

**GIKEN**

**SILENT PILER™**  
**F401**

**for Z & U Sheet Piles**



**GIKEN**

Construction Solutions Company

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

CONTACT US



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Highly versatile modular model applicable to Z & U Sheet Piles

# SILENT PILER™ F401

SILENT PILER F401

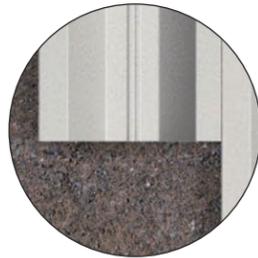
## Flexible and Functional Formula

The F401 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 F401 is also equipped with a cutting-edge control system that recognizes high functionality with a longer operation life.

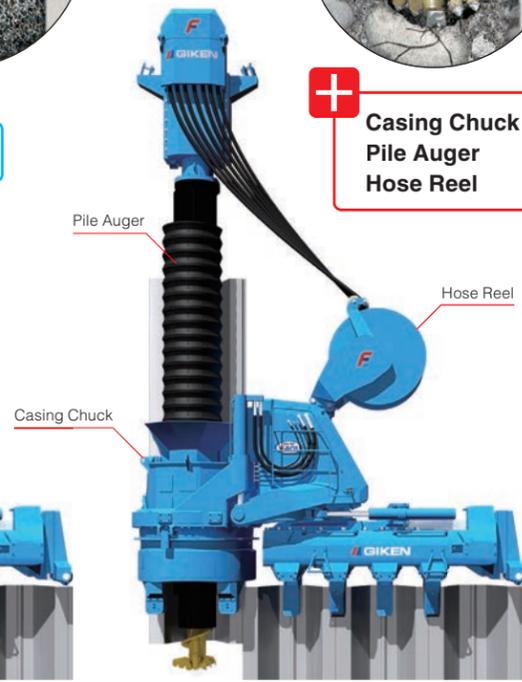
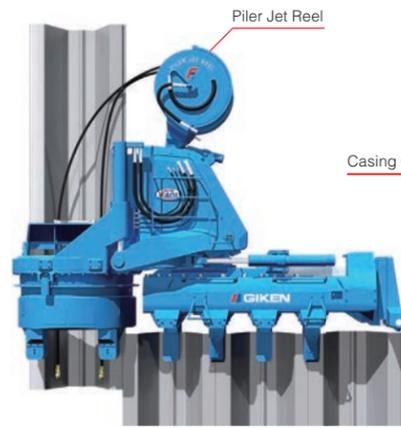
### 1 Optimizing Work Efficiency with Modular Design

The SILENT PILER F401 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.



**+** Piler Jet Reel

**+** Casing Chuck  
Pile Auger  
Hose Reel



Standard Mode

Water Jetting Mode

Super Crush Mode



### 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.



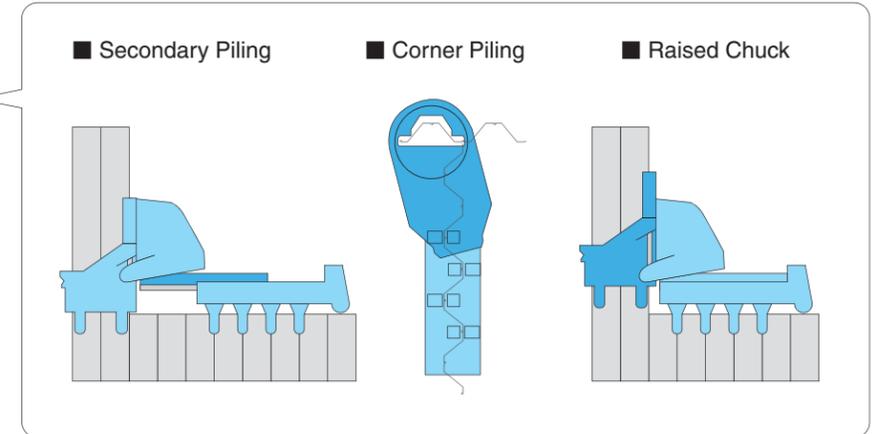
Operation Mode corresponding to the Casing Chuck is automatically detected

