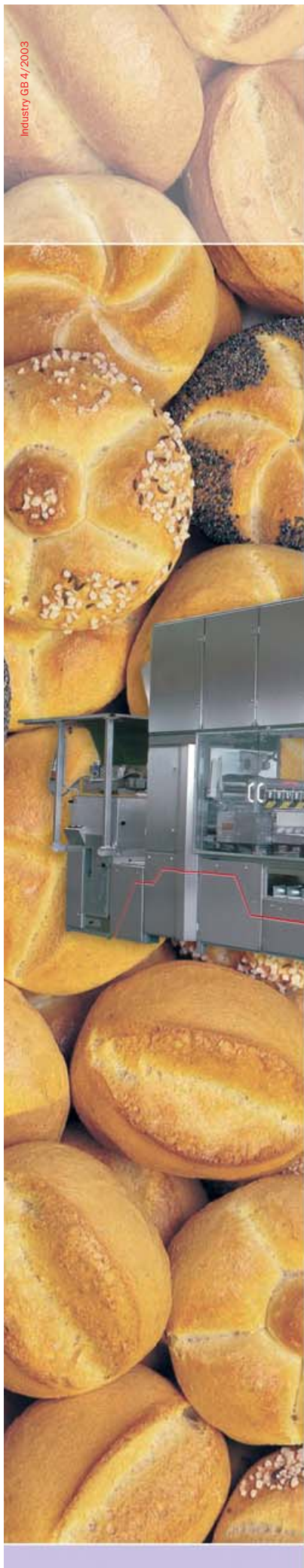


Industry GB 4/2003

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**Grubelnik**  
**industrial baking equipment**  
*The supreme alternative*



