

# **Equipment Improvements on Existing Anode Paste Plants**

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## **Abstract**

Due to the worldwide overcapacity in the primary aluminum sector, a long period of time dominated by greenfield and brownfield projects has come to an end. Nowadays, the focus has changed to retrofits and small improvements on existing anode paste plants. In the late seventies of the last century, the combination of a screw pre-heater with a continuous kneader plus a downstream intensive remixer-cooler became the state of the art for anode paste preparation. The energy input for remixing and cooling did not have precise specifications, however, the delta T during cooling could be high if hydraulic presses were still in use. In the course of time, numerous single kneader lines have been expanded by adding an intensive remixer-cooler. Nowadays, other issues, especially the green and baked density decrease because of lower raw material quality, are of high importance. Equipment improvements in terms of higher specific mixing energy input and longer retention time combined with better wear protection will be necessary. In addition, the early models of Eirich Intensive Coolers are reaching the end of their life span and need an adequate replacement.

The paper describes the most interesting improvement steps from the beginnings until today.

**Keywords:** Carbon; mixing; paste; anode; retrofit.