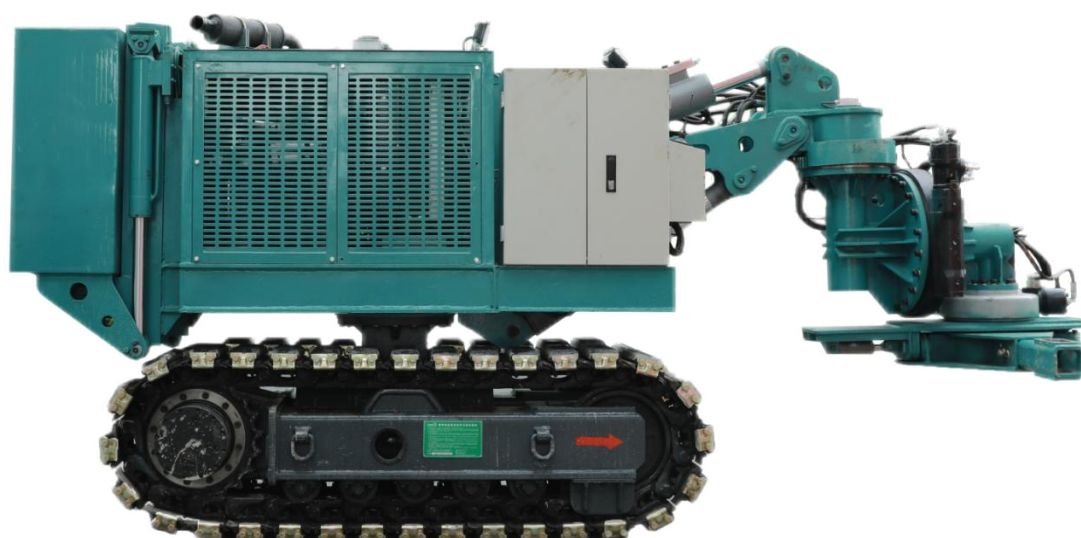




Civil Defense Door Installation Robots



北京建筑机械化研究院有限公司
Beijing Institute of Construction Mechanization Co.,Ltd.

■ Civil Defense Door Installation Robots

The civil defense door installation robot is a new type of equipment creatively developed by the Beijing Institute of Construction Mechanization Co. Ltd. for civil defense facilities. With a compact size, heavy-load capacity, and multiple-degree-of-freedom adjustable manipulators, it can grasp, carry, and mount reinforced concrete civil defense doors in sizes ranging from 1,020mm to 1,520mm, greatly reducing workers' labor, raising operating efficiency, and mitigating safety risks.



■ Strengths in operation

- ◆ Achieve easy operation, need less labor, and mitigate safety risks during operation;
- ◆ Thanks to its compact size, able to carry a civil defense door to pass through door openings and tunnels until reaching the installation position;
- ◆ Manoeuvrable enough to handle a civil defense door and adjust its position until reaching the desired position;
- ◆ Infinitely variable and adjustable speed setting for moving and operating, stable movements, and high maneuverability.

