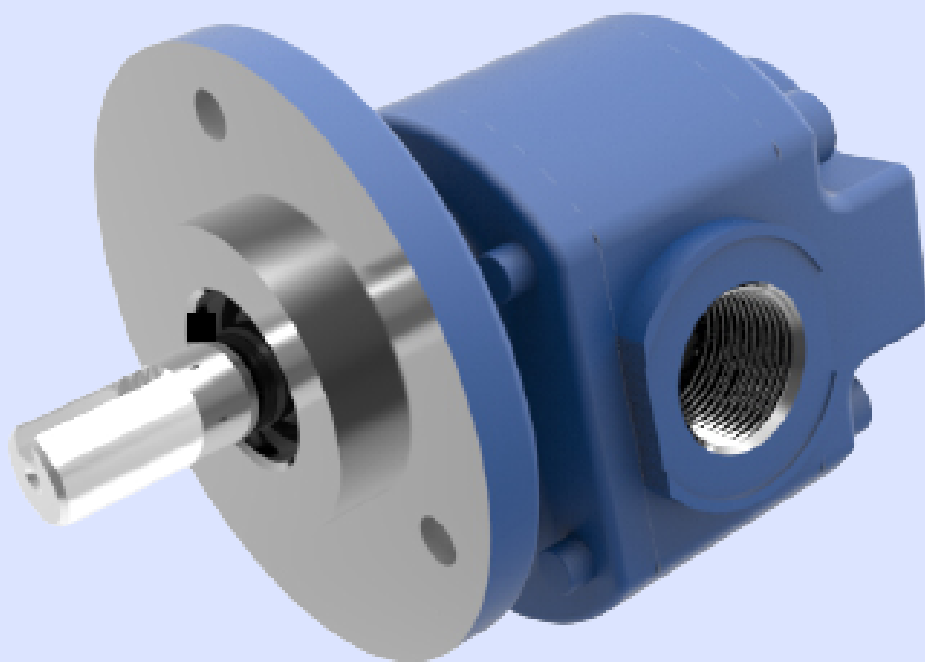




MIDLAND PUMP
MANUFACTURING COMPANY LTD

POSITIVELY GEARED TO
YOUR REQUIREMENTS

CLASSIC GROUP 1 POSITIVE DISPLACEMENT GEAR PUMPS



PUMP HEAD WITH DISPLACEMENT

SEELEYS ROAD, GREET, BIRMINGHAM, B11 2LF
TELEPHONE: 0121 773 8862 EMAIL: sales@midlandpump.co.uk
WEBSITE: www.midlandpump.co.uk



KEY FEATURES

- Bearing housings are available equipped with either plain bearings, needle roller bearings, or P T F E wrapped bushes.
- Mounting arrangements are Flange mounting, standard Top drive shaft as illustrated and Bottom driveshaft available on request.
- Release valve options include adjustable or pre-set nonadjustable for internal or return to tank applications.
- All components are interchangeable, providing an unusually wide choice of assemblies. Where production quantities permit, we will design and manufacture to your requirements, for new applications or to interchange with your existing equipment, at near-standard prices.
- Standard bearing housings are used in conjunction with gears and chambers having three basic gear configurations:
 - T C designation, having 17 teeth.
 - M O D designation having 10 teeth.
 - B A designation having 8 teeth.
- Each individual size in Group One is thus defined by a prefix denoting the gear followed by a number denoting the chamber width in inches. For example, BA 100 denotes gear style B A, with 8 teeth in a chamber 25.4 millimetres (1 inch) wide.

