

# A GOOD START FOR EXCELLENT RESULTS.

KNEADING AND LIFTING WITH KÖNIG.

The production and handling of dough requires not only the know-how and sure touch of an experienced baker, but also machines with intelligent functions.



Powerful yet gentle: Kneaders from König.

For best results, your processes must be **better from the very beginning**. König assists its customers in three different ways to reach this target:

- We offer a wide range of equipment for the production of dough, baking and cooling, including everything from kneaders to ovens and vacuum chambers. König customer thus benefit from advanced solutions from start to finish!
- The kneaders and bowl hoists ensure the ideal start of the production process, as mistakes made in the dough mixing and kneading cannot be rectified at a later stage.
- With our spiral and double twist kneaders, we offer two distinct systems that meet all requirements of our customers.

HEADQUARTERS

## SERVICE AND SPARE PARTS FROM THE MANUFACTURER.



We know that earning your trust is hard work. This also applies to the sales of machines, plants and ovens. We therefore offer you the opportunity to test our products before purchasing them. Simply visit one of our test and demonstration centres in Graz and Dinkelsbühl to find out for yourself what we can offer you!  
If you should need assistance with your König equipment, simply contact our spare parts and after-sales department. We are available twenty-four hours a day anywhere in the world.

### König service hotline:

**During office hours:**  
+43 316.6901.0

**Outside office hours:**  
For machines and units:  
+43 664.505 69 01  
Ovens:  
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THE BAKER'S CROWN

Dough Production

## KÖNIG THE BAKER'S CROWN

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# ONE FOR ALL.

## THE KÖNIG MULTI-TALENT: THE SPIRAL KNEADING MACHINE

Our spiral kneader is a versatile machine guaranteeing best baking results: Whether you wish to process wheat, wheat mixture, rye mixture, rye or wholemeal – the König spiral kneader kneads the dough quickly with only minimal heating. The geometrical design, pitch, pitch length and distance of the kneader spiral to the bowl wall are optimised for best results.

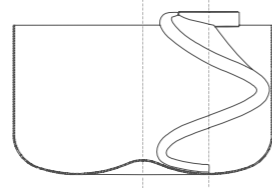
As the kneading rate as well as the direction of rotation and rotational speed of the kneader bowl can be preset by the operator and stored in the control program memory, the models of the SP series are suitable for all types of ingredients and nearly every recipe.

### Key features of all König kneaders

- Removable dough bowl.
- Optimised tool shape and geometry adjusted to suit dough bowl.
- Excellent dough stretching and shear performance ratio, ensuring optimum gluten development.
- Two spiral and bowl speeds as standard.
- Kneader head hydraulically movable in vertical direction.
- Hydraulic locking device for the kneader bowl.
- Design compliant to the latest hygiene standards.
- Nearly maintenance-free: the gear and hydraulic oil must only be changed every 20,000 operating hours.
- **Additional features of twin twist kneaders:** Bowl wall cleaning scraper for continuous shearing.

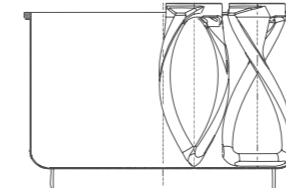


Spiral kneading machine



# DOUBLE OUTPUT FOR EXCELLENT QUALITY.

## KÖNIG TWIN TWIST KNEADERS.



Two tools with specially adapted profiles that are at an optimised working angle to each other enhance the mechanical energy input and thus reduce the kneading time. As, in the process, ample air is worked into the dough, the machine is particularly suitable for the preparation of wheat and pastry doughs.

The perfected geometry caters for intensive kneading in the inlet zone, while the load is reduced in the outlet zone of the kneading tools. This ensures properly kneaded, fluffy and light doughs, even when processing rye and rye mixture doughs from TA 180 (% water : flour weight).



- 1 Optimised tool geometry for unrivalled efficiency; equipped with a scraper cleaning the bowl wall.
- 2 Touch panel allows for easy programming and machine control.
- 3 Double-walled temperature-controlled kneader bowls.

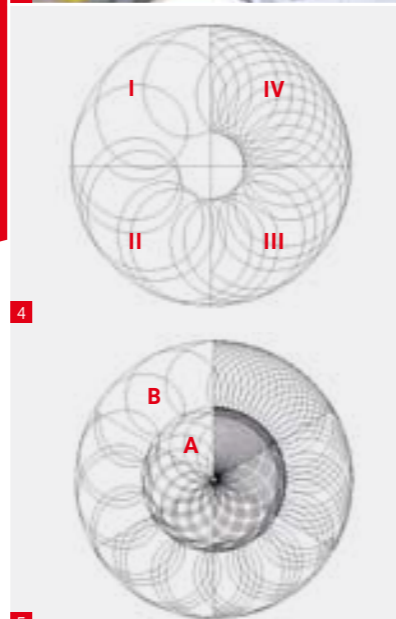


4 **Spiral kneader: Field I** shows the large working radius of the tool, which reaches close to the wall of the kneader bowl. At each revolution of the tool, there is a controlled overlap of the processes of mixing and kneading. The greater distances along the curve indicate that there are ample resting phases during the kneading process for the dough to develop properly.

