

# EBSRAY PUMPS



## **V Series** **Model V2000** **.....for LPG Applications**

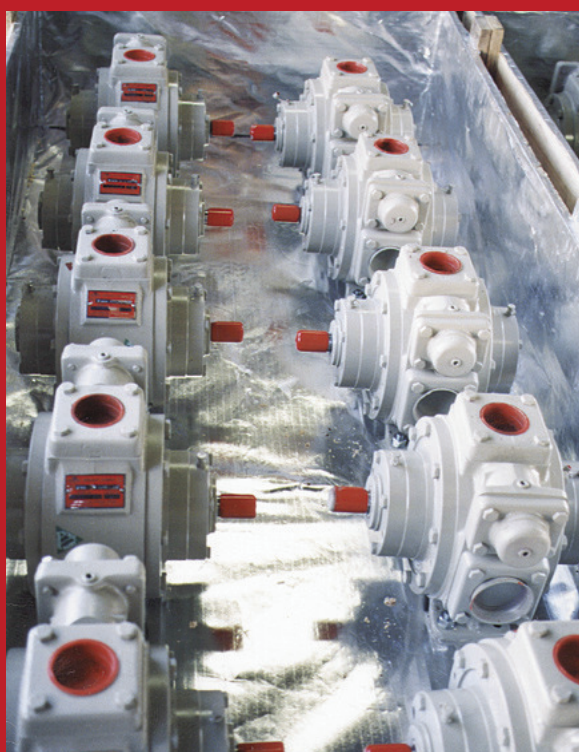
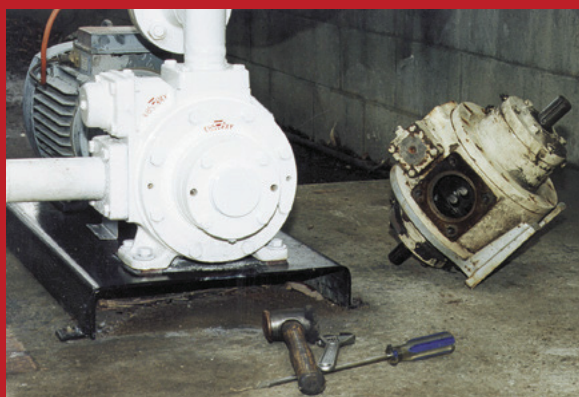
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EBSRAY  
AUSTRALIA

# V Series Model V2000



The EBSRAY Model V2000 Rotary Sliding Vane Pump is designed and precision built for efficient handling of LPG, Propane, Butane, DME, Anhydrous Ammonia etc.

## **Interchangeability**

Upgrading to the Ebsray V2000 pump from other commonly used pumps is simple. No pipework, drive or mounting modifications are necessary, in some cases the V2000 is dimensionally interchangeable - you may even retain your existing pump adaptor flanges!

## **Features**

- ✓ Computer optimised Liner design for anti-cavitation, quiet and pulse-free operation - in hardened Ductile Iron.
- ✓ Moulded Univane™ synthetic composite, engineered for increased vane life.
- ✓ Large diameter pushrods in Unirod™ - engineered synthetic composite for positive vane actuation.
- ✓ Heavy duty Double Row Deep Groove Bearings - extended life and positive axial location for PTO, horizontal or vertical mounting.
- ✓ Simple-to-install proven, reliable Mechanical Seal - easy access by removal of bearing housing.
- ✓ Reversible Wearplates - ground surfaces - double service life.
- ✓ Integral low rise Relief Valve with quiet operation and tamperproof sealed adjustment. 800 - 1300 kPa as standard. (other ranges available)
- ✓ Casing 'O' rings for positive sealing.
- ✓ Low maintenance - simple to service - no special tools required.
- ✓ Pressure retaining elements (Casing, Covers etc.) Ductile Iron ASTM A395.
- ✓ Innovative Shaft Throttle Bush and Seal - increased safety.

