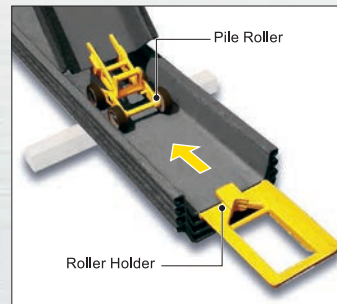
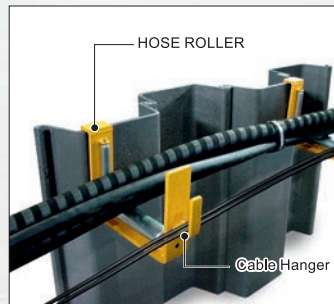


■ Basic Accessories



PILE ROLLER™



HOSE ROLLER™



PILE LASER™



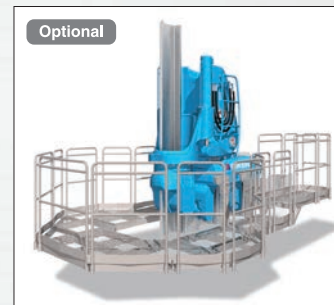
Module Box



Tablet PC (encased)



PILER JET REEL™ (JR28)



PILER STAGE™  
for Standard Mode

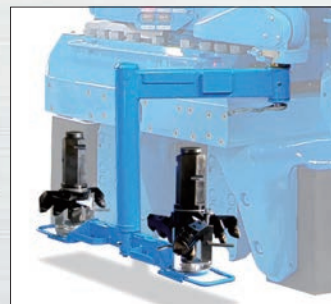
■ Super Crush Mode Accessories



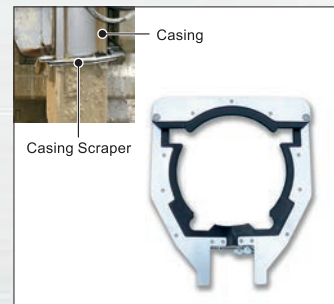
PILER STAGE™  
for Super Crush Mode



Auger Head



Auger Head Replacement  
Attachment



Casing Scraper



Construction Solutions Company

[www.giken.com](http://www.giken.com)

CONTACT US



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**SILENT PILER™**  
**F111**  
for U Sheet Piles  
15.74 in wide



Extremely sophisticated modular model applicable to U Sheet Piles (15.74 in wide)

