

A STABLE FUTURE

CERTUSO

Structural Specialist Corporation

www.certuso.com.ph

ABOUT



Certuso Structural Specialists Corporation is an emerging steel sheet pile solutions company. We are a supplier of Steel Sheet Pile products and provider of Pile Driving Services.

We offer both Hot Rolled and Cold Formed steel sheet piles with full customization on steel grades, length, thickness and special profiles according to the required specifications. Our company can provide design assistance to your engineering or consultancy team to cost-optimize and tailor a special sheet pile size for certain projects. Our sheet piles are competitively priced and of the highest quality. There are also readily stocked in the Philippines to provide fast response time according to your project needs.

Certuso also offers sheet pile driving services using an Excavator-Mounted or Crane-Mounted Vibrator Hammers. These are designed for versatile use, allowing quick and efficient driving and extracting solutions of various profiles, such as: sheet piles, wood piles, casings, and H-beams. The combination of our high quality sheet pile products and innovative pile driving technology guarantees optimal results.

Certuso has warehouse facilities in Davao City and Manila with offices in Metro Manila, Bulacan and Davao City. It is registered with the Securities and Exchange Commission under registry no. CS201536676 dated July 28, 2015.

WHY CERTUSO?

Certuso focuses on quality, cost efficiency, and product availability in all of its steel sheet pile products. We are dedicated to provide our customers with quality service at the most competitive price.

Certuso's sheet pile products are manufactured with the highest international standards and are engineered to provide optimal performance for maximum results.

OUR PRODUCTS ARE:

- ✓ Readily available in our warehouse;
- ✓ Fast Lead Time;
- ✓ Customized on Steel Grades, Lengths, Thickness, Sizes, and Widths;
- ✓ Economical and Versatile;
- ✓ Extremely lightweight, making it easy to lift and handle, with equivalent sectional properties;
- ✓ Reusable and Recyclable



We provide full customization on steel grades, lengths and design to meet your specific site challenges.

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WHAT IS A SHEET PILE?

A sheet pile is a pressed or molded sheet metal that is commonly used for earth retention and excavation support. Classified as a flexible retaining system, it can be used for several purposes such as: large waterfront structures, erosion protection, stabilization of ground slopes, flood control, cofferdams, shoring wall of trenches and excavations, low grade projects requiring retention walls.

Sheet pile walls are installed by laying out a sequence of sheet pile sections that are interlocked then driven using vibrating or driving equipment. It can be used as a temporary structure when supported excavation is needed, or it can be permanently installed as an economical alternative for retaining walls for ports, wharfs, river resetment, bridges, and basement excavations.



APPLICATIONS

- FLOOD CONTROL
- SLOPE PROTECTION
- CUT-OFF AND CONTAINMENT
- WATER CONTROL
- RETAINING WALL
- RIVER REVETMENT
- EXCAVATION SUPPORT

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HOT ROLLED VS COLD FORMED

Steel sheet piles can be manufactured using two techniques: Hot Rolled and Cold Formed.

Hot rolled sheet piles are produced from a beam blank and made at very high temperatures. Because it is molded under extremely high temperature, it has more complex, tighter and thicker interlocks which allows for pile driving under harder ground conditions.

Cold Formed sheet piles are formed using hot rolled coils to roll them under pressure and shaped to its final form in a cold forming state. Since it is made under cooler conditions, dimensional properties such as width, thickness and straightness are easier to control.

HOT ROLLED

- ✓ More durable interlocks, allowing for harder and multiple driving before interlocks are worn out.
- ✓ Common sizing allowing for flexible re-usability
- ✓ Water-tight properties with better performance in seepage tests and tighter point-of-contact interlocks.

