Reference

EnBW KRAFTWERKE AG, GERMANY
Konecranes has installed two new high-performance underrunning cranes in the thermal power plant at Altbach/Deizisau for EnBW, one of the largest energy companies in Germany and Europe.

An overview of EnBW’s thermal power station
Alongside other plants in Heilbronn and Karlsruhe, the thermal power station at Altbach/Deizisau is among the large EnBW coal-fired power plants. In Altbach/Deizisau, EnBW powers numerous plants with a total electrical output of roughly 1,200 MW. Thermal power stations 1 and 2, which generate electricity and district heating by means of combined heat and power, can each generate a guaranteed district heating output of 280 MW.

Starting situation
In their thermal power plant at Altbach/Deizisau, EnBW Kraftwerke AG generates electricity and district heating mainly from coal. Modern coal mills crush the fossil fuel into powder form. Coal mills are becoming increasingly complex. In order to develop sub-components and transport them out of the boiler house, the current underrunning cranes were no longer sufficient.

Requirements
New underrunning cranes should be installed - guaranteeing greater output without using more space. In addition, the cranes must be assembled at a height of 10 metres, without interrupting nor disturbing the processes and not exceeding the allowed maximum load for boiler room floor.

Concept
Konecranes designed two custom-made, high-performance underrunning cranes for EnBW, with the same dimensions as the previous cranes, including new crane and branch runway, to facilitate flexible transport of the mill components.

Solution
In thermal power station 1, Konecranes installed an underrunning crane with a lifting capacity of 35 tonnes and 2 x 15 tonnes in thermal power station 2. Using the new crane and branch runway, the mill parts can be transported for more than 40 metres and therefore, transported out of the boiler house. Before the installation of new cranes, Konecranes dismantled the old cranes from the building.

Customer benefits
By means of modernisation, the lifting capacity of the cranes was increased - with equal dimensions. In thermal power station 1, the crane can now lift 35 tonnes instead of 25 tonnes. In thermal power plant 2, the crane can now lift 2 x 15 tonnes instead of 2 x 8 tonnes and transport flexibly this load by using two trolleys. Furthermore, the cranes are now remote controlled by radio.

Underrunning cranes for thermal power plant 1 and 2 in details
Load capacity: 35 and 2 x 15t
Length of crane runway: 47 and 44.5m
Crane runway span: 4.7 and 3.7 m
Lifting height: 18 and 8.82m (hook movement 10m)
Lifting speed: 0.16 and 2 x 6.25 m/min
Trolley travelling speed: 4 and 2 x 4 m/min
Crane travelling speed: both 4 m/min
Temperature range: both from -20 to + 40°C

And what does EnBW say?
„From a competent technology and service partner, I expect quality, a good price/performance ratio, flexibility, safety and reliability. From tender preparation to order processing, the Konecranes’ service was detailed and professional, including flexible reactions when it came to dealing with unforeseen circumstances such as interfering edges. Using new increased lifting capacity of underrunning cranes, maintenance of mills can now be carried out more flexibly and efficiently.”

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