

**GIKEN**

**SILENT PILER™**  
**F301**

**for Hat Sheet Piles**  
**35.43 in wide**



**GIKEN**

Construction Solutions Company

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

CONTACT US



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Modular model applicable to Hat Sheet Piles (35.43 in wide)

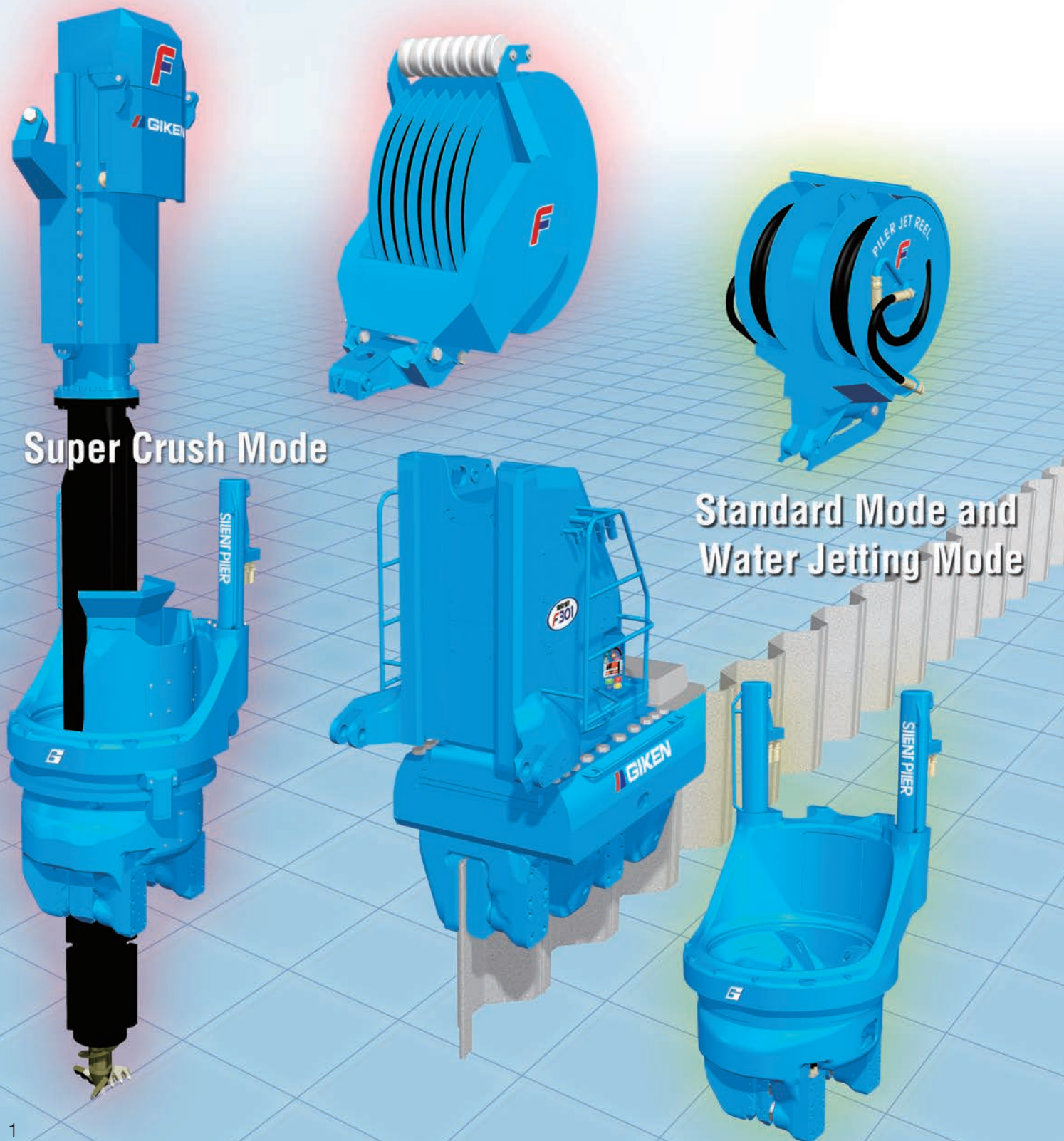
# SILENT PILER™ F301

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.

