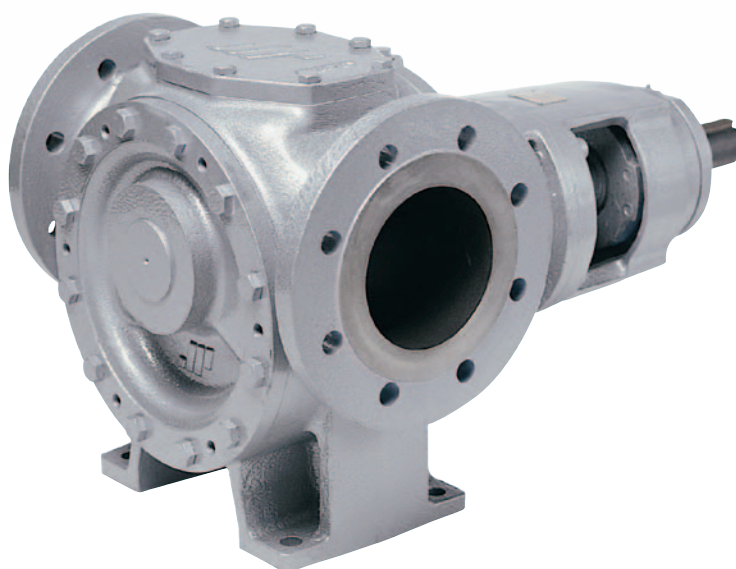


TopGear

INTERNAL GEAR PUMPS



Gear pumps are used in all types of manufacturing industries for the transportation of both thin and thick liquids, from diesel fuels to chocolate. The Johnson Pump brand heavy duty pumps are designed around high reliability as well as long life.

TopGear offers a combination of strong design with small or large clearances, unique gear tooth profile and options such as electrical heating and built-on safety relief valves.

The extensive TopGear series is divided into three ranges; the TG GA-range for general purposes, the TG HA-range for high demanding applications and the TG L-range that offers high efficiency when transporting low viscosity fluids. For applications demanding leak-free operation a magnetically driven, TG MAG, is available.

Based in Charlotte, North Carolina, SPX Corporation (NYSE: SPW) is a global Fortune 500 multi-industry manufacturing leader. For more information, please visit www.spx.com

TopGear

When reliability is the priority

TG GA & TG HA ranges

IMPROVED PRIMING, LOW NPSHR

- Ports above centerline
- Oversized ports for better efficiency

IMPROVED DESIGN FOR LOW AND HIGH VISCIOUS MEDIA

- Optimized gear tooth profile
- Smooth flow

HIGH EFFICIENCY

- Axial rotor locking
- Adjustable clearances
- Balanced hydraulic design

ELIMINATED LEAKAGE DURING THERMAL EXPANSION

- Pin cover
- Safety sealed

SEVERAL MATERIAL OPTIONS

- Shaft seal materials
- Bearing materials
- Hydraulic parts

PROLONGED SERVICE LIFE

- Double ball bearing design
- Adjustable axial clearance
- Allows V-belt drive
- Accepts higher axial forces

SHAFT SEAL OPTIONS

- Packed gland
- Single and double mechanical seals
- Lip seals
- Cartridge seals
- Magnetic drive available as the TG MAG

MAXIMIZED LIFETIME

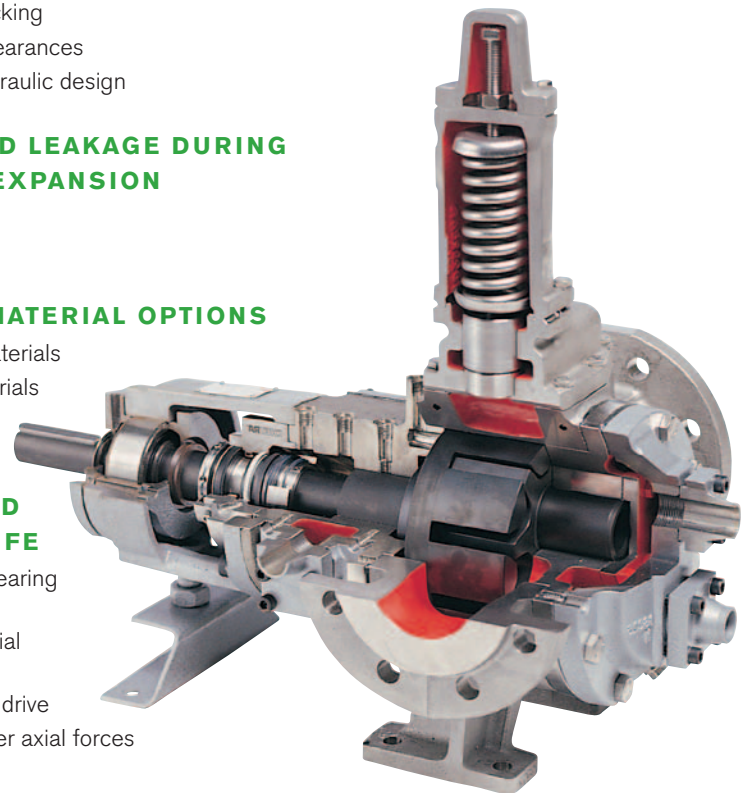
- Compact rotor
- Strong shafts
- Maximized bearing design
- Selection of different bushing options
- On seals due to seal relief channel

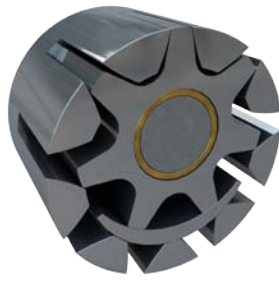
LESS DOWNTIME

- Front and back pull-out design allows replacement of parts without disturbing pump body and system piping

