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Dear Friends,

First and foremost, I would like to acknowledge your appreciation and invaluable feedback on the first issue of CONTACT, the ABB India Magazine.

As we continue our quest to create greater value for all our stakeholders, our focus on customers has been further intensified. I would like to share with you some of the recent developments during the past few months.

Consolidating on our customer-centric realignment, Account Teams are now in place, providing a single-window approach for our customers. On a global level, we have now merged our Manufacturing & Consumer Industries division and our Process Industries division into a single Industry Division. In India, we have recently set up a regional marketing office in Raipur to serve the central region. Our regional marketing offices in Chennai and Delhi are now functioning from more accessible locations. We have significantly enhanced the availability of our marketing and technical material and this effort is continuing in line with our visibility and communication initiatives.

Our standard products initiative is starting to yield results. The number of channel partners in the north have been significantly increased and we are now taking the initiative to other regions, bringing ABB’s world-class and comprehensive product range closer to customers. I would like to acknowledge the whole-hearted support of all our channel partners in the various initiatives taken, a case in point being ABB’s interactive business portal.

We have now put in place a dedicated and specialised service organisation to develop programmes and platforms to support ABB’s vast installed base through response centers, Web support, AMCs, etc. This will help our customers to benefit from ABB’s world-class service, support and technology – cutting down their need to stock spares, protecting them from obsolescence and eliminating the need for maintenance manpower.

ABB India’s efforts have also been recognised by the Group in many ways. Our Vadodara and Nashik facilities have been designated as global factories for a specified range of products. Our state-of-the-art transformer factory at Vadodara is undergoing capacity expansion and range enhancement up to 400 kV.

Another recent achievement was the commissioning of an advanced SCADA system for the twin cities of Hyderabad and Secunderabad. The Honorable Chief Minister of Andhra Pradesh, Mr. Chandrababu Naidu inaugurated this project, highlighting an important trend in the refocused Indian power sector.

You will read more about some of these developments in the current and future issues of CONTACT, and I look forward to staying in touch with all of you.

Ravi Uppal
Managing Director & Country Manager
ABB India
ABB’s Power Transformer operations in India commenced in 1999 at its Vadodara facility. The factory utilises the TrafoStar™ concept (successfully implemented across all of ABB’s 25 transformer-manufacturing facilities worldwide) – a standard concept used for the design and manufacture of power transformers for voltages greater than 72.5kV. The facility has a Transfer of Technology agreement with ABB Transformatoren GmbH, Germany, for the design, manufacturing and testing of power transformers for ratings of up to 1100 MVA.

The factory utilises the best practices collated from all of ABB’s 25 transformer manufacturing facilities worldwide and the combined know-how and “7 X 100 years” of collective experience of BBC (Switzerland), Asea (Sweden), GE (USA), Westinghouse (USA), Stromberg (Finland), Ansaldo (Italy) and National Industries (Norway) – setting it apart from any other supplier facility.

A TrafoStar™ transformer is built from standardised, service-proven components and modules ensuring flexible, dependable and tailor-made transformer design with the help of powerful software-tools. ABB’s software tools for design are developed in-house at the R&D center located in USA. Software tools are developed after collection and analysis of large amounts of data on testing
and performance of every transformer made by ABB's 25 transformer plants worldwide. Extensive R & D has generated common electrical and mechanical design rules that each TrafoStar™-based design transformer follows. The electrical design ensures optimum design with accurate calculation of eddy current loss and short circuit forces. The mechanical design is done on a 3-dimensional modeling software (Pro-Engineer), which allows designers to view the as-built transformer (including tanking of

12 Good Reasons to choose TrafoStar™

1. Service-proven transformer design that meets your power needs

2. Robust design features make all the difference

3. Test records confirm ABB's continuously improved quality

4. First-class suppliers

5. Outstanding short-circuit strength test record

6. Short, on-time delivery - with ABB quality guaranteed

7. Low life-cycle costs

8. A lifetime of trouble-free operation

9. ABB resources to develop even more efficient solutions

10. Built on systems know-how

11. Creative financing solutions for cost-effective investments

12. Consistent transformer quality available from state-of-the-art factories world-wide

On-site ABB Power Transformer
the core-coil assembly) on the computer screen even before the actual production is taken up. This ensures fault-free mechanical alignment and matching on the shop floor, avoiding rework. Further, repetitive use of stored design data reduces possibility of errors.

