

*Southern Cross*

# "12" DOUBLE GEARED WINDMILLS



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## “RENEWABLE ENERGY” WATER SUPPLY SYSTEMS

### APPLICATIONS

- Stock Watering
- Domestic Water Supplies
- Tank and Dam Filling
- Pumping from Deep Bores, Dams and over Long Distances

### FEATURES

- Automatic oiling and governing.
- Powerful windwheels for easy starting and excellent pumping ability.
- Designed to pump from deep bores and over long distances.
- Simple to install and maintain.
- All working parts run in oil and are sealed against weather.
- All exposed steel parts are hot dip galvanised.
- High standard of manufacture.
- Simple reefing gear.
- Southern Cross Windmills operate using Renewable Energy which is Reliable, Clean and Non-polluting
- No Fuel or Power Bills
- All Weather Operation... The only requirement is a light breeze for operation, day or night, in all weather conditions
- Ideal for Remote Areas... Windmills eliminate the need of transport fuel or install power lines
- Very Low Maintenance... Time proven reliability
- Range of Sizes... 1.8 to 4.3 m (6 to 14 ft.) Windwheels

### NO FUEL OR POWER BILLS...

Use wind energy to pump vital water supplies.

### LOW MAINTENANCE...

Southern Cross Windmills are self-sufficient, require little attention and offer proven operating reliability for safety of water supply. Many of the Southern Cross Windmills you see are over 30 years old and are still operating reliably and in most cases spare parts are available.

### IDEAL FOR REMOTE AREAS...

Windmills eliminate the need to transport fuel or install expensive power lines into remote areas.

### ALL WEATHER OPERATION...

The only requirement is a light breeze for operation, day or night, in all weather conditions.

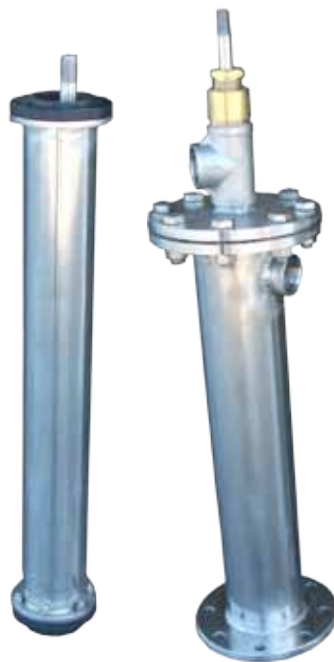
### POLLUTION FREE...

Southern Cross Windmills operate without noise or atmospheric pollution.

### SIZES AVAILABLE...

**WINDWHEEL DIAMETERS:** 1.8, 2.4, 3, 3.6 and 4.3 m (6, 8, 10, 12 and 14 ft.)

**TOWER HEIGHTS:** 6, 7.6, 9, 12, 15 and 18 m (20, 25, 30, 40, 50 and 60 ft.)



### 316 STAINLESS STEEL HEAVY DUTY UD MODEL STAINLESS STEEL SYPHON PUMPS AND BORE PUMPS

- All Metal Components 316 Stainless Steel
- Leather Pump Buckets
- Heavy Wall, Seamless Barrel
- 300mm (12”) Stroke
- Pump Sizes... 50mm (2”), 65mm (2 1/2”), 75mm (3”) and 100mm (4”)
- 12 Months Warranty



### 3 YEAR WINDMILL WARRANTY

THE COMPANY AGREES with the original purchaser of each PENTAIR SOUTHERN CROSS Windmill that, at any time within three years from the date of despatch of such windmill, the Company will repair or supply parts without charge to the original point of despatch to replace the parts which, on return, freight pre-paid, prove to the satisfaction of the Company to be defective in material or workmanship, and providing the tower anchorages hold, and the mill and tower are erected and maintained in accordance with the instruction manual.

Under no conditions with the Company accept responsibility or make any allowances for any consequential damages or any other expenses whatsoever

**PUMPING CAPACITIES OF SOUTHERN CROSS WINDMILLS**

The correct combination of windmill and pump is that which allows the mill to work easily in light winds. The pumping table below shows the average daily supply which can be expected from each combination of windmill and pump, up to the depths given, in most areas of Australia, provided that the windmill is erected on a sufficiently high tower in a good open site where the wind can reach the windwheel freely. There are, however some areas in which the is not so strong, and in these areas customers should specify a larger size of windmill and pump than would normally be used. Also in districts where the wind does not blow for as many hours per day as the average, customers should specify a larger size of windmill and pump. Greater satisfaction will always be achieved with a lightly loaded windmill.

