Tooling catalog

--- For iECHO Cutting System

Hangzhou IECHO Science & Technology Co., Ltd.

Electric Oscillating Tool - EOT

The Electric Oscillating Tool is a widely applicable tool capable of processing many different materials that the drag knife is unable to process.The EOT is ideally suited for cutting softer ,medium density materials.The high oscillating frequency of the EOT makes it possible to cut at high processing speeds for superior throughput .

1. EOT Parameters：

- Blade Thickness：0.63mm、1mm、1.5mm（Customized upon request）；
- Stroke Range：1mm.　　Oscillation Frequency：15000RPM.
- Motor Power：80W

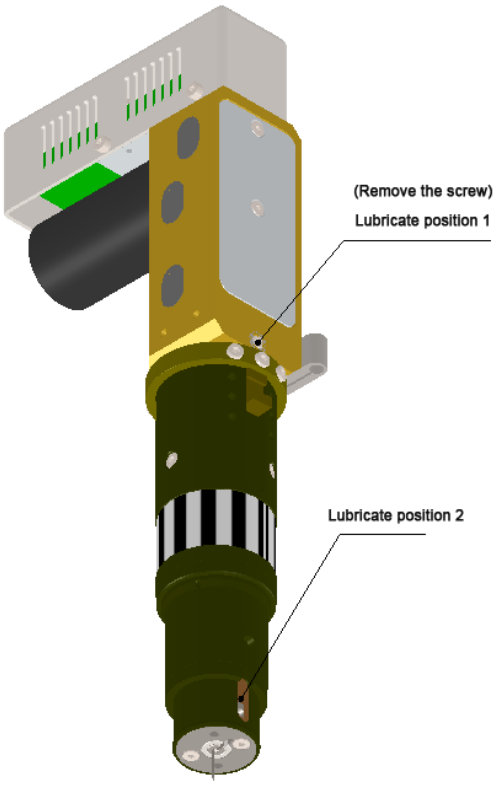
2. Applications : Sign & Graphics . Packaging . Leather goods . Composites .etc.

3. Advantages At a Glance :

- Servo motor drives blade to vibrate with high frequency to cut materials
- The EOT allows for high processing speeds.
- Robust ,durable construction designed for industrial use.
- Ideally suited for processing soft to medium-density materials.

4. Notes On Daily Use:

- Lubrication every 1-3 months of use (depends by usage), inject lubricant in Position 1. Mobil MP series is suggested as lubricant .
- Lubrication every week of use, inject lubricant in Position 2.
- Clean debris and dust everyday after work, uninstall blade, clean it and its socket.



Pneumatic Oscillating Tool -POT

The Pneumatic Oscillating Tool is an air driven tool operating at high frequency to cut materials. Stroke is adjustable up to 8mm,and is capable of cutting hard dense materials. Blade are available to permit cutting materials up to 50mm thick .

1. POT Parameters:

- Stroke range：8mm
- Frequency：Approximate 10000 rounds/min
- Blade Thickness：0.63mm、1mm、1.5mm three types,standard thickness is 1mm
- Mounting Parts：POT2 Mounting part 1、POT2 Mounting part 2. Two types of mounting parts to adapt different material thickness, they have a difference in height of 19mm.

2. **Applications : Sign & Graphics . Packaging . Leather goods . Composites .etc.**

3. Environmental requirements:

- Air supply tube：Diameter 8mm
- Minimum air pressure：0.85Mpa
- Flow usage：more than 0.6m³/min
- Air compressor：Power higher than 5.5KW，displacement cannot be lower than 0.6 m³/min，highest pressure 1.25Mpa，Minimum pressure 0.85Mpa.

❖ Suggest client to use screw compressor, together with gas tank more than 0.3cbm. Requires compressor start pressure 0.9MPa, stop pressure 1.1MPa.

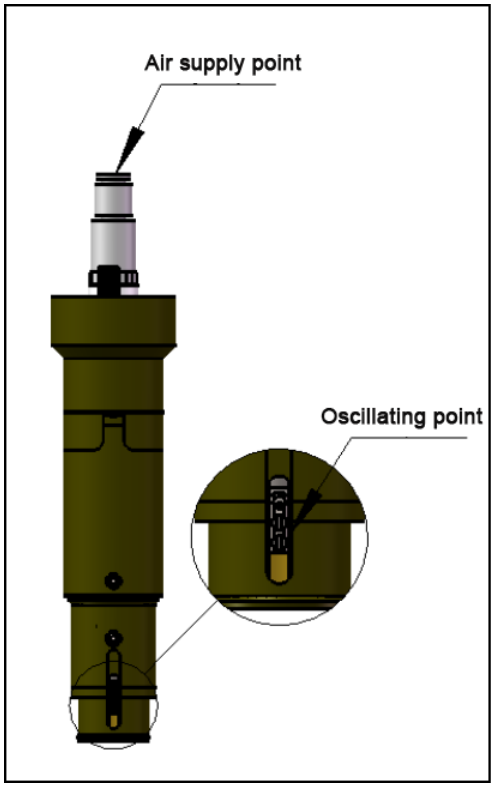
4. Notes On Daily Use

- At first time using POT should observe carefully changes on air pressure gauge. Normal cutting the gauge should read stable at 0.85MPa (+0.05MPa), as per picture shown in right side, variation should not be too much.