Fields II to IV show how the kneading process is intensified by the multiple rotations of the kneader bowl.

5 The movements of the two **twisted kneading** tools of the twin twist kneader are perfectly synchronised. **A:** The inner filled circle represents the range of the first kneader arm that continuously feeds the dough from the centre to the second tool for actual kneading. The intensity of the kneading is increased by raising the speed of the tool and the kneader bowl.

**B:** The outer circle indicates the range of the second tool whose design and distance to the inner arm are optimised for effective kneading. As there are two tools working the dough, more air and oxygen are mixed in.



Twin twister kneader



# WORK WITH THE STRENGTH OF A GREEK GOD.

## THE HERKULES BOWL HOIST CAN LIFT UP TO 1,000 kg.

The name of our bowl lift is derived from the Greek god Hercules, who stands for superhuman strength. The Herkules hoist can lift weights of up to 1,000 kg and tilts the bowl during the last phase of the upward movement, which follows a curved guide. During the entire lifting and tilting process, the kneader bowl is properly secured in the clamp.

The large tilting angle ensures that the bowl can be completely emptied. Available as right and left handed models. Available in four models: stationary, movable in longitudinal direction, stationary fixed with bolts; movable in transverse direction (special model). Also available as table bowl hoist.

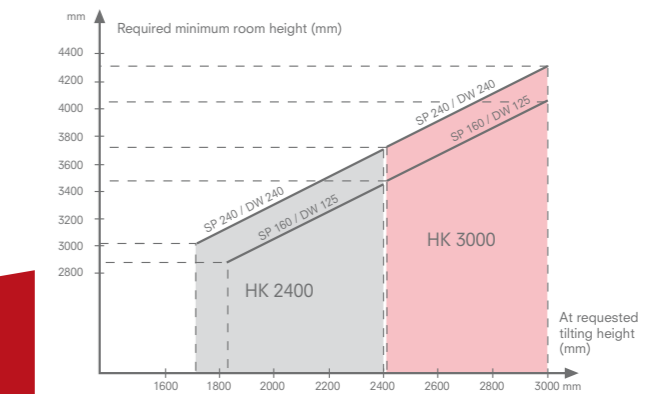


Diagram: Required minimum room height at requested tilting height

### Optional features for bowl hoists

- Stainless steel base.
- Tilting at various preset heights.
- Scraping device.
- Scraping device mounted on kneader bowl receptacle: moving with the bowl, Easy to clean.



Large tilting angles ensure that the kneader bowl is always completely emptied. The scraper is particularly useful for the removal of soft and sticky doughs such as rye products.

### Options for König kneaders

- Temperature sensor in the scraper.
- Freely programmable control system with Siemens TP 177 touch panel.
- Automatic timer for night start.
- Interface for ingredient control or batch tracing data.
- Multi-speed design for kneader bowls and tool, suitable for special products such as doughs for Danish pastry, biscuits as well as for pastes and custards.
- Connections for dry and liquid ingredients (dosing systems).
- Timer-programmed ingredient container for subsequent addition of salt, oil, fat, etc.
- Temperature-controlled kneader bowl (wall and base) in double-wall design.

TECHNICAL DATA	SP 160	SP 240	DW 125	DW 240
Flour capacity	max. approx. 100 kg	max. approx. 150 kg	max. approx. 75 kg	max. approx. 150 kg
Dough capacity	max. approx. 160 kg	max. approx. 240 kg	max. approx. 125 kg	max. approx. 240 kg
Bowl capacity	225 litres	360 litres	190 litres	370 litres
Inside bowl diameter	840 mm	960 mm	740 mm	940 mm
Diameter at bowl top edge (D)	878 mm	900 mm	880 mm	1,000 mm
<b>Bowl speeds at 50 Hz:</b>				
1st speed (mixing)	12.2 rpm	10.2 rpm	11.2 rpm	8.2 rpm
2nd speed (kneading)	24.4 rpm	21.0 rpm	22.4 rpm	16.5 rpm
<b>Tool speeds at 50 Hz:</b>				
1st speed (mixing)	82.6 rpm	68.1 rpm	119 rpm	114.3 rpm
2nd speed (kneading)	162.3 rpm	135.3 rpm	236.4 rpm	229.3 rpm
Power consumption (approx.)	14 kW	18 kW	17 kW	26 kW
<b>Max. dimensions</b>				
Length	2,217 mm	2,404 mm	2,176 mm	2,569 mm
Width	1,370 mm	1,396 mm	1,365 mm	1,449 mm
Height	1,953 mm	2,068 mm	1,983 mm	2,349 mm
Weight including bowl	max. approx. 1,490 kg	max. approx. 1,810 kg	max. approx. 1,825 kg	max. approx. 2,060 kg