CAKE DRYING WITH MEMBRANE CHAMBER PLATES
PATENT No. DE 3713419

APPLICATION
• Cake drying with JVK membrane chamber plates combines dewatering and drying in one filter press only
• the cake drying with heated membranes is patented
• after filtration the cavity between membrane and core plate is filled with hot water or steam to heat the membrane
• the generated water vapor from the filter cake is removed by vacuum or by pressure shocks with hot dry air
• the permanent cake shrinkage is compensated by the expanding membrane keeping the heat contact to the cake
• washing, sterilizing and cake blowing before drying process is possible with this new JVK System
• special membranes with high thermal conductivity and fast heat transfer have been developed

ADVANTAGES
• for the process steps of filtration and drying no additional drier is necessary
• easy conversion of existing filter presses to cake drying system
• this new development allows to use also a mixed package
• possibility to work with normal membrane chamber plates instead of special filter plates
• the cake volume is not reduced by separate heating plates
• treatment of different batch sizes by constant product quality
• minimum thermal losses
• due to the drying in the filter press there is no risk of explosion or dust combustion
• no protection against abrasion and corrosion needed
• low disposal costs by maximum weight and volume reduction of the cake