

EVER WONDERED WHO CRAFTS WINNING STRATEGIES FOR THE MOST AMBITIOUS PAPER MILLS?

# **INNOVATION AND AMTECH**

# Amtech's NextGen<sup>+</sup> Turn-key Solutions,

Sectional paper machine & Rewinder Automation Headbox Automation
Steam Condensate & Boiler Automation
Pulp mill process Automation
Plant SCADA & Energy Management System
Industry 4.0 based solutions & Remote monitoring

TOTAL SOLUTION IN PULP & PAPER ENHANCING THE PROFITABILITY



# **Amtech's Unique Solutions**

Amtech, a pioneer in the field of motor control has served prestigious clientele from diverse sectors for more than 3 decades. With our engineered systems, we offer our clients a full range of services tailored to their specific needs. Right from replacing a system component to turnkey projects of varying scales, we do it all.

After recognizing the present requirements and future goals of our customers, we integrate all the essential peripherals into one system. With every new requirement we design a unique customized system adhering to highest quality standards.

# **Our Offerings**

# **Variable Frequency Drive**

Axpert series variable frequency drives are designed for wide-varying tropological and power conditions. The drives are easy to configure, control and monitor. Also, they are highly reliable and are resilient in harsh industrial conditions.

# **Power Capacity**

0.75...2100 kW (1...2815 HP)

# Voltage Range

200...240 V, 380...480 V, 500...600 V, 601...690 V, 3-Phase, 50/60Hz

# **Soft Starter**

The Axpert-Opti torque series Electronic Soft starters are very high performance and offers a complete package of advanced features in start/stop control, protections, monitoring, diagnostics and communication for motors. Its advanced digital control eliminates the need for thermal and electronic motor protection relays, meters, transducers etc.

# **Power Capacity**

11...1000 kW (15...1340 HP)

# **Voltage Range**

200...480 V, 380...690 V, 3-Phase, 50/60Hz

# **Power Quality & Energy Conservation**

# **Axpert-i-Sine Active Harmonic Filter**

400...600 V System | 30...300 A | Parallel up to 40 units 3-Phase, 3-Wire and 3-Phase, 4-Wire configuration

# Wideband Harmonic Filter (WHF)

400 V System | For VFD up to 355 kW

# **Axpert-i-Sine Active Front-end Converter**

400...690 V System | 45...1800 kVA

# **Axpert-i-Sine STATCON**

400...690 V System | Up to 300 kVA | Parallel up to 40 units

**Axpert-i-Sine APFC** 



# **Engineered System**

Amtech's vertically integrated Engineered System packages comprise of VFD & Soft Starter panels, PCC, APFC, MCC, Control Desk, Remote Box etc... with customer specific switchgear & protection, enclosure requirements and cooling arrangements.

The engineered systems are designed as per the global standards and engineered with efficiency & affordability in focus.







# **NextGen<sup>+</sup> Technology**

Amtech, Your Trusted Partner, provides you, Technical know-how, product support and maintenance strategies that optimizes your ownership cost

# Wish to get more...



**Energy and Cost Reduction** 



Enhancing Production Efficiency and Profitability to The Next Level



Even and Highest Product Quality



Optimizing use of Resources



Maximum Up Time



Remote Connectivity

# Take the full Advantage of our



Next Generation+Technology



Integrated Automation, Drives & Power Quality



Wide Experience



Unrivalled Expertise



**Unmatched Customer Support** 



Management Information any time, any where

# With NextGen+ you get,

- Smart Drives
- Optimized Processes
- Energy Management
- Integrated Solutions
- Smart Plant Monitoring and Controlling
- All data available-Anywhere....Anytime
- Predictive Maintenance Schedule
- Intralogistic Solutions
- Asset Management
- Tailored Service Solutions

# ...Use NextGen+ Solutions



- Amtech's NextGen Technology embedded with unique algorithm is a combination of efficient hardware and intelligent software, which ultimately improves the efficiency and productivity.
- The NextGen Automation Software is the result of our three decades of experience in motion control and automation solutions.
- The focus is on efficient and reliable integration of various hardware peripherals, optimize processes with fast response and increase communication capabilities.
- The NextGen Automation Architecture reduces field cabling and increases reliability. This architecture gives smart controlling and monitoring of plant with proactive actions to give highest uptime.
- Intralogistic solutions open the opportunity to handle finished paper for dispatch.

