



Het Pink Oil Mill

Het Pink Oil Mill is one of the four remaining working oil mills in the Zaanstreek area.

The mill was constructed in 1620 as an oil mill, known at the time as a 'hennepkoeksmolen', or hemp crushing mill. It was used to crush hemp seed for the press cake and the oil.

In 1751, the mill was converted from a hollow-post design to an octagonal cap winding mill with a double oil press, one for the first pressing and the other for the second pressing.

Up until approximately 1880, purely plant-based seeds such as linseed, rape seed and oilseed were used as the raw materials.

As steam-powered oil production plants became more common, the mills gradually fell out of favour. At the time, Het Pink was converted to recover cocoa butter from cocoa bean waste. Among other modifications, a small steam boiler was installed for this in the mill in the area that now serves as the entrance.

In the 1920s, the mill fell into disuse. The end seemed near. However, in 1939, the mill was purchased by Vereniging De Zaanse Molen in a state of extreme disrepair.

Following a thorough refurbishment, Het Pink has now been restored to its former glory. During the winter of 1944, when electricity was in scarce supply, the mill powered two printing presses for producing newspapers and ration cards.

In the 1980s, problems arose in the foundations, causing the mill to lean to one side. Several years were needed to complete the expensive repairs to the foundations.

The mill has been fully operational again since 1996, and a milling team of volunteers regularly presses oil.



DE ZAANSCH E MOLEN

Around 1920 there were only about 20 windmills left of the 1000 that had made the Zaan district the oldest industrial area of the world. On 17 March, 1925, windmill society De Zaanse Molen was founded to preserve the mills for future generations. This society now owns thirteen industrial windmills; it keeps them in excellent condition and operates them regularly. Moreover, in 1928 the society founded a unique and fascinating Windmill Museum, where you can find out everything about the operation and history of industrial windmills and where changing exhibitions are held. You can also visit our website: www.zaanschemolen.nl



For all information about our mills and mill museum, opening hours, group visits and entrance fees:

www.zaanschemolen.nl

Oil mill Het Pink

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HET PINK

Oil mill located at the Pinkstraat in Koog aan de Zaan, The Netherlands

Anno 1620

Please note!

A mill is not a safe place: it is actually a wooden factory where people walk between moving parts. So please be very vigilant, hold your children firmly by the hand and only descend with your face towards the stairs.

Do not step across barriers, do not pull on ropes or the thatch and always immediately comply with any instructions given to you by the miller!

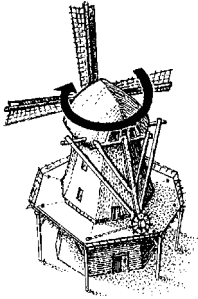
Pets are not allowed and smoking is forbidden!



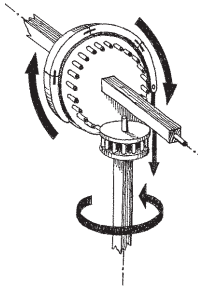
DE ZAANSCH E MOLEN



Millstones weighing 3,500 kilos



This mill is a cap winder: only the cap with the sails is turned into the wind using the capstan wheel under the tail beam.



The rotating horizontal movement of the sails is converted by the upper wheel and upper crown wheel into a vertical rotating movement for driving the tools at the bottom of the mill. The brake, which is a wooden brake for stopping the mill, is positioned on the upper wheel.

In oil mills, your eyes are immediately drawn to the two colossal millstones, which continually rotate with imperturbable indifference. Due to their weight and the rubbing motion, the rape seeds, oilseeds or linseeds are crushed and broken open to release the oil they contain. This is the first step in the oil extraction process (see drawing 1).

Because they roll on their edges, they are also known as 'kantstenen', or edge runners. These edge runners, of which the largest weighs approximately 3,500 kilos and the smaller 2,500 kilos, are moved by a reel which is powered in turn by the mill mechanism. The edge runners rotate on a flat stone, which is known as a bedstone, or 'legger'. As this heavy stone wears extremely quickly, a cast-iron wear plate was attached to it at a later date.

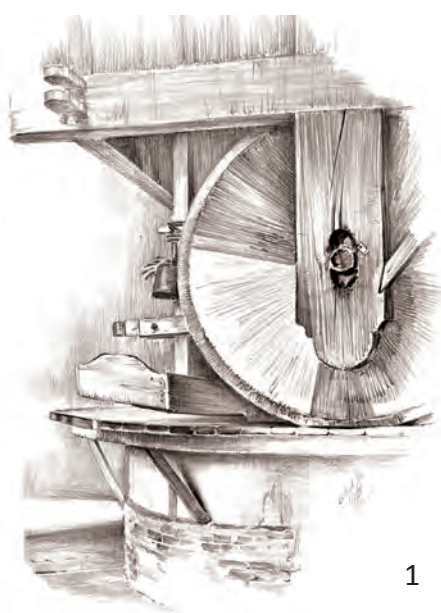
As the stones rotate, the miller shovels a quantity of 'maalgoed' (seed) onto the bedstone using an implement called a 'schepel'. To keep the seed from adhering to the bedstone and present it cleanly to the edge runners again, two drag sticks, known as 'strijkers', are located between the stones.

