

SILENT PILER™
F401
for Z & U Sheet Piles



Extremely sophisticated modular model applicable to Z & U Sheet Piles

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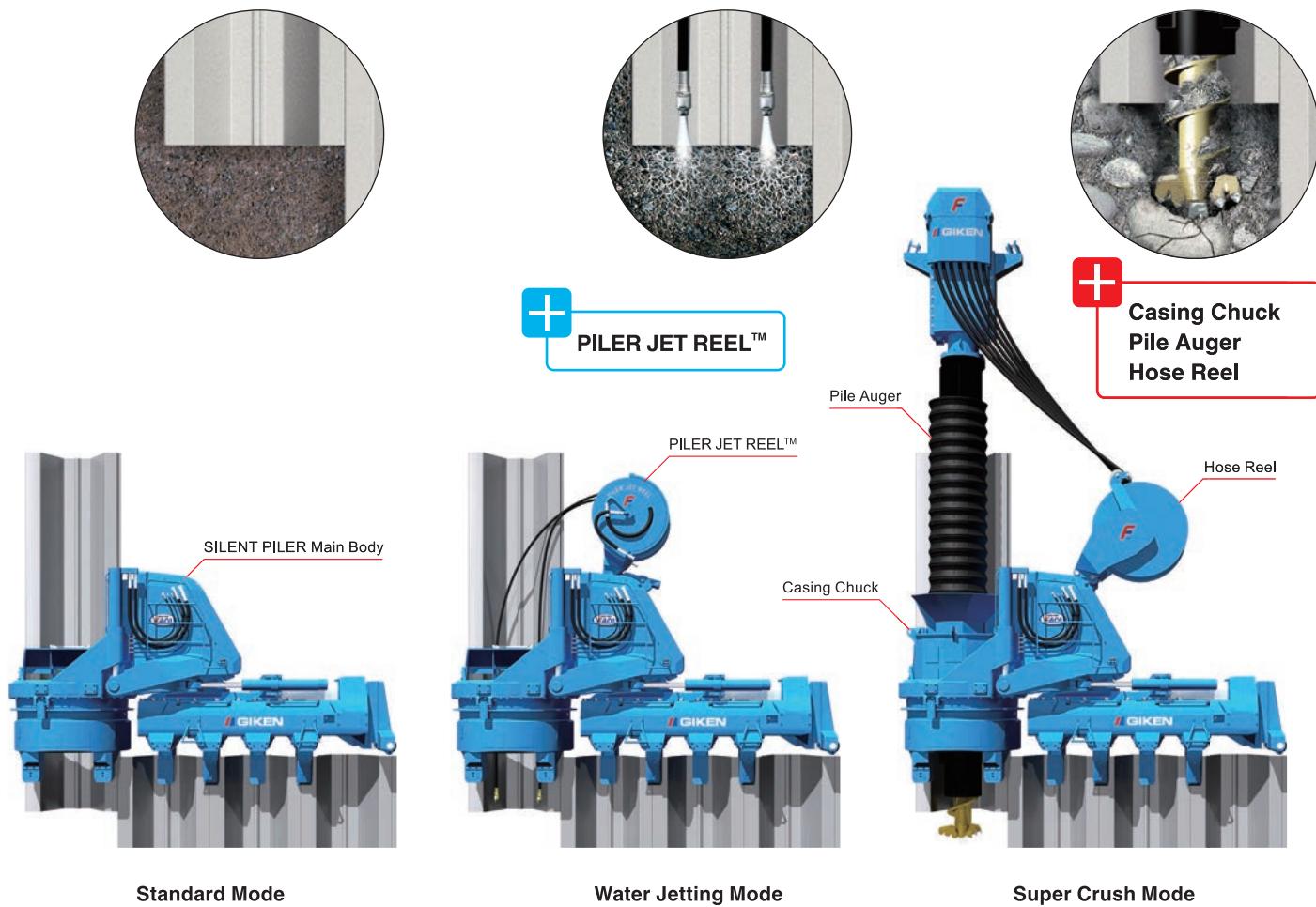
Flexible and Functional Formula

The F401 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 F401 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 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.



