

# CRACKER AND BISCUIT FORMING EQUIPMENT



**MEINCKE**  
recipes for efficiency

# CRACKER AND BISCUIT FORMING EQUIPMENT

Haas-Meincke is a major international supplier of high-quality production plants and processing equipment for the automatic manufacturing of hard dough biscuits, soda crackers, cream crackers and cocktail crackers.

The lines can be composed of a combination of the cut-sheet-laminator, three-roll sheeter, calibrating gauge roll units, single or double rotary cutting machines or a combined rotary cutting molding machine, washover and/or decorating equipment etc.

## FEATURES

- Fully automatic production lines for a wide variety of products
- Suitable for many different types of dough
- The dough is visible through the laminating/sheeting process enabling the operator to manufacture an optimal product
- Fully adjustable intermediate conveyors maximise dough sheet support through the process
- Capacity to suit your needs

## YOUR BENEFITS

- All equipment is manufactured to the highest standards using the latest technology
- Minimum maintenance required
- Central greasing system
- Endless tru-track webs are fitted to the majority of the line, removing the need for expensive and time-consuming vulcanizing of the webs after changeover
- The machines are designed to provide quick and simple endless web changes

## TECHNICAL SPECIFICATION

- Line widths up to 1700 mm
- High percentage of standard parts
- Well-proven operating software with recipe control, simple-to-use touch screens with help screen features, for full automatic or, if preferable, semi-automatic operation

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- ▲ COCKTAIL CRACKERS
- ◀ HARD DOUGH BISCUITS
- ▼ CRACKERS

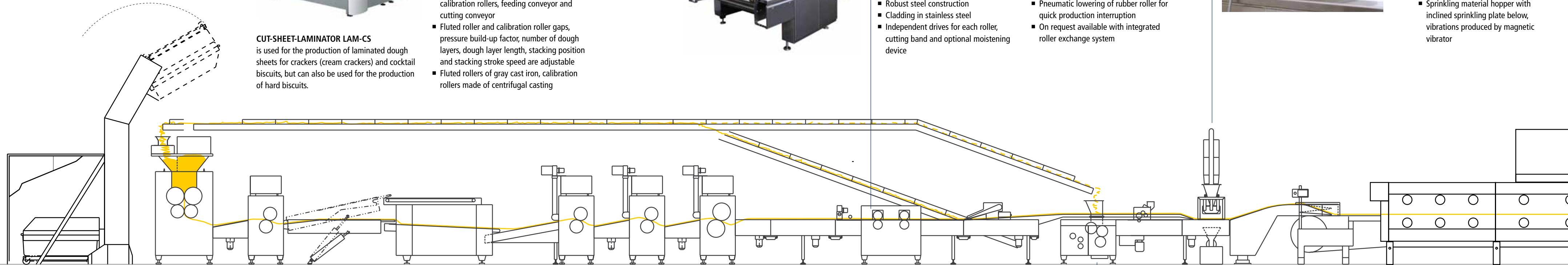


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**THREE-ROLLER-SHEETER TRIOMAT**  
is used to produce uniform and homogenous dough bands of all common kinds of dough.

- TECHNICAL DATA**
- Robust steel construction
  - Cladding in stainless steel
  - Dough pulled in and pre-sheeted by fluted roller and upper calibrating roller
  - Dough band rolled out by upper and lower calibrating roller
  - Conversion to calibrating machine possible by lowering the fluted roller
  - Roller gap adjusted by motor with digital display
  - Minimum dough band thicknesses of about 8-10 mm possible
  - Special hopper arrangement: return dough always fed to the bottom of the dough band, therefore no surface color differences



**CUT-SHEET-LAMINATOR LAM-CS**  
is used for the production of laminated dough sheets for crackers (cream crackers) and cocktail biscuits, but can also be used for the production of hard biscuits.

- TECHNICAL DATA**
- Robust steel construction
  - Cladding in stainless steel
  - Four-roller dough sheeter consisting of a fluted roller pair and a calibration roller pair with separate drives
  - Pneumatic cutting device
  - Automatic speed calculation for fluted rollers, calibration rollers, feeding conveyor and cutting conveyor
  - Fluted roller and calibration roller gaps, pressure build-up factor, number of dough layers, dough layer length, stacking position and stacking stroke speed are adjustable
  - Fluted rollers of gray cast iron, calibration rollers made of centrifugal casting



**TWIN ROLLER CUTTING MACHINE DUOCUT**  
is used for the production of hard dough biscuits, crackers and cocktail articles and can also be employed as single roller cutting machine.

- TECHNICAL DATA**
- Robust steel construction
  - Cladding in stainless steel
  - Independent drives for each roller, cutting band and optional moistening device
  - Position of cutting rollers adjustable to each other
  - Split bearings for simple installation and removal of rollers
  - Bearing design allows the use of several cutting rollers with different diameters
  - Cutting band with pneumatic band tensioning and band centering
  - Pneumatic lowering of rubber roller for quick production interruption
  - On request available with integrated roller exchange system



**ROTARY SPRINKLER RSV**  
is used for sprinkling of granular dry materials such as sugar, coarse sugar and all kinds of salt with uniform grain size.

- TECHNICAL DATA**
- Robust steel construction
  - Cladding in stainless steel
  - Sprinkling material hopper with inclined sprinkling plate below, vibrations produced by magnetic vibrator
  - Electromagnetic drive, electronically infinitely variable
  - Collecting hopper and container for surplus sprinkling material
  - Sprinkling material guides for versions with band conveyor instead of wire mesh belt



**WASHOVER UNIT STRV**  
can be provided with different washover brushes/rollers for the application of liquid over the entire production width, in chosen sections or for the application of structure washover.

