



ASTRA evo

DDE

AIR-OPERATED DOUBLE DIAPHRAGM PUMPS

THE BEST-IN-CLASS AIR CONSUMPTION

PP · PVDF · ALU · AISI 316L

from 1/2" to 2"



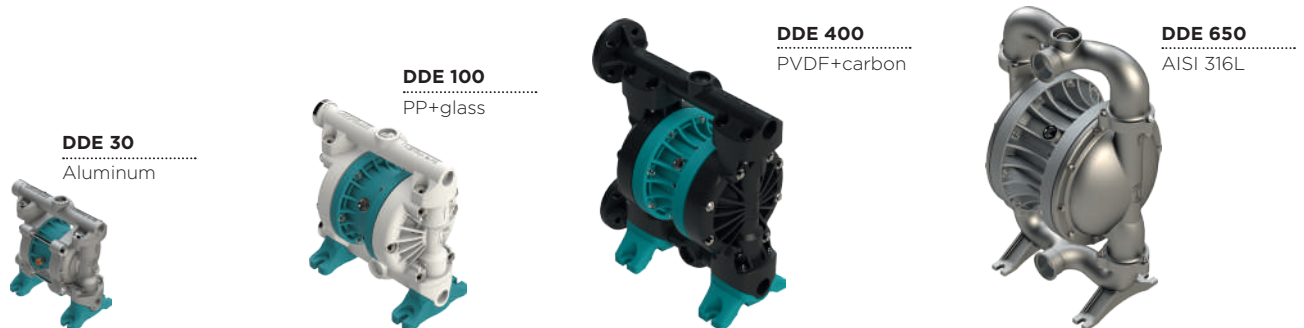
SINCE 1975

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AIR-OPERATED DOUBLE DIAPHRAGM PUMPS

BEST-IN-CLASS AIR CONSUMPTION

ARGALAIR team conceived a new range of AODD pumps using the best materials and the latest technologies available. **ASTRAevo** range distinguishes itself from competitors' AODD range thanks to the choice of materials from thermoplastic polymers reinforced with glass or carbon fiber and to the new distribution system.



The pump and components' compact design and optimised efficiency have brought **ASTRAevo** range to a superior level.

DIAPHRAGMS

The diaphragms stand out on advantages like a large choice of superior materials, such as the **TFM** - a special variation of **PTFE** used in the aerospace industry or such as **VITON**, the best elastomer available, recommended for high-temperature processes.

INTERNAL DESIGN

Our Engineers have re-thought the internal design of the pump to improve the performance: a supersized diameter of the inlet pipe to allow a more uniform transfer of the liquids and a better performance with viscous and dense liquids.

WHY ASTRAevo?

- High hydraulic performance
- Optimised air consumption
- Evolved fluid cap
- Free-ice system
- Improved operating sensibility (from 1 bar)
- Integrated muffler up to model DDE 160**
- Low maintenance
- Ideal for shear sensitive liquids
- TFM diaphragms inert to chemical agents
- Reinforced elastomer and thermoplastic diaphragm
- Dry-running
- Self-priming
- FDA compliance
- ATEX compliance (Ex-proof)
- Stall-free design

AIR DISTRIBUTOR SYSTEM

ARGAL's ADS is a 5-component construction with the advantages of being faster in the operation and of having bigger air unloading capacities, which increases the pump efficiency and reducing lower air consumption. Plus, the use of antiabrasive and autolubricating polymers helps in reducing significantly the maintenance operations.

ASTRAevo range is the complete solution for transferring, dosing, injecting corrosive, aggressive and viscous liquids with high performance and reduced air consumption in total safety, even within explosive areas (Ex-proof).

