/vapour Proof
  - Unirub is ISO 9001 -2015 certified organization with complete internal manufacturing & testing facilities & has been supplying Air cells since 2002
  - All material & product related test reports & type test reports will be made available as per agreed QAP.
  - Aircell material is compatible with a range of transformer oils typically compatible with a wide range of oils.
    - IS 335 - TYPE II - IEC 296 CL-1- BS 148-CL-1.
    - MIDEL 7131-Synthetic ester transformer fluid.
    - Compatibility with other Superior premium grades can be established on request.

**We are proud to Supllies More than 80 + Customers & 7 + Countries.**

## **Approvals**

PGCIL, Aircell for Transformer and reactors Upto 765 kV.

BHEL, 765 kV manufacturing approval for Aircell.

## **Meet our customers**

 **Hitachi Energy**

**Schneider**  
Electric

**TBEA** 特变电工  
Equip China Powering the world

 **पावरग्रिड**  
**POWERGRID**

**TOSHIBA**

**SIEMENS**

**बी एच ई एम**  
**BHEL**

