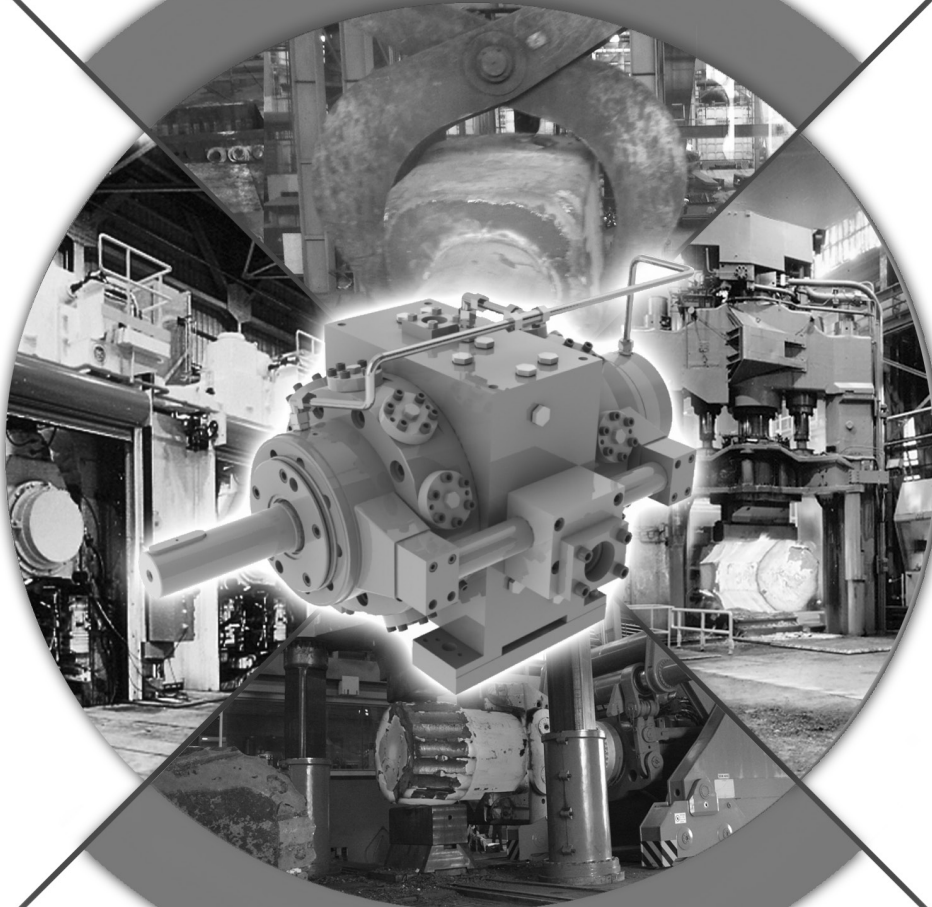
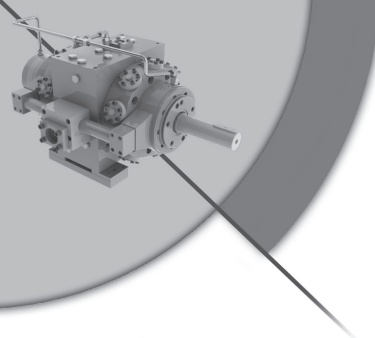


# Oilgear

## PFCS High Pressure Pump





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## PUMPS WITH MULTIPLE FIXED DELIVERIES FOR HIGH PRESSURE (OIL OR 95/5 HWCF) HEAVY DUTY APPLICATIONS

Internationally known as a world class hydraulic company, Oilgear specializes in the design, engineering technology and equipment needed to solve tough hydraulic problems by combining the right pump and components into an engineered system that will meet specific needs. The Oilgear PFCS pump is designed for applications that require the following:

- **HIGH PRESSURE**  
Up to 7250 psi (500 bar) with most hydraulic fluids (5000 psi (345 bar) with 95/5).
- **HEAVY DUTY CONSTRUCTION**  
Many of these units have operated 40,000 hours before inspection and reconditioning is necessary.
- **HIGH DIRT TOLERANCE**  
Check valve design provides a high degree of contamination resistance.
- **OPERATION ON LOW VISCOSITY and SPECIAL FLUIDS INCLUDING 95/5**  
These pumps are designed with hydrostatic type bearings and a stationary cylinder.
- **MULTIPLE DELIVERIES** – Up to three separate displacements available from a single pump.

