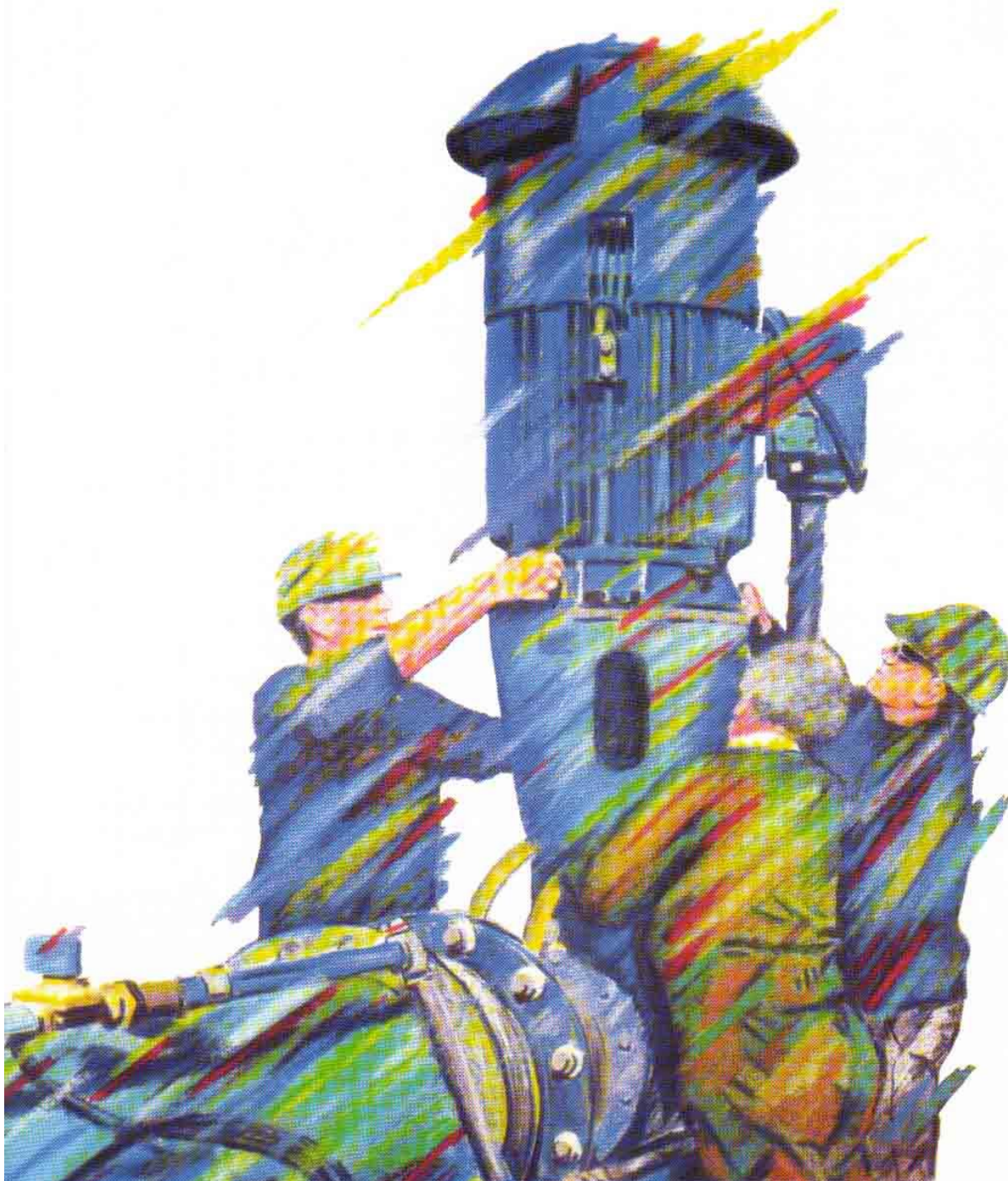




Batescrew Lineshaft Turbine Pumps



Lineshaft Turbine Pumps

WATER LUBRICATED

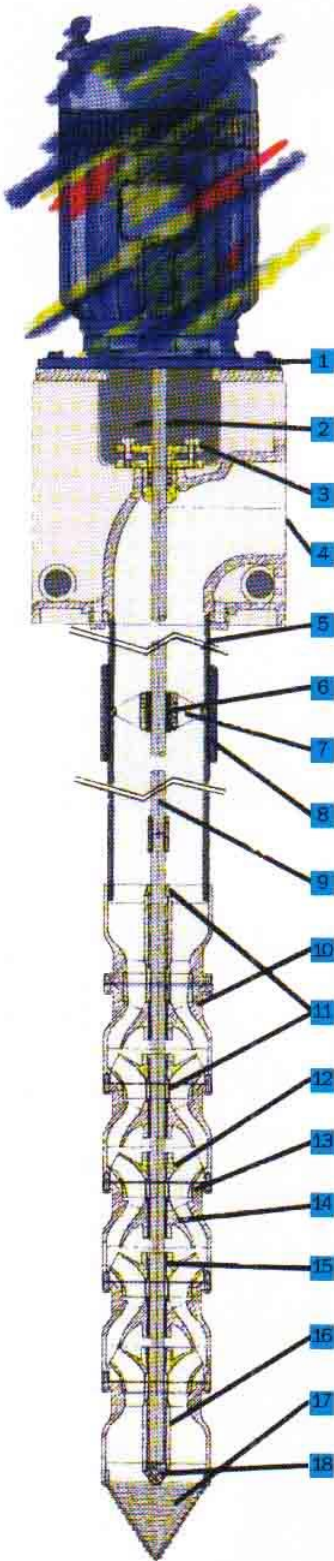


DIAGRAM ONLY. THIS ILLUSTRATION INDICATIVE OF A MUCH LONGER PUMP. BATESCREW LINESHAFT TURBINE PUMPS CAN BE MANUFACTURED TO ANY SPECIFIED LENGTH, UP TO 150 METRES OR MORE.

Proudly Australian, Batescrew Lineshaft Turbine Pumps combine price competitiveness with superior quality, reliability and after sales service. When buying a Lineshaft Turbine Pump, compare the initial price of a quality Batescrew product, then make a comparison of costs of future power use, spare parts and maintenance. You will be left with the clear decision to buy Batescrew.

1 DRIVER SELECTION

Batescrew Turbines offer various standard drive options to suit specific site application.
 Hollow Shaft Electric Drive
 Solid Shaft Electric
 Submersible
 Diesel, Angle Gear Drive
 Diesel, V Belt and pulley and external bearing
 Tractor, Angle Gear Drive
 Angle Application for riverside installation.

2 RUBBER SLINGER

3 GLAND HOUSING

Cast aluminium bronze housing is standard with grease annulus and long bronze throttling bush and bearing support to multi-gland packing. Mechanical seal offered where applicable.

4 DISCHARGE HEAD

The heavy duty (close-grained) cast iron discharge head allows low friction discharge. Standard flange dimensions and open web casting allows easy access to gland area.

