

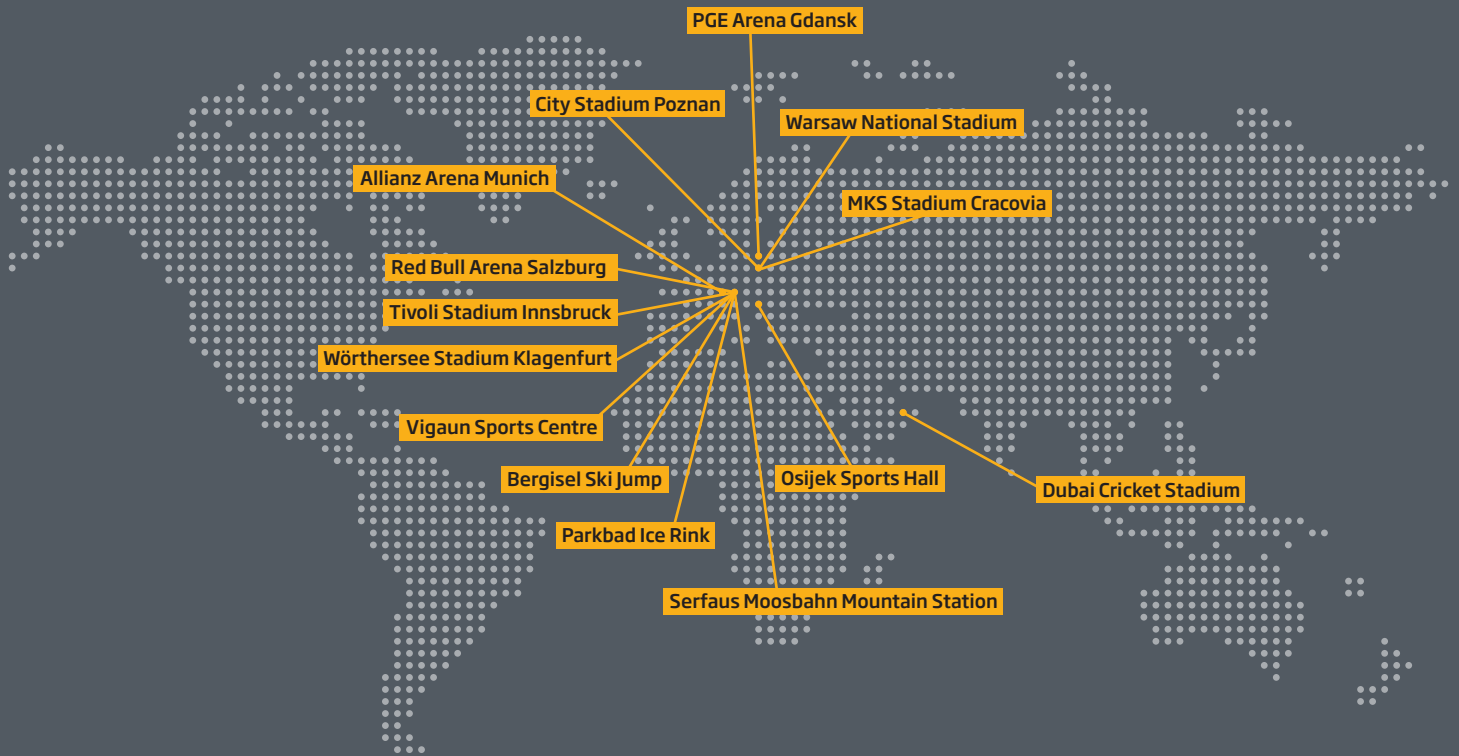


Sports Facility  
Construction

However you define sports

**Our range in sports facility construction**





## At the Core of Construction. Worldwide.

Founded in 1965 as a small construction machine dealership, ALPINE is now one of the leading construction groups in Europe. Today, our name is synonymous with state-of-the-art know-how, extreme flexibility, tailor-made solutions and the use of the latest in material and equipment. We cover the entire spectrum of construction output with competence in every single sector and complete projects of any kind and size reliably and on time in more than 30 countries. In doing so, we are committed to each project as if it were the only project we had.

