

Halls & Indoor facilities



DALEKOVOD d.d. was established in 1949. Throughout a long period, the company has been advanced in terms of technology, knowledge and commitment of its employees in the area of project designing and construction of all types of electrical power utilities.

Today, Dalekovod d.d. has become a modern organization providing services including engineering, manufacture and construction. The company has specialized in carrying out contractual works based on turn-key solutions in the following areas:

- Electrical power utilities especially the transmission lines from 0,4 do 1000 kV
- Substations of all types and voltage levels up to 500 kV
- Air, underground and marine cables rated up to 110kV
- Telecommunication utilities
- All types of networks and antennas
- Production of suspension and jointing equipment for all types of transmission lines and substations
- Development and construction of all metal parts for roadways, especially for: road lighting, protective fencing and traffic signalization
- tunnel lighting and traffic management
- Electrification of railway and tramway lines in cities
- Project designing, manufacture and construction of metal structures

In 1993, Dalekovod became the joint stock company. At the beginning of the year 2000, the ESOP program of employees' shareholding led to the formation of the ownership structure in the manner that a major number of shares are managed by former or present company employees.

Today the Dalekovod Group has approximately 2200 employees.

Dalekovod d.d. has many years of experience in testing and quality control of its products, always taking consideration of environmental protection and other environmental requirements. Special attention is given to occupational safety, fire protection, chemical protection and other protective measures at a work place.

It is to be mentioned that Dalekovod d.d. has throughout years, considerably developed skills and capacities of project engineering, production and construction of metal structures in three sub-groups such as:

- eaves
- facilities at border crossings
- closed multi-purpose facilities

„Krešimir Ćosić“ Sports hall, Zadar



The bearing skeleton is the steel pipe structure of spherical shape with span of 89.5 m, arrow of 11.186m, the ball radius is 95.11 m.

The steel structure of the hall roof has been constructed as a spherical section, the grid of which consists of 8 pieces of concentrically positioned toroidal rings of steel pipes sized $\varnothing 323,9 \times 7,1$, except for end inner ring made from the pipe sized $\varnothing 508 \times 11$. The rings are transversely connected with X units that are also constructed from steel pipes $\varnothing 323,9 \times 7,1$.

Several technical details:

- total length of welded joints » 2300 m
- total surface area of units » 3900 m²
- weight of bearing steel structure » 260 000 kg
- dome surface area (bearing steel part) » 6684 m²
- duration of assembly works on bearing part of the structure » 85 workdays
- unit weight of steel required for cover 1 m² » 39 kg/m²





Roof steel structure of the sports and office complex „Spaladium center“



Technical data:

- polygonal rectangle ground plan sized 78.5 m x 98.5 m with angles cut off at 45 degrees
- bearing system consisting of 8 main spatial girders with span of 78.5 m, and plane braced girders at the edge of the hall
- axle distance between the main girders is 10 m,
- the span between end girders and plane braced girder at the edge is 14.25 m..
- static height 4.5 m
- total weight of roof structure is 1650 t
- weight of one end principal girder is 123 t
- weight of one central principal girder is 111 t
- system of secondary girders for acceptance of the useful freight (lighting, concert equipment...)
- relies on 44 bearings with reinforced elastomer
- cover surface area 8000m²
- 1200 m slabs of total weight 125 t
- bears the central scoreboard with weight of 20 t, two scoreboards with weight of 1 t, air-conditioning chamber of total weight 180 t, air-conditioning ducts, lighting, loudspeaker system...



Emergency facility Zagreb

- Surface area 10,960 m² gross
- 1.300 t of steel
- Construction deadline: 730 calendar days
- Floors: basement + ground floor + 5 floors
- Structure: Composite structure (steel and concrete)
- 10.450 10,450 m² net



Reconstruction and building an annex to the production plant Elka kabeli d.o.o. Zagreb, (Hall b-2-1/B)

Purpose: placing of a new production line for continuous vulcanization of middle and high voltage cables

Gross surface area: 1838 m²

Net surface area: 1818 m²

Floors: Ground floor

Sizes: Ground floor surface area of the structure raster

136.5/12.5 m, Height 7.2-11.8m

Structure: Bearing structure consists of 34 steel two-joint frameworks, at distance of 4.2 m, interconnected with horizontal and vertical connections. The frames are made of: HEB600, HEB400 and IPE450.

