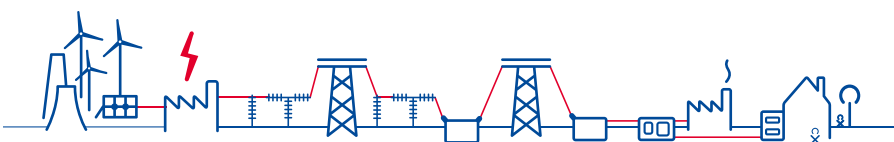
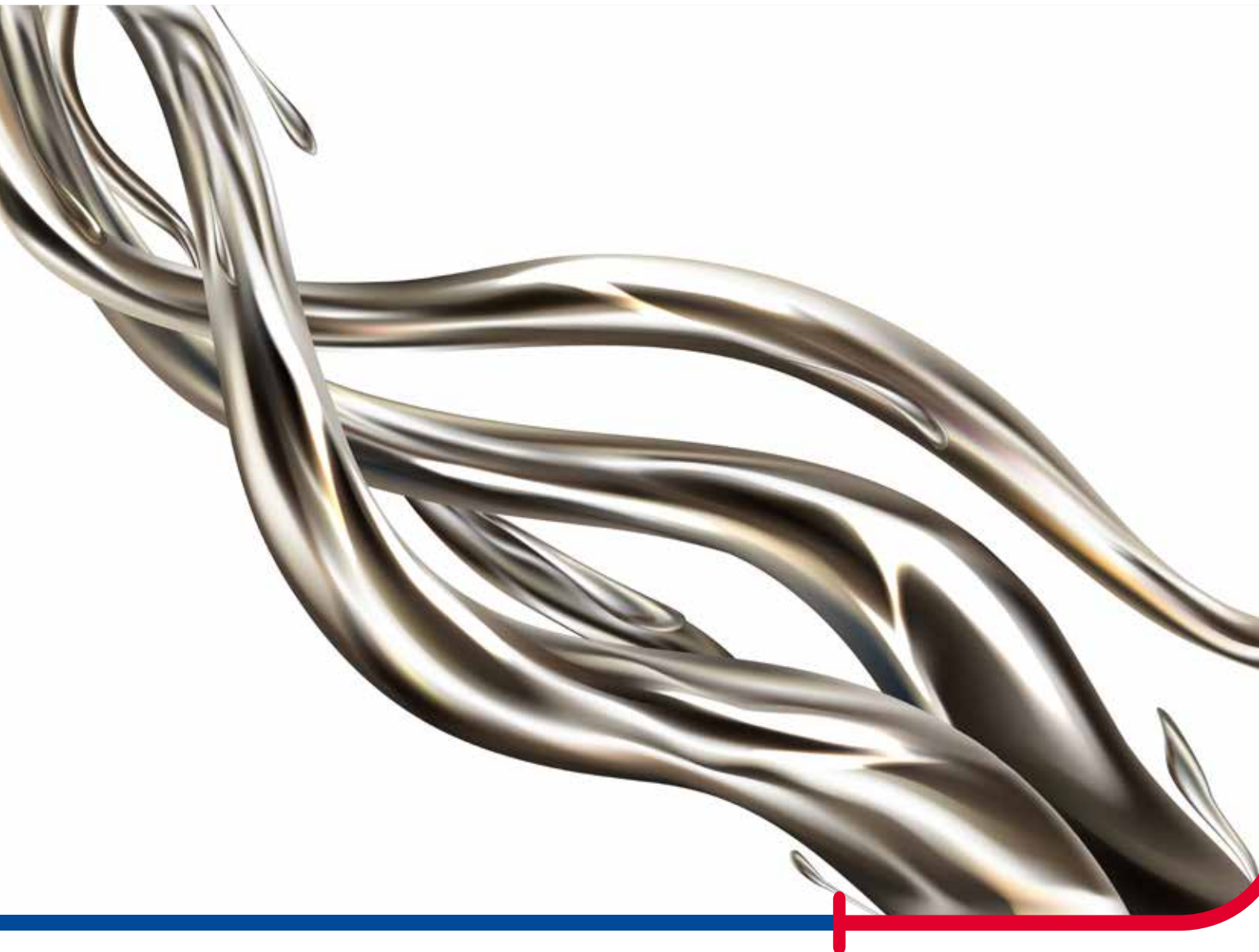


# TRANSFORMER ACCESSORIES - COPPER & ALUMINIUM



# SGB-SMIT AT A GLANCE

Combined, more than

# 450



## YEARS OF EXPERIENCE

Basis for know-how and  
for know-why

More than

# 3,500



## EMPLOYEES

take care of  
your project

In more than

# 80



## COUNTRIES

satisfied  
customers



## READY FOR YOUR MARKET

The SGB-SMIT Group manufactures transformers for applications worldwide. Sales and service centers on all continents ensure optimum processes.

