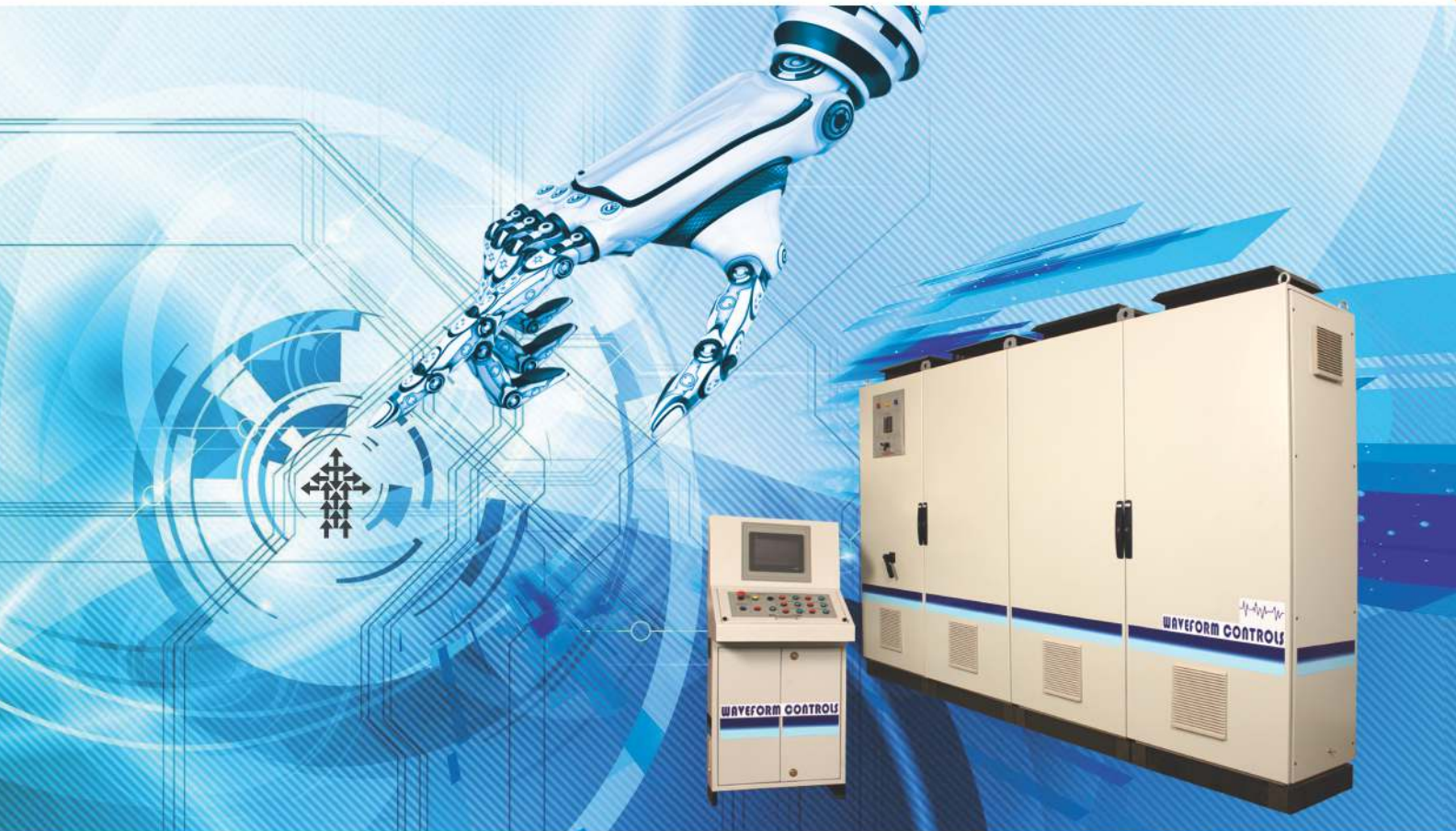




WAVEFORM CONTROLS PVT. LTD.