## PERFORMANCE ASSURANCE – STANDARD WITH EVERY OILGEAR COMPONENT



**Oilgear**  
PERFORMANCE  
ASSURANCE

**Every** Oilgear product is shipped to you with our Performance Assurance — a corporate commitment to stay with your installation until our equipment performs as specified.

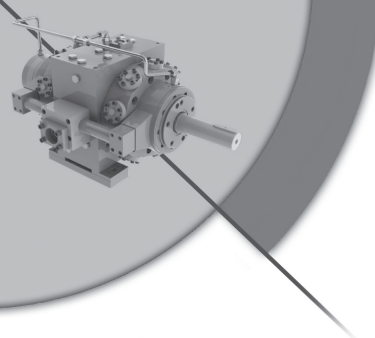
Hydraulic equipment and systems have been Oilgear's primary business since 1921. For decades, we have developed hydraulic techniques to meet the unique needs and unusual fluid power problems of machinery builders and users worldwide, matching fluid power systems to a tremendous range of applications and industries. Our exclusive Performance Assurance program is built upon that strong foundation.

As a customer, you also benefit from access to Oilgear's impressive technical support network. You'll find factory trained and field-experienced application engineers on staff at every Oilgear facility. They are backed by headquarters staff who can access the records and knowledge learned from decades of solving the most difficult hydraulic challenges.

When your design or purchase is complete, our service is just beginning. If you ever need us, our Oilgear engineers will be there, ready to help you with the education, field service, parts and repairs to assure that your installation runs smoothly—and keeps right on running.



**Oilgear** Performance



# PFCS

## HIGH PRESSURE AXIAL PISTON PUMPS

# Oilgear Features and Benefits

### Pistons

- Eighteen hardened steel pistons located in two stationary cylinders are not subject to centrifugal force thus reducing load and wear. The piston load is caused by pumping only, therefore higher operating speeds are possible.

### Steel Piston Shoes

- Hydrostatically balanced design reduces piston shoe load and provides lubrication for increased life
- Facilitates a high degree of contamination wear resistance
- Permits higher pressure operation with long life
- Allows operation with low viscosity or other special fluids including 95/5. Consult Oilgear for more information.

### Three Separate Deliveries (1/3 each)

- Deliveries can be combined together in one circuit
- Deliveries can be completely separated in three circuits
- Deliveries can be any combination of two circuits
- Can provide limited power consumption
- Allows design flexibility

### Cartridge Type Inlet and Outlet Check Valves

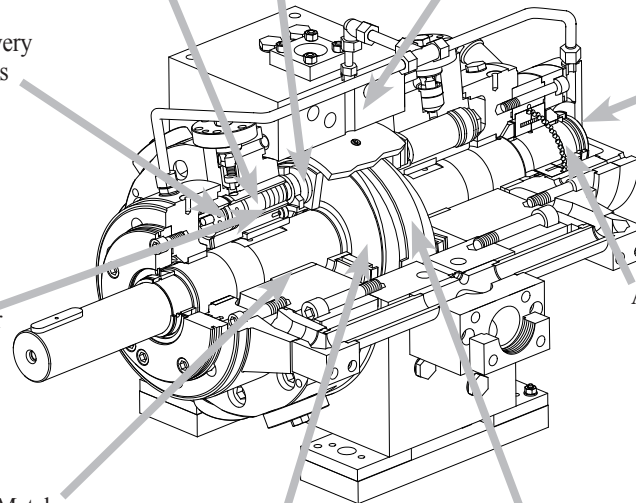
- Positive seating results in very high volumetric efficiencies
- Are easy to service

