

## Lower Limb Rehabilitaton System

### XYKXZFK-9

#### Working Principle

The new standing bed with automatic stepping function can train the knee and ankle joints with double-leg stepping exercises or single-leg stepping exercises. It can be used for both active and passive training, which not only makes it possible to start the preparation stage of intense exercise therapy, but also cultivates physical strength for the lower limbs.



#### Technical parameters

1. Power supply: a.c.220V $\pm$ 22V; frequency: 50Hz $\pm$ 1Hz; power: 780VA.
2. Bed surface leveling and lifting range: 0~300mm, tolerance  $\pm$ 20mm.
3. Training time: 0~99min, step difference 1min, tolerance  $\pm$ 30s.
- ▲4. Standing angle: 0~90° can be operated by jog, tolerance  $\pm$ 3°; upper body bed board forward tilt angle: 0~15° adjustable, tolerance  $\pm$ 2°; backward tilt angle 0~10° adjustable, tolerance  $\pm$ 2°.
- ▲5. Step angle: 0~30° adjustable, tolerance  $\pm$ 3°.
- ▲6. Step speed: 1~80 steps/min adjustable, tolerance  $\pm$ 5 steps/min.
7. The length of the pedal board can be electrically adjusted within the range of 0 to 200 mm, with a tolerance of  $\pm$ 10 mm; the length of the pedal board can be electrically adjusted within the range of 0 to 150 mm, with a tolerance of  $\pm$ 10 mm.
9. Rated load of sling: 200kg, tolerance  $\pm$ 10kg.
10. Operation display: 15-inch color touch LCD screen.
11. Training drive device: DC variable frequency drive servo system, low operating noise and precise amplitude.
- ▲12. Adjustment of lower limb spasm detection sensitivity: 50Nm~140Nm adjustable, spasm interval time: 10s~120s adjustable.
13. Language biofeedback: imitate real person pronunciation and easily grasp the operation status of the equipment.
- 14. Power part: two servo motors and five linear motors.
15. Software required operating system: Windows 10, 32-bit; resolution 1024 $\times$ 768; memory: 2GB (DDR3 1600MHz).
16. Training drive mode: simulate the human walking curve function and display it directly on the LCD screen.
17. Perform active and passive training on the knee and ankle joints at the same time, suitable for patients who are bedridden for a long time.
18. The standing angle and bed lifting can be controlled by jog, which is simple and convenient for patient transfer.



19. The electric retractable foot pedal device can be flexibly adjusted according to the patient's height and can apply pressure to the patient's lower limbs.

●20. It has an electric weight reduction function, and the load size can be adjusted during training. It can be trained separately or in combination.

21. The load-bearing capacity of the bed surface and the adjustment part are: 125kg and 50kg respectively.

22. Safety protection device: emergency brake button, emergency reset handle.

23. Bed: antibacterial, wear-resistant and high-elastic material should be used, with high flame retardancy, antibacterial, heat-resistant, scratch-resistant, good bed elasticity and comfort.

24. Optional external scene interaction.

#### **Technical advantages**

1. Training drive mode: simulate the human walking curve function and display it directly on the LCD screen.

2. Power part: two servo motors and five linear motors. The maximum thrust of the linear motor can reach 10000N.

