

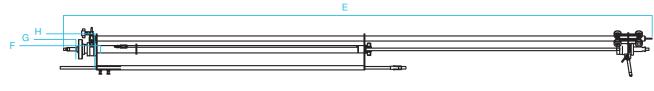
Zedi SilverJack[™]6000

Artificial Lift System Technical Specifications

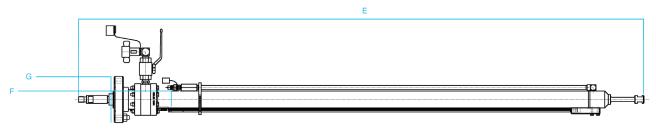
A variety of power sources (electric or natural gas/propane) and hydraulic cylinders are available. The entire system is delivered and installed without the need for heavy equipment, pilings, or cement pads.

Cylinder

N Series - With Rod Rotation



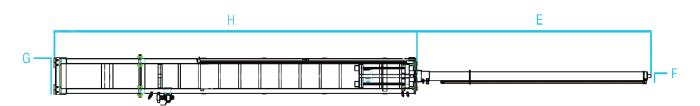
N Series - Without Rod Rotation



| Cylinder | | Tee | chnical Specificati | ons | Performance | | Dimensions | | | | |
|---------------------------------|-------------|-------------------|---------------------------|----------|----------------------------|-------------------|---------------------|------------------|------------------|----------------------------|--|
| | | | | | | | | | | н | |
| | | | Maximum rod load | | | | | | | Rod rotator brace width | |
| | 3.1" X 80" | 76" [1930 mm] | 13,500 lbs [6124 kg] | 2-4 hrs. | 200 bbl/day [32 m³/day] | 6561' [2000 m] | 211.3" [5367 mm] | 3.5" [89 mm] | 9.5" [241 mm] | 17.6" [448 mm] | |
| N Series - With Rod Rotation | 3.4" X 120" | 116" [2946 mm] | 13,500 lbs [6124 kg] | 2-4 hrs. | 300 bbl/day [48 m³/day] | 6561' [2000 m] | 290.8" [7386 mm] | 3.5" [89 mm] | 9.5" [241 mm] | 17.6" [448 mm] | |
| | 3.4" X 120" | 116" [2946 mm] | 22,500 lbs [10,206 kg] | 2-4 hrs. | 300 bbl/day [48 m³/day] | 8202' [2500 m] | 290.9" [7388 mm] | 4.0" [102 mm] | 9.5" [241 mm] | 17.6" [448 mm] | |
| | 3.1" X 80" | 76" [1930 mm] | 13,500 lbs [6124 kg] | 2-4 hrs. | 200 bbl/day [32 m³/day] | 6561' [2000 m] | 116.8" [2967 mm] | 3.5" [89 mm] | 9.5" [241 mm] | N/A | |
| N Series - Without Rod | 3.1" X 120" | 116" [2946 mm] | 13,500 lbs [6124 kg] | 2-4 hrs. | 300 bbl/day [48 m³/day] | 6561' [2000 m] | 156.8" [3983 mm] | 3.5" [89 mm] | 9.5" [241 mm] | N/A | |
| Rotation | 3.4" X 80" | 76" [1930 mm] | 22,500 lbs [10,206 kg] | 2-4 hrs. | 200 bbl/day [32 m³/day] | 8202' [2500 m] | 116.9" [2969 mm] | 4.0" [102 mm] | 9.5" [241 mm] | N/A | |
| | 3.4" X 120" | 116" [2946 mm] | 22,500 lbs [10,206 kg] | 2-4 hrs. | 300 bbl/day [48 m³/day] | 8202' [2500 m] | 156.9" [3986 mm] | 4.0" [102 mm] | 9.5" [241 mm] | N/A | |

*Values shown are average and are impacted by specific well parameters; Sizing is required to confirm.