Position of the Press-in Machine is automatically detected

Up/Down Stroke Force is optimized

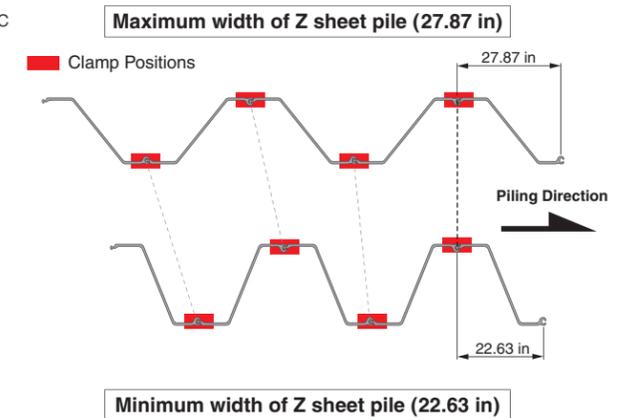
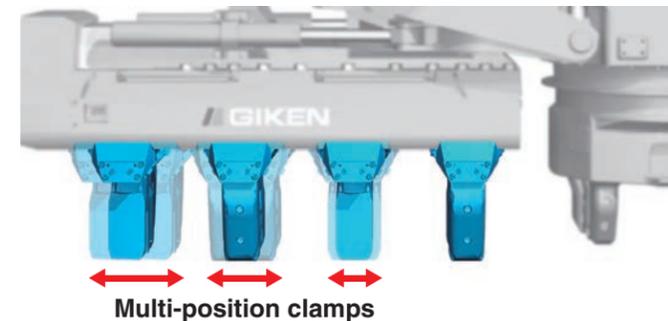
Maximum Up/Down Stroke Force is regulated

Load applied to SILENT PILER can be reduced.



### 3 Multi-position Clamps

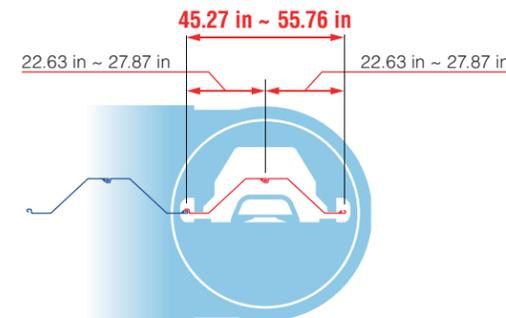
The clamp pitch is adjustable to multiple positions by using a hydraulic system for over 40 types of sheet piles without disassembly.



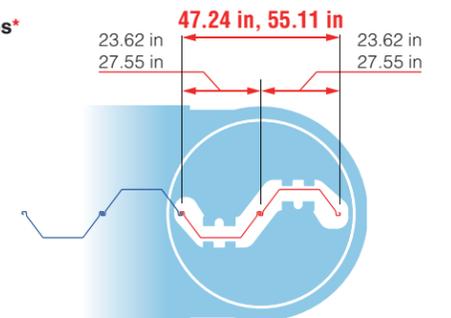
### 4 For Wider Z & U Sheet Piles

The F401 has been designed to press-in 2 sheet piles simultaneously up to a total width of 55.75 in.

Z Sheet Piles



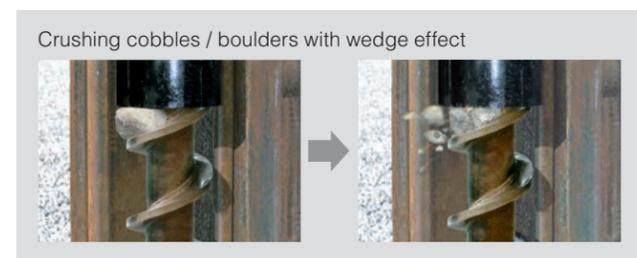
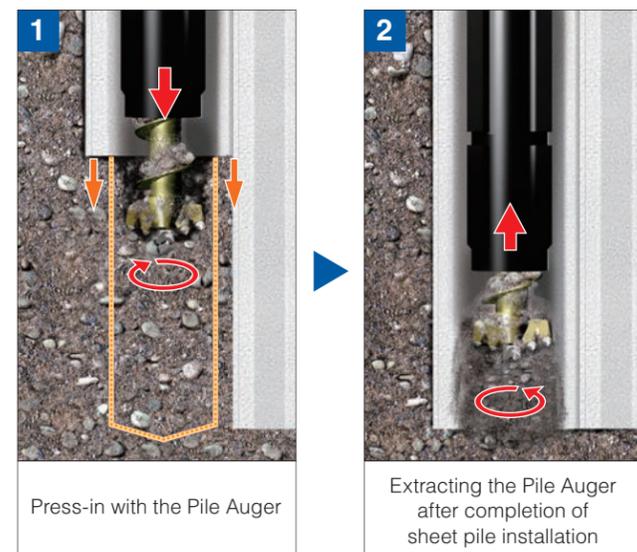
U Sheet Piles\*



\* F401 is designed to Press-in a pair of 23.62 in and 27.55 in U sheet piles in pairs by using Double U chuck attachment.

