

# Low Speed Saw

CL40

**Precision  
cutting  
low noise and  
low vibration**

**Various vises  
for different  
requirement**





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## Instruction



Operation video

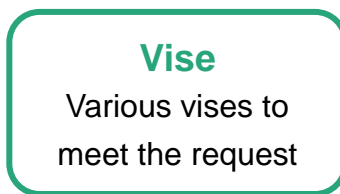


### Cover

Easy for observation

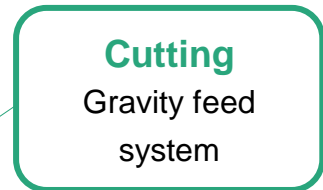
### Micrometer

Easy to control cutting length



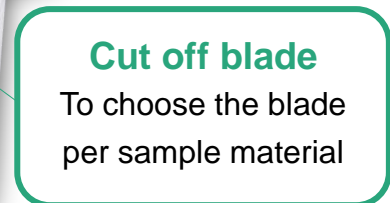
### Vise

Various vises to meet the request



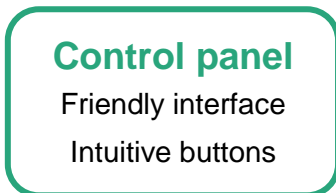
### Cutting

Gravity feed system



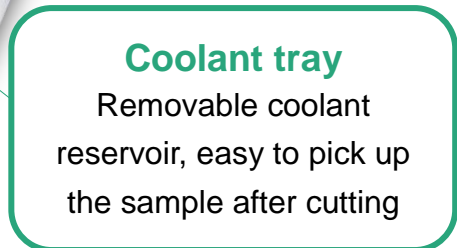
### Cut off blade

To choose the blade per sample material



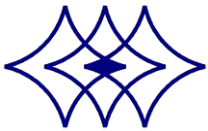
### Control panel

Friendly interface  
Intuitive buttons



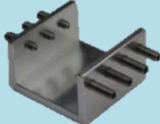
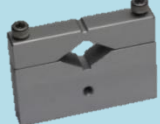
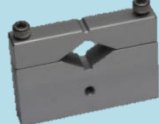


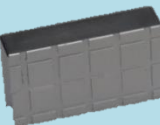


### Coolant tray

Removable coolant reservoir, easy to pick up the sample after cutting



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## Features

|  |   |  |
|--|---|--|
| <p><b>CL400051A</b><br/>irregular vise kit</p>            | <p><b>CL400052-L (option)</b><br/>Long type kit (φ20)</p>  | <p><b>CL400044A (standard)</b><br/>Long type kit</p>  |
| <p><b>CL400053</b><br/>Round/elliptic vise kit</p>        |  <p><b>Options</b>      <b>Standard</b></p>              |  |
| <p><b>CL400054</b><br/>Fragile vise</p>                 |   |  |
| <p><b>CL400055-D</b><br/>Double vise kit</p>            |   |  |
| <p><b>CL50051001A</b><br/>Round test kit (max.Ø32)</p>  |   |  |

### Micrometer

Minimum display precision 0.01mm  
Clamp horizontal movement distance: 25mm



### Coolant tray

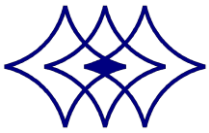
Easy to change coolant and easy to pick up sample after cutting



### Control panel

Easy to operate  
Adjust the cutting speed depending on sample material

Please refer to Appendix 1 and Appendix 2 for the cutting capacity



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## Worthy Options - Working Table

