

Pump application:

These positive displacement low inertia pumps are excellent at pumping fluids at low to medium pressures. These pumps can be used to pump water and a large range of other non abrasive fluids including oils. Very useful for pressure boosting, liquid transfer, factory process pumping and lubrication duties.

Applications include -

- Tallow's
- Transformers oils
- Heating oils
- Printers ink
- Bitumen emulsions
- Molasses - see Tech Data sheet POS-9 for details
- Jelly products
- Fertilizer
- Diesoline
- Kerosene
- Lubricating liquids



Performance

Performance curves are based on a kinematic viscosity of 1mm²/s and a density of 1000 Kg/m³ at 20°C.

- Flow rates up to 27m³/h.
- 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 400rpm with a 600rpm recommended maximum.

For liquids with high viscosity, i.e. molasses the recommended speed is 200rpm - see Tech Data sheet POS-9 for special build molasses gear pump outfits.

- Comes in six pump different sizes with 12 electric motor and 20 engine combinations.
- Lubrication: Blind plain bearings are self lubrication with the pumped liquid, the stuffing box has a gland packing to serve as a grease lubricated bearing.
- 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.

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

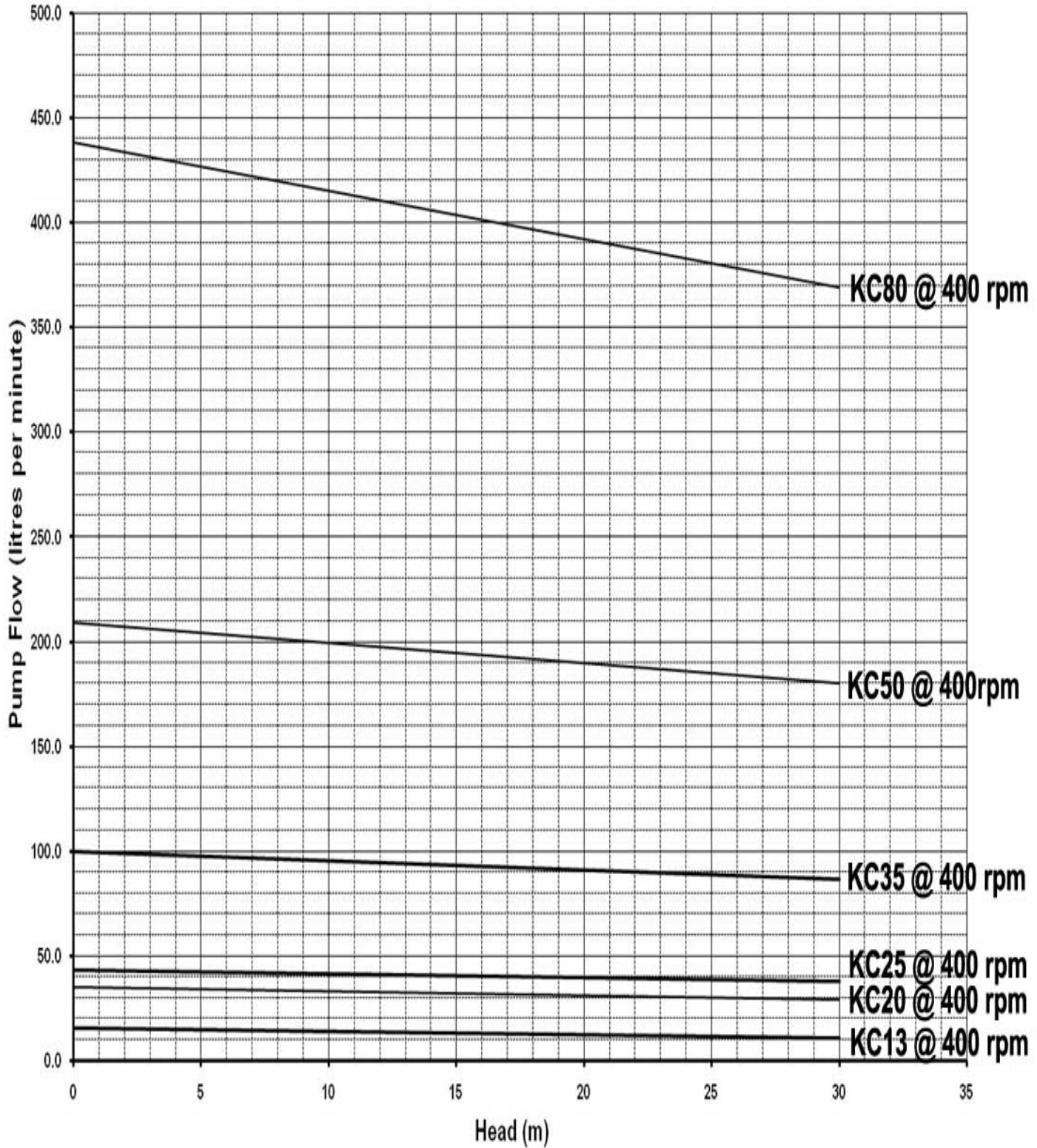
PUMP SELECTION TABLE

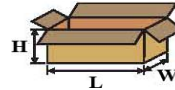
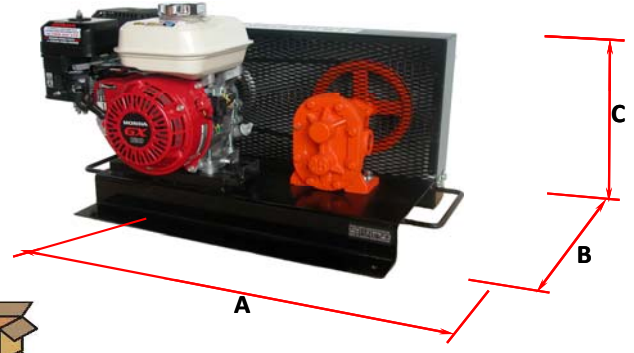
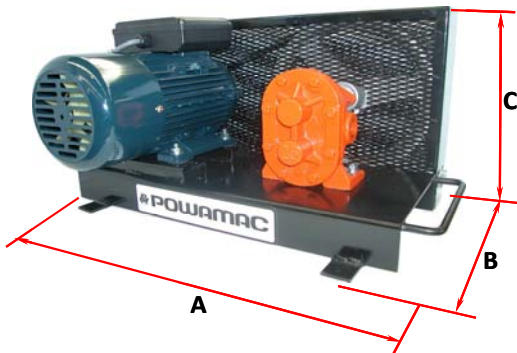
GEAR PUMP MODEL	SUCTION LIFT m	MAX HEAD m	MAXIMUM OUTPUT l/MIN			MAX POWER REQUIRED @30m head Hp ***
			@ 200 rpm	@ 400 rpm	@ 600 rpm	
KC13	4.5	30	8	15	23	0.75
KC20	4.5	30	18	35	53	1.5
KC25	4.5	30	22	42	65	2
KC35	4.5	30	50	100	150	3
