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(54) **METHOD FOR ADAPTING DRYING LEVEL OF DRYING PROGRAM FOR TEXTILE TREATMENT APPLIANCE, METHOD FOR RUNNING DRYING PROGRAM, AND TEXTILE TREATMENT APPLIANCE**

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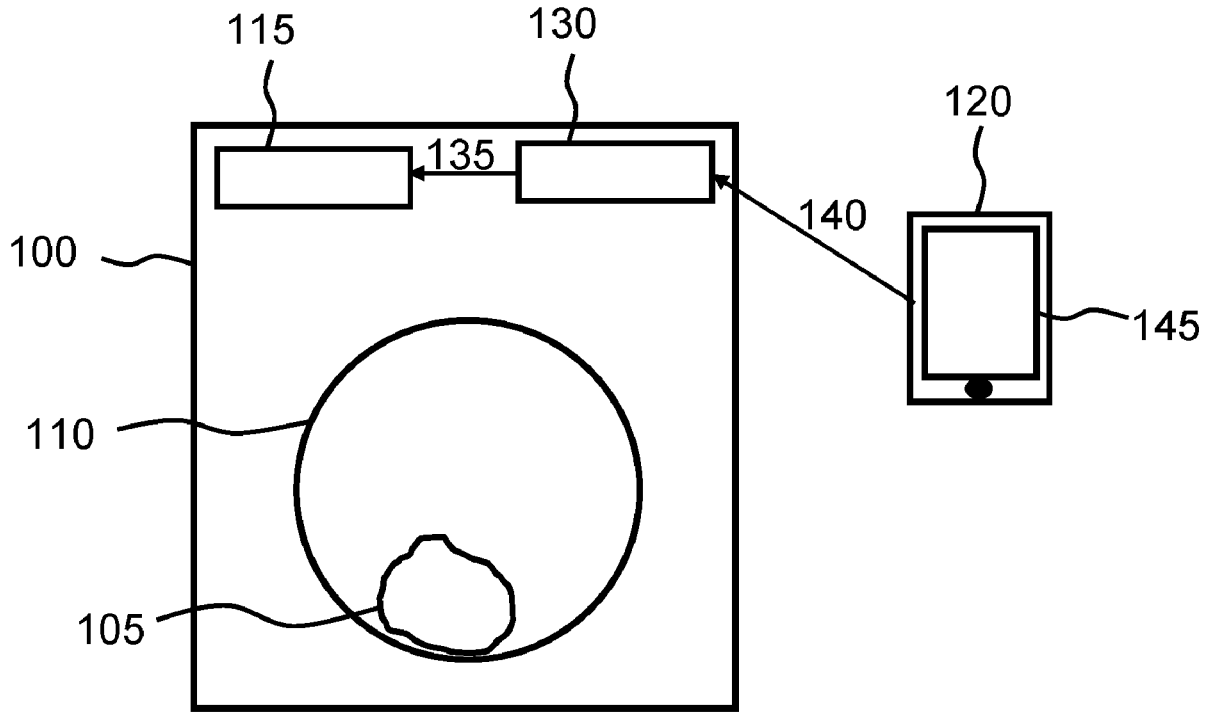
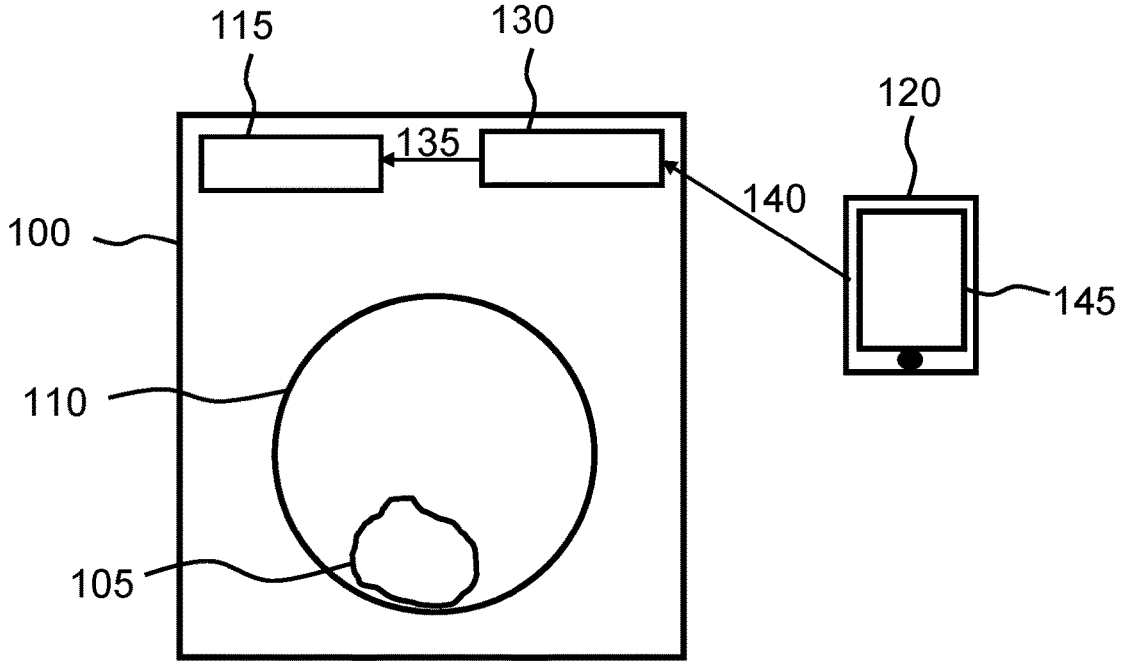
(57) **ABSTRACT**

Method for adapting a drying level of a drying program for a textile treatment appliance, method for running a drying program, and textile treatment appliance. The drying level defines a level of residual moisture in textiles at the end of the drying program. The method comprises providing a question signal to an interface of an output device at the end of the drying program in order to cause an output of a question about a satisfaction of the residual moisture in the textiles, reading in a response signal via an interface to an input device, in response to the question signal, wherein the response signal represents an operator's assessment with respect to satisfaction of the residual moisture in the textiles, and adapting a residual moisture parameter of the drying level for a subsequent run of the drying program using the response signal.




