



Structural Pipe Piles

- ◆ Spiral Pipe Pile
- ◆ LSAW Pipe Pile
- ◆ Corrosion Protection Coating
- ◆ Logistics / Shipping



PMI International



Who We Are 3

Overview 4

Pipe Pile 6

Coating 14

Shipping & Logistic 15

Previous Projects 16

Who We Are

We are a team of Project Management and QA/QC Professionals based in China, North & South East Asia. We offer Expatriate Managers with highly qualified local support teams to oversee your manufacturing, fabrication, procurement and supply chain management. As part of our service, we provide sourcing of multi type of Structural Steel Pile for various industry including Civil Construction, Oil & Gas, Mining and Marine. Our highly experience team in Structural Steel Pile Fabrication and good partnership with various local fabricators is our key to success in delivering high quality products into various International quality standards within tight construction programs.

At PMI International, we are flexible. We bring management solutions designed to meet your specific needs.



Overview

PMI International is an established China strategic procurement business providing Associated Bulk Construction Material such as custom and standard sizes of structural steel piles, sheet piles and other related works to it. Our service also includes preparation of shop drawing, design, detailing, production supervision, and QA/QC. Our core business strategy of bringing customer satisfaction and trust to our customers is the key to our success.

- ◆ Our business is based on sourcing and services by providing competitive and low risk procurement by adding value and providing certainty to our Clients.
- ◆ In turn, this enables our Client to successfully win and deliver projects on-time and up to the required international applicable quality standard.

OUR EXPERIENCE & SPECIALITY

- ◆ Project Management Team by experienced Expats and Locals working in key International Projects that are highly experienced in Fabrication, Design, and Quality Control of Structural Steel Pile;
- ◆ Our Quality Control and Assurance Teams are built up from highly qualified personnel from both International and Local Organizations specifically experienced in Structural Steel Pile fabrication;

- ◆ Good partnership with various local fabricators (China) and International Freight Forwarder.
- ◆ We assist our customer in nominating the most suitable fabricator for production of custom piles designed for job specific requirements and applications.
- ◆ Full supervision throughout the fabrication activities including material selection, quality control, technical and engineering consultation, and shipping.



PMI delivers on its promises through:

- ◆ Highly Experienced Management Team;
- ◆ Deep knowledge and understanding in China Market and global demand;
- ◆ Subcontractors Partnerships;
- ◆ Thorough understanding of International quality requirements and expectations;
- ◆ Multi range in capability & process;
- ◆ Great potential, great value, and cost saving to our Customer.

Our Ability

- ◆ Huge and various Steel Pipe Fabrication capacity;
- ◆ Competitive market rates;
- ◆ Knowledge in China's fabrication market;
- ◆ Large variation in capability & process;
- ◆ Great potential, great value, and cost saving to our Customer.



Our Value

The value added from us is our key winning strategy and this has been proven successfully throughout our past projects. We have encountered and overcome the most critical issues and mistakes that are commonly overlooked by the customer. We consult and assist our customer in;

- ◆ **Technical** - Our Technical Specialist, Fabrication Superintendent, and Engineers are highly experienced in assisting and providing technical consultation based on the previous experienced dealing with critical and common issues in fabrication, assembly, and construction.
- ◆ **Design** - Our designers are capable to assist and add value in getting the most efficient fabrication method including coatings, fabrication process, and assembly to get the most cost effective way to our customer.
- ◆ **QA/QC and Supervision** - Our highly qualified Inspectors and Expeditors are capable to provide full fabrication supervision and quality control to assist the project in achieving the quality expectation. Our transparency is the key value plus we provide close monitoring and feeding our customer with regular report and information.
- ◆ **Logistic** - Our partnership with International shipping companies and our Logistic team is capable to assist the customer with the most effective way of delivery including consultation on nesting plans, vessel chartering, packing and delivery methods to get the most value (cost per revenue ton).
- ◆ **Supply Chain Management** - This is the most common area to be overlooked by the customer and resulting risks such as major delay, non-conformance, poor quality, and big cost impact. Our experienced Project Managers assisted by a team of experts are committed to deliver a project up to the customer satisfaction and eliminate the risks. This has been proven by our previous projects and lessons learnt in the past .