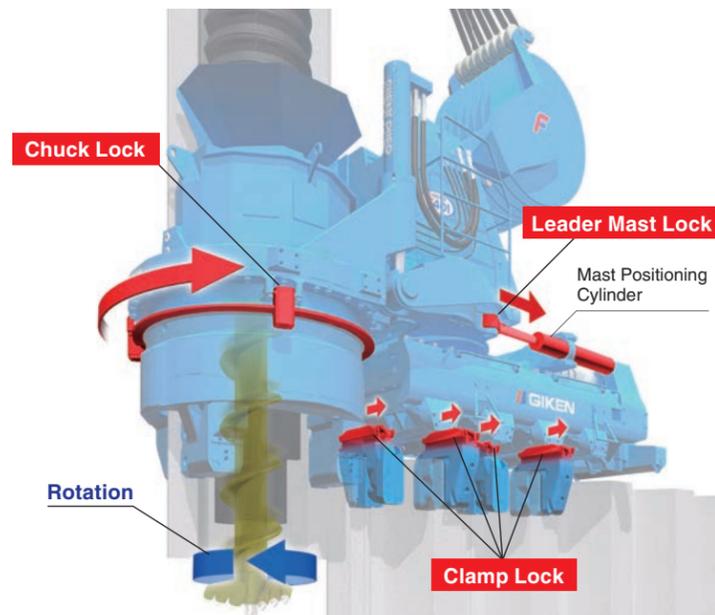
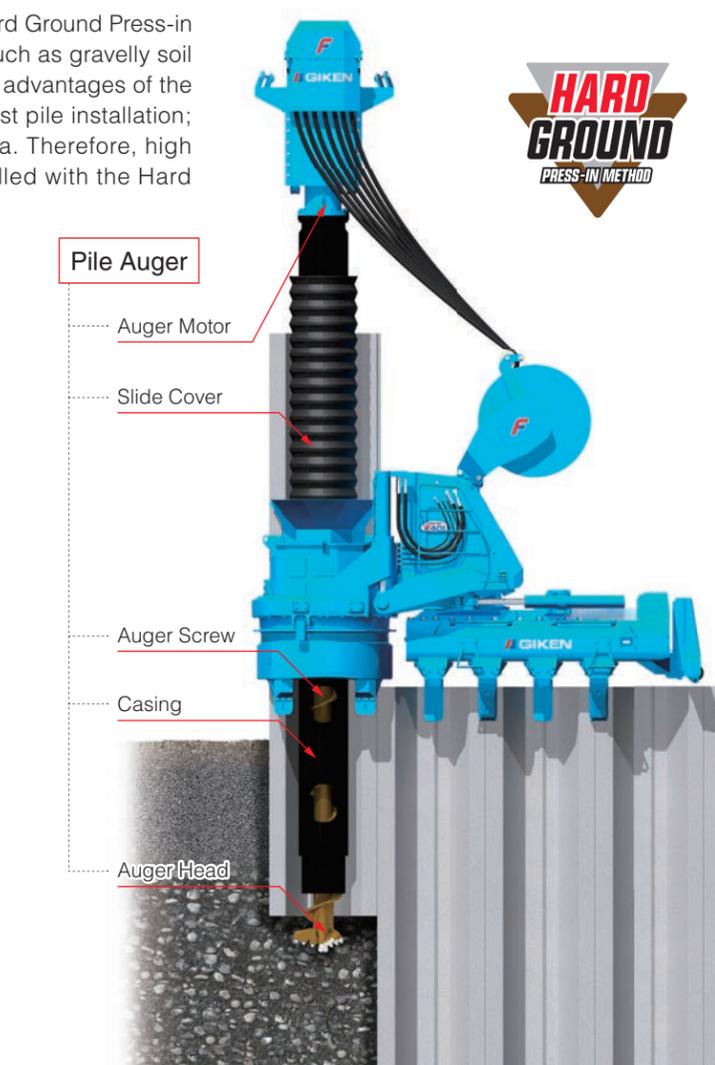
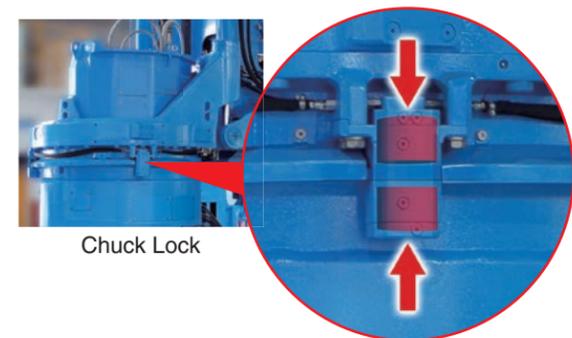
## 5 Pile Installation into Hard Ground

