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## DECADE OF THE ARTISAN – MORE EMPLOYERS NEED TO GET INVOLVED

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The economic development of South Africa is closely tied to the development of a skilled workforce said Gwebinkundla Qonde, the director general for the Department of Higher Education and Training (DHET) in his address at the National Artisan Development Strategy conference, held in Benoni at the end of last year. "A good artisan training system needs to produce quality artisans who will contribute to the country's economy."

Qonde told delegates that DHET "should be able to produce 30 000 qualified artisans each year" – as required by the National Development Plan (NDP).

Qonde highlighted that the Artisan Development Strategy Framework "seeks to establish a national baseline for an integrated national artisan development system, which defines critical components of artisan development ranging from the artisan training system itself, funding regimes, quality assurance, and impact measurement issues". He stressed that "skills development needs to occur at every given opportunity ... at a college, a university or at a workplace".

**Experiential skills**

"Expansion of skills development in the workplace is the fastest and most immediate mechanism that we need to utilise as that is where much of the existing skills base resides in the country and it must be leveraged. This puts a direct responsibility on public and state-owned companies and the private sector employers to open up workplaces for learners to gain experiential skills," said Qonde.

"As we grow the number of institutions such as TVET colleges as fast as resources allow, these must be correspondingly linked to workplaces as training spaces in order to expand the learning process of future artisans." Qonde stressed that the success of the proposed Artisan Development Strategy is centred "on the need to get more employers involved".

**Stable employment**

Qonde said that it was positive that studies have proved that learners who participate in the apprenticeship system "are easily absorbed by industry or manage to create their own employment". He added that a Human Sciences Research Council study indicated that the majority of apprenticeship and learnership participants who completed their qualifications "experienced a smooth transition into stable employment".

Qonde highlighted that the youth aged between 15 and

34 "remains vulnerable in the labour market with an unemployment rate of 38.2%, which is 11.1% points about the national average".

**DHET warning**

This vulnerability of school leavers is exacerbated by the number of 'bogus colleges'. In January, Minister of Higher Education and Training, Blade Nzimande, cautioned students to only register with accredited colleges, which are recognised by SETAs under the auspices of the Quality Council for Trades and Occupations, and to check the accredited programmes a college is permitted to offer.

According to the DHET's website, the 'Decade of the Artisan' programme will "completely remove existing bottlenecks and develop a single quality assurance system and national single trade testing system".

**ERIKA VAN ZYL TO LEAVE SPARKS ELECTRICAL NEWS**

Erika van Zyl, who has been editor of *Sparks Electrical News* for the past ten years, is leaving the publication to take up the post of National Communications Manager for the Electrical Contractors Association. "We are sad to see Erika go," says Karen Grant, Publisher of Crown Publications, "but we know this is a wonderful opportunity for her and one in which she will excel. Erika, who was Supplements and Features editor at *The Citizen Newspaper* prior to joining the Sparks team, has a long history of working on newspapers which, with her B2B experience and understanding of the electrical industry, makes her ideally equipped to handle her new job. We wish her all the very best". Karen Grant will be in place as acting editor.

## HAPPY HOLIDAYS PROMOTION ...

### A HAPPY OUTCOME!

Great fun was had by all on 19 January when the names of the lucky winners of gifts in the Sparks Happy Holidays promotion were drawn. Turn to pages six and seven to see the photos as well as the names of all the winners.



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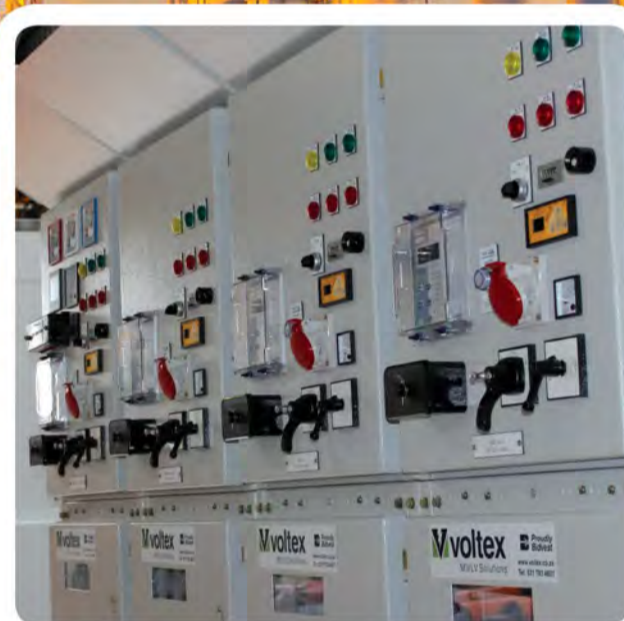
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Raymond Nel.

Raymond Nel, general manager at Nordland Lighting for the past two years, has been in the electrical industry for the past decade. With an extensive background in electronics, the transition to the electrical industry was easy for Raymond.

His proven business acumen coupled with an egalitarian management style encourages his team to take ownership of their responsibilities and inspires loyalty and commitment.

Dynamic and forward-thinking, Raymond is excited about new LED products specifically for hazardous area and the doors that are being opened as LED technology advances.

**Sparks:** Where were you educated?

**RN:** I went to Noordheuwel High School in Krugersdorp and started my technical career at the Krugersdorp Technical College where I qualified in Electronics, Communication Electronics and Electromagnetism.

**Sparks:** How long have you been involved in the electrical industry?

**RN:** Most of my career was within the electronics industry but, for the last 10 years, I have been working with electrical engineers and electrical contractors.

**Sparks:** When and where did you start your career?

**RN:** I started my apprenticeship as an electronic radio technician with the South African Air Force in 1986 and qualified in 1989.

**Sparks:** What are the greatest changes you have seen over the years?

**RN:** I think the biggest change I've seen is that we experienced a shortage of electricity and this led to many people becoming very conscious about saving energy. Consequently, over the last five years, we've seen the introduction of LED luminaires to the commercial and industrial markets. While LEDs have been around for some time, never before has so much money and time been spent on developing and retrofitting LED products.

**Sparks:** What major projects have you worked on and what is your greatest accomplishment?

**RN:** During 2010 I was the general manager of Lighting Structures and the company was appointed to upgrade the lighting masts on 12 training venues across the country for the Soccer World Cup. We managed to complete all these projects in a very short time with limited resources and in time for the opening of the World Cup.

My biggest accomplishment was to revamp the organisational structure of two merging companies by designing a highly effective business plan for the amalgamation of the different divisions within the companies. This initiative transformed the company from an initial R56-million annual turnover in 2008 to a substantial R195-million by 2010.

**Sparks:** Who has been your inspiration or have you had a mentor who has influenced your career?

**RN:** As a youngster, I was given an opportunity in 1993 by Barry Moore, the owner of Gastech Services to be part of the management team in his company. This was the first stepping stone in my transition from an artisan to a manager. Barry taught me so much about managing a business, staff and customers.

**Sparks:** What, to your mind, is one of the biggest challenges facing the industry at this time?

**RN:** A big concern is that too many qualified people are leaving South Africa and the education system cannot produce replacements fast enough. Due to low economic growth, the pricing of commodities remains a challenge. Unfortunately, quality is often sacrificed for better pricing.

**Sparks:** What do you enjoy most about your job?

**RN:** As manufacturers of hazardous area light fittings, we are continuously developing new products for the industry. The introduction of LEDs into the hazardous environment is very exciting.

We have developed a range of products for the commercial market and, as a traditional explosion-proof light fitting manufacturer, we are now opening new doors and markets with the latest range of products.

**Sparks:** How do you motivate your staff?

**RN:** As we spend more time at the office than at home, it is important that we as managers create an environment that is special and pleasant for employees. It's important to treat everybody equally as we are all facing the same challenges, just in our own way. With a transparent and open-door policy in place, we have created a trust relationship with the employees where they feel part of the organisation

**Sparks:** If you could 'do it all again', would you change anything? If so, what would that be?

**RN:** Over the years, I have been blessed with an exciting career and I have had wonderful mentors and leaders so, there is nothing that I would change

**Sparks:** Would you advise a person leaving school to enter the electrical industry? And why?

**RN:** Electricity and energy will never become obsolete and the human race will always need energy to manufacture, farm, live and survive. The way we generate and store energy might change but you will always need qualified people to install and maintain electricity. Humans always need more energy, stored in a smaller compact format and at a better price. Electricity will always be the future.

**Sparks:** What is your advice to electrical contractors and/or electrical engineers?

**RN:** Educate yourself regarding the specifications of different products on the market. The better you understand the capabilities and limitations of the products, the better service you can provide to your customer.

In many cases, Africa becomes the dumping ground for the rest of the world and we have to understand what products and quality we are dealing with.

**Sparks:** What is your favourite quote?

**RN:** "Always treat your employees exactly as you want them to treat

your best customers." - Steven R. Covey.



**Sparks:** Name three things on your 'bucket list' (things you want to do before you 'kick the bucket').



**RN:** To see the annual wildebeest migration in the Serengeti; ride the Dragon's Spine with friends on our mountain bikes; and to see every corner of this beautiful country.

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power stations worldwide, where the early detection of tube leaks to reduce down-time and prevent consequential damage is vital. According to the World Coal Association, the importance of coal to electricity generation worldwide is set to continue, with coal fuelling 44% of global electricity in 2030. (Source IEA 2010).



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## REMEMBER: AN ELECTRICAL INSTALLATION MUST BE SUPERVISED BY A REGISTERED INSTALLATION ELECTRICIAN

Readers of this column may or may not know that I am a consulting electrical engineer. This means that I have a degree in electrical engineering and I'm registered with the Engineering Council of South Africa as a professional engineer.

It so happens that, in South Africa, anybody – your local refuse collector, a nurse, a parking attendant – can call themselves an 'engineer'. But no one can call themselves a 'professional engineer' unless they are registered with the Engineering Council. Things are a bit grey as to who can call themselves a 'consulting engineer'...

Electricians are much more regulated than engineers. In the electrical business, electricians who work on commercial buildings

and, in fact, on any electrical installation, have to be registered either as registered installation electricians or as master electricians. The latter are usually found in refineries.

It is a requirement of the Occupational Health and Safety Act that work on an electrical installation must be supervised by a registered installation electrician who must provide a Certificate of Compliance when the work is completed. This does not mean that the registered installation electrician has to be on site all the time – if there are a lot of labourers chasing walls, there's no need for the installation electrician to watch them do it. However, the registered installation electrician should at least exercise control

over the work – although this doesn't always happen.

Recently, I was phoned by a builder's foreman who said I had to go to site because they "couldn't understand the drawings". When I arrived at the site, I found that there was no registered installation electrician there but merely one of his staff, who did not have the ability to understand our drawing.

In fact, he had misunderstood it to the extent that he had installed three socket outlets in the wrong position. I told him: "Sorry, but these should go on that wall". The builder's foreman said that couldn't be done as the wall had already been painted so I told him that he would have to install the socket outlets in the right place and repaint the wall.

I was a bit upset that I had to go to site and deal with somebody who wasn't a registered installation electrician and that the registered person clearly wasn't giving his workman the right instructions. That same day, I received a phone call from the architect. She said, "I understand you want the builder to repaint the wall." I replied that I wanted the electrician to put the socket outlets in the right place and then repaint that part of the wall. "Oh," she said, "That will cause the builder to claim a delay."

I explained that as it was his subcontractor, he could claim whatever he wanted to and she could just refuse his claim. "Tell them to work overtime," I said.

The following day, I received another phone call, this time from the builder's foreman, who asked me to come to site and speak to the registered installation electrician. I asked: "What about?"

"Oh," he said, "the socket outlets. He has a proposal that implies we won't have to paint the wall." Then the architect phoned to say that she was going to meet me on site to discuss an alternative proposal for the socket outlets that were in the wrong place.

So, I went to site and told the registered installation electrician, in effect, to put the socket outlets wherever the architect wanted them.

This was a costly waste of time and all because the registered installation electrician was trying to supervise four sites all at the same time and was doing a bad job of it. Also, the registered installation electrician took a chance – when there is poor site supervision, there is no assurance that the electrical contracting staff are working safely.

