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Vitázek I., Tirol J.: Relation between surface temperature and dryer operation

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The most significant way of grains conservation is heat drying. This technological process is regarded as a part of the production process with such commodities as grain maize, grain sunflower, rape, and other oil plants. The paper presents partial results of a check measurement on MC 3180 dryer with descending vertical layer in drying grain maize. On the basis of the evaluation of the measured parameters of the drying medium and the analysis of thermovisior camera screenshots together with applying the knowledge of the mechanics of wet air, insufficiencies in the dryer operation were revealed and specified. Significant diferences in surface temperatures of the dryer casing were caused by its silting up, which had an unfavourable effect on the drying mediun flow throug the layer of the dried material The analysis of the state of the drying medium was done using i-x diagram of