



### Series III Air Motor Features

- These fully pneumatic air motors reverse stroke direction without mechanical linkages and are simpler and more reliable than older designs.
- Air motors are 3, 4, 6, 8 and 10 inches (76, 101, 152, 203 and 254 mm) diameter.
- An air signal valve activates a relay valve at the end of each stroke.
- The shifting relay valve changes the power valve position.
- The power valve shifts air flow to the opposite side of the power piston to reverse stroke direction.
- Modular Construction: Air motors are easy to install, maintain and upgrade with options like AirBrake™.
- Built-in Muffler: Meets or exceeds OSHA requirements at recommended air pressures.
- AirBrake Options: Stops runaway pump, prevents product spills, damage and excess wear and activates an optional remote alarm device. AirBrake available already installed (refer to pump specification charts) or can be ordered separately as Model 85317. For remote monitoring of AirBrake, order Model 244398 signal kit.

### PileDriver Series III Pump Tube Features

- Machined inlet casting: Set screws secure the inlet assembly and permit 360° outlet adjustment to facilitate system plumbing and provide for easy pump removal/replacement.
- Cartridge-type gland with scrapers and patented protection bushing: Extends the life of gland packings by protecting them from excessive material build up and pressure fluctuations. Cartridge removes easily for routine service.
- Straight-through pump tube and piston-port design: Reduces internal friction and the opportunity for solids entrapment.
- Load-bearing, chrome-plated internal pump tube surface: Distributes forces between gland and pump tube to prolong seal life.
- Choice of inlets: Shovel-type for thick material or flat check for higher flow rates.

\* Air motor available separately.



\*Model 84921



Model 84904

# Industrial Pumping Equipment

## PileDriver® III Pump Selection Chart



Ratio	Pump Model Std. Air Motor Only	Air Motor Model & Dia. in. / mm	Pump Tube Model	Pump Tube Style	Output Per Cycle		Approximate Cycles per gal / liters	Stroke Length in. / cm
					cu. in.	cc		
75:1	2375	Std. 86810 w/ AirBrake 94910 10 / 254	84902	Shovel	12	196	20 / 5	6 / 152
42:1	2342		84900		22	360	11 / 3	
20:1	2320		84921		44	721	5 / 1	
	2321		84922	Flat Check	46	754		
	** 2335		85922					
45:1	2322	Std. 84808 w/ AirBrake *94908 8 / 203	84902	Shovel	12	196	20 / 5	
35:1	2323		84901		17	278	14 / 4	
25:1	2325		84900		22	360	11 / 3	
	2326		84921		44	721	5 / 1	
13:1	** 2334		85922	Flat Check	46	754	5 / 1	
6:1	2328		84923	Flat Check	85	1393	3 / ½	
25:1	2349		Std. 84806 w/ AirBrake *94906 6 / 152	84902	Shovel	12	196	
20:1	2350	84901		17		278	14 / 4	
15:1	2352	84900		22		360	11 / 3	
	2353	84921		44		721	5 / 1	
7:1	** 2333	85922		Flat Check	46	754	5 / 1	
3:1	2356	84923		Flat Check	85	1393	3 / ½	
7:1	* 2367	Std. 84804 w/ AirBrake *94904 4 1/4 / 108		84900	Shovel	22	360	11 / 3
3:1	* 2368		84921	44		721	5 / 1	
			** 2332	85922	Flat Check	46	754	5 / 1

\* Order pump tube and air motor separately when selecting 3" and 4" air motors and AirBrake-equipped models.

\*\* Same as standard PileDriver III except mounts with standard 2.5" NPTF(F) or 3" NPTF(M) pipe inlet.

### Packing Kit Selection Chart



Model 84913

Pump Tube	Standard Polyurethane Kit	PTFE Kit	UHMW Polyethylene Kit
84900	84907	84912	84913
84901	84911	84905	84906
84902	84908	84914	84915
84904	84909	—	84917
84921	84927	84928	84929
84922	84930	84931	—
84923	84924	84925	

**Note:** Standard polyurethane seal kits include all soft seals. PTFE and UHMW polyethylene seal kits include gland and piston u-cups only.