What I've described is by no means uncommon and I urge anyone who is a registered installation electrician to look carefully at the way they work. The way the Law of Delict works is that the person who is responsible for anyone who is injured can be sued – and sued for a great deal of money.

You may have insurance but do not think that an insurer will pay a claim if you have been neglectful.

Think about it.



Terry Mackenzie Hoy.

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# IGNORANCE CAN BE COSTLY

A SAFEhouse Guide to the Regulation of Electrical Products



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There is a good deal of confusion and misunderstanding about:

- Which regulations are applicable to which electrical products and services
- The roles of authorities such as the National Regulator for Compulsory Specifications (NRCS), the SABS and the Department of Labour.

The SAFEhouse Association has produced a guide to help specifiers, suppliers and users determine the standards and regulatory requirements applicable to electrical products and services covered by legislation.

Download a free copy of the SAFEhouse Guide to the Regulation of Electrical Products from [www.safehousesa.co.za](http://www.safehousesa.co.za)



Download free copies of SAFEhouse guides from [www.safehousesa.co.za](http://www.safehousesa.co.za)

Guides contain helpful information on:

- Regulatory references & requirements
- Technology
- Indications of risk in using substandard products and services



To find out what you can do to avoid or reduce the risks that result from using sub-standard, dangerous electrical products, consult SAFEhouse guides or visit [www.safehousesa.co.za](http://www.safehousesa.co.za) for some recommendations.

The SAFEhouse Association is a non-profit, industry organisation committed to the fight against sub-standard, unsafe electrical products.

For more information contact:

Barry O'Leary: Tel: 011 396 8251  
Email: [barry.oleary@safehousesa.co.za](mailto:barry.oleary@safehousesa.co.za)

Pierre Nothard: Tel: 011 396 8140  
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SAFEhouse members have signed a code of conduct: Your assurance of commitment to offer only safe electrical products.





Online entries and email entries poured in from readers across South Africa, all hoping to win one of the fabulous prizes in this year's *Sparks Electrical News* 'Happy Holidays' lucky draw. All the generous sponsors of prizes joined the Sparks team for lunch under the Oaks at the Royal Johannesburg Golf Club and to draw the names of the lucky winners. Aberdare Cables added a second Fitboosta activity tracker, Eurolux gave away another solar post light and Three-D Agencies sponsored an additional UT50A multimeter - thank you!

Thanks to everyone who entered and congratulations to all the winners!



Sparks Electrical News editor, Erika van Zyl with Jyoshtie Dhunes of Aberdare Cables.

**ABERDARE CABLES**

Two Fitboosta 14-function activity trackers

- Wouter Matthee (Robertville)
- Peter Willers (Cape Town)



Leanne Cole (Comtest) and Wilhelm du Plessis (deputy publisher, Crown Publications).

**COMTEST**

One Fluke 17B+ digital multimeter

- Willem Anton Hugo (Kimberley)



André le Roux (Crabtree), Karen Grant (publisher, Crown Publications) and Nadine Combrinck (Crabtree).

**CRABTREE**

One 24" HD LED television

- Greg Bridger (Randburg)



Gavin Wilkinson (ARB Electrical Wholesalers), Karen Grant (publisher, Crown Publications) and Varesh Anghar (ARB Electrical Wholesalers).

**ARB ELECTRICAL WHOLESALERS**

One ARB cooler bag with products

- Gerhard Pool (Bellville)



Anthony Lloyd (Eurolux) with Erika van Zyl (editor, Sparks Electrical News).

**EUROLUX**

Two solar post lights

- David Charles Levin (Kempton Park)
- Lawrence Thyse (Vereeniging)



Wilhelm du Plessis (deputy publisher, Crown Publications) and Aletta Olivier (CBI-electric : low voltage).

**CBI-ELECTRIC**

One prewired 12-way distribution board

- Jacobus Petrus Kloppers (Brits)

Garry Lumpe with Carin Hannay (advertising manager, Sparks Electrical News).

**GARRY LUMPE IMPORTS**

Two Knipex seven-in-one plier sets VDE 1 000 V

- Brendan Wilbraham (Knysna)
- Gareth Stanford (Cape Town)

Two Wiha Slimfix six-piece screwdriver sets VDE 1 000 V

- Etienne Mitton (Midrand)
- Michael Human (Lichtenburg)





# ..Hello.. SUMMER

# PROMOTION WINNERS



Claude Middleton (HellermanTyton), Karen Grant (publisher, Crown Publications) and Ingrid Nicolaus (HellermanTyton).

**HELLERMANNTYTON**

One 13-piece bi-metal holesaw kit with spare drill bit

- Francois Hendrik van der Westhuizen (Riviersonderend)



Wilhelm du Plessis (deputy publisher, Crown Publications) with Stacey Conradie and Jan Anderson from MCE Global Supplies.

**MCE GLOBAL SUPPLIERS**

One portable O-lite 10W rechargeable work light

- Joss Gordon (Germiston)



Ian Downard (Three-D Agencies), Carin Hannay (advertising manager, Sparks Electrical News) and Mark Jenkins (Three-D Agencies).

**THREE-D AGENCIES**

Four UT50A multimeters

- Shafieqa Ismail (Cape Town)
- Koert Engelbrecht (Pretoria)
- Andrew Sweet (Durban)
- Saviour Mukomberanwa (Midrand)

Mark Talbot (Stone Stamcor) with Carin Hannay (advertising manager, Sparks Electrical News).

**STONE STAMCOR**

Three SU16A crimp tools

- Wayne Oliver (Germiston)
- Steven de Villiers (Woodmead)
- Andre van Rensburg (George)

One HX1208 Crimp Tool

- Giel Faber (Kleinbrakrivier)

One KH120 Crimp Tool

- Manivasen Naidoo (Briardene)



Jaco Coetzee (Waco) with Erika van Zyl (editor, Sparks Electrical News).

**WACO**

One tripod with two floodlights

- John Dal Lago (Sandton)



Jessica Hitchcock (Voltex) and Karen Grant (publisher, Crown Publications).

**VOLTEX**

One braai light; one Whizzy power bank; one Kennedy LED rechargeable lantern

- Robert Aitchison (Edenvale)





## THE 'RECOGNITION OF PRIOR LEARNING' PROCESS FOR MASTER INSTALLATION ELECTRICIANS

DO you have many years of experience working on electrical installations in hazardous areas? Have you previously considered the criteria for registration as set out by the Department of Labour but you don't have an N6 Certificate? Then Option 4 of the Recognition of Prior Learning (RPL) process is a possible route that you could follow in order to become registered as a Master Installation Electrician (MIE).

The RPL is a process where a person who does not have a 'formal certificate' is assessed in order to establish whether they have the relevant skills, knowledge and practical abilities required for a particular occupation. If they are found to be competent they will receive the formal recognition. However, if the RPL assessment identifies gaps in the applicant's knowledge, skills or experience,

they will be advised to attend programmes, courses or interventions that would close those gaps. Once the applicant has 'closed the gaps' they can apply for another assessment.

RPL is not a new activity – we've been doing it for many years and, in the past, experienced persons were allowed to write a trade test under section 28 of the Manpower Training Act when this Act was in force.

### Registration criteria

Before we review the criteria for Option 4, it must be emphasised that we have not 'lost' Options 1, 2 and 3 as previously found in the registration criteria. Option 4 has been added to the master installation registration criteria.

This option was put forward by The South African Flameproof Association to the Department of Labour as a result of the petrochemical industry experiencing a decline in the available number of Master Installation Electricians (MIE) over the past number of years, particularly after the introduction of the Minimum Theoretical Qualification requirement of the National N6 Certificate.

Companies with hazardous areas and contractors working for these companies are required by legislation to appoint MIEs to ensure a safe operating environment. The OHS Act requires, under Electrical Installation Regulations Section 5.4 that "a registered person shall exercise general control over all electrical installation work being carried out, and no person may allow such work without such control". The OHS Act also requires under Electrical Installation Regulations Section 6.4 (b) that all contractors must have a full time registered person employed in hazardous areas and that this person must be an MIE.

According to The South African Flameproof Association, the hazardous areas industry makes use of contractors to assist with new installations and to also do maintenance work in hazardous locations. The resource scarcity continues to present a serious threat to safety of personnel and is crippling the Ex industry. For this reason, The South African Flameproof Association approached the Department of Labour and, after many months and numerous discussions, Option 4 was developed.

Below is an extract from the Department of Labour brochure (OHS 3/1/5/7/9 Revised March 2014):

### Option 4

3.4 A candidate must:

#### 3.4.1 Practical Qualification

- Be registered as an Installation Electrician for two years.
- Submit proof of five year's practical experience in hazardous locations.
- Submit documentary proof of successful completed unit standards on inspection, testing and certification of specialised electrical installations in hazardous locations as prescribed by the EWSETA.
- Submit documentary proof of the RPL competence declaration from the South African Flameproof Association (SAFA) MIE Group.

#### 3.4.2 Minimum theoretical qualification

National N3 Certificate with the following compulsory subjects: Mathematics; engineering science or industrial electronics; electrical trade theory or electro-technology.

Or

Grade 12 (Standard 10) certificate; mathematics; science; technica – electrical or equivalent subject that may include an N3 subject.

Note 1: The candidate must pass each subject with a minimum of 40%.

Note 2: These minimum theoretical subjects could be a combination of Grade 12 and N3 subjects.

#### 3.3.4 Knowledge of statutory requirements

Proof of knowledge on the legislation and relevant health and safety standards applicable to electrical installations by having passed the subject 'Specialised Codes' as administered by the Department of Higher Education and Training.

As previously indicated, Option 4 is an additional option for persons with five years and more experience in hazardous locations.

Regarding Section 3.4.1 (d) which requires that candidates submit documentary proof of the RPL competence declaration from the South African Flameproof Association (SAFA) MIE Group, candidates would need to visit the South African Flameproof Association website [www.flp.co.za](http://www.flp.co.za) and download the application form. The process will require you to provide proof of the practical experience as well as attend an interview with the South African Flameproof Association MIE Group.

It must be noted that Option 4 is not a degrading of the other criteria; it will be used by applicants who have the knowledge, skills and years of experience and who require their experience to be recognised through a Recognition of Prior Learning process.

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## YOU'D BETTER RUN FAR AND FAST WHEN SOMETHING GOES WRONG

Let's continue unravelling the remainder of the Occupational Health and Safety Act (Act 85 of 1993) and, in particular, the Electrical Installation Regulations (2009). We left off with Regulation 7, the Certificate of Compliance. Now we're asked to start the job ...

### Regulation 8: Commencement and permission to connect installation work

8. (1) No person shall commence installation work which requires a new supply or an increase in electricity supply capacity unless the supplier has been notified thereof in the form of Annexure 4: Provided that the supplier may waive this requirement

in respect of such types of work as it may specify.

How many unhappy consumers have been caught in the middle of this Regulation? Many electrical contractors neglect to complete 'Annexure 4: Notice Of Commencement Of Installation Work'. There can only be two reasons - he doesn't know or he is not registered. This application form assists the supplier of electricity determine what is happening in its area of supply and gives insight into the energy requirements of new or modified electrical installations, and assists with future network capacity planning.

### Subregulation (2)

(2) No person shall connect or permit the connection of any completed or partially completed electrical installation to the electricity supply unless it has been inspected and tested by a registered person and a certificate of compliance for that electrical installation has been issued: Provided that the supplier may on request connect the supply to the electrical installation for the purpose of testing and the completion of the CoC by a registered person: Provided further that this subregulation shall not apply in a case where the electricity was

disconnected for the non-payment of the electricity account or where there has been a change of tenant but not of ownership.

Please read the first few words of Regulation 8 (2) again: "No person shall"... Simply put, if you connect without the paperwork in place, you'd better run far when something goes wrong.

### Issuing of Certificate of Compliance (CoC)

9. (1) No person other than a registered person may issue a CoC.

Please note that the legislator assumes you and/or the consumer knows the difference between the Single Phase Tester and Installation Electrician's signing powers.

(2) A registered person may issue a CoC accompanied by the required test report only after having satisfied himself or herself by means of an inspection and test that

(a) A new electrical installation complies with the provisions of regulation 5(1) and was carried out under his or her general control; or

(b) An electrical installation which existed prior to the publication of the current edition of the health and safety standard incorporated into these Regulations in terms of regulation 5(1), complies with the general safety principles of such standard; or

The 'test report' referred to and a comprehensive set of testing guidelines is in SANS 10142-1.

