

HALLMARK INDUSTRIES INC.

Deep Well Submersible Pumps Operating & Installation Instructions

PUMP SELECTION GUIDE

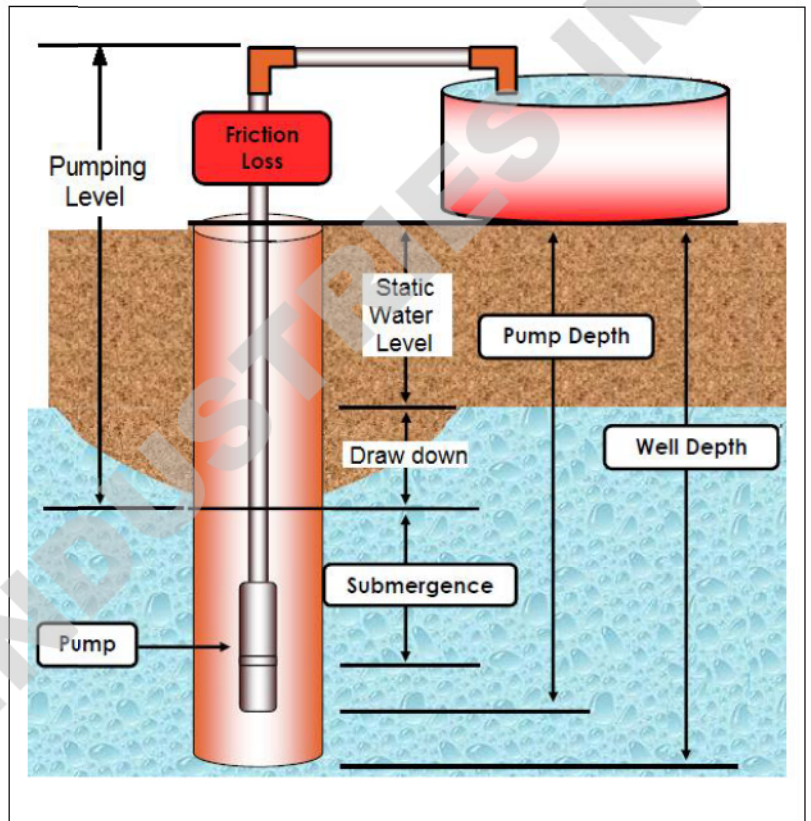
Read this thoroughly before you buy your pump. This guide applies to all brand pumps!

Never select a pump based on the horse power (HP)!

If a pump has a max Head of 150', it can pump water up to 150' - to an open water tank- with no back pressure. If used for a pressure tank, it will be less than 150', depend on the psi setting. Each psi setting in the pressure tank will reduce 2.31' of head. I.e., if a 1/2HP pump with 150' of max head, to determine its max pumping level to a pressure tank with the pressure switch setting 30/50 psi (50 psi):

$$150 - 50 \times 2.31 = 34.5 \text{ (feet)}$$

So the water level (pumping level: left picture) should be less than 34 feet in order for this pump to provide 50 psi to the pressure tank. If the water level goes down, or any deeper than 34 feet (i.e. 38 feet), you will not get 50 psi. Fittings, and elbows etc will add resistance to the water head and reduce the psi. So choose your pump carefully. **Do not make the selection based your old pump's HP.**



	MA0343X pumps (1/2HP)	MA0414X pumps (1 HP)	MA0419 pumps (2 HP)	MA0431X pumps (3 HP)	MA0459X pumps (3/4 HP)	MA0460X pumps (1 HP)
Pump's Max rated Head	150 (ft)	207 (ft)	400 (ft)	625 (ft)	247 (ft)	240 (ft)
Max pumping level for 20/40 psi setting	55 (ft)	114 (ft)	307 (ft)	530 (ft)	154 (ft)	147 (ft)
Max pumping level for 30/50 psi setting	33 (ft)	91 (ft)	284 (ft)	508 (ft)	131 (ft)	124 (ft)
Max pumping level for 40/60 psi setting	9 (ft)	68 (ft)	261 (ft)	486 (ft)	108 (ft)	101 (ft)