



# Sizing

## How to Choose Your Windmill Equipment

We have provided information below that can be used to determine the approximate size of windmill that is required for your application. It should be noted that a ground water professional should be contacted to insure that all factors have been considered before ordering a windmill such as sucker rod type, prevailing wind speeds, etc.

Capacities are approximate and based on the mill operating in winds as shown below. The short stroke increases pumping elevation one-third and reduces pumping capacities one-fourth.

In 12 MPH winds, capacity is reduced about 20%; in 10 MPH winds, about 38%. If prevailing winds are low, use of a cylinder smaller than shown will permit your mill to operate in lower winds.

Never use pipe smaller than the size specified for the cylinder. For deep wells, use ball valve or Marcy cylinders with ash rod, other type of floating pump rod or fiberglass rod.

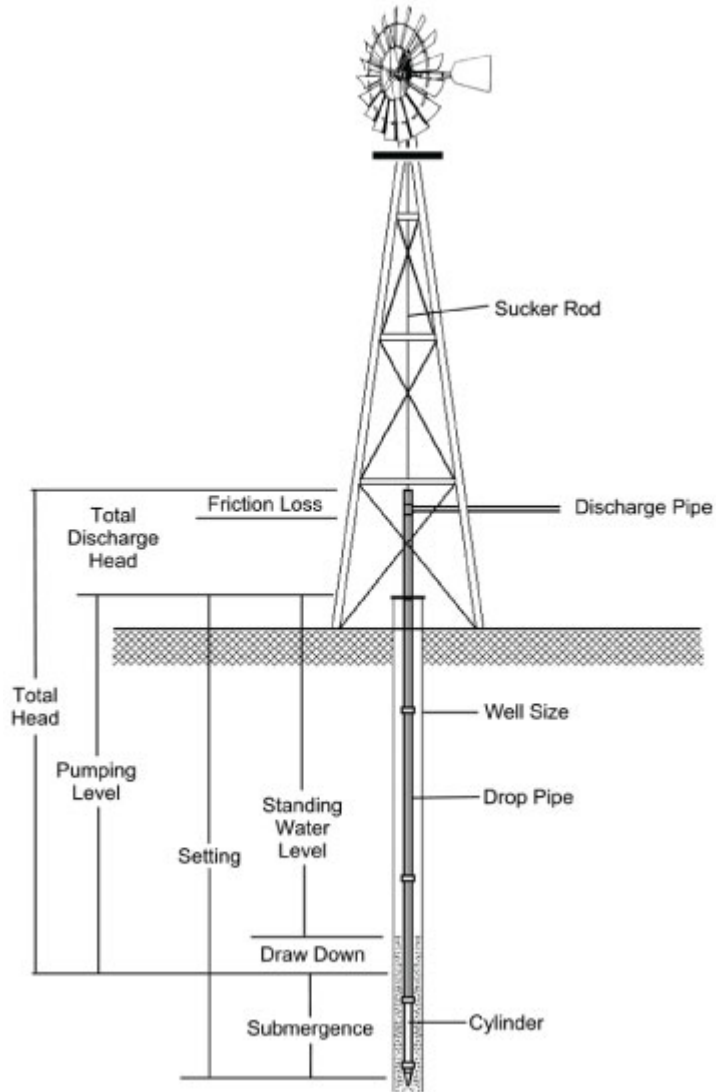
This is a general guide. Working together, we will assist you in choosing the equipment that will best fill your specific pump requirements.



Table of Pumping Capacities

Diameter of Cylinder (inches)	Pumping Capacity (Gallons per Hour)		Pumping Elevation (feet)					
			Wheel Diameter					
	6-foot	8ft-16ft	6-foot	8-foot	10-foot	12-foot	14-foot	16-foot
1 <sup>7</sup> / <sub>8</sub>	125	180	120	175	260	390	560	920
2	130	190	95	140	215	320	460	750
2 <sup>1</sup> / <sub>4</sub>	180	260	77	112	170	250	360	590
2 <sup>3</sup> / <sub>4</sub>	225	325	65	94	140	210	300	490
3	320	470	47	68	100	155	220	360
3 <sup>1</sup> / <sub>4</sub>	370	550	41	58	88	130	185	305
3 <sup>1</sup> / <sub>2</sub>	440	640	35	50	76	115	160	265
3 <sup>3</sup> / <sub>4</sub>	500	730	30	44	65	98	143	230
4	570	830	27	39	58	86	125	200
4 <sup>1</sup> / <sub>4</sub>	***	940	***	34	51	76	110	180
4 <sup>1</sup> / <sub>2</sub>	725	1050	21	30	46	68	98	160
4 <sup>3</sup> / <sub>4</sub>	***	1170	***	***	41	61	88	140
5	900	1300	17	25	37	55	80	130
5 <sup>3</sup> / <sub>4</sub>	***	1700	***	***	***	40	60	100
6	***	1875	***	17	25	38	55	85
7	***	2550	***	***	19	28	41	65

8	***	3300	***	***	14	22	31	50
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1. Figure average daily water consumption by using the following guidelines.

Use	Gallons Per Day
Person	100
Steer, Horse	12
Dry Cow	15
Milk Cow	35
Hog	4
Sheep	2
Chicken, per 100	6
Turkeys, per 100	20



2. Divide average daily water consumption by 5 to arrive at equivalent hourly pumping capacity required from your mill. This is based on wind conditions permitting your mill to pump the equivalent of about 5 hours of rated capacity per day. Naturally, this varies by locality.
3. Choose the cylinder diameter that is closest to the equivalent hourly pumping capacity by using the Table of Capacities.
4. Figure the total pumping elevation from the water level in the well to the point of discharge.
5. Choose the size mill to operate the cylinder when pumping to the total elevation by using the Table of Capacities.
6. Choose a tower that will place the center of the wheel at least 15 feet above wind obstructions within a radius of 400 feet.
7. Choose cylinder with a stroke at least 2 inches longer than the pumping stroke of the mill.
8. Choose pump rod, pipe and other accessories to size recommended for the specific cylinder.