

ABSTRACTAn excavation tool and a method for forming a column of consolidated soil

An excavation tool (20) includes a tubular central shaft (21) with a vertical axis (x) and a central axial aperture (21a) for supplying a ground-consolidating fluid to nozzles (32) which are directed generally downwardly and arranged along a lower radial edge (29) of one or more blade elements (22) which project radially from the central shaft (21) and are inclined thereto in a helical configuration. The nozzles (32) direct high pressure jets (33) of consolidating fluid for fluidising and at least partially breaking up the soil before it is engaged by the blade elements (22) in their excavation movement.

A method is also described for forming a column of consolidated soil by means of such excavation tool.

(Figure 4)