

# AIR CORE SHUNT REACTORS

Up to 550 kV / 250 Mvar

Air Core Shunt Reactors are connected directly to high voltage transmission lines and provide a compensation for the reactive power on transmission systems, **eliminating** the need for oil insulation and thereby **the risk of fire**.



← SCAN ME OR  
CLICK HERE



# AIR CORE SHUNT REACTORS

## CHARACTERISTICS

- Environment-friendly (No fire hazards in the absence of Oil)
- Weatherproof construction with minimum maintenance requirements
- Low noise levels are maintained throughout the lifespan
- Designs available in compliance with ANSI/IEEE IEC and other major standards
- Highest mechanical strength



# AIR CORE SHUNT REACTORS

## APPLICATIONS AREAS

- High Voltage Shunt Reactors (HVSR)
- Compensation of capacitive reactive power due to longer lightly loaded lines and underground cables
- Connected to the tertiary of the transformer to the bus or to the line directly

## SUSTAINABILITY

REGENERA™ is our holistic approach to protecting ecosystems, fostering environmental harmony and promoting a circular economy.



# MAIN FEATURES

Unleashing a new level of safety and reliability



## Modular Design

Air Core Shunt Reactors can be designed and constructed in two columns connected in series. This significantly reduces the time cost and effort required for transport and installation.



## Affordable Spares

Modular design provides the operator with significantly improved logistics, faster re-energization times and significantly reduced replacement costs compared to oil-immersed reactors.



## Higher Recyclability

Simple construction, lightweight and aluminum being the majority of the content, air core dry type reactors have a higher recyclability compared to heavy oil filled shunt reactor.



## Reduced Civil Work

Some of the benefits are: reduced foundation design and construction, no oil pit or collection system and firewalls between units needed, reduced weight and a more simple protection scheme.



## Shorter Delivery Time

Shorter lead times compared to oil immersed shunt reactors.



## Environment Friendly Dry Type Reactors

Oil free design, no risk of fire and no need for a fire protection or suppression system are other benefits. Also there is no need for auxiliary systems and bushings.



## Superior Reliability

Ground insulation with support insulators. Important for the reliability of a dry air core reactor due to self-healing of porcelain in case of a dielectric breakdown (flashover) to ground.



## Minimal Maintenance Efforts & Cost

Only visual inspection and periodic cleaning of the windings. No Buchholz relay, OTI, WTI, MOLG, to maintain or replace. No oil sampling, no DGA and cap-tan delta measurement.



## PRODUCT APPLICATIONS

# AIR CORE SHUNT REACTORS

Effective compensation for capacitive reactive power of transmission and distribution networks

With a long list of references for projects around the world, Trench has progressively expanded its range of dry Air Core Shunt Reactors up to 550kV operating voltage in the recent years.



### TRENCH HVSR

Trench Air-core Dry-type High Voltage Shunt Reactors with negligible maintenance efforts, minimum fire risks are reliable and economical at the same time.



### DRY-TYPE HIGH VOLTAGE SHUNT REACTORS

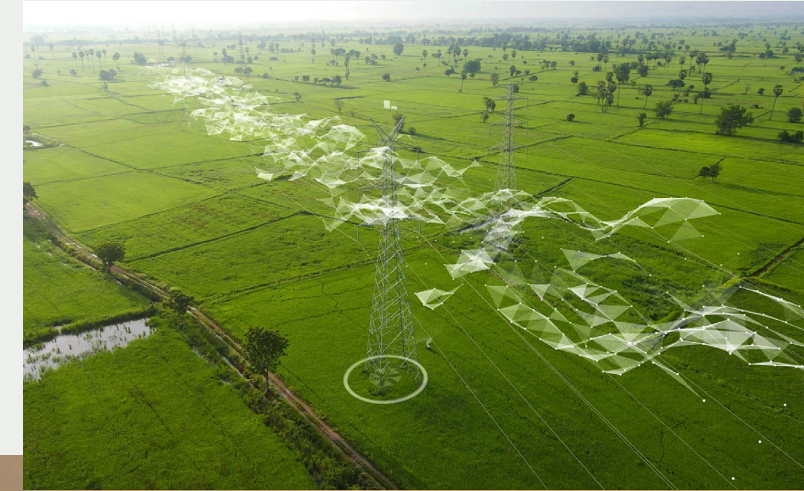
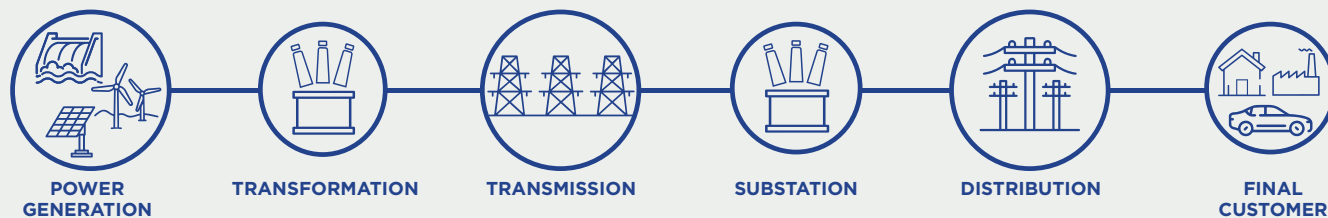
Trench Air-core Dry-type High Voltage Shunt Reactors installed at site.

# THE **FUTURE** OF ENERGY IS **NOW** AND IT'S **EXTRAORDINARY**

## THE CRUCIAL ROLE OF POWER TRANSMISSION

**Our vision** of a sustainable future starts with an eco-friendly portfolio of high voltage products and systems, brought to you by our dedicated team of global innomakers.

**Our mission** is to support our customers, from power generation through transmission and distribution to the electricity consumers, in their transition to clean energy and a greener world.





**Get in touch:**

Contact our experts via email  
[sales@trench-group.com](mailto:sales@trench-group.com)



**Trench Group**  
[www.trench-group.com](http://www.trench-group.com)

©Trench Group 2024. All right reserved.  
Specifications are subject to change without notice

VISIT OUR WEBSITE

SCAN ME OR  
[CLICK HERE](#)

