



Spiral

Spiral mixer with fixed bowl



The mixing quality is the number 1 criterion guiding the baker in his choice of mixer.

The technology of the shapes of the dividing blade, bowl and spirals allows perfect control in working the doughs.

The mixtures, oxygenation and constant quality of both the small and large pieces of kneaded dough, are optimum.



Inner detail of the bowl, view through the transparent anti-splash cover.

Detail of the rolled edge bowl

Efficient and functional !

■ **The dividing blade**, whose function is to separate the dough, **provides optimum oxygenation** thereby favouring regular formation of the kneaded dough for smooth, homogeneous mixing.



■ The **ideal blade/spiral/bowl proportions limit overheating of the dough**, balance its distribution and prevent the kneaded dough from rising along the spiral. The bread develops better and acquires more taste.

■ The geometry of the spiral guarantees regular working, with rapid mixing, allows the production of very small pieces of kneaded dough (from 5% of normal capacity), and **guarantees constant quality** under both minimum and maximum capacities.



■ The flat bottomed bowl provides regular space between the blade, spiral and bowl, and allows excellent mixing of the flour. The optimum ratio of depth to diameter of the bowl **prevents tearing of the dough and guarantees rapid mixing**.



■ **Each power transmission is equipped with several trapezoidal belts** from 2 to 6 according to the model. **This solution provides convenience, silent operation and flexibility of drive** without jolts. No maintenance is necessary.



Extremely easy programming

2 controls are available throughout the range.

■ Electromechanical control type M

(Photo ① - ②)

- For the Spiral 50

The mixer is started by means of a pushbutton and the 2 mixing speeds are selected by means of a switch.

The timer enables the engaged gear to be stopped.

- For Spiral models 80-110-150-200-250 and 300

The reversal of the bowl and choice of automatic or manual function are carried out by means of a switch.

The other bowl starting and rotation functions are managed by means of a pushbutton. Transfer from the 1st to 2nd speed is automatic. 2 timers control adjustment of the different speeds.

■ Type E electronic control

(Photo ③)

With 9 possible pre-programmed recipes, the management of mixing, speed and duration is greatly facilitated.

Transfer from the so-called "ingredient mixing" phase to the mixing phase is fully automatic.

The kneaded dough is always of optimum quality, day after day.

In manual mode, the times displayed increment and can be recorded in automatic mode. The times decrement in automatic mode and transfer from the 1st to 2nd speed is also automatic.



Spiral 50 E with type M electromechanical control



Spiral 200 E with type E electronic control



The result of use of a Spiral mixer : a flexible, resistant dough

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Hygiene and safety essential



Photo ❶ - Type M electro-mechanical control for mixers models 50-70



Photo ❷ - Type M electro-mechanical control for mixers models 80-110-150-200-250-300



Photo ❸ - Type E electronic control

■ At the present time flour is the main cause of occupational asthma in France, and affects around 1 out of every 4 bakers (according to a study conducted by LEMPA between December 2000 and January 2001).

Because of this **Bongard recommends the transparent anti-splash lid** on the bowl that enables the operator to view the mixing throughout the working time. The tests carried out on this protection show a **95% reduction in the discharge of flour dust during the ingredient mixing phase**, thus meeting the health requirements in force.

Mixers in the Spiral range are fitted with a plastic anti-splash lid or stainless steel safety grid.



■ Raised from the floor, the Spiral is cleanable throughout. Its shapes and joints, rounded and smooth, **prevent the accumulation of flour and dust**.

■ The safety system resting on a highly efficient electro-mechanical braking system guarantees safe **stopping of the bowl and raising of the grid**.

Reference	Model
Type E Safety see-through lid	
99220502	Spiral 50 E
99220612	Spiral 70 E
99220812	Spiral 80 E
99221102	Spiral 110 E
99221501	Spiral 150 E
99222002	Spiral 200 E
99222501	Spiral 250 E
99223001	Spiral 300 E
Type M Safety see-through lid	
99220504	Spiral 50 M
99210614	Spiral 70 M
99220814	Spiral 80 M
99221104	Spiral 110 M
99221504	Spiral 150 M
99222004	Spiral 200 M
99222504	Spiral 250 M
99223004	Spiral 300 M

Reference	Model
Type E Stainless steel safety grid	
99220500	Spiral 50 E
99210610	Spiral 70 E
99220810	Spiral 80 E
99221100	Spiral 110 E
99221500	Spiral 150 E
99222000	Spiral 200 E
99222500	Spiral 250 E
99223000	Spiral 300 E
Type M Stainless steel safety grid	
99220503	Spiral 50 M
99210613	Spiral 70 M
99220813	Spiral 80 M
99221103	Spiral 110 M
99221503	Spiral 150 M
99222003	Spiral 200 M
99222503	Spiral 250 M
99223003	Spiral 300 M

