



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.



*Model 84921



Model 84904

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.

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 | | |
| 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 | |
| 13:1 | 2326 | | 84921 | | 44 | 721 | 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 / 5 | |
| 20:1 | 2350 | | 84901 | | 17 | 278 | 14 / 4 | |
| 15:1 | 2352 | | 84900 | | 22 | 360 | 11 / 3 | |
| 7:1 | 2353 | | 84921 | | 44 | 721 | 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 | |

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

Packing Kit Selection Chart



Model 84913

| Pump Tube | Standard Polyurethane Kit | Teflon® 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. Teflon® and UHMW polyethylene seal kits include gland and piston u-cups only.

Gland Seal Kits



Model 85311

| Pump Tube | Standard Polyurethane Kit | Teflon® 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



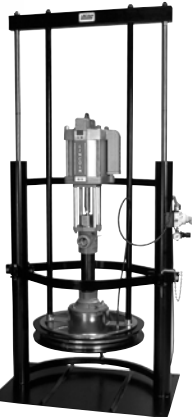
| Air Inlet | Pump Output GPM / LIT/Min. | | | Max. Outlet Press. psi / bar | Min. ID Air Supply Hose in. / mm | Material Outlet | Approximate Air Consumption per Cycle | | |
|--------------|----------------------------|-------------|--------------|------------------------------|----------------------------------|-----------------|---------------------------------------|-------------------------------------|-------------|
| | @ 30 cpm** | @ 50 cpm** | @ 75 cpm** | | | | SCFM @ 70 psig M³/Min @ 4.8 bar | SCFM @ 100 psig M³/Min @ 6.8 bar | |
| ¾ NPT Female | 1.5 / 5.9 | 2.6 / 9.8 | 3.9 / 14.9 | 7500 / 517 | ¼ / 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 | 2000 / 138 | | | 4500 / 310 | 1.9 / 0.054 | 2.6 / 0.074 |
| | 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 | | | | | |
| | 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 | | | ½ / 12 | 1.1 / 0.031 | 1.6 / 0.045 |
| | 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 | | | | | |
| | 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 | | | | | |
| 5.7 / 21.6 | 9.5 / 36.0 | 14.3 / 54.0 | 600 / 41 | ⅝ / 10 | 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 w/ AirBrake *94910 10 / 254 | 84901 | Shovel | 5.5 / 20.8 | 5500 / 379 |
| 45:1 | | 84904 | | 5.8 / 22.0 | 4500 / 311 |
| 10:1 | | 84923 | | 27.6 / 104.5 | 1000 / 69 |
| 30:1 | Std. 84808 w/ AirBrake *94908 8 / 203 | 84904 | Flat Check | 5.8 / 22.0 | 3000 / 207 |
| 13:1 | | 84922 | | 14.9 / 56.5 | 1300 / 90 |
| 18:1 | | 84904 | | 5.8 / 22.0 | 1800 / 124 |
| 7:1 | Std. 84806 w/ AirBrake *94906 6 / 152 | 84922 | Flat Check | 14.9 / 56.5 | 700 / 48 |
| 12:1 | | 84902 | | Shovel | 3.9 / 14.9 |
| 10:1 | Std. 84804 w/ AirBrake *94904 4¼ / 108 | 84901 | Shovel | | 5.5 / 20.8 |
| 8:1 | | 84904 | | Flat Check | 5.8 / 22.0 |
| 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 | | 14.9 / 56.5 | | |
| 1:1 | 84923 | | 27.6 / 104.5 | | |



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-, 55- and 300-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 100 |
| 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.

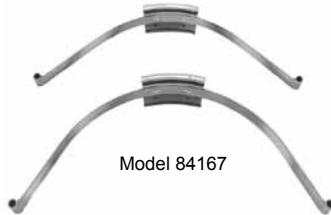


Model 83727

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