

DC 24V Z-AXIS LIFTER

1. Overview

We designed Z-axis lifter to support our arc voltage torch height controllers to secure better control accuracy; even most OEM manufacturers make lifter on their own. HYD's THC requests lifter motor Up/Down voltage below 2V to secure high control accuracy of THC. Our lifter adopts Ball screw design and DC 24V motor with start voltage 1.2V, capable for lifting 40kg weight.

Specification,

Effective Stroke: 200mm

Maximum Speed: 2500mm/min

Motor: DC24V, 30W,

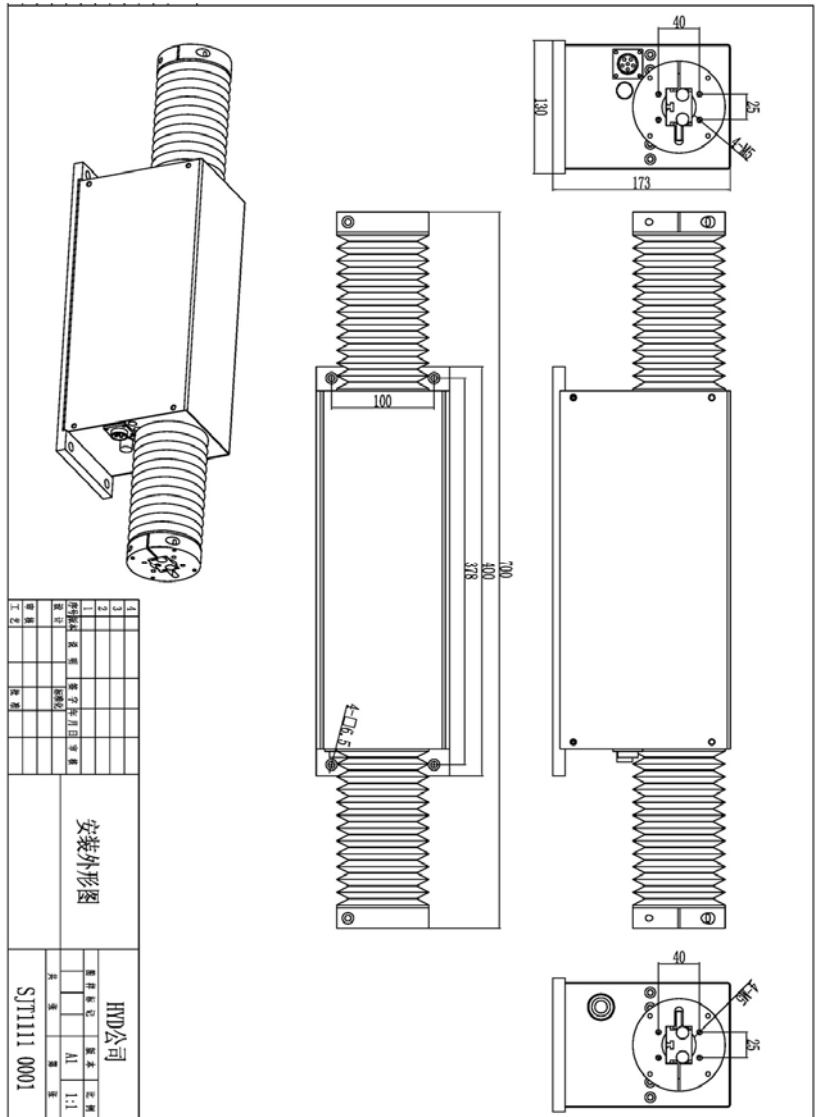
RPM: 3000,

Gear ratio: 6:1.