115
130
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105

FIG 1

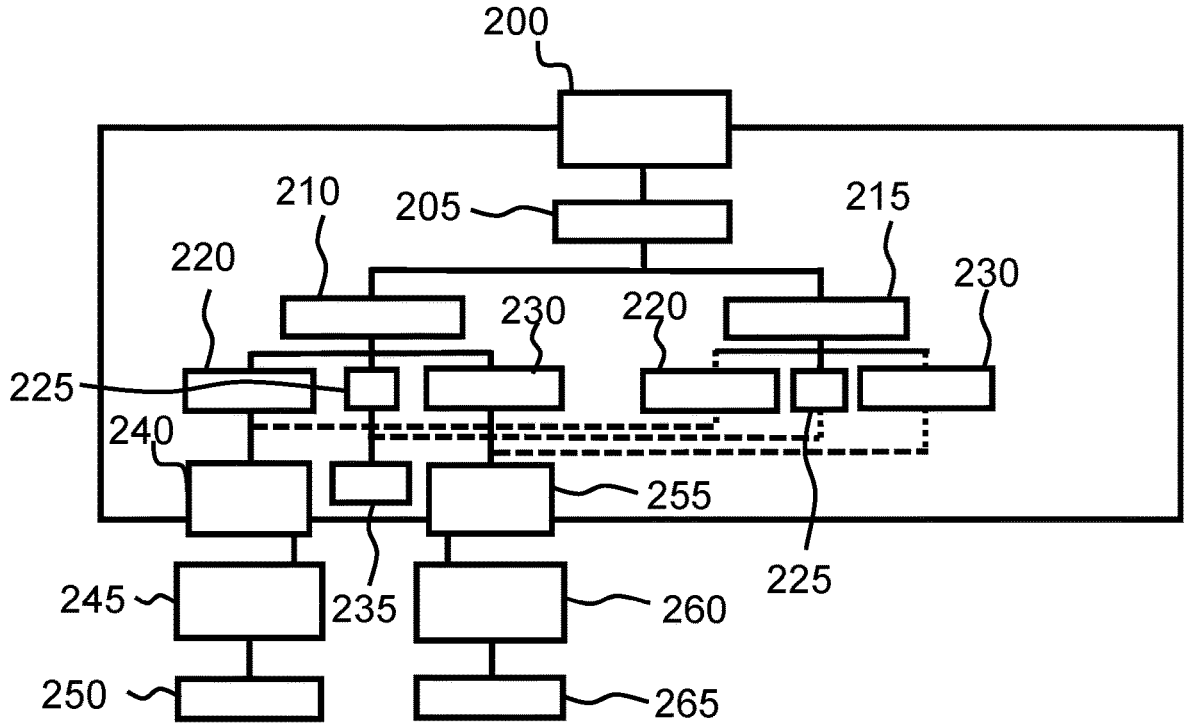
200
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FIG 2