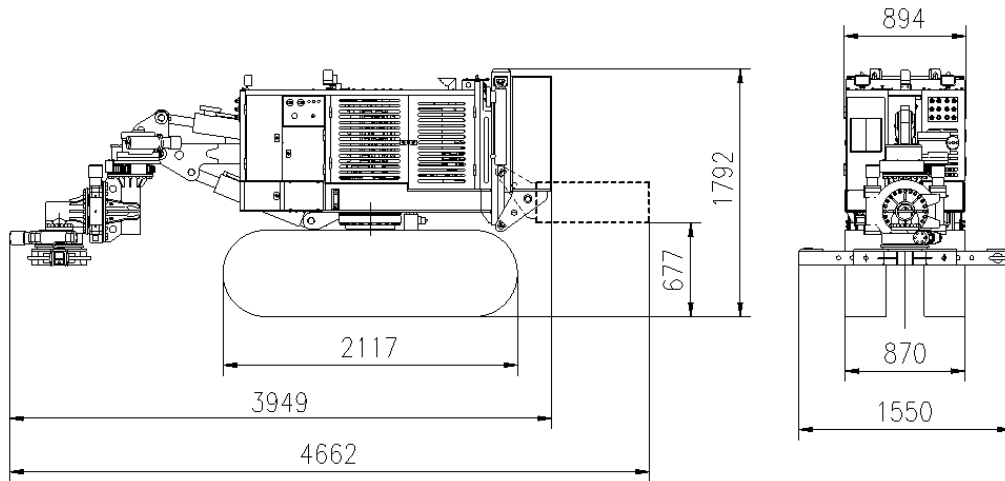


■ Technical highlights

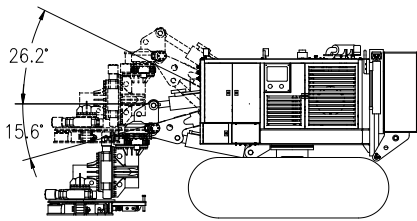
- ◆ Its wireless remote control mode not only allows the operator to observe its operation at convenient positions but also secures safe operations;
- ◆ Its load-sensitive hydraulic control mechanism presents good fretting behavior, enabling accurate, six-degree-of-freedom adjustment of the positions of a civil defense door in a more energy-saving, eco-friendly way;
- ◆ Its hydraulic track drive makes it excellently applicable to the ground of the construction site;
- ◆ Fuel, electricity and other power driving options are available.



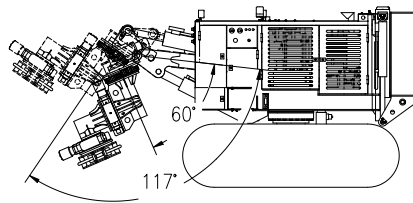
Overall dimensions



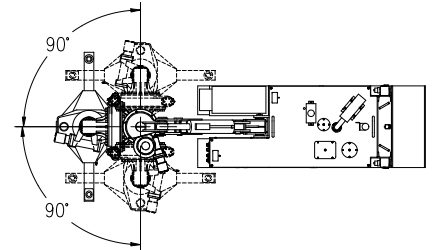
Action range



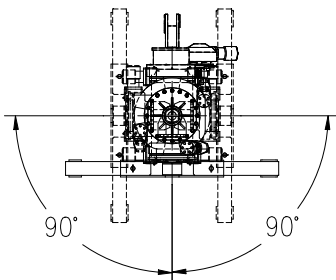
Angle range of large arm actions: -15.6°
 $\sim 26.2^{\circ}$



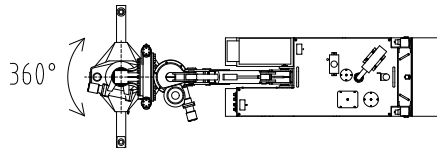
Side-to-side swing angle range: $\pm 90^{\circ}$



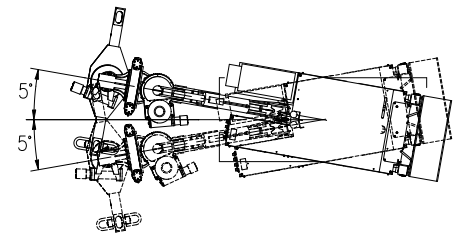
Side-to-side swing angle range: $\pm 90^{\circ}$



Side-to-side flip angle range: $\pm 90^{\circ}$



Rotational angle range of hanging rack of
civil defense door: 360°



Swing angle range of upper platform: $\pm 5^{\circ}$

Technical parameters

| Item | | RQ15D Hybrid Electric Model | RQ15 Fuel Powered Model |
|---------------|-------------------------|---|-------------------------|
| Track chassis | Chassis width | 870mm | |
| | Contour length | 2117mm | |
| | Wheel tread | 1520mm | |
| | Width of rubber track | 300mm | |
| | Running speed | Low speed mode: Max 0.9km/h High speed mode: Max 2.4km/h | |
| | Average ground pressure | 70kPa(Maximum load) | |

| Item | RQ15D Hybrid Electric Model | RQ15 Fuel Powered Model | |
|--|----------------------------------|-------------------------|---|
| Transport dimensions (length × width × height) | Main unit | 3932×894×1782mm | |
| | Cable trolley | 2335×1066×1172mm | — |
| Sizes of civil defense doors that can be carried and installed | 1020~1520 | | |
| Maximum load | 1500kg | | |
| Max ramp gradient | 20° | | |
| Maximum load | 1500kg | | |
| Main unit weight (civil defense door excluded) | 5050kg | | |
| Engine | Maximum working power | 20kW | |
| | Maximum allowable rotating speed | 2500r/min | |
| Motor | Rated voltage | 380V | — |
| | Rated power | 18.5kW | — |
| | Rated rotating speed | 1470r/min | — |



北京建筑机械化研究院有限公司
Beijing Institute of Construction Mechanization Co., Ltd.



北京市东城区安定门内方家胡同 21 号 (100007)

No.21, Fangjia Hutong Andingmen, Beijing, 100007

河北省廊坊市广阳区金光道 61 号 (065000)

No.61, Jinguang Road, Langfang, Hebei, 065000

电话 Tel: 010-84018402

网址: <http://www.bicm.com.cn>

注: 产品更新, 相关技术参数恕不另告。

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Note: Product update, related technical parameters will be discussed specifically.

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