

**IWAKI**



# Air-Operated Double Diaphragm Pumps

# QUALITY BUILT-IN

## Looped C® Spool/Sleeve Air Valve

Revolutionary new spring design uses stronger, light-weight materials for a smoother stroke with less wear and tear of all spool components (Fully interchangeable with older C-Spool model pumps).

## Rugged, Bolted Construction

Eliminate alignment and leaking issues associated with band clamp-style pumps.

## Lube-free Operation

Clean, environmentally friendly design is engineered without the need for lubrication. Lube-free operation extends the life of all air motor parts.

## Outside-Accessible Air Motor

Easy external access allows servicing the air motor in place.

## Independent and Modular Pilot Valve

Industry-leading pilot valve design is fully independent and virtually non-wearing. Static seals are dirt and moisture resistant. Pilot valve and springs are made from high tensile stainless steel that will not bend or rust. Faster cycles with shorter strokes will extend diaphragm life.

## Large-Diameter Ports

Oversized ports allow solids to pass through the pump eliminating blockages.

## Reduced Pump Stalling

The new Looped C® Spool design greatly reduces pump stalling.

## Resists Freezing

Compressed air expands gradually through our innovative staged air chamber exhaust system to reduce freezing.

## Modular Check Valve Construction

High-wear components are available individually or in pre-packaged kits for easy replacement, low-cost maintenance, and lower cost of ownership.

## Air EcoRing

All 3/4" and 1" pumps now come with the EcoRing technology that allows for 20-25% improved air consumption with no effect on flow rates.



# BUILT TO LAST



## 1/4" TC-X 050 Series

- Max flow rate: 3.0 GPM (11.5 LPM)
- Max operating pressure: 100 psi (0.7 MPa)
- Max discharge head: 230 ft. (70M)
- Connection: 1/4" threaded NPT
- Materials: Stainless, Aluminum, Pure Polypropylene, Glass-filled Polypropylene, Acetal, Kynar®

## 3/8" TC-X 100/101 Series

- Max flow rate: 6.1 GPM (23 LPM)
- Max operating pressure: 100 psi (0.7 MPa)
- Max discharge head: 230 ft. (70M)
- Connection: 3/8" threaded NPT
- Materials: Stainless, Aluminum, Pure Polypropylene, Glass-filled Polypropylene

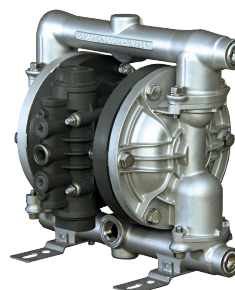


## 1/2" TC-X 152 Series

- Max flow rate: 15.8 GPM (60 LPM)
- Max operating pressure: 100 psi (0.7 MPa)
- Max discharge head: 230 ft. (70M)
- Connection: 1/2" threaded NPT
- Materials: Stainless, Aluminum, Pure Polypropylene, Kynar®

## 3/4" TC-X 202 Series

- Max flow rate: 31.7 GPM (120 LPM)
- Max operating pressure: 100 psi (0.7 MPa)
- Max discharge head: 230 ft. (70M)
- Connection: 3/4" threaded NPT/flange
- Materials: Glass-filled Polypropylene, Kynar®



## 3/4" TC-X 203 Series

- Max flow rate: 52.8 GPM (200 LPM)
- Max operating pressure: 100 psi (0.7 MPa)
- Max discharge head: 230 ft. (70M)
- Connection: 3/4" threaded NPT
- Materials: Aluminum, Stainless Steel

### 1" TC-X 252 Series

- Max flow rate: 43.6 GPM (165 LPM)
- Max operating pressure: 100 psi (0.7 MPa)
- Max discharge head: 230FT (70M)
- Connection: 1" threaded NPT/flange
- Materials: Glass-filled Polypropylene, Kynar®



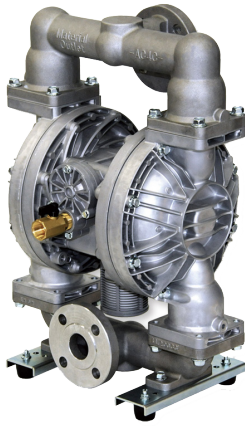
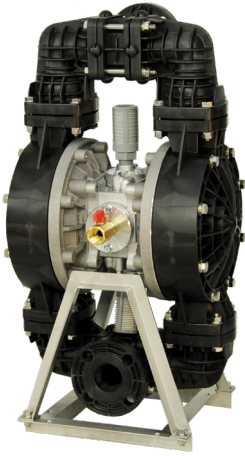
### 1" TC-X 253 Series

