

VARIABLE PISTON, OPEN LOOP PUMP

XD5-150

Displacement	150.0 cc/rev
Continuous Rated Pressure	5,000 psi
Peak Pressure	5,800 psi
Continuous Rated Shaft Speed	2,400 RPM

Oilgear's Best Ideas, in a Mobile Package

XD5 takes Oilgear reliability and performance, and wraps it in a small mobile package. Like PVWJ and PVG, XD5 uses Hard-on-Hard and hydrobearing design philosophies, but combines those designs in a small, light mobile pump housing.

AVAILABLE WITH HORSEPOWER (TORQUE) LIMITING CONTROL

The pump will reduce delivery, as system pressure increases, to limit horsepower consumption.

BEST UNDER PRESSURE

XD5 offers 5,000 psi continuous rated pressure across the entire pump family.

MORE FLOW

XD5 design prioritizes inlet condition, meaning users can reach higher shaft speeds with only atmospheric pressure at the inlet.

PEAK POWER

Combining 5,000 psi continuous rated pressure with high shaft speeds allows XD5 to maximize the power output possible from a given displacement.

UP TO 32% SMALLER SPACE CLAIM

Smaller dimensional space claim makes first fit design and aftermarket drop-in-place easier.

CLASS-LEADING POWER DENSITY

Combining a high power pump with a small overall package gives XD5 class-leading power density.

HYDRODYNAMIC BEARING



PERFORMANCE DATA

100 250 VOLUMETRIC EFFICIENCY 90 225 OVERALL EFFICIENCY 80 200 175 150 150 70 INPUT HP AT 1800 RPM 60 **EFFICIENCY (%)** 125 50 INPUT HP AT 1200 RPM (GPM) 100 40 DELIVERY 75 30 DELIVERY AT 1800 RPM 50 20 DELIVERY AT 1200 RPM 10 25 INPUT HP COMPENSATED- 1800 RPM 1200 RPM 0 0 1000 1500 2000 2500 3000 3500 4000 4500 5000 500 Λ PRESSURE (PSI)

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OILGEAR

MODEL SPECIFICATIONS

FRAME SIZE		B-FRAME			C-FRAME	C/D-FRAME	
		MODEL	XD5-050	XD5-065	XD5-075	XD5-100	XD5-150
	Maximum (RPM)		2700	2700	2700	2600	2400
RIVE	Minimum (RPM)		600	600	600	600	600
٥	Rotational Moment of Inertia (lbsin ²)		23	23	23	47	150
		Peak	5801	5801	5801	5801	5801
7-	Pressure (PSIA)	Continuous	5000	5000	5000	5000	5000
2		Minimum	100	100	100	100	150
	Nominal Volume at 1800 RPM, Rated Pressure, and Full Displacement (GPM)		22.0	28.8	33.3	42.4	63.0
SE	Maximum Pressure (PS	I) w/ Standard Shaft Seal	25	25	25	25	25
V	Case Drain Port Size		#10 SAE	#10 SAE	#10 SAE	#12 SAE	#12 SAE
	Pressure Compensator	Pressure Controls (PSI) - Minimum Compensator Setting	500	500	500	500	500
CONTROLS ²		On-Stroke Time (ms) Simulating a step function at 1800 RPM, Continuous Rated Pressure, 500 psi P∆	60	60	60	80	240
		Off-Stroke Time (ms) Simulating a step function at 1800 RPM, Continuous Rated Pressure, 500 psi P△	40	40	40	40	80
	Load Sense	Minimum Setting (PSI)	200	200	200	200	200
		Maximum Setting (PSI)	500	500	500	500	500
FLUID ³	Viscosity (SSU)	Minimum	65	65	65	65	65
		Maximum	2000	2000	2000	2000	2000
URE ⁴	Fluid Operating Range (F°)		14 to 190				
ERATI	Fluid Minimum Starting (F°)		-40	-40	-40	-40	-40
TEMP	Fluid Maximum at Case Drain Port (F°)		230	230	230	230	230

1. Pumps should not be run at neutral for more than 30 consecutive minutes. For longer times, a 10% minimum stroke should be maintained. Be sure system and pumps are protected against overloads with high pressure relief valves. Peak pressure is the maximum pressure the unit can be operated at for 1% or less of every minute.

Fastest possible time, stroking times may be slower depending on conditions. Consult Oilgear Technical Sales.
See "Additional Notes" in Technical Bulletin 847019-C for filtration and contamination levels.
Minimum and maximum viscosities must be observed.