Lifter net weight: 13kg

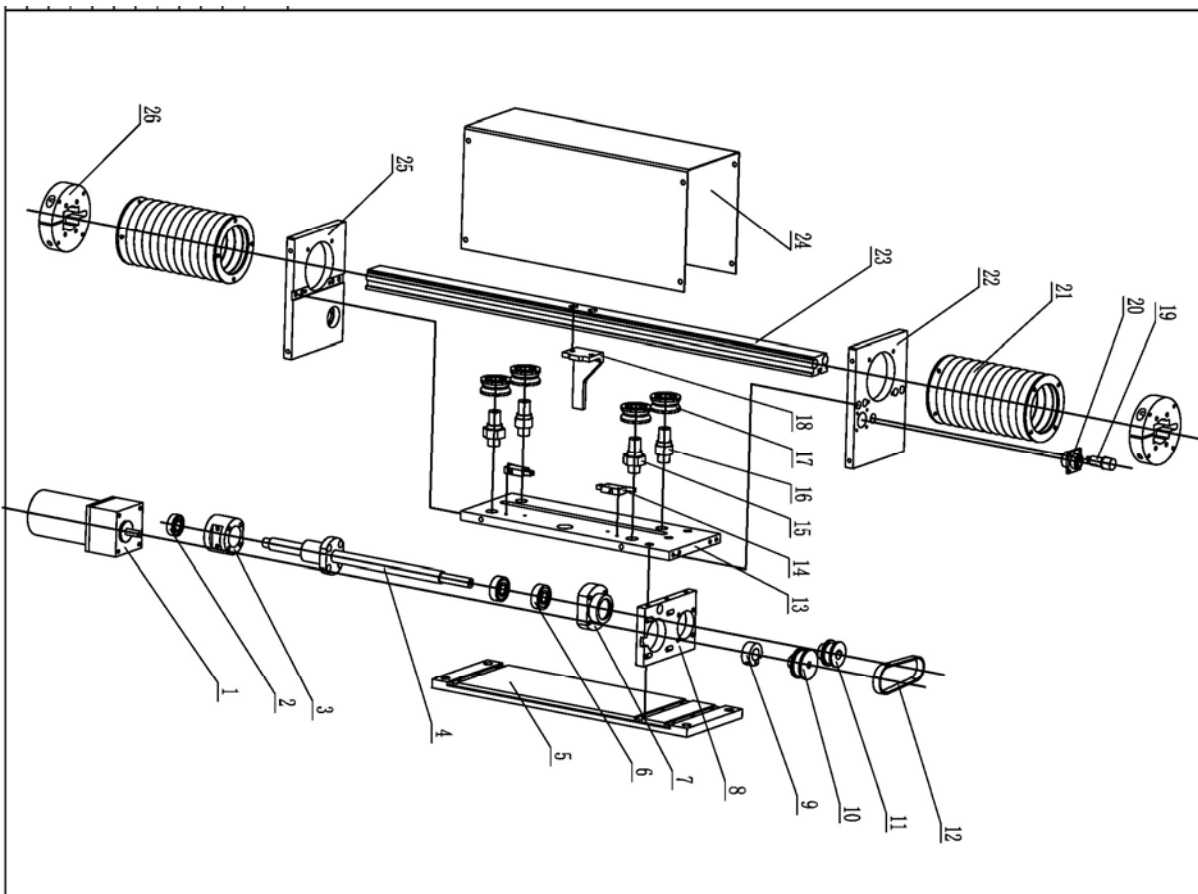
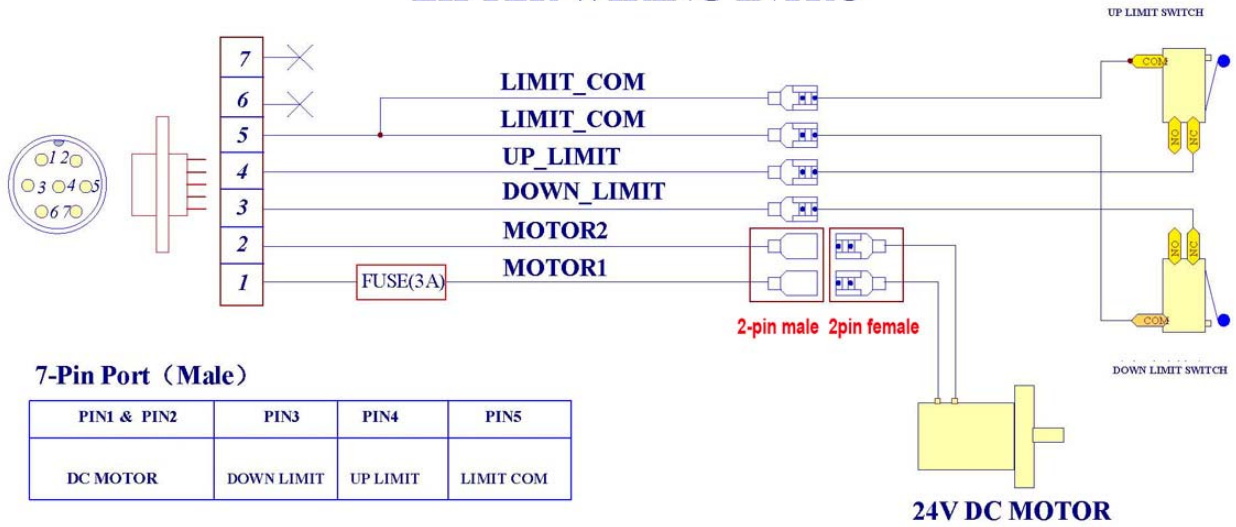
Package in wooden: 17kg

