

SUCCESS STORY

Saudi Arabias first 230kV Power Transformer to be rewound locally

Client: Confidential

Scope:

120MVA, 115/230KV,
Rewinding of the Power
Transformer

Transformer make:

Leading OEM



The Challenge

The subject 120MVA, 230/115kV Power Transformer was located at the client's Jubail plant and feeds the complete plant load. This critical transformer tripped on differential protection and the alfanar team was asked to analyze the reason for its failure.

Every minute of every hour counted. The challenge to **rewind the first 230kV Class Power Transformer locally** was critical. The client expressed the extreme urgency and importance of rewinding the transformer in a short time, a challenge ATS eagerly accepted.

After a site inspection it was recommended that the transformer be moved to alfanar's Jubail workshop for a detailed internal inspection.



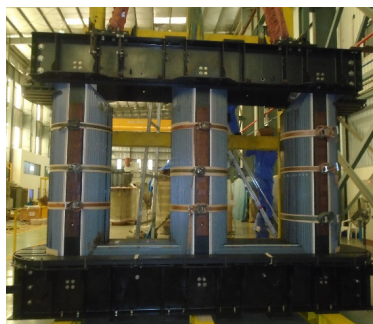
The Journey

Upon internal inspection, the transformer windings were found to be completely damaged due to high short circuit fault. alfanar performed a Root Cause Analysis and modified the design to overcome all deficiencies.

The faulty transformer was dismantled, repaired, and rewound in record time.

The commitment and the expertise shown by the alfanar team warranted a strong appreciation letter from the client. As a critical transformer feeding the plant's load, the equipment was successfully rewound, tested and successfully passed all tests including routine, special and type tests during FAT and commissioned at the site well ahead of the scheduled date.

ATS designed and modified the transformer tank, and also supplied, tested, and commissioned the 115kV (Oil to SF6) surge arrestors as an added value.



Impact

As the trusted partners for the complete asset maintenance cycle, this accomplishment and appreciation further establishes Alfanar Technical Services commitment to its clients in providing innovative maintenance solutions.