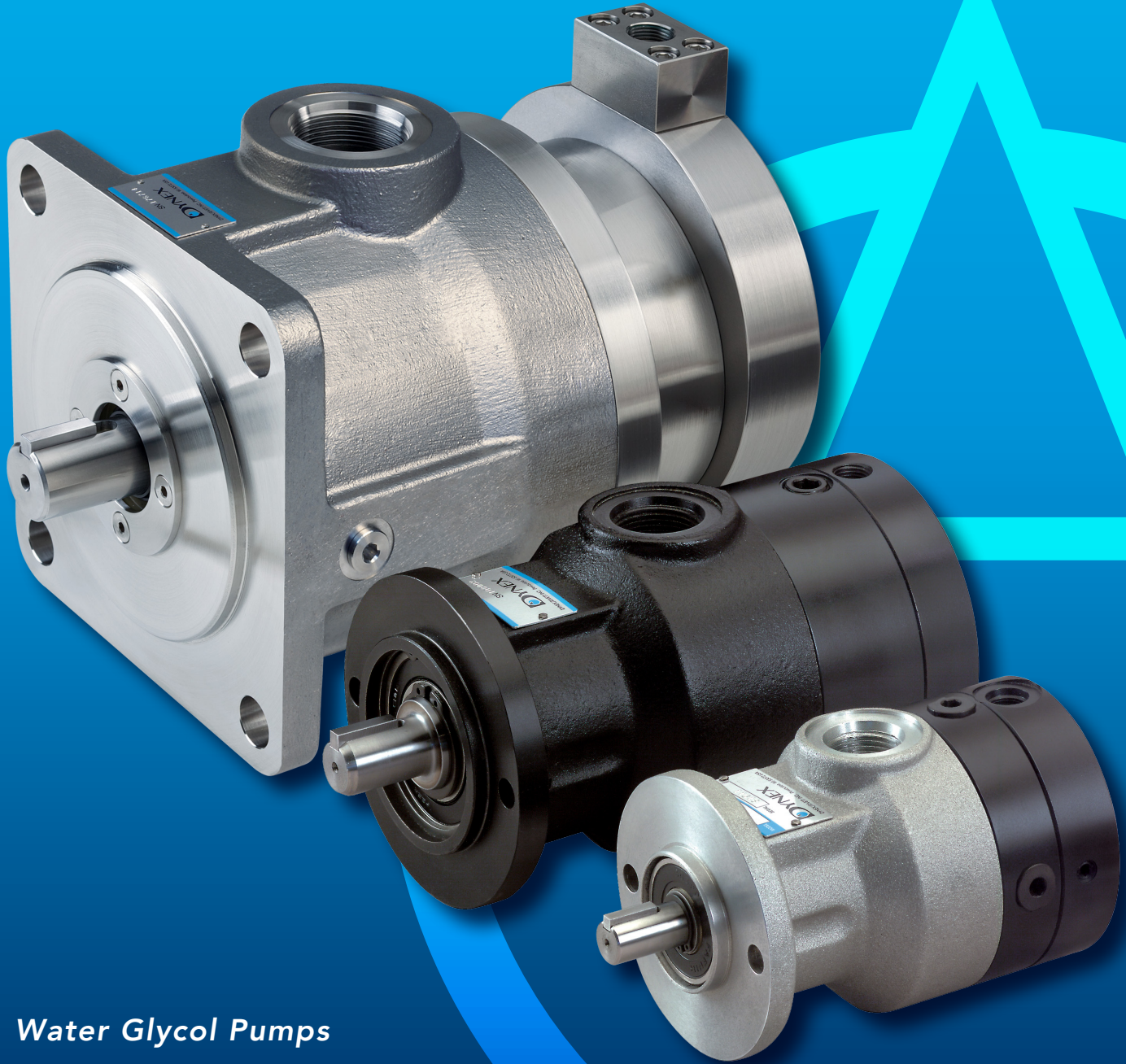


Hydraulic Pumps for Wellhead Control Systems



- *Water Glycol Pumps*
- *Maintenance-Free Design*
- *15000 psi (1040 bar) Operation*
- *Reduced Size, Weight & Cost*
- *ATEX Compliant*

 **DYNEX**
High Pressure Hydraulics



PF500-20

PF500 SERIES

Installation

Mounting is SAE A-A 2-bolt pattern with 0.25 inch (6,4 mm) pilot engagement.