The sides of the edge runners are painted blue and white. This is a safety precaution, designed to ensure that people could immediately see whether or not the stones were moving in conditions of poor light during the night.

Once the seed has been fully crushed and moistened under the edge runners, the miller allows the resulting seed meal to drop into a container.

The seed meal is now ready for pressing, but has to be heated first. That is done on a brick preheating stove, which we call a 'vuister' (see drawing 2). The milled seed is stirred as it heats up in the ring on the iron plate on the preheating stove. The mill workers also used the peat-burning stove to warm up their coffee or heat up their food in a pan.

Drawings:
Hinne Terpstra



1

which the miller starts the initial pressing process known as the 'voorslag': the striking ram, or 'slaghei' (b) drops with great force onto a wooden press frame, or 'wig' (c), which, with each subsequent stroke, exerts increasingly greater pressure on the contents of the press via the filling piece, or 'vulstuk' (d), thus forcing the oil out of the seed meal.

During the pressing process, the oil flows out of the bags and through the holes in both sides of the press and finally collects in a tray placed under the press, referred to as a 'bekken'. After pressing, the pressure that has been built up on the press frame is released by allowing the releasing ram, or 'loshei' (e), to fall onto the release chisel, or 'losbeitel' (f).

The incessant striking process made the mill a very noisy place to work. The impact of the striking ram on the wooden press frame in particular led to hearing impairment among mill operators. Oil millers used the term 'heidooft' for people suffering from this occupational hearing impairment.



2

Pressing the oil

After heating, the seed is transferred to a cloth filter bag, known as a 'buul'. This bag used to be made from wool, because of its strength, but is now made from filter fabric.

The bag has to withstand significant forces in the press.

So it is protected, by wrapping it in a horse-hair and leather cover. We refer to this as the 'haar' (see drawing 3, position a).

The resulting combination is put in the press, following

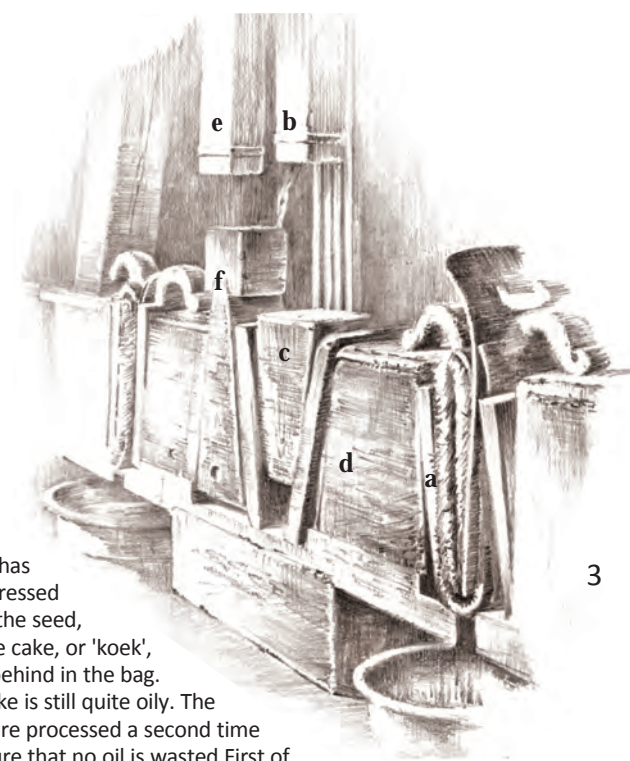
When the oil has been pressed out of the seed, a dense cake, or 'koek', is left behind in the bag.

This cake is still quite oily. The cakes are processed a second time to ensure that no oil is wasted. First of all they are removed from the bag and broken down to produce a seed meal again.

This takes place in one of the six stamping troughs, or 'stamperpotten', in the middle of the mill. Next, a small amount of water is added to the seed meal which is then ready for the second pressing, or 'naslag'. This process removes the last drops of oil from the seed meal. A labour-intensive task, but the second pressing process was still profitable as the millers used to earn a very low wage and good prices were paid for the cake from the second pressing, known as 'naslagkoek'.

From oil to cattle fodder

The cake station, or 'koekenhok', where the pressed contents were removed from the bag, can be seen in drawing 4. This was done both after the first pressing and after the second pressing. The long, thin cakes from the second pressing were cut neatly to size at the cake station using a knife called the 'koekenmes'. These cakes were sold in packs of thirteen pieces to farmers as cattle cake.



3



4