TEMPERATURES

MATERIALS	PP+glass	PVDF+carbon	Alu	AISI 316L
TEMPERATURES min - max**	-5°C - +60°C	- 10°C - +90°C	- 10°C - +100°C	- 10°C - +100°C

*Models 400 and 650 have an external muffler
**For TPV diaphragm configuration - max up to 90°C

bar Air pressure
main supply

l/min Air consumption



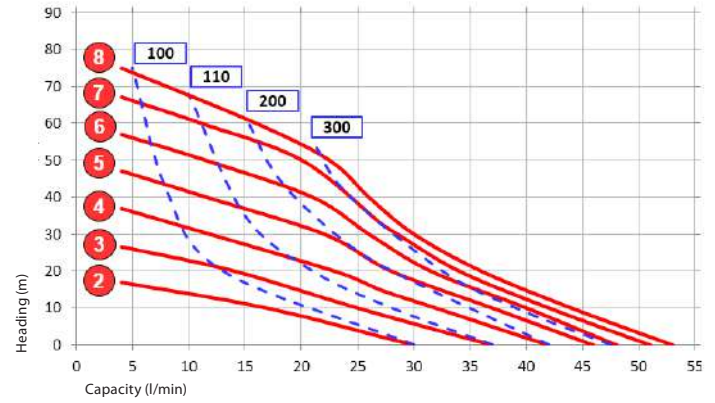
Dimensions

DDE 30



TECHNICAL DATA	
Fluid connections	1/2" BSP • NPT* • FLANGED DN15*
Air connections	6 mm
Max flow rate	52 l/m'
Max air pressure	8 bar
Displacement/cycle	70
Max size solids	3 mm

DIMENSIONS (mm)	
PP+g PVDF+c	A 193 B 106 C 209
Alu	A 194 B 107 C 205
AISI 316L	A 203 B 106 C 197

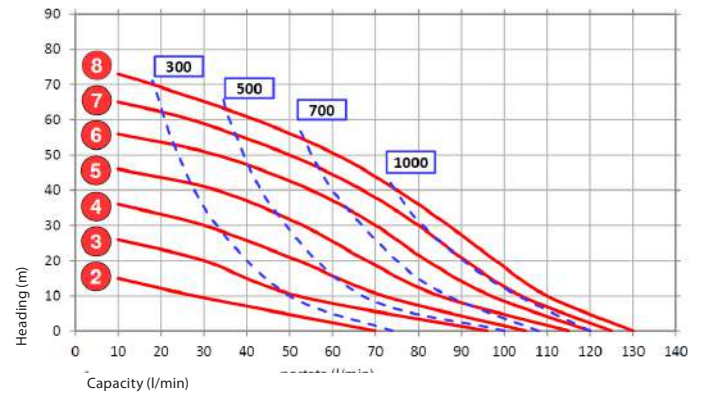


DDE 100



TECHNICAL DATA	
Fluid connections	1" BSP • NPT* • FLANGED DN25*
Air connections	3/8" BSP • NPT*
Max flow rate	130 l/m'
Max air pressure	8 bar
Displacement/cycle	240
Max size solids	5,5 mm

DIMENSIONS (mm)	
PP+g PVDF+c	A 288 B 170 C 297
Alu	A 292 B 170 C 289
AISI 316L	A 203 B 170 C 288

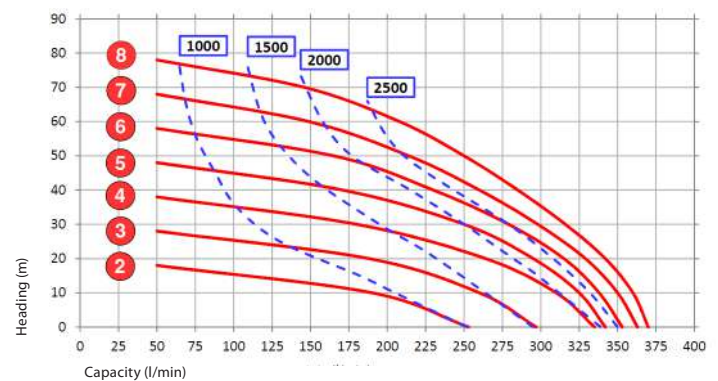


DDE 400



TECHNICAL DATA	
Fluid connections	FLANGED DN40 • 1 1/2" BSP • NPT*
Air connections	3/4" BSP • NPT*
Max flow rate	375 l/m'
Max air pressure	8 bar
Displacement/cycle	1,340
Max size solids	7 mm

