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## Poor drying result

Appliances: Appliances of GV640 series

Customer is not satisfied with the drying performance.

Due to the increased number of enquiries about the drying performance of the series GV640 we have, in collaboration with QMK, established a list of some probable reasons for the complaints regarding "insufficient drying performance" and compiled some indications for possible corrective measures. In addition to technical reasons, numerous factors are though to be looked for in the surroundings of the appliance (situation of connection and installation, operation, programme selection, utilisation of detergents, customer expectations, etc.). It is therefore advisable to first give advices to the customer before sending out a technician.

## **General causes:**

Proceeding by emptying the appliance	By emptying the appliance the customer should always begin with the lower basket. Afterwards the upper basket should be cleared and finally, if available, the cutlery basket.  Note: Drop formation on the bottom edges of the dishes, on the dishes or on the cutlery basket cannot be fully avoided.
	Long waiting time with closed door (e.g. overnight) after washing should be avoided.  After the dishes have given off ist inherent heat, the drying effect reverses. The humidity in the appliance condenses again on the cooled down dishes and drop formation begins.  Advice: take the dishes out about 30 min. after the end of the programme.
Combi-cleaner with integrated rinse-aid / "x in 1" - tablets	If the drying performance with combi-cleaners ("5 in 1", "7 in 1", etc.) is not good enough, the utilisation of single branded products should be recommended. Rinse-aid should be used additionally to the tablets.  Due to the lower temperature during the rinsing with rinse-aid cycle a significantly better drying performance can be achieved by appliances with Zeolith drying system by using separate products instead of combi-products. Many of the appliances provide the option extra dry (s. instructions manual) to improve the drying performance.
No rinse-aid in the dispenser or rinse-aid dosage set too low	Refill rinse-aid. Activate or increase rinse-aid dosage.
Inappropriate programme / additional option selected	Select programme with drying phase (short programmes, e.g. "quick", have no or a very short drying phase).

2/3 T7-71-15

Ungeeignetes Programm / Zusatzoption gewählt	Utilisation of the Vario-Speed function:
	By appliances with Zeolith drying system this function is deactivated and a normal drying (with heat exchanger) takes place. This is less efficient and the dishes are much hotter at the end. Furthermore, compared to the cycle with Zeolith drying system, there is much more steam coming out by opening the appliance.
	By appliances without Zeolith drying system the drying time is much shorter and the temperature during rinsing with rinse-aid is higher. A slight reduction of the drying performance cannot be avoided.
Dishes taken out too soon	Wait until end of the programme to allow a sufficient drying. Recommendation: take the dishes out about 30 min. after the end of the programme.
Plastic dishes	Due to its low heat storage capacity and its hydrophobic (water repellent) surface, some water drops may remain on plastic dishes.  Some appliances provide the option <b>extra dry</b> (s. instructions manual) to improve the drying performance.  Additional indication fort he customer: increase rinse-aid dosage.
Utilisation of rinse- aid with low drying capacity	Some of the ecological rinse-aids available on the market have a lower drying performance than the normal ones.  Customer should use conventional branded products.

## **Technical causes**

Insufficient water supply	Corner valve scaled?  • Installation should be checked by an installer Inlet hose bent?  • Make sure by installing the appliance that the supply hose is properly laid Aquastop / inlet valve – flow-through too low?  • Check if the strainer is dirty and clean it if necessary  • Check the flow rate of the valve and replace it if necessary Note: By appliances until FD8904, if the water supply is not sufficient (even if the tap LED is not on yet) there may be not enough water during rinsing with rinse-aid (s. repair instructions thereto).
Drain valve in heat exchanger is leaky	Heat exchanger gets emptied between cleaning and rinsing with rinse-aid.  There is not enough water available during the rinse cycle to properly heat the dishes for the subsequent drying.  Heat exchanger should be filled even after longer non operating time. If the customer complains that there is some "water in the appliance / sump", it may be an indication that the drain valve is leaky.  Note: during rinsing with rinse-aid no true run detection of the circulating pump takes place, there is therefore no detection of a possible lack of water.
Low rinse-aid indicator appears too late.	A few rinse cycles before the lacking indicator is activated, rinse-aid is not sufficiently released. Note: may happen by appliances until FD8904.  The fact that according to customers "the drying performance gets better after refilling" confirms it.

No or not sufficient dosage of rinse-aid	The activation can be check with the test programme: number of pulses = dosage setting = number of times the magnet should operate.
Low rinse-aid indica- tor never appears	Plug to the rinse-aid indicator sensor is not properly plugged. Check the connection.
	Consequence:
	Lack of rinse-aid is not indicated. Customer does not refill.
	• By using of "3 in 1"- products the customer does not change the rinseaid setting to "0" (because display does not disturb). There is in this case no automatic programme optimisation in "3 in 1" – mode.
Heat exchanger is not properly snapped.	Heat exchanger is not enough in contact with the tank.
	Consequently lower cooling of the tank side during drying lower condensation surface and therefore lower drying performance.
	-> Check fixation and snap-fit (3 clicks).

## Other reasons

Water on cups base	Depending on dishes and the way of placing those in the appliance it may happen that the cups are not inclined enough so that the water cannot drain off.  • Advise the customer  • A cup holder bracket (Mat. Nr.: 618565, soon available) can be retrofitted at some places in the upper basket to increase the inclination.
Drops on tank / Inner door	Due to the drying principle "condensation drying" water drops on the tank are a required physical reaction. The air humidity condenses on the inner walls of the appliance, drains off and gets pumped out.
Customer expectations are not satisfied	Appliances without Zeolith drying system have a similar drying performance as the previous appliance generations.  Appliances with Zeolith drying system achieve better drying performance.

