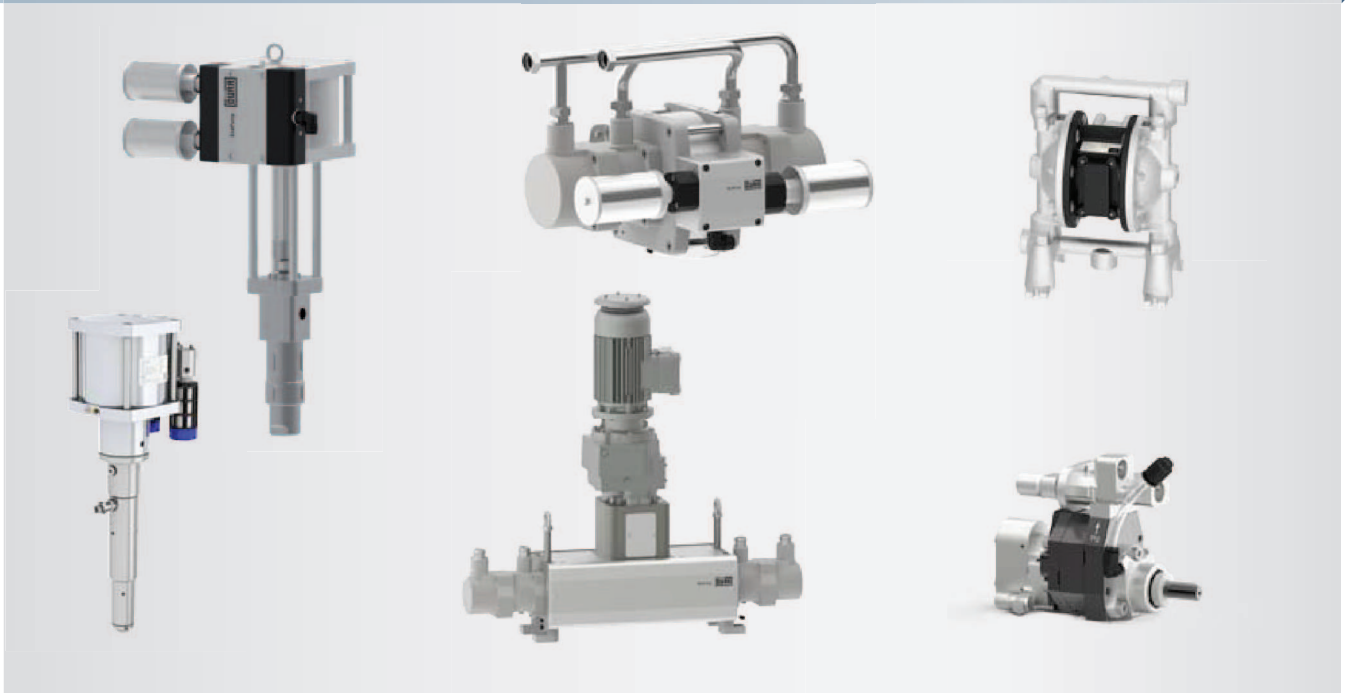


Pumps

Pump solutions for any kind of application



Product Families

- » **EcoPump VP** – Air operated vertical piston pumps
- » **EcoPump HP** – Air operated horizontal piston pumps
- » **EcoPump HPE** – Electrical driven horizontal piston pumps
- » **EcoPump GW** – Gear wheel dosing pumps
- » **EcoPump AD** – Air operated diaphragm pumps
- » **EcoPump packages** – ready to spray kits

EcoPump VP

Air operated vertical piston pumps

Description

The **EcoPump VP** is a pneumatically driven vertical piston pump for medium and high-pressure applications. Proven design and long term durability make these pumps a perfect choice for small and middle applications of paint, mastics and adhesives to furniture, steel structures or

walls, car bodies and other objects. The **EcoPump VP** is suitable for airless or air-assisted application and is available in numerous configurations with various air inlet modules, pressure relief valves, trolleys and adjacent devices.

Product Line



Type	EcoPump VP 55 200	EcoPump VP 55 310	EcoPump VP 55 445	EcoPump VP 90 280
Part No.	N24170005	N24170006	N24170007	N24170008
Weight	13.1 kg	14.8 kg	17.0 kg	18.7 kg
Connector inlet / outlet	M30 / M16×1.5	M30 / M16×1.5	M30 / M16×1.5	M30 / M16×1.5
Connector air	G 3/8"	G 1/2"	G 1/2"	G 1/2"
Displacement	55 cc/cycle	55 cc/cycle	55 cc/cycle	90 cc/cycle
Ratio	25:1	39:1	64:1	40:1
Max. pressure	200 bar (2.900 psi)	310 bar (4.490 psi)	445 bar (6.450 psi)	280 bar (4.060 psi)
Flow rate @ rec. cycles	2.8 l/min (0.74 gal/m)	2.8 l/min (0.74 gal/m)	2.8 l/min (0.74 gal/m)	4.5 l/min (1.19 gal/m)
Recommended cycles*	30 cyc/min	30 cyc/min	25 cyc/min	25 cyc/min
Air Pressure max.	8 bar (116 psi)	8 bar (116 psi)	7 bar (101 psi)	7 bar (101 psi)

* cycles for continuous operation and partial load



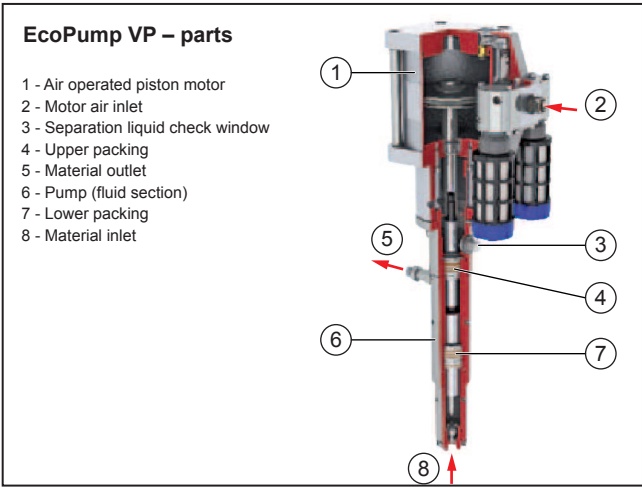
Type	EcoPump VP 110 225	EcoPump VP 250 360	EcoPump VP 1000 90	EcoPump VP 1000 135
Part No.	N24170009	N24170014	N24170013	N24170012
Weight	18.7 kg	81.5 kg	113.0 kg	124.5 kg
Connector inlet / outlet	M30 / M16×1.5	G 1 1/2" / G 1"	G 2" / G 1 1/2"	G 2" / G 1 1/2"
Connector air	G 1/2"	G 3/4"	G 3/4"	G 3/4"
Displacement	110 cc/cycle	250 cc/cycle	1000 cc/cycle	1000 cc/cycle
Ratio	32:1	60:1	15:1	23:1
Max. pressure	225 bar (3.260 psi)	330 bar (4.786 psi)	80 bar (1,160 psi)	120 bar (1,740 psi)
Flow rate @ rec. cycles	5.5 l/min (1.45 gal/m)	2.50 l/min (0.66 gal/m)	10.00 l/min (2.6 gal/m)	10.00 l/min (2.6 gal/m)
Recommended cycles *	25 cyc/min	10 cyc./min	10 cyc./min	10 cyc./min
Air Pressure max.	7 bar (101 psi)	6 bar (87 psi)	6 bar (87 psi)	6 bar (87 psi)

