

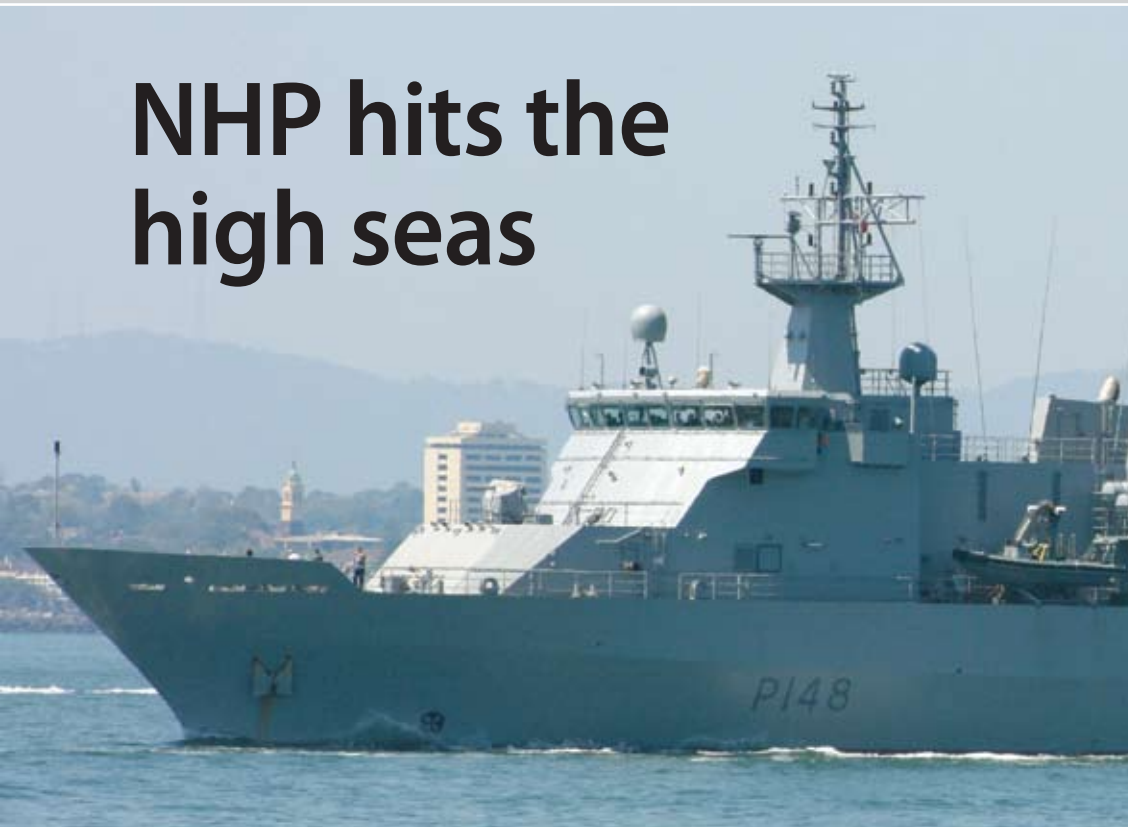
[ISSUE 5] APRIL 08

NEWSROOM

INDUSTRIAL SWITCHGEAR & AUTOMATION SPECIALISTS



NHP hits the high seas



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EDITORIAL



Lloyd Thomas
Managing Director / CEO



“NHP has enjoyed being part of this rewarding relationship, and after 40 years of being in business and 10 years in New Zealand, we look forward to this continuing.”

Australia and New Zealand: together we do better!

While we may play up on the love-hate relationship between the two staunchly patriotic countries, Australia and New Zealand remain natural allies with a strong trans-Tasman sense of family. Migration, trade and defence ties, keen competition on the sporting field, and strong people-to-people links have helped shape a close and co-operative relationship that has stood the test of time.

NHP has enjoyed being part of this rewarding relationship, and after 40 years of being in business and 10 years in New Zealand, we look forward to this continuing.

Our goal has been and remains to this day to be Australasia's first choice in low voltage electrical products and solutions. To survive and prosper, we must continue to differentiate ourselves from the competition and we do this in a number of ways:

- We have “best of breed” relevant products that are both high quality and innovative.
- We have the best team of motivated people who share the NHP values, values which make life better for our customers.
- We have the market leading and most extensive sales and regional branch network, carry significant stock and offer “on the spot” customer technical support.
- We have the largest and best “value add” capability in our industry and its locally based.
- We pride ourselves as “easy to do business” and provide excellent customer care.
- We are locally owned and control our own destiny.

While we are clear in our business model and strategic approach going forward, we are well aware that we need to be adaptive to the different environments we find ourselves in. What works well in Australia may not work well in New Zealand and vice versa, so we are constantly aware of differentiating between the two. In saying that, however, being “easy to do business with” is a constant that NHP wants their customers to count on wherever they may reside.

Thousands of Australians and New Zealanders make the journey across the Tasman each year thanks mainly to the Trans-Tasman Travel Arrangements of 1973, which allows New

Zealanders to visit, live and work in Australia without restriction and Australians to do the same in New Zealand. Over 470,000 New Zealand citizens currently live in Australia, while around 60,000 Australians live in New Zealand. While both countries share this freedom of movement, we forever remain conscious that both Australia and New Zealand are separate countries and therefore deserve such attention. Many businesses fall for the trap that what is good for one is good for the other which is often not the case.

