



ZBO U7 DRILLING RIG

for high-speed diamond exploration wireline
coring for solid minerals (wireline technology)



ZBO DRILL INDUSTRIES, INC.

Russian Federation, 460026

Orenburg, pr. Pobedy, 118

Tel: +7 (3532)754-267

Fax: +7 (3532) 754-273

E-mail: zakaz@zbo.ru

zbo.ru/en

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1. INCREASED RELIABILITY

Use of a double-acting telescopic cylinder (without chain).

Electric power cables are made considering aggressive environment of shafts. Flexible, shielded, rubber-coated with improved wear resistance.

Use of soft starters for a power unit running.

2. BIG CAPACITY

Use of 75kW or 90kW power unit.

3. SAFETY

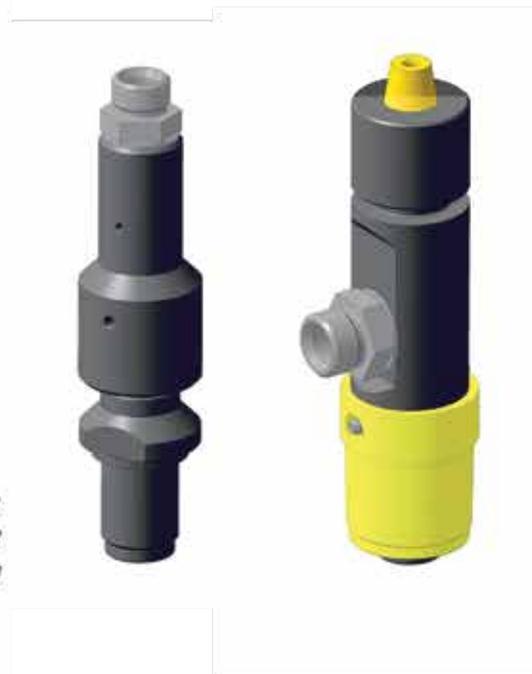
Basic configuration includes an electric leakage monitoring device, fencing and emergency stop devices located on each block.

4. MOBILITY

Modular design of the rig consists of three parts. This makes the rig mobile for transportation and descending into underground workings.

5. COMPLEX SUPPLY

Possibility of the rig delivery with a set of drill- ing tools and auxiliary equipment.



