



Company Profile

Metsys Engineering and Consultancy Pvt. Ltd.

Service † †



Phone: +91 80 23621739; 4343 8999
Fax: +91 80 4343 8998
email: sales@metsys.co.in; info@metsys.co.in
Vist us at www.metsys.co.in

Head office:
282, Narayana, 2nd Main,
Talakavery layout, Amruthahalli
Bangalore – 560092, India

Metsys Engineering and Consultancy Pvt. Ltd.



1. Company Overview

Metsys Engineering & Consultancy Pvt. Ltd. is an engineering and technical consultancy firm promoted by highly reputed and experienced professionals catering to the process industries like metals, cement, paper, etc.

Our main areas of operation are

- Turnkey Supply and engineering of process automation and electrical systems for process industry.
 - This includes supply of equipment for the project
 - Engineering services including basic design, detail design, process control software, manufacturing, testing, commissioning and after sales services of these systems.
 - Manufacturing Execution Systems (Level 2) & ERP integration solutions
- Professional services to the process industry including expert consultancy services, process de-bottlenecking consultancy, annual maintenance contracts, etc.

We also have professionals with expertise and experience in the IT industry and this strength is being leveraged to expand the delivery spectrum into IT services like Application development and Outsourcing services.

Alliances

We have forged alliances with leading suppliers of products for the Metals industry to deliver the best of all worlds to our esteemed customers.

1. We are an Authorized Business Associate of ABB India for all drive products. We have a strong working alliance with Siemens for automation products. We work closely with iba India, the leading player for process data acquisition in the Metals industry, to help our customers capture and analyze their process data as none else could.
2. For the Level 3 systems, we represent Broner Metal Solutions in India in the capacity of Sales, Marketing and Project Implementation Partner. We believe that the combination of Metsys and Broner represents a substantial force that will ensure the most effective implementation of a strong MES solution through a combination of local availability of skilled and experienced resource backed by an extensive suite of MES solutions that are designed for metals..

2. Our Vision

To be a global player that provides world class engineering and services that maximizes value to our customer's businesses and processes and to be a great company to work with.



3. Recent References (since Jan 2007)

Profile Mills

- Level 1 systems for 110m/s Wire rod mill in Poland OEM – Morgan
- Level 1/Level 1.5 systems and Drive systems Bar mill for in Raipur for Jaiswal Nicco, Chinese OEM
- Level 1 systems and Drive systems 60m/s Wire rod mill in Kanpur for Global Smelters Laboratory information management system for JSW SISCOL
- TMT line including flying shear, tail braking and twin channel for Saini Industries
- TMT line including flying shear, tail braking and twin channel for GP ISPAT
- Level 1/Level 1.5 systems and Drive systems Garret line in Raipur for Jaiswal Nicco, Chinese OEM (Erection in Progress)
- Level1/ Level 1.5 and Drive systems for Bar mill, Steel Exchange – Vizag
- Level1 /Level1.5 systems for a Bar Mill in Africa
- Merchant Mill Automation Upgrade : TATA STEEL

Cold Rolling mills

- Level 1 / Level 1.5 systems and Drive systems Temper mill in Iran
- Level 2 system for processing lines for end customer in Iran– CMI industries
- Level 2 system for Cold rolling mill for end customer in Iran– CMI industries
- Level 1/Level 2 systems for 20 Hi Cold Rolling mill for Canadian OEM- Waterbury Farrel
- Level 1/ Level 1.5 systems and Drive systems for Coil preparation line for Andritz
- Level 1/ Level 1.5 systems and Drive systems for Slitting Line for Iran
- Cut to Length Line for Saudi Arabia
- 4 HI Aluminum mill for Syria

Hot Rolling mills

- Basic Automation and HAGC For Plate mill , Global Smelters
- Crop shear optimization system for **Delta**, France

Trouble shooting and plant startup assistance

- Jindal south West Cold rolling mill complex for ABB
- Jindal south west , AGC fine tuning
- TATA Steel for Morgan
- TATA Steel for ABB
- THYSEN KRUPP Problem Solving for TADL Ine
- TATA STEEL for Problems in ECL Line
- Yusco , Taiwan support for ABB in Cold rolling mill fine tuning
- Shanghai no -1 , DRAPL line for fine tuning , customer - Andritz
- Isibars bar and wire rod rolling mill operational problems



