

丸泰土木 株式会社

MARUTAI ENGINEERING CO., LTD.

3-5-17 Kitakasai Edogawa-ku Tokyo 134-8631 Japan

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<http://marutaidoboku.co.jp>

CORPORATE SUMMARY



MARUTAI



Office building

Base on the history, open the future
MarutaiDoboku try to contribute to the development of countries with enthusiasm and advanced techniques.

Message from Representative

Since the establishment of the company in 1962, we have had a history of 57 years in business with the warm guidance and encouragement of everyone. We appreciate all who have been supporting us.

In the time of fast-changing economy and continuously innovating technology, the civil construction field is rapidly shifting into a trend of larger scale and more various methods.

Base on the history of 57 years in business, we always keep moving toward the future. We believe with the motto of our company, essence of “Wa”, which is the foundation of social devotion and family life.

We continue to improve our unique technology, better safety for more reliable civil works. Thank you for the continuous support and we hope to receive more of your kind cooperation.

Iwao Umeda, Chairman
Fumiaki Tamagawa, President



Chairman



President



Corporate profile

Name	MARUTAI DOBOKU CO.,LTD
Representatives	Iwao Umeda, Chairman Fumiaki Tamagawa, President
Head Office	3-5-17, Kitakasai, Edogawa, Tokyo, 134-8631, Japan TEL/03-3689-4111 FAX/03-3686-1800
Chiba Sales Office Tokyo Machinery Yard	1208-1, Obukai, Sakura, Chiba, 285-0836, Japan TEL/043-462-0884 FAX/043-462-9578
Nagoya Sales Office	2-14-9-1107, Kanayama, Naka, Nagoya, Aichi, 460-0022, Japan TEL/052-265-7680 FAX/052-265-7681
Nagoya Machinery Yard	8, Kuridasi, Yatomi, Aichi, 498-0061, Japan
Osaka Sales Office	1-3-23, Shigita, Joto, Osaka city, Osaka, 536-0015, Japan TEL/06-6934-7485 FAX/06-6934-2419
Founded	13 December 1962
Capital	50,000,000 JPY (fiscal year end in September)
Employees	Full time: 130, Workers: 180
Construction business license	(Special-27) No. 4907
Fields of construction	Civil, scaffolding & earthwork, steel structure work Pavement, dredging, water pipe work
Our Services	General Civil Engineering Pile driving/extraction Construction machine repair, sales & rental
Related Company	Marutai Co.,Ltd
Main bank	Shoko Chukin Bank
Affiliated organizations	The Tokyo Chamber of Commerce and Industry The Associated General Contractors of Tokyo The Cooperative Association of East Japan Foundation The Association of Japan Foundation Work (Zenkiren) The Association of Construction (Kensenren)

Corporate history

Time	History
December 1962	MARUTAI DOBOKU CO.,LTD was founded Opened office at 10 - Senda, Koto, Tokyo
April 1963	Developed three point pile driver (Crawler type D-17)
September 1964	Relocated office to Ikuma Building at 2-9 Kyobashi, Chuo, Tokyo
February 1966	Participated capital in NIPPON SHARYO, LTD
December 1967	Constructed new office in 315 Ukita, Edogawa, Tokyo and relocated (Now address: 3-5-17 Kitakasai, Edogawa, Tokyo)
December 1968	Developed pile driver D512-NN type making no noise and vibration
March 1971	Started the overseas work
December 1973	Developed new method of driving sheet pile making no noise and vibration
November 1979	Contracted the first work of government office (Tokyo Bureau of Finance)
April 1984	Opened Tokyo Machinery Yard
October 1992	Completed new head office building (1B and 5F)
February 1997	Certified by Research and Development Project of Tokyo Subject:Developed method of dynamic consolidation for volume reduction of waste layer
March 1998	Developed method of FB9
July 1999	Received the technique certificate of FB9 method
February 2000	Was certified about business innovation plan by Ministry of Economy Trade and Industry 1st national project base on small and medium-sized enterprises innovation support law
April 2002	Received NS Ecopile driving certificate No. A001
2005－2006	Performed 9 piers of SPSP driving offshore for Tokyo Gate Bridge project
November 2013	Umeda Chairman was awarded The Order of the Sacred Treasure, Silver Rays
September 2015	Opened three point pile driver operator training center (Zenkiren skill training school)
September 2019	Acquisition of patent on soundproofing device for pile driver (Ecohouse 「Otonashi-kun」)



Service Items

Foundation work

- Steel pipe sheet pile SPSP driving work
- Steel pipe pile driving work
- Steel pipe pile driving work (FB9 method)
- Screwed steel pile driving work (NS Eco pile method)
- Cast in place pile
- Sheet pile driving work
- H-section pile driving work
- PHC pile driving work

Rock drilling work

- All-casing rotating method (Super top method)
- Doughnut auger method
- Down the hole hammer method
- Reverse circulation method

Obstruction removal work

- All-casing rotating method (Super top method)
- Doughnut auger method
- Existing pile extracting work

Temporary work

- Scaffolding/ temporary bridge work, temporary landing pier work

Overseas work

- Pile driving, rock drilling work, obstruction removal, temporary

Civil work

- Bridge, road, river, water pipe work

Skill Certification

1st Class Civil Engineering Management Engineer	12 people	Elevating work platform operating skill	52 people
2nd Class Civil Engineering Management Engineer	17 people	Arc welding skill	99 people
2nd Class Architecture Management Engineer	1 person	Electricity Operator (Low voltage)	69 people
1st Class Construction Machine Operating Engineer	6 people	Civil Work Machine Operator	60 people
2nd Class Construction Machine Operating Engineer	18 people	Rock Mass Drilling Chief Operator	22 people
2nd Class Architect	1 person	Earth retaining wall support work	22 people
Foundation Engineer	4 people	Surveyor/Assistant	2 people
Crane Operator	53 people	Type 3 Non-utility Generator Engineer	4 people
Vehicle type construction machine operating skill (civil)	66 people	Hazardous Materials Engineer	3 people
Vehicle type construction machine operating skill (leveling)	91 people	Pile Welding Management Engineer	36 people
Slinging skill	128 people	RST Trainer	1 person
Gas welding skill	105 people	WES 8106 Welding Skill Certificate	58 people

Our Machinery

[illegible]