Pipe Piles

General Introduction

PMI International, we provides ERW (Electric Resistance Welded Pipe), and DSAW (Double Submerged Arc Welded), in Spiral Rolled and Longitudinal Rolled in a wide range of sizes and lengths to meet our customer's requirements. In addition, we provide value added services such as coating and welding to facilitate complete pipe pile solutions.

At PMI, we also provide full piling accessories as an attachment to the pile such as clutches, cutting shoe, conical points, backing rings, and splicers.



External Fit Cutting Shoe



Backing Ring



Internal Fit Cutting Shoe



Inside fit Conical Pint



Drive On Splice



**Inside fit Conical Pint
(Snub Nose)**

Products

Steel Pile

1. Spiral Welded Steel Pipe

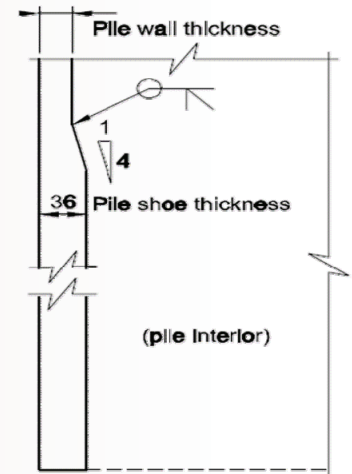
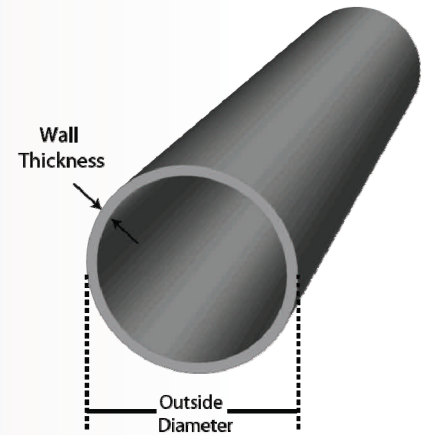
- ◆ Outside Diameter: $\text{Ø}400\text{mm} \sim \text{Ø}3,650\text{mm}$
- ◆ Wall Thickness Range: 6mm~25.4mm

2. Longitudinal Welded Steel Pipe (LSAW)

- ◆ Outside Diameter: Greater or not less than $\text{Ø}800\text{mm}$
- ◆ Wall Thickness Range: 6mm~110mm

3. Stainless Steel Pipe for High Temperature & General Corrosive Service

- ◆ Standard: ASTM A312, JIS and EN
- ◆ Outside Diameter: Seamless Pipe from $\text{Ø}8\text{mm} \sim \text{Ø}810\text{mm}$ and Welded Pipe from $\text{Ø}8\text{mm} \sim \text{Ø}3,200\text{mm}$
- ◆ Steel Grade: 304, 304L, 316L, 310S, 310H, 317, 321 & Duplex



Coating System

Automated & Conventional Coating System

- ◆ Fusion Bonded Epoxy Coating
- ◆ Extra Strength Ultra High Build Epoxy
- ◆ Ultra High Build Epoxy
- ◆ High Build Epoxy Coating
- ◆ Optional of Two (2) Coats / Three (3) Coats Coating



Pipe Standard

1. American Standard

- ◆ API 5L Specification for Line Pipe
- ◆ ASTM A252 Standard Specification for Welded and Seamless Steel Pipe Piles
- ◆ ASTM A139 / A139M Standard Specification for Electric-Fusion (Arc)-Welded Steel Pipe

2. Japanese Standard

- ◆ JIS A5525 Steel Pipe Piles

3. Australia Standard

- ◆ AS1597 Arc-welded Steel Pipes and Fittings for Water and Waste Water
- ◆ AS 1163 Cold-Formed Structural Steel Hollow Sections