### Replaceable Piston Sleeves

- Allows economical rebuilding without cylinder replacement

### Precision Manufactured White Metal Bearings with Forced Lubrication

- Enables operating with low viscosity or other special fluids
- Provides superior bearing life



### Optional Thru-Shaft

- Permits mounting of additional pumps

### Axial Overload Sensing Devices

- Simple dependable design
- Senses unbalanced (piston load) condition by detecting shaft movement
- Provides shut-down or warning signal before damage occurs

### Double Sided Counterbalanced Swashblock with Replaceable Swash Wear Plate

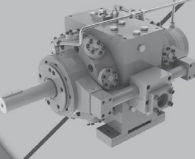
- Balanced design eliminates need for thrust bearings
- Provide long life
- Enables easy re-buildability
- Permits high rotational speeds

### Swashmember with 8° Angle

- Results in low piston head loading
- Allows high speed operation
- Design enables pump compatibility to high pressure and high shock loads

### Experience

Typical applications for these units include – open and closed die forging presses, piercing presses, coining presses, rubber pad presses, etc.



## SINGLE DISCHARGE PFCS440 / PFCS580

UNIT	THEORETICAL DISPLACEMENT		RATED CONTINUOUS PRESSURE		RATED DRIVE SPEED											
					1200 rpm				1500 rpm				1800 rpm			
					INPUT*				INPUT*				INPUT*			
in. <sup>3</sup> /rev.	ml/rev.	psi	bar	USgpm	lpm	hp	kw	USgpm	lpm	hp	kw	USgpm	lpm	hp	kw	
PFCS440	28.6	468	7250	500	135	511	649	484	169	640	812	606	203	769	976	728
PFCS580	35.8	587	5000	350	169	641	633	472	212	801	791	590	-	-	-	-

\*Approximate at rated speed and pressure.

Note: External supercharge pressure of 150-to-180 psi (10,3-to-12,4 bar) is required.

## MULTIPLE DISCHARGE PFCS440 / PFCS580

UNIT	NUMBER OF DISCHARGES	DISCHARGE #	RATED DRIVE SPEED							
			1200 rpm		1500 rpm		1800 rpm			
			USgpm	lpm	USgpm	lpm	USgpm	lpm		
PFCS440	2	1	45.0	171	56.3	213	67.7	257		
		2	90.0	341	113	427	135	514		
	3	1	45.0	171	56.3	213	67.7	257		
		2	45.0	171	56.3	213	67.7	257		
		3	45.0	171	56.3	213	67.7	257		
	PFCS580	2	1	56.5	214	70.5	267	-	-	
2			113	427	141	534	-	-		
3		1	56.5	214	70.5	267	-	-		
		2	56.5	214	70.5	267	-	-		
		3	56.5	214	70.5	267	-	-		

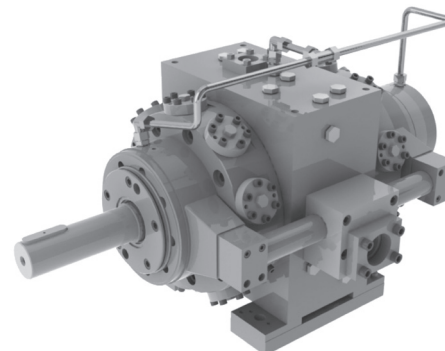
## DISCHARGE BLOCKS

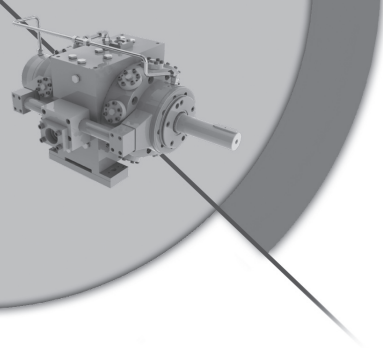
There is a wide and diverse variety of discharge blocks and integrated manifolds available incorporating valves for the various types of installations. Contact the factory with specific requirements.

