

LEGACY PUMPING PRODUCTS

PETRODYNE PRODUCT LINE

ULTRA HIGH PRESSURE PUMPS AND VALVES



- CATALYST INJECTION
- WATER JET CUTTING
- MODIFIER INJECTION
- UP TO 10000 BAR

OILGEAR
BEST UNDER PRESSURE

CHEMICAL INJECTION PLUNGER PUMPS

Oilgear high pressure hydraulically powered reciprocating intensifier pumps are designed and built for continuous use in processes requiring catalyst or modifier injection. Models are available to meet requirements for discharge pressure ranging from 3,000 psi to 50,000 psi. Fluid pumping capacities range from 0.15 gallons/hour to 500 gallons/hour. These intensifier pumps are of the in-line type having a single power cylinder with power rods extending from both ends which actuate two coaxially mounted fluid ends in reverse sequence. Controls provide rapid reversal and minimize pressure drop between strokes. Intensifiers are conveniently and compactly mounted on a hydraulic fluid reservoir tank and permanently piped to an electric motor-driven hydraulic pumping system. Axial piston hydraulic pumps manufactured by Oilgear are utilized in all units.

SINGLE OR DUAL UNITS

Oilgear units are available with either one or two intensifiers, each with its own power system, mounted on a single reservoir. The dual units offer greater versatility such as the second intensifier being used for a standby unit when repairs or a packing change becomes necessary. The same intensifier

can provide additional pumping capacity when required and can be admitted to the system with no interruption in production. Suction and discharge manifold, piped complete, with water tracing as an option for temperature control.

ACCURATE, POSITIVE CONTROL

Oilgear hydraulic axial piston pumps are equipped with a precision control system which provides positive, infinite control between minimum and maximum output with a high degree of repeatability. The accuracy and fast response of these controls make them adaptable for use in conjunction with automation and computer control systems. Operating panels are mounted directly on the units and provide manual override of remote controls when required. Dual or single unit systems provide constant pressure/variable volume output. Manifolding can be designed so either or both fluid ends on each intensifier pump can be isolated at anytime. By means of a unique hydraulic staging system, a set of dual pumps can be synchronized and controlled to provide excellent intensifier flow and low line ripple characteristics.

SERVICE AND REPAIR

Oilgear, and Oilgear's Certified Partners, offer complete lifecycle management for the Petrodyne product line. Oilgear recommends that Petrodyne products only be repaired by Oilgear's Certified Partners, using genuine Oilgear components.

FEATURES

MAINTENANCE

The injection pumping system has been designed to provide long, continuous service with a minimum of maintenance. When packing changes are required the fluid ends can be easily and rapidly removed and may be repacked with minimum lost time.

CONTROL PANEL

Each pump system may be manually controlled at a panel conveniently mounted on the unit. Instrument air, auxiliary air or electronic instruments provide intensifier pump speed control locally. Motor controls and pressure gages are also provided.

CHECK VALVES

Suction and discharge check valves are the double ball type. Check valves are available as separate units for use with a closure seal or are furnished as an integral part of the fluid end. High pressure check valve bodies and closure nipples are autofrettagged.

VARIABLE SPEED

Stroke speeds are controlled by means of air operated or electronically controlled instruments - controlling hydraulic axial piston pump stroke or input to reciprocating intensifier pump.

HYDRAULICALLY POWERED

Intensifier pump and hydraulic power source are both mounted on hydraulic reservoir tank. On dual units, two pumps and two power units are mounted on single reservoir.

TEMPERATURE CONTROL

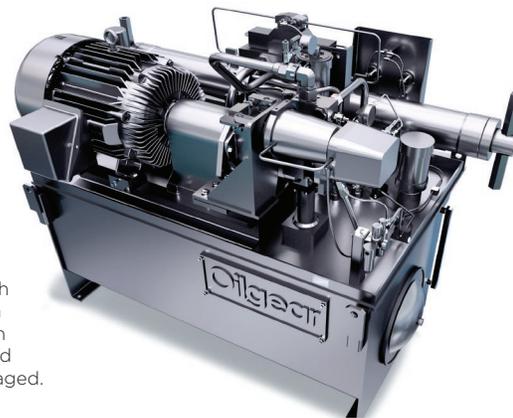
Cooling jackets are provided for each high pressure cylinder through which a coolant may be circulated during operation. An oil bath chamber cools and lubricates the plunger and packing. Hydraulic oil temperature is controlled by a water cooled heat exchanger and temperature control valve.

PRECISION CONTROL

Air or electronic Oilgear systems provide extremely accurate control of flow rates.

VARIABLE STROKE

Adjustment on pump permits stroke to be set at any desired length while intensifier is in operation.



FLUID CYLINDERS

One piece or composite.



HIGH PRESSURE RELIEF VALVE

Oilgear High Pressure Relief Valves have been developed primarily for service with high pressure ethylene processing, however, they can be effectively used wherever a safe, dependable, high pressure safety relief valve is required for either gas or liquid service at pressures up to 60,000 psi (4138 Bar).

NOZZLE DESIGN

Nozzle orifices have been scientifically designed to provide maximum escape velocities with balanced thrust force discharge and with a minimum of erosion and flow damage to stem and seat.

STEM AND SEAT

Both seating surfaces are ground and polished and provide an effective seal even after repeated actuation. Stems and seats may be repaired or replaced at the plant site.

METALLURGICAL QUALITY

The particular care used in the specification and heat treatment of metals makes possible the reliable performance of the Oilgear relief valve and enables the valve to withstand extremely high pressures and low temperatures.

REDUCED PLANT MAINTENANCE COST

Installation of Oilgear high-pressure relief valves result in less down time and reduced product loss. Total maintenance costs are lower since operations do not have to be suspended as is the case where the replacement of rupture discs is necessary. The relief valve reseats itself automatically at the rated reseating pressure.



ABOUT OILGEAR

Founded in Milwaukee, Wisconsin on a tradition of bringing only the most advanced engineering to our customers, Oilgear continues to set the standard in industries requiring precise, high-performance hydraulic systems, often operating in the harshest of environments.

Though Oilgear is most recognized for its robust line of pumping products, Oilgear also offers cartridge valves, subsea pressure control solutions, and electrical embedded controllers. Additionally, Oilgear is a worldwide provider of complex fluid power control systems, and has a strong presence in forging and extrusion press control systems, as well as high-specification HPUs and high-pressure hydraulic systems.



World Headquarters

The Oilgear Company

1424 International Dr, Traverse City, MI 49686

phone: 231.929.1660 www.oilgear.com

For more information about your application or the products in this brochure, please contact your nearest Oilgear facility.