Machine	Model	Manufacturer	No. of Units		Remark
Casing Rotator (Super Top) [22]	RT150A	NIPPONSHARYO	●		
	RT150LC	NIPPONSHARYO	●		
	RT200HH	NIPPONSHARYO	●●●●●●●●	●●●●●●●●	
	RT260HH	NIPPONSHARYO	●●		
	RT260HS	NIPPONSHARYO	●●		
	RT300	NIPPONSHARYO	●●		
Earth Auger	D-100KP	SANWAKIZAI	●●		75 kW
	D-120HP	SANWAKIZAI	●●		45 kW×2
	D-150HP(NP)	SANWAKIZAI	●●●●●●●		55 kW×2
	SA-D-200H	SANWAKIZAI	●		75 kW×2
	SA-D-240H	SANWAKIZAI	●		90 kW×2
Doughnut Auger (Coaxial,Integrated type)	D-120HP-SMD	SANWAKIZAI	●		45 kW×2
	D-150HP-SMD	SANWAKIZAI	●●		55 kW×2
	SA-SMD-240H	SANWAKIZAI	●●		90 kW×2
(Coaxial,Separated type)	SDA-390HW-P	SANWAKIZAI	●●●●●		90kW×2(internal) 55kW×2(external)
Auger	HAS-80KP-A1	SANWAKIZAI	●		60kW
Avolon	AS3500	AVOLONSYSTEMS	●		
	AS4700	AVOLONSYSTEMS	●		
	ASD7000NW	AVOLONSYSTEMS	●		
Hammer Grab	Φ1000	SAMJIN(Korea)	●●		
	Φ1000	SANWAKIKOH	●●		
	Φ1200	SANWAKIKOH	●		
	Φ1300	SANWAKIKOH	●		
	Φ1500	SANWAKIKOH	●●●		
	Φ1800	SANWAKIKOH	●●		
	Φ2000	SANWAKIKOH	●●●		
	Φ2000	SAMJIN(Korea)	●●●●		
	Φ2200	SOILMEC(Italia)	●		
	Φ2300	SAMJIN(Korea)	●●		
	Φ2500	SANWAKIKOH	●		
	Φ2500	SOILMEC(Italia)	●●		
	Φ2500	CASAGRANDE(Italia)	●●●●●		
	Φ3000	SANWAKIKOH	●		
	Φ3000	SOILMEC(Italia)	●		
Casing	Φ1000~Φ3000	SANWAKIKOH/SAMJIN	●●●●●●●●	●●●●●●●●	Large numbers
Slip Pulling Machine	KPT-150	SEIWAKOGYO	●		
Down The Hole Hammer	Φ608	INTERNATIONALDIAMOND	●		

NS ECO-PILE® Method

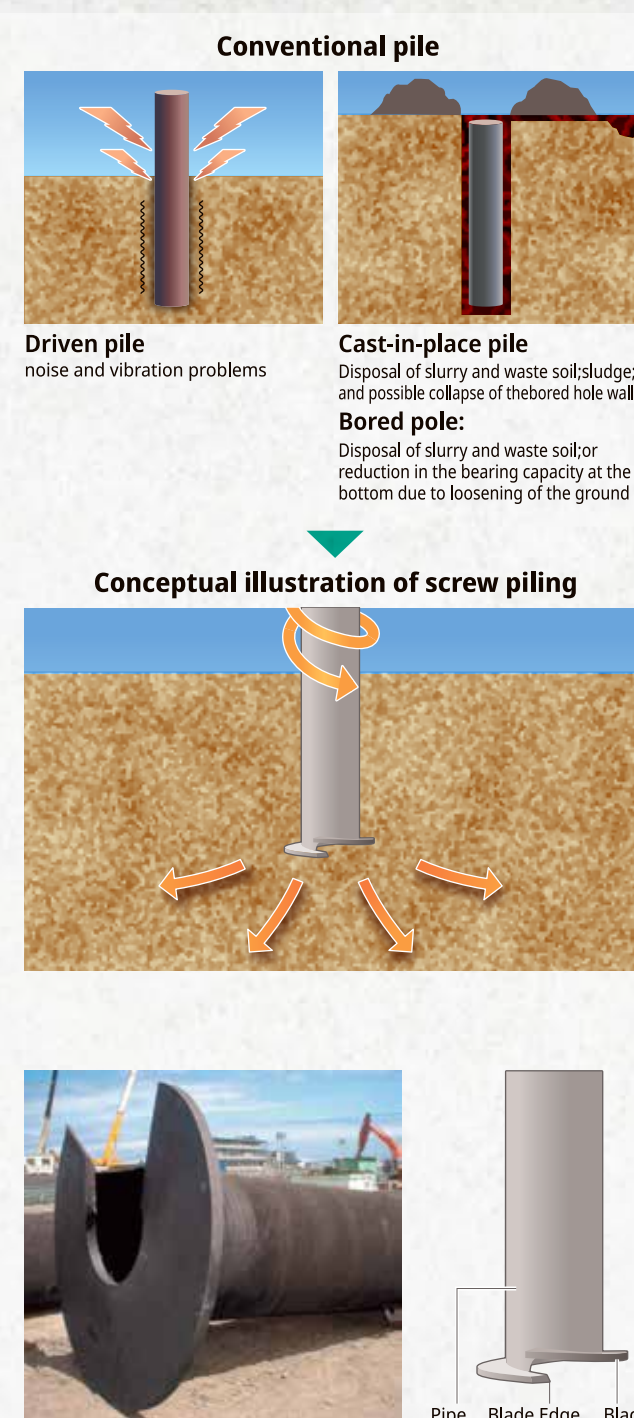
(Screwed steel pile method)

NS Eco-Pile is the registered trademark of former The Nippon Steel & Sumitomo Metal Group has been managed by Nippon Steel & Sumikin Engineering Co., Ltd

About NS ECO-PILE Method

NS ECO-PILE is a steel pile with a helical blade welded to the edge. During construction, a pile driver or casing rotator, for example, rotates the pile and the blade on the edge performs the digging that drives the pile into the ground. MARUTAIDOBOKU is cooperating to perform NS ECO-PILE driving work.

Advantages of NS ECO-PILE Method



1 Low noise and low vibration

The screw piling method with a pile driver or casing rotator causes no impact when driving a pile into the ground, minimizing noise and vibration.

