

Powered by Trust®



# SynchroConnect™

Unlock machine data. Increase profitability.



## Bharat Bijlee: Your Automation Partner

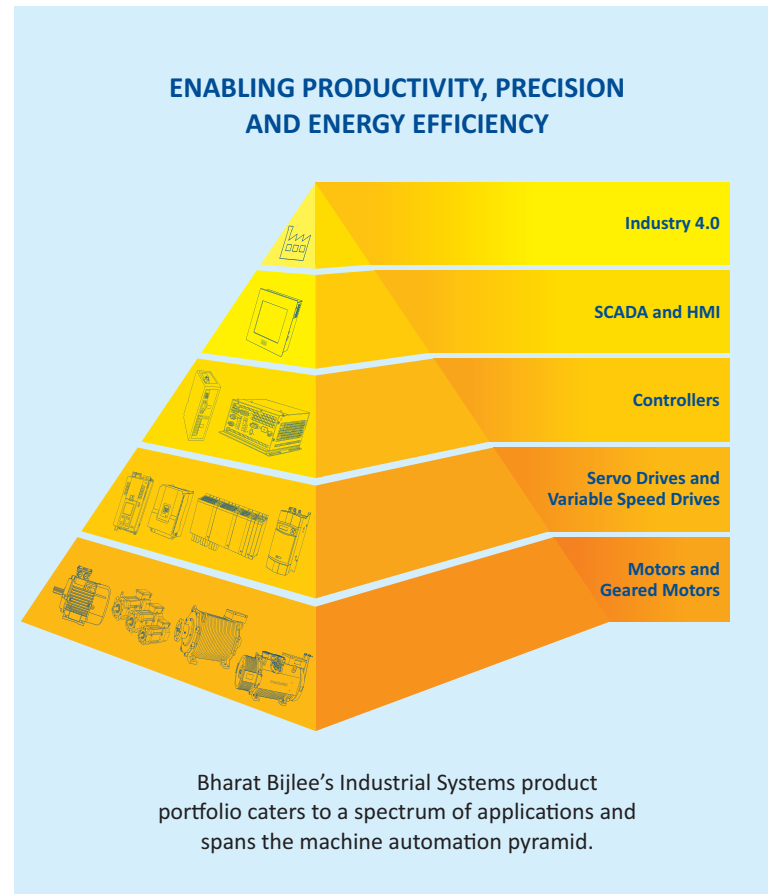
Bharat Bijlee, a pioneer in India's electrical engineering industry, was established in 1946.

Today, Bharat Bijlee's products and solutions span the machine automation pyramid for applications in diverse industries: Plastics, Textiles, Machine Tools and Metals. These are powered by automation products and Servo Drives in partnership with KEB of Germany.

## Industrial IOT Platform for Industrial Machines

Conventionally, machine production data is manually recorded and hence susceptible to unreliability and human error. Time elapsed from data recording to analysis is long, making it difficult to pinpoint and analyse downtime; bottlenecks are difficult to identify and resolve.

The SynchroConnect™ gateway can offer a new level of machine insight and support.











## Change the way you see your machine

- We provide analytics at a granular level with a bird's-eye view of your full factory.
- SynchroConnect's online automated dashboards, reports and analytics are accessible on any device, anytime, anywhere.
- This can enhance machine reliability and plant productivity, along with on-board condition-based predictive maintenance.
- We propose IIOT solutions that suit our customer's goals, covering everything - from collecting shop floor data to analysis and diagnosis.