4. Management and Ownership

Our founding executives comprise high caliber professionals with varied Indian and international business experience and extensive hands-on expertise. They bring in more than 60 man-years of relevant experience in sales, project management, engineering, commissioning and service for complex projects. Their experience spans:

- Hi-speed cold rolling mills (1400m/min)
- Hi-speed bar rolling mills (38m/s)
- Hi-speed wire rod mills (120m/s)
- Hi-speed processing lines (>600 m/min)
- Technological control solutions for all the above including Automatic Gauge Control, Divide Shear Optimization, Laying Head Positioning, etc.
- Level 2 packages for all the above

The focus of the management team at METSYS is to always stay innovative and to deliver a cost effective model to OEM's and end users.

A detailed project experience list of our promoters is listed later in this Company profile.

5. Services Provided

Metsys provides services in the complete range of activities for typical green field or revamp projects beginning from the sales pursuit to the commissioning of the plant.

Listed below is the complete service provided in the various aspects of sales and engineering / commissioning functions.

Sales Support

Our vast experience in the Electrical and Automation domain in process industry gives us a unique edge in helping OEMs and Engineering companies prepare comprehensive bids and estimates for projects. As part of this service, we can support with all of the following:

- Preparation of complete technical specification.
- Preparation of the power single line drawings right from MV to the LV levels.
- Optimized AC and DC motor and drive dimensioning for various requirements including complex requirements like shears and rolling mills.
- Conceptualization and preparation of an optimized automation configuration showing the various subcomponents like the Level 1 control systems, networking topology, Level 2 / MES systems, etc.
- Preparation of accurate I/O estimates and summary bill of material of automation components, field devices, control desks, etc to help in pricing the Automation system.
- Coordination with various suppliers for pricing and technical specifications.



-
- Attending customer meetings, presenting to customers, clarifying specifications to customers.
 - In the case of revamp or upgradation projects, we can help with a preliminary site study leading to preparation of a requirement specification.

Engineering Support

Our core strength is the technical expertise of our highly experienced engineering team. We provide comprehensive engineering outsourcing services for the entire gamut of electrical and automation system deliverables. This includes various Basic engineering, Detailed engineering and Software engineering services listed below.

- Preparation of basic engineering documentation namely document list, item designation list, electrical room layouts, Control pulpits layout etc.
- Preparation of an overall plantwide power single line diagram starting from the MV switchboard down to the LV switchgear
- Design of all power distribution equipment including MV switchgear, transformers, LV switchgear (MCC, PCC, PDB), etc. This design work includes preparation of single line drawing, preparing ordering documents, technical discussions with various potential suppliers and coordination with suppliers for technical queries.
- Comprehensive design work for variable speed AC and DC drive systems including optimum selection of motors, drives, and their power supply equipment (converter transformers and multidrive incoming units), preparation of single line drawings, preparing ordering documentation, technical discussions with various potential suppliers and coordination with suppliers for technical queries.
- Complete Automation system design including preparation of the automation configuration drawings, I/O estimation, preparing ordering documentation, technical discussions with various potential suppliers and coordination with suppliers for technical queries.
- Preparing junction box allocation, Remote I/O allocations, circuit drawings,
- Preparation of complete power, control and signal cable list with interconnection details. This includes the detailed cable routing plan, tray layouts, embedded pipes layout, etc.
- Complete control system software development including software development for technological controls, drive controls, automatic sequences, HMI, etc, software development for Level 2 / MES systems and testing of individual software modules followed by complete system integration testing.
- Documentation services using (ACAD , EPlan / E3) tools.



Commissioning Support

We provide a high quality of comprehensive site services and commissioning/post-commissioning support services to our OEMs, end users and engineering customers for the whole range of electrical and automation systems. As part of our site service offerings, we provide

- Complete site management including liasoning with customer, coordination with all suppliers, sub-suppliers, etc.
- Erection supervision
- Commissioning of complete power distribution equipment
- Commissioning of AC / DC variable speed drive systems
- Automation system commissioning including I/O Checking and basic commissioning checks.
- Commissioning of drives including testing of motor losses, inertia of motors with mechanical equipment coupled.
- Commissioning of auxiliary equipment including automatic sequences.
- Commissioning of complete strip transportation (drive overriding controls) in processing lines, cold rolling mills and hot rolling mills, including direct tension control, looper control etc.
- Complete rolling mill controls in long products eg. bar mills, wire mills etc.
- Commissioning of all technological functions viz. Automatic Gauge Control, Flatness Control, high speed shears, high speed Wire Rod Mill Blocks etc.
- Metsys has the capability to provide good and prompt after-commissioning support which would help in continuing a lasting relationship with the end customer.