# Grubelnik

## industrial baking equipment



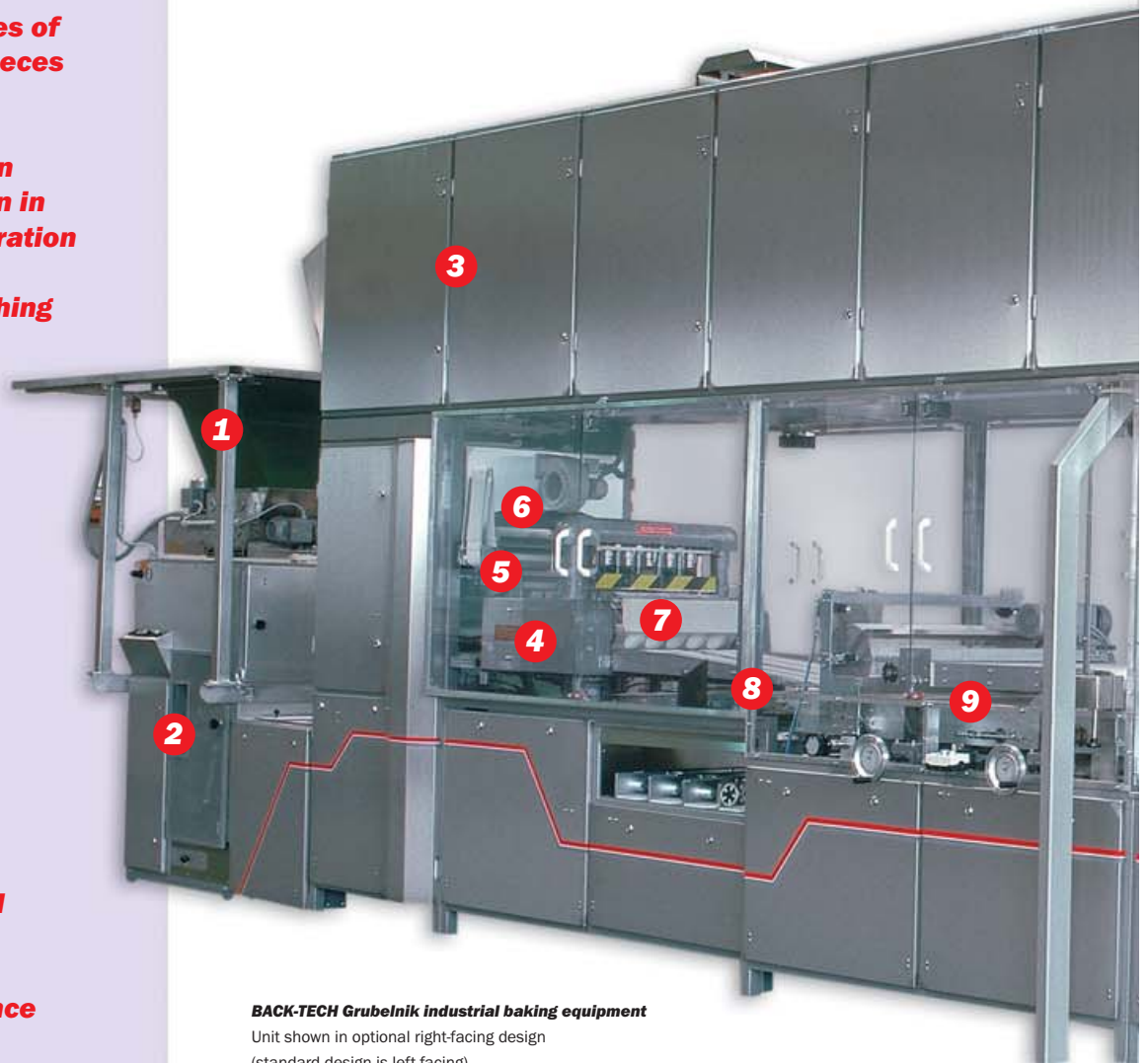
**BACKTECH**  
AUSTRIA

- Unique configuration for each customer
- Production rates of up to 36,000 pieces per hour
- High production efficiency, even in multi shift operation
- Precision weighing
- Superb efficiency
- Modular construction
- Optimal accessibility to important components
- Robust construction
- Modern control technology
- Low-maintenance components

## Efficiency at every stage of the process...

The tried and tested GRUBELNIK technology has been further developed by BACK-TECH, providing modern and unique solutions for the production of small baked goods such as shaped rolls, single cut rolls, savoury products, pretzels, donuts, ring donuts, hamburger and hot dog buns, etc.

Product quality, high plant availability and operational safety are the hallmark of our machines



**BACK-TECH Grubelnik industrial baking equipment**  
Unit shown in optional right-facing design  
(standard design is left-facing)

## Equipment and special features

### 1 Dough feeding

A dough feeding hopper with a capacity of up to 240 kg can be positioned over the Bavaria. The hopper is Teflon-coated; alternatively, the inner walls of the hopper can be oiled. The dough is gently moved from the hopper to the preliminary cutting station by pairs of rollers.

### 2 Bavaria

The industrial dough cutting and preparation line is designed to provide traditional quality at the same time as precision weighing and an output of up to 24,000 pieces per hour.

### 2a Giga-Star - The new industry standard **NEW**

This high performance multiple baked goods moulding machine has an output up to 60 strokes per minute and up to 36,000 pieces per hour with 10 pockets.

### 3 Resting cabinet

The L-shape of the resting cabinet provides excellent accessibility even for the lower units used later in the process. If required, the cabinets can be easily extended and their capacity increased at a later date. They are simple to clean via the secure but easily opened doors. Each door is separately sealed to improve the temperature and humidity control and to prevent any build-up of dust from the outside.

Self-cleaning, de-chromed chains and especially hardened sprockets guarantee minimum wear and long life.

Bypass facilities are available in the resting cabinet – different proving pans meet each product's needs as well as even the most demanding hygiene requirement. The resting cabinet can be equipped with thermostatic heating and fully automatic humidity control as required. Proving containers are dried in a separate zone and sterilised with UV light before re-use.

### 4 Adjustable height discharge **PATENTED** conveyor belt

The raisable discharge platform at the exit to the resting cabinet is a patented BACK-TECH development and guarantees an extremely gentle, drop-free transfer of the dough pieces on their way to the next stage of processing – onto a discharge belt for croissants or pretzels, to forming stations for Kaiser rolls or to an adjustable spreading belt (for untreated pastry such as Elsässer and all products which will later be rolled out).



