

Wheel suction dredger

Applicability

	Good
	Moderate



Consolidates cohesive soil - Rocks		
		Dredging depth in M.
		0 10 20 30 40 50 60 70 80 90 100
Igneous (Graphite, Basalt)		
Metamorphic (schist, Gneis)		
Sedimentary (sand/Limestone, Coral, Chalk, Salt)	Hard	
	Soft	
Broken rock		

Non cohesive soil - Soil		
		Dredging depth in M.
		0 10 20 30 40 50 60 70 80 90 100
Boulders		
Cobbles or Cobbles with gravel		
Gravel		
Sandy Gravel		
Medium sand		
Fine or medium fine sand		
Extremely fine sand or silty sand		
Silt		

Non-consolidates cohesive soil		
		Dredging depth in M.
		0 10 20 30 40 50 60 70 80 90 100
Cemented sand		
Firm or stiff boulder or sandy clay		
Soft silty clay		
Form or stiff silty clay		

Cohesive or sticky clay	
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Non-consolidates cohesive soil - Organic	
	Dredging depth in M.
	0 10 20 30 40 50 60 70 80 90 100
Peat	
Lignite	

Criterium equipment:	
Soil condition	Wide range of soil conditions, less suitable for hard material
	Well suitable for cohesive material
	No blockage pump by large strokes
Seastate and weather	Strongly influenced by waves for positioning wheel often spudcarrier
	Floating pipeline limited by waves and current
	Sensitive to strong current
Site conditions	Max. dredging depth ca. 45M, limited by reaction forces on ladder
	UWP makes pumpprocess independent from dredging depth
	Good selective and accuracy
Logistics	Hydraulic transport
	Suitable for long distances
	Pipeline and/or wires can hinder shiptraffic
Production processing	Production depending on pump and wheelcapacity, pump distance and pipe diameter
	With constant production rate and high concentration suitable for feeding treatment plant (Mining)
Other	Very large range of capacities available