ASP 420

Bareshaft Pump Performance

Rotor Selection
10° - 40°C Standard Rotor
41° - 70°C Mark 3 Rotor
For applications outside these temperature limits, contact NOV Australia.

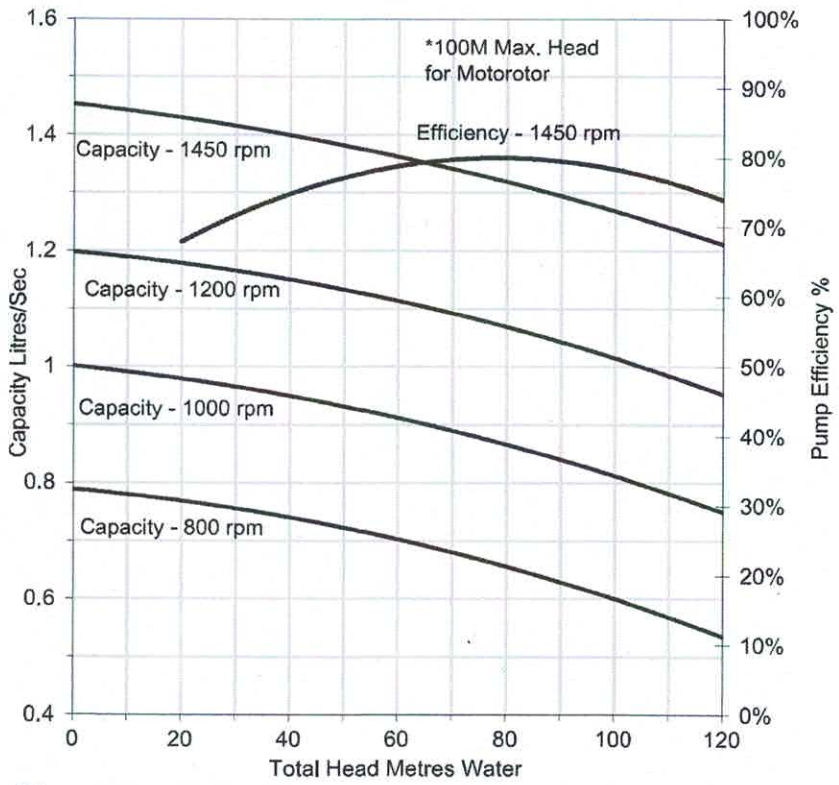
Suction Table	
RPM	Metres
1450	6.4
1200	7.1
1000	7.4
800	7.6

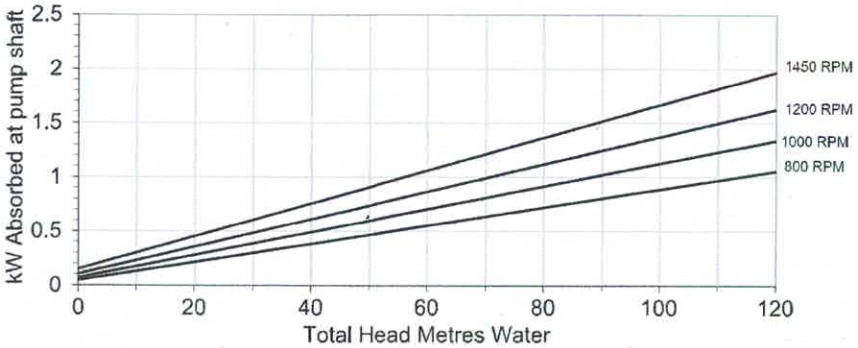
Figures shown are maximum suction lift at sea level at 20°C other losses due to fitting and pipe friction to be deducted for system design.

Minimum Motor Size: 1.1kW
kW absorbed curve and figures relate to power absorbed at the pump shaft. For drive power requirements use the following multipliers.
DIESEL x 1.33 PETROL x 1.5 ELECTRIC x 1.25

Common Conversions	
1 l/sec	= 792 gal/hr
1000 gal/hr	= 75.6 l/min
10 m	= 34 ft = 14.2 psi = 98 kpa
100 ft	= 30.5 m = 43.3 psi = 298 kpa
1 hp	= 0.75kW
1 kW	= 1.34 hp

'est curve and table are ypical only figures at 20°C erformance may vary with emperature and field condition.