- First time using should observe and record level in the filter (transparent tank at bottom side as per picture right side), when the water level is higher than 60% should stop using the machine, only after empty the tank. Should check and empty it regularly in order to not damaging tools.
- When checking tool depth should test cut on a thin paper, then can test on the material, for different material has different tool lowering depth.
- When change blade first loose fixing screws, take out broken blade, clean its socket and insert new blade, then tighten screws.
- Should use proper key for screwing, in order to not damage screw.

5. Maintenance

- Every 5-7 days should put one drop of lubricant in air supply point and oscillating point, drop size as a bean.
- Clean tool everyday with soft cloth.
- Clean oscillating point with soft cloth, two parts outside of oscillating point can be disassembled carefully, can clean with a bit of lubricant. After re-installing parts, oscillation rod should able to slide up and down smoothly.



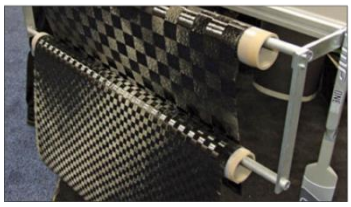
Powerful Driven Rotary Tool -PRT

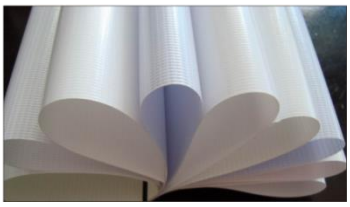
The extremely robust and powerful driven rotary tool is designed specifically for reliable, economical cutting of challenging materials.The materials that can be processed with this tool range widely ,from hard fiberglass to extremely tough aramid fibers.

1. PRT performance description:

- Blade size: Outer diameter 20mm-45mm, thickness: 0.63mm
- Blade rotating speed: up to 11000rpm
- Motor power: 150W
- Cooling air requirements: the air source should be clean, pressure should be 0.4MPA, flow should be 0.3m^3/min.

2. Applications : Apparel. Technical textiles . Leather goods . Composites .etc.





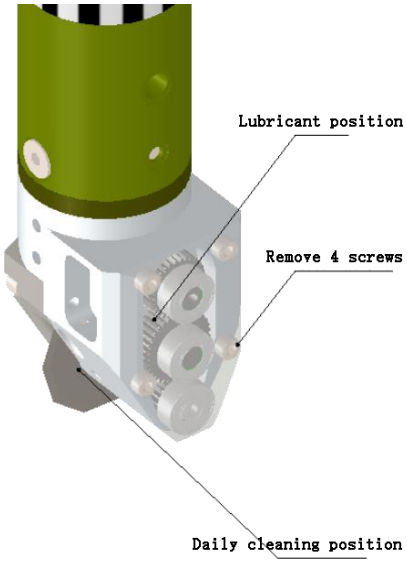
3. Advantages At a Glance :

- Ability to process a wide range of difficult to cut materials, including those with low melting points.
- Robust ,durable construction designed for industrial applications.
- Higher capacity and greater torque than DRT.
- Clean ,precise cuts and high throughout.

4. Notes on daily use:

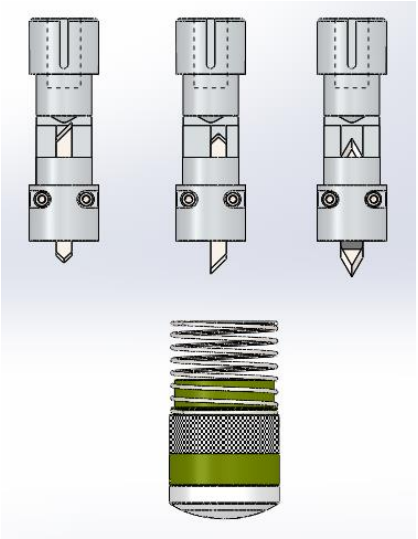
- Lubricant: the tool should be replaced with new lubricant every 3 months to half a year (depending on machine's actual working condition), the replacement position is marked below. It needs to remove the 4 screws on the knife cover, then remove the knife cover. Mobile MP series lubricant is recommended.