Selecting the right transformer is not an easy task. There are many factors that need to be considered: performance, design, life-cycle costs, finance. ABB power transformers offer unique features, which makes them the best choice for utilities in India.

The transformers incorporate state-of-the-art technology from ABB. It is the highest-rated (almost 50% more than the currently used units) traction supply transformer to be used in the country with a 220 kV class on-load tap changer (OLTC) on HV side. Normally, only an off-load tap changer on the low voltage (27.5kV) side is used.

This success is a clear endorsement of ABB’s basic design, high workmanship-levels and technical expertise.

To date, ABB has supplied over 35 power and traction transformers of varying capacities and complexities to major Indian utilities and industry. These include Punjab State Electricity Board (PSEB), Gujarat Electricity Board (GEB), Bhakra Beas Management Board (BBMB), Hindalco and the Indian Railways. As a result of its high-quality product output, it has recently been able to export transformers to the USA and Bangladesh, and has also booked a major order from Syria.

The Gujarat Electricity Board (GEB) recently issued a performance appreciation certificate to ABB India in recognition of the trouble-free operation of its 100 MVA, 220/66 kV power transformers and commissioned for its Sachin and Mahuva substations in the year 2000.
Indian Oil Corporation Ltd (IOCL) once again reposed its faith in ABB for implementing the advance process control (APC) system for all the Crude and Vacuum distillation units (CDU and VDU) with crude processing capacity of approx. 7.2 MMTPA. This solution will help IOCL’s Barauni refinery achieve higher production-yield and greater energy-savings.

The APC system is based on multivariable controller software that offers superior plant-performance by running the plant significantly closer to process constraints. The multivariable controller software technology will be sourced from ABB’s center of excellence in Houston, USA. This solution has been well received in the hydrocarbon processing industry across the world.

Using one of its IndustrialIT suite of products, ABB will conduct an economic-benefit analysis of the plant in terms of design and operations. ABB will also train the personnel on the multi-variable controller software and Inferential property prediction software.

The project is slated for completion by mid 2003.
ABB India has successfully designed, engineered, developed and tested the 66kV, 60Hz Capacitor Voltage Transformers (CVTs) for a Peruvian company. This was possible because ABB has always regarded design and innovation as an integral part of its effort to enhance customer satisfaction. The supply of the three CVTs was made within a short span of three months.

Customised test-facilities had to be set up to enable testing of all the sub-components and the CVT in its entirety.

15kV, 25kA short-circuit test-duties at Central Power Research Institute (CPRI), Bhopal as per the new IEC 62271-100 standard. The breaker is rated for its basic insulation level (BIL) of 45/110 kVrms/kVp. CPRI conducted this test as per the new IEC standards as well as for the rating of 15kV, 25kA for the first time in India.

In India the standard voltage level in this range is 12kV. However, the product was tested for 15kV to cater to export requirements. The product will replace the existing SDB breaker and henceforth be quoted for domestic and export markets.

The new breaker uses the new generation series of vacuum interrupters VG4 and the new spring-mechanism type ESH.

The interrupter and the drive have a low energy-requirement resulting in better mechanical endurance performance.
ABB modernises ITC-Bhadhrachalam paper plant

ABB has successfully implemented a state-of-the art solution comprising PMC200 DC sectional drives, Advant Open Control System (OCS) and Coat Weight Measurement (on the existing ABB AccuRay 1190 QCS) for ITC-Bhadhrachalam Paper Boards Ltd. as part of their modernisation program.

