

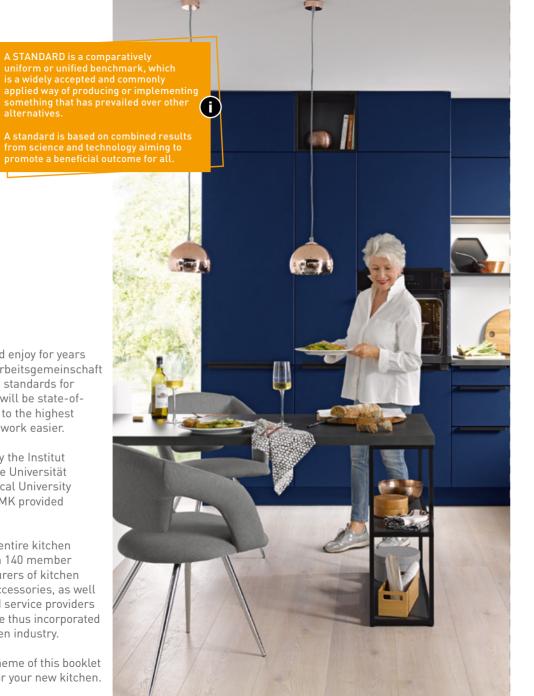
# stan dards

Buying a new kitchen is an investment you should enjoy for years to come. The Association for Modern Kitchens (Arbeitsgemeinschaft Die Moderne Küche e.V. (AMK)) has defined eight standards for modern kitchen design so that your new kitchen will be state-ofthe-art and fulfil its tasks throughout its lifetime to the highest standard while at the same time making kitchen work easier.

The results of an ergonomics study carried out by the Institut für Arbeitswissenschaften (IAD) of the Technische Universität Darmstadt (Institute of Ergonomics at the Technical University of Darmstadt, Germany) and commissioned by AMK provided the basis for these standards.

AMK is the trade and service association for the entire kitchen industry. The association incorporates more than 140 member companies, including many renowned manufacturers of kitchen units, electrical and built-in appliances, sinks, accessories, as well as suppliers, trade partnerships for kitchens and service providers in the kitchen industry. Our kitchen standards have thus incorporated the know-how and experience of the entire kitchen industry.

Our eight furnishing standards form the central theme of this booklet and will assist you in making the right decision for your new kitchen.





### 1. INDIVIDUAL MODERN KITCHEN DESIGN

- 1.1. Choice of kitchen st
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- 1.3. Choice of material
- 1.4. Light design

### 2. ERGONOMICS

- 2.1. Functional work flow
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# **Each kitchen** is unique.

In the age of personal expression individuality, many different requirements can be realised in kitchen planning. Each tailored kitchen is unique and consists of numerous, perfectly integrated components.





Timeless and modern: metallic surfaces such as bronze and matt black shelves are currently in fashion.

### Multifaceted country style.

Characteristic of the country style are framed fronts, which make the look appear lively in various facets. These fronts can be very simple or richly decorated, and they reflect options from classic to modern urban design. Details such as guirky handles, traditional patterns, like checks or floral decors, complete the style.

### Timeless and modern.

Currently, the "Industrial Style" and the "Scandinavian Look" represent the modern kitchen. The "Industrial Style" is characterised by metallic surfaces complimented by concrete and stone as well as matt black metal shelves. Combining these with wood creates an exciting mix of materials.



The "Scandinavian Look" stands out due to natural or – natural-looking – surfaces, pastel shades and calm woods. This makes the kitchen appear bright and spacious.

### Open design.

Open layout design in which the living and dining rooms as well as the kitchen seamlessly combine. This is the reason why many kitchen manufacturers offer integrated design solutions. This means that complete apartments can be equipped with kitchen furniture. The items of furniture are not only matching in material, appearance and feel, but also benefit from functionality and interior design alongside high-guality worktops and intelligent storage solutions.

### 06 **AMK** Kitchen standards: 1.2. Choice of kitchen shape







# The perfect kitchen for any room.



A decisive guestion in making your dream kitchen a reality is what basic shape the new kitchen should have.

### L-kitchen:

Perfect for small kitchens The L-kitchen is a space-saving solution that still offers a lot of storage space. With clever cabinet solutions, such as a corner carousel, every available centimetre is utilised.

