

INDUSTRY



Trasfor
INDUSTRY



Introduction

Trasfor supplies a large variety of products for the industrial application.

More precisely, we supply transformers for machinery, ovens, thermal and chemical treatments in the industry, but also for ventilation, electric heating, cooling systems, and other mechanical systems for buildings.

A large variety of products can be supplied by Trasfor for industrial application:

- Cast resin, medium voltage transformers and reactors up to

25 MVA and 36 kV, with or without enclosure and protection degree from IP00 to IP66.

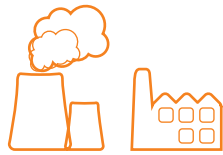
- Dry-type transformers and reactors up to 20 MVA and 24 kV, with or without enclosure and consequent protection degree from IP00 to IP66.

- Water cooled and special design transformers and reactors, heavy current up to 50 kA, multi components assemblies, customised design under technical specification, air or water cooled LCL filters for converters.





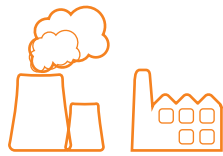
Heavy industries



Trasfor manufactures transformers and reactors for **many different industrial applications**. Our products are typically required where large amounts of energy conversion is necessary as well as for distribution systems. The transformers and reactor used for these application have a customised reinforced construction characteristic from an electrical and mechanical point of view. Often these components work in environments with high humidity and pollution.

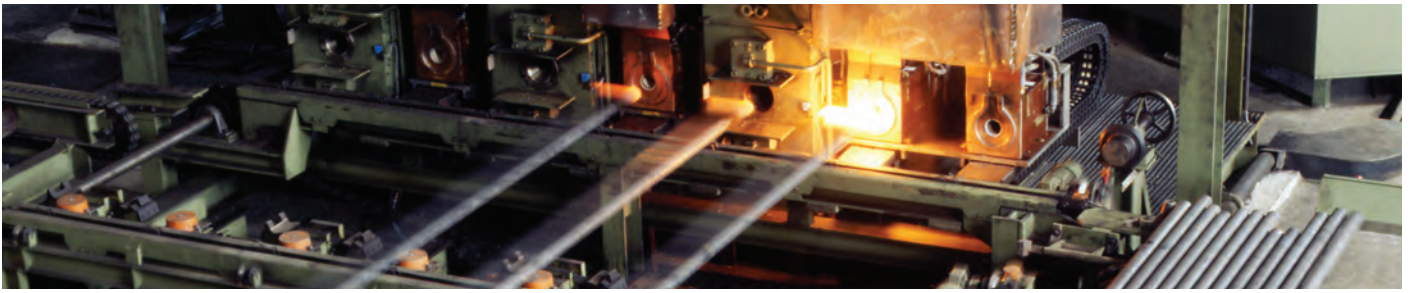
Typical applications are:
• Steel mills
• Mines
• Paper mills
• Aluminium Smelters
• Electric Arc furnaces
• Silicon production

Chemical plants

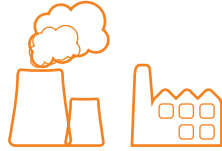


In this field, Trasfor designs power transformers with very high current (50KA) and forced water cooling (water circulates inside the windings). Here again, the environmental conditions are very severe and tough. The transformers and reactors need to have an excellent resistance to corrosion, moisture dust and corrosive agents.

Typical applications are:
• Chloride plants
• Galvanic treatment lines
• Industrial electrolysis

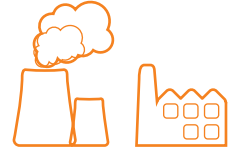


Coal mine



Technological advancements have made coal mining today more productive than it has ever been. Improvements in mining methods (e.g. longwall mining), hazardous gas monitoring (such as safety-lamps or more modern electronic gas monitors), gas drainage, electrical equipment, and ventilation have reduced many of the risks of rock falls, explosions, and unhealthy air quality.

