

GIKEN

SILENT PILER™

F301

for Z & U Sheet Piles



GIKEN

Construction Solutions Company

www.giken.com

CONTACT US



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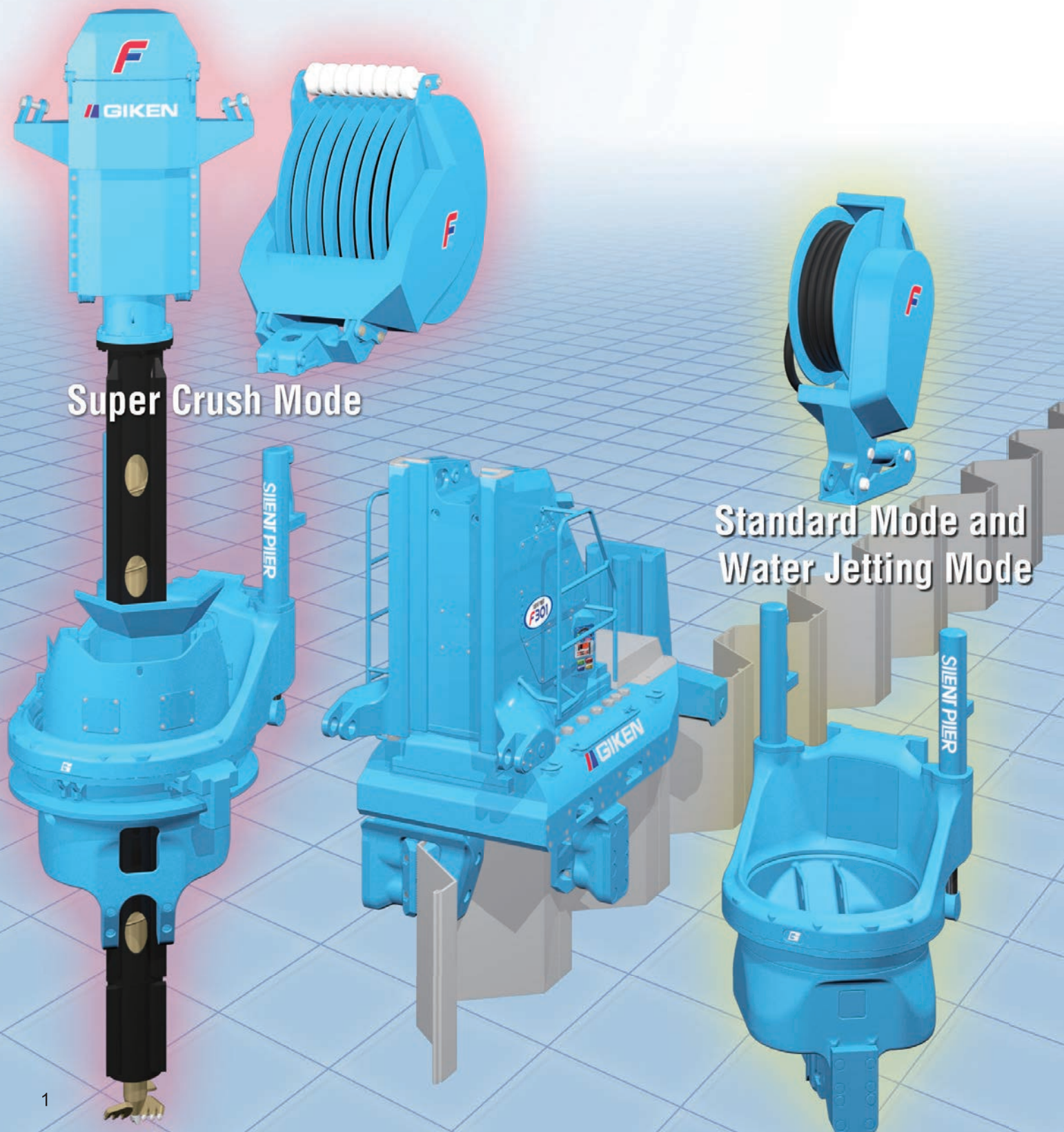
Modular model applicable to for Z & U Sheet Piles