### U-kitchen:

Efficient use of space The U-shape creates a large working and storage area. It is therefore very functional, and all the available space is used effectively. Note: optimal use of corners can be a real space saver.







open-plan living area. Due to the generous space available, this solution is ideal for families.

### Kitchenette: Perfect space utilisation

for small room A kitchenette is the preferred solution for those who live alone or if both the apartment and budget are small. Tall cupboards should definitely be part of the plan in order to make the most of the space available.

### Two-line kitchen: The allrounder

small rooms and open layouts.

The two-line kitchen is popular for It makes it possible to use the second line as a room divider or kitchen island. Please note: the distance between the lines should be at least 120 cm.

### Kitchens with islands: Generous elegance

A kitchen island can only be built in an area of at least 15 square metres. There must be a distance of at least 120 cm from the other cabinets in order to be able to move around the island.

### The right layout for every shape of kitchen: The areas

SUPPLIES. STORAGE. DISHWASHING, PREPARING AND COOKING/BAKING clever kitchen arrangement makes life

easier. See more on page 12.





## G-kitchen: Ideal for families The G-kitchen is well suited for an





ALTHOUGH FRONTS DOMINATE THE **APPEARANCE OF EVERY KITCHEN**, they must always be viewed in combination with the worktop, niche back panel and guartz stone, ceramics, glass, solid surface material, laminate or solid wood. It is often a good idea to choose niche back

material, but popular variants also include chrome, ceramics, glass or granite.

# The flagship of every kitchen.

The fronts are the first thing that catch the eye, and they shape the overall appearance of the kitchen. For this, there is a wide range of materials from smudge and fingerprint resistant surfaces to wood effect that looks and feels like the real thing.





Veneer fronts, including real wood fronts: the veneer is applied to a chipboard or MDF board. They are therefore cheaper than solid wood, yet have a natural look.

**Lacquered fronts:** a choice of high-gloss or matt lacguer finishes for the lacguered fronts are available.

Plastic fronts: kitchen manufacturers offer three types of plastic fronts. In the case of layered fronts, the layer is bonded directly to the carrier plate with melamine resin. It is an inexpensive manufacturing process,







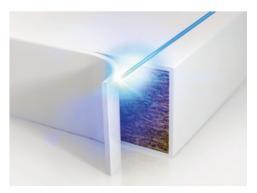


which means that these types of fronts are at an entry-level price. They are robust and easy to clean. In comparison, laminate fronts have a multi-layered structure. Here, too, a decorative layer is used for the surface. This surface is also easy to clean, heat-resistant up to 230 °C, acid-resistant, scratch, impact and usually also cut-resistant.

**Glass fronts:** very elegant and increasingly popular. Glass fronts are robust, heatresistant and very hygienic. They make small rooms look more spacious. However, fingerprints cannot be avoided, even water stains are easily visible.

### Quality characteristic ..laser edge":

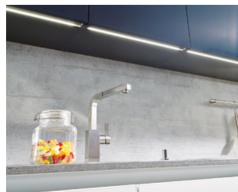
Here the edge and carrier plate are fused together using modern laser technology, creating an "optical zero joint". The joint is no longer visible to the naked eye and contributes to hygiene and longevity of the kitchen furniture.





SHADOW-FREE ILLUMINATION OF THE WORKTOP. To be able to work well, a bright, shadow-free illumination of the worktop is important. Lights underneath the wall units or shelves are ideal.





With the gradual merging of kitchen and living spaces the kitchen is becoming much more than just a place to cook.

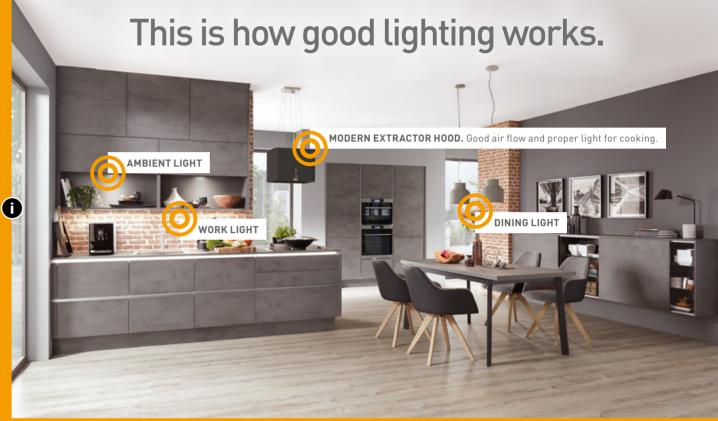
### As a result, the demands on lighting have also changed.