# SILENT PILER™ F111

SILENT PILER™ F111

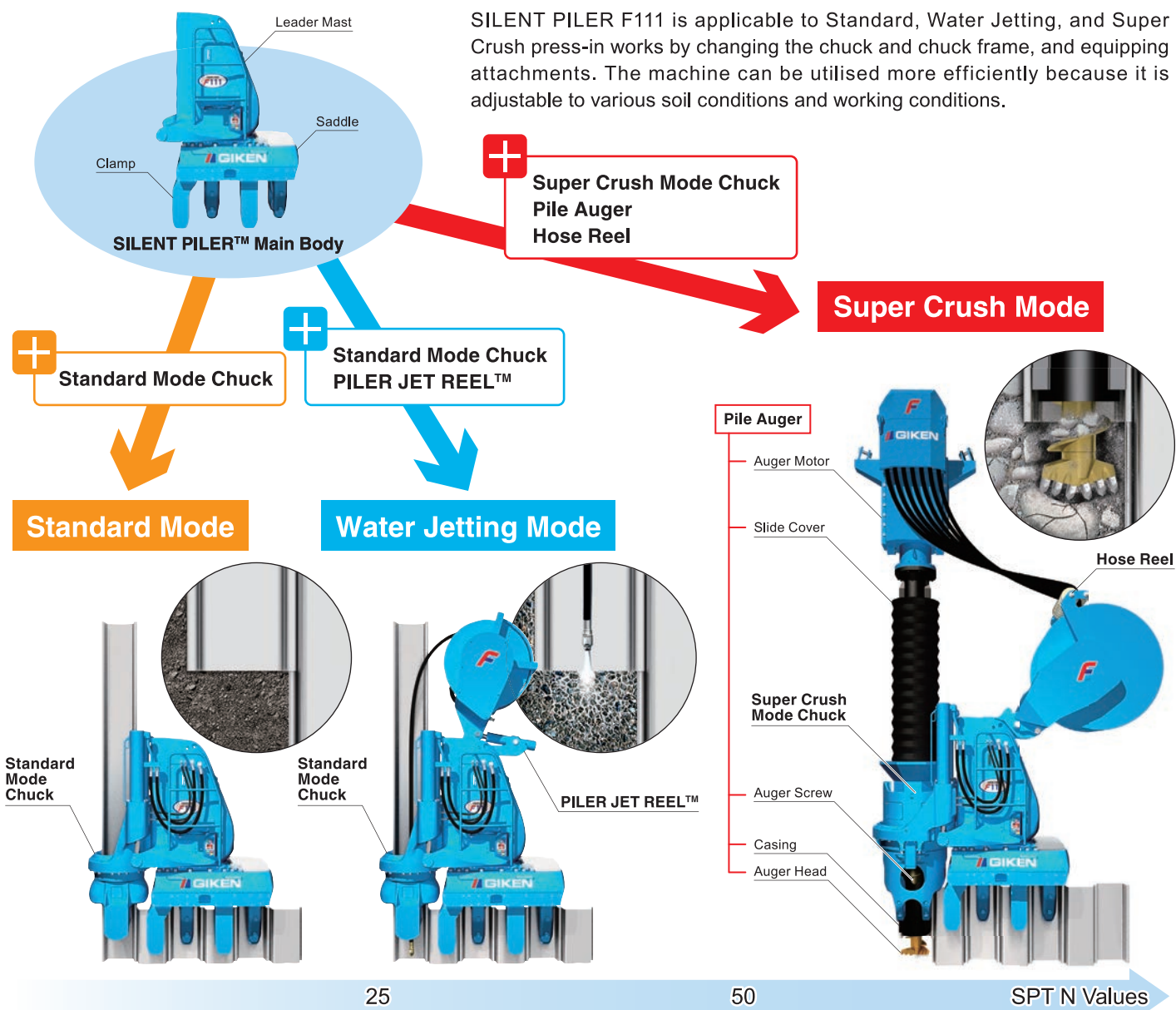
## Flexible and Functional Formula

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.



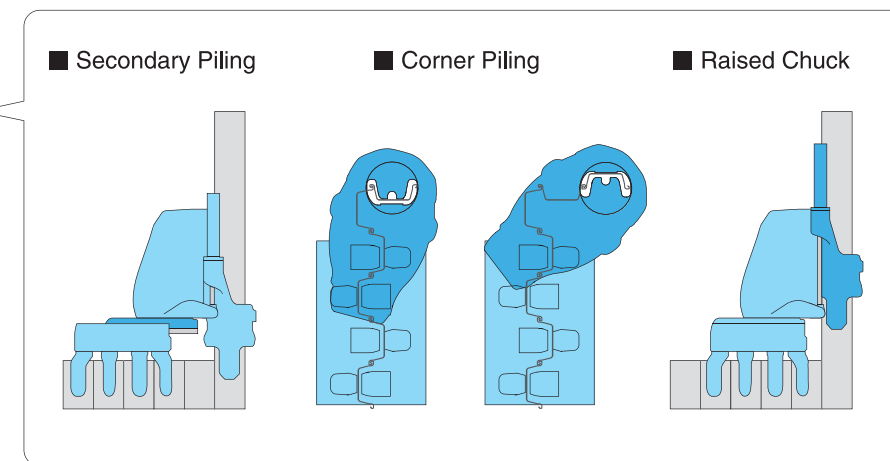
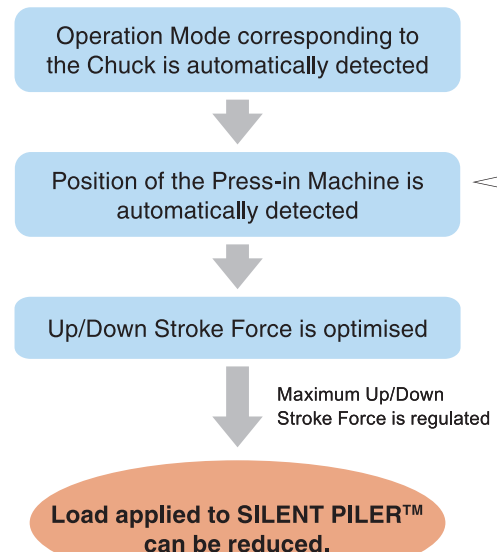
### 1 Optimising Work Efficiency with Modular Design



