

wright flow

TECHNOLOGIES

DOMINATOR

COMPRESSED AIR DRIVEN
HYGIENIC DIAPHRAGM PUMPS



Typical Applications

Food & Beverage, Pharma (Powders & Liquids)
Personal Care, Chemical & Industrial

This series of Dominator pumps is manufactured in Sweden and has been designed to meet the strict hygienic requirements of the food and pharmaceutical industry. The inlet and outlet pipes are equipped with clamp bands and wing nuts for rapid disassembly, cleaning and reassembly.

All wetted parts are in polished stainless steel AISI 316 and the non-wetted parts in chem-nickled aluminum. Diaphragms and valve balls are available in various materials.

The pumps are equipped with dairy connections according to SMS, DIN or Tri-clover; except for the smallest pump which has 1/2" male threads or Tri-clover.

The pumps can be sterilised by autoclave or "CIP"-cleaned up to +130°C, providing that they are equipped with suitable diaphragms and valve balls.

The discharge capacity is proportional to the stroking speed and can be infinitely varied from 0–100% by regulating the compressed air supply with a pressure regulator, or with a valve on the discharge pipe.

The pumps are equipped with our patented air valve system. With this unique valve there is no risk that the valve will stall and cause production break-down.

Technical Information

Specification Of Materials And Engineering Data

| MATERIAL | |
|------------------------------------|------|
| PUMP HOUSING | CODE |
| Polished Stainless Steel SS2343 | S |
| DIAPHRAGMS | |
| Buna-N/NBR | N |
| EPDM | E |
| FKM | V |
| PTFE-coated NBR | B |
| PTFE, solid | T |
| VALVE BALLS | |
| Buna-N/NBR | N |
| EPDM | E |
| FKM | V |
| PTFE | T |

| SPECIFICATION | | | |
|---------------------------------|------|------|------|
| PUMP TYPE | P18S | P38S | P48S |
| Size | 1/2" | 1" | 2" |
| Capacity l/min | 20 | 100 | 300 |
| Working pressure max. bar | 10 | 10 | 10 |
| Temperature max. °C | 100 | 100 | 100 |
| Material connection mm | 14 | 25 | 51 |
| Air connection threaded, female | 1/4" | 1/4" | 1/2" |
| Particle size, max. mm | 3 | 7 | 12 |

| DIMENSION AND WEIGHT | | | | |
|----------------------|----|-----|-----|-----|
| Length | mm | 240 | 330 | 515 |
| Width | mm | 145 | 195 | 360 |
| Height | mm | 305 | 450 | 775 |
| Weight | kg | 7 | 14 | 32 |

Capacity and air consumption, please refer to enclosed data sheet.

For pumps type P38 and P48 fitted with PTFE diaphragms, reduce water discharge figures by 15%.

- NOTE: - Max temperature may, a short time, during cleaning phase reach +130°C, providing that the pump is equipped with diaphragms and valve balls in EPDM.
- These pump types are also available with two inlets and two outlets, type T, e.g. T18-SBT.

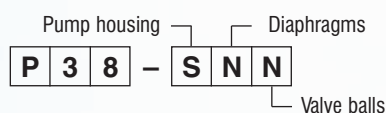
Applications

- Jam
- Fruit juice
- Sauces
- Mustard
- Alcohol
- Blood
- etc
- Tomato paste
- Cheese curd
- Cooking oils
- Chocolate
- Powders

