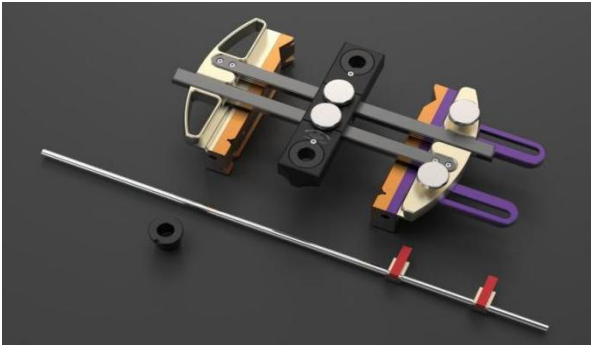




# Bridge City DJ-3 Universal Drilling Jig



*Quality is Contagious*

BRIDGE CITY TOOL WORKS

**English Version**

# **Congratulations on your new DJ-3 Drilling Jig!**

## **READ FIRST**

This manual is designed to provide you with a better understanding of your new drilling jig, how to operate and maintain it.

Please read the manual carefully. The manual also includes our warranty and important safety information. As with all tools, please ensure to take all necessary safety precautions to prevent any accidents! Always remember, safety first!

## **SAFETY FIRST**

When working with the DJ-3 Drilling Jig always remember to:

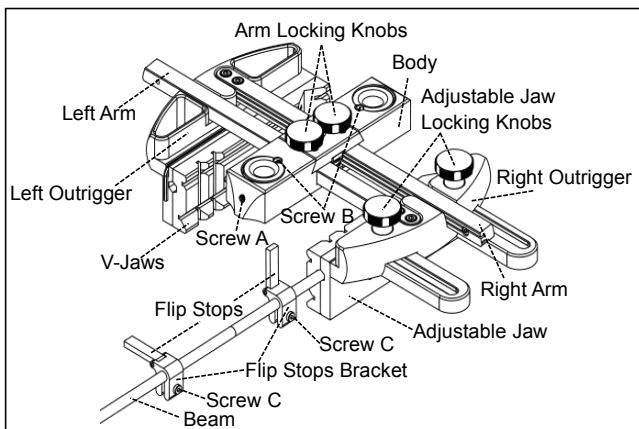
- Ensure that everything is properly secured before drilling
- Wear eye protection when drilling
- Work in a clean and safe environment
- Maintain your tools!

## Overview

You will soon learn that the DJ-3 Universal Drilling Jig can easily be thought of as a drill press in a box. It offers a legitimate answer to the drilling needs of many customers without the hassles of complex fixtures and intricate setups.

However, the DJ-3 Universal Drilling Jig is meant to be used in conjunction with a powered hand drill, a palm brace, or eggbeater-style hand drill. Drill and drill bits are **NOT INCLUDED** with the DJ-3 Drilling Jig, so please ensure that you have all the proper tools necessary for the task.

In order to drill holes accurately and safely, having your workpiece in a vice or clamped to a sturdy bench is strongly recommended. The DJ-3 can then be clamped to your material with an appropriately sized clamp.



**Fig. 1 Nomenclature**

**Note:**

Screw A: Used for locking the bushing.

Screw B: Used for locking the bushing.

Screw C: Used for locking the flip stop brackets.

# Specifications

Description	Metric	Imperial
Overall Length when Closed	358mm	14-3/32"
Overall Height	65mm	2-9/16"
Jaw Length	124mm	4-7/8"
Jaw Height	36.7mm	1-7/16"
Bushing Spacing (Center to Center)	96mm	3-25/32"
Nose to Bushing Center	21mm	53/64"
Nose to Nose Length	138mm	5-7/16"
Bushing Minor Diameter	19mm	3/4"
Bushing Major Diameter	25mm	63/64"
Bushing Minimum Diameter	1mm	1/16"
Bushing Maximum Diameter	13mm	1/2"
Bushing Length	20mm	25/32"

**Bushing Installation on DJ-3**

**Supplied Bushing Size**

	Size	Quantity
Imperial	1/16"	1
	1/8"	1
	3/16"	1
	1/4"	2
	5/16"	1
	3/8"	2
	7/16"	1
	1/2"	2
Metric	1mm	1
	2mm	1
	3mm	1
	4mm	2
	5mm	1
	6mm	2
	7mm	1
	8mm	2
	9mm	1
	10mm	2
	11mm	1
	12mm	1
	13mm	1

