

# Air Pumping Limited

The Double Diaphragm & Piston Pump Specialists

PRODUCT CATALOGUE



VARIMIX  
*v3*



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## ABOUT AIR PUMPING...

**Air Pumping Engineering Services** specialise in the source, supply and servicing of air operated double diaphragm pumps, piston pumps and spares.

With over 30 years experience and authorised Master Distributor status for **Ingersoll Rand / ARO**, and official distributor status for **Wilden, Graco** and **Fluidair**, our comprehensive range of pumps, packages and bespoke systems give us the knowledge and expertise to find the right solution for you...

... so from a small polypropylene water pump, to a 65:1 ratio twin-post ram set, spares for a grease pump or automated pneumatic control panels, we get the best quality brands at the most cost-effective price - and ship straight to your door!

If off-the-shelf solutions have proved unsatisfactory, our extensive in house facilities and experience allow us to engineer bespoke systems that work. Our capacity is enhanced through close working relations with the biggest players in the pumping world. This allows us unique access to global research and design facilities.



**Air Pumping Limited** 131 High Street South, East Ham, London, E6 3PA United Kingdom  
Telephone: 0208 552 1172 / 0208 470 8721 • Facsimile: 0208 470 4617  
[sales@airpumping.co.uk](mailto:sales@airpumping.co.uk) • [www.airpumping.co.uk](http://www.airpumping.co.uk) • [www.diaphragmpumpshop.com](http://www.diaphragmpumpshop.com)

# NEW PRODUCTS

## The Turbo-Flo is BACK!

# BACK!

### Wilden has reinvented the Turbo!

Back by popular demand is the **Wilden Turbo-Flo** range, operating on differential pressures only. There are no mechanical trip-rods, bearings or springs to wear or repair.

For years a firm favourite across industries, the new Turbo-Flo pumps offer the same performance, usability and ease of maintenance as their predecessors.

Available NOW in aluminium builds only with a full range of elastomers to suit. Port sizes: 1/2", 1", 1 1/2", 2", 3" and 4"



**WILDEN TURBO-FLO**  
AIR OPERATED DOUBLE DIAPHRAGM PUMPS



Unveiling soon...

### TWO NEW ram packages from Ingersoll Rand / ARO!

Single and Twin-post ram sets have been developed for the safe unloading of 5 gallon (22 litre) drums:

#### Single-post ram

- Ideal for medium viscosity fluids (20,000 - 250,000 centipoise)
- Versatile - fits up to 6" air motor
- Industry leading down force
- Optional portability kit enhances mobility
- Compact design: interchangeable with Graco products

#### Twin-post ram

- Ideal for medium to high viscosity fluids (20,000 - 1,000,000+ centipoise)
- Flexible - compatible with air motors up to 10"
- Dual 3/4" cylinders for demanding applications and low air pressure operation
- Robust design: features industry leading performance and reduced height

Available soon!



### New products from

## Air Pumping

### It's back to the drawing board for our Varimix system!

To celebrate the Varimix's 30<sup>th</sup> anniversary we're redesigning the system from the ground up! The VX3 range offers more options, greater compatibility and now user configurable mix ratios... See page 34 for more information!

#### More Product ranges!

Not content with offering perhaps the UK's largest range of diaphragm and piston pumps, spares and accessories, we now stock a range of **pneumatic blowers**, **ATEX approved pneumatic lights** and an **enhanced range of sanitary products** for the food, beverage and biopharmaceutical markets... And its all here in the catalogue!

\* Artists impression

# Inks & Printing

[ *ínks ænd prín̄tɪŋ* ]



At Air Pumping, we like to say “if it pours, it pumps”... but in the ink industry we know that pouring is not always an option.

To solve this we teamed up with **Ingersoll Rand** to produce some of the most hardy and reliable high-pressure air pumps, perfectly suited to inks, glues, make-up and other viscous products (up to 1m cPs).

Through our work with some of the largest companies in the UK print industry, a range of specially designed piston pumps have been developed to allow for unprecedented improvements in ink handling.

Offering high flow rates and precision delivery, **Ingersoll Rand** pumps are the right choice for your press and fount filters.



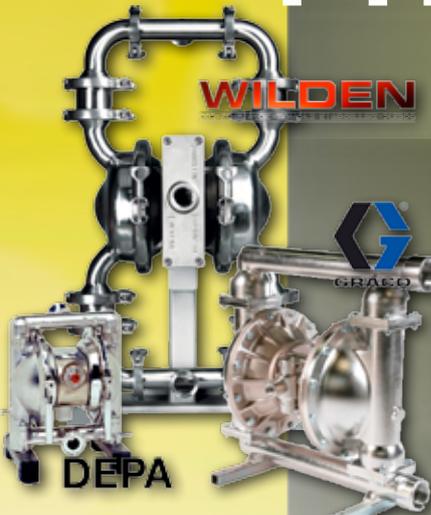
# CHEMICAL AND PHARMACEUTICAL

Air Pumping offer a number of chemical and biopharmaceutical pump solutions for various personal care and pharmaceutical applications...

## Highly Polished Stainless Steel Pumps

Wilden's Saniflo pumps have the versatility and capability to pump a wide range of viscosities, solids and shear sensitive products. Engineered to meet the highest standards in the industry (EHEDG, 3-A, ATEX, USP Class VI and FDA CFR 21.177), these pumps are offered with passivated stainless steel components with various surface finishes, multiple port sizes and connections.

The Hygienic and FDA-approved ranges of pumps from Graco, DEPA and Blagdon offer electropolished 304 or 316 stainless steel construction, certified cleaning in place (CIP) and servicing in place (SIP), food grade elastomers and tri-clamp / DIN connections. Available with port sizes from 1/2" to 3", and with flow rates up to 830 litres per minute.



## Conductive Polypropylene Diaphragm Pumps

Conductive Polypropylene pumps offer great compatibility across a wide range of chemicals. The Smart Carbon Fibre series of non-metallic pumps from Ingersoll Rand eliminates material contamination, allowing for higher conductivity with greater impact, temperature and corrosion resistance. Available with 1", 1 1/2" and 2" flanged ports, offering up to 696 litres/min flow.

## Solid PTFE (Teflon) Pumps

Wilden's Unitec family and Blagdon's range of PTFE pumps are both ideally suited to the most aggressive of environments; offering unrivalled compatibility across all but the most abrasive of chemicals as well as the ability for use in clean room environments. Fully FDA and USP Class VI approved.

Wilden, as well as DEPA, also offer fully ATEX compliant electroconductive PTFE pumps. Offering high temperature protection, universal chemical resistance and a clean, low particle machined construction. These units are the ultimate in certified compatibility!

These chemically inert pumps are available with 1/4" to 2" porting across brands.



## ACCESSORIES

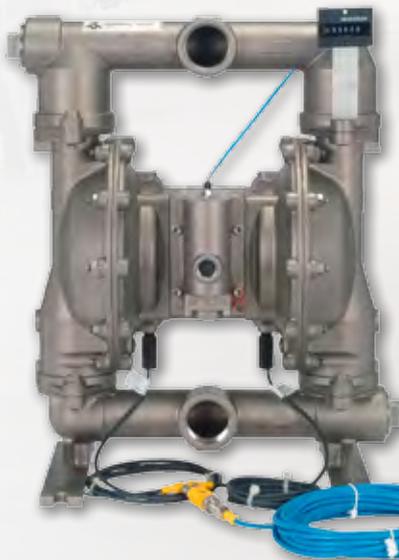
### Diaphragm Failure Detectors - the ultimate fail-safe

Diaphragm monitors warn of a diaphragm failure by detecting liquid in the air chambers. Using a pump mounted control circuit, the relay can also control other valves or warning devices, and will stay set until released by the operator. We supply units compatible across makes and pump models.

### Batch Counters - simple set-up remote control

Batch Controllers are perfect for hands-off pumping. Controllers can be configured to pump a set number of times, or by volume, and can be used to measure the rate or total amount pumped.

Alarms can be set for end of batch or as a pre-warning when nearing completion.



**ARO**

# Food and Beverage

From greasing the wheels of industry to moving food itself, pumps are all part of the process...

Whether utilising flap valves, duckbills or standard ball valves, we have a pump for every step of your process!

Air operated pumps have come a long way in their development: no more the power-hungry, single use, noisy, leaking artifact stuck in the corner of a factory... Advances in technology have allowed for more efficient units capable of pumping almost anything you throw at it: liquids, powders, solids, and every medium in between!

With certification approved from one side of the Atlantic to the other - EHEDG, FDA, 3-A - now is the time to make pneumatic technology work for you.

## Pump Technology in Action...



Do you pump suspended solids and find that ball valves do not perform as well as you would like?

Why not take a look at pumps with **duckbill**, **trihedral** or **mushroom** valves...

Designed to replace the ball valves on standard diaphragm pumps, these alternatives allow for cleaner and safer solids handling with all the great benefits of diaphragm pumping.

The duckbill and trihedral valves allow for a more progressive product delivery while still protecting suspended solids as flow pressures increase.



Recent trials in a cherry processing plant found beneficial improvements using **SandPIPER** trihedral valves - enabling production to increase five-fold within two years!

Introducing **Graco's** new **SaniForce** line of sanitary transfer pumps, drum and bin unloaders:

**SaniForce** piston pumps are available with ratios up to 12:1 and are perfect for low-to-medium viscosity materials. The newly designed air motors improve serviceability, increase efficiency and have a lower cost of ownership.

