

Enabling Productivity, Precision and Energy Efficiency



70+
years
experience



4 million
motors



10,000
servo solutions



30,000
gearless
machines
for elevators



Editor's Note

The onset of the COVID-19 pandemic dramatically changed our lives and the way in which business is conducted. In June 2020, I had outlined the steps that Bharat Bijlee was taking to restart operations, while ensuring the safety of its workforce.

In May 2020, we resumed limited manufacturing operations and have progressively ramped up production in accordance with State issued guidelines. I am glad to report that our rate of production in December 2020 exceeded that of March 2020. The increasing volume has enabled us to reduce the delays in delivery due to the lockdown and the restrictions of the un-lock phase. Even so, I do appreciate that our delivery performance has still not stabilised, and restoring normalcy here is top priority for us. Our teams will continue to work with enthusiasm and zeal to overcome the challenges brought by disrupted supply chains and to reduce the backlog and delivery periods to normal.

A major gain for our organization has been our ability to quickly adapt to online modes of working, without compromising on efficiency and effectiveness. I encourage you to contact our sales teams if you have any urgent delivery needs; they will do their best to support you.

Our nation and economy have proved their resilience, enabling us to recover from the effects of this pandemic faster than anticipated. While the availability of vaccines and the steady decline in new cases and fatalities bring hope for a life of normalcy, we must wait for the pandemic to be officially over before we breathe a sigh of relief. Till then, we must exercise restraint and be mindful.

We assure you that BB has absorbed the learnings from this unprecedented disruption and reoriented itself to effectively conduct business under the new normal, while focusing on addressing opportunities and countering threats that will emerge in the days to come.

Sincerely, on behalf of all my colleagues in the Industrial Systems segment.

Sunil Mistry
VP - Motors



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By subscribing to our newsletter on this link: <https://www.bit.ly/2EcBohF> you will receive it by e-mail as soon as it's published.

Bharat Bijlee is synonymous with electrical engineering in India. Our key business lines are Power Systems (Power Transformers, EPC Projects) and Industrial Systems (Motors, Drives & Automation, Magnet Technology Machines). Headquartered in Mumbai, we have sales and service network across India. The company's manufacturing facilities are located in Airoli, Navi Mumbai on a 1,70,000 sqm. campus.

Case Study

SynchroVERT® Motors for Blow Moulding Machine

Global warming and its impact on the environment is a growing concern the world over. The ever increasing cost of fuel and electricity adds to the complexity of the problem, and affects not just industries but entire economies. Electric motors are estimated to consume about 65% of the electrical energy consumed by industry. Moreover, energy costs over the typical lifecycle of a motor can be as high as 20 times the original capital cost of the motor.

Energy efficient motors offer an opportunity to significantly reduce energy costs and their collateral environmental effects. Instead of repairing or rewinding a failed motor, organizations now consider profitably replacing them with energy efficient motors or motor-driven systems to bring about significant reduction in energy consumption.

Bharat Bijlee has been a front-runner in providing energy efficient motors and automation solutions that help our customers reduce the lifecycle energy costs of their motor-driven systems.

Regent Plast Private Ltd., a Gujarat-based manufacturer of rigid plastic containers for branded industrial products, sought our energy-efficient technology to curb increasing power costs at their plant.

They specifically wanted motors for their Blow Moulding Machine (of CMP make), which would not require any changes to their existing machine configuration and motor mounting arrangement. A Blow Moulding Machine creates hollow plastic parts by inflating a heated plastic tube until it fills a mould and forms the desired shape. The raw material is thermoplastic (in pellet or granule form), which is melted and formed into the hollow tube. The tube is then clamped between two mould halves and inflated by pressurized air until it conforms to the shape of the mould cavity. Finally, the mould halves are separated and the part is ejected.

After understanding the application and usage pattern, we offered to replace the existing motors with our SynchroVERT® Super Premium Energy Efficient 15kW/4 Pole IE4 motors.

Four motors were supplied to Regent Plast in the first week of March 2020. Initial trials demonstrated power savings in the range of 9-10% compared with the existing motors of similar capacity.

It was decided that the customer would operate the motors for three months to check the consistency of performance across various load cycles. The observations were satisfactory as shown below:

Power consumption of existing motor	11.1kW
Power consumption SynchroVERT® IE4 motor	10.2kW
Savings observed in kW	0.9kW
Savings per day kW hr	17.6kW hr
Savings in INR/day @ INR 9/kW hr	INR 158
Savings annualised in INR per year (330 days)	INR 52,140

Consequently, Regent Plast decided to procure and install additional four SynchroVERT® IE4 motors from Bharat Bijlee for other machines at their factory.



"All eight IE4 motors supplied by Bharat Bijlee were received in time and are performing satisfactorily".

Kailas B Murarka
Vice President - Regent Plast Pvt. Ltd.
and Past President of the [All India Plastics Manufacturers' Association \(AIPMA\)](#)

SynchroVERT® was adjudged the 'Most Innovative Energy Saving Product' of the year in CII's National Award for Excellence in Energy Management in 2016 and 2018. Bharat Bijlee has also filed for patents for the Line Start Permanent Magnet Synchronous Motor (LSPMSM) technology used in the design of SynchroVERT®.

