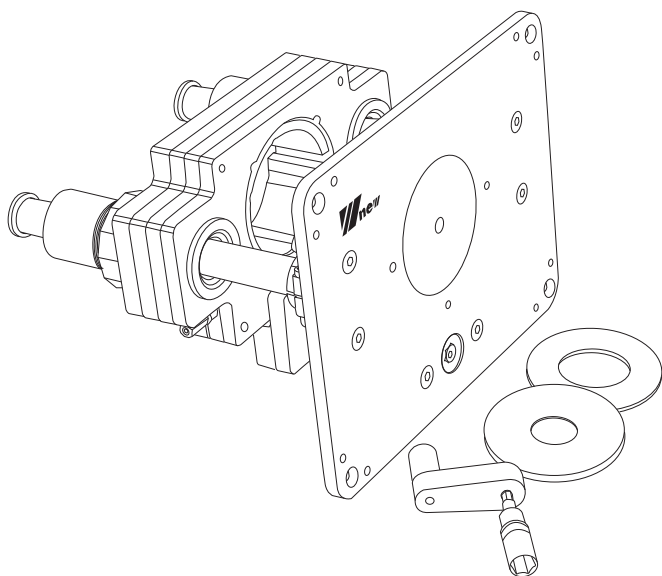




雕刻机倒装升降系统 用户使用说明书

The instructions



前 言

感谢您选择雕刻机倒装升降系统。按照本使用说明书规定使用，您可以无故障的使用很多年。使用说明书中的参数，图纸和图片仅代表工具目前的状态。我们会持续不断的改进和完善，工具会升级和改进，请恕升级后不能一一通知。

安全警告

使用工具之前请佩戴防护眼镜，戴好口罩，避免异物进入眼睛和肺。请时刻保持警觉和对工具的控制！并时刻注意您的操作与运用常识！疲劳时及饮酒后请勿操作工具。请保留并经常参阅本使用说明书。

目 录

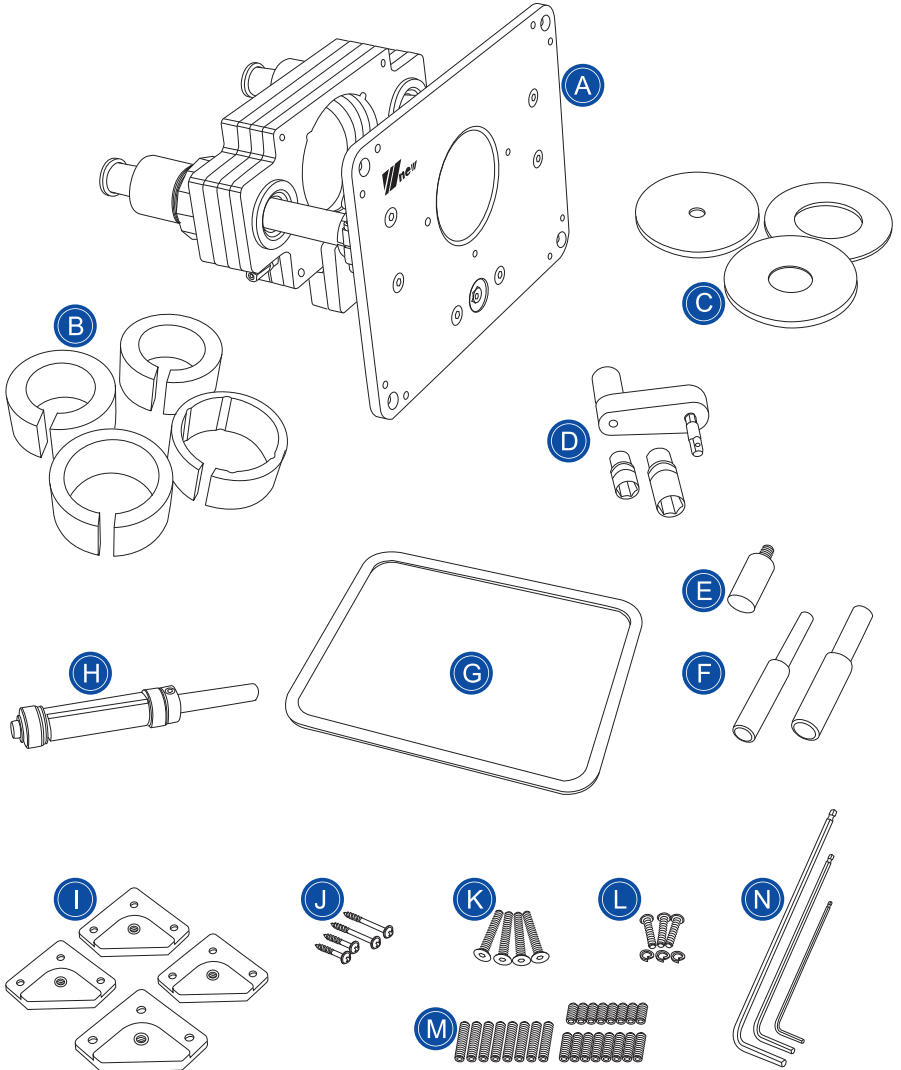
部件组成	1
产品参数	2
倒装台面的制作	3-4
倒装系统的组装	4-5
雕刻机（修边机）安装	5-8
倒装升降的使用	8-9
安装数显	9
工具保养	10

部件组成

◎主要部件包括

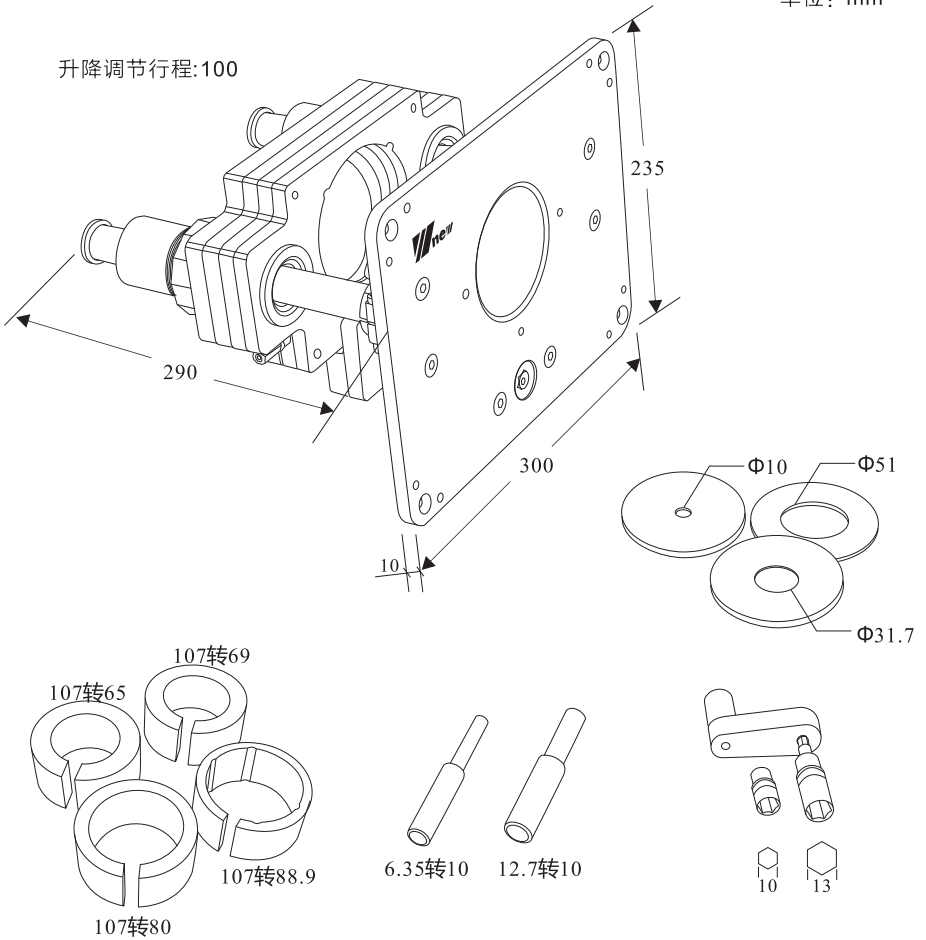
*具体数量以购买套餐为准，标配不含模板，垫角，轴承刀

- | | | | |
|---------------|--------------|--------------|-------------|
| A:主体 | E:圆形倒角件 | I:垫角(4个, 选配) | M:顶丝(3组) |
| B:变径圈(4种, 选配) | F:定位杆(2件) | J:自攻螺丝(若干) | N:内六角扳手(3件) |
| C:盖板(3块) | G:模板(选配) | K:内六角螺丝(4个) | |
| D:专用扳手(2个尺寸) | H:双轴承修边刀(选配) | L:螺丝+弹垫(3套) | |