### 2 Features of SILENT PILER F Series (New Standards of Press-in Machine)

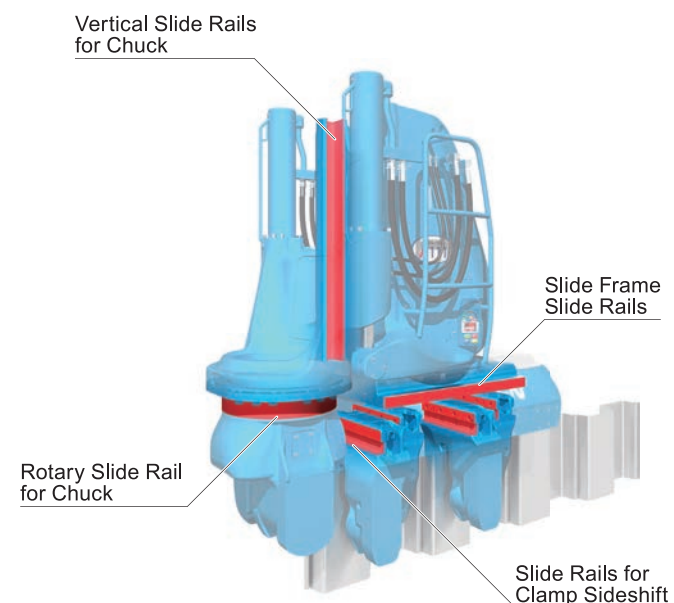
#### ● New Control System

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.



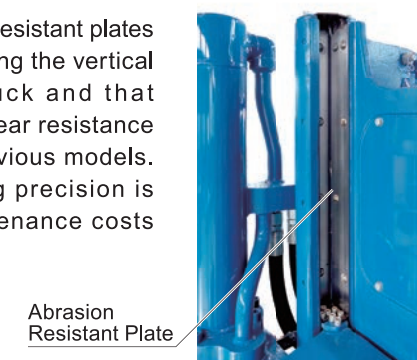
#### ● Increased Machine Rigidity and Guiding Precision

For SILENT PILER F Series, rigidity of components and guiding precision are increased compared to the previous models to achieve higher durability of the machines. Also, assembly tolerances in guiding systems are minimised by implementing longer slide rails and greater sliding surfaces to increase machine life.



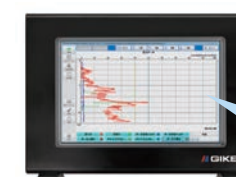
#### ● Addition of Abrasion Resistant Plates

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

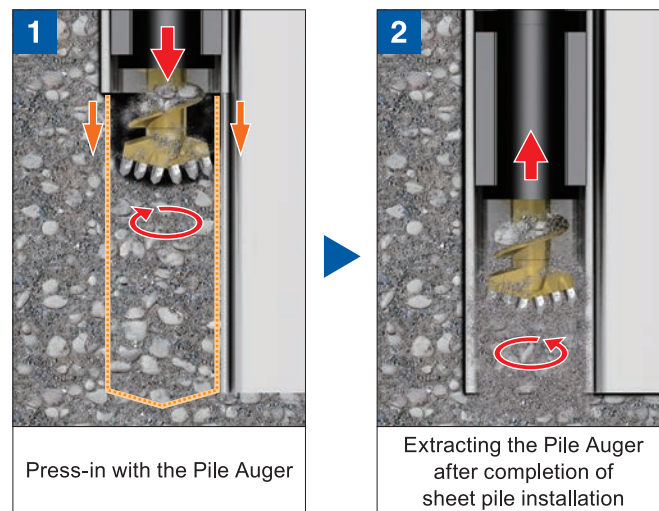
The real-time information of piling operations can be displayed on a tablet PC which can be attached to the side of the SILENT PILER.