The classic construction activities are complemented by a number of services

in project administration, planning and financing. Our intensive commitment to R&D is to ensure the highest possible quality in future constructions and secure our leading position in construction procedures and material.

ALPINE's success is based on the motivation and qualification of our employees. High investments in training of employees and our above-average commitment in safety at work are witness that we take responsibility for our employees seriously. Responsibility for people also means responsibility for the environment. Part of our company culture is a careful use of natural resources.

### PORTFOLIO ALPINE GROUP

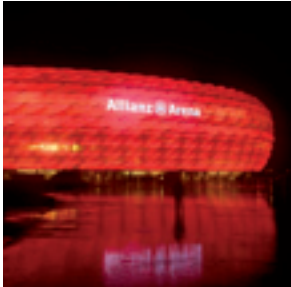
- Bridge Construction
- Building Construction
- Energy
- Environmental Engineering
- Foundation Engineering
- Power Station Construction
- Railway Construction
- Road Construction
- Sports Facility Construction
- Underground Construction



### Dubai Cricket Stadium / AE

Type: Cricket stadium  
Construction period: 2006 - 2008  
Order value: € 75 million

04



### Allianz Arena / DE

Type: Football stadium  
Construction period: 2002 - 2005  
Order value: € 280 million

05



### Euro Stadiums / AT & PL

Type: Football stadiums

06



### Bergisel Ski Jump / AT

Type: Ski jump  
Construction period: 2001 - 2002  
Order value: € 15.4 million

07



### Parkbad Ice Rink / AT

Type: Ice skating rink  
Construction period: 2007 - 2008  
Order value: € 7.1 million

07

#### FURTHER REFERENCE PROJECTS

- Osijek Sports hall / HR // sports hall
- Sports facilities, Vigaun / AT // secondary school
- Serfaus Moosbahn / AT // mountain station

Please visit our website for more information on ALPINE.

► [www.alpine.at](http://www.alpine.at)

# Higher. Faster. Further.

In sport, it is dynamism, technology, capability, experience and team spirit that count. The same is true of the construction of sports facilities. This is why ALPINE enjoys an excellent reputation in this field. Because our teams really come into their own when dealing with particularly complex and technically demanding projects. We are truly world class when it comes to constructing stadiums. The Allianz Arena in Munich, the cricket stadium in Dubai and the EURO 2008 stadiums in Salzburg, Innsbruck and Klagenfurt are proof of this.

ALPINE is also highly competent in constructing different types of sports facilities. The Bergisel ski jump in Innsbruck and the Parkbad ice rink show that ALPINE aims for the top in all areas. Numerous sports complexes and halls across Europe simply serve to underline the company's expertise.

## Unbeatable qualities

In sport, it is always about speed and strategy. With optimum input, the best know-how and perfectly designed realisation, we make sure that the sports facilities can be handed over to the operator at the end of the project both on time and ready to use.

Experienced specialists oversee the entire project management, from local site management to acceptance procedures by authorities and including the entire invoicing procedure. One way of achieving the most cost-effective results is to optimise the space requirements and how the space is allocated.

ALPINE's commitment does not end once the project is completed. We also oversee construction measures, preparations and technical support for a diverse range of events. For instance, we support the smooth running of events such as the German and Champions League games, European and World Championships as well as concerts.

As has been said earlier: when it comes to sports facility construction it is hard to beat us.

