

Engineered to Perform. Built to Last.

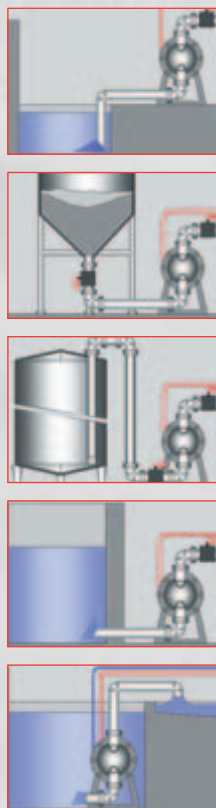


Non-stalling – A patented, non-centering, spring-assisted shifter is incorporated into every NDP Series pump, ensuring a positive shift every time. The 304 Stainless Steel C-springs provide exceptional durability and longevity, with a **MTBF of 300 million cycles!**

Non-lubricated – The patented air valve (U.S. patent #5,002,468) on all NDP Series pumps never requires lubrication or “pre-packing.” The advanced design eliminates the need for oilers and external lubrication which can lead to contamination. **Yamada is the originator of non-lubricated air valve technology for air-powered double diaphragm pumps!**

Ten Intelligent Reasons to Specify Yamada Air-Powered Double Diaphragm Pumps.

- **Handles a wide variety of fluids with high solids content:** No close fitting or rotating parts so liquid with high solids content and /or size can be easily pumped.
- **Self Priming:** The Yamada pump design (incorporating internal check valves) allows for high suction lift even at dry start-up and with heavier fluids.
- **Ability to run dry:** No close fittings or sliding parts are at risk – the pump can run dry without damage.
- **Variable flow rate and discharge pressure:** Yamada pumps will run at any setting within their operating range simply by adjusting the air inlet pressure and system conditions. One pump can fit a broad spectrum of applications.
- **Portable /Simple Installation:** Yamada pumps transport easily to the application site. Simply connect your air supply line and liquid lines; the pump is ready to perform. There are no complex controls to install and operate.
- **Dead Head:** Because the discharge pressure can never exceed air inlet pressure, the discharge line can be closed with no damage or wear. The pump will simply slow down and stop.
- **Shear sensitive:** The gentle nature and minimal parts contact with the liquid makes Yamada pumps an excellent choice for shear sensitive fluids.
- **Explosion Proof:** Yamada pumps are operated by compressed air, therefore, they are intrinsically safe.
- **Submersible:** If external components are compatible – Yamada pumps can be submerged in the liquid by simply running the exhaust line above the liquid level.
- **Pumping efficiency remains constant:** There are no rotors, gears, or pistons, which wear over time and lead to the gradual decline in performance/flow rate.



Leak free mating surfaces – All Yamada pumps incorporate registered fit bolted construction, which simplifies reassembly after maintenance. No leak-prone clamp bands are utilized.

One air valve fits all – The NDP-40, 50 & 80 Series pumps utilize one common air valve assembly, reducing parts inventory and assembly confusion. The NDP-20 & 25 have a common air valve as well. One air valve concept is used in all Yamada NDP series pumps!

Outside accessible – Inspection or maintenance of every Yamada air valve can be performed without removing the pump from service.

Pilot valve – Unique design is an individual modular pilot valve that actuates the air valve. It is maintenance-free, with no cumbersome snap rings or lubricated dynamic o-rings to replace or repair.