In addition to the above, Metsys has the expertise to discuss with customers and provide solutions for optimizing a plant and also efficiently handle revamp projects that demand a high degree of process expertise.

All the above are possible due to the fact that METSYS is backed by a team of professionals from reputed MNC's having design and commissioning experience for complete turnkey projects including a very high degree of expertise in the field of automation and drive systems to cater to the needs of systems in the following areas

- Long Products Rolling mills solutions including
 - Hi-speed Wire-rod mills upto 120m/s speed
 - Hi-speed bar rolling mills upto speeds of 38m/s
 - Stand-alone or Integrated Level 2 (MES) systems
 - Technological control functions like
 - Hi-speed shear design and control including AC drive solutions and optimization solutions for bar mill applications
 - Laying head nose positioning solutions



-
- Cold rolling mills and processing lines including
 - 4Hi and 6Hi Reversing and Non-Reversing Cold Mills even up to 1400mpm mill speed
 - Multi-rolls mills like the 20-Hi mono-block or split-housing design
 - Skin pass mills
 - Complex and hi-speed processing lines including pickling lines, galvanizing and coating lines, electrolytic cleaning lines, tinning lines, annealing and pickling lines, etc.
 - Stand-alone or Integrated Level 2 (MES) systems for all the above
 - Technological control systems (like Automatic Gauge Control systems for Hydraulic and Electromechanical screws or single sheet classifiers for tinning lines) to improve and de-bottleneck production processes with an assurance of faster paybacks

IT Services & Product development

- Application development , resources with expertise in
 - Web and Windows application design and development.
 - Solid knowledge of VB.NET, C#, ASP.NET and MS SQL Server,
 - A strong understanding of XHTML, CSS and JavaScript
 - Visual Studio 2005
 - Strong command of Windows Server 2005 + IIS6
 - Other responsibilities include application maintenance and custom operational reporting using SQL Reporting Services, Crystal reports, or similar
 - Define internal and external specifications for applications

These specialties are being utilized in the IT space to implement and also co-develop of solutions especially with respect to

- Application development
- Integration services
- Product development
- Quality based reporting systems .



6. Project Offerings

Metsys is geared up to provide complete electrical, drive and automation solutions for all processes of the Metals industry. Our strong alliance with leading product suppliers like ABB, Siemens, iba, etc combined with our extensive experience and deep engineering expertise, makes us a unique player in this market. Metsys delivers projects in areas as diverse as Blast Furnaces, Steel melt shops, Continuous casters, Long product hot rolling mills, Hot strip and plate mills, Cold rolling mills and Cold processing lines.

We deliver complete automation systems for any of the above processes. Our automation solutions are state-of-the-art with the high end solutions built in by default or as options. Along with the basic level automation, we can also provide technological solutions like automatic gauge control for hot plate or hot strip mills and cold rolling mills and laying head nose positioning, divide shear optimization, etc for bar and rod mills. All these technological solutions are provided by us on the same automation platforms as the basic level automation thereby providing a harmonized and truly integrated and open control system. We have alliances with ERP system providers that enable us to vertically integrate the process control into the ERP system or also to deliver complete ERP systems where required.

We deliver complete drive systems in our projects ranging from small low voltage DC drives to large medium voltage AC drives. We can provide rebuild solutions that help customers optimize their project cost by retaining the power stacks and power circuit components of their old DC drives and upgrading the electronics to the latest generation ABB systems.

Apart from the automation and drives, we can also deliver as part of our scope, complete power systems like MV switchgear, transformers, PDBs, MCCs, UPS, etc. Alternately, we also help our customers order out these equipments based on specifications engineered by us. This is followed by interaction with the various vendors to ensure that the project is engineered as an integrated system rather than as a simple collection of stand-alone products.