- Cleaning: after finishing cutting work, please clean the cutting chips and dust on the surface of the tool everyday. Please remove the blade and clean it. Please also clean the position of blade mounting rod, which is as marked below.



Universal Cutting Tool -UCT

The UCT is suited for cutting through and scoring a wide range of materials ,can cut materials up to 5mm thickness with fast speed. Comparing with the other tools, UCT is the most cost-effective tool. It has three types of blade holders for different blades.



UCT Parameters:

- Max. processable material thickness : 5mm
- Type 1 knife holder for centric knives of 0.63mm thickness
- Type 2 knife holder for eccentric knives of 0.63mm thickness
- Type 3 knife holder for centric knives of 1.5mm thickness

Kiss-Cut Tool - KCT

Mainly used for cutting vinyl (sign, sticker material), by adjusting blade position it can cut material with precise depth, cut accurately the upper layer without damaging under layer with fasts speed.
With mechanically-controlled knife pressure, this tool is specifically designed for kiss-cutting material down to its liner up to 1.5 mm thick.This tool also includes an adjustable nose piece for precise depth control.

Advantages At a Glance :

- Two processing methods: kiss-cutting & through-cutting
- Precise depth control
- Clean cuts make for weeding

Electric Oscillating Tool - EOT4

The Electric Oscillating Tool is a widely applicable tool capable of processing many different materials that the drag knife is unable to process.The EOT4 is a powerful tool for efficiently processing sandwich board /honeycomb materials,cardboard and tough leather.

1. EOT4 Parameters：

- Blade Thickness：0.63mm、1mm、1.5mm
- Stroke Range：1mm.　　Oscillation Frequency：12000RPM.
- Motor Power：150W

2. Applications : Sign & Graphics . Packaging . Leather goods . Composites .etc.

3. Advantages At a Glance :

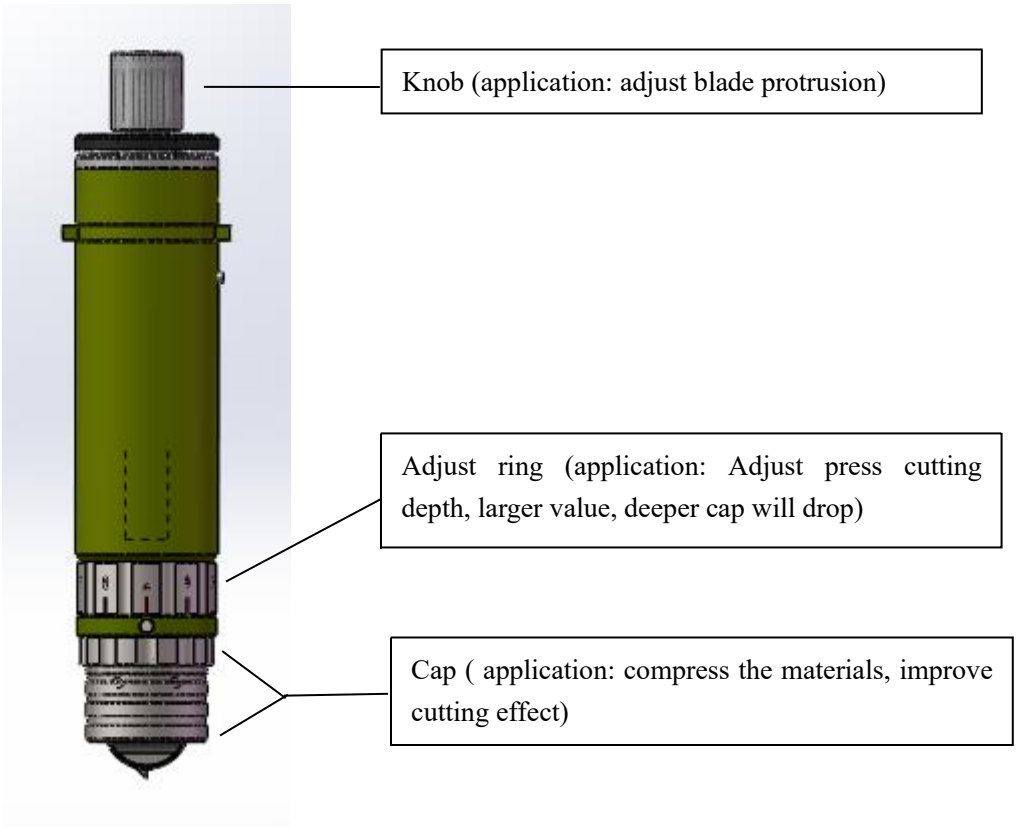
- Servo motor drives blade to vibrate with high frequency to cut materials
- The EOT4 allows for very high processing speeds.
- Robust ,durable construction designed for industrial use.
- Ideally suited for processing soft to medium-density materials.