SynchroVERT® IE4 motors overcome the disadvantages of higher starting currents and lower power factors typically associated with high efficiency motors. There is no increase in the starting current compared with older standard motors, and power factors are high, leading to lower kVAR.

A simple [energy saving calculator is available on our website](#) to estimate the potential energy saving and payback period for your application by using our IE4 motors.

Partner Spotlight

**Ajay Shah**Director - Kewal Enterprises
(Ankleshwar)

Ankleshwar-based Kewal Enterprises was founded by Rajesh Shah in 1990, with a primary focus on LV Switchgears.

Bharat Bijlee's association with Kewal Enterprises began in the mid-90s and over the years the partnership has only grown stronger. When Ajay Shah, Director - Kewal Enterprises, acquired the company in 2003, the legacy continued with greater momentum and higher growth ambitions.

Kewal Enterprises' key market segments are Chemical, Speciality Chemicals, Pharmaceuticals, Agro Industries and OEMs, along with presence in a few textile machine manufacturing businesses. For the last three decades,

they have been mainly catering to MNCs in these segments.

When asked what makes their association with Bharat Bijlee a fruitful one, Ajay Shah said "With the support of technically sound and ambitious team of Bharat Bijlee, we have been able to create increased value for our customers, which has resulted in us capturing the market share." Ajay appreciates our technical ability to develop new products for new markets, which has in turn helped them achieve faster growth than expected.

Kewal Enterprises is one of the leading dealers in Gujarat. The company wishes to grow in various territories across the region in collaboration with Bharat Bijlee, and has been investing in manpower, infrastructure and stock availability to service the market better.

Kewal Enterprises' ambition is clear - to expand its business across India and become the best distributor in the country.

**Rishi Chopra**Proprietor - Chopra Brothers
(Delhi)

M/S Chopra Brothers was founded in 1975 by Prem Kumar Chopra with an objective to supply electrical motors and pumpsets to customers. Located in Delhi, the company's goal has been to stand tall as a profitable trading concern without compromising on ethics and providing the best products and services to their customers.

Chopra Brothers primarily caters to the pumping industry, with a focus on fire fighter sets, effluent treatment plants, contractors and chemical transfer pumps. They also supply to a vast number of medium and small OEMs in fans & blowers, pharmaceuticals, refrigeration and water treatment plants, as well as the non-dealer segment in machinery market around Delhi.

Our association with Chopra Brothers began in 2000. Talking about our long-standing relationship, Rishi Chopra, Proprietor - Chopra Brothers, stated, "It has been a very fruitful association with Bharat Bijlee, which helped establish us as a leading stockist and seller of flame

proof motors. We are now increasingly working towards bigger frame motors for coupled sets and non-standard segment."

The company's goal is to be one of the biggest stockists of our motors and Kirloskar pumpsets, catering to the northern market as a feeder for their customers, as well as for the non-dealer segment. The company has also invested a lot of effort on the coupled pumping sets segment to push and establish Bharat Bijlee as a leading brand of choice in motors.

Rishi reiterated his trust in our brand by applauding how over the last couple of years, our team has been pushing relentlessly in the contractor business segment by getting approvals in various Government departments and leading pump consultants, thus providing an instant demand to cater to. He also appreciated our stocked warehouse in Delhi, which enables them to execute big orders in short lead time.

Through their trusted association with Bharat Bijlee, Rishi hopes to take Chopra Brothers to newer heights by becoming the biggest dealer in North India in the next five years.

BB in the News



SynchroVERT®

Our range of SynchroVERT® Ultra-Premium energy efficient class IE5 motors was selected for Technology Demonstration in the '2020 Innovation Challenge' held under the [Facility for Low Carbon Technology Deployment \(FLCTD\) Programme](#). The selection is in the category of "Pumps, Pumping Systems and Motors". Our SynchroVERT® IE5 motors were also successfully tested at ERDA's NABL certified laboratory in Vadodara.



Our Motors Division recently despatched noteworthy orders to three customers.

- 6 nos. 6.6kV motors (three each of 250kW and 320kW) to an integrated steel plant in western Maharashtra through an EPC contractor specialising in turnkey execution of bulk material handling systems.
- A medium voltage motor (3.3kV 315kW 6 pole) to the chemical division of a major industrial group in Uttar Pradesh (picture of motor above).
- 8 nos. of medium voltage motors (4 each of 225kW and 260kW) to a global pumps and pumping systems manufacturer as part of a water scheme project in Uttar Pradesh.

We'll be there!



We are participating in the GLE Expo Virtual, scheduled to be held from 18th-20th March 2021. Do visit our booth at the Expo, and digitally interact with our experts to know more about our range of gearless elevator machines.



Anil Naik, AVP - New Business Initiatives, Motors, was invited by Confederation of Indian Industry (CII) to speak at two webinars on energy efficient technology for motors. Both these sessions got the audience excited about our technology and its benefits, and generated interest in our range of IE4 and IE5 motors.