7. Project Experience List of Promoters

- **Sandeep**, Technical Director brings with him vast international experience in the engineering industry having spent 2 years with a mechanical OEM, 8 years with ABB India and 5 years with ABB China. In ABB China he was deeply involved in the technology development of ABB's highly successful worldwide Processing Line Business.
- **Krishnadas**, Technical Director brings with him vast experience in the engineering industry having spent more than 15 years in industry and having headed the engineering operations and technology management of ABB India's Metals business for more than 5 years.
- **Raghunath**, Sales Director is responsible for business development and sales. He brings with him more than 18 years of international experience in sales & engineering having spent many years in reputed MNCs – 4 years with ABB India in engineering, 7 years with Danieli Automation, Italy and China in sales handling the Asian market and 2 year with ABB China in sales handling the Middle East market.
- **Vinod**, Director IT services and new businesses is responsible for IT solutions for industrial as well as other customers and to explore new business opportunities in other related industries. He brings with him a perfect blend of experience in the engineering industry as well as the IT industry having spend more than 7 years with ABB INDIA in Engineering and 4 years in Philips software in project management

Some of the major projects handled by the team are listed below:

Remark :

We would like to emphasise that Metsys was founded in 2007, The projects that are marked as reference in the list below are realised by our employees in the year 1990 -2006 .Metsys was not the main contractor of these projects , Therefore these projects should be seen as project experience of our employees , but not as reference of the company.



Customer	Mill Builder	Equipment Type	Brief Spec	Brief Scope
Cold Rolling Mills				
JSW Steel, India	SMS Demag	2-stand reversing CRM & Skin Pass Mill	CRM: 1350m/min SPM: 700m/min	Drives, Basic automation, Technological controls (AGC, AFC), Strip transportation, Level 2
YUSCO – Kaohsiung Taiwan	SMS	Z Hi Cold Rolling Mill	400 mpm	Drives, Complete automation, Technological controls (AGC), Strip transportation, CVC, Horizontal Stabilisation
YUSCO – Kaohsiung Taiwan	SMS	20 Hi Cold Rolling Mill	500 mpm	Drives, Complete automation, Technological controls (AGC), Strip transportation, AFC
GPT Steel, India	Flat Products	6-Hi reversing CRM	1000m/min	Drives, Basic automation, Strip transportation
Union Steel, China	Flat Products	6-Hi reversing CRM	1400m/min	Drives, Basic automation, Technological controls (AGC), Strip transportation
Jindal Stainless	Revamp (Sundwig)	20-Hi split housing	400m/min	Drives, Basic automation, Technological controls (AGC), Strip transportation
Baoxin Stainless Steel Company Ltd – Ningbo China	Andritz	SPM	200 mpm	Drives, Complete Automation, Strip transportation, Skin Pass Mill controls
EBG, India	Revamp (Bliss mill)	6-Hi reversible CRM	1000m/min	Technological controls (AGC)
Hindalco, India	SMS Demag	4-Hi Aluminium	600m/min	Drives, Basic automation, Technological controls (AGC), Strip transportation, Level 2
PT Indo Aluminium, Indonesia	Revamp	4-Hi Aluminium Foil	6um*2, 1000m/min	Drives, Basic automation, Technological controls (AGC), Strip transportation
Ornasteel, Malaysia	Revamp	4-Hi & 6-Hi reversing CRM; Skin Pass Mill;	4-Hi 1: 500m/min 4-Hi 2: 1000m/min SPM: 600m/min	Drives, Basic automation, Technological controls (AGC/AEC), Strip transportation, Level 2
Baosteel – Shanghai China	Revamp (SMS Old Mill)	Skin Pass Mill	1000 mpm	Drives, Complete Automation, SPM controls
EBG, India	Revamp with SMS	4-Hi CVC CRM		Drives, Basic automation, Technological controls

Metsys Engineering and Consultancy Pvt. Ltd.