- 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

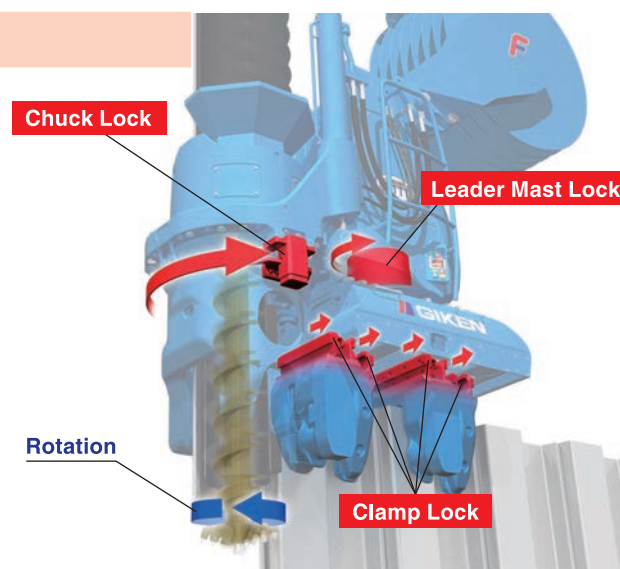
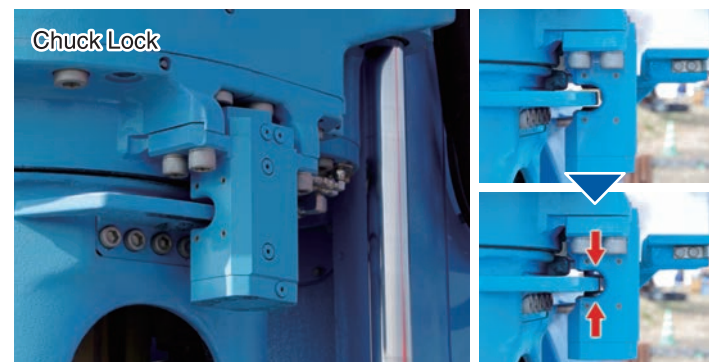
### 3 Pile Installation into Hard Ground

The "Pilot Coring Theory", GIKEN 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. Previous models have proved the superiorities 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.