Pump Speed rpm	Capacity and Power	Total head from all causes					
		20 65ft	40 130ft	60 197ft	80 262ft	100 328ft	120 393ft
1450	Litres/Sec Gph kW abs	1.43 1132 0.46	1.4 1108 0.74	1.36 1076 1.06	1.32 1045 1.37	1.27 1005 1.67	1.21 958 1.97
1200	Litres/Sec Gph kW abs	1.18 934 0.36	1.15 910 0.6	1.11 878 0.87	1.07 847 1.12	1.02 807 1.37	0.95 752 1.62
1000	Litres/Sec Gph kW abs	0.98 776 0.28	0.95 752 0.49	0.91 720 0.7	0.87 689 0.91	0.81 641 1.12	0.75 594 1.34
800	Litres/Sec Gph kW abs	0.77 609 0.22	0.74 586 0.38	0.7 554 0.55	0.66 522 0.71	0.6 475 0.89	0.535 423 1.06

ASP 440

Bareshaft Pump Performance

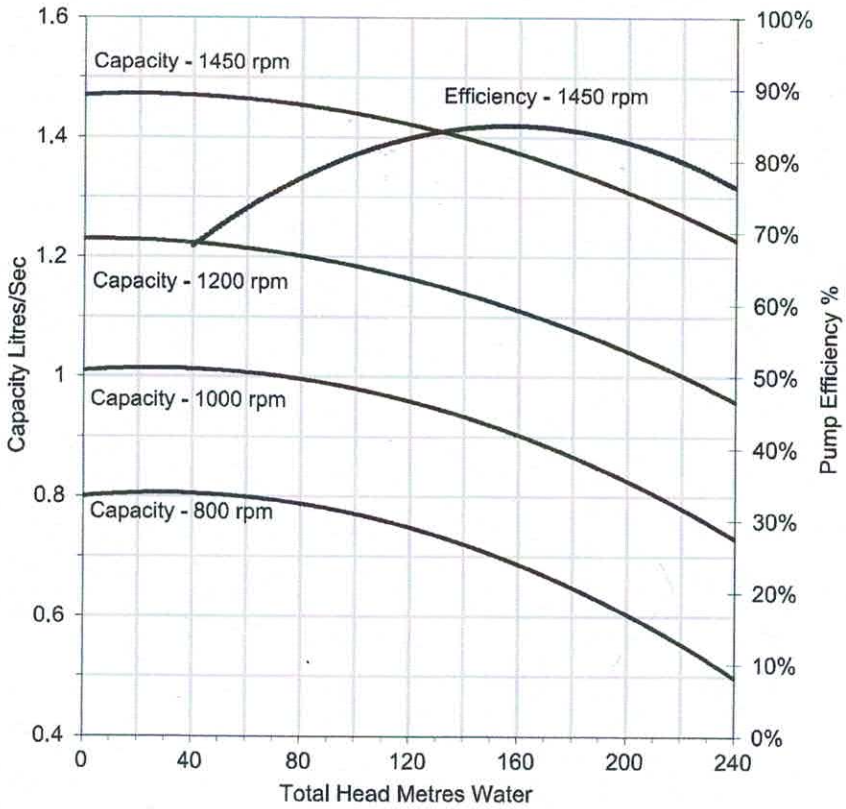
Rotor Selection
10° - 40°C Standard Rotor
41° - 70°C Mark 3 Rotor
For applications outside these temperature limits, contact NOV Australia.

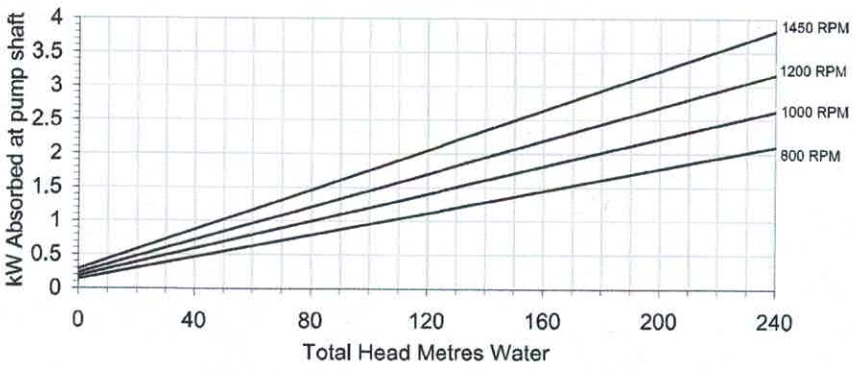
Suction Table	
RPM	Metres
1450	6.4
1200	7.1
1000	7.4
800	7.6
Figures shown are maximum suction lift at sea level at 20°C other losses due to fitting and pipe friction to be deducted for system design.	

Minimum Motor Size: 1.5kW
kW absorbed curve and figures relate to power absorbed at the pump shaft. For drive power requirements use the following multipliers.
DIESEL x 1.33 PETROL x 1.5 ELECTRIC x 1.25

Common Conversions	
1 l/sec	= 792 gal/hr
1000 gal/hr	= 75.6 l/min
10 m	= 34 ft = 14.2 psi = 98 kpa
100 ft	= 30.5 m = 43.3 psi = 298 kpa
1 hp	= 0.75kW
1 kW	= 1.34 hp

Test curve and table are typical only figures at 20°C performance may vary with temperature and field condition.