- Max flow rate: 58.1 GPM (220 LPM)
- Max operating pressure: 100 psi (0.7 MPa)
- Max discharge head: 230 ft. (70M)
- Connection: 1" threaded NPT
- Materials: Stainless, Aluminum, Cast Iron



### 1½" TC-X 400 Series

- Max flow rate: 113.6 GPM (430 LPM)
- Max operating pressure: 125 psi (0.85 MPa)
- Max discharge head: 280 ft. (85M)
- Connection: Metal -1-½" NPT and ANSI flange  
Plastic - ANSI flanges only
- Materials: Stainless, Aluminum, Glass-filled Polypropylene, Kynar®, Cast Iron
- Mechanical Air Valve



### 1½" TC-X 401 Series

- Max flow rate: 158.5 GPM (600 LPM)
- Max operating pressure: 125 psi (0.85 MPa)
- Max discharge head: 280 ft. (85m)
- Materials: Stainless Steel, Aluminum, Cast Iron, Glass-filled Polypropylene, PVDF
- Sleeve and Spool Air Valve



### Standard Configuration 2" TC-X 500 Series

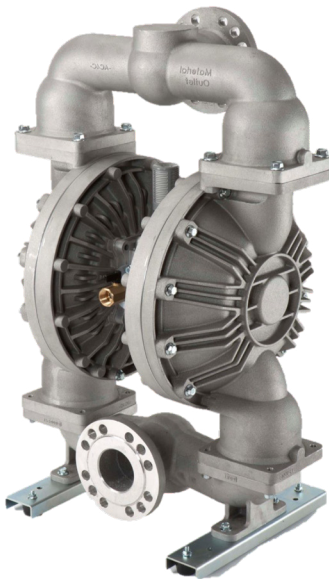
- Max flow rate: 192.9 GPM (730 LPM)
- Max operating pressure: 125 psi (0.85 MPa)
- Max discharge head: 280 ft. (85m)
- Connection: Metal – 2" NPT and ANSI flange  
Plastic – ANSI flanges only
- Materials: Stainless, Aluminum, Glass-filled Polypropylene, Kynar®, Cast Iron
- Coil Spring Air Valve





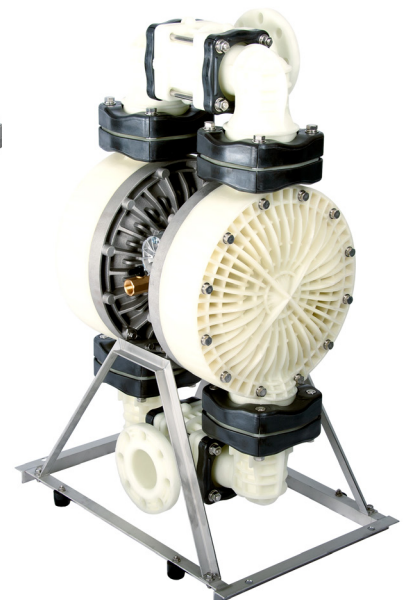
## 2" TC-X 501 Series

- Max flow rate: 206.1 GPM (780 LPM)
- Max operating pressure: 125 psi (0.85 MPa)
- Max discharge head: 280 ft. (85m)
- Materials: Stainless Steel, Aluminum, Cast Iron, Glass-filled Polypropylene, PVDF
- Sleeve and Spool Air Valve



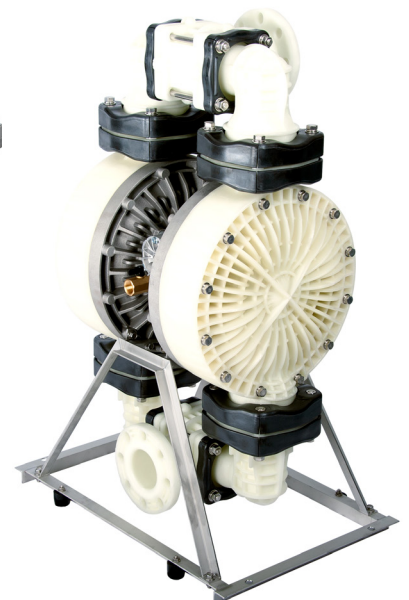
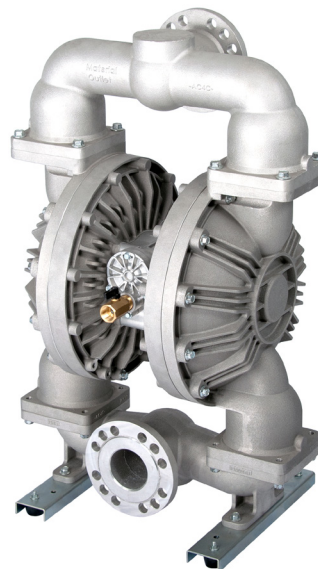
## 3" TC-X 800 Series