The range of diaphragm pumps offer flow rates up to 568 litres per minute, are fully FDA, CFR Title 21 and 3-A compliant. The overmoulded diaphragms virtually eliminate the risk of harbouring bacteria, improve wear and are easy to clean.

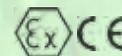
**Graco's** **SaniForce** drum and bin unloaders can evacuate medium-to-high viscosity products from their original containers, without diluting the material. The inflatable ram seal minimises leakage, which allows for faster change-out, and delivers a 99% evacuation rate.

# markets



Our huge range of hygienic and sanitary pumps meet, or exceed, most proprietary standards including:

- EHEDG European Hygienic Engineering & Design Group approved
- 3-A SSI Advanced hygienic equipment design awards
- USDA United States Department of Agriculture approved
- FDA US Food and Drug Administration approved
- CFR Title 21 United States Code of Federal Regulations Title 21, section 17
- Food Grade Certified clean and safe for human consumption
- Hygienic Certified germ and bacteria free
- Sanitary Certified bacteria free
- ATEX European Directive for equipment suitable for use in Explosive Atmospheres



Stainless Steel pumps are available in 304, 316 and 400 grade steels, and are finished to 3.2, 0.8 or 0.4  $R_a$  surface roughness levels (dependant on manufacturer / range)



DEPA's range of sanitary diaphragm pumps have been specifically developed for applications that demand the highest standard of hygiene and contamination control to maintain a clean and sterile environment.

Constructed in highly-polished stainless steel (either 304 or 316L grade) these units offer trapless flow paths, chemical cleaning in place (CIP), steam sterilisation in place (SIP), are fully self-priming and require NO lubrication - perfect when hygiene counts!

Flap valve pumps can handle large solids (up to 2½ inches / 64 mm diameter) without shear or damage, making them ideal for the transport of suspended solids, slurries or other small food product.



High-pressure diaphragm pumps deliver up to three times the input pressure of a standard unit, making them ideal for more viscous fluids and higher delivery heads.

Available with port sizes of 1", 1½", 2" or 3" and with some systems offering variable ratios, these powerful solutions work when you need to deliver more than 10 bar.



Wilden, ARO, SandPIPER, Yamada and Blagdon now all offer ¾" (10 mm) ported diaphragm pumps.

Designed to provide Plug-n-Go performance with a cost effective design, these tiny powerhouses are highly versatile and portable while constructed to the same high standards as their larger counterparts.

Offering up to 45 litres per minute delivery, with a number of different build material options - can you afford NOT to have one in your arsenal?

# Offshore and Marine

## The harshest of operating environments...

You need a product capable of withstanding the toughest of conditions: from equatorial heat to extreme cold, with gale force winds and the constant swell of the sea and the abrasive marine atmosphere.



### You need to speak to Air Pumping!

When you need a pump you can rely on to be ready day or night, with spares available no matter which port you find yourself in...

**Air Pumping** will help you make the right choice.

We have been supplying ships and offshore platforms for over 30 years, so if you need a hardcore product for a hardcore environment then look no further...

With pumps available from ½ inch right up to 4 inch port sizes our metallic work horses are always ready to go!



**NEW! ATEX Approved Euramco blowers and air powered fans are now available from Air Pumping!**

**RV760S/RV760/RV1500 Venturi Cones**  
*Pneumatic ventilators for hazardous locations*

These compressed air or steam powered Venturi cones are intrinsically safe, making them ideal for use in hazardous or explosive atmospheres (when used with grounding kit)

Cones are anti-static, crush and dent resistant.



**AFi range of Blower / Exhausters**  
*Compact, stackable air driven ventilators*

Constructed from high strength, anti-static ABS housing with integral duct adaptors, the AFi range is lightweight, corrosion proof and chemical resistant.

Intrinsically safe for use in adverse atmospheres, the pneumatic powered blower exhausts outside of the duct, so compressed air does not contaminate the airstream.

Supplied with filter, motor lubricator, air control valve, muffler, static grounding kit and duct adaptors.

See pages 32 and 33 for more information on ATEX ratings and other products.





## Original Series with Pro-Flo and Turbo-Flo Air Systems

- ½ to 4" port sizes (1½" pump pictured - up to 348 LPM (92 GPM) flow rate)
- Pro-Flo X air valves with throttle control to regulate fluid delivery / air usage
- Wilden air systems eliminate frozen air valve problems
- Low air consumption = lower cost of ownership
- Clamp-band construction - available in aluminium, stainless steel and cast iron
- Hard-wearing rubber elastomers
- ATEX 94/9/EC approval: Group I, category M2 & Group II, cat 2 (zones G & D)
- Flow rates from 54 to 1174 LPM (14 to 310 GPM)

## Wilden Advanced Series with Pro-Flo Air Valves

1" to 3" port sizes (2" pictured - up to 690 LPM (178 GPM) flow rate)

Non-freezing Pro-Flo X air valves with throttle control

Low air consumption for a lower cost of ownership

Bolted construction - available in aluminium, stainless steel and cast iron

Hard-wearing rubber elastomers

ATEX 94/9/EC approval: Group I, category M2 & Group II, cat 2 (zones G & D)

Flow rates from 168 to 1021 LPM (44 to 270 GPM)



High performance industrial grade diaphragm pumps, offering optimal energy efficiency coupled with stall-free reliability.

## EXPERT series

- ½" to 3" port sizes (3" pictured - up to 1041 LPM (275 GPM) flow rate)
- Best total cost of ownership of any diaphragm pump
- Patented Stall-Free, Ice-Free air motor
- Large range of material and porting configurations available
- 5 year warranty on all Ingersoll Rand / ARO pumps
- ATEX 94/9/EC approval: Group II, category 2 (zones G & D)
- Flow rates from 49 to 1041 LPM (13 to 275 GPM)

## PRO series

1" to 3" port sizes (2" pictured - up to 650 LPM (172 GPM) flow rate)

Multiple port configurations

Long-lasting convoluted diaphragms

Low air consumption with stall-free operation

Large range of material options - Aluminium, Cast Iron or Stainless Steel

ATEX 94/9/EC approval: Group II, category 2 (zones G & D)

Flow rates from 133 to 987 LPM (35 to 237 GPM)



As seen in:



Find. Connect. Trade.

Call us with your IMPA, ISSA & ShipServ numbers

# DIAPHRAGM PUMPS

ARO®

**IR** Ingersoll Rand



**1/2"**  
**(13 mm)**



**3/4"**  
**(19 mm)**



**1"**  
**(25 mm)**



**1"**  
**(25 mm)**



**1 1/2"**  
**(38 mm)**

<b>Pump model</b>	PD05X-X	PD07X-X	666100-X	PD10X-X	666150-X
<b>Max flow rate*</b>	45.4 l/min	51.5 l/min	133 l/min	197 l/min	340 l/min
<b>Construction materials</b>	Aluminium Stainless Steel	Aluminium	Aluminium Cast Iron Stainless Steel	Aluminium Cast Iron Stainless Steel Hastelloy	Aluminium Cast Iron Stainless Steel
<b>Elastomer options (valve ball and diaphragm materials)</b>	Hytre Nitrile Polyurethane PTFE (Teflon) Santoprene Stainless Steel Viton	Hytre PTFE Santoprene	Acetal EPR Hytre Neoprene Nitrile Polyurethane PTFE Santoprene Stainless Steel Viton	Hytre Nitrile PTFE Santoprene Santoprene - <i>Medical Grade</i> Stainless Steel Viton	Hytre Polyurethane PTFE Santoprene Stainless Steel Viton
<b>Fluid connections</b>	1/2" BSP 1/2" NPT	3/4" BSP 3/4" NPT	1" BSP 1" NPT	1" BSP 1" NPT	1 1/2" BSP 1 1/2" NPT
<b>Maximum solids handling</b>	2.4 mm	2.4 mm	3.2 mm	3.3 mm	6.4 mm
<b>Maximum air inlet pressure</b>	6.9 bar (100 psi)	6.9 bar (100 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)
<b>Shipping weight</b>	4.70 kg Aluminium 7.52 kg Stainless Steel	3.96 kg Aluminium	8.6 kg Aluminium 14.1 kg Cast Iron 16.3 kg Stainless Steel	9.4 kg Aluminium 16.0 kg Cast Iron 17.3 kg Stainless Steel 18.0 kg Hastelloy	23.4 kg Aluminium 36.1 kg Cast Iron 38.3 kg Stainless Steel
<b>ATEX Approved</b>	With <b>Aluminium</b> centre section	N/A	All models	With <b>Aluminium</b> or <b>Stainless Steel</b> centre section	All models

**EXP****1 1/2"**  
**(38 mm)****Pro****2"**  
**(51 mm)****EXP****2"**  
**(51 mm)****Pro****3"**  
**(76 mm)****EXP****3"**  
**(76 mm)**

