

Prinzing-Pfeiffer GmbH, 89143 Blaubeuren, Germany

# Versatile plant for the production of drainpipes

The building industry in Algeria has been booming for some years now. The reason for that is the strong economic growth and the associated necessary development of the infrastructure and the state and private construction of buildings and underground construction. Particular importance is attached to the water supply and the improvement of the wastewater sector. Algeria has a population of 37.5 million people; economic growth last year was 4.3%.

■ Hans-Ulrich Pfeiffer and Youssef Maaoui,  
Prinzing-Pfeiffer GmbH, Germany ■

Prinzing-Pfeiffer has been active for some years in this country, which has rich deposits of crude oil and natural gas. Back in the 1970s and 80s, concrete block and pipe making machines were supplied in large numbers by the subsidiary at that time, Jaeger France. The majority of them are still in operation today. Particularly mention should be made of two complete plants supplied and attended to by Pfeiffer (known today as Prinzing-Pfeiffer), which have been producing prestressed pressure pipes for the water supply since 1985.

Sarl Etber, a private company specialised in building materials and road construction and headquartered in Tizi Ouzou, was acquired as a customer in 2010 with support of Prinzing-Pfeiffer's Spanish customer, Bortubo SA, which has plants in Fortuna/Murcia and Marchena/Seville, both of which are equipped exclusively with machines and plants from Prinzing and Pfeiffer. Drainpipes up to DN 2500 with integrated seal as well as box culverts, square and rectangular, for road construction, agriculture

and airports have been produced since 2011 on the RP 1225 radial press and the Variant 4000 as a double unit in the Bouira plant, located east of Algiers. The installation of drainpipes with an integrated seal up to DN 1200 has been legally prescribed for some years and since 1 January 2014 up to DN 2500 also.

In 2010 the Transcanal Ouest company from Oued Rhiou (east of Oran) invited national and international tenders for a complete plant for the production of steel reinforced concrete pipes with integrated seal up to DN 2500 mm and an overall length of 2.5 m. Prinzing-Pfeiffer was awarded the contract, having convinced Transcanal Ouest with its technology and price-performance ratio. That was followed in 2013 by an additional order for mould equipment for the production of complete manhole systems as well as for box culverts, rectangular and square.

Transcanal Ouest belongs to the Hydrocanal Group with several plants in Algeria, manufacturing amongst other things prestressed pressure pipes. Transcanal Ouest operates one of the two pressure pipe

plants supplied by Pfeiffer, known today as Prinzing-Pfeiffer, in the 1980s. Since then a subsidiary has also been established for the installation of pipe and manhole systems.

The core of the plants, which have now been delivered, installed and put into operation, is formed by two Variant units with automatic feeding for both pipes and box culverts. The units each have a central vibrator with easily adjustable vibrating force and amplitude, equipped with hydraulic coupling between vibrator and core, for an easy and reliable change of dimensions.

Demoulding on the machines, transport in the mould and the pulling of the mould jacket off the pipe are carried out by two gantry cranes with easily controllable lifting and travelling speeds. Movements of the reinforcement and concrete and thus hairline cracks / reinforcement shadows are avoided by transporting the freshly produced pipe in the mould until demoulding. A semi-automatic wire cage welding machine is used for the production of the reinforcement cages. The concrete mixer was supplied by Transcanal Ouest. Prinzing-Pfeiffer's scope



Vertical prestressing machine in the Hydroaménagement Rouiba plant in Algiers for the winding of core pipes from DN 600 to DN 2000, overall length 6 m.



RP 1225 radial press: heavy-duty machine for drainpipes with integrated seal from DN 300 to 1200 mm, overall length 2.5 m, at Sarl Etber, Bouira



Variant 4000: universal machine for large pipes and box culverts at Sarl Etber, Bouira



*Variant 2500 E at Transcanal Ovest in Oued Rhioi*



*Mould equipment for the Variant*

of delivery also includes a three-edge bearing testing press for a pressure of up to 1,521 kN as well as a facility for checking water impermeability, designed for 2 pipes, so that the seal can also be checked under angular deflection according to standard.

Transcanal Ovest has produced drainpipes only to a limited extent so far. A total of 40 people are employed in the concrete pipe

plant with the two Variant units. Prinzing-Pfeiffer is responsible for training them in the technology of the machines and devices as well as in their operation and maintenance. This also includes instruction on concrete technology as far as the creation of mixture recipes. One of Prinzing-Pfeiffer's tasks was to adapt the Variant units to the hall without making structural alterations to the building, which was constructed in 1931. Prinzing-Pfeiffer also provided support for the construction work for the foundations. Special mention should be made of the good co-operation with the ambitious, young personnel, who treat the entire plant as if it were their own.

The CEO Bel Haouari successfully manages Transcanal Ovest with several plants for the production of pipes and articles for underground construction as well as vibrated masts for the supply of electricity. A profitable branch of Hydrocanal was established in the west of Algeria under his leadership.

Prinzing-Pfeiffer has succeeded in installing a further modern plant for drainpipes and manhole systems in a hall built in 1931 in Algeria and, supported by very motivated employees from the state-owned company Transcanal Ovest, successfully putting it into operation in a short time.

#### FURTHER INFORMATION

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*Employees of Transcanal Ovest in Oued Rhioi*



*Three-edge bearing testing press*