ABSTRACT
APPARATUS AND PROCESS FOR POLYMERISING OLEFIN IN GAS PHASE

The present invention relates to an apparatus for gas phase polymerisation of olefins(s), essentially comprising a fluidized bed reactor and at least one conduit for drawing off polymer provided with an isolation valve and connecting the vertical side wall of the reactor to a lock hopper, the said conduit leaving the vertical side wall of the reactor while being directed downwards so that each part of the said conduit forms with a horizontal plane an angle A ranging from 35° to 90°. It also relates to a process for continuous gas-phase polymerisation of olefin(s) in a fluidized-bed reactor, comprising drawing off the polymer from the vertical side wall of the reactor into a lock hopper via a draw-off conduit so that all flow of the polymer in the draw-off conduit is produced according to a downward direction forming with a horizontal plane an inclination with an angle A at least equal to the angle of repose β of the polymer and not exceeding 90°. The present invention improves the degree of filling of the lock hopper and reduces the amount of gas drawn off with the polymer. (Figure 1).