SILENT PILER™ F301

SILENT PILER F301

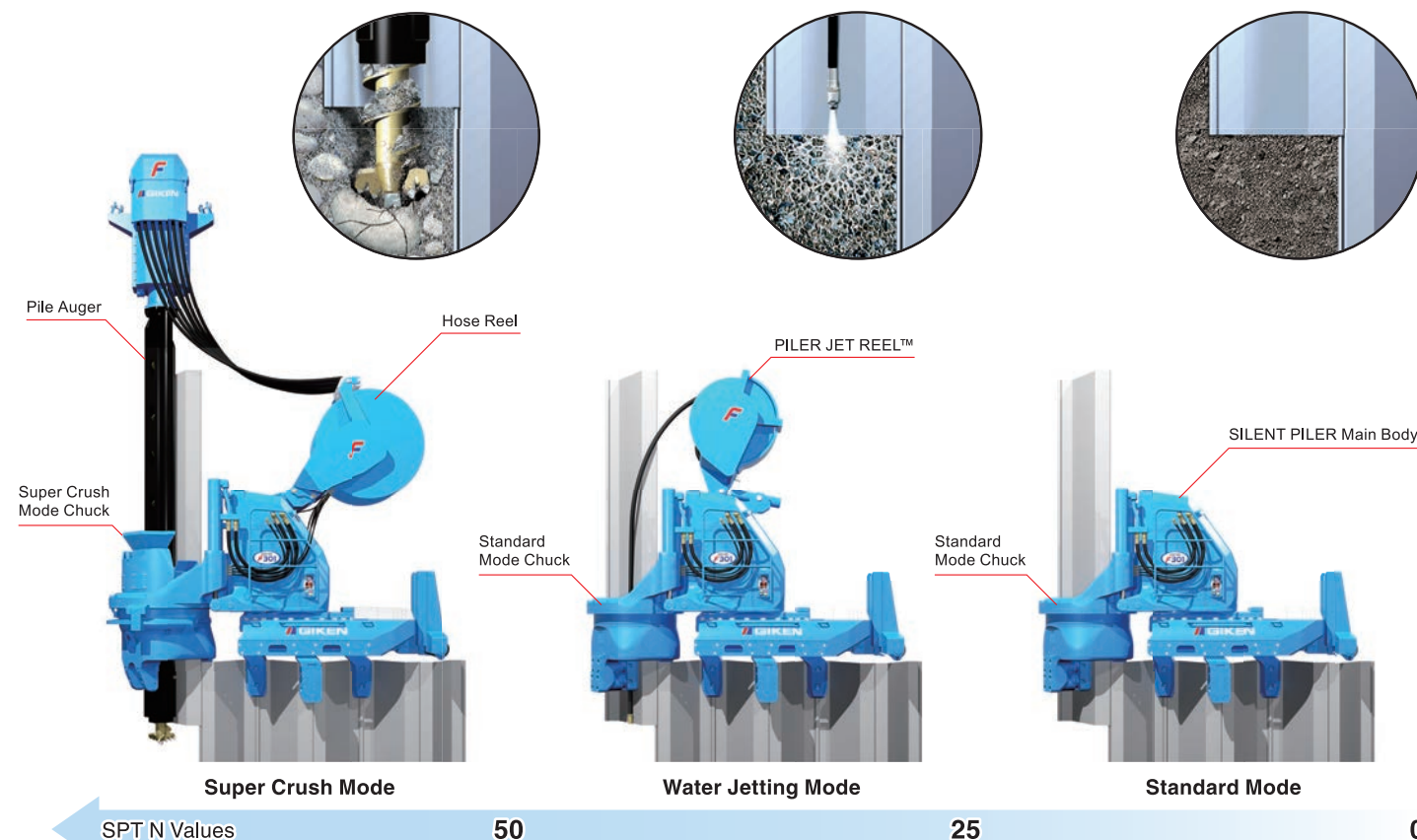
Flexible and Functional Formula

The F301 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 F301 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 F301 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.