## **Typical Services**

Bulk Transfer - Terminals, depots  
Cylinder filling operations (carousel)  
Tanker Truck duties (Bobtail and Transport)  
Vaporiser feed/direct burner.  
Aerosol Industries  
Industrial dispensing  
Portable Tank - load-in, load-out.  
Agricultural Industries

## **Assured Quality and Performance**

EBSRAY's ISO 9001 Quality System assures compliance with the high safety and quality standards demanded by the LPG industry. All EBSRAY V2000 pumps are manufactured under strict guidelines. Quality checks during production guarantee pump integrity and performance in accordance with the specifications.

**Engineered in Australia**



# Features

## Liner

- ✓ High flow, low loss inlet porting.
- ✓ Minimal hydraulic pulse & noise.
- ✓ Computer optimised cam design.
- ✓ Anti-cavitation design.
- ✓ Hardened Ductile Iron - replaceable.

## 2 Casing 'O' Rings

- ✓ Positive sealing.
- ✓ LPG, DME, NH<sub>3</sub> compatible.
- ✓ Simplified maintenance.

## 3 Wearplates

- ✓ Precision ground
- ✓ Reversible for double service life
- ✓ Toughened Cast Iron

## 4 Greasers

- ✓ Simple access
- ✓ Trouble-free bearing lubrication
- ✓ Pressure relieved

## 5 Double Row Deep Groove Bearings

- ✓ Positive axial clearance control.
- ✓ Extra heavy duty.
- ✓ Superior axial thrust load capabilities.
- ✓ Easy to remove or replace.
- ✓ Suited to PTO drives, vertical mounting etc.

## 6 Mechanical Seal

- ✓ Proven and simple design.
- ✓ Reliable sealing.
- ✓ Simple replacement via Bearing Housing.

## 12 Adaptor Flanges

- ✓ 'O' ring sealed.
- ✓ Weldable Steel - Straight or Elbow configuration.
- ✓ Dual function - Slip weld and NPT screwed.
- ✓ Interchangeable with some other commonly used pumps.

## 11 Gauge Tappings

- ✓ Inlet and Discharge tappings - NPT.
- ✓ Machined 1.4 mm (No 54) orifice.
- ✓ Easily accessible.
- ✓ Highly visible gauge placement.

## 10 Pressure Relief Valve

- ✓ Fully adjustable within spring range.
- ✓ High flow, low pressure rise.
- ✓ Smooth, chatter-free operation.
- ✓ Tamper-proof sealing arrangement.

## 9 Vanes

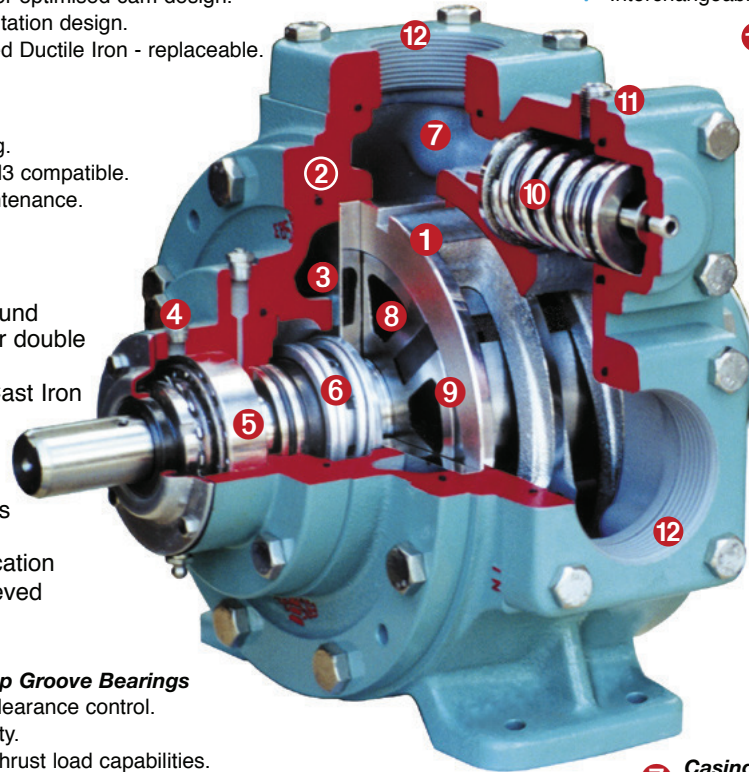
- ✓ Moulded in Univane™ material.
- ✓ Positive Pushrod Actuation
- ✓ Engineered synthetic composite.
- ✓ High strength - Self lubricating.
- ✓ Hydraulically optimised.