Universal Press Cutting Tool - UPCT

1. Overview

UPCT tool mainly used in corrugated board cutting by advertising industry. The cutting tool using special craft, cutting and pressing can be completed in one process. Convenient, fast and accurate knife adjustment method can effectively prevent the cutting effect due to the raised material when cutting corrugated board. UPCT tool is similar to die cutting and is the best choice for producing high-quality folding packaging and corrugated cardboard.

2. Cutting Tool Structure



3. Basic Parameter

Applicable material: corrugated board, carbon fiber prepreg material, etc.

Maximum cutting thickness: 7mm (corrugated board)

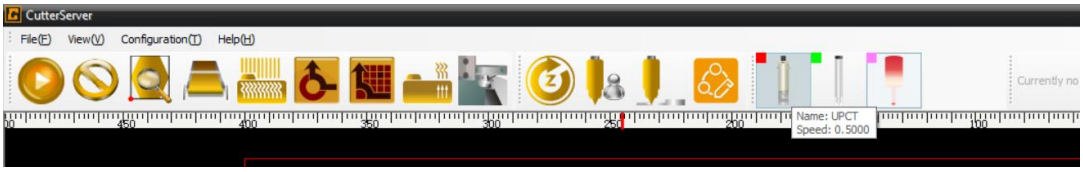
4. Tool Usage

(Similar with tangent tool usage)

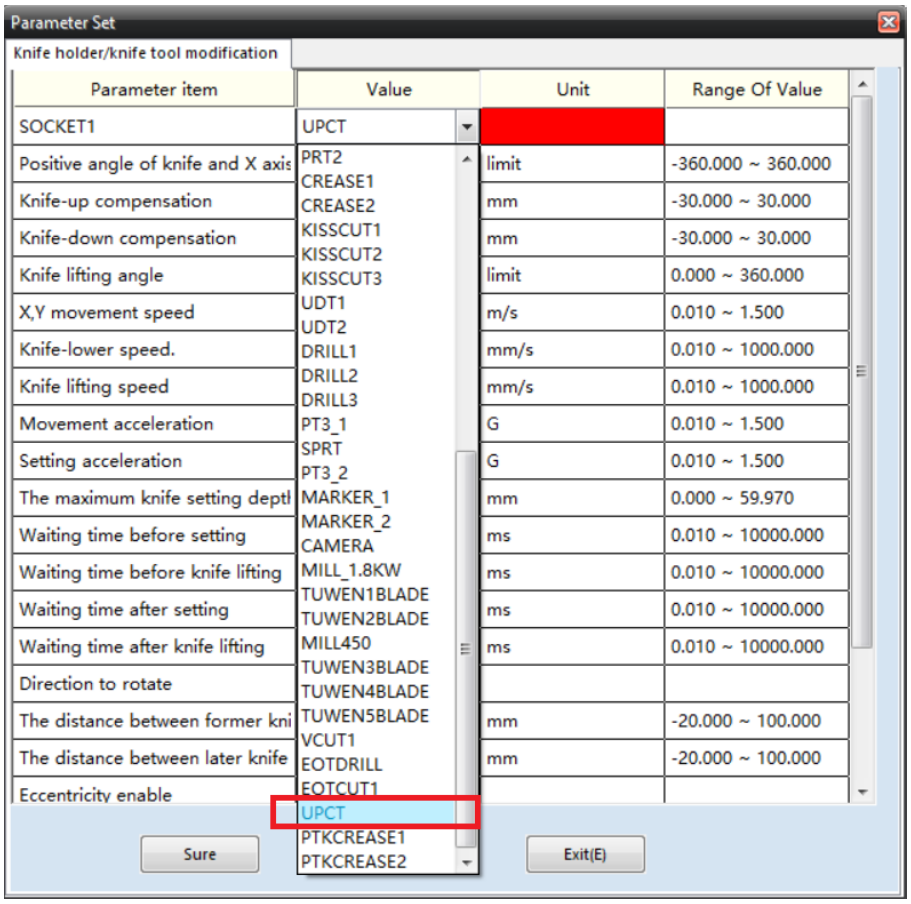
① Install the pressure cap after finish installing the blade, use knob rotate control the blade drop out the cap length.

② Select the drop depth of the pressure cutter cap by adjust ring rotation.

③ Select UPCT tool parameter on Cuttersever software.