产品参数

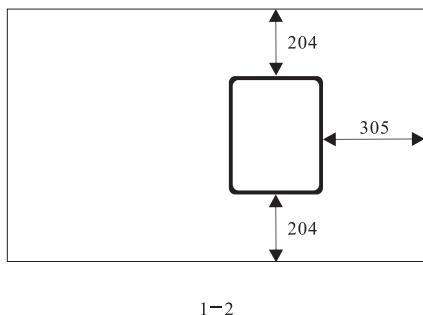
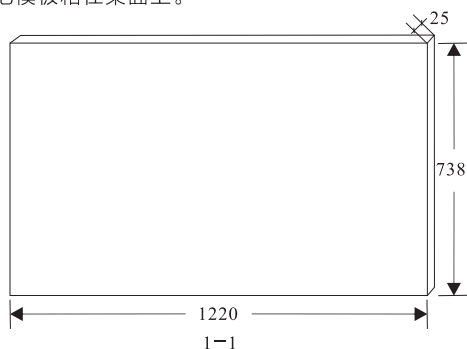
单位: mm



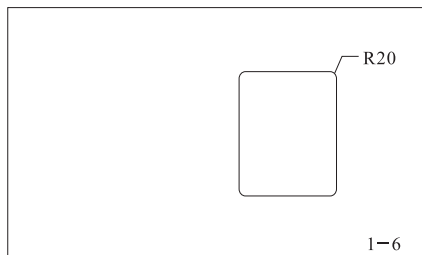
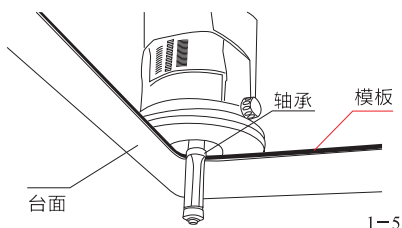
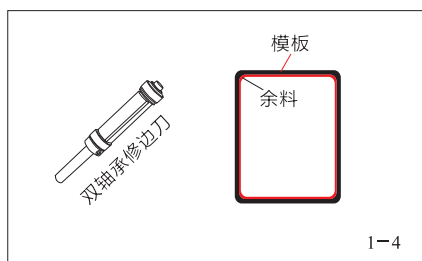
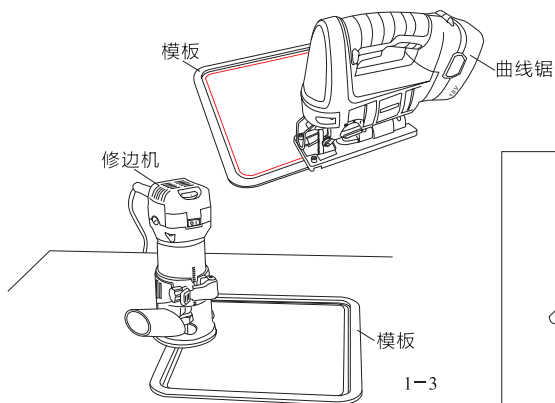
变径圈	适用机型	尺寸
107 (无变径圈)	卜派7518、7519	内径107mm
107转65	卜派7518、7519、牧田RT0700C、普力捷、东成修边机	内径107-65mm
107转69	卜派7518、7519、得伟DWP611、得伟DCW600	内径107-69mm
107转80	卜派7518、7519、风冷电机+变频器(圆形)	内径107-80mm
107转88.9	卜派7518、7519、大有1316-1、博世1617、得伟618、卜派690、卜派890	内径107-88.9mm

倒装台面的制作

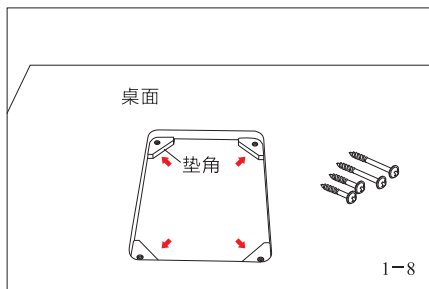
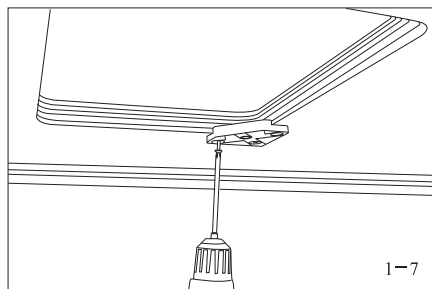
倒装之前先要准备一张工作台面，厚度为25mm以上，材质可为密度板，多层板等等。以尺寸1220X738mm为例(1-1)，把开孔模板放上去，尺寸如图所示(1-2)，确实好位置后把背胶保护膜撕掉，把模板粘在桌面上。



用曲线锯（自备）或修边机（加轴套）沿模板的内圈开孔(1-3)，修边机需分多次进刀，直到把模板中间的木板铣掉，开好的孔离模板内圈还有一点距离，再用修边机+双轴承修边刀把多余的木料铣掉(1-4),轴承要靠在模板上（1-5），使孔与模板内圈一致，铣后再把模板取下即可(1-6)。

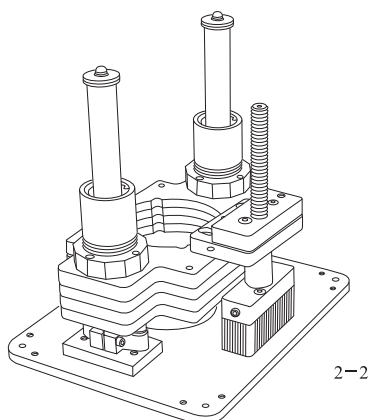
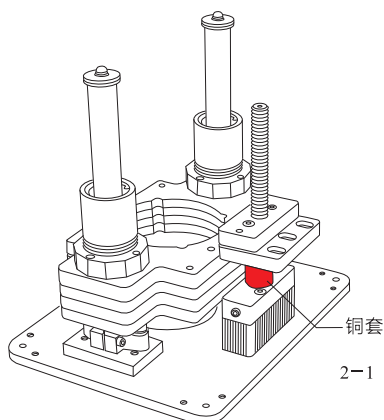


把垫角放在台面底下，放在孔的4个角上，用自攻螺丝把垫角固定好(1-7)，4个垫角都固定好(1-8)。

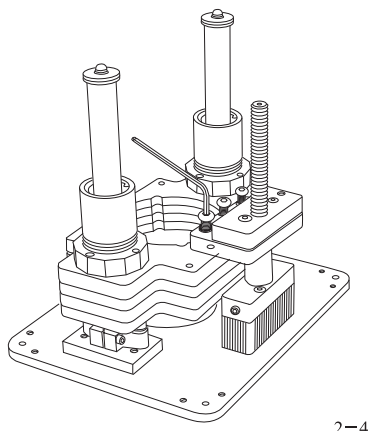
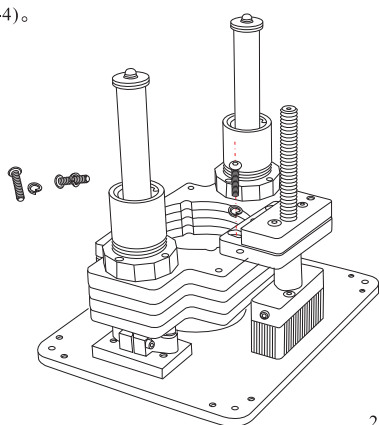


倒装系统的组装

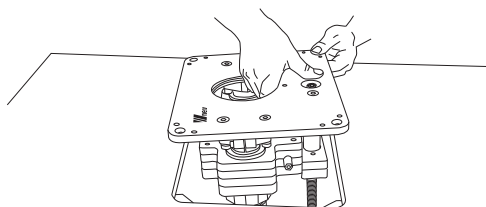
把丝杆上的连接块旋转使铜套到最后(2-1)，使安装孔与主体上的螺丝孔对应好(2-2)



