

Introduction

ULTRA PHC Pile was developed and applied widely overseas such as in Korea and Japan. It has more advantages to saving the cost and time of the project by increasing pile strength and reducing the materials used.

In Vietnam, VGSI Pile is the 1st Pile Manufacturer which can launch this new brand product with very high requirements for the production process.

Producing ULTRA PHC Pile requires a strictly high-quality control system and new technology in production management to assure the high and stable quality of the product.

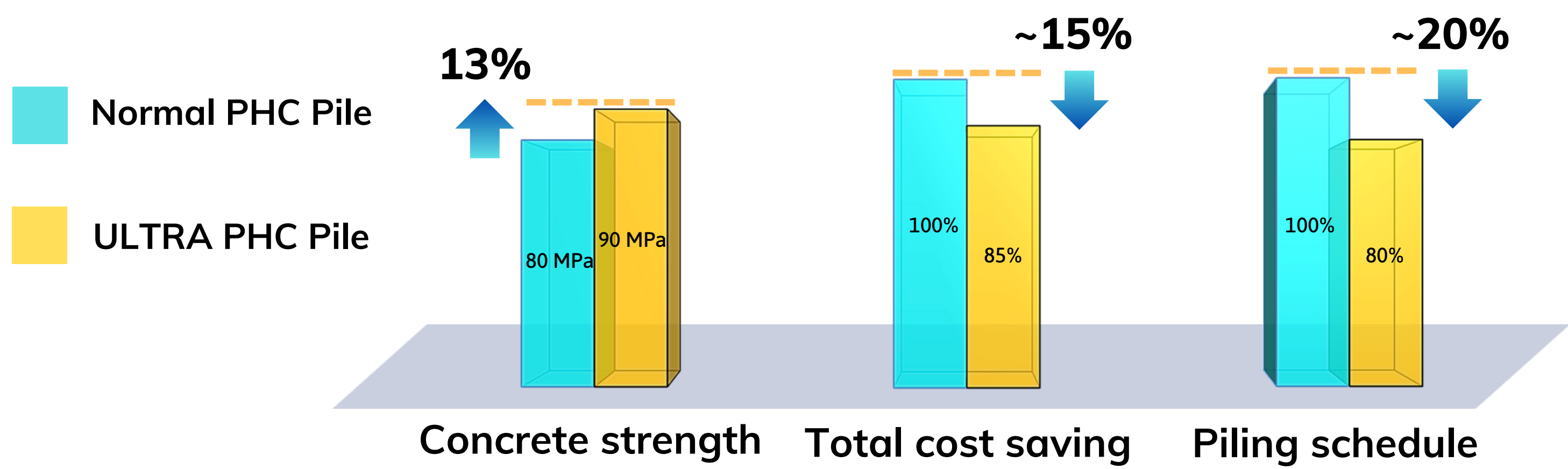
With the strength and experiences gained from the parent company and strong capacity in applying new technology in manufacturing and quality management, VGSI Pile is the 1st Pile Manufacturer in Vietnam which ULTRA PHC Pile to save cost and time on the project.

VGSI Pile always tries to bring more value and benefits to our clients.

Pile strength comparison table

Diameter	Item	Unit	Normal PHC Pile	Ultra PHC Pile	Increase
mm	Conc'strength	MPa	80	90	13%
300	Max. Pressing load	Tonf	125	142	13%
350			161	182	
400			224	254	
500			347	393	
600			475	538	
300	Cracking moment	kN.m	25.3	25.9	2%
350			37.2	38.1	
400			56.8	58.2	
500			106.9	109.5	
600			176.9	181.2	
300	Ultimate moment	kN.m	37.95	38.85	2%
350			55.8	87.3	
400			85.2	87.3	
500			160.35	164.25	
600			265.35	271.8	

Anticipated benefits using ULTRA PHC PILE



CASE STUDY : Design Optimization

Typical design	Normal PHC Pile	Ultra PHC Pile	Effectiveness
<div>#1 - Piles support slab</div> <div>Increasing pile spacing</div> <div><div>• Reduce pile</div><div>• Reduce pile cap</div></div>	<div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div>Pile spacing ~ 3x4m</div></div><div><div></div></div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div>Pile spacing ~ 4x5m</div></div></div></div>		<div>➤ Pilling schedule</div> <div>Saving 20~30%</div> <div>➤ Cost saving</div> <div>Saving 15~20%</div> <div><div>• Pile material</div><div>• Pilling cost</div><div>• Pile cap cost</div></div>
<div>#2 - Piles support column</div> <div><div>• Reduce pile quantity</div><div>• Reduce pile cap size</div></div>	<div><div><div><div></div><div></div><div></div><div></div><div></div></div><div>5 piles/ column</div></div><div><div></div></div><div><div><div><div></div><div></div><div></div><div></div><div></div></div><div>4 piles/ column</div></div></div></div>		