



## Flat Bread

Crispy food products are tremendously popular with consumers and the future looks bright for increased interest in the coming years. Often called crispy flat breads, these good tasting, nutritious and shelf stable products were first produced by CLEXTRAL twin screw extrusion in the early 1970's. Today, the innovation continues as we help processors create healthy, high fiber and low fat products and foods with a variety of textures, flavors, coatings, shapes and fillings.

Combining the art and science of extrusion technology, CLEXTRAL experts create foods with tasty flavour and texture combinations that delight consumers of all ages.

Our experience in flat bread and co-extruded flat bread processing yields distinct advantages in the development of your products.

- Production-proven processing techniques and scale-up expertise
- Ingredient flexibility to process a large variety of cereal grains
- Expertly crafted dies
- Many dimensions and shapes available
- Processing ability to manage various filling recipes (sweet and savoury)
- Output from 300 to 1000 kg/h for crispy flat bread slices
- Output from 500 to 1100 kg/h for crispy flat bread bars
- Advanced control systems ensure accurate process control for uniform product

# A simple, evolving process

A finished mix of selected ingredients is conveyed into the hopper of the feeder, which supplies the dry mix to the extruder. Metering pumps inject the liquid additives (such as water and oil) into the extruder. As the dough is transported through the barrel-screw assembly, mechanical and thermal energies are supplied to the product. As processing is completed, the dough enters the die, which simultaneously textures and forms the product.

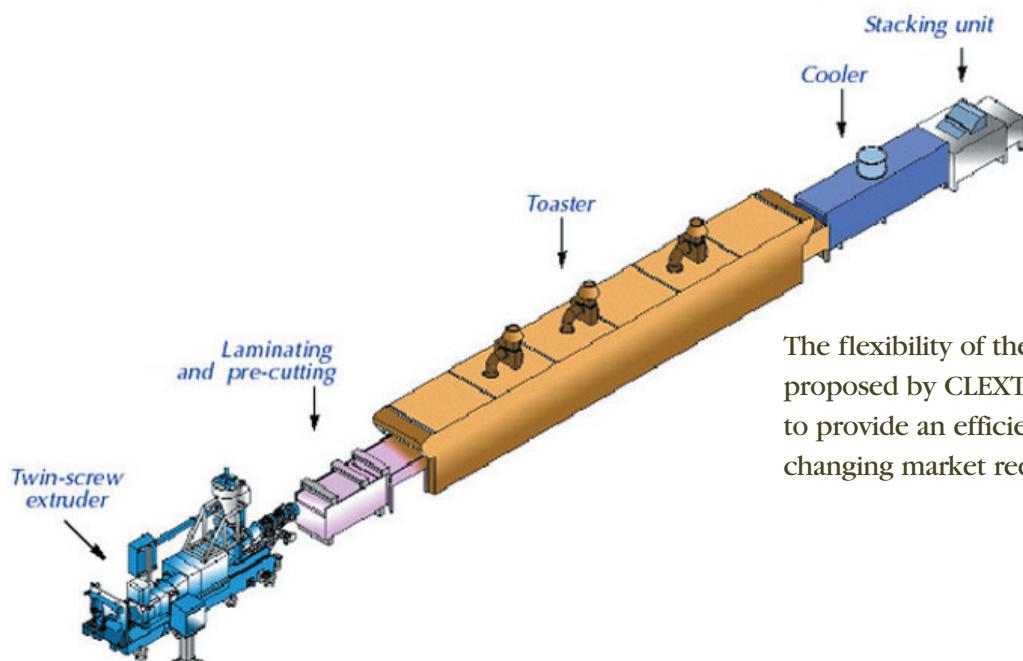
Upon exit from the extruder, the malleable bands of product are laminated and pre-cut to create the desired profile of the flat product.

After toasting, the bands of pre-cut products are cooled and finally cut, using a system that separates the individual slices, which are subsequently moved into the packaging unit.

Filled products are an interesting variation of the crispy flat bread that combine two textures: a crispy outer biscuit surrounding a soft filling. The filling can be sweet: chocolate-based or fruit paste, or savoury; it provides predominant flavour to the product, complimented by the roasted taste of the biscuit.

The processing line for filled products is similar to the crispy flat bread production line. In fact, we can produce the filled flatbread on the same production equipment as crispy flat bread with only minor adjustments.

Clextral is your partner in food processing innovation, with new ideas in healthy foods, including high fiber and low fat products. We help processors use extrusion to create new textures, flavours, coatings, shapes and fillings for distinctive products for the world marketplace.



The flexibility of the production lines proposed by CLEXTRAL enables them to provide an efficient solution to changing market requirements.

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