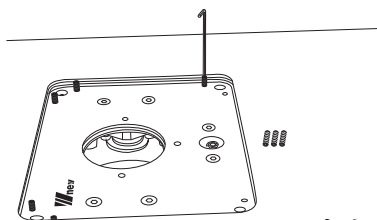
螺丝穿过弹垫(2-3)，再穿过连接块拧到主体上，三个螺丝都对应好后，用六角扳手把螺丝拧紧(2-4)。



把主体面板朝上放入倒装孔内(2-5)，根据台面的厚度选择一组合适的顶丝，拧进面板的四个角上，每个角两颗顶丝，用六角扳手调节顶丝，使面板与台面持平(2-6)。

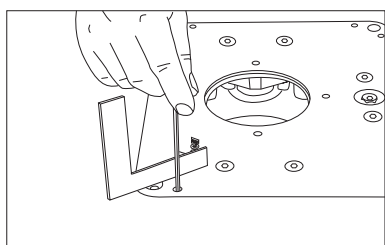


2-5

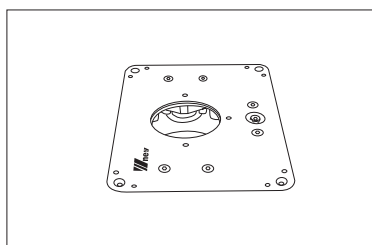


2-6

调整时可用直角尺测量主体面板与桌面的平整度(2-7)，调平后如图所示(2-8)。



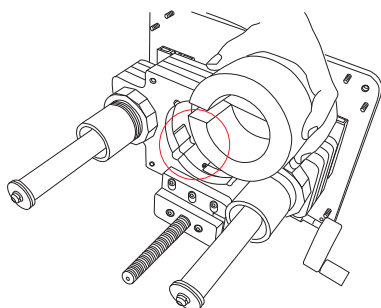
2-7



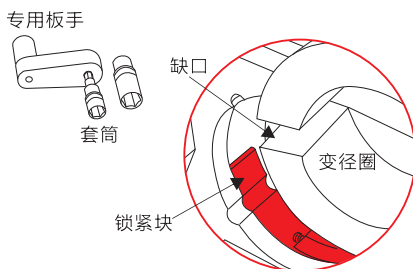
2-8

雕刻机（修边机）安装

根据雕刻机（修边机）的型号选择合适的变径圈(3-1)，把变径圈放到主体内，主体上的锁紧块压在变径圈开口的一端(3-2)，用扳手连接小号套筒在锁紧块连接螺丝上旋转，稍为固定变径圈。

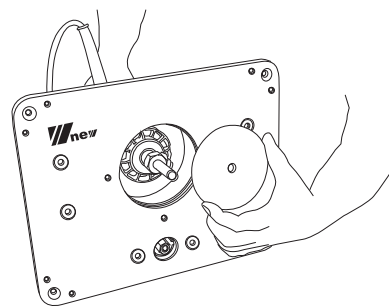
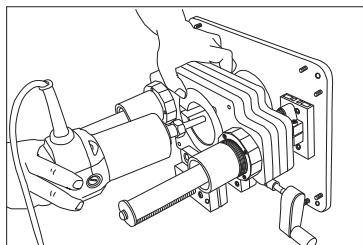


3-1



3-2

把定位杆（6.35转10）装到修边机上固定好，再把修边机装到变径圈内(3-3)，把内径为10mm的盖板装到主体面板上(3-4)。

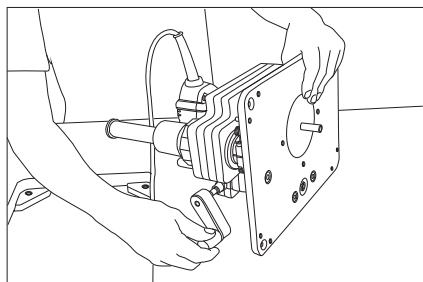


3-3

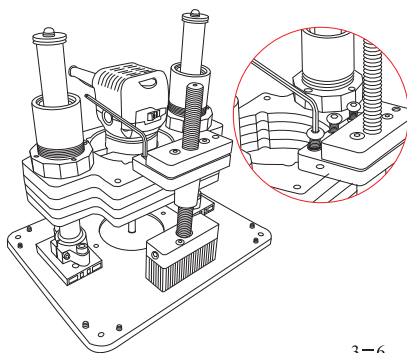
3-4

定位杆从盖板中孔穿出，调节盖板平整后用扳手锁紧压板螺丝，固定好变径圈和修边机(3-5)。

假如在安装时因为电机外径尺寸有所区别，导致定位杆与盖板中孔有点误差则需进行调整，调整方法如下：先放松连接块上的三颗螺丝(3-6)。

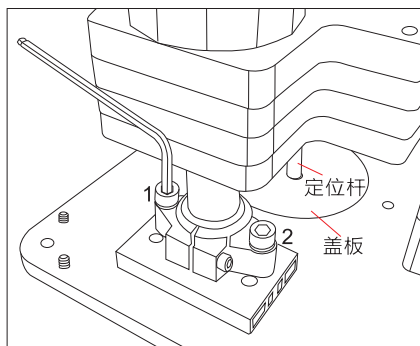


3-5

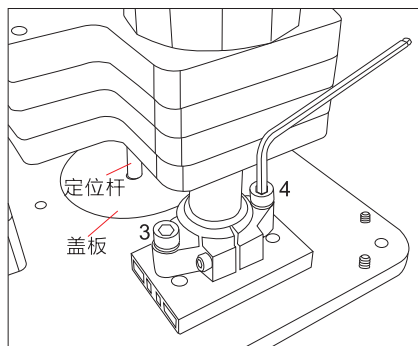


3-6

再拧松光轴轴承座上的螺丝(3-7)，两个轴承座上各有两颗螺丝(3-8)，轻微调节轴承座位置，使定位杆对准盖板的中孔。

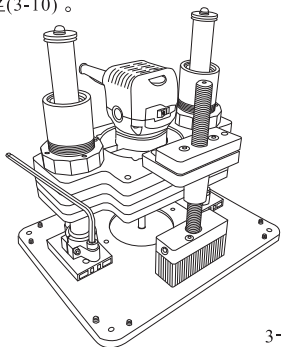


3-7

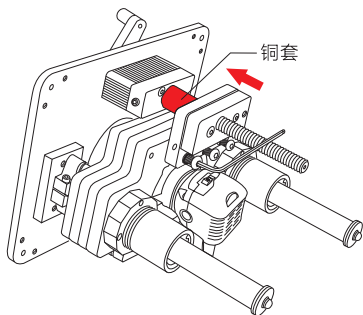


3-8

调整完成后把两个轴承座螺丝锁紧(3-9)，把整体转个方向，旋转升降把铜套降到底，再锁紧丝杆连接块螺丝(3-10)。

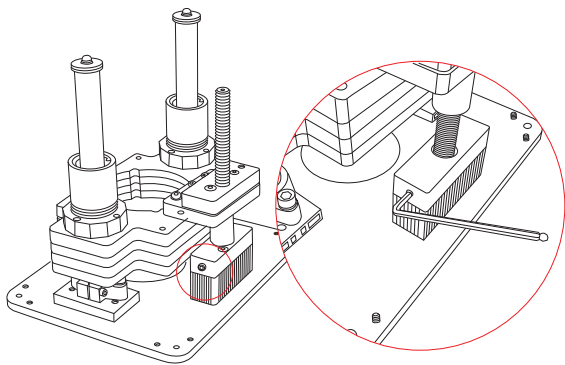


3-9



3-10

丝杆座上有一颗螺丝，图(3-11)中红圈所示，螺丝内部结构如图(3-12)，用于调节电机共振，拧紧可防止因共振引起的电机下沉。



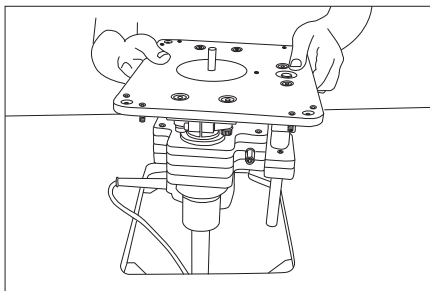
3-11

内部结构：

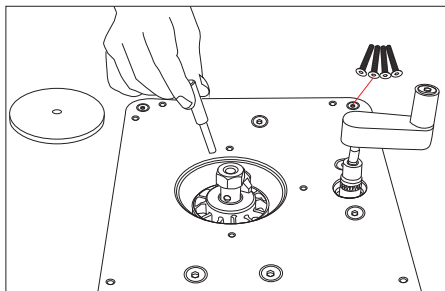


3-12

修边机安装好后把整体放到倒装孔内(3-13)，放平后，用内六角螺丝把面板固定在垫角上用扳手连接大号套筒旋转面板上的调节螺丝升起修边机，取下盖板，然后把定位杆也取下(3-14)。

