SF6 INSULATED VOLTAGE TRANSFORMERS
Trench is a recognized world leader in the design and manufacture of high voltage equipment for application on electric utility and high energy industrial systems.

SF6 insulated Voltage Transformers are used to convert high transmission line Voltages up to 800 kV to standardized low and easily measurable values, which will be used for metering, protection and control of the high voltage system. As such, the need for accurate and reliable voltage transformation is essential.

The reliability and security of Trench gas-insulated Instrument transformers is based on over 50 years of innovation with gas-insulated units operating under a wide range of environmental conditions. Voltage transformers also ensure suitable electrical insulation between high voltage and low voltage measuring equipment.
### General
- Complete portfolio available from 72 to 800 kV
- Meet all IEC and ANSI metering and protection classes
- Rated primary Voltage up to 800 kV
- Rated Secondary Voltages: 100 V, 100·3 V, 100·3 V, 110 V, 110·3 V, ...
- Suitable also for Line Discharge use
- Wide-range ferroresonance-free design without the use of an external damping device
- Fully type tested according to international standards
- Special tests are also available to meet specific customer requirements.

### Product design
- SF6 is the main insulation medium
- Explosion-proof design
- External insulation with composite insulator, porcelain insulator available on request
- External parts made of aluminum or stainless materials
- Available to withstand:
  - Internal arc effects (according to IEC 61869 - protection stage 1)
  - Heavy seismic solicitations, according to IEC 62271, IEEE 693 and specific customers' requests

### Product process
- Optimized design to manufacturing
- Lean manufacturing concept applied to the whole supply chain
- Modular design allows the use of reduced numbers of components
- Partial discharge free design and process
- Maintenance free during a long lifetime of more than 30 years
- Trench Management System has been certified to ISO 9001, ISO 14001 and OHSAS 18001 standards
- Testing laboratory accredited according DIN EN ISO/IEC 17025

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Thousands of transformers installed and in service for more than 50 years all over the world and in all environmental conditions are the best guarantee of the quality and reliability of our products.
PRODUCT STRUCTURE

- Safety Valve
- High Voltage Terminal
- High Voltage Insulation
- Porcelain/composite Insulator
- Densimeter
- Secondary Terminal Box
- Gas Filling Valve
- High Voltage And Low Voltage Windings
- Earth Terminal
# ELECTRICAL and MECHANICAL DATA

| Type | Rated Voltage for Equipment | r.m.s. | Rated Power Frequency | r.m.s. | Rated Lightning Impulse withstand Voltage | r.m.s. | Rated Switching withstand Voltage | r.m.s. | Arc Distance | mm | Minimum nominal specific corona distance (Pollution Level III) | mm | Minimum nominal specific corona distance (Pollution Level IV) | mm | D-Base Fixing | mm | Total Weight | KG | SFS Weight | KG | Maximum Simulations burden (IEC 61 02) | VA | Minimum simulations burden (kW) | VA | Thermal Limiting output | VA |
|------|-----------------------------|-------|----------------------|-------|------------------------------------------|-------|-----------------------------------|-------|--------------|-----|---------------------------------|-----|---------------------------------|-----|----------------|-----|------------------------|-----|----------------------|-----|----------------------|-----|------------------------|-----|
| SVS 72.5 | 72.5 | 140 | 325 | - | 725 | 1815 | 2250 | 1715 | 450 | 1773 | 450 x 450 | 252 | 3 | 150 | 0.37 / 0.15 | 3000 |
| SVS 12 | 123 | 230 | 550 | - | 1100 | 3075 | 3815 | 2090 | 450 | 2048 | 450 x 450 | 260 | 3.4 | 150 | 0.37 / 0.15 | 3000 |
| SVS 145 | 145 | 275 | 650 | - | 1250 | 3625 | 4495 | 2240 | 450 | 2198 | 450 x 450 | 255 | 3.5 | 150 | 0.37 / 0.15 | 3000 |
| SVS 170 | 170 | 325 | 750 | - | 1700 | 4250 | 5270 | 2740 | 450 | 2698 | 900 x 900 | 265 | 4 | 150 | 0.37 / 0.15 | 3000 |
| SVS 245 | 245 | 460 | 1050 | - | 2355 | 6125 | 7595 | 3553 | 748 | 3553 | 900 x 900 | 580 | 23.6 | 250 | 0.372 / 0.152 | 3000 |
| SVS 300 | 300 | 460 | 1050 | 850 | 2355 | 7500 | 9300 | 3553 | 748 | 3553 | 900 x 900 | 580 | 23.6 | 250 | 0.372 / 0.152 | 3000 |
| SVS 382 | 382 | 510 | 1175 | 950 | 3000 | 9050 | 11222 | 4114 | 748 | 4114 | 900 x 900 | 595 | 24.4 | 250 | 0.372 / 0.152 | 3000 |
| SVS 420 | 420 | 630 | 1425 | 1050 | 3000 | 10500 | 13020 | 4154 | 748 | 4154 | 900 x 900 | 595 | 24.4 | 250 | 0.372 / 0.152 | 3000 |
| SVS 550 | 550 | 680 | 1550 | 1175 | 3600 | 13750 | 17050 | 5330 | 804 | 5112 | 900 x 900 | 1500 | 35.9 | 300 | 0.372 / 0.152 | 4000 |
| SVS 800 | 800 | 975 | 2100 | 1550 | 6000 | 20000 | 24900 | 9396 | 1035 | 9175 | 1100 x 1100 | 3570 | 148 | 250 | 0.372 / 0.152 | 3000 |

Data are indicative and are not binding. Dimensions are referred to typical voltage transformers equipped with composite insulator & according to IEC 61869 Standards – Other options are available.

The regular improving on design may cause discrepancies between this document and updated product.

On request our sales team will be glad to submit! You a firm updated technical & commercial offer fully customized to your specific requests.