* cycles for continuous operation and partial load

EcoPump VP

Air operated vertical piston pumps

Technical Illustration

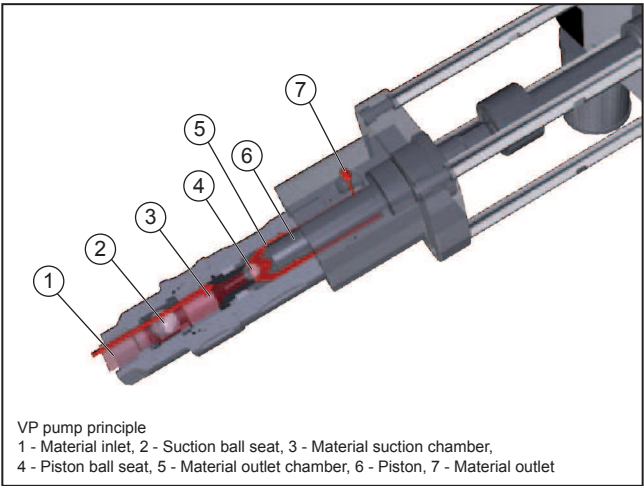


Customer Benefits

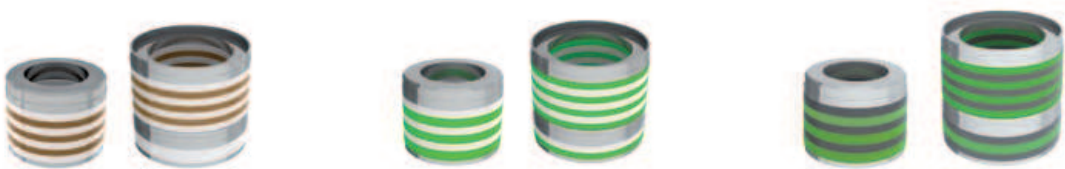
- » Balanced pressure variations
- » Wide range of accessories available
- » Tip cleaning aid (optional part of air inlet)
- » Material supplying parts in stainless steel
- » Suitable for airless and air assisted applications
- » Modular design
- » ATEX Ex II 2G IIA T6

Functional principle

A piston is moving back and forth within a chamber sucking a paint from a supply line and pumping it into a paint line. In both cases the change-over from sucking to pumping is controlled by a 5/2 valve. Piston pumps can be either designed vertically or horizontally. Vertical pumps work against / with gravity. Horizontal pumps do not have this limitation.



VP pump packings



Packing type	Standard	UF	UE
Usage	Standard paints or other materials	2K media (mixed resin and catalyst).	Abrasive materials like zinc or aluminum paints.
Pumps	EcoPump VP 55 200 (N24170005) EcoPump VP 55 310 (N24170006) EcoPump VP 55 445 (N24170007) EcoPump VP 90 280 (N24170008) EcoPump VP 110 225 (N24170009)	EcoPump VP 55 200 UF (N24170015) EcoPump VP 55 310 UF (N24170017) EcoPump VP 55 445 UF (N24170019) EcoPump VP 90 280 UF (N24170021) EcoPump VP 110 225 UF (N24170022)	EcoPump VP 55 200 UE (N24170016) EcoPump VP 55 310 UE (N24170018) EcoPump VP 55 445 UE (N24170020)

EcoPump HP

Air operated horizontal piston pumps

Description

The **EcoPump HP** is an air-driven horizontal piston pump. It has been manufactured and tested according to Dürr's well-proven quality standards. Performance and durability are further distinguishing characteristics in order to meet the highest demands. With a concealed shaft seal this **EcoPump HP** is primarily designed for paint circulation systems as well as fluid transfer and

supply. A horizontal two piston design guarantees equal thrust on both strokes and a rapid pump change-over with a quick release valve for reduced surge. Its modular design enables easy maintenance. Typically handled fluids are water and solvent borne paints, varnishes, enamels and lacquers.

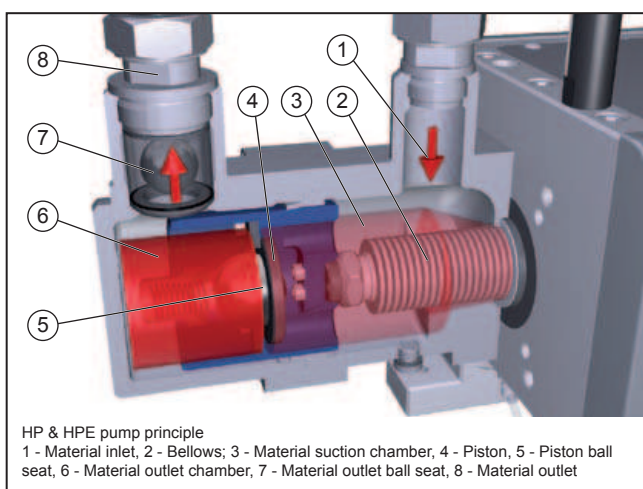
Product Line



Type	EcoPump HP 400 21	EcoPump HP 800 21	EcoPump HP 1600 21
Part No.	N24160001	N24160002	N24160003
Weight	45.0 kg	62.0 kg	94.0 kg
Connector inlet / outlet	EcoTube DN25 / EcoTube DN25 *	EcoTube DN25 / EcoTube DN25 *	EcoTube DN25 / EcoTube DN25 *
Connector air	G 3/8"	G 3/8"	G 3/8"
Displacement	400 cc/cycle	800 cc/cycle	1600 cc/cycle
Ratio	3.5:1	3.5:1	3.5:1
Max. pressure	21 bar (305 psi)	21 bar (305 psi)	21 bar (305 psi)
Flow rate @ rec. cycles	8 l/min (2.1 gal/m)	16 l/min (4.2 gal/m)	32 l/min (8.5 gal/m)
Recommended cycles	20 cyc/min **	20 cyc/min **	20 cyc/min **
Air Pressure max.	6 bar (87 psi)	6 bar (87 psi)	6 bar (87 psi)

* sanitary type fluid ports are available as an option ** cycles for continuous operation and partial load

Technical Illustration



Customer Benefits

- » Balanced pressure variations
- » Stainless steel fluid section
- » Tested according to DIN EN 12162 and well-proven Dürr quality standards
- » Low ice change-over by thermal isolation of the muffler and optimized air flow
- » Four-ball design
- » No exposed shaft seal
- » Lubricant free
- » Horizontal two-piston design guarantees equal thrust on both strokes
- » Rapid pump change-over with quick release valve for reduced surge
- » Modular pump design, easy to maintain
- » Wide range of accessories available

EcoPump HPE

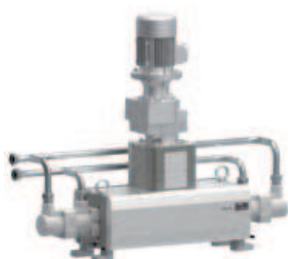
Electrical operated horizontal piston pumps