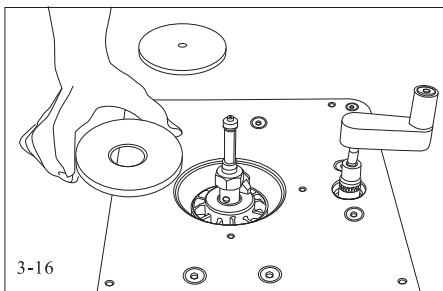
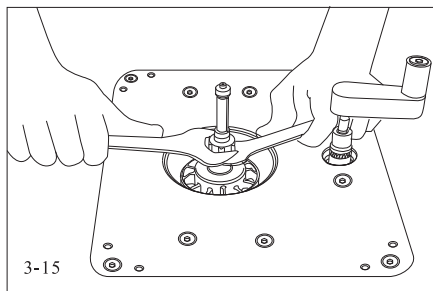


3-13



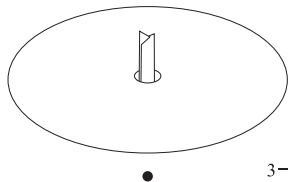
3-14

换上需要的铣刀，并用板手锁紧(3-15)，盖上合适的盖板，通过板手调节铣刀的高度(3-16)，修边机安装完成。

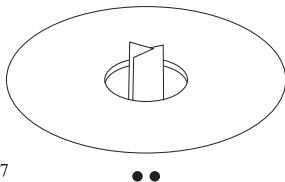


根据铣刀的大小选择合适的盖板，有3块盖板可供选择(3-17)。盖板内孔应稍大于铣刀宽度(例如盖板内孔为10mm，铣刀宽度应小于或等于8mm)

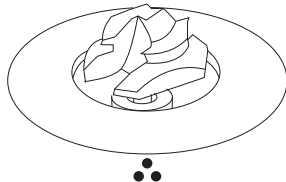
盖板内孔 $\Phi 10\text{mm}$



轴套专用盖板
内孔 $\Phi 31.7\text{mm}$



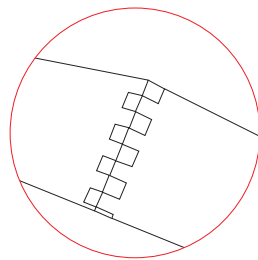
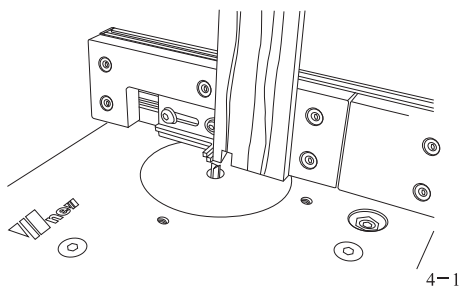
盖板内孔 $\Phi 51\text{mm}$



3-17

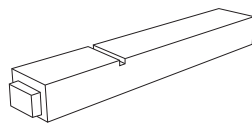
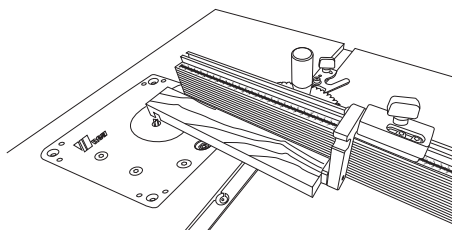
倒装升降的使用

结合开榫靠山(需另购)并通过机器的升降可以对不同厚度的木料进行开榫制作(4-1)。



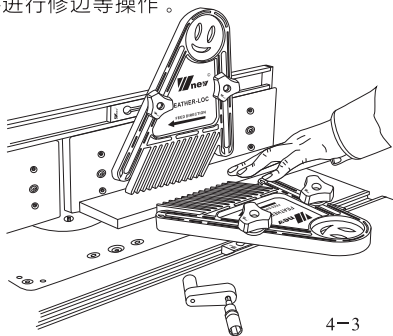
4-1

结合推把(需另购)并通过机器的升降可以对木料进行开槽、开榫头等制作(4-2)。

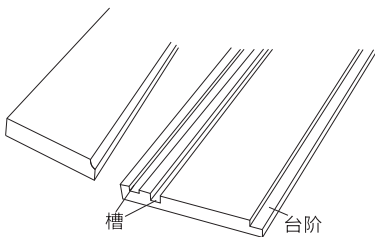


4-2

结合靠山(需另购)并通过机器的升降(4-3)可以对木料开不同深度、宽度的槽和台阶(4-4),以及对木料进行修边等操作。

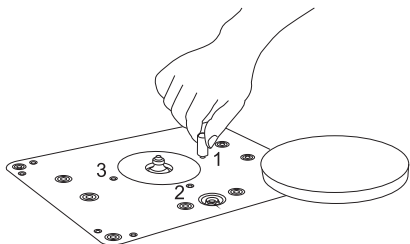


4-3

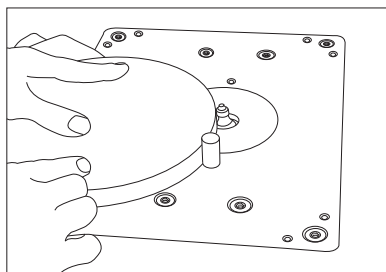


4-4

把白色的圆形倒角件拧在面板的螺丝孔上, 面板上共有3个螺丝孔(4-5), 可按需选择合适的孔位, 圆形的木板靠在圆形倒角件和铣刀的轴承上(4-6), 对圆形木板进行修边操作, 安全稳定, 线条流畅。



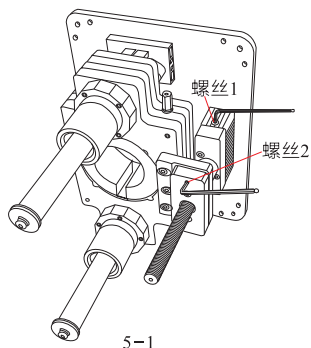
4-5



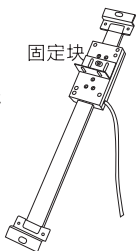
4-6

安装数显 (需另购)

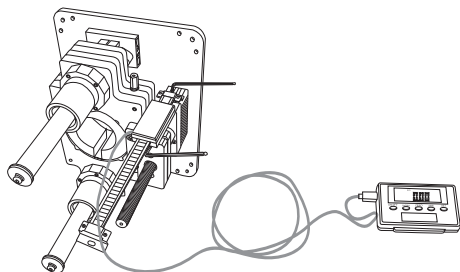
升降系统上可安装数显, 拧开丝杆底座上的螺丝1, 拧松丝杆连接块上的螺丝2(5-1), 数显滑动杆上有固定块如图(5-2)所示, 滑动数显杆调整合适距离, 把固定块插入连接块中间, 滑杆的端头安装到丝杆的底座上, 并把螺丝拧紧即可(5-3)。