2 No waste soil

By screw-driving the pile without excavating the ground, no waste soil is produced. Because of this, can get the consolidation effect of the ground around pile shaft.

3 Large bearing capacity

A large vertical bearing capacity is generated by the consolidation effect of the ground and the enlarging effect of the blade.

4 High quality

At the final embedment stage, the bearing layer can be confirmed by the torque, thus driving a pile foundation with excellent quality and reliability.

5 Excellent earthquake resistance

The steel pile foundation is highly resistant to deformation and earthquake.

6 Large pulling resistance capacity

A large pulling resistance capacity is maintained as the passive soil resistance which acts on the blade part as the pile penetrates into the ground.

7 Recycling

To remove a pile, it is rotated in the direction opposite to that when driven, allowing easy recycling of used piles. NS ECO-PILES can thus also be used as temporary piles.

8 Short construction period

This method does not use concrete or cement milk therefore no need to wait for hardening, the construction period is far shorter than for cast-in-place piles or bored piles.

9 Low cost

Because of the large bearing capacity, smaller diameter or fewer piles can be used. In addition, costs are lower since there is no need to dispose of slurry or residual earth and the construction period is shorter.

Flying Hammer Method

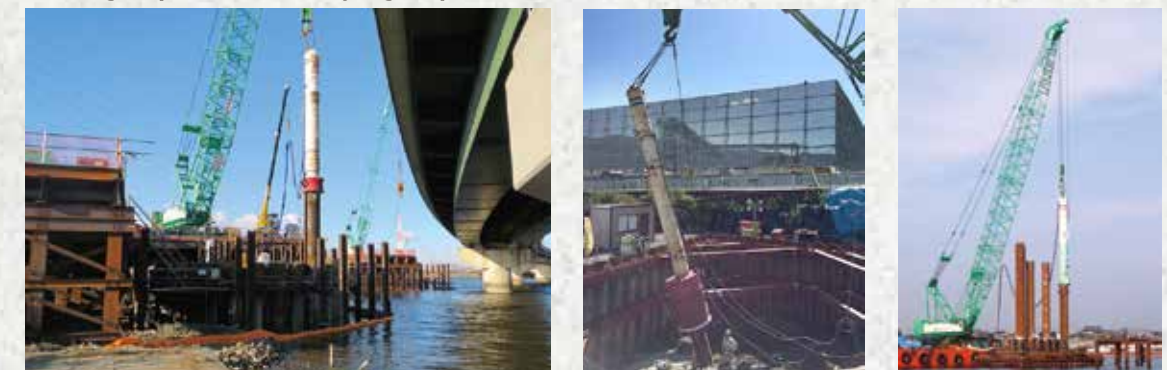
About Flying Hammer Method

Flying hammer method use crawler crane as a base machine, suspend the impact hammer or vibratory hammer to drive steel pipe pile and SPSP.

Advantages of Flying Hammer Method

Flying hammer method have larger working radius than method using a three point pile driver. Therefore, if have to make a landing platform, this method need smaller area of structure, so can shorten the working period and cost of temporary structure get lower. In addition, the most advantage is to drive pile without using the three point pile driver.

