

ABSTRACT

MAGNETIC SEPARATION CLEANING APPARATUS AND

MAGNETIC SEPARATION CLEANING METHOD

A magnetic separation cleaning apparatus discharging high density sludge stably by well separating magnetic substance even if the water level of a magnetic separating section varies. The magnetic separation cleaning apparatus comprises a rotary filter having a tubular filtration mesh and filtering sludge and magnetic substance from fluid to be treated and containing magnetic substance, a tubular sludge collection rotator opposing to the rotary filter in close proximity thereto in the horizontal direction and conveying sludge and magnetic substance on its surface as the rotator rotates, a magnetic rotator which has an axis in the sludge collection rotator and is composed of a rotator and a plurality of magnets fixed to the circumference of the rotator, where at least the surface on the rotary filter side is arranged in close proximity to the inner circumferential surface of the sludge collection rotator and the sludge is transferred onto the surface of the sludge collection rotator by magnetically holding the magnetic substance filtered by the rotary filter on the surface of the sludge collection rotator, and a scraper for scraping the sludge and magnetic substance being conveyed on the surface of the sludge collection rotator.

Figure 1