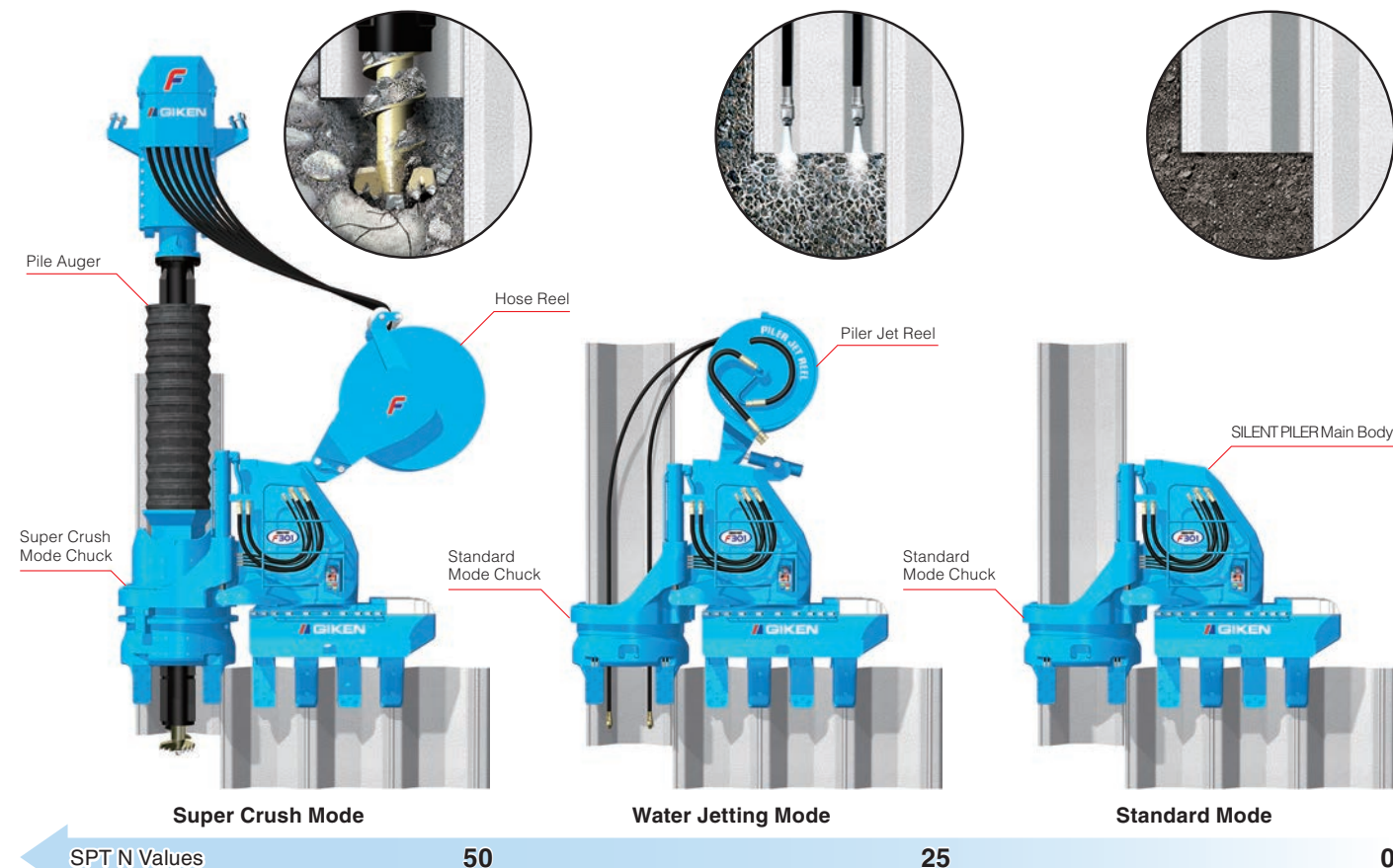


Super Crush Mode

Standard Mode and Water Jetting Mode

### 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.

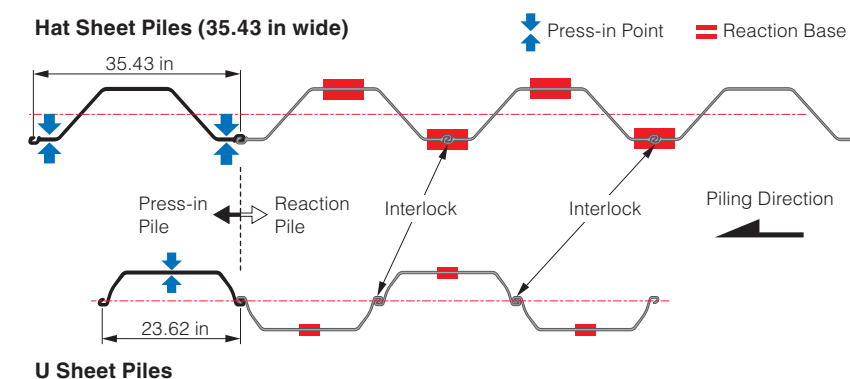
#### Two Press-in Points

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

#### High Stability of Reaction Base

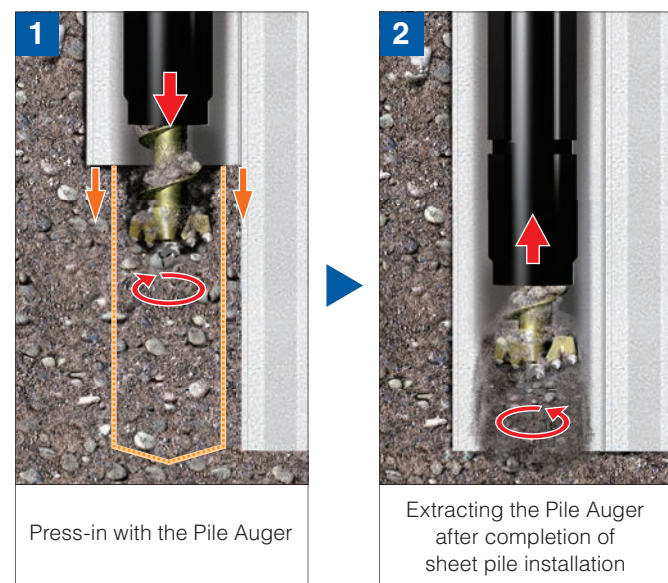
Clamping reaction piles at Interlock positions optimises the stability of the reaction base.

Comparison of Hat Sheet Pile 35.43 and U Sheet Pile

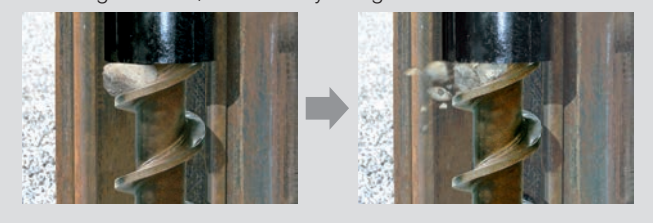


## 4 Pile Installation into Hard Ground

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. 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.

