

Success Story: Precision-engineered compressor components restored operational reliability quickly

Engineering
excellence



A leading Indian manufacturer of chemical fertilizers and industrial chemicals runs several compressors built by Nuovo Pignone (NP). The company required large, high-quality components quickly and at a competitive price. When the original manufacturer was unable to meet their expectations, they approached Burckhardt Compression India for an alternative solution.

Since Burckhardt Compression had acquired the intellectual property for BP&CL (Bharat Pumps and Compressors Limited) compressors a few years earlier, a former licensee of NP, we were able to leverage this expertise to fully meet our customer's requirements in terms of cost, quality, and delivery time. By sourcing the components from us, the company was able to overcome significant operational and commercial challenges.

Customer challenges

- Secure a local supplier capable of handling large-diameter, critical components
- Ensure compliance with quality requirements fully aligned with OEM standards
- In need of a supplier with strong reverse-engineering capabilities
- Tight deadline tied to the scheduled maintenance cycle
- Achieve seamless communication for technical validation

Burckhardt Compression solution

Extensive know-how and technical understanding

As a leading OEM, our deep expertise and technical background ensured engineering accuracy and played a key role in the project's success.

Strong baseline

Leveraging available drawings and component details provided a solid basis for reverse engineering and significantly reduced lead time.

Engineering excellence

Despite incomplete design data, our team engineered and delivered a fully compliant, fit-for-purpose solution.

Modern facilities

High-precision 3D scanning enabled us to capture exact geometries and enhance the existing design data and functional information.

Superior manufacturing capabilities

Our workshops, equipped with state-of-the-art machinery, manufacture large-scale components - in this case a fabricated piston of Ø 1'000 mm, piston rod, crosshead assembly and crosshead pin.

Flawless communication & coordination

We maintained close engagement with the customer's technical team to ensure timely inspections, validations, and smooth project execution.

Customer benefits

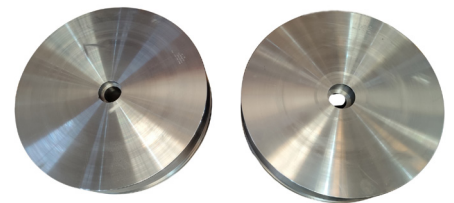
- Significant cost reduction
- Shorter lead time (12 weeks faster) aligned with maintenance schedule
- Components met technical, quality, and performance expectations
- Uninterrupted compressor operation enabled
- Localization of procurement process
- Burckhardt Compression is a reliable alternative source for compressor parts for all brands



Newly designed crosshead assembly

Compressor data

Nuovo Pignone			
Type	Horizontal balanced opposed	Gas	CO ₂
Power	2'700 kW / 3'619 hp	Suction pressure Discharge pressure	1.12 bar / 16.25 psi 142 bar / 2'060 psi
Speed	333 rpm	Lubrication	Yes



Newly designed pistons

“We would like to thank your team for their excellent technical and timely support of capital components provided for our Nuovo Pignone compressors. The capital components met our technical requirements and quality expectations, while also offering significant advantages in terms of reduced prices and substantially shorter delivery timelines.”

What our customer says