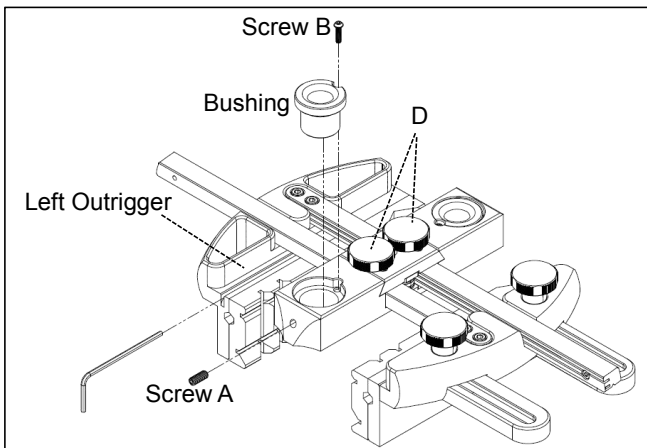
As seen in the chart above, there are an assortment of sized bushings provided with the DJ-3 Drilling Jig. Please choose the appropriate bushing and corresponding drill bit to ensure the accurate results.

Install the bushings as following steps (Fig. 2):

- 1) To install the bushing, start by extracting the hex wrench that is magnetically stored within the left outrigger body.
- 2) Using the hex wrench, loosen the two screws (Screw A) on the both ends of the DJ-3 body. Then remove the two screws (Screw B) at the top of the DJ-3 body. Set these screws safely aside for now.
- 3) Insert the desired bushing into the Drilling Jig Body. Make sure to align the notches in the bushing with the body.
- 4) Reinstall both Screw B and Screw A, and tighten properly.

**Note:** In the below illustration (Fig. 2), only one Screw A and Screw B are shown for simplicity purposes. There is one more Screw A and B on the mirrored side of the DJ-3 body.





**Fig. 2**

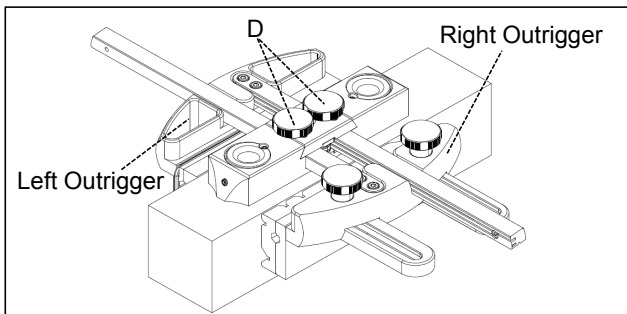
### **Positioning the DJ-3**

**When setting up the DJ-3, it can be utilized in two (2) drilling configurations: Centered and Off-Centered drilling. Please refer to the appropriate sections for setting up the DJ-3 accordingly.**

#### **1. Centering the DJ-3 (Fig. 3)**

Start off by clamping the stock to a bench or in a vise. Loosen the Arm Locking Knobs (D) and pull the left and right outriggers jaws (champagne colour) apart (the distance of the jaws must be larger than the width of the stock).

As shown in Fig. 3, position the drilling jig on top of the stock and close the outriggers jaws so that the jaws make contact with both faces of the stock. Once positioned into place, tighten the Arm Locking Knob (D) to set the position. The drilling jig should be precisely centered with the stock and ready to be drilled.



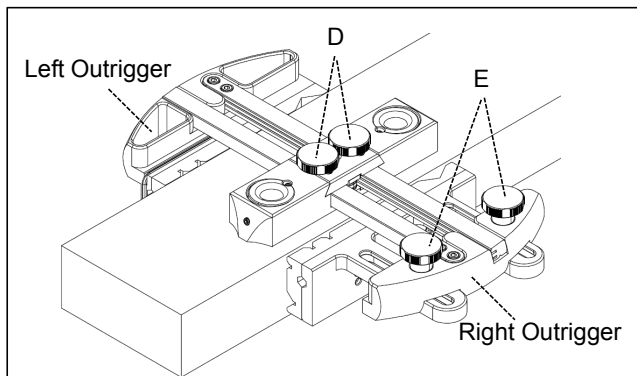
**Fig. 3**

## **2. Off Centering (Fig. 4)**

Similar to centered drilling, start off by clamping the stock to a bench or in a vise. Loosen the Arm Locking Knobs (D) and pull the left and right outriggers jaws (champagne colour) apart (the distance of the jaws must be larger than the width of the stock).

