



Combi-tool

Product overview

Royal IHC have been providing trenching equipment for over 20 years to support our customers cable protection requirements. The combi-tool® systems combining jetting and chain cutting technology incorporate the latest technology to improve performance and ease of operability as well as reducing cost of ownership. The ability to cover trenching of a wide range of materials for soft mud to rock with a single tool allows for continuous trenching without tooling transitions.

Since the combi-tool seamlessly transfers between cutting modes the overlap of tool choice is no longer required, the jetter needs only to cope with 75kpa soil and not 150kpa soil [red triangle] figure 1 (bs5930:1999, table 13 states stiff clay to be 75 to 150kpa shear strength) this has a marked effect on the power required to be installed on the vehicle.

$$Power \propto Pressure^{(3/2)}$$

The chain cutter does not need to cope with anything less than 75kpa clay and hence the pick and transportation paddles can be configured appropriately [green triangle] (bs5930:1999, table 13 states stiff clay to be 40 to 75kpa shear strength).

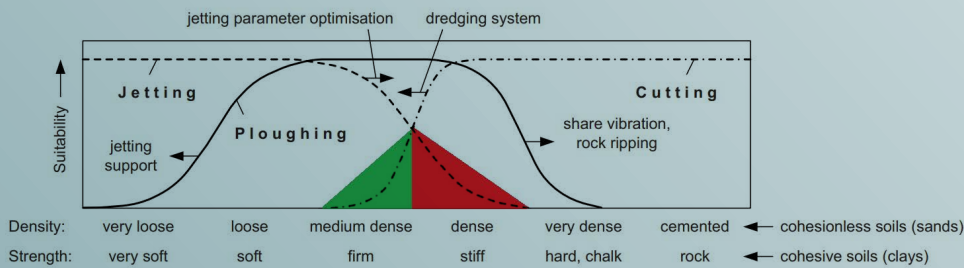


Figure 1: extract selection chart from dnv-rp-360 (fig 6-3) showing cutting jetting overlap

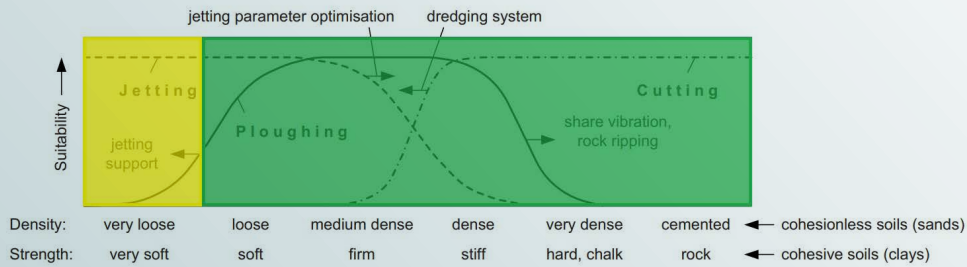


Figure 2: Extract selection chart from dnv-rp-360 (fig 6-3) showing combi-tool envelope

Since the combi-tool can trench in the full range of soils the only consideration is that of vehicle bearing capacity, in very weak soil conditions additional buoyancy [yellow] figure 2 (potentially air filled from the surface) may be required.

Product support

Our commitment to you does not stop with the supply of your equipment. We are here to maximise our customers operational performance with a 24/7 operational and technical assistance service.

Specification

Water depth rating 2,000m
 Trenching speed up to 1,000m/hr
 Cable size range ø10-300mm diameter cable, including bundled cables
 Customisation many customers have specific requirements for which we are able to supply optimal solutions upon request

Patented features

- patented combined jetting and mechanical cutting ensuring extended tool life
- patented jetting system optimising power and performance
- patented anti-cavitation system allowing ultra-shallow water use
- patented eduction system preventing blockage
- patented depressor system allowing tight turning radii and variable depth operation.

Chain configurations					
chain width	trench depth				
	1.2m	1.8m	2.3m	3.3m	4.9m
	300mm	•	•	•	•
500mm	•	•	•	•	•
available jetting	300kw	600kw		900kw	
eduction	100kw		300kw		
depressor (mbr)	1.5m	3m	5m		