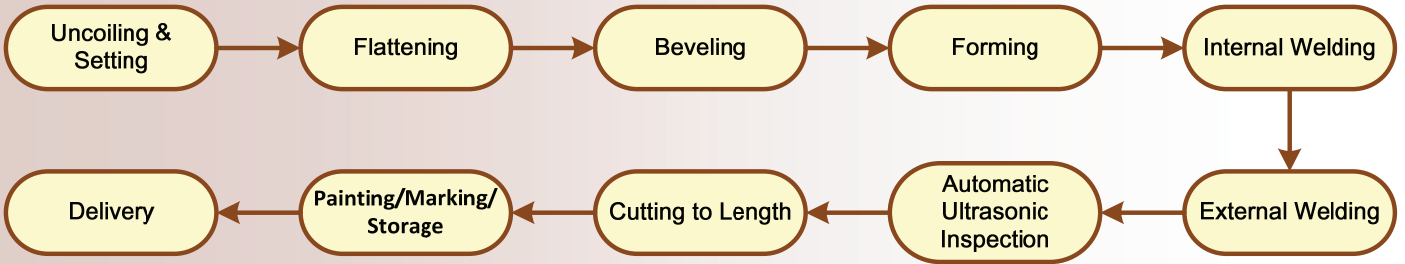
4. Chinese Standard

- ◆ JTS257-2008 Standard for Quality Inspection of Port and Waterway Engineering Construction
- ◆ TB10212-2009 Code for Fabrication of Railway Steel Bridge
- ◆ JTS167-4-2012 Code for Pipe Foundation of Harbor Engineering
- ◆ SY/T5040-2012 Welded Steel Pipe Piles
- ◆ SY/T5037-2012 Submerged Arc-welded Steel Pipe for Common Fluid Service Pipeline
- ◆ JTG/TF50-2011 Technical Specification for Construction of Highway Bridge and Culverts
- ◆ GB50268-2008 Code for Construction and Acceptance of Water and Sewerage Pipeline Works
- ◆ DL5017-2007 Specification for Manufacture Installation and Acceptance of Steel Penstocks in Hydroelectric and Hydraulic Engineering
- ◆ GB150-2011 Steel Pressure Vessels
- ◆ GB/T9711.3-2005 Petroleum and Natural Gas Industries—Steel Pipe for Pipelines

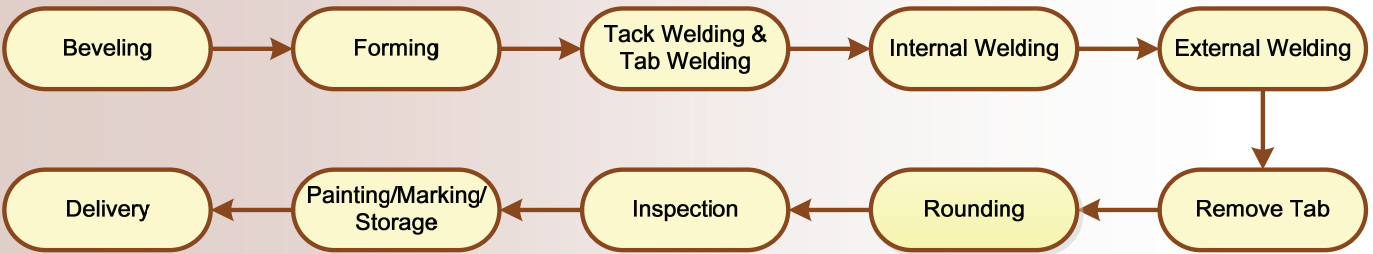


Fabrication Process

SSAW Steel Pipe Manufacturing Process



LSAW Steel Pipe Manufacturing Process



Steel Standards

Below is a lists of the most common steel grades that are readily available in stock. Steel properties comparison is explained in the table on page 12.