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Technical Specifications

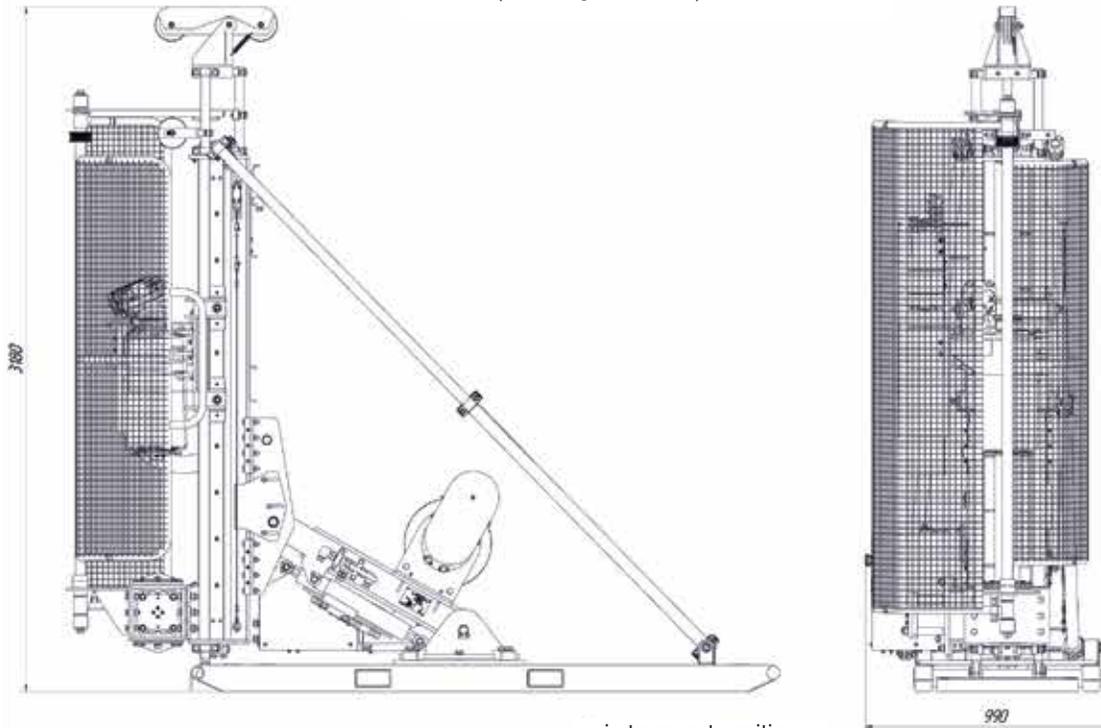
Drilling depth capacity, m		
Rotary head	A-N sizes	B-H sizes
A (44,8 mm)	1315	-
B (55,6 mm)	795	795
N (69,9 mm)	645	645
H (89 mm)	-	440
Drilling azimuth angle, °	from -90 to +90	
Drilling angle, °	360	
Module	Dimensions (L×W×H), mm	Weight, kg
Drill unit	3180x1160x1700	1900
Power unit	1910x840x1380	1300
Control unit	980x990x1400	120
Drill unit		
Feed frame		
Two feed frame sizes are available: 1800mm and 850mm. With telescopic feed mechanism and double-acting telescopic cylinder.		
Feed length, mm	850; 1800	
Feed/Pull force, kN	65/65	
Feed speed, m/s (max)	0,8...1,0	
Rotary head		
Chuck of the rotary head and rod holder are synchronized. Chuck jaws with carbide inserts are of a quick change type, and eliminate rod turning providing secure drill string holding.		
Rotary head drive, cm ³	60	80
Max rotation, rpm	1100	1100
Max torque, Nm	801	1249
Spindle inner diameter, mm	30...76	38...102
Rod holder		
Rod holder is hydraulically opened and closed by gas pressure. In case of loss of hydraulic pressure the rod holder closes instantly and prevents string loss. Jaws with carbide inserts provide reliable string retention.		
Max rod size, mm	89	
Bore (without jaws), mm	102	
Holding force, kN	112,5	
*It is possible to increase max rod size up to 114,3 mm.		
Wireline winch		
Capacity, m		1200 (4,75 mm)
Pull (full/empty drum), kN		3,6/9,9
Speed (full/empty drum), m/s		5,2/1,8
Power unit		
Electric motor		
Capacity/ rating, kW/rmp	75/1485	90/1485
Voltage, V	400	400
Main pump axial piston with variable capacity		
Max consumption L/min	124	
Max pressure, bar	315	
Auxiliary pump axial piston with variable capacity		
Max consumption L/min	41	
Max pressure, bar	260	
Tank capacity, L	120	
Cooling system	air cooler with electric drive	
Control panel		
Additional equipment		
Mud pump		
Max consumption L/min	76	
Max pressure, bar	48	

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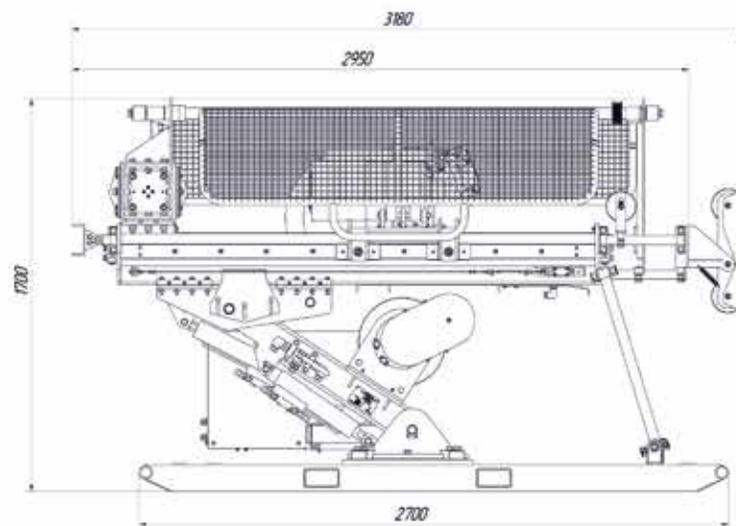
Transport Dimensions

ZBO U7 Drill unit

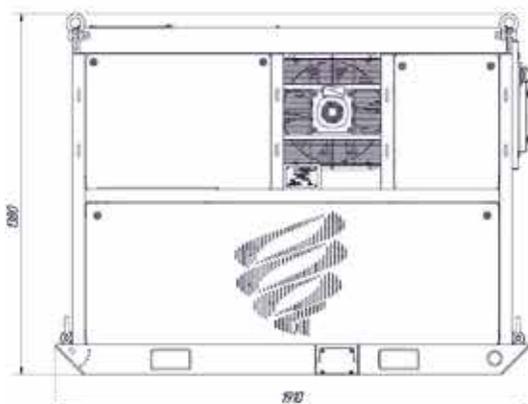
in operating position at -90°
(feed length 850 mm)



in transport position
(feed length 850 mm)



ZBO U7 Power unit



ZBO U7 Control unit