Picture of Lifter as follow,



2. Wiring

LIFTER WIRING INTRO



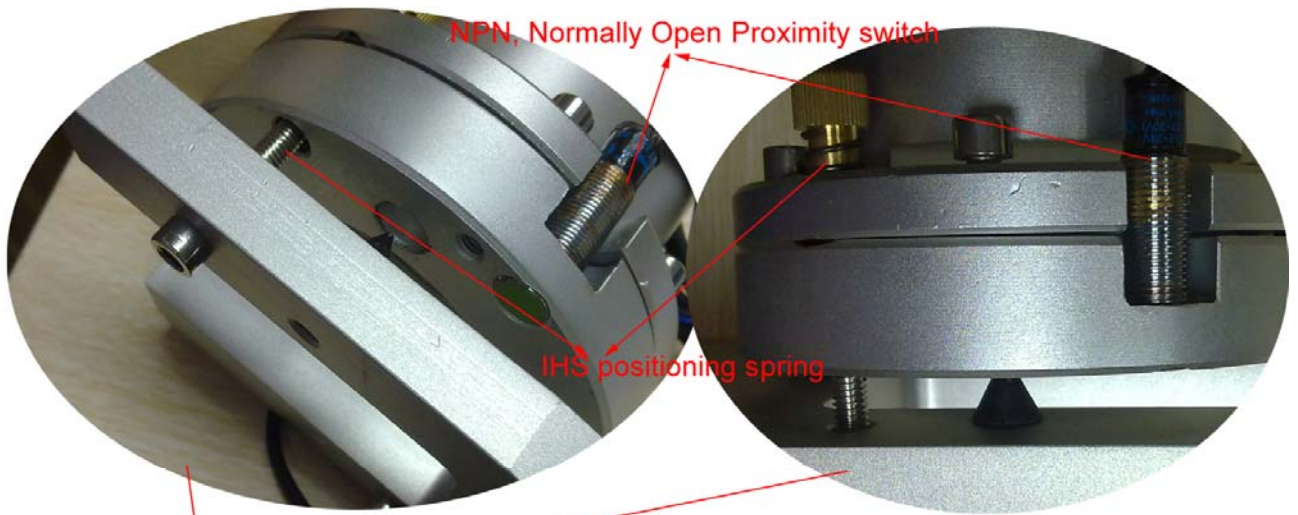


3. Advice

We suggest to use Anti-collision fixture with lifter for plasma cutting. Anti-collision fixture is adjustable to suit any plasma torch on market, which offers IHS and anti-collision function by installed with proximity switch.

Anti-collision fixture is not included in lifter's offer, will be charged separately.

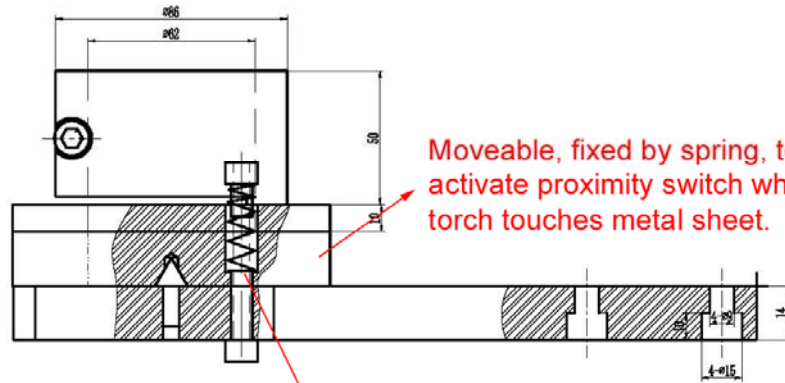
Anti-collision fixture as right and below pictures show,



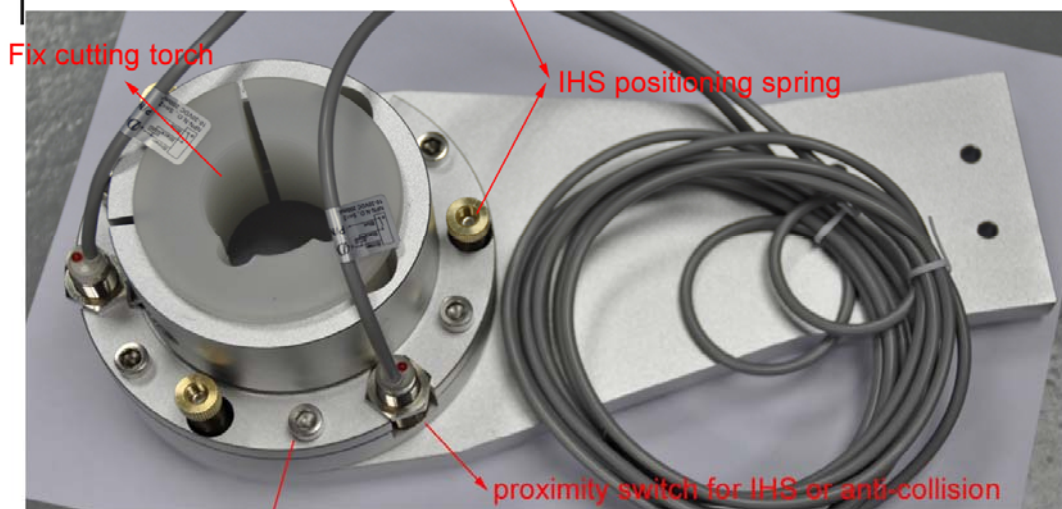
NPN, Normally Open Proximity switch

IHS positioning spring

When torch touches metal sheet, the two parts fixed by spring leave each other, proximity switch is activated, send collision signal to THC which lifts torch up to IHS height.
 This is proximity switch IHS process, and it is used for anti-collision during cutting.



Moveable, fixed by spring, to activate proximity switch when torch touches metal sheet.



Fix cutting torch

IHS positioning spring

proximity switch for IHS or anti-collision

Note: Release the verticality-immobilizing screw, and adjust it, it can adjust the verticality of cutting torch, after adjustment, fasten it.