NHP is very much aware of this and has been proactive in becoming a Gold Corporate and Foundation Member of the New Zealand Victoria Business Group, a group launched in February 2007 to help expand business connections between New Zealand and Australia. With other Member's of the group including the New Zealand Trade and Enterprise, Air New Zealand, Fairfax Victoria, Fonterra and Invest Victoria, NHP is well placed to be at the forefront of issues concerning business strategies between the two countries.

While we are constantly on the lookout for business opportunities between New Zealand and Australia, we should also look to make it easier economically to do business in both countries, further strengthening our ties. There is a growing belief that sharing a common currency would be mutually beneficial for both countries and this issue is gaining some political momentum amongst our leaders. New Zealand Prime Minister Helen Clark, once a fierce opponent of a joint currency, may be coming around to the idea. “I think that closer and closer economic integration with Australia is going to happen. If, after all, the large economies of Europe see advantage and grow to critical mass, then it would be somewhat odd for us not to be looking at the opportunities for us in this area.”

In closing, I cannot finish without mentioning the Spirit of the ANZAC. Official war historian C.E.W. Bean wrote that an ANZAC, ‘stood, and still stands, for reckless valour in a good cause, for enterprise, resourcefulness, fidelity, comradeship and endurance that will never own defeat.’

It also encompasses the laughter, the pride and the love of life that is in every Australian and New Zealander. It is within this Spirit that NHP hopes to service our industry and our customers in Australia and New Zealand for many years to come.

NHP NEWSROOM

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2007 NECA / NHP Industrial Apprentice of the Year Award

NHP Electrical Engineering Products Pty Ltd is pleased to announce Robin Malpas as the official winner of the 2007 NECA / NHP Industrial Apprentice of the Year Award.

NHP is proud of its ongoing support of NECA via the Apprentice of the Year program. For the 2007 NECA / NHP Industrial category, five finalists were chosen to be put through their paces at NHP's National Distribution and Manufacturing Centre, Laverton, Melbourne on 9th November.

Robin Malpas (ACT), Matthew Pearson (VIC), Michael Dempster (SA), Ryan Nilsson (QLD) and Nathan Hart (WA) all competed head to head for the honour of being named the NECA / NHP Industrial Apprentice of the Year via a series of practical exercises (wiring and fault finding) followed by a panel interview with the three judges.

After the selection process NHP hosted the five finalists to a dinner during which the top three finalists were announced. The NECA Apprentice Awards ceremony was held at Crown Entertainment Complex on the 15th November, 2007 where Rod Edwards, NHP's Sales Director, presented the awards for the Industrial Apprentice of the Year category.

Demonstrating both academic and personal qualities, NECA / NHP announced Robin Malpas as the winner of the NECA / NHP Apprentice of the Year Award. Robin's reward is a trip to

the Hanover Fair, Germany to attend the Industrial Electrical Exhibition.

By sponsoring such initiatives NHP continues to recognise the significant talent young apprentices have in the industrial field as well as understanding the importance of developing their skills that will help them toward their chosen careers in the electrical industry.



Robin Malpas (centre) with runners up Matthew Pearson (left) and Michael Dempster (right).



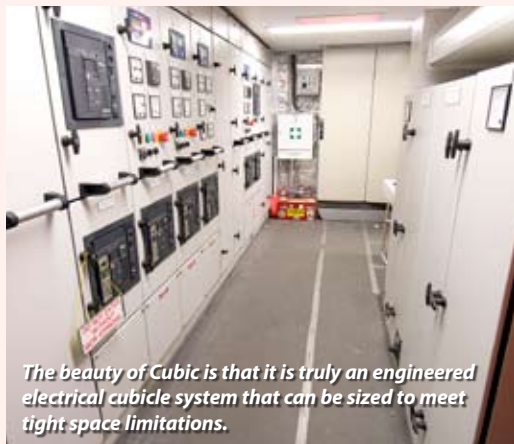
NHP signs up for the Royal New Zealand Navy

A project with Tenix Marine has seen NHP supplied switchgear take to the high seas with the Royal New Zealand Navy.

The Protector Class Offshore Patrol Vessel (OPV), soon to be named HMNZS Otago once it's commissioned by the Royal New Zealand Navy, was built from scratch at the Tenix Marine shipyard in Williamstown, Victoria.

Tenix Marine is a prime ship systems integrator in the Asia Pacific region, with a focus on the delivery of cost-effective solutions to complex Defence and commercial projects for new builds and associated support activities.

The impressive 85 metre, 1583 tonne Offshore Patrol Vessel, when commissioned, will accommodate a crew of 49 with an additional 30 Embarked Forces personnel also catered for. The OPV is intended for patrol and response operations in New Zealand's Exclusive Economic Zone (EEZ), the South Pacific and the Ross Sea and has the ability to remain at sea for up to 21 days at a time. The OPV is also able to embark and operate a Royal New Zealand Navy SH-2G Seasprite helicopter and carry two Rigid Hull Inflatable Boats (RHIBs).



The beauty of Cubic is that it is truly an engineered electrical cubicle system that can be sized to meet tight space limitations.

Central to the ship's fit out was the design and manufacture of Cubic switchboards from NZ based supplier, McKay.

Established in 1936, McKay is one of New Zealand's largest electrical and instrumentation companies. The business works all over the south eastern Pacific Rim on projects involving the petrochemical, dairy, power generation, aviation and marine industries.

Mark Carter, McKay's Switchboard Manufacturing Manager, has a long history working with Royal New Zealand Naval vessels in switchboard design, manufacture and supply.

Mark explains that he and his team specified Cubic switchboards for the HMNZS Otago for a range of reasons.