Pump Speed rpm	Capacity and Power	Total head from all causes					
		40 130ft	80 262ft	120 393ft	160 528ft	200 660ft	240 792ft
1450	Litres/Sec Gph kW abs	1.46 1155 0.88	1.45 1148 1.47	1.43 1132 2.05	1.38 1092 2.6	1.3 1029 3.24	1.23 973 3.83
1200	Litres/Sec Gph kW abs	1.21 958 0.73	1.19 942 1.2	1.17 926 1.7	1.12 886 2.17	1.05 831 2.68	0.95 752 3.19
1000	Litres/Sec Gph kW abs	1.0 791 0.59	0.99 783 1.01	0.97 768 1.4	0.91 720 1.8	0.82 649 2.21	0.73 578 2.65
800	Litres/Sec Gph kW abs	0.8 633 0.47	0.79 625 0.8	0.75 594 1.1	0.69 546 1.44	0.6 475 1.78	0.5 396 2.11

All prices are exclusive of G.S.T.

ASP 510

Bareshaft Pump Performance

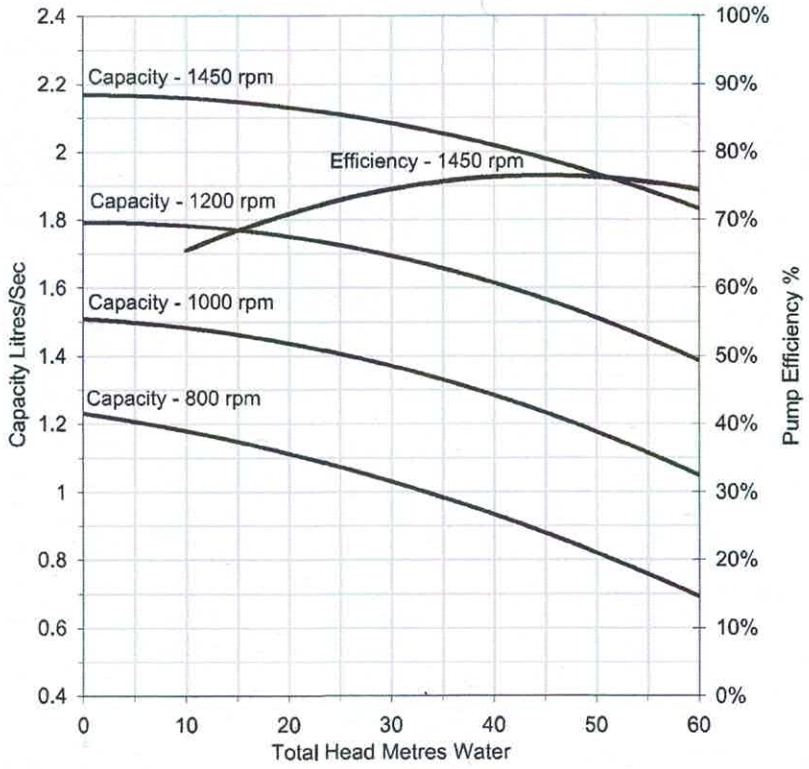
Rotor Selection
10° - 40°C Standard Rotor
41° - 70°C Mark 3 Rotor
For applications outside these temperature limits, contact NOV Australia.

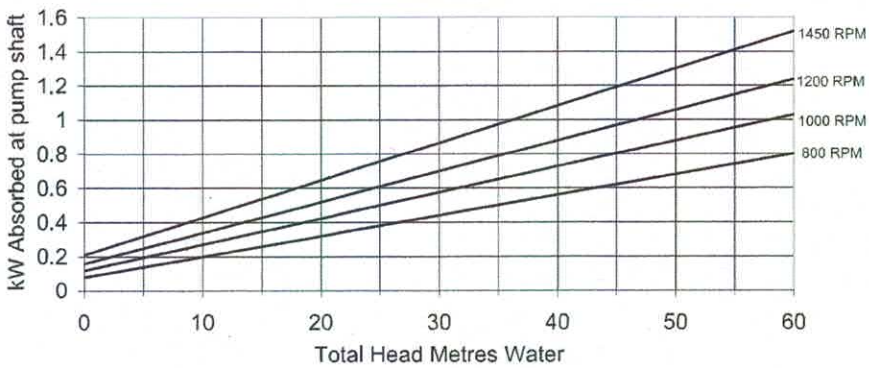
Suction Table	
RPM	Metres
1450	6.5
1200	7.0
1000	7.5
800	8.0
Figures shown are maximum suction lift at sea level at 20°C other losses due to fitting and pipe friction to be deducted for system design.	