To set the offset, loosen the Adjustable Jaw Lock Knobs (E). From there, you can slide the Adjustable Jaw to the desired position. There

are laser etched graduations on the bottom of the Adjustable Jaw to make setting the offset amount easier. When you have achieved the desired offset position, tighten the Adjustable Jaw Lock Knob (E) to hold it in that position. Then you can close the outrigger's jaws, and hold them against both faces of your stock. From there, lock the Arm Locking Knob (D) to lock the position of the arms. You can now accurately drill holes up to 60mm from the center of your workpiece.

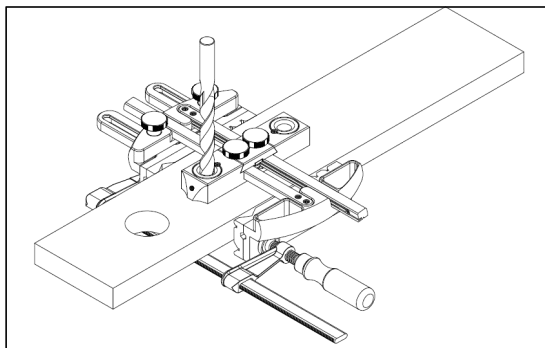


**Fig. 4**

### **Drilling with the DJ-3**

A woodworking vise or small bar clamp works well with the DJ-3 Drilling Jig, as shown in Fig.5. In order to get accurate, consistent holes, follow these steps:

- 1) Before drilling, you should already have installed the appropriate bushings, and chosen the corresponding drill bit. If not, refer to the previous section and install the bushings first before proceeding.
- 2) As mentioned in the previous section, position the DJ-3 over your stock and close the outriggers jaws. You will want the jaws to be against both faces of your stock, as shown above in Fig. 2 & 3.
- 3) Once the DJ-3 is correctly positioned, lock the Arm Locking Knobs (D) to lock the arms.
- 4) Drill your hole with any style hand drill. It is strongly recommended that you put your workpiece in a vise to ensure drilling stability.

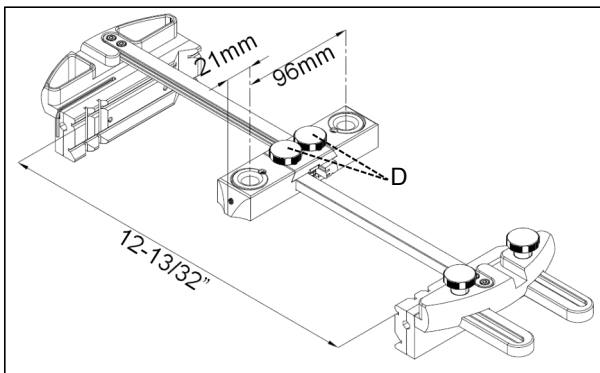


**Fig. 5**

### **Tips for Using DJ-3 Drilling Jig:**

- **[IMPORTANT]** The drill bushings are designed to lock into the body, preventing the bushings from binding to the drill bit if the chip load becomes too large. When drilling deep holes, it is highly recommended to use “**peck drilling**”. This means that you should drill a little, clear the chips, drill a little more, clear the chips, etc...
- As seen in Fig. 6 (below), the bushings are spaced 96mm apart, center-to-center. This means it's very easy to utilize the European 32mm system.

- The maximum width of stock that DJ-3 Universal Drilling Jig can accommodate is 12-13/32" (315mm).
- For drilling into stock narrower than the DJ-3 body, use the end of the DJ-3 as a reference for your hole. The center of the bushings are each 21mm from each end of the DJ-3.
- When drilling with the DJ-3, always secure the Arm Locking Knobs (D). This is to ensure proper hold and accuracy!