= UNIT **XD5** Pump Family 2 = UNIT SIZE 150 150 cc/rev (9.16 cipr) **3 = HOUSING MOUNT** C With SAE C-2/4 Mounting **D** With SAE D-4 Mounting 4 = DESIGN SERIES 1 Current 5 = DESIGN SERIES MODIFIER **U** SAE Connections & Mounting 6 = SEALS V Viton (Standard) B Buna Nitrile 7 = ROTATION L I Left Hand (CCW) R Right Hand (CW) 8 = VALVE PLATE TYPE S Rear Ported Side Ported (thru-shaft) D 9 = CONNECTION TYPE F SAE Flange

10 = SHAFT TYPE				
L	44-4 (SAE D Spline, 13 Tooth)	1		
Y	44-1 (SAE D KEYED, Ø1.750)	1		
S	38-4 (SAE C-C Spline, 17 Tooth)	2		
Κ	32-4 (SAE C Spline, 14 Tooth)	2		

Ρ	Pressure Compensating
10	CONTROL OPTION
12a =	CONTROL OPTION
1	Single Setting (standard)
R	Remote Control
12b =	SOLENOID VOLTAGE
Ν	Non-Electrical Control
12c =	
Ν	Non-Electrical Control

11 = CONTROL TYPE

12d :	= MODULE
omit	None
/F	Load Sense without bleed
/B	Load Sense with bleed 3
/H	Horsepower (torque) Limiter
/G	Horsepower (torque) Limiter with Load Sense without bleed
/м	Horsepower (torque) Limiter 3 with Load Sense with bleed

12e = INPUT HORSEPOWER @ 1800 RPM
Blank unless required option
Example: 070 = 70 HP Input

13 =	VOLUME STOP
NN	No Volume Stop
SN	Adjustable Max. Volume Stop

14 = AUXILIARY ADAPTERS				
Req	Required for all thru-shaft units			
Blan	k for all non thru-shaft units			
NN	None			
СР	Coverplate			
A2	82-2 (SAE A 2-Bolt) Adapter 16-4 (SAE A) Coupling, 9 Tooth			
B2	101-2 (SAE B 2-Bolt) Adapter 22-4 (SAE B) Coupling, 13 Tooth			
C2	127-2 (SAE C 2-Bolt) Adapter 32-4 (SAE C) Coupling, 14 Tooth			
C4	127-4 (SAE C 4-Bolt) Adapter 32-4 (SAE C) Coupling, 14 Tooth			
D4	152-4 (SAE D 4-Bolt) Adapter 1 44-4 (SAE D) Coupling, 13 Tooth			

15 =	15 = GEAR PUMPS		
Blank unless required option			
05	8 ml/rev. (0.488 cipr)		
07	11 ml/rev. (0.672 cipr)		
10	16 ml/rev. (0.976 cipr)		
14	23 ml/rev. (1.403 cipr)		
20	33 ml/rev. (2.015 cipr)		

1 -Unavailable with Housing Mount "C"

2 -Unavailable with Housing Mount "D"

3 -Unavailable with Control Option "R"

For non-standard requests, please contact technical sales. Subject to change without notice.



CONNECTION TABLE

PORT	FITTING
INLET	2.5" SAE Code 61 Flange
OUTLET	1.25" SAE Code 62 Flange
CASE DRAIN (2 LOCATIONS)	#12 SAE Port
LOAD SENSE / REMOTE PILOT PORT	#4 SAE Port
GAUGE PORT	#4 SAE Port

SHAFT TORQUE RATINGS

MODEL CODE DESIGNATOR	SHAFT SIZE	ALLOWABLE INPUT TORQUE, IN - LBS
K*	SAE C Spline - 14 Tooth, 12/24 Pitch	7,000
S	SAE C-C Spline - 17 Tooth, 12/24 Pitch	10,500
L	SAE D Spline - 13 Tooth, 8/16 Pitch	15,000
Y	SAE D Keyed - 1.75" Diameter	15,000

7500 IN-LB = MAXIMUM ALLOWABLE TORQUE APPLIED TO REAR OUTPUT

* Shaft is not rated for full pump torque at 5000 psi

INLET DATA



SOUND DATA





INSTALLATION DRAWING: D-FRAME PUMP

Driveshafts



Valve Plate Views - Side Ported, Right Hand Rotation (CW), Ports reversed for CCW Pump



Side Ported Valve Plate, Right Hand Rotation (CW)



520730-401 REV 0

Clearance Dimensions, Side Ported Valve Plate



Right Side View, Side Ported Valve Plate





INSTALLATION DRAWING: D-FRAME PUMP

Driveshafts



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INSTALLATION DRAWING: D-FRAME PUMP

SAE A (82-2) Mounting Adapter



SAE A (82-2) MOUNTING ADAPTER

5 0730-401 REV 0

SAE B (101-2) Mounting Adapter



SAE B (101-2) MOUNTING ADAPTER

SAE C (127-2/4) Mounting Adapter

520730-401 REV 0

520730-401 REV 0



SAE D (152-4) Mounting Adapter





INSTALLATION DRAWING: C-FRAME PUMP

Driveshafts



Valve Plate View, Side Ported, Right Hand Rotation (CW), Ports Reversed for CCW Pump



Side Ported Valve Plate, Right Hand Rotation (CW)

520730-431 REV 0

Clearance Dimensions, Rear Ported Valve Plate



Mounting Flange, Lifting Hook, and Rotation





INSTALLATION DRAWING: C-FRAME PUMP

Driveshafts



Clearance Dimensions, Rear Ported Valve Plate



Mounting Flange, Lifting Hook, and Rotation





INSTALLATION DRAWING: C-FRAME PUMP

SAE A (82-2) Mounting Adapter



SAE A (82-2) Mounting Adapter

520730-431 REV 0

SAE B (101-2) Mounting Adapter



SAE B (101-2) Mounting Adapter

520730-431 REV 0

SAE C (127-2/4) Mounting Adapter







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