Driving experiences of flying impact hammer



Driving experiences of flying vibratory hammer



Formula for lifting load vibratory hammer

1 Formula of Technique Society of Vibratory Hammer (coefficient α is 1/6 or 1/4)

Driving work,
extracting work

$$F = Wc + W + Wp + (Po/g \times \alpha)$$

2 Formula for using heavy duty vibratory hammer (Vibratory hammer with output ≥ 90 kW, or centrifugal force ≥ 1265 kN)

Driving work

$$F = (Wc + W + Wp) \times Ws$$

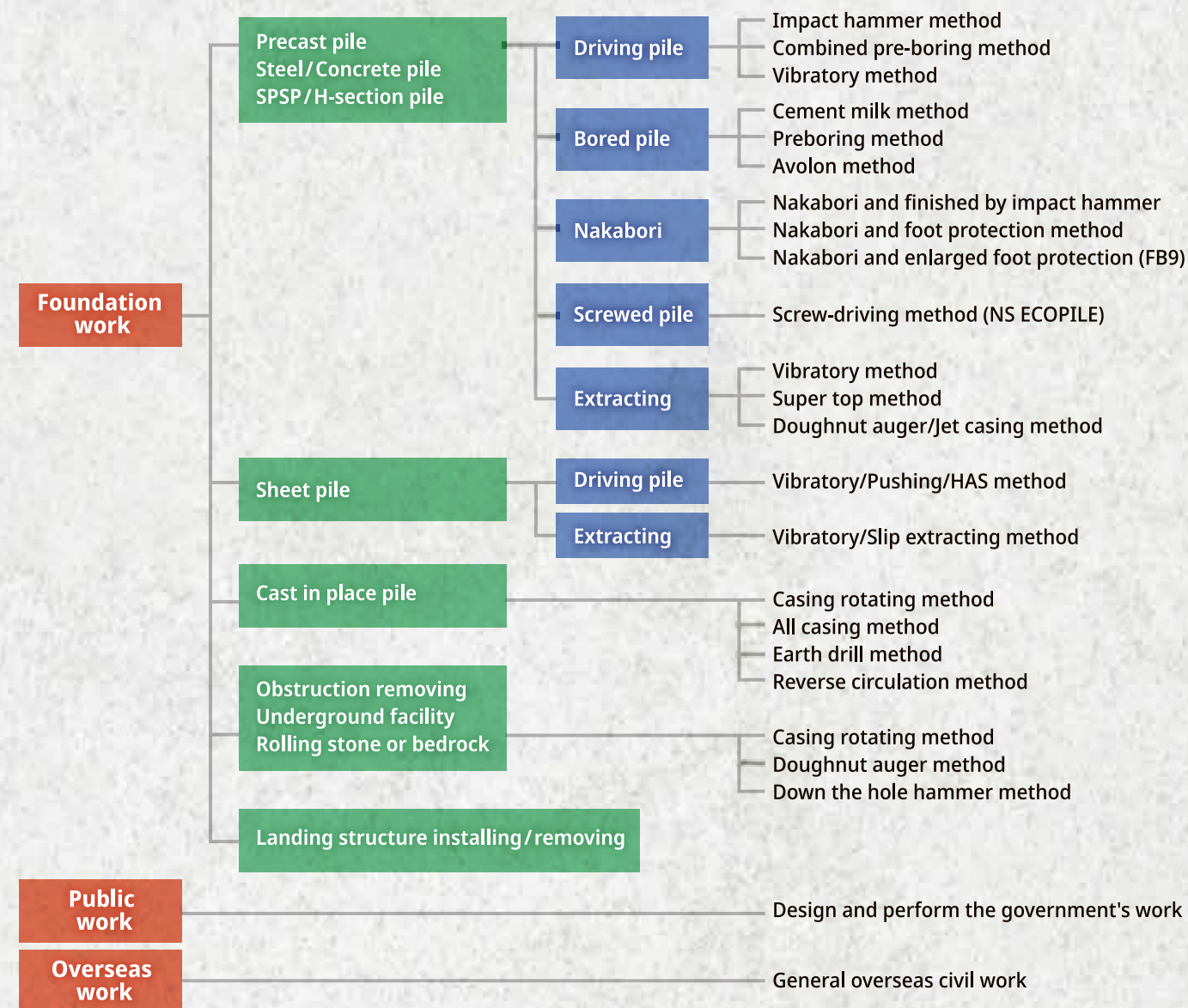
Extracting work

$$F = (Wc + W + Wp + Wr) \times Ws$$

F : Lifting load of crane (t)
 Wc : Weight of hook (t)
 W : Weight of vibratory hammer (t)
 Wp : Weight of pile (t)
 Po : Max. centrifugal force (kN)
 α : Working coefficient | Driving work=0.15
 Extracting work=0.25
 Ws : Safety factor=1.2
 Wr : Dynamic friction resistance (kN)

*If there is no specific request from clients, we consider using crawler crane for heavy duty vibratory hammer base on formula 2.

With rich experience and large number of machines We can meet the need of clients



Driving with vibratory hammer and finish striking with impact hammer method



Hydraulic impact hammer



Hydraulic vibratory hammer



Impact hammer driving method



Impact hammer combined with waterjet driving method



Bedrock drilling and SPSP driving method (Dam construction)



NS ECO PILE



Super top method (Obstruction removing)



FB9Method



Doughnut auger method

Overseas work



(Vietnam)



(Bangladesh)



(Solomon)

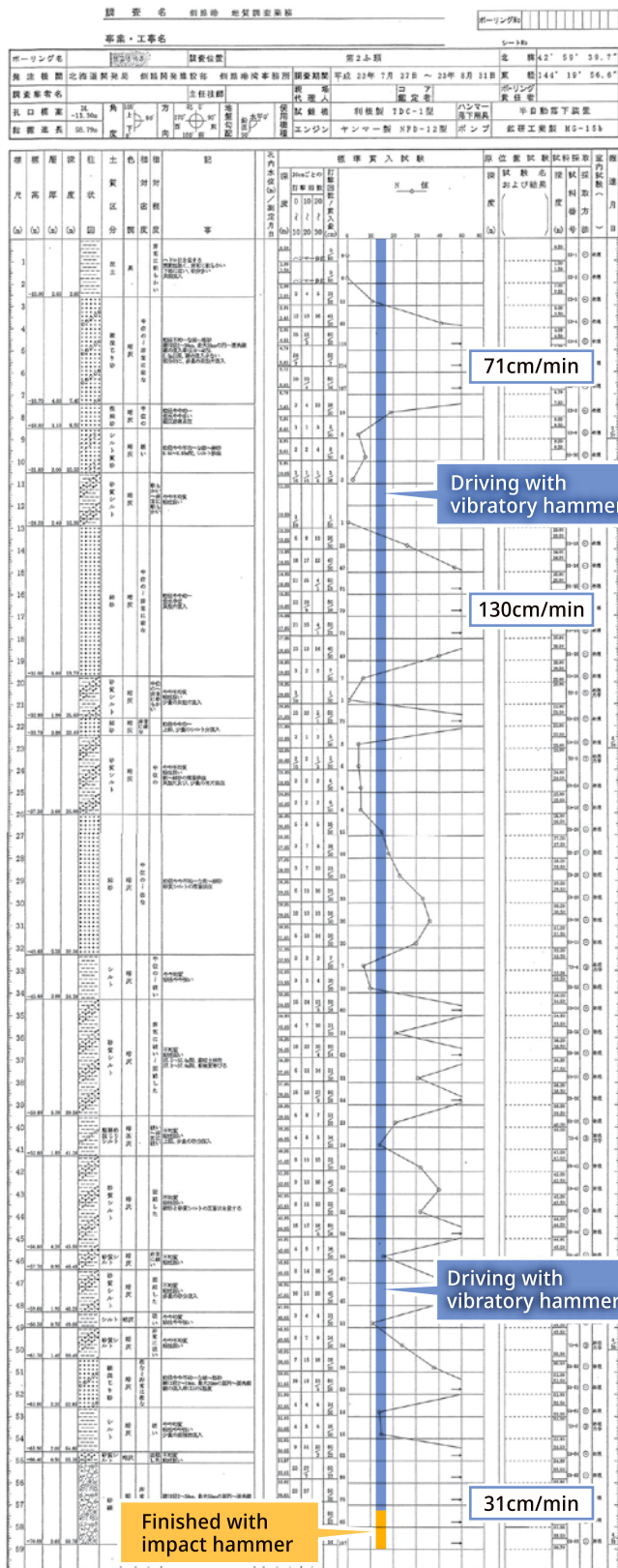


Hydraulic impact hammer S-350 (made in Netherlands)

Driving work result with hydraulic vibratory hammer (PVE-200M)

■ Steel pipe pile (SKK490) $\Phi=1,600\text{mm}$
 $t=16/20/27\text{mm}$
 $L=73.6\text{m(Penetration=59.3m)}$

■ Boring log



Source:Ministry of Land, Infrastructure, Transport and Tourism.
Kushiro Port and Harbor Office in Hokkaido