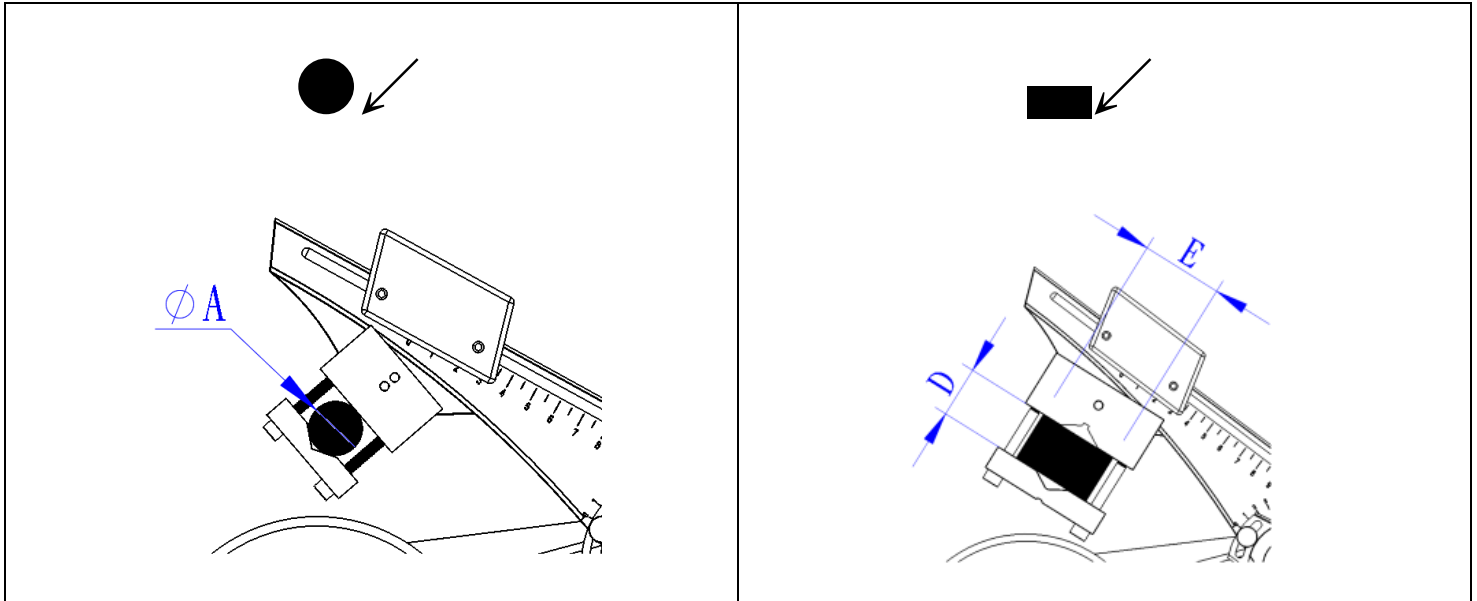


### Working Table

Multifunctional working table, it supplies you a place to put your machine and store your accessories. It can be moved easily.

| Model No. | TF01  | TF02  |
|-----------|---|---|
| Size      | 1000*690*700 mm   | 1000*950*700 mm   |
| Sample    |  |  |

## Appendix 1: Cutting capacity for vise (standard)

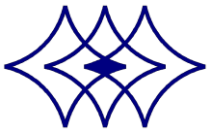


| Cut-off blade | ●     |                                  | ■     |                         |
|---------------|-------|----------------------------------|-------|-------------------------|
|               | A(mm) | A cutting area(mm <sup>2</sup> ) | E(mm) | E x D(mm <sup>2</sup> ) |
| 3"            | 15    | 170                              | 15    | 15x5                    |
| 4"            | 28    | 610                              | 40    | 40x12                   |
| 5"            | 40    | 1250                             | 40    | 40x25                   |

The measure of square area :

Max width is E ,  $E \times D \leq A$  cutting area

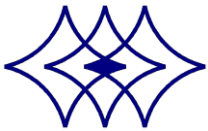
Material restrictions are non-ferrous metals, non-metallic, ceramic, glass, titanium, precision cutting, polymer materials



**Appendix 2: Cutting capacity for various vises (options)**

| CL400051A<br>irregular vise kit |            | CL400052-L<br>Long type kit (φ20) |            | CL400053<br>Round/elliptic vise kit |            |
|---------------------------------|------------|-----------------------------------|------------|-------------------------------------|------------|
|                                 |            |                                   |            |                                     |            |
| A (mm)                          | E x D (mm) | A (mm)                            | E x D (mm) | A (mm)                              | E x D (mm) |
| -                               | 38x25      | Max. 20                           | 40x30      | Max. 14                             | 38x10      |
|                                 |            |                                   |            |                                     |            |

