

Development and application for mobile emergency drainage system in urban flood rescue

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Abstract:

In order to solve the urgent need of large-flow persistent water supply and drainage equipment for emergency rescue of urban flood and firefighting, the vehicle-mounted emergency water pipeline system is developed. The systems consist of two basic units, which are pump station vehicle and flexible pipeline operating vehicle. The pump station vehicle is used for water drawing and pressurized transport in the field. The flexible pipeline operating vehicle is used for pipeline storage, development and fold. The systems can reach the max flow rates of 1500m³/h, and the transport distance can reach as far as 2000m. The mechanized rapid development and wrap of large-caliber flexible pipeline is designed. The system can be used independently as well as combined. The use of vehicle-based integration, pipeline mechanized development, automatic station laying and operation scheduling, lightweight floating water pump and other comprehensive technical means significantly increases the operation efficiency and mobility of the system. A production base is built in Hubei 3611 Mechanical Co., Ltd in China to achieve industrialization. The system is sold to more than 30 provinces and cities in China, and plays important roles in many major disaster rescue tasks in recent years.

Keywords: Emergency flood control and drainage in cities, Urban flood disaster rescue, Drainage system for long distant, Emergency rescue