Modular model applicable to for Z & U Sheet Piles

Silent Piler F301

Flexible and Functional Formula

The F301 features a new modular design developed by optimizing all its parts while drastically modifying its structure, shape, and material. Not only are its main component parts more versatile; the F301 is also equipped with a cutting-edge control system that recognizes high functionality with a longer operation life.

1 Optimizing Work Efficiency with Modular Design

The Silent Piler F301 is applicable to Standard, Water Jetting, and Super Crush press-in work by changing the chuck, chuck frame, and adaptable attachments. The machine can be utilized more efficiently since it adapts to various soil and working conditions.

2 New Control System

The new control system manages the position of the press-in machine and controls load generation from press-in work during operation; maximizing the durability of each part. Also, control of the machine is remarkably improved by the Press-in Force Control System and the Phaseless Linear Auger Torque Control System.

3 For Wider Z & U Sheet Piles

The F301 has been designed to press-in Z piles to 27.87 in wide and U piles up to 29.52 in wide.
4 Pile Installation into Hard Ground

The “Pilot Coring Theory”, GIKEN’s original theory, allows the Hard Ground Press-in Method to install sheet piles into difficult ground conditions such as gravelly soil and soils mixed with cobbles and boulders without losing the advantages of the Press-in Method. The augering area can be reduced to assist pile installation, minimizing volume of spoil and disturbance to the soil strata. Therefore, high bearing capacity is possible with sheet piles that are installed with the Hard Ground Press-in Method.

5 New Generation Power Unit EU300K4

Low Emission Engine

The Power Unit for the F301 is a new generation model with environmentally friendly specifications. It is designed with strict concepts for clean emissions with high combustion efficiency and with GIKEN’s original hydraulic control technologies.

Ultra Low Noise Level

It clears allowable construction noise levels in many industrialized countries.

6 Scientific Execution of Press-in Work & Advanced IT Functions

GIKEN IT System

GIKEN’s engineers can monitor individual Silent Pilers’ operating condition, maintenance records, and location. Quick advice for any technical difficulties is available promptly. Appropriate information can also be provided to prevent additional issues.

Press-in Monitoring and Data Logging System

Press-in monitoring data can be used for quality control and for supporting information for foundations. Operators are able to keep working while checking data such as press-in force, auger torque, and working hours of press-in work on a tablet or PC (both devices optional).

Standard Application of Biodegradable Oil

The F301 uses biodegradable Piler Eco Oil and Piler Eco Grease. Therefore, if hydraulic oil or grease is spilled into soil or water, there will be no environmental damage to the surrounding ecosystem. In addition, the machines are painted with TX-Free non-leaded paint*.

Environmentally friendly paint which does not contain toluene, xylene, and lead based pigment.

7 Environmental Specifications

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Dimensions & Specifications

**Standard / Water Jetting Mode**

<table>
<thead>
<tr>
<th>Feature</th>
<th>F301-700</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Press-in Force</td>
<td>899.9 lb (Standard Mode)</td>
</tr>
<tr>
<td>Max. Extraction Force</td>
<td>1071.5 lb (Super Crush Mode)</td>
</tr>
<tr>
<td>Stroke</td>
<td>33.46 in</td>
</tr>
<tr>
<td>Press-in Speed</td>
<td>6.56 – 142.71 ft/min (Standard Mode)</td>
</tr>
<tr>
<td>Extraction Speed</td>
<td>4.92 – 102.97 ft/min (Standard Mode)</td>
</tr>
<tr>
<td>Control System</td>
<td>Remote Control</td>
</tr>
<tr>
<td>Movement</td>
<td>Self-Moving</td>
</tr>
</tbody>
</table>

**Super Crush Mode**

<table>
<thead>
<tr>
<th>Feature</th>
<th>F301-C700</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max. Press-in Force</td>
<td>1124.4 lb (Super Crush Mode)</td>
</tr>
<tr>
<td>Max. Extraction Force</td>
<td>1144.4 lb (Super Crush Mode)</td>
</tr>
<tr>
<td>Stroke</td>
<td>33.46 in</td>
</tr>
<tr>
<td>Press-in Speed</td>
<td>6.56 – 142.71 ft/min (Super Crush Mode)</td>
</tr>
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</table>

**Control System**

- **Standard Mode**
  - Chuck Stage
  - Chuck Stage (Standard Mode)
  - Chuck Stage (Retractable)
- **Water Jetting Mode**
  - Chuck Stage (Water Jetting Mode)
  - Chuck Stage (Retractable)
- **Super Crush Mode**
  - Chuck Stage (Super Crush Mode)
  - Chuck Stage (Retractable)

**Accessories**

- **Standard**
  - Piler Stage
  - Chuck Stage
  - Auger Head Replacement Attachment
  - Pile Roller

- **Optional**
  - Piler Jet Reel (JR28)
  - Auger Head (Retractable)

**Power Unit**

- **F301**
  - Rated Output: 355 HP / 1800 rpm
  - Fuel Tank Capacity: 159 US gal
  - Hydraulic Reservoir: Piler ECO Oil 166 US gal
  - Urea Additive Tank Capacity: 10 US gal
  - Moving Speed: 0.87 mph
  - Mass: 15984 lb (with 65.62 ft Hose)

- **F301-C700**
  - Rated Output: 316 HP / 1600 rpm
  - Fuel Tank Capacity: 100 US gal
  - Hydraulic Reservoir: Piler ECO Oil 120 US gal
  - Urea Additive Tank Capacity: 10 US gal
  - Moving Speed: 0.87 mph
  - Mass: 12185 lb (with 60.47 ft Hose)

*Available for Super Crush Mode only.