ABB seamlessly integrated the drives with the OCS and the QCS systems. The integrated solution provided by ABB included customised software designed to provide ITC-Bhadhrachalam with a more-detailed analysis of web-breaks, other machine transients and reduced grade change time, thus giving the customer an opportunity to increase uptime and productivity. ABB is the only supplier offering truly integrated solutions for the pulp and paper industry. ITC-Bhadhrachalam had previously deployed a similar solution for its board machine and Advant OCS for the process systems.

ABB is building links to the new economy, with novel IT applications for the industry, customised software-solutions and a rapidly-expanding knowledge and service base.
In line with its philosophy of providing cutting-edge technology, ABB has developed STATCON - a solution that eliminates problems associated with reactive power import/export and overcomes all the limitations associated with other solutions like fixed capacitor, APFC panel and TSC by providing a very fast, smooth and stepless control of reactive power required by the loads.

This product has found varied applications in diverse industries – be it wind-power generation, rapidly-fluctuating LT loads, welding loads in automobile plants, elevators in high-rise buildings or cement plants.

Consider the recent solution implemented at TELCO for their car-weld shop. ABB commissioned 0-600 kVAR dynamic reactive power-systems for each of their three 2 MVA transformers in a record three months. ABB developed and designed a customised dynamic reactive power-compensator (Statcon) along with fixed LT capacitors to address all issues related to reactive power at the weld shop where the load is highly fluctuating. The solution delivers a smooth and stepless 0 to 600 kVAR reactive power-compensation with a response time of 1 to 2 cycles (20 to 40 milli sec).

STATCON modules work on a close-loop feedback system – it takes feedback from load CT, calculates and gives out the exact required reactive-power realised through an IGBT based voltage source converter which is controlled by PWM pulses generated by control circuits. The STATCON module is connected between phase and neutral and gives reactive-power support to that phase.

The power factor variation from 0.35 to 0.8 will also be improved close to Unity (UPF) and maintained at that level. The total reactive-current relief on the transformer due to this solution will be 840 A.
ABB certifies 10,000 products to new IndustrialIT standard

Moving one step closer towards its year end goal of certifying all 40,000 relevant ABB products and product groups, ABB has now certified 10,000 products to the new IndustrialIT-standard. ABB is bringing all its power and automation products and services into a single-information framework, which is key to helping its customers become more competitive. It also allows ABB to sharpen its product portfolio, improve the integration of its products and services into solutions, and strengthen the ABB brand.

IndustrialIT is ABB’s patented concept for linking products and services together with the information needed to run, service, and maintain them. Open standard software allows production line operators or energy systems managers to immediately access the information needed to make crucial decisions; ABB had IndustrialIT enabled some 900 products at year-end 2001 and 3,000 products in February 2002. Each IndustrialIT-enabled product offers uniform electronic tools for documentation, configuration and connectivity. The tools are bundled in a piece of software called an “Aspect Object.” When this software is copied and pasted into a customer’s power or automation system, a virtual version of the real product is enabled for use. Basically, this means an operator of an electrical grid, power plant or factory can click on the virtual product and get instructions, remote control and diagnostics, maintenance records and other asset management information. ABB’s 10,000th certified product, the ControlIT Remote (Input/Output) System S900, manages signals between plant control systems, sensors and actuators. It can now be installed near plant devices to reduce wiring costs, and ensure quick access to all the aforementioned information.

To date, more than 100 large customers have purchased ABB’s IndustrialIT products and services. IndustrialIT certification is mandatory for all ABB products. A number of third-party products have also been certified in cooperation with the company. For example, Bosch Rexroth, a German supplier of drive and motion control solutions, last week announced an agreement to certify its full line of pneumatic components. The company will certify more than 1,200 product types to IndustrialIT standards to improve product information and make it more consistent.
State-of-the-art SCADA system to streamline electrical distribution network for Hyderabad and Secunderabad

APCPDCL (Andhra Pradesh Central Power Distribution Company Ltd) recently commissioned a state-of-the-art SCADA (Supervisory Control & Data Acquisition) system supplied by ABB India to monitor and control the power-distribution network for the twin cities of Hyderabad and Secunderabad. The project scope encompassed design, supply, erection and commissioning of the SCADA system with a control center at Erragadda, Hyderabad for 132 kV and 33 kV substations in and around Hyderabad and Secunderabad. The SCADA system will provide immediate benefits to APCPDCL in terms of availability and quality of power as well as lower outage and interruption time.

