

Magnum® MLOC##24 Shear Lock

Allowable Lateral Capacity (lbs)*



MLOC1224										
Head Fixity	Helical Pile	Shaft Dia., d (in)	Non-Cohesive Soils				Cohesive Soils			
			V. Loose	Loose	Medium	Dense	V. Soft	Soft	Medium	Stiff
	MH325	3.00	600	1,350	1,900	2,650	550	1,450	3,150	4,000
	MH425	4.50	1,100	2,200	3,050	4,200	900	2,100	4,250	7,900
	MH431	4.50	1,150	2,350	3,250	4,500	900	2,200	4,400	8,200
Minimum Pile Depth, h =			28d	28d	28d	34d	34d	34d	34d	34d
	MH325	3.00	2,100	3,700	4,000	4,000	1,350	3,300	4,000	4,000
	MH425	4.50	3,600	6,400	7,850	8,400	2,050	4,650	8,400	8,400
	MH431	4.50	3,750	7,600	8,400	8,400	2,100	4,800	8,400	8,400
Minimum Pile Depth, h =			40d	40d	40d	40d	40d	40d	40d	40d

MLOC1824										
Head Fixity	Helical Pile	Shaft Dia., d (in)	Non-Cohesive Soils				Cohesive Soils			
			V. Loose	Loose	Medium	Dense	V. Soft	Soft	Medium	Stiff
	MH325	3.00	650	1,650	2,400	3,350	650	1,650	3,650	6,000
	MH425	4.50	1,150	2,600	3,600	5,050	1,000	2,350	4,800	9,050
	MH431	4.50	1,200	2,750	3,850	5,400	1,000	2,400	5,000	9,400
Minimum Pile Depth, h =			28d	28d	28d	34d	34d	34d	34d	34d
	MH325	3.00	2,600	4,700	6,000	6,000	1,550	3,900	6,000	6,000
	MH425	4.50	4,250	7,700	9,500	11,700	2,350	5,400	10,100	12,400
	MH431	4.50	4,450	9,750	11,000	12,400	2,400	5,600	11,200	12,400
Minimum Pile Depth, h =			40d	40d	40d	40d	40d	40d	40d	40d

MLOC2424										
Head Fixity	Helical Pile	Shaft Dia., d (in)	Non-Cohesive Soils				Cohesive Soils			
			V. Loose	Loose	Medium	Dense	V. Soft	Soft	Medium	Stiff
	MH325	3.00	700	1,950	2,900	4,150	700	1,850	4,100	8,000
	MH425	4.50	1,200	3,000	4,300	6,050	1,050	2,500	5,300	10,100
	MH431	4.50	1,250	3,150	4,550	6,400	1,050	2,600	5,500	10,400
Minimum Pile Depth, h =			28d	28d	28d	34d	34d	34d	34d	34d
	MH325	3.00	3,200	6,000	7,700	8,000	1,800	4,500	8,000	8,000
	MH425	4.50	5,000	9,300	11,600	14,600	2,550	6,050	11,500	17,000
	MH431	4.50	5,200	10,600	13,200	16,800	2,600	6,200	12,700	17,000
Minimum Pile Depth, h =			40d	40d	40d	40d	40d	40d	40d	40d

*Limitations: IBC2015 states that the allowable lateral capacity of a pile shall be half the load causing 1-inch of deflection. Many professionals use the lateral capacity at a deflection of 0.5 inches as the allowable lateral capacity. The allowable lateral capacities shown in these tables are based on a predicted deflection of 0.5 inches at the ground surface. Refer to Magnum® Technical Reference Manual for theoretical load displacement curves and for allowable capacities at other deflection limits. These capacity tables are based on lateral load applied at ground surface and galvanized shafts with 50 years corrosion in non-severe corrosive conditions. Contact Magnum® technical support professionals for lateral capacity when loads are applied above ground, for other corrosion conditions, or for resistance to bending moments. Occasionally, annular space can develop around upper portions of the shaft when helical piles have multiple bolted couplings (all Magnum® helical piles larger than 3.5" diameter) or when installation methods cause excessive wobbling. It is recommended that any annular space be grouted from the surface using fast-setting, non-shrink, neat cement grout when lateral capacity is required.

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All Magnum Products Made in U.S.A.

U.S. Patents 6,058,662 and 5,234,287; Other Patents Pending.

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