DIMENSIONS (mm)	
PP+g PVDF+c	A 465 B 263* C 573
Alu	A 467 B 263* C 573
AISI 316L	A 400 B 263* C 501



*with muffler: 317 mm

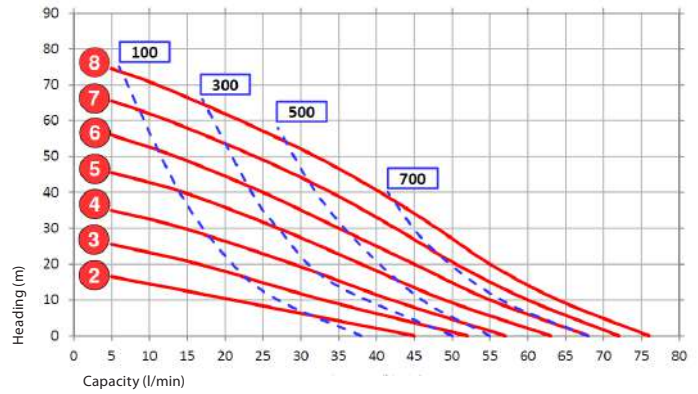
30 • 60 • 100 • 160 • 400 • 650

DDE 60



DIMENSIONS (mm)	
PP+g PVDF+c	A 243 B 160 C 260
Alu	A 245 B 160 C 254
AISI 316L	A 247 B 160 C 248

TECHNICAL DATA	
Fluid connections	1/2" BSP • NPT* • FLANGED DN15*
Air connections	3/8" BSP • NPT*
Max flow rate	76 l/m'
Max air pressure	8 bar
Displacement/cycle	160
Max size solids	3,2 mm

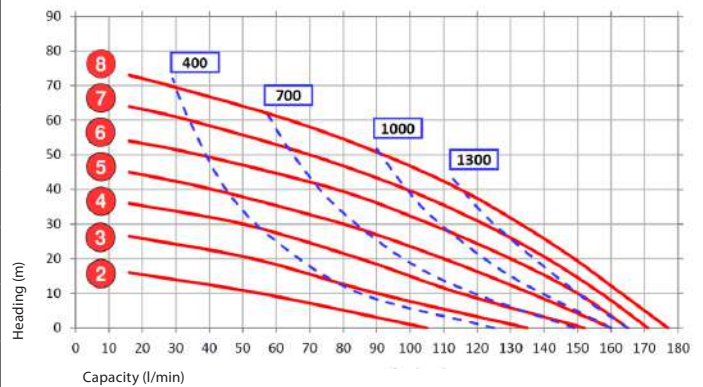


DDE 160



DIMENSIONS (mm)	
PP+g PVDF+c	A 310 B 203 C 345
Alu	A 310 B 203 C 335
AISI 316L	A 312 B 203 C 322

TECHNICAL DATA	
Fluid connections	1" BSP • NPT* • FLANGED DN25*
Air connections	1/2" BSP • NPT*
Max flow rate	175 l/m'
Max air pressure	8 bar
Displacement/cycle	440
Max size solids	6 mm