Minimum Motor Size: 1.1kW
kW absorbed curve and figures relate to power absorbed at the pump shaft. For drive power requirements use the following multipliers.
DIESEL x 1.33 PETROL x 1.5 ELECTRIC x 1.25

Common Conversions	
1 l/sec	= 792 gal/hr
1000 gal/hr	= 75.6 l/min
10 m	= 34 ft = 14.2 psi = 98 kpa
100 ft	= 30.5 m = 43.3 psi = 298 kpa
1 hp	= 0.75kW
1 kW	= 1.34 hp

Test curve and table are typical only figures at 20°C performance may vary with temperature and field condition.





Pump Speed rpm	Capacity and Power	Total head from all causes (m)					
		10 33ft	20 65ft	30 98ft	40 130ft	50 164ft	60 197ft
1450	Litres/Sec Gph kW abs	2.15 1702 0.43	2.14 1694 0.65	2.1 1662 0.87	2.0 1583 1.08	1.93 1527 1.30	1.84 1456 1.52
1200	Litres/Sec Gph kW abs	1.78 1409 0.34	1.76 1393 0.52	1.68 1330 0.70	1.63 1290 0.88	1.5 1187 1.06	1.39 1100 1.24
1000	Litres/Sec Gph kW abs	1.48 1171 0.27	1.44 1140 0.42	1.37 1084 0.57	1.3 1029 0.73	1.15 910 0.88	1.06 839 1.03
800	Litres/Sec Gph kW abs	1.17 926 0.2	1.14 902 0.32	1.0 791 0.44	0.96 760 0.56	0.8 633 0.68	0.7 554 0.8

ASP 520

Bareshaft Pump Performance

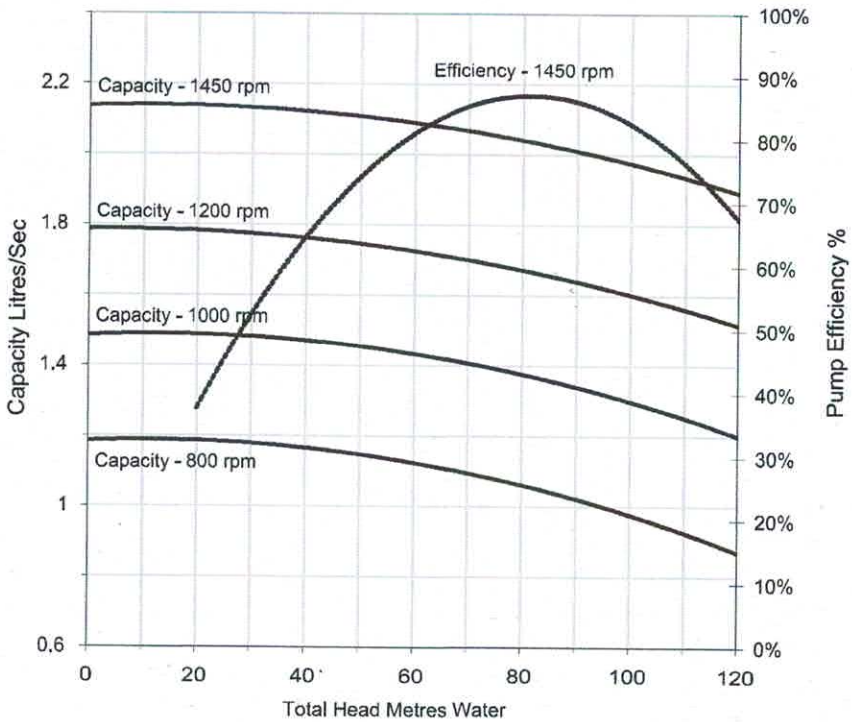
Rotor Selection
10° - 40°C Standard Rotor
41° - 70°C Mark 3 Rotor
For applications outside these temperature limits, contact NOV Australia.

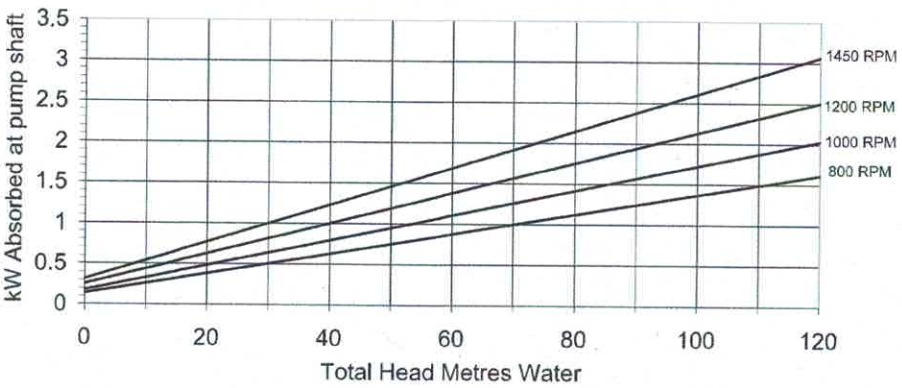
Suction Table	
RPM	Metres
1450	6.5
1200	7.0
1000	7.5
800	8.0
Figures shown are maximum suction lift at sea level at 20°C other losses due to fitting and pipe friction to be deducted for system design.	

