SILENT PILER F301
for Hat Sheet Piles
900mm wide
Modular model applicable to Hat Sheet Piles (900mm wide)

SILENT PILER F301

Flexible and Functional Formula

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

1 Optimising Work Efficiency with Modular Design

Silent Piler F301 is applicable to Standard, Water Jetting, and Super Crush press-in works by changing the chuck and chuck frame, and equipping attachments. The machine can be utilised more efficiently because it is adjustable to various soil conditions and working conditions.

2 Longer Operational Life and Higher Functionality by 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, maximising 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 Advanced Principles for Higher Accuracy

The combination of Silent Piler F301 and Hat Sheet Pile achieves high quality installation.

Two Press-in Points

Press-in force can be transferred efficiently by gripping the pile with two points.

High Stability of Reaction Base

Clamping reaction piles at Interlock positions optimises the stability of the reaction base.

Comparison of Hat Sheet Pile 900 and U Sheet Pile
**4 Pile Installation into Hard Ground**

The "Pilot Coring Theory", GIKEN’s original theory, makes the Hard Ground Press-in Method able to install sheet piles into difficult ground conditions such as gravelly soil and cobble or boulder mixed soil without losing the advantages of the Press-in Method. The augering area can be reduced to assist pile installation, minimising volume of spoil and disturbance to the soil strata. Hence, high bearing capacity is available from sheet piles which are installed by the Hard Ground Press-in Method.

**5 New Generation Power Unit EU300K4**

**Low Emission Engine**

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

**Ultra Low Noise Level**

It clears allowable construction noise levels in many industrialised countries.

**Standard Application of Biodegradable Oil**

The F301 uses bio-degradable Piler Eco Oil and Piler Eco Grease. Hence, 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.

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

**GIKEN IT System**

GIKEN’s engineers can monitor individual Silent Pilers, such as operating condition, maintenance records and location. Quick advice for any technical troubles is available promptly and appropriate information can also be provided to prevent troubles.

*The system is not available in the countries where authorisation for usage cannot be acquired.

**Press-in Monitoring and Data Logging System**

Press-in monitoring data can be used for quality control and information modelling of the foundation. 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 optional extras).
Dimensions & Specifications

Super Crush Mode

- **F301-C900**
- Applicable sheet piles
  - Hat Sheet Pile (900mm wide) (Only in Super Crush Mode)
  - 11800 kg
- Max. Press-in Force
  - 800 KN (Super Crush Mode) / 1000 KN (Reaction Stand in Eco Mode)
- Max. Extraction Force
  - 800 KN (Super Crush Mode) / 1000 KN (Reaction Stand in Eco Mode)
- Stroke
  - 880 mm
- Press-in Speed
  - 2.0 ~ 43.5 m/min
- Extraction Speed
  - 1.5 ~ 33.3 m/min
- Control System
  - Radio Control
- Movement
  - Self-Moving
- Mass
  - Super Crush Mode (Main Body & Hose Reel): 14880 kg
  - Water Jetting Mode (Main Body & Piler Jet Reel): 12250 kg
  - Standard Mode (Main Body): 11000 kg
- Pile Auger
  - PA22
  - Max. Pipe Length (Standard): 24 m
  - Mass: 1550 kg
  - Mass (incl. Hose Reel Bracket): 2780 kg
- Piler Jet Reel
  - JR29
  - Mass:
    - Standard: 1250 kg
    - Max: 24 m
- Hose Reel
  - HR17D
  - Mass (Standard): 2780 kg (incl. Hose Reel Bracket)

Standard / Water Jetting Mode

- **F301-900**
- Applicable sheet piles
  - Hat Sheet Pile (900mm wide) (Standard / Water Jetting Mode)
  - 11000 kg
- Max. Press-in Force
  - 800 KN (Super Crush Mode) / 1000 KN (Reaction Stand in Eco Mode)
- Max. Extraction Force
  - 800 KN (Super Crush Mode) / 1000 KN (Reaction Stand in Eco Mode)
- Stroke
  - 880 mm
- Press-in Speed
  - 2.0 ~ 43.5 m/min
- Extraction Speed
  - 1.5 ~ 33.3 m/min
- Control System
  - Radio Control
- Movement
  - Self-Moving
- Mass
  - Super Crush Mode (Main Body & Hose Reel): 14880 kg
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  - Standard Mode (Main Body): 11000 kg
- Pile Auger
  - PA22
  - Mass: 1550 kg
- Pile Jet Reel
  - JR29
  - Mass:
    - Standard: 1250 kg
    - Max: 24 m
- Hose Reel
  - HR17D
  - Mass (Standard): 2780 kg (incl. Hose Reel Bracket)

Accessories

### Standard Accessories

- **Piler Stage**
- **Chuck Stage**
- **Auger Head Replacement Attachment**
- **Pile Roller**
- **Hose Roller**
- **Pile Laser**
- **Casing Scraper**
- **Module Box**

**Available for Super Crush Mode only.**

### Optional Accessories

- **Piler Jet Reel (JR29)**
- **Auger Head**

The above specifications are subject to alteration without prior notice.