



ABB Review 1/2009 Elements of productivity

Service from afar ABB's Remote Service concept is revolutionizing the robotics industry	6
Partners in technology New challenges to a history of cooperation with customers	9
Data, not paper Transforming shopfloor connectivity	15
Effective maintenance Asset monitoring for a low-voltage Integrated Motor Control System (IMCS): a case study	20
Socially interactive devices A device-centric approach to service: Have you talked to your device lately?	26
The ladder to success Risk-based inspection reduces costs	30
What is reliability? Changing the reliability paradigm	34
Outperforming excellence Full Service oil and gas site achieves cost reduction while improving client satisfaction	38
Rolling models Adaptive setup models for cold rolling mills	43
Doing more with less The drive for greater productivity	49
Simply the best New trends in optimization to maximize productivity	54
Finishing touch ABB's new optical, non-laser, paper measurement method promises improved performance over other on-line caliper sensors	60
Green robots Robot-based automation is enabling energy efficiency in the plastics industry	63
The robotized field operator Greater safety and productivity by design	68
Tanking along Increasing fuel efficiency and cargo capacity of LNG carriers using electric propulsion	74
Keep on running Field device diagnosis ensures reliable operation	80
Pure improvement Reducing waste by treating and recycling sub-products and effluents	86
Compact and reliable Decades of benefits: Gas-insulated switchgear from 52 to 1,100 kV	92



ABB Review 2/2009 Green for growth

Global energy challenges An interview with Ernest Moniz addresses conflicting challenges that demand immediate attention	6
For a better environment Recycling opportunities for insulating components	10
Optimal trade-offs Achieving energy efficiency and environmental compliance is not a problem thanks to advanced process control	17
Greening the gate model Making products sustainable by design	23
A worthwhile investment The drive to reduce emissions and energy consumption	25
The attraction of simplicity Permanent-magnet machines are here to stay	29
BORDLINE® M A very high-efficiency AC/DC/DC converter architecture for traction auxiliary services	35
A turn for the better New-generation A100 turbochargers for lower engine emissions	42
Practicing what we preach ABB promotes the use of robots in manufacturing and uses them to manufacture ABB products	47
Every bit counts Improved control software and optimized processes are contributing to increased energy efficiency	50
Intelligent in-house service Hotel guests can now enjoy increased comfort with fewer energy requirements thanks to ABB's i-bus® KNX building control system	55
Metamorphosis Adapting rapidly to change using the IDEAL improvement model	58
Reliability analysis Data and modeling software is helping an NGL plant determine maintenance approaches and improve equipment reliability	64



ABB Review 3/2009
Delivering power

Challenges and opportunities aplenty How to meet the challenge of climate change	6
Controlling the gas flow ABB's SCADA and System 800xA improve LNG operations and management	11
Restoring confidence Control-center- and field-based feeder restoration	17
The power to make a difference HVDC Light® can deliver 1,100 MW	23
The balance of power Advanced transmission grids are embedding HVDC Light®	27
Smarter grids are more efficient Voltage and Var Optimization reduces energy losses and peak demands	33
Information, not data Real-time automated distribution event detection and notification for grid control	38
Network management for smart grids Innovative operations centers to manage future distribution networks	45
In harmony Defining global energy-efficiency standards	50
OPC Unified Architecture The future standard for communication and information modeling in automation	56
Not lost in translation Facing the challenge of cost-effective plant engineering in subsystem integration	62
High-voltage bushings 100 years of technical advancement	66



ABB Review 4/2009
Pathways to innovation

An innovative 2009	6
No gears required ABB's Direct Drive solution meets the challenges of the world's most demanding processes	12
New power under the sun A vision for large-scale solar power from the world's deserts	16
From light to power Presenting ABB's first solar inverter	22
Under pressure ABB's subsea transformers	25
Unlocking stranded information The ABB WirelessHART™ upgrade adapter	27
Innovation in action ABB's ground-breaking optical caliper sensor means papermakers can measure and control caliper on the most demanding paper grades	33
Dexterous and articulate ABB's new IRB 120 robot and IRC5 Compact controller	39
The extended-reach robot ABB's new IRB 2600	42
Refined integration State-of-the-art electrical integration for a refinery utilizing System 800xA and IEC 61850	47
Cruise control A propulsion condition management system that allows onshore monitoring of offshore installations	53
Propelling ahead Developing the second-generation Azipod® propulsion system, Azipod® XO	59
High-speed transformation Transformers for the Velaro high-speed train	64
A plug for simplicity X-Plug™ wiring technology for the ZX family of switchgear	68
One ABB on the Web Increasing the quality of customer services is what this platform does best	71