## Equipment and special features

### 5 **Precision transfer** ◀ **IMPORTANT**

Gentle, precise transfer from the resting cabinet is vital for the quality and the appearance of the finished product. In the BACK-TECH Grubelnik lines, with their drop-free transfer system, the distance between the proving pans can be set for each product depending on product size, using a system of eccentrics so that the pans can be exactly positioned on the transfer conveyor. Their final position can be freely selected using a second conveyor. The transfer conveyors are frequency-controlled, thus guaranteeing exact positioning of the dough pieces for transfer to the forming station.

The adjustable height of the transfer conveyors and the option of a pneumatic straightening station improve the efficiency of the machine and the appearance of the finished product.

### 6 **Discharge conveyor**

Transverse discharge conveyors move the dough pieces to one or more "Rollo" roll moulding machines or pretzel machines for manufacturing pretzels or all types of savoury products.

### 7 **Forming unit** ◀ **NEW**

Up to four tools can be permanently mounted in the rotating turret shaping head; alternatively you can use the transfer plate to change the tools. In this way you can obtain perfectly formed rolls weighing between 30 g / 1,05 oz. and 70 g / 2,46 oz. (special weights on request). You can use the "turning pan" option to make long rolls, Portuguese rolls or Chilean maraquetas.

### 8 **Pneumatic spreading conveyors**

Adjustable spreading conveyors controlled by pneumatics are located under the forming station. Position changes, depending on each product, are programmed in the central computer. With the touch of a button the belts take up their allotted positions to within a fraction of an inch (mm).

### 9 **Moulding station** ◀ **NEW**

The BACK-TECH Grubelnik equipment allows you a wide range of possibilities in the production of flat pressed products (hamburger buns) or long moulded products (hot dog buns).

It is important that the product is exactly positioned before processing. This is ensured by a pneumatic positioning station. Once in place, the products can either be flattened with the sheeding head or flattened and curled by the curling station or moulded into lengths with the long moulder.

A whole range of combinations is available.

### 10 **Straightening**

After long moulding the dough pieces must be straightened once again. This can be done by a cyclic operating belt, etc.

### 11 **Cutting Station**

The cutting unit can be used to cut both long and round bakery products. Cutting is carried out by special, razor-sharp, rotary knives which are painstakingly cleaned after each cut.

### 12 **Wetting seeding** ◀ **NEW**

The newly designed wetter-seeder meets all the requirements of an industrial wetter-seeder. It moistens the dough pieces precisely, measures the topping exactly and returns the seeds; the unit can be by-passed or moved and is easily cleaned.

### 13 **Panning unit**

With this flexible, freely programmable panning unit you can set any panning pattern you require. This open-table industrial system allows the customer to extract trays from the front or the side, as required. A further advantage is that conveyor belts for automatic systems (e.g. for tray loading) can be positioned under the panning unit. A range of panning units with different lengths is available.

## BACK-TECH advantages

### **Controls** ◀ **NEW**

All equipment is controlled by a Siemens SPS (other systems can be chosen as well). It is operated by a touch screen. Option: Remote maintenance over the Internet via a modem-information on the condition of the line can be quickly called up from anywhere on the globe. All alarm, recipes and trend data is directly accessible with every FTP program. Data can be very simply processed in Excel. Information on freely defined process values can be transmitted by E-mail or SMS.

### **Low maintenance components**

Your profit increases as plant availability increases. This is why we take a great deal of care when selecting components. Our number one priority is service-friendliness and a low maintenance requirement.

Concept, dimensions, output data

## **GRUBELNIK & BACK-TECH: Robust, to give you a long service life!**

### **Individual planning**

Experienced engineers and expert bakers are available to design and build a unique layout for you.

### **Your advantage**

Product quality improves and rejection rates drop as the matching of preparation line components becomes more precise, thus improving the return on your investment.