A professional work light for all amateur cooks is just as important as a cosy atmosphere when eating with family or friends. Three types of lighting are available to meet different needs: work light, ambient light and lighting of the dining area.

### The work light should be shadowless.

Ceiling lamps are not suitable for this purpose. The ideal choice is under-cupboard lighting on wall units. Using modern energysaving LED lights makes it possible to have cost-efficient, environmentally friendly and, at the same time, pleasant light. A targeted use of ambient light will create a homely feeling in the kitchen. This can be achieved, for example, through illuminated handle strips or wall units and generally through ambient light. Adjustable light colour and dimming function also contribute to a positive atmosphere. Pendant lamps are ideal for the dining area and the kitchen island.





### **PROPER ILLUMINATION IS IMPORTANT.**

AMBIENT LIGHT

During meals, family members and guests want to look For pendant lamps, the distance between the table top and the light source should be around 60 to 70 cm, whether above a dining table or a kitchen bar counter. Particularly in open-Illuminated wall units create a great atmosphere and become

remote control or via an app on your smartphone or tablet. provide good air flow as well as perfect light for cooking.



# Short distances, Time efficient, Simple maintena

People like to have a glass of wine and chat, read the newspaper or listen to music in their kitchen. However, no matter how cosy, the kitchen remains a place of work, where first and foremost, meals are prepared, and dishes cleaned. This is why a kitchen needs an intelligent design.



### THEREFORE, KITCHEN PLANNERS CONSISTENTLY DESIGN KITCHENS ACCORDING TO THE FIVE ZONES,

STOCKING, STORING, RINSING, PREPARING, COOKING/BAKING. This means that distances to ingredients and cooking utensils are short and time is saved. Also, appliances can be easily accessed and operated, and kitchen maintenance is easy. In addition, the kitchen is easy on your back, because unnecessary bending down will be avoided, and incorrect postures prevented.



SIGNIFICANTLY ENHANCED COMFORT. Setting up work zones leads to an optimisation of the walking distances and work processes. Unnecessary distances are avoided, and smooth processes ensured.

The kitchen's "stocking" area, which includes the refrigerator, should provide sufficient and easily accessible storage room for groceries.

Wide drawers or pantry pull-outs are ideal for this purpose. Cups, plates, glasses or cutlery should be stored in one place. This saves time for the person setting the table. The same applies to the "storage" zone being set up next to the dishwasher and the sink unit.













The "preparation" zone is set up next to the sink because the space where meals are prepared must be clean and hygienic. The main work surface is the preparation area, which should be at least 90 cm wide. This is where spices, cutting blades as well as oil and vinegar are stored.

Ideally, the preparation area should directly merge into the kitchen's "cooking and baking" zone. This is where pots, pans and cookware are stored. Wide floor units provide large storage space.

### 14 AMK Kitchen standards: 2.2. Raised built-in electrical appliances



# Always at eye level.

Raised built-in electrical appliances are comfortable to use and make tedious bending down redundant.

The height of the oven and steam cooker should be planned so that the user can easily remove the food with bent arms. Another advantage: you can always keep an eye on your casseroles, baked vegetables and Sunday roasts.



If only one raised built-in appliance can be integrated for lack of space, it should be the one that is used most.











### RAISED BUILT-IN APPLIANCES

are not only extremely reasonable from an ergonomic point of view and therefore gentle on the back, but also facilitate daily tasks. You always have a clear view on everything – and loading and unloading are much easier.

### 16 AMK Kitchen standards: 2.3. Intelligent kitchen design



### AMK ergonoMeter®

can be extended by a tolerance of 5 cm downwards and 10 cm upwards so that two



# Easy on your back.

When planning kitchens, it is important to take ergonomic approaches into account. This means that the working conditions adapt to the user and not vice versa.

Proper working heights of hob, sink and worktop, as well as raised built-in appliances such as oven and dishwasher, not only increase comfort, but also ensure back-friendly usage. The individual heights in the newly planned kitchen can be determined quickly and easily using the AMK ergonoMeter<sup>©</sup>. Planning is not based on a person's height, but on the height of their elbows.