## DIMENSIONS\* (Without Discharge Block)

UNIT	L LENGTH		W WIDTH		H HEIGHT		WEIGHT	
	in.	mm	in.	mm	in.	mm	lb.	kg
PFCS440	46.42	1179	24.57	624	22.72	577	2469	1120
PFCS580								

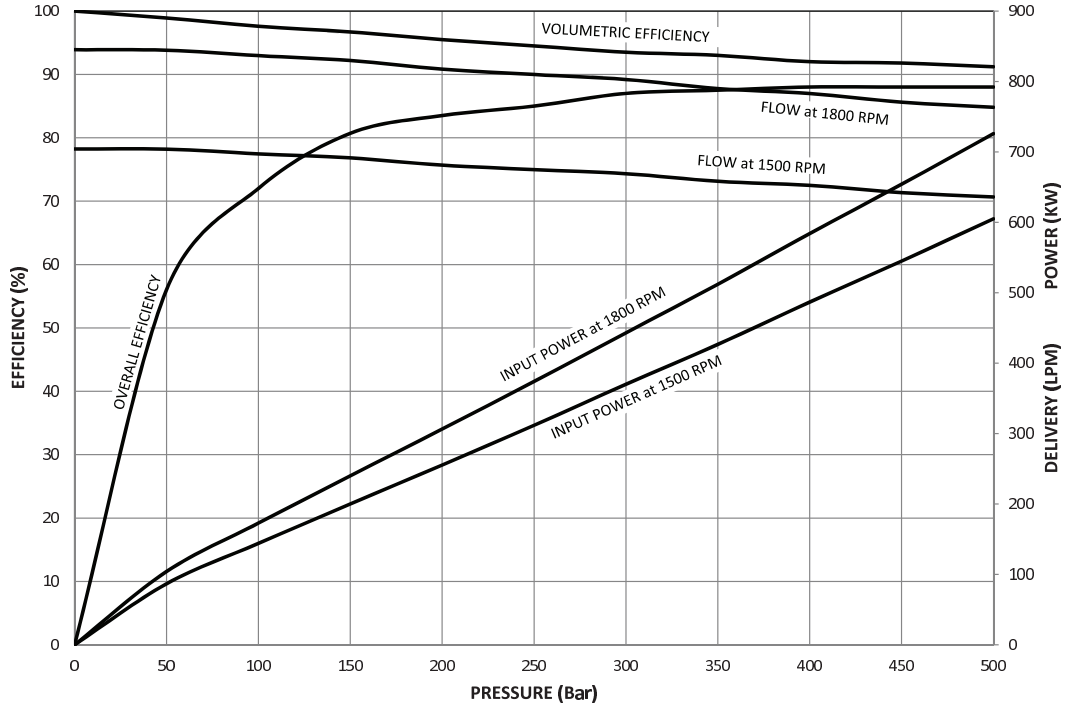
\* All dimensions are approximate. For detailed information consult your factory representative.



