

## Press Release

### German Workmanship for the USA

### **Pegasus & Dragon at Gulfstream Park, Miami, USA:**

### **Strassacker art foundry creates largest bronze horse sculpture in the world**

The Strassacker art foundry has implemented the vision of numerous architects, town planners and artists. The list of national and international references is just as long. After all, the complete processing of small-scale and complex art projects from conceptualisation through coordination of the artists, architects, authorities and companies involved, right through to the final assembly stage is among the core competencies of the company from Süßen. "But when the first sketches of Pegasus & Dragon arrived in Süßen for review around three years ago, even the most experienced members of staff initially looked at it in disbelief", recollect Edith Strassacker and Günter Czasny. "The bronze statue Pegasus & Dragon was already one of the greatest challenges in our company's history, which spans close to a century", report the presiding managing director and the deputy managing director of the family-owned company that employs 500 members of staff.

Even motorists travelling along the busy U.S. Highway 1 in Miami, Florida, over the past few months have wondered, in astonishment, what was being constructed close to Hallandale Beach in Gulfstream Park. The 33-metre-high metal structure that gleams in the sun and that took up to 100 workers to create, all of them working in tandem, was the talk of the town on the legendary federal highway that runs the length of the East Coast of the USA.

The result that emerged upon conclusion of construction in November 2014 is no less spectacular. What came into being here after eight months of construction is the world's largest horse sculpture and one of the largest bronze statues ever made: 33 metres high, 35 metres

wide and 60 metres long, mounted on a 400-tonne steel skeleton, composed of no fewer than 1,250 handcrafted bronze elements, with a total weight of a further 250 tonnes, intricately worked by experienced artisans. The sculpture Pegasus & Dragon represents the eternal battle between good and evil. Pegasus, the winged horse from Greek mythology, conquers the dragon. The mythical creature soaring up from a rock formation pins the monster down with its front hoof.

A component of the total project amount – between 20 and 30 million U.S. dollars – the erected bronze sculpture forms the hub of a theme park in Gulfstream Park, which is to be located very close to the racecourse and is to open early in 2015. The initiator and commissioning party is the Austrian entrepreneur Frank Stronach. He owns Gulfstream Park and Hallandale Beach, and came up with the idea for the project. The quest for a firm that is capable of crafting a 33-metre-high bronze sculpture led Stronach to the town of Süßen in Baden-Württemberg, where the head office of Strassacker art foundry is located.

"The calculation and development of the extremely complicated steel structure, on which the 1,250 bronze elements were to be mounted like a 3D puzzle, was a challenge without precedent. This was compounded by the stringent timeline for the implementation of the project. Precisely three years were allowed from the first feasibility study, through static calculation, design, modelling and production, and the shipping of individual components in around 50 sea containers, through to on-site mounting and installation", explains Günter Czasny, who planned and charted the project, implementing it in conjunction with a team of specialised experts and skilled cooperation partners.

"At Strassacker, the combination of the foundry heritage, skilled handcraftsmanship, the promotion and further advancement of rare, special handicraft occupations and technological innovation has been integral to the company's philosophy since its establishment almost a century ago. Nevertheless, as a general contractor, we succeeded in meeting this historical challenge only by joining forces with powerful and reliable cooperation partners with years of experience, with some of whom our establishment had already been working successfully for a number of years", Czasny goes on to emphasise.

The Ludwigsburg-based engineering firm Stark-Ingenieure that was commissioned by Strassacker assumed responsibility for technical planning (approval planning, application

planning, structural planning, workshop planning and installation planning). Responsibility for production and on-site construction of the steel structure was assumed by the firm Stahlbau Wendeler from Donzdorf.

In order to securely attach the bronze components to the steel structure, the engineers and specialists developed a completely new, flexible mounting system that took account of the specific climatic conditions of sunny Florida. This is because steel and bronze react entirely differently when exposed to heat. While the bronze shell of the sculpture expands upon exposure to sunshine, the underlying steel structure remains inflexible and rigid.

Furthermore, the enormous bronze statue was engineered and constructed so as to be able to withstand the strongest hurricane. It wasn't just extensive calculations that were necessary for this. Pegasus & Dragon had to prove its stability under the most extreme wind pressures, even being subjected to multiple wind tunnel tests.

The partner most suited to fabricating the original model for this project on a scale of 1:1 and to implementing bronze casting was found by Strassacker in a locale south of Peking in China.

This is the seat of the Chinese foundry with which the experts from Süßen have been sharing their culturally and historically divergent technological experiences for a number of years and cooperating on various levels. The bronze sculpture was collectively implemented in China under the direction and constant supervision of Strassacker specialists, this implementation spanning multiple stages, such as model augmentation, the casting of the 1,250 individual components, the provisional assembly of all structural components and their disassembly; it was then shipped to Miami, where it was reassembled on-site, piece by piece, and conjoined with the steel sub-structure already erected there.

The Chinese foundry's long years of experience in the implementation of large-scale sculptures, coupled with traditional German handcraftsmanship and technical expertise that is "made by Strassacker" were prerequisites even for the development of the original model on a scale of 1:1. This is because – given the enormous proportions of the sculpture – magnification of the 1:16 model on the computer was out of the question from the very beginning.

Thus, the specialists had to draw upon the traditional, very laborious and complicated process of model augmentation by hand using grid coordinates.

While assembling the bronze parts, too, to form a composite work of art, the highest degree of artisanal expertise and decades of experience were called for. In the final analysis, the outcome was to attain the artistic and anatomical perfection conceptualised in the blueprint. Outstandingly trained and experienced specialists were required for this purpose. This is why the senior-most, experienced specialists at Strassacker intensively trained the employees of the Chinese foundry on site over a period of one-and-a-half years. Thus primed, they worked the seven to eight-millimetre-thick bronze elements by hand and, under the direction of the specialists at Strassacker, put them together to form a composite work of art.

These bronze elements, each measuring approximately 1.5 x 2.5 metres, were welded together and carefully chiselled. During chiselling, artisans re-finish the entire artistically designed surface with chasing irons and chisels, files, scrapers and grinding and polishing tools. This laborious and intricate work is needed to make any joints and welding seams invisible, and to bring out the artistic details of the sculpture.

In conclusion, the monumental opus was given the final artistic touch by way of patination so as to render it a composite work of art. This special metal finishing technique draws upon the natural oxidation of bronze and imparts a unique, characteristic, fine appearance to the sculpture. For Pegasus & Dragon, an antique patina was brought about using a brownish base tone and green nuances.

A very important milestone in the construction of the sculpture was the mounting of the head and wings on the body of Pegasus, which had already been erected. One of the largest heavy-duty cranes in the world was used to hoist the structural components, weighing between 45 and 60 tonnes, to the final height of approximately 33 metres.

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