Description

The **EcoPump HPE** is a horizontal piston pump with an electric drive to achieve superior performance with lower operating costs. It has been manufactured according to Dürr's well-proven quality standards. Durability and reliability are further distinguishing characteristics in order to meet the highest of demands. The **EcoPump HPE** has been designed primarily for paint circulation as well as fluid transfer and supply. With a concealed shaft seal the **EcoPump HPE** is primarily designed for paint

circulation systems as well as fluid transfer and supply. A horizontal two piston design guarantees equal thrust on both strokes and a rapid pump change-over with a quick release valve for reduced surge. Its modular design enables easy maintenance. Typically handled fluids include water and solvent borne paints, varnishes, enamels and lacquers. The **EcoPump HPE** has been tested according to DIN EN 12162

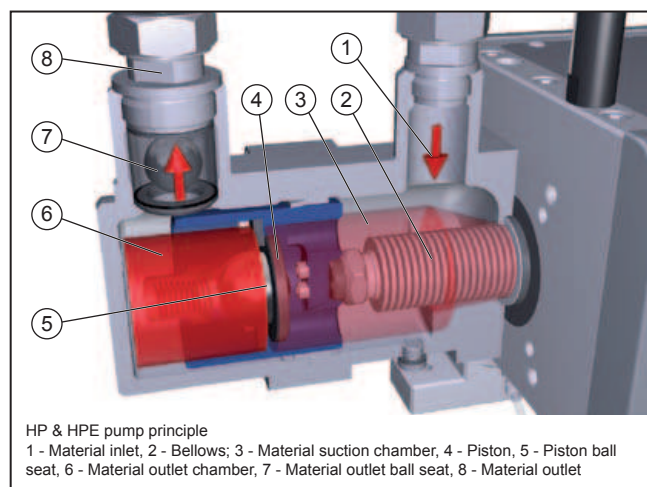
Product Line



Type	EcoPump HPE 400 21	EcoPump HPE 800 21
Part No.	N24260002	N24260003
Weight	158 kg	188 kg
Connector inlet / outlet	EcoTube DN25 / EcoTube DN25 *	EcoTube DN25 / EcoTube DN25 *
Displacement	400 cc/cycle	800 cc/cycle
Parts contacted by media	Stainless steel	Stainless steel
Max. pressure	21 bar (305 psi)	21 bar (305 psi)
Flow rate @ rec. cycles	8 l/min (2.1 gal/m) **	16 l/min (4.2 gal/m) **
Rated Power	0.75 kW	1.50 kW

* sanitary type fluid ports are available as an option ** cycles for continuous operation and partial load

Technical Illustration



Customer Benefits

- » Tested according to DIN EN 12162 and well-proven
- » Dürr quality standards
- » Electrical drive provides superior performance with lower operating costs
- » Stainless steel fluid sections
- » Four-ball design
- » No exposed shaft seal
- » Lubricant free
- » Horizontal two-piston design guarantees equal thrust on both strokes
- » Modular pump design, easy to maintain
- » ATEX Ex II 2G IIA T4

EcoPump AD

Air operated diaphragm pumps

Description

A wide choice of manufacturing materials for the pump housing makes the **EcoPump AD** the best solution for different kinds of fluid handling such as abrasive and particle containing fluids. The typical field of application of the **EcoPump AD** is to handle oil, water, waste liquids

with and without solid particle debris, water and solvent borne paints, varnishes, enamels and lacquers. The **EcoPump AD** pump will operate in circulation or direct fluid delivery mode. The simple design of **EcoPump AD** allows easy maintenance and service.

Product Line



Type	EcoPump AD 600 8.3 SST PTFE 1"	EcoPump AD 72 8.3 Ace PTFE 1/4"	EcoPump AD 83 6.9 Ace PTFE 3/8"	EcoPump AD 150 6.9 SST PTFE 1/2"
Part No.	N24140004	N24140005	N24140006	N24140007
Weight	16.3 kg	1.6 kg	1.9 kg	6.6 kg
Connector inlet / outlet	1" BSP / 1" BSP	1/4" BSP / 1/4" BSP	3/8" BSP / 3/8" BSP	1/2" BSP / 1/2" BSP
Connector air	1/4" NPT	1/4" NPT	1/4" NPT	1/4" NPT
Displacement	600 cc/cycle	72 cc/cycle	83 cc/cycle	150 cc/cycle
Ratio	1:1	1:1	1:1	1:1
Max. pressure	8.3 bar (120 psi)	8.6 bar (125 psi)	6.9 bar (100 psi)	6.9 bar (100 psi)
Flow rate	133 l/min (35.1 gal/min)	20 l/min (5.3 gal/min)	40 l/min (10.6 gal/min)	49 l/min (12.9 gal/min)
Parts contacted by media	Stainless steel, PTFE	Acetal, PTFE	Acetal, PTFE	Stainless steel, PTFE



Type	EcoPump AD 150 6.9 Acetal/Teflon 1/2"	EcoPump AD 150 6.9 Al PTFE/Teflon 1/2"	EcoPump AD 600 8.3 Al PTFE/Teflon 1"	EcoPump AD 2420 8.3 SST PTFE/Tefl 1 1/2"
Part No.	N24140008	N24140009	N24140010	N24140011
Weight	4.0 kg	3.8 kg	8.6 kg	38.3 kg
Connector inlet / outlet	1/2" BSP / 1/2" BSP	1/2" BSP / 1/2" BSP	1" BSP / 1" BSP	1 1/2" BSP / 1 1/2" BSP
Connector air	1/4" NPT	1/4" NPT	1/4" NPT	1/2" NPT
Displacement	150 cc/cycle	150 cc/cycle	600 cc/cycle	2420 cc/cycle
Ratio	1:1	1:1	1:1	1:1
Max. pressure	6.9 bar (100 psi)	6.9 bar (100 psi)	8.3 bar (120 psi)	8.3 bar (120 psi)
Flow rate	49 l/min (12.9 gal/min)	49 l/min (12.9 gal/min)	133 l/min (35.1 gal/min)	340 l/min (89.8 gal/min)
Parts contacted by media	Acetal, PTFE	Stainless steel, Al, PTFE	Stainless steel, Al, PTFE	Stainless steel, PTFE

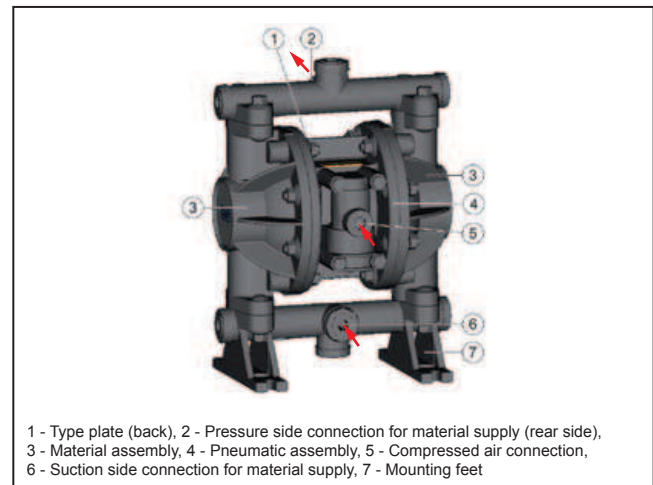
EcoPump AD

Air operated diaphragm pumps

Customer Benefits

- » Selected choice of materials for housing
- » Easy maintenance and service
- » Highly flushable
- » Suitable for abrasive fluids and media containing solids

Technical Illustration



EcoPump9 GW 20

Gear wheel pump

Description

The **EcoPump9 GW** is a highly efficient gearwheel pump, cavity-free in a compact configuration, achieving a perfect color change with a very low purging time. It has been manufactured and tested in compliance with to Dürr's well-proven quality standards. Based on decades

of experience in the area of paint application, the **EcoPump9 GW** has emerged as the perfect device for 1K and 2K dosing of water and solvent based paint.