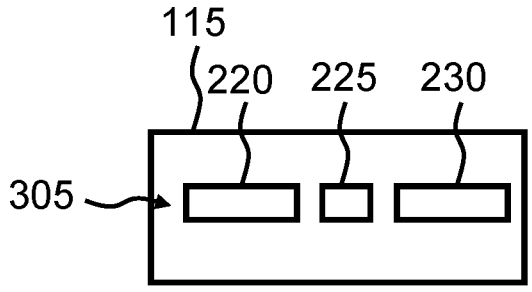

FIG 3

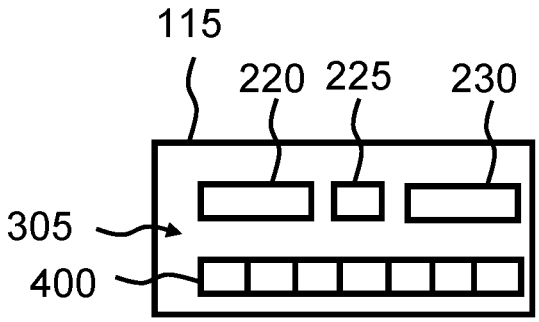

FIG 4

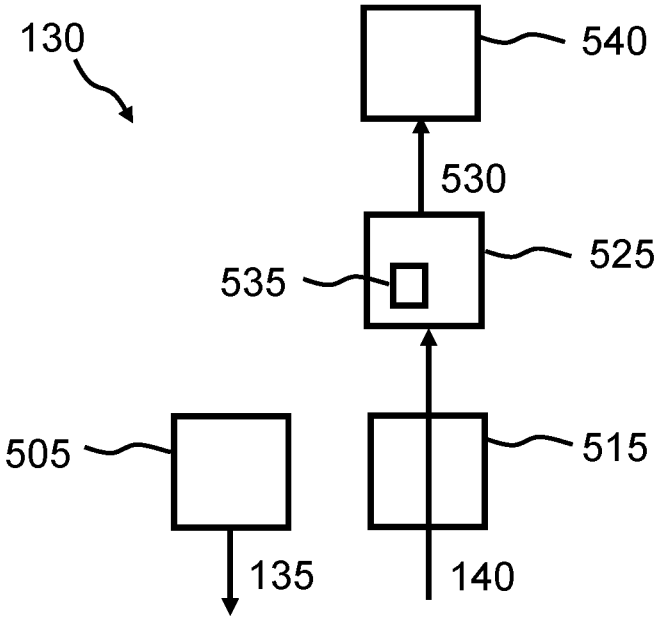

FIG 5

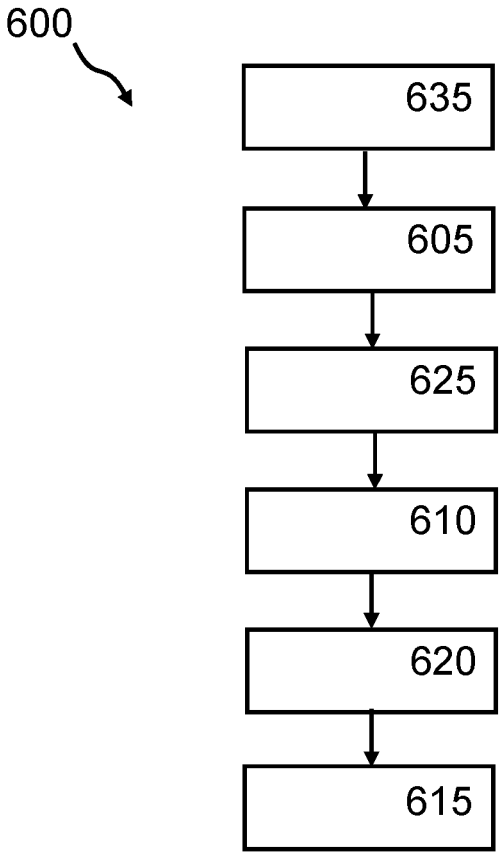

FIG 6

METHOD FOR ADAPTING DRYING LEVEL OF DRYING PROGRAM FOR TEXTILE TREATMENT APPLIANCE, METHOD FOR RUNNING DRYING PROGRAM, AND TEXTILE TREATMENT APPLIANCE

RELATED APPLICATIONS

[0001] The present disclosure claims priority to and the benefit of German Application 10 2020 132 406.5 filed on Dec. 7, 2020, the entire contents of which are incorporated herein by reference.

TECHNICAL FIELD

[0002] The disclosure relates to a method for adapting a drying level of a drying program for a textile treatment appliance, a method for running a drying program, and a textile treatment appliance.

BACKGROUND

[0003] US20020184789A1 discloses a dryer in which the drying result can be adapted by correcting the time.

[0004] EP3342924A1 discloses a dryer in which users can make changes via the display for each preset residual moisture level. These changes are made before the start of the drying program.

SUMMARY

[0005] The object of the present disclosure is to provide an improved method for adapting a drying level of a drying program for a textile treatment appliance, an improved method for running the drying program, and an improved textile treatment appliance.

[0006] According to the disclosure, this object is achieved by a method for adapting a drying level of a drying program for a textile treatment appliance, a method for running the drying program, and a textile treatment appliance having the features of the main claims. Advantageous embodiments and developments of the disclosure result from the subsequent dependent claims.

[0007] The advantages that can be achieved with the disclosure are that the residual moisture levels in the textile treatment appliance, or the drying result, can be optimized with regard to the individually perceived residual moisture values at the end of the drying program and tailored to the operator. By means of feedback from the operator at the end of a drying program about the satisfaction of the residual moisture result, the residual moisture levels can be automatically adapted after a user input. In this way, the residual moisture levels can be corrected on the basis of operator feedback. This makes it possible to tailor a drying level to the subjective perception of the operators.

[0008] A method for adapting a drying level of a drying program for a textile treatment appliance, wherein the drying level defines a level of residual moisture in textiles at the end of the drying program, comprises the following steps:

[0009] providing a question signal to an interface to an output device at the end of the drying program in order to cause an output of a question about a satisfaction of the level of residual moisture in the textiles;

[0010] reading in a response signal via an interface to an input device, in response to the question signal, wherein the response signal represents an operator's assessment with respect to satisfaction of the level of residual moisture in the textiles; and

[0011] adapting a residual moisture parameter assigned to the drying level for a subsequent run of the drying program using the response signal.

[0012] The textile treatment appliance can be designed as a washer-dryer or a tumble dryer and is used to treat textiles, in particular to dry textiles. For this purpose, the textile treatment appliance is designed to be able to run at least one drying program which can be started by an operator for drying textiles that have been inserted into the textile treatment appliance. The drying level of the drying program can indicate the level of residual moisture up to which the textiles are to be dried. The drying level can thus also be referred to as a residual moisture level. A drying level can be preset for the drying program or the operator can be offered a range of options for selecting a drying level from a plurality of predetermined drying levels. Different drying levels can define different levels of residual moisture at the end of the drying program. For example, the drying levels "closet dry" and "extra dry" can be selected. The level of residual moisture can represent the mass of liquid that is in the textiles, based on the dry weight. The level of residual moisture that can be achieved by running the drying program can be controlled by means of the residual moisture parameter that is assigned to the drying level. If the residual moisture parameter assigned to a drying level is changed, the residual moisture of the textiles also changes if the drying program is run with this drying level. For example, the residual moisture parameter can represent the absolute value of the residual moisture to be achieved, a duration of the drying program or a parameter in an algorithm for controlling the drying program. The output device can comprise a display, for example. The question signal is, for example, suitable for controlling the output device in such a way that the output device outputs the question about the satisfaction of the level of residual moisture in a representation that is suitable for perception by the operator. This allows the operator to be asked to provide feedback on their satisfaction. For example, after removing the textiles, the operator is given the opportunity to express their satisfaction via the input device. For example, the input device can have a touch-sensitive surface, a button, or a microphone for receiving speech. In the adapting step, the drying level can be adapted taking into account the operator's assessment of the level of residual moisture, in such a way that the level of residual moisture meets the operator's expectations when the drying program is run again, for example with the same drying level. The adaptation can be carried out by adapting the residual moisture parameter assigned to the drying level. Advantageously, after adaptation, the drying level can define a changed level of residual moisture in the textiles at the end of the drying program. If the operator has selected the same drying level when the drying program is restarted, a changed level of residual moisture can nevertheless be achieved by adapting the residual moisture parameter.