*Scan here to access
our operating
and maintenance
manual*



*Scan here to
quickly access our
flow rates chart*

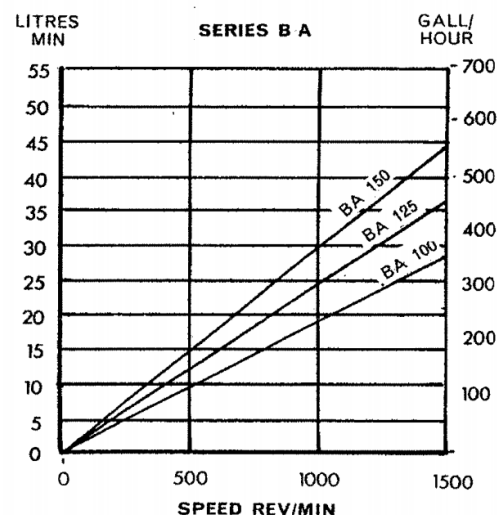
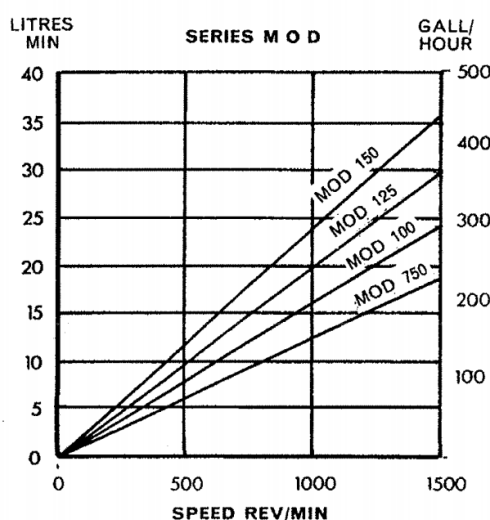
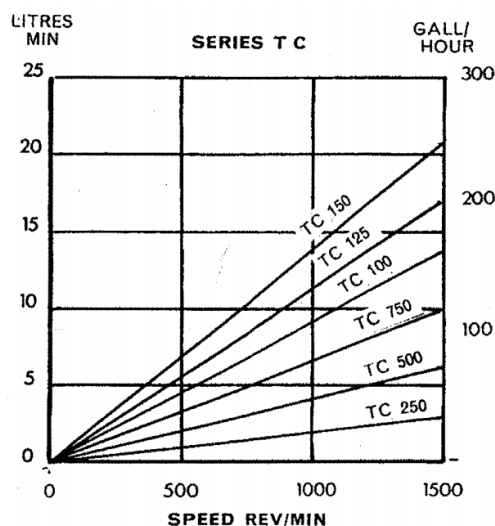




FLOW RATES

Midland pumps are positive displacement, and for most applications output flow is directly proportional to the speed of shaft rotation.

The following graphs, discharge against rotational speed are based on "ideal" conditions - oil with a viscosity of 95 centistokes with the pump running "Free Flow", flooded suction and without any restriction imposed upon the output.



With thinner materials, the volumetric output is reduced due to "slippage".

Slippage may be considered an escape of fluid from the output side to the inlet side of the pump through the fixed working clearances within the pump.

Slippage is a function of the internal clearances, the viscosity of the fluid, the differential pressure across the pump and in part upon the speed of shaft rotation.

Midland has available and will furnish on request slippage characteristic graphs for all sizes. These form part of our advanced data package, which includes information relating to pump driver power, speed reduction criteria and power corrections for very viscous materials. Our skilled engineers will willingly advise and assist in the selection of the pump for your requirement.



TECHNICAL DRAWINGS

Specific Discharge mL/rev		
Pump model	mL/rev	
TC 250	2.3	
TC 500	4.8	
TC 750	7.1	
TC 100	9.5	
TC 125	11.8	
TC 150	14.2	
MOD 100	16.1	
BA 100	19.6	
MOD 125	20.2	
MOD 150	24.2	
BA 150	29.4	

Port Connections

The normal position for the inlet and outlet ports is on either side of the chamber, as designated G₂. Certain combinations of Port size, chamber width and provision of release valve may necessitate alternative port locations as designated G₁ or G₃

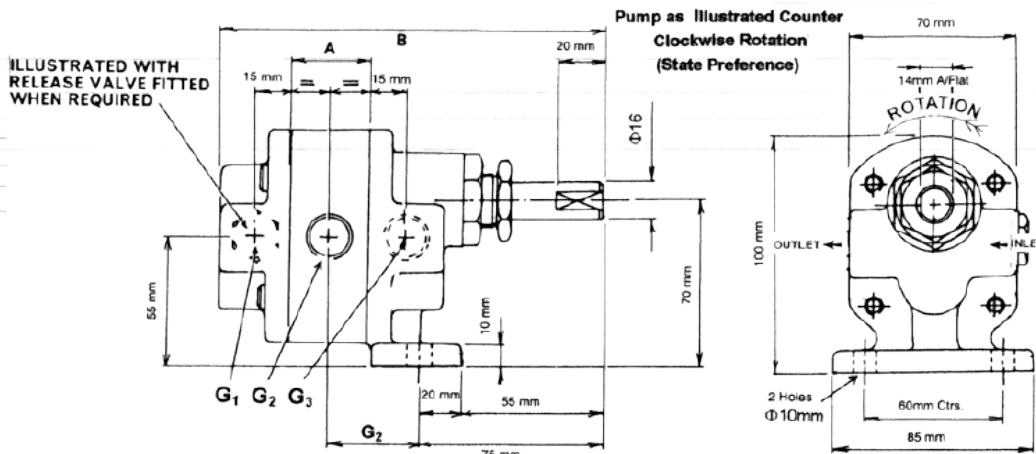
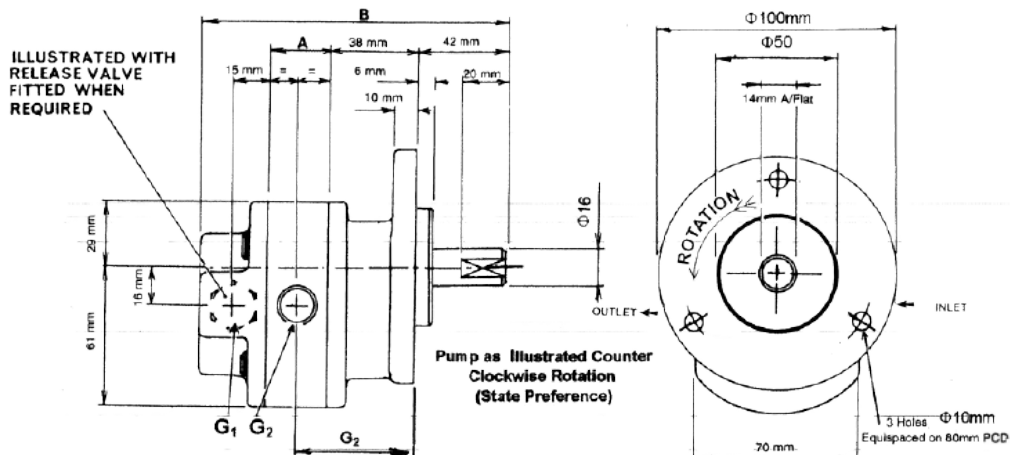
Port Sizes

