

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**.



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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



Corona Rings

Specific Surface Treatment

Major Insulation

Modular Construction

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 Trench Group's **Green Quality Label**, awarded to offerings that combine technical excellence with environmental responsibility.



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

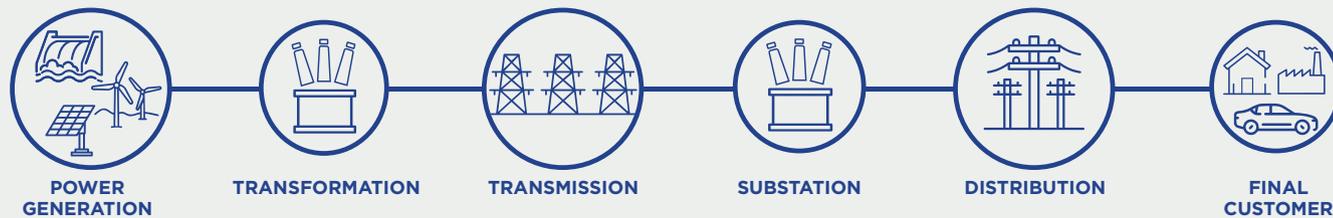
Trench Air-core Dry-type High Voltage Shunt Reactors installed at site.

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:

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