Vertical shaft mounting is possible with a line connected to the bleed port in the pump housing.

Contact the Dynex Sales department for instructions.

Weight: 12 lb (5,4 kg).

Pressures to 15 000 psi (1040 bar)

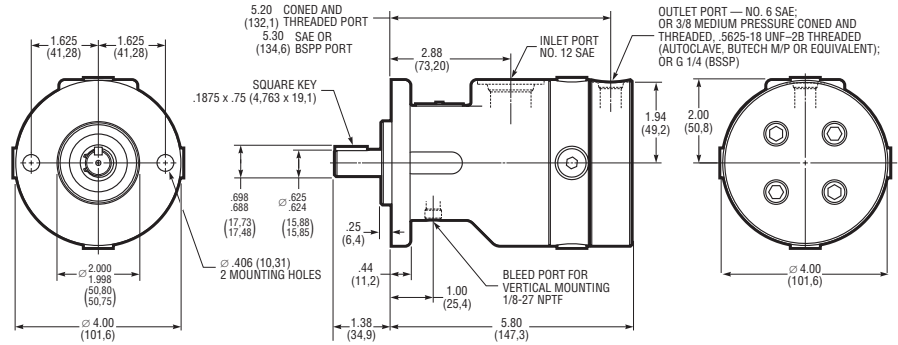
The Checkball pump design features piston check valves for better wear and high volumetric efficiency, even with low-lubricity fluids.

Its rugged wobble plate and stationary piston barrel handle higher loads, while a rotating bearing plate minimizes internal loading, ensuring lower starting torque and longer pump life.

Ideal for Portable Power Units

Compact high-pressure pumps power high-torque wrenches and service tools.

Split-Flow® models handle multiple circuit functions without flow dividers, while efficiently adapting to changing flow and pressure needs in Hi-Lo circuits.



Hydraulic Fluid Viscosity Guidelines^①

Operating							
Minimum		Maximum		Start-up		Optimum	
SUS	cSt	SUS	cSt	SUS	cSt	SUS	cSt
52	8	1911	413	3706	800	98 to 324	20 to 70

^① If fluid conditions fall outside of the range shown, contact the Dynex Sales department.

Specifications

Pump Models	Output Flow at 1500 rpm ^{①②}		Output Flow at 1800 rpm ^{①②}		Rated Pressure		Maximum Pressure		Rated Speed	Maximum Speed
	U.S. gpm	L/min	U.S. gpm	L/min	psi	bar	psi	bar ^③	rpm ^②	rpm ^③
PF501	0.13	0,49	0.16	0,61	8000	560	8000	560	1800	3600
PF504	0.21	0,79	0.25	0,95	8000	560	8000	560	1800	3600
PF507	0.29	1,10	0.35	1,32	8000	560	8000	560	1800	3600
PF510	0.42	1,59	0.51	1,93	8000	560	8000	560	1800	3600
PF511	0.17	0,64	0.21	0,79	8000	560	8000	560	1800	3600
PF514	0.27	1,02	0.33	1,25	8000	560	8000	560	1800	3600
PF517	0.38	1,44	0.46	1,74	8000	560	8000	560	1800	3600
PF520	0.56	2,12	0.68	2,57	8000	560	8000	560	1800	3600
PF501H	0.12	0,45	0.15	0,57	10 000	700	15 000	1040	1800	3600
PF504H	0.20	0,76	0.24	0,91	10 000	700	15 000	1040	1800	3600
PF507H	0.27	1,02	0.33	1,25	10 000	700	15 000	1040	1800	3600
PF510H	0.42	1,59	0.50	1,89	10 000	700	15 000	1040	1800	3600
PF511H	0.16	0,61	0.19	0,72	10 000	700	15 000	1040	1800	3600
PF514H	0.27	1,02	0.32	1,21	10 000	700	15 000	1040	1800	3600
PF517H	0.37	1,40	0.45	1,70	10 000	700	15 000	1040	1800	3600
PF520H	0.55	2,08	0.66	2,50	10 000	700	15 000	1040	1800	3600

^① Output flow based on typical performance at rated pressure with pressurized inlet where required.

^② Contact the Dynex Sales department for applications requiring continuous duty operation at speeds higher than 1800 rpm or lower than 900 rpm.

^③ Higher than rated speeds may require a pressurized inlet.

Vertical In-Reservoir Mounting

Checkball pumps can be installed directly in hydraulic reservoirs.

