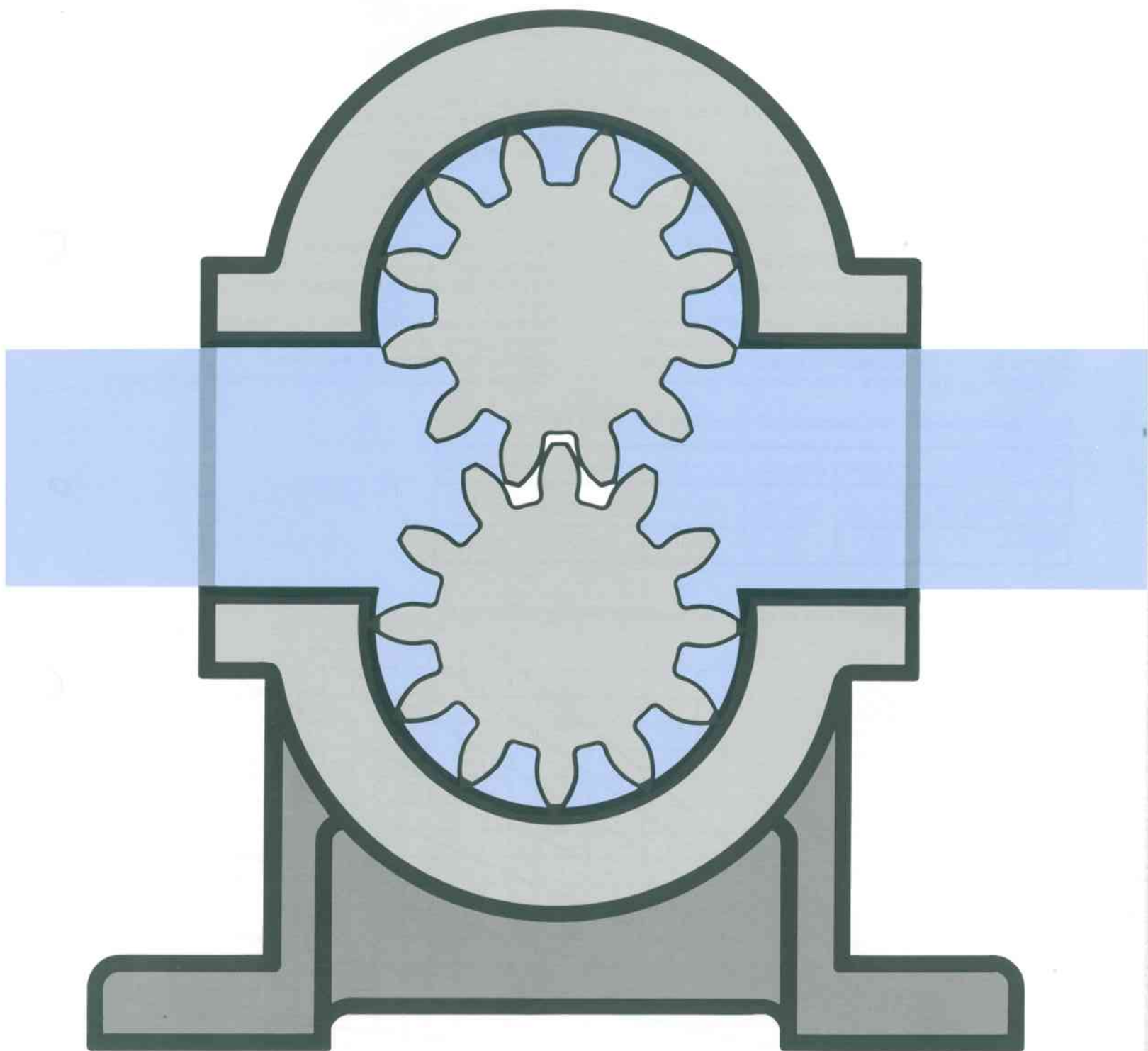


GREENSHPON
ENGINEERING WORKS LTD.