(c) An electrical installation referred to in paragraph (b), to which extensions or alterations have been effected, that

i. The existing part of the electrical installation complies with the general safety principles of such standard and is reasonably safe, and

ii. The extensions or alterations effected comply with the provisions of regulation 5(1) and were carried out under his or her general control.

This is not as simple as it seems. A large portion of SANS 10142-1 covers 'Fundamental Requirements' so go through that section in detail. The statement: "carried out under his or her general control" is not always adhered to and this is especially true when accredited persons responsible for the CoC don't visit the site.

(3) If at any time prior to the issuing of a CoC any fault or defect is detected in any part of the electrical installation, the registered person shall refuse to issue such certificate until that fault or defect has been rectified: Provided that if such fault or defect in the opinion of the registered person constitutes an immediate danger to persons in a case where electricity is already supplied, he or she shall forthwith take steps to disconnect the supply to the circuit in which the fault or defect was detected and notify the chief inspector thereof.

You can only issue a CoC if the installation complies. You can issue the test report to the owner, user or lessor of an electrical installation at any time. This will confirm the issues that prohibit the issuing of the CoC. Many owners, users or lessors of an electrical installation refuse to pay if a CoC is not issued but how can you issue a CoC for a non-compliant installation? So, hand over the test certificate with the one hand and hold out the other for the cash.

(4) Any person who undertakes to do electrical installation work shall ensure that a valid CoC is issued for that work.

There is no excuse for an installation without a CoC. The owner, user or lessor must see to it that they are in possession of one and the person who does the work must see to it one gets issued.

(5) No person may amend a Certificate of Compliance.

This is simple so there's no need for a long discussion. It's simply not done.

Till next time.

## Old to New - To be launched in 2017

### Rapid 45-2 device installation trunking & Modul 45

#### Rapid 45-2 accessories

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## INTEGRATED RANGE OF PRODUCTS THAT GUARANTEES QUALITY AND SAFETY

**G**ewiss is an international leader in the production of systems and components for low voltage electrical installations. "The fact that development is seen as a constant management feature has permitted Gewiss to assert itself as a market leader, offering an integrated electrical system with over 20 000 products for domotics, energy and lighting," says brand specialist, Nelen Govender.

He explains that the Gewiss protection system is composed of products that "have synergy and perfect integration with each other", such as the innovative 90 ReStart range (automatic reclosing devices), the 90 MCB and 90 RCD ranges (modular circuit breaker for circuit and residual current protection) and the 47 CVX range (metal distribution boards). "This integrated range of products meets every need according to the application type, from residential to the industrial and that can guarantee quality and safety in step with market requirements."

The advantages of a Gewiss system are: practical compatibility of homogenous products; simple and quick planning; installation and maintenance of the system; and modern and stylish design.

The 90 ReStart devices restore power supply quickly from automatic circuit breaker trips, but only after checking the system status. In addition, the Autotest function periodically tests the functioning of the residual current circuit breaker protection without disconnecting the system from the power supply. The range includes two-pole and four-pole versions.

The 90 miniature circuit breaker (MCB) range is made up of three types:

- MTC – compact miniature circuit breakers, from 2 to 32 A in B- and C-curve and breaking capacity up to 10 kA.
- MT – traditional miniature circuit breakers, from 1 to 63 A in B-, C- and D-curve and breaking capacity up to 25 kA.

MTHP – high performance miniature circuit breakers, from 20 to 125 A in C- and D-curve and breaking capacity up to 25 kA.

The 90 RCD range includes the MDC monobloc compact residual current circuit breaker with overcurrent protection; the BD and BDHP add-on modular residual current devices for MT and MTHP miniature circuit breakers; and the SD residual current circuit breaker.

The 90 AM range consists of auxiliaries for circuit breakers and many modular accessories for protection, command, programming, measurement and signalling in electric systems.

The LST surge protection range guarantees excellent protection of loads and power distribution systems. The range includes:

- LST surge protection devices.
- Disconnectable fuse holders.
- Residual current relay with separate toroid.
- Motor protection switches.

The 47 CVX range of distribution boards is available in both modular and monobloc systems from 160 A to 3 200 A. Available in surface- and flush-mounting types, these boards are available in a variety of IP ratings to suit most applications. Thanks to the extractable frame and quick connection of brackets, rails and functional profiles, the 160 A board allows quick assembly. Because the 630 A boards are based on a 'completely open structure', board wiring operations are quick and easy.

This entire range of items is available from ACDC Dynamics.

For more information, contact brand specialist, Nelen Govender at [neleng@acdc.co.za](mailto:neleng@acdc.co.za)

Enquiries: +27 10 202 3400

## HIGH QUALITY DBS FOR ALL TYPES OF INSTALLATIONS

**M**ajor Tech offers high quality flame-retardant DIN rail distribution boards, which are available in two different designs: a robust IP 65 surface-mount for outdoor usage or where strength is a pre-requirement; and an elegant IP 20 flush-mount and surface-mount for indoor usage where aesthetics and ease of use are of paramount importance. All distribution boards are supplied with a removable earth/neutral bar, an adjustable DIN rail to ensure straight installation and multiple knock-outs in different sizes located at the top, bottom, sides, and back of the board to cater for all installation types. The IP 20 flush-mount offer is available with either a sturdy ABS tray or a galvanised steel tray. The galvanised steel offer is supplied with wire mesh spot welded to the back for increased fixing support.

Enquiries +27 11 872 5500



## 90 MCB RANGE INNOVATIVE & COMPACT



Complete solution of quality circuit breakers for all installations



Easy installation - wire, busbar & quick connect



47CVX Range: an elegant and modern designed distribution board range.

Unique identification tag

Electromagnetic coils for instantaneous tripping

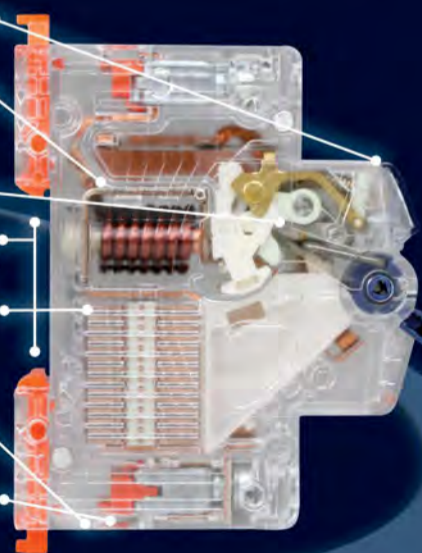
A silver, movable copper contact to reduce dissipation

Dual DIN clips to ensure greater installation flexibility

Arc chute chamber with 14 dejon splitter plates to reduce specific power

Double connection inlets for wiring with wire or lugs

Sliding plastic insulation sheath for the prevention of loose connections



A full MCB solution from Gewiss: the 1st company to develop the Compact Miniature Circuit Breaker occupying only 50% of the space but still providing 100% of the protection.

The innovative 90 MCB range boasts a breaking capacity from 4,5 to 25kA with nominal currents from 1A to 125A all offered in a DIN rail MCB, with SABS Certification on all ranges. Residual-current devices are available, addressing all IEC required sensitivity ratings, from 10mA to 500mA combining overloads and short circuit protection.

The offer is completed by a full range of Isolators, Auxiliaries and all din rail accessories to address any requirement. These components are all complimented by a superior GEWISS Range of modern and sophisticated distribution boards. A truly world class Italian designed solution offering.

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## MANUFACTURERS

**ABB**  
**ACDC Dynamics**  
**Brady SA**  
**Brother International SA**  
**CBI-electric : low voltage**  
**Crabtree Electrical Accessories**  
**Denver Technical Products**  
**HellermannTyton**  
**Legrand**  
**McWade Productions**  
**Power Process Systems**  
**Sabelco Electrical**  
**Zest WEG Group**

## DISTRIBUTORS

**ACDC Dynamics**  
**ACTOM Electrical Products**  
**ARB Electrical Wholesalers**  
**Atlas Group**  
**Bellco**  
**Chint**  
**Citilec**  
**Comtest**  
**Denver Technical Products**  
**Elen Electrical Enclosures**  
**HellermannTyton**  
**JDL Electric**  
**Magnet Electrical Suppliers**  
**Major Tech**  
**MCE Global Suppliers**  
**Nordland Lighting**  
**Radiant Group**  
**R&C Instrumentation**  
**Stone Stamcor**  
**Voltex**  
**Voltex LSis**  
**Voltex MVLV**  
**Waco**

## CONTACT

**ABB**  
 Dudley Bath  
**ACDC Dynamics**  
 Sales  
**ACTOM Electrical Products**  
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**ARB Electrical Wholesalers**  
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**Atlas Group**  
 Annie Storrar/Imran Gaffoor  
**Bellco**  
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**Brady SA**  
 Morne Louw  
**Brother International SA**  
 Munna Desai  
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 Jaco Viljoen  
**Chint**  
 Heather Scott  
**Citilec**  
 Jeff Forman  
**Comtest**  
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**Crabtree Electrical Accessories**  
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**Denver Technical Products**  
 Mervyn Stocks  
**Elen Electrical Enclosures**  
 Andy Kapral  
**HellermannTyton**  
 Ingrid Nicolaus  
**JDL Electric**  
 Ashveer Lalla  
**Legrand**  
 Johan Bosch  
**Magnet Electrical Suppliers**  
 Kumaran Naidoo  
**Major Tech**  
 Werner Grobbelaar  
**MCE Global Suppliers**  
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**McWade Productions**  
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**Phambili**  
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**R&C Instrumentation**  
 Steve Edwards  
**Radiant Group**  
 Alfred Weldon  
**Sabelco Electrical Industries**  
 Marc Moreau  
**Stone Stamcor**  
 Mark Talbot

## CONTACT

**Voltex**  
 Hugh Ward  
**Voltex LSis**  
 Sales  
**Voltex MVLV**  
 Sales  
**Waco**  
 Jaco Coetzee  
**Zest WEG Group**  
 Stephen Cook

## CIRCUIT BREAKERS / EARTH LEAKAGE BREAKERS

**ABB**  
 Full range of circuit breakers, earth leakage breakers  
**ACDC Dynamics**  
 Full range of economy breakers and high quality Gewiss breakers  
**ACTOM Electrical Products**  
 Full range of circuit breakers/earth leakage breakers  
**ARB Electrical Wholesalers**  
 Full range of circuit breakers/earth leakage breakers  
**Atlas Group**  
 Various brands available  
**Bellco**  
 Various brands available  
**CBI-electric : low voltage**  
 Full range of residential, commercial, industrial, miniature circuit breakers; circuit breakers for equipment; moulded case circuit breakers; air circuit breakers and earth leakage protection devices  
**Chint**  
 Full range of circuit breakers, earth leakage devices  
**Citilec**  
 Full range of circuit breakers, earth leakage devices  
**JDL Electric**  
 Full range of circuit breakers, earth leakage devices  
**Legrand SA**  
 Complete range of circuit breakers up to 6 300 A, MCB, MCCB, ACB  
**Major Tech**  
 Full range of VETI DIN rail circuit breakers (1 pole-4 pole 3 kA and 6 kA MCB) and earth leakage breakers.  
**MCE Global Suppliers**  
 Onesto DIN rail circuit breakers and earth leakages; Schenker mini rail circuit breakers and earth leakages; Schenker 13 mm mini rail circuit breakers and earth leakage devices; Onesto dc circuit breakers  
**McWade Productions**  
 Full range of circuit breakers, earth leakage breakers  
**Power Process Systems**  
 Full range of circuit breakers, earth leakage breakers  
**Voltex**  
 Various brands available  
**Voltex LSis**  
 Various brands available  
**Waco**  
 Various brands available  
**Zest WEG Group**  
 MDW miniature circuit breaker range one- to four-pole, 6 – 125 A, 6 and 10 kA; DWM moulded case circuit breaker range one- to four-pole, 16 – 1 600 A, 16 – 80 kA; ABW air circuit breaker range one- to four-pole, 800 – 6 300 A, 65 – 120 kA; RDW range of earth leakage devices 25 – 100 A, 30 and 300 mA