COLD FORMED

- ✓ Cost-effective at around 30 – 40% more economical than equivalent hot rolled sheet piles due to wider profiles with lower weight and equivalent strength.
- ✓ Dimensions can be customized according to project requirements such as width, thickness, and height
- ✓ Installation flexibility, due to its hook & grip interlocks, it allows piles to be rotated up to 20 degrees.
- ✓ Water tightness can be equivalent to Hot Rolled Piles when used with WADIT Sealant

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HOT ROLLED VS COLD FORMED



PROPERTIES	HOT ROLLED	COLD FORMED
Interlocks	Larsen	Hook and Grip
Standards	EN 10248	EN 10249
Raw Materials	Beam Blanks	Hot Rolled Coils
Thickness of Piles	EN: 16mm / JIS: 20+ mm	EN : up to 16mm
Width	JIS: 400/500/600/900 EN: 400 - 750mm	EN: 400 - 750mm
Steel Grade	JIS: SY 295 / SY 390 EN: S275 / S355 / S390 / S430	EN: S275 / S355 / S390 / S420 / S460
Permanent Use	Yes	Yes
Temporary Use	Yes	Yes
Advantages	More durable interlocks Higher recycled steel content Superior water tight	Wider Width Cost Effective Higher Dimensional Tolerance Installation Flexibility (can be rotated up to 20 degrees)

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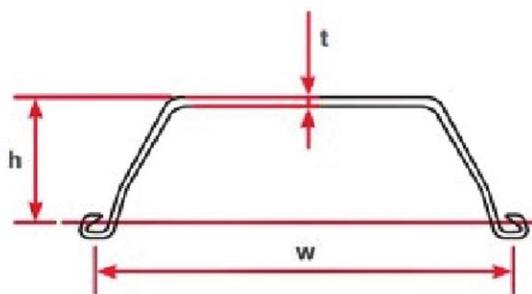
PRODUCTS

HOT ROLLED

Certuso's hot rolled sheet piles are manufactured in EN 10248 or JIS 5528 / 5523 standards.

Other available steel grades:

- EN 10248: S275GP / S355GP / S390GP
- JIS 5528: SY295 / SY390
- JIS 5523: SYW 295 / SYW 390
- ASTM A572: Gr. 43 / Gr. 50



Section	Width	Height	Thickness	Section Area	Weight	Weight	Moment of Inertia	Section Modulus
	(w)	(h)	(t)					
mm	mm	mm	mm	cm ²	kg/m	kg/m ²	cm ⁴	cm ³ /m
Type 2	400	100	10.5	61.18	48	120	8470	874
Type 3	400	125	13	76.42	60	150	16800	1340
Type 3 A	400	150	13.1	74.4	58.4	146	22800	1520
Type 4	400	170	15.5	96.99	76.1	190	38600	2270
Type 2 W	600	130	10.3	78.7	61.8	103	13000	1000
Type 3 W	600	180	13.4	103.9	81.6	136	32400	1800
Type 4 W	600	210	18	135.3	106	177	56700	2700
Type 5 L	500	200	24.3	133.8	105	210	63000	3150
Type 6 L	500	225	27.6	153	120	240	86000	3820

*Our stock products lengths are in 6m, 9m, 12m. Please inquire for requirements above 12m or other customized lengths.



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PRODUCTS

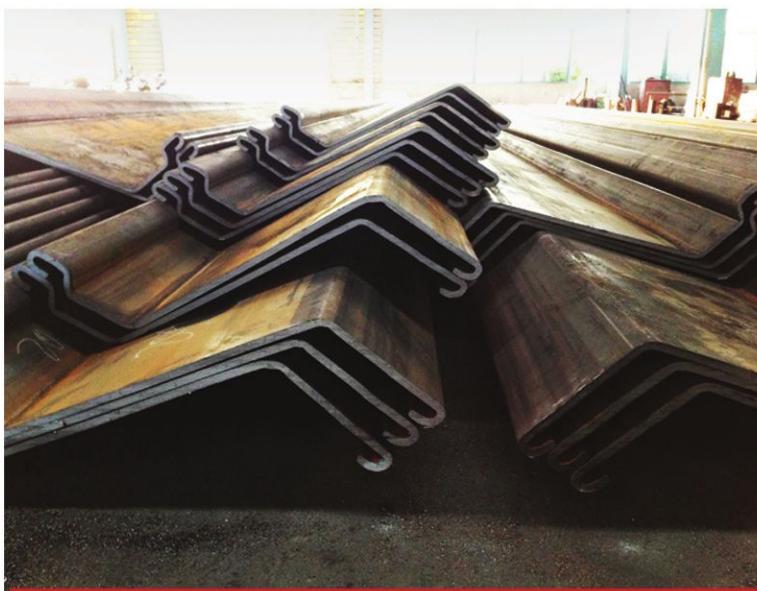
COLD FORMED



Certuso offers both "Z" and "U" steel sheet piles. Certuso's MMZ and MMU Series have been manufactured to be wider, stronger, and lighter than the typical U-Shape Hot Rolled Sheet Piles.