KC50	4.5	30	113	210		4
KC80	4.5	30	220	440		7.5

Based on pumping clean water however for higher viscous liquids use a larger driving unit i.e. For

*** molasses triple the Hp required to drive the pump - (refer to Tech data POS-9) Higher head pressures than 30m will require higher power input - refer to pump curves.

PUMP SELECTION CURVE





MOTOR DRIVEN UNITS

PUMP MODEL	MOTOR					V BELT TYPE	RATED SPEED rpm	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												
KC13E0.75-1	240	1	4	0.75	0.55	Single belt - 1A	435	600	360	325	13	13	750	500	425	42	40
KC20E0.75-1	240	1	4	0.75	0.55	Single belt - 1A	480	600	360	325	20	20	750	500	425	44	40
KC25E1-1	240	1	4	1	0.75	Single belt - 1A	450	600	360	325	25	25	750	500	425	57	40
KC25E1-3	415	3	4	1	0.75	Single belt - 1A	450	600	360	325	25	25	750	500	425	57	40
KC25E3-1	240	1	4	3	2.2	Single belt - 1A	360	720	435	370	25	25	750	500	500	87	47
KC25E3-3	415	3	4	3	2.2	Single belt - 1A	360	720	450	370	25	25	750	500	500	87	47
KC25E3-1A	240	1	4	3	2.2	Double belt - 2A	360	720	450	370	25	25	750	500	500	87	47
KC25E3-3A	415	3	4	3	2.2	Double belt - 2A	360	720	450	370	25	25	750	500	500	87	47
KC35E2-1	240	1	4	2	1.5	Double belt - 2A	400	720	450	370	32	32	750	500	500	102	47
KC35E2-3	415	3	4	2	1.5	Double belt - 2A	400	720	450	370	32	32	750	500	500	102	47
KC35E10-3	415	3	4	10	7.5	Double belt - 2B	420	830	700	560	32	32	900	800	680	200	122
KC50E4-3	415	3	4	4	3	Double belt - 2B	395	830	600	460	50	50	900	800	680	190	122
KC50E10-3	415	3	4	10	7.5	Double belt - 2B	420	830	700	560	50	50	900	800	680	210	122
KC80E7-3	415	3	4	7.5	5.5	Double belt - 2B	420	950	700	600	80	80	1000	800	680	210	136
KC80E10-3	415	3	4	10	7.5	Double belt - 2B	420	950	700	600	80	80	1000	800	680	210	136

