

HYKD-3A Full Hydraulic Underground Drilling Rig**1. General Introduction**

HYKD-3A full hydraulic underground drill rig is mainly applied in the fields of coal, geology, metallurgy and engineering. It is used for drilling large dia. gas suction hole in mines, gallery as well as coal mine, water injection hole, and big dia. horizontal hole. It can meet the big dia. roller drilling, hard tungsten-carbide drilling and percussive-rotary drilling.

2. Main Features:

- (1). It is separate in structure, small in size, light in weight, flexible in movement and convenient in operation.
- (2). The hydraulic pump is driven by explosion-proof electric motor through operating system, then the hydraulic pump enforces hydraulic motor to make drill head rotate, and at the same time, the movement of drill head is realized by oil cylinder & chain double speed mechanism.
- (3). Hydraulic chuck can satisfy the function of shackles and power-off protection.
- (4). The sliding and extending & retracting function of the mast makes it convenient for the bottom of mast to touches the ground or platform, thus the drill rig will be more stable.
- (5). the swinging arm and mast can do luffing movement, which satisfy the request of multi-angle drilling.
- (6). the range of spindle rotating speed is wide and the torque is large.

3. Main Technical Specifications:

- (1). drilling depth: $\Phi 55\text{mm}$ (2.17 inch) drill rod 300m (984feet)
 $\Phi 71\text{mm}$ (2.80inch) drill rod 200m(656feet)
- (2). Drill rod spec.: $\Phi 55 \times 1500\text{mm}$ ($\Phi 2.17 \times 59\text{inch}$) drill rod
 $\Phi 71 \times 1500\text{mm}$ ($\Phi 2.80 \times 59\text{inch}$) drill rod
- (3). the range of spindle rotating speed: 425-1280rpm
- (4). the max. Rotating torque of spindle: 795 N·m(586 lbf·ft)
- (5). The working pressure: 25 Mpa(3626 psi)
- (6). Spindle stroke: 1600mm (63 inch)
- (7). the max. Lifting force of drill head: 62KN (13938 lbf)
- (8). the max. Feeding force of drill head: 33KN (7418 lbf)
- (9). the sliding stroke of mast: 495mm (19.5 inch)

- (10). the swing angle of mast bracket (left & right): 90°
- (11). the swing angle of arm (up and down): 100°
- (12). Power unit: YB225M-4 (dIICT4) explosion-proof electric motor 45KW (60HP)/1480rpm
- (13). Dimensions:
- Main machine (L×W×H): 2950×950×1850mm (116×37.4×72.8 inch)
 - Power unit (L×W×H): 1900×980×132mm (74.8×38.6×5.2 inch)
 - Operation cabinet (L×W×H): 540×360×1080mm (21.3×14.2×42.5 inch)