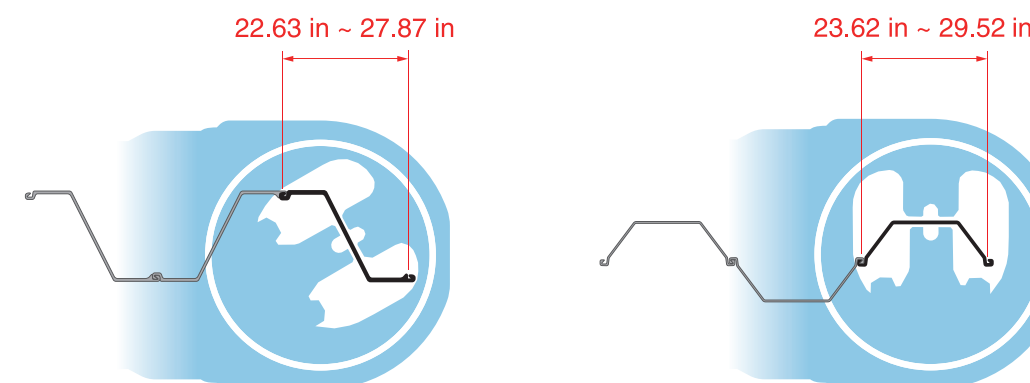
2 New Control System

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.



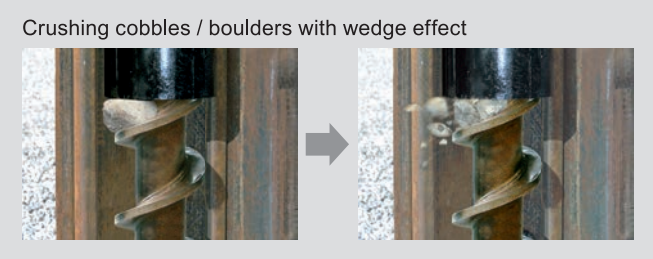
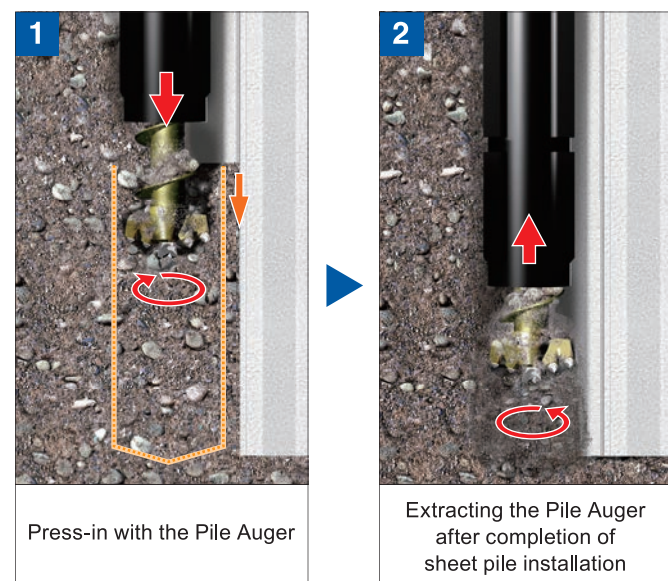
3 For Wider Z & U Sheet Piles

The F301 has been designed to press-in Z piles to 27.87 in wide and U piles up to 29.52 in wide.



