

TopGear MAG

SEAL-LESS INTERNAL GEAR PUMPS



>Johnson Pump[•]

TopGear MAG is a range of leak-proof internal gear pumps for low and high viscous liquids which are corrosive, toxic, aggressive or expensive.

Total containment of the liquid inside the pump is achieved using a hermetically sealed can, which isolates the liquid from the surrounding environment. This eliminates the need for shaft seals and the associated wear and leakage that would normally be experienced. The Magnetic Drive pumps are therefore not only environmentally friendly – they also contribute to improved safety in chemical and process plant environments.

Complying amongst others with the "ATEX" (ATmospheres EXplosibles) directive, magnetic drive pumps make an important contribution to health and safety on process plants.

SPX FLOW, Inc. (NYSE:FLOW) is a leading manufacturer of innovative flow technologies, many of which help define the industry standard in the market segments they serve. From its headquarters in Charlotte, North Carolina, it operates a sales and support network, centers of manufacturing excellence, and advanced engineering facilities, throughout the world.

Its cutting-edge flow components and process equipment portfolio includes a wide range of pumps, valves, heat exchangers, mixers, homogenizers, separators, filters, UHT, and drying technology that meet many application needs. Its expert engineering capability also makes it a premium supplier of customized solutions and complete, turn-key packages to meet the most exacting of installation demands. Incorporating many leading brands,

SPX FLOW has a long history of serving the food and beverage, power and energy, and industrial market sectors. Its designs and engineered solutions help customers drive efficiency and productivity, increase quality and reliability, and meet the latest regulatory demands. In-depth understanding of applications and processes, state-of-the-art Innovation Centers, and advanced pilot/testing technology further assist in optimizing processes and reducing timescales to reliably meet production targets.

For more information, please visit www.spxflow.com

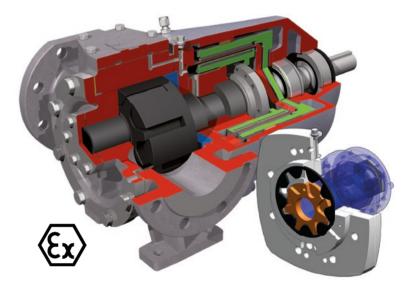
TopGear MAG Protecting your future

MAG DRIVE - HERMETIC CLOSED PUMP SYSTEM

Ensures clean, safe and leak-free operating environment. Zero leakage of corrosive, toxic, chemical, expensive or vulnerable liquids.

UNIQUE SOLUTION FOR FORCED CIRCULATION AND COOLING

Patent pending for integrated circulation pump in intermediate cover – guaranteed cooling and lubrication of magnetic coupling and bearings independent of operation pressure and liquid viscosity. Safeguard durable operation for low and high viscous liquids.



LARGE GAP BETWEEN INNER MAGNET AND CAN

Minimizes friction losses when pumping high viscous media giving low heat generation and long durable operation.

WET BEARINGS OF SPECIAL SIC

Can handle low viscous media and is extremely wear resistant.

HERMETIC CAN MATERIAL OF HASTELLOY C4 BETWEEN THE MAGNETS

Highly chemically resistant and reduces the eddy current losses while increasing efficiency and minimizing temperature. Safeguards durable operation and long life time.

SAFETY SYSTEM FOR BEARING FAILURES

Prevents both outer magnetic as inner magnetic rotor from running against the can in case of bearing failure. No risk for leakage and contamination.

MONITORING OPTIONS

Possible to install sensors to monitor temperature, pressure and vibrations for preventive maintenance actions.

HEATING JACKETS AND SAFETY RELIEF VALVES

Heating and cooling jacket options to safeguard pump in start up and shut down process. Steam or thermal oil options available. Built on safety relief valves to protect pump and other equipment from over pressure.

Heating jackets and relief valves can be combined.

BACK AND FRONT PULL OUT

Easy access for inspection and maintenance while pump casing remains installed in the pipe system.

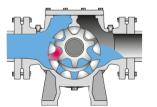
INTERCHANGEABLITY

Complete dimensional interchangeability with TopGear GM and H pumps.

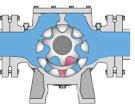
PUMP SPECIFICATION				
MAX CAPACITY	80 M³/H			
MAX DIFF. PRESSURE	16 BAR			
MAX TEMPERATURE	260 °C			
MAX TEMT ENATORE	200 0			

MATERIALS		
PUMP HOUSE	CAST IRON OR STAINLESS STEEL	
CONTAINMENT CAN	HASTELLOY C4	
BEARING OPTIONS	SILICON CARBIDE OR CARBON	
MAGNETS	SMC○ (STANDARD) FOR GOOD CORROSION RESISTANCE AND HIGH TEMPERATURE POSSIBILITY MAX 260° C. NDFEB (OPTIONAL) FOR HIGH TORQUE APPLICATIONS - BUT AT LIMITED TEMPERATURE MAX 120° C.	
OTHER OPTIONS	HEATING JACKETS, RELIEF VALVES, TEMPERATURE PROBE PT100, ATEX CERTIFICATION, PUMP UNITS	

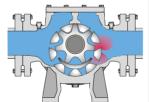
OPERATING PRINCIPLE



As the rotor and idler unmesh, an under-pressure is created and the liquid enters the newly created cavities.



Liquid is transported in sealed pockets to the discharge side. The walls of the pump casing and the crescent create a seal, that separates suction from discharge side.



The rotor and idler mesh and liquid is pushed into the discharge line.

TopGear MAG is the perfect solution for

applications

Typical product

avoiding leakage of liquids which may jeopardize health or environment or for liquids which are just problematic to seal off.



CRYSTALLIZING AND HARDENING LIQUIDS

Toxic and hazardous LIQUIDS

Phenol, Solvents, Isocyanates, Sodium hydroxide, Epoxy resin, Paint, Glue, Ink, Fuel Additives, Caustic solutions, Sugar solutions, Oils, Bitumen, Alcohols

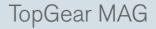
TopGear MAG provides environmental, human, legal and economical protection.

PROTECTING YOUR FUTURE

GENERAL PERFORMANCE

PUMP SIZE TG MAG	PORT DIAMETER (MM)	MAX FLOW (M³/H)	MAX PRESSURE (BAR)	MAX SPEED (RPM)
15-50	50	13	16	1500
23-65	65	20	16	1500
58-80	80	35	16	1050
86-100	100	50	16	960
185-125	125	80	16	750







Seal-less Internal Gear Pumps

FOR YOUR LOCAL REPRESENTATIVE:

www.spxflow.com/en/johnson-pump/where-to-buy/

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