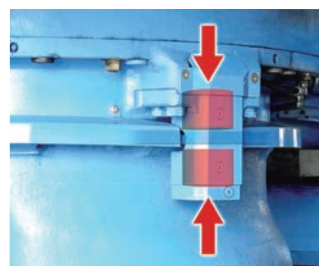


Crushing cobbles / boulders by wedge effect

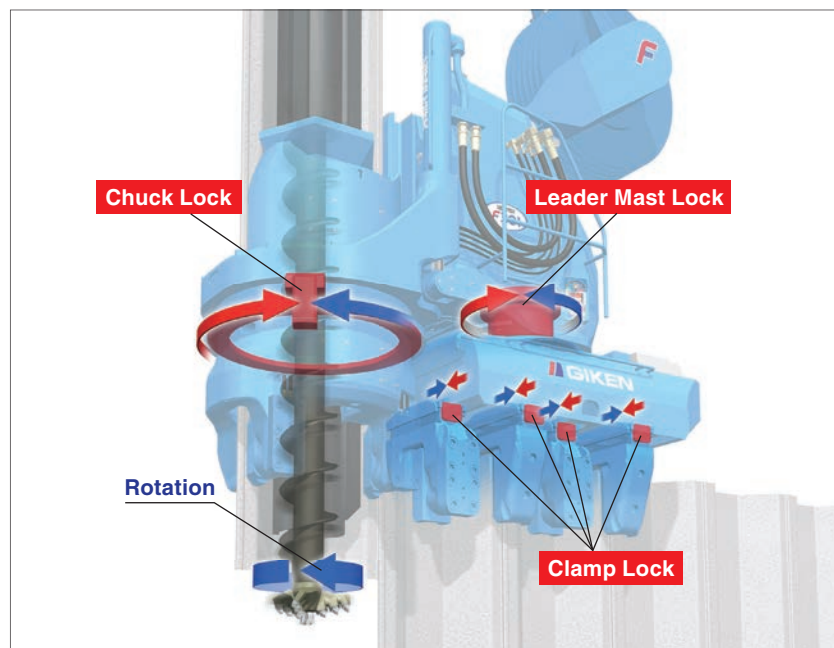


## Locking Function

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



Chuck Lock



## 5 New Generation Power Unit EU300K4

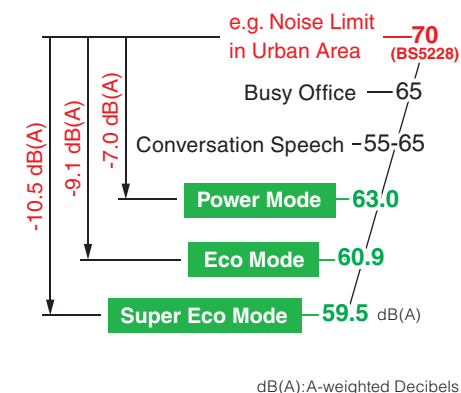
### Low Emission Engine

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 original hydraulic control technologies.



### Ultra Low Noise Level

It clears allowable construction noise levels in many industrialized countries.



