

## The watermill complex on the river Dijle in Mechelen (Belgium)

The “Volmolen” (fulling mill or walking mill) at the entrance to the “Kruidtuin” (herb garden) in Mechelen is the only watermill preserved in the region. The building dates from 1470 and is a protected monument. The name “Volmolen” originally referred to an industrial mill used in the cloth industry. In it the fibers of woven cloth were shrunk and tightened thus creating a strong, waterproof fabric that wouldn’t shrink much. This task was carried out by “Volders” (Fullers). The term “walk” is to be taken literally here, because the material was trampled on (fulled) by many people to make it as firm and dense as possible.

As it turns out, however, this watermill was much more than just a fulling mill over time! The still existing “Volmolen” and “Spuihuis” originally date from the end of the 13th century. The Prince-Bishop of Liège granted the city permission to build the first Mechelen watermill on the Dijle in 1304.

At the beginning of the 16th century, when Mechelen became the capital of the Netherlands under Margaret of Austria, a mill complex had developed on this site, consisting of a watermill, a grain mill, a bark mill and a fulling mill. And there was also a water house "Waterhuys" in which 14 to 16 pumps pumped water 16 feet high into city canals or streams....

It was a truly complex pre-industrial machine at the time, proof that the wealthy city of the time was able to rely on experienced and clever minds for its development and managed to construct this complicated machine powered by running water!

The bridge at the Zandpoortvest at that time was popularly called "'t Gat" (the Hole) because it was the only large opening in the city wall through which boats could also enter. Today the old water mill and the mill house from the 16th century can still be seen at this location. This city mill was part of a water complex and regulated, among other things, the water level of the Dijle and the "Vlieten" (canals that ran through the city). Walking mills were also called fulling mills in many places. This term comes from the Latin word *fullo*, the fuller, so the *fulling mill* would be the more accurate name.

In the fulling mills, woollen fabrics were felted into a homogeneous cloth by pushing, squeezing and stamping while the fabrics were warm and damp, thus creating a smooth surface. In this way, the threads of the fabric were completely hidden, making the fabric slightly water-repellent. Today, we still know such cloths as "loden" or "duffel cloth". Woollen cloth produced by looms was fulled, compacted and beaten in the fulling mill in Mechelen where wooden hammers driven by a water wheel were used. The cloth thus treated resulted in a felted fabric that had the desired warming, rain- and wind-repellent properties. Pressure, heat and the addition of a fulling liquid (originally urine!) caused the fabric fibers to swell, the weaving holes to close and produce the felted quality.