The SCADA system has been installed to monitor and control all substations in Hyderabad and distribution automation functionalities like automatic / remote meter-reading, load-balancing, troublecall management, etc. to facilitate effective distribution management.

There are 106 substations in Hyderabad and Secunderabad,
computer system installed at the APCPDCL Control Room. This will be done over a TDMA backbone and over digital UHF data radios covering an area of 1,500 sq km.

SCADA systems help utilities save costs and improve service benefits. The advantages relate to areas of investments, interruptions, customer service and operational savings.

The main benefits of implementing a SCADA system can be summarised as follows:

- Reduced operation-costs
- Improved reliability
- Higher uptime of electrical network
- Easier load-control and balancing
- Remote metering
- Remote faultfinding
- Trouble-call management

In conclusion, SCADA is a tool for the enterprise-wide management of the electric utility system. This tool provides for efficiency in operations, enhanced operational tools and economic benefits. The

"ABB is proud to have implemented this state-of-the-art SCADA system for the twin cities of Hyderabad and Secunderabad. ABB’s leading-edge technology offers immediate access to power system status, enhanced monitoring of power-system security and enables direct preventive actions and faster restoration. This will enable a higher degree of control and monitoring of the power-distribution network and offer visible benefits to electric utilities and their customers in turn."

Ravi Uppal
MD, ABB India
challenge is for utilities to identify their business problems and apply distribution automation to solve them.

As we evaluate the application of SCADA for the power distribution system, we must concentrate on economic solutions to the problems. The initial solution must be based on options to solve the business problem. As the evaluation process continues other factors such as equipment, means, communication systems, software, field devices, and maintenance and operations must be considered.

SCADA will pay for itself. In order to remain competitive, smart utilities will analyse the potential benefits of the system and apply distribution automation to leverage its economic benefits. It is but a matter of time before SCADA systems become an integral part of the distribution system of electric utilities.

“ABB’s SCADA system will help utilities increase the uptime of their network and facilitate optimum allocation of resources. It will also facilitate instant remedial action to restore normalcy in case of power outages. Load shedding can also be programmed in a systematic manner to avoid grid collapse and complete black out.”

Inder Sadhu  
Head, Utilities Division, ABB India

Similar solution for Chennai

A similar SCADA solution has already been implemented by ABB for Tamil Nadu Electricity Board (TNEB), serving the city of Chennai – this is India’s first city SCADA system. By using ABB’s SCADA system, TNEB will derive benefits in terms of immediate and centralised access to power system status, enhanced monitoring of power system security, direct preventive-actions and restoration. The scope of this project comprises supply, design, erection and commissioning of SCADA system involving a control centre at Chennai and covers 110kV, 33 kV and 11KV substations in and around the city of Chennai.

ABB has successfully delivered several thousand such computerised control-systems all over the world giving the company unparalleled domain expertise and in-depth knowledge with access to the latest solutions and technologies for utility automation.

SCADA enables an electric utility to monitor, coordinate, control and operate distribution components / equipment / devices in real-time mode from remote locations through the acquisition of data for analysis and planning. Every electric utility must have a SCADA system to monitor and control its distribution network.

The cumulative experience that ABB has built over the decades, has helped it develop optimised solutions for electricity markets around the world. Through the supply of systems products and services, ABB looks forward to make these cutting-edge solutions available to the Indian market, thereby enhancing the quality of power offered.

The ongoing revolution in networking and communication technologies has had a significant impact on SCADA systems. Utilities are looking into SCADA – Distribution Management System (DMS) as an answer to the following three major economic challenges facing the industry today:

1. Rising cost of adding generating capacity
2. Saturation of existing distribution networks
3. Greater need for quality and reliable service to the customer
Redefining customer finance

As part of its value creation philosophy, ABB offers Customer Financing Solutions, a service that completes the value chain – supply, commissioning and maintenance – by providing ABB customers with a dependable, professional and cost-effective outsourcing option.