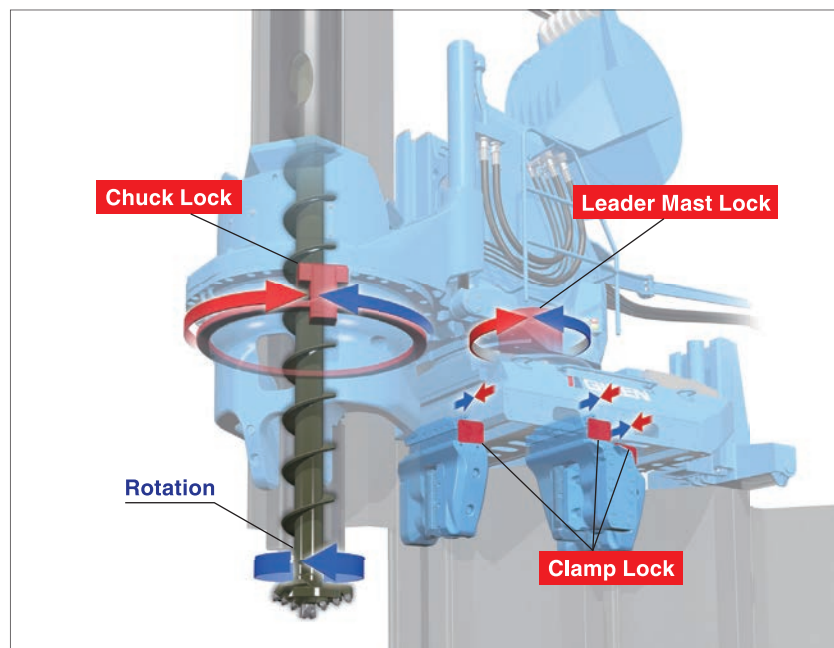
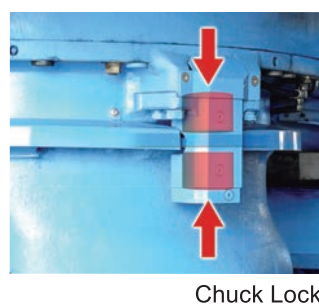
4 Pile Installation into Hard Ground

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.