PD15X-X	666200-X	PD20X-X	666300-X	PD30X-X	<b>Pump model</b>
465 l/min	651 l/min	651 l/min	897 l/min	1041 l/min	<b>Max flow rate*</b>
Aluminium Cast Iron Stainless Steel Hastelloy	Aluminium Cast Iron Stainless Steel	Aluminium Cast Iron Stainless Steel Hastelloy	Aluminium Cast Iron Stainless Steel	Aluminium Cast Iron Stainless Steel Hastelloy	<b>Construction materials</b>
Hytre Nitrile PTFE Santoprene Santoprene - <i>Medical Grade</i> Stainless Steel Viton	Hytre Santoprene	Hytre Nitrile PTFE Santoprene Santoprene - <i>Medical Grade</i> Stainless Steel Viton	Hytre Santoprene	Hytre Nitrile PTFE Santoprene Viton	<b>Elastomer options (valve ball and diaphragm materials)</b>
1 1/2" BSP 1 1/2" NPT 1 1/2" ANSI/DIN	2" BSP 2" NPT	2" BSP 2" NPT 2" ANSI/DIN	3" BSP 3" NPT	3" BSP 3" NPT	<b>Fluid connections</b>
6.4 mm	6.4 mm	6.4 mm	9.5 mm	9.5 mm	<b>Maximum solids handling</b>
8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	<b>Maximum air inlet pressure</b>
17.1 kg Aluminium 33.2 kg Cast Iron 27.8 kg Stainless Steel 39.4 kg Hastelloy	29.6 kg Aluminium 56.4 kg Cast Iron 58.9 kg Stainless Steel	41.5 kg Aluminium 66.9 kg Cast Iron 68.0 kg Stainless Steel 70.3 kg Hastelloy	49.8 kg Aluminium 96.7 kg Cast Iron 100.8 kg Stainless Steel	58.8 kg Aluminium 98.2 kg Cast Iron 103.8 kg Stainless Steel 113.3 kg Hastelloy	<b>Shipping weight</b>
<b>With Aluminium or Stainless Steel centre section</b>	All models	<b>With Aluminium or Stainless Steel centre section</b>	All models	<b>With Aluminium or Stainless Steel centre section</b>	<b>ATEX Approved</b>

# DIAPHRAGM PUMPS

ARO®

**IR** Ingersoll Rand

Non-Metallic



Pump model	PD02P-X	PD03P-X	PDO5P-X	PD07P-X	6661AX-X
Max flow rate*	17.4 l/min	40.1 l/min	54.5 l/min	56 l/min	178 l/min
Construction materials	Polypropylene PVDF (Kynar) Groundable Acetal	Polypropylene PVDF Groundable Acetal	Polypropylene PVDF Groundable Acetal	Polypropylene	Polypropylene PVDF
Elastomer options (valve ball and diaphragm materials)	Nitrile PTFE (Teflon) Santoprene	Hytrel Neoprene Nitrile PTFE Santoprene Stainless Steel Viton	Hytrel Nitrile Polyurethane PTFE Santoprene Stainless Steel Viton	Hytrel PTFE Santoprene	Hytrel Polyurethane PTFE Santoprene Stainless Steel Viton
Fluid connections	1/4" NPT	3/8" BSP 3/8" NPT	1/2" BSP 1/2" NPT	3/4" BSP 3/4" NPT	1" BSP 1" NPT 1" ANSI/DIN
Maximum solids handling	Clean fluid only	1.6 mm	2.4 mm	2.4 mm	3.2 mm
Maximum air inlet pressure	6.9 bar (100 psi)	6.9 bar (100 psi)	6.9 bar (100 psi)	6.9 bar (100 psi)	8.3 bar (120 psi)
Shipping weight	1.85 kg Polypropylene 2.22 kg PVDF 2.10 kg Groundable Acetal	1.56 kg Polypropylene 2.04 kg PVDF 1.89 kg Groundable Acetal	2.36 kg Polypropylene 3.08 kg PVDF 2.85 kg Groundable Acetal	2.54 kg Polypropylene	9.2 - 13.1 kg Polypropylene 12.9 - 16.8 kg PVDF
ATEX Approved	Groundable Acetal only	Groundable Acetal only	Groundable Acetal only	N/A	N/A



PD10P-X	6661TX-X	PD15P-X	6662AX-X	PD20P-X	<b>Pump model</b>
200 l/min	378 l/min	465 l/min	549 l/min	696 l/min	<b>Max flow rate*</b>
Polypropylene PVDF	Polypropylene PVDF	Polypropylene PVDF	Polypropylene PVDF	Polypropylene PVDF	<b>Construction materials</b>
Hytre Nitrile PTFE Santoprene Santoprene - <i>Medical Grade</i> Viton	Hytre Polyurethane PTFE Santoprene Viton	Hytre Nitrile PTFE Santoprene Santoprene - <i>Medical Grade</i> Stainless Steel Viton	Hytre Polyurethane PTFE Santoprene Viton	Hytre Nitrile PTFE Santoprene Santoprene - <i>Medical Grade</i> Viton	<b>Elastomer options (valve ball and diaphragm materials)</b>
1" BSP 1" NPT 1" ANSI/DIN	1½" ANSI/DIN	1½" ANSI/DIN	2" ANSI/DIN	2" ANSI/DIN	<b>Fluid connections</b>
3.2 mm	6.4 mm	6.4 mm	6.4 mm	6.4 mm	<b>Maximum solids handling</b>
8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)	<b>Maximum air inlet pressure</b>
8.8 - 9 kg Polypropylene 11.7 - 12.3 kg PVDF	28.1 - 38.5 kg Polypropylene 41.7 - 52.1 kg PVDF	19.3 kg Polypropylene 25.3 - 29 kg PVDF	28.1 - 38.5 kg Polypropylene 41.7 - 52.1 kg PVDF	38.7 kg Polypropylene 50.3 kg PVDF	<b>Shipping weight</b>
With <b>Groundable Acetal</b> air motor	N/A	With <b>Conductive Polypropylene</b> air motor	N/A	With <b>Conductive Polypropylene</b> air motor	<b>ATEX Approved</b>

# DIAPHRAGM PUMPS

Metallic

**WILDEN**  
AIR OPERATED DOUBLE DIAPHRAGM PUMPS



**Original**

**Original**

**Original**

**Advanced**

**Original**

**1/4"**  
**(6 mm)**

**1/2"**  
**(13 mm)**

**1"**  
**(25 mm)**

**1"**  
**(25 mm)**

**1 1/2"**  
**(40 mm)**

	<b>Original</b>	<b>Original</b>	<b>Original</b>	<b>Advanced</b>	<b>Original</b>
	<b>1/4"</b> <b>(6 mm)</b>	<b>1/2"</b> <b>(13 mm)</b>	<b>1"</b> <b>(25 mm)</b>	<b>1"</b> <b>(25 mm)</b>	<b>1 1/2"</b> <b>(40 mm)</b>
<b>Pump model</b>	(X) P025-X	(X) PX1-X	(X) PX2-X	(X) PX200-X	(X) PX4-X
<b>Max flow rate*</b>	18.9 l/min	62.8 l/min	170.3 l/min	212 l/min	306 l/min
<b>Construction materials</b>	Aluminium Stainless Steel	Aluminium Stainless Steel	Aluminium Stainless Steel Hastelloy	Aluminium Cast Iron Stainless Steel	Aluminium Cast Iron Stainless Steel Hastelloy
<b>Elastomer options (valve ball and diaphragm materials)</b>	Buna-N (nitrile) PTFE (Teflon) Wil-Flex - (santoprene)	Buna-N EPDM Polyurethane PTFE Saniflex (hytrel) Viton Wil-Flex	Buna-N Nordel Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N Neoprene Nordel Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Tetra-Flex PTFE Viton Wil-Flex
<b>Fluid connections</b>	1/4" BSP 1/4" NPT	1/2" BSP 1/2" NPT	3/4" outlet 1" inlet BSP/NPT	1" BSP 1" NPT 1" ANSI/DIN	1 1/4" outlet 1 1/2" inlet BSP/NPT
<b>Maximum solids handling</b>	0.4 mm	1.6 mm	3.2 mm	6.4 mm	4.7 mm
<b>Maximum air inlet pressure</b>	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)
<b>Shipping weight</b>	1.8 kg Aluminium 4.0 kg Stainless Steel	6.0 kg Aluminium 9.0 kg Stainless Steel	12.0 kg Aluminium 16.3 kg Stainless Steel 18.1 kg Hastelloy	11.0 kg Aluminium 21.0 kg Cast Iron 23.0 kg Stainless Steel	17.5 kg Aluminium 26.2 kg Cast Iron 26.2 kg Stainless Steel 26.2 kg Hastelloy
<b>ATEX Approved</b>	XP025 models only	XP1 & XPX1 models only	XPX2 models only	XP200 & XPX200 models only	XPX4 models only



Advanced	Original	Advanced	Original	Advanced	Advanced
<b>1½"</b> <b>(40 mm)</b>	<b>2"</b> <b>(50 mm)</b>	<b>2"</b> <b>(50 mm)</b>	<b>3"</b> <b>(80 mm)</b>	<b>3"</b> <b>(80 mm)</b>	<b>4"</b> <b>(100 mm)</b>
(X) PX400-X	(X) PX8-X	(X) PX800-X	(X) PX15-X	(X) PX1500-X	XPX20-X
424 l/min	675 l/min	674 l/min	918 l/min	999 l/min	1211 l/min
Aluminium Stainless Steel Hastelloy	Aluminium Cast Iron Stainless Steel Hastelloy	Aluminium Stainless Steel Hastelloy	Aluminium Cast Iron Stainless Steel	Aluminium Stainless Steel Hastelloy	Cast Iron
Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane Saniflex Viton Wil-Flex
1½" ANSI/DIN	2" BSP 2" NPT	2" ANSI/DIN	3" BSP 3" NPT	3" BSP 3" NPT 3" ANSI/DIN	4" ANSI/DIN
7.9 mm	6.4 mm	6.4 mm	9.5 mm	12.7 mm	35 mm
8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)
25 kg Aluminium 35 kg Stainless Steel 38 kg Hastelloy	35 kg Aluminium 49 kg Cast Iron 53 kg Stainless Steel 54 kg Hastelloy	34 kg Aluminium 100 kg Stainless Steel 103 kg Hastelloy	60 kg Aluminium 98 kg Cast Iron 90 kg Stainless Steel	83 kg Aluminium 125 kg Stainless Steel 130 kg Hastelloy	223 kg Cast Iron
XPX400 models only	XPX8 models only	XPX800 models only	XPX15 models only	XPX1500 models only	All models