5 COLUMN PIPE

8mm wall thickness standard in 3m, 2.44m and 1.5m screwed lengths. Machined for alignment, hot dip galvanizing and epoxy coating offered as options. Flanged column offered in open pit applications or large casing diameters.

6 LINESHAFT BUSH

E.P.D.M rubber standard injection moulded into brass casing and pressed into Centre Bearing Holder. Variable 'shore' rubber hardness. Bronze, Teflon materials recommended where applicable.

7 CENTRE BEARING HOLDER

Butt jointed between column pipe coupling, bronze casting maintains true vertical alignment.

8 COLUMN COUPLING

Mild steel or cast iron screwed, or optional flanged joint.

9 LINESHAFT

Grade 431 stainless steel is standard on water lubricated models. Different shaft diameters are available for individual column pipe, matched to suit power demand. Reversible for extra wearing surface.

10 IMPELLER BOWL

Close grained T 260 cast iron pump bowl guides matched impeller flow to the next stage with minimal loss and maximum efficiency. Optional bronze austenitic cast iron or stainless steel bowls available.

11 SAND COLLARS

Utilises labarinth type seal to protect rotating shaft from abrasive wear.

12 IMPELLER

A cast aluminium bronze closed impeller is standard, however a range of semi-open type impellers are available as are other material grades.

13 WEAR RING

Replaceable impeller wear rings are offered as standard on 12 inch and larger impellers.