5 New Generation Power Unit EU300L5

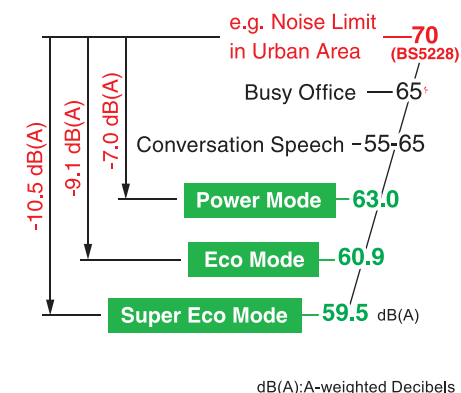
Low Emission Engine

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

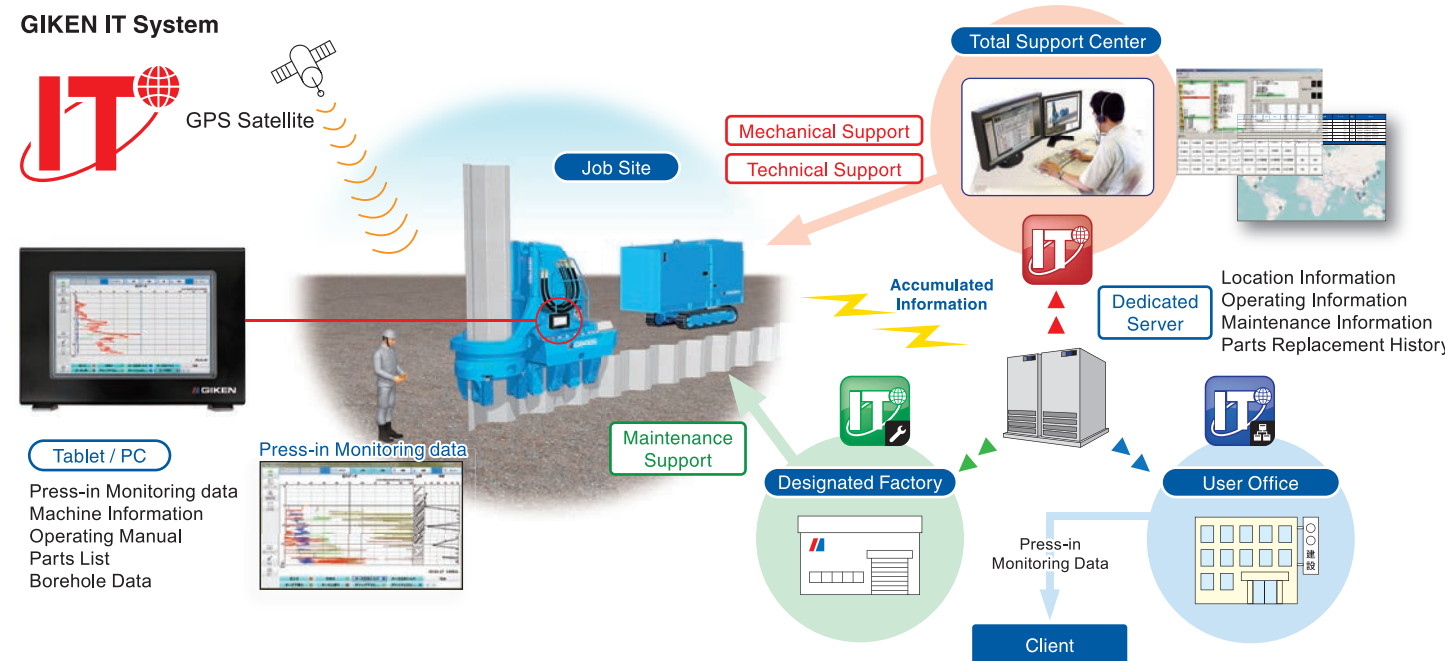
GIKEN IT System

GIKEN engineers can monitor individual SILENT PILER 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.

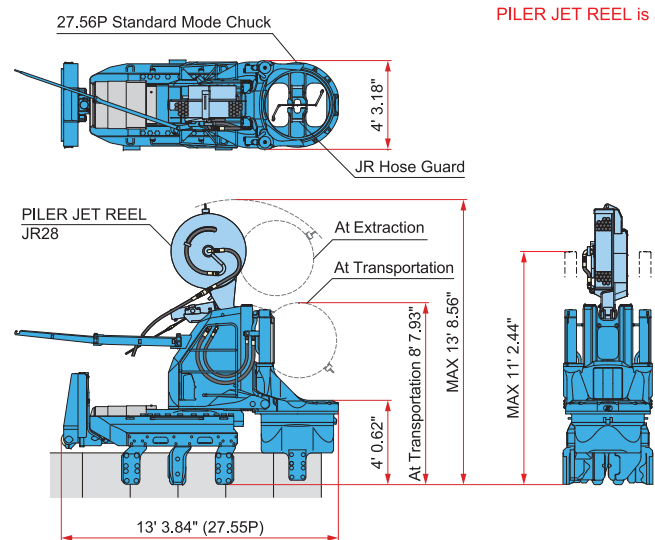
Press-in Monitoring and Data Logging System

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).