# DIAPHRAGM PUMPS

**WILDEN**  
AIR OPERATED DOUBLE DIAPHRAGM PUMPS

Non-Metallic



**Original**

**Advanced**

**Original**

**Advanced**

**Original**

**1/4"**  
**(6 mm)**

**1/4"**  
**(6 mm)**

**1/2"**  
**(13 mm)**

**1/2"**  
**(13 mm)**

**1"**  
**(25 mm)**

	<b>Original</b>	<b>Advanced</b>	<b>Original</b>	<b>Advanced</b>	<b>Original</b>
	<b>1/4"</b> <b>(6 mm)</b>	<b>1/4"</b> <b>(6 mm)</b>	<b>1/2"</b> <b>(13 mm)</b>	<b>1/2"</b> <b>(13 mm)</b>	<b>1"</b> <b>(25 mm)</b>
<b>Pump model</b>	P.025-X	P25-X	P1-X	P100-X	P2-X
<b>Max flow rate*</b>	18.2 l/min	16.7 l/min	56.8 l/min	58.7 l/min	140 l/min
<b>Construction materials</b>	Polypropylene PVDF	Polypropylene PVDF	Polypropylene PVDF PTFE	Polypropylene PVDF	Polypropylene PVDF
<b>Elastomer options (valve ball and diaphragm materials)</b>	Buna-N (nitrile) PTFE (Teflon) Wil-Flex - (santoprene)	PTFE	Buna-N Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex
<b>Fluid connections</b>	1/4" BSP 1/4" NPT	1/4" BSP 1/4" NPT	1/2" BSP 1/2" NPT	1/2" BSP 1/2" NPT 1/2" ANSI/DIN	1" BSP 1" NPT
<b>Maximum solids handling</b>	0.4 mm	0.7 mm	1.6 mm	1.6 mm	3.18 mm
<b>Maximum air inlet pressure</b>	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)
<b>Shipping weight</b>	1.4 kg Polypropylene 1.4 kg PVDF	2.0 kg Polypropylene 2.0 kg PVDF	4.0 kg Polypropylene 5.0 kg PVDF 5.0 kg PTFE	4.0 kg Polypropylene 5.0 kg PVDF	8.0 kg Polypropylene 10.0 kg PVDF
<b>ATEX Approved</b>	<b>XA025P</b> only	N/A	N/A	N/A	N/A



Advanced	Original	Advanced	Original	Advanced	Advanced
<b>1" (25 mm)</b>	<b>1½" (38 mm)</b>	<b>1½" (38 mm)</b>	<b>2" (51 mm)</b>	<b>2" (51 mm)</b>	<b>3" (76 mm)</b>
<b>P200-X</b>	<b>PX4-X</b>	<b>PX400-X</b>	<b>PX8-X</b>	<b>PX800-X</b>	<b>P1500-X</b>
220 l/min	355 l/min	450 l/min	587 l/min	693 l/min	784 l/min
Polypropylene PVDF PTFE	Polypropylene PVDF	Polypropylene PVDF	Polypropylene PVDF	Polypropylene PVDF	Polypropylene PVDF
Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex	Buna-N EPDM Neoprene Polyurethane PTFE Saniflex Viton Wil-Flex	PTFE
1" ANSI/DIN	1½" ANSI/DIN	1½" ANSI/DIN	2" ANSI/DIN	2" ANSI/DIN	3" ANSI/DIN
4.76 mm	4.8 mm	6.4 mm	6.4 mm	6.4 mm	13 mm
8.6 bar (125 psi)	8.6 bar (125 psi)				
10 kg Polypropylene 15 kg PVDF 18 kg PTFE	17.5 kg Polypropylene 22 kg PVDF	19 kg Polypropylene 27 kg PVDF	34 kg Polypropylene 43 kg PVDF	32 kg Polypropylene 45 kg PVDF	138 kg Polypropylene 161 kg PVDF
N/A	N/A	N/A	N/A	N/A	N/A

# DIAPHRAGM PUMPS

SandPIPER®

SandPIPER Metallic



1/4"  
(6 mm)



1/2"  
(13 mm)



1"  
(25 mm)



1 1/2"  
(38 mm)



2"  
(51 mm)



3"  
(76 mm)

Pump model	E02	S05	S1F	S15 HDB1½-A	S20 HDB2-A	S30 HDB3-A
Max flow rate*	16.6 l/min	57 l/min	170 l/min	401 l/min	567 l/min	901 l/min
Construction materials	Stainless Steel	Aluminium Stainless Steel Hastelloy	Aluminium Cast Iron Stainless Steel	Aluminium Cast Iron Stainless Steel	Aluminium Cast Iron	Aluminium Cast Iron Stainless Steel
Elastomer options (valve ball and diaphragm materials)	PTFE (Teflon)	EPDM (Nordel) FKM (Viton) Neoprene Nitrile PTFE Santoprene	EPDM FKM Neoprene Nitrile PTFE Santoprene	EPDM FKM Neoprene Nitrile PTFE Santoprene	EPDM FKM Neoprene Nitrile PTFE Santoprene	EPDM FKM Neoprene Nitrile PTFE Santoprene
Fluid connections	1/4" BSP	1/2" BSP 1/2" NPT	1" BSP 1" NPT	1 1/2" BSP 1 1/2" NPT	2" BSP 2" NPT	3" BSP/NPT 3" ANSI/DIN
Maximum solids handling	2 mm	3 mm	6 mm	6 mm	6 mm	9.65 mm
Maximum air inlet pressure	125 psi (8.6 bar)	125 psi (8.6 bar)	125 psi (8.6 bar)	125 psi (8.6 bar)	125 psi (8.6 bar)	125 psi (8.6 bar)
Shipping weight	8.8 kg Stainless Steel	7 kg Aluminium 10 kg Stainless Steel 11 kg Hastelloy	13 kg Aluminium 21 kg Cast Iron 20 kg Stainless Steel	24 kg Aluminium 42 kg Cast Iron 43 kg Stainless Steel	31 kg Aluminium 59 kg Cast Iron	53 kg Aluminium 98 kg Cast Iron 87 kg Stainless Steel
ATEX Approved	X02 models only	All models	All models	All models	All models	All models



# Non-Metallies



**1/4"**  
**(6 mm)**



**1/2"**  
**(13 mm)**



**3/4"**  
**(19 mm)**



**1"**  
**(25 mm)**



**1 1/2"**  
**(38 mm)**



**2"**  
**(51 mm)**



**3"**  
**(76 mm)**

PB1/4	S05	S07	S10 / S1F	S15	S20	S30
15 l/min	52 l/min	87 l/min	170 l/min	378 l/min	605 l/min	901 l/min
Acetal Polypropylene PVDF	Polypropylene PVDF Nylon	Polypropylene PVDF Nylon	Polypropylene PVDF Nylon	Polypropylene PVDF	Polypropylene PVDF	Polypropylene PVDF
PTFE (Telfon) Santoprene	Nitrile Polyurethane PTFE Santoprene	FKM (Viton) Nitrile PTFE Santoprene	FKM Nitrile PTFE Santoprene	FKM Neoprene Nitrile PTFE Santoprene Urethane	FKM Neoprene Nitrile PTFE Santoprene	PTFE Santoprene
1/4" NPT	1/2" BSP 1/2" NPT	3/4" BSP 3/4" NPT	1" BSP/NPT 1" ANSI/DIN	1 1/2" ANSI/DIN	2" ANSI/DIN	3" ANSI/DIN
1 mm	3 mm	4 mm	6 mm	12 mm	17 mm	18 mm
100 psi (7 bar)	100 psi (7 bar)	100 psi (7 bar)	100 psi (7 bar)	100 psi (7 bar)	100 psi (7 bar)	100 psi (7 bar)
4 kg Conductive Acetal 4 kg Polypropylene 5 kg PVDF	8 kg Polypropylene 9 kg PVDF 8 kg Nylon	8 kg Polypropylene 9.5 kg PVDF 9 kg Nylon	9 - 22 kg Polypropylene 10 - 29 kg PVDF 9 kg Nylon	34 - 50 kg Polypropylene 49 - 51 kg PVDF 38 kg Conductive Polypropylene	41 - 57 kg Polypropylene 57 - 59 kg PVDF 43 - 45 kg Conductive Polypropylene	105 - 122 kg Polypropylene 143 - 161 kg PVDF
<b>Conductive plastics only</b>	<b>Conductive plastics only</b>	<b>Conductive plastics only</b>	<b>Conductive plastics only</b>	<b>Conductive plastics only</b>	<b>Conductive plastics only</b>	N/A

Heavy duty 4" and flap valve pumps (metallic) are also available, please call for more information.