（Pic 1）



（Pic 2）

Router Tool

The imported spindle with 350W power is used. According to different materials and applications, the speed can be up to 60000 RPM. The high-frequency rotor-driven module is used to cut hard materials and foam materials with a thickness of 15mm. The high-speed and high-efficiency processing performance is better than traditional processing way, which can meet the 24/7 production need. Specially equipped cleaning device minimizes the debris and the air cooling system extends the life time of the spindle and blades.

1. Applications : Acrylic .MDF. ACM .etc.

2. Router Tool Parameters：

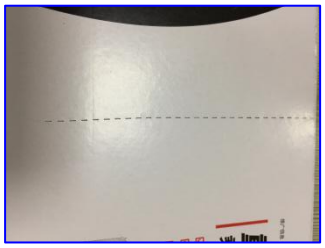
- Motor power : 350W
- Max Cutting Thickness : 15mm
- Frequency: Max.60000 RPM
- Cooling System : Air cooling
- Collet Type : Φ3.175mm （ Φ4mm Φ6mm - Optional ）

Perforating Tool and Knife Introduction

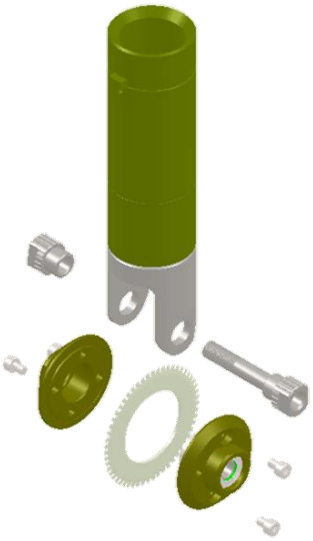
1. PTK Applications

PTK is widely used in cardboard, corrugated board, PP plastic and ect, to do dotted line cutting.

Cutting reference:

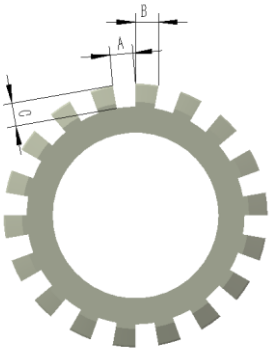


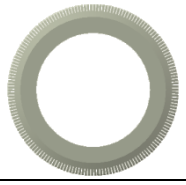
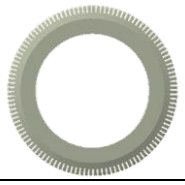
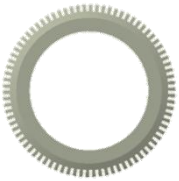
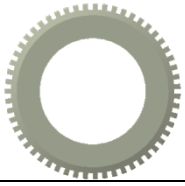
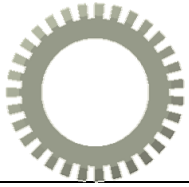
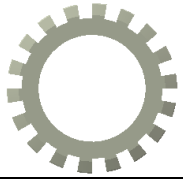
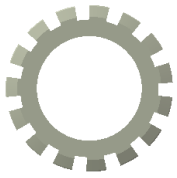
2. PTK Diagram

Assembly	Disassembly
	

3. PTK Blade

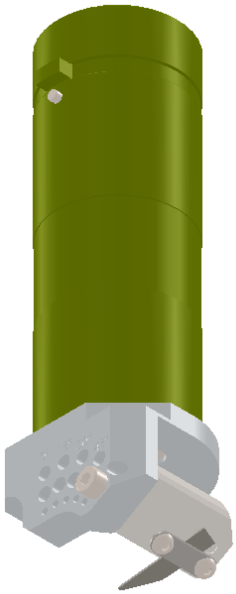
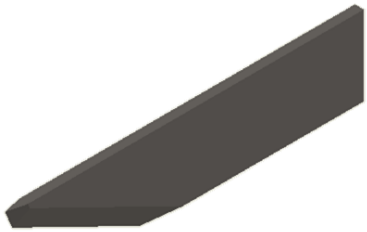
PTK Blade Reference:



Item	Gear quantity/ 25mm	Cut (mm)	Distance (mm)	Depth (mm)	Reference Image
PTK1	25	0.7	0.3	1.1	
PTK2	17	0.9	0.55	1.1	
PTK3	12	1	1	1.1	
PTK4	8	1.7	1.7	1.1	
PTK5	4	3	3	4	
PTK6	3	5	5	4	
PTK7	2	7	5	4	
PTK8	1.5	10	10	4	