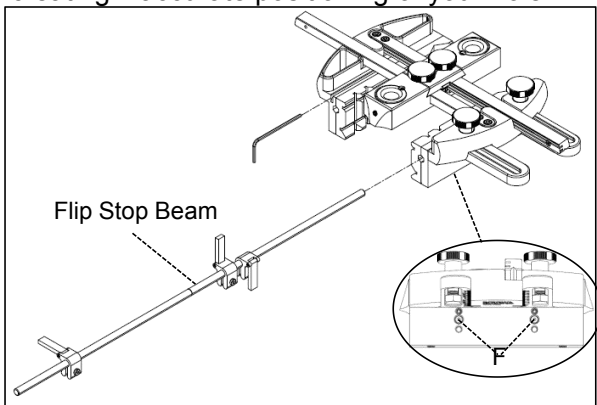
**Fig. 6**

## **Flip Stops (Fig.7)**

The flip stops are utilized when repeatability is needed. To set up the flip stop, loosen the two set screws (F) and insert the Flip Stop Beam into the slot behind the orange V-Jaw. Position the Beam where you need it and tighten the set screws (F) with a 2mm hex wrench. Do not overtighten the screws (F). Doing so will distort the V-Jaw, creating inaccurate results while damaging the tool as well.

### **Note:**

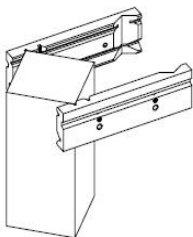
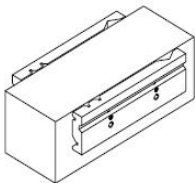
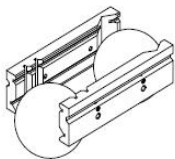
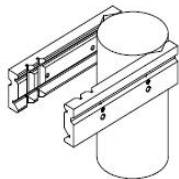
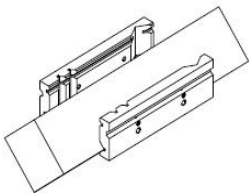
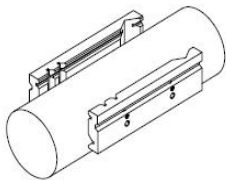
When butting the stock up against the Flip Stops, one must be careful to maintain straightness of the Beam. Butting the stock too firmly into the Flip Stops could flex the Beam, creating inaccurate positioning of your hole.



**Fig.7**

## **V-Jaws**

The V-Jaws can securely hold many different shapes. Below are some examples. For clarity purposes, only the Jaws and stock material are shown.





## **Optional Accessories**

We offer a DJ-3 Universal Drilling Jig Jaw Kit to be used with the DJ-3. With this optional kit, the DJ-3 provides unparalleled drilling capabilities.

To learn more about these accessories, please visit our website at <https://bridgecitytools.com/>

## **Care and Maintenance**

The DJ-3 should be cleaned after every use. To clean, wipe the tool with a damp cloth.

Periodically, apply a small amount of lubricant to the pulleys to ensure smooth operation. It is recommended to use a light lubricant, such as WD-40 or light machine oil for best results.