■ View of work



■ Driving status



■ PVE-200M



Overview of PVE vibratory hammer

Vibratory hammer(Asset)		PVE-200M	PVE-150M	PVE-110M	PVE-82M	PVE-55M
Max. power	kW	980	754	557	518	359
Eccentric moment	N m	1,962	1,471	1,079	794	530
Frequency	rpm	0-1,400	0-1,400	0-1,350	0-1,700	0-1,700
Centrifugal force	kN	0-4,300	0-3,224	0-2,198	0-2,567	0-1,711
Amplitude(excluding clamp)	mm	9.5	14.3	15.5	15.0	15
Dynamic weight	ton	21.0	10.5	7.0	5.4	3.58
Body weight (excluding clamp)	ton	30.0	17.5	12.0	7.9	5.7
Total weight (including clamp)	ton	37.0	24.5	14.7	10.6	7.7
Clamping gap (for pipe pile)	mm	44	44	44	44	44
Dimension (including clamp)	(L)	mm	3,860	3,862	3,240	2,662
	(W)	mm	1,600	1,040	1,205	678
	(H)	mm	4,050	3,221	3,210	3,180
Applicable pile diameter	mm	1,200-3,300	700-1700	700-1,700	700-1,700	700-1,700

Standard crawler crane (for reference as base machine)

Crane 500t	6000SLX				
	CC2500				
Crane 350t	SL4500J	SL4500J	SL4500J	SL4500J	
Crane 200t		CCH2000	CCH2000	CCH2000	CCH2000
		SCX2000	SCX2000	SCX2000	SCX2000
Crane 150t					CCH1500
					SC1500

■ PVE-110M operating



■ PVE-82M operating



■ PVE-55M operating



Recovery and Reconstruction works from the Great East Japan Earthquake - Map



Please refer to the content of Completed projects for the other project's information.

Recovery and reconstruction projects

Prefecture	No. (North to South)	Period	Location	Name	Remarks
Iwate	1	06/2014	Noda village	Sea wall work	PC pile driving
	2	08/2015	Kamaishi city	Sale facility of fish-market work	Steel pipe pile rotate driving
	3	07/2014	Ofunato city	River system grade-2 recovery (No. 23-635), Kawakuchi Bridge substructure work	SPSP driving
	4	07/2014	Ofunato city	Recovery work in Chayamae area (No. 23-124 & 149)	Steel pipe pile driving
Miyagi	5	08/2012	Kesennuma city	Ofunato Port (-6m) recovery work	Steel pipe pile driving
	6	12/2015	Kesennuma city	Okawa River recovery work (part 2)	Steel pipe pile driving
	7	10/2013	Ishinomaki city	National Route 45, Ishinomaki road (Shintenzo Bridge) substructure work	SPSP driving
	8	10/2014	Ishinomaki city	Bridge substructure work in Obunakoshi	SPSP driving
	9	10/2014	Ishinomaki city	Tennou Bridge substructure recovery work	SPSP driving
	10	07/2015	Ishinomaki city	Tsukihama 2nd sluice gate recovery work	Steel pipe pile driving
	11	10/2015	Ishinomaki city	Mano River bridge substructure work (part 2)	SPSP driving
	12	08/2013	Ishinomaki city	Dike work in former Kitakami River	Sheet pile driving
	13	06/2012	Ishinomaki city	Ishinomaki wharf recovery work (part 2)	Steel pipe pile driving
	14	01/2016	Matsushima city	Shinjou River bridge (provisional name) substructure work	SPSP driving
	15	09/2012	Miyaginoku, Sendai	Sendai Port, Nakano area's wharf (-14m) attachment part improvement work	SPSP driving
	16	05/2013	Miyaginoku, Sendai	Sendai Port, Mukainada area's wharf (-14m) recovery work	Steel pipe pile driving
Fukushima	17	02/2015	Namie town	Waste treatment work in Namie town (Volume reduction treatment)	Steel pipe pile rotate driving
	18	10/2012	Okuma town	Seaside wall facility work in Fukushima Daiichi Nuclear Power Plant (section 1)	SPSP driving
	18	08/2015	Okuma town	Seaside wall facility work in Fukushima Daiichi Nuclear Power Plant (section 1)	SPSP driving
	19	11/2012	Okuma town	Fukushima Daiichi Nuclear Power Plant Unit 1- 4 mountain side groundwater bypass installing work	Well pipe installing
	20	09/2012	Naraha town	Recovery work of national route in Iwaki (part 3)	Steel pipe pile driving
	21	10/2014	Naraha town	Foundation work of Fukushima mock-up test facility	Steel pipe pile driving
	22	02/2015	Iwaki city	Public facility recovery work	Steel pipe pile driving
Ibaraki	23	08/2011	Higashiibarakigun	Road No.22-03-608-0-002 and No.22-03-937-0-004 combined bridge substructure work (A1)	PC pile driving
	24	08/2011	Tokai village	Landing wharf emergency recovery work in Tokai Daini Nuclear Power Plant	H-section pile driving
	25	07/2012	Tokai village	Landing wharf permanent recovery work in Tokai Daini Nuclear Power Plant	Steel pipe pile driving
	26	04/2012	Hitachinaka city	Hitachinaka Port North wharf (-14m) recovery work	Steel pipe pile driving
	26	06/2012	Hitachinaka city	Hitachinaka Port North wharf (-12m) recovery work	Steel pipe pile driving
	27	07/2011	Oarai town	Oarai area, National Route 51 recovery work (part 2)	Steel pipe pile driving

Completed projects -1

● Steel pipe sheet pile (SPSP) driving work

Project name	Location	Work detail		Qty	Remarks
Haneda Terminal 1,2 and internal road	Ota, Tokyo	Φ800~1000	L=21.5~43.0m	1,724	
Metropolitan Expressway KE route viaduct work	Ota, Tokyo	Φ1000~1200	L=31.4~56.5m	1,110	
Metropolitan Expressway bayshore route (BT316 & BK313)	Ota, Tokyo	Φ1500~1800	L=82.0~91.0m	656	
Tokyo Bay connecting road (Kawasaki artificial island & East Kawasaki)	Kawasaki, Kanagawa	Φ800~1200	L=21.0~57.0m	754	
Rinkai Line turning right structure work	Koto, Tokyo	Φ800~1000	L=22.5~28.5m	669	
Ise Bayshore Route Shintama viaduct East area (substructure) work	Tokai, Aichi	Φ1000	L=33.0~40.0m	536	
Tokyo Bay Southern area Rinkai route bridge substructure work (Tokyo Gate Bridge)	Koto, Tokyo	Φ1500	L=56.5~82.5m	437	
Work dealing with soil contamination problem of Toyosu Market	Koto, Tokyo	Φ800	L=2.0~28.5m	1,667	9 Pier offshore
Kano River dam tunnel's new facility for recharging flood water	Ozu, Ehime	Φ1500	L=44.0~60.0m	97	
Storage weir work in Kashiwazaki Kariwa Nuclear Power Plant	Kashiwazaki, Niigata	Φ1100~1200	L=10.0~10.5m	452	
Amagase Dam renewal work	Uji, Kyoto	Φ1500	L=17.0~45.0m	92	
Tobishima Bridge substructure work	Nagoya, Aichi	Φ1000	L=39.5~44.0m	450	
Kanazawa Port (South area) wharf (-7.5m) improvement work	Kanazawa,Ishikawa	Φ1000	L=28.5m	242	