| MILL MODEL | WHEEL DIAM. m (ft) | STROKE mm (in) |   | DIAMETER OF PUMP CYLINDER mm (inch) |            |             |             |
|------------|--------------------|----------------|---|-------------------------------------|------------|-------------|-------------|
|            |                    |                |   | 51 (2)                              | 64 (2.5)   | 76 (3)      | 102 (4)     |
| 6-IZ       | 1.8 (6)            | 133 (5.25)     | Total Lift - metres (feet)                  | 18 (60)                             | 13 (43)    | 10 (32)     | 6 (19)      |
|            |                    |                | Average Daily Output - kilolitres (gallons) | 4.7 (1040)                          | 7.4 (1630) | 10.7 (2345) | 18.9 (4165) |
| 8-IZ       | 2.4 (8)            | 146 (5.75)     | Total Lift - metres (feet)                  | 33 (109)                            | 23 (77)    | 17 (57)     | 10 (34)     |
|            |                    |                | Average Daily output - kilolitres (gallons) | 5.2 (1145)                          | 8.1 (1790) | 11.7 (2575) | 20.8 (4580) |
| 10-IZ      | 3.0 (10)           | 165 (6.5)      | Total Lift - metres (feet)                  | 60 (197)                            | 43 (141)   | 32 (105)    | 20 (64)     |
|            |                    |                | Average Daily output - kilolitres (gallons) | 5.1 (1115)                          | 7.9 (1745) | 11.4 (2515) | 20.3 (4465) |
| 12-IZ      | 3.6 (12)           | 184 (7.25)     | Total Lift - metres (feet)                  | 80 (263)                            | 58 (189)   | 43 (140)    | 26 (85)     |
|            |                    |                | Average Daily output - kilolitres (gallons) | 5.5 (1205)                          | 8.6 (1885) | 12.4 (2720) | 22 (4830)   |
| 14-IZ      | 4.3 (14)           | 184 (7.25)     | Total Lift - metres (feet)                  | 113 (370)                           | 81 (265)   | 60 (197)    | 36 (119)    |
|            |                    |                | Average Daily output - kilolitres (gallons) | 4.7 (1035)                          | 7.4 (1620) | 10.5 (2315) | 18.8 (4135) |

**DATA REQUIRED FOR SELECTING AND QUOTING SOUTHERN CROSS WINDMILLS**

**Pumping Underground Water from Bores and Wells:**

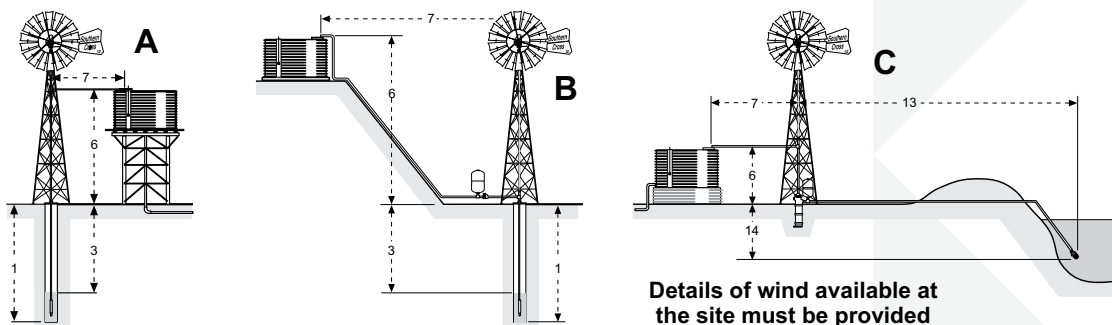
1. Depth of bore or well .....m
2. Bore casing size (inside diam.) or size of well ..... mm
3. Distance from ground level to water level .....m
4. Maximum hourly supply available for pumping.....litres
5. If water is pumped at the maximum rate of supply, how far will water level be below ground level then ..... m
6. Height above ground level at the pumping site to top of tank or reservoir .....m
7. Distance from tank or reservoir to pumping site .....m
8. Maximum height of obstructions, if any, in the vicinity of the pumping site and how far away. If there is any doubt about the prevailing winds easily reaching the site, describe the site as fully as possible .....
9. Quantity of water required daily.....kilolitres
10. What the water is to be used for.....
11. Size and type of other equipment available, if any, you wish to use on the job if possible .....

**Pumping Surface Water — Creeks, Dams, Drains, Earth Tanks**

12. Source of supply .....
13. Distance along the ground from the water to the point at which it is proposed to install the pump .....m
14. Vertical height from the lowest water level to the point at which the pump will be installed .....m
15. Plus the information asked for at 6, 7, 8, 9, 10, and 11

**If New Windmill Head Only is required:**

16. Size and make of old mill .....
17. Height of existing tower above ground level .....m
18. Is tower 3 or 4 post .....
19. Size of pump installed .....mm
20. Distance from ground level to pump.....m
21. Size of pump delivery piping or casing .....mm
22. Size and type of pump rods.....mm
23. Is connection required for between new mill and existing pump rods .....
24. Plus the information in questions 1 to 10 if pumping from bore or well, and questions 6 to 10 and 12 to 14 if pumping surface water





**PENTAIR SOUTHERN CROSS**

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