### THE LARGEST FOOTBALL STADIUMS IN THE WORLD

- 1** 'May Day' Stadium / Pyongyang // North Korea  
**150,000 seats**

*Inside, there are training halls, swimming pools and a running track that is several hundred metres long.*

- 2** Salt Lake Stadium / Calcutta // India  
**120,000 seats**

*The second-largest stadium in the world is also home to athletics competitions.*

- 3** Aztec Stadium / Mexico City // Mexico  
**115,000 seats**

*Diego Maradona scored the Goal of the Century here in the 1986 Football World Championship quarter finals against England - as voted by FIFA in 2002.*



## Dubai Cricket Stadium

As part of a joint venture with Belbadi Contracting, ALPINE constructed a cricket stadium in Dubai Sports City. This is yet another world-class sports arena constructed by us. The stadium fulfils the highest requirements of modern construction techniques and its unique roof construction means that it is also a visual landmark in Dubai.

Dubai Sports City will see even more facilities being constructed, e. g. a shopping mall and a multi-function stadium for soccer, rugby and athletics.

The Dubai Cricket Stadium was designed by the internationally renowned architects Gerkan, Marg and Partners, based in Germany, who already had designed the new Berlin Olympic Stadium and the Commerzbank Stadium in Frankfurt.

The Dubai Cricket Stadium, together with its additional facilities, was handed over in time for the opening game on the 22 April 2009. The game between Pakistan and Australia ended 171-6 to 168 in favour of Pakistan.

ALPINE constructed one of the most modern sports stadiums in the world in just **28 months**.

### FEATURES

- ▶ The roof structure was constructed in a **cross-vaulted style**. Steel trusses were covered with a laminated PTFE membrane. The structure provides **cover for all the seats** in the arena and offers protection from the sun and wind.
- ▶ The roof pitch meets today's **ICC standards**.
- ▶ The 82 seats for sports journalists and 7 commentator boxes meet the requirements of today's media.

### CRICKET STADIUM



### DUBAI / ARAB EMIRATES

Construction: **New build stadium**  
 Seating: **25,000**  
 Construction period: **2006 - 2008**  
 Order value: **approx. € 75 million**





## Allianz Arena

It is optimum building techniques and logistic processes as well as the highest quality construction itself that determine the success of such an image project. We have set this demanding challenge ourselves as we wanted to construct an arena full of superlatives and won the project against 28 internationally renowned applicants. This project is a milestone in the company's development.

The most modern and architecturally striking football arena in Europe was built in just 30 months. Designed by the Swiss architects Jacques Herzog and Pierre de Meuron, the stadium offers space for 66,000 spectators. Equipped with a range of gastronomic and themed experiences, a day-care centre, shops selling fan merchandise, office and conference rooms as well as a large media area, it has the feel of a small town.

The roof comprises 2,784 air cushions. The membrane is only **0.2 mm** thick. It is the largest membrane roof covering in the world.

### FEATURES

- ▶ Smooth exterior with **diamond-shaped translucent cladding**.
- ▶ The membranes on the roof and exterior are **self-cleaning**, continuously ventilated and weigh only a thirtieth of the amount glass weighs.
- ▶ The translucent **exterior can be lit up** with 4,000 specially developed red, blue and white lights.
- ▶ Seamless multi-storey car park construction on a surface area of 240 x 140 m. The car park is the biggest in Europe and offers **space for approx. 9,800 cars**.
- ▶ Worldwide unique and uniform stadium seats for standard tip-up seats, VIP seats and box seats. **Coated in silver**, these seats reflect different colours depending on the light.

### FOOTBALL STADIUM



### MUNICH / GERMANY

Construction work: **Planning and complete construction of stadium**

Seating: **66,000, completely covered**

Stadium construction: **230,000 m<sup>2</sup> with 7 levels** / Exterior and roof: **64,000 m<sup>2</sup>** / Concrete: **over 200,000 m<sup>3</sup>** / Steel: **approx. 45,000 tons**

Construction period: **2002 - 2005**

Order value: **approx. € 280 million**





## European Champion in the Construction of Stadiums

As part of the European Soccer Championship 2008 in Austria and Switzerland, we demonstrated once more our competence in the construction of sports facilities, benefiting from our extensive experience in the handling of large-scale projects (stadiums) around

the world. ALPINE has been instructed with the new construction and/or adaptation of a large part of the Austrian stadiums. We have modernized four additional stadiums for the European Soccer Championship 2012 in Poland and Ukraine.

