



FXF {FF-FXF} DUPLEX POWER PUMP

SPECIFICATIONS:

Maximum BHP

Mud Service: 16.2 (12 kw)

Ind'l. Service: 19.7 (15 kw)

Maximum Jackshaft RPM

Mud Service: 439

Ind'l. Service: 537

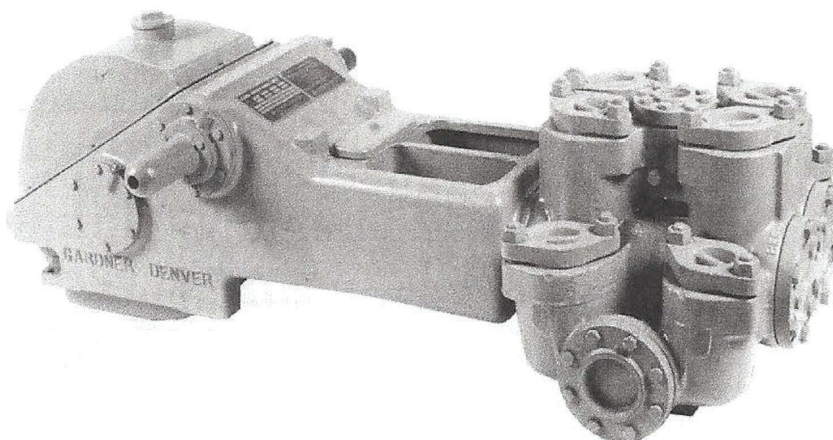
No. of Pistons: 2

Stroke Length: 5 in. (127 mm)

Piston Rod Load: 3,140 lbs. (1,424 kg)

Oil Capacity: 3 gal. (11.5 liters)

Pump Weight: 1,495 lbs. (678 kg)



PERFORMANCE RATINGS FXF DUPLEX INDUSTRIAL PUMP for

Industrial Service

Model	Stroke	Liner Size Diameter		Normal Operation				** Maximum Recommended Operation				*** Maximum Working Pressure		Maximum Piston Load		
				Displacement		Max Pump RPM	Jack-shaft RPM	Input HP at Max. Speed	Displacement		Max Pump RPM	Jack-shaft RPM	Input HP at Max. Speed		psi	kg/cm ²
		in.	mm	gpm	l p h				gpm	l p h						
FXF(*)	5" (127 mm)	4 1/2	114.3	121	458	90	439	16.2	149	562	110	537	19.7	197	13	3,140 lbs. (1424 kg)
FXF(*)		4	101.6	94	357				115	435				250	17	
		3 1/2	88.9	72	274				88	334				326	22	
		3	76.2	52	197				64	242				444	30	
		2 1/2	63.5	35	135				43	164				639	44	

FXF DUPLEX MUD PUMP for Mud, Grout and Cement Service

Model	Stroke	Liner Size Diameter		Normal / Maximum Recommended Operation				*** Maximum Working Pressure		Maximum Piston Load	
				Displacement		Max Pump RPM	Jack-shaft RPM	Input HP at Max. Speed	psi		kg/cm ²
		in.	mm	gpm	l p h						
FXF(*)	5" (127 mm)	4 1/2	114.3	121	458	90	439	16.2	197	13	3,140lbs. (1424 kg)
FXF(*)		4	101.6	94	357				250	17	
		3 1/2	88.9	72	274				326	22	
		3	76.2	52	198				444	30	
		2 1/2	63.5	35	135				639	44	

Based on 90% mechanical efficiency and 100% volumetric efficiency.

Specifications subject to change without notice.

... These speeds are recommended for favorable suction conditions and consideration must be given to viscosity and character of fluids.

... Maximum working pressure shown applies to the fluid ends. Power ends are designed for certain maximum piston rod loads, and in service the power end determines the maximum pressure on a given size piston. Tabulated maximum pressure for any given size piston for maximum piston rod load must not be exceeded even at reduced RPM. Fluid cylinder liners and pistons are interchangeable in all sizes except for the FXF cylinders filled with 4 1/2" parts and FXX and FXD cylinders with 5 1/2" parts.

