

## SUMP CLEANING EQUIPMENT ZČJ 1

### Use and description:

Sump cleaning equipment **ZČJ 1** (hereinafter only ZČJ 1) is equipment based on a loading shovel with a hydraulic drive. The hydraulic aggregate driven by an electrical motor is located directly on the equipment and fed from the trolley wire. ZČJ 1 enables to clean the sumps locate predominantly in front of the sump crosscuts underground. During operation ZČJ 1 together with an operator travels on monorail system located above the sump to be cleaned, excavates the sediments from the sump bottom and loads them into the mine cars on rail along the sump.

ZČJ 1 consists of following main parts: mini-loading shovel, travel frame wit pulley guiding system on the monorail, hydraulic circuit and electrical feeding system.

For operating ZČJ 1 in actual conditions the deliver shall elaborate the project of the travel rout and project of electrical feeding system. The excavation capacity depends on sediments quantity in the sump, skill of the operator and readiness of the mine cars. Using the shove 80 dm<sup>3</sup>, one mine car JDV 1,25 is filled up during ca 10 min.



ZČJ 1

### Characteristics:

Type		ZČJ 1
Electrical motor input	kW	4
Voltage system	V/Hz	3x500/50
Operation pressure	MPa	16
Working medium	hydraulic liquid having a viscosity of 46 mm <sup>2</sup> .s <sup>-1</sup> at 40°C	
Filtration	µm	25
Equipment travel velocity	m.min <sup>-1</sup>	14
Max. horiz. working point towards the turning pin	m	2.60
Shovel max. depth capacity	m	2
Shovel max. vertical capacity	m	3.3
Max. height of dump	m	2.5
Shovel volume	dm <sup>3</sup>	50 or 80
Jib angle of rotation towards the axis	°	30/100
Mini loading shovel misalignment in travel frame	mm	± 400
Pitch of travel wheels	mm	2 380
Travel wheels base	mm	2 400
Dimensions w x h x l	mm	2 790x2 735x5 050
Weight	kg	1 170.0

Type marking: **ZČJ 1**  
 ZČJ SUMP CLEANING EQUIPMENT  
 1 version number

The product has been designed and constructed as the equipment group I (mine), category M2 according to the Directive 94/9/EC-ATEX of the European Parliament and of the Council and meets the requirements for using in areas "dangerous atmospheric conditions 2" according to EN 1127-2+A1 on condition that all national regulations of the employer are fulfilled.

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