PUMP PERFORMANCE TABLE

PUMP MODEL	Port Size Inlet X Outlet (BSP)	Max Flow	Max Pressure Bar	Speed RPM	Power kW
EC-01 ASF		2.5	25	1450	0.15
EC-01 BSF	3/8" X 3/8"	4	25	1450	0.22
EC-01 CSF		6	25	1450	0.30
EC-01 DSF		10	25	1450	0.50
EC-02 ASF	3/4" X 3/4"	16	25	1450	0.75
EC-02 BSF		20	25	1450	1.00
EC-02 CSF		25	25	1450	1.30
EC-02 DSF		32	25	1450	1.64
EC-03 ASF	1" X 3/4"	40	25	1450	2.00
EC-03 BSF		50	25	1450	2.60
EC-03 CSF		63	25	1450	3.30
EC-04 ASF	1 1/4" X 1"	80	25	1450	4.10
EC-03 BSF		100	25	1450	5.12
EC-04 CSF		125	25	1450	6.50
EC-04 DSF		160	25	1450	8.20

Pump data with 40 cSt Lube Oil at 40°C test standard as per (VDMA 24284 G.II CL.II)



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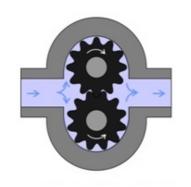
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EXTERNAL GEAR PUMPS

PRESSURE UPTO 25 BAR CAPACITY UPTO 125 LPM SPEED UPTO 1450 RPM VISCOSITY UPTO 10,000 cSt



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WORKING PRINCIPLE

There are two main pumping elements in an external gear pump: driving gear (main gear) and driven gear (idler gear). Each of the gear is mounted on a different shaft, well supported by bearings at both the ends which helps pump to run at higher speeds with less noise. The main gear is driven by the motor whereas, the idler gear is driven by main gear. As the gears unmeshes, the volume at inlet expands and as a result liquid is sucked in through the port. On further rotation of gears, liquid travels through the space between gears and casing, without passing through the gears. Discharge action takes place as the gears meshes, pushing the liquid towards the port. External gear pumps are compact, lightweight and with less numbers of moving parts. Despite of offering less flow, external gear provides higher rates of pressure easily. These pumps possess long service life and high self-suctioning capabilities.

TECHNICAL DATA

Mounting : Face Mounted ► Shaft Seal : Lip Seal ▶ No jacket and Relief Valve

MATERIAL OF CONSTRUCTION

- Pump Casing & Covers: Cast Iron
- ▶ Shaft: EN 24 Hardened & Ground
- ▶ Rotor: EN 24 Hardened & Ground
- Sealing Kit: Nitrile
- ▶ Bearing: Sintered Iron / Sintered Bronze
- Other Parts: In Cast Iron / Mild Steel

TYPICAL LIQUID LIST

- ▶ Light Oils
- ▶ Solvents
- ► Chemical Additives ► Fuels
- Resins
- ▶ Polymers

INDUSTRY

- Windmill
- ▶ Machine Tools
- ▶ Oil and Gas ▶ Chemical Industries

- Minina
- ► Manufacturing Industries

PRIME MOVERS

- ▶ Three phase AC motor
- ▶ Single phase AC motor
- DC motor

APPLICATION

Lubrication of gearbox and engines Power source in Hydraulic applications Transferring of fuel oils

DIRECTION OF ROTATION

- ▶ Clockwise from the shaft end of the pump (Standard)
- ▶ Counter-clockwise from the shaft end of the pump (On Request/Non-standard)

INSTALLATION

 External Gear pump works perfectly in any position, provided suction and pressure lines are arranged in a way that prevents emptying of the pump when at a standstill.

SPEED OF ROTATION

- ▶ Shaft Speed Ranging from 500-1450 RPM
- ▶ Do not exceed 1000 RPM when pumping residual fuels, crude oil,

DRIVE

▶ In general, the pumps are connected with a flexible coupling to a foot or flange mounted motor. Radial loads onto the shaft end are not permissible, unless when absorbed by an additional external bearing, e.g. in case of pump driven by belts or gears.

VISCOSITY

▶ Normal range 21.5 to 385 cSt. Depending on type, pressure, speed and suction conditions, fluid with viscosities ranging from 6 to 10,000 cSt may be pumped. Regarding viscosities outside the normal range, please consult us!

TEMPERATURE RANGE

▶ When fitted with standard radial shaft seals, up to 90° C. Depending on operating conditions, temperatures as high as 200° are permissible.

SUCTION AND PRESSURE LINES

▶ The cross section of the suction line should be such that fluid velocity now here exceeds 1 m/s. In the pressure line velocity should not exceed 5 m/s.

IMPORTANT

- ▶ Please state complete working condition when enquiring for a pump such as:
- 1.Fluid to be pumped
- 2. Viscosity
- 3.Capacity
- 4.Pressure
- 5. Operating temperature
- 6. Suction lift or inlet pressure

FII TRATION

▶ The pumps must be protected against solid particles in the fluid by suitable suction filters. The mesh width should be 0.1 mm and care must be taken that even with a contaminated filter the admissible suction lift capability is not exceeded.

Please ask us!

- ▶ For speed between 1000 and 1450 RPM and viscosities below 385 cSt you may reckon with an absolute manometric suction lift of maximum 0.5 Bar. For other speeds or viscosities, pleas contact us!
- ▶ The inlet pressure should not exceed 0.5 Bar, when radial shaft seals are used. For higher inlet pressures we offer gland packings or mechanical seals. If the suction lift condition exceeds the pump capability, cavitation will occur resulting in noise and possible pump damage.

IMPORTANT NOTE:

- Do not run dry.
- ▶ No solid particles are allowed.