### SPECIAL FEATURES

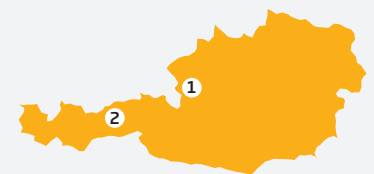
#### EUROPEAN SOCCER CHAMPIONSHIP 2008

- ▶ The soccer field could be played on throughout the entire construction period of the **Salzburg Red Bull Arena** and the **Innsbruck Tivoli Stadium**. Most of the construction was done from the outside.
- ▶ The construction of the **Wörthersee-Stadium in Klagenfurt** has been a particular challenge: Due to the bad geological conditions at the construction site, vibro-displacements had to be installed across the entire area of the stadium to improve ground conditions.

#### EUROPEAN SOCCER CHAMPIONSHIP 2012

- ▶ **WARSAW** // The **National Stadium Warsaw** will be the venue of the opening match. It is being constructed at the location of the old stadium. The stadium's appearance will be dominated by a woven skin in white and red and will remind of a waving Polish flag.
- ▶ **GDANSK** // The new **PGE Arena Gdansk** will hold approximately 44,000 spectators. The facade of the new stadium has been designed in different shades of brown and resembles a giant piece of amber also called „*The Gold of the Baltic Sea*“.
- ▶ **POZNAN** // According to the UEFA regulations, the **City Stadium in Poznan** will hold approximately 41,000 spectators and host several playoffs during the Championship 2012. For this purpose, it is being reconstructed and modernized.
- ▶ **KRAKOW** // The **MKS Stadium Cracovia** is being reconstructed and will serve during the Championship 2012 as a training and backup stadium. It holds about 15,000 spectators.

### EM-FUSSBALLSTADIEN



AUSTRIA



POLAND





## Bergisel Ski Jump

With the demolition of the old Bergisel facility in March 2001, the starting pistol was sounded for a new, ultra-modern sports facility. In cooperation with the famous star architect Zaha Hadid an unique architectural-highlight sports facility was created through the use of cutting-edge technology with due consideration of the highest possible safety standards. The world's best ski jumpers can achieve jumps of up to 140 m from a 48 m high tower.

### FEATURES

- ▶ Construction of the **50-m** jump tower.
- ▶ The whole tower is seated on a 16 x 20-m foundation plate.
- ▶ The frame for the steep jump was then constructed **column-free** over a 68.5-m slope with an incline of up to a 35 degrees as a steel lattice formwork trough with steel trusses - a so-called 'fish stomach' construction.

### SKI JUMP



### INNSBRUCK / AUSTRIA

Tower height: 50 m  
 Highest point: approx. 250 m above Innsbruck  
 Jump length: 98 m  
 Point of construction: 120 m  
 Spectator capacity: 28,000 people  
 Construction period: 2001 - 2002  
 Order value: approx. € 15.4 million

The projecting sections jut out up to **12 metres** past the tower.



## Parkbad Ice Rink

The project involved the construction of two additional buildings next to the existing ice rink, an underground car park for 213 cars, an ice rink for training, a restaurant and a changing room.

Structural changes were also made to the existing swimming pool and sauna and a covered curling rink built.

### FEATURES

- ▶ The flat roof was constructed using **membrane covering** and the exterior is an aluminium glass façade with **thermal profiles**.
- ▶ To construct the roof of the rink, pre-stressed steel concrete trusses with a cross section of **0.26 / 1.8** and a length of **41 m** were used.
- ▶ All areas are **accessible**.

### ICE RINK



### LINZ / AUSTRIA

Length: 106.4 m  
 Width: 45.9 m  
 Height: 10.2 m  
 Concrete: 9,973 m<sup>3</sup>  
 Formwork: 33,348 m<sup>2</sup>  
 Construction period: 2007 - 2008  
 Order value: approx. € 7.1 million

The biggest challenge was the **dyed exposed-concrete exterior**.



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