

"...Not affected by Cyclone..."

Dear Sir, I have much pleasure in stating that the Comet Windmill erected at the Commercial hotel is indeed a beautiful piece of machinery. It works in the slightest breeze, & has not given me a moment's trouble. As you are aware, this mill is 'working' under extraordinary conditions. I mention that a recent cyclone took the roof off the stable adjoining the mill also the same iron off the roof of the kitchen & verandah, but did not have the slightest effect on the mill, which proves that the Comet Windmill is immune to cyclones and this certainly was 'some' cyclone.

"...Outputs to 250,000 gallons daily..."

On the Sesbania Trust Bore QLD a 35ft Comet Windmill gave an output of above 250,000 gallons daily under test by Government Engineers.

"...Proven ability to pump distances..."

On Bowen Downs Station in QLD a 27ft Comet Windmill with a 12inch pump has been supplying 12 miles (19.3km) of bore drain with up to 200,000 gallons daily for many years.





COMET

WINDMILLS AUSTRALIA

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Comet Windmill pump range....

The tradition of high quality products flows through to the complete range of windmill pumps. Comet manufactures a standard range to suit any condition and can also supply custom made sizes for larger quantities of water.

Standard Range

Flush End Pumps (A)

- Sizes: 1½, 2, 2¼, 2½, 3, 3½, 4, 4½, 5, and 6 inches
- Shallow pumping from bores and wells
- Gun metal bronze construction
- Leather or rubber buckets
- 12" stroke
- Larger sizes available on request

Syphon Pumps (B)

- Sizes: 1½, 2, 2½, 3, 3½, 4, 4½, 5, and 6 inches
- Surface water pumping from dams and rivers
- Leather or rubber buckets
- Vertical or side discharge (pictured)
- Heavy duty casting
- 12" stroke
- Larger sizes available on request

Heavy Duty Draw Plunger Pump (C)

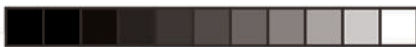
- Sizes: 1¼, 2, 2¼, 2½, 3, 3½ and 4¼ inches
- Deep bore pumping over 250ft depths
- Ideal for hard or dirty water
- Heavy duty pumps
- Sleeve valve
- 24" stroke



COMET WINDMILLS PUMP TABLE													
*The pumping capacities of Comet Mills, shown in the table (below), are based on the number of pumping strokes (inches) in 12 m.p.h. (19 k.p.h) winds. Our Pumping Table is Based on 10 hours of pumping allowing for slip/friction. Of Course, if the wind blows for longer periods you will get more water. Mills will start pumping in light breezes of under 8 m.p.h.(12 k.p.h.).													
WHEEL DIAMETER													
PUMP SIZE	8ft	10ft	12ft	14ft	16ft	18ft	20ft	22ft	24ft	27ft	30ft	PUMP SIZE	
Inches	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Ft	Inches	
mm	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	Mt	mm	
1¾"	95	160	220	310	4360							1¾"	
44mm	29	49	67	85	1330							44mm	
2	75	130	175	250	320	410	510					2	
50	22	40	53	76	98	125	150					50	
2¼	60	105	140	200	265	350	480	2300				2¼	
57	18	32	43	61	81	107	146	10460				57	
2½	52	85	120	170	220	280	300	2550				2½	
65	16	26	37	52	67	91	11590	126	12960	152	11590	65	
2¾	45	72	100	140	190	250	310	360	3450	430	3100	2¾	
70	14	22	31	43	58	76	109	110	15680	174	15590	70	
3	38	60	85	120	160	210	260	305	4100	380	3680	3	
80	12	18	26	37	49	64	83	93	18640	116	16730	80	
3¼	32	50	72	105	135	180	230	260	4800	325	4300	3¼	
83	10	15	22	32	41	55	79	99	19550	131	21730	83	
3½	28	45	63	90	118	155	200	225	5600	280	5000	3½	
90	9	14	19	27	36	47	69	85	25460	113	25230	90	
4	22	35	48	70	94	124	160	180	7300	220	6550	4	
100	7	11	15	21	29	38	55	67	29780	85	32960	100	
4¼			43	62	83	110	140	160	8250	200	7400	4¼	
108			13	19	25	34	49	61	33640	76	37280	108	
4½			38	55	75	95	120	140	9250	170	8250	4½	
114			12	17	23	31	43	52	42050	67	37510	114	
5			30	45	60	80	100	110	11400	135	10200	5	
127			9	14	18	23	34	41	46370	53	51370	127	
6			20	30	40	50	60	70	16400	95	14700	6	
152			6	9	12	15	21	29	66830	37	74100	152	
7			15	22	30	38	50	60	22400	75	25000	7	
178			5	7	9	12	17	23	101830	23	113650	178	
8			12	17	24	30	40	50	29000	60	32000	8	
203			4	5	7	9	13	18	118200	14	145470	203	
10						14	26	35	40000	42	44000	10	
254						4	8	11	200020	13	227300	254	
12							12	17	58000	23	72000	12	
304							4	5	263670	7	327310	304	

