

## POWER CABLE INSTALLATION BY PLOUGHING

The Reka Cables product range includes a number of 0.6/1 (1,2) kV power cables and 6/10 (12) kV and 12/20 (24) kV medium-voltage cables, which are suitable for installation by ploughing. Suitability for ploughing is indicated in the technical specification of the cable. Ploughing means the cable laying method by which an underground cable is put directly into the ground using a machinery and special tool, such as a cable plough. In addition to the required hardware, ploughing requires suitable soil in which to install the cable. Soil that is particularly stony or containing boulders may prove to be prohibitive for ploughing. This must be checked already in the pre-planning of ploughing.

Good installation practices should be adopted for ploughing, which means respecting local installation regulations without neglecting occupational health and safety. In addition, particular attention should be paid to the following:

- While ploughing, you may not go below the bending radius limits set for the cables during installation. In terms of the bending radius, critical points are when feeding the cable into the plough and also the bending radius within the plough. Bending the cable back and forth must be avoided.
- When ploughing the cable, you must not go over the allowed upper traction limits set for the cable.
- Preliminary ploughing, i.e. going through the plough line without the cable, is always advisable. This applies particularly to stony or otherwise difficult ground. Preliminary ploughing guarantees the accessibility of the ploughing track. Any big stones and other obstacles should be removed from the track before the cable is installed.
- During installation, you must ensure that the cable is not left on, or under or trapped between large or sharp-edged stones.
- During installation, no stones or items may enter the mouth of the ploughing appliance, as they may damage the cable when entering between the cable and the plough.
- While ploughing is underway, the ploughing appliance must not be moved in any direction other than that of the ploughing (i.e. forwards). Reversing may damage any cable already installed in the ground.
- After ploughing, the open ends of the cable should be securely protected in order to avoid water entering the cable.

The internal dimensions of the tool used for ploughing should be chosen so that the cable to be ploughed takes up at most only 80% of the space. This reduces the risk of trapping the cable in the plough. For example, the nominal outer diameter of an AHXAMK-W 20 kV 3x185+35 cable is 79 mm, and so the inner diameter of the mouth of the plough should be at least 100 mm

TYPES OF CABLE SUITABLE FOR PLOUGHING				
0.6/1 (1.2) kV	AXMK/PE	AXCMK/PE	AXCMK-W	
6/10 (12) kV – 12/20 (24) kV	AHXAMK-W / -WE	AHXAMK-WP / -WM	AXLJ-F TT / AXALJ-F TT	TSLF



**Cable plough (example)**



**0.6/1 kV plough AXMK/PE**



**20 kV plough DRYREX AHXAMK-W**