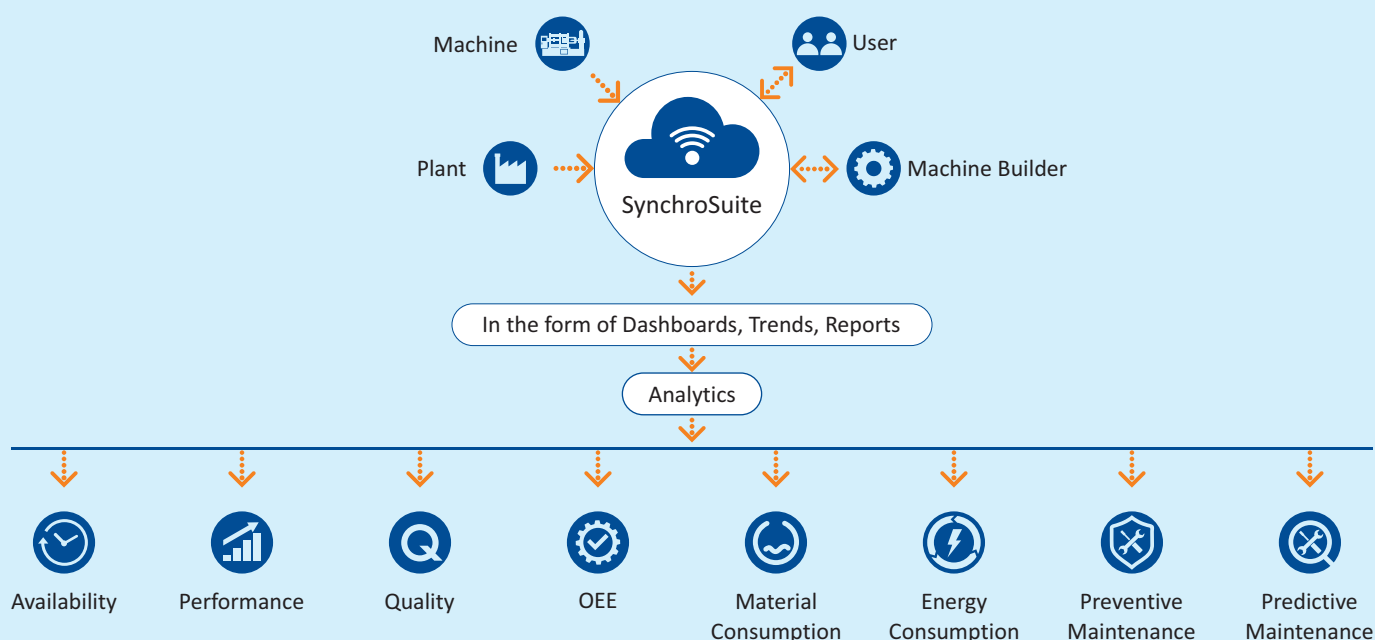
## Functionality of SynchroConnect™ - Smart IIOT Gateway

- |                                                                                                                         |                                                                                                                                       |
|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
|  Edge computing                        |  Extract machine data, drive data and vibration data |
|  Data manipulation                     |  KPI and algorithm processing                        |
|  Convert data into actionable insights |  Data logging                                        |
|  Multiple protocol support             |  No data loss for temporary network blackout         |












## Core features and modules for smart factory/machine
















- |                                                                                                                                                                         |                                                                                                                                                                     |                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <b>Customise dashboards</b><br>Wide range of dashboard widgets to help visualise data |  <b>Real-time data monitoring</b><br>Send and receive data in real-time using MQTT |  <b>Event and alarm logging</b><br>Trigger alerts based on customer configuration to avoid losses |
|  <b>Process data monitoring</b><br>OEE, quality, availability and performance        |  <b>Data entry</b><br>Enter data manually                                        |  <b>Reporting and analysis</b><br>Create custom reports that help measure KPIs                  |
|  <b>Longer duration data storage</b><br>Availability of data on demand               |  <b>Preventive maintenance</b><br>Plan and execute maintenance work              |  <b>Predictive maintenance</b><br>Condition-based                                               |
|  <b>Access level</b><br>Create different levels of access                            |  <b>Energy monitoring</b><br>Track your energy consumption                       |                                                                                                                                                                                      |