Features

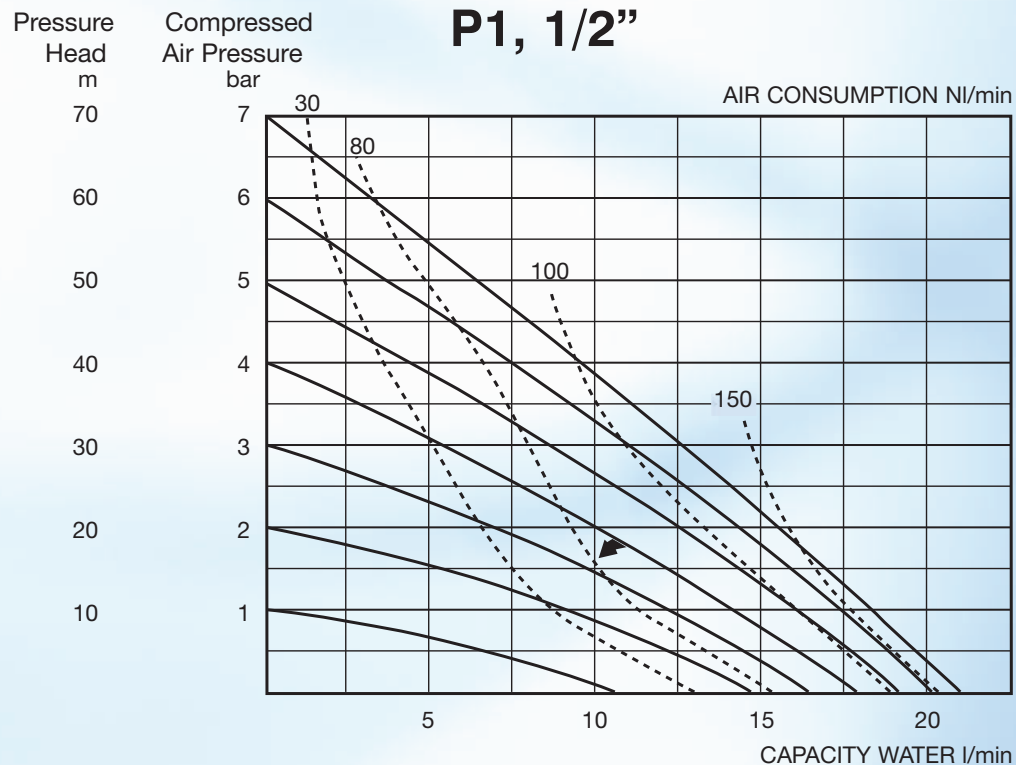
- Self-priming
- Leakproof
- Runs dry indefinitely
- Automatic shut-off during discharge blockage
- Suitable for abrasive liquids
- Gentle treatment of the pumped material
- Suitable for high viscosity materials
- Automatic flow control
- Explosion resistant

How To Choose Correct Pump Code



Performance Curves

PUMPS SERIES P



How To Read The Curves

Example: The duty required is 10 l/min and the system pressure differential is 15 m (1,5 bar).

Step 1: Plot the duty point, locate 10 l/min on the bottom line and rise vertically to where it crosses the horizontal 15 metre line (1,5 bar). This is the duty point.

Step 2: The air pressure required can be obtained from the black continuous line which goes from left and drop to the right hand bottom line. Air pressure required is 3 bar.

Step 3: The air consumption figure can be read of the broken line which falls from top to bottom. Air consumption is 80 NI/min.

For 10 l/min at 1,5 bar we require 3 bar pressure and 80 NI/min of compressed air.

Conversion Table

Volume

| | | | | |
|----------------|----------|---------------|----------|------------------|
| Litre | x 0,222 | = Imp. gallon | x 4,55 | = litre |
| Litre | x 0,264 | = US gallon | x 3,79 | = litre |
| Litre | x 0,0353 | = cu.ft. | x 28,33 | = litre |
| m ³ | x 35,3 | = cu.ft. | x 0,0283 | = m ³ |
| NI/min | x 0,0353 | = cfm | x 28,33 | = NI/min |

Pressure

| | | | | |
|-----|--------|-------|---------|-------|
| bar | x 14,9 | = psi | x 0,067 | = bar |
|-----|--------|-------|---------|-------|

Pressure head

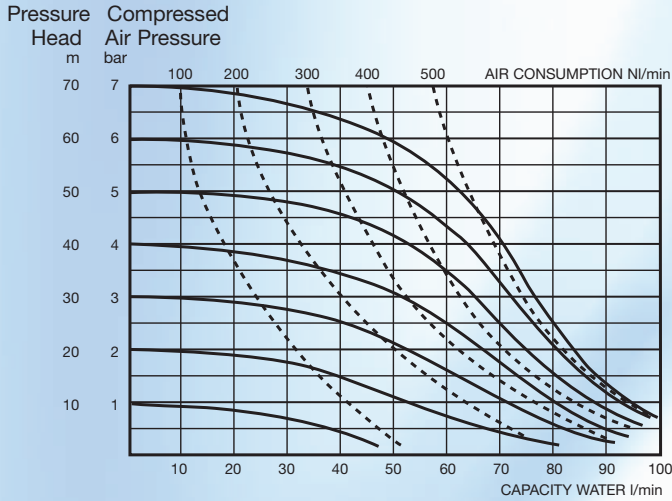
| | | | | |
|-------|--------|------|---------|---------|
| Metre | x 3,28 | = ft | x 0,305 | = metre |
|-------|--------|------|---------|---------|

These curves have been plotted from the results of numerous tests performed under stringent conditions with water as the test medium and aluminium pumps with buna-N diaphragms and ball valves as the test pumps. These curves can only relate to installations under similar conditions, but as this never occurs we must take into consideration several factors which will effect pump performance. These factors include product viscosity,