● Steel pipe pile driving work

Project name	Location	Work detail		Qty	Remarks
Japan Highway Public Corporation (Tomei expressway)	Kanagawa & Shizuoka	Φ500~600	L=14.0~40.0m	4,715	
Japan Highway Public Corporation (Higashi Kanto expressway)	Chiba	Φ600~812.8	L=12.0~46.0m	5,615	
Former Nihon Kokan (Tobishima)	Kawasaki & Yokohama, Kanagawa	Φ500~900	L=35.0~66.0m	20,091	
Tokyo International Airport related work	Ota, Tokyo	Φ600~1200	L=32.0~80.0m	4,096	
Internal river (Oyoko River, Shingashi River, Sendaibori River)	Tokyo	Φ700~1000	L=22.5~46.0m	3,836	
Misato Water Purification Plant	Misato, Saitama	Φ600~700	L=26.0~30.0m	4,715	
Futtsu Thermal Power Plant main building no.3	Futtsu, Chiba	Φ800~1300	L=10.5~41.0m	1,476	
Joetsu Thermal Power Plant foundation work	Joetsu, Niigata	Φ318.6~1000	L=33.0~71.0m	3,058	
Kawagoe Thermal Power Plant LNG foundation work	Mie city, Mie	Φ500~800	L=16.0~56.5m	2,352	
Niigata Port (east) wharf construction	Niigata city, Niigata	Φ800~1000	L=24.0~42.8m	312	Battered pile
Kawasaki Thermal Power Plant foundation work	Kawasaki, Kanagawa	Φ600	L=47.0~70.0m	2,338	
Nishi-Nagoya Thermal Power Plant main building no.7	Ama district, Aichi	Φ500~1000	L=48.0~67.8m	4,057	

● Steel pipe pile driving work (FB9 Method)

Project name	Location	Work detail		Qty	Remarks
Second Tomei Expressway Toyota Junction	Toyota, Aichi	Φ800	L=21.5~27.5m	280	SPSP
Maihama Resort Line construction	Urayasu, Chiba	Φ700	L=43.5~77.0m	260	
Tokyo Port Seaside Road, Jonanjima side evacuation pathway construction	Ota, Tokyo	Φ500~600	L=52.0~70.0m	131	
Yokohama Port International passsenger terminal construction	Yokomaha, Kanagawa	Φ600~1200	L=25.0~60.0m	484	
Second Tomei Expressway Kamigo viaduct substructure work	Toyota, Aichi	Φ800	L=15.5~32.0m	440	SPSP
Nikko River water discharge system work (pump station structure)	Bisai, Aichi	Φ800	L=18.0~20.0m	631	
Nissin Seto route Nagakute substructure work	Aichi district, Aichi	Φ1200	L=13.5~22.5m	161	
Nabeta wharf entrance viaduct substructure work	Yatomi, Aichi	Φ800	L=37.0~45.5m	207	
Inbanuma B substructure work	Narita, Chiba	Φ1000	L=39.0~46.0m	480	SPSP
National Route 464 Inba waterway bridge pier	Inba district, Chiba	Φ1000	L=34.5~37.5m	116	SPSP
Shin River water treatment facility construction	Kiyosu, Chiba	Φ800	L=19.5~25.0m	353	
Yokkaichi Port Kasumigaura area road (main line no.4) bridge substructure work	Mie district, Mie	Φ800~1000	L=41.5~47.0m	210	SPSP
Taketoyo Thermal Power Plant construction	Chita district, Aichi	Φ500~700	L=6.0~32.5m	2,505	

Completed projects -2

● Screwed steel pile driving work (NS ECO-PILE)

Project name	Location	Work detail		Qty	Remarks
Waste treatment facility of Recycle Plaza construction	Nishikabara, Niigata	Φ355.6~609.6	L=34.0~60.0m	293	
Rinkai Railway Sanjofuto line viaduct construction	Nagoya, Aichi	Φ1000~1200	L=31.5~53.5m	603	
Tokyo International Airport related work	Ota, Tokyo	Φ500~1200	L=44.0~82.2m	679	
ProLogis Park Osaka II project	Osaka city, Osaka	Φ800~1600	L=67.5~70.2m	236	
New ProLogis Park Osaka construction	Osaka city, Osaka	Φ1000~1200	L=66.7m	268	
Storehouse civil work for runway relocation in Iwakuni Air Base	Iwakuni, Yamaguchi	Φ500~1000	L=30.0~37.5m	636	
SGH Logistic Yokohama new construction	Yokohama, Kanagawa	Φ600~1600	L=20.0m	219	
Osaka detention house management building construction (period 1)	Osaka city, Osaka	Φ1600	L=15.0~22.0m	228	
(Provisional name) Tajimi Logistic Center construction	Tajimi, Gifu	Φ900~1400	L=16.8~25.9m	158	
New Meishin Expressway Komaki viaduct no.1 substructure work	Yokkaichi, Mie	Φ800~900	L=6.5~8.5m	659	
Fukuyama Transporting Co.,Ltd Tokyo branch terminal building & company housing reconstruction	Koto, Tokyo	Φ900~1500	L=31.5~39.5m	168	
Nagoya ring road No.2 Umenogo viaduct substructure work	Ama district, Aichi	Φ800	L=31.0~40.0m	217	

