



## Grain Milling Federation

### THE MILLER

The miller is responsible for the processing of different types of grain, especially wheat and maize, for baking and cooking purposes. The modern milling process is highly mechanised. The task of a miller is mainly to ensure that the final products meet the required specifications by setting the various milling machines used in the milling process and supervising their operation.

### NATURE OF THE WORK

Milling grain was one of the first occupations practised by man. Nowadays a milling factory is highly mechanised, but the principles remain the same, namely: To break open the grain, to separate the bran and endosperm, and to grind it into a finished product. The grain is usually transported by train to the mill. Before storing, a sample is taken out of each consignment because different grades of grain are used to produce different products. The grain is cleaned by removing all the undesired elements, such as stones, straw, sticks, foreign seeds and unthreshed ears. It is then washed to remove adhering dust and to bring it to optimum milling condition.

The wheat milling process consists of three stages, each with its specific type of machinery. In the break process, roller mills are used to gently crack the wheat kernel open to prepare the wheat for further processing, with the aim to remove as much of the bran (the skin of the wheat berry) from the endosperm (the grain kernel). In the scraping process, the endosperm is scraped from the bran and is refined by means of fine roller mills, sifting machines and purifying methods. In the reduction process, the endosperm is finally refined by means of smooth roller mills and graded by sifting machines. The flour made from the endosperm is used mainly for human consumption in the form of bread, cakes, etc. and most of the bran is used in animal feeds.

The modern milling process is highly mechanised and milling technology is an increasingly scientific study. The miller's responsibility is to keep the process going and to detect and solve problems as they arise. The mill laboratory applies simple analytical tests from which information the miller sets and adjusts the machines. He is also responsible for the maintenance of the plant. His knowledge of the product and the milling process enables him to realise immediately if there is a change in the quality of the product and to adjust the processes accordingly.

### WORKING CONDITIONS

Millers usually work indoors in the machine rooms of commercial grain mills. Since foodstuffs are being processed, the working areas are very clean. As the factories operate continually, millers have to work shifts, normally of eight hours each, mostly in a five-and-a-half-day week. Shifts are changed regularly.

### REQUIREMENTS

**Personal:** Since the miller operates machines, he should have a technical aptitude and a mechanical insight. Setting the machines often requires manual dexterity.

The prospective miller should be an alert and careful worker, with a sense of responsibility. Teamwork is important in this career, therefore the miller should be able to communicate well with other people.

**Educational:** A minimum of standard eight is required to enter this occupation. Subjects like Physical Science, Mathematics and workshop courses would be of value.

**Training:** The trade of a miller is not designated under the Manpower Training Act, 1981. However, a miller receives practical in-service training under the supervision of qualified millers. Trainee millers furthermore take a correspondence course in grain milling technology, which is offered by The Grain Milling Federation. The duration of the training is two years, and after successful completion of the theory course, a qualifying trade test is taken. A trade test certificate is issued by The Grain Milling Federation.