Available steel grades for cold rolled sheet piles are:

- EN 10025: S235 / S275 / S355 / S390 / S420 / S460
- JIS 5528: SY295 / SY390
- ASTM A572: Gr. 43 / Gr. 50 / Gr. 60
ASTM A690 Mariner Steel Grade (345 / 390 / 430)



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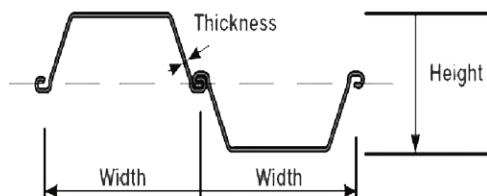


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COLD FORMED- MMU

MMU SHEET PILES

- ✓ Wide range of up to 4600 cm³/m
- ✓ Ease of piling and handling
- ✓ Perfect for reuse and temporary works



Section	Width (w)	Height (h)	Thickness (t)	Section Area	Weight	Weight	Moment of Inertia	Section Modulus
	mm	mm	mm	cm ²	kg/m	kg/m ²	cm ⁴	cm ³ /m
MMU 5-1	600	150	9.5	119.75	62.6	94	3825	510
MMU 5-2	600	150	10	126.11	66.7	99	4050	540
MMU 6-1	600	280	6	89.6	42.2	70.33	8960	640
MMU 7-1	600	300	6	93.42	44	73.33	10350	690
MMU 7-2	600	340	6	98.09	46.2	77	12665	745
MMU 7-3	600	360	6	99.58	46.9	78.17	13320	740
MMU 8-1	600	340	6.5	103.34	48.7	81.17	13260	780
MMU 8-2	600	325	7	109.98	51.8	86.33	13406	825
MMU 8-3	600	355	7	113	53.4	89	14821	835
MMU 8-4	750	320	6	87.1	51.3	68.4	13200	825
MMU 9-1	600	360	6.5	105	49.5	82.5	16920	940
MMU 9-2	600	330	7.5	120.6	56.8	94.7	15097	915
MMU 9-3	750	320	7	101.74	59.9	79.9	15120	945
MMU 10-1	600	370	7	114.44	53.9	89.8	19610	1060
MMU 11-1	600	380	7.5	123.35	58.1	96.8	22230	1170
MMU 11-2	600	360	8	131.6	62	103.3	19980	1110
MMU 12-1	600	380	8.5	140.3	66.1	110.17	22800	1200
MMU 12-2	600	310	9	137.6	64.8	108	18600	1200
MMU 12-3	600	310	9.5	144.6	68.1	113.5	19220	1240
MMU 12-4	500	360	8	144	56.5	113	20790	1155
MMU 12-5	700	440	7.5	123	67.6	96.57	26620	1210
MMU 12-6	600	360	9	148.6	70	116.7	22248	1236
MMU 12-7	450	360	10	184	65	144.4	22482	1249
MMU 13-1	675	420	7.5	124	65.6	97	27090	1290
MMU 13-2	600	310	10	152.9	72	120	19530	1260
MMU 13-3	500	355	9	154.6	60.7	121.4	22454	1265
MMU 13-4	700	440	8	131.2	72.1	103	28600	1300
MMU 13-5	700	400	10	159.8	87.8	125.4	26800	1340
MMU 13-6	500	340	10	167.9	65.9	131.8	22100	1300
MMU 13-7	600	360	10	163.5	77	128.3	22590	1255
MMU 13-8	575	360	10	165.9	74.9	130.3	24225	1347
MMU 14-1	750	445	8	132	77.8	103.7	31372	1410
MMU 14-2	675	435	8	133.2	70.6	104.5	30559	1405
MMU 15-1	675	420	8.5	142	75.3	112	31920	1520
MMU 15-2	500	360	10	176.6	69.3	138.6	26280	1460
MMU 16-1	750	440	9	146.4	86.2	115	35310	1605
MMU 16-2	400	290	11.5	203.8	64	160	22693	1565
MMU 16-3	600	380	9.5	156.7	73.8	123	30400	1600