● Cast in place pile

Project name	Location	Work detail		Qty	Remarks
Sunamachi Water Reclamation Center	Koto, Tokyo	Φ2300~2500	L=64.0~69.5m	343	Reverse
Tohoku Shinkansen Shingashi River B substructure work	Itabashi, Tokyo	Φ1270~2400	L=20.0~36.0m	198	Reverse
(Provisional name) Itochu Sagamihara warehouse new construction	Sagamihara, Kanagawa	Φ1800~2000	L=1.6~2.15m	113	Earth drill
Mansion MM21 & 39 block construction	Yokohama, Kanagawa	Φ2000~2500	L=31.2~43.0m	73	Casing rotating
Chita connecting road construction	Tokoname, Aichi	Φ1200	L=15.5~28.0m	130	Casing rotating
High speed railway no.5 Hayabuchi River section civil work	Yokohama, Kanagawa	Φ1000~1500	L=11.0~22.0m	134	Casing rotating
Ise retention basin (2) construction	Isehara, Kanagawa	Φ1300	L=26.0m	85	Casing rotating

● Sheet pile driving work

Project name	Location	Work detail		Qty	Remarks
Sunamachi Water Reclamation Center related facility	Koto, Tokyo	III-VL	L=6.0~26.0m	29,236	
Misato Water Purification Plant related work	Misato, Saitama	III-VL	L=3.0~26.0m	16,153	
Joban Expressway (Kitaibaraki & Toyoichi section)	Ibaraki - Chiba	III-VL	L=8.0~18.0m	5,112	
Ayase River sluice gate work	Katushika, Tokyo	III-VL	L=10.0~19.5m	7,614	
Rinkai Line related work	Koto, Tokyo	III-IV	L=5.5~29.5m	39,500	
Ariakekita area utility tunnel work	Koto, Tokyo	IV-VL	L=14.0~19.0m	7,539	
Tokyo International Airport related work	Ota, Tokyo	II-VL	L=5.5~28.5m	58,212	

● H-section pile driving work

Project name	Location	Work detail		Qty	Remarks
Hokuso Line Kuriyama ST	Matsudo, Chiba	H-350	L=17.0~22.5m	732	
Rinkai Line related work	Koto, Tokyo	H-350~400	L=15.0~29.5m	7,805	
Drilling work (part 1) in Akiruno	Akiruno, Chiba	H-300	L=9.0~22.0m	1,153	
Kitasenju Station improvement work	Adachi, Tokyo	H-300~400	L=5.0~42.0m	834	
Edo River No.2 water treatment plant construction (part 74)	Ichikawa, Chiba	H-300	L=5.0~60.0m	733	
Minamitanaka Tunnel (provisional name) construction (part 3)	Nerima, Tokyo	H-300~400	L=10.5~15.3m	566	

Completed projects -3

● PHC Pile

Project name	Location	Work detail		Qty	Remarks
Sunamachi Water Reclamation Center related facility	Koto, Tokyo	Φ450-800	L=30.0-65.0m	13,591	
Kasai Water Reclamation Center	Edogawa, Tokyo	Φ500-600	L=28.0-56.0m	9,299	
Morigasaki Water Reclamation Center	Ota, Tokyo	Φ600	L=6.0-44.0m	9,522	
Nakagawa Water Reclamation Center	Misato, Saitama	Φ600	L=45.0-55.0m	2,487	
Japan Convention Center	Chiba city, Chiba	Φ500-600	L=40.0m	2,593	
Eastern Saitama Waste treatment facility construction	Koshigaya, Saitama	Φ450-600	L=31.0-46.0m	2,101	

● All-casing rotating method (Super Top method): Bedrock drilling & obstruction removing

Project name	Location	Work detail		Qty	Remarks
Minato Mirai 21 central area ground improvement	Yokohama, Kanagawa	Φ2000	L=10.5-35.0m	1,643	Pine pile,Waste
(Provisional name) Shinsuna project new construction	Koto, Tokyo	Φ1500-3000	L=7.0-18.1m	519	Steel,concrete waste
Obstruction removal and ground improvement in Sharp's Sakai factory	Sakai, Osaka	Φ3000	L=17.6m	802	Mine layer
Obstruction removal work in Toyosu 3-2 planed area internal road	Koto, Tokyo	Φ2000	L=7.00-20.63m	298	Substructure
Kano River dam tunnel's flood spillway construction period 2011-2015	Ozu, Ehime	Φ2000	L=14.8-33.0m	97	Bedrock
Amagase dam renewal tunnel related work	Uji, Kyoto	Φ2000	L=20.6-41.9m	92	Bedrock

● Doughnut method : Bedrock drilling & obstruction removing

Project name	Location	Work detail		Qty	Remarks
No.15 Lumber wharf improvement work	Koto, Tokyo	Φ800-1000	L=7.5-17.5m	7,041	Cobblestone
Obstruction removal and ground improvement in Sharp's Sakai factory	Sakai, Osaka	Φ1200-1300	L=3.5-37.0m	5,589	Mine layer
Kashiwazaki Kariwa Nuclear Power Plant foundation work	Kashiwazaki, Niigata	Φ1200-1400	L=12.5-30.0m	1,036	Concrete waste
Sendai Nuclear Power Plant's special facility	Sasumasendai, Kagoshima	Φ800	L=9.5-25.5m	120	Slate

● Down the hole hammer method : Bedrock drilling

Project name	Location	Work detail		Qty	Remarks
Industrial waste final treatment site construction (civil work)	Yokosuka, Kanagawa	Φ318.5-500	L=12.3-16.5m	807	
Kano River dam tunnel's flood spillway construction period 2011-2015	Ozu, Ehime	Φ608	L=47.0m	38	
Amagase Dam renewal tunnel related work	Uji, Kyoto	Φ608	L=27.6-47.9m	72	

● Reverse circulation : Bedrock drilling

Project name	Location	Work detail		Qty	Remarks
Kamakura Base's tunnel work	Kamakura, Okayama	Φ2100	L=73.0m	1	
Eastern Bosphorus Bridge construction	Russia	Φ2000	L=60.0-75.0m	120	
Tsuruga Nuclear Power Plant Unit 2's water tank installation	Tsuruga, Fukui	Φ2000	L=17.8-30.9m	11	

● Extracting work

Project name	Location	Work detail		Qty	Remarks
Tama River tunnel BK-313	Hino, Tokyo	SPSP Φ1500	L=14.5-22.5m	129	Vibratory hammer
Tokyo International Airport related work	Ota, Tokyo	SP III-VL	L=3.0-18.5m	8,733	Vibratory hammer
Tone River's substructure work	Kasiwa, Chiba	PP Φ1000-1200	L=11.5-16.9m	228	Vibratory hammer
Nippon Oil Corporation's Kawasaki Office driven pile removing work	Kawasaki, Kanagawa	Pine pile Φ180	L=7.0m	2,380	Water jet & vibratory hammer
		PHC Φ250-600	L=7.0-10.0m	6,159	

