



FLEXIBLE SEPARATOR (AIR CELL)

Flexible Separators (Air Cells) are used as constant oil preservation system in transformer and reactors. It is fitted inside a conservator tank isolating the transformer insulating oil from the atmosphere, thus preventing contamination, gas and / or moisture from coming into contact with the transformer oil. The cell is vented to the atmosphere and inflates or deflates as the oil volume in the transformer changes due to the change in transformer temperature. The air cells are manufactured of Nitrile and Neoprene coated Nylon and dimensions of the separators are based on the size of the conservator tanks.

Functions

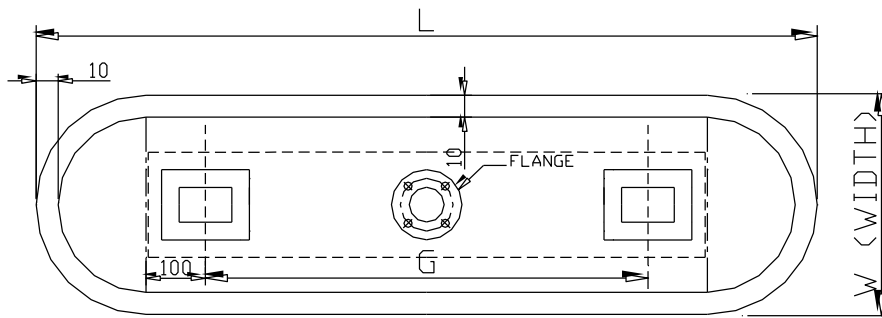
- It provides a permanent, flexible and nonporous barrier between the atmosphere and the transformer oil, without affecting the operational function of the system in the oil conservator of Transformer.
- It compensates oil volume displacement due to temp. Variation while in operation.
- It ensures the efficient variation between transformer oil and air.
- It protect against water vapour.
- It suppress the gas bubble formation in the transformer oil.

Construction

- Polyamide (Nylon) Fabric, coated with Nitrile rubber externally to resist hot transformer oil and with Neoprene and hypalon internally to resist ozone and heat.

Types, Sizes and Dimensions

- Product Type: STP 500-500 to STP 6000-1500
- Length (L): 2350 mm to 7300 mm
- Width(W): 825 mm to 2400 mm
- Loop Distance(G): 1000 mm to 5000 mm



The dimensions of the Flexible separators are determined to the size of the conservators.

SL.N O	PRODUCT TYPE	CONSERVATOR SIZE		FLEXIBLE SEPERATOR SIZE		
		Dia in mm	Length in mm	Width W(mm)	Length L(mm)	Loop Distance G(mm)
1	STP 500-500	500	2710	825	3035	2010
2	STP 500-600	600	1970	982	2352	1170
3	STP 750-600	600	2850	982	3232	2050
4	STP 750-700	700	2180	1140	2620	1480
5	STP 1000-700	700	2830	1140	3270	1930
6	STP 1000-800	800	2167	1290	2657	1167
7	STP 1000-800	800	2260	1297	2757	1260
8	STP 1500-800	800	3250	1297	3747	2250
9	STP 1500-900	900	2660	1454	3214	1560
10	STP 2000-900	900	3440	1454	3994	2340
11	STP 2000-1000	1000	2400	1610	3010	1200
12	STP 2000-1000	1000	2990	1610	3600	1790
13	STP 2500-1000	1000	3300	1610	3910	2100
14	STP 2500-1000	1000	3400	1610	4010	2200
15	STP 3000-1000	1000	3540	1610	4150	2340
16	STP 2000-1000	1000	3800	1610	4410	2600
17	STP 2000-1000	1000	2880	1611	3491	1680
18	STP 2500-1000	1000	3520	1611	4131	2320
19	STP 3500-1000	1000	4740	1611	5351	3540

20	STP 2500-1100	1100	3000	1768	3668	1700
21	STP 3000-1100	1100	3520	1768	4188	2220
22	STP 3000-1200	1200	3050	1925	3775	1650
23	STP 4000-1200	1200	3940	1925	4665	2540
24	STP 3500-1300	1300	2800	2082	3582	1300
25	STP 4000-1300	1300	3450	2082	4232	1950
26	STP 4500-1300	1300	3600	2082	4382	2100
27	STP 5000-1300	1300	4000	2082	4782	2500
28	STP 5000-1300	1300	4200	2082	4982	2700
29	STP 6000-1300	1300	4770	2082	5552	3270
30	STP 8000-1300	1300	6520	2082	7302	5020
31	STP 3000-1300	1300	2512	2100	3300	1000
32	STP 5000-1400	1400	3710	2239	4549	2110
33	STP 6000-1400	1400	4360	2239	5199	2760
34	STP 6000-1400	1400	5000	2240	5840	3400
35	STP 6000-1500	1500	3900	2396	4796	2200

Separator Size Calculation:

- a) Width (W) : $\pi/2 \times$ conservator Dia +40 mm
- b) Length(L) : Conservator Length-Conservator Dia + width of air cell
- c) Loop Dist (G) : Conservator length-conservator Dia-200mm

Flexible separators of any size can be manufactured as per customer requirements.