### Gland Seal Kits



Model 85311

Pump Tube	Standard Polyurethane Kit	PTFE Kit	UHMW Polyethylene Kit
84900	--	85321	85327
84901	--	--	--
84902	--	85323	--
84904	85314	85324	--
84921	85315	85325	--
84922	85315	85325	--
84923	--	85326	--

**Note:** Gland seal kits include gland u-cup and o-ring only.

# Industrial Pumping Equipment

## PileDriver® III Pump Selection Chart



Air Inlet	Pump Output GPM / LIT/Min.			Max. Outlet Press. psi / bar	Min. ID Air Supply Hose in. / mm	Material Outlet	Approximate Air Consumption per Cycle	
	@ 30 cpm**	@ 50 cpm**	@ 75 cpm**				SCFM @ 70 psig M <sup>3</sup> /Min @ 4.8 bar	SCFM @ 100 psig M <sup>3</sup> /Min @ 6.8 bar
¾ NPT Female	1.5 / 5.9	2.6 / 9.8	3.9 / 14.9	7500 / 517	¾ / 20	1½ NPT Female	2.5 / 0.071	3.6 / 0.10
	2.8 / 10.8	4.8 / 18.0	7.1 / 27.0	4200 / 290				
	5.7 / 21.6	9.5 / 36.0	14.3 / 54.0	2000 / 138				
	5.8 / 22.6	9.9 / 37.7	14.9 / 56.5					
	1.5 / 5.9	2.6 / 9.8	3.9 / 14.9	4500 / 310				
	2.2 / 8.3	3.7 / 13.9	5.5 / 20.8	3500 / 241				
	2.8 / 10.8	4.8 / 18.0	7.1 / 27.0	2500 / 172				
	5.7 / 21.6	9.5 / 36.0	14.3 / 54.0	1300 / 90				
	5.8 / 22.6	9.9 / 37.7	14.9 / 56.5	2000 / 138				
	11.0 / 41.7	18.4 / 69.6	27.6 / 104.5	600 / 41				
	1.5 / 5.9	2.6 / 9.8	3.9 / 14.9	2500 / 172				
	2.2 / 8.3	3.7 / 13.9	5.5 / 20.8	2000 / 138				
	2.8 / 10.8	4.8 / 18.0	7.1 / 27.0	1500 / 104				
	5.7 / 21.6	9.5 / 36.0	14.3 / 54.0	700 / 48				
	5.8 / 22.6	9.9 / 37.7	14.9 / 56.5	2000 / 138				
	11.0 / 41.7	18.4 / 69.6	27.6 / 104.5	300 / 21				
	2.8 / 10.8	4.8 / 18.0	7.1 / 27.0	1400 / 97			½ / 12	
	5.7 / 21.6	9.5 / 36.0	14.3 / 54.0	600 / 41			¾ / 10	
5.8 / 22.6	9.9 / 37.7	14.9 / 56.5	300 / 21	½ / 12				
						0.8 / 0.023	1.1 / 0.031	
						0.5 / 0.014		

Note: Air motors and pump tubes shipped separately. Assembly required.

\*\* Cycles per minute.

### Other PileDriver Pump Tube/PowerMaster Air Motor Combinations

Ratio	Air Motor Model & Dia. in. / mm	Pump Tube Model	Pump Tube Style	Max. GPM / LPM Free Delivery @ 75 cpm	Max. Outlet Press. psi / bar
55:1	Std. 86810	84901	Shovel	5.5 / 20.8	5500 / 379
45:1	w/ AirBrake *94910	84904	Flat Check	5.8 / 22.0	4500 / 311
10:1	10 / 254	84923		27.6 / 104.5	1000 / 69
30:1	Std. 84808	84904		5.8 / 22.0	3000 / 207
13:1	w/ AirBrake *94908 8 / 203	84922		14.9 / 56.5	1300 / 90
18:1	Std. 84806	84904		5.8 / 22.0	1800 / 124
7:1	w/ AirBrake *94906 6 / 152	84922		14.9 / 56.5	700 / 48
12:1	Std. 84804 w/ AirBrake *94904 4¼ / 108	84902	Shovel	3.9 / 14.9	2400 / 166
10:1		84901		5.5 / 20.8	2000 / 138
8:1		84904	Flat Check	5.8 / 22.0	1600 / 110
3:1		84922		14.9 / 56.5	600 / 41
1.5:1		84923		27.6 / 104.5	300 / 41
6:1		Std. 84803 3 / 76	84902	Shovel	3.9 / 14.9
4:1	84901		5.5 / 20.8		800 / 55
3:1	84900		7.1 / 27.0		600 / 41
1.5:1	84921		14.3 / 54.0		300 / 21
4:1	84904		5.8 / 22.0		
1.5:1	84922		Flat Check	14.9 / 56.5	
	85922				
1:1	84923		27.6 / 104.5	200 / 14	

\* Order pump tube and air motor separately when selecting 3" and 4" air motors and AirBrake-equipped models.



