

## REBAR SPRAYING INSTALLATION TEHRAN HARA – IRAN

Since the beginning of 2005 the company **Tehran Hara** has been engineering the newly built rebar spraying installation. The rebar coating company is called GCE and is a 100% family business.

The plant covers a shop area of 2000 m<sup>2</sup> and is built on a plot of land with a total surface of 25000 m<sup>2</sup> (180m x 139m).

The installation itself measures 72m x 10m and is max. 10m high.

Another similar installation will be built here in the future with the purpose of coating other profiles (L, U and I Beams) with the **ZINGA** system. They still have space for another expansion at the same location.

Another plant will be built in the Jebel Ali Free Zone – Dubai – UAE, from there they will be able to export to any Middle-East country within a few days.

The actual rebar installation can produce 50 000 tons of rebars per year.

In a 2nd phase, the production will be increased to 150 000 tons per year and after expansion to a 3rd phase up to 450 000 tons per year.



System  
ZINGA 1 x 50 µm DFT

## Technical details of the spraying process

1. Incoming uncoated rebars are stocked above the feeding line, up to a quantity of 50 tons.
2. All rebars are manually handled onto an automatic side conveyor.  
Up to 16 rebars per charge.
3. The side loader is automatically transferred to the treatment line.  
The 16 rebars are lifted and positioned in the treatment line.
4. The rebars are then heated. The heat will loose the mill scale from the underlying steel.  
The surface temperature of the rebars mounts up to 60°C.
5. The rebars automatically enter the wheel blast machine. Automatic (electrically driven) wheel blasters are grit-blasting the rebars to cleanliness degree SA 2,5 and roughness degree 30 to 40 µm Rz. The surface temperature of the rebars is still too high after blasting.
6. The rebars are then pushed through brushes in order to remove the dust and grit, this is followed by dedusting with clean air.
7. The rebars automatically enter the temperature equalising area. In order to avoid temperature stresses in the steel, the inner and outer temperature of the rebars is equalised.
8. The rebars pass through an automatic spray booth in which two reciprocators are spraying the Zinga.
9. The rebars pass through a drying oven.
10. The rebars are transferred automatically to the end station for unloading.
11. The rebars are automatically unloaded and are manually bound together, so that they are ready for transport.