## Increase profitability with SynchroConnect™

-  Improve operational efficiency
-  Improve productivity
-  Reduce downtime
-  Maximise asset utilisation
-  Enhance worker safety
-  Increase output and revenue
-  Reduce asset lifecycle cost
-  Lower operating cost
-  Energy measurement and monitoring

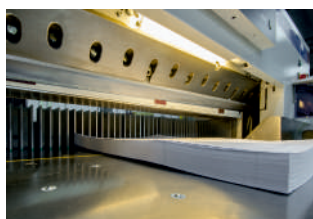
## Product Features

-  Preventive maintenance of drive, motor
-  Predictive maintenance of drive, motor
-  Productivity measurement (24 X 7)
-  Machine ON time
-  Machine availability
-  Product planning
-  Energy consumption
-  Machine maintenance schedule alerts
-  Machine downtime reports
-  Raw material consumption
-  Changeover alert
-  Machine breakdown report
-  WIP
-  Number of good/bad production
-  Boiler performance (with necessary inputs from boiler area)

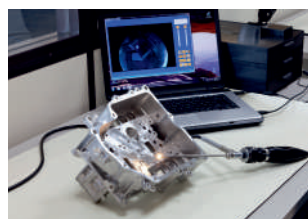
## Application Expertise



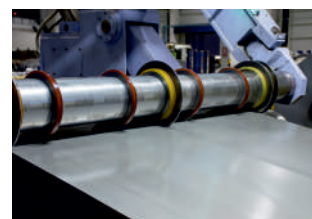
Wire drawing machine



High speed CTL for corrugated board and paper cutting machine



Motor test bench



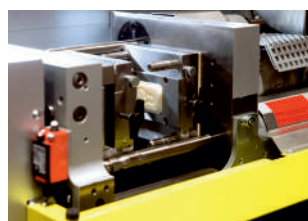
Continuous shear control for CTL in rolling mill