5-1



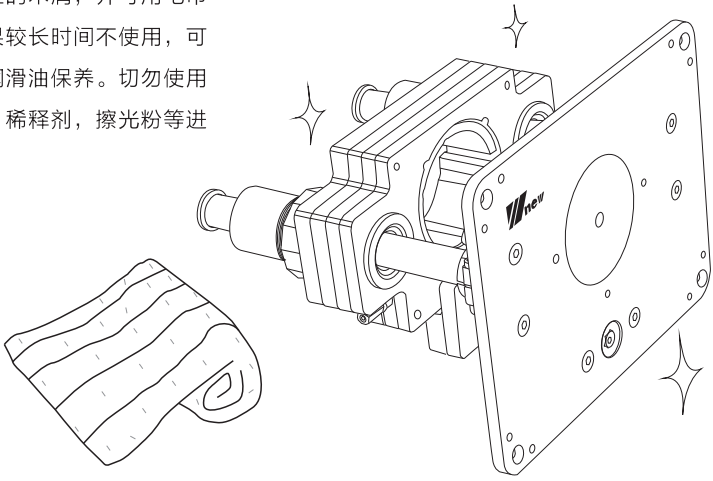
5-2



5-3

工具保养

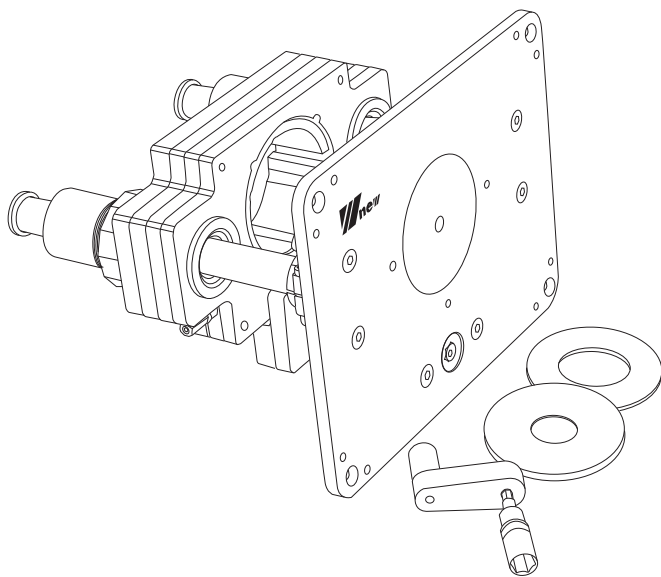
保养方法：工作结束以后，清理干净升降部件上的木屑，并可用毛巾进行擦拭。如果较长时间不使用，可在轴套上加点润滑油保养。切勿使用挥发油，汽油，稀释剂，擦光粉等进行清洗。





Inverted Lifting System of Engraving Machine

User Manual



Preface

Thank you for choosing inverted lifting system of engraving machine. The product can serve many years if used according to this manual. The parameters, drawings and pictures in the manual only represent the current status of the tool. We will continue to improve and upgrade. Please forgive us for not informing each upgrading.

Safety Warning

Before using the tools, please wear protective glasses and masks to prevent foreign matters from entering the eyes and lungs. Please keep alert and control of tools at all times! Please pay attention to your operation and knowledge! Do not operate tools when tired or after drinking. Please keep and refer to this manual frequently.

CATALOGUE

Component	13
Parameters	14
Making Method Of Inverted Table	15-16
Assembly Of Inverted System	16-17
Engraving Machine (Trimming Machine) Installation	17-20
Inverted Lifting Use	20-21
Installation of the digital display	21
Tool Maintenance	Back cover

Component

◎The main components include

A:Main body

B:reducer ring (4 kinds, optional)

C:Cover plate (3 pieces)

D:Special spanner (2 sizes)

E:Round chamfered parts

F:Positioning bar(2 pieces)

G:Template (optional)

H:Double bearing trimming cutter (optional)

I:Pad angle (quantity:4, optional)

J:Self tapping screws (quantity:some)

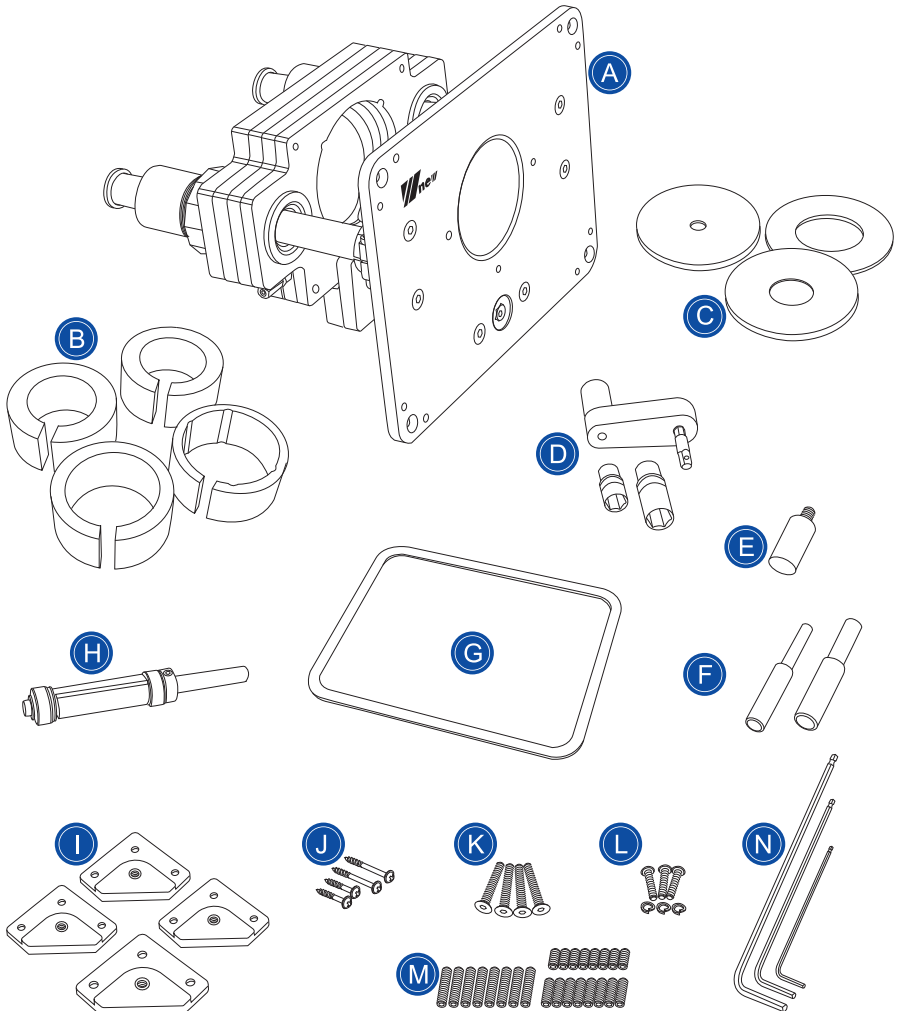
K:Hexagon socket screws (quantity:4)

L:Screw + spring washer (3 sets)

M:Thimble (3 groups)

N:Hexagon wrench (3 pieces)

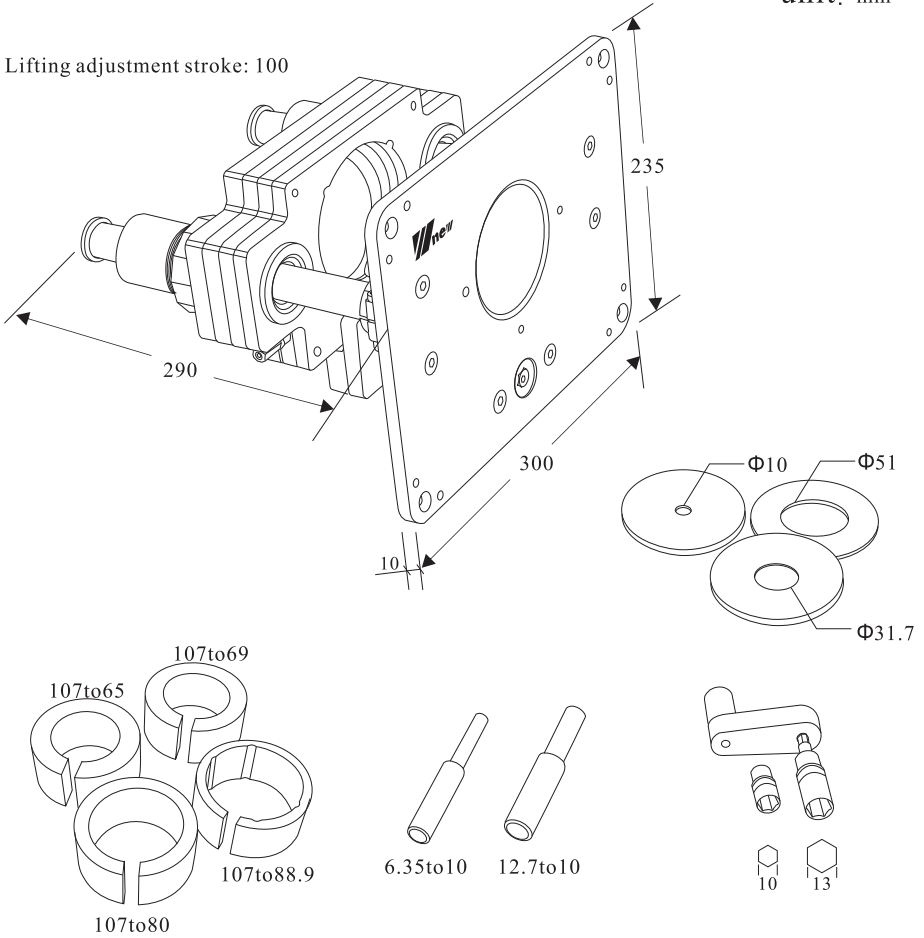
The specific quantity is subject to the package purchase. Template, pad angle and bearing cutter are not included in the standard configuration.