## PROTECTION

**ABB**  
 Full range of protection devices  
**ACTOM Electrical Products**  
 Full range of protection devices  
**ARB Electrical Wholesalers**  
 Full range of protection devices  
**Atlas Group**  
 Various brands available  
**Bellco**  
 Various brands available  
**CBI-electric : low voltage**  
 Full range of residential, commercial, industrial earth leakage protection devices  
**Comtest**  
 IS meters Atex equipment  
**Chint**  
 Full range of protection devices  
**HellermannTyton**  
 TEL1TLB socket ELCB tester/polarity – identifies six wiring conditions; TEL11 ELCB/phase rotation tester – indicates phase presence and rotation; 1 000 V IEC industrial range of tools (adjustable spanner, ring spanners, screw drivers, open-ended spanners, insulated pliers, long nose pliers, diagonal pliers, reversible ratchet, mini hacksaw)  
**JDL Electric**  
 Full range of protection devices  
**Legrand SA**  
 Complete range of protection devices  
**Magnet Electrical Suppliers**  
 Full range of protection devices  
**Major Tech**  
 Populated ready boards 3 kA and 6 kA mini circuit breakers, IEC 60947-2 and VC 8036 compliant

## EXOTHERMIC WELDING

**McWade Productions**  
 Full range of protection devices  
**Power Process Systems**  
 Full range of protection devices  
**R&C Instrumentation**  
 Infrared inspection windows 24-7 differential temperature monitors inside and outside boards  
**Sabelco Electrical**  
 Full range of protection devices  
**Voltex**  
 Various brands available  
**Voltex LSis**  
 Various brands available  
**Waco**  
 Various brands available  
**Zest WEG Group**  
 RW range of thermal overload protection; SRW range of electronic overload protection

## DISTRIBUTION BOARDS

**ACDC Dynamics**  
 Full range of DBs, plastic and steel, flush or surface mount, also available in pre-wired options  
**ACTOM Electrical Products**  
 Full range of DBs  
**ARB Electrical Wholesalers**  
 Full range of DBs  
**Atlas Group**  
 All sizes available or manufactured to client specifications  
**Bellco**  
 All sizes available or manufactured to client specifications  
**CBI-electric : low voltage**  
 12- and 20-way distribution boards; ready boards; 40- and 60-way architrave boards  
**Citilec**  
 Full range of DBs  
**Chint**  
 Full range of residential, commercial, industrial, miniature circuit breakers, moulded case circuit breakers, air circuit breakers. Earth leakages and a full range of DB Boards Flush and Surface  
**Crabtree Electrical Accessories**  
 Flush mount DBs  
**Elen Electrical Enclosures**  
 Full range of plastic DBs with knock-out cable entries, and steel, stainless and GRP enclosures available with DB chassis options; by ETA, IDE and Schneider Electric  
**HellermannTyton**  
 KV small type DBs 12- and 18-way single row DBs with IP54 and IP65 protection to IEC60439-3 with double insulated Class II protection in flame retardant an self-extinguishing thermoplastic (glow wire tests up to 750 °C) with knock-out entries, surface-mount with or without PE/N terminals  
**JDL Electric**  
 Full range of DBs  
**Legrand SA**  
 Full range of flush- and surface-mount, waterproof DIN rail boards  
**Magnet Electrical Suppliers**  
 Full range of DBs  
**Major Tech**  
 Full range of DIN rail DBs: flush-mount Econo boards (ABS plastic and galvanised steel tray options); surface-mount Econo boards and surface-mount IP65 boards. Populated DBs and ready boards.  
**MCE Global Suppliers**  
 Onesto ready boards with or without bulkhead; Schenker ready boards with or without bulkhead; Onesto swimming pool distribution board; Onesto caravan distribution board; MCE multi-purpose distribution board  
**McWade Productions**  
 Full range of DBs  
**Phambili**  
 All sizes available or manufactured to client specifications  
**Power Process Systems**  
 Full range of DBs  
**R&C Instrumentation**  
 Infrared inspection windows 24-7 differential temperature monitors inside and outside boards  
**Voltex**  
 All sizes available or manufactured to client specifications  
**Voltex LSis**  
 All sizes available or manufactured to client specifications  
**Waco**  
 All sizes available or manufactured to client specifications

## LABELLING

**ARB Electrical Wholesalers**  
 Full range of labelling products  
**Atlas Group**  
 Dymo and Brother labelling machines and accessories  
**Bellco**  
 Dymo and Brother labelling machines and accessories  
**Brady SA**  
 Specialised labels and label printers for electrical installations  
**Brother International SA**  
 Full range of labelling machines and consumables  
**HellermannTyton**  
 Customised printing of panel labels with TT430 printer on material dependent on application and industry

## LABELLING

**JDL Electric**  
 Full range of labelling products  
**Legrand SA**  
 CAB3 and Memocab cable markers  
**Magnet Electrical Suppliers**  
 Full range of labelling products  
**Phambili**  
 Dymo and Brother labelling machines and accessories  
**Power Process Systems**  
 Full range of labelling products  
**R&C Instrumentation**  
 APP-driven equipment tagging  
**Stone Stamcor**  
 Brady identification systems  
**Voltex**  
 Dymo and Brother labelling machines and accessories

## FUSES

**ACDC Dynamics**  
 Full range of fuses and fuse holders  
**ACTOM Electrical Products**  
 Full range of fuses  
**ARB Electrical Wholesalers**  
 Full range of fuses  
**Atlas Group**  
 Wide range of fuses available on request  
**Bellco**  
 Wide range of fuses available on request  
**Chint**  
 Full range of fuses  
**JDL Electric**  
 Full range of fuses  
**Legrand SA**  
 HRC, domestic and industrial fuses  
**Magnet Electrical Suppliers**  
 Full range of fuses  
**MCE Global Suppliers**  
 MCE fuses and fuse holders; Onesto fuses and fuse holders; Onesto dc fuses and fuse holders  
**McWade Productions**  
 Full range of fuses  
**Power Process Systems**  
 Full range of fuses  
**Voltex**  
 Wide range of fuses available on request  
**Waco**  
 Wide range of fuses available on request  
**Zest WEG Group**  
 20 – 1 000 A, size 00, 1, 2, 3 high speed fuses

## SWITCHES/ISOLATORS

**ABB**  
 Full range of switches and isolators  
**ACDC Dynamics**  
 Full range of switches and isolators  
**ACTOM Electrical Products**  
 Full range of switches/isolators  
**ARB Electrical Wholesalers**  
 Full range of switches/isolators  
**Atlas Group**  
 Reputable brands available on request; in-house brands LSis and W-Range  
**Bellco**  
 Reputable brands available on request; in-house brand LSis and W-Range  
**CBI-electric : low voltage**  
 Full range of commercial and industrial switch disconnectors  
**Chint**  
 Full range of switches, isolators  
**Crabtree Electrical Accessories**  
 Complete range of switches and isolators  
**JDL Electric**  
 Full range of switches and isolators  
**Legrand SA**  
 Domestic and industrial switches and isolators  
**Magnet Electrical Suppliers**  
 Full range of switches and isolators  
**Major Tech**  
 VETI range – complete switches in modular and assembled; complete isolator series (2 pole and 3 pole)  
**MCE Global Suppliers**  
 Onesto DIN rail isolators; Schenker mini rail isolators; Onesto dc isolators; MCE surface-mount (IP66 and IP65) and base-mount isolators  
**McWade Productions**  
 Full range of switches/isolators  
**Power Process Systems**  
 Full range of switches/isolators  
**Stone-Stamcor**  
 Chilly Toggle switches; Triton Float switches  
**Voltex**  
 Reputable brands available on request; in-house brands LSis and W-Range  
**Voltex LSis**  
 Reputable brands available on request; in-house brands LSis and W-Range





SWITCHES/ISOLATORS

**Waco**  
Reputable brands available on request; in-house brands LSis and W-Range  
**Zest WEG Group**  
SIW miniature isolator range 40 – 100 A; IWA moulded case isolator range 160 – 1 600 A

CONTACTORS

**ABB**  
Full range of contactors  
**ACDC Dynamics**  
Wide range of contactors from TC, C&S and Gewiss  
**ACTOM Electrical Products**  
Full range of contactors  
**ARB Electrical Wholesalers**  
Full range of contactors  
**Atlas Group**  
Reputable brands available on request; in-house brand LSis  
**Bellco**  
Reputable brands available on request; in-house brand LSis  
**CBI-electric : low voltage**  
Full range of magnetic contactors and thermal overload relays  
**Chint**  
Full range of contactors  
**Denver Technical Products**  
GIGAVAC dc contactors p to 1 000 A 1 000 V  
**JDL Electric**  
Full range of contactors  
**Legrand SA**  
Contactors up to 800 A  
**Magnet Electrical Suppliers**  
Full range of contactors  
**MCE Global Suppliers**  
MCE ac magnetic contactors in three- and four-pole; MCE contactor accessories; S&C ac magnetic contactors in three- and four-pole; S&C contactor accessories  
**Power Process Systems**  
Full range of contactors  
**Voltex**  
Reputable brands available on request; in-house brand LSis  
**Voltex LSis**  
Reputable brands available on request; in-house brand LSis  
**Waco**  
Reputable brands available on request; in-house brand LSis  
**Zest WEG Group**  
CWB 7 – 22 A AC3 compact range and accessories; CWB, CWM, 9 – 800 A AC3 contactor range and accessories

SURGE PROTECTION DEVICES

**ABB**  
Full range of surge protection devices  
**ACDC Dynamics**  
Wide range of surge protection devices  
**ACTOM Electrical Products**  
Full range of surge protection devices  
**ARB Electrical Wholesalers**  
Full range of surge protection devices  
**Atlas Group**  
Reputable brands available on request  
**Bellco**  
Reputable brands available on request  
**CBI-electric : low voltage**  
Clip-in dual mount surge protection devices  
**Chint**  
Full range of surge protection devices  
**HellermannTyton**  
Surge plugs – TSP1A surge plug top (green); surge plugs TSP1AF surge plug (red) flat pin to SANS 164-0; high surge handling capacity  
**JDL Electric**  
Full range of surge protection devices  
**Legrand SA**  
Full range of surge protection devices  
**Magnet Electrical Suppliers**  
Full range of surge protection devices  
**Major Tech**  
MTD6 – appliance surge protector  
**MCE Global Suppliers**  
Onesto surge arresters; Schenker surge arresters; Onesto dc surge arresters  
**McWade Productions**  
Full range of surge protection devices  
**Power Process Systems**  
Full range of surge protection devices  
**Voltex**  
Reputable brands available on request  
**Voltex LSis**  
Reputable brands available on request  
**Waco**  
Reputable brands available on request  
**Zest WEG Group**  
Fanox surge arrester Class C Type II

TIMERS

**ABB**  
Full range of timers  
**ACDC Dynamics**  
Wide range of locally manufactured timers

TIMERS

**ACTOM Electrical Products**  
Full range of timers  
**ARB Electrical Wholesalers**  
Full range of timers  
**Atlas Group**  
Reputable brands available on request – analogue and digital  
**Bellco**  
Reputable brands available on request – analogue and digital  
**CBI-electric : low voltage**  
Standard electronic time switch with 24-hour reserve  
**Chint**  
Full range of timers  
**HellermannTyton**  
TDDGT seven-day digital geyser timer (internal relay) max 20 A (3 500 W) resistive load such as geysers, underfloor heating and lights; TGTLG geyser time load controller Series 2 (internal relay) six pre-set timer with peak demand lock out  
**JDL Electric**  
Full range of timers  
**Legrand SA**  
Complete range of analogue and digital timers  
**Magnet Electrical Suppliers**  
Full range of timers  
**Major Tech**  
Digital and analogue DIN rail mount timers; plug-in daily, weekly and programmable digital timers  
**MCE Global Suppliers**  
MCE digital and analogue time switches; MCE seven-day digital geyser time switch; Schenker mini rail seven-day digital time switch  
**Power Process Systems**  
Full range of timers  
**Radiant Group**  
Full range of timers  
**Stone-Stamcor**  
SAIA-Burgess timers  
**Voltex**  
Reputable brands available on request – analogue and digital  
**Waco**  
Reputable brands available on request – analogue and digital  
**Zest WEG Group**  
Electronic relays; RTW range timing; RPW range monitoring; RNW range level control

