

Pumps Built for Chemical Compatibility, Part 2

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To read part one of this two-part series, [please click here](#). [1]

The Solution

While peristaltic (hose) pumps can be a reliable component in the optimization of chemical manufacturing and handling operations, one specific pump brand has been a top choice among chemical processors — Abaque[®] Series peristaltic (hose) pumps from Dover Corp.'s Pump Solutions Group (PSG[®]). PSG was formed in 2008 and has grown to become a global corporation with world-class facilities in the United States, France, Germany, India and China.

Abaque Series pumps feature a seal-free design that eliminates leaks and product contamination, which enables them to handle the chemical industry's toughest pumping applications, from abrasive and aggressive fluids to shear-sensitive and viscous materials. The pumps, which can run in either forward or reverse, are self-

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priming and offer suction-lift capabilities to 9 meters (25.5 feet), as well as the ability to run dry continuously without adversely affecting the pump's performance. Ductile-iron and steel construction lets the pump produce discharge pressures as high as 16 BAR (232 PSI).

The Abaque pump's hoses are available in three materials of construction, all of which have been chosen because of their high levels of chemical compatibility and fatigue resistance:

1. Natural rubber — highly resilient with excellent abrasion resistance and strength; ideal for use with diluted acids and alcohols.
2. EPDM — high chemical resistance, especially when handling concentrated acids, and alcohols.
3. Buna®-N — highly wear resistant to oily products.

Abaque pumps are available in 10 different sizes and 19 total models with flow rates ranging from 1.7 to 1,249 LPM (0.46 to 330 GPM). They have been designed to handle products with water-like viscosities to those as high as 70,000 cSt (352,000 SSU), solid particle sizes from 1.5 to 18 mm (0.06 to 0.71

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inches) and soft particle sizes from 1.5 to 31 mm (0.06 to 1.22 inches). All Abaque pumps can handle product temperatures ranging from 0°C to 80°C (32°F to 176°F) with models featuring an EPDM hose capable of handling maximum temperatures to 90°C (194°F). Optional equipment includes hose-failure detectors, vacuum kits and non-metallic inserts.

Conclusion

The chemical universe is one of the most diverse in the global economy. This diversity means that the pumps used in their manufacture, transport, handling and containment must be nimble and versatile enough to cope with fluids with many different levels of viscosity, temperature, corrosiveness, toxicity and abrasiveness, to name a few. These varying product characteristics must also be successfully handled while adhering to strict production quotas.

For more than 80 years, peristaltic (hose) pump technology, as epitomized by the standard-setting operation and reliability of the Abaque Series peristaltic (hose) pump family from Pump Solutions Group, has been a leading choice for chemical producers and processors who know the value of highly reliable, environmentally friendly, maintenance-free pump operation.

To read part one of this two-part series, [please click here](#). [1] For more information, please contact Meijer at +49.151.6283.5979 or johannes.meijer@psgdover.com [2], or visit www.psgdover.com [3].

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