1. Chinese Standard (GB)

- ◆ Carbon Structural Steel: Q235, Q275
- ◆ Low-Alloy High-Tensile Structural Steel: Q345, Q390, Q420, Q460, Q490

2. American Standard (ASTM)

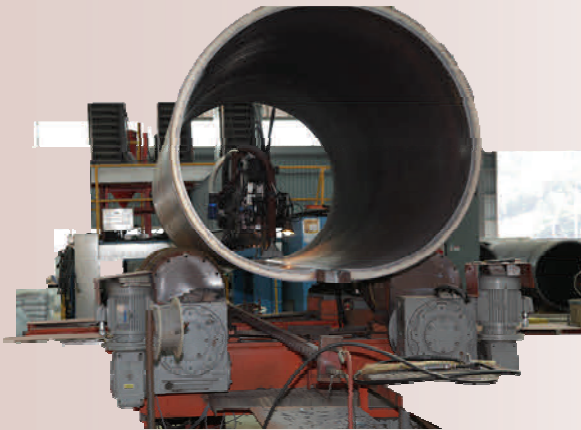
- ◆ L290 or X42, L320 or X46, L360 or X52, L390 or X56, L415 or X65, L458 or X70

3. European Standard (EN)

- ◆ Hot Rolled Non-Alloyed Steel : S235JR, S235J0, S235J2, S275R, S275J0, S275J2, S355JR, S355J0, S355J2, S355K2, S450J0

4. Japanese Standard (JIS)

- ◆ General Structural Steel: SS400, SS490, SS540



STEEL GRADE (INTERNATIONAL GRADE & STANDARDS COMPARISON)

									Min. Tensile Strength (Mpa)
AUSTRALIAN	EUROPEAN	BRITISH	GERMAN	JAPANESE	CANADIAN	AMERICAN	INTERNATIONAL	CHINESE	
AS 3678	EN 10025	BS 4360	DIN 17100	JIS	CSA	ASTM	ISO 630	GB/T 700	
									290
200			St33						300
						A238A	Fe310-0		310
				G3101-SS330					330
	S235JR	40A, B, C, D	St37-2 St37-3			A283B	Fe360A, B, C, D		360
								Q235	370
						A283C			380
									390
				G3101-SS400 G3106- SM400A, B, C	38W	A36 A537-400			400
250 250L15	S275JR S275J0 S275J2G3 S275J254		St44-2 St44-3			A238D A284C A529 A572-290		Q275	410
300, 300L15	Fe430B, C, D1, D2	43A, B, C, D				A633A	Fe430A, B, C, D	Q295	430
350 350L15						A573-450 A572-345			450
								Q345	470
400, 400L15						A573-485			480
	S355JR S355J0 S355J2G3 S355J2G4	50A, B, C, D	St52-3	G3101-SS490 G3106- SM490A, B, C G3106- SM490YA, YB			Fe510B, C, D	Q390	490
450, 450L15				G3106- SM520B, C	44W	A572-415	Fe510B, C, D	Q420	520
				G3101-SS540					540
								Q460	550

RANGE OF PIPE AVAILABLE

DIAMETER / THICKNESS (Kg/m)

