Access roads and crane area

REpower MD/MM

Access roads and crane area for tubular towers

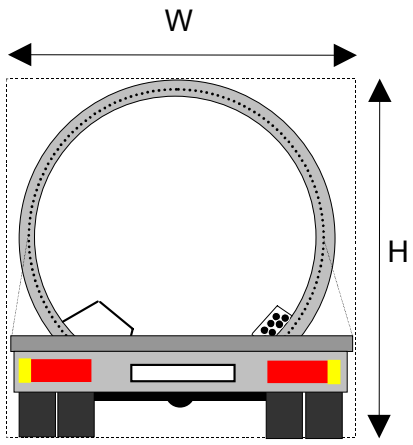
Please contact REpower Project Management before construction of any roads is started!

To avoid problems during the erection of the wind turbine, the following minimum requirements have to be observed under normal soil conditions:

1 Vehicles

Vehicles:

- approx. 35 concrete and building vehicles
- up to 18 heavy lorries for crane erection
- approx. 10–12 heavy lorries with turbine components
  (4–6 for tower, 3 for rotor blades, 2 for nacelle and hub, 1 for control cabinets/small parts)
- max. length 55 m
- Load profile: minimum height = 5.00 m, width = 4.50 m



Weight of vehicles:

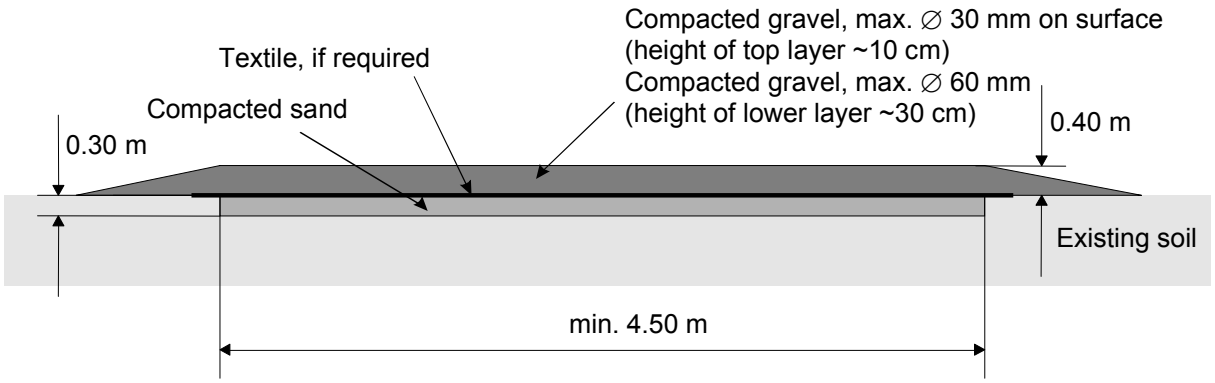
- max. load per axle: approx. 12.5 t
- max. overall weight: approx. 130 t
- max. soil pressure on crane area: approx. 20 t/m^2

2 Dimensions of access roads

Dimensions: All required information regarding dimensions and so on you find in the associated drawings:

MD70 and MM70: Z-1.1-GP.00.90-A-current revision
MD77 and MM82: Z-1.2-GP.00.90-A-current revision
MM92: Z-2.9-GP.00.11-A-current revision
All types: Z-1.1-FG.AS.03- current revision
A parking area of min. L/W 100 x 12 m (1200m^2) has to be built. Concerning the consistence of the subgrade please notice part 3: Road surface.

3 Road surface



The access road should be made of gravel (diameter max. 60 mm; layer thickness 0.40 m) on compacted sand (approx. 0.30 m). In place of gravel the top layer may be made of breakage material (diameter max. 60 mm) free of any demolition waste, such as glass, ceramics, steel or wood. If breakage material is used the thickness has to be increased to approx. 0.50 m. The material used on the surface may have a maximum diameter of up to 30 mm. In order to prevent inundation, a textile layer may be needed between the base (sand) and top layers (gravel). All layers must be properly compacted by adequate machinery to avoid later access problems with heavy loads.

The road surface must in general be even; some of the lorries have a ground clearance of no more than 10 cm. On a length of 40 m the access roads shall not have a difference of level more of than 60 cm. The gradient in case of gravel coating is 6 % and 9 % in case of asphalt-/tar-coating. An additional vehicle for pulling is needed if this rise is exceeded. Crossfall from the road axis to the banking must be 2 to 3 % to ensure proper draining. The side inclination shall be 2 % in maximum.

Depending on the specific site conditions these values may change. A soil expert and road engineering company should be consulted for suggestions.

4 Crane area

All required information regarding dimensions and so on you find in the associated drawings:

MD70 and MD77: Z-1.1-GP.00.91-A-current revision
MM7, MM82 and MM92: Z-2.1-GP.00.11-A-current revision

The surface of the crane area must be levelled. No obstacles should be within a radius of 75 metres of the crane.

For assembly of the crane jib a free length along the access road must be available, measured from the crane centre you need the hub height plus 20m.

Any contamination of the wind turbines after erection must be avoided, e.g. by proper compaction and graveling to ensure a dry and clean surface.

The final layout for the specific site is to be planned after inspection of the location!

Note: The data shown is *for orientation only*. Depending on the local conditions various opportunities may exist.