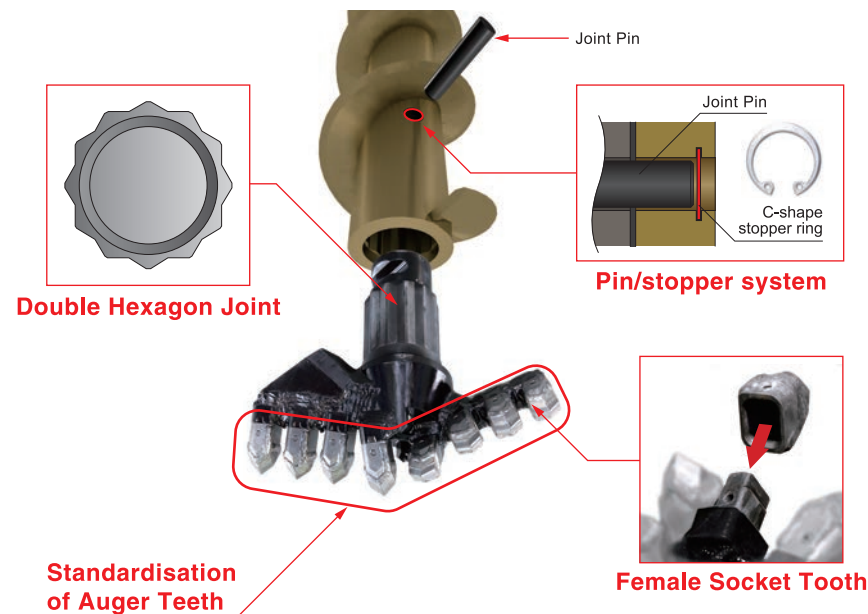
### 1 Locking Function

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



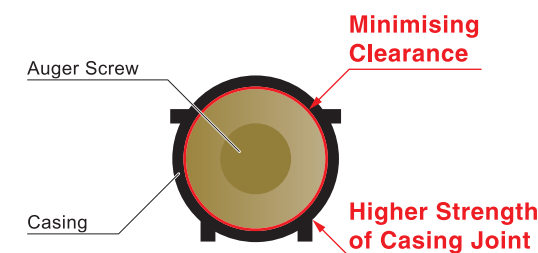
### 2 Improved Design of Auger Head and Teeth

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.



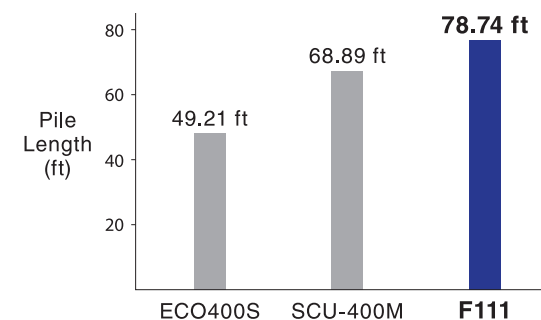
### 3 Improved Auger Screw & Casing

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.



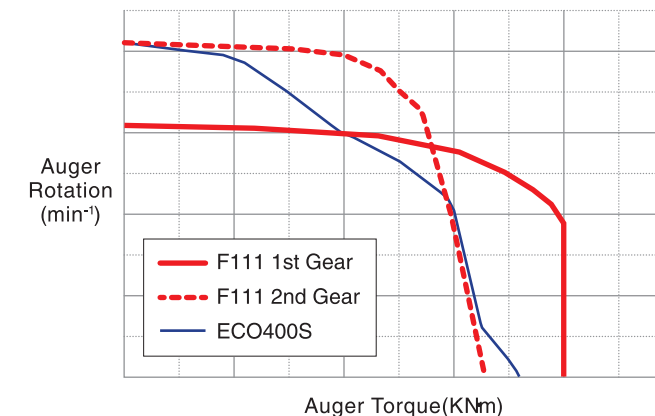
### 4 Longer Applicable Pile Length

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



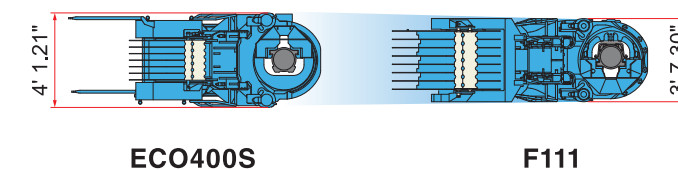
### 5 Increased Power Capacity of Auger

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.



### 6 Compact Machine Size

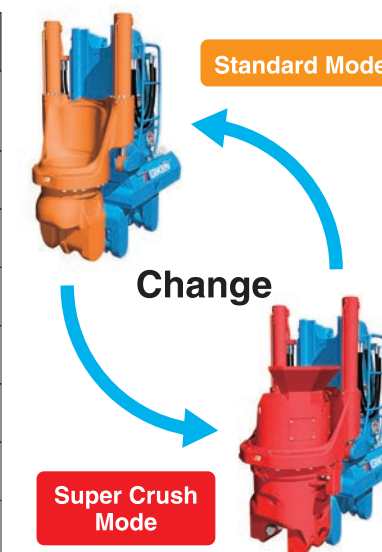
F111 is 150mm narrower than the previous model (ECO400S) and can be adopted to more confined site conditions.