Distributor Contact
NDS Drilling Supply, Inc.
 26041 Newton Circle
 Elko New Market, MN 55020
 1-800-637-1940 952-461-3400

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**FXF (FF-FXF)
 DUPLEX POWER PUMP**

STANDARD EQUIPMENT

- Rods and pistons.
- Liners and valves.
- Double-extended jackshaft with extension for one side.
- Piston rods have Gardner Denver No. 1 or API No. 1 taper (optional).
- Wood skid.
- Non-adjustable packing standard. Kevlar or double stack packing optional.

OPTIONAL EQUIPMENT

- Surge chamber.
- Steel skid.
- Stainless steel valves.
- Metal packed pistons.
- Special jackshafts.
- Top motor mount.

Suction Connection: 2 1/2" NPT 125#
Discharge Connection: 2" NPT 300#
Jackshaft Extension
 Diameter: 1.94"
 Length: 5.0"
 Keyway: 4 7/8" L x 1/2" W x 1/2" H
Dimensions: Length 67.4", Width 30.1", Height 13.5"

Note: All installations must contain a pressure relief valve in the discharge line near the pump to help prevent breakage.

*MODEL DESIGNATIONS		
MODEL	FF-FXF	FF-FXF
Mud Service	FXFB	FXFA
Grout & Cement Service	FXFD	FXFC
Oil Service	FXFE	FXFJ
General Service	FXFG	FXFH
Bronze Fitted (Water Svc)	FXFF	N/A
Stroke	5"	5"
Liner Size		
Maximum	4"	4.5"
Minimum	2.5"	4"
Fluid End Type	Cast Iron One Piece	Cast Iron One Piece

MATERIAL SPECIFICATIONS

COMPONENT	GENERAL SERVICE	MUD, GROUT & CEMENT	OIL SERVICE	WATER SERVICE	POWER END:	
					COMPONENT	MATERIAL
Cylinder	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Eccentric	Cast Iron
Liners	Hardened Steel	Hardened Steel	Hardened Steel	Bronze	Connecting Rods	Cast Iron
Suction Manifold	Cast Iron	Cast Iron	Cast Iron	Cast Iron	Crossheads	Cast Iron
Discharge Manifold	Integral with Cylinder	Integral with Cylinder	Integral with Cylinder	Integral with Cylinder	Main Bearing	Tapered Roller
Packing	Braided Polymer	Molded Convex	Braided Polymer	Braided Polymer	Connecting Rod Bearing	Bronze
Piston	Iron with Pacing Rings	Steel Body with Nitrile Rubber	Iron with Pacing Rings	Bronze with Pacing Rings	Crosshead Pin Bearing	Bronze
Piston Rod	Hardened Steel	Hardened Steel	Hardened Steel	Bronze		
Stuffing Box	Cast Iron	Cast Iron	Cast Iron	Cast Iron		
Valve	Iron Wing Guided	Steel Wing Guided	Steel Wing Guided	Bronze Wing Guided		
Valve Seats	Iron	Steel	Steel	Bronze		

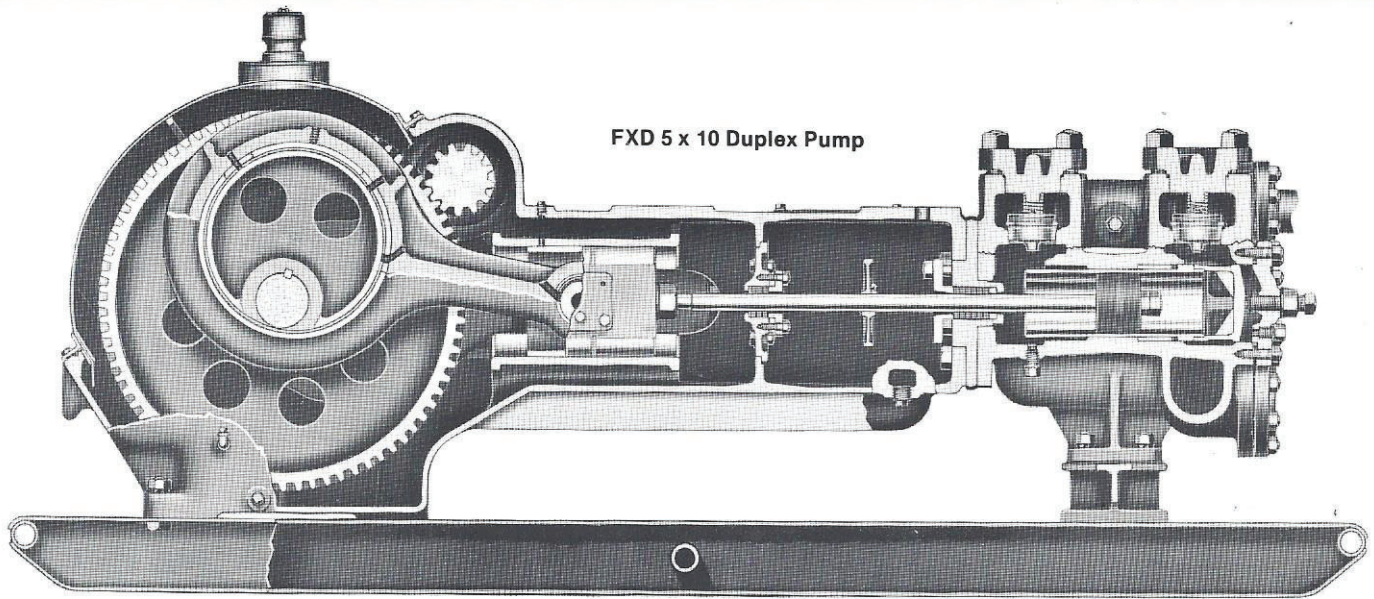
*Materials listed are furnished as standard equipment. Alternate materials available upon request.



