

Reciprocating Compressor Cylinder Upgrades



CPI, part of the Howden Group, offers cylinder upgrades for all makes and models of reciprocating compressors. Our team of experts leverage Howden's cutting-edge compressor design capabilities, including 3D scanning, finite element analysis, and full compressor performance studies, to ensure that every cylinder upgrade project is approached with the same level of confidence as when buying a new compressor. We offer three distinct cylinder upgrade scopes that are designed to meet the specific needs of our customers.

Cylinder Upgrades

Method 1. A cast cylinder that conforms to Howden's standard cylinder range, ensuring the same level of cylinder performance and capacity as the original. This method meets the latest API618 standards, guidelines, and regulations, and does not require any major reverse engineering or pattern costs, making it a cost-effective solution. Suitable for cylinder diameters ranging from 95mm (3.75") up to 1200mm (47.25"), where the valve configuration is 1/1 (1 x head end suction / 1 x crank end suction), 2/2 or even more (example 1/1 design).





Method 2. A forged steel cylinder that conforms to Howden's standard forged steel cylinder range, ensuring the same level of cylinder performance and capacity as the original. This method meets the latest API618 standards, guidelines, and regulations, and does not require any major reverse engineering or pattern costs, making it a cost-effective solution. Suitable for cylinder diameters ranging from 95mm (3.75") up to 450mm (17.71"), where the valve configuration is 1/1.







Method 3. A "like-for-like" cast cylinder that is a direct copy of the original cylinder, maintaining the original sizing and performance. However, it may not meet the latest API618 standards, guidelines, and regulations, and will inherit all of the current cylinder's design. Howden will implement certain design improvements as part of this upgrade. This method requires considerable reverse engineering and pattern costs, and the processing time will be longer due to the work involved (example 2/2 design).









CPI, part of the Howden group, is an industry-leading manufacturer of precisionengineered components for reciprocating compressors used in petrochemical, refining, natural gas, and offshore industries. The CPI product range includes packing, piston and rider rings and a complete line of compressor valves designed to provide each customer with maximum performance and reliability for their application. In addition, CPI offers the highest quality lubrication system technology for further compressor efficiency and protection.

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