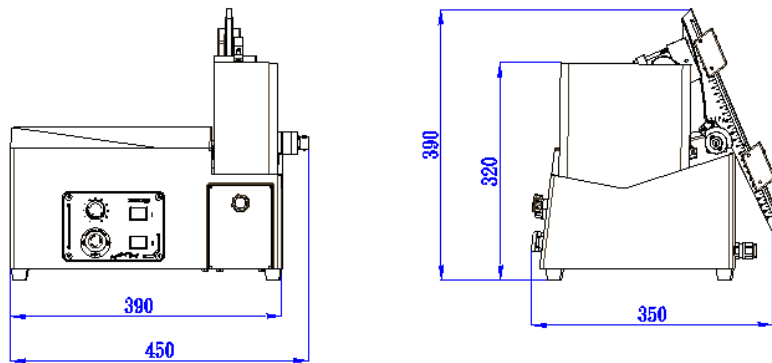
| CL400054<br>Fragile vise |            | CL400055-D<br>Double vise kit |            | CL50051001A<br>Round test kit |            |
|--------------------------|------------|-------------------------------|------------|-------------------------------|------------|
|                          |            |                               |            |                               |            |
| A (mm)                   | E x D (mm) | A (mm)                        | E x D (mm) | A (mm)                        | E x D (mm) |
| Max. 28                  | 50x28      | Max. 20                       | 40x30      | Max. 32                       | -          |
|                          |            |                               |            |                               |            |



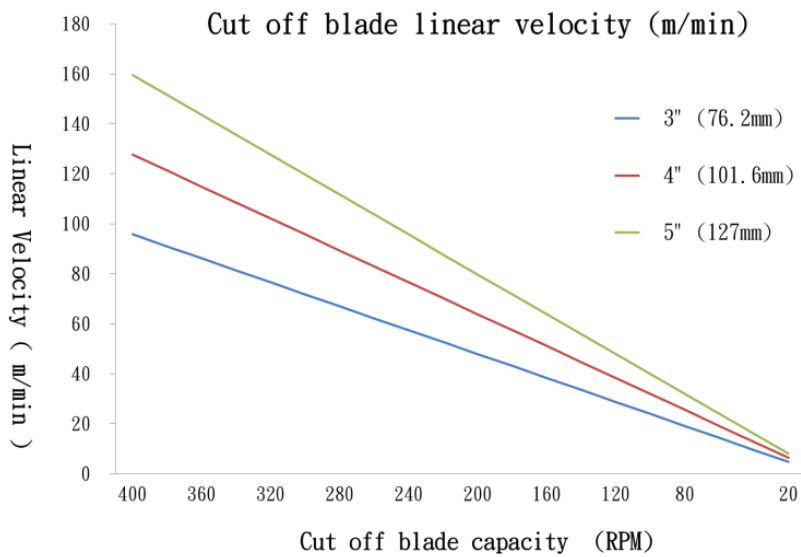
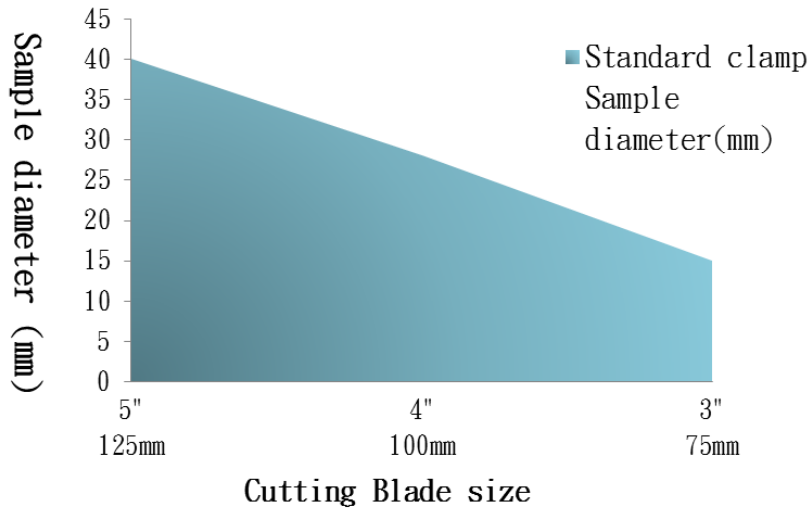
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## Specification

