



Hydraulic reciprocating mud scraper

Brief introduction:

HWF series mud scraper is a hydraulic reciprocating rectangular tank bottom mud scraper integrating continuous sludge transportation and concentration. The rectangular tank bottom scraper has evolved from the first generation of steel cable drag scraper, the second generation of bridge suction scraper and the third generation of chain scraper to the fourth generation of hydraulic reciprocating. The



hydraulic reciprocating rectangular tank bottom scraper has the characteristics of less moving parts, less maintenance, continuous sludge transportation, high reliability, simple installation and sludge concentration. WF bottom scraper has been successfully applied to a large number of different types of sludge sedimentation systems with a wide range of applications.

Working principle:

Working principle of the mud scraper: the gear oil pump provides power to the hydraulic oil cylinder, a group of tripod converts the vertical motion of the oil cylinder into horizontal motion, and finally drives a group of wedge scrapers to make reciprocating motion at the bottom of the rectangular tank; The reciprocating stroke is greater than the spacing of a single scraper, which is equivalent to the sludge



transfer from the latter scraper to the front scraper; The forward speed of the scraper group is about half of the backward speed; When moving forward, the concave surface of the wedge-shaped scraper pushes mud to the mud accumulation ditch of the pool; When retreating, a small wedge-shaped acute angle will not drive the sludge to move backward, while the negative pressure generated by the rapidly retreating concave surface will keep the forward inertia of the sludge layer with a certain thickness. Therefore, when the scraper moves back and forth, a layer of sludge at the bottom of the tank always moves forward until it falls into the sludge accumulation ditch. When the sludge at the bottom of the tank reaches a certain thickness, the efficiency of the mud scraper is the highest. The reciprocating movement of the scraper also has the function of thickening sludge (up to 3%), which is very important in practical application. When the sewage discharge is equal, the higher the sludge concentration is, the lower the water consumption rate is, which reduces the loss of water source and energy.



Product characteristics:

- Stability of moving parts
- Continuous sludge transfer
- High sports reliability
- PLC touch screen control
- Suitable for existing rectangular sedimentation tanks
- Easy installation
- Sludge thickening function
- No dead-corner and mud scraping at the bottom of the whole tank

Structure:

Hydraulic reciprocating rectangular tank bottom mud scraper is a mud scraper with reciprocating function, which is welded together by hydraulic system, push rod system, some wedge scrapers and diagonal braces.

Technical parameter:

No.	Specifications	Scope of use	Power (kw)
HWF	Max. L=100m, max. W=12m Maximum surface area =1200m ²	200m ² <	1.5-2.2
		200m ² -600m ²	3.75-4
		600m ² -1000m ²	5.5
		1000m ² -1200m ²	7.5-11
Sludge	It can be applied to most sludge with solid content of 0.5% - 6%		
Material	SUS304 or SUS316		