Product Line



Type	EcoPump9 GW 20 3.0 Bypass SHV	EcoPump9 GW 20 4.5 Bypass SHV	EcoPump9 GW 20 1.0
Part No.	N24190001	N24190002	N24190003
Flow per Revolution	3,00 cm ³	4,50 cm ³	1,00 cm ³
Speed min./max.	20/200 rpm	20/200 rpm	20/200 rpm
Connector inlet / outlet	Dürr Paint Fitting	Dürr Paint Fitting	Dürr Paint Fitting
Max. pressure	20 bar (290 psi)	20 bar (290 psi)	20 bar (290 psi)
Dosing Accuracy (+/-)	2,0 %	2,0 %	2,5 %
Bypass	Yes	Yes	None
Overpressure valve	Yes	Yes	None
Pressure gage	None	None	Yes
DLC coating	Yes	Yes	None

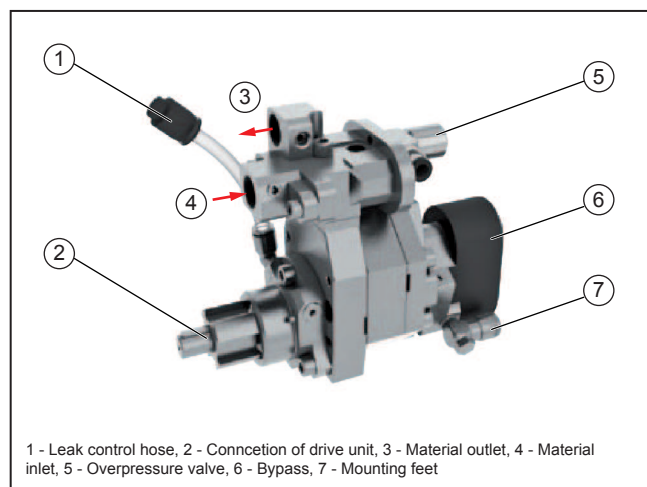


Type	EcoPump9 GW 20 2.0	EcoPump9 GW 20 4.5 SHV	EcoPump9 GW 20 0,45
Part No.	N24190004	N24190005	N24190006
Flow per Revolution	2,00 cm ³	4,50 cm ³	0,45 cm ³
Speed min./max.	20/200 rpm	20/200 rpm	20/200 rpm
Connector inlet / outlet	Dürr Paint Fitting	Dürr Paint Fitting	Dürr Paint Fitting
Max. pressure	20 bar (290 psi)	20 bar (290 psi)	20 bar (290 psi)
Dosing Accuracy (+/-)	2,5 %	2,0 %	3,0 %
Bypass	None	None	None
Overpressure valve	None	Yes	None
Pressure gage	Yes	None	Yes
DLC coating	None	Yes	None

EcoPump9 GW 20

Gear wheel pump

Technical Illustration



Customer Benefits

- » Low instalation space required due to small footprint
- » Minimal purging time
- » Targeted purging of the shafts and bearing bore by patented wash-up system
- » Fast pre-paint bypass valve (with purgable pump)
- » High stability due to patented construction
- » Usage of hardened stainless steel with DLC coating to reduce friction and abrasion
- » Modular pump concept
- » Quick disassembly of paint hoses
- » Large operating range
- » Simplified service & maintenance
- » Tested according to Dürr quality standards

Accessory - Gear Wheel pumps



Type	Metering unit GW 20 w/o drive EC	Metering unit GW 20 w/o drive IC	Digital servomotor 0,8Nm 9000rpm	Digital servomotor 0,8Nm 9000U 2G	Digital servomotor 0,8Nm 9000U UL
Part No.	N10190001	N10190002	N23150057	N23150066	N23150067
Compatible pumps	all GW pumps	all GW pumps	all GW pumps	all GW pumps	all GW pumps
Description	Nonisolated transmission unit to connect servomotor with gear wheel pump. Suitable for external charge installations.	Isolated transmission unit to connect servomotor with gear wheel pump. Suitable for direct charge installations	Servomotor for actuation of gear wheel pumps.	Servomotor for actuation of gear wheel pumps. Ex certification.	Servomotor for actuation of gear wheel pumps. US certification.



Type	Elbow screw con. cpl. 4x6 D3,3 90°	Elbow screw con. cpl. 6x9 D5 90°	Insertion nipple cpl. 6x9 L26,9	Insertion nipple cpl. 4x6 L24
Part No.	M57030038	M57030039	M58030134	M58030136
Compatible pumps	all GW pumps	all GW pumps	all GW pumps	all GW pumps
Description	Elbow connector for 4/6 material hoses.	Elbow connector for 6/9 material hoses.	Direct connector for 6/9 material hoses.	Direct connector for 4/6 material hoses.

EcoPump Packages

Ready to use painting devices

Description

The pump packages are fully assembled portable coating module that is ready to use. The modular design ensures a use in multiple industry including wood finishing and exterior painting. There is equipment for high-pressure coating based on **EcoPump VP** pumps and low pressure coating devices which use a line of diaphragm pumps

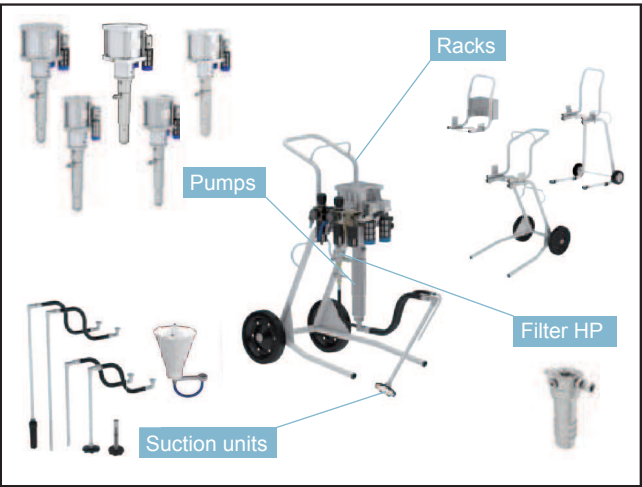
EcoPump AD pumps. Variability is ensure by wide configuration options where the selection is made between different assembly modules like carriage, suction type or optional accessory to extend user's comfort.

Product Line



Type	EcoPump AD - package	EcoPump VP - package
Part No.	N92120001V	N92110001V
Weight	19.0 - 37.0 kg	16.0 - 45.0 kg
Pressure category	Low pressure	High pressure
No. of pumps	5 types	5 types
Suction units	Direct / Hose / Hopper 5L	Direct / Hose / Hopper 5L
Racks	Trolley / Mobile stand / Wall mount	Trolley / Mobile stand / Wall mount

Technical Illustration



Customer Benefits

- » Modular design to bring great versatility
- » Low pressure or high pressure variant
- » Filtration on inlet and outlet (optional)
- » Flow regulator (optional for AD pumps only)
- » Electronic control unit (optional for VP pumps only)
- » Wide range of accessories

EcoPump VP package

Modules overview

1 Pneumatic motor & Pumps

Pump is delivered in different ratios and displacement volume.

