

FABRICATION & EXTRACTION

The Valletta City Gate required the largest stone elements on the project. These elements had to be fabricated to the extreme tolerances required for the project to ensure that all the complex 3D monolithic elements, mainly L-pieces forming the corners, are lined up.

The equipment had to be re-engineered so that the extreme monolithic elements could be fabricated.

FIXINGS

The extreme size, seismic engineering requirements for the stone elements and extreme precision needed to install the elements called for the development of specific fixings. These fixings were developed by the R&D department of Halmann Vella in collaboration with the The University of Malta.

A series of tests and analysis was undertaken in order to develop the fixings required to lift the stone elements, with a maximum of 18 tons and then fix the stone elements to the required seismic parameters. The research established the allowable stress and safety factors for the fixings used on project.

INSTALLATION

Using the specially developed Halmann Vella fixings the stones were lifted and fixed in position. In addition specially designed lifting rigs were developed in order to reduce the lifting stress within the stone prior to installation. The system performed and enabled the team to install the elements regardless of size, weight and complexity of shape with a very high efficiency rate.

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VALLETTA CITY GATE PROJECT DY WORLD'S RENOWNED ARCHITECT RENZO PIANO

60 YEARS OUR 60 YEAR COMMITMENT IS SET IN STONE

Halmann

HISTORY TRADITIONS A Brief History

Malta, Malta, is an island state comprising an archipelago of three islands in the Mediterranean Sea. It lies 80km A MELTING south of Sicily, 284km east of Tunisia, and 333km north **POT OF** of Libya. The country covers just over 316km², making it CULTURE, one of the world's smallest and most densely populated countries. The capital of Malta is Valletta, which is also, at 0.8km², the smallest capital in the European Union **AND** Malta has two official languages: Maltese and English.

> Malta's location as a naval base has given it great strategic importance throughout history, and a succession of powers, including the Phoenicians, Romans, Moors, Normans, Sicilians, Habsburg Spain, Knights of St. John, French and the British, have ruled the islands. Malta gained independence from the United Kingdom in 1964 and became a republic in 1974. Malta was admitted to the United Nations in 1964 and to the European Union in 2004; in 2008, it became part of the Eurozone.

Malta has a long Christian legacy and its Roman Catholic Archdiocese of Malta is sometimes traditionally claimed to be an Apostolic because, according to the Acts of the Apostles, Paul the Apostle was shipwrecked on Malta. Catholicism is the official religion in Malta.

Malta is a popular tourist destination with its warm climate, numerous recreational areas, and architectural and historical monuments, including nine UNESCO World Heritage Sites: Hal Saflieni Hypogeum, Valletta, and seven Megalithic Temples, which are some of the oldest free-standing structures in the world.

VALLETTA

MALTA

MEGALITHIC TEMPLES Ġgantija Temples, Xagħra, Gozo

Stone elements up to 4.5m in height, net weight of 25 tons.

3500 BC

40 AD ST PAUL'S CATACOMBS Rabat, Malta

Excavated in stone below ground.





1566 AD

VALLETTA The first foundation stone was laid by the Grandmaster of the Order, Jean Parisot de Valette on 28 MARCH 1566.

Immediately after the end of the Siege of Malta in 1565, the Order decided to found a new city on the Xiberras peninsula to fortify the Order's position in Malta and bind the Knights to the island.

VALLETTA Valletta is the capital of Malta, colloquially known as The City built II-Belt (English: The City) in Maltese. It is located in the by gentlemen for central-eastern area of the island of Malta having its gentlemen eastern coast with access to the Marsamxett Harbour and its western coast in the Grand Harbour. The historical city has a population of 6,675.

> Valletta is adorned with buildings from the 16th century onwards, built mainly during the rule of the Order of St. John of Jerusalem, better known as the Knights Hospitaller. The City is surrounded with bastions and ravelins and boasts of beautiful Baroque palaces, gardens and churches. The city is essentially Baroque in character, with elements of Mannerist, Neo-Classical and Modern architecture in selected areas. World War II left major scars on the city; particularly the demolition of The Royal Opera House. The City of Valletta was officially recognised as a World Heritage Site by UNESCO in 1980.

In 2009, internationally renowned architect Renzo Piano was assigned with the task of renovating the historically significant city gate and its surroundings as part of a greater plan to restore the baroque capital city to its former glory. Renzo Piano's contributions also include the creation of an open air theater at the former opera house site and the the design of a new parliament building amongst others.





MILITARY FORTIFICATIONS Bastions and Forts around Malta and Gozo

Stone elements with up to 0.5m in height.

1600 AD





1900 AD

BREAKWATER

Stone elements up

to 1.2m in height,

net weight of 5 tons.

Valletta

GRAND HARBOUR



HALMANN VELLA LTD Mġarr, Malta

Sixty years ago Vincenzo Vella and his brother from the village of Mgarr, decided to start their first company of stone processing and tile manufacturing.

1954 AD





CITY GATE PROJECT Valletta

Renzo Piano Building Works was commissioned by the Maltese Goverment to develop the City Project, including the new entrance, parlament and the regeneration of the old opera house ruins into an open air theatre.

2009 - 2014 AD

HALMANN VELLA LTD

Halmann Vella is enterprising group which is a household name synonymous with superior projects ranging from the production of quality tiles, marble work and hard stone projects. Throughout its history, the Group has been involved in most large scale development projects in Malta such as Tigne Point, SmartCity Malta, Manoel Island, Fort Cambridge and recently, various fort restorations in Valletta, as well as the ongoing work in the Life Sciences Park building. Other projects have taken the Group overseas through its subsidiary Halmann Vella International, where the company has supplied its flagship terrazzo tile for use in the London and Hong Kong railway stations. The expertise of Halmann Vella is today also seen in the impressive transformation of Valletta's City Gate project. Under the direction of Architect Renzo Piano, Halmann Vella reconstructed the project entirely from large scale Maltese hard stone blocks, giving it a unique look and feel.