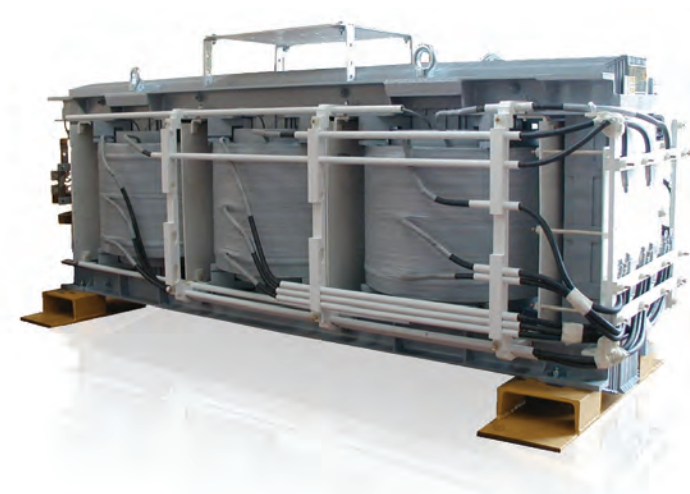
Rolling mill



In metalworking, rolling is a metal-forming process in which metal stock is passed through a pair of rolls. Rolling is classified according to the temperature of the metal rolled. If the temperature of the metal is above its recrystallization temperature, then the process is termed as hot rolling. If the temperature of the metal is below its recrystallization temperature, the process is termed as cold rolling. In terms of usage, hot rolling processes more tonnage than any other manufacturing process, and cold rolling processes the most tonnage out of all cold working processes. Typical Trasfor products are used in rolling mills converters for the steel plate surface treatment.

Special transformer for dangerous mine environment

- Power 1250+4 kVA
- Primary Voltage 5000 V $\pm 1 \times 5\%$ 6000 V $\pm 1 \times 4\%$ – 50 Hz
- Secondary Voltage 1095 V – 1095 V – 232 V
- Protection IP00 – Designed to fit in Explosion Proof Enclosure
- AF air forced cooling
- Weight 4.900 Kg
- Vector Group Dyn1/d0/i

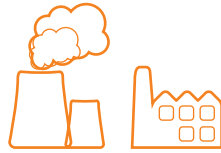


- Power 600 kVA – 2x300 kVA
- Primary Voltage 460 V – 60 Hz
- Secondary Voltage 2x19 V
- Protection IP00
- Direct Water Cooling
- Weight 1.250 Kg
- Vector Group Yyn0yn6





Silicon from the rocks



Silicon is commercially prepared by the reaction of high purity silica with wood, charcoal, and coal, in an electric arc furnace using carbon electrodes. At temperatures over 1,900 °C (3,450 °F), the carbon reduces the silica to silicon. Liquid silicon collects in the bottom of the furnace, and is then drained and cooled. The silicon produced via this process is called metallurgical grade silicon and is at least 98% pure. Pure silicon (>99.9%) can be extracted directly from solid silica or other silicon compounds by molten salt electrolysis. This method has the potential to directly produce solar grade silicon without any CO₂ emission and at much lower energy consumption.

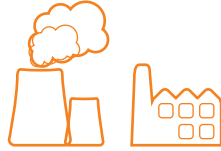
Transformer for power converter

- » Power 4800 kVA
- » Primary Voltage 10000 V $\pm 1 \times 5\%$ – 50 Hz
- » Secondary Voltage 3 x 589 V
- » Protection IP44
- » AFWF air forced water forced cooling
- » Weight 10.000 Kg
- » Vector Group Dd11.33/d0/d0.66





Compressor Station Drive



A compressor station is a facility, also called a pumping station, which helps the transportation process and the storage of gas from one location to another. Transformers, special turbines, motors and engines normally pressurize gas. The size of the station and the number of compressors varies on the diameter of the volume of gas to be moved.

The underground gas storage industry is 100 years old and largely contributes to the reliability of gas supplied to consumers; in fact, it secures natural gas supplies regardless of the season, temperature, or force-majeure.

Variable speed drive

- Power 4.7 MVA
- Primary Voltage 33kV \pm 2x2.5% – 50 Hz
- Secondary Voltage 2x1 .85 kV
- Protection IP55
- Cooling AFAF
- Weight Group Dd11.75d0.75 (T1) / Dd0.25d11.25 (T2)
- Compressor Station - Three phase





Quality

- Quality as ISO certification 9001
- Quality as total respect of environment with ISO 14001
- Quality as OHSAS 18001
- Quality for the railway industry as IRIS - International Railways Industry Standard
- Quality of products through UL File E172880 and UL File E216928 certification
- Quality of welding through ISO EN 3834-2 and EN 15085 certification

Quality through entrustment by the following certifying bodies:

ABS - American Bureau of Shipping

BV - Bureau Veritas

Standards: all int. standards such as IEC, BS, CSA, UL, VDE/DIN, ABS, BV, ANSI, DNV, LRS, CCS, RMRS, etc.

Certificate of conformity to GOST R

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