**Basic Accessories**

- Pile Roller
- Hose Roller
- Pile Laser
- Module Box
- Tablet PC (encased)

**Super Crush Mode Accessories**

- Pile Jet Reel (JR28)
- Pile Stage for Standard Mode
- Casing Scraper
- Auger Head Replacement Attachment
- Casing Scraper
- Pile Stage for Super Crush Mode
- Auger Head

**Accessories**

- Accessories are different of types.

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**International Business Department**

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**GIKEN LTD.**

Construction Solutions Company

Global Network: Japan, Netherlands, Germany, USA, Singapore, China, Australia

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Extremely sophisticated modular model applicable to U Sheet Piles (400mm wide)

SILENT PILER F111

Flexible and Functional Formula

The F111 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 F111 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 Features of Silent Piler F Series (New Standards of Press-in Machine)

- **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.

- **Increased Machine Rigidity and Guiding Precision**
  For Silent Piler F Series, rigidity of components and guiding precision are increased compared to the previous models to achieve higher durability of the machine. Also, assembly tolerances in guiding systems are minimised by implementing longer slide rails and greater sliding surfaces to increase machine life.

- **Addition of Abrasion Resistant Plates**
  Detachable abrasion resistant plates have been added along the vertical slide rails for Chuck and that provides 3.6 times wear resistance compared to the previous models. Hence, high guiding precision is achieved and maintenance costs are reduced.

- **Tablet PC**
  The real-time information of piling operations can be displayed on a tablet PC which can be attached to the side of the Silent Piler.

- Displays piling monitoring data
- Displays comparison of the current data to the previous monitoring results
- Displays the machine settings and status during piling work
- Displays borehole log
- Displays Operation Manual & Parts List

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Silent Piler F111

Silent Piler F111 Main Body

Super Crush Mode Chuck
Pile Auger
Hose Reel

Standard Mode Chuck
Pile Jet Reel

Up/Down Stroke Force is optimised
Position of the Press-in Machine is automatically detected
Load applied to Silent Piler can be reduced.

Increased Machine Rigidity and Guiding Precision

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3  Locking Function

Lock functions in the chuck, leader mast, and clamps secure Silent Piler against drilling torque and increase drilling efficiency and accuracy of pile installation.

3  Improved Design of Auger Head and Teeth

Female Socket Teeth can minimise wear on tooth mount and maximise drilling efficiency with minimal assembly tolerance. Also, pilot teeth and outer teeth are standardised. 12 point double hexagon joint of the Auger Shaft and Auger Head achieves higher torque application and reduces weight. The joint is locked with only one stopper pin instead of two for easier assembly and securely locked with C-shape stopper ring.

3  Improved Auger Screw & Casing

Improved Auger Screw and Auger Casing provide higher torque application and centre drilling accuracy, which achieve higher augering efficiency. The durability of auger screw is also extended by minimising the tolerance between auger screw and auger casing; therefore the auger is less likely to wear out.

NEW

4  Longer Applicable Pile Length

The applicable sheet pile length for F111 is 24m maximum, which is greater than those of previous models.

NEW

5  Increased Power Capacity of Auger

Auger motor of F111 has 1.4 times higher power capacity than the previous model (ECO400S). This results in maintaining high speed augering even in a greater torque range.

NEW

4  High Performance Also in Standard Mode

Despite its universal design, F111 provides a similar high performance as a Standard Mode Custom Model.

Change

3  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 cobbly or boulder mixed soil without losing the advantages of the Press-in Method. Previous models of Crush Piler have proved the superiority of the Hard Ground Press-in Method in the field. 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. The Hard Ground Press-in Method can install sheet piles even under restricted site conditions such as on slopes or water where conventional piling techniques would be ineffective. By adapting the GRB System, temporary work platforms are no longer necessary, dramatically reducing the environmental burden.

NEW

F111 is 150mm narrower than the previous model (ECO400S) and can be adopted to more confined site conditions.
5 Outstanding Environmentally-Friendly Design

Low Emission Engine
The Power Unit of the F111 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. 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.

Standard Application of Biodegradable Oil
The F111 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.

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.

Press-in Monitoring and Data Logging System
Press-in monitoring data can be used for quality control and information modeling 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

| F111-C400 |  
|---|---|
| Max. Press-in Force | 5000 kN (Super Crush Mode) |
| Max. Extraction Force | 3900 kN (Eco Mode) |
| Stroke | 850 mm |
| Press-in Speed | 2.0 - 43.5 m/min |
| Extraction Speed | 15 - 33 m/min |
| Motor | 1100 kVA Net, 1450 kVA Act, 1750 kVA Rated |

Standard / Water Jetting Mode

| F111-400 |  
|---|---|
| Max. Press-in Force | 1000 kN (Standard / Water Jetting Mode) |
| Max. Extraction Force | 900 kN (Standard / Water Jetting Mode) |
| Stroke | 850 mm |
| Press-in Speed | 2.0 - 43.5 m/min |
| Extraction Speed | 15 - 33 m/min |
| Motor | 1100 kVA Net, 1450 kVA Act, 1750 kVA Rated |

The above specifications are subject to alteration without prior notice.
**Basic Accessories**

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- Hose Roller
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- Tablet PC (encased)

**Super Crush Mode Accessories**

- Piler Stage for Super Crush Mode
- Auger Head
- Auger Head Replacement Attachment
- Casing Scraper
- Piler Jet Reel (JR28)
- Piler Stage for Standard Mode
- Casing Scraper
- Casing
- 450 Triple Blades
- 540 Triple Blades
- 330 Twin Blades
- 450 Twin Blades
- 450 Triple Blades
- 650 Triples Blades
- Optional
- Optional

**Accessories**

- Accessories are different types.

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