Product Parameters

unit: mm

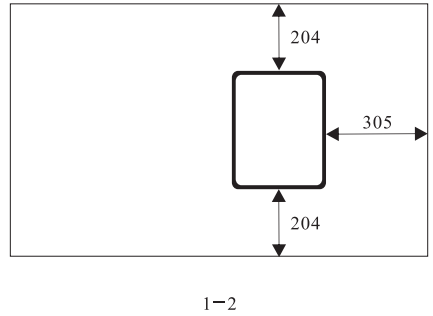
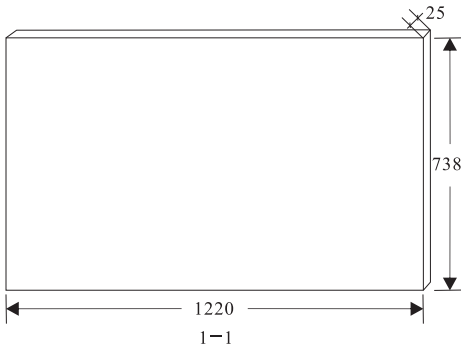
Lifting adjustment stroke: 100



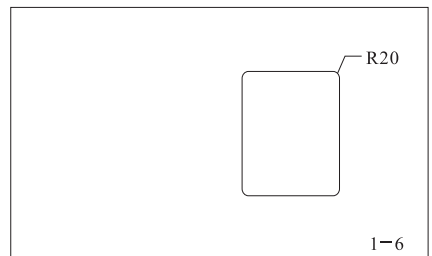
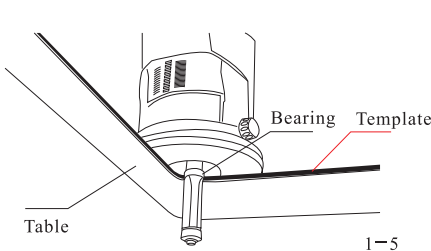
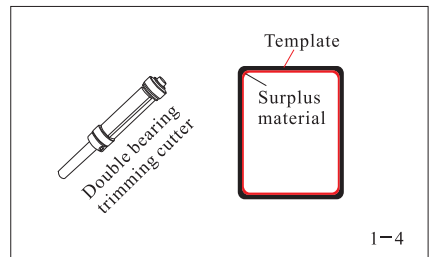
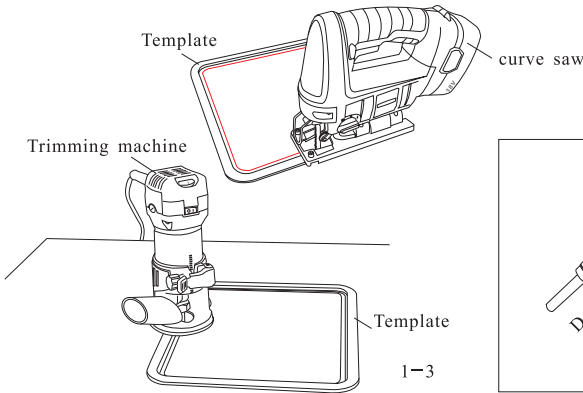
Reducer ring	Applicable Model	Size(Inside Diameter)
107(No reducing ring)	PORTER-CABLE7518、7519	107mm
107to65	PORTER-CABLE7518、7519、MakitaRT0700C、POWER ACTION、Dongcheng trimming machine	107-65mm
107to69	PORTER-CABLE7518、7519、DEWALT DWP611、DEWALT DCW600	107-69mm
107to80	PORTER-CABLE7518、7519、Air cooled motor + frequency converter (round)	107-80mm
107to88.9	EPORER-CABLE7518、7519、DEVON1316-1、BOSCH1617、DEWALT618、PORTER-CABLE690、PORTER-CABL890	107-88,9mm

Making Method Of Inverted Table

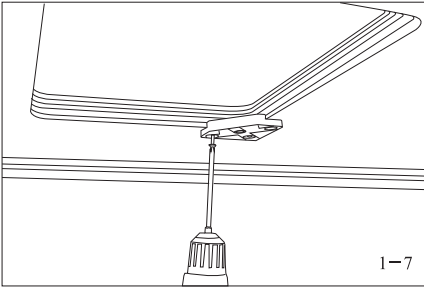
Prepare a working table with a thickness of more than 25mm before inverting. The material can be density board, multi-layer board and so on. Take the size of 1220x738mm as an example (Figure 1-1). Put the open-hole template on it, and the size is as shown in the figure (1-2). Tear off the back glue protection film after confirming the position, and stick the template on the table.



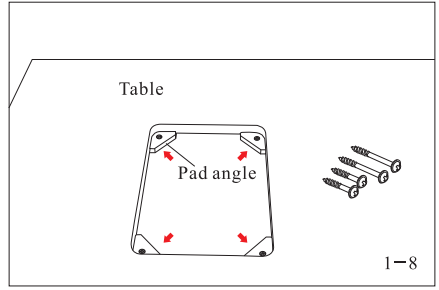
Use the curve saw (self provided) or trimming machine (with shaft sleeve) to open holes along the inner ring of the template (Figure 1-3). The trimming machine needs cutting feed for many times until the board in the middle of the template is milled out. The opened hole is still a little distance from the inner ring of the template, and then use the trimming machine and double bearing trimming cutter to mill off the surplus wood (Figure 1-4), and lean the bearing on the template (Figure 1-5), so that the hole is consistent with the inner ring of the template. Remove the template after milling (Figure 1-6).



Place the pad angle on the bottom of the table and on the four corners of the hole, fix the pad angle with self tapping screw (Figure 1-7) , and fix all four pad corners (Figure 1-8) .



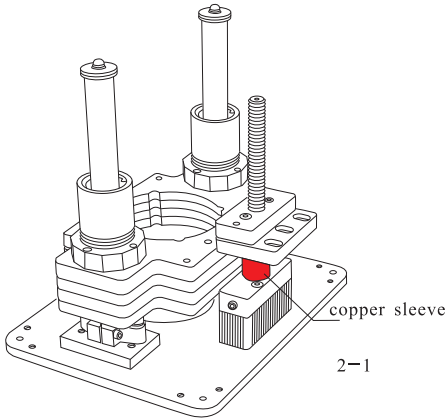
1-7



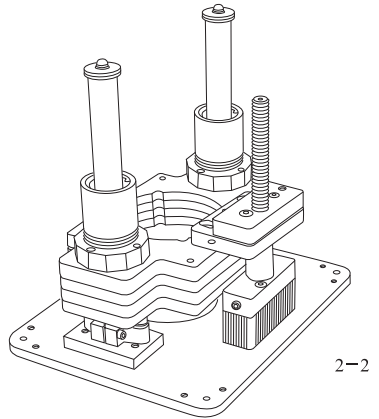
1-8

Assembly Of Inverted System

Rotate the connecting block on the screw rod to make the copper sleeve to the bottom(Figure 2-1), so that the mounting hole corresponds to the screw hole on the main body(figure 2-2).

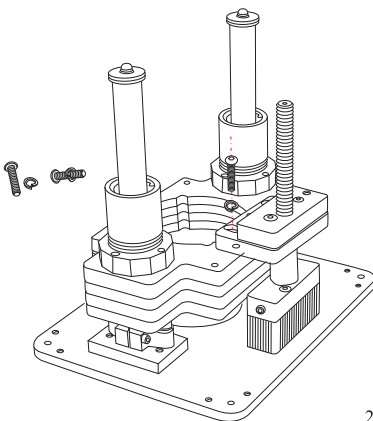


2-1

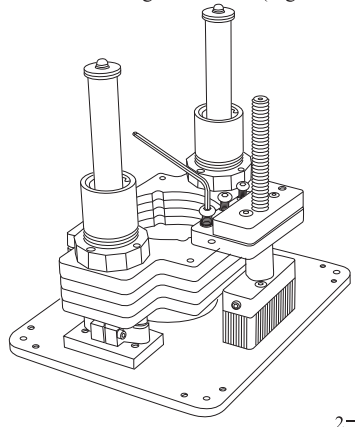


2-2

The screw passes through the spring washer (Figure 2-3), and then through the connecting block to the main body. After the three screws are matched, tighten the screws with a hexagonal wrench(Figure 2-4).