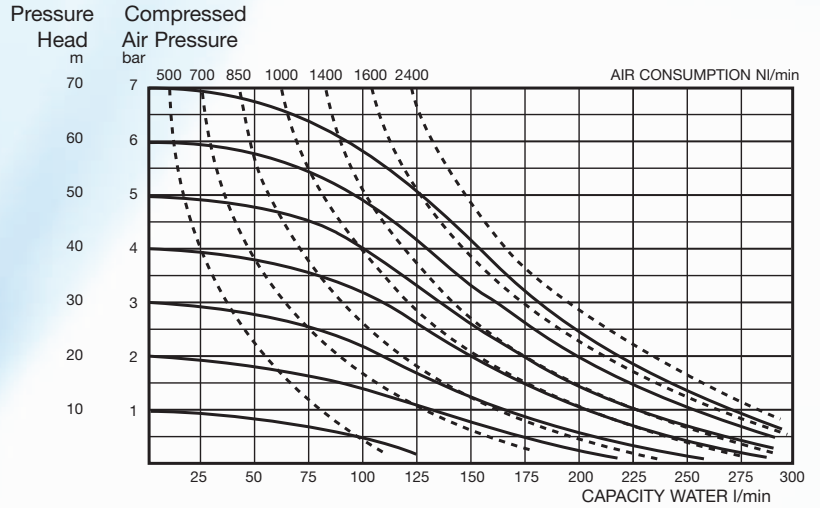
specific gravity, suction and discharge conditions, temperature, the products tendency to adhere to the pump housing etc. Please ask for assistance and advice so we can supply the most suitable pump for your application.

Please note that when a pump is fitted with PTFE diaphragms, a capacity reduction of up to 15% may occur.

P3, 1"



P4, 2"



The company reserves the right to change specifications in this publication without notice.

Wright Flow Technologies

Our products are used across the whole of the process industries in applications as diverse as paper & pulp production through to the extreme Sanitary/Hygiene end of the pharmaceutical industry on injectables and blood processing. We manufacture within our organisation rotary lobe, centrifugal, circumferential piston, air operated double diaphragm and dosing pumps, all manufactured and designed with hygiene, cleanliness, affordability and robustness in mind. These pumps coupled with our range of hygienic turbine and magnetic flow meters, our full range of sanitary valves and our powder mixing technology from Quadro, gives a complete package for the modern high-tech process industries of today.

For more information, contact your local authorized Wright Flow Technologies Distributor or contact us at:



Wright Flow Technologies, Inc.

S84 W18693 Enterprise Drive
Muskego, WI 53150
Phone: (262) 679-8000
Fax: (262) 679-2026
Email: info.wright@idexcorp.com

Wright Flow Technologies Ltd.

Highfield Industrial Estate,
Edison Road Eastbourne
East Sussex, United Kingdom, BN23 6PT
Phone: +44 1323 509211 Fax: +44 1323 507306
E-mail: jinfo@idexcorp.com

Visit us online at:

www.wrightflowtechnologies.com
www.johnsonpump.com
www.wrightpump.com

ASIA-PACIFIC

| | | | |
|-------------|-----------|------------------------------|-----------------------|
| China | Beijing | - Phone: +86-10-6522-7567/27 | Fax: +86-10-6522-7563 |
| | Chengdu | - Phone: +86-28-86767458 | Fax: +86-28-86767468 |
| | Guangzhou | - Phone: +86-20-3886-6156 | Fax: +86-20-3886-2776 |
| | Shanghai | - Phone: +86-21-5241 5599 | Fax: +86-21-5241 8339 |
| South Asia | India | - Phone: +91-22-6678-0048/53 | Fax: +91-22-6678-0055 |
| ASEAN | Singapore | - Phone: +65-6763-6633 | Fax: +65-6764-4020 |
| Middle East | Dubai | - Phone: +971-4-225-7978 | Fax: +971-4-225-9796 |
| Oceania | | - Phone: +91-22-6678-0048/53 | Fax: +91-22-6678-0055 |



LATIN AMERICA

| | | | |
|----------------------------|--|----------------------------|------------------------|
| Brazil | | - Phone: +55-19-3871-3500 | Fax: +55-19-3871-6400 |
| Caribbean | | - Phone: +1 (305) 740-3365 | Fax: +1 (305) 740-3372 |
| Cono Norte/Central America | | - Phone: +57 1 648 2761 | Fax: +57 1 274 3453 |
| Cono Sur | | - Phone: +1 (803) 234-3004 | Fax: +1 (803) 216-7670 |
| Mexico | | - Phone: +52 55 5255-1357 | Fax: +52 55 5255-1356 |