Boxtel is particularly famous for a Eucharistic miracle that occurred around 1380. A priest named Eligius van der Aker was celebrating Mass at the altar of the Three Kings. Immediately after the consecration he inadvertently knocked over the chalice containing consecrated white wine, which immediately changed into Blood and stained the corporal and the altar cloth. The relic of the Blood-stained corporal is still kept in Boxtel, while the altar cloth was given to the town of Hoogstraten. The most authoritative document describing the miracle is a decree issued in 1380 by Cardinal Pileus.

In 1380, the priest Eligius van der Aker celebrated Mass at St. Peter's Church. Shortly after consecrating the species of wine, he inadvertently spilled the Precious Blood on the corporal and the altar cloth. Although he had used white wine for the Mass, it turned into Blood.

At the end of Mass the priest ran into the sacristy and tried to remove the Blood stains from the sacred linens, but all his attempts were in vain. Not knowing what to do, he hid the altar cloth and corporal in a travel case under his bed. Only when he was dying did he reveal the secret to his confessor, Fr. Henrijk van Meerheim. He immediately informed Cardinal Pileus, who at the time was the apostolic legate of Pope Urban VI and titular of the Church of St. Praxedes. After conducting a thorough investigation into what had happened, the Cardinal authorized the veneration of the relics by a decree of June 25, 1380. Due to religious conflicts, the relics were moved in 1652 to Hoogstraten on the Belgian border. Only in 1924, after repeated requests, was the Blood-stained corporal returned to the little town of Boxtel. Every year on the feast of the Holy Trinity, the townspeople of Boxtel organize a solemn procession commemorating the Eucharistic miracle and expose the relic for public veneration.