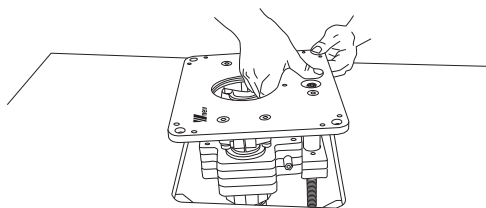


2-3

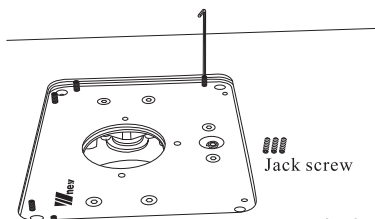


2-4

Put the main panel upward into the inverted hole (Figure2-5). According to the thickness of the table, select a group of suitable jack screws, screw them into the four corners of the panel, two jack screws in each corner, and adjust the jack screw with a hexagonal spanner to make the panel and the table level (Figure2-6).

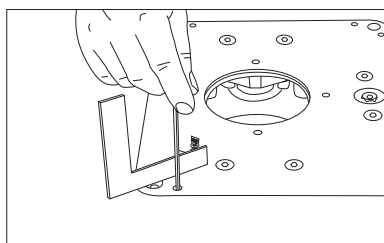


2-5

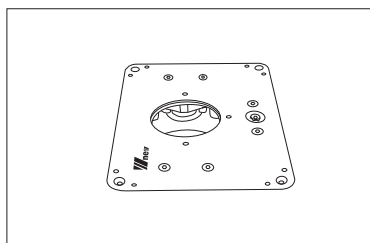


2-6

During adjustment, square ruler can be used to measure the flatness between the main panel and the table (Figure 2-7), and adjust them to the level (as shown in the figure 2-8).



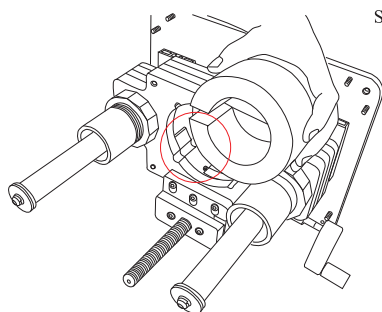
2-7



2-8

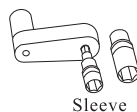
Engraving Machine (Trimming Machine) Installation

Select the appropriate reducing ring according to the model of engraving machine (trimming machine) (Figure 3-1), put the reducing ring into the main body, press the locking block on one end of the opening of the reducing ring (Figure 3-2), connect the small sleeve with the spanner, rotate on the connecting screw of the locking block, and fix the reducing ring slightly.

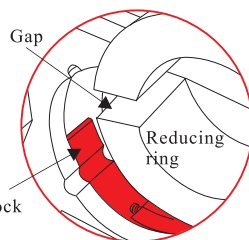


3-1

Special spanner



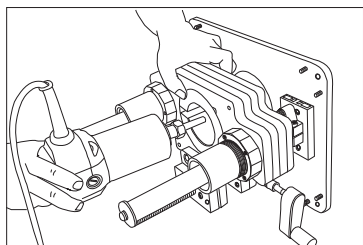
Sleeve



Locking block

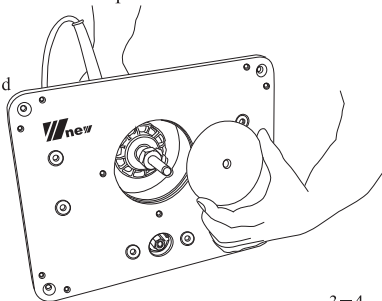
3-2

Fix the positioning rod (6.35 rotate to 10) on the trimming machine, then install the trimming machine inside the reducing ring (Figure 3-3), and then install the cover plate with an inner diameter of 10mm on the main panel (Figure 3-4).



Positioning rod

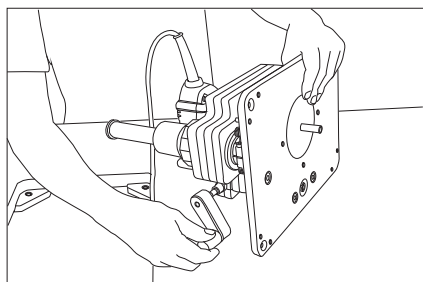
3-3



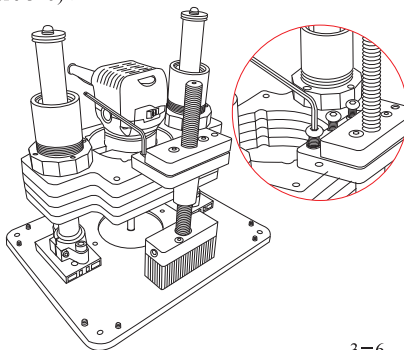
3-4

The positioning rod goes through the middle hole of the cover plate. Lock the screw of pressing plate with spanner after adjusting the flat cover plate, and fix the reducer ring and trimming machine (Figure 3-5).

If there is a little bit of error between the positioning rod and the hole in the cover plate due to the difference in the outer diameter of the motor during installation, the adjustment method is as follows: first loosen the three screws on the connecting block (Figure 3-6).

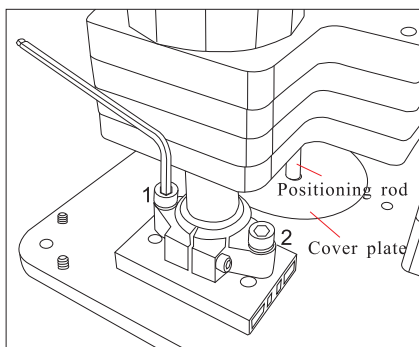


3-5

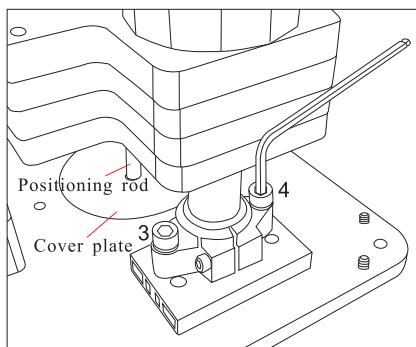


3-6

Then loosen the screws on the bearing seat of the optic axis (Figure 3-7). There are two screws on each of the two bearing seats (Figure 3-8). Adjust the position of the bearing seat slightly, so that the positioning rod is aligned with the middle hole of the cover plate.

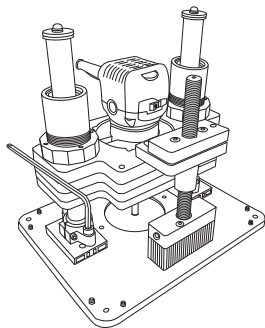


3-7

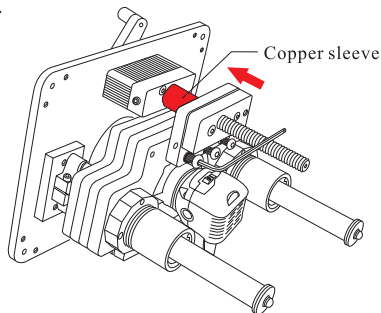


3-8

Lock the screws of the two bearing seat after the adjustment is completed, (Figure 3-9), turn the whole in one direction, rotate the lifting to lower the copper sleeve to the bottom, and then lock the screw connecting block of the screw rod (Figure 3-10).

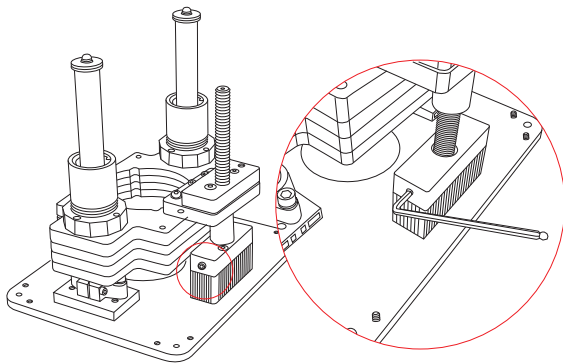


3-9

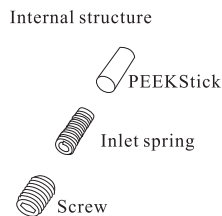


3-10

There is a screw on the screw base, as shown in the red circle in the figure3-11, and the internal structure of the screw is as shown in the figure3-12, which is used to adjust the resonance of the motor. Tightening can prevent the motor from sinking due to resonance.