Be it an end-user, channel partner, project or dealing in exports, the crucial component – ‘finance’ can be arranged for by ABB through its network within the finance community.

ABB’s active involvement in customer-financing enhances the customer’s image and credit-worthiness among potential lenders and other business associates.

ABB’s doorstep-delivery of financial products encompasses a variety of customers’ needs – short or medium term and currency loans (Indian or foreign).

ABB’s customer-service division is always at hand – a call or an email away – to discuss with and help its customers with all their needs of financing-solutions.

No wonder, the needle of reliability and acceptability points to Customer Financing Solutions from ABB!

ABB offers full spectrum of financial products at your doorsteps:

- Rupee Loans
- Foreign Currency Loans
- Project Finance
- ECA backed Financing
- Structured Finance
- Forfeiting
- Bill Discounting
- Leasing

Why ABB-arranged finance?

ABB-arranged finance stands-out for its inherent strengths.

- Financial needs and objectives of the customers are studied thoroughly
- All alternatives are explored before a suitable financing-solution is devised
- Best market-rates are negotiated with the lenders
- Focus on innovation and customisation

Hassle-free finance from ABB

ABB-arranged finance frees its customer from various avoidable hassles.

- The customer can make the best use of his resources to pursue his corporate objectives
- The customer need not have to juggle with his objectives, funds and priorities
- The customer can accelerate his investment programs and reap benefits faster
Researchers at ABB Corporate Research have recently developed a pilot implementation of an IndustrialIT-based tool for substation equipment diagnosis using infrared measurements – AdviseIT Infrared Assistant.

The interaction of processes – and the systems that guide them – through the exchange of dynamic, real-time information is what ABB calls IndustrialIT (IIT). In its simplest form, IIT could be characterised by an open control system that automatically configures and rearranges hundreds of plant instruments to the real-time needs of a new production run. But it could be much more. Imagine, for example, that each physical plant-device was accompanied by a dynamic, living software entity – carrying with it not only configuration data but also control software, purchase and cost information, maintenance records, mechanical drawings, and networking information. Next, imagine that the same approach could be applied to products – endowing each batch, barrel, or box with a dynamic set of real-time characteristics.

Now, consider the impact if distributed plant-devices could inherit functionality from the environment in which they were placed. New devices would be configured not by a host control strategy, but as a direct result of the business setting in which they were deployed. Process transmitters and valves would inherit the range information required for the current ‘recipe’. Motors and drives would adjust their control setpoints as a function of current line-speeds.

ABB’s powerful enterprise architecture, called Aspect Objects™, considers the myriad of enterprise objects (plant devices, machines, materials, products), etc. as the building blocks that make up a total business scenario. Although the various objects and their associated software may reside on multiple networks or computers, each object carries with it an integral collection of characteristics or aspects (configuration, efficiency, maintenance status, mechanical and electrical drawings, etc). A click on any object icon quickly offers a wide range of context-sensitive, real-time information.

AdviseIT is the name given to the IIT product suite of tools that facilitate evaluation of process parameters, product or equipment status. This is where substation diagnosis comes in.

Basic IIT information (technical specifications, CAD drawings, etc), encapsulated in an aspect system representation, is now enhanced with a set of dedicated diagnostic aspects. These aspects carry information on measurement methodology (‘what and where’) and interpretation (eg, acceptance limits) that are both object- and diagnostic technology-dependent.
Infrared thermography requires knowledge of the object’s inner workings on the one hand and thermal pattern recognition on the other. While basic aspects may provide the former, AdviseIT Infrared Assistant delivers the latter, offering an extension which makes an IIT-enabled object ‘thermo-diagnostics-ready’. This ranges from a set of reference images representing a normal condition, through a list of critical zones or sub-components, ready to use as practical guidance at the time of inspection, to dedicated processing algorithms specific for that particular object and source of diagnostic data.