"Cubic's Modular System is super versatile, allowing all the individual requirements from the end-user, customer or consultant to be built in the switchboard," Mark explained. "The Cubic system also met the specifications required by the Royal New Zealand Navy and the Vessel Classification Society, Lloyds. We really had a competitive advantage with price and unit size and flexibility."

Other features of the Cubic system include ease of upgrade or adaptation for changing conditions, excellent documentation such as Design software, Technical Assembly Instruction, Projecting Manual, Temperature-rise calculation software, Busbar systems rating up to 7000 amps, short-circuit test lcv up to 120 kA and lpk up to 264 kA.

McKay's job was to manufacture, test, fit and make modifications on the ship's main switchboard, the emergency switchboard, motor control centres and local distribution boards.

Once the switchgear was installed, Tenix's Senior Engineering Officer, Bill Dale, and his team at Williamstown found the need for some extra specialised accessories and contacted NHP's John Thornton, Product Manager for Cubic Modular Switchboard Systems.

NHP supplied Cubic Cable Connectors to enable ease of connection of both earth and neutral cables.

"The beauty of Cubic is that it is truly an engineered electrical cubicle system that can be sized to meet tight space limitations, like those on the Otago, but also more than meets Australian and New Zealand Electrical Standards," John explains.

"And their accessory range really is second to none - Cubic offer Cable Connectors, Cu-Flex (flexible busbar), Cable Boxes (to cover sub-mains cables), Busbar Connection Kits (to enable ease of switchboard extension), Auxiliary Plug Connectors and a full range of parts to enable switchboard alterations on site. All of these parts can be supplied as part of the switchboard when delivered to the customer or as accessories when required."

The result is that the Cubic system provides light and power to all of the ship's operations. In various locations around the vessel, power is distributed for lighting, ventilation, air conditioning, communications, water treatment, sewerage, steering, auxiliary propulsion and generator controls.

"Of specific benefit to the Otago is the Cubic multi drawer system," said McKay's Mark Carter. "Each motor has an overload which protects it and contactors which can turn on and off in case of failure. With the Cubic's replaceable drawers, if there is a problem, you simply pull the drawer out and replace it with another. You can fix the drawer component at your leisure and there's no downtime - vital if you're at sea."

The Otago is capable of speeds of up to 24 knots and has a range of 6,000 nautical miles. Working in the oceans around New Zealand, the ship has the capacity to sail some of the roughest seas in the world, even arctic waters, and is equipped with helicopter facilities and a 25 mm gun. Effective switchgear is central to the vessel's operation - supply of light and power must be ultra reliable under such extreme physical conditions.

"Cubic equipment is ideal for a navy vessel like this," explains Tenix's Senior Engineering Officer, Bill Dale. "It can take a high level of seismic vibration, it's built extra tough for mobile environments and the size of the boxes mean we have super functionality in a series of compact units."

The construction of the HMNZS Otago has taken place over a three year period and utilises the modular construction concept, pioneered in Australia by Tenix Marine. This form of construction allows for easier installation of major equipment such as the propulsion diesels and the Cubic main switchboard.

With shipyards at Williamstown (Victoria) and Henderson (WA) in Australia and at Whangarei in New Zealand, Tenix Marine has a strong capability for new construction, repairs and maintenance and the ability to perform in-service support.

Tenix Marine has further work on the drawing board for the Australian Navy including two Canberra Class Landing Helicopter Dock (LHD) ships.

"We're very pleased to be able to help Tenix Marine in the construction of this world class patrol vessel," says NHP's John Thornton.

"Navy vessels have to be equipped for any contingency. Guaranteed supply and control of light and power is an absolute must," he says.

"After all, when you're 1,000 kilometres offshore, you need your essential services to be ultra reliable.



CUBIC

MD MULTI-DRAWER

New times, new ideas are some of the keywords for CUBIC's MD - Multi Drawer. New thinking, where the focus is on the unity, the simple and the innovative.

One system - All possibilities

The Multi Drawer is used world-wide where electrical energy is distributed with the highest possible personal and operational safety; typically within the industry, process, mining, navigation, hospitals, infrastructure etc., where even a short interruption of the electricity supply may be crucial to human lives and cause huge operational disadvantages and economic losses.

The Multi Drawer system offers versatile and compact solutions, which simultaneously meet the end-user's demand for a competitive product.

The Multi Drawer is constructed and designed in concert with the users, and so the product appears with the optimum combination of user-friendliness, operational safety, and economy.

- High safety for personnel
- Competitive
- Fewer operational stops
- Compact design
- Operationally dependable
- Minimum maintenance



Designed specially to satisfy the end-user with simplicity regarding structure and assembling means the Cubic MD System is an intelligent switchboard prepared for the future.



One push button operation. All drawers operate in the same way.

OTHER NHP ONLINE RESOURCES

The addition of the new NHP 'Super Search' to our extensive online resource base helps complete the steadily growing raft of resources available to customers. These can be broken down into four main areas:

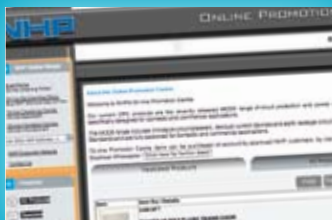
1. Specific product information on dedicated product micro sites, e.g. Santerno Variable Speed Drives nhp-nz.com/santerno



2. Specific application information on dedicated application micro sites, e.g. Safety nhp-nz.com/safety



3. eCommerce trading portals allowing pricing and purchases to be done, e.g. Online Promotion Centre nhp-nz.com/opc



4. General company and industry news, e.g. NHP Corporate home page nhp-nz.com



NHP continues to expand its online customer support resources

NHP's commitment to providing information to our customers in an easy to use and comprehensive format has been recognised by the Australian market for almost forty years. In recent years this has expanded to encompass the online world with many significant new initiatives being launched to assist our customers in this area.