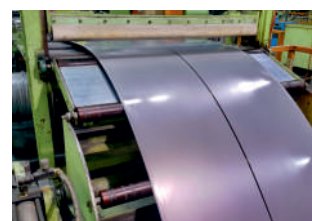
Textile machinery



Pipe cutting machine



Plastics machinery



Slitter for steel

## Live Dashboard Screenshots



Operator view



Machine operational parameters



Graphical view of operational parameters



Machine status



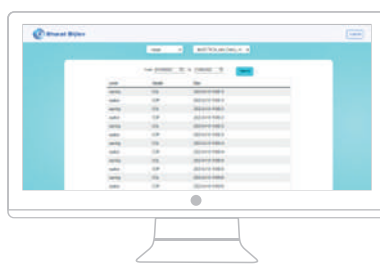
Live status



Trending of parameters



Live alarm



Alarm history



Maintenance

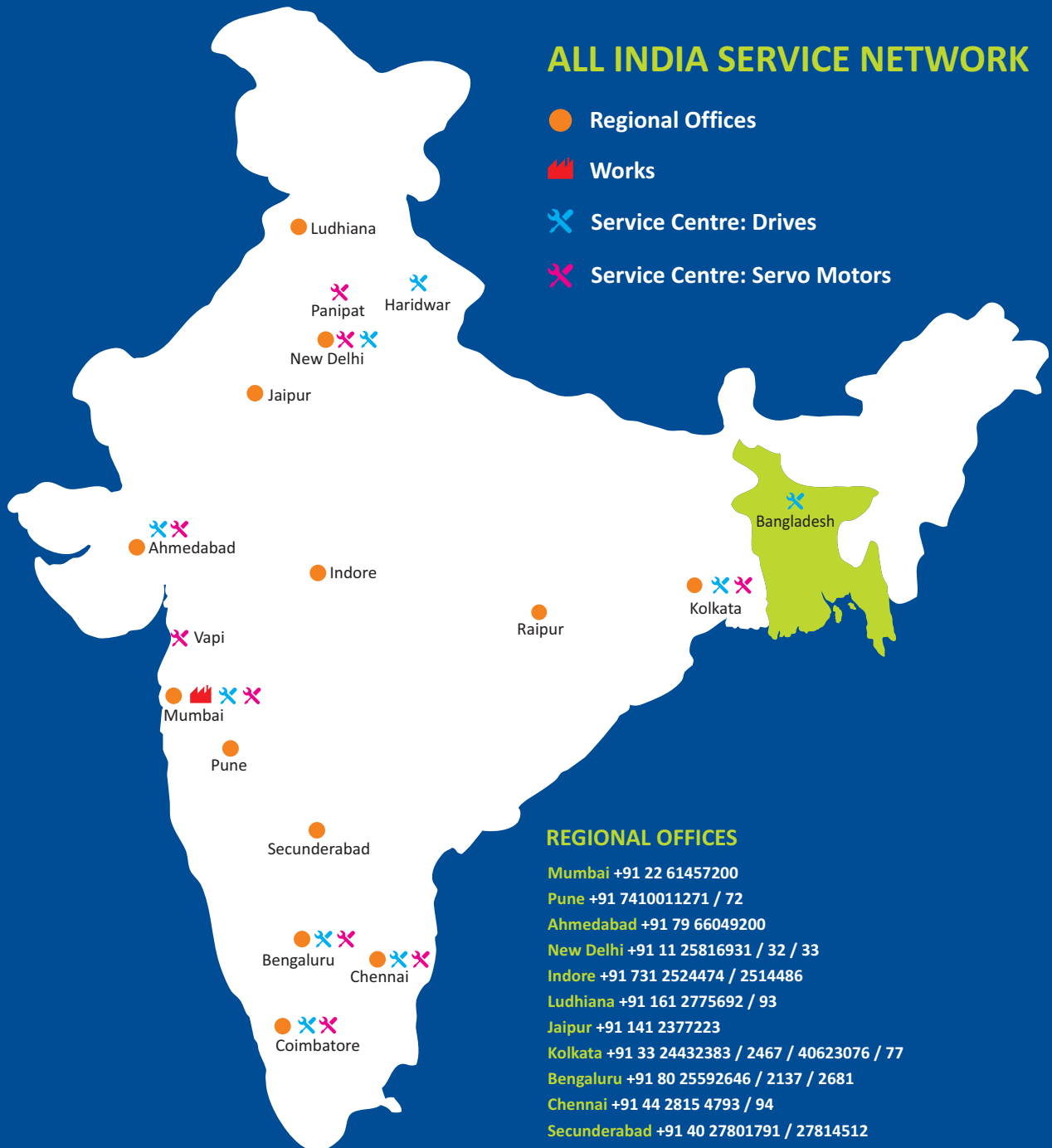
## Technical Parameters of SynchroConnect™

Dimension	
Dimension(W X H X D)	260mmX130mmX230mm
Weight	3.8kg
Enclosure	Metallic
IP Rating	IP20
Auxiliary Supply	
Input Supply	230V AC
Power Supply Connection	Plug type
Peripheral Devices	24V dc
Communication	
Cloud Connectivity	10/100kbps
Local Connectivity	Ethernet 10/100kbps
Device Connectivity	
Ethernet	2
Modbus TCP/IP	2
Modbus RS-485	1
Serial RS 232	1
USB Port	2

Data Acquisition and Storage	
Acquisition Speed	60 sec
Local Data Storage	3 hr
Time	RTC
Operating Environment	
Operating Temperature	45°C
Storage Temperature	40°C
Humidity	95%
Cooling	Fan
Configuration	Windows-based
Input/Output	
Digital Input	8
Digital Output	8
Analog Input	2
Connection	9 pin connector
Protocol Support	
Modbus, Tcp/IP, HSP5, OPC	

## ALL INDIA SERVICE NETWORK

- Regional Offices
- 🔧 Works
- ✂ Service Centre: Drives
- ✂ Service Centre: Servo Motors



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