The height of the worktop should be 10 to 15 cm below the elbows. If possible, it is also advantageous to lower the height of the hob by 25 cm, as the edge of the pot constitutes the working height. The sink, on the other hand, can be raised in height, as its base is

considered the working level. Some kitchen manufacturers also offer electrically adjustable kitchen islands and worktops. This is particularly convenient if children or a couple with a considerable difference in size live in the household. Mechanical or electrical drawers are also useful in intelligent kitchen planning.

They are easy to open and close, no matter how many plates or heavy pots and pans are stored inside. Therefore, they also prevent incorrect posture and back pains.



FOR A HEALTHY BACK. If the working height does not suit the person's height, it can lead to back problems. **OPTIONAL WORKING HEIGHT.** 

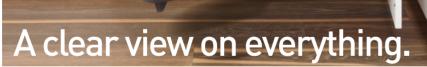




### THE KITCHEN CUPBOARD THAT BEST REFLECTS THIS PRINCIPLE IS THE PANTRY PULL-OUT, WHICH OPTIMISES MINIMAL STORAGE SPACE.

The pantry pull-out provides a clear view from two sides on the stored groceries and utensils. These can easily be taken completely from the cabinet body when for all entire floor units. Storage space is created by using extra-deep drawers.

A common sight: a pot that is rarely used disappears into the furthermost corner of the cupboard. If it is finally needed, first you have to remove all other cookware to reach it. In the modern kitchen, this scenario is a thing of the past. This is because various types of cabinets provide a clear view of their entire content.













# Intelligent solutions.

The understated and elegant look of handleless kitchens continues to grow in popularity. It contributes to achieving a smooth living space transition and offers design freedom. Various open-close systems are available to open and close the handleless drawers. wall units and doors. They make sure that cabinet doors and drawers can be moved effortlessly and comfortably. Options include handle strips, mechanical and electrical door and drawer openings. Recessed grips on doors and drawers are integrated at the top or side edge.

A minor disadvantage: to some extent, the handle strips, just like bevelled edges. interrupt the linear design of the handleless kitchen.

The electrical opening support works like a mechanical fitting, but is even more sensitive. The elements open at the slightest touch. The doors of the wall units can be closed again at the touch of a button, which is ideal for shorter people. For the drawers, a light push is enough to close them gently and quietly.





# Far beyond the standard.

Refrigerators, hobs, dishwashers and ovens are the standard appliances found in every modern kitchen. However, this selection can be extended according to individual preferences.

Ovens can combine several appliances at the same time, they can, for example, contain a microwave function or be equipped with steam technology. Other ovens additionally feature the sous-vide function. A vacuum device complements the kitchen, since all ingredients in a raw and cooled state can be vacuum-packed in a vacuum bag, then gently cooked at low temperature in the sous-vide cooker, and it also helps to extend the shelf life of groceries.







SOUS-VIDE-FUNCTION

In many ovens, a pyrolysis programme is also included. For this, the oven is heated to a temperature of more than 500 °C. Due to the heat, all organic substances decompose. What remains is ash that is very easy to wipe away. Inconvenient cleaning procedures are no longer necessary. Combined refrigerator-freezers also have special features. Technologies such as the zero-degree zone in the refrigerator ensure a remarkably longer shelf-life of groceries, and no-frost systems in the freezer make manual defrosting unnecessary. Variable interior options facilitate the sorting of the chilled goods. Most refrigerators already have drawers.

The latest generation of dishwashers are characterised by maximum flexibility and are much better suited to the needs of users. Whether equipped with cutlery drawers, LED lighting or back-friendly dish racks that are easy to lift up.

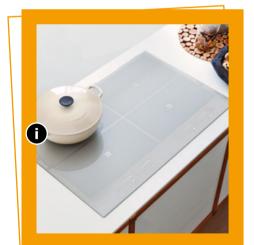




Induction hobs have numerous advantages including safety, given that only the pot is heated while the glass ceramic cooking surface is not. Although the pot radiates a minimal amount of heat, it is impossible to burn anything on the cooking surface. That's why even overcooked food does not get burnt.

Additionally, an induction field switches off automatically if the pan or pot is not placed on the hob. Furthermore, energy consumption is low. For example: with induction water boils roughly twice as fast as with gas.