Gear Pump

Catalogue
4000-10-96



SPECIFICATIONS

Units are accurately machined with close tolerances which provide high overall efficiency and priming from 7 meters maximum depth.

The two pairs of helical gears accurately meshed provide particularly silent running.

Pumps are actioned positively and the capacity is proportional to speed, practically independent of pressure. The housing is made of grey cast iron machined after heat treatment.

Gear-wheels are made of high-tensile alloy steel accurately machined with hobs. They are provided with the smallest number of teeth possible in order to obtain the highest capacity.

Shafts are made of high-tensile alloy steel.

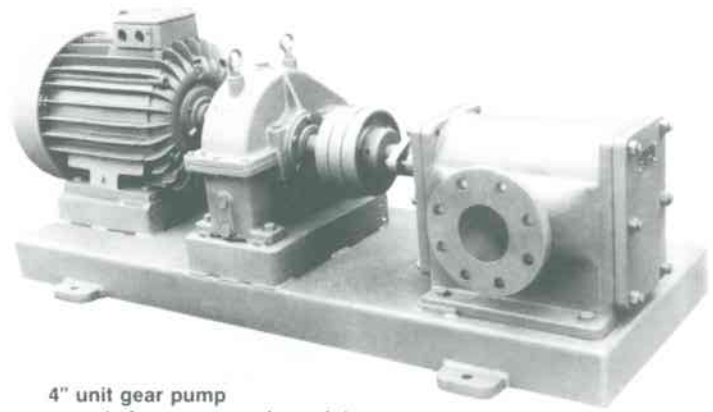
Gear-wheels and shafts are produced from stainless steel upon request.

Gear pumps are used with great success for the following substances: —

All kinds of oils such as: fuel oil, furnace oil, lubricating oil, edible oil; also molasses, asphalt, paints etc.

Pumps are suitable for pumping in both directions.

Care should be taken to mount the relief valve accordingly.



4" unit gear pump mounted on common baseplate with parallel shaft gear reducer and 20 H.P. electric motor.

SELECTION INSTRUCTIONS

Knowing the required capacity and pressure difference of the liquid to be pumped:

Refer to fig. 1 to find the maximum permissible rotating speed of the pump according to the viscosity of the liquid.

Refer to fig. 2 to find the required power N_1 according to the capacity of the pump and the difference between

discharge and suction pressures.

Refer to figs. 3 & 4 to find the right pump size according to the maximum permissible rotating speed and the required capacity.

For viscous liquids refer to fig. 5 to find the additional required power N_2 according to the viscosity of the liquid and the rotating speed of the pump.

The total required power of the prime mover is: $N = N_1 + N_2$

Fig. 1. Recommended max. pump speed depending from liquid viscosity

Viscosity at work temperature	SSU	Up to 200	200—600	600—1000	1000—5000	5000—10000
	Cst	Up to 45	45—130	130—220	220—1000	1000—2000
RPM max		960	750	600	550	350

