References

# Maksimir stadium, Zagreb



**Uponor involvement**

7000 m²

## Maksimir stadium, Zagreb

After the renovation, the field at Maksimir stadium in Zagreb, Croatia is now equipped with Uponor Meltaway, a snow and ice melting system.

**Project Facts:**

| Location | Completion | |
|---|---|---|
| Zagreb, Croatia | 2011 | |
| **Building Type** | **Product systems** | |
| Sports facilities | Radiant Heating & Cooling | |
| **Address** | **Website** | **Project Type** |
| Maksimirska cesta 128 | https://gnkdinamo.hr/ | Renovation |

In order to provide suitable conditions for championship matches, equipping the modern stadiums and football fields with snow and ice melting systems has become a necessity.

The Maksimir stadium in Zagreb was officially opened on 5 May 1912. Fans of GNK Dinamo, the local football club, have many fond memories of Maksimir stadium; of the great games that their favorite club won, of the numerous championship titles they celebrated but also of the tough losses they had to accept in the spirit of true sportsmanship. The stadium is owned by the city of Zagreb and it provided for a minor portion of the renovation expenses in 2011, while the majority was paid for by GNK Dinamo and its executive management. The practice fields have also been renovated.

Over the past 99 years, the stadium was upgraded and renovated many times, with the previous major adaptation taking place in 1998 when the old north stand was completely torn down and replaced by a new modern one, while the standing room only sections of the east, south and west stands were also removed, pursuant to UEFA regulations. The renewed west stand was expanded with new seats for additional 12,600 spectators and 700 VIP section seats were created as well. Today, the capacity of the stadium is 38,000.

Maksimir stadium showed off its new looks after new drainage and automated sprinkler systems and Uponor underground heating pipes were installed in June of 2011. These pipes will be used to circulate hot water that will keep the field at an adequate playing temperature when necessary. The project of installing a heating system on a natural grass field was headed by SM inženjering, Ltd. and Slavko Mamić, Meng. together with the Uponor Representative office in Croatia. Termocommerce, Ltd. acted as the importer and distributor for the project, while the installation works were carried out by Zlaring, Ltd.

Uponor Meltaway system has been installed under the natural grass playing field. Its main elements are cross-linked polyethylene silane XLPE pipes that are softer and more flexible because they were specially designed for defrosting of exterior surfaces. Approximately 24 km of 25 x 2.3mm pipes have been used during installation, as well as Uponor fittings, reductions, connections, fixations, automatic units etc. Loops of equal length are connected through the Tichelmann manifold from PEHD pipes to an existing, although appropriately modified, boiler room. Pipes are covered with a layer of quartz sand, followed by soil and finally by rolls of grass.

The snow and ice melting system is fairly simple to operate. Maintenance of the system is very easy. For instance when repairing the plastic parts, one just needs to cut out the damaged section of pipe, replace it and connect the ends of the specially designed one-piece threadless fittings Rosex. Replacement of the coolant in the system occurs very rarely, mostly need a little makeup.

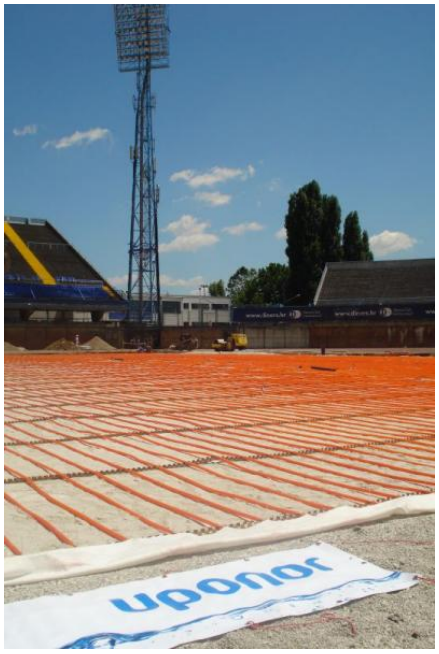
The Uponor Meltaway system can be installed not only in stadiums and football fields, it is suitable for airports, car parks, logistics centres, pedestrian crossings, or just urban areas. With the help of the existing technologies, the pipe can be laid, not only in different soils, but also in the asphalt and concrete. The warranty for the system is 10 years and it can significantly reduce operating costs created by cleaning, snow removal and melting ice.

## Maksimir stadium, Zagreb








uponor



gnk dinamo