# DIAPHRAGM PUMPS



**3/4"**  
**(19 mm)**



**1"**  
**(25 mm)**



**1 1/2"**  
**(38 mm)**



**2"**  
**(51 mm)**



**3"**  
**(76 mm)**

Pump model	Huskey 716	Huskey 1050	Huskey 1590	Huskey 2150	Huskey 3275
Max flow rate*	61 l/min	151 l/min	340 l/min	568 l/min	1041 l/min
Construction materials	Aluminium Stainless Steel	Aluminium Stainless Steel Hastelloy	Aluminium Stainless Steel	Aluminium Stainless Steel Ductile Iron	Aluminium
Elastomer options (valve ball and diaphragm materials)	Buna-N (Nitrile) Fluoroelastomer PTFE (Teflon) Santoprene Stainless Steel TPE	Acetal Buna-N Fluoroelastomer Geolast Polychloroprene PTFE Santoprene Stainless Steel - 316 or 440C TPE	Acetal Buna-N Fluoroelastomer Geolast PTFE Santoprene 440 Stainless St. TPE	Acetal Buna-N Fluoroelastomer Geolast PTFE Santoprene 440 Stainless St. TPE	Acetal Geolast PTFE Santoprene TPE
Fluid connections	3/4" BSP 3/4" NPT	1" BSP 1" NPT	1 1/2" BSP 1 1/2" NPT	2" BSP 2" NPT	3" ANSI/DIN
Maximum solids handling	2.5 mm	3.2 mm	4.8 mm	6.3 mm	9.4 mm
Maximum air inlet pressure	7 bar (100 psi)	8 bar (120 psi)	8 bar (120 psi)	8 bar (120 psi)	8 bar (120 psi)
Shipping weight	3.9 kg Aluminium 8.2 kg Stainless Steel	10.5 kg Aluminium 16.5 - 18.8 kg Stainless Steel 18.6 kg Hastelloy	15.2 kg Aluminium 32.7 - 40 kg Stainless Steel	26.3 kg Aluminium 50.3 - 61 kg Stainless Steel 59 kg Ductile Iron	68 kg Aluminium
ATEX Approved	All models	All models	All models	All models	All models



# Non-Metallics



**1/4"**  
**(6 mm)**



**3/8"**  
**(9 mm)**



**1/2"**  
**(13 mm)**



**1"**  
**(25 mm)**



**1 1/2"**  
**(38 mm)**



**2"**  
**(51 mm)**

Husky 205	Husky 307	Husky 515	Husky 1050	Husky 1590	Husky 2150
19 l/min	26 l/min	57 l/min	189 l/min	340 l/min	568 l/min
Acetal Polypropylene PVDF	Acetal Polypropylene	Acetal Polypropylene PVDF	Polypropylene PVDF Conductive Poly.	Acetal Polypropylene PVDF	Polypropylene PVDF
Acetal Polypropylene PTFE (Teflon) PVDF Santoprene	Buna-N (Nitrile) PTFE Santoprene Stainless Steel TPE	Buna-N Fluoroelastomer PTFE Santoprene Stainless Steel TPE	Acetal Buna-N EPDM Fluoroelastomer Geolast Polychloroprene PTFE Santoprene Stainless Steel TPE	Acetal Buna-N Fluoroelastomer Geolast PTFE Santoprene Stainless Steel TPE	Acetal Buna-N Fluoroelastomer Geolast PTFE Santoprene Stainless Steel TPE
1/4" BSP 1/4" NPT	3/8" BSP 3/8" NPT	1/2" BSP 1/2" NPT	1" BSP 1" NPT	1 1/2" ANSI / DIN	2" ANSI / DIN
1.5 mm	1.6 mm	2.5 mm	3.2 mm	4.8 mm	6.3 mm
7 bar (100 psi)	7 bar (100 psi)	7 bar (100 psi)	8.6 bar (125 psi)	8 bar (120 psi)	8 bar (120 psi)
1.1 kg Acetal 0.9 kg Polypropylene 1.3 kg PVDF	2.4 kg Acetal 2.2 kg Polypropylene	3.5 kg Acetal 2.9 kg Polypropylene 3.9 kg PVDF	8.2 kg Polypropylene 8.2 kg Conductive Polypropylene 11.8 kg PVDF	16 - 23 kg Polypropylene 22 - 30 kg PVDF	22 - 32 kg Polypropylene 31 - 41 kg PVDF
<b>Groundable Acetal only</b>	<b>Groundable Acetal only</b>	<b>Groundable Acetal only</b>	<b>Conductive Polypropylene only</b>	N/A	N/A

# DIAPHRAGM PUMPS



Blagdon Metallic



**1/4"**  
**(6 mm)**



**1/2"**  
**(15 mm)**



**1"**  
**(25 mm)**



**1 1/2"**  
**(40 mm)**



**2"**  
**(50 mm)**

Pump model	B06 / X06	B15 / X15	B25 / X25	B40 / X40	B50 / X50
Max flow rate*	18 l/min	58 l/min	136 l/min	320 l/min	500 l/min
Construction materials	Stainless Steel	Aluminium Stainless Steel	Aluminium Stainless Steel Cast Iron	Aluminium Stainless Steel Cast Iron	Aluminium Stainless Steel Cast Iron
Elastomer options (valve ball and diaphragm materials)	EPDM (Nordel) Polyester (Hytrel) PTFE (Teflon) Santoprene Stainless Steel Viton	Buna-N (Nitrile) Delrin (Acetal) EPDM Neoprene Polyester Polyurethane PTFE Santoprene Stainless Steel Viton	Buna-N Delrin EPDM Neoprene Polyester Polyurethane PTFE Santoprene Stainless Steel Viton	Buna-N EPDM Neoprene Polyester Polyurethane PTFE Santoprene Stainless Steel Viton	Buna-N EPDM Neoprene Polyester Polyurethane PTFE Santoprene Stainless Steel Viton
Fluid connections	1/4" BSP	1/2" BSP	1" BSP	1 1/2" BSP	2" BSP
Maximum solids handling	1 mm	2 mm	3 mm	6 mm	6 mm
Maximum air inlet pressure	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)
Shipping weight	4 kg Stainless Steel	4.8 kg Aluminium 8.7 - 12.2 kg Stainless Steel	13.5 kg Aluminium 22.5 - 32.5 kg Stainless Steel 22.5 kg Cast Iron	23 kg Aluminium 42 - 49 kg Stainless Steel 51.4 - 61 kg Cast Iron	35 kg Aluminium 60 - 92 kg Stainless Steel 50 - 70 kg Cast Iron
ATEX Approved	X06 models only	X15 models only	X25 models only	X40 models only	X50 models only



# Non-Metallics



**3"**  
**(75 mm)**



**1/4"**  
**(6 mm)**



**3/8"**  
**(10 mm)**



**1/2"**  
**(15 mm)**



**1"**  
**(25 mm)**



**2"**  
**(50 mm)**

<b>B75 / X75</b>	<b>B06</b>	<b>B10</b>	<b>B15 / X15</b>	<b>B25 / X25</b>	<b>B50 / X50</b>
889 l/min	16 l/min	26.5 l/min	48 l/min	152 l/min	500 l/min
Aluminium Stainless Steel Cast Iron	Polypropylene PVDF (Kynar)	Polypropylene PVDF	Polypropylene PVDF Conductive Poly. PTFE	Polypropylene PVDF Conductive Poly. PTFE	Polypropylene PVDF Conductive Poly.
Buna-N EPDM Neoprene PTFE Santoprene Viton	EPDM (Nordel) Polyester (Hytrel) PTFE (Teflon) Santoprene Stainless Steel Viton	Polypropylene PTFE PVDF Santoprene	Buna-N Delrin (Acetal) EPDM Neoprene Polyester Polyurethane PTFE Santoprene Stainless Steel Viton	Buna-N Delrin EPDM Neoprene Polyester PTFE Santoprene Stainless Steel Viton	Buna-N EPDM Neoprene Polyester Polyurethane PTFE Santoprene Stainless Steel Viton
3" BSP 3" NPT	1/4" BSP	3/8" BSP	1/2" ANSI / DIN	1" ANSI / DIN	2" ANSI / DIN
6 mm	1 mm	1.5 mm	2 mm	3 mm	6 mm
8.6 bar (125 psi)	5.0 bar (72.5 psi)	6.9 bar (100 psi)	8.0 bar (116 psi)	8.6 bar (125 psi)	8.6 bar (125 psi)
52 kg Aluminium 87 kg Stainless Steel 98 kg Cast Iron	1.2 kg Polypropylene 1.4 kg PVDF	1.4 kg Polypropylene 2.0 kg PVDF	4.0 kg Polypropylene 4.0 kg Conductive Polypropylene 5.0 kg PVDF 12.5 kg PTFE	13.3 - 15 kg Polypropylene 13.3 - 15 kg Conductive Polypropylene 20 - 21.7 kg PVDF 37 - 40 kg PTFE	38 - 70 kg Polypropylene 38 - 70 kg Conductive Polypropylene 48 - 80 kg PVDF
<b>X75 models only</b>	N/A	N/A	<b>Conductive Polypropylene / PTFE only</b>	<b>Conductive Polypropylene / PTFE only</b>	<b>Conductive Polypropylene only</b>

