EBSRAY PUMPS

V Series
Model V3000
.....for LPG Truck Applications
The EBSRAY Model V3000 Flange Mounted Rotary Sliding Vane Pump is designed and precision built for efficient handling of LPG, Propane, Butane, DME, Anhydrous Ammonia etc. Foot mounted model also available.

**Interchangeability**
Upgrading to the Ebsray V3000 pump from other commonly used pumps is simple. No pipework, drive or mounting modifications are necessary, in some cases the V3000 is dimensionally interchangeable - you may even retain your existing pump adaptor flanges!

**Features**
- Flanged inlet porting - oversized for maximising flow rates at low NPSH conditions.
- Computer optimised Liner design for anti-cavitation, quiet and pulse-free operation - in hardened Ductile Iron.
- Pressure retaining elements (Casing, Covers etc.) in Ductile Iron ASTM grade A 395.
- Vanes in moulded Univane™ material - engineered synthetic composite - for increased service life.
- Large diameter Pushrods in Unirod™ material - engineered synthetic composite - for positive vane actuation.
- Heavy duty Double Row Deep Groove Bearings - extended life for PTO, horizontal or vertical mounting.
- Simple-to-install Mechanical Seal - proven, reliable operation - easy access by removal of Bearing Housing.
- Reversible Wearplates - ground surfaces, double service life - in toughened Cast Iron.
- Integral Pressure Relief Valve - quiet operation, low rise, with tamperproof adjustment. 800-1300kPa as standard - other pressure ranges available.
- Casing ‘O’ rings for positive sealing.
- Low maintenance - simple to service - no shims, no special tools required.
- Increased safety with innovative Seal and Throttle Bush design.
- Computer optimised design for maximum strength & minimum weight.
- CE marked, ATEX compliant.

**Typical Services**
- Bobtail Tanker Truck duties
- Bulk Transport applications
- Cylinder filling operations from Tanker Trucks
- Bulk transfer and filling operations in Terminals, Depots etc
- Emergency Vehicle duties
- Portable Tank - load-in, load-out.
- Autogas, Industrial, Agricultural, Aerosol Industries

**Assured Quality and Performance**
EBSRAY’s ISO 9001:2000 Quality Management System assures compliance with the high safety and quality standards demanded by the LPG Industry.
All EBSRAY V3000 pumps are manufactured under strict guidelines and procedures. Quality checks during production guarantee pump integrity and performance in accordance with the specifications.

All Ebsray LPG Pumps are designed and manufactured in Australia and comply with the requirements of Australian Standard AS/NZS 1596 and ATEX Directive 94/9/EC
Features

1. **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, NH₃ compatible.
   - Simplified maintenance.

3. **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.

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

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

6. **Pressure Relief Valve**
   - Fully adjustable within spring range.
   - High flow, low pressure rise.
   - Smooth, chatter-free operation.
   - Tamper-proof sealing arrangement.

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

8. **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.

9. **Mechanical Seal**
   - Proven and simple design.
   - Reliable sealing.
   - Simple replacement via Bearing Housing.

10. **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.

11. **Greasers**
    - Simple access.
    - Trouble-free bearing lubrication.
    - Pressure relieved.

12. **Wearplates**
    - Precision ground.
    - Reversible for double service life.
    - Toughened Cast Iron.

13. **Hydraulic Drive Adaptors**
    - To suit commonly used hydraulic motors.
    - Totally enclosed.

Performance

Example:
- **Speed** ......................... 750 RPM
- **Differential Pressure** ...... 700 kPa
- **Flow** ............................. 360 L/min
- **Input Power** ................... 7.1 kW

Approximate LPG Flow Rates attainable when adequate NPSH is available. Other factors such as product mix/composition, temperature, etc. may also affect performances.
For higher flow rates, refer to EBSRAY.
**Materials/Specifications**

**Materials of Construction**
- Casing: Ductile Iron ASTM A395
- Adaptor Flanges: Steel - (weldable grade)
- Liner: Hardened Ductile Iron
- Wear Plates: Toughened Cast Iron
- Rotor/Shaft: Hardened Ductile Iron/Alloy Steel
- Vanes: Univaré™ Synthetic Composite
- Pushrods: Unirod™ Synthetic Composite
- Bypass Valve: Cast Iron
- Mechanical Seals: Carbon/Cast Iron/Viton
- Elastomers: Nitrile - (Viton optional)

**Specifications**
- Max Flow: 515 L/min
- Max Differential Pressure: 1050 kPa (10.5 bar)
- Max Working Pressure: 2400 kPa (24 bar)
- Max Pump Speed: 850 RPM
- Hydrostatic Test Pressure: 7000 kPa (70 bar)
- CE/ATEX marking: II 2G c T4
- Port sizes (Inlet): 3” ANSI Class 300 Raised Face Flange
- (Discharge): 2” dual function NPT
- (Alternate Inlet): As per Discharge Port

**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.

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