ENGINE DRIVEN UNITS

PUMP MODEL	ENGINE					V BELT TYPE	RATED SPEED rpm	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
KC13H4	Honda	Petrol	GX120U1 HXU	Recoil	4	Single belt - 1A	500	720	430	420	13	13	750	500	550	52	52
KC20H4	Honda	Petrol	GX120U1 HXU	Recoil	4	Single belt - 1A	500	720	430	420	20	20	750	500	550	54	52
KC25H4	Honda	Petrol	GX120U1 HXU	Recoil	4	Single belt - 1A	375	720	430	420	25	25	750	500	550	59	52
KC25H5.5	Honda	Petrol	GX160U1 HXU	Recoil	6	Single belt - 1A	375	720	430	460	25	25	750	500	600	63	56
KC35H5.5	Honda	Petrol	GX160U1 HXU	Recoil	6	Double belt - 2A	330	720	430	460	32	32	750	500	600	91	56
KC35H9	Honda	Petrol	GX270U HX8	Recoil	9	Double belt - 2A	330	720	430	500	32	32	750	500	600	111	56
KC35H9E	Honda	Petrol	GX270U HEA8	Electric	9	Double belt - 2A	250	720	430	500	32	32	750	500	600	116	56
KC50H9	Honda	Petrol	GX270U HX8	Recoil	9	Double belt - 2B	250	830	600	530	50	50	750	500	650	130	61
KC50H9E	Honda	Petrol	GX270U HEA8	Electric	9	Double belt - 2B	320	830	600	530	50	50	750	500	650	135	61
KC50H11	Honda	Petrol	GX340U1 QXU	Recoil	11	Double belt - 2B	320	830	600	570	50	50	750	500	700	146.5	66
KC50H11E	Honda	Petrol	GX340U1 QXE8	Electric	11	Double belt - 2B	320	830	600	570	50	50	750	500	700	152.5	66
KC50H13	Honda	Petrol	GX390UT1 QXU	Recoil	13	Double belt - 2B	320	830	600	570	50	50	750	500	700	146.5	66
KC50H13E	Honda	Petrol	GX390UT1 QXE8	Electric	13	Double belt - 2B	320	830	600	570	50	50	750	500	700	152.5	66
KC13B3.5	B&S Intek	Petrol	095052.0124.B1	Recoil	4	Single belt - 1A	500	720	430	425	13	13	750	500	550	34.5	52
KC20B3.5	B&S Intek	Petrol	095052.0124.B1	Recoil	4	Single belt - 1A	500	720	430	425	20	20	750	500	550	36.5	52
KC25B3.5	B&S Intek	Petrol	095052.0124.B1	Recoil	4	Single belt - 1A	500	720	430	425	25	25	750	500	550	41.5	52
KC25B6.5	Vanguard	Petrol	117432.0626.E1	Recoil	7	Single belt - 1A	500	720	430	480	25	25	750	500	600	46	56
KC35B6.5	Vanguard	Petrol	117432.0626.E1	Recoil	7	Double belt - 2A	389	720	430	480	32	32	750	500	600	74	56
KC35V9	Vanguard	Petrol	185432.0302.E9	Recoil	9	Double belt - 2A	278	720	430	560	32	32	750	500	650	86	61
KC50V9	Vanguard	Petrol	185432.0302.E9	Recoil	9	Double belt - 2B	364	830	600	560	50	50	750	500	700	105	66

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