[0013] In the adapting step, the residual moisture parameter of the drying level can be changed by a first value if the response signal represents too damp textiles as the assessment. Changing the parameter by the first value can have the effect that, when the drying program is run again with the drying level, the level of residual moisture is lower than in the case of the drying program just run. Accordingly, in the

adapting step, the residual moisture parameter of the drying level can be changed by a second value if the response signal represents too dry textiles as the assessment. Changing the parameter by the second value can have the effect that, when the drying program is run again with the drying level, the level of residual moisture is greater than in the case of the drying program just run. To this end, the first value and the second value may have different signs. For example, the operator can choose between the response options "too damp" or "too dry". By means of the feedback transmitted via the response signal, the textile cleaning appliance can learn the level of residual moisture that is appropriate for the operator and adapt the drying level accordingly. For example, the residual moisture parameter can be changed by means of the first value in such a way that the level of residual moisture defined by the drying level is reduced by a predetermined percentage, for example 1%. Accordingly, the residual moisture parameter can be changed by means of the second value in such a way that the level of residual moisture defined by the drying level is increased by a predetermined percentage, for example 1%.

[0014] In the adapting step, the residual moisture parameter of the drying level can be changed by a further first value in order to further reduce the level of residual moisture if the response signal represents too damp textiles as the assessment. Accordingly, in the adapting step, the residual moisture parameter of the drying level can be changed by a further second value in order to further increase the level of residual moisture if the response signal represents much too dry textiles as the assessment. The operator has a range of possible responses and can choose between "damp", "too damp", "dry", or "too dry", for example. The textile cleaning appliance can adapt the appropriate level of residual moisture even better in this case, since the operator has a larger selection of possible responses when assessing the level of residual moisture. For example, the residual moisture parameter can be changed by means of the further first value in such a way that the level of residual moisture defined by the drying level is reduced by a predetermined further percentage, for example 2%. Accordingly, the residual moisture parameter can be changed by means of the further second value in such a way that the level of residual moisture defined by the drying level is increased by a predetermined further percentage, for example 2%.

[0015] According to an exemplary embodiment, in the adapting step, the residual moisture parameter of the drying level is not adapted if the response signal represents an expected level of residual moisture of the textiles as the assessment. The operator chooses this assessment if they are satisfied with the level of residual moisture in the textiles. In this case, the textile cleaning appliance does not adapt the drying level or the residual moisture parameter assigned to the drying level.

[0016] In the adapting step, the residual moisture parameter of the drying level can only be adapted if the response signal and at least one previous response signal consistently represent a too low level of residual moisture or consistently represent a too high level of residual moisture as the assessment. This can prevent the drying level from changing in the event of the operator being dissatisfied a single time. For example, the drying level can be adapted only if the operator has chosen the same assessment, for example "too damp", several times, for example.

[0017] The method can further comprise a step of storing the assessment of the response signal. By storing the assessments, the operator's assessments submitted at the end of previous runs of the drying program can be taken into account when adapting the residual moisture parameter. For storage, it is possible to use a counter which can be set in response to a read-in response signal. For example, the adapting step can be performed only when the counter has reached a predetermined counter value. Otherwise, the adapting step can be skipped.

[0018] In the providing step, the question signal can be provided to the interface to the output device, which is designed as a display device of the textile treatment appliance. As a result, a range of possible responses for assessing the level of residual moisture in the textiles can be displayed to the operator, for example on a display of the dryer.

[0019] In the providing step, the question signal can additionally or alternatively be provided to an interface of an external device. This offers the advantage that the operator does not have to assess the level of residual moisture in the textiles directly after completion of the drying program, but can also do this at a later point in time, for example when folding the laundry. The external device can be a mobile device, for example a smartphone.

[0020] The method can comprise a step of detecting an input by the operator using a touch-sensitive sensor or microphone, which input indicates the assessment. The response signal can be determined in response to the input. In this way, the operator can submit their assessment of the level of residual moisture either manually or by voice control.

[0021] The method can comprise a step of running the drying program. In this case, at the end of the drying program, a door of the textile treatment appliance can be unlocked. The step of providing the question signal can be performed in response to the unlocking. This offers the advantage that the operator can submit their assessment of the level of residual moisture only after the end of the drying program, because only when the door is unlocked can the operator pick up the textiles and check whether the level of residual moisture meets their expectations.

[0022] The approach presented here further provides a control apparatus which is designed to perform, control, or implement the steps of a variant of a method presented here in corresponding devices. The object on which the disclosure is based can also be achieved quickly and efficiently by means of this embodiment variant of the disclosure in the form of an apparatus.