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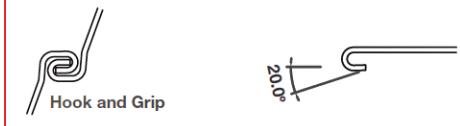


COLD FORMED- MMU

Section	Width (w)	Height (h)	Thickness (t)	Section Area	Weight	Weight	Moment of Inertia	Section Modulus
	mm	mm	mm	cm ²	kg/m	kg/m ²	cm ⁴	cm ³ /m
MMU 16-4	700	450	9	151	83	118.6	36000	1600
MMU 16-5	650	480	8	142.68	72.8	112	39120	1630
MMU 17-1	750	430	9.5	151	89.1	119	35905	1670
MMU 17-3	650	480	8	140	71.5	110	39840	1660
MMU 17-4	600	440	8.5	154	72.5	121	36850	1675
MMU 18-1	750	460	9	150.3	88.5	118	40940	1780
MMU 18-2	400	310	12	220.7	69.3	173.25	27668	1785
MMU 18-3	600	430	9.5	165.4	77.9	129.8	38700	1800
MMU 20-1	750	460	10	164.4	96.8	129	46115	2005
MMU 20-2	600	440	10	177	83.5	139	44440	2020
MMU 20-3	600	450	10.5	185	87.5	145.8	45675	2030
MMU 20-4	500	450	10	197.5	77.5	155	45000	2000
MMU 20-5	750	480	10	167.3	98.5	131.3	49440	2060
MMU 20-6	650	540	8	150.1	76.6	117.8	56025	2075
MMU 21-1	750	480	10	169.3	99.7	133	49920	2080
MMU 21-2	600	480	9.5	173.9	81.9	136.5	49440	2060
MMU 22-1	600	500	10	186.6	87.9	146.5	55000	2200
MMU 23-1	750	480	10.5	173.4	102.1	136.1	54600	2275
MMU 23-2	650	540	9	168.7	86.1	132.5	62640	2320
MMU 25-1	750	470	11.5	188.2	110.8	147.7	58750	2500
MMU 25-2	600	440	11.5	200	94.2	157	55000	2500
MMU 26-1	750	451	12	192	113.2	151	58179	2580
MMU 26-2	500	430	12.5	236	92.7	185.4	54825	2550
MMU 26-3	650	540	10	186.2	95	146.1	69120	2560
MMU 27-1	600	470	11.5	206.8	97.4	162.3	62980	2680
MMU 28-1	600	480	12	216	101.9	169.8	68160	2840
MMU 30-1	500	420	14	262	103	206	63840	3040
MMU 32-1	600	452	14	244	114.9	191.5	72320	3200
MMU 32-2	600	520	13	242	114	190	83200	3200
MMU 32-3	750	605	11	204	120	160	95893	3170
MMU 32-4	700	560	12	222	122	174	90860	3245
MMU 35-1	700	560	13	240	132	188	97944	3498
MMU 35-2	750	608	12	226	133	177	105336	3465
MMU 37-1	750	610	13	243	143	191	114344	3749
MMU 40-1	750	610	14	263	155	207	123373	4045
MMU 40-2	700	560	15	280	154	220	111300	3975
MMU 43-1	750	610	15	283	167	223	132309	4338
MMU 46-1	750	615	16	302	178	237	142834	4645

*Our stock products lengths are in 6m, 9m, 12m. Please inquire for requirements above 12m or other customized lengths.