- TECHNICAL DATA**
- Working width: 800, 1000, 1200 and 1500 mm
  - Placed above a continuously running conveyor
  - Easy removal and reinstallation in connection with cleaning and changes in production
  - Easy to clean
  - Driven by frequency-controlled three-phase motor
  - Manual operation of all functions/steel



**FOUR-ROLLER-SHEETER PREOMAT**  
serves to produce dough bands for rotary-cut biscuits or for feeding a biscuit molding machine, respectively.

- TECHNICAL DATA**
- Robust steel construction
  - Cladding in stainless steel
  - Fluted roller and calibration roller pairs with separate drives
  - Roller gap adjusted by motor with digital display
  - Fluted roller pair speed controlled by microprocessor
  - Frequency-controlled three-phase motors as drives
  - Minimum dough band thickness of about 4 mm possible
  - Special hopper arrangement: return dough always fed to the bottom of the dough band, therefore no surface color differences



**GAUGE ROLLER PAIR DUOMAT**  
is used for calibrating pre-formed dough sheets to the desired thickness and for compacting and smoothening these dough sheets.

- TECHNICAL DATA**
- Robust steel construction
  - Cladding in stainless steel
  - 2 gauge rollers of chilled cast iron, upper roller fixed, lower roller adjustable
  - Per roller one adjustable stripping knife with collecting tray
  - Intermediate conveyor with guided belt, mechanical height and length adjustment, easy-to-clean panels, mechanical belt tensioning and stripping knife
  - Roller gap adjustment 0.1-20 mm by motor
  - On request also available with dough band tension monitoring, independent drives for upper and lower roller, roller cooling or heating, various coatings



**MOLDING MACHINE GF**  
is used for the molding and cutting of dough blanks and can be equipped with molding or cutting rollers. It offers a wide variety of production possibilities by various add-on devices and conversion options. For example, it can also be used as a cutting machine when the molding roller is replaced with a cutting roller. By adding the respective device, it can be further utilized to produce extruded products.

- TECHNICAL DATA**
- Robust steel construction
  - Cladding in stainless steel
  - Working width: 800, 1000, 1200, 1400, 1500 or 1600 mm
  - Hopper for manual or automatic feeding
  - Molding and cutting rollers made of bronze, teflon-coated or with plastic molds
  - Hinged bearings allow easy and quick exchange of molding roller (max. 15 min)
  - Drive by frequency-controlled three-phase motor

## HARD DOUGH BISCUITS

Hard dough biscuits are produced on lines consisting of sheeter and calibration rollers. After producing an endless dough sheet, the desired dough blanks are cut by a single roller or double roller system. The resulting network of scrap dough is fed back to the sheeter.

The blanks are baked in a hybrid oven (directly heated infeed combined with radiation, which can be provided with or without convection) on a wire mesh band.

## CRACKERS AND COCKTAIL SNACKS

Crackers are produced on lines consisting of sheeter and calibration rollers. After producing an endless dough sheet, the desired dough blanks are cut by a single roller or double roller system. The resulting network of scrap dough is fed back to the sheeter.

Additionally, a cut-sheet-laminator may be employed. For the production of cream crackers, there is also a device necessary applying a

mixture of fat and flour between the individual dough layers.

As these products require a high amount of energy, a directly heated oven with additional band pre-heating and a heavy wire mesh band or a hybrid oven consisting of a directly heated infeed zone up to half of the oven length and a multivariant oven with convection are usually adopted for baking.

The products illustrated should be seen as representing product groups →



		Cracker	Cocktail cracker	Hard dough biscuit
<b>Mixing</b>	of the raw materials by means of a high speed mixer, a single or double shaft kneader.	X	X	X
<b>Feeding</b>	of dough to the forming machines by means of a dough feeder.	X	X	X
<b>Sheeting</b>	of continuous dough sheet from fresh and scrap dough can be made by:			
Cut-sheet-laminator	for the production of laminated dough bands for hard dough biscuits, crackers and cocktail crackers.	X	X	X
Compact dough sheeter	for the production of an endless calibrated dough sheet for molded and cut biscuits.		X	X
Three-roller-sheeter	is used to produce uniform and homogenous dough bands of all common kinds of hard biscuit dough and cracker dough.	X	X	X
Four-roller-sheeter	is used to produce uniform and homogenous dough bands of all common kinds of hard biscuit dough and cracker dough.		X	X
Calibration roller pair	is used for calibrating pre-formed dough sheets to the desired thickness and for compacting and smoothening these dough sheets.	X	X	X
<b>Forming</b>	of the products can be made e.g. by:			
Twin roller cutting machine	for the production of hard dough biscuits, crackers and cocktail biscuits.	X	X	X
Rotary molder	for the production of soft dough biscuits. Can be installed in a cracker/hard dough biscuit line.			(X)
<b>Decoration</b>	of the products by a:			
Coating unit	for egg-wash, water or the like	X	X	X
Sprinkling unit	for sugar, nuts, salt, spices or the like	X	X	X
Jam depositor	for decoration with jam, jelly or other masses			X
<b>Baking</b>	of the products in a tunnel oven with full control of temperature and moisture	X	X	X
<b>Cooling</b>	in a cooling tunnel, on a conveyor with air or/and water cooling	X	X	X

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