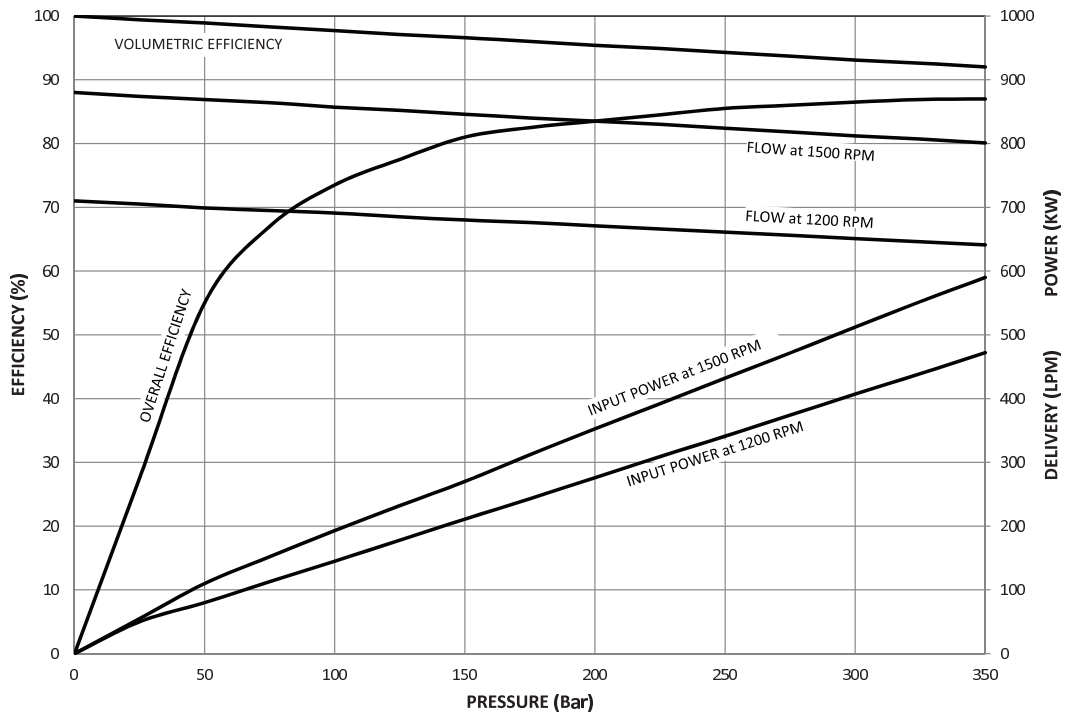


# Oilgear Performance Data

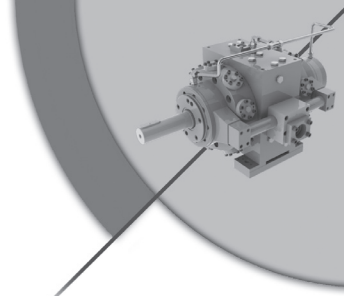
PFCS440



PFCS580







## HOW TO ORDER – PFCS

BLOCK NUMBER EXPLANATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
HIGH PRESSURE PUMP EXAMPLE	P	F	C	S	440	A	*	M	500	L	F	R	L	N	NN	A	B

- |  |  |
|--|--|
| <p>1 = UNIT<br/>P = Pump</p> <p>2 = TYPE<br/>F = Fixed</p> <p>3 = DESIGN<br/>C = Dual Swash</p> <p>4 = FRAME<br/>S = Up to 630 ml/Rev</p> <p>5 = DISPLACEMENT<br/>440 = 440 ml/Rev<br/>580 = 580 ml/Rev</p> <p>6 = DESIGN SERIES<br/>A = Standard for Mineral Oil</p> <p>7 = MODIFIER<br/>* = Designated by Factory</p> <p>8 = DIMENSIONS<br/>M = Metric</p> <p>9 = MAX. WORKING PRESSURE<br/>500 = For 440 Size<br/>350 = For 580 Size</p> <p>10 = ROTATION (Facing Drive Shaft)<br/>L = Counterclockwise (CCW)<br/>Left Hand<br/>R = Clockwise (CW) Right Hand</p> <p>11 = MOUNTING<br/>F = Foot Mounting (Standard)</p> | <p>12 = INLET POSITION (Facing Drive Shaft)<br/>Note: Inlet is always on the opposite side of discharge<br/>L = Left Side with Horizontal Connection<br/>R = Right Side with Horizontal Connection<br/>A = Left Side with Vertical Connection<br/>B = Right Side with Vertical Connection</p> <p>13 = DISCHARGE POSITION (Facing Drive Shaft)<br/>Note: Discharge Position is always on the opposite side of inlet<br/>L = Left Side<br/>R = Right Side</p> <p>14 = DISCHARGE BLOCK<br/>N = No Connection Block Fitted<br/>(Available as a separate item; consult Oilgear)</p> <p>15 = SHAFT<br/>NN = Standard Key</p> <p>16 = FAULT SWITCH<br/>A = Micro Switch and Connector</p> <p>17 = SEALS<br/>B = Buna N<br/>E = E.P.D.M.<br/>V = Viton<br/>Z = Special</p> |
|--|--|



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



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