Operation Mode corresponding to the Casing Chuck is automatically detected

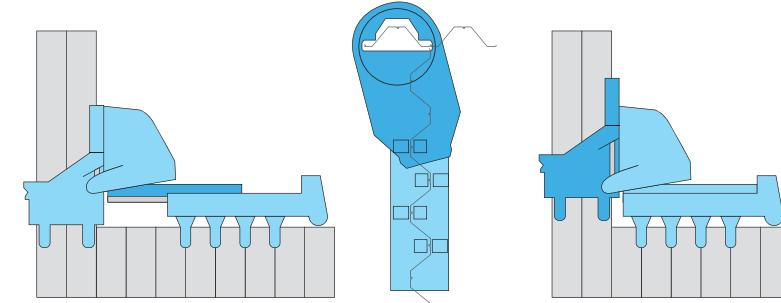
Position of the Press-in Machine is automatically detected

Up/Down Stroke Force is optimised

Maximum Up/Down Stroke Force is regulated

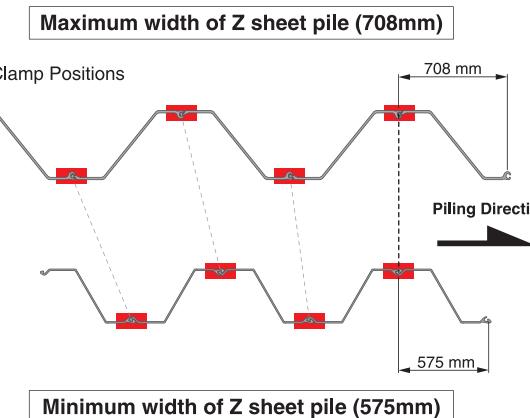
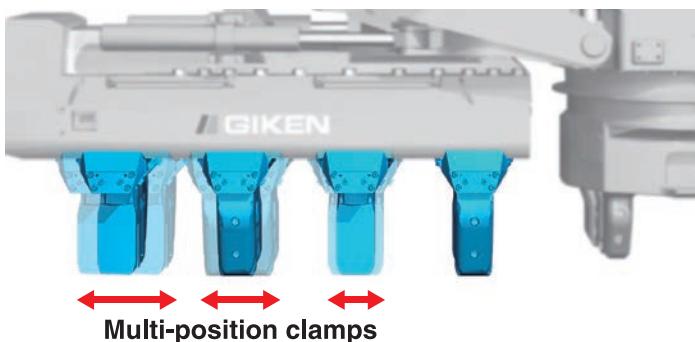
Load applied to SILENT PILER can be reduced.

■ Secondary Piling ■ Corner Piling ■ Raised Chuck



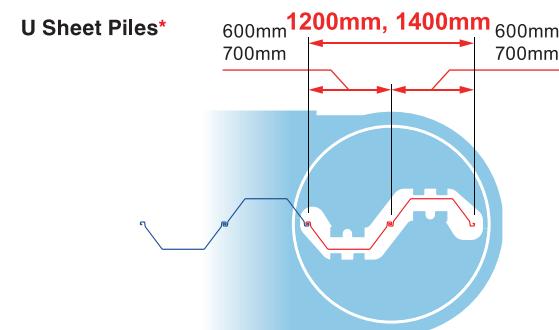
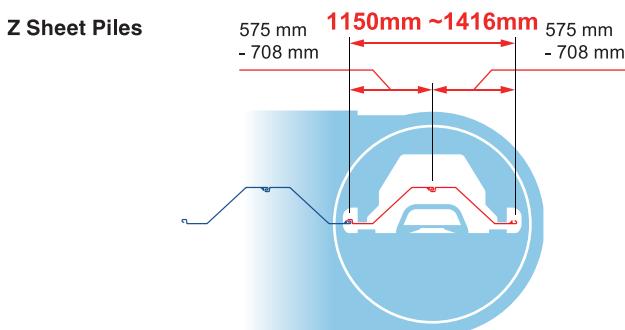
3 Multi-position clamps