INNOVATIVE
AUTOMATION SOLUTIONS
BUILT WITH PASSION





Founded in 2001, in Delhi NCR by Mr.P.Raghavendra and Mr.Tejram Petwal, waveform controls is today one of the leading designers, integrators, manufacturers and suppliers of total automation systems for plastic, paper, flexible packaging, steel and various other industries. The company has its own design and R&D department with experienced engineers from the industry.

With the vast experience of both the directors Mr. Raghavendra and Mr. Tejram Petwal of more than two decades in the field of automation and with a clear objective of bringing to the customers a high quality, reliable and cost effective automation solutions, waveform controls has built its strength.

Every product offered by waveform controls is an epitome of perfection, accuracy and long life. Under the visionary entrepreneurship of P.Raghavendra and Mr. T.R.Petwal, waveform is established as a trustworthy vendor of automation products. Waveform is also exporting the automation systems to UAE, Africa and many other overseas regions through OEMs and machine manufacturers.

Why waveform controls

Waveform is endowed with a vision to provide automation of high quality with innovative ideas and to be market leaders. Waveform has an in depth knowledge of the intricacies involved in paper converting machines, flexible packaging machines, all types of plastic extrusion and moulding machines, paper and steel industries, print finishing machines, textile processing machines etc.

Reasonable cost

Waveform products come with a reasonable price tag; a very good value for the money invested; an early pay back is assured due to negligible down time of machines, minimal wastages, and ensuring consistent quality of products from machines.