### 4 High Performance Also in Standard Mode

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

Model	ECO100-4CA	F111	ECO400S
Operation Mode	Standard Mode (Custom Model)	Standard Mode (Modular Model)	Standard Mode (Custom Model)
Max. Press-in Force	112.4 ton(US)	112.4 ton(US)	89.9 ton(US)
Max. Extraction Force	123.6 ton(US)	123.6 ton(US)	101.1 ton(US)
Press-in Speed	6.23 ~ 115.48 ft/min	6.56 ~ 142.71 ft/min	4.92 ~ 116.46 ft/min
Extraction Speed	5.90 ~ 128.28 ft/min	4.92 ~ 180.44 ft/min	4.92 ~ 165.68 ft/min
Mass (SILENT PILER Main Body)	15542 lb	15696 lb	16314 lb
Mass (Power Unit)	14660 lb	15983 lb	16093 lb
Rated Output	261 HP / 1800 rpm	355 HP / 1800 rpm	261 HP / 1800 rpm



## 5 New Generation Power Unit EU300K4

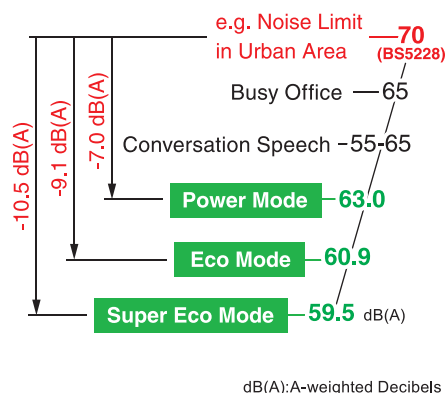
### Low Emission Engine

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 original hydraulic control technologies.



### Ultra Low Noise Level

It clears allowable construction noise levels in many industrialised countries.



### 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-lead 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

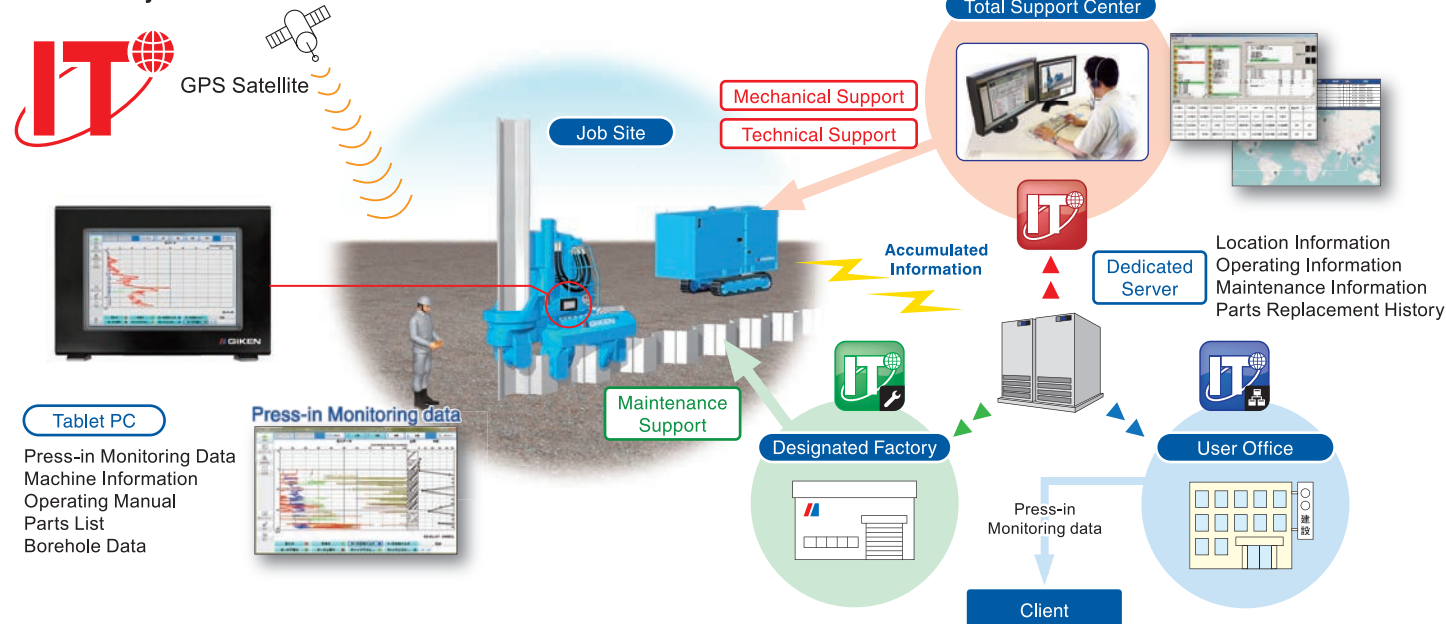
GIKEN engineers can monitor individual SILENT PILER, such as operating condition, maintenance records and location. Quick advice for any technical troubles is available promptly and appropriate information can also be provided to prevent troubles.

