



SANBÀPOLIS MULTIPURPOSE CENTER

Project date: **2009**
 Start of construction: **2011**
 End of work: **July 2013**
 Cost: **32 million euro**
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Sport Architecture
 (Italy)

THE NEW MULTI-PURPOSE CENTER OF SAN BARTOLOMEO, IN TRENTO, WAS REALIZED ON THE SIDELINES OF THE STUDENT, BUT OFFERS TO THE WHOLE COMMUNITY THE OPPORTUNITY TO ENJOY A RANGE OF USEFUL NEW SERVICES. THE NEW SPORTS HALL INSIDE WAS INSTALLED WITH MONDO SURFACES AND SOLUTIONS, WHICH PROVIDE A LEVEL OF PROFESSIONAL GAME.

IN RECORD TIME

Constructed in only thirty months, the new center **Sanbàpolis** is a modern multipurpose facility built with the utmost respect for the environment. The project, commissioned by the **Opera Universitaria of Trento**, was produced by **STS Trentino Engineering**, which for the architectural part was joined by Spanish studio **Palerm Tabarez y de Nava**, with the architect **Juan Manuel Palerm Salazar** who developed the architectural concept. The construction was entrusted to the **Consortium Work Environment**, which earned him the work of cooperatives **Cle** of Bolzano and **Btd Services Primiero**, in addition to the collaboration of a dozen small businesses Trentino. "Work began in January of 2011, with the constraint of finishing in thirty months. It is a very tight timeline for a work of about 90,000 cubic meters, but we were able to respect it, with completion in July 2013. The inauguration took place in September of 2013," recalls the engineer **Luca Masini**, technical director STS Engineering Trentino.

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The facility, which is over five levels, is mostly buried in what was once a small hill. A solution that makes it unobtrusive and perfectly integrated with the site that hosts San Bartolomeo (Trento south). "Where the Sanbàpolis is, first there was a knoll. First we had to dig to remove about 73,000 cubic meters of earth," says the engineer Masini. As for the outdoor area, the project involved the construction of public spaces, with a large square building that operates as a cover. "The coverage of the whole building is a square walkable, designed to be a meeting place between students, on which there is an important photovoltaic system", says Luca Masini.

THE SPORTS AREA

Open to all, the new Sanbàpolis will be frequented mostly by students, who will have a sports area with tools and solutions to the professional level. "The purpose of this building was the completion of university residences which are located upstream, which can accommodate up to 900 students, turning them into a campus, with a range of services," recalls Luca Masini. Among the new services stands out **an area for indoor sport**, in particular a new sports hall. "It was built a sports hall with 600 seats, approved for competitive disciplines such as volleyball, basketball and soccer to 5, with



changing rooms for players and referees, first aid, first aid," says the engineer Masini. In the sports, next to Palazzetto, it is the largest indoor climbing gym in Italy, the third in Europe with its 2,300 square meters of climbing surface.

THE RIGHT SURFACE

One of the strengths of the new sports facility is its playing surface. "The final customer initially chose a technical sports flooring made of rubber. This choice personally did not convince me, because I was more inclined towards parquet flooring, an opinion shared by the provincial federations of basketball, volleyball and futsal. So I decided to intervene with a kind of modification during construction. Thanks to Mondo technicians, in particular Mr. Aldo Sparapan, we managed to find a Mondo product in floating parquet with a thickness of only 38 mm, which allowed us to create a wooden floor as requested above all by FIBA and Coni ", explains Masini. This is a wooden flooring called **Zeta System**, a FIBA approved solution. "This model in particular is signed FTS, with the support of the floor made of a particular material that facilitates the conductivity of heat. It is important that the parquet is forced to cross without resistance, so that it can irradiate the wooden surface by heating up to 1.80 m in height, as required by the standard ", explains **Aldo Sparapan**, Mondo Indoor Sports & Contract Division. Floating oak parquet flooring, also shared by ITAS Volley and the Provincial Basketball Federation, is also striking from a scenic point of view. Mondo has also dealt with the tracing of the playing field for the three disciplines for which the building is homologated: volleyball, basketball and futsal. For when the building will host non-sporting events (concerts, assemblies, meetings), Mondo has provided the **High Jolt** solution, a very resistant and easy to install product that will be used to cover the wooden flooring. In this way, a truly multi-purpose use of the indoor area was guaranteed.