2 Maintenance units

Used for inlet air regulation. Units are attached according to motor type and application method used (Airless, Air Assist).



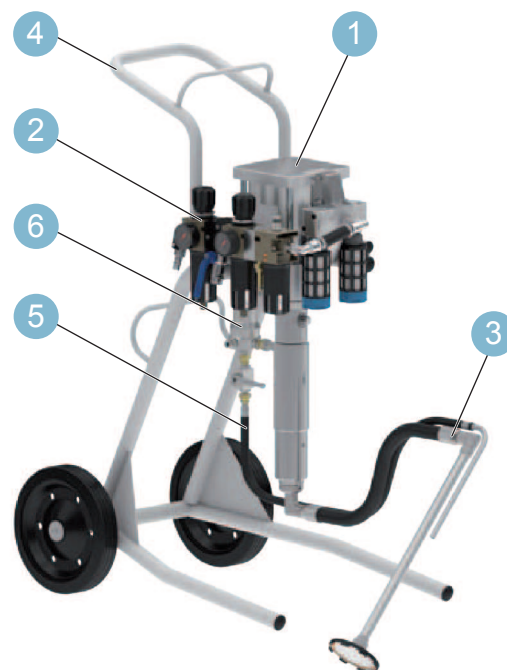
3 Material feeding

- » Direct Suction
- » Flexible Suction
- » Hopper (5 liters)



4 Racks

- » Trolley
- » Mobile Stand
- » Wall Mount



5 Pressure release units

Used for safe release of pressure from fluid section. There are different variants depending on package configuration.

6 High pressure filter

High-pressure filter is used for filtration of fluid on pump outlet. It has also a function of pulse dumper.



Pumps available



Type	EcoPump VP 55 200	EcoPump VP 55 310	EcoPump VP 55 445	EcoPump VP 90 280	EcoPump VP 110 225
Part No.	N24170005	N24170006	N24170007	N24170008	N24170009
Weight	13.1 kg	14.8 kg	17.0 kg	18.7 kg	18.7 kg
Displacement	55 cc/cycle	55 cc/cycle	55 cc/cycle	90 cc/cycle	110 cc/cycle
Ratio	1:25	1:39	1:64	1:40	1:32
Max. pressure	200 bar (2,900 psi)	310 bar (4,490 psi)	445 bar (6,450 psi)	280 bar (4,060 psi)	225 bar (3,260 psi)
Flow rate @ rec. cycles	2.8 l/min (0.74 gal/m)	2.8 l/min (0.74 gal/m)	2.8 l/min (0.74 gal/m)	4.5 l/min (1.19 gal/m)	5.5 l/min (1.45 gal/m)
Recommended cycles*	30 cyc/min	30 cyc/min	25 cyc/min	25 cyc/min	25 cyc/min
Air Pressure max.	8 bar (116 psi)	8 bar (116 psi)	7 bar (101 psi)	7 bar (101 psi)	7 bar (101 psi)

More information on **EcoPump VP** pumps on page no. 39

EcoPump AD package

Modules overview

1 Diaphragm pumps

Air operated diaphragm pumps are available in different design configurations.

2 Maintenance units

Used for inlet air regulation. Regulator can be also used to control air pressure for connected spray gun.

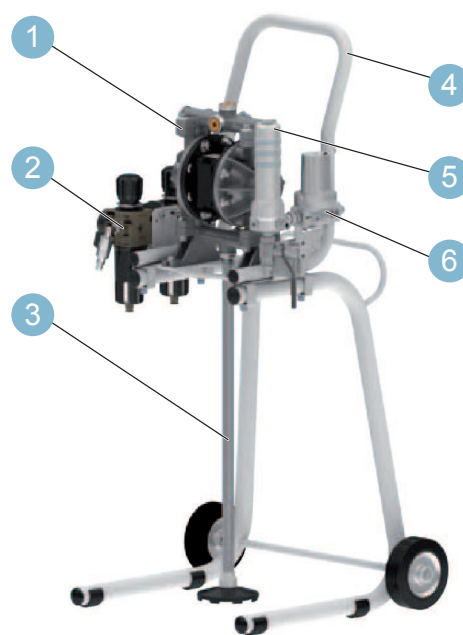
3 Material feeding

- » Direct Suction
- » Flexible Suction
- » Hopper (5 liters)



4 Racks

- » Trolley
- » Mobile Stand
- » Wall Mount



5 High pressure filter

High-pressure filter is used for filtration of fluid on pump outlet. It has also a function of pulse dumper.



6 Fluid regulator

Optional fluid regulator allows precisely adjust outlet material pressure. Optionally can be equipped with manometer.



Pumps available



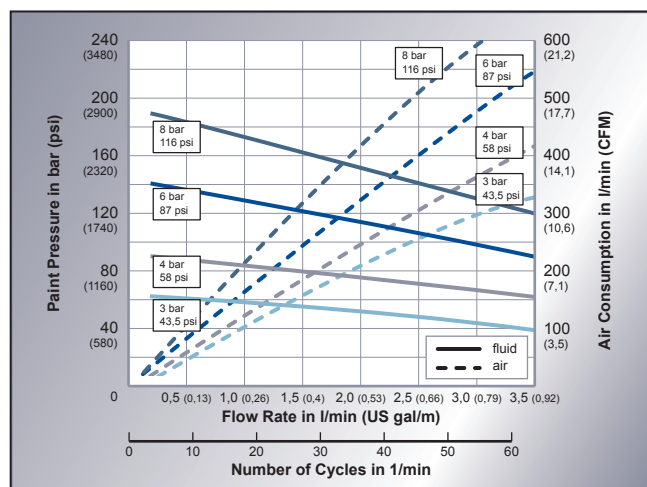
Type	EcoPump AD 72 8,3 Ace PTFE 1/4"	EcoPump AD 83 6,9 Ace PTFE 3/8"	EcoPump AD 150 6,9 SST PTFE 1/2"	EcoPump AD 150 6,9 Acetal/Teflon 1/2"	EcoPump AD 150 6,9 Al PTFE/Teflon 1/2"
Part No.	N24140005	N24140006	N24140007	N24140008	N24140009
Displacement	72 cc/cycle	83 cc/cycle	150 cc/cycle	150 cc/cycle	150 cc/cycle
Max. pressure	8.6 bar (125 psi)	6.9 bar (100 psi)	6.9 bar (100 psi)	6.9 bar (100 psi)	6.9 bar (100 psi)
Flow rate	20 l/min (5,3 gal/min)	40 l/min (10,6 gal/min)	49 l/min (12,9 gal/min)	49 l/min (12,9 gal/min)	49 l/min (12,9 gal/min)
Parts contacted by media	Acetal, PTFE	Acetal, PTFE	Stainless steel, PTFE	Acetal, PTFE	Stainless steel, Al, PTFE