Cylinder **E Series**

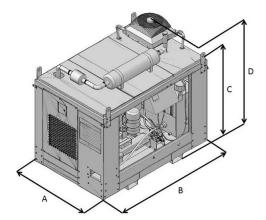


| Cylinder | | Technical Specifications | | | Performance | | Dimensions | | | | |
|------------|--------------|--------------------------|-------------------------|-----------|----------------------------|-------------------|---------------------|-------------------|--------------------------------|----------------------|--|
| | | Maximum | Maximum rod load | | | | | | | | |
| | | | | | | | | | | Pedestal length | |
| | 3.25" X 120" | 116" [2946 mm] | 15,000 lbs [6804 kg] | 2-4 hours | 300 bbl/day [48 m³/day] | 5906' [1800 m] | 138.7" [3522 mm] | 3.75" [95 mm] | 18" X 18" [457 mm X 457 mm] | 215.25" [5467 mm] | |
| E Series** | 3.5" X 120" | 116" [2946 mm] | 20,000 lbs [9072 kg] | 2-4 hours | 300 bbl/day [48 m³/day] | 7218' [2200 m] | 138.7" [3522 mm] | 4.25" [108 mm] | 21" X 21" [533 mm X 533 mm] | 216.5" [5499 mm] | |
| | 4.0" X 120" | 116" [2946 mm] | 27,000 [12,247 kg] | 2-4 hours | 300 bbl/day [48 m³/day] | 9843' [3000 m] | 138.7" [3522 mm] | 4.75" [121 mm] | 21" X 21" [533 mm X 533 mm] | 216.5" [5499 mm] | |

*Values shown are average and are impacted by specific well parameters; Sizing is required to confirm. **E Series available with or without rod rotation

Powerpacks

Powerpack — Gas Singles/Tandem and Electric Singles/Tandem/Quad



| | | Technical Specifications | | | | | Performance | | Dimensions | | | |
|-------------------|------------------------------|---------------------------|---------------------|-----------------|--|--|-------------------------|---------------|--|--------------------|---|--|
| Powerpack | | | Power output | Engine speed | Recommended fuel gas inlet pressure before | Recommended fuel gas inlet pressure before | Maximum hydraulic | Max stroke | A Width | B Length | C Height | D Hydraulic cooler |
| | | | | | entering enclosure/skid | entering engine | flow | rate†† | | gui | Sitt | height |
| | 4.3 L, V6 gas engine | Natural gas or propane | 60 HP [44.7 kW] | 1800 RPM | 60 psi [415 kPa] for natural gas 20 psi [140 kPa] for propane | 20 psi [140 kPa] for natural gas 10 psi [70 kPa] for propane | 33.1 GPM [125.3 LPM] | 5.5SPM | 4' 10 ¹ / ₄ " [1480 mm] | 7' 4" [2235 mm] | 5' 4 ¹ / ₈ " [1628 mm] | 6' 9 ⁹ / ₁₆ " [2071 mm] |
| Gas Powerpacks | 5.7 L, V8 gas engine | Natural gas or propane | 100 HP [74.6 kW] | 1800 RPM | 60 psi [415 kPa] for natural gas 20 psi [140 kPa] for propane | 25 psi [175 kPa] for natural gas 12 psi [85 kPa] for propane | 64.9 GPM [245.7 LPM] | 8.0SPM | 4' 10 ¹ / ₄ " [1480 mm] | 7' 4" [2235 mm] | 5' 4 ¹ / ₈ " [1628 mm] | 6' 9 ⁹ / ₁₆ " [2071 mm] |
| | Gas tandem skid† | Natural gas or propane | 100 HP [74.6 kW] | 1800 RPM | 60 psi [415 kPa] for natural gas 20 psi [140 kPa] for propane | 25 psi [175 kPa] for natural gas 12 psi [85 kPa] for propane | 64.9 GPM [245.7 LPM] | 7.5SPM | 10' [3048 mm] | 10' [3048 mm] | 8'11 ¹ /4" [2724 mm] | 10'2" [3098 mm] |
| | Regular capacity AC motor | 460 VAC, 3 phase, 70A | 50 HP [37.3 kW} | 1800 RPM | N/A | N/A | 33.1 GPM [125.3 LPM] | 5.5 PM | 4' 10 ¹ / ₄ " [1480 mm] | 7' 4" [2235 mm] | 5' 4 ¹ / ₈ " [1628 mm] | N/A |
| AC | High capacity AC motor | 460 VAC, 3 phase, 70A | 50 HP [37.3 kW} | 1800 RPM | N/A | N/A | 64.9 GPM [245.7 LPM] | 7.0SPM | 4' 10 ¹ / ₄ " [1480 mm] | 7' 4" [2235 mm] | 5' 4 ¹ / ₈ " [1628 mm] | 6' 9 ⁹ / ₁₆ " [2071 mm]** |
| Powerpacks | AC tandem skid [†] | 460 VAC, 3 phase, 70A | 50 HP [37.3 kW} | 1800 RPM | N/A | N/A | 64.9 GPM [245.7 LPM] | 7.0SPM | 10' [3048 mm] | 10' [3048 mm] | 8'11 ¹ / ₄ " [2724 mm] | 10'2" [3098 mm] |
| | AC quad skid† | 460 VAC, 3 phase, 70A | 50 HP [37.3 kW} | 1800 RPM | N/A | N/A | 64.9 GPM [245.7 LPM] | 7.0SPM | 10' [3048 mm] | 10' [3048 mm] | 8'11 ¹ / ₄ " [2724 mm] | 10'2" [3098 mm] |