Date: 21.08.2009

Page 10 of 13



Customer	Mill Builder	Equipment Type	Brief Spec	Brief Scope
	Demag			(AGC), Strip transportation, Level 2
JSW Steel, India	Flat Products	Electrolytic Cleaning Line, Pickling Line	ECL: 500m/min PL: 180m/min	Drives, Basic automation, Strip transportation, Level 2
JSW Steel, India	Bronx	Recoiling, Tension Leveling and Inspection Line * 2	300m/min	Drives, Basic automation, Strip transportation, Level 2
Jindal Stainless	Andritz / Sundwig	Cold Annealing & Pickling Line with inline SPM & TLL	120m/min	Drives, Basic automation, Technological controls (AEC), Strip transportation
Essar Steel, India	Siemens-VAI	Electrolytic Cleaning Line		Drives, Basic automation, Strip transportation
JISCO – China	Andritz	DRAPL		Drives, Complete Automation, Strip transportation, Scale Breaker Cassette controls
JISCO – China	Andritz	CAPL		Drives, Complete Automation, Strip transportation
Shanghai Krupp Stainless Steel	Andritz	HAPL	100 mpm	Drives, Complete Automation, Strip transportation, Scale Breaker Cassette controls
TISCO – Taiyuan China	Andritz	CAPL	120 mpm	Drives, Complete Automation, Strip transportation, SPM controls
Ornasteel, Malaysia	Revamp	Continuous Galvanizing Line	150m/min	Drives, Basic automation, Strip transportation
Tata Steel, India	SMS Demag	Electrolytic Cleaning Line	600m/min	Drives, Basic automation, Strip transportation, Level 2
Baoxin Stainless Steel Company Ltd – Ningbo China	Andritz	TLL # 2	200 mpm	Drives, Complete Automation, Strip transportation, Leveller Cassette controls
LISCO – Guangzhou China	Andritz	HAPL	100 mpm (Max Thickness 10mm)	Drives, Complete Automation, Strip transportation, Scale Breaker Cassette controls
Ornasteel,	Revamp	Electrolytic Cleaning		Drives, Basic automation, Technological controls

Metsys Engineering and Consultancy Pvt. Ltd.

Date: 21.08.2009

Page 11 of 13



Customer	Mill Builder	Equipment Type	Brief Spec	Brief Scope
Malaysia		Line; Recoiling & Tension Leveling Line		(AGC/AEC), Strip transportation, Level 2
Tata Steel, India	Bronx	Recoiling, Tension Leveling and Inspection Line	300m/min	Drives, Basic automation, Strip transportation, Level 2
Tata Steel, India	Revamp	Electrolytic Tinning Line	320m/min	Drives, Basic automation, Strip transportation
Baoxin Stainless Steel Company Ltd – Ningbo China	Andritz	TLL # 1	200 mpm	Drives, Complete Automation, Strip transportation, Leveller Cassette controls
Tata Steel, India	Flat Products	Continuous Galvanizing Line	120m/min	Drives, Basic automation, Strip transportation, Level 2
Baoxin Stainless Steel Company Ltd – Ningbo China	DMS	CAPL	120 mpm	Drives, Complete Automation, Strip transportation, SPM controls
Shanghai Krupp Stainless Steel	Andritz	Slitting Line	120 mpm	Drives, Complete Automation, Strip transportation,
Shanghai Krupp Stainless Steel	Andritz	Cut To Length Line	120 mpm	Drives, Complete Automation, Strip transportation,
Shanghai Krupp Stainless Steel	Andritz	Grinding and Polishing Line	120 mpm	Drives, Complete Automation, Strip transportation,
Hot Rolling (Long Products)				
Tata Steel, India	Morgan	Bar Rolling Mill	38m/s (8mm – 16mm)	Drives, Level 1 Automation, Level 2 Automation, Electrics
Tata Steel, India	Revamp (Morgardshammer old WRM)	Wire Rod Mill	70m/s	Level 1 Automation
Shanghai No. 5,	Danielli Mill,	Bar, Wire and Garret	105 m/s	Drives and Level 1 Automation

Metsys Engineering and Consultancy Pvt. Ltd.



Customer	Mill Builder	Equipment Type	Brief Spec	Brief Scope
China	Morgan Block	Line		
Usha Martin	Revamp	Wire Rod Mill	70m/s	Level 1 Automation
Isibars, India	Pomini	Stainless steel Bar and Rod Mill	70m/s	Drives and Level 1 Automation
SAIL, Bhilai, India	Sket, Germany	Wire Rod Mill	70m/s	Drives and Level 1 Automation