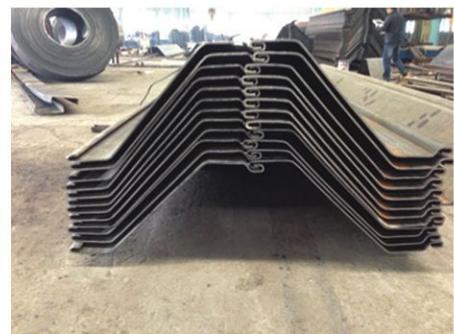
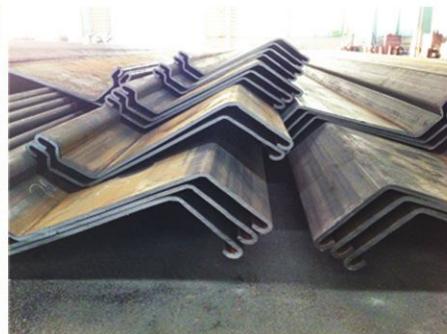
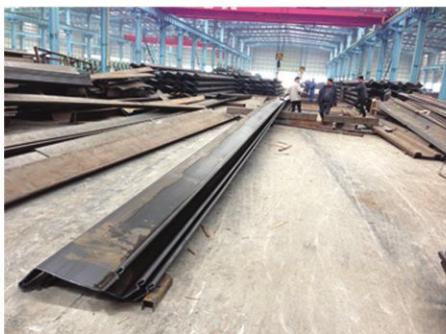
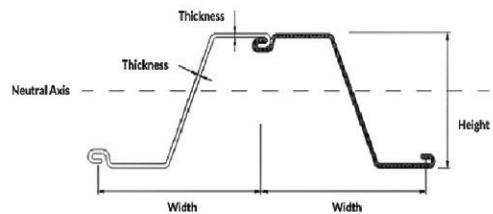
MMU interlocks are made to EN 10249-2 standards. Its hook and grip interlocks allow for 15-20 degrees in swing angle.



COLD FORMED- MMZ

MMZ SHEET PILES

- ✓ Interlocks located away from neutral axis
- ✓ Large width
- ✓ Efficient section modulus to mass ratio



Section	Width (w)	Height (h)	Thickness (t)	Section Area	Weight	Weight	Moment of Inertia	Section Modulus
	mm	mm	mm	cm ²	kg/m	kg/m ²	cm ⁴	cm ³ /m
MMZ 11-1	575	260	8.8	128.7	58.1	101	14300	1100
MMZ 11-2	575	260	9.5	144	62	113	14320	1140
MMZ 12-1	670	302	8.5	126	66.1	99	18120	1200
MMZ 12-2	770	344	8.5	120	72.6	94	21414	1245
MMZ 12-3	575	260	10.2	145.8	65.8	114	15600	1200
MMZ 13-1	670	303	9.5	137	72	107.5	19695	1300
MMZ 13-2	770	344	9	126	76.1	98.8	22360	1300
MMZ 13-3	575	260	10.8	150	67.9	118	16250	1250
MMZ 14-1	670	304	10.5	148.9	78.3	116.9	21280	1400
MMZ 14-2	770	345	9.5	131.5	79.5	103.2	23374	1355
MMZ 14-3	770	345	10	137	82.9	107.7	24236	1405
MMZ 14-4	650	320	8	120	61	93.8	22080	1380
MMZ 15-1	700	420	7	112.8	62	88.6	31080	1480
MMZ 16-1	575	350	8.5	136.3	61.5	107	28000	1600
MMZ 17-1	630	379	8.5	138	68.4	108.6	31551	1665
MMZ 17-2	700	420	8.5	133	73.1	104.4	36330	1730
MMZ 17-3	575	350	9	142	64.3	111.8	28875	1650
MMZ 17-4	575	370	9	148	66.9	116	31912	1725
MMZ 17-5	575	350	9.5	149	67.3	117	29750	1700
MMZ 17-6	675	430	8.5	141.4	74.9	111	36679	1706
MMZ 18-1	630	380	9.5	150	74.4	118	34200	1800
MMZ 18-2	700	420	9	139.2	76.5	109	37800	1800
MMZ 18-3	575	350	9.8	154	69.5	120.9	30625	1750
MMZ 18-4	575	350	10	159	71.9	125	31500	1800
MMZ 18-5	675	420	9	150	79.5	117.8	37905	1805
MMZ 18-6	630	381	10	157	77.8	123	35624	1870
MMZ 18-7	700	440	9	141	77.5	110.7	40546	1843
MMZ 18-8	640	385	8	127	64	100	34939	1815
MMZ 19-1	630	381	10.5	163	81	128.6	36957	1940