In support of this, NHP has recently launched a new website search tool called 'Super Search'.

Embedded within our corporate website but hooking into all available published data, 'Super Search' allows customers to launch an extensive and complete search for all relevant product information, technical data and software from the one place, no matter where it resides. In addition other

materials are also made available to the user based on their online membership of our Online Resource Centre (ORC) nhp-online-nz.com. This includes training material, product CAD blocks and technical specification documents.

In the last two years many NHP customers and their customers have asked us to expand our resources in this area. So with over 30 % of our customers (and rapidly growing) using the web as their primary information tool, NHP will continue to invest in this area in parallel with our hard copy production.

There are many new micro sites under construction and other exciting electronic initiatives being planned that will enable NHP to continue to go from strength to strength in offering its online customers the support and access they need.

NHP Super Search

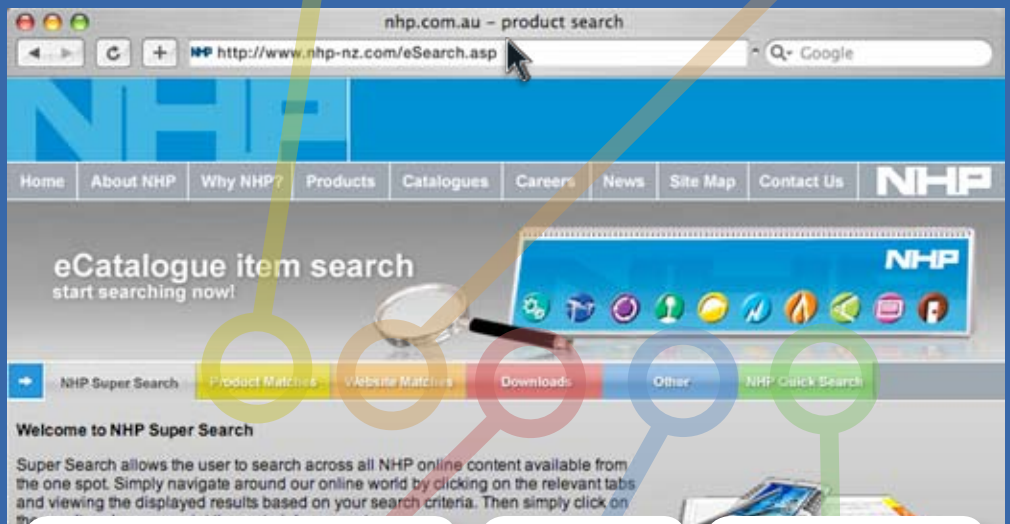
Accessible directly from the home page under the Quick Links heading or via the top menu under the Products heading, Super Search is simple and easy to use via coloured navigation 'tabs'.

Product Matches

The 'Product Matches' tab, searches across all 'eCat' product catalogue content and presents the user with a summary of results including a simple drill down to any relevant accessories. By clicking on the displayed link the user is presented with all available technical data, a product image and can turn the information into a catalogue page by clicking on the 'PDF Me' product data symbol on each page. In addition by clicking on the 'email this page' symbol, the users email client is opened and a shortcut to the presented page is automatically made available for forwarding to a friend or colleague.

Website Matches

The 'Website Matches' tab, searches across all NHP corporate website pages and product micro websites and presents the user with a summary of results.



Downloads

The 'Downloads' tab, is specifically for NHP Online Resource Centre (ORC) users looking for software or technical data not available from the general product catalogue. After logging in, it allows easy and intuitive searches to be carried out across all ORC content. Using new 'Web2' search techniques, this tab allows for filtered and dynamic search parameters to be entered, returning fast accurate results.

Other

The 'Other' tab is also specific to NHP Online Resource Centre (ORC) users and allows access to PDF copies of all NHP main catalogue sections.

NHP Quick Search

The 'NHP Quick Search' tab is our classic search for experienced NHP customers who know exactly what they are looking for. Designed for speed, this tab requires the user to input the part number to quickly access the information they need.

NHP and Sprecher + Schuh - 40 years on and still going strong

Sprecher + Schuh has been one of the leading manufacturers of high quality electrical equipment in Europe for many years. The company, founded by Carl Sprecher and Heinrich Schuh in 1903 in Aarau, Switzerland, was acquired by Rockwell International in 1993 and now operates under the direction of Rockwell Automation.

The Sprecher + Schuh facility in Switzerland continues to operate and develop products for world markets as a centre of excellence and will continue to produce low voltage control gear products, including the world famous Sprecher + Schuh contactor range.

NHP's beginnings span back to 1968, when company founder, Nigel H Peck, had a vision to create a 100 %

Australian owned and operated switchgear company. In a market dominated by large internationals, Nigel seized the opportunity to offer Australian customers unprecedented service and a wide range of quality products.

At NHP, our focus on service and quality has enabled us to evolve from a small business of only 15 employees, to a prominent company with a 600 plus-strong team, with offices in 17 key locations throughout Australia and New Zealand.

In 1968 NHP was appointed the exclusive Australian agent for Sprecher + Schuh low voltage motor control gear products which were primarily manufactured at the head office of the company in Aarau, Switzerland.

Since 1966 when Sprecher + Schuh equipment was introduced into the Australian market it has received remarkable acceptance from the Australian industry. This has been largely

due to the technical superiority of the products produced to traditional Swiss exacting standards of precision engineering. These high standards are the result of strict manufacturing controls and testing, and through the use of the latest high quality materials available. This high quality has resulted in remarkable reliability ensuring long life and excellent performance.

