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APV DW Pumps Outperform All Others



The DW Range

The DW pump from APV is designed for ultra-hygienic applications. The range consists of 26 models with capacities ranging from 0.8 gal/100 revs to 268 gal/100 revs (3 liters/100 revs to 1,016 liters /100 revs) and pressures up to 435 psi (30 bar). All product-contact parts are made from AISI 316L stainless steel and all elastomers comply with FDA-requirements.

The Most Versatile Rotary Pump on the Market

The DW range reflects latest technology in the development of rotary positive displacement pumps. No equivalent pump on the market offers such a wide range of features incorporated in a single pump.

Features and Benefits

High Volumetric Efficiency

The new DW range is designed for outstanding efficiency. Internal clearances have been minimized so that a smaller pump size can be selected for medium viscosity applications. This reduces both the initial investment and running costs.

Ultra-Hygienic, Accommodates Harsh CIP-Cycles

All DW models are CIP/SIP cleanable. The pumps are designed to withstand rapid temperature changes and can therefore accommodate very harsh CIP-cycles.

Pulse-Free Performance

When pumping highly viscous products, the DW pump with piston rotors runs completely pulse-free. This ensures a consistent process flow, which is required in connection with filling machines. It also safeguards valves, and other equipment that can be damaged by pressure surges.

Low NPSH-Requirement

The highly improved suction capability of the DW pump considerably reduces the NPSH-requirement. This in combination with the absence of pressure pulsations makes the DW pumps ideal for many applications, such as ultra-filtration.

Gentle Product Handling

The rotor designs available ensure maximum product integrity and minimize risk of potential damage to sensitive products. Both piston and bi-lobe rotors are suitable for high and low viscosities. They will also handle cheese curds and whey, soft fruit and meat — which previously involved fitting special rotors.

Easy Maintenance

The easy-to-access front loaded mechanical seals reduce maintenance time considerably. All shaft seal O-rings are identical, and access to the shaft seal is achieved by simply removing the front cover and the rotors. Likewise, the timing of rotors is an equally uncomplicated operation.

Low Noise Levels

The patented rotor design practically eliminates hydraulic noise and the helical gears minimize gearbox noise.



Global Design

The entire range complies with the European EHEDG and the American 3-A hygiene standards.

High Capacity

The DW6 and DW7 high capacity pumps are unique in the field of positive displacement pumps. They are capable of running up to 800 rpm and pumping up to 268 gal/100 revs (1,016 liters/100 revs), approximately 1,628 gal/min (370 m³/h).

The DW7 is one of largest positive displacement pumps available in today's marketplace.



One of the largest positive displacement pumps in the world.

Pump Construction and Options



Flexible Design

The construction of the DW pump is as simple as possible in order to ensure quick and easy maintenance.

There are two rotor types (piston and bi-lobe) available. The piston rotors can be easily changed to bi-lobe rotors without changing the rotorcase. The porting on the pump can also be changed from horizontal to vertical (and vice versa) without any modification to the pump or use of a special gearcase assembly.



Standard elastomer material is EPDM. FPM and Isolast (perfluoroelastomer) are also available.

The standard connections are Triclamp. Other sanitary and industrial fittings are available.

Rotor Options

The two rotor types, which are available in three different versions, are suitable for product temperatures up to 230°F, (110°C).

Multi Duty Rotors are standard rotors suitable for most applications. The clearance is greater than that of the high efficiency rotors.

High Efficiency Rotors are designed for low viscosity products. The size of the rotors has been increased and the clearance is minimal.

NGA Rotors are made of Non Galling Alloy (W88) for use with low viscosity products. The material allows the rotors to touch the pump housing without damaging the housing or the rotors. Low tolerances may therefore be applied without decreasing the reliability.

Furthermore the bi-lobe rotors can be supplied as **“high temperature”** rotors, suitable for product temperatures up to 356°F (180°C). The rotors are smaller to allow the product to expand.



Special Application Options

Rectangular Inlet for extremely high viscosity products. By applying a rectangular inlet, the inlet conditions are considerably improved.

Thermal Jacket to provide a constant temperature level within the pump. This may be the solution for handling temperature-sensitive products such as chocolate.

Relief Valve avoids too high pressure within the pump. The relief valve is needed if no other safety devices are installed.



DW Thermal Jacket



DW Relief Valve

Industries and Applications

Dairy

- Yogurt
- Curds and whey
- Cream
- Butter

Drinks

- Fruit juice
- Cider and wine
- Yeast
- Liquid sugar and glucose

Food

- Fruit preserves
- Soups and sauces
- Baby food
- Chocolate

Pump Performance

Model Number	Rotor Type	Max. Displacement		Max. Pressure	
		gal/100 revs	(liters/100 revs)	psi	(bar)
DW1.003/7.5	Piston	0.8	(3)	109	(7.5)
DW1.004/15	Bi-lobe	1.1	(4)	218	(15)
DW1.007/7	Bi-lobe	1.8	(7)	102	(7)
DW2.006/10	Piston	1.6	(6)	145	(10)
DW2.007/20	Bi-lobe	1.8	(7)	290	(20)
DW2.013/10	Bi-lobe	3.4	(13)	145	(10)
DW3.014/10	Piston	3.7	(14)	145	(10)
DW3.017/20	Bi-lobe	4.5	(17)	290	(20)
DW3.030/10	Bi-lobe	7.9	(30)	145	(10)
DW3.050/5	Bi-lobe	13.2	(50)	73	(5)
DW4.033/10	Piston	8.7	(33)	145	(10)
DW4.039/20	Bi-lobe	10.3	(39)	290	(20)
DW4.073/10	Bi-lobe	19.3	(73)	145	(10)
DW4.125/5	Bi-lobe	33.0	(125)	73	(5)
DW5.080/12.5	Piston	21.1	(80)	181	(12.5)
DW5.093/25	Bi-lobe	24.6	(93)	363	(25)
DW5.142/15	Bi-lobe	37.5	(142)	218	(15)
DW5.256/7	Bi-lobe	67.6	(256)	102	(7)
DW6.172/12.5	Piston	45.4	(172)	218	(12.5)
DW6.198/30	Bi-lobe	52.3	(198)	435	(30)
DW6.308/15	Bi-lobe	81.4	(308)	218	(15)
DW6.519/07	Bi-lobe	137.1	(519)	102	(7)
DW7.370/10	Piston	97.8	(370)	145	(10)
DW7.420/30	Bi-lobe	111.0	(420)	435	(30)
DW7.725/15	Bi-lobe	191.5	(725)	218	(15)
DW7.1016/07	Bi-lobe	268.4	(1016)	102	(7)

The figures included in this brochure are for guidance only. Please use the DW Pump Sizing Program or contact your local APV office for sizing and selecting a DW Pump.

Pharmaceutical and Toiletries

- Antibiotics
- Toothpaste
- Cough mixture
- Shampoo

Chemical

- Paint
- Oil additives
- Photographic film coatings
- Resins
- Many more!



DW Pumps for all industries

APV Fluid Handling

Hygienic handling of fluids is a demanding task, but APV has the expertise and know-how to manufacture components that match any process requirements.

APV has highly specialized manufacturing facilities, where we develop components designed to meet the highest hygienic standards.

And because APV focuses on improving and sustaining our customers' profitability, our products are found in the food, dairy, brewery, pharmaceutical, personal care, and chemical industries throughout the world.



Your local contact:



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For more information about our worldwide locations, approvals, certifications, and local representatives, please visit www.apv.com.

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