# DIAPHRAGM AND ROTARY PUMPS

# DEPA



**Series M**  
Metallic Pumps

**Series P**  
Non-Metallic Pumps

**Series L / S**  
Sanitary Pumps

Fluid connection options	1/2" (15 mm)	1" (25 mm)	1-1/2" (40 mm)	2" (50 mm)	3" (80 mm)
Range availability	Series M				
	Series P				
	Series L / S				
Construction options	Aluminium Stainless Steel 316	Aluminium Cast Iron Stainless Steel 316			
	Polypropylene - moulded / solid / conductive PVDF PTFE (Teflon) Conductive PTFE			Polypropylene - solid / conductive PVDF PTFE Conductive PTFE	Polypropylene - solid
	Electropolished Stainless Steel 316	Electropolished Stainless Steel 316 Polished Stainless Steel 304			Polished Stainless Steel 304/316
Elastomer options	EPDM (Nordel) Hytrel NRS (Natural Rubber) Nitrile PTFE (Teflon) / E <sup>4</sup> Nopped Diaphragm Viton		EPDM NRS Nitrile PTFE / E <sup>4</sup> Nopped Diaphragm (up to 2") Viton		
	EPDM PTFE / E <sup>4</sup> Nopped Diaphragm (up to 2")				
Max flow rate*	40 l/min	110 l/min	225 l/min	500 l/min	733 l/min
	36 l/min	110 l/min	200 l/min	500 l/min	733 l/min
	26 l/min	108 l/min	250 l/min	490 l/min	766 l/min
Max solids	3.5 mm	4 mm	6 mm	8 mm	10 mm
	3.5 mm	4 mm	6 mm	8 mm	10 mm
	3.5 mm	10 mm	16 mm	18 mm	25 mm
Shipping weight	3 kg	7 - 12 kg	13 - 23 kg	30 - 49 kg	55 - 100 kg
	5 - 8 kg	10 - 14 kg	17 - 26 kg	34 - 58 kg	60 kg
	10 kg	22 kg	33 kg	56 kg	80 kg
ATEX approved	All models				
	PL and TL models only				
	All models ATEX & FDA approved. Larger models also meet USDA, EHEDG & 3-A standards				

\* Maximum flow rate performance based on water at ambient temperature (20°C), with flooded inlet



# ELRO Peristaltic ELRO®



**Series IP**  
Peristaltic Pump



**Series XP**  
Peristaltic Pump



**Mobile**  
Peristaltic Pump

1"	1 1/4"	1-1/2"	2"	2"	2 1/2"	3"	4"	M15	M20	Fluid connection options
IP100	IP200	IP300	IP400	IP500	IP600	IP800				
		XP200			XP400		XP800			Mobile
10	31	51	100	175	266	466				Up to 366 l/min
		45			160		766			6.1 litres
0.07	0.22	0.85	1.65	2.9	4.45	7.8				2 bar 29 psi
		0.32			2.67		12.8			52 mm 2"
10 bar 150 psi	13 bar 190 psi									60 rpm
		13 bar 190 psi			13 bar 190 psi		10 bar 150 psi			Up to 4 kW (5.4 HP)
15 mm 0.59"	30 mm 1.18"	35 mm 1.38"	50 mm 1.97"	52 mm 2"	60 mm 2.4"	70 mm 2.76"				60 rpm
		35 mm 1.38"			63 mm 2.48"		91 mm 3.58"			Drive output: min - max kW (HP)
140 rpm		70	60 rpm							Weight (without drive)
		140			60		60			55-65 kg 121-143 lb
0.37 - 1.1 (0.5 - 1.5)	0.55 - 1.5 (0.75 - 2)	1.1 - 4 (1.5 - 5.5)	1.5 - 5.5 (2 - 7.5)	2.2 - 7.5 (3 - 10)	3 - 11 (4 - 15)	5.5 - 18.5 (7.5 - 25)				52-75 kg 115-165 lb
		0.55 - 2.2 (0.75 - 3)			1.5 - 5.5 (2 - 7.5)		5.5 - 18.5 (7.5 - 25)			Electric motor
12 kg 26 lb	16 kg 35 lb	48 kg 106 lb	51 kg 112 lb	110 kg 242 lb	123 kg 271 lb	248 kg 546 lb				Electric
		18 kg 39.7 lb			53 kg 117 lb		254 kg 560 lb			Electric
Conductive Polypropylene / Stainless Steel models only										Electric 230-400V
		N/A			N/A		N/A			Electric Petrol Diesel Hydraulic Air Water
		N/A			N/A		N/A			Air/water powered models
		N/A			N/A		N/A			ATEX approved

# ingelrand pumps

## Piston pumps are well suited to a wide range of fluid-handling applications:

**Transfers:** Moving low-to-medium viscosity fluid at variable pressures. 2-ball and 4-ball piston pumps can be used for many simple transfers: engine and gearbox oils, paints and chemicals from 25 to 205 litre containers and IBCs.

**Extrusion:** Extrusion generally involves using a chop-check piston pump for high viscosity materials. Typical applications require complete packages, for example: ram set, follower plate, downstream fluid regulators, air preparation equipment and flow control guns.

**Airless Spray:** The most effective way of applying high viscosity, corrosive or abrasive coatings; applications commonly use 2-ball and 4-ball air or hydraulic-powered pumps, plus a range of heaters, filters and spray guns.

**Measuring / Dispensing:** Measure and dispense duties concern the delivery of a specified quantity of product on a repetitive basis. Applications use 2-ball, 4-ball or chop-check pumps in conjunction with proportional cylinders.

Two-Ball Pumps are the most versatile of piston pumps, capable of transferring a wide range of low-to-medium viscosity fluids (viscosity range: 0 - 25,000 centipoise (cPs))

Four-Ball Pumps are the perfect companion for higher volume and re-circulation duties involving low viscosity fluids (viscosity range: 0 - 5,000 cPs)

Chop-Check or Extrusion Pumps, are frequently utilised in the most difficult of applications and are designed to move medium-to-high viscosity fluids such as caulking, heavy lubricants, mastics, sealers and inks (viscosity range: 15,000 - 1,000,000+ cPs)

Pump	Speed	Ratio	Materials
<b>Two-Ball Piston Pump range (0 - 25,000 cPs)</b>			
612041-X	18 l/min <sup>1</sup>	1:1	C B P
NM2202X-X1-X31	8.1 l/min <sup>1</sup>	2:1	C S P R U
NM2304X-X1-X1X	8 l/min <sup>1</sup>	4:1	C S G U V W
650408-X-B	10.8 l/min <sup>1</sup>	9:1	S P U V
650409-X	10.8 l/min <sup>1</sup>	9:1	S P U
650453-X	10.8 l/min <sup>1</sup>	9:1	C L P U
613112-XXF-C	68.6 l/min <sup>2</sup>	10:1	S H M P U
650866-XXD-B	68.6 l/min <sup>2</sup>	10:1	S M P U
650483-X4X	13.9 l/min <sup>3</sup>	11:1	S L P U
650867-XXD-B	68.6 l/min <sup>2</sup>	15:1	S M P U
613123-XXF-C	68.6 l/min <sup>2</sup>	15:1	C S P U
NM2318B-13-X43	2.3 l/min <sup>1</sup>	18:1	S M U
650484-X4X	7.2 l/min <sup>3</sup>	22:1	S L P U
650683-X4X	14 l/min <sup>3</sup>	23:1	S L P U
650967-XXD-B	68.6 l/min <sup>2</sup>	23:1	S M P U
613124-XXF-C	68.6 l/min <sup>2</sup>	23:1	S M P U
NM2328A-11-X11	1.4 l/min <sup>1</sup>	28:1	S G L U
650485-X4X	5.4 l/min <sup>3</sup>	30:1	S L P U
650883-X4X-B	14 l/min <sup>3</sup>	40:1	S L P U
650684-X4X	7.3 l/min <sup>3</sup>	45:1	S L P U
650863-X4D-B	23.7 l/min <sup>2</sup>	45:1	C G L P U
650685-X4X	5.4 l/min <sup>3</sup>	60:1	S L P U
650963-X4D-B	23.7 l/min <sup>2</sup>	65:1	C G L P U

X within a part number denotes an interchangeable character, defined by material build and pump options, where available.

**Key:** C Carbon Steel S Stainless Steel B Buna G Glass-filled PTFE H CG-filled PTFE L Leather M Mineral-filled PTFE  
P PTFE Q Polyurethane R Rylon-filled PTFE T Tuffstack U UHMW-PE V Viton W Virgin PTFE X Xtreme

Pump	Speed	Ratio	Materials
<b>Four-Ball Piston Pump range (0 - 5,000 cPs)</b>			
650439-X4B	80.6 l/min *	2:1	S G L P U
650640-X4B	110.8 l/min *	3:1	S G L P U
650639-X4B	80.6 l/min *	4:1	S G L P U
650840-X4G-B	124 l/min *	5:1	S G P U
650839-X4G-B	88.8 l/min *	7:1	S G L P U

Pump	Speed	Ratio	Materials
<b>Chop-Check Piston Pump range (15,000 - 1,000,000+ cPs)</b>			
650491-X43-B	12.3 l/min <sup>2</sup>	12:1	C G L P U
650871-XXE-C	46.3 l/min <sup>2</sup>	13:1	C G L Q U
650875-XXE-C	46.3 l/min <sup>2</sup>	20:1	C L P Q U
NM2322X-XX-P4X	1.9 l/min <sup>1</sup>	22:1	C S G U
650492-X43-B	6.8 l/min <sup>2</sup>	23:1	C G L P U
650691-X43-B	12.3 l/min <sup>2</sup>	23:1	C G L P U
650888-XXD	22.9 l/min <sup>2</sup>	28:1	C Q U
650971-XXE-C	46.3 l/min <sup>2</sup>	30:1	C G L P Q U
6712X-P43	2.8 l/min <sup>1</sup>	43:1	C S P U
650891-XXD-C	14.3 l/min <sup>1</sup>	44:1	C G L P U
650889-XXD	22.9 l/min <sup>2</sup>	44:1	C Q U
650692-X43-B	6.8 l/min <sup>2</sup>	46:1	C G L P U W
650698-X4X	5.1 l/min <sup>2</sup>	65:1	C M U
650989-XXD	22.9 l/min <sup>2</sup>	65:1	C Q U