In 2006, NHP after being established in the New Zealand market since 1998, re-introduced the Sprecher + Schuh range of quality products back into this challenging market. Sprecher + Schuh the brand has been in New Zealand since the early 1970's and was a well established and respected range of motor control and protection products.

From the humble beginnings of the CA 1 range of block contactors and CS 1 relays, which are still around in strength

today some 40 years later, Sprecher + Schuh really founded its reputation and success on this world renowned range.

Sprecher + Schuh have never rested on its laurels with continuous development and testing resulting in the current CA 7 and CA 6 range

of contactors. The CA 7 is designed and manufactured to the most advanced specifications: using cadmium free and recyclable materials, new plastics and more sophisticated accessories.

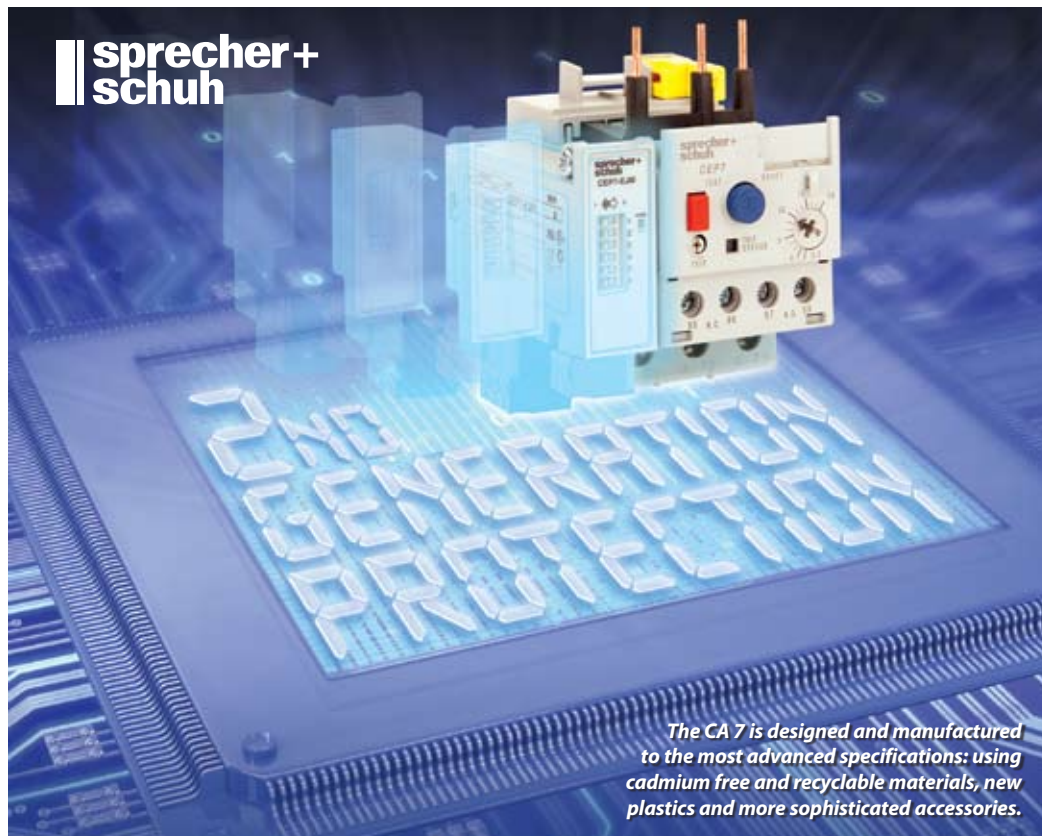
At NHP we believe that there is no such thing as 'just a contactor'. NHP and Sprecher + Schuh offer much, much more, from a complete offering of contactors to suit all applications as well as 140 different accessory modules that form a total range - not just 'bits and pieces'.

The outstanding range of Sprecher + Schuh motor control and protection products offer a complete solution to meet the requirements of most AC motor applications. With motors being one of the most important pieces of equipment in today's manufacturing processes, it is essential to consider motor control and protection equipment of the highest quality.

***NHP and Sprecher + Schuh,
40 years young, still going
strong and partnering
into the future.***

20 GOOD REASONS TO CHOOSE NHP AND SPRECHER + SCHUH

1. Switching Solutions - using the CA 7, CA 8, CA 5, CA 6 range of contactors
2. Switching Solutions - Load-break switches and L 7 high performance power disconnection motor isolators
3. Motor Starting Solutions - DOL, Star-delta, autotransformer and soft starters in open and enclosed versions
4. Motor Protection Solutions 'Electronic' - CEP 7, CEF 1, RT 7 thermistors and CET 5 electronic motor protection
5. Motor Protection Solutions 'Thermal' - CT 7 and CT 8 range of thermal motor protection overloads
6. High Performance Motor Circuit Breakers - KT 7 range offers a complete Type 2 coordination system
7. Safety - CA S and CS S contactor and relay range both AC and DC operated
8. Control Solutions - D 7 pushbuttons, RZ 7 timers (numerous timing functions), CS 7 relays and L 2 control switches
9. Specialty Switching - Capacitor range CAQ 7
10. Mining Contactors - range of CA 6 and CA 5 1000 V from 25 to 550 kW 3 pole
11. Common Frame Sizes - CA 7 range of four (4) frame sizes not only saves space, but reduces inventory and frustration. For example: the 4 to 11 kW range is the same frame size; so if you don't have a 4 kW CA 7-9 in stock you can use a CA 7-12 5.5 kW. It fits in the same space with no rewiring or rejigging required.
12. Accessories - Choose from 140 different combinations
13. Communications - The CCA contactor auxiliary allows localised or remote switching
14. Co-ordination - The ACS (Advanced Control System) are tested for Type 1 and 2 co-ordination
15. Compact - CA 8 and CS 8 range of compact special purpose contactors, relays and overload systems
16. Specialty Motor Starters - PCS and PDS soft starters from 1.1 to 132 kW
17. Termination Devices - V 7 range of screw terminals from 0.5 to 70 mm²
18. Quality and Performance - technically superior quality and remarkable reliability
19. Support - The NHP products team offer a complete support package from engineering to design to technical support
20. A Growing Range - S+S continue to innovate and develop new and/or improved devices to suit changing needs in the solutions market, from the latest CEP 7 electronic motor protection relays to the new CA 8 series of compact contactors.



