



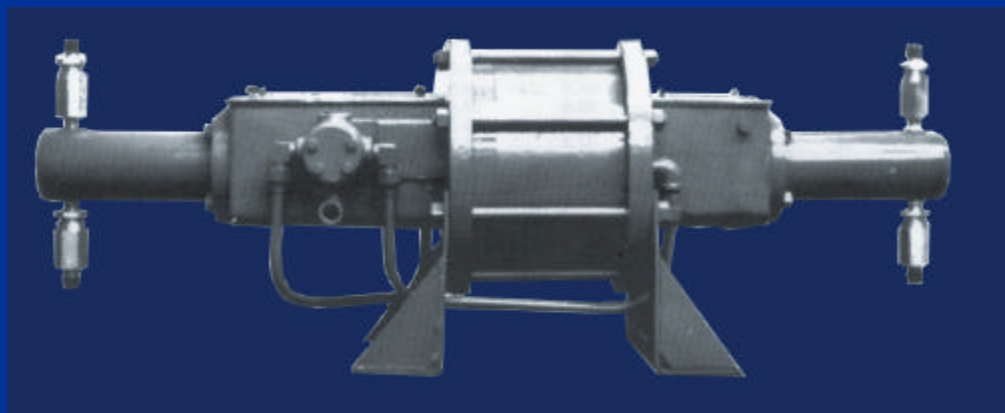
Pumps & Packages

• Models CFFFP, CFPD, CFM and CFMD pneumatic injection pumps are reciprocating piston pumps activated in both directions by a pressurized piston. The motivating power is gas or air. Supply gas or air from a pressure regulator passes through a throttling valve, lubricator and rotary pilot valve before entering the power cylinder on one side of the piston. Supply gas or air, passing through the rotary pilot, pressures up one side of the power piston, stroking the pump through one-half of the cycle. While one side of the power piston is being pressurized, the other side is being exhausted through another set of ports in the rotary pilot valve. As the power piston nears the end of the pump stroke, a travel stop strikes the trip arm mechanism of the rotary pilot, switching the parts of the rotary pilot so that now the supply gas or air enters the previously exhausted side of the power piston and the other side is exhausted. Check valves on the pump or fluid end suction and discharge connections permit flow through the fluid cylinder in only one direction. Double-ended pumps, such as the CFPD and CFMD pumps, operate in the same manner except that two fluid volumes are displaced in each complete pump cycle.

Designed to:

- Pipe exhaust gas into fuel gas system.
- Fluid Capacities:
 - 1 - 280 Gallons per hour.
- Maximum Working Pressure:

Piston	Discharge
1"	10,000 PSIG
1½"	4,500 PSIG
2"	2,500 PSIG
Gas Cylinder: 200 PSIG	



- Single-ended or double-ended pumps
- Available Skid-Mounted



Pump Capacities of CFP and CFM Pneumatic Injection Pumps

Pump Speed Cycles/Minute (N)	GALLONS/HOUR					
	CFP-1	CFPD-1*	CFM-1½	CFMD-1½*	CFM-2	CFMD-2*
1	1.16	2.312	2.6	5.2	4.6	9.2
2	2.31	4.61	5.2	10.4	9.2	18.4
3	3.46	6.90	7.8	15.6	13.8	27.6
4	4.61	9.27	10.4	20.8	18.4	37.0
5	5.81	11.62	13.1	26.2	23.3	46.6
6	6.9	14.00	15.7	31.4	27.9	55.8
7	8.12	16.2	18.3	36.6	32.5	65.0
8	9.27	18.6	20.9	41.8	37.2	74.4
9	10.42	20.9	23.5	47.0	41.8	83.6
10	11.62	23.2	26.2	52.4	46.5	93.0
11	12.85	25.5	28.9	57.8	51.4	103.0
12	14.00	27.8	31.5	63.0	56.0	112.0
13	15.1	30.2	34.0	68.0	60.5	121.0
14	16.2	32.4	36.5	73.0	64.9	130.0
15	17.4	34.8	39.2	78.4	69.6	140.0
16	18.6	37.2	41.8	83.6	74.3	149.0
17	19.75	39.5	44.5	89.0	79.0	158.0
18	20.9	41.8	47.0	94.0	83.5	167.0
19	22.1	44.2	49.7	99.4	88.3	177.0
20	23.2	46.4	52.3	104.6	92.9	186.0
21	24.4	48.8	55.0	110.0	97.7	195.0
22	25.5	51.0	57.5	115.0	102.0	204.0
23	26.9	53.8	60.5	121.0	107.0	214.0
24	27.8	55.6	62.7	125.4	111.0	222.0
25	29.1	58.2	65.5	131.0	116.0	232.0
26	30.2	60.4	68.0	136.0	121.0	242.0
28	32.4	64.8	73.0	146.0	130.0	260.0
30	34.8	69.6	78.4	156.8	140.0	280.0

*Select the pump speed that will give you the required circulation rate, then using "N" obtain the gas consumption and required supply gas pressure as if the pump were single-ended. The actual gas consumption will be twice that read from the Nomograph on this basis. The required supply gas pressure will be the same.