METERS

**ABB**  
Full range of meters  
**ACDC Dynamics**  
Wide range of energy meters, digital multimeters, network analysers and panel meters – digital and analogue  
**ARB Electrical Wholesalers**  
Full range of meters  
**Atlas Group**  
Reputable brands available on request – analogue and digital  
**Bellco**  
Reputable brands available on request – analogue and digital  
**CBI-electric : low voltage**  
Rail mount meters  
**Comtest**  
Digital meters; clamp meters; laser distance meters  
**Chint**  
Full range of meters  
**HellermannTyton**  
TMB878 insulation/combination digital multimeter – insulation resistance 50, 100, 250, 500, 1 000 V; TBM086 – 1 000 A ac AmpTip jaws, three-phase rotation for main and motors  
**JDL Electric**  
Full range of meters  
**Legrand SA**  
Electrical energy and multifunction metering  
**Magnet Electrical Suppliers**  
Full range of meters  
**Major Tech**  
Full range of professional test instruments and DIY meters  
**MCE Global Suppliers**  
MCE ammeters and voltmeters  
**McWade Productions**  
Full range of meters  
**Power Process Systems**  
Full range of meters  
**Voltex**  
Reputable brands available on request – analogue and digital  
**Waco**  
Reputable brands available on request – analogue and digital  
**Zest WEG Group**  
Electronic PF01 range of power factor meters; MMW range of power meters

DISTRIBUTION BOARD ENCLOSURES

**ABB**  
Full range of DB enclosures  
**ACTOM Electrical Products**  
Full range of DB enclosures  
**ARB Electrical Wholesalers**  
Full range of DB enclosures  
**Atlas Group**  
Standard sizes available and manufacture to client specifications

DISTRIBUTION BOARD ENCLOSURES

**Bellco**  
Standard sizes available and manufacture to client specifications  
**CBI-electric : low voltage**  
Flush-mounted distribution boards  
**Chint**  
Full range of DB enclosures  
**Elen Electrical Enclosures**  
Full range of plastic DBs with knock-out cable entries, and steel, stainless and GRP enclosures available with DB chassis options; by ETA, IDE and Schneider Electric  
**HellermannTyton**  
DB enclosures IP 65 to IEC 61439 available in high impact polycarbonate material with double insulated Class II safety protection, flame retardant and self-extinguishing at glow-wire tests up to 960 ° C, safe current capacity from 250 A up to 630 A  
**JDL Electric**  
Full range of DB enclosures  
**Legrand SA**  
Full range of flush and surface mount, waterproof DIN rail boards  
**Magnet Electrical Suppliers**  
Full range of DB enclosures  
**Major Tech**  
Full range IP65 and IP55 enclosures  
**MCE Global Suppliers**  
MCE DBs in surface-mount and flush-mount from two-way to 36-way; Onesto DBs in surface- and flush-mount from four-way to 36-way; Schenker DBs in surface-mount and flush-mount from four-way to 20-way; adjustable flush-mount distribution boards in 20-way and 24-way  
**Phambili**  
Standard sizes available and manufacture to client specifications  
**Power Process Systems**  
Full range of DB enclosures  
**R&C Instrumentation**  
Infrared inspection windows  
**Sabelco Electrical Industries**  
Full range of DB enclosures  
**Voltex**  
Standard sizes available and manufacture to client specifications  
**Voltex LSis**  
Standard sizes available and manufacture to client specifications  
**Voltex MVLV**  
Standard sizes available and manufacture to client specifications  
**Waco**  
Standard sizes available and manufacture to client specifications

HAZARDOUS AREAS

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Full range of products for hazardous areas  
**Citilec**  
Full range of products for hazardous areas  
**Comtest**  
Digital multimeters; process calibrators; pressure calibrators; infrared thermometers; pressure models  
**Elen Electrical Enclosures**  
Eex'e (zones 1, 2, 21 and 22) junction boxes (assemble and supply); ATEX-approved enclosures by ETA, IDE, Schneider Electric  
**HellermannTyton**  
Full range of tools and instruments suitable for hazardous areas  
**JDL Electric**  
Full range of products for hazardous area  
**Magnet Electrical Suppliers**  
Full range of products for hazardous areas  
**Major Tech**  
Comprehensive range of hazardous area lighting  
**Nordland Lighting**  
Lighting for hazardous areas  
**Power Process Systems**  
Full range of products for hazardous areas  
**R&C Instrumentation**  
IS-certified Infrared thermometers  
**Voltex**  
Full range of products for hazardous areas

OTHER

**Denver Technical Products**  
Wolf safety lighting torches  
**Elen Electrical Enclosures**  
Enclosures and cabinets, compression cable glands, panel ventilation fans and cooling units, vortex tube panel coolers, thermoelectric panel coolers, resistance heaters

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## FREESTANDING AND WALL MOUNTING ENCLOSURES AND ACCESSORIES OFFER A COMPLETE SOLUTION

Legrand's new freestanding and wall mounting Linkeo 19" enclosures have been designed for easy installation, high performance and optimum safety in commercial sector installations.

"Linkeo 19" enclosures are supplied with a wide range of accessories to offer a complete solution for all projects," says Sonja Leibbrandt, marketing and pricing manager, Legrand SA. "These metallic extendable freestanding and wall-mounting cabinets ensure the ordered arrangement and optimum protection of electrical components like terminal blocks, switches and sockets, fuse carriers, safety transformers and circuit breakers.

"Linkeo 19" enclosures have a textured polyester coating that provides excellent resistance to corrosion and scratching. An IP 20 Index protection rating guards against solid objects and liquids and an IK08 rating offers protection against mechanical impacts.

"Cabinets and equipment are supplied ready-assembled or as flatpack solutions in stackable wooden cases, depending on customer requirements."

Linkeo 19" freestanding cabinets have a reversible front door with a safety glass window and removable side and rear panels. For added security, all four sides can be locked with a key

lock. These units are equipped with 2 x 19" uprights, which are adjustable in depth. There are pre-cut top and bottom cable entries and a cut-out at the top for fan kits.

These freestanding enclosures, with a loading capacity of 400 kg, are equipped with levelling feet and an earthing kit. Extension cabinets are supplied with a baying kit for safely joining the cabinets. Other accessories include metal plinths and pivoting castors, as well as fixed or telescopic shelves. Linkeo fan kits have an integrated thermostat which is adjustable from -10 °C to 80 °C.

Linkeo 19" wall mounting cabinets, with a reversible flat safety glass door and integrated lock, are designed for simple, two-step wall fixing of the base and the cabinet. These enclosures are supplied with 2 x 19" uprights which are adjustable in length. Other features include an adjustable top cable entry with a foam seal and rear and bottom cable entries equipped with blanking plates. These cabinets have top perforations for natural ventilation and can also be equipped with fan kits. Earthing kits are a standard safety feature.

As an alternative to ready assembled Linkeo 19" enclosures, Legrand also offers flatpack solutions for compact transportation, easy handling, efficient storage and effortless mounting.

Linkeo 19" freestanding and wallmounting flatpack cabinets are available as a one part number, where all components are supplied in one pack, with high protection packaging. Flatpack cabinets can also be split up into four part numbers and delivered in small, light packages.

Also available are 19" metal Bati-racks for housing 19" equipment in an air-conditioned, secure, dust-free environment. For improved resistance to corrosion and scratching, these units have a textured polyester coating. Bati-racks, which comprise two or four x 19" uprights, ensure full access to wiring and are supplied ready for assembly. Specially designed cable management sleeves, with a closed vertical feedthrough, are designed for fixing on the left or right of the 19" uprights, providing a perfect finish.

These units, with a 300 kg permissible load, are supplied with a roof for four upright Bati-racks, a set of four castors, shelves and levelling feet.

Linkeo 19" enclosures and equipment form part of Legrand's extensive range of stainless steel and metal cabinets, which meets stringent quality and safety specifications.

Enquiries: +27 11 444 7971



Legrand's new freestanding and wall mounting Linkeo 19" enclosures have been designed for easy installation, high performance and optimum safety in commercial sector installations and are supplied with a wide range of accessories, offering a complete solution for all projects.

## NEW COMPREHENSIVE RANGE OF INNOVATIVE STAINLESS STEEL ENCLOSURES

ELEN ENCLOSURES has, from its inception in 1982, constantly sought ways to expand the level of quality, service, innovation and product selection available to their customers. The enclosure specialist of 35 years recently sourced a new and comprehensive range of 304L and 316L stainless steel enclosures from ETA S.P.a, a highly reputable European manufacturer, and at very attractive prices.

The backbone of the supply programme is the ECOR range of wall mounting enclosures, which comprises 25 sizes of single-door enclosures ranging from 300x200x150 mm to 1 200x800x300 mm and two double-door enclosures of 1 000 x 1 000 x 300 mm and 1 200 x 1 000 x 300 mm. The enclosures are made from 1.5 mm thick laser-welded bodies with gutter profiled opening and doors with formed corners. The enclosures are certified to IP66 sealing for single-door and IP55 for double-door.

The range introduces a major innovation in enclosure technology by means an in-situ formed two-component silicone compound door gasket. The silicone gasket is resistant to the majority of aggressive chemicals and has a temperature resistance from -50 to 200 °C, as opposed to the 120 °C of polyurethane gaskets, which is currently the industry norm. These properties greatly widen the range of environments in which the enclosures can be used, i.e. from refrigeration plants to steel works and foundries as well as in the harshest industrial environments (such as chemical plants, refineries, and water and sewage treatment, paper, pulp and textile industries).

Stainless enclosures are particularly suited for use in dairies, breweries, beverage and food processing plants, and pharmaceutical industries. The choice of grades 304L or 316L offers solutions for severe climatic conditions as encountered in in-/off-shore marine environments or desert conditions.

The 2.5 mm thick galvanised chassis plates are supplied as standard and a wide variety of accessories such as rain canopies, internal doors, distribution board chassis and plinths are available. The enclosures have a brushed satin finish and are supplied with easily removable protective plastic film to protect against scratches and scuffs during delivery or machining.

The ECOR supply programme is further expanded by a range of 20 enclosures (from 300x200x150 mm to 1 200x800x300 mm) complying with ATEX directive and conforming to Ex II 2GD, Ex e II T6 and Ex td A21 T85°C for use in applications requiring increased or intrinsic safety.

The ATEX-approved range is supplied with continuous formed-in polyurethane door gasket. Elen Enclosures has assembly facilities highly experienced in the production of junction boxes certified for use in classified hazardous areas, as well as standard applications.

The ECOR range of wall-mounted enclosures is complemented by a wide variety of other stainless steel products such as EMOX 'monobloc' floor-standing cabinets, ENUX modular suite cabinets, EGRAN terminal boxes, SHX pushbutton boxes, ECOR sloped-roof enclosures and ZBX control desks.

"It is Elen's aim is to become the number one supplier of stainless steel enclosures in South Africa," says Andy Karpral, adding that "Elen has acquired the Southern Africa agency for all ETA products, which also include mild steel enclosures, cabinets and control desks."

Enquiries: +27 11 472 2220



## FAST ELECTRICAL CIRCUIT LOCKOUT



Brady's unique TAGLOCK lockout solution enables operators, mechanical engineers, maintenance and safety personnel to quickly and easily lock out electrical circuits in order to prevent accidental engagement while maintenance is ongoing. With TAGLOCK, the risk of electrocution and other accidents related to re-energising can be reduced.

### Prevent accidents

TAGLOCK blocks circuit breakers in the off-position to prevent accidental re-engagement while maintenance is ongoing. By securing circuit breakers in the off-position during maintenance, the risk of electrocution and other, re-energising related, accidents with potentially severe consequences can be reduced.

### Up to four workers

Up to four workers can use the circuit breaker lockout device simultaneously, each with their personal, colour-coded cable tie. When their part of the job is complete, each worker can remove his personal tie and tag. When maintenance is done, the last worker also removes the circuit breaker lockout device to allow circuit breaker re-engagement.

