

Experience gained in well over three decades of designing, engineering, manufacturing and continually perfecting our products in thousands of applications has resulted in a “functionally intelligent” package. Please review these key design features and see how every design element contributes overall to the creation of a superior compressor or vacuum pump.



Compact and Lightweight with the motor and compressor combined into the single structure

With the piston as the only moving part, efficient space utilisation enables our pump to be considerably smaller and lighter than other pumps. This allows the OEM design engineer increased packaging options for other internal components.



Low Noise Level No transmission assemblies, means less noise

With no need for complicated transmission mechanisms riding on ball bearings, or actuating linkages creating friction and noise, Nitto Kohki's pumps are inherently quieter. Additionally, the almost completely sealed configuration further suppresses secondary internal operating noises.



Low Vibration using an ultra-lightweight piston

The extremely low mass, short stroke, die cast piston minimises reactive force vibrations. Secondary vibrations are isolated or absorbed through the soft elastomeric mounting pads.



Clean Operation - Clean Air due to oil-less construction

All wearing surfaces use no oil, grease or other contaminating lubricants. The combination of a precision Teflon® sleeved piston assisted by an “air-bearing effect” made possible through a unique air path design, assures that the outlet air is completely free of oil.



Instant Response enabling easy start-ups in frequent on-off short cycle applications

A very low starting current enables our pumps to produce immediate performance in quick short cycle applications, even in the presence of residual back pressure.



Minimal Pulsating Effect due to the high resonating speed

The piston's mechanical resonance speed is synchronised with the input power frequency regardless of the load, i.e., 3000 strokes at 50Hz, and 3600 strokes at 60Hz per minute. This high speed produces shorter pulses which translate into a smoother, more uniform and “linear” motion.



Automatic Pressure Adjustment with intelligent pressure monitoring

Should an operating condition create excessive pressure, the piston stroke length proportionally reduces to accommodate the condition. Along with this adjustment, power consumption is correspondingly reduced, decreasing or eliminating the potential for system malfunctions or permanent damage.



Low Power Consumption truly energy efficient through integrated design

Since the low mass piston is the only moving part, frictional losses are minimised, allowing lower starting and running current, and thus greater efficiency. Related benefits are realised through a lower rise in temperature, facilitating a longer operating life for the pump and the other components within your system.



Longer Durability increased OEM value

All key design features listed here combine to provide superior performance in all the important aspects of superior pump design. This enables the OEM engineer to have complete confidence in incorporating the unit into the most demanding systems, in the most advanced equipment.



Easy maintenance only air filter and piston to change

Replacement of the piston can be easily performed by simply removing the four screws holding the head cover in place. A completely oil-less construction is achieved through the combination of two elements: the superior abrasion resistance of the Teflon® seals that cover the piston contact surfaces and the “air bearing effect” created by the unique air path design.