14 BOWL BUSHES

Rubber and bronze bush of extended length sustains lateral loading of impeller shaft.

15 IMPELLER TAPER

Split tapered impeller lock bushing.

16 INLET BOWL BUSH

Bronze bush LB2 grade protected by sand collar.

17 INLET STRAINER

Shown spiral wound non corrosive material allows unrestricted inlet of water to impeller assembly.

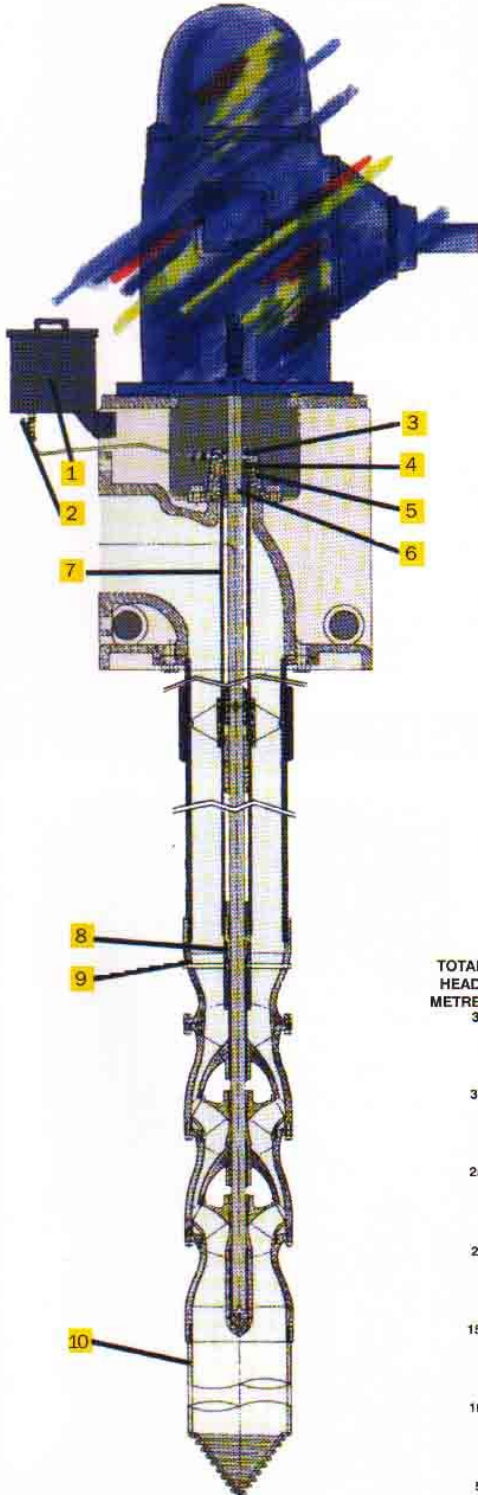
18 NOSE CONE

Removal to allow extraction of inlet bush as well as retaining 'intransit' stud and same used to retain shaft from movement during assembly (a critical method of equal impeller spacing).

Lineshaft Turbine Pumps

OIL LUBRICATED

Oil lubrication is used when pumped liquid carries silts either from the aquifers below ground or suspended in the liquid. A poorly developed hole or incorrect screen size will require this lubrication.



1 OIL RESERVOIR

2 Connected to drip feeder and electronically operated solenoid valve also manually operated to maintain single pass lubrication to lineshaft bushes.

3 TENSION NUT

Lip seal protects external grit entrance to oil system.

4 TENSION NUT BUSH

Spiral grooved bronze bush to maintain oil fed from top gallery induces oil into the lineshaft system.

5 TENSION NUT CAST IRON HOUSING

Screwed tight, pulls shaft enclosing tube in tension, ensuring alignment externally packed against leakage.

6 LINESHAFTS

Top and impeller shaft in stainless steel. Column lineshaft high tensile steel.

7 SHAFT ENCLOSING TUBE

For oil lubrication. Heavy wall galvanised pipe standard, screwed in 3m, 2.44 and 1.5m lengths providing oil pressure lubrication to each bearing, maintains alignment and spacing of lineshaft bushes.