The "Pilot Coring Theory", GIKEN 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.



### Locking Function

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



## 6 New Generation Power Unit EU300K4

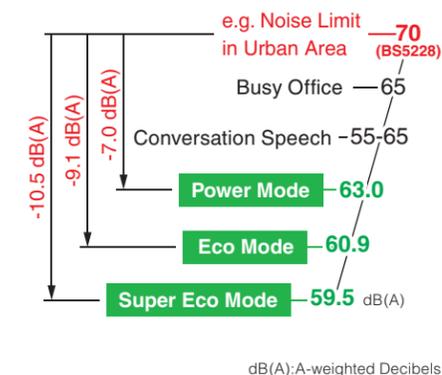
### Low Emission Engine

The Power Unit for the F401 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 F401 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.



## 7 Scientific Execution of Press-in Work & Advanced IT Functions

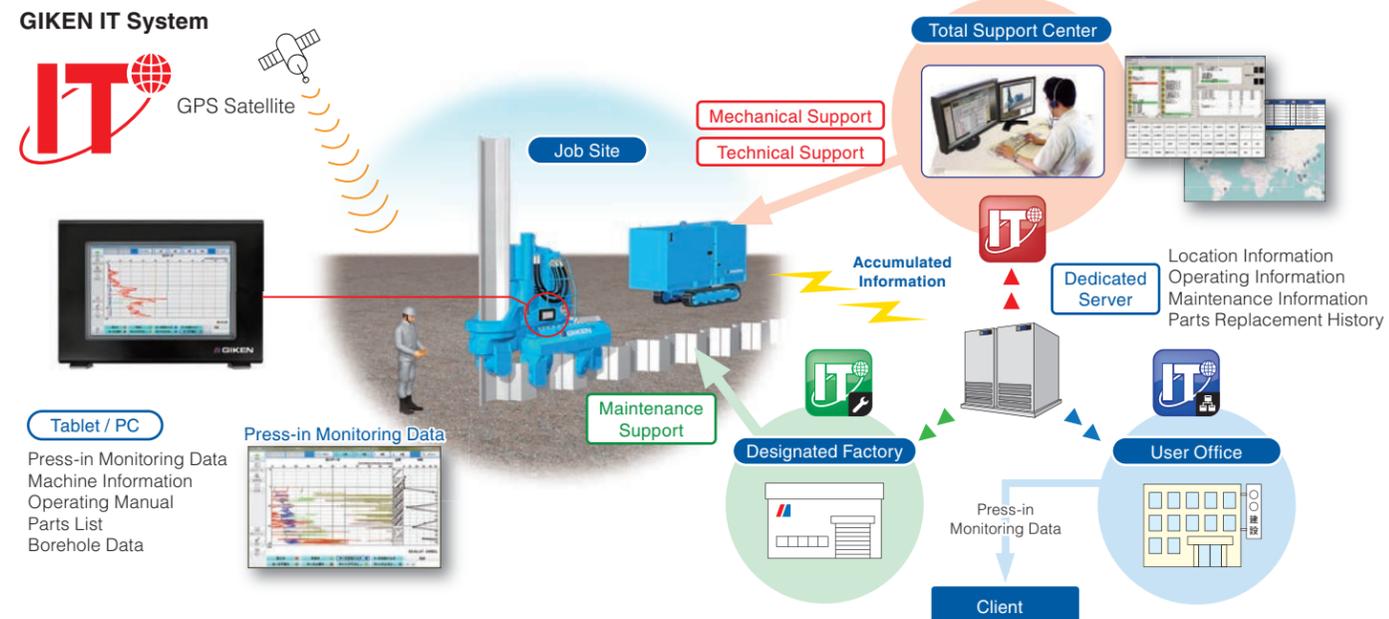
### GIKEN IT System

GIKEN engineers can monitor individual SILENT PILER 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.