[0023] The control apparatus can be designed to read in input signals and to determine and provide output signals using the input signals. An input signal can constitute, for example, a sensor signal that can be read in via an input interface of the apparatus. An output signal can constitute a control signal or a data signal that can be provided at an output interface of the apparatus. The apparatus can be designed to determine the output signals using a processing specification converted into hardware or software. To this end, the apparatus can, for example, comprise a logic circuit, an integrated circuit, or a software module for a computer and/or processor and be realized, for example, as a discrete component or be comprised by a discrete component.

[0024] A corresponding textile treatment appliance for running a drying program for drying textiles can comprise

said control apparatus. Using the control apparatus, a drying level of the drying program can be adapted.

[0025] Even if the described approach is described with reference to a household appliance, the textile treatment appliance described here or the method described here can be used accordingly in connection with a commercial or professional appliance.

[0026] Of further advantage is a computer program product or computer program having program code that can be stored on a machine-readable carrier or storage medium such as a semiconductor memory, a hard disk storage unit, or an optical storage unit. If the program product or program is executed on a computer or an apparatus, the program product or program can be used for performing, implementing, and/or controlling the steps of the method according to one of the above-described embodiments.

BRIEF DESCRIPTION OF THE DRAWINGS

[0027] An exemplary embodiment of the disclosure is shown purely schematically in the drawings and will be described in more detail below. In the drawings:

[0028] FIG. **1** is a view of a textile treatment appliance according to an exemplary embodiment;

[0029] FIG. **2** is a flowchart of a method for adapting a drying level of a drying program for a textile treatment appliance according to an exemplary embodiment;

[0030] FIG. **3** shows a display device for adapting a drying level of a drying program for a textile treatment appliance according to an exemplary embodiment;

[0031] FIG. **4** shows a display device for adapting a drying level of a drying program for a textile treatment appliance according to an exemplary embodiment;

[0032] FIG. **5** shows a control apparatus for a textile treatment appliance according to an exemplary embodiment; and

[0033] FIG. **6** is a flowchart of a method for adapting a drying level of a drying program for a textile treatment appliance.

DETAILED DESCRIPTION OF THE DRAWINGS

[0034] FIG. **1** shows a textile treatment appliance **100** according to an exemplary embodiment. The textile treatment appliance **100** is suitable for drying textiles **105**. The textile treatment appliance **100** is designed to run a drying program. A drying level is assigned to the drying program or different drying levels can be selected by an operator for the drying program. In this respect, the drying level defines a level of residual moisture in the textiles **105** at the end of the drying program.

[0035] The approach described makes it possible to adapt the level of residual moisture defined by the drying level or the drying levels in response to an assessment by the operator. For this purpose, depending on the exemplary embodiment, after running the drying program once or multiple times and a subsequent assessment by the operator in each case, at least one residual moisture parameter of the drying level or of the drying levels is adapted if the operator's assessment indicates that the operator is dissatisfied. For example, a length of a drying time of the drying program can be controlled by means of the residual moisture parameter.

[0036] The textile treatment appliance **100** can be called a washer-dryer or a tumble dryer. The operator wishes to have the textiles **105** dried in the textile treatment appliance **100**, usually after they have been washed. To this end, the operator puts the textiles **105** into a textile treatment container **110** of the textile treatment appliance **100** and starts a drying program with a drying level which defines the level of residual moisture of the textiles **105**. If the drying level has not yet been adapted by the operator, the textile treatment appliance **100** dries the textiles **105** with the factory settings, i.e., it targets a residual moisture assigned to the drying level at the factory. Once the drying program has been run, the operator is given the opportunity to assess the level of residual moisture present in the textiles **105**. Such an assessment is used to adapt at least the drying level that was set during the drying program that was just run. By adapting the drying level, the level of residual moisture assigned to the drying level is adapted, for example increased or reduced, in accordance with the operator's assessment. If the operator is satisfied with the level of residual moisture, no adaptation is made. According to an exemplary embodiment, the adaptation is made only if a plurality of assessments are available, from which a tendency can be identified as to whether the textiles appear rather too dry or too damp from the operator's point of view.

[0037] According to an exemplary embodiment, a process for adapting the drying level is started as soon as the actual drying program has ended and the door of the textile treatment container **110** is unlocked. The operator is then asked to submit an assessment of the level of residual moisture of the textiles **105**. To this end, the question of whether the operator is satisfied with the level of residual moisture in the textiles **105** appears on an output device **115** of the textile treatment appliance **100**, which is designed for example as a display. The operator can now assess, for example via a touch display, whether the textiles **105** are too damp or too dry. Optionally, the operator can also respond by voice control. Another option is to send the question to an external device **120**, such as an app on a smartphone, so that the operator does not have to respond directly after the drying program, but can also make an assessment via the app later when folding the laundry. The external device **120** constitutes, for example, a mobile device which is coupled or can be coupled to the textile treatment appliance **100** via a communication interface. The assessment is then stored temporarily, e.g., in a cloud, when the textile treatment appliance **100** is already in standby, and transmitted to the textile treatment appliance **100** when the textile treatment appliance **100** is switched back on. The approach described therefore includes various options for how the operator can assess the level of residual moisture, it being possible for the operator to be given an option or for all options to be made available in parallel. Advantageously, this gives the operator the opportunity to assess the residual moisture result after the drying program.

[0038] According to an exemplary embodiment, these assessments are stored and after frequent, for example five, poor assessments, the drying level, or alternatively the drying levels, is adapted according to the operator's perception.