- The NextGen Smart Drives with Enhanced efficient control algorithm of Architecture class improves dynamic response of speed and torque control.
- Built with next generation efficient components improves efficiency and reliability.
- Emphasize is on easy commissioning, easy connectivity and easy fault diagnosis.
- The NextGen Technology correlates all paper parameters with its integrated solution. This takes down all data viz. GSM, Steam, Power, monitoring of all the motors in plant whether they are running on VFD, Soft Starter, DOL, start/delta starter for running status, current, fault etc and gives energy management in real sense.

# **NextGen<sup>+</sup> Turn-key Electrical and Automation Solution**



Amtech provides NextGen Turnkey Electrical & Automation solutions for Green field projects of any size of plant and type of paper. Amtech is also offering Emerging Industry 4.0 Solutions for Smart Factory.



Maximize Up Time & Productivity

Structure

Breaker (VCB)

Transformer



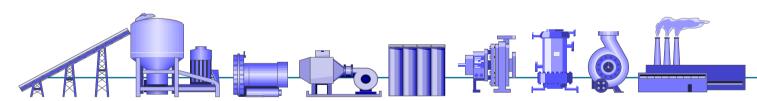
**Energy and Cost Reduction** 



Filter (AHF)

**Consistent Highest Product Quality** 

(APFC) Panel



# **Stock Preparation**

# Approach Flow

# **Boiler**

# **Why Amtech?**

- Domain knowledge and experienced professionals help you from concept to realization
- Highly reliable components and design, increased availability
- Amtech's solution together with our technical expertise, improve your process in terms of Runnability, Efficiency & Quality
- Flexible solution gives easy upgradation & expansion
- Open architecture design allows our drive to blend into your existing control strategy
- Reduces troubleshooting time
- Minimizes required system spares
- Cost effective 24/7/365 after sales and service support

# **Our Innovative Solutions**

- NextGen Turnkey Pulp and Paper plant Automation
- Sectional paper machine Automation with VFD
- Headbox Automation
- Steam and Condensate system Automation
- Pulp mill process control with VFD
- Rewinder, Coater and Super calender
- Boiler Automation, Energy Management system
- Retrofitting of DC motor and drive system to AC motor and drive system in Sectional paper machine and Line shaft to Sectional paper machine
- Integration of third party drives with our control system in Sectional paper machine
- Efficient Control system for complex operations like Multi wire control, Silent drive control, load sharing, tension control, Master/follower operation, Close loop control etc.

# **NextGen<sup>+</sup> Turn-key Electrical and Automation Solution**



**Motor Control Center (MCC) Panel** 

**VFD Panels for Individual** applications

**VFD Panels with Automation System** for Sectional Paper Machine

нмі **Centralized SCADA for Monitoring &** Controlling

**Remote Location** Connectivity

Amtech has leading edge with Efficient Products, Experience and Expertise which brings lot more on table when you partnering with us.



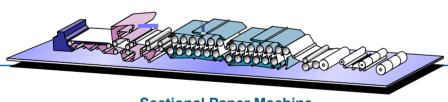
**Enhancing Efficiency & Profitability** 



**Optimizing use of Resources** 



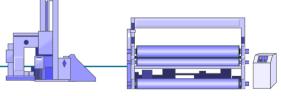
Remote Connectivity



# **Sectional Paper Machine**

# **Our Services For Turnkey Solution**

- Planning, Conceptual Design & Detailed Engineering Services
- Procurement Assistance
- Manufacturing
  - PLC, MCC, APFC, AC VFD Panels, PLC Panels & SCADA
  - Instrumentation Panels, Control desks & remote stations
- Automation system with AC VFD for Sectional paper machine
- AC VFD for standalone applications
- Installation & Commissioning, Training
- Services like, Panel Room Design, Cable schedule, Cabling, Earthing, Lighting
- System Service & Spare Support, AMC
- As-built project drawings / documentation
- System Integration Services
- Retrofitting, Up Gradation & Modernization of Control Systems for existing /Old Machinery & Plants



Rewinder

**Converting Plant** (Corrugated, Tissue, Printing)

# **Successfully executed**

- 30 TPD to 500 TPD
- 80 MPM to 1200 MPM
- 14 GSM to 500 GSM
- Kraft, Duplex, Tissue, Newsprint, Writing & Speciality Paper
- Multi Layer Wire, Bi-Nip Press, Silent Dryer, Tension Control & Close Loop Control
- Headbox Automation
- Steam & Condensate Automation
- Trim Drum Slitter Rewinder Automation with Tension control
- Boiler Automation
- Approach Flow Automation