Minimum Motor Size: 1.5kW
kW absorbed curve and figures relate to power absorbed at the pump shaft. For drive power requirements use the following multipliers.
DIESEL x 1.33 PETROL x 1.5 ELECTRIC x 1.25

Common Conversions	
1 l/sec	= 792 gal/hr
1000 gal/hr	= 75.6 l/min
10 m	= 34 ft = 14.2 psi = 98 kpa
100 ft	= 30.5 m = 43.3 psi = 298 kpa
1 hp	= 0.75kW
1 kW	= 1.34 hp

Test curve and table are typical only figures at 20°C performance may vary with temperature and field condition.





Pump Speed rpm	Capacity and Power	Total head from all causes (m)					
		20 65ft	40 130ft	60 197ft	80 262ft	100 328ft	120 393ft
1450	Litres/Sec Gph kW abs	2.14 1694 0.77	2.12 1678 1.23	2.09 1654 1.7	2.04 1614 2.15	1.98 1567 2.6	1.89 1496 3.07
1200	Litres/Sec Gph kW abs	1.79 1417 0.62	1.75 1385 1.01	1.72 1361 1.37	1.68 1330 1.76	1.61 1274 2.13	1.51 1195 2.5
1000	Litres/Sec Gph kW abs	1.49 1179 0.49	1.47 1163 0.8	1.43 1132 1.11	1.38 1092 1.4	1.3 1029 1.73	1.2 950 2.04
800	Litres/Sec Gph kW abs	1.19 942 0.39	1.16 918 0.63	1.13 894 0.87	1.06 839 1.1	0.98 776 1.36	0.87 689 1.63

ASP 610 (Obsolete)

Bareshaft Pump Performance

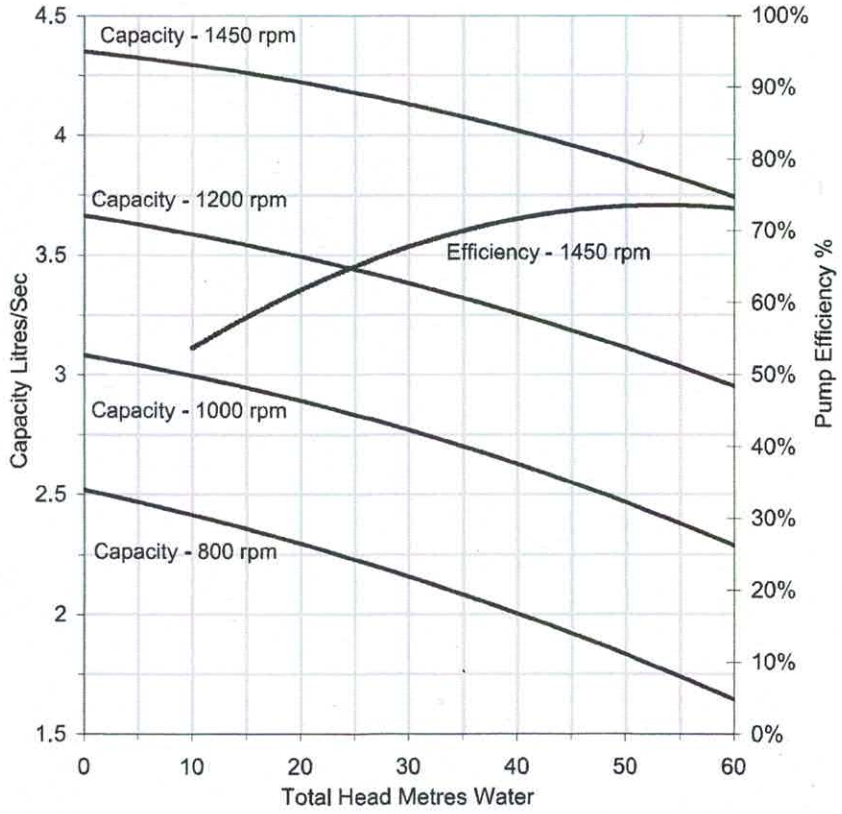
Rotor Selection
10° - 40°C Standard Rotor
41° - 70°C Mark 3 Rotor
For applications outside these temperature limits, contact NOV Australia.