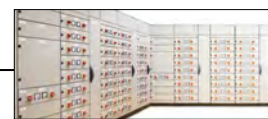
### Easy to apply

TAGLOCK can be installed quickly and easily. Apply the circuit breaker lockout device, run a cable tie through its hole and add a tag. The TAGLOCK lockout devices are small enough to be applied on most circuit breakers that are positioned next to each other. Run a nylon cable tie through the holes of the applied circuit breaker lockout devices to block all circuit breakers involved in the off-position. A padlock can be attached for extra security when needed.

Watch the TAGLOCK video on Youtube, or email Brady at [emea\\_request@bradycorp.com](mailto:emea_request@bradycorp.com) for more information.

Enquiries: +27 11 704 3295





## SWITCHES AND SOCKETS FOR THE NEW BREED OF CONSUMERS

Rhodam Evans, product manager at Major Tech is a firm believer that, in today's competitive market, switches and sockets are more than just a practical solution for an everyday application. "In the past, people didn't place too much emphasis on the design of a light switch as long as it turned on the light and the switch remained reliable. Similarly, insofar as socket outlets were concerned, South Africans accepted that adaptors were necessary in order to use any products with different plug tops, such as the common two-pin. Today, customers are far more 'switched-on' and aware of the available options when it comes to decorating their homes," he says.

"With the introduction of new technology, digital platforms and the rise of the millennials, information sharing has become more accessible. Customers are now more informed than ever before and a 'new breed' of customer has emerged – and they want to be set apart from the rest, no matter the cost," says Evans. "This has resulted in a shift in the market and today's customers have come to expect more stylish and elegant options for contemporary décor styles – and one could say that consumers drive the market and, ultimately, this drives innovation. Major Tech's Vetri range revolutionises the concept of what switches and sockets are able to offer and provides affordable options for one of the most commonly used applications in one's living and working areas.

"Consumers have embraced the stylish and cost-effective Vetri range and are asking for it by name", says Evans. "Major Tech offers consumers customised options to suit their personal needs and lifestyles, and this is the reason the Vetri range has become so popular."

Vetri is available as a complete offer for fast and simpler installation as well as a modular offer for more creative preferences.

"VETRI has an ultra-modern rounded design, which allows more space within the wall box for wires and connections by stepping the product slightly away from the wall thus making it easier when installing the socket and switch combinations," explains Evans.

### Vetri product offering and specs:

- Available in a complete and a modular offering.
- The modular range allows for over 2 000 different combinations of switch, socket, electronic and communication modules.
- Cover plates are available in six interchangeable colours (white, cream, silver, champagne, gun metal, and bronze).
- Manufactured from the highest quality raw materials ensuring a flame retardant product.

### Vetri switches:

- Available in black and white.
- Option of including a locator or an indicator lamp.
- Available for all applications: one-way, two-way, intermediate, 20 A double-pole and splitter.
- Available in a single module or double module.

### Vetri sockets:

Vetri has a full array of socket modules to fulfil any installation requirement including the standard South African 16 A; the red, blue and black dedicated; the 6 A for lighting circuits; the British square pin; the South African standard two-pin; the new compulsory three-pin spec; and the schuko with and without side earth. All of these socket modules can be assembled in different combinations to suit a specific living or working area. The modular system allows the incorporation of a switch per socket, a single switch to disconnect the power to all sockets or no switch at all to maximise the space available; and all of these options conform to wiring regulations.

Enquiries: +27 11 872 5500



## Optimum handling and electrical safety in critical applications

The Wiha SoftFinish electric slimFix screwdriver is a convenient, slim solution for electrical applications. Thanks to the printed screw symbol on the handle end makes easy the selection of the right tool for the right job.

Applications on live equipment are subject to very special requirements with the focus on absolute safety. Up to 33% reduction of the bit diameter in the critical working area allows effortless access to low-lying fastening/spring elements and, due to integrated insulation, the blades are up to 33% narrower. The high quality blade insulation is moulded directly onto the blade and therefore guarantees safety when working on live equipment up to 1 500 V dc/1 000 V ac. To maintain this safety, each screwdriver in the SoftFinish electric series is individually tested in a water bath at 10 000 V according to IEC 60900:2012. The roll-off protection and the special handle geometry offer optimum handling and electrical safety, even in critical applications.

Enquiries: +27 11 3964065



# CHINT

 NC1 Contactor	 NC2 Contactor - Ranging from 115 to 800 Amp / up to 690 V
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## CELEBRATING 70 YEARS OF MANUFACTURING EXCELLENCE IN SA

Crabtree, a leading manufacturer of low voltage switches and sockets, domestic leads and adaptors and cable management products is celebrating its 70th year on the South African electrical market landscape.

André le Roux, general manager: sales and marketing, says, "In an industry that has been invaded with cheap imported products, this is a major achievement. Crabtree remains the biggest and one of the only true local manufacturers left in the market place. From start to finish, all of our products are locally developed, designed and manufactured."

He says that every month, Crabtree manufactures more than 400 000 products and enough conduit to stretch from Musina to Cape Town. "Crabtree is still the preferred and trusted brand for electrical contractors in South Africa who see the brand as being synonymous with quality, safety and reliability," says Le Roux, adding that the company remains "fully committed to these ideals".

### New range

"This will be a year of celebration for Crabtree and to mark the occasion, we will be launching the Classic Deco and RoHS compliant Hospital range into the

market place and will exhibit these products at the Decorex shows in Johannesburg, Durban and Cape Town," he says, adding that details will be uploaded onto Crabtree's Facebook and Twitter pages.

### Factory tours

Le Roux reveals that, starting in April, Crabtree will be hosting two factory tours per month for the electrical contractors who are interested in seeing how quality products are manufactured and tested. "Anyone who would like to join us should contact their area sales representative or wholesaler to book a tour."

Le Roux concludes: "In many ways, 2017 is a year of new beginnings for Crabtree, and we thank all our channel partners, electrical contractors, Crabtree personnel and their families for their continued support, commitment and positive attitudes."

Enquiries: +27 11 874 7704



## Three-pole contactor available in two versions

SCHNEIDER ELECTRIC has introduced to the South African market its Rollarc three-pole indoor contactor that uses sulphur hexafluoride (SF6) gas for insulation and circuit-breaking. The Rollarc is available in two versions; the Rollarc R400 comes complete with magnetic holding, and the R400D that is accompanied by mechanical latching.

According to Brighton Mwarehwa, technical manager at Schneider Electric South Africa, the circuit-breaking of the Rollarc unit is based on the rotating arc principle. "The basic version is made up of three pole units installed in the same insulating enclosure. The part of the enclosure containing the active parts of the poles is filled with SF6 gas at a gauge pressure of 2.5 bars," he explains.

Mwarehwa points out that the main advantages of the Rollarc contactors include a modern and tested circuit-breaking technique featuring SF6 safety, no maintenance for the MV active parts, high mechanical and electrical endurance, low switching surges without additional devices, insensitivity to the environment and that gas pressure may be continuously monitored. The Rollarc range is ideal for the protection and control of medium voltage motors, capacitor banks, power transformers, resistors and general switching. "The unit is also insensitive to external conditions and provides a complete gas-insulated

system. It is a hermetically sealed enclosure filled with SF6 gas, housing the essential parts. Rollarc is suited to most environments, including polluted environments such as mines, cement works, and more," adds Mwarehwa.

Both the Rollarc R400 and R400D contactors are available in three versions: The basic version - contactor alone, without the cradle; the fixed version - the contactor with the control auxiliaries is mounted on a fixed cradle; and the withdrawable version - the contactor with the control auxiliaries is mounted on a withdrawable cradle.

"Fixed and withdrawable versions may be equipped with fuses when the system short-circuit current is greater than the contactor short circuit rating. The common fuses used in the Rollarc contactors are of the indoor Fusarc CF type with strikers that actuate the contactor opening mechanism," says Mwarehwa.

The Rollarc rotating arc contactor has the following benefits:

**Long life:** This results from high product reliability, very low wear of the active parts which require no maintenance, and the excellent sealing of the enclosure, eliminating the need for subsequent filling.

**Mechanical endurance:** The operating energy is reduced because the current to be interrupted, directly creates arc rotation. The Rollarc contactor can do up to

300 000 operations in R400 version and 100 000 operations in R400D version.

**Electrical endurance:** The long life of the Rollarc is due to the negligible degeneration of the gas and to low wear of the contacts. The energy dissipated in the arc is low due to the intrinsic properties of the gas, the short length of the arc, and the very short arcing time.

"Wear of the arcing contacts can be checked without opening the poles. The unit is capable of breaking normal load currents and short circuit currents up to its rating, even in the case of frequent operation. In the case of higher short circuit currents the Rollarc contactor can be used in a fuse-contactor assembly enabling the contactor to deliver much more," continues Mwarehwa. "The intrinsic properties of the gas and the soft break resulting from the technology in use mean that switching surges are very low. When used for motor control, the unit is free from multiple prestrike and restriking phenomena."

In addition, in the unlikely event of an accidental drop in the pressure of the SF6 gas in the Rollarc unit, there is an option for a pressure switch for alarm indications and control.

Rollarc complies with the following standards and specifications: IEC publication 60470 and IEC 62271-105.

Enquiries: +27 11 254 6400

## TAILORED CONTROL AND SWITCHGEAR PACKAGES



Low Voltage Switchboards is an independent panel assembler running production lines for the complete range of industrial control and automation equipment.

Rockwell Automation Sub-Saharan Africa is marking seven years of successful collaboration with panel and cabinet assembler Low Voltage Switchboards. It is a collaboration that is leveraging increased market competitiveness by maximising the capabilities of the industrial automation specialist to package its IEC-rated drive and control equipment in tailored, fully compliant panel technology solutions to industrial markets in sub-Saharan Africa. The fruits of this collaboration are today seen in some of the largest mining and industrial projects across the region.

The association includes the assembly of Rockwell Automation switchgear and controlgear in Low Voltage Switchboards' modular panel and cabinet configurations.

"Our collaboration with Low Voltage Switchboards broadens our project delivery capabilities with synergies from both sides," explains Adrian van Wyk, business manager - Power and Components Business, Southern and Sub-Saharan Africa, Rockwell Automation.

"As Rockwell Automation, we supply a product and the technical ability to deliver solutions required from a customer perspective; which Low Voltage Switchboards then integrates into a structure so that the solution meets both customer and local specifications. It's an integral part of increasing the competitiveness of Rockwell Automation in delivering full-scale projects that meet local end user- and application-specific standards and quality requirements."

The association demonstrates Rockwell Automation Sub-Saharan Africa's continuing strategy to align with independent suppliers to facilitate attractive, competitive and innovative product solutions to industrial end users. "We seek out strategic alliances and collaborators that fit with Rockwell Automation's view of maximum quality standards through a solution with maximum compliance," Van Wyk says.

In a company such as Low Voltage Switchboards, with a track record of over 18 years, Rockwell Automation has an independent panel building agent that leverages its knowledge of regional industrial applications to supply customised solutions to the specific requirements of each industry and workspace.

Enquiries: +27 11 654 9700

## SOUTH AFRICAN... AND PROUD OF IT!

- Not everyone is aware of the fact that an Olifantsfontein-based company has been supplying vital equipment to the transmission and distribution industry in South Africa and abroad for the past 55 years. McWade Productions was founded in 1965 and is now a leading supplier of locally manufactured Transmission and Distribution Line Hardware, High Voltage Sub Station Interconnecting Clamps up to 765kV, Insulators, Disconnectors, Isolators and Compression Tooling.
- Founded in 1965 and is now a leading supplier of locally manufactured Transmission and Distribution Line Hardware, High Voltage Sub Station Interconnecting Clamps up to 765kV, Insulators, Disconnectors, Isolators and Compression Tooling.
- It has a substantial manufacturing facility operating in accordance with ISO 9001, to local and international specifications.
- On site facilities include a non-ferrous, sand and gravity die-casting foundry, machine shop as well as tool and die-making facilities.
- They provide in-house design, documentation and technical back-up, local and international sourcing of specialised equipment, manufacture, source and supply of full packages for sub stations and line projects and design and consulting services to plan and recommend the most suitable equipment, connections and installation procedures to meet customer requirements.