For example, past research in this field produced a thermal trend analysis algorithm (novelty detection) for HV disconnectors that can be ‘hooked’ to IIT-enabled disconnector code for immediate use by maintenance personnel once measurement data become available.

As IIT aspects are portable to other objects, the ‘infra-extensions’ can easily be transferred to make existing objects ready for infrared diagnosis with some minor effort in coding settings, such as acceptance limits.

Being generic, the solution has a wide scope of potential applications in general condition monitoring, two of which are partial discharge measurement and vibroacoustics.

The AdviseIT Infrared Assistant demonstrates how the IndustrialIT aspect-driven environment allows the machines themselves to be capable of conveying the relevant diagnostic know-how and settings to the maintenance personnel.

*Source: ABB Review.*
ABB India’s widespread channel network comprising over 250 channel partners spread over 80 towns and cities, many of them in remote areas, was, till recently being catered to solely by ABB’s 25 plus marketing and sales offices. Catering to this vast geographical area proved to be a challenge with respect to order placements and the timely execution of orders – paper orders placed by channel partners on ABB passed through the nearest ABB office, and then through factories where it had to be fed into the company’s SAP system – creating a time delay in order processing.

To counter this bottleneck and reduce throughput time of order execution a comprehensive online initiative for all standard automation technology products dealt through channel partners, was conceived and implemented. This initiative has been a runaway success with ABB’s Channel Partner Network. Today, many of them simply log their orders on the Internet, which is then directly passed onto the SAP system within a few minutes.

By logging in, a channel partner will be taken to a personalised “My Account” page. Personalised pages give a sense of privacy and security to channel partners while transacting on the net. This page has all the dynamic links to their own on-line information from SAP – payables, dispatch, order status, stock and so on. These value-adds, which are now just a click away, make this site an extremely attractive proposition for channel partners. Ex-stock-order shipments in most cases happen the very same day. The site also has a sales desk section packed with sales promotion material for download.

Since channel partners are billed with many invoices daily, keeping track of payments and collections can be a time-consuming task. This has been simplified by allowing channel partners to view their payables and payments made on the Internet. The statements are highly reliable and accurate as they are extracted from the SAP system. ABB sales engineers refer to this statement and monitor the channel partner account more effectively.

Approximately 15-20% of channel partners log onto the site everyday. This has greatly enhanced trust by providing quality information, efficient paperless-ordering and tracking. ABB sales engineers can now spend more time on marketing and support activities rather than answering information queries.

Protected with Secure Socket Layer (SSL) encryption, it provides the assurance of security to channel partners who regularly access their own discounted prices for ordering. The SAP interface was custom-developed in-house.

The popularity of the site among our channel partners is steadily rising and ABB India is aiming high to be the front-runner in e-business deployment across its value chain to improve its performance.
ABB’s Channel business – an exciting opportunity for entrepreneurs

Three young engineers Munish Sharma, Sandeep Bhat and Vijay Bandha, working in an automation company – decided to plunge into business, and after much deliberation, started Venture Controls. They knew they had the required experience in process engineering ranging from Cold rolling Mill, Sectional paper machines, Galvanizing lines, Continuous caster, Printing, POY machines etc. What they lacked was the technical and commercial back up of a strong company which could be their principal.

They knew, to be accepted and be competitive in the market place they had to have a technical tie-up with a company with excellent market-presence, and they needed a reliable partner that was way ahead in terms of technology and had excellent customer focus. They wanted to be associated with an organisation that could speak of a comprehensive range of products (for example the drive ratings of 10000 A at 1000 VDC).

Says Munish, “While scouting for an ideal partner, our search quickly narrowed down to the most obvious choice – ABB.” “ABB’s product range and its technical superiority is something which few other manufacturers can claim”.
Venture Controls soon discovered that ABB was the company capable of handling large contracts. This capability would soon help both ABB and Venture Controls to create synergies, which would deliver results beyond their own imagination.