More information on **EcoPump AD** pumps on page no. 43

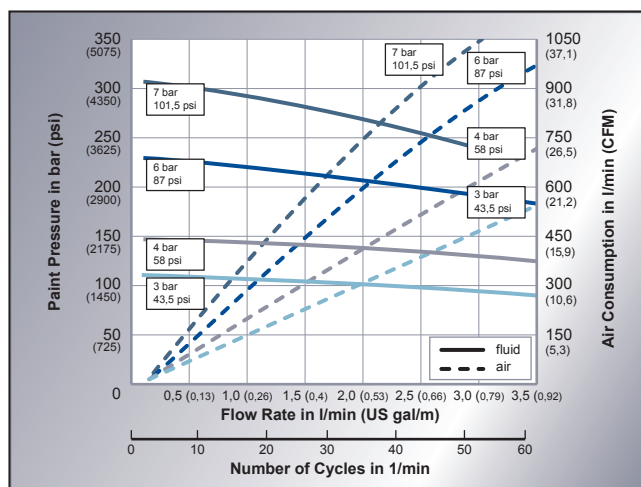
EcoPump Selection Guide

Characteristics overview

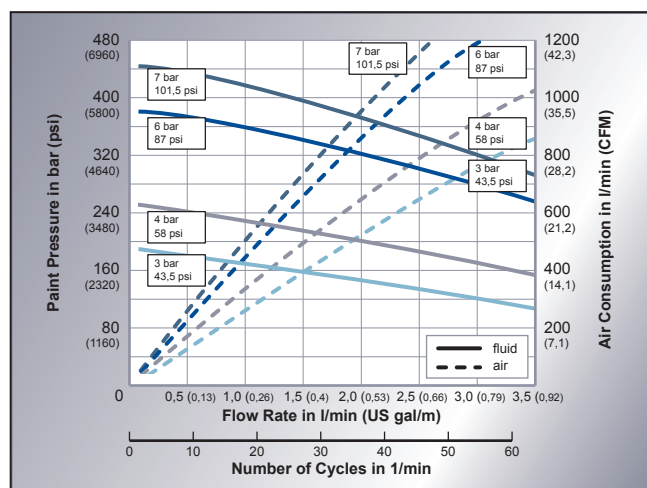
EcoPump VP



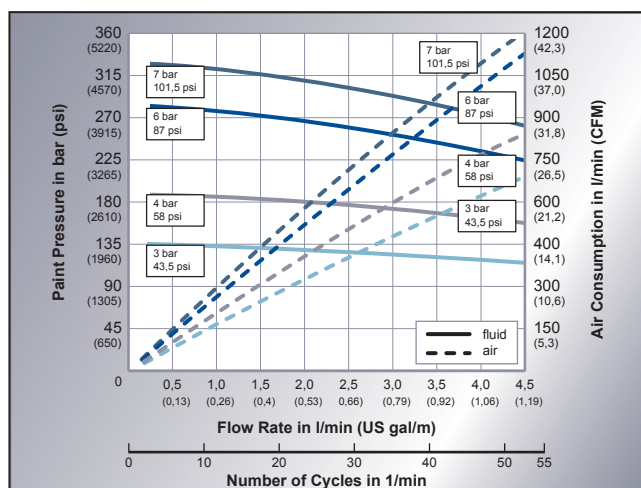
EcoPump VP 55 200 (N24170005)



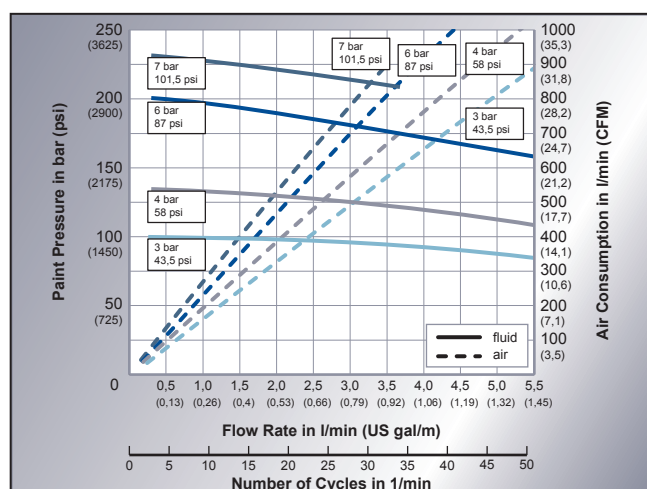
EcoPump VP 55 310 (N24170006)



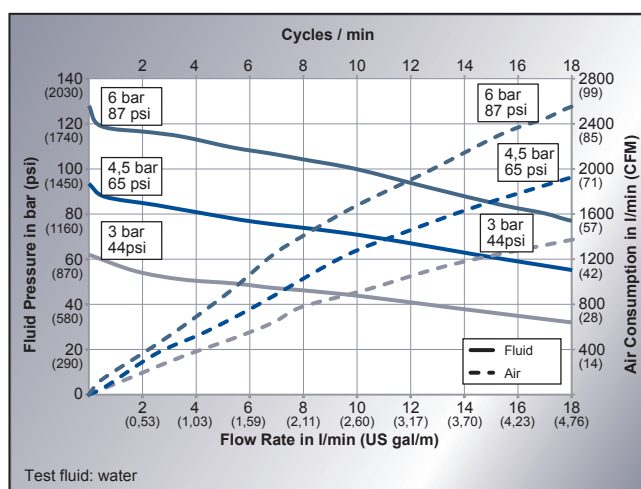
EcoPump VP 55 445 (N24170007)



EcoPump VP 90 280 (N24170008)



EcoPump VP 110 225 (N24170009)

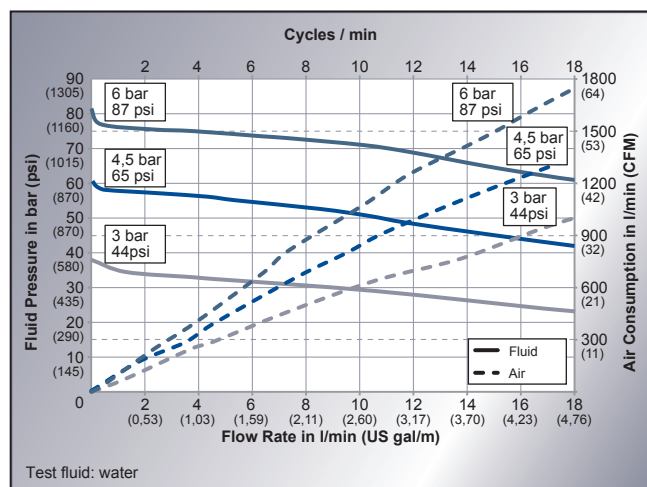


EcoPump VP 1000 135 (N24170012)

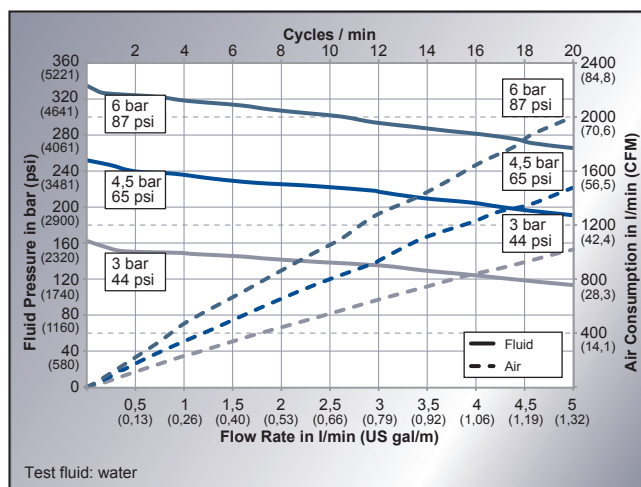
EcoPump Selection Guide

Characteristics overview

EcoPump VP

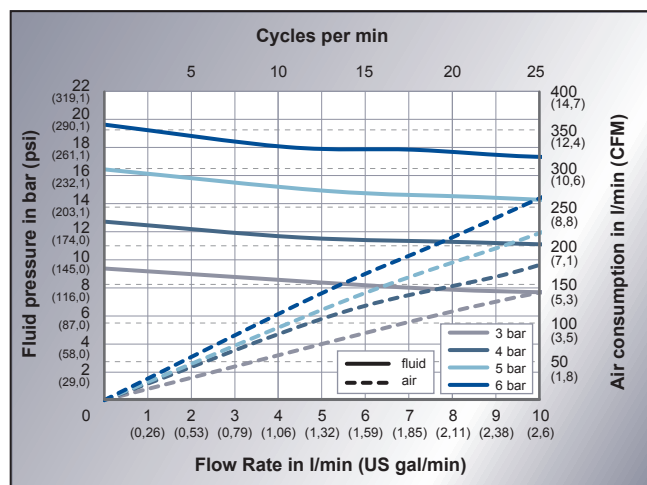


EcoPump VP 1000 90 (N24170013)