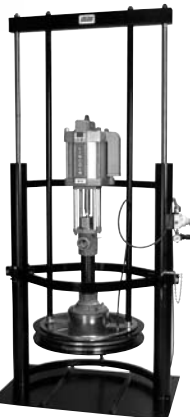
Model 2719



Model 83274



Model 2718



Model 1735



Model 1765

### Pressure Primer Features

- Positive priming force on the material.  
Downward force of the follower forces material into the pump inlet. This assures positive priming of high-viscosity materials.
- Follower has an Elastomer seal.  
Wipers, single o-rings or double o-rings seal against the material container's sides. This prevents drying and contamination of the material and wipes the container's sides clean.
- Four-way air valve control.  
This directional valve controls up/down movement of the follower. Primer unit remains coupled to the air system at all times. (Use of an air regulator and gauge is recommended).
- Primers available for a wide range of material container sizes.  
Lincoln has primers for 5- and 55-gallon material containers. You can match the primer to the container size required for your application.

Model	For U.S. Drum Size gal	Description	Operating Air Pressure psi / bar	Priming Pressure psi / bar	
				@70/5	@100/7
2718 *	5	Single Post for viscous material over 500K centipoise	30-150 / 2-10	4.4 / .3	6.3 / .44
83274 ***	55	Single Post for viscous material over 500K centipoise	40-100 / 3-7	5 / .35	7.1 / .5
2719 ***	55	Single Post Pump Hoist & Follower for low- to medium viscosity materials 100K to 200K centipoise range	40-200 / 3-14	**Not applicable	**Not applicable
1735	55	Twin Post (Twin 3") for viscous materials in the 200K to 500K centipoise range	40-150 / 3-10	2.7 / .2	3.7 / .26
1765	55	Twin Post (Twin 6") for viscous materials over 500K centipoise	40-100 / 3-7	8.5 / .57	12 / .8

\*\* Gravity priming pressure

Model	Height		Base Dim. in. / mm
	Lowered in. / cm	Raised in. / cm	
2718 *	42.5 / 108	50.25 / 128	22.25 x 22.25 / 600 x 600
83274 ***	89 / 226	89 / 226	26 x 26 / 700 x 700
2719 ***	73 / 185.4	110.5 / 280.7	12.5 x 14 / 317.5 x 355.5
1735	66.125 / 167.6	103 / 261.6	24 x 36 / 600 x 1000
1765	66.125 / 167.6	103 / 261.6	24 x 36 / 600 x 1000

\*Model 83943 portability kit is available for Model 2718. Includes axle and wheels.

\*\*\* Use only 8" and smaller air motors with Models 2719 and 83274.

**Note:** Units show pumps for illustrative purposes only. Order pump separately.

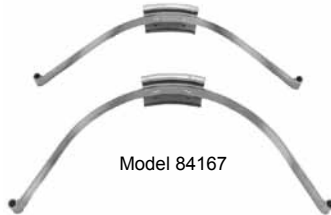


Model 83727

### Model 83727 Standpipe Assembly

Mounts PileDriver III pump on floor to accept suction line from bulk tank.

Model	Inlet	Height	Diameter
83727	3" NPTF	7 1/2" / 190 mm	8" / 200mm



Model 84167

### Chimeless Drum Kits

Because some materials are supplied in straight-sided or chimeless drums, Lincoln has developed hold-down kits which facilitate follower and pump extraction from these drums. Kits are available as follows:

Kit No.	For model PowerMaster® III
84167	1704
84503	1736



Model 84722

### Model 84722 Series III Air Motor Exhaust Adapter

Replaces standard muffler. Converts exhaust port to 3/4" NPT female thread.



Model 84723

### Model 84723 Series III Air Motor Cover Panel Kit

Metal cover fits over tie rods. Encloses moving plunger rod.

### Low-Level Air Cutoff Kits

Shuts air off when drum is empty. Prevents pump damage and introduction of air into supply line. 3/4" NPT female connections.

Model	For Primer
83811	83274
83970	2719
84143	1735, 1765



Model 83811

### Air Line Kits for Primers

Includes filter-lubricator-regulator-gauge, bracket and fittings for Models 2719, 1735, 1765 and 83274.

Model	Description
84144	1/2" Air Line Kit
84141	3/4" Air Line Kit



Model 85387-8  
Included in 84144 Kit