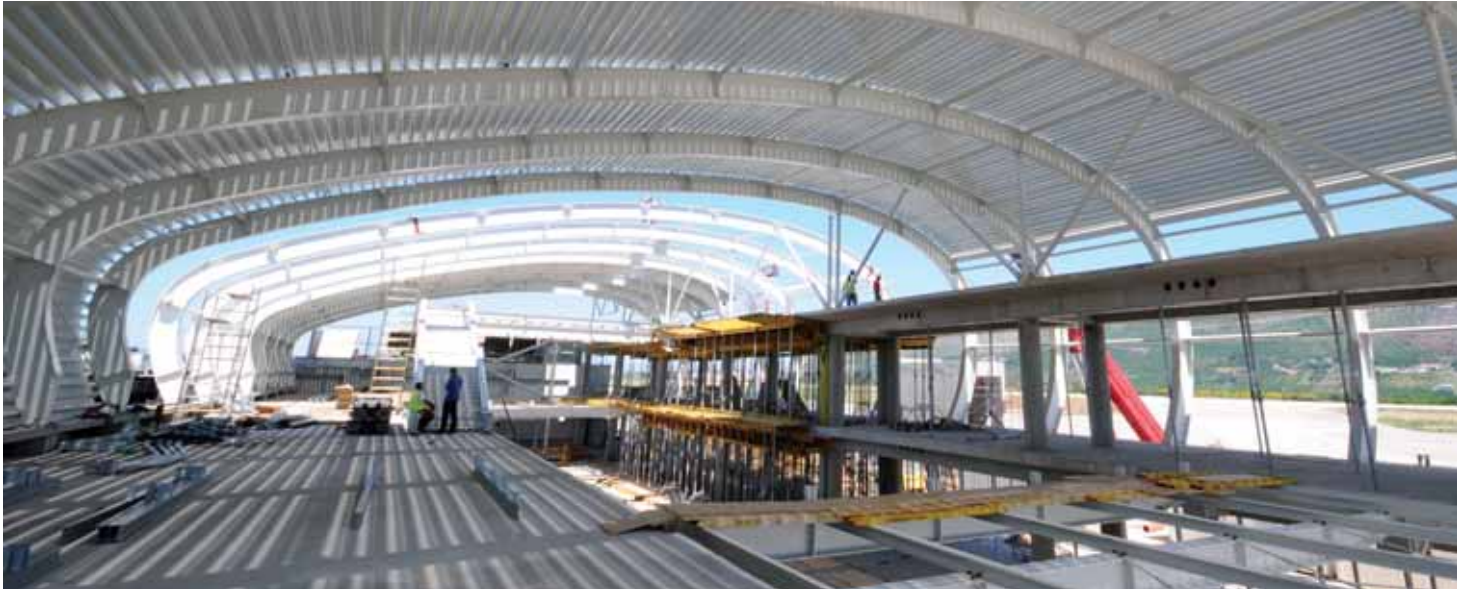
Shaping: facades and roof are made from insulation panels.

Weight of structure: 165 tons

Construction deadline: totally 120 days (the assembly of the steel structure is 30 days)



Passenger terminal building B in the Dubrovnik airport



The passenger terminal building is intended for the acceptance of passengers and luggage received at the Dubrovnik airport. The terminal is designed so to enable acceptance of passengers and doing all formalities before and after the flight. Dalekovod was in charge of the construction of the terminal based on turn-key solution. Total amount of steel installed in the B terminal building is 335 tons out of which 180 tons are in the bearing roof steel structure.

- Gross surface area: 19.792,20m²
- Total net surface area: (with no roof): 11,421.02

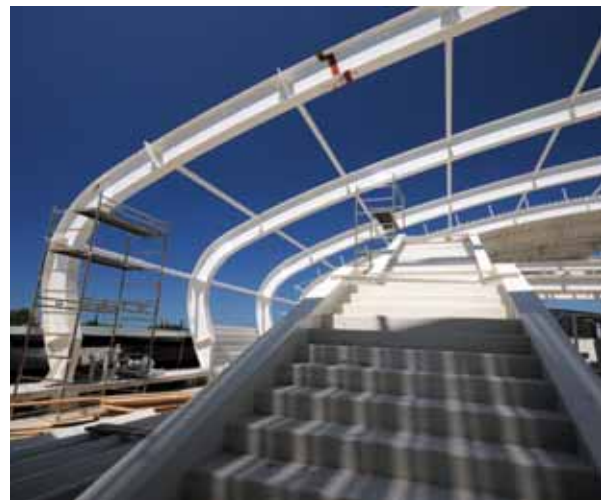
Description:

The steel roof structure extends along the whole length of the B Building and partly along the width (above the new part of the building at dilatation 1 and 2).