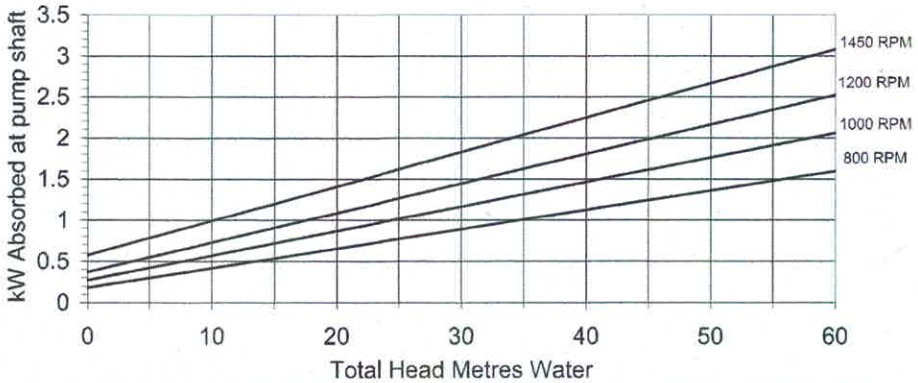
Suction Table	
RPM	Metres
1450	4.3
1200	6.0
1000	7.0
800	7.5
Figures shown are maximum suction lift at sea level at 20°C other losses due to fitting and pipe friction to be deducted for system design.	

Minimum Motor Size: 1.5kW
kW absorbed curve and figures relate to power absorbed at the pump shaft. For drive power requirements use the following multipliers.
DIESEL x 1.33 PETROL x 1.5 ELECTRIC x 1.25

Common Conversions	
1 l/sec	= 792 gal/hr
1000 gal/hr	= 75.6 l/min
10 m	= 34 ft = 14.2 psi = 98 kpa
100 ft	= 30.5 m = 43.3 psi = 298 kpa
1 hp	= 0.75kW
1 kW	= 1.34 hp

Test curve and table are typical only figures at 20°C performance may vary with temperature and field condition.





Pump Speed rpm	Capacity and Power	Total head from all causes (m)					
		10 33ft	20 65ft	30 98ft	40 130ft	50 164ft	60 197ft
1450	Litres/Sec Gph kW abs	4.3 3403 0.99	4.21 3332 1.41	4.14 3276 1.83	4.01 3174 2.24	3.9 3086 2.66	3.74 2960 3.08
1200	Litres/Sec Gph kW abs	3.6 2849 0.73	3.47 2746 1.09	3.37 2667 1.45	3.29 2604 1.80	3.1 2453 2.16	2.95 2335 2.52
1000	Litres/Sec Gph kW abs	3.0 2374 0.57	2.89 2287 0.87	2.75 2176 1.17	2.66 2105 1.46	2.45 1939 1.76	2.29 1812 2.06
800	Litres/Sec Gph kW abs	2.43 1923 0.42	2.28 1804 0.66	2.12 1678 0.89	2.06 1630 1.13	1.82 1440 1.36	1.64 1298 1.6

All prices are exclusive of G.S.T.

ASP 620

Bareshaft Pump Performance

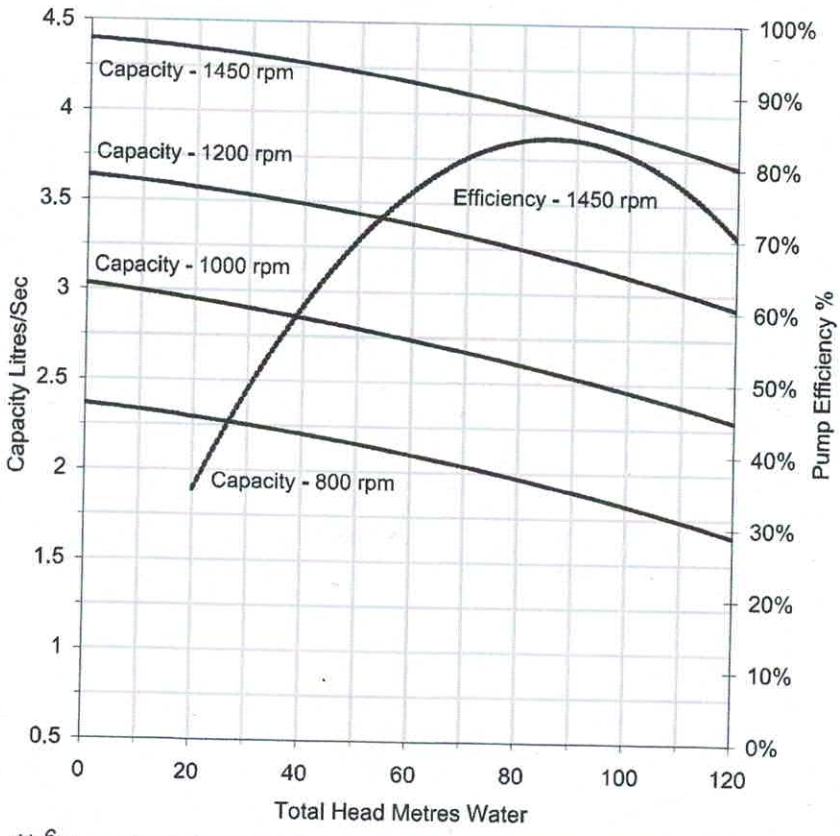
Rotor Selection
10° - 40°C Standard Rotor
41° - 70°C Mark 3 Rotor
For applications outside these temperature limits, contact NOV Australia