**NP322R01-1**  
 Ram package, consisting of:  
 NM2322E-11-P43  
 22:1 ratio, chop-check pump  
 651615-D  
 Single-post ram assembly

**650640-C4B**  
 3:1 ratio, 4-ball pump



**650967-C6D-B**  
 23:1 ratio, 2-ball pump

**NP443E-P43-R8**  
 Ram package, consisting of:  
 67121-P48  
 43:1 ratio, chop-check pump  
 651613-D  
 Twin-post ram assembly



Pump	Speed	Ratio	Materials
<b>GRACO Dura-Flo Xtreme</b>			
P06XXX	66 l/min †	6:1	C S L P U
P10XCK	66 l/min †	10:1	C L U
P12XXX	35 l/min †	12:1	C S L P U
P15XXX	26 l/min †	15:1	C S L P T U
P16XXX	17.5 l/min †	16:1	C S L P X
P21XXX	13 l/min †	21:1	C S L P X
P23XXX	35 l/min †	23:1	C S L P U
P24XXX	11 l/min †	24:1	C S L P X
P25XXX	17.5 l/min †	25:1	C S L P X
P30XXX	13 l/min †	30:1	C S L P X
P31XXX	9 l/min †	31:1	C S L P X
P32XXX	26 l/min †	32:1	C S L P T U
P40XSE	11 l/min †	40:1	S L P
P45XSE	17.5 l/min †	45:1	S L P
P46XSH	9 l/min †	46:1	S L P



# SPECIALITY PUMPS

## HYGIENIC SOLUTIONS



### SANIFORCE from Graco

High sanitation **FDA** and **3-A** complaint diaphragm and piston pumps are ideal for applications that require an electropolished stainless steel finish and a quick 'knock-down' design.

- Easy clean - all models can be disassembled in 5 minutes or less
- Fluid contact areas are fully FDA-Compliant and meet CFR Title 21
- 3-A certified pumps meet the sanitation requirements of the dairy, foodstuff and pharmaceutical industries
- Featuring Graco's durable, lube-free, non-stick air valve technology
- Available in ball and flap valve designs with 1½", 2", 3" and 4" tri-clamp connections
- Saniforce range now includes Drum Unloaders and Barrel Evacuation Systems



Wilden's **Saniflo VC pump** was designed for the most demanding solids handling applications commonly found within the sanitary industries.

Whether your process requires the delicate handling of whole strawberries or mixed vegetables for pre-prepared meal packaging, the Saniflo VC pump can take whatever you want to dish out! With various pump sizes offered, the Saniflo VC pump can move up to 10.2 cm (4") compressible solids while protecting product integrity and increasing process yield.

If you are tired of a high percentage of your delicate process products being damaged during the pumping process, or you are introducing a pump into your process for the first time, the Saniflo™ VC pump is for you. From whole-muscle meat products to waste processing, this pump can meet your needs trouble-free while requiring little or no water.

The Saniflo™ VC pump is a safer, faster and better solution to your pumping requirements.

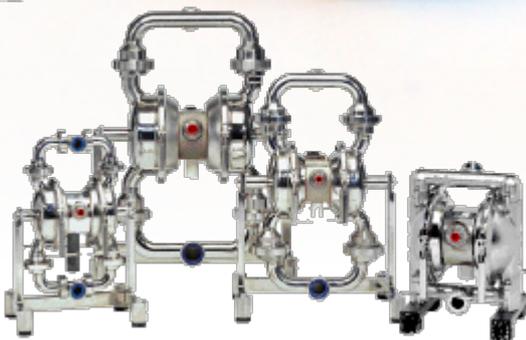


### DEPA®

The **DEPA** range of highly-polished, stainless steel (304 or 316L) pumps have been specifically developed for applications that demand the highest standards of hygiene and contamination control in a clean and sterile environment.

Available with **FDA, 3-A, USDA & EHEDG** certification and suitable for **CIP / SIP** applications.

Pump sizes range from ½" to 3" ported, with tri-clamp and DIN flange options available across models.



**ARO**

**WILDEN**

**SandPIPER**

# INDUSTRIAL SYSTEMS



Flap valve pumps offer an alternate route in the age-old dilemma of transferring suspended solids. Featuring a top-suction design, these pumps are ideal for duties involving abrasives, slurries and large particles.

**Advantages:**

- Pump suspended solids and abrasives with ease
- Top-suction flow path designed to work with gravity and prevent 'packing out'
- Aluminium, cast iron and stainless steel build options
- Heavy duty pumps available from **SandPIPER**
  - **Pro-Flo X** air valves on **Wilden** systems
  - Available with 1", 2", 3" or 4" ports
  - ATEX Certified: 94/9/EC (II 2GD X)\*

Flap valve pumps are available from **Ingersoll Rand / ARO, Wilden and SandPIPER.**

**Ingersoll Rand and Blagdon** submersible sump pumps are great for water removal on construction and mining sites - a must for excavations, mines and bore-holes!

- Ultra-rugged construction ensures durability
- Simple design with few moving parts
- Handles a wide variety of debris-laden applications
- Capable of pumping heads in excess of 70 metres
- Lightweight and extremely portable
- Ideal for use in bore holes as small as 22 x 22 cm
- Replacement for ICO pumps: use less air, pump more product



**High pressure air operated diaphragm pumps** are designed to reliably transfer viscous, solid-laden slurries at high head pressures.

Capable of delivering up to 300 psi, high pressure diaphragm pumps are ideal for paint recirculation and transfers of high solid coatings, inks, adhesives, filled material, grout and caulking, as well as solvent reclamation and resins.

**ARO, Blagdon, DEPA, SandPIPER and Wilden** all offer high pressure systems with ports sizes available from 1" to 3", and ratios of 2:1 or 3:1 (switchable on Wilden units)

High pressure pumps do not require costly external boosters or amplifiers to achieve this pressure output.

ATEX 94/9/EC Group II, Cat 2 (G&D) approved\*



**ARO**

\* Not available on all models. Please confirm before ordering.

# COMPRESSED AIR EQUIPMENT



For well over a century, **Ingersoll Rand** has maintained a delicate balance between known performance and new technology developments to manufacture world-class air compressors.

From portable devices to fully packaged installations, **Ingersoll Rand** has THE solution for your air needs from garage installations to manufacturing plants.

- Centrifugal, rotary and reciprocating systems including oil-free operation
- Electric, gas or petrol driven units
- Direct-drive or belt drive options
- Full range of Dryers: cycling, non-cycling, heatless and heated desiccants and a wide range of filters



## **DOOSAN** Doosan Infracore Portable Power

**Doosan Infracore Portable Power** is the new trading name for Ingersoll Rand Portable compressors...

Built on the same great ideals as IR's original range, the new Doosan compressor family is fully **CE compliant**, with 24 different models offering **free air delivery** between 2 and 45 m<sup>3</sup>/hr, and operating pressures from 7 to 25 bar.

Each compressor offers the **highest levels of durability, productivity and serviceability** in its class.

Call now for **Doosan** portable compressor sales and spares, as well as generators, mobile light towers, pneumatic breakers and hammers.



## **Built to be used...**

## **Fluidair**



**Fluidair** have become a leading manufacturer of compressed air technologies offering air solutions since 1936. From large industrial operations to small workshops, many companies turn to **Fluidair**.

At **Air Pumping** we take pride in our role in **Fluidair's** philosophy of providing high performance, efficient and reliable equipment, all backed up by an expert technical and after-sales team.

- High quality air
- Durable belt transmission
- High reliability with reduced piping connections
- Optimum cooling
- Easy to use *AirBasic* and *AirSmart* control systems
- Automatic lubrication system
- Low noise and compact design



**NORGREN**

**ENGINEERING ADVANTAGE**

Give your process the **ADVANTAGE** with Norgren Pneumatic Motion & Fluid Control Equipment.

**#1 for...**

Valve Islands **Actuators** Traditional & Rodless Cylinders  
**Air Preparation Equipment** Pressure Switches **Airlines**  
 Fittings **Tubing** Accessories...



**SMC**: the world leaders in pneumatics. Formed in 1959 in Japan, SMC have been pushing the envelope in pneumatics for over 50 years. Offering a complete line-up of pneumatic control systems, from air preparation to air line equipment, control components to cylinders and actuators...

Their comprehensive product range includes:

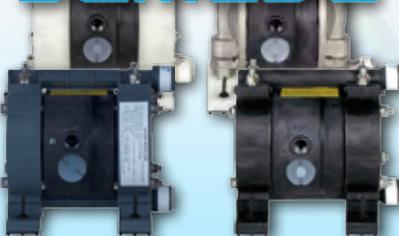
- Air dryers and mist separators
- Air filters, regulators and lubricators
- Air operated solenoid valves
- Cylinders, rotary actuators and grippers

On site research and development teams mean bespoke valves and controls are just a phone call away!



**Wilden's** 3/8" (10 mm) or 1/2" (13 mm) **Hornet** pumps provide you with the Plug-n-Go performance you desire with the cost-conscious design needed in today's value driven market place.

Engineered with state of the art air distribution system, **Hornet** pumps are equipped with the patented Perswing air valve. This proven technology combines German engineering with American practicality for a high performance, competitively priced product.



**Yamada Pumps**, the number one pump manufacturer in Japan is now available in for UK markets.

Offering exceptional value for money across a range of sizes and material options, the all-bolted **Yamada** family is one of our higher sellers in the smaller sizes.