- Domestic, Stock & Industrial Pumping
- 138 Years Proven Technology
- 11 Sizes for all Applications
- 100% Renewable Energy
- No Fuel or Power Bills
- New Safety Features
- Low Maintenance
- 100% Australian Owned & Operated
- Manufactured regional NSW





All you need
is a breeze....



Comet windmills are designed to operate in the lightest of winds, they are legendary for their sensivity, simplicity and great strength.

They begin cost-effective operation in wind speeds as low as 4mph (6.5kph). Wind speeds of 4mph occur 95% of the time over the earth's surface.

Comet Windmills are Direct Acting which means the Comet Windmill pumps more water at a lower cost, at any depth and in any wind speed. Over 20+ years a Comet Windmill will provide the cheapest and most effective water pumping option.

With proven pumping ability and reliability for over 138 years, they are reliable with little maintenance required in harsh working conditions.

"C PATTERN" COMET WINDMILLS

Governing device ensures smooth action even in violent changeable winds

Large well balanced ball bearing turntable for ample support and sensitive movement

Windmill Head Sizes					
Wheel Diameter	8	10	12	14	(feet)
	2.4	3.0	3.6	4.2	(metres)
Tower Heights	30	40	50	60	(feet)
	9	12	15	18	(metres)

Drawbar

Double pull out chains

Pull out wire

Wide spacing of vane hinges for stability and vane strength

Failsafe oiling system

Direct action has fewer moving parts and pumps more water than geared mills

Inner and outer pullout collars

Mastpipe

Roller guides

4 post tower for maximum strength and stability

Why choose a Comet Windmill?...

Pollution Free

Installing a Comet Windmill will reduce your carbon footprint. Windmills convert wind into mechanical energy with zero nett CO₂ emissions therefore lowering your impact on the environment.

Stability and Safety

All Comet towers are designed with a high safety factor. The 4-post design and heavy steel construction provides greater stability to stand firm in strong winds. Four posts will always be stronger and safer than three. Available in 20ft to 60ft heights.

Long Life

The Comet Windmill has been proven for over 138 years, backing up claims of long life and sustainability. A maintained windmill can last many years with a little oil and checking bolts every six months to keep the windmill performing at its best.

No Fuel or Power Bill

This has to be the main draw card for the Comet Windmill. The initial outlay for the windmill is quickly offset by the reduction in your fuel or power bill. All you need is a breeze, and the windmill will start pumping.

Low Maintenance

Our systems have been designed to be self sufficient, requiring very little attention during the normal remote operation of a windmill. All steel work is hot dip galvanised, and the principal parts are cast from heavy duty materials giving longer life.

Ideal for Remote Areas

The Comet Windmill operates under all climatic extremes from snow fields and arid deserts, to tropical cyclones where they run without supervision for long periods of time.

Safety Features

Unlike other windmill designs Comet Windmills have a unique option for a galvanised steel platform with antislip floor, perimeter toe plate and heavy duty support angles. The area provides a safe environment to carry out maintenance. A steel rope for harness attachment can also be incorporated with the ladder.

How Far can the Water be Pumped?

The powerful action of the Comet Windmill can push the water (depending on the size of the windmill head, and the pump diameter) up to 1,000ft. Apart from this, the distance is not much of an issue.



"D PATTERN" COMET WINDMILLS

Large capacity pumping....