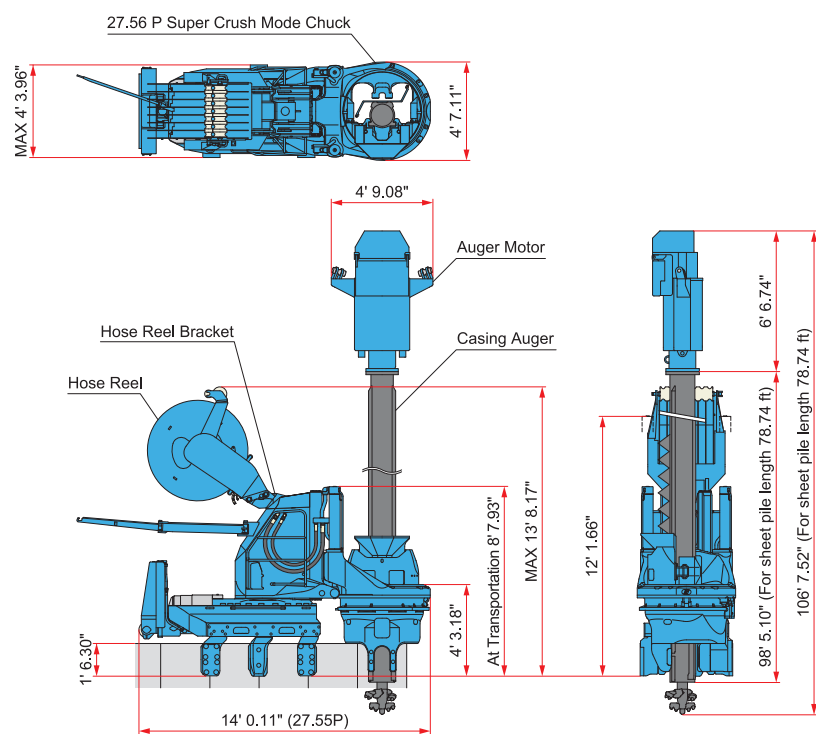
Dimensions & Specifications

Standard / Water Jetting Mode F301-700



PILER JET REEL is an optional item

Super Crush Mode F301-C700



| | |
|------------------------|---|
| SILENT PILER | F301 |
| Applicable sheet piles | Z Sheet Piles (22.63 ~ 27.87 P) U Sheet Piles (23.62 ~ 29.52 P) |
| Max. Press-in Force | 89.9 ton(US) (Super Crush Mode) 112.4 ton(US) (Standard / Water Jetting Mode) |
| Max. Extraction Force | 101.1 ton(US) (Super Crush Mode) 134.8 ton(US) (Standard / Water Jetting Mode) |
| Stroke | 33.46 in |
| Press-in Speed | 6.56 ~ 142.71 ft/min (Standard Mode) |
| Extraction Speed | 4.92 ~ 105.97 ft/min (Standard Mode) |
| Control System | Radio Control |
| Movement | Self-Moving |

| | |
|------|---|
| Mass | Super Crush Mode (Main Body & Hose Reel) 34458 lb Water Jetting Mode (Main Body & PILER JET REEL) 27601 lb Standard Mode (Main Body) 25794 lb |
|------|---|

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|------------------|---------------------------------------|
| Hose Reel | HR17D |
| Mass (Standard) | 6128 lb (including Hose Reel Bracket) |

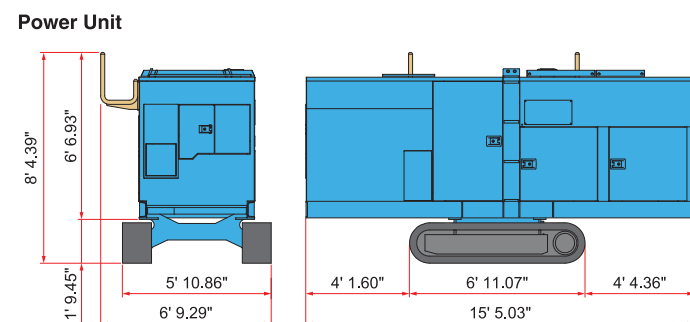
| | |
|-----------------------------------|--|
| Pile Auger | PA22 |
| Applicable pile length (Standard) | Max 78.74 ft* |
| Mass | Auger Motor 4078 lb Casing Auger 22156 lb |
| Total Mass | 26235 lb |

