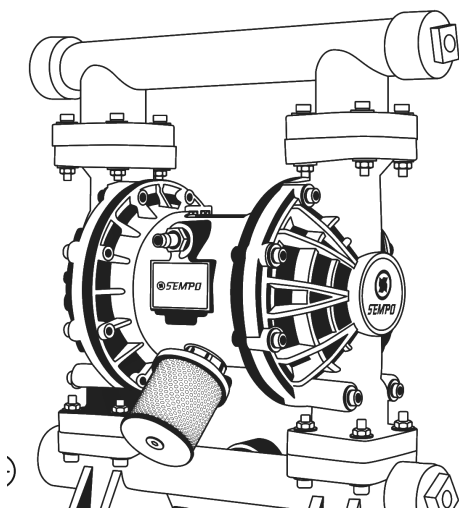




SEMPO Air Operated Double Diaphragm Pump – Aluminium

Buna-N (NBR) diaphragm | Sizes: 1" · 1-1/2" · 2" | Codes: 591601 / 591602 / 591603



What it is. An air-operated double-diaphragm (AODD) pump: compressed air drives two diaphragms that alternately draw in and discharge the fluid, so the pump moves liquid **without any electric motor, rotating parts or shaft seals**.

What it does. It transfers a very wide range of fluids – clean or dirty, thin or viscous, corrosive, volatile or containing solids – safely and reliably. It is **self-priming, can run dry without damage, stalls under load without harm and restarts automatically**. Because it needs only compressed air, it is ideal for use in flammable, wet or hazardous areas on board and ashore.

Technical Specifications

Parameter	1"	1-1/2"	2"
Product code	591601	591602	591603
Inlet / Outlet size	1"	1-1/2"	2"
Air inlet	1/2"	1/2"	1/2"
Max. air inlet pressure	0.84 MPa	0.84 MPa	0.84 MPa
Max. free-flow delivery	116 L/min	170 L/min	378.5 L/min
Max. suction lift (dry)	5.48 m	5.48 m	5.48 m
Max. delivery head	up to 84 m	up to 84 m	up to 84 m
Max. solids passage	up to 9.4 mm	up to 9.4 mm	up to 9.4 mm
Body material	Aluminium alloy	Aluminium alloy	Aluminium alloy
Diaphragm / balls / seats	Buna-N (NBR)	Buna-N (NBR)	Buna-N (NBR)

Performance figures per manufacturer data (SEMPO / Chu Tuo). Fluid temperature range depends on diaphragm material (Buna-N up to approx. 120°C). Other diaphragm/body materials (PTFE, Santoprene, EPDM, Stainless Steel) available on request.

Key Features & Applications

Key features

- No electricity – safe in flammable / ATEX / wet areas
- Self-priming; runs dry without damage
- Seal-less – fluid isolated from moving parts (leak-free)
- Handles solids, slurries and viscous media (up to ~10,000 cps)
- Flow & head infinitely adjustable via air pressure
- Stalls under load & auto-restarts; can be submerged
- Simple design, few wear parts, no lubrication required

Typical applications

- Marine: sea water, bilge & sludge, tank & cargo-hold transfer
- Diesel, fuel oil, lube-oil drainage & transfer
- Waste water, acids & alkalis, chemical dosing
- Paints, inks, adhesives, resins, solvents
- Mud, slurry, drilling & construction fluids
- Food / pharma transfer (with suitable materials)