### 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-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

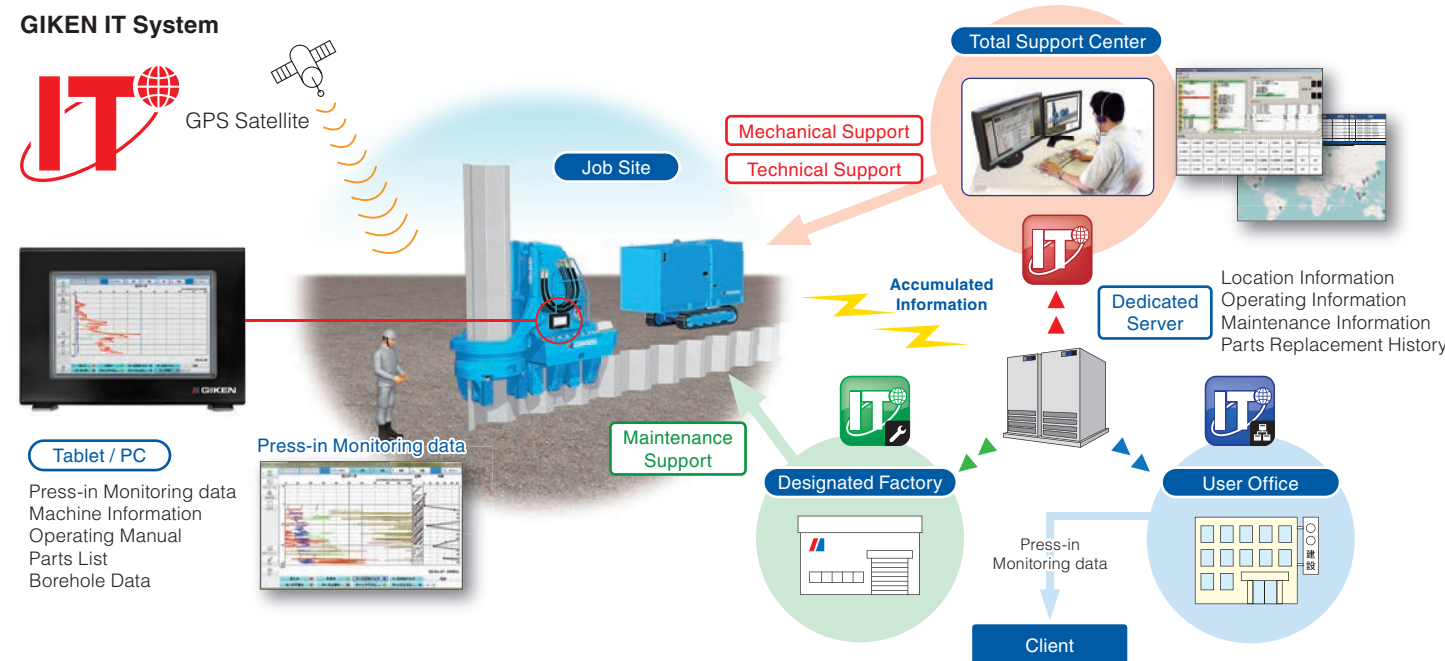
### GIKEN IT System

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

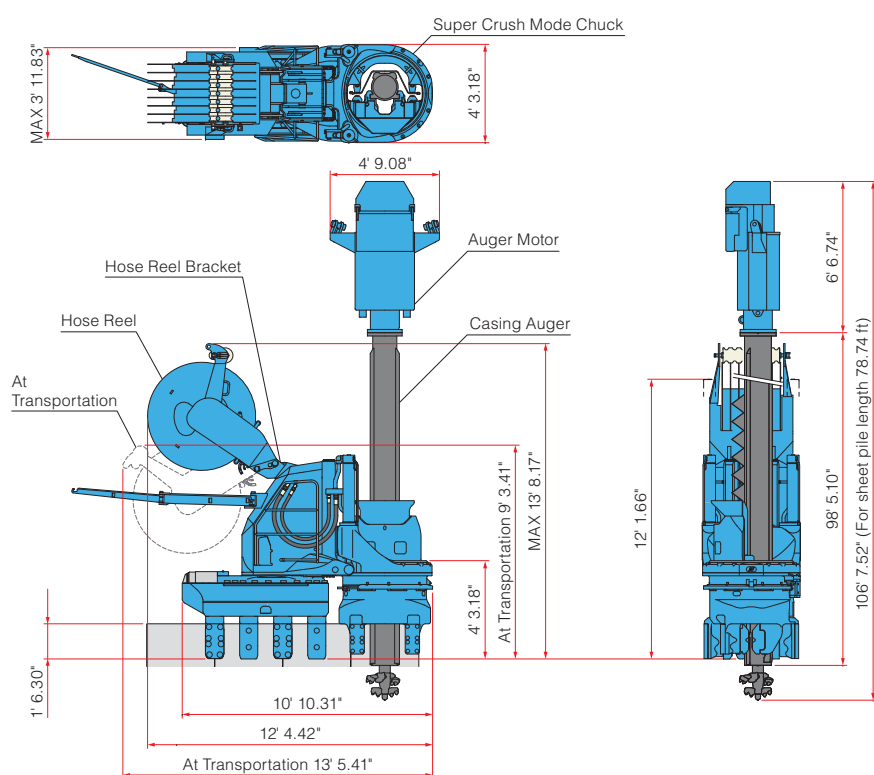
Press-in monitoring data can be used for quality control and information modelling of the foundation. Operators are able to keep working while checking data such as press-in force, auger torque, and working hours of press-in work, on a tablet or PC (both optional extras).



