

CRCHI World's Largest Shaft Boring Machine Launches for the Underground Smart Parking Garage with World's Largest Diameter Vertical Tunnelling

On June 16th, with the 230 tons main machine descending down to the bottom of the foundation pit, the world's largest shaft boring machine "Dream" launched at the underground smart parking garage project in Jing'an District, Shanghai. The CRCHI "Dream" is 10 meters high with an excavation diameter of 23.02 meters.



“梦想号”下井

“Dream” goes down in the foundation pit

"Dream" integrates the excavation, slagging, support and guidance functions, and applies to the construction of super-large diameter shafts in soft soil and soft rock strata. This equipment is now the shaft boring machine with the largest diameter in the world.



上海市静安区智慧车库地上占地仅 286 平方米

The smart parking garage in Jing'an District of Shanghai covers an area of only 286 square meters.

In recent years, many places have witnessed accelerated constructions of sponge cities and underground smart parking garages around the world. The super-large diameter and ultra-deep shaft projects are more and more. Shaft boring machines with an excavation

diameter of 13 meters to 14 meters are developed for mechanized sink shaft construction, but it is the first time in the world to develop an super-large diameter shaft boring machine with an excavation diameter of 15 meters and above.

To meet the needs of the super-large diameter excavation, while ensuring the efficiency of vertical shaft excavation, CRCHI R&D team has designed a complete set of mechanical sink shaft equipment for super-large diameter vertical shafts, enhancing the reliability of underwater construction. The problem that the sinking attitude of the traditional sink shaft is difficult to control has been solved. "Dream" can realize unmanned construction under the ground and less people on the ground, saving construction costs of more than 50% and making construction operations safer.

The underground smart parking garage in Shanghai Jing'an District covers an area of 286 square meters on the ground and 1,408 square meters under the ground, with a total of 19 floors. It is planned to build two deep foundation shafts with a diameter of 23 meters and a burial depth of 53 meters. Each shaft owns 152 mechanical parking spaces, and the ground is for the garage access floor and equipment room. The parking garage will become the underground smart parking garage with the world's largest diameter vertical tunnelling after the completion.