



History of the funicular railways

The funicular railways were built in the mid-nineteenth century as an alternative to railway lines on steep slopes. The first funicular in the world to run on steam was inaugurated in Lyon in 1862 and ran between Rue Terme and Croix Rousse. Later on, the funiculars in Budapest (1870), Vienna (1873) and Istanbul (1875) were built. In 1876 the first hydraulic funicular railway was inaugurated in the United Kingdom and in 1888 the first electrical funicular came into operation in Switzerland. From then onwards, the number of funicular railways in Europe increased until there were more than 300. In recent years, the great advantages of this means of transport (safety, functionality and transport capacity), and the fact that they adapt to urban and mountain areas have boosted the use of this type of railway again and nowadays there are more than 200 funiculars working in Europe, and seven of them are in Catalonia.

Santa Cova funicular railway

Santa Cova funicular railway takes visitors from the sanctuary to the site near the cave where, according to tradition, the Mare de Déu de Montserrat image was found. Pilgrims have travelled down on the funicular to this emblematic place since 1929. On the way to Santa Cova visitors can see the Rosari Monumental, a group of sculptures by Antoni Gaudí and Josep Llimona, among others. Visitors can enjoy a peaceful journey on the historical funicular, which travels 262 metres, with a difference in height of 118 metres. The Montserrat to Santa Cova funicular railway was built in 1929 by the FMGP (Ferrocarrils de Muntanya a Grans Pendants), a company that also owned Sant Joan funicular railway. FGC (Ferrocarrils de la Generalitat de Catalunya) has owned both funicular railways since 1986. Santa Cova funicular railway has been renovated twice (in 1963 and 1991), but the floods in Montserrat in July 2000 affected the installations – the lower station and one of the trains were partially damaged.

The railways installations were completely renovated after the incident, with new panoramic trains that started to run again in June 2001.

Technical Characteristics

Max. Slope Gradient	56,5 %	No. of vehicles	2
Year	1929	Vehicle capacity	60 people
Manufacturer	Von Roll	Transport capacity	1350 visitors hour
Length	262m	Speed	7,2 km / hour
Lower station altitude	582m	Cable	38 mm
Top station altitude	700m	Track gauge	1.000 mm
Slope	118m		

Sant Joan funicular railway

This funicular railway gives visitors a spectacular panoramic view of Montserrat, 1,000 m above sea level. Visitors can enjoy the best views of the mountain from here. The journey up Sant Joan funicular is a unique experience, with a steep slope gradient (more than 65%), travelling 503 metres. Sant Joan funicular was opened in 1918 and was built to connect the outside of the monastery with Sant Joan Chapel, which is on the top of the mountain, where there is also a viewpoint. The line was so successful that the train soon became too small and in 1926 the installations were replaced, with a different track gauge and vehicles with a greater capacity. In 1986 the funicular railway became part of the FGC (Ferrocarrils de la Generalitat de Catalunya) and in 1997 it was completely modernised, including new panoramic vehicles..

Technical Characteristics

Max. Slope Gradient	65,2%	No. of vehicles	2
Year	1926	Vehicle capacity	48 people
Manufacturer	Von Roll	Transport capacity	600 visitors hour
Length	503m	Speed	5,4 km / hour
Lower station altitude	722m	Cable	38 mm
Top station altitude	970970m	Track gauge	1000 mm
Slope	248m		