Ipekyol Textile Factory
Edirne, Turkey

In the second half of the 20th century, Turkey witnessed a rise in industrial production due to low labour costs, improved machine technology and better transportation connectivity. As a result, industrial factories appeared on the edge of most major cities. The Ipekyol Factory aims to depart from the precedent of generic factories scattered between Istanbul and the site, most of which are metal-clad or precast concrete single-storey sheds that have a neglected aspect and little to no relation to their contexts.

The Ipekyol Factory is located in the City of Edirne, which borders Greece and Bulgaria, with easily accessibility from Istanbul. Edirne has a rich historical heritage given its location between European and Asian Anatolia, including the walls and towers from Edirne Castle, built by the Roman emperor Hadrian, the famous Selimiye Mosque from the Ottoman Period and the recently restored Sultan Bayezid II, with its hospital dating back to 1484. The city has a population of 120,000, including many skilled fabric workers.

Before building the factory, the client realised that to address changes in local and international consumer patterns, he would need to improve product quality. He also knew that he needed to invest in new digital manufacturing technologies, so he toured the globe and developed a process line to combine the most advanced machinery with local systems. He wanted to put procedures and systems in place that assured the highest quality. From this he determined how many machines would be required and their necessary spatial relationships; a preliminary design for the factory’s working spaces provided a broad idea of the floor space needed for the new building and its circulation. He recognised the importance of design, even for a building used mostly for production and distribution. He believed in Ipekyol’s responsibility towards its employees and understood that the architecture of his workplace would have a substantial influence on the image of the company and its products.

The site has a north-south depth of approximately 300 metres, but only a 130 metres east-west width. To the west is a five-storey technical college building and playground constructed 20 years ago. The eastern boundary is a field with an abandoned development near the highway. The building is 150 x 100 metres in plan, and 14 metres high, containing production facilities, a training school, and administration and catering areas. A surface car park, a play area, and a plant room are located outside.
The plant is organised with structural grids and five internal gardens of various sizes that create a safe, legible environment and encourage communication between different parts of the production system. The even distribution of columns encourages manageable foundation loads, allowing the use of simple strip and pad foundations to optimise the site’s cut and fill balance. On top of the columns sits a grid of traditional steel roof trusses approximately 2.5 metres deep, and a secondary purlins and metal cladding system then sits over the trusses to support the roof insulation and membrane. Cross bracing and vertical bracing systems provide structural stability.

The single volume gives a clear sense of community, blurring the hierarchy between administration staff, maintenance staff, students and factory workers. The U-shaped system flows efficiently through production, packaging and dispatch of each garment, and controls for error with a robust quality-assurance system. All wall finishes are exposed and lightly coloured to take advantage of the transparency of the building, and the material selection and rigorous detailing has taken due consideration of durability and longevity. The increased height of the building and internal courtyards maximises daylight and thermal performance, reduces energy use and encourages natural ventilation. The innovation lies in the rigour, detailing and quality of the final construction.

One of the factory’s strongest features is a water pool that runs along the full length of the southern glazed wall, which provides some cooling effect through evaporation during the summer and calmly welcomes visitors with its reflection on the wall. The water-collection system moves rainfall from the large roof and discharges into concealed drainage channels around the edges of the building. The pool has considerable capacity to absorb storm-water runoff, and the gardens are also treated with controlled drainage systems to prevent flooding.
Jury Citation

The intelligent and imaginative design and engineering of the Ipekyol Textile Factory make it a role model of an efficient and pleasant working environment for any industry, and exceptionally so for the textile industry where such qualities are rare.

The building combines functional efficiency with humanity to the commercial advantage of the client. Made mostly from local materials, it sits lightly on its plot. The high ceilings and internal courtyards maximise the flow of daylight and encourage natural ventilation, making the work spaces more agreeable as well as reducing energy usage and improving thermal performance. Water is collected from the roof and drained into the local system, but may eventually be recycled for use by the factory. Production and administration are housed within the same building, and are visible to each other, improving internal communications and fostering team spirit.

At a time when the Muslim world is industrialising rapidly, and many countries, including Turkey, need to develop higher-quality products to counter rising labour costs, the Ipekyol Textile Factory demonstrates how enlightened design can create a replicable blueprint of a cleaner, safer, more efficient workplace that can also achieve higher productivity and profitability.