\* 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).

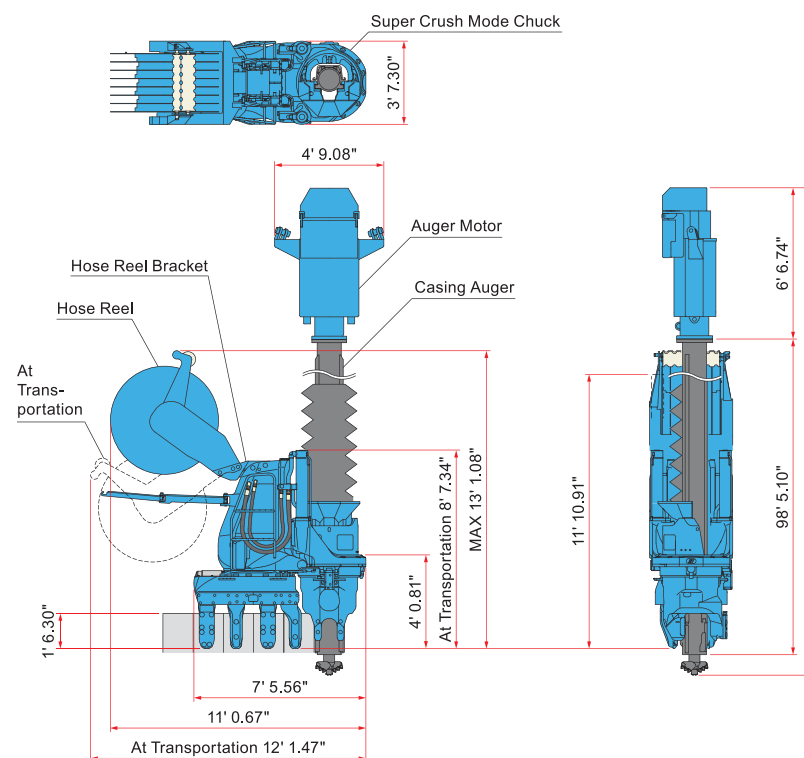
### GIKEN IT System



## Dimensions & Specifications

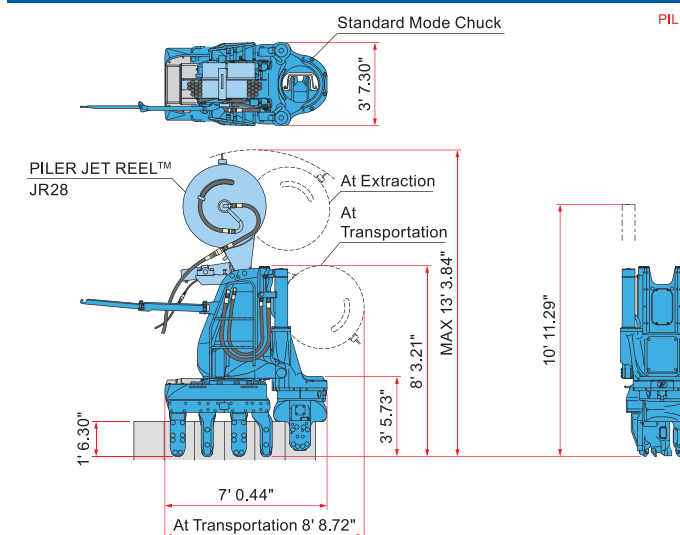
### Super Crush Mode

F111-C400

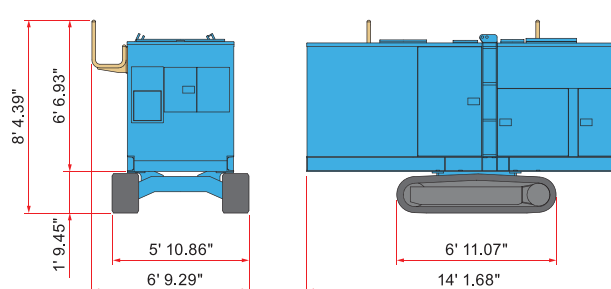


### Standard / Water Jetting Mode

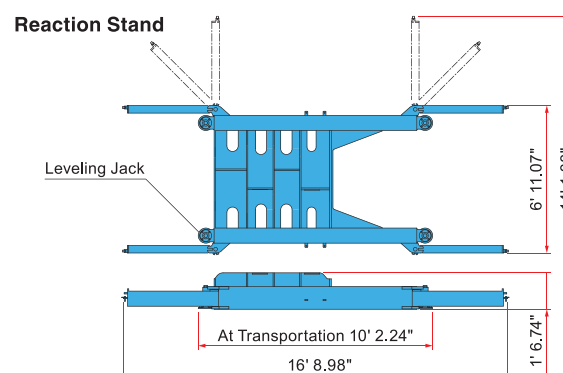
F111-400



### Power Unit



### Reaction Stand



SILENT PILER™	F111
Applicable sheet piles	U Sheet Piles 15.74 in wide (SPII, SPIII, SPIV)
Max. Press-in Force	89.9 ton(US) (Super Crush Mode) 112.4 ton(US) (Standard / WJ Mode)
Max. Extraction Force	101.1 ton(US) (Super Crush Mode) 123.6 ton(US) (Standard / WJ Mode)
Stroke	33.46 in
Press-in Speed	6.56 ~ 142.71 ft/min
Extraction Speed	4.92 ~ 105.97 m/min
Control System	Radio Control
Movement	Self-Moving

Mass	Super Crush Mode (Main Body & Hose Reel)	23457 lb
	Water Jetting Mode (Main Body & PILER JET REEL)	17548 lb