Currently, appliances with integrated extractor fans located in the middle or at the front of the hob – called "downdraft" – are available on the market. Odours are absorbed directly where they arise.



# THERE ARE INTERESTING VARIANTS FOR DESIGN FANS.

Induction hobs are not only available in black, but also in fancy grey or exceptional white.



However, **INDUCTION HOBS** are able to do much more today. The latest models are equipped with a frying sensor which, thanks to the latest control technology, ensures an optimum colour of the fried food, be it eggs, steaks, tofu or vegetables. In addition, the individual parts of the hob can be flexibly interconnected to form a continuous surface so that even large cookware can be heated quickly and evenly.









Extractor fan systems have seen an astonishing development in the recent past.

They are no longer limited to their functionality – these ornaments can give every kitchen a very special look.

Nowadays, some extractor fans are disguised as designer lamps. They are made of coloured glass, hang from thin struts, and are equipped with LED lamps. In addition, they are highly efficient in eliminating odours.









### **RECIRCULATION AND EXHAUST AIR**

With extractor fan systems in recirculation mode, the cooking fumes, consisting of odours, grease and moisture produced during cooking, are not released into open air. A grease and odour filter cleans the air and directs it back into the room. The integrated activated carbon odour filters should be replaced regularly.

In the exhaust air version, on the other hand, the cooking fumes are conducted directly into the open air via a pipe. Sufficient supply air must be provided for exhaust air operation. With modern versions it is possible to switch between the two operating modes. Extractor fan systems in recirculation mode can be noisier than in exhaust air mode.

For tall people, or corresponding to design requests, ergonomic hoods with overhead clearance are suitable. The inclined deflector plate ensures freedom of movement and a clear view of the hob. For those who want it to be even more invisible, there are fans directly on the hob. There are currently three systems.

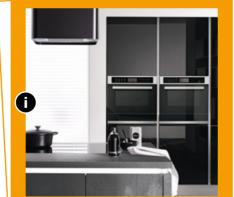
Downdraft fans are installed directly behind the hob in the worktop and can be raised if necessary. Hob extractors are integrated into the cooking surface. Another version is worktop ventilation that can be integrated next to the hob or between two narrow hobs. These ventilation systems are perfect for cooking islands or open-plan kitchens.



There are times when the oven door just gets in the way. In small kitchens, for example, or when several trays have to be stored. In these cases, the industry developed APPLIANCES WITH RETRACTABLE DOORS.

If an oven does not have a baking trolley with baking trays and griddles that can be completely pulled out of the oven, then TELESCOPIC RAILS are the perfect solution. They can also be used to remove the trays completely from the oven and significantly increase comfort.





### **APPLIANCES WITH** WELL-MATCHED OPTICS.

steam cooker to the coffee machine.



its contents in sight, and the preparation of food becomes more straightforward.

New developments ensure that the technological level is always advancing.

Full extension drawers enable simple and safe loading; anti-fingerprint coatings keep stainless steel fronts free from annoying stains. Intelligent automatic programmes help the amateur chef to prepare entire menus and they automatically clean the oven. Many of these features can even be controlled via a smartphone or tablet.





**Steam cookers** are becoming increasingly popular. Steam cooking is a particularly gentle cooking method, as the natural flavours and vitamins of the ingredients will be fully preserved. If you cannot or do not want to accommodate two appliances in your kitchen, you still have the possibility to enjoy the advantages of steaming. Combined appliances allow either baking and steaming all in one or supply the food with steam during frying and baking.

This keeps the meals juicy and tender.





GETTING UP IN THE MORNING WILL BE A PLEASURE if your cup of coffee is already waiting for you in the kitchen.

# Smart help.

Kitchen appliances of the latest generation are "smart". This means that ovens, fully automatic coffee makers, dishwashers or refrigerators as well as lighting can be controlled via smartphone and tablet apps or even by voice. This makes everyday life a lot easier.

But this is only the beginning – there is no end in sight regarding smart development at the moment.











### It's a wonderful thought.

You're still in bed, but you are already setting up the fully automatic coffee machine, choosing your specifically created coffee speciality and bringing the oven to the right temperature to bake the rolls. In the meantime, you receive a notification that the dishwasher is ready. Its starting time was also controlled via your smartphone. These are not far off ideas. This is already a reality.

