Schlüsselbauer Technology GmbH & CoKG; 4673 Gaspoltshofen, Austria

## Production plant for manhole rings and manhole cones in Lithuania

The company Kauno Gelzbetonis is one of the largest producers of concrete elements in the republic of Lithuania. The high capacity combined with flexibility and plant safety have made it possible for the company to secure its leadership position on the "concrete elements for infrastructural purposes" market. Concrete rings and cones, produced on the production plant Magic from the company Schlüsselbauer and which meet with all European engineering standards, have been especially successful for this company.

The company Kauno Gelzbetonis was founded as a state owned company in 1967 in the town of Kauno in the heart of Lithuania. For years the wide range of concrete and reinforced concrete products played a considerable role for the whole of the republic within the building industry. In 1993 the company was privatised and now runs completely independently. During the last 20 years the production process has been optimised and plenty of "know how" gathered. Today over 500 different products, especially products for civil engineering (reinforced concrete pipes DN 400 -1.000 mm, building height up to 5.000 mm and manhole components for infrastructural purposes DN 500 - 3.000 mm, building height 250, 500 and 1.000 mm) are produced at this location.

Having changed to a modern automated production plant for the production of concrete elements, plaster stones, curbstones and other structural engineering products the improved quality of the company's products is one of the considerable factors leading to the success of this company. On going quality checks of all products are carried out at the works by the company's own quality assurance team together with specialists form the technical university of Kaunas and the centre for certification. Suitably

highly qualified and experienced personnel are also employed at the company. Kauno Gelzbetonis's regular customers appreciate the high quality products that meet completely with all engineering standards.

## The New Production Machine at Kauno Gelzbetonis

The company Kauno Gelzbetonis has invested in a new production plant from the company Schlüsselbauer for the production of manhole rings and cones. The basic concept of the Magic 1501 is that it is laid out for either single or multiple production of a wide range of products. The plant at Kauno Gelzbetonis is used for the production of manholes and cones although it is also possible to economically produce further concrete products on this machine such as pipes with rebated joints, drip pipes, drainage channels, roadside channels as well as other special components. Kauno Gelzbetonis produces manhole rings and cones with diameters from 700 and 1.500 mm and with a building height of 250 to 1.000 mm.

The machine at Kauno Gelzbetonis is partially automated and laid out to be operated by two machine operators. The necessary step rungs, which are directly cast in, and the support rings are manually fed in. Depending on the product to be produced the Magic 1501 achieve up to 45 work cycles per hour. The average work cycles achieved for larger products with a diameter of up to 1.500 mm are 30 per hour.

It is absolutely no problem to change any of the moulds whenever necessary. Mould changing times can be reduced dramatically by use of the special mould change system thus leading to relatively short interruptions of production. The Magic 1501 has an automatic pallet feed in system. Once the pallets have been released from the concrete products they are then cleaned, oiled and fed back into the production plant.



The company Kauno Gelzbetonis has invested in the new Schlüsselbauer production plant for the production of manhole rings and cones

### PARTNERING FOR A SOLID FUTURE



Modular plants and systems for production and handling of concrete pipes, manhole components and special elements.









The Magic 1501 at the company Kauno Gelzbetonis is laid out to be operated by two machine operators



Production procedure: pallet is fed in, concrete is poured into the mould, after setting the manhole cone is removed from the pallet and pushed out of the machine

#### **Collection of the Concrete Elements**

The Schlüsselbauer Magic plant at Kauno Gelzbetonis operates in single production with the manual collection of the finished products. The collection of the fresh products is carried out by means of an electric cart. The production machine has enough buffer area for several fresh products to be parked ready for collection. Therefore the electric cart is not dependant on the work cycle times of the production machine. The products are then transported to the curing

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Wet products in the "parking area" and before the transport to the curing area

area of the production building. The building has enough inside storage space for the fresh concrete products. After a curing time of one day the cured products are then transported with a forklift, which has a ring and cone clamp from the company Probst attached to it, either to the outside storage area or to a waiting truck.

#### **Magic Machine Series**

For many years the Magic machine series, which combines high flexibility regarding both the product being produced and the daily production, has been successfully installed worldwide. The quick change system of this machine makes it possible for the operator to change the style of product being produced, the dimensions of a product or the product type extremely quickly. The range of dimensions goes up to a product outer diameter of 2.700 mm and a product weight of maximal 3.000 kg. The product range stretches from a simple manhole ring, preholed for the later use of step rungs up to large format cones with centric or excentric entrances. Instead of pre holing, if desired, the steps or step rings can be directly vibrated in. The transport of the products to the curing area and the therafter handling is carried out by the Magic plant operator either by use of a fully automated robot crane or with an electric collection cart. The plants are designed and can be operated for both single as well as multiple production of maximal six products per work cycle - depending on the component dimensions. In addition to the already mentioned manhole components the Magic is also the ideal solution for pipes, junctions, fitting components, roadside channels and palisades. Depending on the products that are to be produced a progressive and automatic production is possible on this production machine.

#### Certainty of the Right Choice of Plant

Mr. Algimantas Aleksynas, the main shareholder and general director of the company Kauno Gelzbetonis, took everything into consideration before choosing his production plant for the production of manhole rings and cones. Before making his decision he went to a series of trade fairs (including the



Collection and transport of the products to the outside storage area

#### CONCRETE PIPES & MANHOLES



Modern manhole components for civil engineering in Lithuania – in the picture cones and manhole rings at the company Kauno Gelzbetonis

BAUMA in Munich), visited many concrete works in middle, east and northern Europe, checked the numerous offers from different suppliers and took part in many talks and meetings. The result of all these invstigations was the decision in favour of the new produciton plant from the company Schlüsselbauer in Austria. Mr. Aleksynas is very certain about his evaluation. "The production plant Magic is, in our opinion, the best in its field. It has the highest technical level, excellent project processing in all phases ranging from contract confirmation right up to the commissioning of the plant with all the necessary information and very good customer care all of which confirmed my decision. The philosophy of our partner Schlüssel-

bauer Technology meets completely with that of our own company".



Mr. Algimantas Aleksynas together with Mr. Johann Schlüsselbauer, Managing Director of the company Schlüsselbauer Technology GmbH & Co KG and Ms. Tatiana Egorova, Area Sales Manager, during the traditional company visit to Kauno Gelzbetonis

#### FURTHER INFORMATION

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