Windmill Head Sizes									
Wheel Diameter	16	18	20	22	24	27	30	(feet)	
	4.8	5.4	6.1	6.7	7.3	8.2	9.1	(metres)	

Tower Heights	20	30	40	50	60	(feet)
	6	9	12	15	18	(metres)

Features

- Sizes 16ft to 30ft wheel diameter on 4-post Towers up to 60ft in height
- Proven success and performance
- Extreme sensitivity to wind
- Low wind speed operation
- Direct acting - no gears
- Robust construction and simple design
- Long life

Simple Design

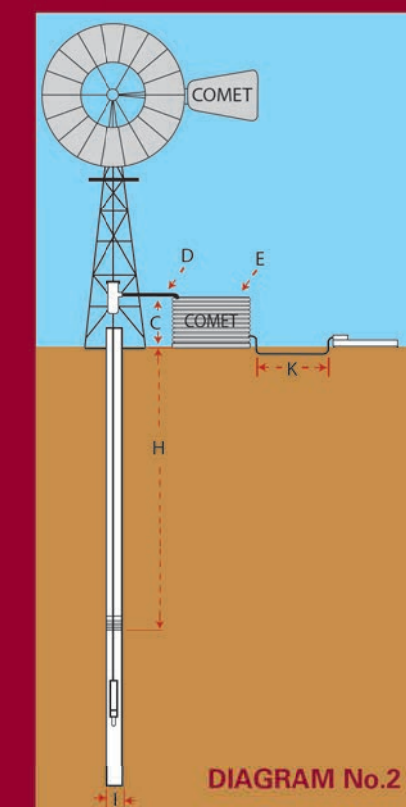
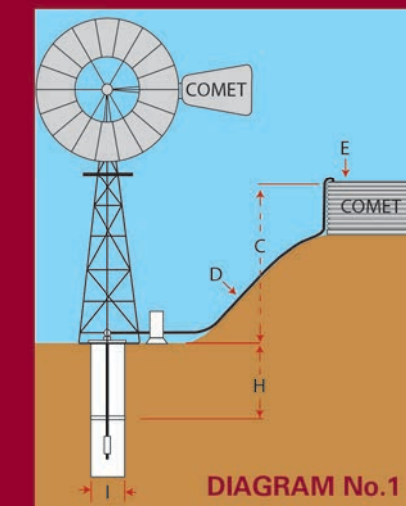
There is no need for skilled technicians or tradesmen to erect, maintain or troubleshoot. Our experienced staff are only too happy to help. Comet does not endorse the use of non genuine parts as it causes more damage to your windmill over its life. Companies claiming to make parts

suitable for Comet Windmills and stating that these parts are stronger or better, have no grounds or proven experience to guarantee or make these claims. Genuine Comet parts have been made for over 138 years of unflinching quality from certified engineer drawings.

Other sustainable solutions....

- Irrigation
- Eco Tourism
- Aquaculture
- Mine Rehabilitation
- Radio/Turbine Towers

- Galvanised Steel Tank Stands
- Windmill Spare Parts
- Pump Buckets
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Comet Windmill selection guide....



Accurate measuring is essential.

Wind - Winds, especially the light breezes, must have free access to the mill from all directions. The bottom of the wheel must be at least 15ft (4.5metres) above all wind obstructions within 150yds (137metres) of the mill.

Elevations - The mill should be loaded and balanced so that it will start pumping in light breezes. Its size depends upon the size of the pump and total elevation. The latter includes not only the vertical heights for suction and delivery elevations but also an allowance for probable water flow friction in the pipeline. The delivery pipe size should be at least half the pump diameter.

Suction - In a bore or well it is best to submerge the pump. For a creek or dam the pump should be placed close to the water and the suction elevation must not exceed 30ft (9m), or less if the suction pipeline is long.

Instructions

It is very important that you provide accurate measurements so that the most efficient and economical pumping plant can be recommended to suit your requirements. First choose the diagram that is most similar to your proposed site. Answer the general data questions with accurate measurements and include pumping details.

General Data

- A.** State the number of the diagram which is similar to your proposed layout. If your layout is different, send a sketch showing the dimensions below and details of any pipelines.
- B.** Amount of water in gallons/litres required per day.
- C.** Height from ground level to top of tank or point of discharge.
- D.** Length of discharge pipe or delivery pipeline.
- E.** Capacity and type of storage tank.
- F.** Distance and height of trees and other wind obstructions within 150yds (137m) of mill site.
- G.** Are average wind conditions light, medium or good?

Pumping from bores or wells

- Source of supply?
- H.** Distance from ground level to lowest water level.
- I.** Inside diameter of bore casing or size of well.

Pumping from Surface Water - Creeks, Earth Tanks, Dams or Shallow Wells

- Source of supply?
- J.** Vertical height from normal water level to ground level at mill site.
- K.** Distance from the water source to proposed pump site.
- L.** Vertical height from lowest water level to ground level at mill site.