For additional information contact your local representative or
 Gardner Denver Compressor and Pump Division,
 1800 Gardner Expressway, Quincy, Illinois 62301
 Customer Service Department
 Telephone: (800) 682-9868 FAX: (217) 224-7814
 Sales and Service in all major cities.

GARDNER-DENVER FX DUPLEX PUMPS

52 to 487 Gallons Per Minute Displacement



SIZES AND RATINGS - FX DUPLEX PUMPS FOR MUD AND CEMENT SERVICE

Size Number and Stroke	† Liner Size Diameter		Displacement		Maximum Pressure		Maximum Piston Load		Max Pump RPM	Jack-shaft RPM	Input HP at Maximum Speed	Pipe Sizes				Approximate Weight Without Skid		
	In	mm	GPM	BPH	PSI	Kg/cm ²	Lb	Kg				Suction		Discharge		Lb	Kg	
												In	mm	In	mm			
FF-FXF 5" (127 mm)	4½	114.3	121	173	197	13.85	3140	1424	90	439	16.2	2½	64	2	51	1475	669	
	4	101.6	94.4	135	250	17.58												16.2
	3½	88.9	72.3	103	326	22.92												16.2
	3	76.2	52.4	75	444	31.22												15.9
	2½	63.5	35.6	50.9	639	44.93												15.6
FG-FXG 6" (152mm)	5	127.0	150	214	310	21.80	6122	2777	75	354	32	4	102	2	51	2330	1057	
	4½	114.3	121	173	385	27.07												32
	4	101.6	94.9	136	492	34.59												32
	3½	88.9	71.9	103	646	45.42												32
	3	76.2	52.0	74.3	895	62.93												32
FD-FXX 8" (203mm)	5½	139.7	222	317	338	23.76	8036	3645	70	330	51.5	4	102	3	76	4775	2166	
	5	127.0	182	260	409	28.76												51.1
	4½	114.3	146	209	505	35.51												50.6
	4	101.6	113	161	640	45.00												49.6
	3½	88.9	84.7	121	836	58.78												48.6
*FC-FXX 8" (203mm) Divided Fluid End	5	127.0	182	260	409	28.76	8036	3645	70	330	51.1	4	102	3	76	5065	2297	
	4½	114.3	146	209	505	35.50												50.6
	4	101.6	113	161	640	45.00												49.6
	3½	88.9	84.7	121	836	58.78												48.6
	3	76.2	59.9	85.6	1136	79.87												46.7
FY-FXX 8" (203mm) Divided Fluid End	7½	190.5	420	600	182	12.80	8036	3645	70	330	52.4	6	152	4	102	5925	2688	
	7¼	184.2	391	559	195	13.71												52.3
	7	177.8	365	521	209	14.69												52.3
	6¾	171.5	322	460	217	15.26												52.2
	6½	165.1	313	447	242	17.02												52.0
FD-FXD 10" (254mm)	5½	139.7	257	367	475	33.40	11,270	5112	65	390	83.8	4	102	3	76	6065	2751	
	5	127.0	211	301	574	40.36												83.1
	4½	114.3	169	241	709	49.85												82.2
	4	101.6	131	187	897	63.07												80.6
	3½	88.9	98.3	140	1171	82.33												79.0
*FC-FXD 10" (254mm) Divided Fluid End	5	127.0	211	301	574	40.36	11,270	5112	65	390	83.1	4	102	3	76	6235	2828	
	4½	114.3	169	241	709	49.85												82.2
	4	101.6	131	187	897	63.07												80.6
	3½	88.9	98.3	140	1171	82.32												79.0
	3	76.2	69.6	99.4	1594	112.07												76.1
FY-FXD 10" (254mm) Divided Fluid End	7½	190.5	487	696	255	17.93	11,270	5112	65	390	85.2	6	152	4	102	7075	3209	
	7¼	184.2	454	649	273	19.19												85.0
	7	177.8	423	604	292	20.53												84.8
	6¾	171.5	392	560	315	22.15												84.7
	6½	165.1	364	520	339	23.84												84.7
FXO-FXO 10" (254mm) Divided Fluid End	5	127.0	223	319	772	54.28	15,150	6872	70	329	118.2	4	102	3	76	8300	3765	
	4½	114.3	179	256	951	66.86												116.8
	4	101.6	138	197	1206	84.79												114.2
	3½	88.9	102	146	1500	105.47												105.0
FO-FXO 10" (254mm) Divided Fluid End	7¼	184.2	486	694	367	25.80	15,150	6872	70	329	122.4	6	152	3	76	10500	4763	
	7	177.8	452	646	393	27.63												121.9
	6¾	171.5	419	599	423	29.74												121.6
	6½	165.1	388	554	457	32.13												121.7
	6	152.4	328	469	536	37.69												120.7
5½	139.7	273	390	638	44.86	119.5												
	5	127.0	223	319	772	54.28	118.2											