There are many other examples from a smart kitchen: hobs communicate directly with the extractor fans, which automatically adjust their ventilation performance to the steam being created. Cameras are installed in refrigerators which take pictures of the contents every time the refrigerator door is closed. Via your smartphone or tablet, you can access these pictures at any time.

**Speech recognition** software is also becoming increasingly important in kitchens. Voice services connect users to a personal assistant who is able to search for recipes, play music or add items to the shopping list.

### 28 AMK Kitchen standards: 5. Noise-optimised kitchens









# Hardly anything to hear.

Noise reduction in the kitchen is a major issue, especially in open-plan kitchens. Alongside the quiet opening and closing of drawers and doors, one must also consider dishwashers, extractor fan systems and refrigerators.

Regardless of whether they use motors, compressors or pumps – dishwashers, refrigerators and extractor fan systems consist of components that are usually quite noisy. Even an oven does not operate silently. The humming, rumbling, buzzing and hissing is often perceived as unpleasant – especially when it comes to an open-plan kitchen.

For this reason, manufacturers have been looking for solutions in order to reduce the noise level. With success! Now, many of the appliances have an operating volume of less than 40 decibels. Just for comparison – whispering takes place at a volume of 30 decibels. Talking to each other in the kitchen is no longer a problem – even if the kitchen appliances are working full speed at the same time. You might happen to ask yourself whether or not you have just started the dishwasher.











# Boiling water available immediately.







This is the most important place of work: the sink unit. Therefore, sinks, taps and accessories should be given special attention when planning the kitchen.

Stainless steel sinks are a classic but more and more, coloured sink units are now making their way into modern kitchens.

They can be made of enamel, ceramic or plastic. Granite, marble and other stones are also suitable for sinks.

All of these materials have important similarities: they are hygienic, robust and easy to clean. Manufacturers offer a wide range of accessories for optimised workflows such as drain trays or precisely fitting cutting boards.

Kitchen taps are also manufactured in a wide variety of shapes, materials and functions. Pull-out tap fittings with a flexible hose are just as practical as taps with an integrated sensor by which the water can be turned on and off without need for touching the tap. There are taps on the market that produce hot or even boiling water at the push of a button and at the same time filter the water.

Importantly:

the minerals in the water will be retained.

# Well thought out.

A waste system needs to be well thought-out, because it simplifies the workflow in the kitchen significantly.

In most cases, the waste system is located directly under the sink. If, for example, a boiler, a boiling water tap or a drain set is accommodated there, this restricts the space. This requires a decision on how many bins the waste system should contain. Is one residual waste and one organic-waste bin sufficient? Or should paper and plastic also be separated there?

This raises the question of whether additional storage space is needed for cleaning and rinsing utensils. In this case, an additional organisation drawer is advisable.



AN ELECTRICAL OR MECHANICAL OPENING SUPPORT SYSTEM is very helpful for this floor unit. After all, it is not unusual to use both hands when disposing of waste. Thus, it will be possible to easily open the drawer with your knee.













# Good for the environment and your wallet.

About half of the electricity consumption, and about 18% of the water consumption, in your household can be attributed to household appliances. Old refrigerators, dishwashers, ovens, etc. have considerably higher consumption than modern appliances. In addition to modern comfort, they are good for the environment and your wallet.

When it comes to **dish washing**, you can save both on electricity and water. These too are directly interconnected, given that less water is needed, then less water has to be heated up. Some modern appliances consume only 6 litres per wash cycle.











### SAVE ENERGY.

The energy label helps the consumer to identify the most energy efficient kitchen appliances with the letter "A" representing the most efficient. This means that modern appliances save energy, are good for the environment, and save money.

**Refrigerating and freezing** accounts for onefifth of household electricity consumption. On average, refrigerators in Germany are more than 10 years old. In addition to the energy conservation thanks to new appliances, modern technologies such as zero-degree shelves also make a difference. As a result, groceries have an extended shelf life and there is less food wastage.

Saving energy when cooking and baking is

important as the oven uses a lot of energy. It is no coincidence that electricity suppliers speak of the "goose peak" at Christmas, when a large number of households use the oven at the same time to prepare the typical German Christmas dinner (roast goose). Modern appliances are much more economical and if you use a steam cooker or equip your kitchen with modern induction technology, working in the kitchen becomes even more cost-effective.



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