A vertical mount bleed port simplifies air removal, enabling reliable performance.



PF1000-10

PF1000 SERIES

Installation

Mounting is SAE A 2-bolt pattern with 0.25 inch (6,4 mm) pilot engagement.

Vertical shaft mounting is possible with a line connected to the bleed port in the pump housing.

Contact the Dynex Sales department for instructions.

Weight: 30 lb (13,6 kg).

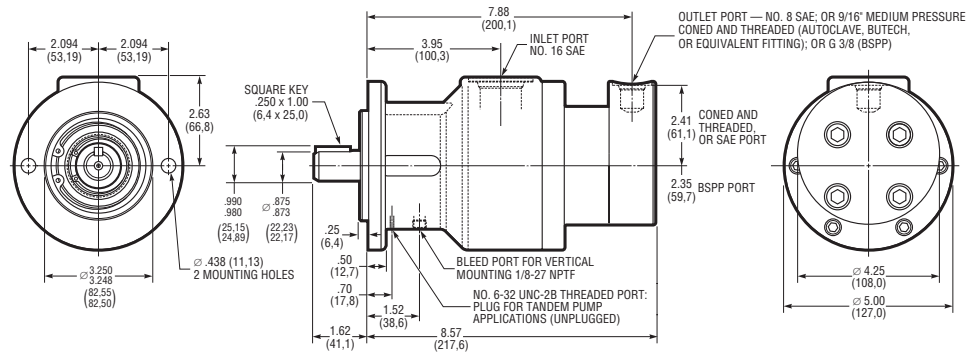
Solar-Powered Wellhead Control

Compact Checkball pumps, with low power needs, are perfect for battery-powered solar systems.

Their durable piston check valves ensure reliable, low-maintenance control for land-based oil fields, even in harsh conditions up to 15000 psi (1040 bar).

Split-Flow® Models

Split-Flow® pumps provide multiple outlets from a single unit, enabling efficient multi-function circuits and synchronized actuator movement. Piston outputs are grouped in the cover with customizable flow splits.



Hydraulic Fluid Viscosity Guidelines^①

Operating				Start-up ^②		Optimum	
Minimum	Maximum	Minimum	Maximum	SUS	cSt	SUS	cSt
SUS	cSt	SUS	cSt	SUS	cSt	SUS	cSt
59	10	1580	342	3706	800	98 to 324	20 to 70

① If fluid conditions fall outside of the range shown, contact the Dynex Sales department.

② Under load or no-load.

Specifications - Keyed Shaft

Pump Models	Output Flow at 1500 rpm ^①		Output Flow at 1800 rpm ^①		Rated Pressure		Maximum Pressure ^②		Speed rpm ^③	
	U.S. gpm	L/min	U.S. gpm	L/min	psi	bar	psi	bar	Rated	Max
PF1002	1.3	4,9	1.5	5,7	6000	420	8000	560	1800	3600
PF1003	1.8	6,8	2.1	7,9	6000	420	8000	560	1800	3600
PF1004	2.2	8,3	2.6	9,8	6000	420	8000	560	1800	3600
PF1005	2.9	11,0	3.5	13,2	6000	420	8000	560	1800	2800
PF1006	3.4	12,9	4.1	15,5	6000	420	8000	560	1800	2800
PF1002H	1.3	4,9	1.5	5,7	6000	420	10000	700	1800	3600
PF1003H	1.8	6,6	2.1	7,9	6000	420	10000	700	1800	3600
PF1004H	2.2	8,3	2.6	9,8	6000	420	10000	700	1800	3600
PF1005H	2.9	11,0	3.5	13,2	6000	420	10000	700	1800	2800
PF1006H	3.4	12,9	4.1	15,5	6000	420	10000	700	1800	2800

① Output flow based on typical performance at rated pressure (ISO 32 oil at 120°F).

② Ratings for keyed shaft only.

③ Contact the Dynex Sales department for applications requiring operation above rated speed. High speed operation may require a pressurized inlet.



PF1300-11

PF1300 SERIES

Installation

Mounting is SAE A 2-bolt pattern with 0.25 inch (6,4 mm) pilot engagement.

Vertical shaft mounting is possible with a line connected to the bleed port in the pump housing.

Contact the Dynex Sales department for instructions.

Weight: 36 lb (16 kg).