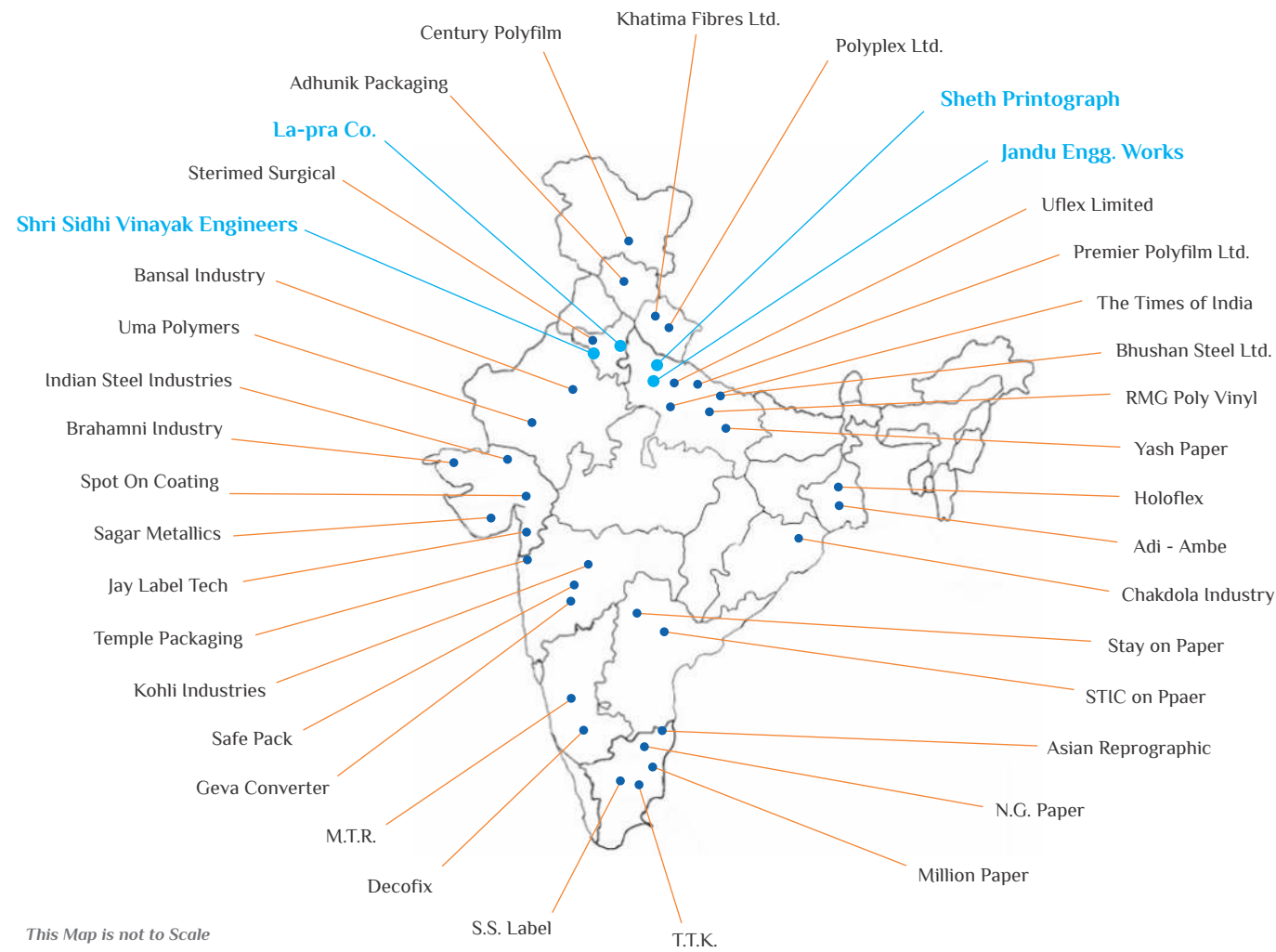
Service

Backed by very prompt, efficient, and quality after sale service - the most important factor for any process industry.

Dependability:

All waveform products are of consistent quality, backed by efficient and timely technical support. This makes waveform controls a strong backbone for any process industry. Waveform products are also being exported to other countries through machine manufacturers.

SOME OF THE ESTEEMED CUSTOMERS ARE LISTED BELOW:



This Map is not to Scale

WE ALSO HAVE OUR PRESENCE IN THE FOLLOWING COUNTRIES



CONTROL PANEL FOR MULTI COLOR ROTOGRAVURE/FLEXOGRAPHIC PRINTING MACHINE

- Fully PLC Based Automation System.
- Three, Five And Seven Drive System Using Both AC And DC Drives.
- Web Tension Control System For Unwind, Infeed, Outfeed And Rewind Stations On The Machine.
- Auto Splicing Arrangement At Both Rewind And Unwind For Machines Supplied With Turrets.



AUTOMATION ON SOLVENT BASED AND SOLVENTLESS LAMINATION MACHINE

- PLC Based System.
- Synchronized AC Drive System.
- Pneumatic and Powder Brakes System.
- Temperature Control System For Hot Air Drying.
- Tension Controls Using Load Cells and Synchronized Dancer Arm Feedback System.
- Pump Controllers For Solvent less Lamination Machines.



AUTOMATIC CONTROL FOR HIGH SPEED SLITTING MACHINE

- Auto Tension Controls For machines Using Both Standard And Differential Shafts.
- Unwind Tension Controls Using Either Pneumatic or Motorized Brakes.
- Fast Response Drives For Machine Speeds Upto 1000mpm.
- Ultrasonic Dia Sensors For Rewind And Unwind.
- Automation For Pneumatic System on The Machine.



SYSTEM FOR HIGH SPEED POUCHING MACHINE

- Controls For All Type Of Pouching Machines
- Servo Drives For Accurate Positioning At Color Mark.
- Temperature Controllers For Sealers.
- Fully PLC Based System With Colour Touch Screen As HMI



CONTROL PANEL FOR HIGH SPEED INSPECTION MACHINES

- Suitable for Reversible Operation.
- Accurate Positioning of Fault on The Inspection Table.
- Multiple Faults Detection System.
- Can be Synchronised With Image Detection High Speed Camera.
- Fully PLC Based System.





