## Katana Pile - 80kN Lateral Performance in Clay



	Pile Properties	Soil Properties					
	Pipe Diameter (mm)	76		Soil Type	Angl		Cohesion
	Wall Thickness (mm)	4.0			Friction		Cu
	Steel Grade (f's)	400		Sti			100
	Pile Base Dia. (mm)	250		Mediur			60
			L	Sot	t 0		30
20	i i				Minim	num Pile	Depth, h
		2			Soil	Fixed	Free
	<u>e</u>	acity			Туре	Head	Head
	Est. Allowable			Stiff	40d	34d	
	Alk	eral			Medium	30d	28d
	Est	Lat			Soft	28d	24d
15					Fixed Head Co	ndition	Free Head Condition
ll Load (kN) 10						<u>ijen</u> k	δ//>>>> h
Applied Lateral Load (kN) 9 0					— · · — Stiff.	um. –	—• Stiff
Å 2					— — — Soft.	_	<b>—</b> — Soft
			_		Very	Soft. –	Very Soft
0	12			24			
	Displaceme	nt, $\delta$ (mm)					

These charts are for Katana Piles only as lateral performance is highly dependent on the connections rigidity and shaft properties. It is Katana's opinion that these graphs represent a reasonable approximation of the average performance of th Katana Pile in the indexed soils. Using the average performance is reasonable for multiple redundant structures (e.g. buildings, bridges, marina piers, etc.)

## Katana Pile - 80kN Lateral Performance in Sand



	Pile Properties Soil Properties						
	Pipe Diameter (mm)	76		Soil Type	Angle	e of	Cohesion
	Wall Thickness (mm)	4.0		Son Type	Friction	(deg)	Cu
	Steel Grade (f's)	400		Dense	e 25	5	0
	Pile Base Dia. (mm)	250		Mediun	า 29	)	0
				Loos	e 33	}	0
40	ſ		_		Minim	um Pile	Depth, h
					Soil	Fixed	Free
		ity <sup>2</sup>			Туре	Head	Head
		apac			Dense	40d	34d
		Lateral Capacity <sup>2</sup>			Medium	30d	28d
	1 1 1 1				Loose	28d	24d
30		_					
Applied Lateral Load (kN) 07 07					Fixed Head Co	Annon P 1	Free Head Condition
Applied La 10		····	•		— · · — Dens		— • Dense
					— — — Loos	e. – Loose. –	Loose Very Loose
0	12			24			

Displacement,  $\delta$  (mm)

These charts are for Katana Piles only as lateral performance is highly dependent on the connections rigidity and shaft properties. It is Katana's opinion that these graphs represent a reasonable approximation of the average performance of th Katana Pile in the indexed soils. Using the average performance is reasonable for multiple redundant structures (e.g. buildings, bridges, marina piers, etc.)

## Katana Pile - 150kN Lateral Performance in Clay



		Pile Properties				Soil Properties			
		Pipe Diameter (mm)	89		Soil Type	-	le of	Cohesion	
		Wall Thickness (mm)	4.0				n (deg)	Cu	
		Steel Grade (f's)	400		Stil		)	100	
		Pile Base Dia. (mm)	350		Mediun		)	60	
				-	Sof	ft	)	30	
		· · · · · · · · · · · · · · · · · · ·				Minir	num Pile	e Depth, h	
						Soil	Fixed		
					Туре	Head			
		Est. Allowable	Capa			Stiff	40d	34d	
	40	- III	eral (			Medium	30d	28d	
		Est -	Late			Soft	28d	24d	
Applied Lateral Load (kN) 05					······	P	р.	Free Head Condition	
	10		<b>__</b>	_		Mec	lium. •	Medium	
						— — — Soft		🗕 🗕 Soft	
						Ven	v Soft.	Very Soft	
	0	12			24				
		Displaceme	$nt \delta(mm)$						

Displacement,  $\delta$  (mm)

These charts are for Katana Piles only as lateral performance is highly dependent on the connections rigidity and shaft properties. It is Katana's opinion that these graphs represent a reasonable approximation of the average performance of th Katana Pile in the indexed soils. Using the average performance is reasonable for multiple redundant structures (e.g. buildings, bridges, marina piers, etc.)

## Katana Pile - 150kN Lateral Performance in Sand



	Pile Properties Soil Properties						
	Pipe Diameter (mm)	89		Soil Type	Angle		Cohesion
	Wall Thickness (mm)	4.0			Friction		Cu
	Steel Grade (f's)	400		Dens			0
	Pile Base Dia. (mm)	350		Mediu			0
				Loos	e 33	3	0
	Г				Minim	num Pile	Depth, h
					Soil	Fixed	Free
			Туре	Head	Head		
	Est. Allowable			Dense	40d	34d	
4		al Co			Medium	30d	28d
	ist. A	Lateral Capacity <sup>2</sup>			Loose	28d	24d
		_					
Applied Lateral Load (kN)					P P P P P P P P P P P P P P P P P P P	<u>****</u> • *	Tree Head Condition
d Y 1		·····			Medi	um. –•	Medium
					— — — Loose	e. –	<ul> <li>Loose</li> <li>Very Loose</li> </ul>
	0 12	- · · · ·		24			

Displacement,  $\delta$  (mm)

These charts are for Katana Piles only as lateral performance is highly dependent on the connections rigidity and shaft properties. It is Katana's opinion that these graphs represent a reasonable approximation of the average performance of th Katana Pile in the indexed soils. Using the average performance is reasonable for multiple redundant structures (e.g. buildings, bridges, marina piers, etc.)