## Dimensions & Specifications

### Super Crush Mode

F301-C900



### SILENT PILER F301

Applicable sheet piles	Hat Sheet Pile (35.43 in wide) (10H, 25H, 45H, 50H)
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) 134.8 ton(US) (Standard / WJ Mode)
Stroke	33.46 in
Press-in Speed	6.5 ~ 142.7 ft/min
Extraction Speed	4.9 ~ 105.9 ft/min
Control System	Radio Control
Movement	Self-Moving

Super Crush Mode (Main Body & Hose Reel)	32804 lb
Water Jetting Mode (Main Body & Piler Jet Reel)	27006 lb
Standard Mode (Main Body)	24250 lb

### Hose Reel HR17D

Mass (Standard)	6128 lb (including Hose Reel Bracket)
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### Pile Auger PA22

Applicable pile length (Standard)	Max 78.74 ft*
Mass	Auger Motor 4078 lb Casing Auger 22156 lb
Total Mass	26235 lb

\*Max 98.42 ft in special mode

### Piler Jet Reel JR29

Applicable pile length	Standard 55.77 ft (Max. 88.58 ft)
Mass	2755 lb

### Power Unit EU300K4

Power Source	Diesel Engine
Power Mode	355 HP / 1800 rpm
Rated Output	Eco Mode 316 HP / 1600 rpm Super Eco Mode 276 HP / 1400 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	16644 lb (with 98.42 ft Hose)

### Reaction Stand (with Leveling Jack)

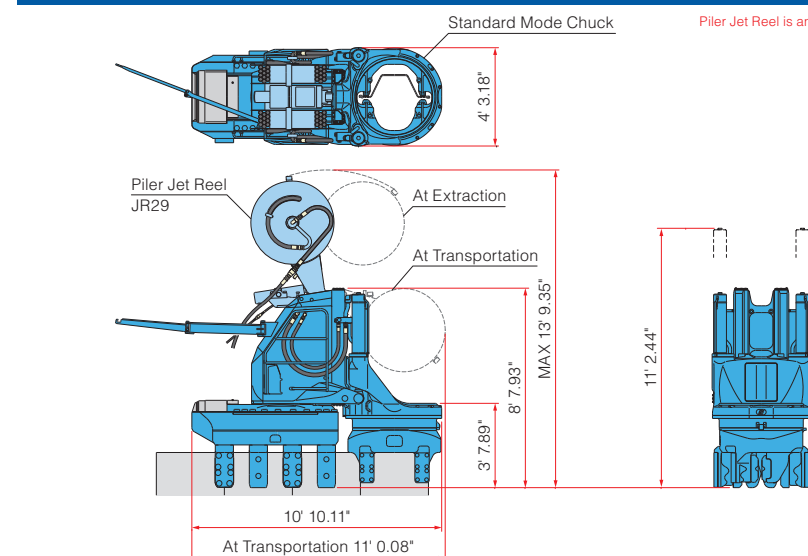
Mass	4409 lb
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The above specifications are subject to alteration without prior notice