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



4 For Wider Z & U Sheet Piles

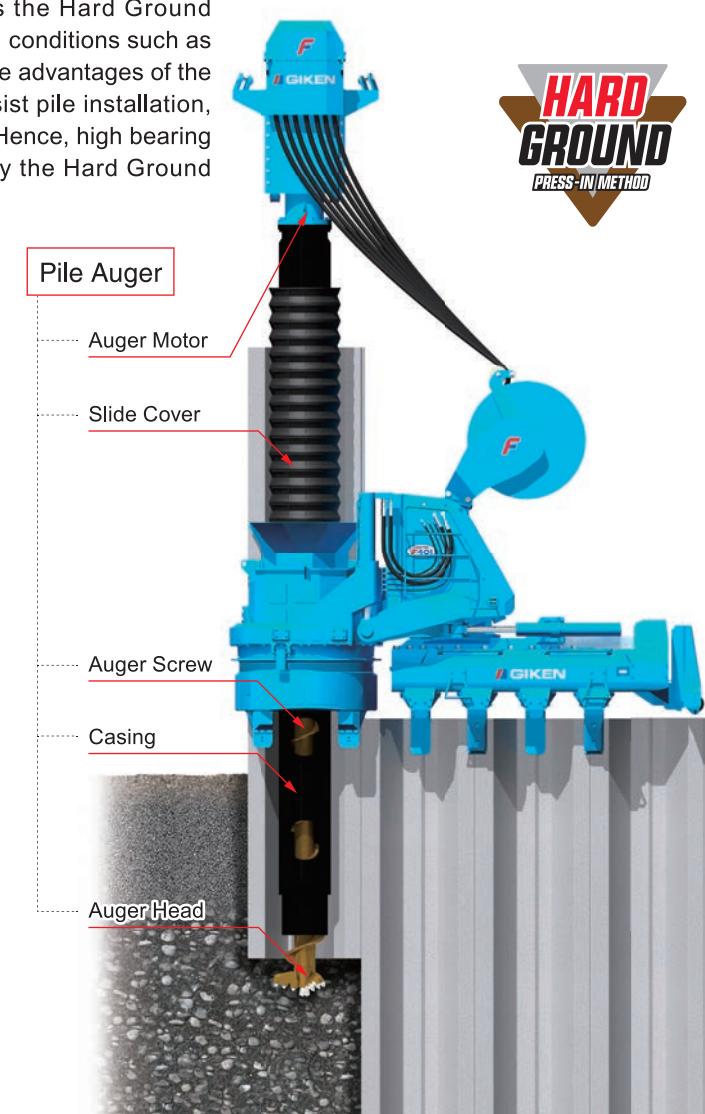
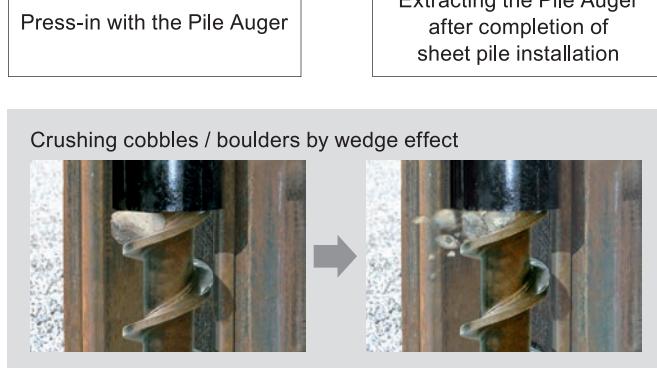
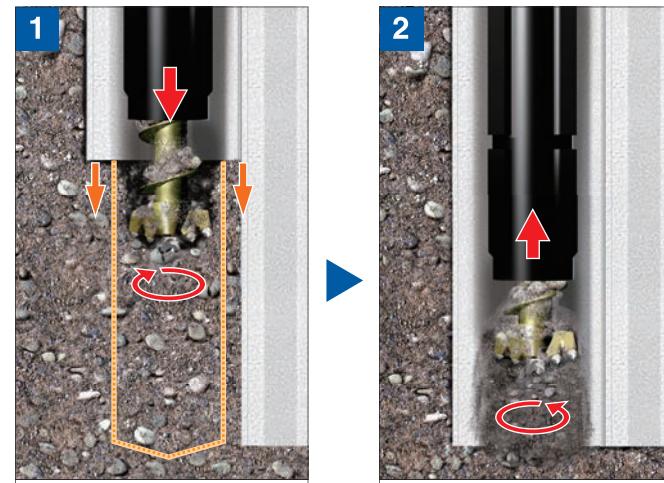
The F401 has been designed to press-in 2 piles simultaneously up to a total width of 1416mm.



* F401 is designed to Press-in a pair of 600mm and 700mm U sheet piles in pairs by using WU chuck attachment.