8 LUBRICATION TUBE ADAPTOR

Screwed LB2 bronze adaptor acts as final impeller assembly bush.

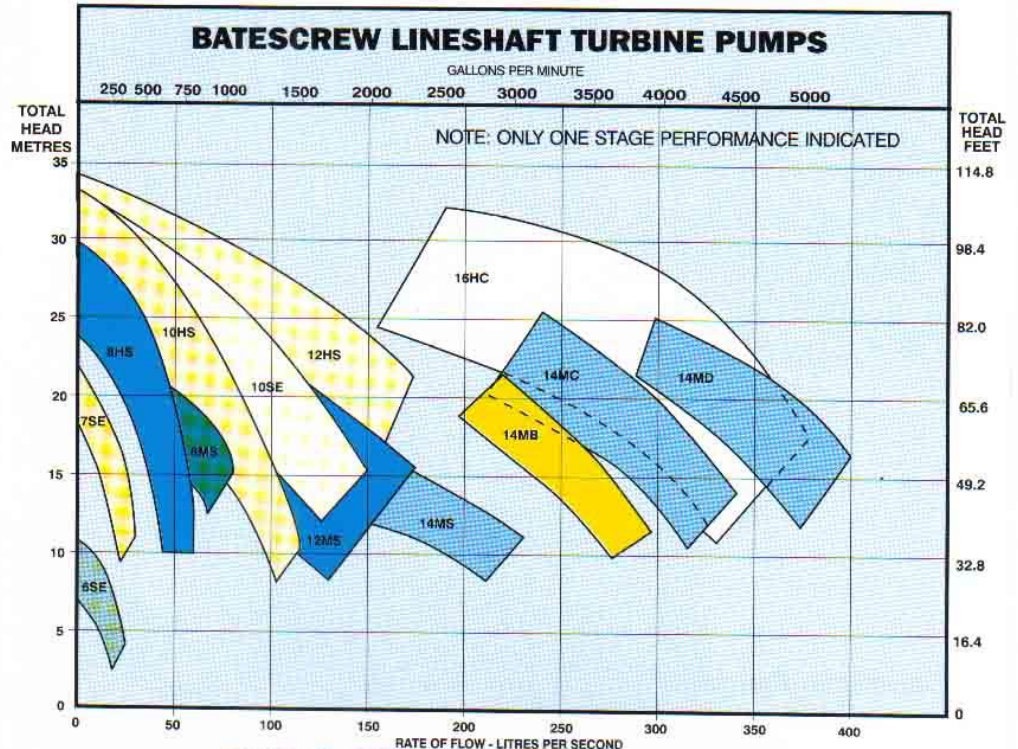
9 BYPASS PORTS

Batescrew's unique pressure relief system prevents pumped liquid rising up the oil tube. The throttling bush and contact seal maintains lubrication both while running and while stationary.

10 SUCTION TUBE

Allows developed flow into base of impeller as well as extending suction, utilising excellent N.P.S.H. characteristics of certain impellers.