CONTROL PANEL FOR SILICON COATING MACHINE

- Controls for three/Five Roll Solventless Silicon Coating Head.
- Specialized Winder Controls to Wind High Slip Silicon Coated Paper.
- Motorized Valve/Diaphragm Valve Based Temperature Control.
- PLC Based Automation with Touch Screen and Recipe Management for High Speed Coating Machines up to 300 MPM.

CONTROLS FOR WATER BASED GUM COATING AND LAMINATION MACHINE

- System For Reverse Roll Coating System.
- Tension Controls At Different Points In The Machine To Cater To Two Different Types of Substrates During Laminations.
- Wet And Dry Lamination Facility And Its Associated Tension Controls.
- Temperature Controls of The Heating Chamber.



AUTOMATIONS FOR HOTMELT COATING MACHINE

- Temperature Control For Slot Die.
- PLC Controls For Dozing Pump And Adhesive Melting Tank.
- Unwind And Rewind Tension Control.
- Synchronised Multimotor Drive System.
- Controls For Slot Die Coating Machine.

SYSTEM FOR HIGH SPEED SHEET CUTTER

- Multi motor Drive System for Sheet Cutter .
- Servo Drive for Cut to Length Application and Cutting Accuracy Of Better Than 0.5 MM.
- PLC Based System for Total Automation of Sheet Cutter.
- Registered Cut With Detection Of Color Mark and Auto Correction.
- Automatic Counting and Stacking.
- Setting of Sheet Length to An Accuracy of 1 Decimal.



CONTROL PANEL FOR HIGH SPEED LABEL PRINTING AND DIE CUTTING MACHINES

- PLC Based System For Rotary And Flat Bed Label Printing Machine
- Tension Controls.
- Multimotor Drive System For Modular Type Label Printing Machines.

With the Development of Digital Printing Technology in Photography and Packaging Industries, Various Machines were Developed for the Print Finishing. These include film Laminating Machine, Thermal Lamination Machine, Sheet to Roll Lamination Machine, Sheet Separator using Rotary Hot Knife, Sheet Cutters etc.

All these Machines need a Very High Level of Automation to Control wastages and Provide Accuracy in these machines. Waveform Controls Developed Fully PLC Based Systems using Servo Drives and Digital Controllers for these kind of machines.

SHEET TO REEL LAMINATION

- Automatic Sheet Feeder Control .
- Tension Control Suitable To Run BOPP, PVC, PET Thermal and normal films.
- Automation for Online and Offline Hot Knife Sheet Separator.
- User Friendly Controls with Use of Color HMI.



THERMAL AND COLD LAMINATION MACHINE WITH ONLINE SHEET SEPARATOR USING SYNCHRONOUS ROTARY HOT KNIFE

- PLC Based Control System.
- Automatic Sheet Feeder
- Tension Control at Rewind.
- Both Online and Offline Sheet Separator.
- Servo Drive System for Rotary Hot Knife.

AUTOMATION FOR SHEET SEPARATOR

- Servo Drive Rotary Hot Knife.
- Auto Detection Of Overlap By Use Of Laser Sensor.
- Fully PLC Based Control Panel With HMI.
- Line Speed upto 70 MPM.



AUTOMATION FOR DOUBLE SIDE THERMAL LAMINATION FOR SHEETS

- Automation for Manual Sheet Feeding and Guiding .
- Temperature Control.
- AC Drive Controls.
- Automation For Reciprocating Type Auto Cutting Unit with Color Mark Sensor.



Another Area Where Waveform Has Excelled Is In Plastic Processing . Fully PLC Based System Developed By Waveform, Controls Synchronization Of Different AC And DC Motors On The Machine. It Also Provides Accurate Temperature Control For The Die And Barrels. Takes Care Of Safety Of Both Human And Machine. Some Of The Machines On Which Waveform Has Commissioned The Automation System Are As Follows.



MULTILAYER FILM PLANTS

- Total Automation For Multilayer Film Plants.
- Heavy Duty Ac Drives For Extruders Application.
- Cascading Type Of Synchronisation For Film Plants.
- Internal Bubble Cooling Controls.
- Tension Controls For Surface Winding Of Films.
- High Accuracy And Energy Saving Temperature Control System.