MONDO BASKETS AND EQUIPMENT

Mondo's commitment to the new building was not limited to flooring, but it also involved baskets. "Initially, Olympic-type baskets were chosen, but then a more manageable solution was chosen. The **Mondocup** baskets can be folded on themselves when not in use for play and have wheels that allow them to be rolled into a special room.. This is a medium-high basket, also approved for Serie A games. The basket is not heavy and therefore allows for good transportability, without having to intervene with special technicians or equipment ", explains Aldo Sparapan. Mondo also provided the **electronic scoreboard**. "The **Fenix** model was installed, suitable for a meeting between basketball teams at the A-series. The same board also has two windows useful for playing volley and 5-a-side football. The scoreboard is controlled by radio from a console. , usually placed on the judges' table ", concludes Sparapan. Mondo also supplied the volleyball net, referee's platform, benches and the goals for futsal.

THE RIGHT VISIBILITY CURVE

Mondo has also supplied and installed the **600 seats** of the building, chosen after a careful technical-economic evaluation. An important aspect was the placement of the seats, model **G 2007**, in the stands. Each seat, in fact, must respond to a visibility curve, which allows the seated person to have visibility up to at least on the sideline, and this applies to any discipline that is played on that field. "In the case of Sanbàpolis, the seats are not all fixed at the same height, but following the scheme with which the engineer Masini has identified the right curve of visibility. Following the indications of the graph provided by the engineer Masini, we intervened by constructing a template on which at each step varies the height of the chair by a few centimeters; in this way we have remained compliant with the visibility curve. It was a job that involved our technicians, first with on-site inspections and then with the implementation of the project ", recalls Aldo Sparapan.

THE CULTURAL AREA

In addition to the sports, the services within Sanbàpolis also include a **cultural area**. "The cultural quadrant is composed of an experimental contemporary theater, which in the course of the works has become a multi-purpose theatrical space, which depending on the need may be cinema, Italian theater, conference room with 550 seats. Next to the main hall, there are theatrical multi-purpose rooms for dance classes, acting, small productions, rehearsals of musical bands. Then there are 1000 square meters of offices, a restaurant of 650 square meters and a panoramic lunch bar of about 400 square meters. To all this must also be added commercial activities ", explains the engineer Masini. The theater has a volume of 4,000 square meters, and the office area is characterized by complete natural lighting.

LEED PLATINUM CERTIFIED

Sanbàpolis stands out for its **high level of eco-sustainability**. The choices made by the designers allowed the project to obtain the **Leed certification at the Platinum level**, the maximum level that can be obtained. Among the decisions taken that led to this recognition is that of making the structure energetically independent. "All the need for thermal and cooling energy, for summer and winter air conditioning, and the production of domestic hot water, are provided by the largest geothermal plant that was built in Trentino Alto Adige: it consists of 47 geometric probes, which they come up to 150 meters deep and are powered by two large geothermal pumps, which run on electricity, the majority of which is supplied by the photovoltaic system, "explains Luca Masini. One of the basic requirements for obtaining the Leed certification included the choice of materials. "To obtain certification, we had to comply with a number of requirements, including the use of a good percentage of recycled or renewable materials. For example, all cold floor coverings are made of factory stone, which comes entirely from industrial waste. In terms of eco-sustainability, much focus has been placed on wood coming from certified forests; all covers are made of laminated wood. This is an impressive cover, because in addition to acting as a cover it is also the floor of the upper squares. Then we used a lot of regional materials, a fundamental choice for certification. A large component of Trentino porphyry was used both for the construction of most of the external paving, and for the large ventilated porphyry facade, a work that no one had ever done before: the façade was made with a series of slabs in waste porphyry, which have been milled and hung on an aluminum substructure, thus creating a pleasing final aesthetic effect on the building's façade ", recalls the engineer Masini.

AN EXCELLENT SYNERGY

Sanbàpolis The project was completed on schedule thanks also to the excellent synergy that existed between those who designed the structure and who provided the material for its realization. "Engineer Masini always wanted to meet with us before making important decisions. This made it possible to avoid errors that sometimes occur, such as for example that of not foreseeing the presence of an electric cable for the display board during the design stage. Discovering certain errors when the flooring has already been installed means having to smash the floor and make enormous damage. In this case, the coordinating phase of interface between the design and the supplier has allowed a linearity even at the construction site level, something that is not always possible ", comments Aldo Sparapan.