[0039] According to an exemplary embodiment, the textile treatment appliance **100** offers the operator the opportunity to choose different drying levels during drying. The drying level "closet dry" is aimed, for example, at a laundry residual moisture of 0%. The laundry residual moisture is a variable that is standardized to a given indoor climate.

Moreover, the load is not dried 100% evenly, which means that if the total laundry residual moisture of the load is 0% there are items of laundry that are over dried and others that are still damp. The operator's perception of whether the laundry is "dry" at a final residual moisture level of 0% is very subjective for these reasons. Often, the operator will perceive laundry with a final residual moisture level of 0% as "too damp". However, the operator does not wish to select the drying level "closet dry" or "extra dry", as they suggest that the laundry will be heavily stressed.

[0040] Preset drying levels are optimized, for example, to the standardized residual moisture variables, the level of residual moisture being made deliberately drier in some drying levels. Optionally, the operator is offered the opportunity to adjust the drying levels of the drying program using a programming function. The level of residual moisture can thus be made up to 3% drier or damper for each drying level. In accordance with the approach presented here, a corresponding adaptation is also carried out in an automated manner using the operator's assessments.

[0041] The approach described is aimed at automatically adapting the drying result to the operator. The operator can subsequently adapt the drying level to their demands without too much complexity, since the assessment is made, for example, via a simple touch display or simple voice control. The operator does not need to read an instruction manual to adapt the level of residual moisture assigned to a drying level. The level of residual moisture can therefore be adapted on the basis of a satisfaction inquiry. This adaptation would then be possible in the case of time drying by adapting the time or, in the case of table data, by adapting the values or, in the case of a linear model, by an offset. According to an exemplary embodiment, a residual moisture parameter assigned to the drying level is adapted for such an adaptation. The residual moisture parameter defines or influences, for example, the time of the time drying, at least one value of the table data or the offset of the linear model. For example, the residual moisture parameter is incorporated into a controller of the running of the drying program. If the level of residual moisture appears to the operator to be too low, the residual moisture parameter is adapted, for example, in such a way that the time of the time drying is shortened or a targeted residual moisture value is increased.

[0042] According to an exemplary embodiment, the textile treatment appliance **100** has a control apparatus **130** for adapting the drying level of the drying program. The control apparatus **130** is realized, for example, as part of a control unit for controlling an operation of the textile treatment appliance **100**. The control apparatus **130** is designed, for example, to use the output device **115** to cause an output of a question with respect to the operator's satisfaction with the level of residual moisture and to read in a response with a corresponding assessment of satisfaction. According to an exemplary embodiment, the control apparatus **130** is designed to output a question signal **135** for controlling the output device **115** and to read in the response in the form of a response signal **140**. By way of example, the question signal **135** is output to the display device **115** and the response signal **140** is read in via an interface to an input device **145** of the external device **120**, which is designed as a touch display. Accordingly, the question signal **135** can also be output to the external device **120**. Alternatively, the response signal **140** can also be read in via an input device of the textile treatment appliance **100**.

[0043] FIG. **2** is a flowchart of a method for adapting a drying level of a drying program for a textile treatment appliance according to an exemplary embodiment. The textile treatment appliance can be the textile treatment appliance described in FIG. **1**.

[0044] At the end or after the end of the drying program, the operator is given the opportunity to assess the level of residual moisture present in the textiles. The block **200** marks a state in which a remaining time of the drying program has ended and a door opening has taken place so that the operator can remove the textiles. Subsequently, the satisfaction of the operator with respect to the level of residual moisture is queried in the block **205**.

[0045] For example, a question signal is provided for this purpose to an interface to an output device for outputting a corresponding question to the operator. By way of example, the question is output using an output device in the form of a display **210** and additionally or alternatively via an app **215**, which is executed, for example, on a mobile device. In both variants, i.e., using the display **210** or using the app **215**, the further sequence of the method is identical.

[0046] The operator is given the opportunity to assess the level of residual moisture present in the textiles. To this end, the possible responses "too damp" **220**, "ok" **225**, and "too dry" **230**, for example, are offered using the display **210** and/or the app.

[0047] If the operator is satisfied with the level of residual moisture present in the textiles, they select the assessment "ok" **225**. This response will cause the sequence to skip to block **235** and the method is terminated without adapting the drying level.

[0048] If the operator selects the assessment "too damp" **220**, the sequence will skip to block **240**. In the block **240**, a first counter is increased, for example by "1", and stored. If the first counter is less than a predetermined first counter value, the method is terminated without adapting the drying level. However, if the first counter has reached the predetermined first counter value, a residual moisture parameter of the drying level is changed by a value in the block **245** in order to reduce the level of residual moisture. For example, the residual moisture parameter is changed in such a way that the level of residual moisture produced by the drying level is reduced by a predetermined percentage, for example reduced by 1%. To this end, the residual moisture parameter is changed, for example, by a predetermined first value. Subsequently, the first counter in a block **250** is set to zero, that is, reset. The first counter thus has the effect that, in the block **240**, the residual moisture parameter is changed only if the assessment "too damp" **220** has been selected a predetermined number of times, for example five times.

