

OIL-WATER SEPARATION AND PURIFICATION SYSTEM AND OIL-WATER
SEPARATION AND PURIFICATION METHOD USING SAME

【Abstract】

5 The present invention relates to an oil-water separation
and purification system and an oil-water separation and
purification method using the same, which provides a step-by-
step oil-water separation and treatment process in contaminated
water with water and oil mixed therein, so as to efficiently
10 separate and discharge water and oil to purify the same, and
also automatically guide a flow of the oil-water according to
the oil-water separation and treatment process in a natural
falling manner, thereby providing work efficiency and automation
of the process. The present invention discloses an oil-water
15 separation and purification system installed to mutually
separate water and oil mixed in oil-water to purify the same,
which includes: an oil-water storage tank, into which oil-water
is introduced and stored; a supply pump for discharging and
moving the oil-water from the oil-water storage tank; a drum
20 screen for primarily pretreating various kinds of sludge in the
oil-water introduced from the supply pump; a scum skimmer for
separating the residual sludge and the oil-water in a dual manner
from the oil-water primarily filtered from the drum screen and
secondarily pretreating the same; an oil-water separator for
25 separating water and oil in a dual manner from the oil-water

pretreated by the scum skimmer and purifying and discharging the same; an inspection tank for confirming a degree of turbidity in the water separated and discharged from the oil-water separator; and a drainage pump connected to a bottom of the inspection tank and configured to discharge the finally purified water to sewage, wherein a height of equipment installed from the drum screen to the drainage pump is sequentially formed to have a step difference, so that a flow of the oil-water from the drum screen to the inspection tank is automatically guided in a natural falling manner.

Figure 1