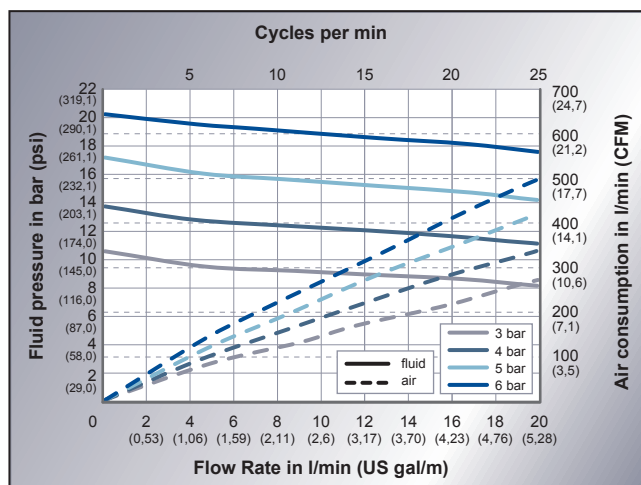


EcoPump VP 250 360 (N24170014)

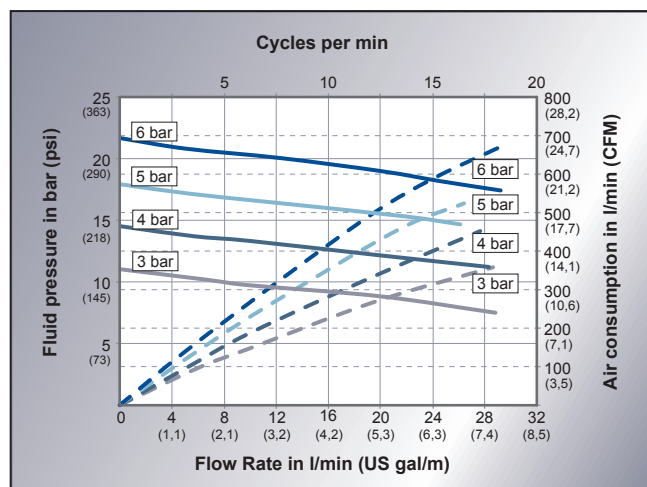
EcoPump HP



EcoPump HP 400 21 (N24160001)



EcoPump HP 800 21 (N24160002)

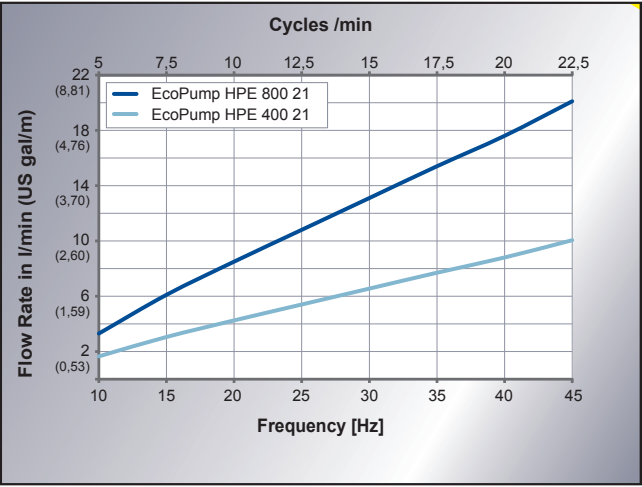


EcoPump HP 1600 21 (N24160003)

EcoPump Selection Guide

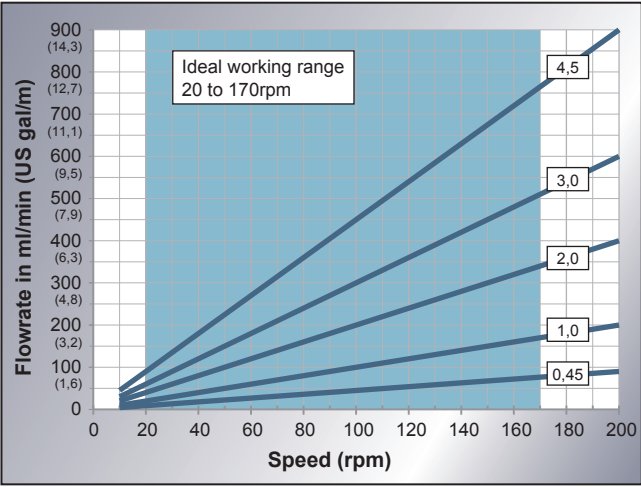
Characteristics overview

EcoPump HPE



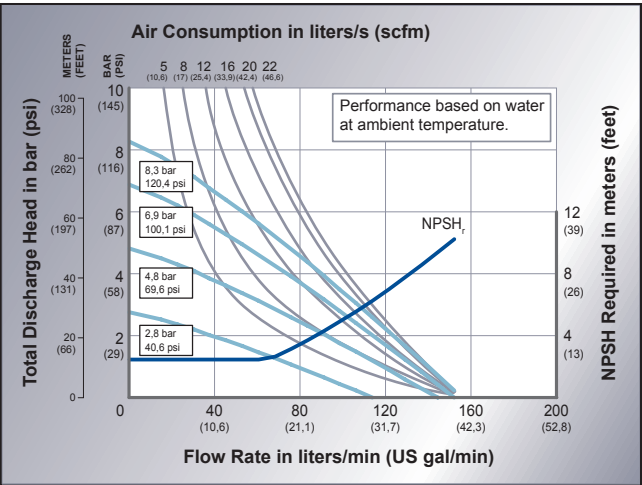
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EcoPump9 GW

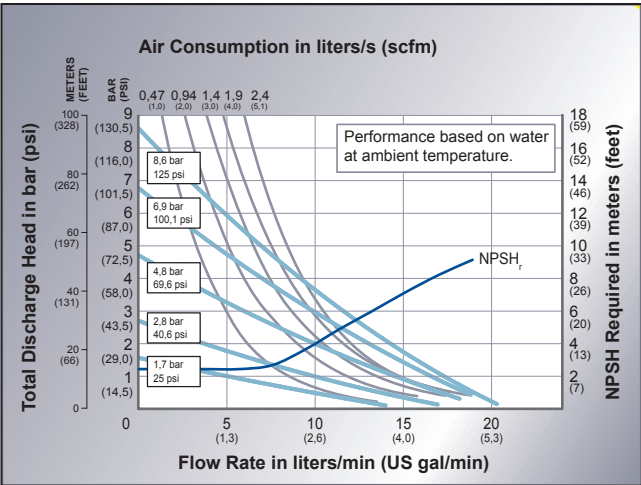


EcoPump9 GW 20 (N24190001-0006)