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

### Press-in Monitoring and Data Logging System

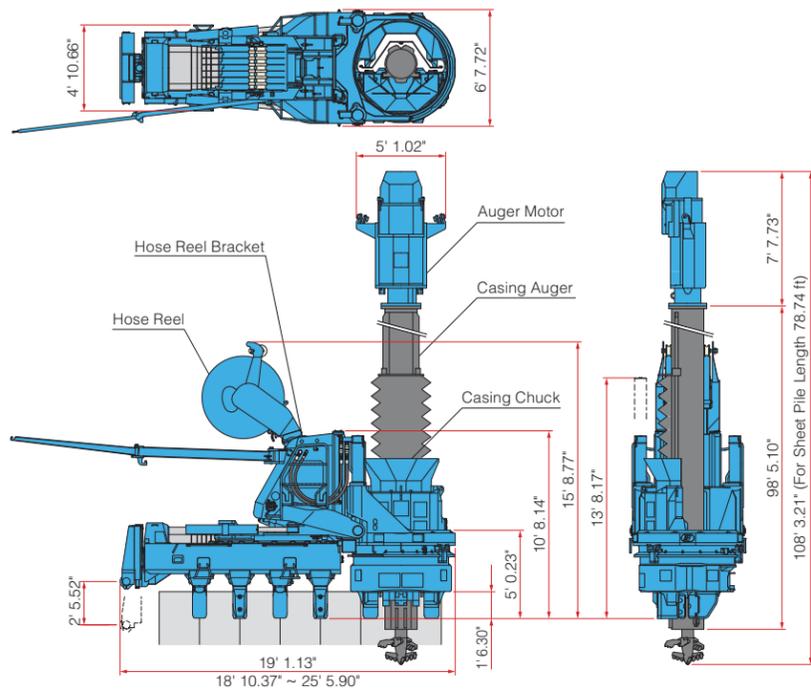
Press-in monitoring data can be used for quality control and for supporting information for foundations. Operators are able to keep working while checking data such as press-in force, auger torque, and working hours of press-in work on a tablet or PC (both devices optional).



