

Method for completely emptying a catalytic reactor by means of an articulated arm equipped with rotary spiral protuberances

ABSTRACT

The aim of the present invention is a method for emptying a reactor (1) containing at least one bed (3) of spent catalyst particles and that comprises at least one dump tube (2), which opens into the reactor (1) in the bottom portion of the bed (3) of particles or underneath the latter. The method comprises the following successive steps:

- a first step of causing a proportion of the catalyst bed (3) to flow out of the reactor via said dump tube (2); then
- a second step of expelling out of the reactor (1) the catalyst remainder (3'), by driving towards the opening (9) of the dump tube (2) the catalyst particles remaining in the reactor at the end of the first step, this step being performed by means of a removable device introduced into the reactor via the dump tube, and is characterised in that said removable device comprises an articulated arm bearing one or more protuberances (8) spirally disposed about a rotary axis (6).

Reference for the abstract: Figure 5