### **Supreme quality**

At BACK-TECH we do all we can to live up to our claim that we are the specialists in the design and manufacture of small baked goods production equipment!

#### **Output:**

**Output:** from 50 cycles per minute

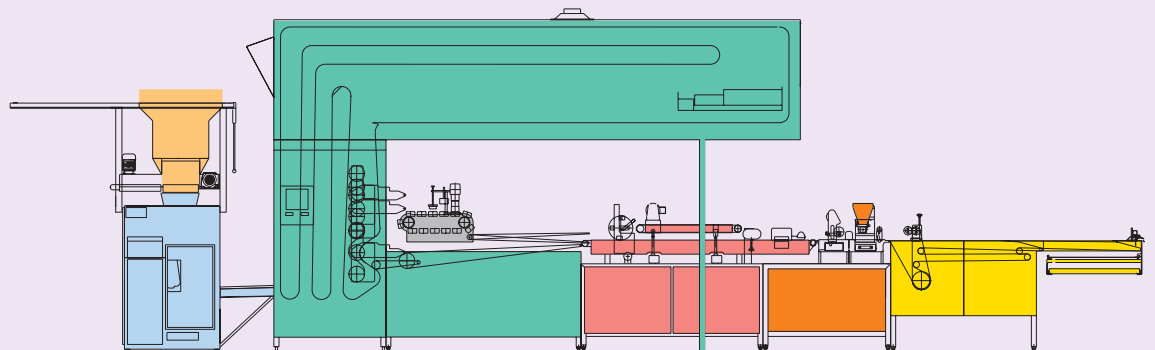
**Units per row:** 4, 5, 6, 8 or 10

**Maximum hourly output:** 36,000 pieces

**Proving time:** according to customer's requirements

### **Dimensions**

-  Dough feeding
-  Dough dividing and moulding part
-  Proving part
-  Moulding part
-  Rolling section
-  Wetter-seeder
-  Panning section



**BACK-TECH industrial baking equipment is available for:**



Moulded baked goods



Single cut rolls



Pretzel



Hamburger buns



Hot Dog buns



Berliner



Ring donuts














Special equipment as required by the customer

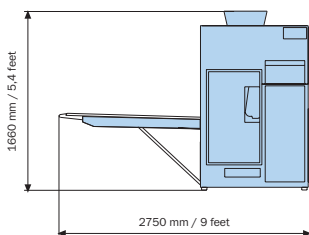
## Bavaria dough dividing and moulding machine

### A durable head

The best end-product quality is achieved by a handling procedure which leaves the dough with minimal handling stress and a shape as near perfectly round as possible. The Bavaria small baked goods and dough-processing machine provides you with both these requirements.



-  **Preliminary portioning** NEW
-  **Slide lubrication** NEW
-  **Pressure equalisation - (TSA system)** NEW
-  **Closed shape chamber** NEW
-  **Shape drum**
-  **Central lubrication** NEW
-  **Special reinforced construction** NEW
-  **Extended processing time for round shapes** NEW
-  **Operating conveyor adjusted by pneumatics**
-  **Interchangeable internal processing drum**
-  **Interchangeable honeycomb drum**
-  **Megatron touch-screen**
-  **Simple maintenance and low wear**



<b>Bavaria</b> Standard models / weight range	4 rows	5 rows	6 rows	8 rows
B 4 / 40-120 g / 1,41-4,23 oz.	x			
B 4S / 175-275 g / 6,14-9,7 oz.	x			
B 5 / 40-120 g / 1,41-4,23 oz.		x		
B 5S / 55-160 g / 1,94-5,94 oz.		x		
B 6 / 30-75 g / 1,05-2,64 oz.			x	
B 6S / 30-120 g / 1,05-4,23 oz.			x	
B 6S / 55-160 g / 1,94-5,94 oz.			x	
B 8 / 30-80 g / 1,05-2,82 oz.				x
<b>Output per hour (pieces)</b>	6000 -12000	7500 -15000	9000-18000	12000-24000



### BACK-TECH

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