[0049] If the operator selects the assessment "too dry" **230**, the sequence will skip to block **255**. In the block **255**, a second counter is increased by "1" and stored. If the second counter is less than a predetermined second counter value, the method is terminated without adapting the drying level. However, if the second counter has reached the predetermined second counter value, a residual moisture parameter of the drying level is changed by a value in the block **260** in order to increase the level of residual moisture. For example, the residual moisture parameter is changed in such a way that the level of residual moisture produced by the drying level is increased by a predetermined percentage, for example increased by 1%. To this end, the residual moisture parameter is changed, for example, by a predeter-

mined second value. Subsequently, the second counter in a block **265** is set to zero, that is, reset. The second counter has the effect that, in the block **240**, the residual moisture parameter is changed only if the assessment "too dry" **230** has been selected a predetermined number of times, for example five times.

[0050] Instead of counting up, the counters can also count down in a corresponding manner or an alternative counting method can be used for counting the corresponding assessments. According to an alternative exemplary embodiment, only one counter is used which is either increased or reduced in the blocks **240**, **255**. In this case, the first counter value and the second counter value can be the same in terms of amount, but have different signs.

[0051] According to an exemplary embodiment, residual moisture values are determined by means of a mathematical model from various measured variables. In order to now change the drying level according to the feedback, a corresponding model equation is shifted accordingly by +1 or −1. This can be carried out in the blocks **245**, **260**.

[0052] The counter from the blocks **240**, **255** is set according to one exemplary embodiment per drying level per program and load quantity. In this way, different counters can be provided for different drying levels and, where appropriate, for different load quantities.

[0053] If the operator has selected "too damp" multiple times in a program and/or with a load quantity, the drying level is set, for example, 1% drier or, in the case of "too dry", 1% damper. The dryer or washer-dryer can learn the appropriate level of residual moisture for the operator via the feedback.

[0054] With this approach, the operator receives a residual moisture result of the drying that is tailored to them through simple feedback on satisfaction. The operator does not have to find out about the setting options and try out which residual moisture level is the best for them. By controlling via an external device and the voice control, the operator is provided with new opportunities to adapt the drying result to their individual needs in a simple way.

[0055] FIG. **3** shows an output device **115** for a textile treatment appliance according to an exemplary embodiment. The textile treatment appliance can be the textile treatment appliance described in FIG. **1**. The output device **115** constitutes, for example, a display device in the form of a display of the textile treatment appliance or alternatively of an external device. An indicator **305** displayed by the output device **115** can thus be displayed via display or app. According to an exemplary embodiment, the indicator **305** appears controlled by a question signal after the drying program of the textile treatment appliance has been completed and after the door of the textile container is unlocked. Using the indicator **305**, the operator is asked for satisfaction with the drying result, with three possible responses being proposed here by way of example. If the output device **115** is designed as a touch display, the operator responds, for example, by touching touch fields of the output device **115**.

[0056] If the operator perceives that the textiles are too damp after the drying program, they choose block **220** "too damp"; if they are satisfied with the drying result, they choose block **225** "ok", if the operator perceives that the textiles are too dry after the drying program, they choose block **230** "too dry" as the response.

[0057] According to an alternative exemplary embodiment, the response to the question about the satisfaction of the drying result is made by voice control.

[0058] FIG. **4** shows an output device **115** for a textile treatment appliance according to an exemplary embodiment. The output device **115** corresponds to the display device described with reference to FIG. **3**, the indicator **305** additionally having a gauge indicator **400** in addition to the blocks **220**, **225**, **230**. The gauge indicator **400** represents a scale or gauge that allows the operator to more accurately assess their assessment with respect to the level of residual moisture. The fields of the scale are indicated by the blocks **220**, **225**, **230**. In this way, the operator is given three gradations for their assessment, both with regard to textiles that are too damp and with regard to textiles that are too dry.

[0059] FIG. **5** shows a control apparatus **130** for a textile treatment appliance according to an exemplary embodiment. For example, it is a control apparatus as described with reference to FIG. **1**. According to an exemplary embodiment, the control apparatus **130** is designed to perform the steps of the method described with reference to FIG. **2**. The control apparatus **130** has a providing device **505**, a read-in device **515**, and an adaptation device **525**.

[0060] The providing device **505** is designed to provide a question signal **135** at the end of a drying program run with a selected drying level to an interface to an output device, for example the display described with reference to FIG. **1**. Using the question signal **135**, the output device is controlled in such a way that, for example, the indicator shown with reference to FIG. **3** is displayed to the operator and prompts the operator to indicate their satisfaction with the level of residual moisture of the textiles.

[0061] In response to the provision of the question signal **135**, the read-in device **515** is designed to read in a response signal **140** via an interface to an input device which allows the operator to enter an input with respect to their satisfaction. For example, the input is made by touching one of the blocks of a touch-sensitive display that are indicated in FIG. **3**. The response signal **140** thus represents an assessment of the operator with respect to satisfaction with the level of residual moisture.

[0062] The adaptation device **525** is designed to adapt a residual moisture parameter **530** of the drying level using the response signal **140**. Adapting the drying level has the effect that a changed level of residual moisture is targeted when the drying program is run again.

[0063] For example, the adaptation device **525** is designed to change the residual moisture parameter **530** of the drying level by a first value if the response signal represents "too damp" textiles as the assessment, and to change it by a second value if the response signal represents "too dry" textiles as the assessment. The first and the second value can, for example, cause the level of residual moisture assigned to the drying level to change by a predetermined first positive percentage and a predetermined first negative percentage, respectively.

[0064] If the operator is given the opportunity to assess the level of residual moisture in a graduated manner, for example using a gauge as shown in FIG. **4**, the residual moisture parameter **530** is changed in a graduated manner according to an exemplary embodiment. For example, the residual moisture parameter **530** of the drying level is changed by a further first value if the response signal represents "much too damp" textiles as the assessment, and

is changed by a further second value if the response signal represents "much too dry" textiles as the assessment. The further first and the further second value can, for example, cause the level of residual moisture assigned to the drying level to change by a predetermined second positive percentage and a predetermined second negative percentage, respectively, which percentage is greater than the first percentage.