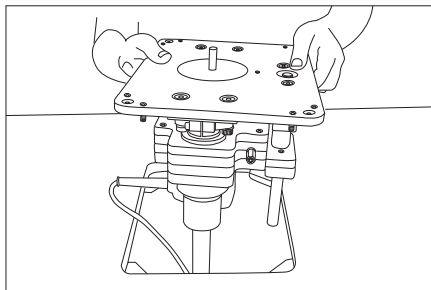


3-11

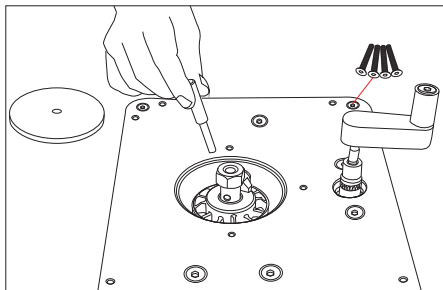


3-12

Put the whole machine into the inverted installation hole after finishing the trimming machine installation(Figure3-13), and then put it flat, and fix the panel on the corner pad with the hexagon screw, and connect the large sleeve with the spanner, rotate the adjusting screw on the panel to lift the trimming machine, and remove the cover plate, and then take down the positioning rod (Figure3-14).

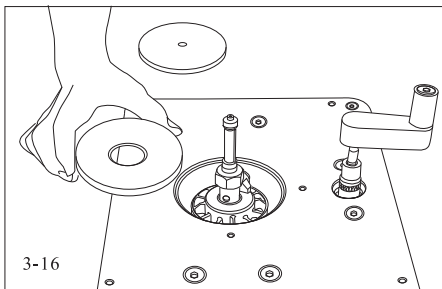
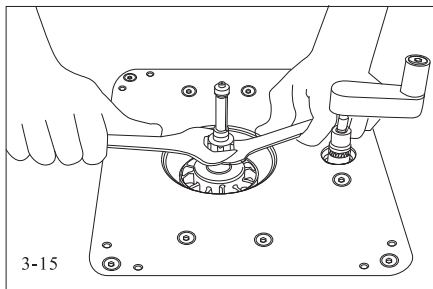


3-13



3-14

Replace the required milling cutter, and lock it with the spanner (Figure3-15), then cover the appropriate cover plate, then adjust the height of the milling cutter by the spanner(Figure3-16), and finish the installation of the trimming machine.

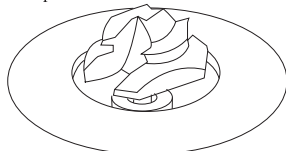
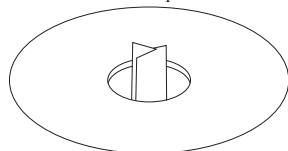
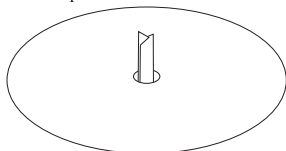


Select the appropriate cover plate according to the size of the milling cutter. There are 3 cover plates for your choice (Figure3-17). The inner hole of the cover plate should be slightly larger than the width of the milling cutter (for example, if the inner hole of the cover plate is 10mm, the width of the milling cutter should be less than or equal to 8mm)

Inner hole of cover plate Φ 10mm

Special cover plate for shaft sleeve
Inner hole of cover plate Φ 31.7mm

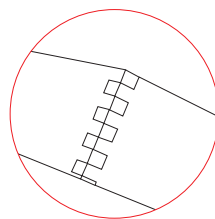
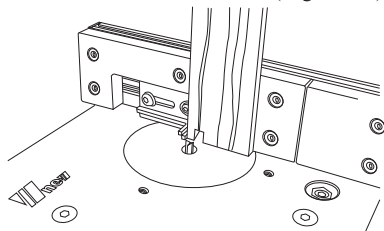
The inner hole of the cover plate Φ 51mm



3-17

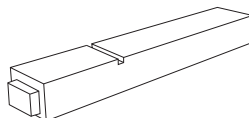
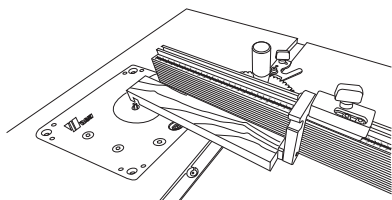
Inverted Lifting Use

Combine the tenoning (to be purchased separately) with lifting of the machine, the wood with different thickness can be tenoned(Figure4-1).



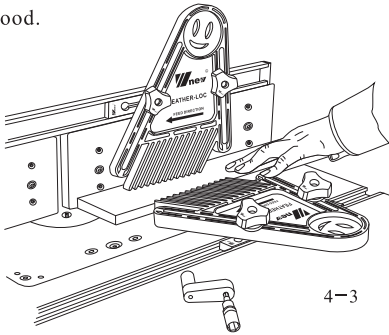
4-1

Combine the push handle (to be purchased separately) with the lifting of the machine, the wood can be slotted and tenoned (Figure4-2).

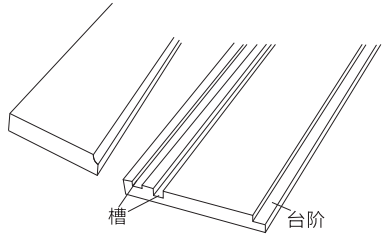


4-2

Combine the tenoning (to be purchased separately) with the lifting of the machine (Figure4-3), this is used to slot different depth and width of groove and step on the wood(Figure4-4), and trim on the wood.

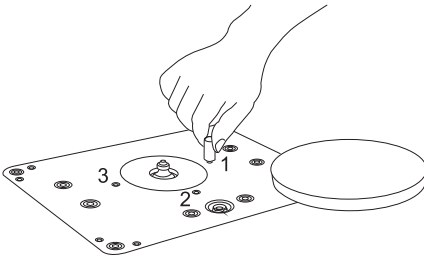


4-3

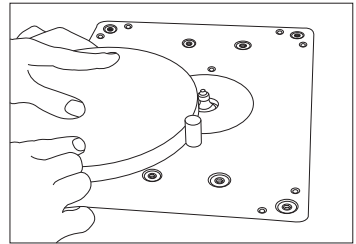


4-4

Screw the white round chamfer part on the screw hole of the panel. There are 3 screw holes on the panel(Figure4-5), and select the appropriate hole position according to the need, and then lean the round board against the round chamfer part and the bearing of the milling cutter (Figure4-6), and trim on the round board, which is safe and stable with smooth lines.



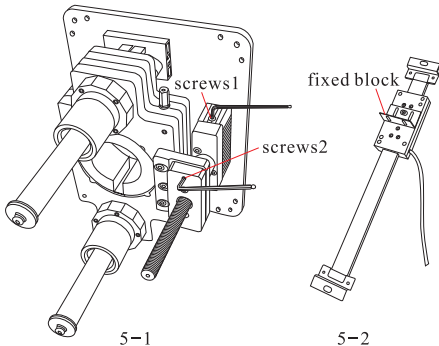
4-5



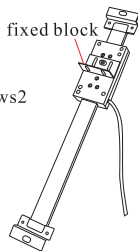
4-6

Installation of the digital display (to be purchased separately)

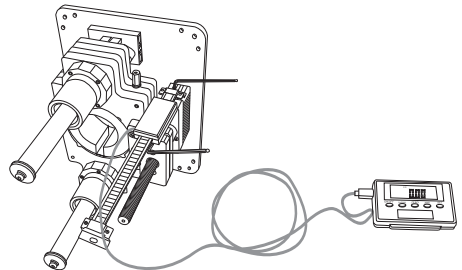
The digital display can be installed on the lifting system. Unscrew the screw 1 on the screw base and loosen the screw 2 on the screw connection block (Figure5-1). There is a fixed block on the sliding rod of the digital display (as shown in Figure 5-2), slide the digital display rod to adjust the appropriate distance, insert the fixed block into the middle of the connecting block, install the end of the slide rod on the screw base, and tighten the screw (Figure5-3).



5-1



5-2



5-3

Tool Maintenance

Maintenance method: after the work, clean the sawdust on the lifting parts and wipe it with towel. If it is not used for a long time, a little anti rust oil can be applied on the shaft sleeve for maintenance. Do not use volatile oil, gasoline, diluent, or polishing powder for cleaning.