The CA 7 is designed and manufactured to the most advanced specifications: using cadmium free and recyclable materials, new plastics and more sophisticated accessories.

A NEW LOOK FOR TERASAKI ACB OVERCURRENT PROTECTION RELAYS

Early this year, NHP officially released a new range of overcurrent relays (OCRs) for the popular Terasaki AR air circuit breaker (ACB). The new range of OCRs are divided into two performance ranges; the TEMPro PLUS and TEMPro PREMIER.

The TEMPro PLUS is the introductory model that features a backlit liquid crystal display (LCD) for easy visual identification, which is of great benefit to users who operate in low light conditions such as the mining or marine sectors.

Furthermore the TEMPro PLUS has an inbuilt amp meter that displays the available phase currents I1, I2, I3 and fault tripping information.



The TEMPro PREMIER is an advanced OCR that offers the same LCD appearance and protective functions as the TEMPro PLUS. In addition to the current meter measurements already stated the TEMPro PREMIER has an inbuilt power meter which indicates line voltages (V) V12, V23, V31, power supply data and a range of power measurements.

A MODBUS® communications facility for data monitoring is a standard feature with both the TEMPro PLUS and TEMPro PREMIER OCRs. This new feature allows for remote data monitoring which is a highly sort after safety feature where personnel and switchgear separation must be maintained.



CA 6 - ROBUST AND VERSATILE

Over the past 19 years NHP, in partnership with Sprecher + Schuh, have expanded on the unique range of CA 6 contactors, providing local industry with a complete selection that now covers 1000 V AC3 ratings up to 500 kW.

In 1993, NHP launched the very first 'electronic coil' version of the CA 6 contactor, which has provided unparalleled advantages for demanding applications. These include steel mills, rock quarries, mines, or for any middle kW application where a durable contactor is needed.

The uniqueness of the 'electronically controlled mechanism' (ECM) has been further enhanced with the inclusion of a built-in PLC interface. With the EI version an electronic circuit regulates the voltage to the contactor coil. This is achieved using an ASIC (application specific integrated circuit) which precisely controls the pick-up and drop-out levels of the contactor.

This provides decisive advantages for the user, which includes:

- Very low pick-up and hold coil consumption (constant VA)
- No contact chatter because of the defined pick-up and drop-out voltage which gives high contact reliability
- Reduced heat within magnet system
- Safety arc chamber interlock
- Wide voltage tolerance of coils

Robust and versatile are words that describe the CA 6 contactors. In conjunction with fuses or circuit breakers, Type-2 coordination can be achieved and they have both high thermal and switching capacity.

A wide range of accessories complement an already impressive contactor, including:

- Mechanical Interlock, which interlocks all CA 6 contactors within the range – includes built-in N/C auxiliaries.
- Flexible busbars and mounting plates available for quick assembly of starter combinations



The CA 6 range now covers 1000 V AC3 ratings up to 500 kW

- Up to eight auxiliary contacts
- Choice of electronic motor protection
- Plug-in voltage suppressors

SAFETY FIRST

CA 6 contactors have been designed around safety, which includes terminal blocks with IP 20 finger protection and arc chambers which cannot be removed with the contactor energized and, additionally, the contactor cannot be energized unless the arc chambers are locked into place.

The arc chambers, when closed, also prevent hot gases escaping, which means there are no safety distance requirements in front of the CA 6 contactors.

The CA 6 contactor have a switch position indicator which prevents manual operation of the contactor.

The CA 6 contactor is one of the most respected and widely used contactor in the electrical world. With the range manufactured to the most internationally exacting quality standards, it guarantees fit for purpose and a long lifespan unprecedented in the industry.



STEUTE - 'BIG BANG' CONTAINMENT



Switchgear products in potentially explosive environments have to fulfill special requirements. Steute has been pioneering in this field for many years and has acquired comprehensive expertise on explosion protection.

The Steute product range was quick to adhere to the EC guideline 94/9/EG (ATEX) and in recent times IECEX. Since then it has continually expanded - with the result that today Steute offers the most comprehensive range of switchgear products for the field of explosion protection worldwide.

Wherever machines and plants present the risk of exposure to dangerous explosions, safety interlocks are used to not only monitor the position of guard doors but also to interlock the doors securely in potentially explosive atmospheres. Steute has responded to this need by introducing a range of safety interlocks, which comes with ATEX and IECEX certification for gas and dust potentially explosive areas (Ex-Zones 1 and 21, as well as 2 and 22).



Steute explosion protection portfolio includes:

- Ex- Position switches (with positive break)
- Ex- Foot switches
- Ex- Pull-wire switches
- Ex- Safety interlock switches
- Ex- Safety solenoid interlock switches
- Ex- Magnetic reed switches

This large product range means machine manufacturers/operators can reliably prepare for all eventualities and contingencies while having the satisfaction of knowing that the safety interlocks and other products provide full protection for areas potentially at risk due to explosive atmospheres.