	Standard Mode (Main Body)	15696 lb

Hose Reel	HR17B
Mass (Standard)	6150 lb (including Hose Reel Bracket)

Pile Auger	PA22
Applicable pile length(Standard)	Max 78.74 ft*
Mass	Auger Motor: 4078 lb Casing Auger: 19951 lb
Total Mass	24030 lb

\*Max 98.42 ft in special mode

Hose Reel	HR17B
Mass (Standard)	6150 lb (including Hose Reel Bracket)

PILER JET REEL™	JR28
Applicable pile length	Standard 55.77 ft (Max. 88.58 ft)
Mass	1851 lb

Power Unit	EU300K4
Power Source	Diesel Engine
Rated Output	355 HP / 1800 rpm
Fuel Tank Capacity	158 US gal
Hydraulic Reservoir	PILER ECO™ Oil 166 US gal
Urea Additive Tank Capacity	10 158 US gal
Moving Speed	0.86 mph
Mass	with 65.61 ft Super Crush hose (Standard): 15983 lb with 98.42 ft Super Crush hose: 16644 lb

Reaction Stand (with Leveling Jack)	
Mass	3086 lb

Mass (Chuck Only)	
Standard Mode Chuck	4343 lb
Super Crush Mode Chuck	5952 lb

Standard Mode Chuck	Super Crush Mode Chuck
4343 lb	5952 lb