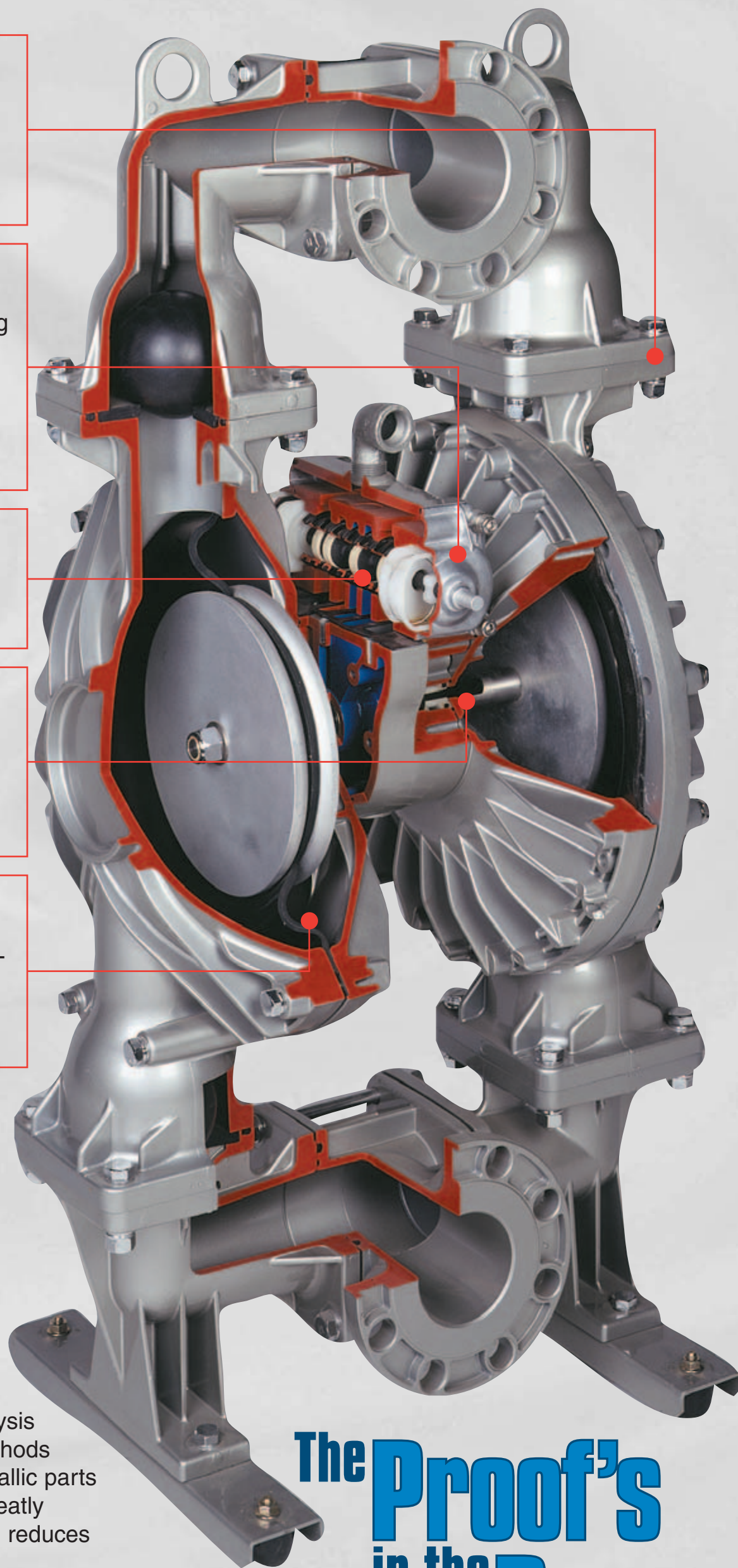
Diaphragm dynamics – Extensive research has led to the development of an optimal stroke length that maximizes diaphragm life and performance while minimizing downtime and maintenance costs.



Non-Metallic Components – Yamada Engineers utilize high-tech solid modeling and finite element analysis techniques, including rib and shell methods of injection molding to design non-metallic parts structure. This “patented” technique greatly increases the component strength and reduces material usage.



NDP-40, 50 & 80 Non-metallic pump base – The tubular 304 Stainless Steel base was designed to simplify rebuilding procedures. Maintenance operations are streamlined by mounting the base directly to the air motor so that the pump can sit upright on a work bench for most of the service. The radially bent tubular steel base is rated to 85,000 PSI giving it exceptional strength vs. welded angle designs.



The Proof's in the Pump

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