

Pump application:

These positive displacement low inertia pumps are excellent at pumping fluids at low to medium pressures. These pumps are especially constructed for pumping molasses.



Performance

- Flow rates up to 7m³/h (final output is dependent on viscosity of the molasses).
- Heads up to 30m.
- Fluids must be clean and free from suspended abrasive particles.
- Maximum fluid temperature: +60°C.
- Maximum ambient temperature: +60°C.
- Maximum allowable pressure in casing: 6 Bar.
- Rotational speed: Nominal 200rpm for molasses - see table below.
- Lubrication: Blind plain bearings are self lubrication with the pumped liquid.
- Pumps can be run in reverse to change the direction of the pumped fluid..

Installation:

Securely bolt pump unit in location. The gear pump can be installed in any orientation except for engine driven units which must be installed in a horizontal position. However always ensure that pump is running in the right direction. Gear pumps can run in either direction by operating the power unit in reverse or alternatively by changing the delivery and suction pipes to opposite sides of the pump. If closed heads are to be encountered than a pressure relief or bypass valve must be installed and set to the required pressure. If full bypass is required ensure that vee belts are correctly aligned with the correct tension. Always prime the pump with the fluid to be pumped and start with a fully open discharge before throttling to pressure requirements. As the gear pump is to be used for pumping molasses, then it is strongly recommended that the inlet and discharge pipework be sized to a minimum of 3 times the diameter of the inlet and outlet ports and for the graphite gland packing to be replaced with a Teflon gland packing. (This is now fitted as a standard on all Molasses pumps). The gear pump must be rinsed out after use with hot water to prevent the pump from seizing up the next time it is used.

Caution: Pumps will self lubricate using the pumped fluid however avoid running the pump dry as this will create rapid wear.