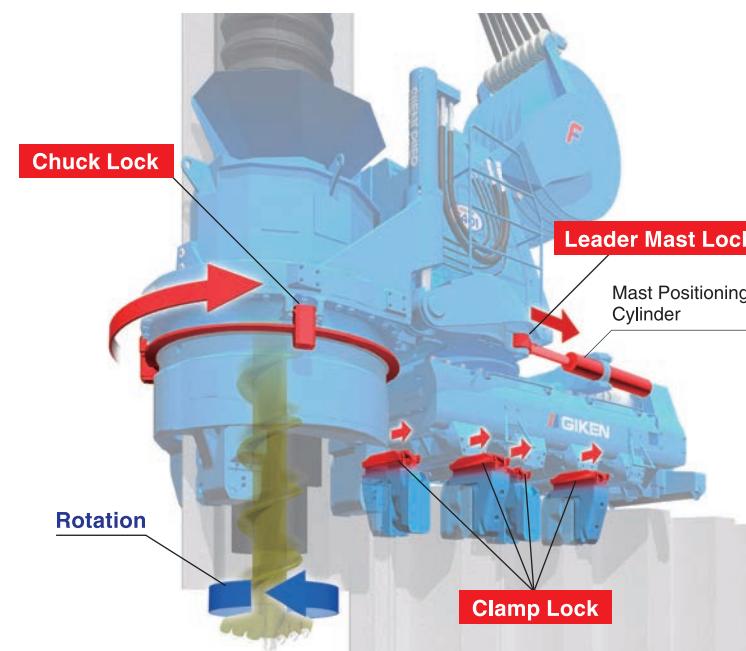
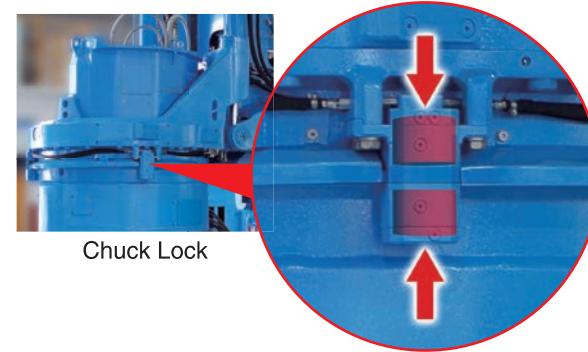
5 Pile Installation into Hard Ground

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.



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.



6 New Generation Power Unit EU300L5

Low Emission Engine

The Power Unit of the F401 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 F401 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*.

* 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

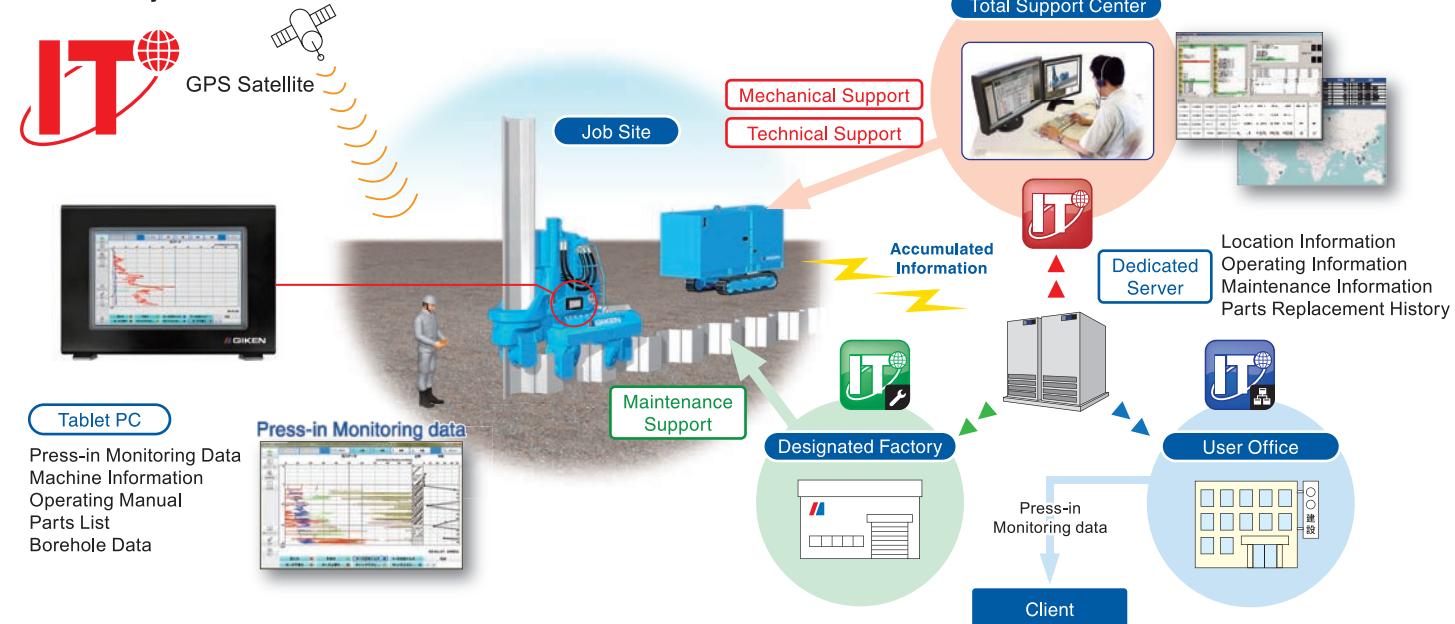
GIKEN engineers can monitor individual SILENT PILER, such as operating condition, maintenance records and location. Quick advice for any technical troubles is available promptly and appropriate information can also be provided to prevent troubles.