- Max flow rate: 211 GPM (800 LPM)
- Max operating pressure: 125 psi (0.85 MPa)
- Max discharge head: 280 ft. (85m)
- Connection: Metal – 3" NPT and ANSI flange  
Plastic – ANSI flanges only
- Materials: Stainless, Aluminum, Glass-filled Polypropylene, Cast Iron
- Coil Spring Air Valve



## 3" TC-X 801 Series

- Max flow rate: 251 GPM (950 LPM)
- Max operating pressure: 125 psi (0.85 MPa)
- Max discharge head: 280 FT. (85m)
- Materials: Stainless Steel, Aluminum, Cast Iron, Glass-filled Polypropylene
- Sleeve and Spool Air Valve



**Iwaki Air AODD pumps are an ideal choice for the safe transfer of a limitless variety of liquids across many industries:**

Corrosive chemicals, liquid slurries, abrasive particle slurries, viscous liquids, fuel, oils, glues, inks, and flammable liquids, just to name a few.

## INDUSTRY APPLICATIONS

- Food and Beverage
- Concrete Manufacturing
- Water Treatment
- Oil and Gas
- Chemical
- Paints, Inks and Coatings
- Metal Finishing
- Battery Manufacturing
- Semiconductor
- Pulp Paper and Packaging
- Textiles and Carpet **...and many, many more!**

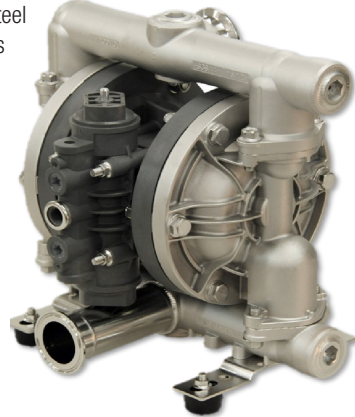




# SPECIALTY PUMPS

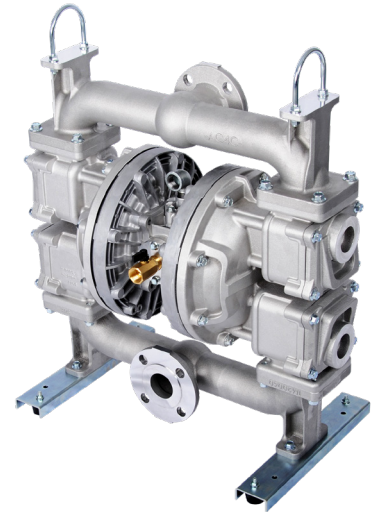
## FDA Compliant Diaphragm Pumps

- Available in all sizes 1/4" through 3"
- Manufactured from FDA compliant materials
- 316 Electro Polished Stainless Steel
- Sanitary Tri-Clamp® Connections



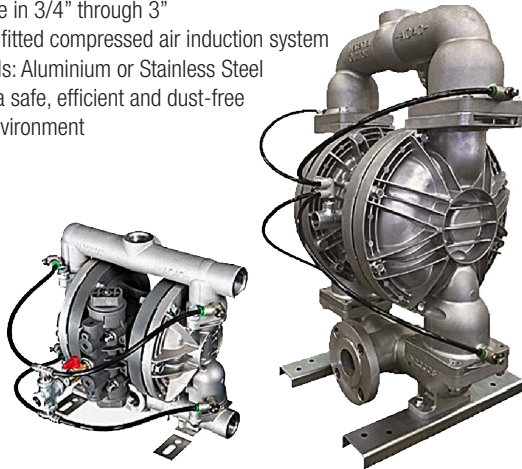
## 2" TC-X 500 Series Metallic Flap Valve Pumps

- Transfer large sized solids - up to 1.77" (45mm)
- Max flow rate: 158.5 GPM (600 LPM)
- Max discharge head: 230 ft (70 M)
- Materials: Aluminium
- Mechanical Air Valve



## Powder Transfer Pumps

- Transfer very fine, dry and low bulk powders safely, cleanly, and economically
- Available in 3/4" through 3"
- Factory fitted compressed air induction system
- Materials: Aluminium or Stainless Steel
- Create a safe, efficient and dust-free work environment