Thk(mm) OD(mm)	5	6	7	8	10	12	14	16	18	20	22	24	25.4
406	49.50	59.19	68.88	78.52	97.66	116.60	135.34						
426	51.91	62.15	72.33	82.47	102.59	122.52	142.25						
457	55.73	66.73	77.68	88.58	110.24	131.69	152.95						
476	58.32	69.84	81.31	92.73	115.42	137.91	160.20						
508	62.02	74.28	86.49	98.65	122.81	146.79	170.56	194.14					
529	64.61	77.39	90.11	102.79	127.99	153.00	177.81	202.42					
559	68.31	81.83	95.29	108.71	135.39	161.88	188.17	214.26					
610	74.60	89.37	104.10	118.77	147.97	176.97	205.78	234.38					
630	77.07	92.33	107.55	122.72	152.90	182.89	212.68	242.27	271.68				
662	81.01	97.07	113.07	129.03	160.79	192.36	223.73	254.90	285.88				
711	87.06	104.32	121.53	138.70	172.88	206.86	240.65	274.24	307.63				
720	88.16	105.65	123.09	140.47	175.10	209.52	243.75	277.79	311.62	345.36	378.70		
762	93.34	111.86	130.34	148.76	185.45	221.95	258.26	294.36	330.27	356.98	401.49		
813	99.63	119.41	139.14	158.82	198.03	237.05	275.86	314.48	352.91	391.13	429.16		
820	100.50	120.45	140.35	160.20	199.76	239.12	278.28	317.25	356.01	394.58	432.96		
864	105.92	126.96	147.94	168.88	210.61	252.14	293.47	334.61	375.55	416.29	456.83		
914	112.09	134.36	156.58	175.85	222.94	266.94	310.73	354.34	397.74	440.95	483.96		
920	112.83	135.24	157.61	179.93	224.42	268.71	312.81	356.70	400.40	443.91	487.21		
965		141.90	165.38	188.81	235.52	282.03	328.34	374.46	420.38	466.10	511.63		
1020		150.04	174.87	199.66	249.08	298.31	347.33	396.16	444.79	493.23	541.47	589.51	
1220		179.63	209.40	239.12	298.40	357.49	416.38	475.08	533.58	591.88	649.98	707.88	
1420				278.58	347.73	416.68	465.44	554.00	622.36	690.52	758.49	826.36	873.58
1620				318.03	397.05	475.87	554.49	632.91	711.14	789.17	867.00	944.63	998.86
1820				357.49	446.37	535.06	623.54	711.83	799.92	887.81	975.51	1063.01	1124.14
2020				396.95	495.70	594.24	692.59	790.75	888.70	986.46	1084.20	1181.38	1249.42
2035						598.68	697.77	796.67	895.36	993.86	1092.16	1190.26	1258.82
2220						653.43	761.65	869.66	977.48	1085.11	1192.53	1299.76	1374.70
2337						688.06	802.04	915.83	1029.42	1142.81	1256.01	1369.01	1447.99
2540						748.13	872.13	995.93	1119.53	1242.94	1366.15	1489.16	1575.15
2642						778.32	907.35	1036.18	1164.81	1293.25	1421.49	1549.53	1639.04
2845						838.39	977.43	1116.28	1254.93	1393.37	1531.63	1669.68	1766.20
3048						898.47	1047.52	1196.38	1345.04	1493.50	1641.77	1789.83	1893.36



Coatings

Our facilities offer a wide range of coating systems including automated and conventional coatings to suit our customer's design and requirements. There are various types of coating systems requirements depending on the specific design of the pile such as pile in atmospheric service (plant and marine), and for pilings (atmospheric, buried, immersed, and below the mud line). This is part of the essential area that our coating experts can add value to ensure our customer's design and requirement to a certain service life are met.

Deciding the right facility option to carry out such works is part of our specialty and our coating experts including Designers, Engineers, and Inspectors are highly experienced to ensure the products are meeting the applicable international specification and requirement.

Typical coating systems that are widely used including in marine environment type of pile:

Range of system available in both Automated and Conventional coating process such as;

1) Ultra High Build Epoxy -

- Interzone 485 UHB, Jotun Jotacoat UHB, and etc;

2) High Build Epoxy

- Interzone 954 MIO, Interzone 505 Glass Flake Epoxy, Jotun Marathon, Intergard 475HS and etc;

3) Fusion Bonded Epoxy Coatings

- Interzone 954 XS, Jotapipe DL 3001/3002/3003

4) High Build Polyurethane

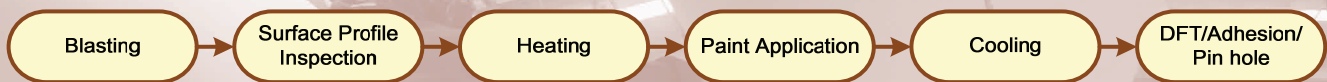
- Interthane 870

5) 2 or 3 Coats Coating System

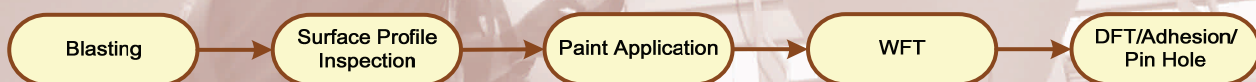
- Typical coating system (Zinc Rich Epoxy Primer + Midcoat MIO + Top Coat)