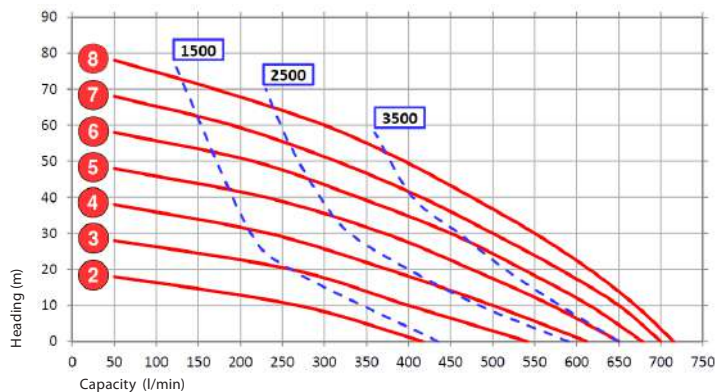


DDE 650



DIMENSIONS (mm)	
PP+g PVDF+c	A 594 B 345* C 690
Alu	A 592 B 345* C 687
AISI 316L	A 479 B 345* C 695

TECHNICAL DATA	
Fluid connections	FLANGED DN50 • 2" BSP • NPT*
Air connections	3/4" BSP • NPT*
Max flow rate	715 l/m'
Max air pressure	8 bar
Displacement/cycle	3.820
Max size solids	9 mm



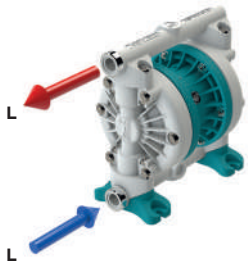
*with muffler: 381 mm

CONFIGURATION & ACCESSORIES

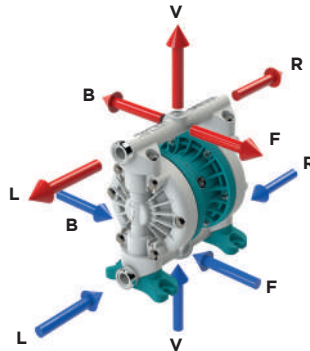
FOR A TAILORED-MADE SOLUTION

CONNECTIONS

STANDARD⁽¹⁾



UPON REQUEST⁽²⁾



STANDARD connections configuration scheme (1) (threaded connection BSP “L-L”) is referred to all Plastic and Aluminum pumps. Upon request, pumps can be set as per scheme (2).

For AISI 316L versions, connections configuration is available for all models. Models 400 and 650 have the front-back flanged connections (“F-B”). For other options, please contact our sales force.

ASTRAevo: Ex-proof version

ASTRAevo series are ideal for operations into explosive atmospheres **Zona 2 (Serie II 3/3 IIB T4)**.

For **Zona 1 (Serie II 2/2 GD IIB T4)** applications, we offer pumps with body and other conductive parts.

ASTRAevo FOOD: version*

Made for Food applications and related operations: the wetted parts are made of **electropolished AISI 316L with 125 Ra surface finishing** - recommended material for operations of food and beverage processing.




**For more information regarding the FDA version, please ask the brochure*

INTERNAL COMPOSITION

Body materials	1	• PP+V • PP+C • PVDF+C • ALU • AISI 316L
Diaphragms	Fluoropolymer	• TFM (modified PTFE)
	Thermoplastics	• TPE (Keyflex®) • TPV (Santoprene®)
	Reinforced	• FKM (Viton®) • EPDM • NBR
Valve balls	3	• PTFE • AISI 316 • EPDM • NBR • FKM (Viton®)
Valve seats & cage	4	• PP • PVDF • AISI 316 • UPPE • ALU
O-ring	5	• EPDM • FKM (Viton®) • NBR • PTFE



ACCESSORIES

- **ARDROP** (Pneumatic batch dosing system) 
- **ARAIR** (Air regulation kit)
- **ARFORCE** (Pump monitoring kit)
- **ARDRUM** (Drum transfer kit)
- **ARGEMINI** (2-liquid pumping kit)
- **ARCOMBI** (Mobile emergency kit)
- **ARFLEX** (Pump/plant antivibration connections) 
- **ARGARD** (Diaphragm leakage detector) 

MECH-SEALED
& MAG-DRIVEN
CENTRIFUGAL
PUMPS

AIR-METERING
& AODD PUMPS
PULSATION
DAMPENERS

SELF-PRIMING
PUMPS



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PUMPS

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