INDUSTRIAL CLEANING FLOWS - KNOWLEDGE GAP IN TANK CLEANING

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ABSTRACT

Tank cleaning has gone through a number of technology leaps over the last 20-30 years. From the static spray balls over one-axis spray devices (rotating spray heads/balls) to multi-axis spray device (rotating jet heads). Great successes have been achieved on reducing the cleaning time for tanks, reducing the water consumption, chemistry usages and thermal energy input. Reductions well above 50% have been achieved for a wide range of different product areas (food, beer and beverage, health care, pharmaceuticals, paper and pulp, wine etc.). These leaps have been based mostly on the logical thinking and experimental trial and error. Hence, there is a clear knowledge gap that needs to be closed to take tank cleaning a step further and allow end-users to improve and optimize the tank cleaning even more.

This presentation shows the current state of tank cleaning technology and gives an overview of tank cleaning technologies available today, how they are applied and at what flow rates they are typically used at and the main differences between the different tank cleaning technologies. Also it introduces the existing knowledge gaps and what we could achieve with greater knowledge on what goes on from the spray orifice exit to the wall and on the wall during cleaning of tanks.

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