Automated Coating Process Flow Chart



Conventional Coating Process Flow Chart

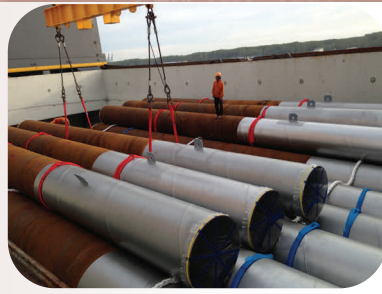


Shipping & Logistics

Our fabricators are strategically located on or close to deep sea international shipping ports. This enables us to export extra long **Pipe Piles up to 100 meters long**. Our shipping and logistic team is responsible to ensure the final products are packed and shipped with the certain country requirements and regulations.

We bring added value by providing local and international engineering for temporary works solutions; rigging, handling and transportation procedures and applicable drawings when required. As an alternative to providing lifting lugs, by providing pip piles with pre-installed lifting slings certified to the receiving end countries requirements is just one more example of the added value that PIM International offer.

Our specialists are also responsible in liaising with our International Shipping partners to get the best value (price per revenue ton).



Previous Projects

Below is a short list of past Projects that our off-shore team have been involved in: *(primarily for Leighton & John Holland)*

Project Name	Details	Tonnage
Cape Lambert Port B	Fabrication of Ø900, Ø1200 and Ø1500 spiral pile up to 55m maximum length with Ultra High Build Epoxy automated coating system.	15,913 MT
Cape Lambert Port B 2500 Reaction Piles	Fabrication of Ø1200 and Ø1500 spiral pile up to 43m maximum length with Ultra High Build Epoxy automated coating system.	135 MT
Davao Power Plant	Fabrication of Ø1200 spiral pile with driving shoe up to 25m length for new power plant project.	4,886 MT
Wiggins Island Coal Export Terminal (WICET) Tubular Trestles & Headstocks	Fabrication of Ø3600 trestle piles with flange attachment designed with grout bead and coated with 2 coats system (Zinc Rich Primer + Ultra High Build Epoxy).	1,202 MT
Queensland Curtis LNG (QCLNG) Jetty Piles	Fabrication of Ø1200 & Ø1500 piles with driving shoe up to 42m length for new jetty development at the Iron Ore processing plant facility. Package includes Trestle Pile, Loading Platform Pile, Mooring Dolphins Pile, Berthing Dolphin Pile, and Catwalk Pile coated with High Build Epoxy coating system designed for marine environment.	3,227 MT
Australia Pacific LNG (APLNG) Jetty Piles	Fabrication of Ø1200 & Ø1500 piles with driving shoe up to 40m length for new jetty development at the Iron Ore processing plant facility. Package includes Trestle Pile, Abutment Pile, Loading Platform Pile, Mooring Dolphins Pile, Berthing Dolphin Pile, and Dolphin Walkway Support Pile coated with Ultra High Build Epoxy coating system designed for marine environment.	3,152 MT
Gladstone LNG (GLNG) Jetty Piles	Fabrication of Ø1200 & Ø1500 piles with high grade driving shoe to API 5L X70 grade material up to 41m maximum length for new jetty development at the Iron Ore processing plant facility. Package includes Trestle Pile, Loading Platform Pile, Mooring Dolphins Pile, Berthing Dolphin Pile, and Walkway Pile coated with Ultra High Build Epoxy coating system designed for marine environment.	4,140 MT
ICHTYS Onshore LNG Facilities CVL-2 Gas Train Pile	Fabrication of multi sizes pile from Ø900 to Ø1500 with special ribbed pile section (SKK490-IR) spliced with standard pile spiral pile section (SKK490) fabricated to JIS A5525 pipe standard. Piles were coated with two coats system consist of Interzinc 315 primer and special mixed Interzone 954MIO silver finished.	14,871 MT



Address:

Room 102, Building 3, Unit 2,
Yudong Ling'an, No. 23 Mingda Road, Nanping
Town, Xiangzhou District,
Zhuhai City, PRC

Contact Us:

Email : info@pmiint.com
Phone : +86 756 8928 895
Website : www.pmiint.com



PMI International