

Family thrills and excitement at Europa-Park, Rust, Germany

Enjoy the ride with Kaeser

Compressed air provides the thrills and excitement for Europa-Park's top ride attractions and ensures maximum dependability

Even if you can't see the "Silver Star", you can certainly hear it: shrill screams pierce the air as each coaster train commences its near-vertical descent towards the ground after having reached its 73 m (240 ft) high crest. The passengers are then taken on a 1600 m (1 mile) long wild ride where they experience both weightlessness and gravitational forces up to 4 times that of normal gravity at speeds reaching 130 km/h (80 mph).

Soaring high, dipping low

However, it's difficult not to notice Europe's largest roller coaster, as the path from the car park to the theme park's

entrance passes directly below the Silver Star's tracks. Even though the coaster trains shoot past just a few metres above the heads of the streams of visitors at the entrance, one quickly notices how amazingly quiet the high-tech plastic wheels are as they roll by. The sound from the compressed air powered brakes used to regulate speed on approximately half of the track is considera-

bly louder. Compressed air produced by a Kaeser AS 47/10 rotary screw compressor and dried to a pressure dew point of +3 °C by a TC 44 refrigeration dryer is also used to bring the trains to a safe stop at the end of the ride.

Greek gods and pirates

As with the "Silver Star's" air system, a Kaeser rotary screw compressor (AS 36) located in the machine room of the Poseidon ride – the Poseidon in question being the Greek god himself – provides compressed air for braking, as well as for other applications. The various splash and spray effects that add to the experience of this Greek Mythology themed water coaster ride also require large volumes of compressed air. No less at home on the water are the "Pirates of Batavia": A small dinghy takes passengers on a floating voyage through the exotic world of Batavia, a seaport in the former colony of Dutch East India (now Indonesia, Batavia was renamed Jakarta), where they experience the wonder of a magical "tropical

The compressed air applications at Europa-Park demand uncompromising reliability

evening" lit up by thousands of "stars" as the journey winds its way towards

The giant torches on the "Colosseo" hotel are kindled by compressed air to create an inviting glow





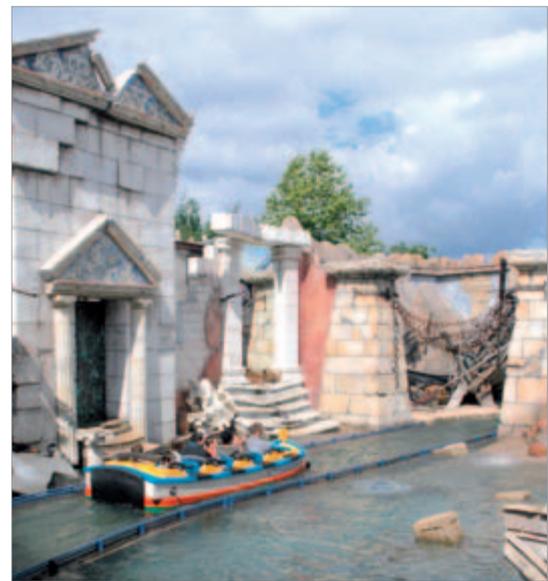
Atmospheric scene with the “Pirates of Batavia“

various pirate scenes. The menacing yet humorous “actors” are brought to life, in large part, by compressed air from a Kaeser rotary screw compressor (CS 76). The air is dried using a TH 76 refrigeration dryer to ensure that the sensitive control valves are not damaged by condensate.

Cinema for the senses

Europa-Park also features the “Magic Cinema 4D”, which does more than just stimulate the eyes and ears. Each of the 400 seats is able to completely ‘immerse’ the viewer in what’s actually happening within the film. So if it’s raining or drizzling on the screen, if the wind is blowing, if shocks shake the

walls, or even if creepy-crawlies are scurrying around your ankles during a jungle safari, the viewer is always in the thick of everything that’s happening. Polarised glasses provide the visual depth, a powerful surround-sound system ensures perfect sound reproduction, whilst ingenious mechanical and pneumatic systems transform the whole event into a true ‘four-dimensional’ film experience for the senses. With this technology, films produced in collaboration with the World Wide Fund for nature (WWF Germany) are brought to life to take the viewer on a fantastic journey through the natural wonders of the world. It’s no easy task however to supply 400 cinema seats with com-



A journey through ancient Greece with “Poseidon”

pressed air in order to create the desired special effects. The main challenges for the compressed air system were that it would have to deliver large volumes of compressed air and that demand would fluctuate widely. In addition, as the air would be coming into direct contact with people, it would also have to be of a very high quality. These requirements proved no problem however for the Kaeser compressed air solution which comprised a CSD 82 rotary screw compressor, a TH 371 dryer and air receivers with a total capacity of 19,000 litres. As a result, the twenty-minute film presentations shown throughout the day not only impress with their visual and acoustic excel-



Europa-Park ...

... is close to the heart of Europe both geographically and metaphorically. The German town of Rust is located in the Baden district of Ortenau, which lies close to the centre of 'old' Europe.

Europe also plays a key role as the theme for Europa-Park: Germany, France and Switzerland are all represented, as are England, Spain and Russia and let's also not forget Scandinavia, Greece and the magical world of Chocoland to name just a few.

Opened in 1975, Europa-Park employs approximately 2800 staff during the peak season and, now in its 31st year, is ranked as one of the world's top ten theme parks by the US business magazine "Forbes". It is also the only German theme park to be awarded this distinction and is the only family-run company of its kind.

The park's popularity is illustrated by the number of visitors it attracts each year: In 2005, approximately 3.7 million people visited Europa-Park, of which almost 80% were repeat customers. Nearly half of the visitors came from Germany, whilst visitors from close-neighbouring France and Switzerland accounted for an additional 20% respectively.

In addition, the four hotels at Europa-Park operate at 95% capacity, taken as an average over the course of a year, and this can be attributed to the park's growing popularity as a conference and media venue.

lence, but also engage all of the viewers' senses to ensure an unforgettable film experience.

Having spent the day visiting these and many other attractions, those not too keen on the idea of a long and tiring journey home can rest their weary heads in one of the Europa-Park's four themed hotels, which have a total capacity of approximately 4500 beds. If spending the night in the "Colosseo" hotel, compressed air from a Kaeser compressor (Aircenter SM 11) is also used to light your way home. The giant torches on the façade of this hotel, built in the architectural style of ancient Rome, are kindled by compressed air to create a bright and inviting glow.

Reliability counts

These are only four examples of the many uses of compressed air at Europa-Park. As Edwin Enderle, Technical Operations Manager, explains "Nothing would work without compressed air – we use nearly 30 compressors at the park. Reliability is also essential, as the prospect of stationary roller coasters and 'Out of order' signs on our attractions is a complete no-no". The decentralised nature of the park's compressed air supply system is dictated by the variety of compressed air applications with differing pressure, volume and quality requirements, the park's structure and the fact that it is



Above: A Kaeser CSD 82 produces compressed air for the "4D" cinema
Right: Edwin Enderle with the "Colosseo" Aircenter

spread over more than 70 hectares. Of course, the efficiency of the compressors and air treatment equipment is also playing an increasingly important role, as the park is so large and because energy prices continue to rise – good reasons therefore to choose Kaeser Kompressoren and ensure that everyone is able to enjoy the ride.



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