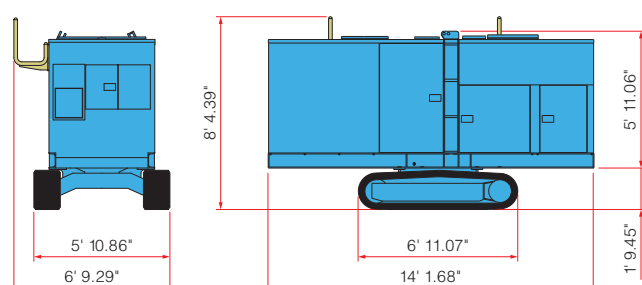
### Standard / Water Jetting Mode

F301-900

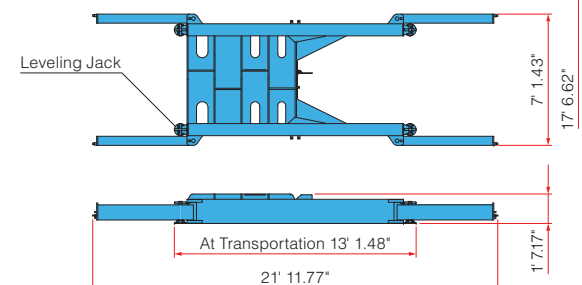
Piler Jet Reel is an optional item



### Power Unit



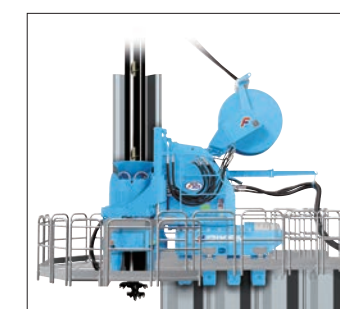
### Reaction Stand



## Accessories

### Standard Accessories

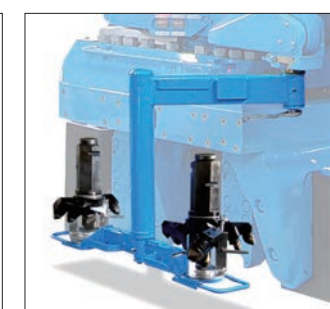
\* Available for Super Crush Mode only.



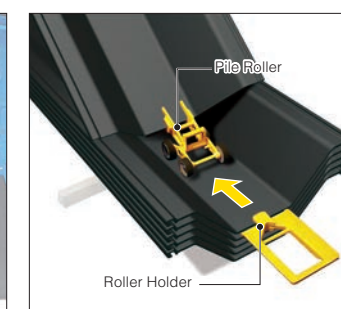
Piler Stage



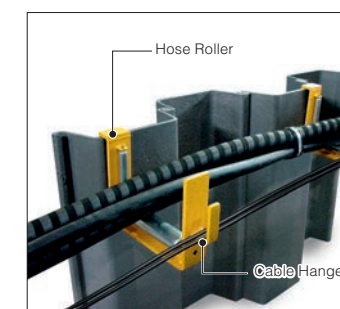
Chuck Stage \*



Auger Head Replacement Attachment \*



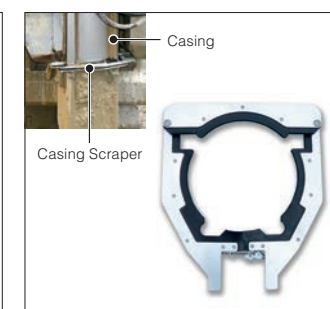
Pile Roller



Hose Roller



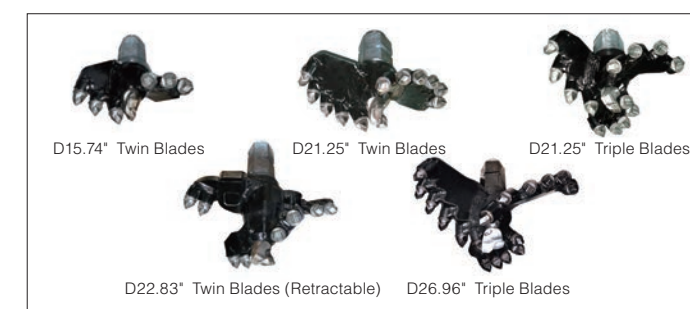
Pile Laser



Casing Scraper \*



Module Box



Auger Head \*

### Optional Accessories



Piler Jet Reel (JR29)



D26.96" Twin Blades

Auger Head \*