FLANGE CONNECTIONS OPTIONS

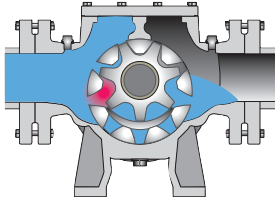
- ANSI



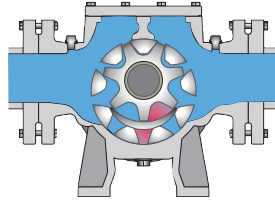


Typical product applications

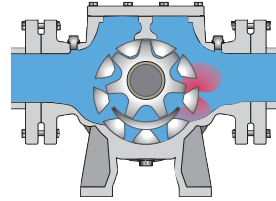
OPERATING PRINCIPLE



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

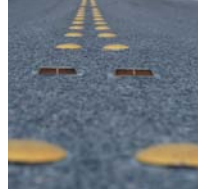


Liquid is transported in sealed pockets to the discharge side. The walls of the pump casing and the crescent create a seal, that separates suction from discharge side.



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

TopGear pumps are used in various industries and environments, which have thousands of liquids that need to be pumped.



PETROCHEMICALS

Pure or filled bitumen, pitch, diesel oil, crude oil, lube oil



CHEMICALS

Sodium silicate, acids, plastics, mixed chemicals, isocyanates

PAINT AND INK

RESINS AND ADHESIVES

PULP & PAPER

Acid, soap, lye, black liquor, kaolin, lime, latex, sludge

FOOD

Chocolate, cacao butter, fillers, sugar, vegetable fats and oils, molasses, animal feeds



TECHNICAL DATA

	TG L	TG G			TG H
		TG GS	TG GP	TG GM	
PUMP CASING	CAST IRON	CAST IRON			STAINLESS STEEL CAST STEEL DUCTILE IRON
IDLER	STEEL	CAST IRON STEEL STAINLESS STEEL			
ROTOR	STEEL	CAST IRON NODULAR IRON STAINLESS STEEL			
MAX CAPACITY GPM (M ³ /H)	35 (8)	350 (80)	570 (130)	570 (130)	
MAX DIFFERENTIAL PRESSURE PSI (BAR)	440 (30)	150 (10)	230 (16)	230 (16)	
MAX TEMPERATURE °F (°C)	480° (250°)	390° (200°)	570° (300°)	570° (300°)	
MAX VISCOSITY cPs / m.PAS)	60 000	5 000	80 000	80 000	

SPECIFICATIONS

MODEL TG GMA AND TG HA SERIES (*)	DISPLACEMENT PER REVOLUTION		NORMAL CAPACITY TO		INLET/ OUTLET (**)		PRESSURE RANGE UP TO		MAXIMUM REVOLUTION RPM	TEMPERATURE RANGE	
	GALLON	LITER	GPM	M ³ /HR	INCH	MM	PSI	BAR		TG GM(A)	TG H(A)
2-25 (GMA)	.0048	.0183	9	2	1	25	232	16	1800	-4°F/-20°C TO +392°F/+200°C	-
2-32 (HA)	.0079	.0299	9	2	1¼	32	232	16	1800	-	-40°F/°C TO +392°F/+200°C
3-32	.0079	.0299	14	3.2	1¼	32	232	16	1800	-4°F/-20°C TO +392°F/+200°C	-40°F/°C TO +392°F/+200°C
6-40	.0153	.0580	28	6.3	1½	40	232	16	1800	-4°F/-20°C TO 572°F/300°C	-13°F/-25°C TO +572°F/+300°C
15-50	.0038	.0145	58	13.1	2	50	232	16	1500		
23-65	.0060	.0227	90	20.4	2½	65	232	16	1500		
58-80	.0152	.0576	160	36.3	3	80	232	16	1050		
85-100	.0226	.0855	217	49.2	4	100	232	16	960		
185-125	.4887	1.85	367	83.3	5	125	232	16	750		
360-150	.9510	3.60	572	130	6	150	232	16	600		

*) Stock pumps can use full range of mechanical seal and packing options for complete flexibility in your plant. Contact Delavan factory if you only need **Single seal only (GSA)** or **Packing only (GPA) Cast Iron Series**. Contact Delavan factory for more information on **TGL** and **TG MAG Series**.

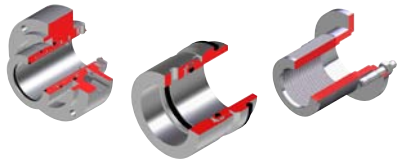
**) Stock pumps have 150 lbs ANSI flanges. Contact factory for optional connections.



Options

SHAFT SEAL OPTIONS

Shaft seal options include packed gland, single and double mechanical seals, lip seals and cartridge seals. Magnetic drive available as the TG MAG.

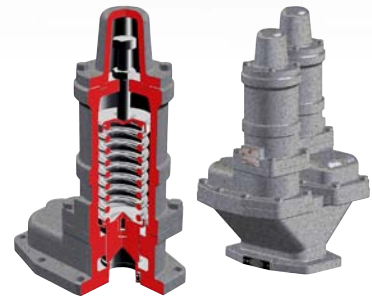


JACKET OPTIONS

Heating and cooling jackets guarantee the performance of the pump in a start-up or a shut-down procedure. They also provide the pump with the best condition for the seals during operation. Different options: thermal oil, steam or electrical heating.

SAFETY RELIEF VALVE OPTIONS

Built-on safety relief valves protect the pump, as well as other equipment in the system, from over pressure. When the pump is used bi-directionally, a double safety relief valve is available.



FOR YOUR LOCAL REPRESENTATIVE:

www.johnson-pump.com/JPIndustry/JohnsonPump_distributors.htm

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