# Dimensions & Specifications

## Super Crush Mode

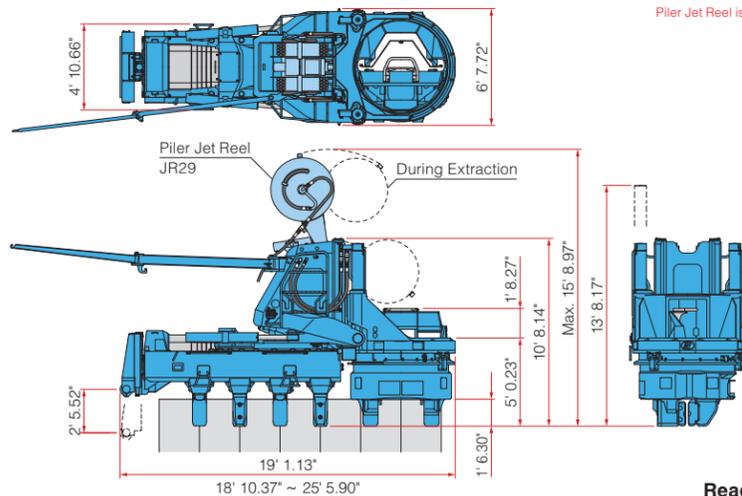
F401-C1400



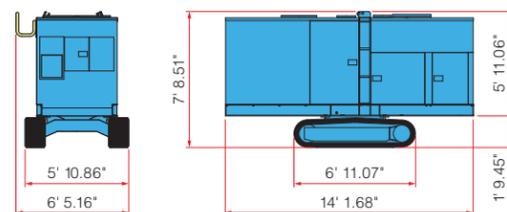
## Standard / Water Jetting Mode

F401-1400

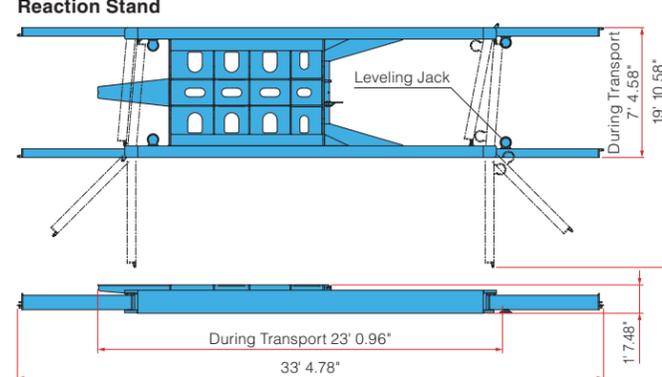
Piler Jet Reel is an optional item



## Power Unit



## Reaction Stand



## SILENT PILER F401

Applicable Sheet Piles	Z Sheet Piles 22.63 ~ 27.87 in U Sheet Piles 23.62, 27.55 in with Double U Chuck Attachment
Max. Press-in Force	134.8 ton(US) (Super Crush Mode) 168.6 ton(US) (Standard / WJ Mode)
Max. Extraction Force	179.8 ton(US)
Stroke	39.37 in
Press-in Speed	4.2 ~ 88.5 ft/min (Standard Mode)
Extraction Speed	3.2 ~ 66.2 ft/min (Standard Mode)
Control System	Radio Control
Movement	Self-Moving

Mass	Super Crush Mode (Main Body, Hose Reel, Casing Chuck) 67615 lb Water Jetting Mode (Main Body, Piler Jet Reel) 59194 lb Standard Mode (Main Body) 56438 lb
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## Piler Jet Reel JR29

Applicable Pile Length (Standard)	Standard 52.49 ft (Max 88.58 ft*)
Mass	2756 lb

\*Up to 88.58 ft with optional hose

## Hose Reel HR17E

Mass (Standard)	6106 lb (including Hose Reel Bracket)
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## Pile Auger PA20

Applicable Pile Length (Standard)	Max 78.74 ft*
Mass	Auger Motor 5599 lb Casing Auger 40256 lb
Total Mass	45856 lb

\*Up to 98.42 ft with modification

## 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	15983 lb (with 65.61 ft Hose)

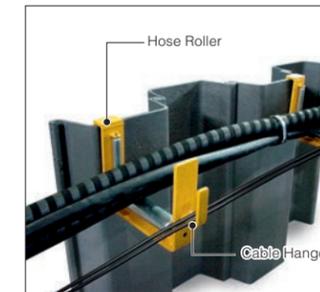
## Reaction Stand (with Leveling Jack)

Mass	8708 lb
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The above specifications are subject to alteration without prior notice

# Accessories

## Basic



Hose Roller



Pile Laser



Module Box



Tablet PC (encased)



Chuck Stage

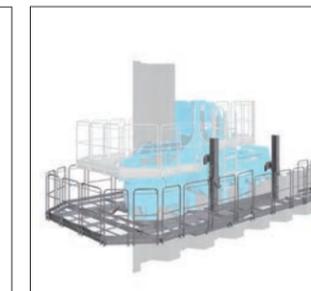
## Optional



Double U Chuck Attachment

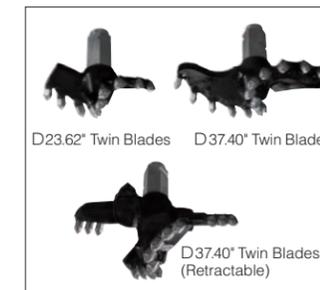


Piler Jet Reel (JR29)



Piler Stage

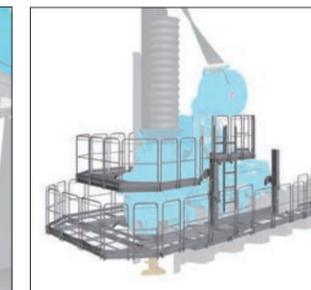
## Super Crush Mode



Auger Head



Auger Head Replacement Attachment



Piler Stage with Chuck Stage