Engineers at Venture Controls, though familiar with non-ABB products, decided to go ahead with ABB’s range of products as their choice since it didn’t take too much time for them to realise the ease with which one could programme PLCs (that too in 4 languages!). Venture Controls also received immense support from ABB when it came to conducting training programmes for their engineers to create greater awareness on various products and systems.

In their short association with ABB, Venture Controls realised that ABB had sound policies and guidelines, and the inclination, which would help them reap benefits when combined with their long experience in the industry.

After having joined ABB’s family, Venture Controls realised that ABB meant business and was pushing hard for the success of all their Channel Partners. The Channel Partner meet in March 2002 helped them meet other channel partners and realise how ABB helps each and every channel partner grow. The speeches from senior ABB delegates also motivated them further. The award ceremony later that evening awakened their desire to receive the award next year.

Since then Venture Controls has come a long way – in the short span, they have already booked orders for Sectionalised paper machine of 18 sections, Halden shear line, Rolling Mills, Slitting lines. They are also executing projects like Calendering machines and blanking machines. Says Vijay “Our mantra for success is hard work and customer satisfaction”. They make it a point to keep in touch with their customers, be it in Delhi, Bombay or Calcutta. They have provided support in commissioning of existing installations be it with ABB hardware or third party hardware, with a view to delight the customer.

They have been to Bangladesh for commissioning a CRM with AB and ABB hardware. They have upgraded the speed and retuned the drives of CGL with AB hardware. With their background of complete automation they make it a point to look for every opportunity to push the complete range of ABB products and have been able to sell products ranging from AC motors, LV switchgear to Drives and PLC.

Venture Controls has grown into a 9-member team and is expanding their base.

Did you know?

The SmithKline Beecham plant at Gurgaon, that manufactures the well-known ‘Horlicks’ brand, is driven by over 90 ABB drives. The range of drives installed in the mix preparation area, main production block, (screw- and belt-conveyors), exhaust fans, refrigeration, blending and packaging varies from 1.1 kW to 500 kW.

ABB drives at the plant meet the critical process-requirements and also help in saving energy.

The plant is also served by ABB’s sophisticated HVAC system.

Being a continuous process plant with consistent quality of the end product of utmost importance, SmithKline Beecham chose to implement ABB’s products and systems for their higher reliability and consistent performance.
ABB and Sustainability

ABB’s vision is to be The Value Creator. One of our key stakeholders constitutes the communities and the society we live in. Here, we create value by living our commitment to sustainability.

We live this commitment in many ways. We strive to lower environmental impact through several initiatives spanning our solutions, products and services. We set ourselves a goal as early as 1998 and have been creating “Environmental Product Declarations” for our major products and systems worldwide. We carry out lifecycle assessments that show the impact of the product from cradle to grave. Accordingly, we have developed in-house tools to help us incorporate this into the design and technology of our products.

Currently, 43 “Environmental Product Declarations” have been completed and nine of these have been externally certified.

But it doesn’t end here. To regularly assess our environmental performance, we publish an Annual Sustainability Report. In the recently-published Group Sustainability Report in June, 2002, ABB has stressed on the ‘triple-bottom-line’ approach to present our economic, environmental and social achievements. The “triple-bottom-line” framework is guided by the Global Reporting Initiative, an organisation funded, among others by the United Nations and the U.S. Environmental Protection Agency.

ABB strives to raise its sustainability performance in four ways: by improving its economic achievements, extending its Environmental Management Systems, implementing its new social policy, and supporting electrification projects to promote economic development.

All of ABB India’s manufacturing units are ISO14001-certified.

ABB India has been rated among the top corporate environmental performers in India as rated by independent research.

• The publication of Environmental Product Declarations (EPDs), begun in 2000 accelerated. By year-end there were 43 EPDs (nine of them externally certified) covering all of ABB’s major product-lines.

• For the third year running, ABB topped its industry group in the Dow Jones Sustainability Index.

• ABB was also included in the new FTSE4Good Index of socially-responsible companies and was rated one of the top five sustainability companies in India by the Tata Electrical Research Institute.

• ABB introduced a program in its research and development organisation to investigate future sustainability-challenges.

