1-2-3 EASY GUIDE FOR PUMP & TANK SELECTION

1 DEPTH TO THE PUMPING WATER LEVEL

0–25 feet: Shallow well or convertible jet pump, install in shallow (single pipe) configuration.

25–90 feet: Convertible jet pump, installed in deep (two pipe) configuration or deep well submersible pump.

0–250 feet: Deep well submersible pump.

250+ feet: Call The Technical Service Line: 1.888.885.9254

“Pumping water level” is the depth to the water while the well is being pumped. It is usually deeper than the depth to the water when the pump is not running. For a lake or cistern installation, it is the depth to the surface of the water.

For Jet pumps, it is the vertical distance from the pumping water level to the suction opening of the pump.

For Submersible pumps, it is the vertical distance from the pumping water level to the point of water usage.

New installation information is available on the Well Driller’s Report. For replacement installations, use the equivalent style and horsepower pump, providing it was suitable when it was operational.

NOTE: A foot valve or check valve is required for proper operation of any system. The suction line must extend at least 5’ below the pumping water level and be at least 10’ above the well bottom.

2 HOW MUCH WATER IS REQUIRED

The gpm (gallons per minute) of the pump must equal the total number of fixtures. Fixtures include all faucets, toilets, and water consuming appliances (do not include water treatment appliances, such as a hot water tank or water filter). Example: A house with one full bathroom (sink, tub/shower, toilet), kitchen sink, basement sink, outside faucet, washing machine, and dishwasher would require 8 gpm.

MINIMUM WELL DIAMETER

2½” – Jet pumps in shallow well applications (depth less than 25’) should be installed using 1-1/4” suction piping with a foot valve.

4” – Convertible jet pumps used in deep well applications (depth greater than 25’) and deep well submersible pumps.

3 TANK CHART

NOTE: Refer to Step 2 above.

The easy way to size a tank is take the gpm system requirement that you determined in Step 2, multiply by 3 and go to the next largest tank size.

Example: 8 gpm x 3 = 24 gallons – therefore use an RL33 tank.

PUMP CHART

Read across the top of the chart for correct pumping water level in feet. Read down the side for correct flow required (gpm). The letter(s) corresponds to the minimum recommended pump options. Higher horsepower models of the same categories may be substituted for jet pumps.

Flow

Req.

(GPM)

Pumping Water Level in Feet

5

15

25

50

80

100

150

200

250


6 A,D A.D B,E.G A,D G H.I I I I

7 A,D A,D B,E.G F.G H.G H.I I I I


9 A,D A.E C.G G.G H.G H.I I I J

10 A,D B.E C.G G.G H.G H.I I I J

11 A.E B,E G G.H H I I J J

12 A.E C.E G G.H H J J J J

13 B.E C.F G G.H H.I J J J J

14 B.E C.F G I J J J J

15 B.E C I J

16 C.E C

17 C.E C

NOTE: For depths greater than 250’, consult tech support

Shallow Well

Jet Pumps

Convertible

Jet Pumps

Deep Well

Submersible Pumps

A = RJS-50-PREM ½ hp

B = RJS-75-PREM ¾ hp

C = RJS-100-PREM 1 hp

D = RJC-50-PREM ½ hp

E = RJC-75-PREM ¾ hp

F = RJC-100 1 hp

G = RL12G05 ½ hp

H = RL12G07 ¾ hp

I = RL12G10 1 hp

J = RL12G15 1½ hp

Model Gallons Drawdown @ 30/50 psi (gal) Fixtures

RL2 2.1 0.7 -

RL4 4.8 1.5 -

RL8 8.5 2.6 -

RL16 15.9 4.9 5

RL20H 21.1 6.2 7

RL21 21.1 6.5 7

RL34 34.3 10.6 11

RL40 40.0 12.4 13

RL81 81.0 27.6 27

RL119 119.0 40.6 39

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TYPICAL INSTALLATIONS

SHALLOW WELL JET PUMP (DOWN TO 25')
Suitable for applications where the pumping water level does not exceed 25'. Requires a single 1-1/4" suction pipe. May be used in wells 2" or larger in diameter.

To complete installation, the following is required:
• Jet pump
• Pressure tank
• Pump-to-tank fittings
• 1-1/4" suction piping
• Foot valve or check valve

CONVERTIBLE JET PUMP (SHALLOW WELL CONFIGURATION DOWN TO 25')
Suitable for applications where the pumping water level does not exceed 25'. Requires a single 1-1/4" suction pipe. May be used in wells 2-1/2" or larger in diameter.

To complete installation:
• Jet pump; includes pressure switch, flow control valve, injector (installed on the pump)
• Pressure tank
• Pump-to-tank fittings
• 1-1/4" suction piping
• Foot valve or check valve (for driven well)

DEEP WELL SUBMERSIBLE PUMP (DOWN TO 250')
Suitable for applications where the pumping water level does not exceed 250'. May be used in wells 4" or larger in diameter.

To complete installation:
• Submersible pump sub-pac; includes pressure switch, pressure gauge, service tee, relief valve, sub cable, built-in check valve
• Pressure tank
• Torque arrester
• Well seal or pitless adapter
• 1" discharge piping