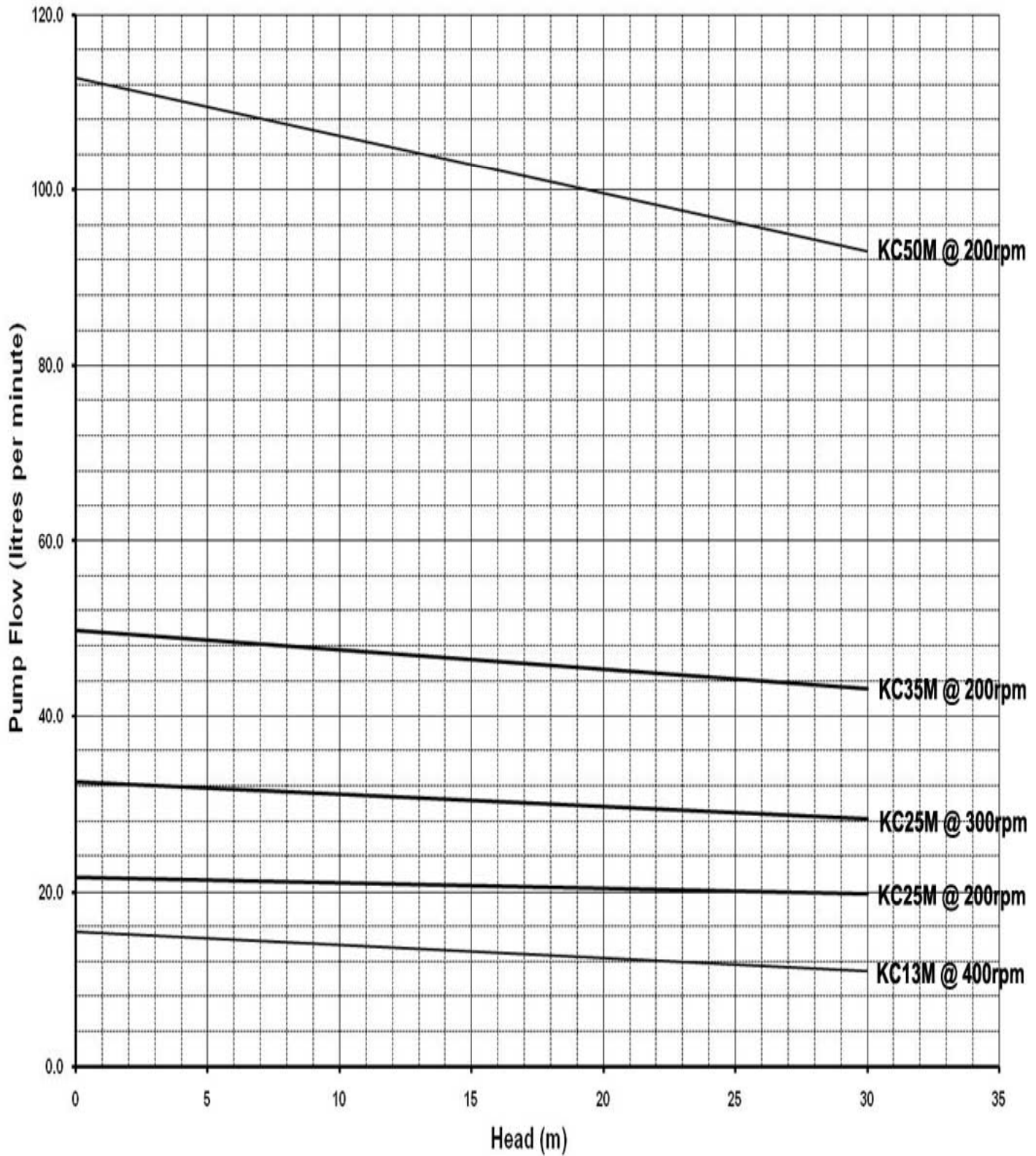
PUMP SELECTION TABLE

GEAR PUMP MODEL	HEAD	OUTPUT	NOMINAL SPEED	POWER REQUIRED	
	m	L/min	rpm	Hp	Kw
KC13E2-1M	30	15	400		1.5
KC25E3-3M	30	22	200		2.2
KC25E3-1M	30	32	300		2.2
KC35E10-3M	30	50	200		7.5
KC50E10-3M	30	113	200		7.5
KC25H5.5M	30	22	200	5.5	
KC35H9M	30	50	200	9	
KC50H13M	30	113	200	13	

*** Based on pumping clean water, performance for pumping molasses will be affected downwards .

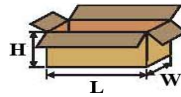
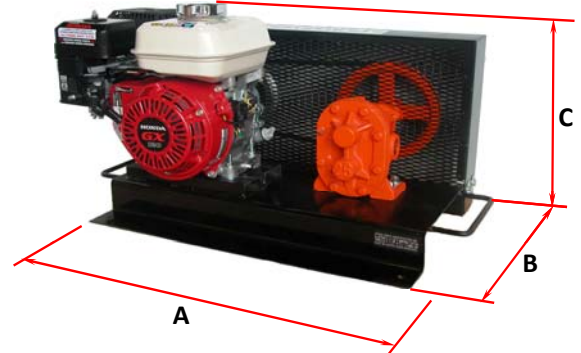
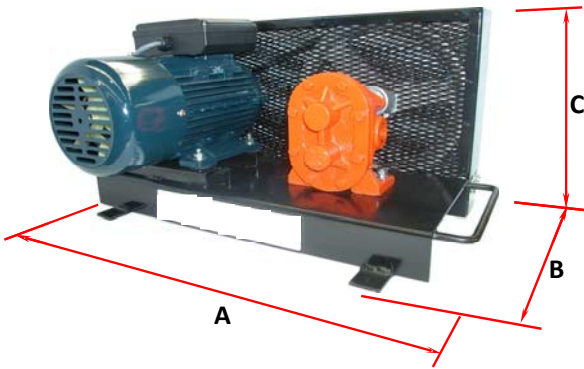
Also refer to graph on page 2

PUMP CURVES



The above curves are based upon the nominal speeds as indicated - as all pulley diameters are produced to the nearest 1/2 inch, the actual speeds may vary by +/- 15%.

DIMENSIONS



MOTOR DRIVEN UNITS

PUMP MODEL	MOTOR					V BELT TYPE	DIMENSIONS					PACKING			WEIGHT kg	
	VOLTAGE v	PHASES	POLES	POWER			A mm	B mm	C mm	Ø ₁ mm	Ø ₂ mm	L mm	W mm	H mm	KG	CUBIC
				Hp	Kw											
KC13E3-1M	240	1	4	2	1.5	Double belt - 2A ***	720	450	370	25	25	750	500	500	78	47
KC25E3-1M	240	1	4	3	2.2	Double belt - 2A ***	720	450	370	25	25	750	500	500	81	47
KC25E3-3M	415	3	8	3	2.2	Double belt - 2A ***	720	450	370	25	25	750	500	500	87	47
KC35E10-3M	415	3	8	10	7.5	Double belt - 2B ***	830	700	560	32	32	900	800	680	200	122
KC50E10-3M	415	3	8	10	7.5	Double belt - 2B ***	830	700	560	50	50	900	800	680	210	122

ENGINE DRIVEN UNITS

PUMP MODEL	ENGINE					V BELT TYPE	DIMENSIONS					PACKING			WEIGHT kg	
	MAKE	FUEL	MODEL **	START TYPE	Hp		A mm	B mm	C mm	Ø ₁ mm	Ø ₂ mm	L mm	W mm	H mm	KG	CUBIC
KC25H5.5M	Honda	Petrol	GX160U1 HXU	Recoil	5.5	Single belt - 1A ***	720	430	460	25	25	750	500	600	63	56
KC35H9M	Honda	Petrol	GX270U HX8	Recoil	9	Double belt - 2A ***	720	430	500	32	32	750	500	600	111	56
KC50H13M	Honda	Petrol	GX390UT1 QXU	Recoil	13	Double belt - 2B ***	830	600	570	50	50	750	500	700	146.5	66

** Each engine is fitted with a 6 : 1 ratio gearbox.

*** Suitable for molasses and other highly viscous liquids.