中文版本

# 恭喜您购买了 **DJ-3** 万能钻模!

## 使用前须知

此操作手册旨在让您更好地了解 **DJ-3** 万能钻模，以及如何进行操作和维护。

请仔细阅读操作手册。该手册还包含我们的保修和重要的安全信息。与所有工具一样，请确保采取所有必要的安全措施，以防止事故的发生！

## 安全注意事项

使用 **DJ-3** 钻模时，请遵守以下安全事项：

- 钻孔前确保所有部件都已固定到位。
- 钻孔时穿戴眼部保护装备。
- 在整洁和安全的环境中进行操作。
- 定期对工具进行维护。

## 概述

**DJ-3** 万能钻模可以称作是“一个在盒子里的台钻”。它为用户多样的钻孔需求提供了最合理的解决方案，并且无需复杂的夹具和设置。

**DJ-3** 万能钻模需配合电钻或者手摇钻使用。**DJ-3** 的标配**不包含**钻孔机和钻头，所以在进行钻孔前，请确保您已备好所需的适当工具。

要获得最准确和安全的钻孔，我们建议您将工件用虎钳夹住，或者将工件固定在工作台上，然后用合适尺寸的夹具将 **DJ-3** 夹到你的工件上。

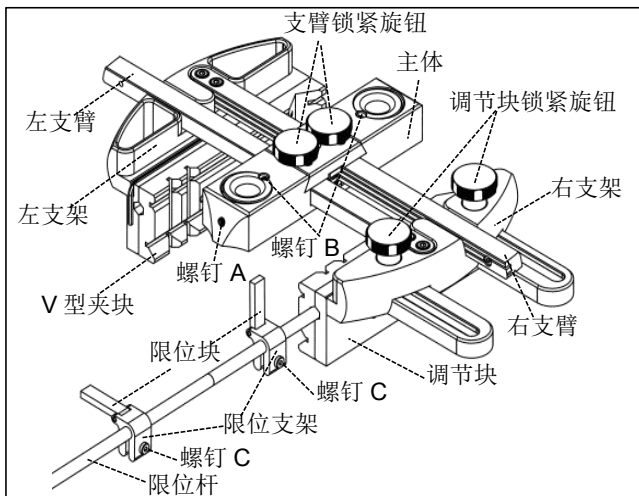


图 1 术语

**备注:**

螺钉 A: 用于钻套的锁紧。

螺钉 B: 用于钻套的固定

螺钉 C: 用于限位支架的锁紧。

# 参数

描述	公制	英制
闭合时的整体长度	358mm	14-3/32"
整体高度	65mm	2-9/16"
夹块长度	124mm	4-7/8"
夹块高度	36.7mm	1-7/16"
钻套孔间距 (中心间距离)	96mm	3-25/32"
端头至钻套中心距离	21mm	53/64"
端头至端头长度	138mm	5-7/16"
钻套下外径	19mm	3/4"
钻套上外径	25mm	63/64"
钻套最小直径	1mm	1/16"
钻套最大直径	13mm	1/2"
钻套长度	20mm	25/32"

# 安装钻套

标配钻套尺寸

	尺寸	数量
英制	1/16"	1
	1/8"	1
	3/16"	1
	1/4"	2
	5/16"	1
	3/8"	2
	7/16"	1
	1/2"	2
公制	1mm	1
	2mm	1
	3mm	1
	4mm	2
	5mm	1
	6mm	2
	7mm	1
	8mm	2
	9mm	1
	10mm	2
	11mm	1
	12mm	1
	13mm	1

如上表所示，DJ-3 钻夹具标配了多种常用尺寸的钻套，共计 28 个。为确保钻孔的精准性，请在钻孔前选取合适的钻套和对应的钻头。

### 按以下步骤安装钻套 (图 2):

1. 取出存放于左支架上的磁吸槽中的 2mm 六角扳手。用六角扳手拧松主体前后端的螺钉 A，然后移除主体顶部的螺钉 B。

2. 将所需钻套插入万能钻模本体，确保钻套上的缺口与本体上的缺口对齐。

3. 重新拧入螺钉 B 并拧紧螺钉 A。

### 备注:

在下图（图 2）中，螺钉 A 与螺钉 B 在主体前后的镜像位置各有一个，图中为阐述清晰，只展示了一个。

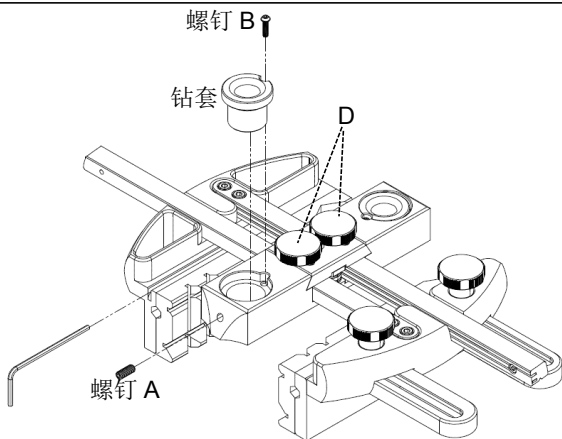


图 2



# 定位

## 1.中心定位（图3）

将工件固定，松开支臂锁紧旋钮（D）。将香槟色的左右支架向两侧拉开（拉开的距离须大于工件的宽度）。如图2所示，夹紧工件两侧的边缘，锁紧旋钮（D），即可定位工件的中心。

