



DP 50 HYDRAULIC TOYO

The unit is based on the actual Toyo model DP-50 hydraulic drive with specifications as follows:

Flange Size : 6" (150mm)
Pump Power : 50HP
Pump Speed : 1200 rpm
Discharge Flow : 3.2 m3/min

Discharge Head : 25m

Max solids size : 60mm diameter

Hydraulic Drive : Gear Motor
Oil Flow Rate : 270 liter/min
Oil Pressure : 140 kg/cm2

POWERPACK

- a). The flow rate will effect the pump speed. We recommend 240ltr/min for pump speed of 1,200 rpm.
- b). The hydraulic pressure will effect the Horsepower of the Toyo pump. We recommend running at 138Bar which provides power output of 60HP. This is more than sufficient for the size of the pump.

If turning up the pressure to 180 Bar this will give 79HP. This will be useful when pumping heavy slurries or when you need the extra head capacity.

To summarize; recommended operation at following;

Flow Rate : 240 ltr/min = 1,200 rpm (Toyo pump speed)

Pressure : 138 Bar = 60 Horsepower

Below attached 2 print-outs of variations of flow rate / pressure / power / speed

1. 240 ltr/min / 138 Bar / 1,200 rpm / 60 HP

2. 240 ltr/min / 180 Bar / 1,200 rpm / 79 HP







Toyo performance ratings are based on pumping water at specific gravity of 1.0 - if intending pumping slurries then there is need to multiply the horsepower requirement by the S.G of fluid to get the same performance. This is where the hydraulic drive comes in useful because hyd. pressure can be turned up to maintain output flow performance for the heavy slurries.



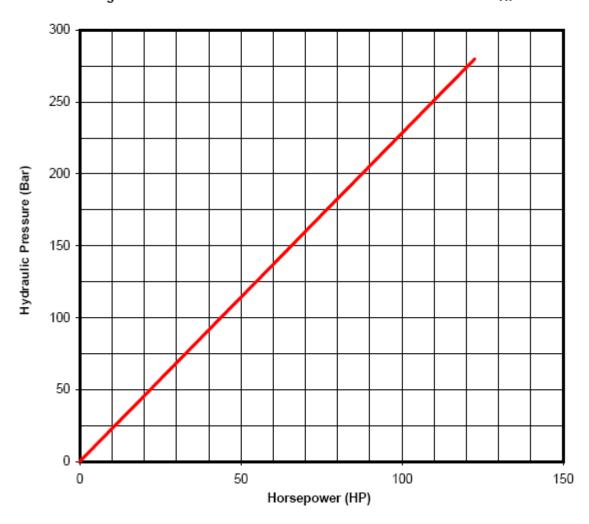


HYDRAULIC PRESSURE - POWER CURVE 90%

HydroMotor Size 180 cc/rev Pump Model DP-50

Hydraulic Oil Flow Rate 240 ltr/min Pump Speed 1200 rpm

Design Point 138 Bar Rated Power 60 HP







HYDRAULIC PRESSURE - POWER CURVE 90%

HydroMotor Size 180 cc/rev Pump Model DP-50 Hydraulic Oil Flow Rate 240 ltr/min Pump Speed 1200 rpm 180 Bar Rated Power Design Point 79 ΗP 300 250 Hydraulic Pressure (Bar) 200 150 100 50 0 50 100 150 Horsepower (HP)