

Transformer Fire & Explosion Prevention System

Overview

RESPONSE TIMES FOR CURRENT PROTECTIVE DEVICES ARE TOO SLOW

MOST TRANSFORMERS ARE CURRENTLY EQUIPPED WITH THE FOLLOWING DEVICES:

- Circuit breakers
- Buchholz Relay
- Sudden Pressure Relay
- Gas Monitoring
- Pressure Relief Valve

With the Arc developing enough pressure to rupture the tank in under 12 milliseconds, none of these devices respond quickly enough. If they did, there would never be a fire or explosion. The Transformer Explosion & Fire Prevention System activates at 5.1 milliseconds and release the pressure before the static pressure can develop. This saves the tank from rupture and prevent the fire and explosions.

The Transformer Explosion & Fire Prevention System does not put out fires. It PREVENTS them from happening in the first place.

EXPAND THE GRID PROTECT THE ENVIRONMENT

TRANSFORMER EXPLOSIONS LEAD TO:

- Large fires
- Plant outage
- Environmental pollution
- Human life risks
- Huge costs
- Ruined company reputation

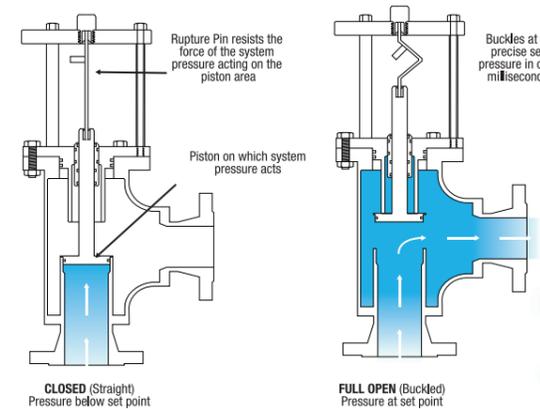
TRANSFORMERS ARE VERY DANGEROUS.

Companies have come to recognize that oil filled electrical transformers while a necessity, are also the biggest danger in the facility. The loss caused by a fire goes into the millions of dollar with potential loss of life, injury, down time, lost revenue, replacement of equipment, public image and cost associated with clean up of the environment.

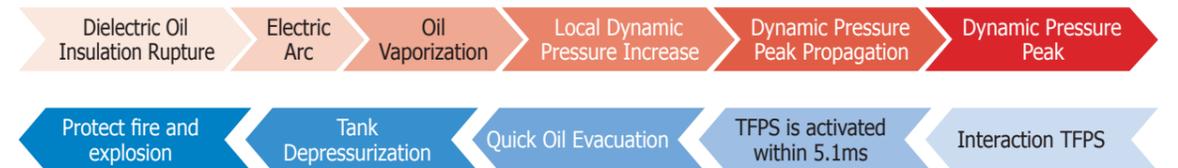
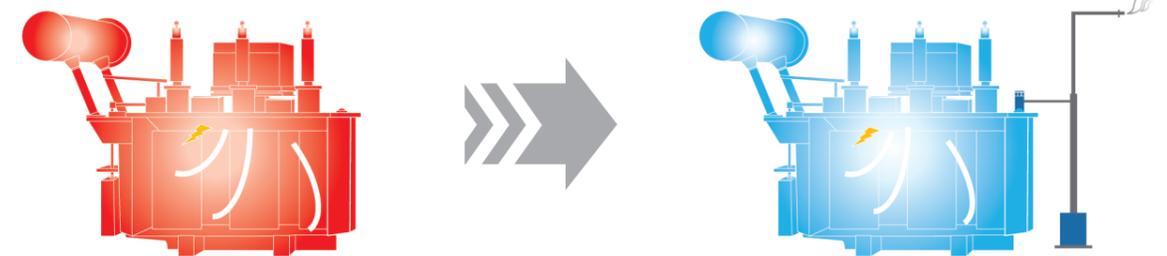
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Performance Evaluation

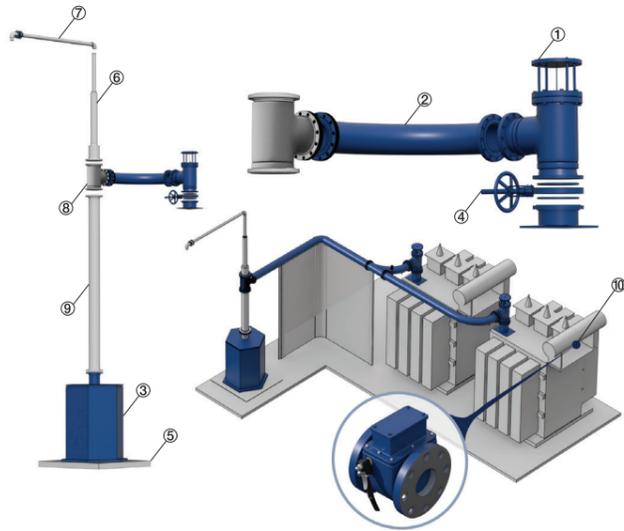
• The Transformer Fire & Explosion Prevention System activates in 6ms or less to depressurize tanks before static pressure can occur.



Operation Process



Configuration



Item No.	Description
1	Rupture Pin Valve
2	Flexible Braided Hose
3	Blast Chamber with ANSI Class 150 Flange
4	Knife Gate / Slice Valve
5	Concrete Base for Blast Chamber
6	Reducer Assembly
7	2 inch Schedule 40 Carbon Steel Pipe
8	Tee Connection
9	Schedule 40 Carbon Steel Pipe
10	Conservator Shutter

Reference list

Site	Country	Quantity	Remarks
Tucson Electric Power	USA	11	◆ Transformer Maker • ABB, CHINT, Paulwels • MCGraw Edison • Cromton Greeves • Westinghouse • BHEL, Xian-Xee
Portland General Electric	USA	7	
PREPA/ARG Precision Corp./Puerto Rico	USA	3	
Bureau of Reclamation	USA	14	
Oxy Chemical	USA	7	
Bhushan steel	India	6	◆ Rating • 16MVA to 530MVA
National Grid Corporation	Philippines	7	

Benefits

- ◆ Low maintenance costs after installation, Low cost of operation
- ◆ No environmental pollution
- ◆ Extremely accurate, No fragmentation
- ◆ Reduces power dissipation, property loss, and human loss

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