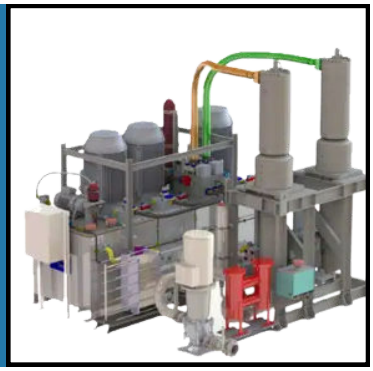
Oilgear TRANSFER BARRIER® Pump System

Hydraulically Driven Pumping for High-Pressure and Cryogenic Applications



OVERVIEW:

The Oilgear TRANSFER BARRIER® Pump is a hydraulically driven plungers pump system designed for high-pressure fluid transfer, including pure water, esther phosphates, Liquified Natural Gas (LNG), cryogenic fluids, or other difficult media. The system replaces a traditional crankshaft drive with a hydraulic power unit (HPU). This configuration drives two large, slow-speed plungers,enabling controlled flow and pressure. The Oilgear TB reduces drastically the pulsations and the mechanical constraints of the conventional reciprocating pumps design.

THE OILGEAR ADVANTAGE:

Capability	Operational Impact	Measured Outcome
Extended Service Life	Reduced seal and valve wear due to slow plunger speeds	Lower maintenance frequency and longer component life
Wide-Range Flow Control	Hydraulic variable displacement enables precise adjustment	200–3000 L/min operating range demonstrated
Stable Flow Delivery	Reduced pulsation compared to crankshaft pumps	Improved process consistency
Reduced Mechanical Stress	Eliminates crankshaft and associated loading	Increased reliability in continuous-duty service
Improved Efficiency	Variable drive allow to supply the hydraulic power only when needed and with a higher efficiency	~20% efficiency improvement vs. mechanical pumps
High-Pressure Capability	Hydraulic drive supports high-force output	Proven operation up to 1000 bar+
Flexible System Design	Decoupled HPU and pump layout	Simplifies integration and retrofit installations
Modular Deployment	Skid-mounted and transportable configurations	Adaptable to fixed or mobile applications

APPLICATION DATA

Parameter	Value / Description
Pump Type	Hydraulically driven, dual-plunger reciprocating
Pressure Capability	Up to 1000 bar+ (application dependent)
Flow Control	Variable displacement, wide turndown
Flow Range (Example)	200 – 3000 L/min
Output Stability	Reduced ripple vs. triplex pumps
Drive System	Hydraulic power unit (electric or diesel-driven)
Operating Environment	-40°C to +50°C (example LNG application)

SYSTEM CONFIGURATION

The system is built around four primary modules:

- Hydraulic Power Unit (HPU): Prime mover, variable pumps, reservoir, cooling
- Pump Section: Dual plungers assemblies with inlet/outlet valves
- Controls: HMI, remote operation, monitoring, and safety interlocks
- Process Interface: Application-specific equipment for cryogenic or gas service

Controls and Operation

The system includes integrated electrical controls with touchscreen interface and remote operation. The source material lists flow and pressure indication, start and stop functions, hydraulic circuit display, parameter adjustment, and emergency stop.

For more information on the Oilgear TRANSFER BARRIER® Pump and System for LNG pump systems, cryogenic pump systems, and high-pressure reciprocating pump applications, visit our website: www.oilgear.com