# SPECIAL DUTY SEALS - SINGLE CARTRIDGE

# VSR - VERTICAL SINGLE ROTARY SEAL

The SEPCO® VSR is a single, external, cartridge-mounted, rotary seal designed for installations where shaft deflection exceeds the limits allowed by off-the-shelf cartridge seals. Excessive radial clearances designed in the seal make it ideal for vertical turbine pumps in power plants, pulp & paper mills, municipalities, and applications in relatively clean, lubricating fluids.

### **Cartridge Mounted**

The VSR is a completely self contained unit that is pre-assembled and pre-set at the factory for ease of installation. This feature also allows impeller adjustments to be made quickly and easily without interfering with the correct axial setting of the seal.

### **Mounts Externally**

This allows installation on equipment where packing has been used without having to replace expensive shafts and sleeves.

### **Hydraulically Balanced**

Hydraulic balancing is achieved internally allowing operation in higher pressures without the need for special stepped sleeves and shafts. The balance feature also reduces hydraulic loads allowing for cooler operation and extended reliability.

### **Versatile Gland**

The gland is vented to eliminate air entrapment and improve cooling efficiency for longer seal life. Machined glands offer superior

corrosion resistance and strength and can be modified to fit the equipment saving equipment modification cost.



All sealing elements that wear during normal operation can be replaced and the seal repaired at a fraction of the cost of a new seal while providing performance consistent with a new seal.

## **VSR** - Specifications

### **Metal Parts:**

Standard metal parts and set screws: 316 SS Standard Springs and drive pins: Hastelloy® C

#### **Face Materials:**

Standard: High quality chemical grade carbon-graphite, solid nickel bound tungsten carbide, silicon carbide, and high purity ceramic

Optional: 17-4PH stainless steel.

#### **O-ring Materials:**

Standard: Viton®, EPR and Aflas™

### **Operating Capabilities:**

Pressure: To 300 psig (21 bar g) Temperature: 32° to 400°F (0° to 205°C)

Speeds: 5000 fpm (25 m/s)