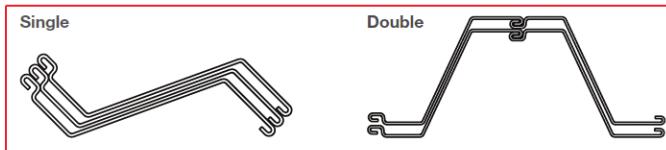
COLD FORMED- MMZ

Section	Width (w)	Height (h)	Thickness (t)	Section Area	Weight	Weight	Moment of Inertia	Section Modulus
	mm	mm	mm	cm ²	kg/m	kg/m ²		
MMZ 19-2	700	421	9.5	145.6	80	114.3	39363	1870
MMZ 19-3	675	390	10	157.8	83.6	123.9	36367	1865
MMZ 20-1	700	421	10	152	83.5	119	41048	1950
MMZ 23-1	575	350	11	181	81.8	142.3	40600	2320
MMZ 24-1	700	459	11.2	174	95.7	136.7	55768	2430
MMZ 24-2	575	350	11.5	189	85.1	148	42000	2400
MMZ 25-1	630	480	10.5	185	91.5	145	59040	2460
MMZ 25-2	575	350	12	193.6	87.4	152	43400	2480
MMZ 25-3	575	350	12.5	197	89.1	155	44450	2540
MMZ 25-4	675	430	11.5	182.5	96.7	143	60240	2510
MMZ 26-1	630	470	11.5	198	97.9	155	61218	2605
MMZ 26-2	700	460	12.2	187	102.9	147	59800	2600
MMZ 26-3	575	350	12.5	201	90.9	158	44625	2550
MMZ 26-4	575	350	13	206	93.3	162	45500	2600
MMZ 26-5	675	430	12	191	101.2	150	55900	2600
MMZ 27-1	675	460	12	200	106.1	157	62100	2700
MMZ 28-1	630	440	12.5	212	105	167	60720	2760
MMZ 28-2	700	461	13.2	200	110	157	63618	2760
MMZ 34-1	675	485	12	211.7	112.1	166.2	83057	3425
MMZ 35-1	675	485	12.8	218	115.9	171.7	84875	3500
MMZ 36-1	675	485	13.2	225.5	119.5	177	87300	3600
MMZ 37-1	700	499	13.5	226	124.2	177.4	92439	3705
MMZ 37-2	675	485	13.8	234	124.1	183	89725	3700
MMZ 38-1	675	485	14	240	127.2	188	91665	3780
MMZ 39-1	700	560	13.5	240	131.9	188	109200	3900
MMZ 41-1	700	560	14	254	139.5	199	114660	4095
MMZ 46-1	580	540	15	292	132.6	229	124200	4600
MMZ 48-1	580	570	15.5	307	139.6	240.7	137085	4810
MMZ 50-1	580	580	16	322	146.7	253	145580	5020

*Our stock products lengths are in 6m, 9m, 12m. Please inquire for requirements above 12m or other customized lengths.

MMU interlocks are made to EN 10249-2 standards. Its hook and grip interlocks allow for 15-20 degrees in swing angle.

MMZ may be delivered in single-pile or double-pile format as per piling requirements.



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SHEET PILE INSTALLATION



Sheet piles are installed in a contiguous sequence, with their ends secured and interlocked.



Sheet piles are pile driven using an Excavator-Mounted Vibrator Hammer.

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SERVICES

Certuso offers pile driving services using an Excavator-Mounted Vibrator Hammer

- ✓ COST-EFFECTIVE PILE DRIVING
- ✓ VERSATILE HANDLING
- ✓ FLEXIBLE APPLICATION
- ✓ FASTER PILE DRIVING SPEED
- ✓ HIGH POWER TO WEIGHT RATIO
- ✓ LOW NOISE VIBRATION



- Up to 10 meters horizontal reach
- Up to 75 kW pile driving power
- 360° rotation



CHOOSE STABILITY. CHOOSE CERTUSO.



OUR WAREHOUSES

LUZON WAREHOUSE MARILAO, BULACAN



MINDANAO WAREHOUSE DAVAO CITY



CHOOSE STABILITY. CHOOSE CERTUSO.



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