*Max 98.42 ft in special mode

| | |
|--------------------------|---|
| PILER JET REEL™ | JR28 |
| Applicable pile length | Standard 55.77 ft (Max. 88.58 ft) |
| Mass | 1807 lb |
| Power Unit | EU300L5 |
| Power Source | Diesel Engine |
| Rated Output | 341kW / 1800 rpm |
| Fuel Tank Capacity | 132 US gal |
| Hydraulic Reservoir | PILER ECO™ OIL 129 US gal |
| AdBlue/DEF Tank Capacity | 15 US gal |
| Mass | with 65.61 ft Super Crush hose (Standard) 16314 lb with 98.42 ft Super Crush hose 16975 lb |

| | |
|--|---------|
| Reaction Stand (with Leveling Jack) | |
| Mass | 6613 lb |

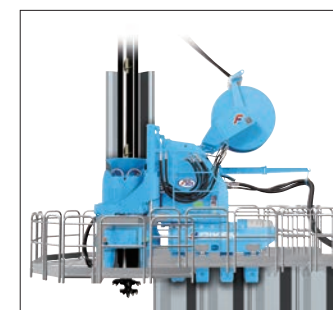
The above specifications are subject to alteration without prior notice



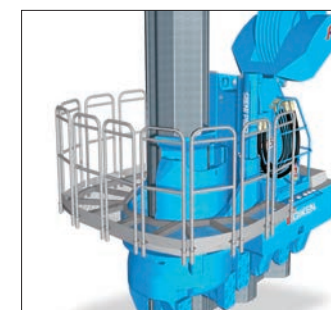
Accessories

Standard

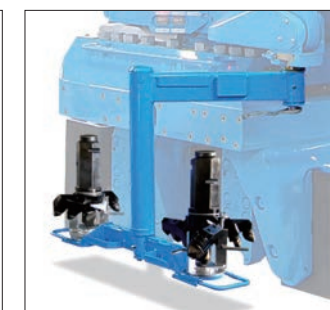
* Available for Super Crush Mode only.



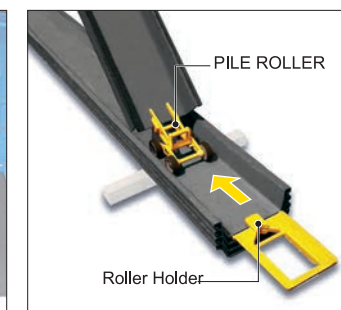
PILER STAGE™



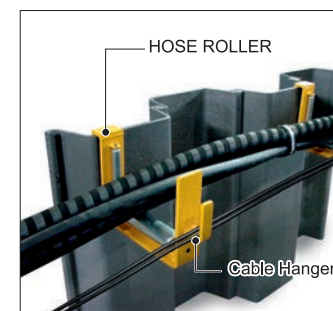
Chuck Stage*



Auger Head Replacement Attachment*



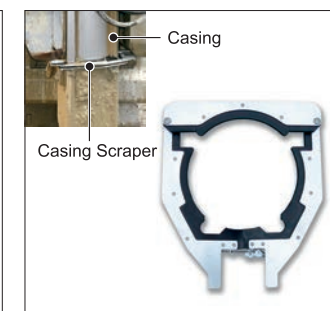
PILE ROLLER™



HOSE ROLLER™



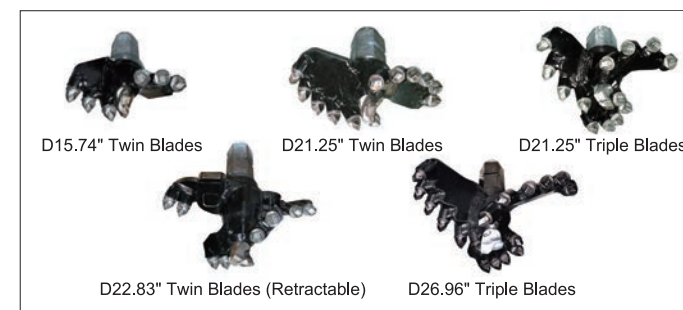
PILER LASER™



Casing Scraper*



Module Box



Auger Head*

Optional



PILER JET REEL (JR28)



D26.96" Twin Blades

Auger Head*