V-CUT Specification

1. V-CUT 2

<table>
<tr><th>Image</th><th colspan="3">Technical Parameters</th></tr>
<tr><td rowspan="5">  </td><td>Maximum cutting thickness</td><td colspan="2">4mm</td></tr>
<tr><td>Cutting angle</td><td colspan="2">0°、15°、30°、45°、60°</td></tr>
<tr><td>Compatible module</td><td colspan="2">BKL-60 head、BK3 head、
BK3-120head</td></tr>
<tr><td>Blade</td><td>E26</td><td>  </td></tr>
<tr><td>Accessories</td><td colspan="2">None</td></tr>
<tr><td colspan="4">Component list</td></tr>
<tr><td colspan="2">Name</td><td>Material coding</td><td>Number (pcs)</td></tr>
<tr><td colspan="2">V-CUT installing seat
(component)</td><td>1.10.03.0004575</td><td>1</td></tr>
<tr><td colspan="2">V-CUT blade rest 2(component)</td><td>1.10.03.0005134</td><td>1</td></tr>
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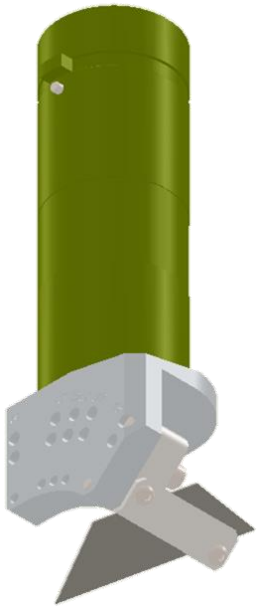
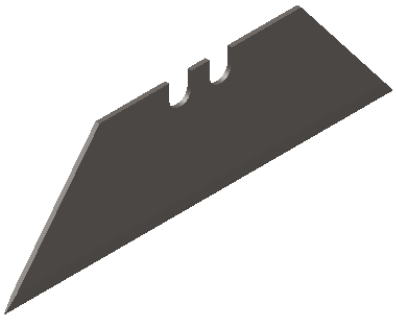
2. V-CUT 3

Image	Technical Parameters		
	**Maximum cutting thickness**	26mm	
	Cutting angle	0°、15°、22.5°、30°、45°	
	Compatible module	BKL-60head、BK3head、BK3-120head	
	Blade	E78	
	Accessories	None	

Component list		
Name	Material coding	Number (pcs)
V-CUT installing seat (component)	1.10.03.0004575	1
V-CUT blade rest 3(component)	1.10.03.0005341	1

3. **V-CUT 4**

<table>
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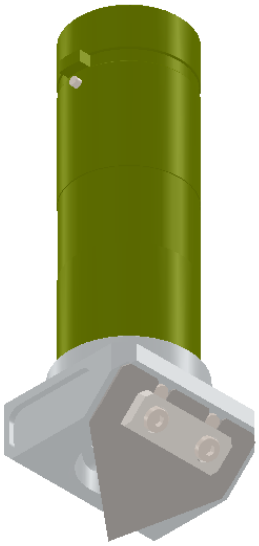
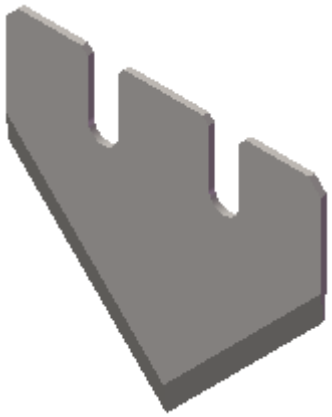
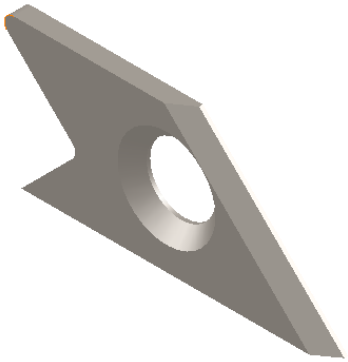
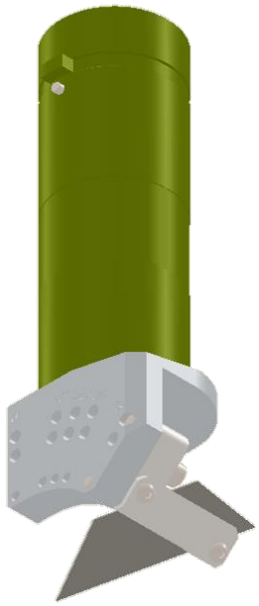
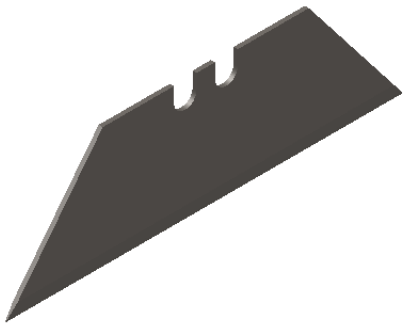
<tr><td rowspan="5">  </td><td>Maximum cutting thickness</td><td colspan="2">18mm</td></tr>
<tr><td>Cutting angle</td><td colspan="2">45°</td></tr>
<tr><td>Compatible module</td><td colspan="2">BKL-60head、BK3head、
BK3-120head</td></tr>
<tr><td>Blade</td><td>E74</td><td>  </td></tr>
<tr><td>Accessories</td><td colspan="2">None</td></tr>
<tr><td colspan="4">Component list</td></tr>
<tr><td colspan="2">Name</td><td>Material coding</td><td>Number (pcs)</td></tr>
<tr><td colspan="2">V-CUT installing seat
(component)</td><td>1.10.03.0004575</td><td>1</td></tr>
<tr><td colspan="2">V-CUT blade rest 4(component)</td><td>1.10.03.0005135</td><td>1</td></tr>
</table>