** For warm climate (US) Powerpacks only

[†]Tandems (2-well skids) and Quad (4-well skid) are enclosed in walk-in buildings ^{††}Maximum stroke rate (SPM) can vary depending on peak polished rod load

Cylinder Installation Parts

| Category | Part Description | Part # | Comments |
|-------------------|--|--------|--|
| Flange Parts | Companion Flange, 3 ¹ / ₈ " x 3" Line Pipe | 30587 | Threads onto cylinder. |
| | Companion Flange, 3 ¹ / ₈ " x 3M x 2 ⁷ / ₈ " EUE | 30589 | Threads onto nipple. |
| | Studs and Nuts, ⁷ / ₈ " x 6", Set of 8 | 30588 | Bolt up kit for cylinder flange containing a set of 8 studs and nuts. |
| | R-31 Metal Seal Ring Joint | 30586 | Gasket for flange at bottom of SilverJack cylinder, between cylinder flange and companion flange. |
| | Nipple, $2^{7}/_{8}$ " x 18" Long | 30585 | Full bore nipple used between rod lock and SilverJack cylinder. |
| | SilverJack Custom Swage, 2 $^3/_8$ " x 2 $^7/_8$ " EUE x 18" | 30323 | |
| | Coupling Tubing 2 ³ / ₈ " EUE J55 (Collar) | 30319 | |
| | Nipple Tubing, 2 $^7/_8$ " EUE x 2 $^3/_8$ " EUE STD J55 (Swage) | 30320 | |
| Rod Lock Parts | Rod Lock $2\frac{3}{8}$ " EUEF x $2\frac{3}{8}$ " EUEF, 2" x 1" Side Ports, BOP Assembly, $1\frac{1}{4}$ " Polished Rod | 30307 | Takes the place of a regular flow tee and BOP. |
| | Rod Lock $2^{3}/_{8}$ " EUEF x $2^{7}/_{8}$ " EUEF, 2" x 2" NPT Side Ports, BOP Assembly, $1^{1}/_{4}$ " Polished Rod | 30308 | Takes the place of a regular flow tee and BOP. |
| | Rod Lock $2^{7}/_{8}$ " EUEF x $2^{7}/_{8}$ " EUEF, 3" x 2" Side Ports | 30157 | Takes the place of a regular flow tee and BOP. |
| | Bushing FS 3" x 1" THRD A105N | 30314 | For flow line side of the rod lock. |
| Polished Rod | SilverJack Polished Rod 10 ft x 1 $^{1}/_{4}$, $^{7}/_{8}$ Pin | 30156 | |
| Parts | Coupling Polished Rod 7/8" REG GRT | 30312 | Between polished rod and pony/sucker rod. |
| | Coupling Polished Rod 7/8" x 7/8" Slimhole | 30509 | Between polished rod and pony/sucker rod. |
| Pony Rod | Pony Rod ³ / ₄ " x 2 ft MMS, Grade D | 30321 | |
| Parts | Pony Rod ⁷ / ₈ " x 2 ft MMS, Grade D | 30322 | |
| | Pony Rod ³ / ₄ " x 1 ft GR 78 | 30311 | |
| | Pony Rod ⁷ / ₈ " x 1 ft GR 75 | 30310 | |
| | Pony Rod 1 ¹ / ₄ " x 6", ⁷ / ₈ " Thread | 30284 | |
| | Pony Rod 1 $\frac{1}{4}$ x 4", $\frac{7}{8}$ Thread | 30283 | |
| | Pick-up Sub ⁷ / ₈ " x 1 ft, ³ / ₄ " Thread | 30331 | |
| | Coupling Crossover ⁷ / ₈ " x ³ / ₄ " REG GR | 30313 | Between pony rod and sucker rod. |
| | Coupling Crossover ⁷ / ₈ " x ⁷ / ₈ " Slimhole | 30524 | Between pony rod and sucker rod. |
| External | SilverJack External Stuffing Box, 2 ⁷ / ₈ " EUE | 30285 | |
| Stuffing Box | SilverJack External Stuffing Box, 2 ³ / ₈ " EUE | 30318 | |