.steute

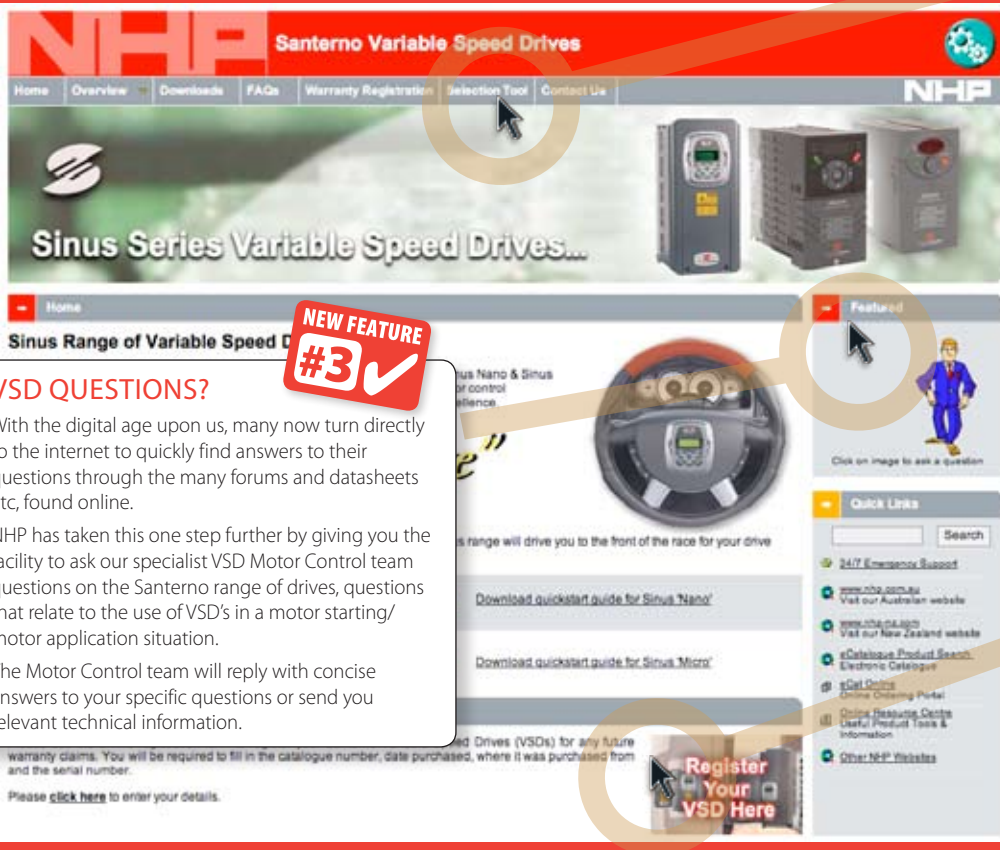


Santerno micro site – new tools and features!



nhp.com.au/santerno

NHP's Santerno micro site nhp.com.au/santerno has a wealth of information including manuals for the entire range (Penta, Nano, Micro), FAQ's, features of the drive range, fieldbus manuals and installation files plus the FREE Remote Drive software.



SINUS PENTA ONLINE SELECTION TOOL

The new online selection tool is a handy online program which takes the stress out of selecting a suitable Sinus Penta drive and accessories. It is a quick and easy reference point accessible when catalogue material is not readily available.

PLUS, it's so easy to use!

1. Select your application from the drop down box
2. The duty rating will automatically highlight the applicable rating
3. Either select the required kW rating or enter a current rating in the field provided
4. Click on 'Select VSD and Accessories'
5. The table will then update all the required components you need for your application



VSD QUESTIONS?

With the digital age upon us, many now turn directly to the internet to quickly find answers to their questions through the many forums and datasheets etc, found online.

NHP has taken this one step further by giving you the facility to ask our specialist VSD Motor Control team questions on the Santerno range of drives, questions that relate to the use of VSD's in a motor starting/motor application situation.

The Motor Control team will reply with concise answers to your specific questions or send you relevant technical information.



ONLINE WARRANTY REGISTRATION

Customers are now able to voluntarily enter their Santerno drives purchase details online. By doing so, customers receive the full benefit of the 3 year Sinus Penta warranty and the 2 year warranty for the Sinus Nano and Sinus Micro.

B&R Automation Panel 800 - IP 65 all-round protection

Perfection in Automation
www.br-automation.com



With the Automation Panel 800, ergonomics and individual functions are given top priority.

The Automation Panel 800 is extremely flat, allowing it to be attached anywhere on the machine. The coated surface of the housing is protected from sprayed water and meets IP 65 protection standards. Housings are also available with a stainless surface. These variants have been certified for use in the foodstuffs industry.

Automation Panels are used to operate and observe machines and systems. With the design of the Automation Panel 800, B&R continues to expand its successful Automation Panel series. The newest generation of all-around closed display units offers the highest degree of flexibility. Mounting on swing arm systems allows the operator panel to be placed at the most ergonomically convenient position - a decisive advantage for the comfortable operation of the machine.

To provide optimal user-friendliness, the AP800 is equipped with a 15" XGA display with touch screen. This allows complex sequences to be carried out intuitively and logically. Individual expansions for function keys, electromechanical keys, and the E-stop function mean that it can be optimally

adapted to the needs of the application. This modular principle is what makes the Automation Panel 800 so unique.