Capacity (indicative values)

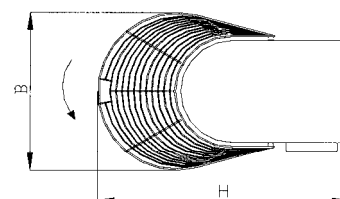
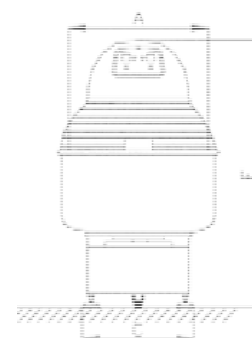
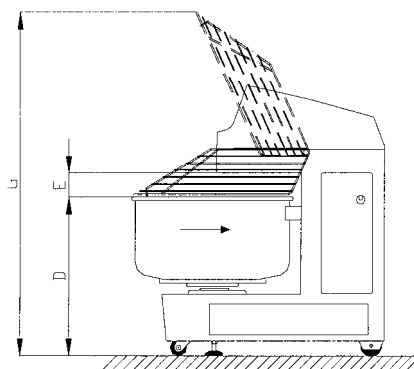
Models	Flour	Dough	Pouring	Bowl volume
Spiral 50	1,7 - 20 kg	2,7 - 30 kg	1 - 12 l	50 l
Spiral 70	25 - 30 kg	40 - 45 kg	15 - 18 l	70 l
Spiral 80	5 - 40 kg	4 - 60 kg	1,5 - 18 l	80 l
Spiral 110	40 - 53 kg	64 - 80 kg	24 - 32 l	110 l
Spiral 150	3,5 - 62 kg	5,5 - 100 kg	2 - 30 l	150 l
Spiral 200	3,5 - 75 kg	5,5 - 120 kg	2 - 45 l	200 l
Spiral 250	80 - 100 kg	130 - 160 kg	48 - 60 l	250 l
Spiral 300	5 - 125 kg	8 - 200 kg	3 - 75 l	300 l

Technical features

Models	Total power	Net weight	Spiral speed 50 Hz	Bowl speed 50 Hz	Spiral speed 208 / 220 V 60 Hz	Bowl speed 208 / 220 V 60 Hz
Spiral 50	1,70 kW	190 kg	95 - 190 rpm	10 - 20 rpm	114 - 228 rpm	12 - 24 rpm
Spiral 70	1,70 kW	205 kg	95 - 190 rpm	10 - 20 rpm	114 - 228 rpm	12 - 24 rpm
Spiral 80	2,75 kW	270 kg	95 - 190 rpm	7,5 - 15 rpm	114 - 228 rpm	9 - 18 rpm
Spiral 110	4,75 kW	355 kg	102 - 204 rpm	7,5 - 15 rpm	122 - 244 rpm	9 - 18 rpm
Spiral 150	4,75 kW	360 kg	102 - 204 rpm	7,5 - 15 rpm	122 - 244 rpm	9 - 18 rpm
Spiral 200	5,50 kW	640 kg	105 - 210 rpm	12 rpm	126 - 252 rpm	14,5 rpm
Spiral 250	5,50 kW	672 kg	105 - 210 rpm	12 rpm	126 - 252 rpm	14,5 rpm
Spiral 300	7,50 kW	680 kg	105 - 210 rpm	12 rpm	126 - 252 rpm	14,5 rpm

Dimensions

Models	A	B	C	D	E	F	G	H
	Internal diameter	Width	Machine width	Loading height	Space between bowl and head	Machine height	Height grid up	Depth
Spiral 50	450 mm	480 mm	435 mm	786 mm	132 mm	1290 mm	1695 mm	930 mm
Spiral 70	530 mm	580 mm	435 mm	786 mm	132 mm	1290 mm	1776 mm	1015 mm
Spiral 80	550 mm	580 mm	480 mm	815 mm	132 mm	1400 mm	1850 mm	1000 mm
Spiral 110	700 mm	740 mm	526 mm	860 mm	189 mm	1520 mm	1850 mm	1210 mm
Spiral 150	700 mm	740 mm	526 mm	910 mm	139 mm	1520 mm	1820 mm	1210 mm
Spiral 200	800 mm	850 mm	660 mm	855 mm	220 mm	1590 mm	2000 mm	1400 mm
Spiral 250	900 mm	950 mm	660 mm	875 mm	200 mm	1590 mm	2000 mm	1480 mm
Spiral 300	900 mm	950 mm	660 mm	935 mm	140 mm	1590 mm	2000 mm	1480 mm



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Machine complies to the standards CE