4. V-CUT 5

Image	Technical Parameters		
	**Maximum cutting thickness**	3mm	
	Cutting angle	45°	
	Compatible module	BKL-60head、BK3head、 BK3-120head	
	Blade	E75	
	Accessories	None	

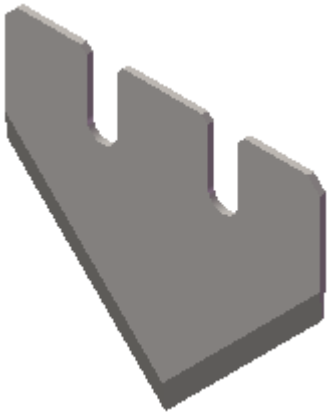
Component list		
Name	Material coding	Number (pcs)
V-CUT installing seat (component)	1.10.03.0004575	1
V-CUT blade rest 5(component)	1.10.03.0005136	1

5. V-CUT 6

Image	Technical Parameters		
	**Maximum cutting thickness**	22mm	
	Cutting angle	0°、15°、22.5°、30°、45°	
	Compatible module	BKL-60head、BK3head、 BK3-120head	
	Blade	**E73B**	
	Accessories	None	

Component list		
Name	Material coding	Number(pcs)
V-CUT installing seat	1.10.03.0004575	1
V-CUT blade rest 6(component)	1.10.03.0005137	1

6. V-CUT 7

<table>
<tr><th>Image</th><th colspan="3">Technical Parameters</th></tr>
<tr><td rowspan="4">  </td><td>Maximum cutting thickness</td><td colspan="2">22mm</td></tr>
<tr><td>Cutting angle</td><td colspan="2">30°</td></tr>
<tr><td>Compatible module</td><td colspan="2">BKL-60head、BK3head、
BK3-120head</td></tr>
<tr><td>Blade</td><td>E74</td><td>  </td></tr>
<tr><td>Accessories</td><td colspan="2">None</td></tr>
<tr><td colspan="4">Component list</td></tr>
<tr><td colspan="2">Name</td><td>Material coding</td><td>Number(pcs)</td></tr>
<tr><td colspan="2">V-CUT installing seat</td><td>1.10.03.0004575</td><td>1</td></tr>
<tr><td colspan="2">V-CUT blade rest 7(component)</td><td>1.10.03.0005138</td><td>1</td></tr>
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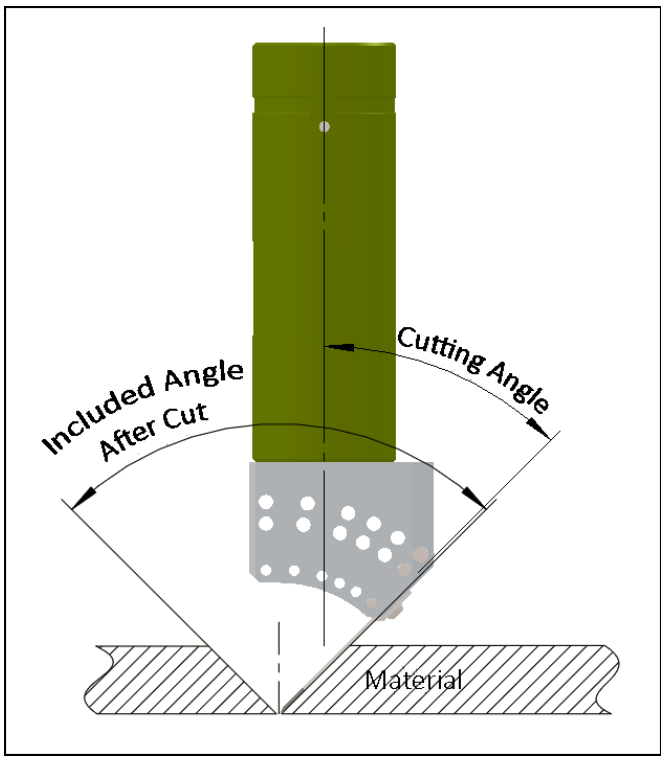
7. V-CUT 8