| Model                       | CL40  |
|-----------------------------|---|
| Motor power                 | 40W   |
| Sample Dim. Max.(mm)        | Ø40mm   |
| Diamond blade               | Ø3"~ Ø5"  |
| Noise level                 | 55~62dB   |
| Cutting chamber             | <a href="#">Appendix 3</a>  |
| Loading pressure            | 0~400g  |
| Cutting Method              | Gravity-fed system, the blade stop rotating once cutting finished |
| Rotational speed            | 0~400 RPM   |
| Vise (standard)             | Long type kit   |
| Horizontal movement         | 0.01 mm ~ 25 mm   |
| Coolant tank capacity       | 400 mL  |
| Machine size<br>(W x L x H) | 44 x 42 x 35cm  |
| Machine weight Kg           | 19 Kg   |
| Power                       | AC110V/200V-1Ø  |
| Standard accessory          | coolant 1 L 、 standard clamp*1                                    |
| Options                     | Various vise, dressing system                                     |



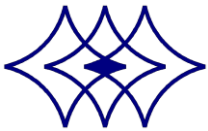
### Cutting Capacity-1 CL40



Cutting area-1 : Use standard clamp

1. Parameter for reference only.
2. Practically parameter depends on wheel, sample material, cutting speed, vise, etc.





## Consumables

### Diamond Wheel

| Item No.    | Cutting material   | Wheel size(external dia. X arbor dia. X thickness) | MOQ | Remark                           |
|-------------|--|--|-----|----------------------------------|
| HW21130502L | Hard, brittle, mineral material, non-ferrous metals ,hard alloy, ceramic, glass, titanium alloy, quartz, silicon | Ø101XØ12.7X0.5                                     | 1   | resin-bonded                     |
| HW21120502L | Non-ferrous metals , non-mental, ceramic, glass, titanium alloy, aluminum alloy, tungsten steel                  | Ø100XØ12.7X0.5                                     | 1   | metal-bonded                     |
| HW21220502L | Carbon steel, alloy steel, tool steel, stainless steel, bearing steel  | Ø100XØ12.7X0.5                                     | 1   | CBN metal-bonded (boron nitride) |
| HW21130602L | Hard, brittle, mineral material, non-ferrous metals ,hard alloy, ceramic, glass, titanium alloy, quartz, silicon | Ø127XØ12.7X0.6                                     | 1   | resin-bonded                     |
| HW21120602L | Non-ferrous metals , non-mental, ceramic, glass, titanium alloy, aluminum alloy, tungsten steel                  | Ø125XØ12.7X0.5                                     | 1   | metal-bonded                     |
| HW21220602L | Carbon steel, alloy steel, tool steel, stainless steel, bearing steel  | Ø127XØ12.7X0.5                                     | 1   | CBN metal-bonded (boron nitride) |

### Coolant

| Item No. | Description | Features            | MOQ | Remark |
|----------|-------------|---------------------|-----|--------|
| S01004   | Coolant     | Clear , flowability | 1L  |        |