To endorse our commitment to sustainability, the company’s employees celebrated World Environment Day on 5th June, 2002, with great enthusiasm across all locations. For instance, at Vadodara they held an exhibition on environment, followed by a ‘tree plantation’ drive in the factory premises.

A special booklet titled “ABB believes in Sustainable Development”, was published for the occasion and distributed to all employees.

In Delhi a “Run for Environment” and a plantation drive was held. A tree plantation programme, rain water harvesting drive and a children’s painting competition were held at Bangalore.

Similar initiatives with a local flavor, were held at Nashik, Mumbai and other locations.
Q. Do you have a training programme for channel partners?
- Kaushi Moitrea, Assam Supply Syndicate

A. We run several product specific programmes eg. drives, motors, etc. Details of the programme calendar are available with our training centre at Peenya, Bangalore.

Q. Can I have more detailed information on ControlIT software?
- R.P. Verma, Hindustan Zinc Ltd.

A. ControlIT is the evolution of control systems into IndustrialIT. Hardware and software components seamlessly integrate process-oriented information into true open-applications to improve process control using worldwide-accepted industry standards. ControlIT is a complete family of controllers with scalable offering, open communication, the latest fieldbus technology, integration with other IT products, and redundancy for optimal flexibility and efficiency. ControlIT comprises the following components: AC 800M - the new modular controller, AC 800F - the proven field controller, AC 800C - the compact controller, S800 I/O - the universal process I/O, S900 I/O - the intrinsic safe I/O.

Q. How does one achieve reduced harmonic distortion in a cement plant?
- P.K. Das, Zuari Cement Ltd.

A. Using 12-pulse systems, wherever high-power equipment is involved (such as high-power converters in the range of 1-2 MW), brings down 5th and 7th harmonics. The second option is to use filter banks of the HV side of the power supply.

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**Technical Details of Outdoor Vacuum Circuit Breaker**

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<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated voltage [kV]</td>
<td>12</td>
</tr>
<tr>
<td>Basic insulation level [kVrms/kVpeak]</td>
<td>28/75</td>
</tr>
<tr>
<td>Rated frequency [Hz]</td>
<td>50</td>
</tr>
<tr>
<td>Creepage distance to earth (support insulator) [mm]</td>
<td>475</td>
</tr>
<tr>
<td>Creepage distance (arc chamber insulator) [mm]</td>
<td>450</td>
</tr>
<tr>
<td>Rated normal current [A]</td>
<td>1600</td>
</tr>
<tr>
<td>Rated short-circuit breaking capacity [kA]</td>
<td>26.3</td>
</tr>
<tr>
<td>Rated short-circuit making current [kApeak]</td>
<td>66</td>
</tr>
<tr>
<td>Rated short time withstand current [kA (3sec)]</td>
<td>26.3</td>
</tr>
<tr>
<td>First pole to clear factor</td>
<td>1.5</td>
</tr>
<tr>
<td>Duty cycle</td>
<td>O – 0.3sec - CO - 3min – CO/CO – 15s – CO</td>
</tr>
<tr>
<td>Opening time [ms]</td>
<td>40-50</td>
</tr>
<tr>
<td>Total break time [ms]</td>
<td>55-65</td>
</tr>
<tr>
<td>Closing time [ms]</td>
<td>65-75</td>
</tr>
<tr>
<td>Contact travel [mm]</td>
<td>8</td>
</tr>
<tr>
<td>Number of breaks per pole</td>
<td>1</td>
</tr>
<tr>
<td>Weight (approx.) [kg]</td>
<td>600</td>
</tr>
</tbody>
</table>
Let me first acknowledge your overwhelming response and extremely useful inputs on the inaugural issue of CONTACT. Keeping in mind your invaluable feedback and motivation, we have put together this second issue and would welcome your comments as we take this initiative forward. We shall continue to strive towards bringing you a cross section of our activities, developments and technologies across the wide activity and industry spectrum we serve. Looking forward to staying in CONTACT.

– Harmeet S Bawa
GF - Corporate Communications, ABB India
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