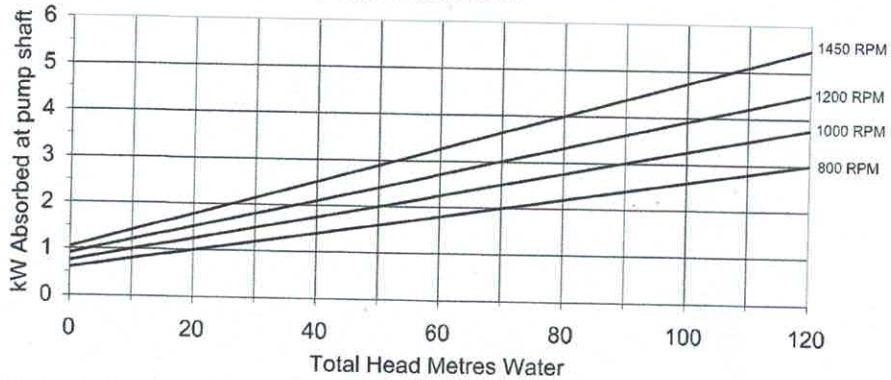
Suction Table	
RPM	Metres
1450	4.3
1200	6.0
1000	7.0
800	7.5
Figures shown are maximum suction lift at sea level at 20°C other losses due to fitting and pipe friction to be deducted for system design.	

Minimum Motor Size: 1.5kW
kW absorbed curve and figures relate to power absorbed at the pump shaft. For drive power requirements use the following multipliers.
DIESEL x 1.33 PETROL x 1.5 ELECTRIC x 1.25

Common Conversions	
1 l/sec	= 792 gal/hr
1000 gal/hr	= 75.6 l/min
10 m	= 34 ft = 14.2 psi = 98 kpa
100 ft	= 30.5 m = 43.3 psi = 298 kpa
1 hp	= 0.75kW
1 kW	= 1.34 hp

Test curve and table are typical only figures at 20°C performance may vary with temperature and field condition.





Pump Speed rpm	Capacity and Power	Total head from all causes (m)					
		20 65ft	40 130ft	60 197ft	80 262ft	100 328ft	120 393ft
1450	Litres/Sec Gph kW abs	4.35 3443 1.80	4.28 3387 2.50	4.15 3284 3.25	4.05 3205 4.00	3.90 3086 4.70	3.70 2928 5.50
1200	Litres/Sec Gph kW abs	3.57 2825 1.50	3.50 2770 2.10	3.37 2667 2.70	3.25 2572 3.30	3.10 2453 3.90	2.92 2311 4.50
1000	Litres/Sec Gph kW abs	2.95 2335 1.25	2.85 2255 1.75	2.75 2176 2.25	2.60 2058 2.75	2.45 1939 3.25	2.30 1820 3.75
800	Litres/Sec Gph kW abs	2.30 1820 1.00	2.20 1741 1.40	2.10 1662 1.80	1.97 1559 2.20	1.83 1448 2.60	1.65 1306 3.00

ASP Motorised Pumps

DO IT YOURSELF SELECTION

1 Select correct pump size to achieve required flowrate & pressure.
2 Determine the speed that the pump will need to operate at. Standard speeds are 600, 800, 1000, 1200 or 1450rpm.
3 Determine pump power absorbed from power curve in product manual
4 Apply appropriate multiplier:
- Diesel x 1.33
- Petrol x 1.5
- Electric x 1.25

5 Using the "Standard Motor Table" - preselect a motor with suitable shaft power
6 Look up the table relating to the selected pump & determine the package price
Package price includes the following:
- Bareshaft ASP Pump
- Galvanised baseplate
- Galvanised steel guard
- Diesel, petrol or electric motor
- Clutch (diesel only)
- Belts & pulleys

7 Order build number as listed in selection table
8 Select a BKIT (belt & pulley kit) to suit the required pump speed

EXAMPLE:
ASP520 pump selected to deliver 1.5 litres per second at 100m discharge pressure

From the curves in the Product Manual:
Pump Speed = 1200rpm
Max Power Absorbed = 2kW

Applying 1.33 multiplier for a diesel motor:
Shaft Power Required = 2 x 1.33
= 2.66kW

Using "Standard Motor Table", the following motors may be suitable:
Yanmar TF70
Kubota RK60 or RK70

Assuming that the Yanmar motor was the preffered choice, using the pump table:
TF70 - Manual Start - ASP520/TF70-MS - $14,620
TF70 - Electric Start - ASP520/TF70-ES - $15,490
Select a BKIT (belt & pulley kit) to suit the drive selected & pump speed required.
Yanmar drive, 1800 rpm motor speed, 1200 rpm pump speed uses kit: BKIT 1800/1200Y
* All orders must include a belt kit, the price of the belt kit is included with the pump & motor

* Motor speeds have been selected to achieve peak performance from drives.