Fig. 2. Performance characteristics of pumps for liquid viscosity up to 200 SSU

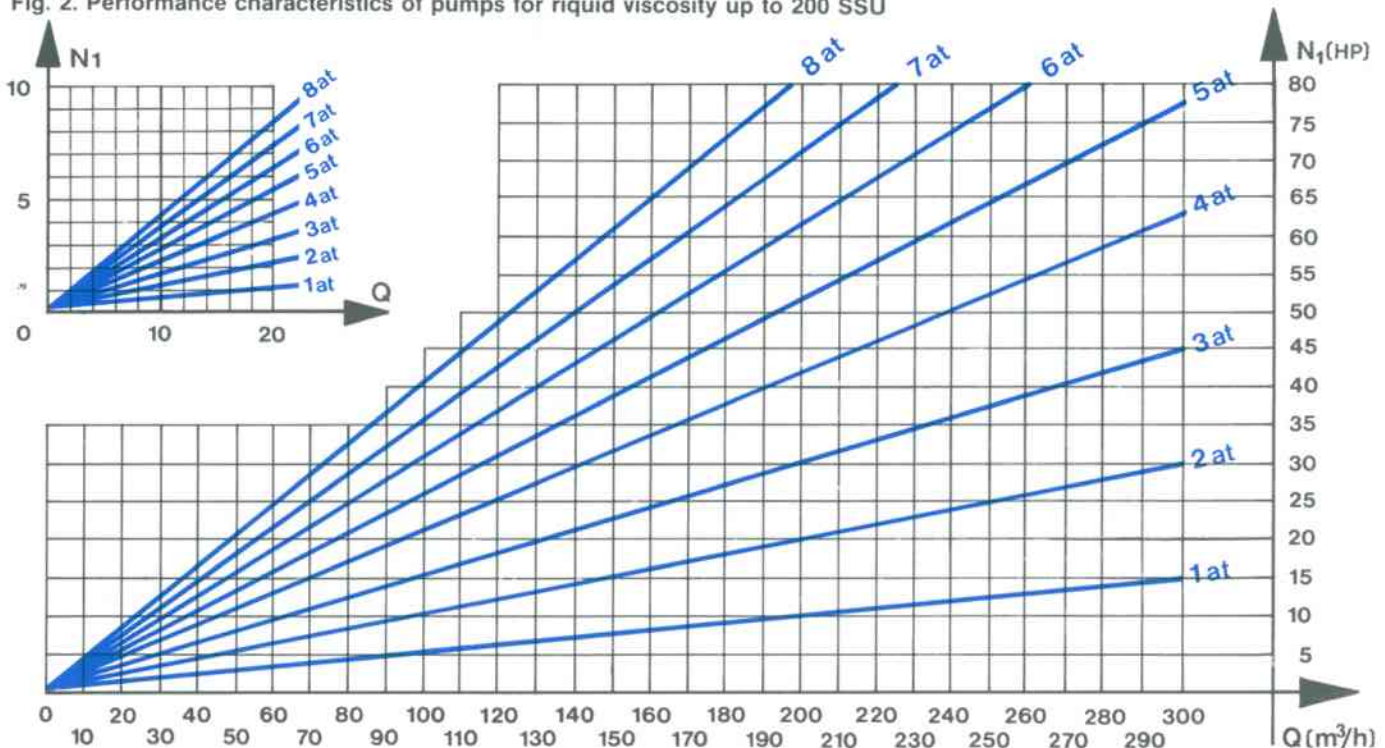


Fig. 3
Pump size according to pump speed and required capacity

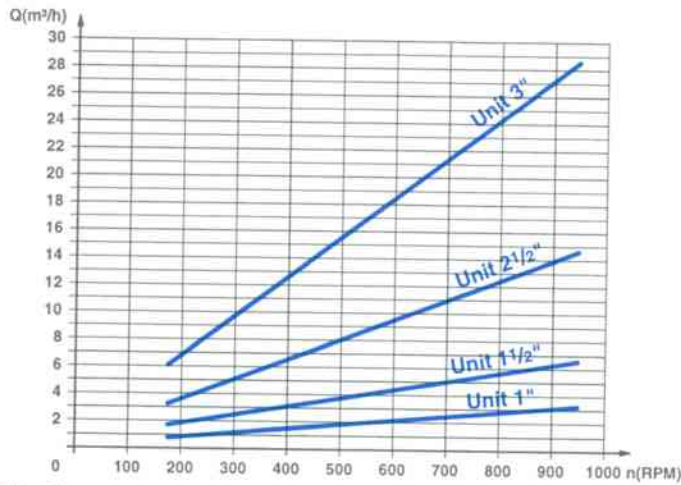


Fig. 4
Pump size according to pump speed and required capacity

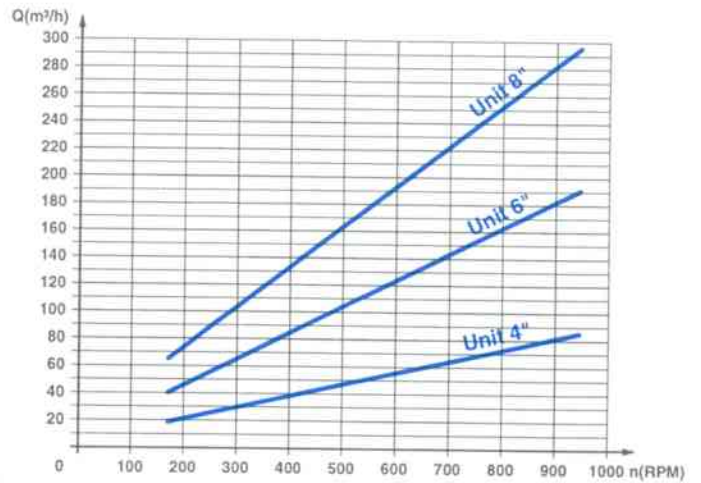
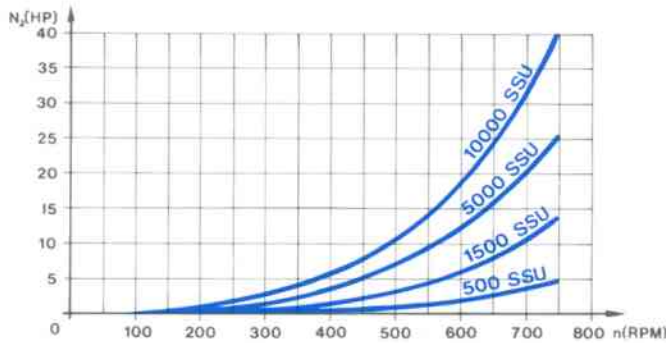