The **NDP-5** is 1/4" ported and offered in a number of constructions:

- Stainless Steel
- Polypropylene
- Aluminium
- Kynar
- Groundable Acetal

High corrosion-resistant PFA pumps from **SMC** offer extraordinary chemical compatibility in a compact and light-weight chassis.

Suitable for clean room environments, these 3/8" ported pumps offer a long service life, fully moulded bodies (to reduce dust trapping) and full PTFE (Teflon) diaphragms and seals. Actuation reset feature allows pilot valve resets through air pressure where access is not possible.

Flow rates up to 13 litres/min.

# ATEX RATED EQUIPMENT



ATEX Approved Products

ATEX is the common name given to the legal requirements for controlling potentially explosive atmospheres and the suitability of equipment and protective systems used in them. Such conditions in the workplace can be caused by flammable gases, mists, vapours or combustible dusts.

Employers must classify hazardous areas into 'zones'. The classification given to a particular zone relates to its size and location, the likelihood of an explosive atmosphere occurring, and the persistence of a hazard existing if it were to.

Equipment suitable for explosive atmospheres will carry an ATEX marking. A guide to and an example of this, as well as how our pump brands fit in to the scale can be found below:



CE mark denotes manufacturers declaration of product compliance to all relevant EU Directives

Specific mark for explosion protection

Equipment Group

Equipment category (Zone)

Defines suitability of use of Group II equipment in Gas and or Dust atmospheres

## CATEGORY M2 MINING

Diaphragm pumps  
 Wilden (metallic)  
 DEPA: M, P and L range  
 SandPIPER: HD & S range



## GAS ZONE 0 DUST ZONE 20

Diaphragm pumps  
 Wilden (metallic)  
 DEPA: M, P and L range  
 SandPIPER: HD & S range



## GAS ZONE 1 DUST ZONE 21

Diaphragm pumps  
 Wilden (metallic)  
 DEPA: M, P and L range  
 SandPIPER: HD & S range



## GAS ZONE 2 DUST ZONE 22

Diaphragm pumps  
 Blagdon  
 Graco  
 Ingersoll Rand / ARO  
 SandPIPER (other metallic and non-metallics)  
 Wilden (XA025P only)





# COPPUS® Portable Ventilators

## Coppus Jectair HP & Hornet HP: HIGH PERFORMANCE HIGH EFFICIENCY AIR MOVERS

- Available in five sizes
- High static pressure capabilities
- Static bonding cable with spring tension grip and replaceable contact tips on all models
- Diffuser material available in steel, aluminium or shock-resistant polymer
- Air flows range from 1,370 to 8,900 cfm (2,328 to 15,121 m<sup>3</sup>/hr)
- Induction ratios up to 40:1
- No moving parts (virtually maintenance free)
- Multiple expansion nozzles machined into housing
- **Intrinsically safe: NO moving parts!**



## WOLF ATEX TURBOLITE

These **ATEX Approved compressed air driven lights** offer 250 watts of halogen power from a super lightweight aluminium construction. Already used extensively in petrochemical, oil and marine industries, **Wolf Airlamps** provide illumination for many applications where traditional light sources are not an option...

Powered, purged and cooled by compressed air alone, the systems contain an internal turbine generating their own AC power.

Turbolite units are CE marked and suitable for use in ATEX zones 1 and 2 (Gas zones 21 and 22, with optional remote exhaust). Available in aluminium or brass construction, with a full range of accessories, including filters, stands and tripods.



## Bespoke Engineering Solutions

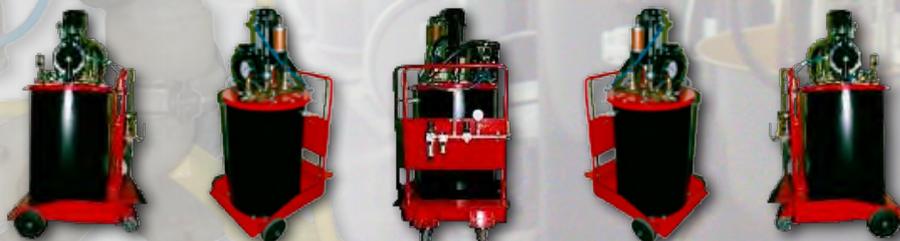
**Bespoke engineering projects specifically tailored to YOUR application:**

Our unique partnership with Ingersoll Rand allows us full access to their research and design teams to find a solution where off-the-shelf options have failed...

Recent ventures have seen projects involving extremely viscous, light-reactive inks, highly customised diaphragm pumps for the energy industry and on going works across transport industries.

## ...and Custom Fabrications

The option of a custom build pump is always on the cards with Air Pumping! Our engineering facilities allow us to fabricate custom-made, and individually designed groundable trolleys, control mounting brackets and manoeuvrability options, obsolete parts and other equipment where required...





The number one automated, variable mix-on-demand system and staple of fleet garages up and down the country since 1982... And to celebrate the 30th successful year, **Air Pumping** launch the redesigned and fully configurable **Varimix VX3** series.

Built around world-class components, combining **Ingersoll Rand** diaphragm pumps with **SMC** pneumatics and our own inhouse engineering pedigree, the **Varimix** is an essential feature in the modern garage. Perfect for mixing anti-freeze, screen wash, coolant, inhibitors and much more, with variable ratios - either calibrated or adjustable on site.

Never has there been an easier way to automatically mix your anti-freeze, or anything else with the **NEW VX3!**

**New features for the VX3:**

- NEW Compact and streamlined cabinet design
- Freestanding, wall mounted or integrated versions
- Available with variable or fixed mix ratios
- Flow rate: from 6 litres per minute right up to 130 litre/min
- More material choices to handle a greater number of fluids
- Digital flow rate and batch counter configurations available
- Colour choice - match the cabinet colour to your brand or product colours\*

***“Often copied but never bettered... until now!”***



## AP AutoDrain Plugs

Take the health and safety issues out of fluid changes with Air Pumping's Drain Plugs:  
**Oil changes made quick, clean & easy...**

Our ADP range offers the complete hands-free fluid change solution. Available in a range of sizes covering all common threads, with compact profile and chained cap options, as well as closed loop system configurations.

- Removes basic health & safety risks associated with handling waste oil
- Economical and environmentally friendly
- Fits ALL engine sumps: just replace the factory-fitted plug
- No more stripped or stretched threads
- **Full closed loop systems:** from sump to waste oil tank with NO human contact!

## PUMP HIRES

Our unique air-operated **double diaphragm pump hire fleet**, gives a solution to all your transfer needs.

All units are fully self-priming and intrinsically safe, many with ATEX 94/9/EC approval. So whether stand-alone or trolley mounted, we keep a massive stock of pumps ready to go the same or next day - with most material options available: from stainless steel to polypropylene, neoprene to teflon, from ½" to 3".

With our hire pumps you have the advantage of a variable flow rate, high head capacities and stall out options for optimum control. The perfect tool for almost any duty!

## PUMP SPARES

With one of the largest stocks of diaphragm pumps and GENUINE spares across the UK, you know you are in trusted hands when you deal with Air Pumping!

All stock is bought direct from the manufacturer - we are authorised distributors for **Ingersoll Rand, Aro, Wilden, Sandpiper, Graco, Blagdon, Depa, Fluidair, Doosan, SMC and Norgren.**

Unlike some distributors we do not sell grey market or imported goods, ALL of our equipment is fully guaranteed, traceable AND warranted around the world by official distribution networks.

We hold a comprehensive stock of air and fluid kits, spares and accessories for a vast majority of pumps.

At Air Pumping we know that not every site can employ a team of dedicated pump engineers - so that's why we offer a full pump repair and maintenance service.

Whether on-site or in our workshops, we can service your pump at the most convenient place for you.

For our workshop we offer a full courier service: send your pump to us and we'll report basic costs and full parts breakdown, for any pump, any size... We aim for a turnaround of three days from receipt to return.

We offer one-off service calls, seasonal check-overs and yearly maintenance contracts at highly competitive prices.

Call or email us for more information on this service.



0208 552 1172

0208 470 4617

sales@airpumping.co.uk

# Air Pumping Online

Make sure you check out our website [www.airpumping.co.uk](http://www.airpumping.co.uk) for more information on all our products, the latest news in the pumping world, technical documents and user manuals, video demonstrations, and some exclusive online deals!

Whilst you're online why not stop by our new Diaphragm Pump and Hire Pump Shops:

## SHOP ONLINE AT OUR DIAPHRAGM PUMP SHOP

With all our great brands at low prices, full details and pictures for all products - pumps, parts, spares, kits and packages - you can buy all you need with the click of a mouse!

If you're looking for first-rate deals or just want to buy online, take a look at our website today!

[www.diaphragmpumpshop.com](http://www.diaphragmpumpshop.com)



## HIRE PUMPS ONLINE QUICKLY AND EASILY...



From 1/2" to 3" our air operated pump fleet can handle it all... and now our online hire shop lets you browse our entire fleet with full specifications, making it even easier to pick the pump you need!

So for trial equipment, a demonstration or a difficult one-off job - find us at [pumphireshop.com](http://pumphireshop.com)

[www.pumphireshop.com](http://www.pumphireshop.com)

**ARO**

**WILDEN**  
Pneumatic Diaphragm Pumps



**SandPIPER**

**BLAGDON PUMP**

**IR Ingersoll Rand**

**DEPA**

**SMC**

**NORGREN**

**DOOSAN**

**FLUIDAIR**  
INTERNATIONAL

**COPPUS**  
Portable Ventilators

**Euramco Safety Worldwide**

**VARIMIX**

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