Image	Technical Parameters		
	**Maximum cutting thickness**	6mm	
	Cutting angle	0°、15°、30°、45°、60°, 75°	
	Compatible module	BKL-60head、BK3head、 BK3-120head	
	Blade	E76	
	Accessories	None	

Component list		
Name	Material coding	Number(pcs)
V-CUT installing seat	1.10.03.0004575	1
V-CUT blade rest 8(component)	1.10.03.0005139	1

❖ **Note: Definition to cutting angle**

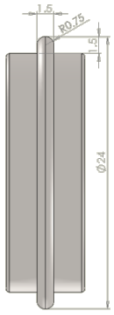


(Picture 1)

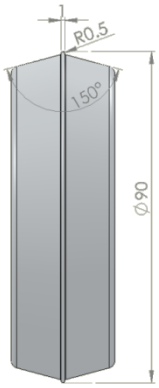
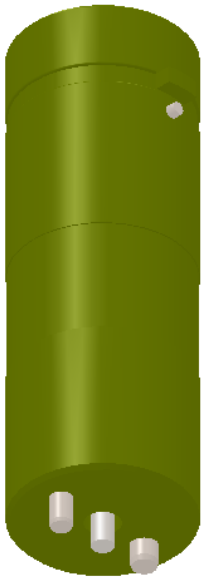
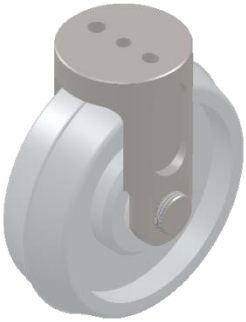
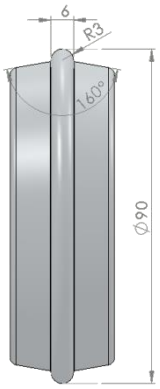
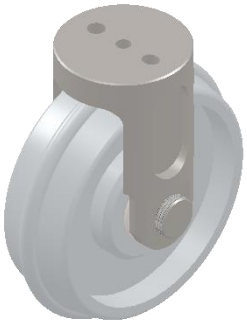
As shown in (Picture1), cutting angle is the angle between blade and cutting tools axis.

The included Angle of material after cutting shall be twice of the cutting Angle.

Creasing Tool Specification

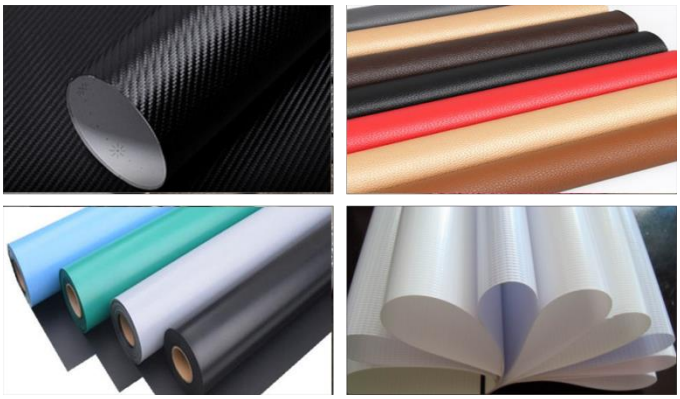
NAME	TYPE	APPLICATION	INVENTORY STATUS
Creasing Tool Wheel 1		 Item name: The Mounting Base of Tool Holder	 Item name：Creasing tool 1
Creasing Tool Wheel 2			 Item name：Creasing tool 2
Creasing Tool Wheel 3			 Item name：Creasing tool 3

NAME	TYPE	APPLICATION	INVENTORY STATUS
Big Creasing Tool Wheel 1		 **Item name：The Mounting Base of Big Tool Holder**	 **Item name：Big Creasing tool**
Big Creasing Tool Wheel 2			 **Item name：Big Creasing tool D602**

NAME	TYPE	APPLICATION	INVENTORY STATUS
D90 Creasing Wheel		 **Item name：V-CUT Mounting Base**	 **Item name：D90 Creasing tool**
D90-2 Creasing Wheel			 **Item name：D90-2 Creasing tool**

Universal Drawing Tool - UDT

The Universal Drawing Tool is a cost-effective tool for precisely marking/labeling materials including fabric, leather, rubber and paper. This tool is used to draw assembly marks ,line symbols and text.



Advantages At a Glance :

- Materials: Vinyl . Rubber . Leather . Paper
- Use inexpensive standard cartridges
- Easy cartridges change / replacement