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

Press-in Monitoring and Data Logging System

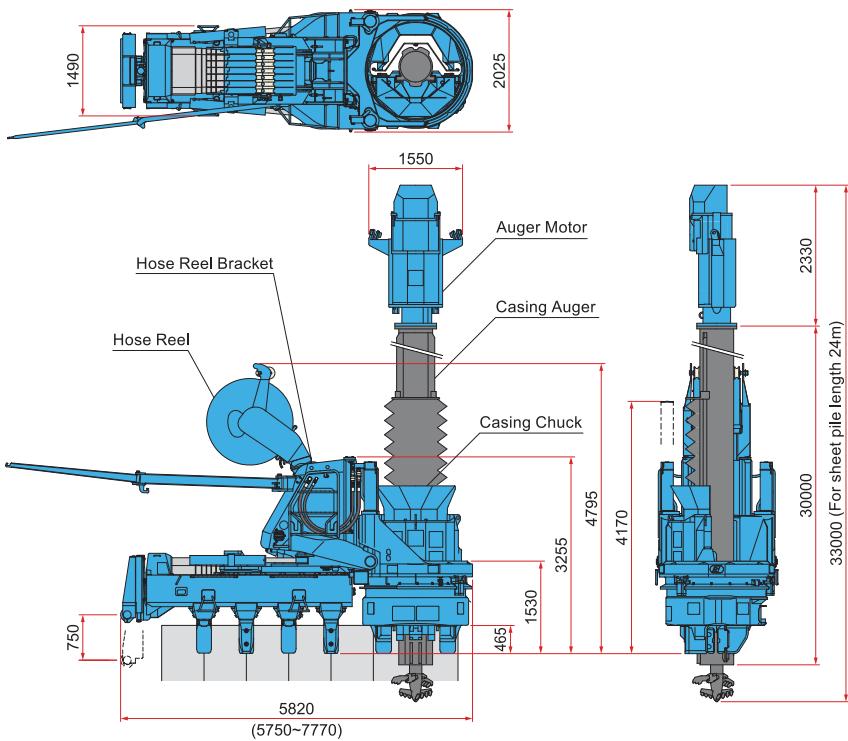
Press-in monitoring data can be used for quality control and information modelling of the foundation. Operators are able to keep working while checking data such as press-in force, auger torque, and working hours of press-in work, on a tablet or PC (both optional extras).