The Smart Display Link (SDL) is used to connect the Automation Panel 800 to the Automation PC 620. Distances of 40 metres are possible between the PC and the display. SDL transfers all communication channels via a single cable - from the display data and touch screen to function keys and LEDs. Even a remote USB interface is available on the keyboard.



The modular expansions of the Automation Panel 800 provide a maximum degree of flexibility

INNOVATIONS

NHP Engineering team test for Australasian conditions

The year was 1962 and the brand new Ford Falcon reached Australasian shores under a lot of fanfare due to its superior American engineering. While it was a fantastic car and very well received by the local market, it had not been previously tested on harsh roads and as a result the front suspension collapsed. It quickly became apparent to Ford that what they had produced for the American market did not cater for what they encountered in Australasia, so they realised they had to 'acclimatise' the product for it to cope with the local conditions. Equally so, we at NHP come across products which require similar adaptations to cater to our Australasian market and therein lies the need for our 'local heroes', the NHP Engineering team.

A prime example of this is the common power distribution chassis. Chassis', as a design, are unique to this part of the world even though they emanated from British standards. The English still use distribution chassis' for breakers as do some parts of the Middle East. However, when the breaker product range is updated and key dimensions change, as was the case with Tembreak 2, this dictates that the chassis must also be re-designed, and in some cases, retested.

There are other factors that can dictate the design of chassis, such as changing standards. For example, the AS3000 wiring rules were updated in November 2007. As a consequence, any chassis rated above 800 A must be fully touch proof. This has had a direct impact on the chassis at the higher end of our range, and will require that the engineering team alter the design to accommodate these new demands.

So what else does the NHP Engineering Team do? In respect to chassis', once a design is completed it needs to be tested, so NHP visits the ITACS Laboratory in Heidelberg, Victoria, Australia where short circuit, unconditional through fault testing is completed. Heat rise testing is also conducted to ensure that the main bus bar can carry the nominal current rating on a continual basis. Whilst it looks like a simple product, a chassis can be quite a complicated design and can often require many different considerations to pass short circuit tests. At 65000 A, the main copper busbar in a chassis can experience a force equivalent to a 1000 kg load!

Another example of a product designed for our unique local conditions is the captive lockdog for circuit breakers. The reason NHP designed the Lock DIN™ was due to the fact that the Australian market has very tough safety requirements, particularly in the resource industry, more so than in any other part of the world. The locks used must be captive, whereas the European and Japanese suppliers traditionally provide a non-captive lock. The difference between the two means the non-captive lock can be removed when a lock is not fitted.

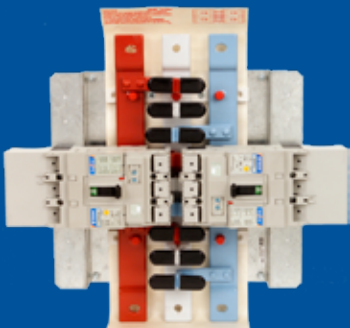
The local resource companies require that the mechanism that accommodates the specific lock must always be present, so as it can not be removed. Moreover, trying to fit a hasp, (which can have up to eight to ten holes on it for the individual locks), to a miniature circuit breaker is often difficult due to its sheer size. So the Engineering Team developed the LockDIN to accommodate the specific locking requirements. It was an extremely tough job that required about \$60,000 worth of tooling as well as custom moulds that had to fit across a variety of different breakers.

As one could appreciate you have single, double and triple pole devices. Having 18 mm breakers, 25 mm breakers, RCD's and more, there is a wide range of breakers that these locks have to fit to that demands that you have all these individual moulds, hence the tooling cost. NHP have registered a patent for this design, and this is a testament to the engineering capability of our local team.

While the Chassis' and LockDIN are two great examples of how the Engineering team works in isolation from our suppliers when our market demands a specific solution, there are also a number of ways the Engineering Team influence our suppliers' designs. One example is the KATKO 250 A main



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Every time NHP has a new product range such as Tembreak 2, where the dimensions for the breakers change, it means NHP has got to redesign the chassis.



NHP engineers regularly interact with our Supply Line Partner's engineers to make sure that we achieve the desired results

switch that we use for our distribution boards. This product was the result of discussions between our local engineers and the KATKO engineers in Finland. Another example involves the testing of products within Cubic modular switchboards. NHP sources products from a variety of different suppliers and needs to ensure that they are compatible for specific applications. To achieve a Type 2 coordinated solution, Sprecher + Schuh contactors are tested in conjunction with Terasaki circuit breakers. NHP engineers interact with the Sprecher + Schuh and Terasaki engineers, and can be present at the tests, to make sure that we achieve the desired results.

NHP can also influence the design of special products that are manufactured by our supply partners. To address market demand, NHP engineers worked with Socomec and a local supplier to develop plug-in fuse switches, which were unique to our market. The KATKO 250 A switch was also designed to address special requirements for Australian panelboards. Both these products are now being successfully sold in overseas markets, and this again is a credit to the engineers involved with these designs.

This was also the case when NHP first evaluated the Santerno Variable Speed Drive (VSD) range. With the range made and designed in Italy, the documentation was written in Italian. Also, whilst it was immediately obvious that the product was of high quality and that the power circuit design had integrity, the user interface was not as intuitive as it could have been. As a consequence, the engineering team offered Santerno some constructive feedback which resulted in a simple, more 'user friendly' control panel. It's quite pleasing to note that Santerno have since adopted these suggested changes and market this new control philosophy in all their export markets.

So whilst the engineers are not often in the front line of the business, they make a significant contribution to the product mix that is offered by NHP.

NHP

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