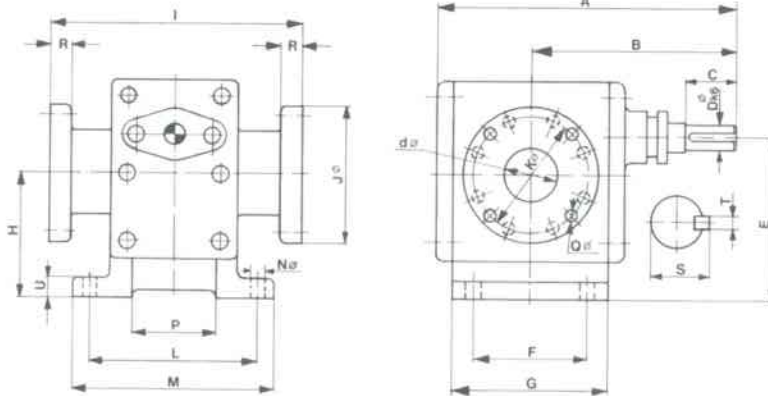
Fig. 5
Change in friction horsepower with viscosity and pump speed



Main Dimensions of standard B5 motors (IEC) 1500 RPM

HP	0,5	1	1,5	2	3	4
Frame	71	80	90	100	100	100
X	212	235	235	309	313	338
Y	160	200	200	200	250	250
Weight	11	16	20	22	30	33

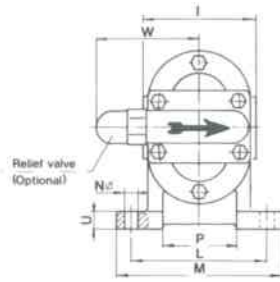
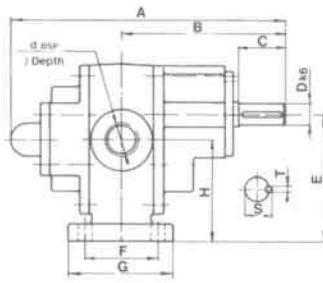
TYPE GP



DIMENSIONS (mm)