Standard fitted all pumps incorporate female screwed ports (British Standard parallel Pipe thread (G))

Options :-
Screwed R_p (British Standard Taper) Pipe thread

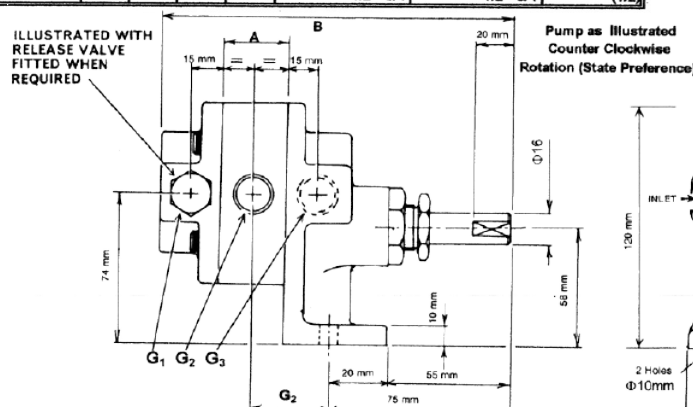
- Screwed, NPT (American national Taper Pipe thread)

- oversized ports. Many pump sizes are available with oversized ports. This can be an advantage when handling very viscous material, but extra care is required on installation to avoid damage to the pump casing elements.



Pump Model	A	B	G ₂	Port Position BSP parallel (oversized)					
				G ₁	G ₂ Preferred	G ₃			
TC	250	6.4	132.0	23.2	1/4 3/8 1/2 3/4	1/4 3/8 (1/2)	1/4	3/8	(1/2)
TC	500	12.7	136.0	26.4	1/4 3/8 1/2 3/4	1/4 3/8 (1/2)	1/4	3/8	(1/2)
TC MOD	750	19.0	144.0	29.5	1/4 3/8 1/2 3/4	1/4 (3/8)	1/4	3/8	(1/2)
TC MOD BA	100	25.3	150.0	32.7	1/4 3/8 1/2 3/4	3/8 (1/2)	1/4	3/8	(1/2)
TC MOD BA	125	31.6	156.0	35.8	3/8 1/2 3/4	3/8 1/2 (3/4)	3/8	1/2	(1/2)
TC MOD BA	150	37.9	162.0	39.0	1/2 3/4	1/2 3/4	1/2	3/4	(1/2)

MIDLAND FOOT MOUNTING PUMPS (TOP DRIVE SHAFT)



Pump Model	A	B	G ₂	Port Position BSP parallel (oversized)					
				G ₁	G ₂ Preferred	G ₃			
TC	250	6.4	142.0	23.2	1/4 3/8 1/2 3/4	1/4 3/8 (1/2)	1/4	3/8	(1/2)
TC	500	12.7	148.0	26.4	1/4 3/8 1/2 3/4	1/4 3/8 (1/2)	1/4	3/8	(1/2)
TC MOD	750	19.0	154.0	29.5	1/4 3/8 1/2 3/4	1/4 (3/8)	1/4	3/8	(1/2)
TC MOD BA	100	25.3	160.0	32.7	1/4 3/8 1/2 3/4	3/8 (1/2)	1/4	3/8	(1/2)
TC MOD BA	125	31.6	166.0	35.8	3/8 1/2 3/4	3/8 1/2 (3/4)	3/8	1/2	(1/2)
TC MOD BA	150	37.9	172.0	39.0	1/2 3/4	1/2 3/4	1/2	3/4	(1/2)

MIDLAND FOOT MOUNTING PUMPS (BOTTOM DRIVE)