









PN food distribution - an integrated system.

Every kitchen procedure and every food distribution operation has contended with the same problem: numerous different items of crockery which did not complement each other and also did not make the best use of space. The "Porzellannorm" (Porcelain Norm), abbreviated to PN, finally brings compatibility to kitchen operations in the same way as the Gastronorm system has done, as the head of any kitchen knows. Rectangular items of crockery have been produced before, but they were not designed to complement each other and were not fundamental to an integrated food distribution system in the way the Porzellannorm, PN, now is.



Items of china which complement each other

The PN crockery items fully complement each other and can also be stacked one inside the other. Bowls and plates of various heights are available in sizes 1/4, 1/3, 1/2, 2/3 and 1/1. These PN components very effectively cover the range of crockery required for modern food distribution.

Compact dimensions, less space required, optimum handling -PN improves efficiency in food distribution.











A high standard of catering with improved efficiency, this also makes PN food distribution highly appealing for use in healthcare.

PN allows optimum use of the 1/2 Euronorm tray, which is so popular with school caterers.





Make better use of tray formats - PN achieves efficiency.

The PN food distribution system is designed with reference to common tray formats and so makes the most effective use of the space available. With the PN system, the smaller Gastronorm tray will be big enough in many cases to carry an entire meal to the customer. However, PN is also compatible with the Euronorm and 1/2 Euronorm tray formats. With these established tray sizes, PN crockery makes full use of the space available. As a supplement to the PN system, special round crockery with a coated underside is used, specifically for the regeneration of hot dishes. In this way, PN can considerably improve the efficiency of all modern community catering processes, such as Cook & Serve, Cook & Chill and Cook & Freeze.



For all common tray formats.

The PN system makes improved use of the Euronorm, Gastronorm and 1/2 Euronorm tray formats. Trays with centring grooves are needed for regenerating hot dishes in round china items.

The separating channel provided in each tray receives the separating strip in the tray transport trolleys to ensure thermal separation of hot and cold dishes on the tray.



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Working processes are rendered more efficient because more items of crockery will fit into the dispensers.



Logistics costs are reduced - PN improves crockery handling.

The PN system offers cost benefits in many areas of community catering and kitchen logistics. As specialist in kitchen logistics HUPFER® has developed a platform dispenser specially for the PN system. This dispenser achieves optimisation on a wide range of levels. For example, when crockery is being stacked after washing or being placed on the food distribution belt, procedures are less frequently interrupted by having to change the dispensers because these PN-format platform dispensers can hold more items of crockery. Investment costs are also lower because fewer stackers need to be used during the operation for handling the same number of items of china.

HUPFER® BPN platform dispenser for PN crockery. The HUPFER® platform dispensers make maximum use of space, specially developed for PN crockery.

Working processes are rendered more efficient because more items of crockery will fit into the dispensers.









More rapid service. The large tray-holding capacity of each tray transport trolley makes it possible, e.g. in healthcare, to serve food to patients on their individual wards quicker, since fewer trolleys have to be moved.

Trays are loaded into the transport trolleys quicker because fewer trolley changes are required to handle the same amount of food.



The combined effect of the tray with the separating channel and the separating strip in the tray transport trolley means that hot and cold parts of a meal can be separated safely.





More efficient processes - tray transport trolleys for the PN system.

Transporting and handling the greatest number of trays containing food within the smallest space, that is the aim achieved with the tray transport trolleys for the PN system. The PN crockery, in combination with special round crockery in which food can be regenerated, means that it is now possible to place a meal on the smaller GN tray format. As a result, the tray transport trolley can be loaded with up to 40 hot meals and the accompanying cold food within a very small space. This has a positive impact on the whole process chain. A significantly smaller fleet of trolleys is therefore needed to deal with the same number of meals. Transport costs. e.g. in the case of transport by lorry, are considerably reduced owing to the smaller surface area required for each meal. All this leads to a significant increase in efficiency and cost savings.



Maximum capacity.

The tray transport trolley for GN-format trays can hold 20 or 40 meals in a compact area, depending on the model.

Safely separated.

The separating strips keep the hot and cold parts of a meal safely separated from each other.

Optimum temperature control.

Eutectic plates cool the food and cold items as per HACCP regulations.



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Easy docking, secure locking and excellent regeneration.



Space saving during Cook & Chill -PN expands capacity.

The PN food distribution system also allows efficiency to be increased and costs reduced during Cook & Chill. The space saving offered by the PN tray transport trolleys also extends into the dedicated regeneration station. Complete meals on GN trays can now be regenerated to serving temperature and made ready for distribution to the customer in a single process and within a very small area. 20 or 40 meals can be handled in a single working process, depending on the model.



station for the PN system.

Maximum capacity.

Regeneration station for the PN system. Excellent regeneration results can now also be achieved within a small area using GN trays.



Easy docking, secure locking and excellent regeneration.







The PN format means that cold food in the dishes placed in the basket can be portioned out and covered without them first having to be handled individually. The pre-prepared basket can then be introduced as a whole into the Coolstapler $^{\circ}$ to be kept cold.





The version of the Coolstapler® for large baskets. A single basket holds 36 dishes in the 1/4 PN format in a single layer - unbeatable holding capacity with such compact trolley dimensions.





Simplify working processes - PN minimises costs.

Compact dimensions and the ability to hold large amounts of crockery mean that the range of equipment used with the PN format offers new possibilities for more efficient organisation of kitchen procedures. In platform dispensers, basket dispensers or the Coolstapler®, the improved capacity alone allows for virtually uninterrupted working processes, e.g. in food preparation, because fewer dispenser changes are required. It's not just handling costs that are reduced, the amount of energy required for the Coolstapler® when keeping food cool is considerably reduced because larger numbers of cold dishes are placed more compactly in the dispenser.



The PN format means that cold food in the dishes placed in the basket can be portioned out and covered without them first having to be handled individually. The pre-prepared basket can then be introduced as a whole into the Coolstapler® to be kept cold.

Coolstapler® for the PN format.

Coolstapler®s for the PN system are available for two basket sizes. Therefore, depending on the process concerned, the capacity can be used to the full in each case. Both Coolstapler®s have unrivalled capacity in relation to their dimensions. The compact format with small stacker dimensions means that the consumption of energy per cold meal is significantly lower than with conventional processes.





The version of the Coolstapler® for large baskets. A single basket holds 36 dishes in the 1/4 PN format in a single layer - unbeatable holding capacity with such compact trolley dimensions.



Core component of modern kitchen logistics -PN food distribution by HUPFER®.

PN food distribution offers new approaches and possibilities for more efficient modern food distribution processes. The resulting effects are a reduction in operating costs and in terms of investment.

Even beyond the elements of the PN equipment range, HUPFER® offers products which cover all branches of kitchen logistics.