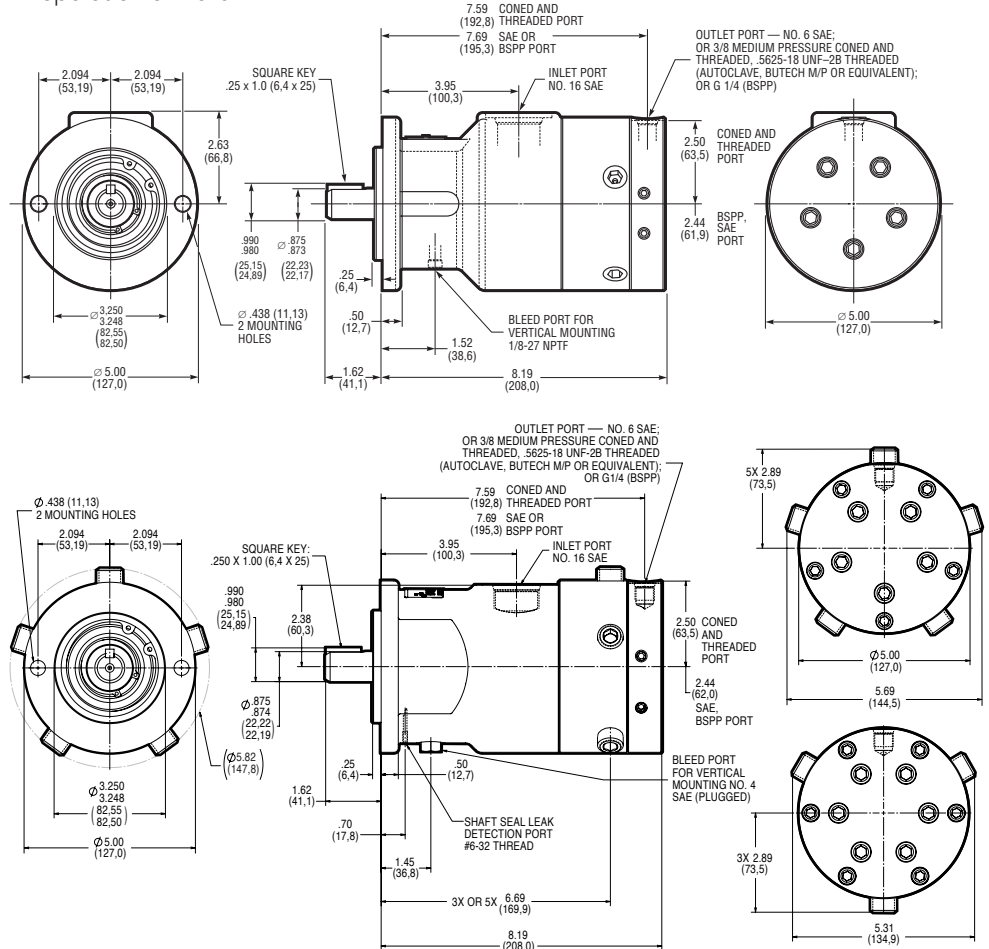
PF1300-20 Stainless

Wellhead Control Systems

The PF1300 and PF4300 series pumps are essential for Wellhead Control Systems in both onshore and offshore oil and gas operations. They efficiently charge systems that control and monitor wellheads, providing reliable operation of wells.

Stainless Steel Design

The PF1300-20 model is constructed using stainless steel for improved resistance to the corrosive salt water environment on offshore platforms.