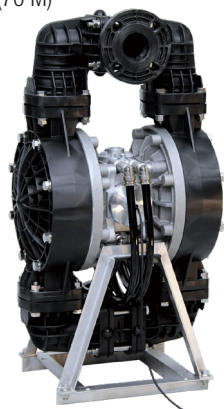


## Drum Pumps

- Available with 1/4", 3/8", 1/2", 3/4" and 1" pump connections
- Max particle size up to 6.5mm
- Max flow rate up to 58 GPM (220 LPM)
- Max liquid discharge pressure: 100 psi (0.7 MPa)
- Materials: Pure PP, GFRPP, Conductive PP, PVDF, PTFE, Aluminum, SS & Electro Polished SS

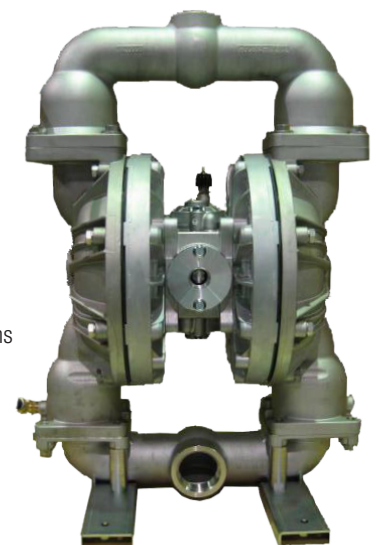
## Electric Pumps (E-Series)

- Max flow rate: 158.5 GPM (600 LPM)
- Max discharge head: 230 ft (70 M)
- Materials: Aluminium
- Mechanical Air Valve
- Available in all sizes 1/4" through 3"