**Remark: Please access following link for details of consumables**

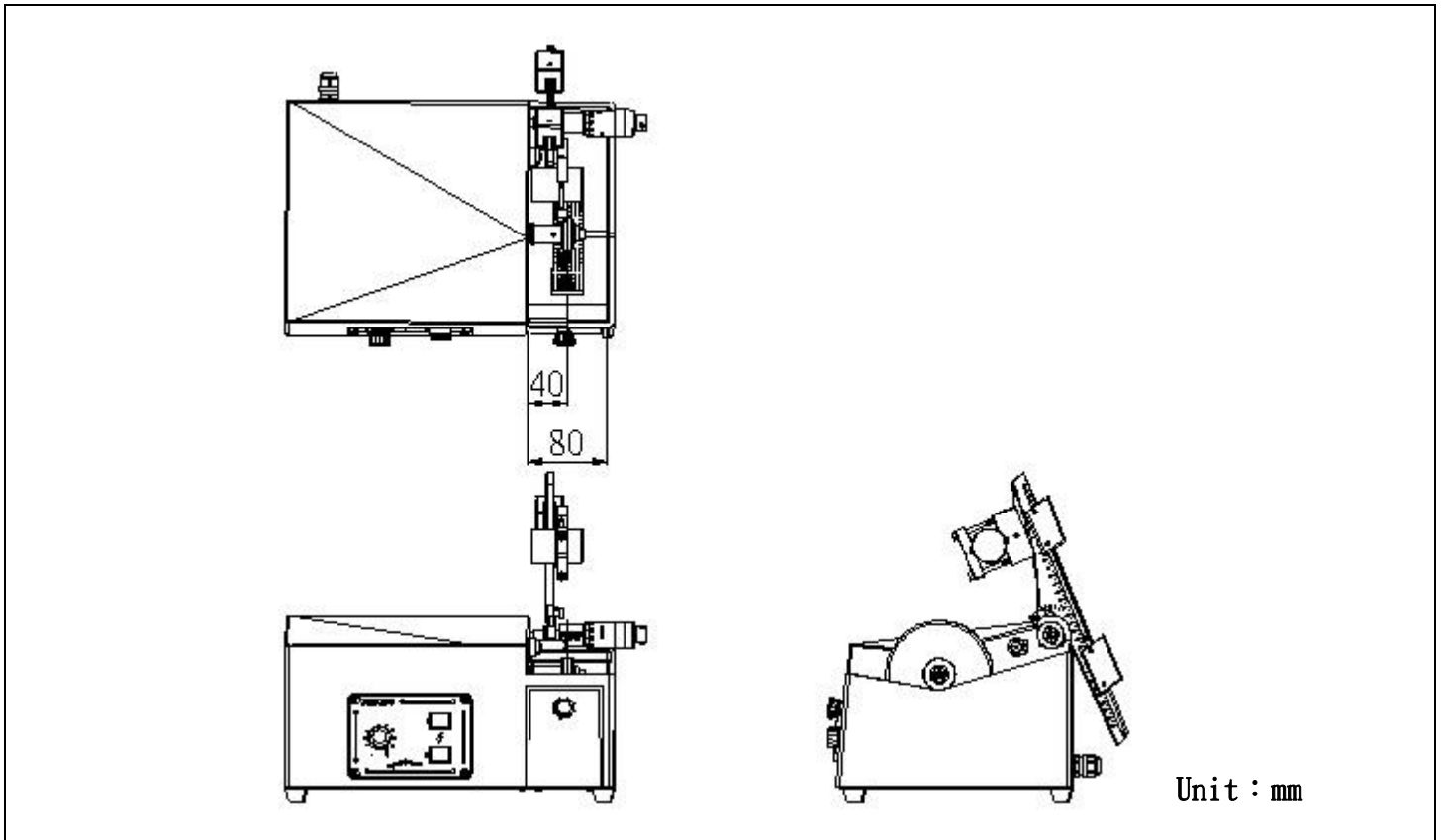
<http://toptech.synology.me/Consumables/CuttingEN.pdf>





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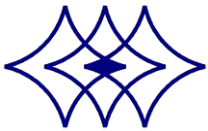
### Appendix 3 : Cutting chamber



Metallographic Sample Preparation Equipment  
Equipment of Materials Analysis  
Metallographic Surface Preparation

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Perfect Surface Always

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SGS  
LUKAS  
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*Perfect Surface.  
Always*

**Cutting / Mounting / Grinding & Polishing / Spin Coater**

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Agent



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