SELECTION CHART



SINGLE STAGE PERFORMANCE CHART

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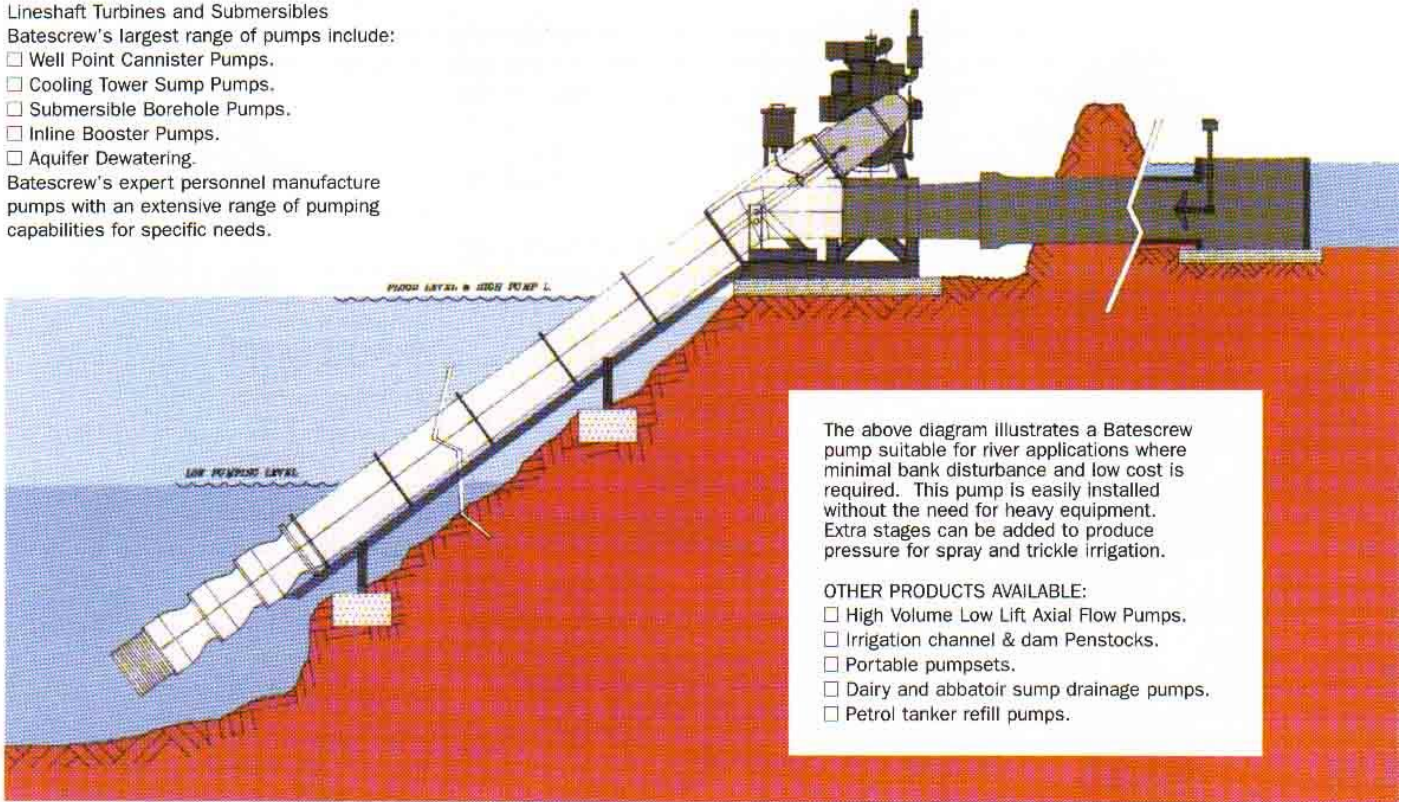
Lineshaft Turbine Pumps and Submersibles

Lineshaft Turbines and Submersibles

Batescrew's largest range of pumps include:

- Well Point Cannister Pumps.
- Cooling Tower Sump Pumps.
- Submersible Borehole Pumps.
- Inline Booster Pumps.
- Aquifer Dewatering.

Batescrew's expert personnel manufacture pumps with an extensive range of pumping capabilities for specific needs.



The above diagram illustrates a Batescrew pump suitable for river applications where minimal bank disturbance and low cost is required. This pump is easily installed without the need for heavy equipment. Extra stages can be added to produce pressure for spray and trickle irrigation.

OTHER PRODUCTS AVAILABLE:

- High Volume Low Lift Axial Flow Pumps.
- Irrigation channel & dam Penstocks.
- Portable pumpsets.
- Dairy and abattoir sump drainage pumps.
- Petrol tanker refill pumps.



Five Batescrew 316L lineshaft Turbines installed for the NSW Public Works, irrigation pipeline rehabilitation. 100, 200, 300, 350, and 500 litres/second, 11 metre column length. Mildura, Victoria.



Typical farm installation, Batescrew angle gear drive pump, 150 litres/second, 22 metre 41kw. Deniliquin, New South Wales.



Town water supply, Wangaratta, Victoria. Batescrew 16HC pump delivers 200 litres/second. 14 metre head 45kw Motor continuous duty with 'stand-by' pump.

Batescrew Pumps and Valves Australia

Newell Highway, Tocumwal, NSW, 2714, Australia
 PO Box 86 Tocumwal
 Telephone: (03) 5874 2101. Fax: (03) 5874 2084

ALSO AVAILABLE: