

SIEMENS

Ingenuity for life

Industrial machinery

Burckhardt Compression

Global compressor manufacturer significantly increases competitiveness worldwide with 3D excellence

Product

NX, Teamcenter

Business challenges

Reduce lead time for project execution

Achieve 'first-time-right' for new products

Reduce manufacturing defects

Reduce cost and time of design validation

Keys to success

Short switch-over time

Integration with other systems

Database and standards creation

Company-specific customizations for drawing database

Results

20 percent reduction in project execution time

Reduction in rejection rate during manufacturing

More accurate components with reduced error potential

Global collaboration across teams and subsidiaries

NX and Teamcenter help create the 'first-time-right' experience in new product development

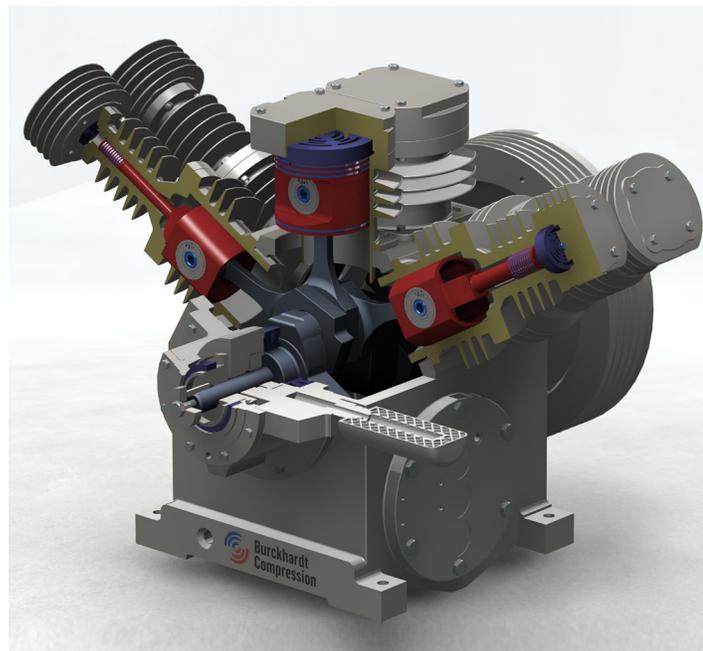
Products for a lifetime

Burckhardt Compression (India) Pvt. Ltd. (BCIN) is a wholly owned subsidiary of Burckhardt Compression AG, Switzerland, and one of the leading manufacturers of reciprocating compressors in India. Its compressors have a proven track record in the field of oil and gas industries with various process applications.

The company's principals have vast experience with more than 170 years in the field of manufacturing reciprocating compressors for different industrial applications. Almost all have gas duties. These systems are employed in a range of industries/sectors, including oil and gas, gas transport and storage, refinery, chemical, petrochemical and industrial gas. The company's products enjoy the reputation of high quality with minimal life-cycle costs and are supported by a full range of services. BCIN is one of the few compressor manufacturers in the world with a complete range of reciprocating compressors.

Swiss quality engineering

BCIN incorporates an advanced manufacturing facility, spread over 6,000 square meters in Kondhapuri, Pune, India. The company is approved across critical standards, including ISO 9001:2008, ISO 14001:2004 and OHSAS 18001:2007. Its local design and sizing teams carry out pulsation and vibration studies, and thermal analysis for creating premium compressor products. Its in-house plant engineering and project management play a vital role in offering solutions that carry the famous Swiss quality benchmarks.



Burckhardt Compression India is the largest engineering and manufacturing facility of its parent group outside Switzerland. Burckhardt Compression is a world leader in manufacture of long-lasting, reciprocating compressor systems for the world market.

The company is therefore constantly engaged in improving its processes, expanding geographical reach and offering superior solutions. BCIN also offers a strong network of after-sales service and spare parts.

Worldwide presence

BCIN specializes in refineries, petrochemicals, gas bottling plants, air separation plants, gas transport and storage, CNG/NGV refueling stations as well as public utilities. Distribution also includes compressors for various refineries and petrochemical plants, including in Taiwan, Thailand, China, Japan, Surinam, Saudi Arabia, Jordan, Russia, the Netherlands, Malaysia, Nigeria, Bolivia, USA, Serbia, Oman and other countries.

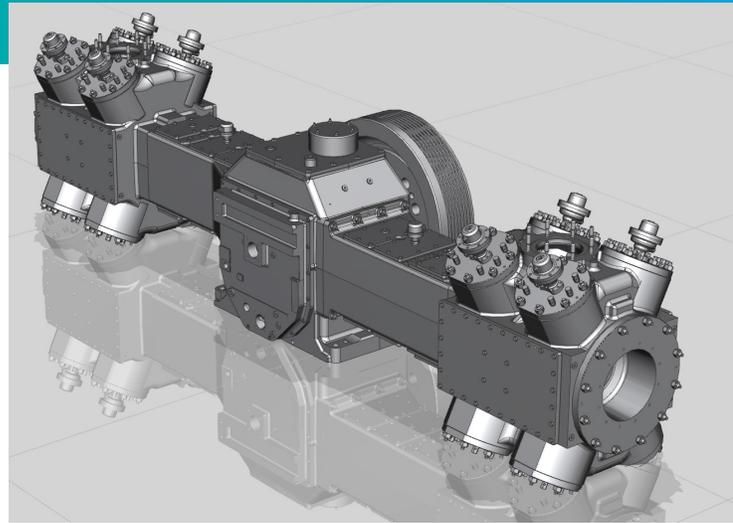
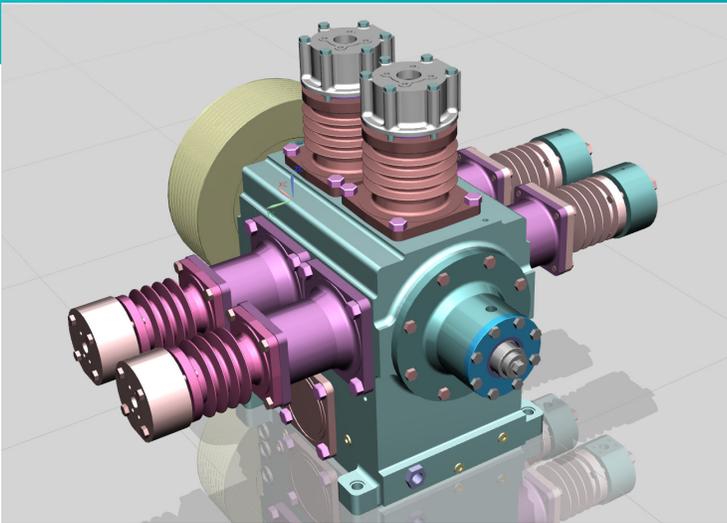
New goals for production

In 2011, BCIN embarked on new initiatives to address a host of issues such as new product development, communication and re-use, production efficiency and regulatory compliance. Internally, it wished to reduce lead time for project execution, achieve first-time-right for new products, reduce time and cost spent in design verifications and validation, and employ flow analysis for casting processes. It also sought to reduce manufacturing defects and bring its global centers on the same computer-aided design (CAD) platform.

Earlier, the company faced several restrictions that came with 2D design platforms. The design process was time-consuming, with limitations on re-using existing project data and drawings. It thus depended on external sources for analysis and design. It could also not meet customer demands for 3D data.

“NX is an excellent platform for product development enabling a safe landing for innovation, order execution with speed and accuracy, the best runway for analysis of components and advanced manufacturing techniques.”

Atul Prabhune
Senior Manager
Design and Development
Burckhardt Compression (India) Pvt. Ltd.



BCIN thus formulated some concrete goals to bring its production and processes up to speed. These were: reduce lead time, create high quality products through advanced design and development solutions, reduce design verification and validation times and costs, and implement a global CAD platform to connect all global organizational peers.

Excellence in three dimensions

To upgrade its design and collaboration platform, BCIN needed to address several issues. These included the financials of PLM implementation, the switch-over time, creation of databases and standards, a standard parts library and training and rollout of the new system. There were also challenges of integration with internal systems like the SAP® solution, and company-specific customizations for the drawing database.

BCIN adopted NX™ software and Teamcenter® software from product lifecycle management (PLM) specialist Siemens Digital Industries Software to meet the above objectives. The core solution was implemented in 2011, followed by integration of a similar CAD platform for the headquarters database and internal standardization.

Calling attention to the advantages of using NX, Atul Prabhune, senior manager, Design and Development, BCIN, notes, "NX is an excellent platform for product development enabling a safe landing for innovation, order execution with speed and accuracy, the best runway for analysis of components and advanced manufacturing techniques."

The combination of NX and Teamcenter is formidable in realizing productivity gains, but offers so much more. "By using Teamcenter and NX, you can not only increase your company's productivity, but also enhance your gravitas in the market," says Tanmay Vaidya, coordinator, Global Engineering Systems, BCIN. "These Siemens Digital Industries Software solutions represent the best PLM platform available."

BCIN adopted Siemens Digital Industries Software's NX and Teamcenter solutions to utilize the latest 3D design systems in solving a range of issues, from reducing turnaround for new product development to improving first-time-right performance.

Using Siemens Digital Industries Software solutions, BCIN's collaboration across product development operations has dramatically improved.



“Teamcenter ensures data security and NX provides a very good platform to serve as input for various additional analysis software. Our next mission is to use these tools for CAE in our manufacturing.”

R. S. Gunaji
General Manager
Design and Manufacturing
Burckhardt Compression (India) Pvt. Ltd.

Powerful, measurable results

BCIN has seen project execution time drop by 20 percent. It can execute a maximum number of projects with smaller teams, and rejection rates during assembly and manufacturing have dropped with the help of 3D models. It has also gained in productivity with easy access, standardization and re-use of data, better revision controls, systemic approval processes, Teamcenter interface with the SAP system and use of standard part libraries.

With NX and Teamcenter, BCIN can now deliver more accurate components and reduce development time through collaboration between design and analysis. Representation of assembly components is now easier for actual compressor assembly and assembly at the client end. The goal of first-time-right is now achievable, with improved quality and minimum potential for errors. On a global scale, the company can now exchange data and communicate with suppliers and customers through Siemens Digital Industries Software solutions.

Solutions/Services

NX

siemens.com/nx

Teamcenter

siemens.com/teamcenter

Customer's primary business

Burckhardt Compression India Pvt. Ltd. (BCIN) is a wholly owned subsidiary of Burckhardt Compression AG of Switzerland, one of the leading manufacturers of reciprocating compressor systems. The company's products enjoy the reputation of high quality and minimal lifecycle costs and are backed by a full range of services.

www.burckhardtcompression.com

Customer location

Kondhapuri, Pune
India

"Teamcenter and NX are the fastest tools that we use to develop new products. They are easy to work with and allow the efficient re-use of data across global teams."

Kiran Pandit

Key user of NX/PLM

Burckhardt Compression
(India) Pvt. Ltd.

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Tanmay Vaidya

Coordinator

Global Engineering Systems

Burckhardt Compression (India) Pvt. Ltd.

"Teamcenter and NX are the fastest tools that we use to develop new products," says Kiran Pandit, a key user of the technology at BCIN. "They are easy to work with and allow the efficient re-use of data across global teams."

"By implementing Teamcenter and NX, we have achieved globally benchmarked design processes, apart from being able to optimize resources and achieve collaboration across teams and locations of our global subsidiaries," notes Vaidya.

R. S. Gunaji, General Manager, Design and Manufacturing, Burckhardt Compression (India) Pvt. Ltd., concludes, "Teamcenter ensures data security and NX provides a very good platform to serve as input for various additional analysis software. Our next mission is to use these tools for CAE in our manufacturing."

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