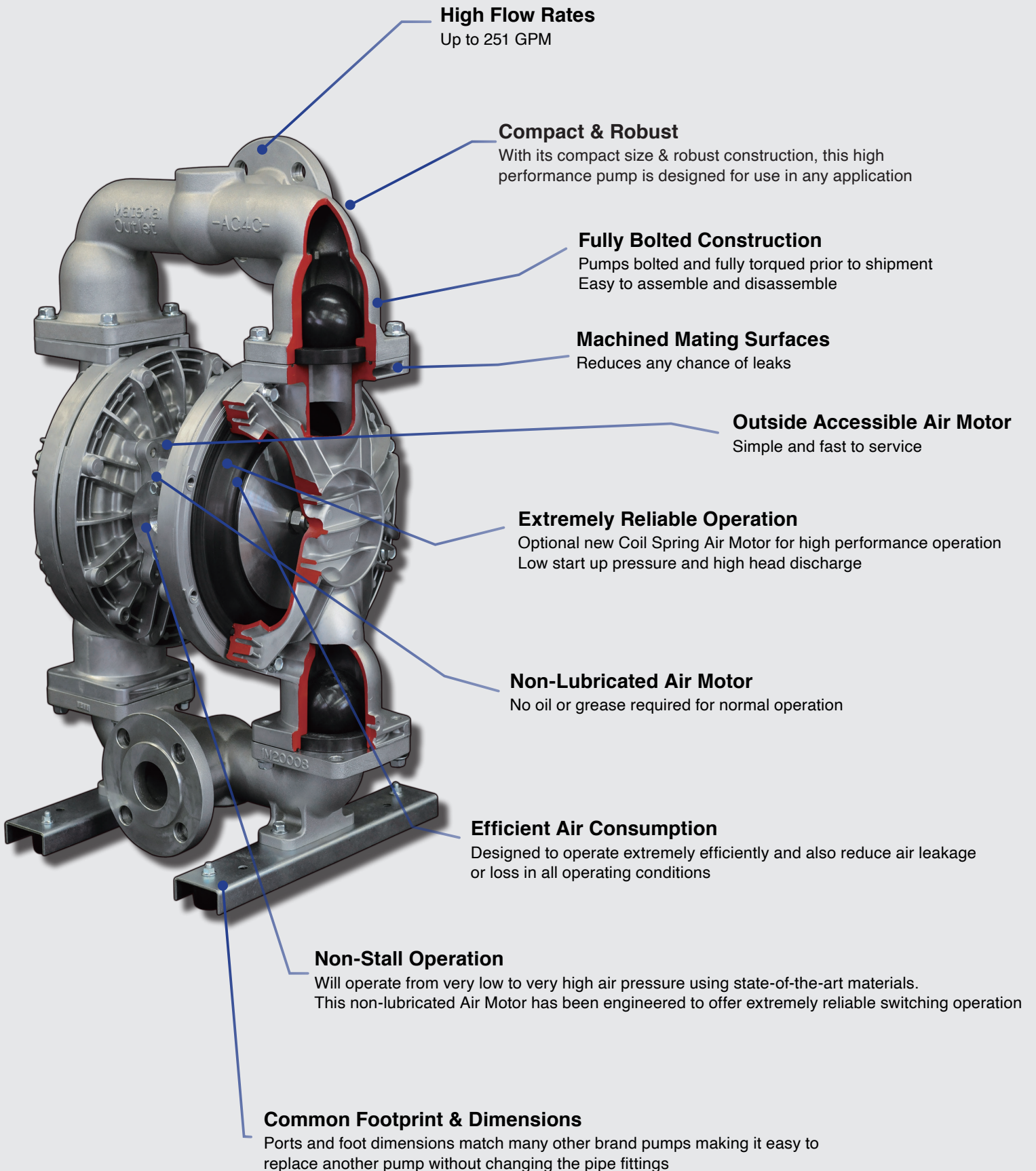


## 2:1 High Pressure Pumps

- Doubles liquid discharge pressure
- Available on metal pumps 3/4" to 3"
- No need for pressure relief or system bypass
- Fitted with Buna, Neoprene or Viton Diaphragms
- Transfer of slurries & large solids



# PUMP BENEFITS



**High Flow Rates**  
Up to 251 GPM

**Compact & Robust**  
With its compact size & robust construction, this high performance pump is designed for use in any application

**Fully Bolted Construction**  
Pumps bolted and fully torqued prior to shipment  
Easy to assemble and disassemble

**Machined Mating Surfaces**  
Reduces any chance of leaks

**Outside Accessible Air Motor**  
Simple and fast to service

**Extremely Reliable Operation**  
Optional new Coil Spring Air Motor for high performance operation  
Low start up pressure and high head discharge

**Non-Lubricated Air Motor**  
No oil or grease required for normal operation

**Efficient Air Consumption**  
Designed to operate extremely efficiently and also reduce air leakage or loss in all operating conditions

**Non-Stall Operation**  
Will operate from very low to very high air pressure using state-of-the-art materials.  
This non-lubricated Air Motor has been engineered to offer extremely reliable switching operation

**Common Footprint & Dimensions**  
Ports and foot dimensions match many other brand pumps making it easy to replace another pump without changing the pipe fittings

# LOW MAINTENANCE COST + HIGH VALUE = LOW TOTAL COST OF OWNERSHIP

**The fundamental design of Iwaki Air AODD pumps has remained constant through the years. Our commitment to quality means pumps will provide a long service life and won't become obsolete.**

**Standardized parts** – Standardized parts and components are used across various models and sizes. Pumps manufactured from different materials often use many common parts so they can be interchangeable.  
*Benefit - Reduced inventory cost.*

**Easy access** – Pumps can be broken down to completely separate and individual components. Easy accessibility allows fast replacement of individual parts. *Benefit - Faster maintenance repair time.*

**Modular components** – Pre-packaged kits allow cost-effective and fast replacement of only the worn parts rather than entire assemblies. *Benefit - Cost Savings.*

**No need to stock extra parts** – A few essential parts and kits in inventory can keep existing pumps running over a long period. *Benefit - Less downtime for your process.*

## FIRST IN QUALITY

Total Quality Management is ingrained in the Iwaki Air brand of Air-Operated Double Diaphragm (AODD) pumps, which are manufactured under stringent ISO 9001 Ver. 2015 standards. Quality is paramount in every aspect of the design, engineering and manufacturing of Iwaki Air AODD pumps.

An industry-leading and innovative pilot valve design and superior non-lubricated air valve technology are key to Iwaki Air AODD pump's renowned reliability.

Quality is evident from the start, in the sourcing of raw materials, which come from well known and reputable global suppliers. Careful selection of high quality materials ensures exceptional chemical resistance compared to pumps made from inferior materials.

Every pump is operation and leak-tested to ensure years of reliable service.

## HIGH-PERFORMANCE FLUID TRANSFER

**Iwaki Air AODD pumps are engineered for maximum utility.** They are portable and easy to install, operate, and maintain. Infinitely variable flow rates and variable discharge pressures can handle a large range of fluids, including corrosive chemicals and flammable liquids. Iwaki Air AODD pumps can run dry, self-prime and dead-head without damaging the pump. Other design elements that distinguish Iwaki Air AODD pumps include body stabilization features to ensure heat resistance, and sound suppression construction to reduce both mechanical noise and compressed air noise. Most important, the lube-free air valve features a non-centering spring specially designed not to stall and is accessible for easy maintenance.

**These pumps are built for power.** A higher power output means the pump can operate with less applied air pressure compared with many competitor's pumps – often outperforming pumps that may have a higher listed flow rate.



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