Our products meet the requirements in accordance with the applicable national standards.



## PRODUCTS

- large power transformers
- medium power transformers
- large liquid-cooled distribution transformers
- liquid-cooled distribution transformers
- cast resin transformers
- shunt reactors
- series reactors
- phase shifters
- Lahmeyer-Compactstationen®

Transformers from 50 kVA up to incl. 1,200 MVA in the voltage range up to 765 kV.



## QUALITY MANAGEMENT

The SGB-SMIT Group is certified in accordance with:

- DIN ISO 9001
- DIN ISO 14001
- DIN ISO 50001
- OHSAS 18001



## TECHNOLOGIES

Technologies for conventional and  
renewable energy.

# SGB-SMIT CALIDUS: A MEMBER OF THE SGB-SMIT GROUP



SGB-SMIT CALIDUS supplies a range of transformer accessories to many OEM's for various uses and applications.

## SGB-SMIT GROUP

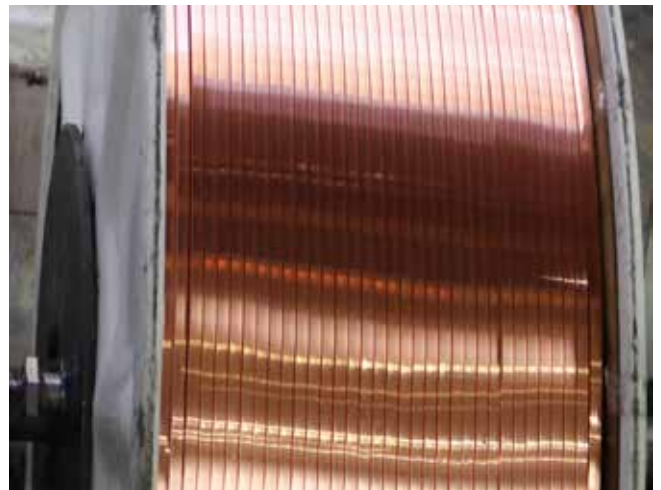
The SGB-SMIT Group is the result of a merger of locally operating, highly successful medium-sized companies and today represents an efficient international network. A combination which unites the “best of both worlds” for our customers: globally speaking, we offer world-class quality and market expertise. Locally speaking, our customers benefit from lean structures and short distances as regards planning and production, transport and service. Due to the close cooperation with our customers, this results in focused development. Permanent and structural improvement of the ongoing projects ensure fine-tuning of the services required locally on site.

SGB-SMIT CALIDUS supplies a complete range of transformer products which includes T4 high density transformer board insulation; cylinders; spacers; angle rings; clack strips; clack blocks; stripes; clacks; ribs; end support; low density transformer board insulation; combie – outer collar; inner collar; din board - corrugated board; cylinder; strips. transformer press paper insulation; transformer accessories; tubes and cylinders as well as copper and aluminium strip and copper rods which are available in both the Pretoria and Cape Town operations.

## OVERVIEW OF CAPABILITY

SGB SMIT CALIDUS transformer accessories copper and aluminium range includes copper rods, copper and aluminium strip which are provided to customer specification and requirement.

The plant which is based at SGB-SMIT CALIDUS's operation in Pretoria consists of a copper and aluminium processing facility whereby the feed stock is oxidised free casting copper and aluminium rod.



## COPPER CONTINUOUS EXTRUSION

SGB-SMIT CALIDUS supplies copper rods which ensure the highest possible efficiency in converting and transmitting electrical power.

Depending on the application, either as a conductor in underground cables, or as strip wire in transformers, generators and motors, we are able to supply a superior quality product.

There are many advantages when manufacturing copper rods and copper strip:

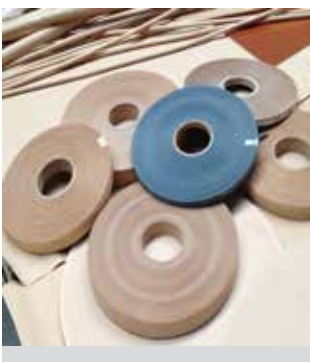
- Lower capital outlay
- Lower labour cost
- Lower power cost
- Less space required
- Lower maintenance cost
- Lower replacement parts cost
- Less scrap
- Higher production rates
- Finished annealed product
- Greater lengths, limited only by take up capacity
- Short changeover times
- Lower stockholding requirements
- Shorter delivery lead times.



## QUALITY

SGB-SMIT CALIDUS is committed to total customer satisfaction by aspiring to become the globally preferred supplier of transformer insulation products.

To this end, we shall continually improve the quality of our products, organisational processes and people to attain best-of-class levels internationally.