GIKEN IT System

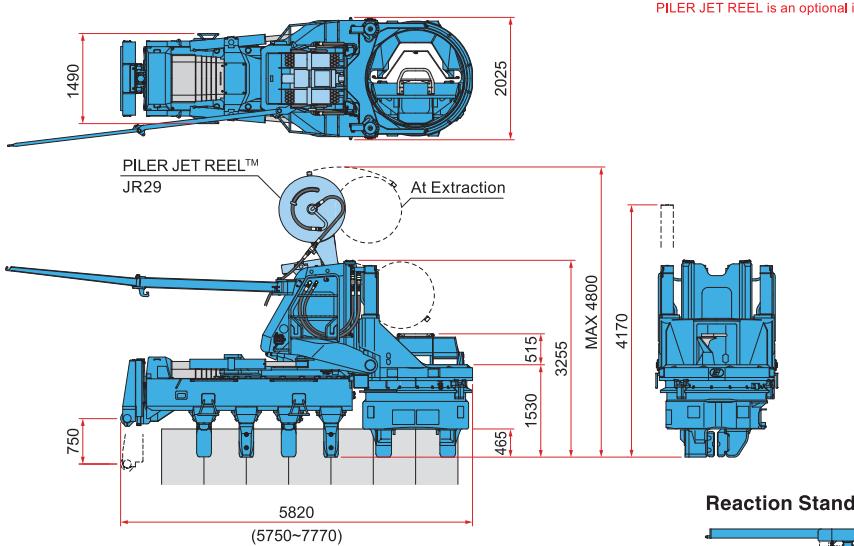


Dimensions & Specifications

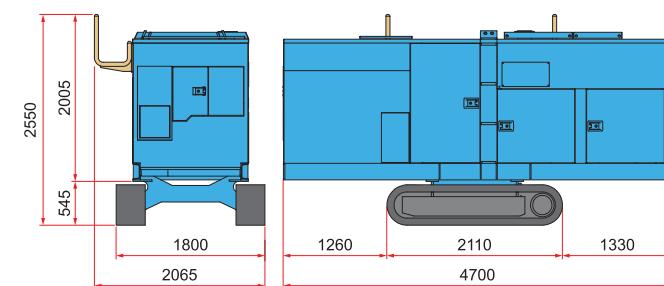
Super Crush Mode



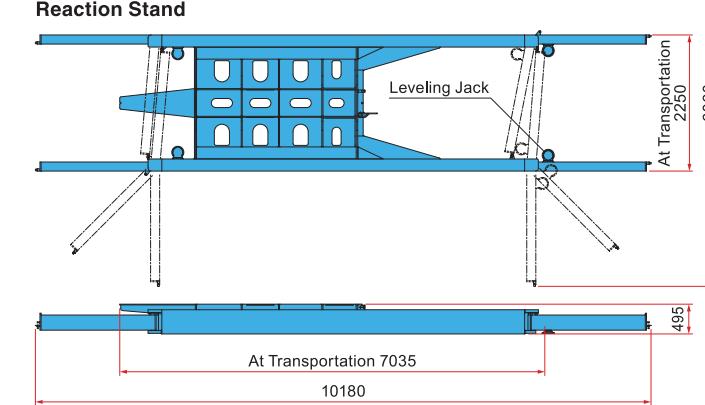
Standard / Water Jetting Mode



Power Unit



Reaction Stand



SILENT PILER F401

Applicable sheet piles	Z Sheet Piles 559~708 mm U Sheet Piles 600, 700 mm with WU Chuck Attachment
Max. Press-in Force	1200 kN (Super Crush Mode) 1500 kN (Standard / WJ Mode)
Max. Extraction Force	1600 kN
Stroke	1000 mm
Press-in Speed	1.3 ~ 27.0 m/min (Standard Mode)
Extraction Speed	1.0 ~ 20.2 m/min (Standard Mode)
Control System	Radio Control
Movement	Self-Moving
Super Crush Mode (Main Body, Hose Reel, Casing Chuck)	30670 kg
Mass Water Jetting Mode (Main Body, PILER JET REEL)	26850 kg
Standard Mode (Main Body)	25600 kg
Hose Reel	HR17E
Mass (Standard)	2800 kg (including Hose Reel Bracket)
Pile Auger	PA20
Applicable pile length (Standard)	Max 24 m*
Mass Auger Motor	2540 kg
Casing Auger	18260 kg
Total Mass	20800 kg

*Up to 30m with modification.

PILER JET REEL™ JR29

Applicable pile length	Standard 16.0 m (Max. 26.0m)
Mass	1250 kg
Power Unit	EU300L5
Power Source	Diesel Engine
Rated Output	255 kW / 1800 min ⁻¹
Fuel Tank Capacity	500 L
Hydraulic Reservoir	490 L (PILER ECO™ OIL)
AdBlue/DEF Tank Capacity	57 L
Total Mass	7400 kg (with 20m Hose) 7700 kg (with 30m Hose)
Reaction Stand (with Leveling Jack)	
Mass	3950 kg

The above specifications are subject to alteration without prior notice.

Accessories

Accessories are different of types.

Basic Accessories



Super Crush Mode Accessories