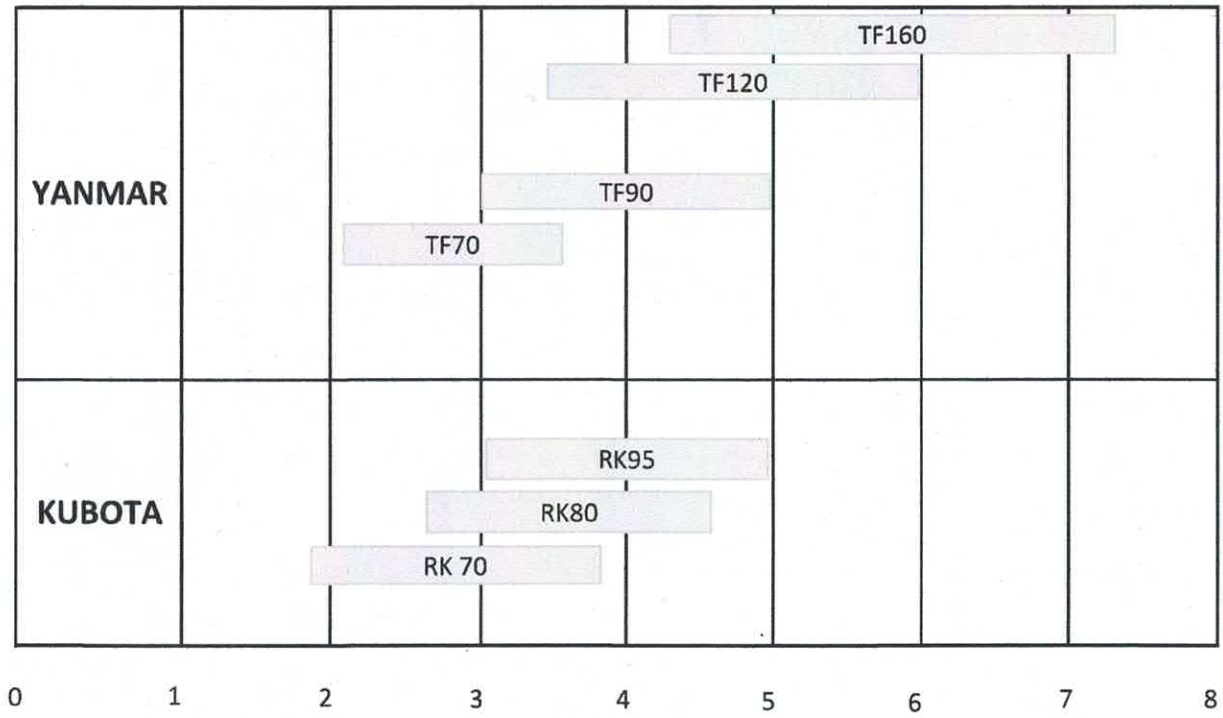
The motors have not been set to run at the specified speeds and can run faster or slower depending on actual throttle settings.

NOV recommends that the motor speed is measured at the time of commissioning the unit and speed limit screw set to prevent overspeed.

Operating the motor at speeds faster or slower than the design speed can result in damage to either the pump or the motor.

NOV Australia can arrange motors that have the maximum speed factory set however additional charges will apply and units will not be available on standard lead-times.

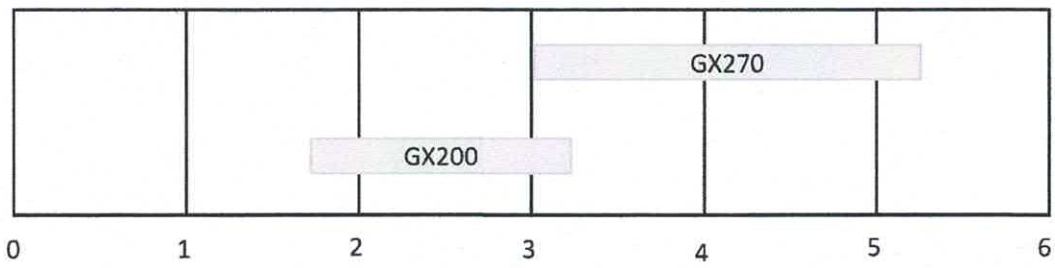
STANDARD DIESEL MOTORS



Shaft Power (kW)

* Shaft power is rated motor speed **(1800rpm)** for continuous running

HONDA PETROL MOTORS



Shaft Power (kW)

* Shaft power is rated motor speed (1500rpm) for continuous running