



PERISTALTIC PUMP



Technology: Peristaltic

Maximum flow rate at 1 cSt l/h (GPM): 2670 (11.76)

Weight kg (lbs): 71 – 83 (56 – 183)

Warranty: 1 year

SPECIFICATIONS

WORKING PRINCIPLE

Peristaltic pumps are inherently valve-less and seal-less and have no mechanical parts in the product stream. The fluid only comes into contact with the inside of a hose or tube element, which is a low cost, low maintenance, and easily serviceable component. Based on the physiological principle of “peristalsis,” a term referring to the alternating contraction and relaxation of muscles around a tube (e.g. throat or intestines) to induce flow within it, a peristaltic pump’s operation is elegantly simple. A hose or tube element is positioned along a stationary pump housing and is compressed from the outside by a roller (tube pump) or a shoe (hose pump). (Figure right) Fluid is pushed towards the discharge as the roller or shoe moves along the outside of the element while the restitution of the hose or tube element behind the shoe draws more fluid into the pump. The heart of the pump is a hose or tube which is available in different elastomers specifically formulated to balance long mechanical pumping life with resistance against concentrated acids, bases, and solvents. The “wetted end” simplicity of a peristaltic pump stands in stark contrast to the complexity of a diaphragm pump, where one must properly select materials for the pump housing, diaphragm, ball checks, and seals to prevent pump failure from corrosive attack.

APPLICATION

Peristaltic pumps can be found in many applications. By the utilization of the minimal shearing forces we could have: Hemodialysis machines, open-heart bypass pump machines, beverage dispensing. By the utilization that they are capable to deliver both suspensions and sludges we can distinguish: concrete pump, sewage sludge, pulp and paper plants. Regarding if one would like to help that fluid does not get contaminated we could have: medical infusion pump, pharmaceutical production, chemical analytical equipments. Using pressure deviation categories are: liquid food fountains, decorative fountains, waterfalls. From high repeatability point of view: auto analyzers. Regarding the chemical compatibility there is: carbon monoxide monitor, dosing systems, calcium reactors. Regarding the space spare solution one should consider: mobile peritoneal dialysis pump.

TECHNICAL FEATURES

Pump	Maximum flow (L/h)	Pressure (psi)	Maximum viscosity (cP)	Weight (Kg)	Maximum temperature °C (°F)	Hose material
BPA200	2670	217	22000	71-83	70 (158)	NR; NBR, NBR-FDA, EPDM, Hypalon
BPA100	450	150	30000	26-32		
BPA50	135	150	13000	18-20		