## 8 Rotor/Shaft

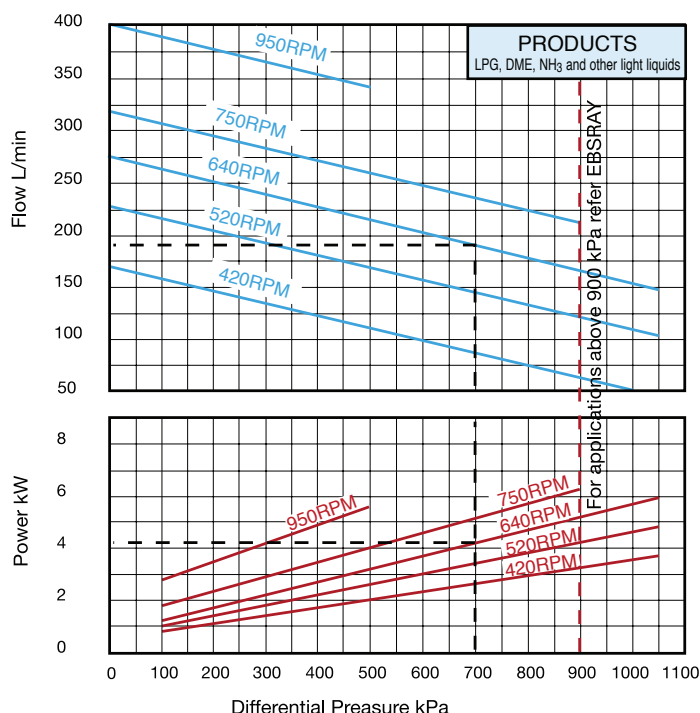
- ✓ Single/double ended robust shaft.
- ✓ Axially located.
- ✓ Positive end clearance control.
- ✓ Hardened bearing journals.
- ✓ Hardened Ductile Iron rotor

## 7 Casing

- ✓ Robust design
- ✓ Ductile Iron ASTM A395 material
- ✓ Computer optimised for strength & weight
- ✓ Easy access to mounting bolts
- ✓ All metric high tensile fasteners
- ✓ Reversible build for LH or RH configurations.



# Performance



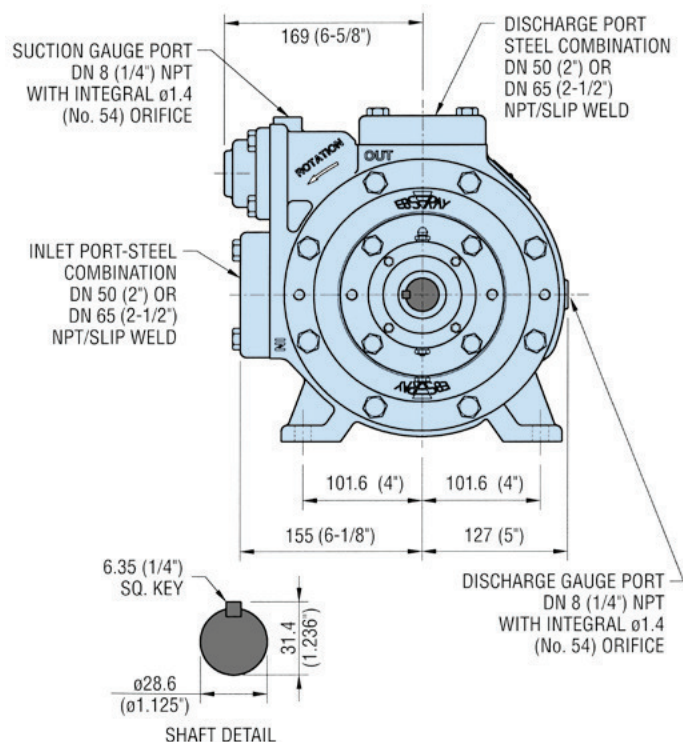
## Example:

Speed	640 RPM
Differential Pressure	700 kPa
Flow	190 L/min
Input Power	4.25 kW

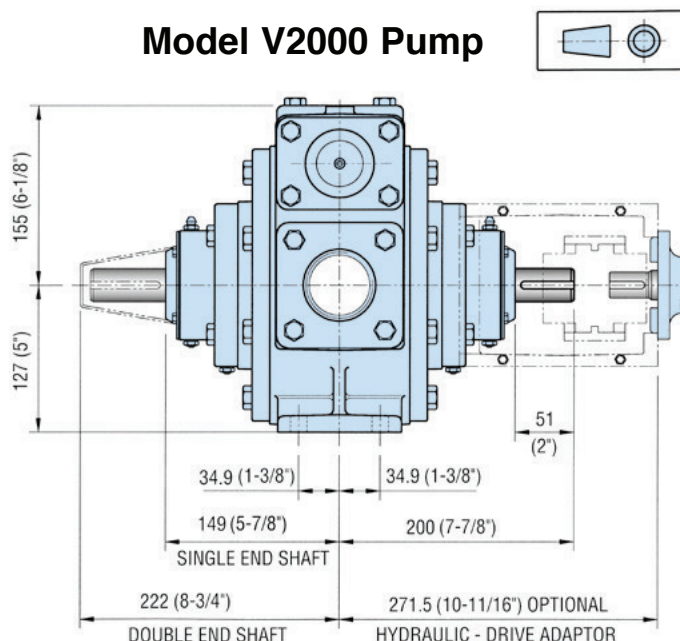
Approximate LPG Flow Rates attainable when adequate NPSH is available. Other factors such as product, temperature, etc. may also affect performances.

For higher flow rates, refer to EBSRAY.

# Dimensions



## Model V2000 Pump



Pump Weight Unpacked 50.5 kg (111 lbs)

## Materials/Specifications

### Materials of Construction

Casing	Ductile Iron ASTM A395
Adaptor	Steel (Weldable Grade)
Liner	Hardened Ductile Iron
Wearplates	Toughened Cast Iron
Rotor/Shaft	Hardened Ductile Iron/Alloy Steel
Vanes	Univane™ Synthetic Composite
Pushrods	Unirod™ Synthetic Composite
Bypass Valve	Cast Iron
Mechanical Seals	Carbon/Cast Iron
Elastomers	Nitrile

### Specifications

Max Flow	400 L/min
Max Differential Pressure	1,050 kPa
Max Working Pressure	2,400 kPa
Max Pump Speed	950 RPM
Hydrostatic Test Pressure	7,000 kPa
Port size (inlet)	2" or 2-1/2" NPT/ Slip Weld dual function Adaptor Flange
(outlet)	as per inlet

**NOTE:** All specifications and illustrations are typical only and subject to revision without notice. Certified data available on request

### Warranty

All Ebsray manufactured pumps and equipment are warranted for a full 12 months against faulty workmanship and/or materials. Refer to Ebsray or Factory Appointed Representative.

DISTRIBUTED BY:



Wellington Head Office: 90 Sydney St, PO Box 38 720  
Petone, Wellington, Tel: 64 4 568 4933, Fax: 64 4 568 4789  
Email: sales@liquip.co.nz Website: www.liquip.co.nz

### EBS-RAY PUMPS PTY. LIMITED

ACN 000 061 003

Head Office and Works  
628 Pittwater Road  
Brookvale NSW 2100  
Australia.  
Telephone: (61 2) 9905 0234  
Fax: (61 2) 9938 3825  
www.ebsraypumps.com.au

Branch Office Victoria  
Phone: (03) 9706 7263  
Fax: (03) 9706 7312

Branch Office Queensland  
Phone: (07) 3260 7411  
Fax: (07) 3260 7422



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