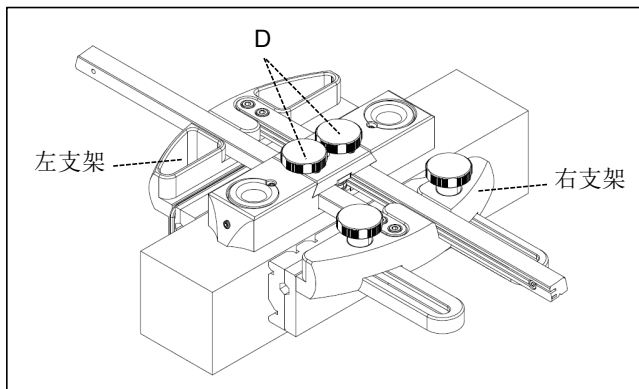


图 3

## 2.偏心定位（图4）

将工件固定，松开调节块锁紧旋钮（E），通过调节块背面的镭雕刻度，将调节块滑至所需位置后锁紧旋钮（E）。松开支臂锁紧旋钮（D），将香槟色的左右支架向两侧拉开（拉开的距离须大于工件的宽度）。如图3所示，夹紧工件两侧的边缘，锁紧旋钮（D），即可进行精准的偏心定位。

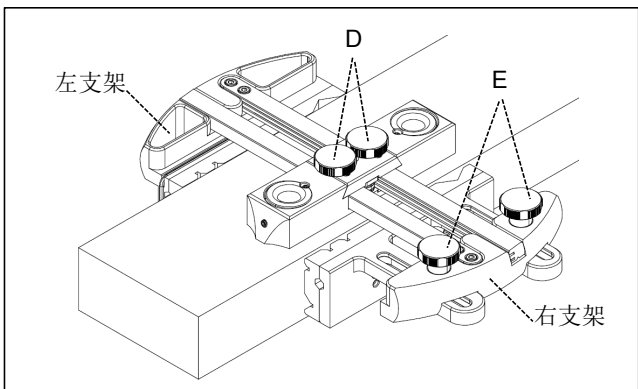


图 4

## 钻孔

万能钻模配合木工钳或者小型杆夹一起使用，可获得最佳的效果，如图 5 所示。要钻出准确一致的孔，请遵循以下步骤：

1. 钻孔前，您应该已经装好了合适的钻套，并选好了对应的钻头。如果没有，请参考钻套安装章节的说明，在继续操作之前装好钻套。

2. 根据定位章节的说明，用万能钻模将工件夹紧，如图 3 和图 4 所示。

3. 完成定位后，拧紧支臂锁紧旋钮（D），如图 3 和图 4 所示。

4. 进行钻孔，推荐用木工钳固定住夹有工件的万能钻模，增加钻孔的稳定性。

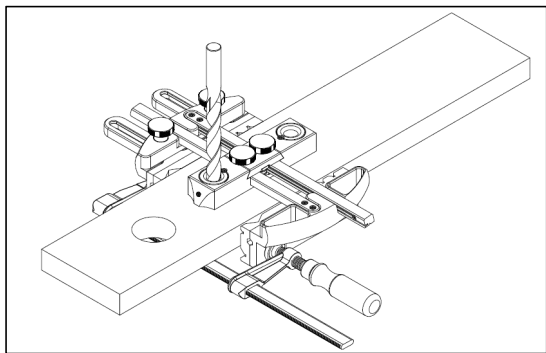


图 5

## DJ-3 的使用提示

- **[重要]** 钻套是被设计成锁定在 DJ-3 本体内的，这样可以在钻出的木屑过多时，防止钻头带动钻套。在钻深孔时，强烈建议您使用“啄钻”的方式。“啄钻”指的是，钻一段距离，立即清理木屑；再钻一段距离，再清理木屑，如此反复进行钻孔。
- 两个钻套的中心间距为 96mm，您可以非常简便的使用欧洲的 32mm 系统。
- DJ-3 支架夹持木料的最大宽度为 315mm。
- 钻模本体端部到钻套孔中线的距离为 21mm，在对窄木料钻孔时，可作为参考数值。
- 在用 DJ-3 进行钻孔时，要始终锁紧支臂锁紧旋钮(D)，这样可以确保钻孔的精准性。

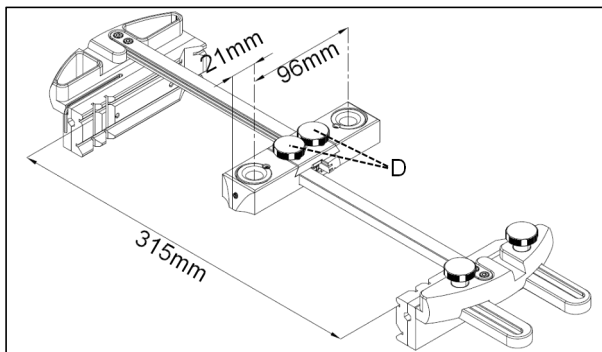


图 6

## 限位（图 7）

拧松两个固定限位杆的固定螺丝（F），将限位杆插入橙色V型夹后方的槽中。将限位杆定位在所需位置（限位杆最大限位长度为350mm），并用2mm内六角扳手拧紧固定螺丝（F）。不要过度拧紧固定螺丝（F），否则可能会使V型夹变形，从而造成精度失准或者工具损坏的情况。