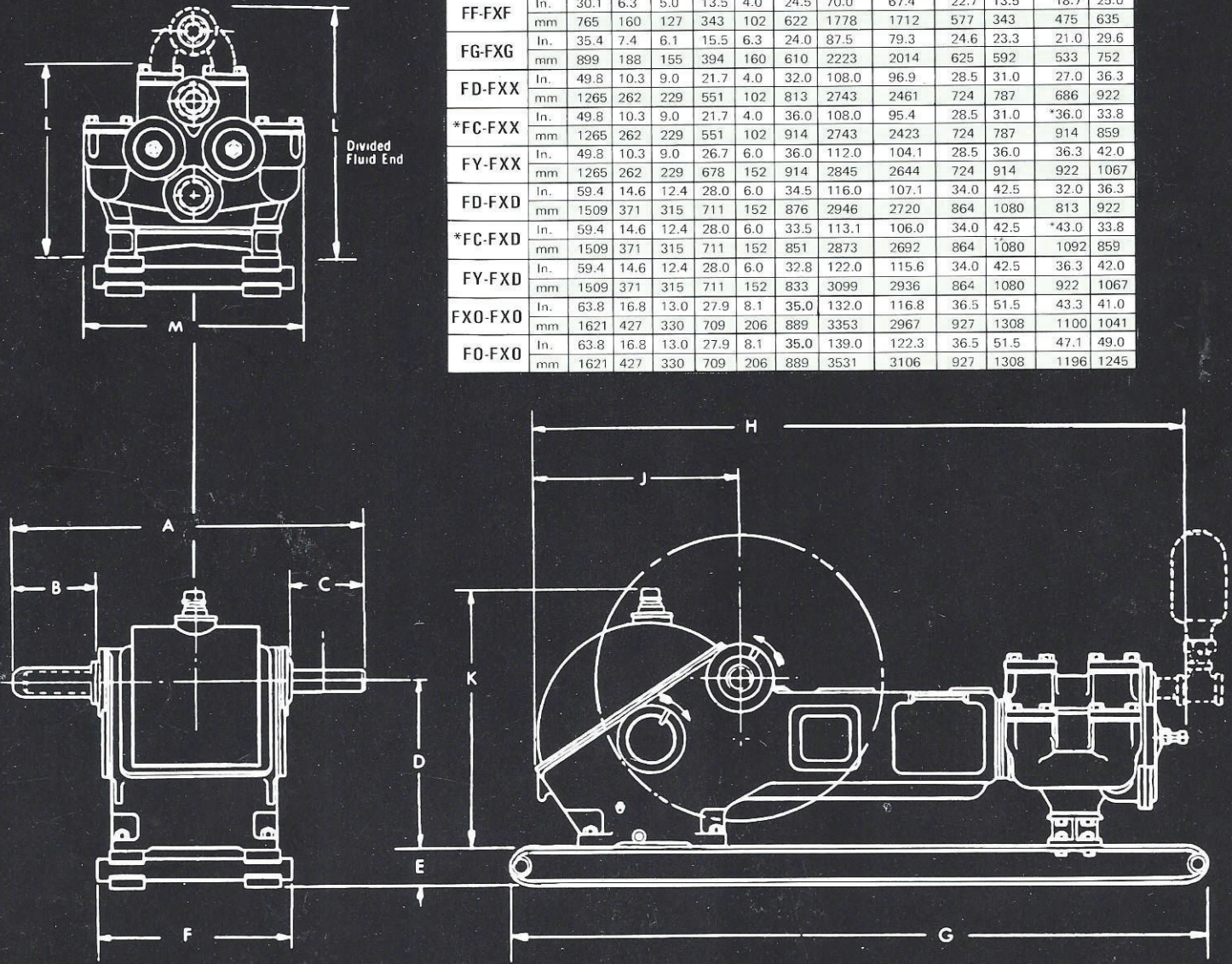
*Cast steel fluid cylinders tested to 7000 pounds available as extra equipment.