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For more information contact Steven Naidoo on  
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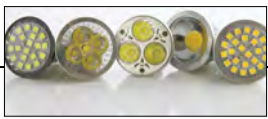
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## A BEACON OF LIGHT SHINES ON TEMBISA LEARNERS

BEKA Schröder joined the Department of Science and Technology (DST) to hand over a computer research lab to Moipone Academy Science Centre (MASC) in Tembisa.

The lack of information and exposure available for school learners motivated Joseph Taetsane to campaign for a science and information centre in the township of Tembisa and, on 29 November, BEKA Schröder handed over an after-school computer research lab and became the first private entity to invest in the only science centre in the East Rand. The lab will assist with access to information for school learners and much needed computer skills for unemployed youth in the community.

BEKA Schröder general manager, Wimpie Ludwick stressed the need for access to network and connectivity and pledged extra support for MASC's connectivity, a 'second phase' to the existing project. MASC will use the computer lab for after-school programmes for computer literacy and in-house activity programmes, such as Robotics, using CAD (Computer Aided Drafting) to design car models for the Jaguar Primary School competition. School teachers will be taught modern ways of imparting knowledge, soft skills in office suite programs, and creating data sheets and presentations.

"BEKA Schröder has been honoured to be part of this initiative. It is not only in line with our



Handover of the after-school computer research lab to Moipone Academy Science Centre.

[www.osram.com](http://www.osram.com)



### Light is Flexible OSRAM VALUE Flex®

#### Product benefits:

- Energy saving low-power flexible LED strip
- Easy installation with track system
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#### Product features:

- Multiply cuttable LED strip with connectors (IP20)
- Available with light color: Warm White, Cool White
- Beam angle per module: 120°
- Dimmable

\* For conditions and detailed information, see [www.osram.com/system-guarantee](http://www.osram.com/system-guarantee). All prices are exclusive of VAT, based on current exchange rates and excludes any airfreight charges.

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Wimpie Ludwick (GM - BEKA Schröder) and Joseph Taetsane (centre manager - Moipone Academy Science Centre).

people values but also one of the ways in which we are giving back to the local community and the economy" concluded BEKA's Sibusiso Skosana.

Enquiries: +27 11 238 0069

## COST EFFECTIVE SOLUTIONS FOR LED FLOODLIGHTS

Security lighting has changed drastically in recent years, from twisty bulbs to efficient LED fittings. Major Tech has introduced a new economical range of LED floodlights, which incorporate high power LED chips capable of producing a high lumen output and that have been designed as a replacement for traditional floodlights.

The choice of LED floodlights over traditional floodlights means energy savings and overall better lighting. Major Tech's LFB LED floodlight range is designed to ensure low heat emissions, a long lifespan (around 25 000 hours) and improved visibility.

The LFB LED floodlight range is a slimline, compact design and is designed as a replacement for traditional floodlights. The glass cover is 4 mm strengthened clear glass that is waterproof and resistant to all environmental factors such as humidity. The lighting source is made up of high power SMD LEDs that are directly connected to the aluminium shell, which ensures low heat emission and a longer lifespan.

These quality corrosion-resistant IP65 LED floodlights are available in 10 W and 20 W. Features include a 120° beam angle; >0.9 power factor; and 4 000 K daylight colour temperature.



Enquiries: +27 11 872 5500





## THE SMART WAY OF CONTROLLING LIGHT

LUXeye from OSRAM is an intelligent and easy light management system to make lighting 'smart' - and it's never been simpler to connect light with a smartphone.

LUXeye is designed to adjust itself automatically and start operating the light and presence sensor immediately after mains switch-on. General basic functions, such as light level and delay time, can be easily adjusted with a screwdriver. This quick and easy way of light management saves time and requires no extra commissioning tools.

For full flexibility, all functions can be modified with the LUXeye app for customisation and analysis. A smart device can adapt every parameter of each individual controller. An integrated wizard supports the user onsite. The LUXeye can be controlled either via smart device or traditionally with a standard wall

switch. It is more than just an energy-saving tool - it is also highly flexible and convenient because you can change the light wirelessly from your desk.

LUXeye products are easy to install, easy to use and easy to maintain.

The LUXeye app is available to download free

of charge from the App Store or Google Play Store. It runs on smartphones using the operating systems iOS (8 and upwards) and Android (4.4 and upwards).

Enquiries: +27 10 221 4000

LUXeye SENSE DALI BT	LUXeye SENSE 10 A BT
All-in-one product: Light control and configuration via Smartphone app Bluetooth connection, controller with integrated light and presence sensor, DALI output channel. Three ways to start: Plug-and-play, fast basic customisation via screwdriver and full flexibility via app.	Combo product: Controller with integrated light and presence sensor (on/off); 10 A output relay; configuring and controlling via a smartphone via Bluetooth interface; three ways to start: plug-and-play, fast basic adjustment screwdriver and full flexibility in my app.



## GOOD LOOKING SOLAR LIGHTS FOR POPULAR CAPE TOWN BEACH



BEKA Solar units with LEDlume-midi luminaires provide a welcoming environment at night at the popular Surfers' Corner in Muizenberg near Cape Town.

Enquiries: +27 11 238 0069

## PORTABLE LIGHTING SYSTEMS

Denver Technical Products offers an extensive range of free-standing portable lighting systems optimised for construction, civil defense, railway maintenance, fire brigades, open cast mining, etc.

The TF610 Series consists of three parts, a rugged tubular steel tripod, which has adjustable feet and will stand level on surfaces sloping up to 15 degrees. The telescopic aluminium mast is extended by a hand pump for heavy lamp heads or simply pulled up by hand for more modest head-loads. The lamp head can accommodate up to four luminaires each independently adjustable without tools. Various types of luminaires are available, for example, Halogen: 2 x 500 W, 3 x 500 W, 2 x 1 000 W and 4 x 1 000 W or HPS: 2 x 250 W/400 W, producing up to 83 000 lumens.

Enquiries: +27 11 626 2023



## CAN DESIGNED LED LIGHTING BOOST RETAIL SALES? BY CLIFFORD GRAFF, DIRECTOR AT RELIGHT ENERGY

Can designed LED lighting boost retail sales? The short answer is yes and no.

Why no? Because too many retail stores in South Africa are badly illuminated. Whether it's by bad design, a lack thereof or an accumulation of different lighting technologies to combat electricity increases, store lighting remains fairly poor across the board. Throw into the mix poor quality LED luminaires and the 'woeful index' climbs exponentially.

Individuals tasked with energy reduction initiatives are unfortunately bombarded daily with the supposed latest, most efficient LED replacement tubes, lamps, floods, troffers, high bays, low bays, spots, wall washers ... you get the picture. And they're likely to take the bait and the plunge ... once.

After the promise of 50 000 light hours (the snake-oil salesman's favourite tool, they might even have believed their own talk) never materialises they say they won't go that route again until the technology is proven. Plus, they say, all they got for their energy reduction initiative was less light - that's great if you're a nightclub, less so if you're selling products.

And the quality of the light (CRI) is crucial! However, so many retailers have such poor lighting products installed that it washes out any vestiges of a colour palette and replaces it with a dystopian grey haze. Retailers seem to be convinced that they're not changing to LED until Eskom relieves them of an even greater portion of their monthly expenses.

Why yes?

You can get the full benefits of a superior lighting installation together with a substantial energy reduction by implementing a designed lighting upgrade. The first impression a customer has when seeing a store is directly influenced by the store's lighting. Good lighting, they enter. Bad lighting, they're hesitant. A properly designed lighting installation starts with an appropriate balance between ambient and accent lighting. It takes into consideration the different requirements in colour temperature required for meat, fish, bread, vegetables and so on. It understands the lux level requirements for the different retail zones. Simply put, no lumen is wasted.

There is, to the best of my knowledge, no industry study of the actual percentage increase a well-designed lighting installation achieves over a standard "put it in until its bright enough" installation. There are examples of independent studies. One UK designer changed the lighting in one of two competing stores

located diagonally opposite each other (one owner) and has empirical data from the owner that the store with the LED lighting upgrade has had a 27% increase in sales since the changeover.

Back to the question: Can designed LED lighting boost retail sales? Yes, but only if the benefit of the

reduction in energy is married to the correct light levels with five plus year warranties against failure and colour shift taken for granted.

Agree with Cliff? Connect with him through cliff@relight.co.za or find Relight Energy on Facebook, Twitter, Linked In or at www.relighenergy.co.za

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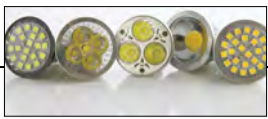
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## LED LAMP TURNS NIGHT INTO DAY

**E**urolux has boosted its comprehensive range of lighting solutions with the introduction of its latest day/night LED lamp. The Eurolux CFL day and night lamp has been around for the past 10 years and this new addition takes the range to the next level says Shaun Bouchier, director at Eurolux.

"This long-life LED lamp (G651BC and G651ES) is a must-have for the environmentally conscious home owner who wants functional light when it is dark," he says, adding, "There is no need for a separate day night sensor as it is a plug-and-play solution and is ideally suited to lighting up pathways, gate posts and to provide perimeter lighting."

### No fuss

This new Eurolux LED lamp is available in a 6 W and 10 W and available in a cool white colour, which is ideal for outdoor illumination.

It has the same swivel base as its CFL counterpart and is available in E27 (screwed) and B22 (bayonet) end-connection. The LED lamp automatically switches on at dusk and then off again at sunrise – a truly economical, no-fuss lighting solution.

The day/night functionality is enabled by an integral photocell that registers the brilliance of the ambient light and activates when light levels reach the pre-set level. However, brief changes in light levels caused by clouds, car lights, lightning etc. will not activate the LED, since it is programmed to continuously check for false light levels and will not be activated by these.

### Functionality

The 300° swivel base ensures optimum functionality, as Bouchier explains: "Lamp holders differ from fitting to fitting, which means

you might find that once you've fitted the LED lamp into a particular fitting, the light sensor then points towards the reflector, the wall or something else that may block the light and might result in a faulty light reading. This LED allows you to reposition the sensor once installed, which enables the lamp to function as intended."

### Long life

This day/night LED offers up to a 30 000 hour life span, compared to its CFL counterpart that only provides 6 000 hours. "The benefits of a longer lamp life are obvious; this is further boosted by the electricity savings associated with LEDs," says Bouchier.



**LED**  
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**80% ENERGY SAVING**

**Candle Ceramic LED**  
30 000 hours  
E27 base  
240 Lumens  
Warm White  
3W



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For a full range of lamps visit us online at [www.eurolux.co.za](http://www.eurolux.co.za) and follow us on social media



**Switch & save**

The Eurolux range of high quality LED lamps brings both energy efficiency and environmental awareness into your living and working spaces. With its 80% energy savings, it will also help ease the burden of ever-increasing energy costs.

### Why LED?

**80% Electricity Saving**

**80% Less Running Costs**

**80% Less Pollution**

### Features

**15 000 or 30 000 Hours**

**Dimmable or Non-dimmable**

**Warm White or Cool White**

**High Brightness**

"This lamp can provide users with electricity savings of up to 80%. It truly is an environmentally friendly product that offers users the greatest possible return on investment."

At up to 800 lumens, it is a bright light that will easily illuminate spaces and the A-shape lamp design is unobtrusively familiar.

Visit [www.eurolux.co.za](http://www.eurolux.co.za) to view Eurolux's entire range of lighting solutions.

Enquiries: +27 21 528 8400

## THE TOP THREE LIGHTING TRENDS FOR 2017 – DON'T GET STUCK IN THE DARK

**L**ighting is a key architectural and design element in any interior space, and trends change in this fast-paced market nearly as rapidly as they do in fashion and technology. Thando Dladla, Philips Lighting South Africa: marketing and communications assistant, explains the modern lighting trends she expects to have an impact in 2017.

1. Cutting-edge and energy-saving LEDs are here to stay. LEDs (light-emitting diodes) are available in various sizes and can be integrated into the majority of existing lighting systems - making it simple to switch. LEDs use up to 80% less energy than traditional incandescent lighting and can last for up to 15 000 hours – equal to 15 incandescent lamps – all while producing the same beautiful warm light you're used to. Not only will you have to change fewer bulbs, but there will be less waste. Switching from incandescent to new LEDs is an easy home investment where massive savings are felt well into the future.