### 注意：

在将木料顶住限位块时，必须保持限位杆的直线度。木料太过靠紧限位块有可能会造成限位杆变形，使孔位的定位不准确。

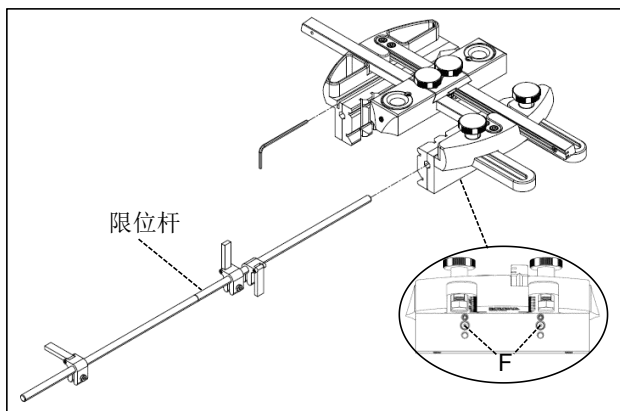
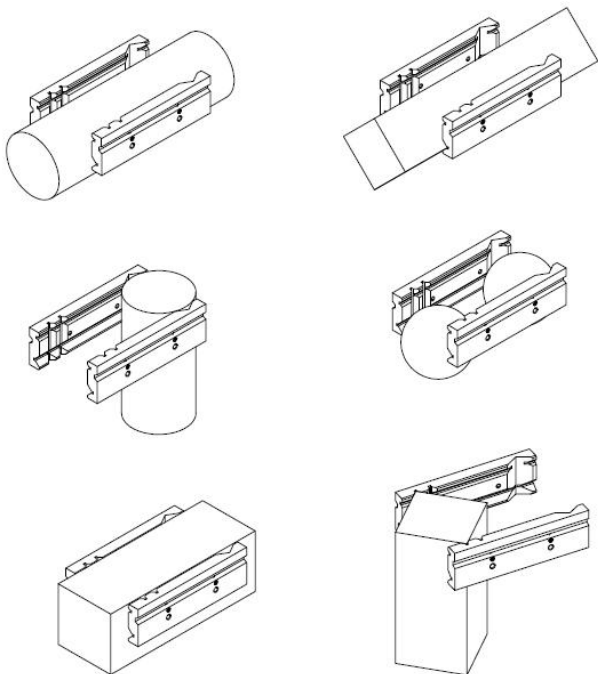


图 7

## V 型夹

V 型夹可以固定住多种形状的工件。以下是一些使用案例。为了清晰起见，图中只显示 V 型夹和木料。



## 附件

万能钻模配合专用附件进行使用，它的钻孔定位能力是无与伦比的，我们提供了一套选配附件与 **DJ-3** 万能钻模配合使用，您可根据需要自行选购。

如欲了解更多关于附件的信息，请访问我们的网站：[www.bridgcitytools.com](http://www.bridgcitytools.com)

## 保养

清洁：

使用完成后，用干净的软布擦去表面灰尘。

润滑：

定期对滚轮进行润滑（可使用 **WD40** 类的轻质润滑油）。



### **Warranty**

All returns, replacements, technical services, and support shall be handled by distributor's customer service organization.

If there is a defect on the workmanship of the tool (with no fault of the customer) within one year from the original date of purchase, please contact with the distributor's customer service organization and they will determine whether to repair or replace the tool.

### **质保**

所有退货、换货、技术服务和支持均由经销商的客户服务机构负责。

如果在原始购买日期后一年内发现工具存在工艺缺陷(客户无过), 请与经销商客户服务机构取得联系, 并由该服务机构决定是否对工具进行修理或更换。

Bridge City Tool Works  
[www.bridgcitytools.com](http://www.bridgcitytools.com)