RIGID PVC PIPE PLANT

- Heavy Duty Extruders Drives.
- Pipe Profile Control For Socketing Application (Thick- Thin System).
- Feeder And Haul Off Controls.
- Cut To Length Applications.



INJECTION AND BLOW MOULDING MACHINES

- Fully PLC Based System For Moulding Machines.
- Specialised Temperature Control System For Moulding Machines.
- Hot Runner Temperature Controllers.

CABLE MAKING PLANTS

- Multimotor Drive System And Temperature Controls For Cable Coating Extruders.
- Tension Controls For Capstan And Take Up Units In Cable Manufacturing.
- Drives For Wire Drawing And Twisting Applications.
- Automatic Thickness Control Using Beta Gauge System In Cable Coating.



Waveform Controls has also Supplied and Commissioned Automation Systems for Various other industries.



COMPLETE AUTOMATION FOR SPECIAL PURPOSE PAPER AND FILM COATING PLANT RUNNING AT VERY HIGH SPEEDS.

- Automation for Air Knife Coater.
- Automation for Roll Blade Vari Bar Coating.
- Single/Double Side Clay Coating System.
- Automation for Pope Reel Winder.
- Automation For Moisture Controls of Running Web.

Note: A System Comprising of 33 Drives Running in Synchronisation on a Multi purpose Paper Coating Machine was Commissioned at a Reputed Paper Mill. The Machine is now running at a speed of 400 MPM and is able to Handle Paper Starting from 40 GSM.

STEEL TUBE MAKING PLANT

- Heavy Duty Steel Tube Mill Drives.
- Synchronised Multi Drive System for Preforming, Forming and Sizing Units.
- Servo and Non Servo Based system for Cutting Car for on Line cut to length application.
- Complete PLC Based Automation incorporating all safety features for the mill.
- Data logging and other SCADA Based Application.



PVC COATING AND VINYL FLOORING AND WALL PAPER INDUSTRY

- Multimotor Drive System for Screen Printing.
- System for Knife Over Roll Coating.
- Tension Controls And Related Automation for online Embossing, Lamination, Slitting and Winding.

NOTE: A fully PLC based system comprising of 27 drives is successfully commissioned at a very reputed vinyl flooring manufacturing unit.

WE ASSOCIATE WITH THE WORLD LEADERS FOR THE PRODUCTS WE TRADE AND USE

We Can Supply AC Drives and DC Drives of Reputed Makes at Attractive Prices. AC Motors and DC Motors, Servo Motors, Associated Servo Gearboxes are Also Supplied as per Requirement.



AUTOMATION FOR PLASTIC PROCESSING MACHINES

AUTOMATION FOR MISCELLANEOUS APPLICATIONS



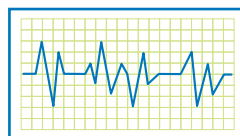
UNWIND WEB TENSION CONTROLLERS.

- Pneumatic and Magnetic Powder Brakes PLC Based Tension Controller
- Loadcells and Dancer Arm Assemblies



INDUSTRIAL AUTOMATION TRAINING CENTER

Waveform controls also provide practical training in automation for fresh engineering graduates and diploma holders. The training covers basic industrial electronics, exposures to automation products, different types of field sensors, AC/DC motors and SCADA. Hands on experience is imparted to candidates by giving them field exposures and making them work on real project. Waveform can also provide training as per specific requirement. Industrial establishment can sponsor their maintenance personnel to undergo practical training in industrial automation. In addition to the regular training, we can also provide specific training as per requirement. After undergoing training waveform shall also assist candidate's placement in suitable industries.



WAVEFORM CONTROLS PVT. LTD.

D-74, Sector-7, Noida -201 301, Uttar Pradesh, India
 Ph: 0120-4264537 / 4264536 Mob: +(91)-9810078063 / 9910234270
 Email: admin@waveform.in, URL; www.waveform.in