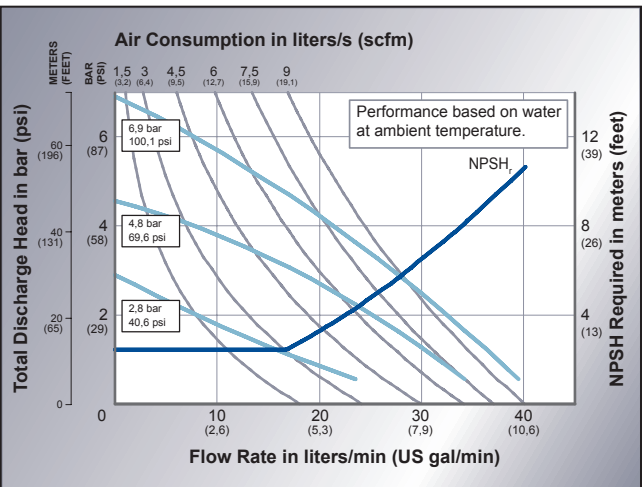
EcoPump AD



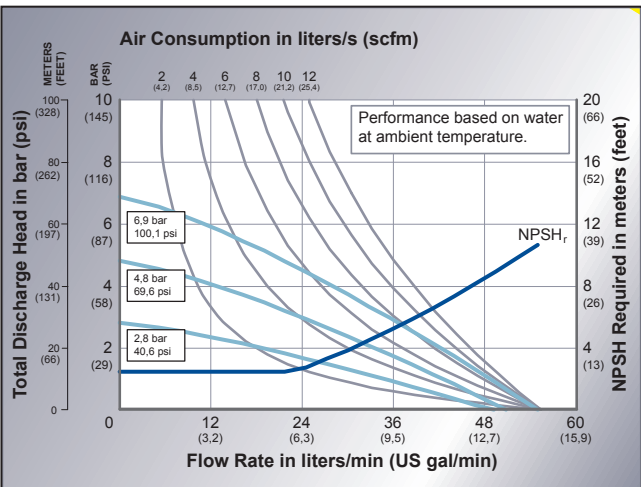
EcoPump AD 600 8,3 SST PTFE 1" (N24140004)



EcoPump AD 72 8,3 Ace PTFE 1/4" (N24140005)



EcoPump AD 83 6,9 Ace PTFE 3/8" (N24140006)

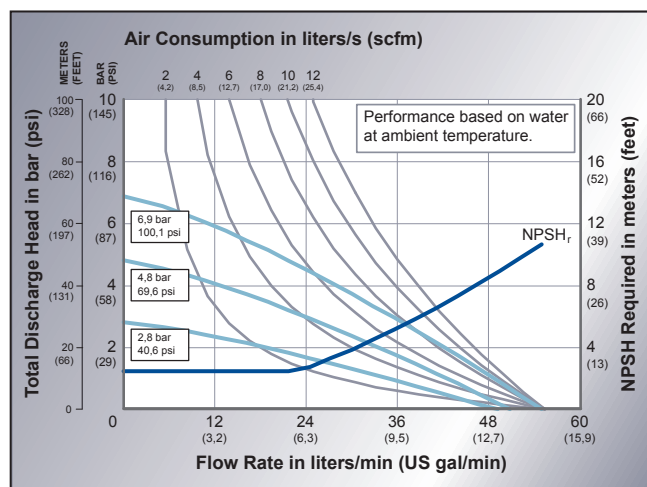


EcoPump AD 150 6,9 SST PTFE 1/2" (N24140007)

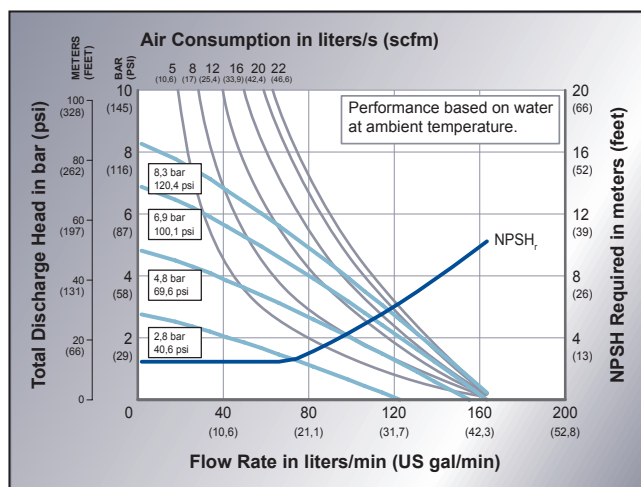
EcoPump Selection Guide

Characteristics overview

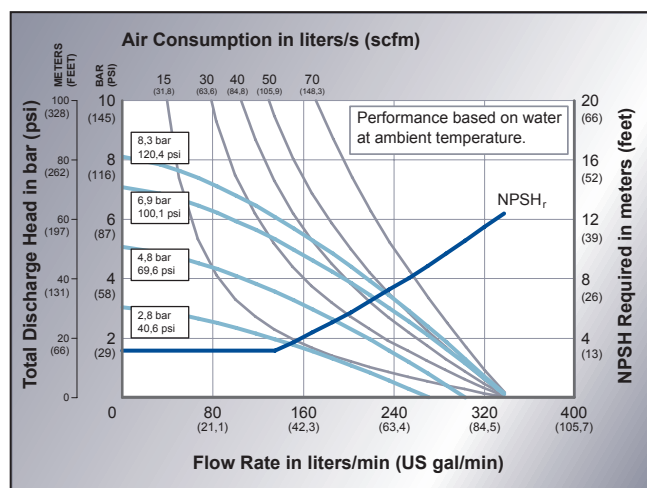
EcoPump AD



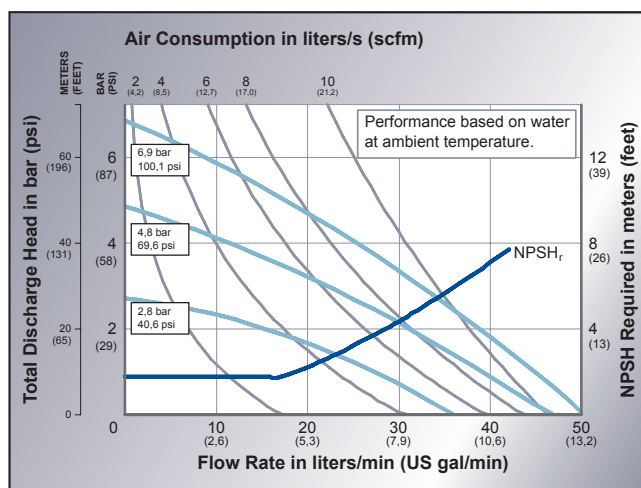
EcoPump AD 150 6,9 Alu PTFE 1/2" (N24140009)



EcoPump AD 600 8,3 Alu PTFE 1" (N24140010)



EcoPump AD 2420 8,3 SST PTFE 1 1/2" (N24140011)



EcoPump AD 150 6,9 Ace PTFE 1/2" (N24140008)