Specifications

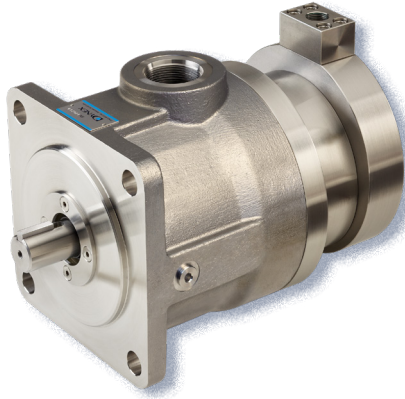
Pump Models	Output Flow at 1500 rpm ^{①②}		Output Flow at 1800 rpm ^{①②}		Maximum Pressure		Rated Speed
	U.S. gpm	L/min	U.S. gpm	L/min	psi	bar	
PF1301	0.26	0,98	0.32	1,19	8000	560	1800
PF1303	0.36	1,35	0.43	1,63	8000	560	1800
PF1305	0.46	1,73	0.55	2,08	8000	560	1800
PF1308	0.61	2,29	0.73	2,76	8000	560	1800
PF1311	0.43	1,64	0.53	1,99	8000	560	1800
PF1313	0.60	2,25	0.72	2,72	8000	560	1800
PF1315	0.76	2,87	0.92	3,47	8000	560	1800
PF1318	1.01	3,82	1.22	4,60	8000	560	1800
PF1320	1.18	4,46	1.42	5,37	8000	560	1800
PF1301H	0.23	0,86	0.28	1,06	15 000	1040	1800
PF1303H	0.32	1,22	0.39	1,48	15 000	1040	1800
PF1305H	0.44	1,65	0.53	1,99	12 000	830	1800
PF1308H	0.60	2,27	0.72	2,73	9000	630	1800
PF1311H	0.38	1,44	0.46	1,76	15 000	1040	1800
PF1313H	0.54	2,03	0.65	2,48	15 000	1040	1800
PF1315H	0.72	2,74	0.88	3,32	12 000	830	1800
PF1318H	1.00	3,78	1.21	4,56	9000	630	1800

① Output flow based on typical performance using 33 SUS (1,9 cSt) water glycol fluid at maximum pressure with flooded inlet.

② Contact the Dynex Sales department for a review of applications requiring operation below the minimum speed of 900 rpm.

No Cross-Fluid Contamination

The PF4300 series pump uses a single fluid design that eliminates bearing oil lubrication circuits and prevents water glycol fluid cross-contamination.



PF4300-23 Stainless

PF4300 SERIES

Installation

Mounting is SAE D 4-bolt pattern with 0.25 inch (6,4 mm) pilot engagement.

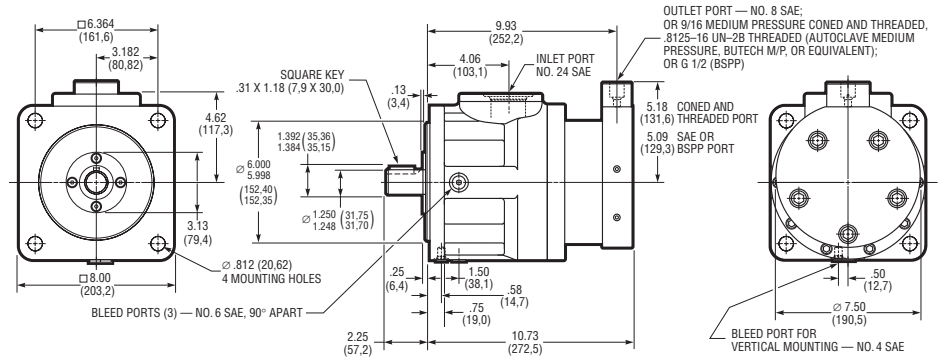
Vertical shaft mounting is possible with a line connected to the bleed port in the pump housing.

Contact the Dynex Sales department for instructions.

Weight: 116 lb (53 kg).

Split-Flow® Models

Split-Flow® pumps provide multiple outlets from a single unit, enabling efficient multi-function circuits and synchronized actuator movement. Piston outputs are grouped in the cover with customizable flow splits.



Smaller, Lighter and Lower Cost

The PF4300 series pump is compact, lightweight, and easy to install, offering a more cost-effective and space-saving alternative to triplex plunger pumps without compromising on performance.

Compatible Fluids

Dynex pumps have operated successfully with many water-based fluids. Because of the wide range of fluid characteristics, contact the Dynex Sales department for a review of your application.

Below is a list of fluids that have proven to be compatible with the PF4300 series pump:

- Castrol - Transaqua HC 10, HT, HT2
- Houghton - Aqualink HT804F, 300F
- McDermid - Oceanic HW443, HW540, HW740

Hydraulic Fluid Viscosity Guidelines - PF1300 & PF4300 Series^①

Operating					
Minimum		Maximum		Start-up	
SUS	cSt	SUS	cSt	SUS	cSt
32	1,5	927	200	927	200

^① If fluid conditions fall outside of the range shown, contact the Dynex Sales department.