The structure consists of steel trapeze sheet metal as a bearing part of the roof layers, the main curved bearing structures, transversal bearing structures that every second main bearing structure is relied on and suitable couples as well as longitudinal connection for stabilization. All steel structure elements are made of rolled steel profiles, except for the main bearing structure. The main bearing structure is made of sheet metal as assembled and welded I-bearing structure.

The material for construction of the steel structure elements is steel 0361 welded. The assembly joints are connected with bolts.

The whole steel structure is protected with fire-protection varnish meeting the standard F60.



PROJECT DESIGNING OF STEEL STRUCTURES

Dalekovod d.d cooperating with the company Dalekovod-Projektiranje d.o.o. constructed steel structures such as roof of the sports hall „Spaladium centra“ in Split (span 78.5m, total weight 1670t), roof of the sports center “Krešimir Ćosić in sports and recreational center „Višnjik“ in Zadar, Croatian exhibition pavilions for EXPO in Frankfurt and Barcelona, the building for the Institute of Civil Engineering in Zagreb, the factory hall ELKA KABELI (span 23m, length 140m, total weight 200t)...

A special emphasis is to be placed on the construction of the steel structure shaped like the Pag Lace (an especially demanding and a complicated way of work) on the sports hall “Krešimir Ćosić” in Zadar which is an example how Dalekovod may perform highly demanding and complicated tasks incorporating its quality and inventiveness.

Dalekovod has for the purpose of the 2009 Handball World Championship executed works on the roof of the hall „Spaladium centar“ in Split.

Regarding a great number of projects, we have established a continuous cooperation with experts from all areas of construction of steel structures, including the Faculty of Civil Engineering in Zagreb and Split, Institute TPK and Brodosplit-BSO.

Dalekovod as a business unit in its work applies the standards ISO 9001, ISO 14001 and OHSAS 18000.

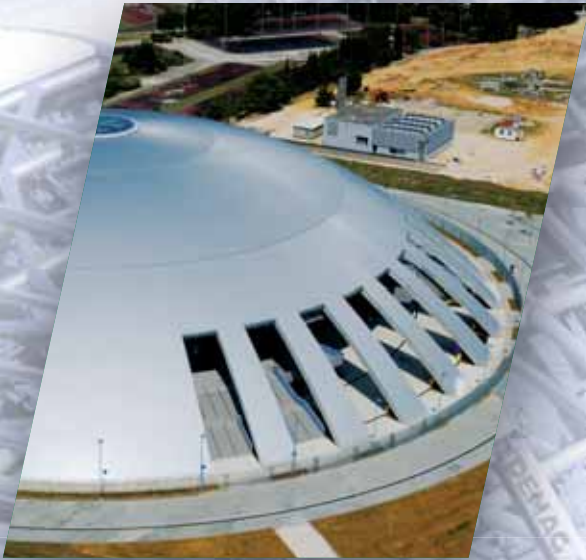
Dalekovod Projekt d.o.o.

The designing as a business activity developed parallel with the foundation of the company DALEKOVOD.

In 2007 the designing separated into a specific company named Dalekovod Projekt d.o.o.

Long-time work and an extensive experience of the project teams of Dalekovod-Projekt d.o.o. resulted in a high degree of professionalism and specialization in the area of project designing of facilities of all voltage (up to 1000 kV), sports facilities, traffic lightings, antennas etc.

The following internationally famous computer software are used for the project designing: TOWER, PLS-Pole, Autocad, STAAD PRO, PLS-Cadd, Nemetschek, Strucad, EFC-400 EP, Caddy++ Electrical, Raster Design, Geomenager, as well as the software developed by the company experts: NetLine, NetCode, NetLV, NetGround, TLCALC, PIPELINE.



DALEKOVOD d.d. >> Electric Power Company for Engineering, Production and Construction

Head Office >> Croatia, 10000 Zagreb, Žitnjak - Marijana Čavića 4,

Tel: ++385 1 6170 447, Fax: ++385 1 6171 283,

E-mail: dalekovod@dalekovod.hr

ENGINEERING BUSINESS UNIT >> Croatia, 10000 Zagreb, Žitnjak - Marijana Čavića 4,

Tel: ++385 1 2411 111, 2459 900, Fax: ++385 1 2459 802,

E-mail: inzenjering@dalekovod.hr

www.dalekovod.com

