

## Universal XX Pump Unloader Kit

### Summary

The Woodward XX Herringbone Gear Pump has provided reliable service to hydro plants for over 70 years. It remains among the most rugged and longest-lasting governor oil pump in the hydro industry. With periodic maintenance these pumps can continue to provide reliable service for decades to come.

The weakest link in the XX pump design is the spring-operated 'snap-action' pilot unloader valve (circled below). Adjusting the pressure at which the pump starts and stops by manually adjusting internal spring tension can be difficult, especially in a dual pump Lead/Lag control arrangement, where Lead and Lag pump starting pressures must be closely aligned, sometimes within 20psi of each other.

Unlike other third-party solutions, our flangeless Universal Pump Unloader Kit fits every size of XX Pump. This elegant solution reduces complexity, simplifies installation and provides standardization of spare parts in your hydro fleet. The same Universal Pump Unloader can be used on any size XX Pump, regardless flow rate or motor type.



### Universal XX Pump Unloader Kit includes:

- Pilot Unloader Plug Adapter
- Integrated Hydraulic Manifold including:  
Solenoid Valve, Pressure Switch, Flow Control Valves
- Control Enclosure with Switches and Relays
- Stainless steel tubing and fittings for customer installation

### Applicability

- All Woodward XX Herringbone Gear Pumps
- All motor brands and sizes (motor starter not included)

### Key Benefits

- Eliminates difficult-to-adjust 'snap-action' unloader pilot valve
- Standardized design fits all sizes of Woodward XX Herringbone Gear Pumps
- Direct adjustment of loading/unloading rates
- Remote valve manifold with pressure switches and unloader solenoid valve
- Easy setup of lead/lag pressure switches
- COTS components: No custom flange required
- Shorter lead time and quicker installation, compared to other solenoid-operated unloader kits
- Standard electrical controls that can utilize either 120Vac or 125Vdc customer supplied control power

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