



Proven Solutions for the Global Compression Industry™

# Compressor Valves



**It is widely acknowledged that the compressor valve is the heart of any compressor; the efficient and reliable operation of this most critical part of a reciprocating compressor is key to its overall performance.**

Valve problems are reportedly the primary reason for reciprocating compressor shutdowns, which in many cases can be attributed to design, improper reconditioning or external operating factors.

CPI compressor valves are custom designed to meet the full range of application requirements. These designs include concentric ring, ported plate, poppet and channel type.

Suction and discharge valves can be supplied to include CPI's Indicator Ported Valve design. CPI valves can also be fitted with a range of plug and finger unloaders and actuators. CPI valves are designed, manufactured and reconditioned at multiple CPI facilities strategically located around the world. Stocks of spare components are also held at these locations, providing complete customer support.



### **CPI Valve Design**

Every application has unique challenges and demands, so CPI performs complex valve performance analysis to identify the optimum valve design solution for each specific application. We use sophisticated valve dynamics modeling programs that focus on achieving maximum reliability, efficiency, ease of installation and maintenance.

### **Quality Manufacturing**

CPI's valve manufacturing process has total control of components and materials with in-house molding facilities to produce its unique range of plastic valve plate and ring sealing components.

## CPI Hi-Flo™ Ring Valves

CPI Hi-Flo™ valves feature aerodynamic profiled rings that control and seal process gas as it flows from the compressor cylinder, providing increased efficiency and reliable operation in oil, gas, petrochemical and air separation applications where temperatures and pressures are extreme.

**Hi-Flo™ RD (Radiused Disc) ring valves**

**Hi-Flo™ VP (V-profile) ring valves**

**Hi-Flo™ RS (Replaceable Seat) ring valves\***

*\*Developed specifically for customers who are operating compressors installed in offshore production platforms, FPSOs and remote facilities where no maintenance workshops are available.*

## CPI Poppet Valves

CPI poppet valves are available in single deck and double deck configurations.

## CPI Ported Plate Valves

CPI provides operators with a comprehensive range of both metallic and non-metallic plate valve assemblies and internal components for air and process gas compressors operating in a range of different applications. CPI Ported Plate valves can be designed and supplied with conventional coil springs and damping spring plates.

## CPI Indicator Ported Valves (IPV)

The Indicator Ported Valves are designed to allow performance analysis and routine diagnostic testing of compressor cylinders that do not have drilled and tapped indicator ports.

## CPI Unloaders and Actuators

CPI valves can be supplied with finger and plug-type suction unloaders, which are complemented by a range of pneumatic actuators custom designed specifically for each application.

## CPI Valvealert™ Monitoring System

Valvealert™ monitoring system is non-intrusive, safe valve condition monitoring tool that automatically detects and notifies the operator of errors within the compressors and related equipment. Valvealert™ allows the user to collect and analyze data without the need for specialist training.

## CPI Pump Valves

CPI offers Hi-Flo™ Valves for reciprocating pumps that are used in a wide range of operating conditions.

## Valve Reconditioning & Replacement Parts Services

We recondition and supply replacement parts for all types of valves within our global network of service centers and partners.



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CPI prides itself on its unique approach to developing new compressor valve concepts and non-metallic materials used in the production of valves, piston rings, rider rings, packing and oil wipers. Our application expertise has transformed the performance and reliability of reciprocating compressors in a wide range of applications around the world.



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