EBSRAY PUMPS

V Series
Model V2000
.....for LPG Applications
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 pressure 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.
- CE marked, ATEX compliant.

**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 9001:2000 Quality Management 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.
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. **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

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

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

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

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

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

12. **Adaptor Flanges**
    - ‘O’ ring sealed
    - Weldable Steel - Straight or Elbow configuration
    - Dual function - Slip weld and NPT screwed
    - Interchangeable with other commonly used pumps

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.
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: Uniroid™ Synthetic Composite
- Bypass Valve: Cast Iron
- Mechanical Seals: Carbon/Cast Iron
- Elastomers: Nitrile

**Specifications**
- Max Flow: 400 L/min
- Max Differential Pressure: 1050 kPa (10.5 bar)
- Max Working Pressure: 2400 kPa (24 bar)
- Max Pump Speed: 950 RPM
- Hydrostatic Test Pressure: 7000 kPa (70 bar)
- CE/ATEX marking: II 2G c T4
- Port size (inlet): 2” or 2-1/2” NPT/Slip Weld dual function Adaptor Flange

**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.

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