Specifications

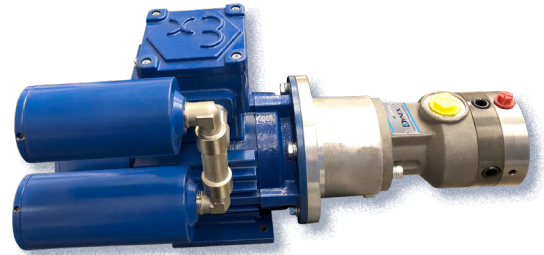
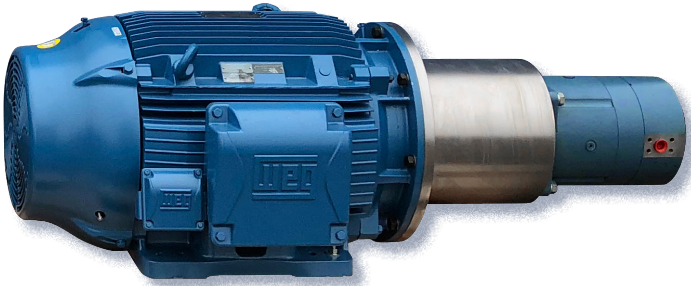
Pump Models	Output Flow at 1500 rpm ^{①②}		Output Flow at 1800 rpm ^{①②}		Theoretical Displacement		Maximum Pressure		Speed rpm ^②	
	U.S. gpm	L/min	U.S. gpm	L/min	CIR	CCR	psi	bar	Min	Max
PF4303	1.8	6,8	2.2	8,3	0.33	5,43	8000	560	900	1800
PF4304	2.7	10,2	3.2	12,1	0.47	7,68	8000	560	900	1800
PF4305	3.1	11,7	3.7	14,0	0.55	9,05	8000	560	900	1800
PF4306	3.8	14,4	4.6	17,4	0.66	10,86	8000	560	900	1800
PF4308	4.5	17,0	5.4	20,4	0.78	12,80	8000	560	900	1800
PF4309	5.0	18,9	6.0	22,7	0.88	14,30	8000	560	900	1800
PF4310	5.7	21,6	6.8	25,7	0.98	16,12	8000	560	900	1800
PF4312	6.8	25,7	8.2	31,0	1.18	19,34	8000	560	900	1800
PF4303H	1.7	6,4	2.0	7,6	0.33	5,43	15 000	1040	900	1800
PF4304H	2.6	9,8	3.1	11,7	0.47	7,68	12 000	830	900	1800
PF4305H	3.0	11,4	3.6	13,6	0.55	9,05	10 000	700	900	1800
PF4306H	3.7	14,0	4.4	16,7	0.66	10,86	10 000	700	900	1800
PF4308H	4.4	16,7	5.3	20,1	0.78	12,80	10 000	700	900	1800
PF4309H	4.9	18,5	5.9	22,3	0.88	14,30	10 000	700	900	1800
PF4310H	5.6	21,2	6.7	25,4	0.98	16,12	10 000	700	900	1800
PF4312H	6.8	25,7	8.1	30,7	1.18	19,34	10 000	700	900	1800

^① Output flow based on typical performance using 33 SUS (1,9 cSt) water glycol fluid at maximum pressure with pressurized inlet where required.

^② Contact the Dynex Sales department for a review of applications requiring operation below the minimum speed of 900 rpm.

MOTOR-PUMP UNIT ASSEMBLIES

SIMPLIFY YOUR ASSEMBLY FROM A SINGLE SOURCE



MOTOR-PUMP assemblies supplied by Dynex from one of our manufacturing facilities provide an effective solution for your hydraulic power needs.



Assembled in Ashland, MA, USA
or Eaton Socon, United Kingdom.

Painted to various requirements from
simple primer coat protection to detailed
specifications such as **NORSOK M501**.

Supplied with Compliance Documentation

- Pump Test Certificate
- Declaration of Conformity
- Material Traceability Packet
- Paint Specification (as required)
- ATEX Compliant

Ranging in size from:

.5Hp (.4 kW) to 400 Hp (298 kW)



OFFSHORE & LAND-BASED APPLICATIONS

THE WELLHEAD CONTROL PANEL provides power to the valve actuators at the well. These actuators control the output of the well and can be remotely operated during maintenance or in an emergency.



Hydraulic power is provided by accumulators which are recharged at set intervals by high pressure pumps. Fluid is carried to the well via an umbilical up to several miles in length.

FLUSHING RIGS are designed to push debris and contaminate through a system either prior to commissioning or during operation.



System confidence is achieved with Dynex Checkball pumps operating reliably within these low-powered systems for critical hydraulic controls.



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