†Fluid cylinder liners and pistons are interchangeable in all sizes in the tables except for FF cylinders fitted with 4½" parts and FD cylinders fitted with 5½" parts.

GARDNER-DENVER

FX PUMP DIMENSIONAL DATA

Pump Model	A	B	C	D	E	F	G	H	J	K	L	M	
FF-FXF	In.	30.1	6.3	5.0	13.5	4.0	24.5	70.0	67.4	22.7	13.5	18.7	25.0
	mm	765	160	127	343	102	622	1778	1712	577	343	475	635
FG-FXG	In.	35.4	7.4	6.1	15.5	6.3	24.0	87.5	79.3	24.6	23.3	21.0	29.6
	mm	899	188	155	394	160	610	2223	2014	625	592	533	752
FD-FXX	In.	49.8	10.3	9.0	21.7	4.0	32.0	108.0	96.9	28.5	31.0	27.0	36.3
	mm	1265	262	229	551	102	813	2743	2461	724	787	686	922
*FC-FXX	In.	49.8	10.3	9.0	21.7	4.0	36.0	108.0	95.4	28.5	31.0	*36.0	33.8
	mm	1265	262	229	551	102	914	2743	2423	724	787	914	859
FY-FXX	In.	49.8	10.3	9.0	26.7	6.0	36.0	112.0	104.1	28.5	36.0	36.3	42.0
	mm	1265	262	229	678	152	914	2845	2644	724	914	922	1067
FD-FXD	In.	59.4	14.6	12.4	28.0	6.0	34.5	116.0	107.1	34.0	42.5	32.0	36.3
	mm	1509	371	315	711	152	876	2946	2720	864	1080	813	922
*FC-FXD	In.	59.4	14.6	12.4	28.0	6.0	33.5	113.1	106.0	34.0	42.5	*43.0	33.8
	mm	1509	371	315	711	152	851	2873	2692	864	1080	1092	859
FY-FXD	In.	59.4	14.6	12.4	28.0	6.0	32.8	122.0	115.6	34.0	42.5	36.3	42.0
	mm	1509	371	315	711	152	833	3099	2936	864	1080	922	1067
FXO-FXO	In.	63.8	16.8	13.0	27.9	8.1	35.0	132.0	116.8	36.5	51.5	43.3	41.0
	mm	1621	427	330	709	206	889	3353	2967	927	1308	1100	1041
FO-FXO	In.	63.8	16.8	13.0	27.9	8.1	35.0	139.0	122.3	36.5	51.5	47.1	49.0
	mm	1621	427	330	709	206	889	3531	3106	927	1308	1196	1245



Specifications subject to change without notice.
Sales and Service Offices in all principal cities.

For additional information, contact your local representative or Cooper Petroleum Equipment Div./Gardner-Denver, 1800 Gardner Expressway, Quincy, Illinois 62301. (217) 222-5400, Telex 40-4332



**GARDNER-DENVER
PETROLEUM EQUIPMENT**