Completed projects -4

● Overseas work

Project name	Country	Main Contractor	Work detail		Qty
IJPC Plant construction	Iran	Kajima & Fudo Tetra JV	PC	Φ300-500	L=26.0-34.0m 23,330
Iscott Ironworks	Trinidad and Tobago	Kajima Corporation	H	400×400	L=32.0-36.0m 2,175
Sumitomo chemical plant	Singapore	Kajima Corporation	SCP	400×400	L=13.0-15.0m 1,725
CIMA Cement Factory	Malaysia	Kajima Corporation	CIP	Φ1500	L=15.0-28.0m 860
Yangon Sport Stadium	Myanmar	Kajima Corporation	PC	Φ400-600	L=31.0-40.0m 1,380
Port Harcourt oil plant	Nigeria	Taisei Corporation	PC	Φ500	L=23.0-26.0m 1,913
Annaba Ammonia tank	Algeria	Kajima Corporation	PP	Φ800	L=80.0m 332
Assiut Power Plant	Egypt	Kajima Corporation	PC	Φ600	L=35.0-40.0m 500
LAR Kowloon Station - Contract No. 503C	Hongkong	Kumagai Kumi JV	CIP	Φ1500-2500	L=29.0-89.0m 250
Paiton Power Station	Indonesia	Toa Construction Corp.	CIP	Φ2500	L=30.0-33.0m 60
Second Magsaysay Bridge	Philippines	Toa Construction Corp.	SPSP	Φ1000	L=64.0m 44
Orchard-Turn Building	Singapore	Penta Ocean Construction Co.,Ltd	ROE	Φ2000	L=10.0-20.0m 325
Manzanillo LNG terminal	Mexico	Toa Construction Corp.	PP	Φ600-1200 (battered pile)	L=22.0-34.0m 368
Eastern Bosphorus Bridge	Russia	IHI Corporation	CIP	Φ2000	L=60.0-75.0m 120
Paiton Power Station period 3	Indonesia	Toa Construction Corp.	PP	Φ800-1500	L=36.0-40.0m 45
Goyave Fisherman's wharf	Grenada	Toa Construction Corp.	PP	Φ700	L=11.5-14.0m 46
Improvement of Honiara Port facilities	Solomon Islands	Toa Construction Corp.	SPSP	Φ600-900	L=19.0-40.5m 169
Binkain Bridge North South Highway Construction (Part J1)	Vietnam	Shimizu & Vinaconex JV	SPSP	Φ1500	L=53.5-63.5m 162
The Construction of Kanchpur, Meghna,Gumti 2nd Bridges And Rehabilitation of Existing Bridges (Package No.PW-01)	Bangladesh	*1	SPSP	Φ1000	L=28.0-78.0m 1,125

(Ref) PC : Precast concrete pile, H : H-section pile, PP : Steel pipe pile, SPSP : Steel pipe sheet pile, SP : Sheet pile, SCP : Square Concrete pile
CIP : Cast-In-Place Pile (All-casing rotating method), ROE: Remove obstacles Engineering.
*1 : Obayashi Corporation,Shimizu Corporation,JFE Engineering Corporation,IHI Infrastructure Systems

● Civil work

Project name	Location	Employer	Description
1988 Kasai Rinkai Park substructure work	Edogawa, Tokyo	Tokyo Bureau of Port and Harbor	Bridge pier
Road paving (part 14) and maintenance work	Edogawa, Tokyo	Edogawa Civil Division	Paving
Sogo Recreation Park connecting bridge (part 1)	Edogawa, Tokyo	Edogawa Environment Foundation	Bridge pier
Sumida River (Sakura bridge upstream) right bank's terrace and boat dock	Taito, Tokyo	Tokyo Bureau of Construction	River wall
New Transit Waterfront Line (5-6)	Koto, Tokyo	Tokyo Bureau of Construction	Bridge pier
Tatsumi new bridge substructure work	Edogawa, Tokyo	Edogawa Civil Division	Bridge pier
Tokyo connecting footbridge substructure work	Minato, Tokyo	Tokyo Bureau of Port and Harbor	Bridge pier
Harumi area's utility tunnel construction in 1992 (part-2)	Koto, Tokyo	Third Sector Operators	Utility tunnel
Odaiba Seaside Park's observation deck foundation work in 1992	Minato, Tokyo	Tokyo Bureau of Port and Harbor	Foundation work
Former Naka River Promenade bridge (provisional name) substructure work	Edogawa, Tokyo	Edogawa Civil Division	Bridge pier
International Exhibition Center station (provisional name) connecting walkway substructure	Koto, Tokyo	Tokyo Bureau of Construction	Foundation work
Kaihin Park's utility tunnel,Observation deck substructure work	Minato, Tokyo	Tokyo Bureau of Port and Harbor	Utility tunnel
Kasai drainage pipe (800mm) new construction in Edogawa city	Edogawa, Tokyo	Tokyo Bureau of Waterwork	Pipe installing
Naka River's right bank aseismic reinforcing work	Edogawa, Tokyo	Tokyo Bureau of Construction	River wall
Koya ramp substructure (part 6)	Ichikawa, Chiba	MLIT (Metropolitan Expressway Office)	Bridge pier
Former Edo River (Higashi Kasai) bank aseismic reinforcing work (part 9)	Edogawa, Tokyo	Tokyo Government	River wall
Tokyo Port seaside road (period 2) Nanboku waterway (provisional) crossing bridge (part 1)	Koto, Tokyo	Tokyo Government	SPSP Foundation
Toyosu canal (Southern Toyosu Bridge) internal revetment (reinforcing) work (part 2)	Koto, Tokyo	Tokyo Bureau of Port and Harbor	Ground improvement
Naka River's bank aseismic reinforcing work (part 20)	Katsushika, Tokyo	Tokyo Bureau of Finance	River wall
Naka River's bank aseismic reinforcing work (part 20-2)	Katsushika, Tokyo	Tokyo Bureau of Finance	Observation deck