2. Connected lighting. The new generation of smart bulbs are the perfect place to start if you're looking to haul your home into the 'connected lighting revolution'. Through an easy-to-use mobile app, users are able to switch, dim, change colours, and much more. Connected lighting allows homeowners to personalise and control the light that works for their schedule, comfort, safety and productivity. Connected lighting will completely change the way you use light.

3. Light built to make you better. Lighting is directly connected to our emotions and sense of wellbeing, and new neurological and behavioural insights are transforming lighting applications in both the hospitality and health industries. This is especially important to populations that are highly sensitive to the effects of light, like the ill and the elderly. Exposure to the right light also has great implications for our circadian rhythms - with the right light we can do things like improve sleep patterns and increase alertness. "This is why we work across hospitality industries to create lighting solutions for interiors that are built to boost your well-being, in a subtle but meaningful way – and why we are always looking to create solutions that not only look stylish but improve people's lives," says, Dladla

Enquiries: +27 11 471 5000

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## LIGHTING MANAGEMENT SYSTEMS WITH ADVANCED FEATURES FOR DAMP AREAS

Legrand's lighting and motion management systems encompass a wide range of sensors designed to make buildings more energy efficient by automatically reducing the amount of time lighting is left on unnecessarily.

"Reduced lighting consumption not only lowers operating costs, but also reduces lamp replacement and maintenance requirements and helps decrease Green House Gas (GHG) emissions," says Sonja Leibbrandt, marketing and pricing manager, Legrand South Africa. "Motion and lighting management sensors can operate in occupancy mode where lights are automatically switched on or off according to occupancy, or in vacancy mode for additional energy saving, where lights are manually switched on and automatically switched off when the person leaves the area. These sensors can also use passive infrared technology (PIR), ultrasonic or dual technologies.

"Lighting management sensors are suitable for areas of a building with or without natural light, including passages, corridors, hallways, staircases and restrooms and also for offices, storage rooms and warehouses. These sensors are also available with advanced features for installation outdoors and in humid areas of domestic, commercial and industrial buildings.

Legrand's lighting management sensors for controlling a single circuit in outdoor and damp areas with natural light, have an IP55 index protection rating to guard against the ingress of dust and water. These sensors, with three wires and neutral, have an automatic switch on/off occupancy mode setting and switch off automatically when there is sufficient natural light in the area. There is an adjustable time delay between 5 s and 59 minutes and a light level threshold from 5 to 1 275 lux.

These PIR wall or ceiling mounted multi lens sensors have a 270° infrared detection with a 18 m range and a 0,7 W standby consumption. The recommended fixing height is 2,5 m and with the use of accessory, these units can also be mounted in a corner. (0 489 33)

Lighting sensors for controlling a single circuit in outdoor and damp areas without natural light have automatic on/off controls, manual adjustment

of the light level threshold and time delay via a potentiometer.

PIR direct wall/surface mounting motion sensors, with a recommended 2,5 m fixing height, have 360° infrared detection and an 8 m range. These sensors have adjustable light level thresholds from 10 to 1 275 lux and an adjustable time delay between 10 s and 10 minutes. Standby consumption is 0,75 W.

PIR sensors for wall or ceiling mounting, with a directional head, have a 360° infrared detection and standby consumption of 0,9 W. The light level threshold is adjustable from 1 to 1000 lux and the

time delay is between 12 s and 16 minutes. The minimum fixing height is 1,7 m and the optimum distance between sensors is 6 m.

Legrand's lighting management solutions for outdoor areas and humid areas also includes sensors for managing multiple circuits.

PIR technology direct wall/surface mounted 180° sensors have a front-range detection of 6 x 15 m and consumption of 20 mA on standby. Connection to the controller is via a cord or RJ 45 cable.

Legrand's lighting management systems have been designed and manufactured to avoid energy



waste as the building only consumes just the amount of energy it needs, when it needs it.

Enquiries: +27 11 444 7971

## HIGH POWER LED FLOOD LAMP WITH HIGH LUMEN OUTPUT



Denver Technical Products stocks high power LED flood lamps that are ideal for vehicles requiring considerable permanent-on white light illumination. The compact main body, weighing 1,55 kg, is a rugged aluminium casting designed to act as the heat-sink of the lamp. The locking trunion tilt adjustment design of the base fixing point allows installers and users to modify the direction of the lamp, if required. The lamp has a voltage range of 11 V to 30 V with a low current drain at 2,3 A at 24 V. This flood lamp produces an incredible 7 000 lumens and has a five-year warranty.

Enquiries: +27 11 626 2023



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## LIGHT WHEN AND WHERE YOU NEED IT

**V**ert Energy, specialists in electric power generation, now distributes mobile LED lighting towers that provide dependable lighting exactly where it's needed, for optimum productivity and enhanced safety.

"The Allight range of trailer-mounted lighting towers can be easily moved from site to site in diverse applications, including mining, construction, road and railroad works, as well as in agriculture and outdoor field events," says Ryan Robertson, director, Vert Energy. "MSGEN2 LED lighting towers, which have been developed by Allight in Australia, offer over 50 000 hours of light per unit and only require re-fuelling every two weeks, on the basis of 12 hours of operation every night.

"The use of LED in mobile lighting applications in arduous environments, like construction and mining - has efficiency and economy advantages compared with towers that use gas-filled metal

halide lamps. These eco-friendly LED lighting towers have integrated fluid spillage protection bunds as standard, for environmental compliance."

The flexibility of this range includes various mast options, a specially designed high-wall overhang system and carefully selected light assemblies, for the exact lighting requirements of every project. Components, including lamps and lights, are integrated into the mast design for maximum output reach.

MSLED168K-9 lighting towers, with extra low voltage (dc) are powered by Perkins two-cylinder water-cooled diesel engines. Six 300 W LED low glare lamps produce 168 000 lumens, with no delay of warm-up or cool down time. Each LED floodlight provides 28 000 effective lumens after stabilisation. Individually adjustable lamps enable precise focusing of the light.

The total control system encompasses an

easy start/stop facility, location tracking and performance monitoring via a notepad or smart phone.

These units have been designed for low maintenance requirements, with 500-hour service intervals. Large doors enable quick and easy service access and the plug-and-play system, with no hard-wired componentry, ensures easy servicing and parts replacement.

Vert Energy's extensive range of reliable electric power generation (EPG) components also includes Leroy Somer alternators, DEIF controllers; ASCO automatic transfer switches; API Covrad radiators and Avtron and Froment load banks, as well as customised control panels.

The company offers a technical advisory, maintenance and support service throughout Africa.

Enquiries: +27 11 453 9669



MSLED168K-9 lighting towers, which offer over 50 000 hours of light per unit, only require re-fuelling every two weeks, on the basis of 12 hours of operation every night.

## NEW LIGHTING APPOINTMENTS

Nordland Lighting has made two staff changes. Johann Lamprecht, who has been with the company since 2014, was promoted to sales manager; and Jubilee Dithlake has been appointed as customer liaison administrator.



Johann Lamprecht.



Jubilee Dithlake.

## Creative lighting design in a linear arrangement

ERCO has developed the new Compar range of recessed luminaires with a striking linear design that delivers light distributions previously restricted to round or square ceiling apertures. As a result, Compar adds to the design options in typical recessed lighting applications such as foyers, circulation areas or conference rooms in administration buildings, restaurants or galleries whilst also meeting every ergonomic requirement for perfectly efficient lighting solutions in the office environment.

The Compar range of recessed lighting tools is able to implement differentiated lighting concepts in projects requiring a variety of functions and uses. For example, in a large office building areas such as the prestigious foyer, the lift lobby and corridors or the company restaurant need different lighting to the auditorium, conference rooms or shared offices. With its sleek linear aesthetic and integrated

technology, Compar offers a wide range of lumen packages with variable distribution options and design details, providing the right lighting tool for every scenario.

### Modular

The ERCO luminaire system builds on a modular concept defined by specific parameters creating a logical system that gives the designer flexibility in the combination of different ERCO luminaires. Taking the same approach, Compar is available in the three lengths 120 mm, 210 mm and 390 mm, with a width of just 62 mm, each with twice as many LED lenses - and double the luminous flux - as the previous one, and in two wattages, resulting in six outputs from 630 lm to a powerful 4 920 lm for high illuminances particularly in high rooms.

ERCO GmbH, [www.erco.com](http://www.erco.com)

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# Light the Way to Market Expansion

**HKTDC Hong Kong International Lighting Fair (Spring Edition) 2017** is a leading industry event which creates opportunities for participants to connect with buyers from all over the world. Its 2016 edition attracted nearly 20,000 buyers from 108 countries and regions, including such renowned names as TASCHIBRA (Brazil), Globe Electric Company Inc (Canada), B&Q China (the Chinese mainland), Moebel Rieger GmbH & Co. KG (Germany), Crompton Greaves Limited (India), Landmark Group (UAE), and EpiCentre K (Ukraine).

Organised by the Hong Kong Trade Development Council (HKTDC), the fair hosted more than 1,300 exhibitors in 2016. The fair's exhibitor profile represents the industry trends in lighting, such as energy-efficient products with a strong focus on LEDs and smart lighting solutions, the new frontier of lighting technology.

### Your Place in the Spotlight

To draw maximum attention from buyers, exhibitors are grouped in thematic zones. For 2017 these include Advertising Display Lighting, Avenue of Chandeliers, Business of IP Zone, Commercial Lighting, Decorative Lighting, LED & Green Lighting, Lighting Accessories, Parts & Components, Outdoor Lighting, and Trade Service & Publications.

### Highlight Zones

**Hall of Aurora** is the perfect environment to attract buyers of branded collections.

**LED & Green Lighting** is one of the fastest-growing sectors in the lighting industry.

**World of Professional and Industrial Lighting** encompasses a variety of situation-specific lighting, providing a showcase for lighting for warehousing stadiums and other commercial purposes, safety lighting and emergency lighting.

**Avenue of Chandeliers** creates a stunning showplace for the chandelier lighting which is so desirable to buyers.

**Advertising Display Lighting** offers a themed space for lighting products used for advertising, promotions or marketing purposes.

### Events around the Fair

The Networking Reception is an international gathering of lighting professionals in an informal atmosphere to relax, exchange notes and make new contacts. A programme of seminars and forums explores many aspects of the lighting industry, from lifestyle trends to emerging markets.

### April 2017, Peak Sourcing Month

April sees a number of important fairs in Hong Kong. They create a synergy of trading opportunities.

- 13-16 April HKTDC Hong Kong Electronics Fair (Spring Edition)
- 13-16 April HKTDC International ICT Expo
- 20-23 April HKTDC Hong Kong Houseware Fair
- 20-23 April HKTDC Hong Kong International Home Textiles and Furnishings Fair
- 27-30 April HKTDC Hong Kong Gifts & Premium Fair
- 27-30 April Hong Kong International Printing & Packaging Fair

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Venue: Hong Kong Convention and Exhibition Centre

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MAGNET GROUP



**Pieter Grove**, project technician, Magnet Energy.

STANLEY BLACK AND DECKER



**Manoj Panikkal**, general manager, Stanley Black & Decker sub-Saharan Africa (SSA)



**Sishen Naidoo**, regional finance manager, sub-Saharan Africa.



**Tinomuvonga Gukuta**, operations manager, sub-Saharan Africa.

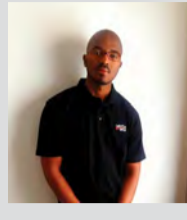


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BRIGHT SPARK

THE GREEDY BOOKWORM

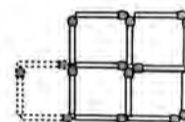
A bookworm was wriggling towards a bookcase on which there were three volumes, in order from Volume I to Volume III, of the *Giant Encyclopaedic Dictionary of Everything*. Each volume had a front cover that was 1 cm thick; the actual pages were 7 cm thick, and the back covers were also 1 cm thick.

If the bookworm started at the front of the front cover of the first volume and ate straight through to the end of the back cover of the third volume, how far did it eat?

JANUARY SOLUTION

WHERE IS THE EXTRA SQUARE?

Moving these three matches leaves four small squares and the large outer square.



MARCH FEATURES

- Energy measurement and supply
- Tools of the trade
- Lighting

Buyers' guide

Tools and instruments

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