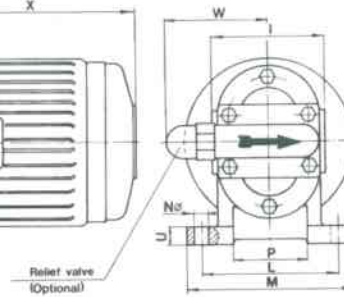
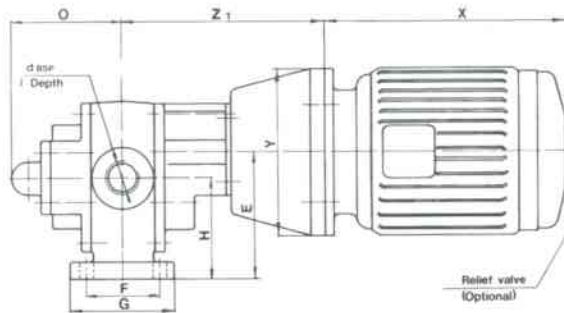
Unit	d	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P	Q	R	S	T	U	Weight
2½"	70	360	270	50	28	214	90	135	223	307	180	139.7	190	230	17	100	4×17	20	31	8	20	48
3"	80	380	263	65	35	215	155	195	165	335	195	152.4	220	260	17	116	4×17	21	38.5	10	23	90
4"	102	580	380	85	40	250	200	240	190	400	230	190	240	300	17	145	8×19	23	43.5	12	23	190
6"	155	615	410	110	65	335	320	370	275	430	280	242	290	340	24	160	8×22	25	70	18	30	360
8"	200	785	527	160	95	440	396	450	340	520	345	300	380	440	27	240	8×22	28	103	28	40	580

TYPE N-GP



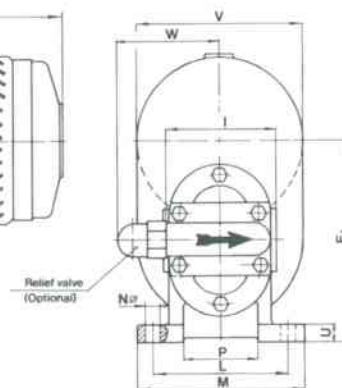
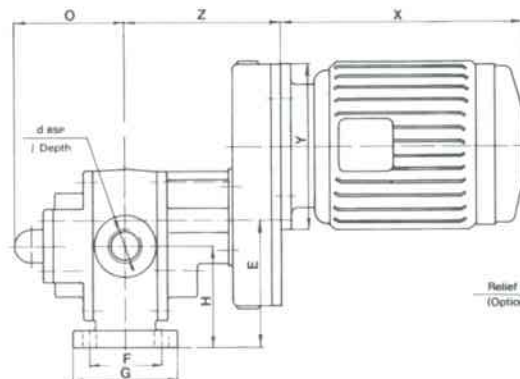
Unit	d	I	A	B	C	D	E	F	G	H	I	L	M	N	P	S	T	U	W	Weight
1"	1"	25	252	146	45	22	120	70	100	96.5	110	130	160	14	70	24.5	6	17	94	12
1½"	1½"	30	295	173	45	24	135	80	110	108	135	150	180	14	86	26.9	8	18	94	18

TYPE GPM



Unit	d	I	E	F	G	H	I	L	M	N	O	P	U	W	Z	Weight*
1"	1"	25	120	70	100	96.5	110	130	160	14	106	70	17	94	211	16
1½"	1½"	30	135	80	110	108	135	150	180	14	122	86	18	94	228	22

TYPE GPSM



Unit	d	I	E	E¹	F	G	H	I	L	M	N	O	P	U	V	W	Z	Weight*
1"	1"	25	120	190	70	100	96.5	110	130	160	14	106	70	17	170	94	148	15
1½"	1½"	30	135	205	80	110	108	135	150	180	14	122	86	18	170	94	165	21

* Weight without elec. motor



פארק תעשיות בר-לב
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טל: 04-9913181
פקס: 04-9913477

גרינשפון
מפעלי גרינשפון להנדסה בע"מ