# **Applications**

# TWIN DRUM SLITTER REWINDER AUTOMATION



# **Benefits**

- Energy efficient system
- Precise tension control for even winding
- OEM supported panel structure-Less footprint
- Precise synchronization gives no variation in winding
- Accurate machine control with safety interlocking
- Modular design gives more flexibility
- User Friendly monitoring of Machine parameters
- Appropriate displays on the HMI to assist with pinpointing the faults

# **HEADBOX AUTOMATION**

# **Benefits**

- High Speeds / Better Formation
- Improved paper quality
- Low installation cost, easy & fast maintenance
- Field sensors of highest quality for precise control
- Minimum downtime -easy grade change
- Better basis weight profile without compromising fiber orientation profile
- Integration with Scanner for Jet Velocity feedback



# **SCADA SYSTEM**



# **Benefits**

- Centralized control and monitoring
- Easy troubleshooting
- Precise control of Approach flow increases paper quality
- Monitoring of auxiliary load reduces damage of mechanical system
- Real time data helps to tune various parameters for better utilization of steam and power, which reduces cost of paper making
- Remote monitoring and SMS/Email functionality provides up to date data to top management
- Expandable system for Energy monitoring System (EMS)

# STEAM AND CONDENSATE AUTOMATION

# **Benefits**

- Precise control
- Assistance from concept to commissioning
- Improved Efficiency
- Simple operating philosophy helps operators understand the automation and use it
- User friendly screens easy to understand
- Minimized maintenance reduces the cost and provides more up time

# AMPERT AUTOMATION STREAM ACCORDINATE SU COLOR CITÉS AMPECAL SEP.5 SEP.

# **ENERGY MANAGEMENT SYSTEM**



### Benefits

- Thinks for you-analytics & reports that point out issues, recommend solutions
- Meets your applications customized features and reports to meet your specific needs
- Saves your time-deviation reports help you focus only on problem areas
- Helps cut your losses loss analysis reports point out where you could be losing energy
- Fits seamlessly integrates with existing meters and systems
- Easy to understand and simple to use requires minimum training to operate

# **Partial Client list of Pulp & Paper Industry**

























































































































































































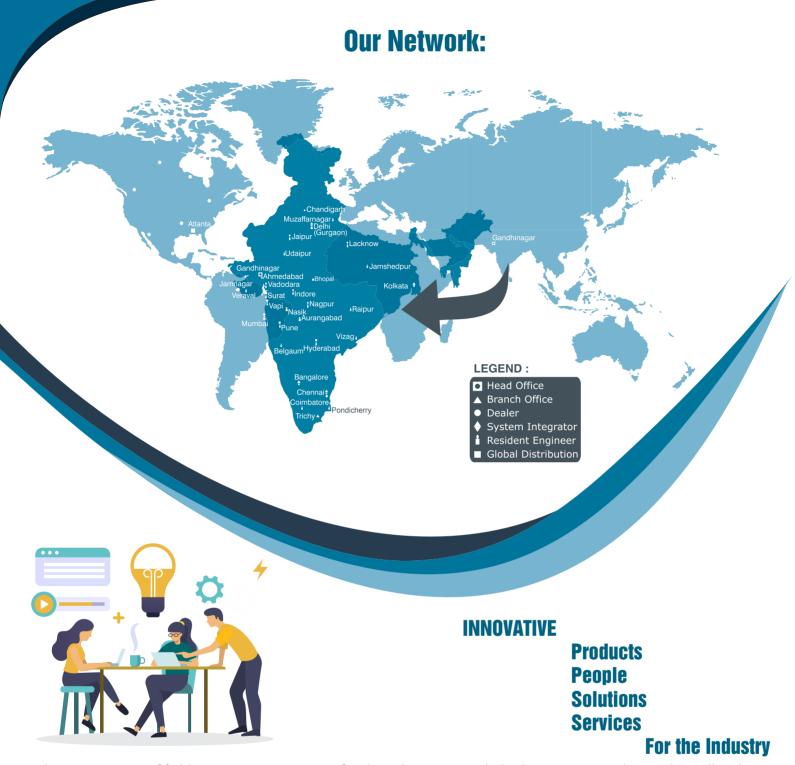












With over 35 years of field experience, our team of technical experts can help design custom solutions that will make your equipment more efficient, reliable and cost effective. And that's the bottom-line!



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