[0065] According to an exemplary embodiment, the adaptation device **525** is designed not to adapt the residual moisture parameter **530** in response to each response signal **140**, but only when both the last read-in response signal **140** and at least one previous response signal from a previous run of the drying program indicate a consistent assessment, for example "too damp" or "too dry". For this purpose, according to an exemplary embodiment, the adaptation device **525** is designed to store the assessment transmitted via the response signal **140** in a storage device **535**. For example, to this end the storage device **535** comprises at least one counter which can store a number of corresponding assessments.

[0066] According to an exemplary embodiment, the adaptation device **525** is designed not to change the residual moisture parameter **530** if the response signal **140** indicates a level of residual moisture that is expected by the operator as the assessment, i.e., the operator is satisfied with the drying result.

[0067] According to an exemplary embodiment, the control apparatus **130** comprises a control device **540** which is designed to control the running of the drying program. In this case, the control device **540** is designed to control the drying program using the residual moisture parameter **530** in such a way that the level of residual moisture defined by the drying level is achieved. According to an exemplary embodiment, the control device **540** is designed to cause a door of the textile treatment appliance to unlock at the end of the drying program, and the providing device **505** is designed to provide the question signal **135** in response to the unlocking of the door.

[0068] According to an exemplary embodiment, the control apparatus **130** constitutes a control unit of the textile treatment appliance or the control apparatus **130** is integrated into such a control unit.

[0069] FIG. **6** is a flowchart of a method **600** for adapting a drying level of a drying program for a textile treatment appliance, wherein the drying level defines a level of residual moisture in textiles at the end of the drying program. The method can be carried out, for example, using the control apparatus described with reference to FIG. **5**.

[0070] The method **600** comprises a step **605** in which, at the end of the drying program, a question signal is provided to an interface to an output device. The question signal causes a question to be output to the operator, which asks the operator about their satisfaction with the level of residual moisture in the textiles. In a step **610**, a response signal is read in via an interface to an input device. The response signal indicates an assessment of the operator, input by the operator, with respect to their satisfaction with the level of residual moisture. In a step **615**, a residual moisture parameter of the drying level is adapted for a subsequent run of the drying program using the response signal.

[0071] Optionally, the assessment indicated by the response signal is stored in a step **620**, for example using a counter. In this case, the adapting step **615** is performed or skipped, for example depending on a value of the counter.

[0072] In order to generate the response signal, the method **600** optionally comprises a step **625** in which an input of the operator is detected and the response signal corresponding to the input is determined. Optionally, the method also comprises a step **635** in which the drying program is run, wherein a door of the textile treatment appliance is unlocked at the end of the drying program. In this case, the step **605** of providing the question signal can be performed in response to the unlocking.

1. A method for adapting a drying level of a drying program for a textile treatment appliance, wherein the drying level defines a level of residual moisture in textiles at the end of the drying program, wherein the method comprises the following steps:

providing a question signal to an interface of an output device at the end of the drying program in order to cause an output of a question about a satisfaction of the level of residual moisture in the textiles addressed to an operator of the textile treatment appliance;

reading in a response signal via an interface to an input device, in response to the question signal, wherein the response signal represents an operator's assessment with respect to satisfaction with the level of residual moisture in the textiles; and

adapting a residual moisture parameter assigned to the drying level for a subsequent run of the drying program using the response signal.

2. The method according to claim **1**, wherein, in the adapting step, the residual moisture parameter is changed by a first value if the response signal represents too damp textiles as the assessment, and wherein, in the adapting step, the residual moisture parameter of the drying level is changed by a second value if the response signal represents too dry textiles as the assessment.

3. The method according to claim **2**, wherein, in the adapting step, the residual moisture parameter of the drying level is changed by a further first value if the response signal represents much too damp textiles as the assessment, and wherein, in the adapting step, the residual moisture parameter of the drying level is changed by a further second value if the response signal represents much too dry textiles as the assessment.

4. The method according to claim **1**, wherein, in the adapting step, the residual moisture parameter of the drying level is not adapted if the response signal represents an expected level of residual moisture of the textiles as the assessment.

5. The method according to claim **1**, wherein, in the adapting step, the residual moisture parameter of the drying level is only adapted if the response signal and at least one previous response signal consistently represent a too low level of residual moisture or consistently represent a too high level of residual moisture as the assessment.

6. The method according to claim **1**, comprising a step of storing the assessment of the response signal.

7. The method according to claim **1**, wherein, in the providing step, the question signal is provided to the interface of the output device, which is designed as a display device of the textile treatment appliance, and/or to an interface of an external device.

8. The method according to claim **1**, comprising a step of detecting an input by the operator using a touch-sensitive

sensor or a microphone, which input indicates the assessment, wherein the response signal is determined in response to the input.

9. The method according to claim **1**, comprising a step of running the drying program, wherein a door of the textile treatment appliance is unlocked at the end of the drying program, wherein the step of providing the question signal is performed in response to the unlocking.

10. A control apparatus designed to perform the steps of the method according to claim **1** in corresponding units.

11. A textile treatment appliance for running a drying program for drying textiles and comprising a control apparatus according to claim **10** for adapting the drying level of the drying program.

12. A computer program product having program code for carrying out the method according to claim **1** wherein the computer program product is executed on a control apparatus.

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