## COPPER AND ALUMINIUM STRIP

SGB-SMIT CALIDUS provides a full range of precision copper and aluminium strip for almost any application.

Presently, copper and aluminium strip is mainly used for industrial and building applications. To be specific, copper and aluminium strip is widely used in the manufacture of a great many electric and electrical products such as radiators, transformers, inductors, windings, chokes and electrical appliances, etc.

Copper and aluminium strip is also widely used to manufacture corrosion-resistant components in the construction sector.

Our copper and aluminium strip is manufactured in compliance with the main international specifications.



## STANDARD PAPER CONSTRUCTION

SGB-SMIT CALIDUS is able to supply 0.003" [0.076mm]; 0.00236" [0.06mm] and 0.00354" [0.09mm] thermally upgraded creped kraft paper. The thickness, width of the covered copper and aluminium strips are as per the standards in the industry. This type of copper and aluminium strip performs the best in insulating oil. Because of this property this type of paper covered copper and aluminium strip is mainly used for oil-filled transformers and switchgear.

Strand and flex wire as well as crepe paper covering from 6mm<sup>2</sup> to 400mm<sup>2</sup> which is used in the manufacturing of the harnesses for power transformers.





## NOMEX COVERED COPPER AND ALUMINIUM STRIP

SGB-SMIT CALIDUS offers Nomex covered copper and aluminium strip as part of its product range. These strips are highly appreciated for their performance with national as well as international benchmarks of quality. This dimensionally accurate and abrasion resistant range of copper and aluminium strip is normally used in dry-type transformers where both thermal and insulation requirements are high. Manufactured using the best grade material, these are known for dimensional accuracy, tensile strength and electrical conductivity and very cold weather conditions.

## CONDUCTOR DIMENSIONS RANGE

The conductor dimensions range is as stated below:

- Thickness from 1,6mm to 11,6mm
- Width from 3mm to 32mm
- 2% proof stress from 70 MPa to 210 MPA

## TRANSPORT

Copper and aluminium strip is transported on wooden or metal drums with protective paper and lengths per drum need to be specified.


## STANDARD PACKAGE OPTIONS

The following (below-mentioned) table illustrates the standard package options that are available: Non standard package options are available on request.

A Flange Dia. mm	B Core Dia. mm	C Traverse Width mm	D Overall width mm	F Drive hole location mm	G Centre hole mm	Approx capa- city kg
545	300	140	184	120	55	88
545	300	230	274	120	55	140
690	500	190	234	120	55	300
690	300	240	284	120	55	300
760	380	360	404	130	130	810
545	330	230	274	120	60	120



## CONTACT

 **STARKSTROM-GERÄTEBAU GMBH**  
Regensburg • Germany  
Phone +49 941 7841-0

 **SÄCHSISCH-BAYERISCHE  
STARKSTROM-GERÄTEBAU GMBH**  
Neumark • Germany  
Phone +49 37600 83-0

 **ROYAL SMIT TRANSFORMERS B.V.**  
Nijmegen • The Netherlands  
Phone +31 24 3568-911

 **SMIT TRANSFORMER SERVICE**  
Nijmegen • The Netherlands  
Phone +31 24 3568-626

 **RETRASIB S.A.**  
Sibiu • Romania  
Phone +40 269 253-269

 **SGB CZECH TRAF0 S.R.O.**  
Olomouc • Czech Republic  
Phone +420 605 164860

 **BCV TECHNOLOGIES S.A.S.**  
Fontenay-le-Comte • France  
Phone +33 251 532200

 **SMIT TRANSFORMER SALES INC.**  
Summerville, SC • USA  
Phone +1 843 871-3434


 **SGB-USA INC.**  
Tallmadge, OH • USA  
Phone +1 330 472-1187

 **OTC SERVICES INC.**  
Louisville, OH • USA  
Phone +1 330 871-2444

 **SGB MY SDN. BHD.**  
Nilai • Malaysia  
Phone +60 6 799 4014

 **SGB TRANSFORMERS INDIA PVT. LTD.**  
Chennai • India  
Phone +91 44 45536147

 **SGB CHINA CO. LTD.**  
Yancheng • P.R. China  
Phone +86 515 88392600

 **SGB-SMIT POWER MATLA (PTY) LTD**  
Pretoria West • South Africa  
Phone +27 12 318 9700  
Cape Town • South Africa  
Phone +27 21 505 3000

### SGB-SMIT CALIDUS (PTY) LTD

Pretoria West • South Africa  
Phone +27 12 318 9911

Cape Town • South Africa  
Phone +27 21 030 0070  
e-mail info@calidus.co.za

[www.calidus.co.za](http://www.calidus.co.za)  
[www.sgb-smit.com](http://www.sgb-smit.com)

